

# A Selected Bibliography of Publications by, and about, Lord Ernest Rutherford of Nelson

Nelson H. F. Beebe  
University of Utah  
Department of Mathematics, 110 LCB  
155 S 1400 E RM 233  
Salt Lake City, UT 84112-0090  
USA

Tel: +1 801 581 5254  
FAX: +1 801 581 4148

E-mail: [beebe@math.utah.edu](mailto:beebe@math.utah.edu), [beebe@acm.org](mailto:beebe@acm.org),  
[beebe@computer.org](mailto:beebe@computer.org) (Internet)  
WWW URL: <http://www.math.utah.edu/~beebe/>

03 July 2021  
Version 2.103

## Title word cross-reference

(100) [Tho84].  $1.0 - \mu$  [Gro89]. **\$1.50** [Dav37].  $1/2$  [Hei71].  $180^\circ$  [EFKS96].  
**\$23.00** [Dys05]. **\$25.00** [Dys05]. **\$4.75** [Ble57]. **\$50** [Pip01].  $5 \times 1$  [Yuh92].  
**\$7.00** [Bat72].  $+$  [SSWB80a, Sad81]. <sup>10</sup> [LMC97]. <sup>12</sup> [RR95]. <sup>14</sup> [RR95]. <sup>16</sup>  $\mathcal{O}$   
[RR95]. <sup>32</sup> [RRKH94]. <sup>4</sup> [MDJF83, ZB74].  $o$  [Mon66]. <sup>0.18</sup> [WVH<sup>+</sup>99]. <sup>0.25</sup>  
[TJRS03]. <sup>0.47</sup> [GRS<sup>+</sup>91]. <sup>0.53</sup> [GRS<sup>+</sup>91]. <sup>0.75</sup> [TJRS03]. <sup>0.82</sup> [WVH<sup>+</sup>99]. <sup>1</sup>  
[KKK<sup>+</sup>99]. <sup>1-x</sup> [KKK<sup>+</sup>99, PAF<sup>+</sup>98, Win94]. <sup>1.7</sup> [WVD<sup>+</sup>96]. <sup>1.8</sup> [LFA<sup>+</sup>04]. <sup>2</sup>  
[CSN<sup>+</sup>00, DMV<sup>+</sup>96, IFSI94, Ish83, NJS<sup>+</sup>03, NFM<sup>+</sup>07, OaHNM98, LFA<sup>+</sup>04,  
REJ86, Tho84, YKH<sup>+</sup>84]. <sup>3</sup>  
[Cat93, HGM<sup>+</sup>94, IFSI94, KKK<sup>+</sup>99, OaHNM98, RSdS<sup>+</sup>89, WZS<sup>+</sup>91]. <sup>4</sup>  
[WZS<sup>+</sup>91, YKH<sup>+</sup>84]. <sup>5</sup> [ESRDV84].  $x$  [KKK<sup>+</sup>99, PAF<sup>+</sup>98, Win94].  $a$   
[YKH<sup>+</sup>84].  $\alpha$  [Fea77, FR13g, GM09, GF10, GR12, Hei68, LMC97, OaHNM98,  
Rut05a, Rut05e, Rut05k, Rut05n, Rut05m, Rut06i, Rut06c, RH06a, Rut06h,  
RH06b, Rut06m, Rut06l, Rut06j, Rut07g, Rut07h, Rut07j, RG08d, RG08b,  
RG08a, RG08e, Rut08c, Rut08d, Rut08f, RR08e, RG09b, RG09a, RR09b,

RR09a, Rut09f, RR09d, RG10, Rut10f, Rut10g, Rut11i, Rut11j, RN13, RR13a, RR14, Rut19b, Rut19e, Rut19f, Rut19g, Rut19h, RC21a, Rut21e, RC22, Rut23m, Rut23n, Rut23o, Rut24l, RC25, RC27, Rut27l, Rut27a, Rut27b, Rut27c, Rut27d, Rut27h, RWL31a, RWL31b, Rut31d, Rut31c, RLB33, RWLB33, RK34, Rut66b, Rut66a, Rut10a, Rut12, WR31, vdB07].

$\approx 2$  [KSKF93].  $\beta$

[FR13g, Hei68, Mos12a, MR14, Rut05n, Rut11i, Rut11j, Rut12b, Rut12c, Rut12e, Rut12h, RR13f, Rut14k, RRR14, Rut14i, Rut14h, Rut66b, Rut12].  $c$

[IOI<sup>+</sup>11].  $\csc^4(\theta/2)$  [Ram75].  $\gamma$

[Cha12, CK33, MM12, MR14, Rut04f, RB05c, Rut12b, Rut12c, Rut12h, RR13b, RdCENdCA13, RR13e, Rut14k, RdCENdCA14b, RRR14, RdCENdCA14a, Rut14i, Rut14g, Rut14h, Rut14f, Rut31d, RE31, Rut31c, RB32, Rut33i].  $k$  [Bar85].  $m$  [IOI<sup>+</sup>11].  $n$  [Wuy91].  $\sqrt{3} \times \sqrt{3}$  [Yuh92].  $Z$  [MDJF83].

**-Al** [OaHNM98]. **-Compounds** [Adl97]. **-GaAs** [Wuy91]. **-graphite**

[ESRDV84]. **-Particle** [Fea77, RG08d, RR09b, Rut23n, Rut23o, RG09a].

**-Particles** [RG08a, WR31, GM09, Rut07g, Rut19b, RC25, RC27]. **-plane** [IOI<sup>+</sup>11]. **-Rays**

[Cha12, FR13g, Rut10f, RE31, Rut66b, CK33, Rut27l, Rut27h, Rut33i]. **-Si**

[YKH<sup>+</sup>84]. **-Strahlen** [Rut06i, Rut31c]. **-Teilchen** [RG09b, Rut31c, vdB07].

**-Teilchens** [Rut07g, Rut08c, Rut08d, RG09a].

/Cu [LFA<sup>+</sup>04]. /Fe [KSKF93]. /Si [NJS<sup>+</sup>03].

**0** [Pip01]. **0-300-01465-1** [Bro86]. **0-340-23805-4** [Stu85]. **0-473-05700-X** [Ced00, Pip01]. **0-85274-759-4** [Stu85]. **0-85274-761-6** [Stu85].

**1-alkyl-3-methylimidazolium** [NOH<sup>+</sup>10]. **1-butyl-3-methylimidazolium** [OHN<sup>+</sup>09]. **100-letiju** [Kap73a]. **100m** [Fla17]. **100th** [Kap73a, Sch13]. **105s** [Bur64]. **107** [Wil74]. **12.50** [Sin81]. **128** [Szy85]. **12th** [Rut36h, Rut26f]. **14** [Rut31b]. **17.50** [Stu85]. **184.ℓ** [Sin81]. **1895-1896** [Rön58]. **1903** [Adl03]. **1904** [Rut05c]. **1908** [Ano09a, Jar08a, Rut08g, Tho08a, Tho08b]. **1909** [Rut09e, Rut12a, VRWB12]. **1911** [Ano06, Bad67, Bad85b, Str11]. **1913** [TGMR74]. **1926** [Rut27e, Rut27j]. **1927** [Rut26f, Rut28a, Rut28g]. **1928** [Rut29j, Rut29k]. **1929** [Rut30a, Rut30h]. **1930** [Ano31a, CDE<sup>+</sup>31b, Rut31a, Rut31e]. **1930s** [Stu79a]. **1931** [Rut31b]. **1933** [CCJ<sup>+</sup>34, Rut33h]. **1936** [Rut36h, Rut37a, Rut14]. **1937** [M.39]. **1947** [Ano48]. **1956** [Fle57]. **1957** [dCA58]. **1958** [Boh61]. **1961** [Bir61, Hay63, Raz63]. **1969** [WH72]. **1971** [Wyb72, Tre75b]. **1972** [Meh73]. **1974** [Lov75]. **1990** [Clo18]. **1er** [LRdB<sup>+</sup>23]. **1st** [LRdB<sup>+</sup>23].

**2** [Ten20]. **20.00** [Bro86]. **20th** [Meh73, Bre97]. **22** [Bad67, Bad85b, CCJ<sup>+</sup>34]. **2nd** [Rut33h].

**4-vinylpyridine** [HW92]. **40** [RRKH94]. **41** [Hwa83]. **'45** [Ree06]. **4H** [ZWJ<sup>+</sup>02].

**6H** [KIS<sup>+</sup>89]. **6H-SiC** [KIS<sup>+</sup>89]. **6th** [LRdB<sup>+</sup>23, Pei53].

**7059** [DJBW83].

**80th** [SR37]. **85-year-old** [Ten20].

**A.** [Rut05j]. **Abbey** [Ano37a, Ano37j, Wal18]. **ABC** [Wen53]. **Aberdeen** [Ano20b]. **ablation** [KKK<sup>+</sup>99]. **Ablenkbarkeit** [RG02a]. **Ablenkung** [Rut03b]. **above** [Ano38b, vBD89]. **absorbed** [Rut03b, Rut03f]. **absorbierbaren** [Rut03b]. **Absorption** [Cha12, Rut97a, Rut06a]. **Abstract** [Ano09a, Bau73a, Eld85, Nor79, Rut96a, Sar79, Tho84, HFD<sup>+</sup>99]. **Absurd** [Ano33a]. **Academic** [Ano18a, Rut34h]. **Academician** [Ano66a, Kap66b]. **Academy** [WH72]. **Accelerator** [DYF67, Wil74]. **Accepts** [Ano07]. **Accomplished** [Rut37b, Ano08a]. **Account** [Sod02, Sod03]. **accounts** [Sha87a]. **Accurate** [JBS12, OKR35b, SN05, SWZ<sup>+</sup>05]. **Achieved** [Ano22]. **achievements** [She17]. **Act** [Dun18]. **actinide** [BSS88]. **Actinium** [Ano06, Bol06, Rut07e, RWWW30, RWL31b, RB32, Rut88, RH06a, Rut06m, Rut07g, RR13b, Rut29g]. **Actino** [Hol30]. **Actino-uranium** [Hol30]. **Action** [Nia98, Rut00a, Rut09f, Rut00c, Rut00f, RR08d, Rut10g]. **Active** [HS89, Rut04l, Rut05p, RG08a, Rut12f, Rut13i, MF11, Rut00g, Rut00b, Rut01c, Rut02b, RS02j, RB05b, Rut06a, RB06a, RB06b, Rut13f, SBEO86]. **Activity** [Ano08a, Bar06, MG12, RP07, Sod04, Rut00c, RS02f, RS02j, Rut03c, Rut04c, Rut04k, Rut05h, RC19, Rut70d, Rut04, Rut07a, TMO<sup>+</sup>95, Tre79b]. **Actuels** [Rut05c]. **Adam** [Stu85]. **Additional** [Rut12c]. **additionnelle** [Rut12c]. **Additions** [CDE<sup>+</sup>31a]. **Address** [Rut09i, Rut23p, Rut27e, Rut27j, Rut28a, Rut29j, Rut29k, Rut30a, Rut30h, Rut31a, Rut31e, RCE<sup>+</sup>32, RSA<sup>+</sup>34b, RSA<sup>+</sup>34a, Rut09e, Rut23s, Ano38b, Rut28g]. **Addresses** [Kap80a, Ano20b]. **Advanced** [Ear66]. **Advancement** [Rut23p]. **Advances** [Rut08g, Sod03, Rut09d, Rut09l]. **Adventurer** [Sta03]. **AES** [Fow83]. **affected** [Tab97]. **After** [Ano37i, Bla50, Lau37, Ano37c, Coc46, DMPA08, Kae48]. **Ag** [REJ86]. **Age** [Ano22, Bad68, Rut88, Sno58, Stu18, Wat93, EMR07, JR13, Lew02, NL00, Rut29g, Sie11, Tip13]. **Ages** [Hol30, Cam79]. **ago** [Sea88, Sie11]. **Agricultural** [Ano38b]. **ahead** [Fla17]. **air** [FR18]. **Aires** [Pye78]. **Akademische** [Mos13b]. **aker** [Rut21d]. **Aktinium** [Rut07g]. **Al** [IFSI94, OaHNM98, PAF<sup>+</sup>98, PCK<sup>+</sup>08, TF89, TMJ<sup>+</sup>99, ZWJ<sup>+</sup>02]. **Al-implanted** [ZWJ<sup>+</sup>02]. **Al/GaAs** [TF89]. **Alan** [Dys05]. **Albert** [Kle10]. **Alchemist** [Ano19, Geo38, Kri19e]. **Alchemy** [Bad66, Cam14, Dav37, Rut37a, Rut37b, Rez38, Rut38b, RA45, Rut14, Dav37]. **Alchimiste** [Geo38]. **alchymie** [Rut38b]. **Alexandre** [Ano18e]. **al'fa**

[Rez24, Car98]. **al'fa-chasticy** [Rez24]. **Alfred** [Mon66]. **AlGaAs** [KG91]. **AlGaN** [WYV<sup>+</sup>99]. **alhimija** [Rez38]. **alkali** [STB<sup>+</sup>01]. **alkaline** [HS39]. **alkémia** [RA45]. **alkyl** [NOH<sup>+</sup>10]. **Allen** [Bur64]. **Allibone** [Sei86, Stu85, Sen87, Tre75a]. **Alloy** [OaHNM98, TJRS03]. **alloys** [BBR80]. **AlN** [LCL<sup>+</sup>04]. **along** [McC19]. **Alpha** [Ano08a, Ano22, Mar61, Ano00a, Nia98, OH64, Roe95, Rut06k, Rut08a, RW16, Rut23k, RC24a, Rut24j, Rut26b, Rut26c, Rut26d, Rut26e, RWWW30, Rut70b, Tre76b, Tre79b, Wen53, Car98, Fea79, Leo05, Rez24, Rit92, RR09c, Rut12a, Rut16d, Tre74b, Tre74b]. **alpha-particle** [Fea79]. **Alpha-Rays** [RWWW30]. **Alpha-Teilchen** [Tre74b]. **Also** [Ano37j]. **alternative** [Lon03]. **alumina** [GR89]. **aluminized** [BP93]. **Aluminum** [Bau73a, And90, Bau73b, HV84, SER<sup>+</sup>01]. **alumnae** [Mor84]. **Alumni** [RSWE27]. **Amateur** [Har01]. **ambitions** [Bal21]. **American** [WH72, Bad05, Gri09, Lav14, Sla13]. **among** [Gri09, Wil83b]. **amorphous** [ATS86, REJ86]. **Amount** [Rut03a]. **Amplitude** [Mar72, Rut16e]. **Analogy** [Gre07, Lor88, SC13]. **Analysen** [MMKS<sup>+</sup>80]. **Analyses** [Mon66, Sen87, GR89, TGDS99, Wil83b]. **Analysis** [And90, Bra61, FLP<sup>+</sup>89, Hwa82, HHK87, LHB<sup>+</sup>09, MD69, MB90, RWWW30, RWL31a, RWL31b, RLB33, RWLB33, TGDS99, WVCW76, BJW97, BCM13, BP93, Bra98, CGL<sup>+</sup>94, Cat93, CCR<sup>+</sup>03, DMV<sup>+</sup>96, HV84, HHAMS93, KLL<sup>+</sup>90, KOHm94, LHNG14, LGF<sup>+</sup>99, Man82, MBS<sup>+</sup>04, MMKS<sup>+</sup>80, Par96, Phi83, PMCF<sup>+</sup>06, RMM<sup>+</sup>13, Reu81, RR13d, RR13f, SHAI09, Sha87b, SN05, STB<sup>+</sup>01, Sin93, Wuy91, ZWJ<sup>+</sup>02, Hwa83, RR13b, RR13e]. **analytical** [WM88]. **anatomy** [Sie11]. **Ancestry** [Ano06]. **Anchor** [Opp64]. **Andrade** [Aro65b, Opp64]. **angle** [DHS97, Kru75, Man77, WZS<sup>+</sup>91, vBD89]. **angles** [GM13]. **Angular** [RR95]. **Animals** [RMM<sup>+</sup>29]. **anion** [HW92]. **Anmerkung** [Rut05j]. **annealing** [BJW97, Bha82, CYM<sup>+</sup>03, DJBW83, GHCA91, LxW99, Lu87, MBS<sup>+</sup>04, Sad81]. **annihilation** [AAPN06, CYM<sup>+</sup>03, FTT96, vdK89]. **Anniversaries** [Bar71, Kha20, Kis82]. **Anniversary** [Ano12a, Rut27e, Rut27j, Rut28a, Rut28g, Rut29j, Rut29k, Rut30a, Rut30h, Rut31a, Rut31e, Sch13, Kap73a, Rut12a, VRWB12]. **Annotated** [Kay63]. **announced** [Ano17b]. **Annular** [RWLB33]. **annus** [Hug00]. **anodic** [Sha87b, TF89]. **anodized** [Eld85]. **Anomalous** [Rut19h, Rut10a]. **antecedents** [Fra05]. **Anticipating** [Gus12]. **Anxiété** [dB70]. **anxiety** [dB70]. **Apart** [Ano32b]. **Apfel** [Büh98b]. **Apparatus** [BR16, Ear66, LEM65, Mar61, SBEO86, Ter38, Wil74, Mar61]. **appeal** [Rut34m]. **Appl** [Hwa83]. **apple** [Büh98b]. **Application** [CLZ99, KT84, DJA<sup>+</sup>04, DBvdV87, Rut36a]. **Applications** [Her84, Moo78, Rut96b, Rut97b, RC12b, RMM<sup>+</sup>13, RC12a, Rut32a]. **Applied** [Wer23, Ano23b]. **applying** [FIY<sup>+</sup>99, IFSI94]. **appreciation** [Har01]. **Approximation** [Dem03]. **April** [LRdB<sup>+</sup>23]. **APS** [Ano10]. **Arbeit** [Rut05j]. **Arbeiten** [Hou30]. **arc** [Rut36a]. **archive** [Ano19a]. **archives** [Car98]. **archivi** [Car98]. **argon** [BVI88, GR89, Sku89]. **argon-bombarded** [BVI88]. **arranged** [NP38, NP40]. **Arrhenius** [Cra84].

**Arthur** [dR92, Coh88, Coh89, Coh91, Coh92, Fos49]. **Articles** [Kap80a].  
**Artificial** [GLR06, GLR12, GT95, Rut22a, Rut22b, Rut22c, RC24b, Rut24k, RC29, Rez25, RC21b, Rut24m, Rut33h, Rez23]. **Arts** [Ano18b, WH72].  
**Ascent** [Bro73a]. **ashes** [Wal18]. **Aspect** [Ell60]. **Aspects** [Rut07f, Rut27g, Bur13a]. **ASS** [Pip01]. **Assembly** [EFKS96]. **assessment** [Mor75]. **Assistance** [Rut34h]. **Assistant** [Kay63]. **Association** [Rut09e, Rut23p, Ano20a, Ano23b, Ano33b, Ano33c, RSWE27]. **Aston** [Dow08]. **Astrophysics** [Rig79]. **asymmetries** [CBZ<sup>+</sup>12]. **Atmosphäre** [RA02a]. **Atomosphere** [RA02b, RCW<sup>+</sup>26, RA02a, Rut02a, Rut26i, Rut26j, Rut26k, Rut26l]. **Atom** [AH13, dCA56a, dCA56b, dCA58, Ano08a, Ano15, Ano23b, Ano32a, Ano32b, Ano32c, Ano33a, Ano33b, Ano33d, Ano37i, Ano60, Ano09a, Ano11, Bir57, Ble57, BM66, Büh98a, CT65, Dro20, Ful13, Gar81, Gea62, Her72, Hug90, Kae36, Kra11, KH23, Lau37, Mon66, Nia98, Pod10b, Rod19, RN04, Rom60, Rom82, Rut09b, Rut09c, Rut09g, Rut09h, Rut11j, Rut13h, Rut14b, Rut14c, Rut24i, Rut34i, Sch13, Sil71, Sno58, Stu78, Tho08a, Tho08b, Til96, TGM74, Vil05, Wer23, AK15, dCENdCA64, Ano37d, Bre83, Bro73b, Cam11, Cat04, Fei11, Gar62, HRM79, HA84, Hei68, Hei81, Hei67, Her77, How58, McK62, Moo74, Pol60, Rez21, Rom97, Row55, Row57, Rut11i, Rut14e, Rut24d, Rut27l, Rut33f, Rut70f, Rut12, She17, Shi72, Sod20, Sod22]. **atom** [Sod04, Tre77b, Whe18, dCAH64, Rut66c, Sei86, Stu85, Aro65b, Dys05, Opp64, Sen87, Tre76a]. **Atom-Model** [Wer23]. **Atom-Powered** [Ano33a]. **Atom-Smasher** [Ano37i, Lau37]. **Atom-Theorie** [Rut09b, Rut09c]. **atoma** [Rez21]. **Atome** [Rut10a, Rut10b, Rut21d, vdB13]. **Atomes** [LRdB<sup>+</sup>23, Pia24]. **Atomic** [Ano06, Ano17, Boh63, BBSR69, Bur18, Cra84, Dar56b, F.33, FR13j, Gam29a, Jen11, Kow53, Kra12, Mon66, Mos14a, OaHNM98, Pei53, Pei97b, PBFt83, Ree06, LFA<sup>+</sup>04, Rus56a, Rut09k, Rut19a, Rut23a, Rut23b, Rut23c, Rut23d, Rut23e, Rut23f, Rut23g, Rut23h, Rut23i, Rut23j, Rut25a, Rut25g, Rut26f, Rut27a, Rut27b, Rut27c, Rut27d, RAC<sup>+</sup>29, Rut30b, Rut30c, Rut30d, Rut30e, Rut32a, RCE<sup>+</sup>32, Rut33a, Rut35d, Rut37g, RJ65, Rut70a, Rut70e, Rut70g, Rutxx, Sie11, Sod49, SM08, Tre75c, Ano23b, Bai13, Boh87, Cat12, CK33, CCJ<sup>+</sup>34, Dar56a, Gam28, Gam29b, Har38, Hou30, IFSI94, LHNG14, Pae15b, Par96, Pol60, Ree15a, Rez29, Rez32, Rut25f, RC25, Rut26b, Rut26c, Rut26d, Rut26e, Rut33i, Rut33j, Rut36f, Rut36h]. **atomic** [Sod13, Tab97, Mot63, Rez28, Rut09b, Rut09c]. **atomique** [Mon66]. **atomiques** [CCJ<sup>+</sup>34]. **atomism** [Rut09d]. **Atomistik** [Rut09d]. **Atomization** [ERM95]. **Atomkernes** [Gam28]. **atomkutatás** [RA45]. **Atommodell** [Pol60]. **atomnogo** [Rez29, Rez32]. **Atomnye** [Rez28]. **Atomphysik** [Har38]. **Atoms** [Ano32b, Cho01, CR12, Elf14, Pol60, Rut02f, Rut14a, Rut15i, Rut16b, Rut19a, Rut19e, Rut19f, Rut19g, Rut19h, Rut20a, Rut20g, Rut20e, Rut20f, Rut21e, Tho08a, Tre75d, Ano33c, Hei03, Rot74, Rut10a, Rut10b, Rut14d, Rut15g, Rut15h, Rut19b, Rut21d, Rut21f, Rut25d, Rut25e, Rut27h, Rut70a, Rut70c, Rut10a, vdB13, LRdB<sup>+</sup>23, Bad04a].

**Atomskerns** [Hou30]. **Atomtheorie** [Rut36f]. **Atomzertrümmerung** [Gam29b]. **Atoommodel** [Bur18]. **Attainment** [Mos13a]. **attempts** [Nav06]. **attract** [Fla17]. **audio** [BC16]. **Auger** [Bra98, BPSW91, Bur86, CSN<sup>+</sup>00, Fow83, Gro89, Kot91, PMCF<sup>+</sup>06, SBEO86, Sha87b, TGDS99, Wuy91, Yuh92, vdK89]. **August** [Hil17]. **Ausarbeitung** [Lüd13]. **ausgesandten** [Rut07g, RG09b]. **ausgesendeten** [RR13a]. **auspices** [Ano12a, CCJ<sup>+</sup>34, VRWB12]. **aussieht** [Büh98a]. **Australia** [Jen85]. **Authoritative** [Kae39]. **autobiography** [Hah67b]. **Autunite** [Rut15a]. **Avogadro** [Lee98, Mur01, Stu00]. **avril** [LRdB<sup>+</sup>23]. **Awakening** [Rom60, Rom82]. **Award** [Ano08b, Ano09a, Ano36a, Ano46a, Wil17]. **Awarded** [FR13a, Ano08g, Tes19]. **awards** [Adl12, Ano18e]. **azide** [WVCW76].

**B** [Hay63, Ihd64, Raz63, Rut28b, See65, Tre75b, Tre76a, LMC97, MM12, RR13d, RR13f, RdCENdCA14b, RdCENdCA14a, Rut14g, Rut14f, RW25]. **Ba** [FIY<sup>+</sup>99, IFSI94, KKK<sup>+</sup>99]. **Back** [Bau73a, Rut30f, Rut32c]. **Back-scattering** [Bau73a]. **Background** [Cro74c, NP38, NP40, Ree15b]. **backscatter** [KKGW85, Sim82]. **Backscattering** [CLZ99, ERM95, EMVK90, MKM<sup>+</sup>07, JBS12, LHB<sup>+</sup>09, LGA<sup>+</sup>06, NOSK08, OaHNm98, LFA<sup>+</sup>04, SHCK96, ATS86, AAPN06, And90, Bar85, BJW97, BKP<sup>+</sup>06, Bau73b, BSS88, Bha82, BP93, Bra98, BPSW91, BVI88, Bur86, CGL<sup>+</sup>94, Cat93, CFMO12, CYM<sup>+</sup>03, CCR<sup>+</sup>03, Cle81, CSN<sup>+</sup>00, Con82, CCR85, CBZ<sup>+</sup>12, DJA<sup>+</sup>04, DGC07, DMV<sup>+</sup>96, DHS97, DJBW83, Eld85, EFKS96, ESRDV84, FGM<sup>+</sup>00, Fow83, FLP<sup>+</sup>89, FTT96, FIY<sup>+</sup>99, GHCA91, GR89, GC00, Gro89, GRS<sup>+</sup>91, HV84, HHAMS93, HKH96, HNS<sup>+</sup>11, Her84, HKM<sup>+</sup>09, HW92, HGM<sup>+</sup>94, Hwa82, Hwa83, IYT<sup>+</sup>09, IFSI94, Ish83, IOI<sup>+</sup>11, KB93, KKK<sup>+</sup>99, KOhM94, KBvB<sup>+</sup>05, KSKF93, KIS<sup>+</sup>89, KY11, Kot91, KG91, LHNG14, LRF86, LDLM91, Lia80, LMC97, LxW99, Lu87, LCL<sup>+</sup>04, MDJF83, MB90, Man82, MCJK90, MBS<sup>+</sup>04, MMKS<sup>+</sup>80, NJS<sup>+</sup>03, NFM<sup>+</sup>07, NOH<sup>+</sup>10, NMSK13, Nor79, NBG<sup>+</sup>84, Oeh86, OHN<sup>+</sup>09, Par96]. **backscattering** [PAF<sup>+</sup>98, PPA<sup>+</sup>02, PBFt83, Phi83, PNFO88, PMCF<sup>+</sup>06, PCK<sup>+</sup>08, RMM<sup>+</sup>13, RSdS<sup>+</sup>89, Rei79, REJ86, Reu81, Rot74, SSWB80b, SSWB80a, Sad81, Sar79, SER<sup>+</sup>01, SHAI09, SBEO86, Sha87b, SN05, SWZ<sup>+</sup>05, SCP<sup>+</sup>91, STB<sup>+</sup>01, Sin93, Sku89, SLA<sup>+</sup>00, SDD<sup>+</sup>08, SPL<sup>+</sup>08, Tab97, TCZY97, TF89, TMJ<sup>+</sup>99, Tho84, TGP11, TGDS99, TJRS03, Vas90, WCGC86, WZS<sup>+</sup>91, Wan96, WV07, Whi82, Wie78, Wil83b, WVCW76, Win94, WM88, WVD<sup>+</sup>96, WVH<sup>+</sup>99, WYV<sup>+</sup>99, WCZ<sup>+</sup>02, Wuy91, Yuh92, ZWJ<sup>+</sup>02, ZCS<sup>+</sup>12, ZB74, vIS89, vdK89]. **backscattering-ion** [HKH96]. **backscattering/channeling** [LCL<sup>+</sup>04, Phi83, TJRS03, WVH<sup>+</sup>99, WYV<sup>+</sup>99, WCZ<sup>+</sup>02]. **Backstory** [Kri19b]. **Badash** [Hei71, Oes70, Szy85, Bro86, Fea70, Tre77a, Vuc86]. **BaF2** [Phi83]. **Baker** [Rut21d]. **Baker-Vorlesung** [Rut21d]. **Bakerian** [Cha33, Rut04l, Rut05p, Rut20g]. **Balance** [RC12b, RC12a]. **balls** [Lor88]. **Banquetted** [Ano08e]. **bare** [CS19]. **Barium** [HS89]. **Baron**

[Ano66b, Bad04b, Bad09, Badxx, Lov75, Eva39a, Eva39b, M.39]. **barrier**  
 [Gro89, Kot91, RR95]. **Barus** [dB14, Ano12a]. **Based**  
 [Boh61, WMT01, NMSK13, Rut37a, Rut14]. **basic** [Wen53]. **Battered**  
 [Ano32b]. **BBC** [Ano23a]. **Be**  
 [Ano06, Ano32a, Wal18, Ano08a, Nix19, Sch15, Spe19]. **beads** [Lor88]. **beam**  
 [Ano17b, FLK92, HFD<sup>+</sup>99, KKGW85, LSK<sup>+</sup>88, SML91, WVD<sup>+</sup>96]. **Beams**  
 [EMVK90, SWZ<sup>+</sup>05, Ten20, YHS97]. **Bearing** [Hol30]. **beat** [DBE<sup>+</sup>85].  
**became** [Ree15a]. **Becquerel**  
 [Bel82, Mon66, RM00b, Gen95, RM00b, RM00a, RM01]. **Becquerel-**  
 [RM00b]. **Been** [Rut37b, Ano08g, Whe18]. **Before**  
 [Bad65, Pre05, Bad83, Rut33h]. **Began** [FW67, Kae48]. **beginning** [Cot10].  
**behaviour** [Bha82]. **behaviour** [Mak08]. **Being**  
 [Bad71, Coh40, Swa40, Eve39, Eve13, RCO<sup>+</sup>54, Rut33h, Kay63]. **Beiträge**  
 [FH60]. **belief** [Ano33d]. **Believes** [Ano08a]. **beneath** [Jak79]. **BeO** [Fow83].  
**Bericht** [Rut08b]. **Berlin** [Har60]. **Bertram** [Rut28b]. **Bertrand** [Ano16].  
**berücksichtigt** [CSW97]. **Beryllium** [OKR35a]. **Bestrahlung** [HS39].  
**Beta** [Bur83, Jen00, Mal71, Rut15e, Tre76b, Car98, Wen53]. **Between**  
 [Stu18, FIY<sup>+</sup>99, IFSI94, Rad13, Rut04b, Rut05b, Rut14k, Rut14i, Rut29i].  
**Beware** [Ano18a]. **Beyond** [Rod19, SL90, Dro20]. **Bibliography**  
 [Ole81, Low79]. **Bibliothèque** [Mon66]. **big** [Bad79a, Giu12]. **Biggest**  
 [Ano23a]. **bilayer** [PCK<sup>+</sup>08, SCP<sup>+</sup>91]. **bilayers** [GC00]. **bill** [Ged16].  
**billion** [Ten20]. **billion-degree** [Ten20]. **binary** [NMSK13, PBFt83, WV07].  
**Binding** [Elf14]. **Binet** [Bru79]. **Biografija** [Rez24]. **Biographical**  
 [Sch33, Lov76]. **biographies** [MB<sup>+</sup>85]. **Biography**  
 [Hop21, Kae39, Bro97, Rez24]. **biological** [VPW14]. **Birks**  
 [Ihd64, Raz63, See65, Hay63]. **Birth**  
 [dCA56a, dCA56b, dCA58, Sno58, Wat93, Ano17d, Kap73a]. **Birthday**  
 [SR37, HM31]. **Bis** [NOSK08, Büh98b, NOH<sup>+</sup>10]. **Blackett** [Lov75, Lov76].  
**Blais** [Ano18e]. **Bodies** [Rut02f, Rut04l, Rut05p, Rut08e, Rut04i]. **Bohr**  
 [Lak96, Pia24, AH13, AK15, Bro73b, Bur18, FK85, Hei81, Her72, Hug90,  
 Kat15, Kle10, Kra11, KH23, Kra14b, Moo66, Oli85a, Pei88, Pei97a, Pei10,  
 Pod10b, Pol60, Rub97, Sch13, SM08, Wer23]. **Bohrsche** [Pol60]. **Boiling**  
 [Rut09a]. **Boltwood** [Fea70, Hei71, Oes70, Bad68, Bad69, Rut28b]. **Bomb**  
 [MD67, Ree06, Bro97, Ree15a, Sch15]. **Bombarded** [Ano32b, BVI88].  
**Bombarding** [Ano22]. **Bombardment** [Hon03, RC24a, RK34]. **Book**  
 [dCAH64, Ano12a, Ano60, Aro65b, Aro65a, Aro66, Bad04a, Bel82, Ben20,  
 Bir57, Ble57, Bro86, Ano81, Ced00, Coc63, Coh40, Dro20, Dys05, Eck20,  
 Fea70, Gar81, Hay63, Hei71, Her01a, Hub01, Hub13, Ihd64, Jew19, Kri20,  
 Lin40, Mos13b, Oes70, Ole81, Opp64, Osg66, Pip01, Poo52, Raz63, Ree16,  
 Sch31, See65, Seg62, Seg64, Seg66, Sei86, Sin81, Stu78, Stu85, Swa40, Tre73,  
 Tre75a, Tre75b, Tre76a, Tre77a, Tre85, Tur01, Vuc86, Whe80]. **Books**  
 [Bar05, Bar06, Cle19, Mil13, Whe04]. **Born** [Fle57, Lüd13, Dem03, Lüd13].  
**Boron** [OKR35a, Ten20]. **boson** [Kra14a]. **both** [ZWJ<sup>+</sup>02]. **Bottom**  
 [Kae36]. **Bowling** [Lor88]. **Box** [Wil74]. **Boyle** [Rut33h]. **Br**

[MKM<sup>+</sup>07, HKM<sup>+</sup>09]. **Br-Doped** [MKM<sup>+</sup>07]. **Bragg** [Ole81, Pia24, Jen85, Jen08]. **Breaking** [Ano33b, Gan17]. **Breakthrough** [Adl97]. **Bressa** [Ano08g]. **Brexit** [Fla17]. **Brian** [Dys05]. **brief** [Bri31, Tod14]. **Brighton** [Fle57]. **brilliant** [Ano08d]. **Brillouin** [Pia24]. **bringing** [Ano18b]. **Bristol** [Stu85]. **British** [Ano23b, Rut09e, Ano19, Ano20a, Ano32b, Ano33b, Ano33c, Ano37i, Badxx, Kra11, Lau37, Rut13a, Rut23p, Rut34k, Rut34n]. **Briton** [Ano19]. **Broadcasting** [Ano23a]. **Brogie** [Pia24]. **Bromine** [MKM<sup>+</sup>07]. **Brooks** [DeB19, Gan18a, Ged16, Mor84, Nix19, RCRC92, RC04, RCRC05]. **Brooks-Pitcher** [Mor84]. **Brussels** [CCJ<sup>+</sup>34, LRdB<sup>+</sup>23]. **Bruton** [Eck20]. **Bruzelles** [CCJ<sup>+</sup>34, Far01, LRdB<sup>+</sup>23]. **Bruzzaniti** [Bel82]. **Buchbesprechung** [Her01b]. **Buenos** [Pye78]. **Builders** [MD67]. **Building** [Eve06, Rut20a, Ano18d]. **Bunge** [Ano81, Sin81, Stu79b, Whe80]. **Burial** [Ano37a]. **buried** [MB90, Sad81]. **butyl** [OHN<sup>+</sup>09]. **By-Product** [Ano37i, Lau37].

**C** [Aro65b, Opp64, Poo52, Rön58, Sch31, dB14, RLB33, RR95, RR13d, RR13f, RdCENdCA14b, Rut14g, Rut21g, RC24c, RWWW30, RWL31a, RWL31b, ZWJ<sup>+</sup>02]. **cadmium** [Man82]. **CAI** [GW73]. **Calcutta** [Ano38b]. **Calibration** [Bar85, Sku89]. **Calls** [Ano38b, McD19]. **Cambridge** [Bat72, Dav37, Dys05, Rut37a, RC62, Rut14, Seg62, Tre73, Ano32b, Ano32c, Ano95, Ano16, Bod20, Cat04, Coc46, Hen84, HJS70, Lon16b, Mor74, NP38, NP40, Oli72a, RC65, Sei86, Stu85, Tho65, Seg66, HJS70]. **came** [Sch15]. **Campaign** [She17]. **Campbell** [Ced00, Pip01, Tur01, Her01a, Her01b, Hub01]. **Campos** [Ree16]. **Can** [Ano06, Ano08a, Hil17, Rut24i, Bod20]. **Canada** [Ano18e, Cam05, Gan18a, Mor75, RC04, RCRC05]. **cancer** [Ano09c, Ano17b]. **Canterbury** [Tre75b, Ano18d, Cla06, Cot10]. **Capture** [Rut23k, WR31, Rut24i]. **carbide** [KIS<sup>+</sup>89]. **carbon** [RRKH94]. **Career** [Kae39, McD19]. **Careers** [Dea03]. **cares** [Spe19]. **Carl** [Ano12a]. **Carlo** [BPSW91]. **carried** [Rut05a, Rut05n]. **carvings** [O'C17]. **Case** [Tre79b]. **catalog** [Bad74, Tre77a]. **Catalysts** [WMT01, PNFO88]. **Cathcart** [Dys05]. **Cathedral** [Dys05, Cat04, Cat12]. **Cathode** [Nia98]. **cathodoluminescence** [CYM<sup>+</sup>03]. **Cause** [Rut05l, RS02b, RS02g, RS02c, RS02f, RS02a, RS02h]. **Cavendish** [Ano66e, FR13i, Osg66, Woo46, Ano32b, Ano17a, Cam79, Cro74d, Cro74e, Dev71, Dow08, Kim02, Nav06, Rut19c]. **cavities** [DMV<sup>+</sup>96]. **Cd** [Con82, Win94, CBZ<sup>+</sup>12]. **CdS** [GC00, LDLM91]. **CdTe** [GC00]. **CdTe/CdS** [GC00]. **Ce** [KSKF93]. **Ce/Fe** [KSKF93]. **CeH** [KSKF93]. **Celebrate** [Ano09a]. **Celebration** [Ano12a, Rut12a, VRWB12]. **Celebrations** [Ano72, Oli47]. **Celebs** [Ben20]. **centenaria** [Car98]. **centenary** [Ano17c, FK85, Ano72]. **Centennial** [Fre12, Tre75b, Wyb72, Adl03, Car98, Cat12]. **central** [Bri31, HBA77]. **Centre** [Ano18b, Meh73, Ano17b]. **Centres** [Eve06, Har07]. **Century** [BS79, Muk19, Tho65, Ano33d, Ano19b, Bra09, Hei79a, Meh73, Rig79,



Rut33j, Sie11, Bre97, Ano81, Sin81, Stu79b, Whe80]. **CEO** [Ano18b]. **CERN** [Kra14a]. **Certain** [OKR35b, Rut10f]. **cette** [RC12a]. **Chadwick** [Poo52, Sch31, Ano64, Aro66, Bro97, Gan17, Osg66, Seg62, Seg64, Seg66, Coc63]. **chain** [And73]. **Chair** [Ano07]. **challenges** [Lon16b]. **Chamberlin** [Bru79]. **Change** [Oli84, RS03b, IYT<sup>+</sup>09]. **changed** [Glo20, Moo66]. **changer** [Ree15a]. **Changes** [Rut04l, Rut05p, Rut04i]. **channeled** [SSWB80b].

**Channeling**  
[Dav71a, MD69, Bha82, Con82, HKH96, LDLM91, LxW99, LCL<sup>+</sup>04, MB90, PAF<sup>+</sup>98, Phi83, RSdS<sup>+</sup>89, Sar79, SN05, SWZ<sup>+</sup>05, TMJ<sup>+</sup>99, TJRS03, WCGC86, Whi82, WVD<sup>+</sup>96, WVH<sup>+</sup>99, WYV<sup>+</sup>99, WCZ<sup>+</sup>02, ZCS<sup>+</sup>12].

**channeling-Rutherford** [PAF<sup>+</sup>98]. **Chapter** [RSWE27, How58].

**Character** [Ell60]. **characteristics** [KG91]. **Characterization**  
[DJA<sup>+</sup>04, FTT96, LHNG14, BVI88, Gro89, Her84, KSKF93, Kot91, LDLM91, Rei79, Vas90]. **characterized** [SBEO86]. **Charcoal** [Rut06a]. **Charge**  
[Boa07, HFD<sup>+</sup>99, Rut05a, RG08d, Rut08f, Sod13, Rut05e, RG08b, RG09a, Rut05n, Rut08c, Rut08d]. **Charge-exchange** [HFD<sup>+</sup>99]. **Chart**  
[Ano00b, Cle19]. **chasticy** [Rez24]. **Chelsea** [Lov75]. **Chemical**  
[Ano22, Gri09, KEJ87, Lee98, MD69, Rut08a, Rut12f, Stu00, Hwa82, Hwa83, Rut04b, Rut05b, Sin93, Wel90]. **Chemical-Effects** [Rut12f].

**Chemical-Vapor-Deposited** [KEJ87]. **Chemie** [Tho08a].

**Chemie-Nobelpreisträger** [Tho08a]. **ChemInform** [Ano09a]. **chemischer**  
[Rut04b, Rut05b]. **Chemist** [Ano19, Hop21]. **Chemistry**  
[Ano08b, Ano09a, Cra84, KT84, Nia98, NM12, Sch15, Ste83, Tho08a, Tho08b, Far53, Far63c, Jar08a, Sto97]. **chemists** [Har60]. **Chief** [Ano66d]. **Children**  
[Ano21]. **Christchurch** [Pip01, Tre75b, Wyb72, Ano18b, Wil17]. **chromium**  
[BPSW91]. **Churchill** [Sno67, Sno68]. **ci** [Mon66]. **ci-dessus** [Mon66].

**Ciência** [dAMxx]. **circuit** [Gro89]. **Claim** [Ano19, Kri19c]. **Clark**  
[Ano12a, dB14, Rut12a, VRWB12]. **Class** [Dun18]. **classic** [HT10]. **Classical**  
[BHN98, VV09, Wri64, Bab71, SC13]. **Classics** [Mon66]. **Classification**  
[Tre76b]. **Club** [Rut33h]. **CN** [PMCF<sup>+</sup>06]. **CN/TiCN/TiN** [PMCF<sup>+</sup>06].

**Co** [Sod02, Sod03, NBG<sup>+</sup>84, DGC07, SCP<sup>+</sup>91]. **Co-workers** [Sod02, Sod03].

**Coated** [ERM95]. **coating** [Par96]. **cobalt** [BPSW91]. **Cockburn** [Sei86].

**Cockcroft** [Ano32b, DYF67, Sei86, Stu85]. **Cockcroft** [HA84, Sen87].

**collaboration** [Jen08, Tre77b, Gar81, Stu78]. **Collapse** [Ano37c].

**Colleagues** [Kle10]. **Collected**  
[Ano64, Aro65a, Aro66, Bur64, Cha14a, Cha14b, Cha14c, Coc63, Osg66, RC63, RC65, Seg62, Seg64, Seg66, Ano66e, Cha65, RC62]. **Collection**  
[Ter38, RCO<sup>+</sup>54, Rut15d]. **College** [Rut37a, Rut14, Cla06, O'C17]. **Collider**  
[Giu12]. **Collision**  
[Ano22, Rut19b, Rut21e, Rut10a, Rut19e, Rut19f, Rut19g, Rut19h].

**Collisions** [Rut19a, Rut70a]. **colonialism** [RR87]. **Combination**  
[Dav71a, MD69, FLP<sup>+</sup>89, WM88]. **combined**  
[DMV<sup>+</sup>96, FIY<sup>+</sup>99, IFSI94, WVH<sup>+</sup>99, Wuy91]. **Commemoration** [Ano48].

**Comment** [RSWE27]. **Comments** [dR92]. **Commission**

[CDE+31a, CDE+31b, CDE+31c]. **Committee** [NP38, NP40].  
**communication** [BC16, Kat15]. **community** [Hug93]. **compact** [DJA+04].  
**companies** [Bod20]. **Company** [Dav37]. **comparaison** [RC12a].  
**comparative** [RS03d]. **compared** [TGDS99]. **Comparison**  
[RC12b, CCR85, RC12a, SSWB80b, Tab97, RB02a, RR87]. **compelling**  
[Ano19a]. **compensation** [RC12a]. **Complex** [Ell60]. **Composition**  
[BBR80, Eld85, Bra98, Cat93, FLP+89]. **Compositional** [ATS86, Sha87b].  
**compound** [PBFt83]. **Compounds**  
[Adl97, Rut00a, RS02c, RS02i, ESRDV84, Rut00g, Rut00b, Rut00c, Rut00e,  
Rut00f, RS02f, RS02k, RS02j, RS02l, RS02m, WV07]. **Comprehensive**  
[WVD+96]. **comprising** [Rön58]. **Computer** [TJRS03]. **Concentration**  
[Rut04c, MCJK90, Rut04d]. **concentrations** [PBFt83]. **Concept**  
[Wil64, O'H75]. **conception** [Meh73]. **concepts** [Lon03]. **conceptual**  
[Bur13a]. **Concerning** [Gor55, HS39]. **concrete** [Lor88]. **condensation**  
[RS02d, RS02e, RS03a, Rut09j]. **conducting** [MCJK90, Rut01e].  
**Conduction** [Rut99, Tho03, Tho06, TT33, TT69]. **conductivity**  
[Rön58, Rut00d]. **Conference**  
[Bir61, Fre12, Hay63, Raz63, Rut11a, Rut13c, Rut13d, AK15, Far01].  
**conferences** [WH72, Wei90]. **Cong** [Rut05c]. **congratulations** [SR37].  
**Congress** [Str11, Ano38b, Rut38c]. **Conjecture** [FR13b]. **connections**  
[Cla13]. **Connexion** [Rut14k, Rut14i]. **conseil** [CCJ+34, LRdB+23].  
**Consensus** [Jen00, Lev17]. **consequences** [Pae15a]. **Conservation**  
[Ano32b]. **consideration** [CSW97]. **Considérations** [Hei34, Hei34].  
**Constant** [Mur01]. **Constants**  
[Ano31a, CDE+31a, CDE+31b, CDE+31c, Rut14l, HKM+09, HW92, Rut14j].  
**Constituents** [Pei53, Tre71a]. **Constitution**  
[Ano15, FR33, Gam30, Rut20g, Rut20e, Rut29i, Rut15m, Rut15n, vdB13].  
**Contact** [GRS87, Kot91]. **contacts** [Gro89, Man82, Wuy91].  
**contemporanea** [Seg76]. **contemporary** [Seg76]. **contenus** [RB06a].  
**Contest** [Ano99]. **continued** [dR92]. **continuity** [Oli84]. **Contributing**  
[Hon03]. **contribution** [DMPA08]. **contributions** [Cla13, FH60].  
**Controversies** [Kra76]. **Controversy** [Jen00, Rut06g, Hug93]. **Convention**  
[RSWE27]. **conversion** [Rut11h]. **convincing** [Ram75]. **Coolidge**  
[RB15, RBR15, Rut17]. **copper** [HV84, HHAMS93, PNFO88, RKL88].  
**copper-aluminum** [HV84]. **Corning** [DJBW83]. **correct** [She17].  
**Corrections** [CDE+31a, Poo52]. **Correlation** [Wil83b, Win94, Bur86].  
**Correlations** [SCP+91]. **Correspondence** [Jen85, Tre77a, Bad74]. **CoSi**  
[DMV+96, Ish83]. **Cosmical** [Rut07f]. **Cosmos** [Ano32a]. **could** [Ten20].  
**Coulomb** [Mar72, RR95]. **Council** [Rut34h]. **counter** [Kor12]. **counters**  
[Lew79]. **Counting** [RG08a, RG08e, RG08c, RG09b]. **Countries**  
[Zim69a, Zim69b]. **Country** [Eck20, Jew19]. **counts** [Glo20]. **course**  
[Man76]. **cow** [ESWW82]. **Cr** [SCP+91]. **Crazy** [Ano05, Arr06]. **Creating**  
[Vil05, Whe18]. **Creation** [Hes00, Kra18]. **creativity** [Kim02]. **Crick**  
[Gri09]. **critique** [EMR07]. **Crocodile** [Mac97, Dow08]. **Crookes** [Mon66].

**Cross** [LMC97, ST76, Bab71, Far87, RRKH94, RR87, Wil83b, ZB74]. **cross-cultural** [RR87]. **cross-section** [Wil83b, ZB74]. **Crowe** [Ano59]. **Crucible** [Far16]. **Crystal** [Dav71a, Hil17, Fow83, KIS<sup>+</sup>89, Whi82]. **Crystallites** [OaHNM98]. **Crystallography** [Sar79]. **Crystals** [Dav71b, MKM<sup>+</sup>07, RdCENdCA13, Rut15a, Rei79, Rut15b]. **Csaba** [Gri09]. **CT** [Szy85]. **Cu** [FIY<sup>+</sup>99, IFSI94, LFA<sup>+</sup>04, SCP<sup>+</sup>91]. **Cu/Co** [SCP<sup>+</sup>91]. **Cu/Cr** [SCP<sup>+</sup>91]. **Cu/Ni** [SCP<sup>+</sup>91]. **Cu/NiB** [SCP<sup>+</sup>91]. **Cu/Pd** [SCP<sup>+</sup>91]. **Cu/Pt** [SCP<sup>+</sup>91]. **Cu/Ti** [SCP<sup>+</sup>91]. **Cu/TiN** [SCP<sup>+</sup>91]. **CuI** [Rei79]. **cultural** [RR87]. **Culture** [Dyl20b, Lav14]. **Cuprate** [CLZ99]. **Curie** [Mon66, Whe04, DMPA08, Gri09, Pre05, Rad13, Ril70, Rut34f, Rut35j, SG85]. **Curies** [Bad65, Bre00, Kae48, Rei71]. **currency** [Gib17]. **current** [CBZ<sup>+</sup>12, Rut01e, Rut05c]. **curriculum** [Coh95]. **Curve** [Gam30]. **Czech** [Rut38b].

**D** [Ano32b, Poo52, Sch31, YKH<sup>+</sup>84, RR13e, YKH<sup>+</sup>84]. **D.Sc** [Ano36a, Ano46a]. **Dag** [Sno67, Sno68]. **dagegen** [CSW97]. **Dagli** [Car98]. **Dalton** [Kra14b]. **Damage** [ZWJ<sup>+</sup>02, BKP<sup>+</sup>06, PAF<sup>+</sup>98, SSWB80b, SSWB80a, Sad81]. **damping** [AB09]. **dangerous** [Ber07]. **dans** [RB06a]. **dark** [BC16, Dow08]. **Darwin** [Ano18f, Wal18]. **Data** [KLL<sup>+</sup>90, BJW97]. **Dating** [Bad68, Lew02]. **David** [Sei86, Tre85, Stu85]. **Dawn** [AM95]. **Dawons** [Stu79b]. **Dawson** [Sin81]. **Day** [Ano32a, Dev91, Mas72]. **Days** [dCA68, Oli72a, Rut24c, Rut32b, Bat72, Tre73]. **Dead** [Ano37i, Lau37]. **Deadly** [Har05]. **Dear** [Coh88, Coh89, Coh91, Coh92, Cam97, dR92]. **Death** [Ano37d, Ano37c, Ano37b, FR13c]. **debate** [Rez29, Rez32]. **debonding** [RKL88]. **decade** [Mor84]. **Decay** [Bur83, Jen00, RT09, Sut19]. **December** [Rut31a, Rut31e, Rut31b]. **decimal** [Gib17]. **decomposition** [CCR<sup>+</sup>03]. **Deconvolution** [Tab97]. **découverte** [Mon66]. **découvertes** [Mon66]. **Decrease** [FR13e]. **Defect** [Gam30, Wil83b]. **defects** [CYM<sup>+</sup>03, FTT96]. **deflectability** [RG02a]. **Deflection** [HBA77, Rut06c, Rut03b]. **deflexion** [GM13]. **degradation** [vIS89]. **degree** [Ten20]. **delay** [Spe19]. **delivered** [Ano12a, Rut12a, Rut33h, Rut36h, Rut37a, Rut14, VRWB12]. **della** [Car98]. **Demonstrate** [Gre07]. **Demonstration** [LEM65, Sta61, Ram75]. **densities** [Sim82]. **density** [DHS97, KB93, KBvB<sup>+</sup>05, Wil83b]. **Department** [Ano12a, VRWB12]. **depend** [Rut04c, Rut04d]. **dependence** [WCZ<sup>+</sup>02, Rut01e]. **dependent** [IYT<sup>+</sup>09]. **Deposited** [KEJ87, Bur86, Hwa82, Hwa83, TGP11]. **Deposition** [LFA<sup>+</sup>04, Sin93]. **Depression** [Wei70]. **Depth** [AAPN06, LRF86, LCL<sup>+</sup>04, PPA<sup>+</sup>02, TGP11, WCZ<sup>+</sup>02, ZCS<sup>+</sup>12, BSS88, IYT<sup>+</sup>09, KB93, PMCF<sup>+</sup>06, Rot74, SWZ<sup>+</sup>05, SLA<sup>+</sup>00, Wil83b, Win94, vIS89]. **Depth-resolved** [AAPN06]. **depths** [Rom97]. **deren** [Rut11e]. **Derivation** [Dem03]. **description** [Bri31, Cat12]. **Design** [BELG68]. **dessus** [Mon66]. **detail** [Oak19]. **detect** [Nav06]. **Detected** [Ano08a]. **Detecting** [BR16, Rut15f]. **detection** [Kat12, SHAI09, Sin93]. **Detector**

[Hes00, Mur13, Rut96b, Rut97b, Rut96a]. **detectors** [Lew79].  
**Determination** [DHS97, JBS12, OKR35b, Rot74, Wan96, Cat93, CSN+00, ESRDV84, Rut09k, Rut15d, SWZ+05, Sim82, Tho84, Wil83b]. **determined** [PBFt83, PNFO88]. **Deuterium** [CR12]. **deuteron** [Stu86a]. **Devant** [dB70]. **Developer** [RKL88]. **Developer-induced** [RKL88]. **Developing** [Zim69a, Zim69b]. **Development** [All64, Bra61, GRS87, Kae39, Meh73, Tan77, TCZY97, Tre71b, Bad87, Fra05, Har38, Rut36b, Rut36i, Rut37c].  
**Developments** [Boh61]. **Devable** [RG02b]. **deviation** [Rut03f]. **device** [Glo20]. **devices** [CBZ+12]. **Devons** [Hug08, Kay63]. **Dfl** [Bat72].  
**Diagnosed** [MKM+07]. **diagnostic** [HFD+99, RFF+01, YHS97].  
**diagnostics** [DBvdV87, SML91]. **diaphragm** [Rut16e]. **dichroic** [RMM+13].  
**Dictionary** [DG99]. **did** [Bat72, Jen11]. **didn't** [Jar08a, Jar08b]. **Died** [Ano19, Fle57]. **Dies** [Ano37i, Lau37]. **diferentes** [dAMxx]. **difference** [Rut04b, Rut05b]. **Differences** [RT09]. **Different** [Elf14, BP93, dAMxx, Mor18, RBR15, SSWB80a]. **diffraction** [BBR80, CYM+03, CCR85, DHS97, HV84, KKK+99, KSKF93, PAF+98, SDD+08, WVH+99, WYV+99, Yuh92]. **diffuse** [GM09]. **Diffusion** [HKM+09, SER+01, MBS+04, TMJ+99]. **Dimensional** [BCM13].  
**dimensions** [Bar83]. **Dinner** [Ano09a]. **dioxide** [LRF86]. **Dirac** [Lak96].  
**Direct** [Cat93]. **Direction** [BR16, Coc63, Aro66, Osg66, Rut01e, Rut15d, Seg62, Seg64, Seg66].  
**Discharge** [Coo13, Rut98, Rut01f, Rut01a, Rut08e]. **Discharges** [Rut94, Rut5 ]. **Discovered** [Ano19]. **Discoverer** [MM03, RCRC04].  
**Discoveries** [Kra76, Bra09, Pae15a, Seg76, Seg80a]. **Discovering** [Ano99, Tem89]. **Discovery** [And64, And81, Ano09a, Ano22, Ano32c, Ano00b, Ano06, CR12, Dar56b, FW67, Gen95, Gra64, GLR06, GLR12, GT95, HHK87, Mal71, Mon66, Rog13, Rom64, Rut66b, Bad83, Cam19, Car98, Cla13, Dar56a, DMPA08, FW85, Gan17, GA71, Kae48]. **discrete** [Sad81].  
**discursive** [dAMxx]. **discursivos** [dAMxx]. **Discussion** [Gam29a, GRR+31, Rut14d, RCW+26, RAC+29, RMM+29, RCE+32, RSA+34b, RSA+34a, RJ65, Rut70e, Rad13, Rut03g]. **discussions** [CCJ+34, LRdB+23]. **Disintegration** [Ano23b, CW32, Rut04m, RC21a, Rut22a, Rut22b, Rut22c, Rut22d, RC24b, Rut24k, Rut25a, RC29, Sod04, Tre71b, Tre71a, Rut04a, RC21b, RC22, Rut24m, Rut34g]. **Diskussija** [Rez29, Rez32]. **dispersive** [Bar85, Sku89]. **display** [Whe18]. **Dispute** [Kra18]. **Distinction** [Ano23b]. **Distinctions** [Ano66d, O'S71, O'S72].  
**distorted** [Wie78]. **distortion** [WCZ+02, ZCS+12]. **distortions** [Cle81].  
**Distribution** [LGA+06, Rut06b, LCL+04, Rot74, RG10, TGP11, Wil83b, Rut06b, Rut06n].  
**distributions** [RR95]. **Divergence** [Mar72]. **dnja** [Kap73a]. **Do** [Rut10a, Rut10b]. **doctorate** [Lüd13]. **document** [Lüd13]. **documentary** [Cam14, GA71]. **Does** [Rut04c, Rut04d, ZB74, MDJF83]. **Dominion** [Ano38a]. **done** [Ano18a]. **Doomsday** [Ano05]. **door** [Ten20]. **Dopant** [MCJK90]. **Doped** [MKM+07, Lu87]. **double** [Sad81]. **doubts** [Ano23b].

**d'ouvrages** [Mon66, Sen87]. **Down** [Ano33b]. **Dr.** [Ano09c, Ano22, Ano32b]. **Drafting** [Lüd13]. **Drawings** [Mar61]. **Dream** [Ano22]. **driven** [DJA<sup>+</sup>04]. **Drop** [Ano94, Stu94]. **drug** [Mor75]. **Duality** [NM12]. **d'uranium** [RB06a]. **durch** [BR11a, BR11c, Lüd13, RR12]. **durchdringende** [Rut02c]. **During** [EMVK90, BC16, Hah62, Lu87, MBS<sup>+</sup>04, Mor18]. **Dutch** [Bur18].

**E.** [Aro65b, Rad13]. **Each** [Ano32b]. **Early** [Adl97, Bai13, Her72, KT88, Kra11, Lav14, Lew79, Nav06, Rut24c, Tre71b, Kau86, Kra13, Rut32b, Wil60]. **Earth** [Eva96, FF17, BSS88, HS39, Bad68, EMR07, Lew02, RC03, Rut05l, Rut29g, Rut88]. **earthquakes** [Cam14]. **easily** [Rut03b, Rut03f]. **easily-absorbed** [Rut03b]. **Eastbourne** [Fle57]. **Eclipse** [Sta03]. **Ed** [Hei71, Ihd64, Stu85]. **Eddington** [Sta03]. **Edited** [Sin81]. **edition** [Poo52]. **Editor** [Hay63, Hub13, Rut35a, Ale46, Mos14a]. **Editorial** [RSWE27]. **eds** [Eck20, Stu79b]. **Effect** [RB03a, RB03b, RB04a, Rut04e, RP07, Rut19h, Rut29i, Cla13, GHCA91, RB04c, RB05c, RR13c, Rut10a]. **Effects** [ERM95, OHR34a, OHR34b, Rut12f, RB04b, vIS89]. **Efficiency** [RB15]. **Efforts** [Kae36]. **Egdell** [Eck20]. **Ehrendoktorwürde** [Lüd13]. **Ehrenfest** [Kle10, Pia24]. **Eigenschaften** [Rut05j, Rut06i]. **Einfluss** [Rut01b]. **einige** [Rut06i]. **Einstein** [Sno67, Sno68, Bou99, Bru79, HW96, Kle10, Sha87a]. **Elastic** [WVH<sup>+</sup>99, DY68, RRKH94, RR95, SHAI09]. **Electric** [Rut06c, Rut26g, Rön58, Rut01e, Rut03b, Rut03f, Rut36a]. **Electrical** [Rut96b, Rut97b, Rut99, RG08a, Rut23l, Rut23r, Rut23q, RCW<sup>+</sup>26, Rut26h, Rut96a, Rut00d, RG08c, RG09b, Rut23s, Rut24a, Rut24b, Rut25i]. **Electricity** [Rut01f, Rut01a, Rut08e, Rut20b, Rut20c, Rut20d, Rut21a, Rut21b, Rut21c, Rut22e, Rut22f, Rut22p, Rut25b, Tho03, Tho06, TT33, TT69, Whe04, TR96]. **Electrification** [Rut97a, Rut98]. **électrique** [RG08c]. **electroless** [Man82, PNFO88]. **Electromagnetic** [Rut35f, Rut35g, Rut35h, Rut35i]. **Electron** [And64, And81, Cha64, Coo13, FGM<sup>+</sup>00, Fow83, Rut19d, Rut21h, WMT01, BKP<sup>+</sup>06, Bra98, BPSW91, Bur86, CGL<sup>+</sup>94, CSN<sup>+</sup>00, GR89, Gro89, HBA77, Ish83, Kot91, LHNG14, Lu87, MB90, O'H75, Phi83, PMCF<sup>+</sup>06, Rei79, SSWB80b, SSWB80a, Sad81, SBEO86, Sin93, Stu83, WV07, Wil83b, Wuy91, Yuh92, vdK89]. **Electronic** [KT84]. **Electronics** [McG84]. **Electrons** [Ano23b, Rut23k, WR31, LRdB<sup>+</sup>23, Rut10a, Rut10b, Rut24l, Pia24, LRdB<sup>+</sup>23]. **Electrostatic** [ESWW82]. **Electrotechnical** [Ano12b]. **elektrische** [Rut03b, RG09b, Rut24a, Rut24b]. **Elektronen** [Rut10a, Rut10b]. **Element** [Rut22g, Sto97, Ber07]. **elemental** [IYT<sup>+</sup>09, LGF<sup>+</sup>99, PBFt83]. **Elementary** [Boa07, Cam97, KH23, Sod04, Wic65, Rut34g]. **Elemente** [Rut04a, vdB07]. **Elements** [Ano22, Ano33b, Ano37i, EC13, Eva96, Fow72, HHK87, Jaf71, Jaf72, Kra76, Kra18, Lau37, Mos13c, Mos14b, OR33, OKR35a, Rut91, RC21a, Rut22a, Rut22b, Rut22c, Rut22d, RC24a, RC24b, Rut24k, Rut37b, RS66, Rut38f, Sar27, SL90, Kra13, Rez23, Rez25, Rut04m, Rut04a, Rut15m, Rut15n, Rut16c, RC21b, RC22, Rut24m, Rut33h, Rut33d, Rut33e, Rut33g,

Rut37e, Rut37f, Lor70e, Lor70f, Sea88, Seg80b, Wel90, vdB07, vdB13].  
**Elephant** [Mac97]. **Elettrica** [MSB<sup>+</sup>37]. **Elizabeth** [Eck20]. **Ellipsometric** [BVI88]. **ellipsometry** [BKP<sup>+</sup>06, CSN<sup>+</sup>00, SPL<sup>+</sup>08, TGDS99]. **Ellis** [Poo52, Sch31]. **Ellyard** [Sei86]. **Elsevier** [Bat72]. **Emanation** [Rut03a, RB03a, RB03b, Rut04g, Rut04h, Rut04o, Rut08i, RR08b, Rut09a, RT09, RB32, RS02k, RS02j, RS02l, RS02m, RS02i, Rut04e, RB04b, RB04c, RR08d, RR08a, Rut08h, RR08c, Rut09j, RR12, RR13c, RR07, RR08a].  
**Emanationen** [Rut01b]. **Emanations** [Rut01c, Rut06a, Rut01b, RS02d, RS02e, RS03a, RG11]. **emergence** [Pol60].  
**Emerging** [Gus12, Hon03]. **émises** [RH06a, RG08c]. **emissions** [RR07].  
**Emitted** [Mos12a, RWL31b, GF10, Rut00g, Rut00b, Rut00e, Rut07g, RG08c, RG09b, RR13a]. **emittierte** [Rut00e]. **end** [Kru75, Man77]. **Enduring** [Lon16a]. **energetic** [vBD89]. **Energia** [MSB<sup>+</sup>37]. **Energie** [RM00b, RM00b, Mon66, Rut07h]. **Energies** [Elf14, BP93]. **Energy** [Ang00, Ano22, Ano23b, Ano32a, Ano32b, DYF67, EMVK90, Hes00, Jen11, OKR35b, RM00b, RM00a, RM01, Rut12e, Rut24i, RC29, Rut35k, Seg85, Sod49, Bar85, BVI88, DJA<sup>+</sup>04, HKH96, Kri16, MB90, RR95, Rut07h, Rut07j, Rut36c, Rut36d, Rut36e, SWZ<sup>+</sup>05, Sku89, TCZY97, WM88, Yuh92, vdK89, Ano32c, RM00b, Mon66, Tre75a]. **England** [Stu79b, Ano07, Ano18c, She17].  
**English** [Hei74]. **enhanced** [Sin93]. **Enrichment** [MKM<sup>+</sup>07, DGC07, Shi88].  
**Enrico** [GLR06]. **entertaining** [Hil17]. **entstehenden** [HS39]. **Entstehung** [Pol60, Rut31d, Rut31c]. **Entwicklung** [Har38]. **environment** [Mer96].  
**epilayers** [LDLM91]. **Episodes** [Eva96, Fea77, Bra09, Fea79]. **epitaxial** [Phi83]. **epitaxy** [CFMO12]. **Epoc** [Fea62b]. **Era** [Cro74b, Lon16c, Lon16d].  
**erbium** [TJRS03]. **Erdalkalimetalle** [HS39]. **eredményei** [RA45]. **erhielt** [CSW97]. **Erinnerungen** [Rut32b]. **Ernest** [Ano12a, Ano19, Ano23b, Ano66b, Bad04b, Bad09, Boh26, Büh98a, Cha65, Cra71, FR13i, Gar62, Hah62, Har38, Hub13, Lüd13, Mil13, Mur13, RSWE27, Rut26a, Sch31, Seg80c, dR92, dCA68, Ano36b, Ano66d, Ano66c, Ano71a, Ano09b, Ano09c, Ano16, Ano18d, Ano19a, Ano21, Anoxxa, Anoxxb, Bad71, Bad75, Bad04a, Bad08, Badxx, Bal21, Ble99, Bod20, Bro62, Büh98a, Cam97, Cam98, Cam19, Coh88, Coh89, Coh91, Coh92, Coh97, Dea03, Far63a, FR13c, FR13d, Fla17, Flo70, Gra02, Gri09, Hah67a, Hei03, Hil17, Hop21, Kap80c, KS76, Lab38, Lai37, Lee98, Low79, Lüd13, Mac11, Mar38, MM03, McK62, Moo74, O'S71, O'S72, Ole81, Opp64, Poo52, Pri08, Ree08, Ril70, Row55, Row57, Sie11, SN67, Stu00, Sut01, del79, Ano60, Bir57, Ble57]. **Ernest** [Tre76a]. **Ernests** [Oli66a, Oli66b, Oli85b]. **Errata** [Ano94]. **Erratum** [Hwa83]. **erregte** [Rut02e, RA02a]. **erregter** [Rut02d]. **ErSi** [WVD<sup>+</sup>96].  
**Erzeugung** [BR11a, BR11c, RM00b]. **Essay** [Ano64]. **Essays** [Boh63, Boh87]. **establishing** [Clo18]. **Estestvennoe** [Rez25]. **etched** [O'C17, Oeh86]. **Europe** [Dro20, Ano18a, Rod19]. **European** [Pye78].  
**europium** [RSdS<sup>+</sup>89]. **evaluate** [SSWB80b]. **evaluated** [Ano71b].  
**Evaluation** [Cle81, IOI<sup>+</sup>11, KIS<sup>+</sup>89]. **evaporated** [LGF<sup>+</sup>99, SBEO86]. **Eve** [Rut05j, dR92, dR92, Coh88, Coh89, Coh91, Coh92, Fos49, Lin40, Rut05j,

Swa40, Coh40]. **Even** [Mil95]. **events** [Cam19]. **Everyone** [Hil17].  
**Evidence** [TGMR74, DJBW83]. **Evolution**  
 [CT65, Fow72, Rut91, Rut15m, Rut15n, ZWJ<sup>+</sup>02]. **exactly** [EFKS96].  
**Exchange** [MBS<sup>+</sup>04, HFD<sup>+</sup>99, HW92, STB<sup>+</sup>01]. **Exchange-diffusion**  
 [MBS<sup>+</sup>04]. **Excited**  
 [Rut01d, RA02b, Rut02d, Rut02e, RRR14, Rut14h, RA02a, Rut02a, Rut03h].  
**Exeter** [Nix19]. **Exhibition** [Rut15a, Whe18, Ano17c]. **Exiles**  
 [Rut34k, Rut34n]. **exist** [Rut10a, Rut10b]. **Existence**  
 [Cha32a, Cha32b, HS89, Rut02f, HS39]. **Existenz** [Mos13b]. **Existieren**  
 [Rut10a, Rut10b]. **expansion** [Rez25]. **Expedition** [Sta03]. **expelled**  
 [RH06a, Rut06m]. **Experiment**  
 [Ano23a, Eic72, Gre07, Hes00, Kap74, Kap80a, Rut29i, VV09, Bis90,  
 DBE<sup>+</sup>85, DY68, GW73, Hau82, LSN<sup>+</sup>09, Lor88, Ten20]. **Experimental**  
 [Hon03, Ano37d, Bur13b, Sod02]. **Experimentalists** [Gea14a].  
**Experimentalvorlesungen** [Sod02]. **Experimentation** [Hon98].  
**Experimentelle** [Mos13b]. **Experiments**  
 [Ano08a, Ano19, BELG68, Gea14a, Gea14b, OR33, Rut15b, RC24b, Flo70,  
 Pae15a, RSdS<sup>+</sup>89, Sha87a, Tre74a, Rut02e, Rut08h]. **Expert** [Ano08a].  
**Explain** [Ano32b]. **exploded** [Ano33d]. **Exploding**  
 [Rut15i, Rut16b, Rut15g, Rut15h, Rut70c]. **Explore** [vG95]. **Explores**  
 [Dyl20b]. **Exploring** [Rit92, WH72]. **Explosion** [Bad04a, Hei03].  
**Exponential** [FR13e]. **exposed** [Rut97c, Rut97a, TR96]. **Expulsion**  
 [Ano08a]. **extended** [WM88]. **Extension** [Ano12b]. **Extraordinary**  
 [Gib19, Jen08].

**F** [Whe04]. **F.** [Ble02, Bro62, Rus56a]. **F.R.S** [Ano36a, Ano46a, Ano66b,  
 How58, dCA37, Boh37, Bra37, Cha37, Eve37, Smi37, Sod37, Tho37a, Tho37b].  
**F.R.S.** [Ano37h, Cro35, Eva39a, Eva39b, Kap66b, O'H75, dB32].  
**F.R.S.N.Z.** [Ano36a, Ano46a]. **Faces** [Lav14, Nic32]. **facility** [Bod20].  
**facsimile** [Wri64]. **facsimiles** [Bey49]. **Factor** [Hon03, Bar85]. **Fall**  
 [DeB19, Hah67a]. **fallout** [Pre05]. **Famous**  
 [Ano37i, Ano37j, Gra68, Lau37, Gra72, MB<sup>+</sup>85, Wri64]. **Faraday**  
 [Rut36h, Ano37d, Ano38b, Fea72]. **Farrar** [Dys05]. **fatal** [Har05]. **Father**  
 [Anoxxa, Tre75a, Jen08]. **Favor** [Ano23b]. **Fe** [GRS<sup>+</sup>91, KSKF93, PCK<sup>+</sup>08].  
**Fe-implanted** [GRS<sup>+</sup>91]. **Feather** [Rön58]. **features** [Rut05j]. **Feb**  
 [Rut26f]. **February** [Bad67, Bad85b, Rut36h]. **Feinberg** [Mon66]. **Fellow**  
 [RSWE27]. **female** [Gan18a]. **Fermi** [Mon66, GLR06]. **few** [Ano01]. **Field**  
 [Ano37i, Lau37, RWLB33, HFD<sup>+</sup>99, RFF<sup>+</sup>01, Rut01e]. **Fields**  
 [Rut27g, Rut30i, HBA77]. **fifth** [Rut33h]. **Fifty** [Kae48, Sea88, Wel90].  
**figures** [Wal18]. **filament** [DJA<sup>+</sup>04]. **filament-driven** [DJA<sup>+</sup>04]. **Film**  
 [dCAH64, CCR85, HV84, HGM<sup>+</sup>94, SCP<sup>+</sup>91, Sim82, SDD<sup>+</sup>08]. **Films**  
 [Bau73a, JBS12, KEJ87, LHB<sup>+</sup>09, LGA<sup>+</sup>06, SHCK96, And90, Bau73b,  
 Bur86, Cat93, DHS97, DJBW83, FGM<sup>+</sup>00, FIY<sup>+</sup>99, GR89, Glo20, IFSI94,  
 Ish83, KKK<sup>+</sup>99, LHNG14, PBFt83, Phi83, Rei79, Reu81, SER<sup>+</sup>01, SCP<sup>+</sup>91,

TMJ<sup>+</sup>99, TGP11, Wan96, WVCW76, YKH<sup>+</sup>84]. **Final**  
 [Ano18f, Sto97, Wal18]. **Finally** [Sto97]. **Fine** [Rut15a]. **First**  
 [Kay63, Kri19e, RC04, RCRC05, Cat12, Gan18a, HBA77, Mor18, RCO<sup>+</sup>54,  
 Str11, BC16, Stu18]. **first-** [HBA77]. **firsthand** [Sha87a]. **fisica** [Seg76].  
**Fission**  
 [FW67, Gra64, HS89, Stu94, FW85, Gam29b, GA71, Sea88, Ano94, CSW97].  
**fits** [Ged16]. **five** [RCO<sup>+</sup>54]. **flight** [DJA<sup>+</sup>04, HKH96, NMSK13].  
**fluorescence** [KBvB<sup>+</sup>05]. **Fluorinated** [EMVK90]. **fluorine** [KB93]. **Fly**  
 [Dys05, Cat04, Cat12]. **Focussing** [RLB33]. **Foil** [Gre07]. **Foils** [Mar61].  
**Folkestone** [Sin81, Stu79b]. **FONTANUS** [dR92]. **Force**  
 [OaHNM98, Ree08, IFSI94, LHNG14, Par96, RC25, Tab97]. **Forces** [Bri65].  
**Foreword** [Ano50, Gri09, Rut65a, Rut65b]. **Formation**  
 [HS89, AAPN06, DMV<sup>+</sup>96, Par96]. **Formerly** [Mon66]. **Formula**  
 [Dem03, Gor55, BB80, Kru75, MDJF83, Man77, ZB74]. **Fortschritte**  
 [Rut09d]. **Forty** [Rut38a, Rutxx]. **Forward** [SHCK96, LGF<sup>+</sup>99]. **Foster**  
 [Ano38b]. **Found** [Ano22, Kra14a]. **Foundation**  
 [Ano12a, Rut12a, VRWB12, Wel90, Kri19c]. **Foundations** [Bey49, NL00].  
**Founder** [Boh61]. **Four** [Ada72, Kis82]. **Fourier** [TGDS99]. **Fragments**  
 [HS89, Sch33]. **française** [Mon66]. **Franck** [Gea14a, Gea14b]. **Francois**  
 [Tes19]. **Frederick**  
 [Ano09b, Asi64, Coh97, Far63b, Fle57, Fre79, Gus12, How58, Jen85, Kau86,  
 Ken63, Mer96, Pan57, Pan64, Rus56b, Rus61, TG36, Wil64, Wil69]. **free**  
 [Fow83, Sod02]. **freedom** [Ano18a]. **freien** [Sod02]. **French**  
 [BR11b, CCJ<sup>+</sup>34, Geo38, Hei34, LRdB<sup>+</sup>23, Rut05c, Rut05g, Rut06b, RH06a,  
 RB06a, RR07, Rut07h, RG08b, RG08c, RR08a, RR09a, Rut12b, RC12a,  
 Rut12c, dB70]. **Frequency**  
 [Mos13c, Mos14b, Rut94, Rut5 , Rut29a, Cat93, RBR15, Rut28c]. **Freud**  
 [Bru79]. **Friends** [Kle10]. **Frisch** [CSW97, BW80, CSW97, Dit80]. **Fritz**  
 [CSW97, CSW97]. **Frontier** [Ree08]. **Frontispiece** [Rut30f, Rut32c]. **Frost**  
 [Sno67, Sno68]. **Frühzeit** [Rut32b]. **Full** [Ano19]. **Fun** [dCENdCA58].  
**function** [NBG<sup>+</sup>84]. **fund** [Fla17]. **fundamental** [Bey49]. **funds** [Rut34m].  
**Funeral** [Ano37e, Ano37j]. **Furnace** [Cho01]. **Further** [MSB<sup>+</sup>37, RC24b].  
**fusion** [Ten20].

**G** [Eck20, Hei74, Mon66, Rut16a, Sno67, Sno68, Tre75b]. **Ga**  
 [GRS<sup>+</sup>91, PAF<sup>+</sup>98, WVH<sup>+</sup>99]. **GaAs** [Bha82, CGL<sup>+</sup>94, Eld85, GHCA91,  
 KG91, LxW99, MB90, TF89, Wuy91, ZCS<sup>+</sup>12]. **gain** [Ano18a]. **GaInAs**  
 [Sha87b]. **GaInP** [BBR80]. **Galilei** [Büh98b]. **Galileo**  
 [Büh98b, Cro01, Sha87a]. **game** [Lew02, Ree15a]. **game-changer** [Ree15a].  
**Gamma**  
 [RB04a, Rut15e, Rut32e, Lor70d, Tre76b, CBZ<sup>+</sup>12, RR13d, Rut32d, Wen53].  
**Gamma-Rays** [Rut32e]. **GaMnAs** [ZCS<sup>+</sup>12]. **Gamow** [Har01]. **GaN**  
 [CCR<sup>+</sup>03, IOI<sup>+</sup>11, LCL<sup>+</sup>04, PPA<sup>+</sup>02, WCZ<sup>+</sup>02]. **GaP** [KG91]. **Gas**  
 [Ano22, RB01, RB02b, Rut29i, GR89]. **Gasen** [RM00b]. **Gases**



[Cha12, Rut97a, RM00b, RM00a, RM01, Tho03, Tho06, TT33, TT69, Rön58, Rut97c, Rut01e, RN13, Rut24e, Rut24f, Rut24g, Rut24h, Rut26i, Rut26j, Rut26k, Rut26l, Rut29b, Rut29c, Rut29d, Rut29e, TR96, YHS97].  
**Gathering** [Ano37]. **Gauging** [CCR85]. **Gauthier** [Pia24].  
**Gauthier-Villars** [Pia24]. **Ge** [TJRS03, Phi83]. **géant** [Bro62]. **Geburtstag** [HM31, SR37]. **Gedächtnis** [Har38]. **Gedächtnisrede** [SR37]. **gehaltenen** [Sod02]. **Geiger** [Kor12, Ano71b, Boa07, Glo20, Kor12, TGMR74].  
**Geiger-Müller** [Kor12]. **General** [NM12, RN04, Hei34, Wer23]. **générales** [Hei34]. **generation** [RR12, Rut16e]. **generations** [Ada72]. **Genius** [Ree08, Cam09, Mac11, Wil83a, Sei86, Stu85, Tre85]. **geniuses** [Mil95].  
**gente** [Sno68]. **geodynamics** [EMR07]. **Geometrical** [Liv62]. **geometries** [SML91]. **geometry** [DM96]. **geophysicists** [Bow14, Goo10]. **geopolitical** [Ree15a]. **George** [Bur64, Sno67, Sno68, Ano59, Har01, O'H75]. **geringer** [Rut05j]. **German** [Ano31a, Arr06, BR11a, BR11c, Büh98a, Büh98b, CSW97, FH60, Gam28, Gam29b, Gei38a, HM31, HS39, Har38, Hou30, Kor12, Lüd13, MMKS<sup>+</sup>80, Pol60, RM00b, Rut00e, Rut01b, RS02b, RA02a, RG02a, Rut02c, Rut02d, RS02a, Rut02e, Rut03b, Rut04b, Rut04a, Rut05j, Rut05b, Rut06i, Rut07g, Rut07a, RL07, Rut08c, Rut08d, Rut08b, Rut09b, Rut09c, RG09b, RG09a, Rut09d, Rut10a, Rut10b, Rut11e, Rut11h, RR12, Rut13b, RR13a, Rut13g, Rut21d, Rut24a, Rut24b, Rut31d, Rut31c, Rut32b, Rut36f, Rut15, Sod02, SR37, Som38, Tho08a, Tre74b, vdB07, vdB13, vW35]. **germanium** [Sku89]. **Geschichte** [FH60]. **Geschwindigkeit** [Rut07g].  
**Geschwindigkeiten** [RR13a]. **GeSe** [REJ86]. **get** [Jar08a, Jar08b].  
**gettering** [HHAMS93, NFM<sup>+</sup>07]. **GeV** [Wil74]. **Giant** [FR13c, Gen95, McK62]. **Giants** [MD67]. **gin** [Spe19]. **Giroux** [Dys05].  
**Giuseppe** [Bel82]. **given** [Rut15e]. **Giving** [Ano32a]. **glancing** [WZS<sup>+</sup>91].  
**Glasgow** [Sod02]. **Glass** [Rut09f, DJBW83, Rut10g]. **glasses** [STB<sup>+</sup>01].  
**Glimpsing** [Cat12]. **global** [Ree15a]. **glorious** [How58]. **Glow** [Jor16].  
**Glowing** [Rut01f, Rut01a, Rut08e]. **goal** [Ano19]. **Goettingen** [Rut31b].  
**Gold** [Gre07, HHAMS93, LHNG14, Man82]. **golf** [Man76]. **good** [Bat72].  
**Göttingen** [Lüd13, Sme97b]. **Goudsmit** [Lak96]. **grandes** [Mon66].  
**Graphite** [ERM95, ESRDV84]. **Gratulation** [SR37]. **Gravitation** [RC19].  
**Great** [Ano37c, Cle19, Cro01, HT10, Rut33b, Sha87a, Bat72, Bod20, Bre97, Büh98b, Gri09, Kae48, Nix19, Wad20, Wei70, Whe18]. **great-great** [Nix19].  
**Greater** [Pye78]. **Greatest** [Ano32c, Foc37, Focxx, Sat18, Ano37d]. **green** [Wil15]. **grosser** [Rut31d, Rut31c]. **Group** [Dys05, Far01, Rut12e, Cat04].  
**Groups** [RWWW30]. **grown** [KIS<sup>+</sup>89, ZCS<sup>+</sup>12]. **Growth** [OaHNM98, Zim69a, Zim69b, DGC07, FGM<sup>+</sup>00, HV84, HGM<sup>+</sup>94, KSKF93, SDD<sup>+</sup>08, YKH<sup>+</sup>84]. **growth-mode** [KSKF93]. **GsSb** [Sar79]. **Guest** [Ano09a]. **Guide** [Dro20, Rod19]. **Guthrie** [Rut26f]. **Guy** [Sei86, Sen87, Stu85]. **Gwyn** [Hei08, Rut15c].

**H** [Ano64, Pia24, Sno67, Sno68, YKH<sup>+</sup>84, YKH<sup>+</sup>84]. **H.** [Hei74, Rut16a].  
**Haas** [Pia24]. **Hadron** [Giu12]. **hafnium** [IYT<sup>+</sup>09]. **Hahn**

[CSW97, CSW97, Hah67b, She83a, She83b, Tre83]. **Hails** [Ano38b]. **hall** [NL00, Ano09a, CYM<sup>+</sup>03]. **haloes** [JR13]. **Hammarskjöld** [Sno67, Sno68]. **Handbook** [Rut13b]. **Handbuch** [Rut13b]. **Hans** [Glo20]. **hard** [CK33, Rut33i]. **hardback** [Pip01]. **Hardy** [Sno67, Sno68]. **Harnessing** [Sla13]. **Harriet** [DeB19, Ged16, Mor84, Nix19, RCRC92, RC04, RCRC05]. **Hartcup** [Sei86, Sen87, Stu85]. **harvest** [Bra09]. **Haven** [Bro86, Hei71, Szy85]. **Hawking** [Ano18f, Cro01, Sat18, Wal18]. **headquarters** [Bri31]. **Heal** [Sta03]. **Heat** [Rut05l, RR12]. **Heating** [RB03a, RB03b, RB04a, Rut04e, RB04b, RB04c, RB05c, RR13c]. **heavily** [Lu87]. **Heavy** [OKR33, OHR34a, OHR34b, Rut33c, RK34, RSA<sup>+</sup>34b, RSA<sup>+</sup>34a, Rut38f, GHCA91, RRKH94, RR95, Rut37e, Rut37f, Lor70f]. **heavy-ion** [GHCA91, RR95]. **Heights** [Ben20]. **Heilbron** [Bad04a]. **Heinrich** [BHN98]. **Heisenberg** [Lak96, Bre97]. **Held** [Bir61, Meh73, Tre75b, CCJ<sup>+</sup>34, LRdB<sup>+</sup>23, Sod02]. **Helium** [Ano08a, Ano32b, BR11a, BR11c, Rut03a, RB09, Rut31f, Rut37d, Rut66a, Lor70a, BR11d, BR11b, BVI88, KY11, Rot74, RC27, BR11b]. **helium-**[BVI88]. **helium-ion** [KY11]. **Hendry** [Stu85, Sei86]. **Henri** [Gen95]. **Henry** [Eck20, Hei08, Jew19, Ole81, FF17, Rut15c, Rut37a, Rut14]. **her** [Ged16]. **here** [Bre97, Kay63]. **heritage** [Wil17]. **Hertz** [BHN98, Gea14a, Gea14b, Hon98]. **hervorgerufene** [RA02a]. **hexafluorophosphate** [OHN<sup>+</sup>09]. **HfO** [NJS<sup>+</sup>03, NFM<sup>+</sup>07]. **HfSiON** [MBS<sup>+</sup>04]. **Hg** [Con82, WZS<sup>+</sup>91, Win94]. **Higgs** [Kra14a]. **High** [Ano22, EMVK90, HGM<sup>+</sup>94, IYT<sup>+</sup>09, LHB<sup>+</sup>09, Mos12b, Mos13a, Mos13c, Mos14b, NOSK08, Rut94, Rut5 , RP07, Rut27g, Rut28c, Rut29a, Bha82, CFMO12, DGC07, FLP<sup>+</sup>89, HNS<sup>+</sup>11, KB93, NJS<sup>+</sup>03, NFM<sup>+</sup>07, NOH<sup>+</sup>10, NMSK13, OHN<sup>+</sup>09, RR95, Rut24e, Rut24f, Rut24g, Rut24h, TCZY97, Ano37i, Lau37]. **High-Energy** [EMVK90, RR95]. **High-Frequency** [Mos13c, Mos14b, Rut94, Rut5 , Rut28c]. **High-Resolution** [NOSK08, HGM<sup>+</sup>94, IYT<sup>+</sup>09, CFMO12, DGC07, HNS<sup>+</sup>11, NJS<sup>+</sup>03, NFM<sup>+</sup>07, NOH<sup>+</sup>10, NMSK13, OHN<sup>+</sup>09]. **high-temperature** [FLP<sup>+</sup>89]. **Hilger** [Stu85]. **Him** [Ano09a, Ano38b, RCO<sup>+</sup>54]. **Hiroshima** [Pre05]. **Histoire** [Mon66]. **história** [dAMxx]. **Historic** [Ano18c, Coh97, She17, Wal18]. **Historica** [Cle19, Won20]. **Historical** [Seg85, Rön58]. **Histories** [Pei97b]. **historiografia** [dAMxx]. **historiography** [dAMxx]. **History** [Adl97, Anoxxb, Anoxxc, Bal15, Cle19, Dyl20b, Eva96, Gar81, Her72, HHK87, Kap80b, Kri16, Kri19a, O’C17, RN04, Rut19c, Rut23n, Rut24j, Rut33b, Sin81, Stu78, Stu79b, WP85, Ber07, FH60, Glo20, GA71, Har05, Kim02, KHFA67, Leo05, dAMxx, Rut12a, Rut23m, Rut70b, Tod14, Tre77b, WH72, NP38, NP40]. **hit** [Ano18a]. **Hitting** [Kow53]. **Hodder** [Stu85]. **Home** [Ano09c]. **Hon** [dCA37, Boh37, Bra37, Cha37, Coh40, Eve37, Eve39, Eve13, Smi37, Sod37, Swa40, Tho37a, Tho37b, dB32]. **Honorary** [Lüd13]. **Honors** [Ano10]. **honour** [Ano37k]. **honoured** [Ano09b]. **Honours** [Ano66d, O’S71, O’S72]. **hope** [Ten20]. **horse** [Dow08]. **Horvath** [Gri09]. **Hotel** [Wel90]. **Houston**

[Wel90]. **Human** [Boh63, Dys05, SMJ35a, SMJ35b, Boh87]. **hundred** [AK15, Ano95, DMPA08, Mor74]. **Hungarian** [RA45]. **Hunting** [FR18]. **hydrated** [Wan96]. **Hydrogen** [ERM95, Lak96, OKR33, OHR34a, OHR34b, Rut19f, Rut21e, Rut29i, RK34, RSA<sup>+</sup>34b, RSA<sup>+</sup>34a, Rut37d, Lor70c, Til96, BVI88, Eid48, HKH96, Rut33c, Rut34j, Rut34a, Rut34b, Rut34c, Rut34d, Rut34l, Ten20, Ano32b, Rut19e]. **hydrogen-** [BVI88]. **Hypothesis** [Cra84, Stu83].

**Ich** [Büh98a]. **Idea** [Tan77]. **Ideas** [Kae36, Bre97, HT10]. **Identification** [Rut22g]. **identity** [Tem89]. **ignorance** [She17]. **ih** [Rez28]. **ihr** [CSW97]. **ihre** [Mec14, Rut13b, Rut13g]. **II** [Aro65a, RS02b, Rut11h, dR92, Bad05, Coh89, KLL<sup>+</sup>90, LSK<sup>+</sup>88, Mor84, Mos14b, Oli66b, RO99, RS02b, RS02g, RS02c, RS02f, RS02j, Rut04h, Rut06h, Rut08i, Rut09h, Rut11h, Rut19f, Rut20c, Rut21b, Rut22k, Rut26c, Rut26j, Rut27b, Rut28e, Rut29c, Rut30c, Rut35g]. **III** [Ano66e, Coh91, RS02l, Rut19g, Rut20d, Rut21c, Rut22l, Rut26d, Rut26k, Rut27c, Rut28f, Rut29d, Rut30d, Rut35h, Aro66]. **illuminations** [McC19]. **illustrated** [Bri31]. **illustrations** [RA45]. **illusztrációkkal** [RA45]. **im** [Sod02]. **image** [LHNG14, Pye78]. **images** [Tab97]. **IMFP** [Fow83]. **imidazolium-based** [NMSK13]. **imide** [NOSK08, NOH<sup>+</sup>10]. **Immense** [Ano23b]. **Immersion** [KT84]. **implantation** [BPSW91, PAF<sup>+</sup>98]. **implanted** [BKP<sup>+</sup>06, Bha82, CFMO12, FTT96, GRS<sup>+</sup>91, KBvB<sup>+</sup>05, KG91, Rot74, SSWB80a, Sad81, TJRS03, WCGC86, Whi82, ZWJ<sup>+</sup>02]. **Implications** [Ang00, Nia98, NM12, RN04]. **Importance** [Bad71, Ble99]. **important** [Wil15, Won20]. **Improvement** [HNS<sup>+</sup>11]. **Improvements** [BR16]. **InAs** [Sar79]. **inaugurated** [Sie11]. **incidence** [Wan96]. **incident** [BP93]. **incomplete** [Pye78]. **incorporation** [KB93]. **India** [Ano38b]. **Indian** [Rut38c]. **Induced** [Bau73a, GLR06, Bau73b, CBZ<sup>+</sup>12, RKL88, RA02a]. **Industrial** [All64]. **inelastic** [Fow83]. **Infecting** [RMM<sup>+</sup>29]. **Influence** [Kae39, SG85, SLA<sup>+</sup>00, Bad87, DMV<sup>+</sup>96, Rut01b]. **infrared** [Sin93, TGDS99]. **InGaN** [PPA<sup>+</sup>02]. **InGaN/GaN** [PPA<sup>+</sup>02]. **initial** [DGC07, HV84]. **injustice** [CSW96]. **Inner** [Ree06]. **Innocence** [Stu18]. **Innovation** [Whe18]. **InP** [Phi83]. **Inquiry** [Gib19]. **Inscribing** [Dea03]. **institut** [CCJ<sup>+</sup>34]. **Institute** [CCJ<sup>+</sup>34, WH72, EC13, Rut13e, Whe18]. **Institution** [Rut36h]. **Int** [Rut05c]. **integrated** [Gro89]. **Intense** [Rut27g, Rut30i, FLK92, LSK<sup>+</sup>88, SML91, YHS97]. **intensité** [Rut06b]. **Intensity** [Rut06b, Rut06n]. **Interaction** [CK33, Rut33i]. **intercalation** [ESRDV84]. **Interdiffusion** [IFSI94, FIY<sup>+</sup>99]. **interdiffusions** [SCP<sup>+</sup>91]. **Interest** [Bar71]. **Interface** [KSKF93, PCK<sup>+</sup>08, AT886, HV84, IOI<sup>+</sup>11, NJS<sup>+</sup>03]. **interlayer** [LCL<sup>+</sup>04, PCK<sup>+</sup>08]. **intermixing** [PPA<sup>+</sup>02]. **International** [Bir61, CDE<sup>+</sup>31b, Dys05, Hay63, Meh73, Raz63, Cat04, CCJ<sup>+</sup>34, Kat15, Rut11b, Rut14j, CDE<sup>+</sup>31a, CDE<sup>+</sup>31c, Rut13c, Rut13d, Rut13e, Rut14l].

**Interpretation** [Ano94, Rut34o, Stu94, Bab71, Sod08, Sod20, Sod22, Sod04]. **Interpreter** [Rus56a]. **Interred** [Wal18]. **Intra** [Sod13]. **Intra-atomic** [Sod13]. **Introduction** [She83a, Rön58]. **invention** [Kat12]. **inventory** [KHFA67]. **Invents** [FR13f]. **inverse** [HBA77]. **investigate** [HW92]. **investigated** [CBZ<sup>+</sup>12, SPL<sup>+</sup>08]. **Investigation** [BPSW91, ERM95, STB<sup>+</sup>01, TMO<sup>+</sup>95, WZS<sup>+</sup>91, WV07, RS02k, RS02j, RS02l, RS02m, RS02i]. **Investigations** [Rut11h]. **Ion** [Bau73a, EMVK90, RM00b, RM00a, RM01, vBBGO90, vBBD<sup>+</sup>92, Bau73b, BPSW91, Cle81, CSN<sup>+</sup>00, DJA<sup>+</sup>04, DBvdV87, FLK92, FTT96, GHCA91, Gro89, HKH96, KBvB<sup>+</sup>05, KY11, LSK<sup>+</sup>88, MB90, NMSK13, PAF<sup>+</sup>98, RRRKH94, RR95, Reu81, STB<sup>+</sup>01, SML91, TMO<sup>+</sup>95, TF89, TJRS03, Wil83b, WVD<sup>+</sup>96, vBD89]. **ion-beam** [FLK92, SML91]. **ion-beam-synthesized** [WVD<sup>+</sup>96]. **ion-implanted** [KBvB<sup>+</sup>05]. **ion-induced** [Bau73b]. **Ionen** [RM00b]. **ionic** [NMSK13]. **Ionisation** [RA02a]. **Ionization** [RA02b, RA02a, Rut02a]. **Ions** [MR14, OKR33, Rut01a, RRRKH94, Rut97c, WZS<sup>+</sup>91, Wan96, ZB74]. **iridium** [And90]. **Iron** [Rut94, Rut5, TMJ<sup>+</sup>99, WCGC86]. **Irradiated** [HS89, LxW99]. **irradiation** [HS39]. **ISBN** [Bro86, Ced00, Pip01, Stu85]. **Iskusstvennoe** [Rez23, Rez25]. **Island** [Lig18, HZ15]. **Isolation** [Jen85]. **Isotope** [OKR33, RK34, Tan77, Eid48, Gan18b]. **Isotopes** [HS89, Rut37d, Wil64]. **Italian** [Car98, Seg76]. **Italy** [Meh73]. **IV** [dR92, Mos13b, Coh92, Far01, RS02m, Rut03h, Rut19h, Rut22m, Rut26e, Rut26l, Rut27d, Rut29e, Rut30e, Rut35i, Rut10a]. **IX** [RG08e]. **Izbrannye** [Rez71, Rez72].

**J** [Ano32b, Gar81, Hay63, Hei74, Ihd64, Kub11, Mon66, Pia24, Rön58, Rut16a, Stu78, Whe04]. **J.** [Bad04a, Ble02, Kub11, Raz63, See65, Whe04]. **jadra** [Rez28, Rez29, Rez32]. **Jahr** [Lüd13]. **Jahre** [Sod02]. **Jahres** [Tho08a]. **James** [Ano64, Aro66, Bro97, Coc63, Osg66, Poo52, Sch31, Seg62, Seg64, Seg66]. **Jan** [Rut08g]. **Japan** [Tan77]. **Jeans** [Ano38b]. **Jeffreys** [Rut15c, Hei08]. **jelementov** [Rez23, Rez25]. **jetzt** [Büh98a]. **John** [Ano60, Ble57, Ced00, Her01a, Her01b, Sei86, Stu85, EMR07, Pip01]. **Johnstone** [O'H75]. **Join** [Ano18f]. **Journal** [Anoxxc, Bal15, Anoxxc]. **journals** [Bey49]. **Journey** [FR13j, Lev17]. **Journeys** [Dyl20b]. **Jubilee** [Bir61, Hay63, Raz63, Rut38c, Gea62]. **July** [Lov75, TGMR74, Tre75b, Wyb72, Ree06, TGMR74]. **Jun** [Rut15i]. **June** [Rut33h]. **Junior** [Rut33h]. **justification** [Tre74a].

**Kamerlingh** [Pia24]. **Kapitza** [Ano66a, Bad85a, Bro86, Rub97, Vuc86, Szy85]. **Karlsruhe** [EC13]. **Kay** [Ano45, Hug08]. **Kelvin** [Ano33c, EMR07, Tip13]. **Ken** [Stu79b]. **Kendall** [Ano22]. **Kepler** [Liv62, Sta61]. **Kernmassen** [vW35]. **Kernspaltung** [CSW97]. **Kernstruktur** [Rut21d]. **keV** [HKH96]. **Key** [Pae15a]. **Kinetic** [NBG<sup>+</sup>84]. **Kinetics** [Lee98, Stu00, HV84, SDD<sup>+</sup>08]. **King**

[Eck20, Jew19, Ano37j]. **Kissinger** [SDD<sup>+</sup>08]. **Kiwi** [Ano19a, Wad20]. **knew** [Kat12, RCO<sup>+</sup>54]. **Know** [Ano21, Böh98a]. **Knowledge** [Boh63, Cle19, Boh87]. **Known** [Ano07]. **Konstanten** [Ano31a]. **Konstitution** [vdB13]. **Kremlin** [Bad85a, Bro86, Szy85, Vuc86].

**L** [Ano66a, Bad04a, Kap66b, Pia24]. **lab** [Ano18c]. **Laboratories** [Ano12b, Ear66, Har07, Bri31]. **Laboratory** [Ano32b, Ano45, DBE<sup>+</sup>85, Hug08, Kay63, LEM65, Woo46, Ano09c, Bad83, Bod20, GW73, Tre79a, Ano32c, Ano66e, Cro74d, Cro74e, Kim02, Nav06, Rut19c, Osg66]. **Laborde** [Mon66]. **Laby** [Dea03]. **Ladung** [Rut08c, Rut08d, RG09a]. **laid** [CS19]. **Langevin** [Kat12]. **large** [GM13, Gro89, Giu12]. **laser** [DJBW83, KKK<sup>+</sup>99, Sad81, Ten20]. **Lasers** [Shi88]. **Last** [Ano38b]. **lastly** [dR92]. **Late** [Ano38b, Foc39, MSB<sup>+</sup>37, Wal18, Ano37]. **lateral** [WZS<sup>+</sup>91, Wan96]. **Latest** [Ano32a, Rut09d]. **Latex** [LGA<sup>+</sup>06]. **l'atome** [Mon66]. **Lattice** [RSdS<sup>+</sup>89, TJRS03]. **launch** [Spe19]. **Laura** [Mon66]. **laureate** [How58]. **Law** [Rut34o, Ram75, RC25]. **Lawrence** [Bro86, Fea70, Hei71, Jen08, Oes70, Ole81, Szy85, Tre77a, Vuc86]. **laws** [GM13, Sta61]. **Layer** [LFA<sup>+</sup>04, LCL<sup>+</sup>04, WVH<sup>+</sup>99, WYV<sup>+</sup>99, WCZ<sup>+</sup>02]. **layers** [FLP<sup>+</sup>89, IOI<sup>+</sup>11, MB90, Sad81, WVD<sup>+</sup>96, ZCS<sup>+</sup>12, vIS89]. **lead** [WVCW76]. **Leadership** [Kim02]. **leading** [Cam19, Cro01]. **Leads** [Ano32a]. **learn** [Bod20]. **Learning** [Rut36k, Rut36g, Rut36j]. **Learns** [Ano06]. **leaves** [Ano07]. **Lebenswerk** [Gei38a]. **Lecture** [dCA58, Ano66a, Boh61, Kap66b, LEM65, Rut26f, Rut31b, Rut36h, Rut37a, Sme97b, NL00, Rut33h, All64, Ano09c, Bla59, Bra61, Bur83, Bur82, Cha33, Cha54, Coc53, Dar56b, Dee67, Fea77, Fow72, Mar54, McG84, Moo78, Mor75, Mot63, Pei53, Rut04l, Rut05p, Rut20g, Rut21d, Rut14, Sho82, Tho65, Tiz46b, Zim69a, Zim69b]. **Lectures** [Rut12a, VRWB12, NP38, NP40, RCO<sup>+</sup>54, Sod02, dB14, Ano12a]. **LEED** [Nor79, NBG<sup>+</sup>84]. **Legacy** [Ano17d, Eck20, Jew19, Lon16a, AK11, Har05, TJ11]. **Legendary** [Ben20]. **LEGO** [Whe18]. **leicht** [Rut03b]. **Leipzig** [Mos13b]. **length** [Rut14f]. **lente** [Rut05g]. **Lenz** [Agu96, BB80, Far87]. **Léonidovich** [Rub97]. **lessons** [Bod20]. **letiju** [Kap73a]. **Lett** [Hwa83]. **Letter** [Ale46, Mos14a, Rut26a, Rut35a, Shi88, Tre79b]. **Letters** [Coh40, Coh88, Coh89, Coh91, Coh92, Fea70, Hei71, Oes70, RSWE27, Swa40, Szy85, dR92, Ano36b, Bad69, Eve39, Eve13, Hei74]. **levels** [dAMxx]. **LHC** [Wei11]. **L'histoire** [Mon66]. **LI** [Rut19e, Rut21g, Rut27]. **Library** [Ble57]. **Life** [Anoxxb, Coc46, Coh40, Eck20, Jew19, Mar54, MF11, Rut23m, Rut23n, Rut23o, Rut24j, Rut70b, Swa40, Ano20b, Ano18b, Cam15, Cro01, Eva39a, Eva39b, Eve39, Eve13, Gei38a, Hei74, How58, Sim96, Ree16]. **Life-history** [Rut23m]. **Light** [Cha12, CR12, OKR35a, Ree06, Rut98, Rut19a, Rut19e, Rut19f, Rut19g, Rut19h, Rut19b, RC21b, Rut70a, Rut10a]. **Lightman** [Dys05]. **LII** [Rut19f, RC24c, RC27]. **LIII** [Rut19g]. **Like** [Ano19, Böh98a]. **likened** [Ano38b]. **Limit** [Ano32c, Kra13]. **limiting** [vBD89]. **limits** [RR95]. **LiNbO** [RSdS<sup>+</sup>89]. **Lineage** [Ano99]. **link** [Ano09c]. **Linus** [Gri09]. **Lipson**

[Ano64]. **Liquid** [Ano94, Stu94, LGF<sup>+</sup>99]. **Liquid-Drop** [Ano94, Stu94]. **liquids** [NMSK13]. **Lise** [Büh98b, CSW97, Büh98b, CSW97, Sim96]. **list** [Ano18a]. **Listening** [BC16]. **lists** [Gri09]. **Literature** [AH13, HT10]. **Lithium** [CW32, OKR33]. **LIV** [Bol05, Rut97c, Rut19h]. **lives** [Bre97, Dow08]. **LIX** [Rut94, RS03a, RR13f]. **LL.D** [How58]. **Lloyd** [Sno67, Sno68]. **location** [RSdS<sup>+</sup>89, TJRS03]. **locking** [HZ15]. **Logic** [GRS87]. **London** [Bur64, Hei71, Stu85]. **Long** [DeB19, RW16, RWL31a, RLB33, Rut21g, RC24c, Rut31c, Rut16d, Rut31d]. **Long-range** [RW16, Rut21g, RC24c, Rut16d]. **look** [Kru75]. **looked** [Fei11]. **looks** [Büh98a]. **Lord** [dCA37, Ano37l, Ano38c, Ano64, Ano66e, Aro65a, Aro66, Boh37, Bra37, Bur64, Bur38, Cha37, Coc63, Coh40, Dav37, Eve37, Eve39, Eve13, Gei38a, Har38, Osg66, Seg62, Seg64, Seg66, Seg80c, Smi37, Sod37, Swa40, Tho37a, Tho37b, dB32, dCA38, Ano33d, Ano36a, Ano37d, Ano37c, Ano37b, Ano37e, Ano37h, Ano37i, Ano37f, Ano37g, Ano37k, Ano38a, Ano38b, Ano46a, Ano46b, Ano50, Ano66a, Ano09a, Bru64, Cha65, Cha14a, Cha14b, Cha14c, Cra71, Cro35, Dal50, Dav37, EC38, Fea40, Fea73a, Fea73b, Foc37, Foc39, Gei38a, Geo38, Gué38, HM31, Har38, Jac72, Jar08a, Kap66a, Kap66b, Kap73b, Kap80d, Kay63, Lau37, Man76, MSB<sup>+</sup>37, Mil38, Mol63, Mur13, Rus37, Rus51, RC62, Sme97b, Som38, Tho08a, Tho08b, Tho70, Tiz46a, Tod14, VPW14]. **Lorentz** [Pia24]. **Loss** [Rut23k, MB90, Rut24l]. **Lost** [Kri16]. **Louis** [Rut05c]. **Love** [AH13, FF17]. **Low** [Ang00, Bha82, DYF67, HKH96, Kri16, Rut30i, BVI88, DJA<sup>+</sup>04, DHS97, Hwa82, Hwa83, KB93, LCL<sup>+</sup>04, MDJF83, Rut24e, Rut24f, Rut24g, Rut24h, WM88, YHS97, Yuh92]. **low-** [MDJF83]. **Low-Energy** [DYF67, HKH96, Kri16, BVI88, WM88, Yuh92]. **low-pressure** [Hwa82, Hwa83, YHS97]. **Low-temperature** [Bha82, LCL<sup>+</sup>04]. **Lowood** [Ole81, Ole81]. **Luis** [Ree16]. **luminescence** [KG91]. **Luminosity** [Rut10f]. **LV** [BR11d]. **LVII** [GR12, RN13, RR14, Rut14e]. **LVIII** [RB05c, RG11]. **LX** [RS03b, Rut03g]. **LXI** [GM13]. **LXIII** [JR13, Rut04n]. **LXIV** [RS02g]. **LXV** [Eve05]. **LXVII** [Rut09j]. **LXVIII** [RR08d]. **LXXIII** [Rut07b]. **LXXIX** [Rut11i]. **LXXV** [GF10, Rut02a]. **LXXVI** [RG10, RR13d]. **LXXXII** [RR13b]. **LXXXIV** [RS02c]. **LXXXIX** [RC21b].

**M** [Lov76, Mon66, Pia24, Whe04, Gro89]. **M.** [Ano81, Coh40]. **M.A** [How58]. **m.b.H** [Mos13b]. **Macdonald** [Eve06]. **Mach** [SR37, SR37]. **MacLeod** [Eck20]. **Macmillan** [Dav37]. **Madame** [Rut34f]. **Made** [Ano19, Ano32b, Cli87, Clo18, Mer96]. **Madison** [RFF<sup>+</sup>01]. **Magic** [Cho01]. **Magnetic** [Mur13, Rut96b, Rut97b, Rut06c, Rut27g, Rut30i, RLB33, RWLB33, HZ15, KLL<sup>+</sup>90, LSK<sup>+</sup>88, Rut96a, Rut03b, Rut03f, Rut95, RG02a, Sho82]. **magnetische** [Rut03b, RG02a]. **Magnetization** [Rut5, Rut94]. **magnetron** [Cat93]. **magnitudes** [Rut09k]. **Maine** [Lig18]. **make** [Mil95]. **Makes** [Ano08a]. **Making** [Ano19, Bal15, CAN88, Dea03, Sla13, Cam14, Ano32c]. **Man** [Ano32a, Bro73a, Eva39a, Eva39b, Kae39, Oli72b, Rut24i, Bat72, Fei11,

Lew02, Moo66, Sch57, Whe18]. **Manchester**  
 [Ano64, Bir61, Bur64, Har07, Hay63, Raz63, Seg64, dCA68, Ano07, Ano08b, Ano08f, Ano09a, Ano12b, Ano17d, Bir62, Bir63, Fea62b, Gea61, Gei38b, Hug08, Kat15, Kri19b, Kri19a, Lon16b, Rus51, RC63, Ano64, Ihd64, See65, Aro65a]. **Manhattan** [Ben20, Ree15a, Sch15]. **Many** [DeB19, Kae36]. **mapping** [NL00]. **March** [Ano17]. **Marchal** [Bro62]. **Maria** [DMPA08]. **Marie** [Gri09, Pre05, Rut35j, SG85]. **Mario** [Sin81, Stu79b, Whe80]. **Mark** [Bat72, Tre73]. **marked** [Ano17c]. **Marking** [Cat12]. **Marsden** [dCA68, TGM74]. **Mass**  
 [Gam30, RH06a, Rut37d, BPSW91, Cle81, CSN+00, Eid48, Gro89, NMSK13, Reu81, Rut06m, Rut07g, RR13a, RR14, Rut21g, Wil83b, vW35, RH06b]. **Massachusetts** [VRWB12]. **Masse** [RH06a, Rut07g, RR13a]. **Masses** [OKR35a]. **Material** [JBS12]. **Materials** [Rut03c, FLP+89, SBEO86]. **Materie** [Rut24a, Rut24b]. **Mathematical** [Rut09i]. **Matin** [Ano19]. **matrix** [LRF86]. **Matter**  
 [Ano08a, Ano32a, Fre79, Rut06k, RG08e, Rut12f, Rut22f, Rut22p, Rut23l, Rut23r, Rut23q, Rut26h, Rut38d, Rut38e, Tre75b, Whe04, FR33, Rut06l, Rut11i, Rut15m, Rut15n, Rut20b, Rut20c, Rut20d, Rut21a, Rut21b, Rut21c, Rut22e, Rut23s, Rut24a, Rut24b, Rut25b, Rut25i, Rut28d, Rut28e, Rut28f, Rut30g, Rut34e, Rut70h, Rut12, Wyb72, Rut13c, Rut13d]. **Max** [Lüd13, Lüd13, Rut29f, Ole81]. **Maximum** [RBR15]. **Maxwell** [Lon16a]. **May** [Ano32a, Ano06]. **Mayes** [Whe18]. **Maynard** [Lov75]. **MBE** [BBR80]. **McGill** [Ano09b, Eve06, Ano07, Bad79a, Fea62a, Hah62, Hei79b, Lon16b, Mor84, Sha37, Sod03, Ter38, Tre79a]. **McTavish** [Wil15]. **Mean** [Jen11, Fow83]. **Means** [Mos12b, Rut37b, Yuh92, vBD89, vBBGO90]. **measured** [HKM+09, SER+01]. **Measurement**  
 [Boa07, vBD89, HKH96, YKH+84]. **Measurements**  
 [MG12, Bur86, CYM+03, DBvdV87, KKGW85, LSK+88, Rut11e, SDD+08, vBBGO90, vBBD+92]. **Measuring** [KB93, Mar61, Rut16e, SBEO86]. **mechanical** [Bai13, SC13, Tem89]. **Mechanism** [FW67, YKH+84]. **Medal** [Ano36a, Ano46a, Ano18e, Tes19]. **Medical** [DMPA08, Pod10a]. **Medientransformation** [Lüd13]. **Meet** [Gan18a]. **Meeting**  
 [Ano38b, CCJ+34, Kri19b, Rut27e, Rut27j, Rut28a, Rut28g, Rut29j, Rut29k, Rut30a, Rut30h, Rut31a, Rut31e, Rut38c, LRdB+23, Ril70]. **meets** [Bou99]. **Meitner** [CSW97, Büh98b, CSW97, Sim96]. **memoir** [Lov76]. **mémoire** [Rut12c]. **Memorial** [All64, dCA58, Ano18e, Bla59, Boh61, Bra61, Bur83, Bur82, Cha54, Coc53, Dar56b, Dee67, Fea77, Fow72, Mar54, McG84, Moo78, Mor75, Mot63, Rut37a, Rut14, Sho82, Tiz46b, Zim69a, Zim69b, SR37, Ter67]. **memoriam** [Har38]. **Memories** [Dal50, Gei38b, Hug08, Rut32b]. **Memory** [Kap80c, Ano37k]. **Men** [Cli87, Rut33b, Sno67]. **Mercury** [Far87]. **Messungen** [Rut11e]. **Métadier** [Mon66]. **Metal** [Mar61, Her84]. **metallization** [Kot91]. **Metallurgy** [GRS87, KT84]. **Metals** [Mot63, Sho82, HS39]. **Metamorphosis** [Tre75d]. **Method** [RG08a, RG08e, RC12b, RWWW30, RLB33, FLK92, KIS+89, Rut03h,

RG08c, RG09b, RC12a, Rut16e]. **Method**e [RG09b, RG08c, RC12a].  
**Methods** [SN05, BSS88, Rut15d, RA45]. **methylimidazolium**  
 [NOH<sup>+</sup>10, OHN<sup>+</sup>09]. **MeV** [RRKH94]. **Mg** [SHAI09, TMJ<sup>+</sup>99]. **Mg-rich**  
 [SHAI09]. **MgO** [FIY<sup>+</sup>99, HGM<sup>+</sup>94]. **Michael** [Gus12]. **microanalysis**  
 [NBG<sup>+</sup>84]. **microprobe** [GR89]. **MicroReviews** [Hub13]. **microscope**  
 [Tab97]. **Microscopic** [RMM<sup>+</sup>29]. **Microscopy**  
 [OaHNM98, BKP<sup>+</sup>06, CSN<sup>+</sup>00, FGM<sup>+</sup>00, FIY<sup>+</sup>99, IFSI94, Ish83, KY11,  
 LHNG14, Lu87, Par96, Phi83, Rei79, SSWB80b, SSWB80a, Sad81, Wil83b].  
**middle** [Cot10]. **Midwest** [RSWE27]. **Mighty** [Ano32a]. **Miles** [Ano23b].  
**Millikan** [Pia24, SR37, SR37]. **mind** [HJS70]. **Minerals**  
 [Hol30, RB05b, RB06a, RB06b, GF10, RB05a]. **minéraux** [RB06a]. **Mining**  
 [Whe18]. **minute** [Eve05]. **mirabilis** [Hug00]. **Miracle** [Ano23a, Sla13].  
**Miramare** [Meh73]. **mirror** [HW96, SHAI09]. **Misdated** [Tre79b]. **missed**  
 [EMR07, Tem89]. **Missing** [Rut22g]. **mistakes** [Mil95]. **mittels** [HS39].  
**mixing** [PCK<sup>+</sup>08]. **mixtures** [NMSK13]. **Mobilizing** [Hag17]. **Mode**  
 [HZ15, KSKF93]. **Model** [Ano94, Bur18, Pod10b, Sch13, Stu86b, Stu94,  
 Til96, Wer23, Bur13a, Bur13b, Bur15, Pol60]. **Modelers** [Lak96]. **modeller**  
 [Whe18]. **Models** [Hug90, Lak96, Mos14a, Bai13]. **Modern**  
 [Anoxxa, BHN98, Gib19, Kri16, LSN<sup>+</sup>09, Mor18, Sla13, Bod20, Bra09, Mac11,  
 NP38, NP40, Seg80a, Rez38]. **Modes** [Hon98]. **Modification** [SHCK96].  
**Modified** [Ear66, Fel19]. **módszerei** [RA45]. **Molecular**  
 [NOSK08, Rut29b, Rut29c, Rut29d, Rut29e]. **Molecules**  
 [Rut14a, Rut10a, Rut10b, Rut14d]. **Molekeln** [Rut10a, Rut10b]. **Molkule**  
 [Mos13b]. **moments** [Büh98b]. **Mon** [dB70]. **Monolayer** [KOhM94]. **Monte**  
 [BPSW91]. **Montreal**  
 [Seg62, Stu79b, Ano09b, Eve06, FR13e, Hah62, Hah67a, Pye78, RC62, Tre83].  
**Moon** [Tre76a]. **Moonshine** [Jen11]. **Morningside** [Ben20]. **Moscow**  
 [Ano37]. **Moseley** [FF17, Hei74, Hei08, Jaf71, Jaf72, Rut15c, Rut16a,  
 Rut25c, Sar27, Eck20, Jew19]. **Mössbauer** [DMV<sup>+</sup>96]. **Most**  
 [Kha20, Ber07, Jen08, LSN<sup>+</sup>09, MB<sup>+</sup>85, Won20]. **Mother** [FF17, Ano36b].  
**motions** [Rut29b, Rut29c, Rut29d, Rut29e]. **Moving** [Wei72, Wei85]. **Mr.**  
 [Ano45]. **MST** [HFD<sup>+</sup>99]. **Müller** [Kor12, Kor12]. **multicusp** [DJA<sup>+</sup>04].  
**multilayer** [SSWB80b]. **multilayers** [KSKF93, PMCF<sup>+</sup>06]. **multiple**  
 [PPA<sup>+</sup>02]. **My** [dR92, Cam97, Wil60, Coh88, Coh89, Coh91, Coh92, dB70].  
**Mylar** [BP93]. **Mysterious** [Dys05]. **Mystery** [Ano32a, FR13j].  
  
**N** [Aro65b, Opp64, Pia24, Rön58, WZS<sup>+</sup>91, Mon66, RR95, WVH<sup>+</sup>99]. **nach**  
 [Ano31a, Sod02]. **Nachruf** [SR37]. **Nachweis** [HS39]. **NaCl**  
 [MKM<sup>+</sup>07, HKM<sup>+</sup>09, Rei79]. **Nagaoka** [Bad67, Bad85b, Hei67]. **Name**  
 [Ano17b, VPW14]. **Names** [Sto97]. **Naming** [Bro18, Stu86a]. **Nanocluster**  
 [Par96]. **Nanocomposites** [LFA<sup>+</sup>04]. **Nanoparticle** [WMT01, LHNG14].  
**Nanoscale** [LHB<sup>+</sup>09]. **nanosized** [DMV<sup>+</sup>96, FGM<sup>+</sup>00]. **narrow** [MBS<sup>+</sup>04].  
**nas** [dAMxx]. **Nations** [Ano37j]. **native** [Win94]. **Natur**  
 [RS02b, RS02a, Rut08c, Rut08d, RG09a, Sod02]. **Natural**



[Rut24k, RW25, FH60, Leo05, Rut24m, Rez25]. **Nature**  
[dCAH64, Aro65b, Opp64, Ree08, Rut04f, Rut08a, RG08d, Rut08f, RR08e,  
RR09c, RR09a, RR09d, dCENdCA64, Meh73, RS02b, RS02g, RS02c, RS02f,  
RS02a, RS02h, RG08b, Rut08c, Rut08d, RG09a, RR09b, RC24c, Sod02,  
Wen53, RR09a, Bal15, Bal19]. **Naturwissenschaft** [FH60]. **naucnye**  
[Rez71, Rez72]. **Nb** [KKK<sup>+</sup>99]. **Neale** [Stu79b]. **Near**  
[MKM<sup>+</sup>07, Kae36, KBvB<sup>+</sup>05, GHCA91, RR95]. **Near-Surface**  
[MKM<sup>+</sup>07, KBvB<sup>+</sup>05, GHCA91]. **Needs** [Rut19c]. **neglected** [EMR07].  
**Nekrolog** [Som38]. **nella** [Seg76]. **Nelson**  
[dCA37, Ano36a, Ano46a, Ano64, Ano66e, Ano66b, Aro65a, Aro66, Bad04b,  
Boh37, Bra37, Bur64, Cha37, Coc63, Eva39a, Eva39b, Eve37, Har38, M.39,  
Osg66, Seg66, Smi37, Sod37, Som38, Tho37a, Tho37b, dB32, Bad09, Badxx,  
Bru64, Cha65, Cha14a, Cha14b, Cha14c, Cra71, Dal50, Foc37, Gei38a, Har38,  
Jar08a, Mil38, Mol63, O'C17, RC62, Seg80c, Wad20, Seg62, Seg64].  
**neodymium** [KG91]. **neon** [BVI88]. **neon-** [BVI88]. **Neuere** [Hou30].  
**neuesten** [Rut09d]. **Neutral** [KKGW85, Gro89, HFD<sup>+</sup>99]. **neutrals**  
[vBD89]. **neutrino** [Nav06]. **Neutron**  
[Cha32a, Cha32b, Cha33, FR13h, GLR06, Pol91, Rog13, Rut35e, Lor70b,  
Bad83, Bro97, Bur13a, Bur13b, Bur15, HS39, LSN<sup>+</sup>09, LxW99].  
**Neutron-Induced** [GLR06]. **neutron-irradiated** [LxW99]. **neutron-rich**  
[LSN<sup>+</sup>09]. **Neutronen** [HS39]. **Neutrons**  
[Elf14, GLR06, HS89, Clo18, Fel19]. **Newer**  
[Bad66, Dav37, Rut37a, Rut37b, Rut14]. **Newnham** [Rut37a, Rut14]. **News**  
[Ano31b, Fel19]. **Newton**  
[Tho08a, Ano38b, Ano09a, Ano18f, Böh98b, Fea72, Tho08a, Tho08b, Wal18].  
**Newtons** [Böh98b]. **Ni** [AAPN06, SHAI09, SCP<sup>+</sup>91, Wuy91]. **Ni/Au/Te**  
[Wuy91]. **Ni/Si** [AAPN06]. **NiB** [SCP<sup>+</sup>91]. **nicht** [CSW97]. **nickel**  
[BPSW91]. **nickel-implantation** [BPSW91]. **Nicole** [Mon66]. **niece** [Nix19].  
**Niels** [AH13, Bro73b, FK85, Kle10, Moo66, Rub97, SM08]. **Nineteenth**  
[Tho65]. **Nineteenth-Century** [Tho65]. **ninety** [HJS70]. **niobium** [Rot74].  
**nitride** [ATS86, Bur86, Hwa82, Hwa83, Vas90, Wan96]. **Nitrogen**  
[Ano22, Rut19h, RRRKH94, Rut10a, Whi82, Rut19g]. **níveis** [dAMxx]. **No**  
[Ano23b, Ano09c, Kra76]. **Nobel** [Adl03, Ano37i, Clo18, How58, Jar08a,  
Lau37, Adl12, Ano08b, Ano09a, Ano09a, Ano16, Cam00, Cra84, CSW96,  
CSW97, Far53, Far63c, FR13a, Jar08b, Kri19c, Tho08a, Tho08b].  
**Nobelpreis** [CSW97]. **Nobelpreisträger** [Tho08a]. **Nomenclature**  
[Rut10e, Rut13i, RG11]. **Non** [Ole81, RRRKH94, BP93, LMC97, Low79].  
**Non-Rutherford** [RRKH94, BP93, LMC97]. **Non-Technical**  
[Ole81, Low79]. **Nondestructive** [BSS88]. **Normal** [Rut11e, WZS<sup>+</sup>91].  
**North** [Whe18]. **Northern** [Whe18]. **Northumberland** [Ano17b]. **Notable**  
[Kha20]. **Note**  
[Dem03, RS02d, RS02e, Rut05d, Rut11f, Rut12c, Rut29f, Rut16e, Rut05j].  
**Notes** [AG13, Ano02, Cha64, Eic72]. **nötige** [RM00b]. **novel**  
[DM96, Nic32, Rut16e]. **November** [Ano48, Lov75, Rut27e, Rut27j, Rut28a,

Rut28g, Rut29j, Rut29k, Rut30a, Rut30h, Rut37a, Rut14]. **Novodobá** [Rut38b]. **noyau** [Hei34]. **noyaux** [CCJ+34]. **Nuclear** [AK11, All64, dCA56a, dCA56b, dCA58, Ang00, Ano94, Ano00b, Ano11, Anoxxa, Anoxxd, Bad83, BB36, Boh61, Bri65, CT65, DeB19, DMPA08, Dyl20a, Fre12, Gam30, Gea62, Gra64, Hug12, Jen00, Kri16, Kri19d, Lav14, Mas72, Nix19, OKR35b, OKR35a, RCRC92, Rom60, Rom82, Rut20g, Rut20e, Rut66c, Sea88, Seg85, Sei86, She83b, Stu94, Stu18, Ten20, Tre75a, Wat93, Ada72, AG13, And73, Ano17d, Bad05, Bey49, Cam11, Cat93, CAN88, FLP+89, Gan18a, Gar62, GA71, Hei67, Her77, Hug93, Hug00, Kae48, Leo05, MBS+04, NBG+84, Oak19, Pae15a, RCRC90, RC13, Ree15a, Rut21d, RA45, SHAI09, Shi72, STB+01, Sie11, Stu83, WH72, Wen53, Whi82, ZWJ+02, vW35, Rez21, Stu79a]. **nucleation** [FGM+00]. **Nuclei** [BB36, CR12, Gam29a, Rut25a, Rut25g, Rut26f, Rut27f, RAC+29, RCE+32, RJ65, Rut70e, Rut70g, CK33, CCJ+34, Fel19, MDJF83, Rez28, Rut25f, RC25, Rut30b, Rut30c, Rut30d, Rut30e, Rut33i, Rut34g, ZB74]. **nucleosynthesis** [Cot10]. **Nucleus** [Ano06, FR13f, FR13j, Kow53, Kra12, Pei53, Rut70f, Stu86b, Cat12, Gam28, Hei34, Hou30, LSN+09, Pae15b, Rez29, Rez32, Rut24d]. **Nuklearnoe** [Rez21]. **Number** [Dar56b, Mar61, Mos12a, MR14, RG08a, RG08e, Dar56a, GF10, Lee98, Stu00]. **Numbering** [Jaf71, Jaf72, Sar27]. **numération** [RG08c]. **nur** [CSW97].

**O** [Cat93, Coh40, IFSI94, KKK+99, OaHNM98, Rez29, Rez32, FGM+00, FIY+99, IFSI94]. **O.M** [dCA37, Ano36a, Ano37h, Ano46a, Ano66b, Boh26, Boh37, Bra37, Cha37, Cro35, Eva39a, Eva39b, Eve37, Rut28a, Rut28g, Rut29j, Rut29k, Rut30a, Rut30h, Rut31a, Rut31e, Smi37, Sod37, Tho37a, Tho37b, dB32]. **O.M.** [Eve39, Eve13, Swa40]. **Oaks** [Wel90]. **obey** [MDJF83, ZB74]. **Obituary** [dCA37, Boh37, Bra37, Cha37, Eve37, M.39, Rut28b, Rut34f, Rut35j, Smi37, Sod37, Tho37a, Tho37b, Clo18, Dit80, Lab38, Lai37, Mar38, Mil38, Tho70, Ano38c, Bur38, SR37, Som38]. **oblique** [Wan96]. **obras** [dAMxx]. **Observation** [NOSK08, NOH+10, OHN+09, NFM+07]. **observed** [CFMO12, OHR34a, OHR34b, RC24c]. **Obtained** [Ano06, LFA+04, SLA+00]. **Obtaining** [Mos12b]. **October** [CCJ+34, Far01, Stu79b, Wel90]. **octobre** [CCJ+34]. **offers** [Bod20]. **office** [Ano18a]. **Ogni** [Sno68]. **ohmic** [Wuy91]. **Old** [Kae36, NL00, Rut35c, Ano09c, Ten20]. **Oliphant** [Bat72, Sei86, Tre73]. **Once** [Ano32b, Tre75d]. **One** [AK15, Ell60, Gib19, Ano18c, Jar08b, Lew02]. **Only** [Ano32b, CSW97]. **Onnes** [Pia24]. **Onward** [Ano32a]. **open** [Ten20]. **Opening** [Rut09e, RCE+32, RSA+34b, RSA+34a, Rut34g]. **opens** [Ano18d]. **Operation** [Ano37i, Lau37, Ano37c]. **Opinion** [Wil15]. **opportunity** [EMR07]. **Opposition** [Kra11]. **Optical** [CR12, RMM+13]. **optics** [SC13]. **Optimized** [SWZ+05, SML91]. **Optimum** [BELG68]. **Opto** [McG84]. **Opto-Electronics** [McG84]. **Orbits** [Elf14]. **Ordering** [NOSK08]. **Ordinary** [Rut03c]. **Origin** [Ano94, Bad68, Rut07c, Rut07d, Rut07i, Rut15e,

Rut29g, RE31, Rut32d, Rut32e, RB32, Rut88, Stu94, Bol05, Rut07b, Rut07k, Rut08b, Rut12b, Rut12c, Rut12h, RC24c, Rut27l, Rut27h, Rut31d, Rut31c]. **originally** [Bey49]. **origine** [Rut12b, Rut12c]. **Origins** [Cho01, Gea14b, Hug12, Bad79a]. **oscillation** [KY11]. **Oscillations** [Sho82, NBG<sup>+</sup>84]. **other** [Wal18]. **Otto** [CSW97, BW80, CSW97, Hah67b, She83b]. **Our** [Ano99, Mac11, Sat18]. **ouvrage** [Mon66]. **Overhead** [Eic72]. **overlaps** [Lia80]. **overlayer** [NFM<sup>+</sup>07]. **Overturnd** [Kri19a]. **overview** [CAN88]. **Oxford** [Ble02, Rut33h]. **Oxidation** [KEJ87, SPL<sup>+</sup>08, NBG<sup>+</sup>84]. **Oxide** [Bau73a, Bau73b, Sha87b, TMJ<sup>+</sup>99]. **oxides** [Sin93, TF89, Win94]. **Oxygen** [ERM95, Rut19g, Cat93, NFM<sup>+</sup>07, RRKH94]. **oxynitrides** [TGDS99].

## P

[Ano66a, Kap66b, Mon66, Pia24, Tre76a, Whe04, MCJK90, SSWB80a, Sad81]. **p-phenylenevinylene** [MCJK90]. **P**. [Lov76, Rad13]. **P.R.S** [Boh26]. **Packaging** [KT84]. **Paid** [Ano37i, Lau37]. **Palace** [Hil17]. **Palladium** [PNFO88]. **Palladium-tin** [PNFO88]. **Palmerston** [Dun18]. **Pantheon** [Dys05]. **paper** [Rut12c]. **Papers** [Ano33c, Ano64, Aro65a, Aro66, Bur64, Cha14a, Cha14b, Cha14c, Coc63, Osg66, RC62, Seg62, Seg64, Seg66, Stu79b, Ano66e, Cha65, Rez71, Rez72, Rön58, RC63, RC65, Whe04, Wri64, Kap74]. **parallel** [Dow08]. **Paramount** [Kae39]. **Paris** [Ano48, Oli47, Ano19]. **Park** [Wil15]. **Part** [Mos13c, Ano16, RS02k, RS02j, RS02l, RS02m, Coh89, Coh91, Coh92, Mor84, Mos14b, RS02b, RS02g, RS02a, RS02h, Rut04g, Rut04h, Rut20b, Rut20c, Rut20d, Rut21a, Rut21b, Rut21c, Rut22j, Rut22k, Rut22l, Rut22m, Rut22n, Rut22o, Rut26b, Rut26c, Rut26d, Rut26e, Rut26i, Rut26j, Rut26k, Rut26l, Rut27a, Rut27b, Rut27c, Rut27d, Rut28d, Rut28e, Rut28f, Rut29b, Rut29c, Rut29d, Rut29e, Rut30b, Rut30c, Rut30d, Rut30e, Rut35f, Rut35g, Rut35h, Rut35i, Ten20]. **Partial** [Rus51]. **Particle** [Ano08a, Ano32a, Fea77, Mal71, Ano00a, RG08d, RR08e, RR09b, RR09d, Rut23n, Rut23o, Rut24j, Rut66a, Rut70b, Wei11, Fea79, NM12, Rut06l, RG09a, RR09c, Rut23m, vdB07]. **Particles** [Mar61, Mos12a, Nia98, OH64, Rut06k, Rut08a, RG08a, RG08e, Rut08f, RW16, Rut19e, Rut19f, Rut19g, Rut19h, RC21a, Rut21e, Rut23k, RC24a, RWL31a, RWL31b, RLB33, RK34, WR31, GM09, GF10, GR12, GM13, Glo20, Hei68, Leo05, Rez24, Rit92, RH06a, RH06b, Rut06m, Rut07g, Rut07h, Rut07j, RG08b, Rut08c, Rut08d, RG08c, RG09b, RG10, Rut11i, RN13, RR13a, RR14, Rut16d, Rut19b, Rut21g, RC22, RC24c, Rut24l, RC25, RC27, Rut31d, Rut31c, Rut34g, Rut10a, Rut12, Tre74b]. **particulate** [TGP11]. **particules** [RH06a, Rut07h, RG08b, RG08c, RR09a]. **Partnership** [Coh97]. **passage** [TR96]. **Passing** [Rut06k, Rut06l]. **passion** [Hil17]. **Past** [vG95]. **path** [Fow83, Gan17]. **path-breaking** [Gan17]. **Patrick** [Lov75]. **Paul** [Kle10, Tes19]. **Pauling** [Gri09]. **pay** [Ano37j]. **Payot** [Mon66]. **Pb** [Cat93, ERM95]. **PBFA** [KLL<sup>+</sup>90, LSK<sup>+</sup>88]. **PBFA-II** [KLL<sup>+</sup>90, LSK<sup>+</sup>88]. **Pd** [SCP<sup>+</sup>91, vdK89]. **Peace** [Ano16]. **peak** [Wie78]. **Penetrating**

[GRR<sup>+</sup>31, Rut02b, RC03, RdCENdCA14b, Rut29h, Rut02c, Rut14g, Rut17].  
**People** [Ano02]. **perihelion** [Far87]. **Period** [Hol30, Coc46]. **Periodic**  
[Rut34o, Kra13, vdB07, vdB13]. **periodische** [vdB07, vdB13]. **Perry**  
[EMR07, Tip13]. **Personaggi** [Seg76]. **Personal**  
[Ano02, Ano04a, Ano08c, Cha64, Dal50, Kay63, Oli72b, Coc46].  
**Personalities** [Dyl20b, Seg76, Ano04]. **Perspective** [RN04, Seg85].  
**perturbations** [HZ15]. **perturbed** [Agu96]. **Petite** [Mon66]. **Petr** [Rub97].  
**Phase** [Mar72, Yuh92, AAPN06, CFMO12, DJBW83, Lu87]. **PhD** [Ano99].  
**phenylenevinylene** [MCJK90]. **Philosopher** [BHN98]. **Philosophical**  
[Ble57]. **Philosophy** [RN04, Mor75]. **phosphorus** [HHAMS93]. **photo**  
[CBZ<sup>+</sup>12]. **photo-induced** [CBZ<sup>+</sup>12]. **photo-voltage** [CBZ<sup>+</sup>12].  
**photodissolution** [REJ86]. **photoelectron**  
[And90, Bra98, Bur86, CSN<sup>+</sup>00, Sin93, Vas90, Win94]. **Photographic**  
[GR12]. **Photonic** [SC13]. **photoresist** [RKL88, vIS89]. **Phys** [Hwa83].  
**Physical**  
[BP70, Cat93, Har07, Har60, Hei71, Rut09i, Rut13e, Tre79a, Ano12b, RCO<sup>+</sup>54].  
**Physicians** [Sla13]. **Physicist**  
[Ano07, Ano37i, Ano37j, BHN98, DeB19, Dyl20b, Hop21, RC04, RCRC05,  
Bad04b, Badxx, Gan18a, Ged16, Hei74, Lau37, Meh73, Wal18]. **Physicists**  
[Bar71, Pod10a, Sla13, Ada72, Bad05, Bre97, Cam79, Cli65, Cli87, Cro01,  
Seg80a, dR85]. **Physics**  
[AK11, Ang00, Ano20a, Anoxxa, BB36, Boh63, BBSR69, BS79, Ano81, Bur82,  
Cra84, Cro74a, Dea03, DMPA08, Eve06, Far16, Fea62b, Hei79b, Hon03,  
Hug12, Kae39, Kri19a, Mas72, Meh73, Mot63, Pod10a, Pye78, RN04, Rom60,  
Rom82, Rut27i, Rut38a, Sei86, She83b, Sin81, Stu79b, Stu85, Stu18,  
VRWB12, Wei70, Whe80, AG13, Ano95, Ano17d, Ano18c, Bad83, Bal19,  
Bey49, Bod20, Boh87, Bra09, Buh98b, Cli87, Con62, Gam85, Glo20, Hag17,  
Har38, Hei79a, Hen84, Hug93, Hug00, Kae48, KHFA67, Lon03, Lon16d,  
LRdB<sup>+</sup>23, Mor74, RC13, Ree15a, Rut09b, Rut09c, Rut35d, Seg76, Sha87a,  
Sim96, Stu79a, WP85, Wei11, WH72, Wei72, Wei85, Wen53, Wil74, Wri64,  
Adl03, Ano09a, Ano18e, Clo18, CCJ<sup>+</sup>34, FR13i, Fre12, Tes19, Ano12a].  
**Physik** [Buh98b, Rut09b, Rut09c]. **physique** [CCJ<sup>+</sup>34, LRdB<sup>+</sup>23]. **Picton**  
[Wad20]. **Pictures** [Ano23b]. **Pierre** [DMPA08, Gri09, Ril70]. **piezoelectric**  
[Rut15b]. **piezoelectricity** [Kat12]. **pileup** [Wie78]. **pinch**  
[HFD<sup>+</sup>99, RFF<sup>+</sup>01]. **Pioneer** [How58, RCRC90, RCRC92, Kau86, Nix19,  
Pol91, Row55, Row57, Ano60, Ble57, Bir57]. **pioneering** [Bod20, Ged16].  
**pioneers** [Ano17a]. **Pitcher** [Mor84]. **Place** [Ano18f, Wal18]. **places**  
[Ano18c]. **Planck** [Ole81, SR37, Kle66, Rut29f, SR37]. **Plancks** [SR37].  
**plane** [IOI<sup>+</sup>11]. **Plants** [RMM<sup>+</sup>29]. **Plasma** [EMVK90, Sin93, Oeh86].  
**plasma-etched** [Oeh86]. **plasmas** [vBBD<sup>+</sup>92]. **Plastic** [Gre07]. **plates**  
[Mos13b]. **plating** [PNFO88]. **Platinum** [Rut01f, Rut01a]. **play** [Nix19].  
**pleochroic** [JR13]. **plots** [SDD<sup>+</sup>08]. **Plutonium** [Ber07]. **PM** [Ano18d].  
**Point** [Rut09a]. **points** [RS02d, RS02e]. **Polanyi** [Gus12]. **politicians**  
[Ano18a]. **politics** [Mer96]. **Polonium** [Rut10c, Rut10d]. **Poly**

[EMVK90, HW92, MCJK90]. **polyethylene** [KB93]. **Polyimide** [EMVK90, SHCK96]. **Polymath** [Har01]. **polystyrene** [TGP11]. **popular** [Ano33d, Sod02]. **populären** [Sod02]. **Porous** [WMT01]. **Portrait** [Kap80b, Rus51]. **Portraits** [Ano66c, Far01, MB<sup>+</sup>85]. **Portuguese** [dAMxx]. **Positive** [Rut05e]. **positron** [AAPN06, CYM<sup>+</sup>03, FTT96, vdK89]. **Possible** [Cha32b, Rut15f]. **post** [Lu87]. **post-rapid-thermal** [Lu87]. **Postgrowth** [CYM<sup>+</sup>03]. **Postponed** [Ano05]. **potential** [WM88]. **Potentials** [Mos12b, Mos13a, ST76]. **Pounds** [Ano01]. **pour** [RC12a]. **Power** [All64, Ano22, Ano17, Eva39a, Eva39b, Ano23b, HBA77, Rut17, SBEO86, Ten20]. **Powered** [Ano33a]. **Powerful** [Coo13]. **Pp** [Bat72, Bro86, Bur64, Hei71, Mos13b, Pip01, Sin81, Stu85, Ble57, Dav37, Dys05, Pia24, Stu79b]. **pp**. [Opp64]. **Practical** [Fre79, MG12]. **Practice** [Hug08, Kap74, Kap80a, Ged16]. **Praises** [Ano23b]. **précédent** [Rut12c]. **preceding** [Rut12c]. **Precursor** [Kri16]. **Preface** [Fre12]. **Preis** [CSW97]. **Preliminary** [Rut16e]. **première** [Mon66]. **Preparation** [Rei79]. **prepared** [YKH<sup>+</sup>84]. **Present** [Rut05f, Rut06d, Rut86]. **Presentation** [KH23]. **presents** [Ano18e]. **President** [Ano23b, Rut28g, Rut09i, Rut27e, Rut27j, Rut28a, Rut29j, Rut29k, Rut30a, Rut30h, Rut31a, Rut31e]. **Presidential** [Rut23p, Rut23s]. **Press** [Bro86, Dav37, Hei71, Szy85]. **pressure** [Hwa82, Hwa83, YHS97]. **Pretreatment** [ERM95]. **prevrashhenija** [Rez28]. **price** [CSW97]. **Principle** [Wer23]. **Prior** [Ale46]. **priority** [Ano18b]. **Prize** [Adl03, Ano09a, Ano09a, Clo18, Jar08a, Tho08a, Tho08b, Adl12, Ano08g, Ano36a, Ano37i, Ano46a, Ano16, Cam00, CSW97, Far53, Far63c, FR13a, Jar08b, Lau37]. **Prizes** [Cra84, Ano08b]. **Probabilistic** [Bab71]. **probability** [RG10]. **probably** [Bre97]. **problem** [dB70]. **Problème** [dB70]. **Problèmes** [Rut05c]. **Problems** [Liv62, Zim69a, Zim69b, Kat15, Rut05c, Rut05f, Rut06d, Rut86]. **Proceedings** [Raz63, AK15, Stu79a, WH72, Bir61, Wel90, Hay63]. **process** [IYT<sup>+</sup>09]. **Processes** [Rut03g, STB<sup>+</sup>01]. **Produce** [RM00b, RM00a, RM01]. **Produced** [HS89, MR14, Rut99, Rut00a, Rut10f, Rut12f, Rut00c, Rut00d, Rut00f]. **Product** [Ano37i, Lau37]. **Production** [Bol06, Rut07i, Rut07e, Rut28c, BR11a, BR11b, BR11c, CAN88, Rut07b, Rut07k, RB15, BR11d, RB09]. **Products** [MF11, Oak19, Rut05i, RP07, Rut04n, Rut04j, Rut05o, RR13b, Rut05g]. **Produits** [Rut05g]. **Prof** [Mos13b]. **Prof.** [Ano06, Ano08a, Rut28b]. **profession** [Ged16]. **Professor** [Cro74a, FR13i, Ano04b, Ano04c, Ano08d, Ano08e, Ano08f, Ano08g, Ano09a, Gri09, Hah62, Rut29f, Sod02, Sod03]. **professors** [Ble02]. **Profile** [Ano59, ATS86, Cle81, IYT<sup>+</sup>09, LRF86, ZCS<sup>+</sup>12]. **profiles** [MCJK90, PMCF<sup>+</sup>06, SLA<sup>+</sup>00, Win94]. **profiling** [BSS88, MBS<sup>+</sup>04, NJS<sup>+</sup>03, PPA<sup>+</sup>02, vIS89]. **Progress** [Rut33b, Ano33d, Ano18c]. **Project** [Mar61, Reel5a, Sch15]. **Projectiles** [Rut19a, Rut23a, Rut23b, Rut23c, Rut23d, Rut23e, Rut23f, Rut23g, Rut23h,

Rut23i, Rut23j, Rut32a, Rut70a]. **Projector** [Eic72]. **Proof** [HS89].  
**Propagation** [Hon98, Hon03, Rut26g]. **properites** [Eve05]. **Properties**  
 [Rut05k, Rut06h, Rut08i, Rut10c, Rut10d, Rut24e, Rut24f, Rut24g, Rut24h,  
 Rut28c, Cat93, CCJ<sup>+</sup>34, Mak08, Rut05m, Rut06i, Rut06j, Rut23a, Rut23b,  
 Rut23c, Rut23d, Rut23e, Rut23f, Rut23g, Rut23h, Rut23i, Rut23j, Rut31f,  
 Lor70a]. **Proportion** [RB05a, RB05b, RB06a, RB06b]. **propriétés**  
 [CCJ<sup>+</sup>34]. **Prospect** [Ano23b]. **Protection** [Rut36g, Rut36j, Rut36k].  
**Proton**  
 [Ano19b, BP93, Muk19, Rom97, Ano17b, Cam19, CS19, Sut19, YHS97].  
**protonated** [HW92]. **Protonen** [MMKS<sup>+</sup>80]. **Protons**  
 [Ano32b, CW32, Elf14, OR33, OKR33, Clo18, Fel19, MMKS<sup>+</sup>80]. **prouton**  
 [Rom97]. **Pt** [NBG<sup>+</sup>84, OaHNM98, SCP<sup>+</sup>91]. **Public** [Nic32, Rut34m].  
**Publications** [Foc39, Pip01, Sin81, Stu79b]. **Published**  
 [Aro66, Kay63, Seg62, Seg64, Seg66, Cam19]. **pulse** [Wie78]. **pulsed**  
 [YHS97]. **Pumpkin** [Gus12]. **Pure** [Ano23b, Co013]. **pursuit** [Sut19]. **Puts**  
 [Ano38b]. **Pyrolytically** [ERM95].

**Quaker** [Sta03]. **quality** [KIS<sup>+</sup>89]. **Quanta** [Kle66, dB70]. **Quantentheorie**  
 [Gam28, Gam29b, Hou30, Pol60]. **Quantenwelt** [Arr06]. **Quantitative**  
 [Par96, PMCF<sup>+</sup>06]. **quantités** [RC12a]. **Quantities**  
 [RC12b, Eve05, Rut05j, RC12a]. **Quantity** [JBS12]. **Quantum**  
 [AH13, Arr06, Hon03, Nia98, Bai13, Cli65, Cli87, Con62, Gam28, Gam29b,  
 Gam85, Hou30, KHFA67, PPA<sup>+</sup>02, Pol60, SC13, Tem89]. **quarks**  
 [Clo18, Seg80a]. **quarter** [Ano33d, Rut33j]. **Québec** [Ano09b]. **quelques**  
 [RC12a]. **questioners** [Cli65]. **questions** [And73]. **quote** [Ano50].

**R** [Ano81, Pia24, Sin81, Stu79b, Whe80, dB14]. **Race** [Dys05, Cat04]. **radar**  
 [Fra05]. **Radiation** [FR13e, Hes00, Jor16, MM12, Pod10a, Rut97a, RO99,  
 Rut99, RC03, Rut04g, Rut04h, Rut04o, Rut06b, Rut11a, Rut28c, Rut29a,  
 AB09, Rut97c, Rut00d, RG02a, Rut06n, Rut17]. **Radiations**  
 [MR14, Rut12f, Rut15i, Rut15g, Rut15h, Rut16b, RCE30, RCE51, Rut70c,  
 Rut10b, RB02a, Rut12g, Rut13b, Rut13f, Rut13g, Rut29h, Rut35f, Rut35g,  
 Rut35h, Rut35i, Poo52, Mil13, Sch31]. **radical** [Ano18a]. **Radio**  
 [Ano08a, Bar06, MG12, McG84, MF11, Rut00c, Rut01c, Rut02b, Rut03c,  
 Rut04l, Rut04c, Rut04k, Rut05p, Rut05h, RB05b, Rut06a, RB06a, RB06b,  
 RG08a, Rut13f, Rut13i, RC19, Rut70d, Rut04, Rut07a, Sod04, Cat93,  
 Rut00g, Rut00b, RS02f, RS02j, vdB13, Tre79b]. **Radio-Active**  
 [Rut04l, Rut05p, RG08a, Rut13i, MF11, Rut01c, Rut02b, RB05b, Rut06a,  
 RB06a, RB06b, Rut13f, Rut00g, Rut00b, RS02j]. **Radio-Activity**  
 [Ano08a, Bar06, MG12, Sod04, Rut00c, Rut03c, Rut04c, Rut04k, Rut05h,  
 RC19, Rut70d, Rut04, Rut07a, RS02f, RS02j, Tre79b]. **radio-frequency**  
 [Cat93]. **radioactifs** [RB06a]. **Radioactive**  
 [Ano37i, Bad68, CDE<sup>+</sup>31a, CDE<sup>+</sup>31b, CDE<sup>+</sup>31c, Fre79, Hol30, Lau37, Poo52,  
 Rut06b, Rut06e, Rut06f, RL07, Rut08a, RG08e, Rut08f, RR09d, Rut11c,

Rut12g, Rut27f, RCE30, Rut35e, RCE51, Rut07b, Sch31, Tre71a, Tre76b, CR21, Mak08, Rut00e, Rut01b, RB02a, RG02a, RS02k, RS02l, RS02m, Rut02c, RG02b, RS02i, RS03a, Rut04m, Rut04i, Rut04b, Rut04a, Rut05b, Rut06n, Rut07h, Rut07j, RG08c, RG09b, RR09b, RR09a, RG11, Rut11e, Rut12a, Rut12b, Rut12c, Rut12h, RR13a, RR14, Rut27l, Rut27h, Lor70b, Rut10b, Ano31a, Mec14, RS03b, Rut03g, Rut13b, Rut13g, Hub13, Mil13].

**radioactiven** [Rut04a]. **radioactives** [Rut06b, Rut07h, RG08c, RR09a, Rut12b, Rut12c]. **radioactivists** [Hug93, Lon16c]. **Radioactivité** [Rut05c, Cur10]. **Radioactivity** [Adl97, Ano00b, Ast70, Bad65, Bar05, CR21, FR13g, GLR06, GLR12, GT95, Hug12, Kra12, Mon66, Roe95, Rom64, Rut00a, Rut01d, RA02b, RS02c, RS02i, RS03c, Rut03e, Rut05d, Rut07f, Rut08g, Rut11d, Rut22j, Rut22k, Rut22l, Rut22m, Rut22n, Rut22o, Rut22h, Rut22i, Rut35b, Rut35c, Rut36h, Rut37g, Sod03, Tan77, Tre71b, Tre71a, Tre75c, vG95, Bad69, RS02b, RA02a, RS02g, Rut02a, RS02k, RS02l, RS02m, Rut02d, RS02a, Rut02e, RS02h, Rut03h, RS03d, Rut03d, Rut04d, Rut05c, Rut05f, Rut06d, Rut09l, Rut24c, Rut32b, Rut86, Rut00f, Rut07a, Rut36f, Rut15, Fea70, Hei71, Oes70].

**Radioaktive** [Rut13b, Rut00e, RL07, Rut13g]. **radioaktiven** [Ano31a, RG02a, Rut02c, RG09b, Rut11e, RR13a]. **radioaktiver** [Rut01b, Rut04b, Rut05b]. **Radioaktivität** [RS02b, RA02a, RS02a, Rut02d, Rut02e, Rut07a, Rut32b, Rut36f, Rut15].

**radioattività** [Bel82]. **Radiochemistry** [AM95, Adl12, Bad79b, Kau86].

**Radioelemente** [vdB13]. **Radiological** [dR85]. **Radiologie** [Rut13b].

**radiology** [Rut13b]. **radionuclide** [ESWW82]. **radiothorium** [Tre83].

**Radium** [Ano04c, Ano06, Ano09c, Ano22, Bol06, Cam15, CDE<sup>+</sup>31a, CDE<sup>+</sup>31b, CDE<sup>+</sup>31c, Kae48, Lav14, Mos12a, Mos12b, MM12, Mos13a, MR14, RB01, RB02b, Rut03a, RB03a, RB03b, Rut04c, RB04a, Rut04e, Rut04f, Rut04g, Rut04h, Rut04o, Rut05a, Rut05d, Rut05l, RB05b, Rut05k, Rut05i, Rut06c, RB06b, Rut06g, Rut06h, RP07, Rut07g, Rut07c, Rut07d, Rut07i, Rut07e, Rut08i, RR08b, Rut09a, RB09, RT09, Rut10e, Rut11g, RR12, RC12b, Rut12e, Rut13a, Rut14l, RdCENdCA14b, RdCENdCA14a, Rut15e, Rut19d, Rut21h, Rut24j, RW25, RWWW30, RWL31a, RLB33, Rut70b, Sla13, Bol05, BR11a, BR11d, BR11b, BR11c, DMPA08, Eve05, Har05, RS02d, RS02e, Rut03b, RS03d, Rut03f, Rut04d, RB04b, Rut04n, Rut04j, RB04c]. **radium** [Rut05j, RB05c, RB05a, Rut05g, Rut05n, Rut05m, Rut05o, Rut06i, RH06a, RB06a, Rut06m, Rut06l, Rut06j, Rut07b, Rut07k, RR07, RR08d, RR08a, Rut08b, Rut08h, RR08c, Rut09j, Rut11b, Rut11e, Rut11h, RC12a, Rut12d, RR13d, RR13f, RR13e, RR13c, Rut14g, Rut14f, RC24c, Sod08, Sod20, Sod22, Sod02, Sod04, Tod14, BR11a, BR11c, Ree16, Rut14j]. **Radium-emanation** [Rut04e]. **Radium-Standards** [CDE<sup>+</sup>31a, CDE<sup>+</sup>31b, CDE<sup>+</sup>31c].

**Radiumemanation** [Rut11h, RR12]. **Radiummengen** [Rut05j].

**Radiumnormalmasse** [Rut11e]. **Radiums** [Rut08b, Sod02, Rut06i].

**Radiumstrahlen** [Rut03b]. **Radon** [Bre00, MM03, RCRC04, Ste83]. **raggi** [Car98]. **Raman** [Cla13, Rut29i]. **Ramsay** [Ano19, Cla13, Mon66, Tre74a].

**Range**

[GRS<sup>+</sup>91, RWL31a, RLB33, RW16, Rut16d, Rut21g, RC24c, Rut31d, Rut31c].

**Rapid** [Ano23b, GHCA91, LxW99, Lu87]. **Rapports** [CCJ<sup>+</sup>34, LRdB<sup>+</sup>23].

**Rare** [Eva96, FF17, BSS88, Rut26i, Rut26j, Rut26k, Rut26l, Sme97a].

**rare-earth** [BSS88]. **rarefied** [Rut29b, Rut29c, Rut29d, Rut29e].

**rasshheplenie** [Rez23]. **Rate** [Ano23b, Rut97c]. **Rational** [Nia98]. **ratios**

[PNFO88]. **Ray**

[Coo13, Mos14a, Rut14k, Rut29a, Tre79b, And90, BBR80, Bra98, Bra61, Bur86, CYM<sup>+</sup>03, CSN<sup>+</sup>00, CCR85, CBZ<sup>+</sup>12, DHS97, HV84, KKK<sup>+</sup>99, KBvB<sup>+</sup>05, KSKF93, PAF<sup>+</sup>98, PCK<sup>+</sup>08, Rut14i, Rut16c, RW25, SER<sup>+</sup>01, SC13, Sin93, Sku89, SDD<sup>+</sup>08, Ten20, Vas90, Win94, WVH<sup>+</sup>99, WYV<sup>+</sup>99].

**Rayleigh** [Cla13]. **rayonnement** [Rut06b]. **rayons** [Rut12b, Rut12c]. **Rays**

[Ano22, Bau73a, Cha12, FR13g, GRR<sup>+</sup>31, Gen95, MD13b, MD13a, Nia98, Rut97a, RM00b, RM00a, RM01, Rut02b, RB04a, Rut04f, Rut05a, Rut05k, Rut06c, Rut06h, Rut09f, Rut10f, Rut11j, Rut12e, RdCENdCA13,

RdCENdCA14b, RRR14, RdCENdCA14a, Rut15e, Rut27a, Rut27b, Rut27c, Rut27d, RWWW30, RE31, Rut32e, RB32, RWLB33, Rut66b, Lor70d, Tre76b,

Bau73b, Car98, CK33, Rön58, Rut02c, RG02b, Rut03b, Rut03f, RB05c,

Rut05e, Rut05n, Rut05m, Rut06i, Rut06j, Rut10g, Rut12a, Rut12b, Rut12c,

Rut12h, RR13d, RR13f, RR13b, RR13e, Rut14g, Rut14h, Rut14f, RB15,

RBR15, Rut18, Rut25c, Rut26b, Rut26c, Rut26d, Rut26e, Rut27l, Rut27h,

Rut31d, Rut31c, Rut32d, Rut33i, Seg80a, TR96]. **razlozhenie** [Rez25]. **RBS**

[Fow83, RMM<sup>+</sup>13]. **re** [Ano71b]. **re-evaluated** [Ano71b]. **reached** [Ano19].

**reaction** [And73, Cat93, FLP<sup>+</sup>89, HV84, MBS<sup>+</sup>04, Pae15a, SHAI09,

STB<sup>+</sup>01, Whi82, ZWJ<sup>+</sup>02]. **Reactions** [Ang00, Kri16, Rut29i, MBS<sup>+</sup>04].

**reactive** [Rei79]. **reader** [HT10]. **Reading** [Ano38b]. **real** [SDD<sup>+</sup>08].

**real-time** [SDD<sup>+</sup>08]. **Realism** [Hug90]. **reality** [Jak79]. **Really**

[Jen11, Sat18]. **realm** [Kae48]. **Reanalysis** [VV09]. **reasoning** [Lon03].

**Received** [Bad66, CSW97]. **Recensioni** [Mec14, dB14]. **Reception** [Tan77].

**Recognizes** [Ano23b]. **Recoil**

[SHCK96, Tre75d, RRKH94, SHAI09, Sin93, YKH<sup>+</sup>84]. **Recollections**

[Ano66a, Bat72, Dev71, Kap66a, Kap66b, Kap73b, Kap80d, Kay63, Lew72,

Moo78, Oli72b, Tho36, Tho37c, Tho75, Tre73, Oli72a]. **recombination**

[HFD<sup>+</sup>99, Rut97c]. **Reconstruction** [Nia98, NM12, RN04]. **Recorded**

[Sme97b, Kay63]. **records** [Sme97a]. **recovery** [ZWJ<sup>+</sup>02]. **Rede** [SR37].

**Reefton** [McC19]. **Reflection** [MD13a, RdCENdCA13, GM09, KBvB<sup>+</sup>05].

**Reflections** [Lew72, Tho36, Tho37c, Tho75]. **reflectometry** [PCK<sup>+</sup>08].

**Reflexion** [MD13b]. **refractory** [Her84]. **Refugee** [Seg85]. **regime** [HZ15].

**Region** [MKM<sup>+</sup>07]. **registration** [GR12]. **regular** [Elf14]. **Reichweite**

[Rut31d, Rut31c]. **Reissue** [Poo52]. **Relations** [RC29]. **Relative**

[RB05b, RB06b, RB06a]. **relativity** [Cha76, Wer23]. **Released** [OKR35b].

**Releasing** [Ano23b]. **Reluctant** [Kri19d]. **remains** [Wal18]. **Remark**

[Her72, Rut33i]. **Remarkable** [Ano22]. **Remarks** [Rut03e]. **Reminiscences**

[dCA68, Boh61, Hah62, Kay63, Wil60, Coc46]. **Reply** [MM04, Ano09a].



**Report** [CDE<sup>+</sup>31b, Rut08b, Rut27k, Rut34h, KHFA67, Rut15j, Rut15k, Rut15l, Rut25h, CDE<sup>+</sup>31a, CDE<sup>+</sup>31c, Mar61]. **reported** [Bey49]. **Reports** [Ano19, RSWE27, LRdB<sup>+</sup>23, CCJ<sup>+</sup>34]. **Represented** [Ano37j]. **Reprint** [Ano36b]. **reprints** [KT88]. **reproductions** [Wri64]. **Required** [RM00b, RM00a, RM01]. **Research** [Ano38b, EC13, FF17, Kri16, Rut11f, Rut27i, Rut30i, Tre79b, Ano23b, How58, RA45, Wel90, Ano09a]. **researchers** [Fla17]. **Researches** [Sod02, Rut33d, Rut33e, Lor70d, Rut70d, Lor70e, Sod03]. **Reservoir** [Wil15]. **resistance** [SCP<sup>+</sup>91, SDD<sup>+</sup>08]. **Resisting** [Kra11]. **Resolution** [LHB<sup>+</sup>09, NOSK08, Bha82, CFMO12, DGC07, HNS<sup>+</sup>11, HGM<sup>+</sup>94, IYT<sup>+</sup>09, NJS<sup>+</sup>03, NFM<sup>+</sup>07, NOH<sup>+</sup>10, NMSK13, OHN<sup>+</sup>09]. **resolved** [AAPN06]. **resonance** [FLP<sup>+</sup>89, Sin93]. **resonant** [HZ15, MBS<sup>+</sup>04]. **responsibility** [Bad05]. **Resting** [Ano18f, Wal18]. **Restless** [Rom60, Rom82]. **restoration** [Wil17]. **Result** [Ano22, Ano22]. **resulting** [HS39]. **Results** [Ano22, TGMR74, RA45]. **Retardation** [Rut06k, Rut06l]. **Retraction** [Kri19c]. **retrospect** [Stu79a]. **Return** [Ano08f]. **reversed** [HFD<sup>+</sup>99, RFF<sup>+</sup>01]. **reversed-field** [HFD<sup>+</sup>99, RFF<sup>+</sup>01]. **Review** [Ano12a, Ano60, Ano64, Aro65b, Aro65a, Aro66, Bad04a, Bat72, Bel82, Ble57, Bro86, Ano81, Ced00, Coc63, Coh40, Dro20, Dys05, Eck20, Fea70, Gar81, Hay63, Hei71, Her01a, Hil17, Hub01, Hub13, Ihd64, Jew19, Kri20, Lin40, Mos13b, Oes70, Ole81, Osg66, Pia24, Poo52, Raz63, Ree16, Sch31, See65, Seg62, Seg64, Seg66, Sei86, Sin81, Stu78, Swa40, Tre73, Tre75a, Tre75b, Tre76a, Tre77a, Tre85, Tur01, Vuc86, Whe80, Whe04, Ano33d, Opp64, Pip01, Rut33j, HJS70]. **Reviews** [dCAH64, Bir57, Rut00b, Rut00c, Rut00d, Stu85]. **Revisited** [AH13, Stu00, Bre83, Cam09, HBA77]. **Revolution** [Kae48]. **revolutionaries** [Bru79]. **Rey** [Mon66]. **Rezerford** [Kap73a]. **Rh** [OaHNm98]. **RI** [Rut15i, Rut08g]. **rich** [LSN<sup>+</sup>09, SHAI09, KEJ87]. **Richard** [Clo18]. **Richardson** [Ano22]. **ricorrenza** [Car98]. **Right** [dCA37, Boh37, Bra37, Cha37, Eve37, Sch15, Smi37, Sod37, Tho37a, Tho37b, dB32, Ano18a, Ged16]. **Rise** [She83b, Tre71b, Ano18a, Hug93]. **rites** [Ano37j]. **road** [Cam11, McC19, Wad20]. **Robert** [Ano12a, BW80, Sno67, Sno68, Rut33h]. **Rock** [Kae36]. **Role** [Kri19d, PPA<sup>+</sup>02, PCK<sup>+</sup>08]. **Romer** [Mon66]. **Röntgen** [Coo13, Rut97c, Rut97a, RM00b, RM00a, RM01, TR96]. **Röntgenstrahlen** [RM00b]. **room** [DGC07]. **Roots** [Ano99]. **Rotation** [Moo78]. **Rowland** [Ble57, Ano60]. **Roy** [Eck20]. **Royal** [Rut36h, Ano18e]. **rozdienija** [Kap73a]. **Rt** [Coh40, Swa40, Eve39]. **Rt.** [Eve13]. **Rückstreu** [MMKS<sup>+</sup>80]. **Rückstreu-Analysen** [MMKS<sup>+</sup>80]. **Runge** [Agu96, BB80, Far87]. **Russell** [Eck20, Ano16]. **Russia** [Szy85]. **Russian** [Kap73a, Rez21, Rez23, Rez24, Rez25, Rez28, Rez29, Rez32, Rez38, Rez71, Rez72]. **Rutherford** [dCA37, Ano12a, Ano36a, Ano37h, Ano46a, Ano60, Ano64, Ano66e, Ano66b, Ano09b, Aro65a, Aro66, Bad04a, Bad04b, Bad09, Badxx, Bir57, Bir61, Ble57, Boh26, Boh37, Bra37, Bro86, Bru64, Bru79, Büh98a, Bur64, Cha37, Cha65, Cha14a, Cha14b, Cha14c, Coc63, Coh40, Cra71, Cro35, Dal50, Dav37,

Eva39a, Eva39b, Eve37, Eve39, Eve13, FR13i, Foc37, Gar81, Gei38a, HM31, Har38, Hay63, Hil17, Hwa83, Jar08a, Kra14b, Lak96, Lüd13, M.39, Mil13, Mil38, Mol63, Mon66, Ole81, Osg66, Pei53, Pia24, Pol60, Poo52, Raz63, Rön58, Rut28g, Rut29j, Rut29k, Rut30h, Rut31e, Sch31, Seg62, Seg64, Seg66, Seg80c, Sil71, Smi37, Sod37, SR37, Som38, Stu78, Swa40, Szy85, Tho08a, Tho37a, Tho37b, Tre75b, Tre76a, Vuc86, Whe04, dB14, dB32]. **Rutherford** [dR92, AT886, AAPN06, Agu96, AB09, AK11, Ale46, All64, And90, dCA38, dCA58, dCAH64, dCENdCA64, dCA68, Ano04b, Ano04c, Ano06, Ano07, Ano08a, Ano08d, Ano08e, Ano08f, Ano08g, Ano09a, Ano19, Ano22, Ano23b, Ano33c, Ano33d, Ano36b, Ano37a, Ano37d, Ano37c, Ano37b, Ano37e, Ano37i, Ano37f, Ano37g, Ano37j, Ano37k, Ano37l, Ano38a, Ano38b, Ano38c, Ano46b, Ano48, Ano50, Ano66a, Ano66b, Ano66d, Ano66c, Ano71a, Ano71b, Ano72, Ano05, Ano06, Ano09a, Ano09c, Ano10, Ano11, Ano16, Ano17c, Ano17d, Ano18d, Ano18e, Ano19a, Ano21, Anoxxa, Anoxxb, Anoxxc, Anoxxd, App62, Aro65b, Ast70, Bad67, Bad68, Bad69, Bad71, Bad74, Bad75, Bad79a, Bad83, Bad85a, Bad85b, Bad87, Bad04b, Bad08, Bad09, Bal21, Bar85, BJW97]. **Rutherford** [Bar83, BB80, BKP<sup>+</sup>06, Bau73a, Bau73b, BSS88, BCM13, Bha82, BP93, Bir62, Bir63, Bis90, Bla50, Bla59, Bla72, BBR80, Boa07, Bod20, Boh61, Bou99, Bow14, Bra98, Bra61, Bra04, Bre00, Bre83, Bro73b, Bro62, BPSW91, BVI88, Büh98a, BS79, Ano81, Bur13a, Bur13b, Bur15, Bur64, Bur83, BELG68, Bur18, Bur82, Bur86, Bur38, CGL<sup>+</sup>94, Cam98, Cam99, Cam00, Cam05, Cam09, Cam11, Cam14, Cam19, Car98, Cat93, Cha54, CFMO12, CYM<sup>+</sup>03, CCR<sup>+</sup>03, CLZ99, Cla13, Cla06, Cle81, Coc46, Coc53, Coh88, Coh89, Coh91, Coh92, Coh95, Coh97, CSN<sup>+</sup>00, Con82, Cot10, CCR85, CBZ<sup>+</sup>12, Cro74c, Cro74b, DBE<sup>+</sup>85, DJA<sup>+</sup>04, Dan66, Dar56b, DGC07, Dav71a, Dav71b, Dav37, Dea03, Dee67, Dem03, Dev71, Dev91, DMV<sup>+</sup>96, DHS97, DM96, DBvdV87, Dow08, DYF67, DY68, DJBW83, Dyl20a, Ear66]. **Rutherford** [Eic72, ESWW82, Eld85, Ell60, EFKS96, ESRDV84, ERM95, EMVK90, EC38, Eve39, Eve13, Far63a, Far87, Fea40, Fea62a, Fea62b, Fea72, Fea73a, Fea73b, Fea77, FLK92, FR13b, FR13c, FR13d, FR13a, FR13f, FR13e, FR13g, FR13h, FGM<sup>+</sup>00, Fla17, Flo70, Foc39, Fow72, Fow83, Fre12, FLP<sup>+</sup>89, FTT96, FIY<sup>+</sup>99, Ful13, GHCA91, GW73, Gar62, Gea61, Gei38b, Geo38, GR89, Goo10, Gor55, Gra02, GC00, Gre07, Gri09, Gro89, Gu638, GRS<sup>+</sup>91, HM31, Hah62, Hah67a, HV84, HRM79, HHAMS93, HFD<sup>+</sup>99, HKH96, HNS<sup>+</sup>11, Hau82, Hei68, Hei79b, Hei81, Hei03, Hei67, Her84, Her77, MKM<sup>+</sup>07, HKM<sup>+</sup>09, Hes00, Hil17, Hon98, Hop21, How58, HW92, HZ15, HBA77, Hub13, Hug08, Hug12, HGM<sup>+</sup>94, Hwa82, IYT<sup>+</sup>09, IFSI94, Ish83, IOI<sup>+</sup>11, Jac72, Jak79, Jar08b, Jen11, JBS12, Kae39, Kap73a]. **Rutherford** [Kap66a, Kap66b, Kap73b, Kap80b, Kap80c, Kap80d, Kap80e, KB93, Kat12, Kat15, Kay63, KLL<sup>+</sup>90, KKK<sup>+</sup>99, KOhM94, KBvB<sup>+</sup>05, KSKF93, KIS<sup>+</sup>89, KY11, Kot91, KG91, Kra12, Kri19c, Kri19d, Kri19e, Kru75, KKGW85, KS76, LHB<sup>+</sup>09, Lab38, Lai37, LHNG14, Lau37, LRF86, LGA<sup>+</sup>06, Lee98, LSK<sup>+</sup>88, LSN<sup>+</sup>09, LDLM91, Lew72, Lia80, LGF<sup>+</sup>99, LEM65, LMC97, LxW99, Liv62, Lon16c, Lon16d, Lon16b, Lor88, Low79, Lu87, LCL<sup>+</sup>04, Lüd13, MDJF83,

Mac11, MD69, MB90, Man82, Man76, Man77, Mar61, Mar72, Mar38, Mar54, MM03, MCJK90, Mas72, McC19, McG84, McK62, Mec14, MSB<sup>+37</sup>, MBS<sup>+04</sup>, MMKS<sup>+80</sup>, Moo74, Moo78, Mor75, Mot63, Mot72, Mur13, NJS<sup>+03</sup>, NFM<sup>+07</sup>, NOSK08, NOH<sup>+10</sup>, NMSK13, NL00, Nor79, NBG<sup>+84</sup>, O'S71, O'S72, Oeh86, OHN<sup>+09</sup>, OaHNM98, Oli47, Oli72a, Oli72b, Oli84, Oli85a, Opp64].

**Rutherford** [OH64, Pae15b, Par96, PAF<sup>+98</sup>, Pei88, Pei97a, Pei10, PPA<sup>+02</sup>, PBFt83, Phi83, PNFO88, Pip01, Pod10b, Pol60, PMCF<sup>+06</sup>, PCK<sup>+08</sup>, Rad13, RRKH94, RR95, Ram75, RMM<sup>+13</sup>, RCRC04, RFF<sup>+01</sup>, RSdS<sup>+89</sup>, Ree08, Rei79, LFA<sup>+04</sup>, Rei71, REJ86, Reu81, RSWE27, Ril70, Rit92, RCO<sup>+54</sup>, Rom97, Rot74, Row55, Row57, Rus37, Rus51, Rut26a, Rut27k, Rut29f, SSWB80b, SSWB80a, Sad81, Sar79, SER<sup>+01</sup>, See65, Seg80b, Sei86, SHAI09, SC13, SBEO86, Sha87b, SN05, SWZ<sup>+05</sup>, Sha37, She83a, SCP<sup>+91</sup>, Shi72, Sho82, STB<sup>+01</sup>, Sie11, Sim82, Sin93, Sku89, SLA<sup>+00</sup>, SDD<sup>+08</sup>, Sme97b, Sme97a, Sno58, Sno67, Sno68, Sod02, Sod03, SR37, Sta61, SN67, SHCK96, Stu79b, Stu85, Stu86b, Stu00, SML91, Sut01, SPL<sup>+08</sup>, Tab97, TvBO<sup>+92</sup>, TMO<sup>+95</sup>, TCZY97, TJ11, TF89, Tem89, Ter38, Ter67]. **Rutherford** [Tes19, TMJ<sup>+99</sup>, Tho08a, Tho08b, Tho84, TGP11, Tho65, Tho70, Til96, Tiz46a, Tiz46b, Tod14, TGDS99, TJRS03, Tre71a, TGMR74, Tre74a, Tre74b, Tre75d, Tre76b, Tre77b, Tre79a, Tre79b, Tre83, VPW14, Vas90, Vil05, VV09, WCGC86, WZS<sup>+91</sup>, Wan96, Wei11, WV07, Wer23, WMT01, Whi82, Wic65, Wie78, Wil15, Wil74, Wil83b, Wil83a, WVCW76, Win94, WM88, WVD<sup>+96</sup>, WVH<sup>+99</sup>, WYV<sup>+99</sup>, WCZ<sup>+02</sup>, Wuy91, Wyb72, YKH<sup>+84</sup>, YHS97, Yuh92, ZWJ<sup>+02</sup>, ZCS<sup>+12</sup>, ZB74, Zim69a, Zim69b, del79, vBD89, vBBGO90, vBBD<sup>+92</sup>, vIS89, vdK89, Bel82, Her01b, Bat72, Ced00, Coh40, Fea70, Hei71, Her01a, Hub01, Ihd64, Oes70, Opp64, Sei86, Sin81, Stu79b, Swa40, Tre73, Tre75a, Tre77a, Tre85, Tur01, Whe80]. **Rutherford-scattering** [DBvdV87, SML91]. **Rutherford**. [Lin40]. **Rutherfordium** [Cam97]. **Rutherfords** [Tre74b].

**S** [Ano32b, Ble02, Coh40, Lin40, Lov76, Rut05j, Swa40, RRKH94, LFA<sup>+04</sup>]. **Sallhofer** [Lak96]. **samples** [LGF<sup>+99</sup>]. **Samuel** [Hug08, Kay63]. **Sanctuary** [Rut34k, Rut34n]. **Santilli** [Bur13a, Bur13b, Bur15]. **Satellite** [Stu86b]. **Saturday** [Hil17]. **sawtooth** [TMO<sup>+95</sup>]. **Says** [Ano19, Ano22, Ano23b]. **SbCl** [ESRDV84]. **scale** [Gro89]. **scanning** [FIY<sup>+99</sup>, Ish83, KY11, LHNG14]. **Scattering** [Bau73a, BELG68, Dav71a, Dav71b, DYF67, Ear66, Eic72, Gor55, LEM65, MD69, Mar61, Mar72, Rut11j, Sta61, TGMR74, WMT01, Wic65, Wil74, Agu96, AB09, Bab71, Bar83, BB80, BCM13, BBR80, DM96, DBvdV87, DY68, FLK92, GW73, HFD<sup>+99</sup>, Hei68, Kru75, LGF<sup>+99</sup>, Man77, Pae15b, RR95, RFF<sup>+01</sup>, Rit92, Rut11i, RC27, Rut12, SC13, SML91, TvBO<sup>+92</sup>, TMO<sup>+95</sup>, YHS97, vBD89, vBBGO90, vBBD<sup>+92</sup>, RN13, RC25]. **Scholars** [Rut34n]. **Scholastic** [Ano66d]. **Schrödinger** [Lak96]. **Science** [dCENdCA58, Ano09b, Ano20b, Ano23b, Ano32c, Anoxxb, Anoxxc, Boh61, Cle19, Dea03, Dev91, Dyl20b, Dys05, Eck20, Gen95, Gib19, Glo20, Jew19, Kha20, Mon66, RN04, Rut33b, Rut36b, Rut36i, Rut36j, Rut36k, Rut37c,

Rut38c, SG85, SMJ35a, SMJ35b, Sch57, Sin81, Stu79b, Zim69a, Zim69b, AK11, Bad79a, Ble02, Bod20, Bro62, Car98, Far16, FH60, HT10, Hil17, How58, Jen08, Kat15, Lev17, dAMxx, Mer96, Moo66, NP38, NP40, RCRC90, Ree15b, Rut36g, Won20, Giu12, dAMxx, Rut23p]. **Sciences** [BP70, Hei71, WH72]. **Scientific** [Bal15, Bar05, Bar06, Bru79, Coc63, Dro20, Dyl20b, Eve06, Har07, Har01, Kap80e, Mil13, Rod19, Rut27g, Rut33h, Rut33b, TGMR74, dB32, Bad87, Bey49, Fra05, Hah67b, Osg66, Rez71, Rez72, Wri64, RR87]. **Scientifica** [Cle19, Won20]. **scientifiques** [Mon66]. **Scientist** [Ano37c, Ano38b, Ced00, Clo18, Foc37, Her01a, Her01b, Hub01, RCRC92, Tur01, Ano37d, Ano21, Cam98, Cam99, Focxx, Kap73a, Pip01, Sat18]. **Scientists** [Ano06, Ano22, Ano32b, Ano33a, Ano37k, DG99, Dys05, Kae36, Seg85, Cat04, Gri09]. **scienza** [Car98]. **scoperta** [Car98]. **scoperte** [Seg76]. **screened** [ST76]. **Se** [Bha82]. **Se-implanted** [Bha82]. **Search** [Cha64, Cho01, Gea14a, Rut37d, Tre71a, Eid48, Lew02]. **Searching** [Lig18]. **sechs** [Sod02]. **sechzigsten** [HM31]. **Second** [Ano23b, HBA77, Jar08a, Stu18]. **second-** [HBA77]. **Secondary** [Reu81, BPSW91, Cle81, CSN<sup>+</sup>00, Gro89, NMSK13, Wil83b]. **Secret** [Ree16, Cam15, Ano32c]. **Secrets** [Ano32a, Wen53]. **section** [Bab71, Far87, LMC97, Wil83b, ZB74, Rut09i, Rut09e]. **sections** [RRKH94, ST76]. **seeds** [Lon16d]. **Seeing** [Dys05, Ree06, Ble99]. **Seen** [Ano32b]. **Sees** [Ano23b]. **segregation** [SHAI09]. **Sehr** [Rut02c]. **Selected** [Rez71, Rez72]. **Self** [Gar81, Stu78, FTT96, Tre77b]. **self-ion** [FTT96]. **Self-Splitting** [Gar81, Stu78, Tre77b]. **Sense** [Dys05]. **Sensitivity** [EMVK90, HNS<sup>+</sup>11]. **Sep** [Rut05c]. **separation** [ESWW82]. **September** [Bir61, Fle57, Meh73, Rut12a, VRWB12]. **septième** [CCJ<sup>+</sup>34]. **Settler** [Dea03]. **Seventh** [CCJ<sup>+</sup>34, Far01]. **several** [HKH96]. **shallow** [CFMO12]. **Shaped** [Gib19, Kae39, Mac11]. **share** [Wal18]. **shared** [Clo18]. **Shattering** [Kae36]. **Shea** [Ano81, Sin81, Stu79b, Whe80]. **Shed** [NL00]. **sheet** [SCP<sup>+</sup>91, SDD<sup>+</sup>08]. **Shields** [Whe18]. **shift** [Far87]. **Shifting** [TGMR74]. **Shifts** [Mar72]. **Shines** [Bah00]. **shook** [Gam85]. **Short** [Gen95, MF11]. **Si** [NJS<sup>+</sup>03, YKH<sup>+</sup>84, AAPN06, CFMO12, DGC07, FTT96, Gro89, KBvB<sup>+</sup>05, KEJ87, Lu87, LCL<sup>+</sup>04, NFM<sup>+</sup>07, SSWB80a, Sad81, TJRS03, WZS<sup>+</sup>91, WCZ<sup>+</sup>02, Yuh92, ZWJ<sup>+</sup>02, vIS89, vdK89]. **Si-depth** [vIS89]. **Si-Rich** [KEJ87]. **sic** [Ano09a, BKP<sup>+</sup>06, KIS<sup>+</sup>89, SPL<sup>+</sup>08, ZWJ<sup>+</sup>02]. **SiD** [YKH<sup>+</sup>84]. **Sidey** [Ano36a, Ano46a]. **Sidgwick** [Rut37a, Rut14]. **Sigma** [RSWE27]. **signal** [Lia80]. **Significance** [Fre79, TGMR74]. **Significantly** [WM88]. **SiH** [YKH<sup>+</sup>84]. **silicate** [IYT<sup>+</sup>09]. **Silicide** [AAPN06, KEJ87, Bra98, Her84]. **silicon** [ATS86, BPSW91, BVI88, Hwa82, Hwa83, IYT<sup>+</sup>09, KIS<sup>+</sup>89, LRF86, MB90, Oeh86, Sin93, TGDS99, WCGC86, Wan96]. **silicon/nitride** [ATS86]. **silver** [LRF86, TGP11]. **Simple** [Sei86, Stu85, Tre85, FLK92, Wil83a]. **Simulated** [BJW97]. **Simulation** [Bis90, Eic72, BPSW91, Hau82, TJRS03]. **Simulator** [Wic65]. **Simultaneous** [SDD<sup>+</sup>08]. **Since** [AK11, Ano37d]. **Single** [Dav71b, MKM<sup>+</sup>07, Fow83, KIS<sup>+</sup>89, Rei79, Sad81, Whi82].

**single-crystal** [Whi82]. **SiO** [NFM<sup>+</sup>07, CSN<sup>+</sup>00]. **Sir** [Ano66b, Ano66d, Ano66c, Aro66, Coc63, Osg66, Rut27e, Rut27j, Rut28a, Rut28g, Rut29j, Rut29k, Rut29f, Rut30a, Rut30h, Rut31a, Rut31e, Sch31, Seg62, Seg64, Seg66, Ano19, Ano23b, Boh26, Bro97, FR13i, Gar62, RSWE27, Rut26a, Seg80c]. **site** [Ano18b, RSdS<sup>+</sup>89]. **situ** [HV84, KKGW85, NFM<sup>+</sup>07, SBEO86, WM88]. **six** [Sod02]. **Sixteenth** [Rut36h]. **sixtieth** [HM31]. **Sixty** [FR13j]. **skilled** [Fla17]. **Skłodowska** [DMPA08]. **Skłodowska-Curie** [DMPA08]. **Skurrile** [Arr06]. **slept** [Bre97]. **Slow** [Rut04j, Rut05i, Rut05g, Rut04n, Rut05o]. **small** [Kru75, Man77]. **small-angle** [Kru75, Man77]. **Smaller** [Rut02f, Rut05j]. **Smash** [Kae36]. **Smasher** [Ano37i, Lau37]. **Smashing** [Ano32a]. **Sn** [CFMO12]. **sobre** [dAMxx]. **social** [Bad05]. **Society** [Ano18e, Gib19, Rut36k, SG85, Gri09, RCO<sup>+</sup>54, Rut36j]. **Soddy** [Ano09b, Fle57, Gar81, How58, Kau86, Mon66, Stu78, Ano10, Asi64, Ble02, Coh97, Far63b, Fre79, Gan18b, Gus12, How58, Jen85, Ken63, Mer96, Pan57, Pan64, Rus56b, Rus56a, Rus61, Tan77, TG36, Tre71a, Tre77b, Whe04, Wil64, Wil69]. **Soft** [RdCENdCA14a, Rut14f, SER<sup>+</sup>01]. **softened** [TGP11]. **Solar** [Ree06]. **sole** [Ril70]. **Solid** [CFMO12, DJBW83]. **Solution** [Ano32a]. **Solutions** [Rut05d]. **Solvay** [CCJ<sup>+</sup>34, Far01, CCJ<sup>+</sup>34, Str11]. **Some** [dCA68, Ano23b, Boh61, Cha64, Dal50, Eve06, Fea77, Fea79, Hah62, Har07, Lew72, OKR35a, Oli72b, Rut96b, Rut97b, Rut06h, Rut07f, RC12b, Sod03, Zim69b, Rut06i, RC12a, Ano33c, Rut03e, Rut05k, Rut05m, Rut06j, Rut08i, Zim69a]. **Sommerfeld** [Lak96]. **son** [Jen08]. **sonar** [Kat12]. **sorta** [Sno68]. **Sought** [Kae36]. **Sound** [BR16, Lüd13, Rut15d]. **source** [CGL<sup>+</sup>94, DJA<sup>+</sup>04]. **Sources** [GLR06, KHFA67, Rut06b, Rut06n, RC24c]. **sous** [CCJ<sup>+</sup>34]. **Soviet** [Ano37k, Ano37l, FH60]. **Sovremennaja** [Rez38]. **Sowjetische** [FH60]. **Soyuz** [Spe19]. **space** [Bro18, Dun18, Spe19, Wil15]. **species** [KKGW85]. **Spectra** [Mos13c, Mos14b, Mos14a, Rut14k, Rut15e, Rut14i, Rut16c, Wie78]. **Spectre** [RR07, RR08a]. **spectrograph** [KLL<sup>+</sup>90, LSK<sup>+</sup>88]. **spectrographs** [FLK92]. **spectrometer** [HKH96]. **spectrometries** [SCP<sup>+</sup>91]. **Spectrometry** [CLZ99, ERM95, MKM<sup>+</sup>07, JBS12, SHCK96, BPSW91, Bur86, CFMO12, Cle81, CSN<sup>+</sup>00, CCR85, DJA<sup>+</sup>04, ESRDV84, FLP<sup>+</sup>89, FIY<sup>+</sup>99, Her84, Hwa82, Hwa83, IYT<sup>+</sup>09, IFSI94, KB93, KKK<sup>+</sup>99, KKGW85, LRF86, LDLM91, Lia80, LxW99, MCJK90, MBS<sup>+</sup>04, Par96, PAF<sup>+</sup>98, PNFO88, PMCF<sup>+</sup>06, PCK<sup>+</sup>08, RRKH94, RMM<sup>+</sup>13, Reu81, SBEO86, SN05, SWZ<sup>+</sup>05, STB<sup>+</sup>01, Sku89, SLA<sup>+</sup>00, SDD<sup>+</sup>08, SPL<sup>+</sup>08, Tab97, TCZY97, TGP11, TGDS99, Wil83b, WM88, vdK89]. **spectrometry/channeling** [LxW99]. **spectroscopic** [BKP<sup>+</sup>06, TGDS99]. **spectroscopies** [CBZ<sup>+</sup>12, Gro89]. **Spectroscopy** [EMVK90, NOSK08, OaHNM98, LFA<sup>+</sup>04, And90, Bar85, BKP<sup>+</sup>06, Bra98, Bur86, CGL<sup>+</sup>94, Cat93, CSN<sup>+</sup>00, CBZ<sup>+</sup>12, DMV<sup>+</sup>96, DHS97, Fow83, FTT96, GR89, HFD<sup>+</sup>99, HNS<sup>+</sup>11, HKM<sup>+</sup>09, HW92, Ish83, KOhM94, KSKF93, KIS<sup>+</sup>89, Kot91, LHNG14, MB90, NJS<sup>+</sup>03, NFM<sup>+</sup>07, NOH<sup>+</sup>10, NMSK13, OHN<sup>+</sup>09, PMCF<sup>+</sup>06, Reu81, SER<sup>+</sup>01, Sim82, Sin93, Sku89, SDD<sup>+</sup>08, TF89, TGDS99, Vas90, Win94, Wuy91, Yuh92, ZWJ<sup>+</sup>02, vdK89]. **Spectrum** [RR07,

RR08b, RdCENdCA14b, RRR14, RW25, Rut14g, RR08a, RR08c, Rut14h].  
**speculations** [Kra13, Tre74a]. **Speech** [Ano38b, SR37, SR37]. **speed**  
 [Rut11h, RR13a]. **Speeding** [Ano23b]. **spin** [Par96, Sin93]. **Spinners**  
 [Moo78]. **Spinning** [Elf14]. **Spirit** [Gib19, Cam79, Dys05]. **Split**  
 [Ano32c, Dys05, Cat04, She17]. **Splitting**  
 [Gar81, Stu78, Ano37d, Rez23, Tre77b, Whe18]. **spotted** [Oak19]. **Spread**  
 [Zim69a, Zim69b, Wan96]. **Spriel** [Mon66]. **sputter** [Bur86].  
**sputter-deposited** [Bur86]. **sputtered** [Cat93, DHS97, GC00]. **sputtering**  
 [Rut79, WM88]. **SrTiO** [HGM<sup>+</sup>94]. **St** [Rut05c]. **Stability**  
 [Rut20f, Rut21f, PMCF<sup>+</sup>06, Rut25d, Rut25e]. **stabilizing** [PCK<sup>+</sup>08]. **Stable**  
 [Hes00]. **stage** [Nix19]. **stages** [DGC07]. **stainless** [Whi82]. **Stalin**  
 [Sno67, Sno68]. **Stand** [Ano31a]. **Standard**  
 [Rut13a, Rut11b, Rut14j, Sku89, Rut14l]. **Standards**  
 [CDE<sup>+</sup>31a, CDE<sup>+</sup>31b, CDE<sup>+</sup>31c, Rut10e]. **Standpoint** [Sod04]. **Stars**  
 [Lig18]. **State** [RCW<sup>+</sup>26, Hei79a]. **States** [BB36]. **Stationary** [BB36].  
**Statistical** [VV09]. **statistics** [GRS<sup>+</sup>91]. **steel** [Whi82]. **Step** [Gen95].  
**Stephen** [Mon66, Ano18f, Sat18, Wal18]. **Sternstunden** [Büh98b]. **Steve**  
 [Whe18]. **Stevens** [Bru79]. **Steward** [Ano45]. **Stewart** [Fos49, Sei86, dR92].  
**still** [Kae48]. **Stillborn** [Tre75d]. **Stockholm** [Ano08e]. **Stoichiometric**  
 [ESRDV84]. **stoichiometry** [GHCA91, Ish83]. **Stoney** [O'H75]. **stopping**  
 [SBE086]. **Stores** [Ano23b, Ano32a]. **Story**  
 [Cam09, Fea77, Jor16, Kra18, Mar20, Mon66, Sod49, Ano19a, Eva39a, Eva39b,  
 Fea79, Gam85, How58, Nix19, Ree15a, Mon66, Kri20]. **Stoughton** [Stu85].  
**stragglings** [WZS<sup>+</sup>91]. **Strahlen** [RG02a, Rut02c, Rut06i, Rut31d, Rut31c].  
**Strahlungen** [Rut13b, Rut13g, Mec14]. **Strain**  
 [NJS<sup>+</sup>03, WYV<sup>+</sup>99, LCL<sup>+</sup>04, WVH<sup>+</sup>99]. **Strange** [Jor16]. **Straßmann**  
 [CSW97, CSW97]. **Straus** [Dys05]. **Strength** [Mot63]. **stroenie** [Rez21].  
**strong** [Ano04]. **Structural** [LDLM91, KIS<sup>+</sup>89, Tho84]. **Structure**  
 [Bro73b, CCJ<sup>+</sup>34, Gam29a, Hon98, Hon03, KH23, Nia98, RN04, Rus56a,  
 Rut11j, Rut13c, Rut13d, Rut13h, Rut14a, Rut14b, Rut14c, Rut23l, Rut23r,  
 Rut23q, Rut26h, Rut27a, Rut27b, Rut27c, Rut27d, Rut27h, RAC<sup>+</sup>29,  
 RCE<sup>+</sup>32, RJ65, Rut70e, Tre75b, Gro89, Hei34, NOH<sup>+</sup>10, Nor79, OHN<sup>+</sup>09,  
 Rez21, Rez29, Rez32, Rut11i, Rut14d, Rut14e, Rut21d, Rut23s, Rut24a,  
 Rut24b, Rut25i, Rut26b, Rut26c, Rut26d, Rut26e, Rut30b, Rut30c, Rut30d,  
 Rut30e, Rut12, Sod20, Sod22, Sod04, Wyb72, Yuh92, CCJ<sup>+</sup>34, Rut27l].  
**structures** [NMSK13, SSWB80b, SSWB80a]. **Struktur** [Rut24a, Rut24b].  
**strukture** [Rez29, Rez32]. **Stuart** [Lov75]. **Student** [BELG68]. **Studied**  
 [OaHNm98, ATS86, Bha82, CYM<sup>+</sup>03, Eld85, IFSI94, KBvB<sup>+</sup>05, LCL<sup>+</sup>04,  
 MBS<sup>+</sup>04, SHAI09, Sin93, TGP11, WYV<sup>+</sup>99, WCZ<sup>+</sup>02, Yuh92, ZWJ<sup>+</sup>02].  
**Studien** [Mos13b]. **Studies** [Dav71b, FR13g, Rut25f, Rut25g, Rut70g,  
 SHCK96, Tan77, WCGC86, YKH<sup>+</sup>84, Bey49, BBR80, GRS<sup>+</sup>91, Nor79,  
 Oeh86, PAF<sup>+</sup>98, SSWB80a, Sad81, TF89, TMJ<sup>+</sup>99, Whi82]. **Study**  
 [Bau73a, Bau73b, CBZ<sup>+</sup>12, FIY<sup>+</sup>99, Hon98, Ish83, LGA<sup>+</sup>06, LFA<sup>+</sup>04, Rut27i,  
 AAPN06, Con82, DGC07, FGM<sup>+</sup>00, GC00, HV84, HGM<sup>+</sup>94, IYT<sup>+</sup>09, LxW99,

Lu87, NBG<sup>+84</sup>, REJ86, RS03d, SDD<sup>+08</sup>, WVD<sup>+96</sup>, WVH<sup>+99</sup>, vIS89, vdK89].  
**Studying** [dCENdCA58, Dav71a]. **sublattices** [ZWJ<sup>+02</sup>]. **submarine**  
 [BC16, Kat12, Rut15j, Rut15k, Rut15l]. **submarines** [FR18, Rut15f].  
**Subsequent** [Jen85, Fra05, Sad81]. **substance** [Rut00g, Rut00b, Rut00e].  
**Substances** [Cha12, Mil13, Rut00a, Rut01c, Rut02b, Rut08a, RG08a, Rut08f,  
 RR09d, Rut10f, RCE30, RCE51, CR21, Mak08, Rut00f, Rut01b, RB02a,  
 RG02a, Rut02c, RG02b, Rut07h, Rut07j, RG08c, RG09b, RR09b, RR09a,  
 Rut12a, Rut12b, Rut12c, Rut12g, Rut12h, Rut13b, RR13a, Rut13f, Rut13g,  
 RR14, Rut10b, Ano08a, Poo52, Sch31]. **Substanz** [Rut00e]. **Substanzen**  
 [Mec14, RG09b, Rut13b, RR13a, Rut13g, Rut01b, RG02a, Rut02c].  
**substrate** [LCL<sup>+04</sup>]. **substrates** [FIY<sup>+99</sup>, IFSI94, IOI<sup>+11</sup>, PBFt83, TGP11].  
**Subsurface** [DGC07, SSWB80b]. **Subtraction** [Lia80]. **Succeed** [Ano32b].  
**Success** [Ano32a, Bad79b, Tre75d]. **Successful** [Ano08a, Kri19e].  
**Succession** [Rut04l, Rut05p, Rut04i]. **such** [Gri09]. **suggests** [Gan18b].  
**Suicidal** [Bad79b]. **sulfur** [RR95]. **Summary** [Eld85, Tho84]. **Summer**  
 [Ano36a, Ano46a, Hah67a]. **Summer-Time** [Ano46a, Ano36a]. **Sun**  
 [Bah00, Tip13]. **sunshine** [Har05]. **superconducting** [FLP<sup>+89</sup>].  
**Superconductors** [CLZ99]. **Superheavy** [Kra13, Kra18]. **superlattices**  
 [Sar79]. **supersonic** [Rut16e]. **Supports** [WMT01]. **suppression** [HZ15].  
**supreme** [Cam98, Cam99, Pip01, Ced00, Her01a, Her01b, Hub01, Tur01].  
**Surface** [CGL<sup>+94</sup>, Dav71b, MKM<sup>+07</sup>, NOSK08, NMSK13, Nor79, RC03,  
 SHCK96, Tho84, CBZ<sup>+12</sup>, FLP<sup>+89</sup>, GHCA91, KBvB<sup>+05</sup>, NOH<sup>+10</sup>,  
 OHN<sup>+09</sup>, SLA<sup>+00</sup>, Yuh92]. **Surfaces** [Dav71a, MD69]. **Surfactants**  
 [LGA<sup>+06</sup>]. **surprised** [Tre83]. **surveillance** [BC16]. **Survey**  
 [Dav37, Rut34g]. **sustained** [And73]. **Svedberg** [Mos13b]. **Swift**  
 [CW32, Moo78]. **switchable** [SHAI09]. **symmetric** [RFF<sup>+01</sup>]. **Symposium**  
 [Meh73, Tre75b, Wyb72, Stu79a, Stu79b]. **synthesis** [Rut34g]. **synthesized**  
 [KKK<sup>+99</sup>, WVD<sup>+96</sup>]. **System**  
 [Ree06, vdB07, vdB13, AAPN06, Eld85, HFD<sup>+99</sup>, HKH96]. **systems**  
 [PCK<sup>+08</sup>, RMM<sup>+13</sup>].

**T** [Ano32b, Sei86, Sen87, Stu85, Tre75a]. **T**. [Ano36a, Ano46a]. **Ta/GaAs**  
 [Eld85]. **table** [Kra13]. **taken** [CSW97]. **tale** [CSW96]. **Talk**  
 [Rut08g, Rut15i]. **Talks** [Kap74]. **Tanganyika** [SWS65]. **tank** [Mor18].  
**Taylor** [Clo18]. **Te** [Con82, CBZ<sup>+12</sup>, Win94, Wuy91]. **teacher** [Kap73a].  
**teaching** [Wil74]. **teamwork** [Bod20]. **Technical** [Ole81, Low79].  
**Technique** [Hon03, WMT01, CCR85]. **Techniques**  
 [Bad68, NBG<sup>+84</sup>, PBFt83, SSWB80b, Yuh92]. **Technologies** [Gus12, BC16].  
**Technology** [Anoxxc, KT84, Mor18, Mor75]. **Teil** [RS02b, RS02a]. **Teilchen**  
 [RG09b, Rut31d, Rut31c, vdB07, RR13a, Tre74b]. **Teilchens**  
 [Rut07g, Rut08c, Rut08d, RG09a]. **telluride** [Man82]. **Temperament**  
 [SMJ35a, SMJ35b]. **Temperatur** [Rut01b]. **Temperature** [RP07, Rut30i,  
 Bha82, DGC07, DBvdV87, FLP<sup>+89</sup>, LCL<sup>+04</sup>, Rut01b, vBBGO90, vBBD<sup>+92</sup>].  
**temperatures** [vBD89]. **ten** [Ano18c, DMPA08, NP38, NP40]. **tens**

[HKH96]. **tenu** [CCJ<sup>+</sup>34, LRdB<sup>+</sup>23]. **term** [Gan18b]. **Terms** [Mar72]. **Test** [Ree06]. **Tests** [Ano32b]. **tetrafluoroethylene** [EMVK90]. **tetragonal** [WCZ<sup>+</sup>02, ZCS<sup>+</sup>12]. **Texas** [Wei90]. **Textbooks** [Nia98, NM12, RN04]. **TEXTOR** [TvBO<sup>+</sup>92, vBGO90]. **Thaddeus** [Gar81, Stu78]. **Thales** [Lak96]. **Theater** [Hil17]. **Their** [Hon98, Kae36, Mil13, Ole81, Rut19a, Cla13, Mak08, PMCF<sup>+</sup>06, Rez28, Rut11e, Rut12g, Rut13b, Rut13f, Rut13g, Rut23a, Rut23b, Rut23c, Rut23d, Rut23e, Rut23f, Rut23g, Rut23h, Rut23i, Rut23j, Rut26f, Rut26g, Rut30b, Rut30c, Rut30d, Rut30e, Rut32a, RB32, Rut70a, Seg80a]. **Theoretical** [Hon98, Lon03, Meh73, Hei34]. **Theorie** [Rut09b, Rut09c, vW35]. **théoriques** [Hei34]. **Theorist** [SM08]. **Theory** [Ang00, Ano32b, Gea14a, Kap74, Kap80a, KH23, Mon66, Mot72, Rut10f, Rut11a, Rut29i, Rut37g, Rutxx, Sod04, Tre71b, Tre71a, Tre75c, Tre75d, Cha76, Cli65, Cli87, Gam28, Gam29b, Gam85, Hou30, Lev17, Pol60, Rut09k, Rut09b, Rut09c, Rut36f, Rut36h, Sch57, vW35]. **Therapy** [Sla13]. **there** [Spe19]. **thermal** [GHCA91, Lu87, PMCF<sup>+</sup>06]. **Thermodynamics** [Kle66]. **thick** [ZCS<sup>+</sup>12]. **thickness** [CSN<sup>+</sup>00, CCR85]. **Thin** [JBS12, LHB<sup>+</sup>09, Mar61, SCP<sup>+</sup>91, And90, Bur86, Cat93, DHS97, DJBW83, FGM<sup>+</sup>00, FIY<sup>+</sup>99, GR89, HV84, IFSI94, IOI<sup>+</sup>11, KKK<sup>+</sup>99, PBFt83, Reu81, Sim82, SDD<sup>+</sup>08, TMJ<sup>+</sup>99, WVCW76]. **Thin-film** [SCP<sup>+</sup>91, HV84, Sim82]. **things** [Bat72, Bro18, Mor18]. **third** [HBA77]. **third-power** [HBA77]. **thirteen** [Bey49]. **thirties** [Hen84, Sei86, Stu85]. **Thirty** [Gam85, Rut33h]. **thirty-fifth** [Rut33h]. **Thomas** [Dea03]. **Thomson** [Kra14b, Lak96, Rön58, Whe04, Kub11]. **Thorium** [FR13e, HS89, RO99, Rut00a, RS02c, RS02i, RW16, RWWW30, RWL31b, ESWW82, Flo70, GF10, Rut00g, Rut00b, Rut00c, Rut00e, Rut00f, RS02d, RS02e, RS02f, RS02k, RS02j, RS02l, RS02m, RS03d, RH06b, Rut11d, RR13b, Rut16d, Rut21g]. **Thoriumverbindungen** [Rut00e]. **those** [RCO<sup>+</sup>54]. **Thousand** [Ano22]. **threat** [BC16]. **Three** [And73, Eid48]. **Thus** [Ano32b]. **Ti** [Cat93, FGM<sup>+</sup>00, KKK<sup>+</sup>99, PCK<sup>+</sup>08, SCP<sup>+</sup>91]. **TiCN** [PMCF<sup>+</sup>06]. **Tiger** [Gus12]. **Time** [Ano46a, Ano17, Kay63, Ano36a, DJA<sup>+</sup>04, Hah62, HKH96, Hei79b, Lev17, NMSK13, Sat18, SDD<sup>+</sup>08]. **time-of-flight** [DJA<sup>+</sup>04, HKH96]. **Timeline** [Whe18]. **times** [Bre97, Cro01, Stu79b]. **Tin** [KT84, NL00, PNFO88, PMCF<sup>+</sup>06, SER<sup>+</sup>01, SCP<sup>+</sup>91]. **Tinsley** [Cot10]. **TiNx** [Kot91]. **TiNx/TiSiy** [Kot91]. **TiNy** [Gro89]. **TiO** [LFA<sup>+</sup>04]. **tip** [Tab97]. **TiSiy** [Kot91]. **TiSiz** [Gro89]. **titanium** [Bur86, NFM<sup>+</sup>07, Vas90]. **titled** [Mon66]. **Today** [Mas72]. **tokamak** [vBBD<sup>+</sup>92]. **Told** [Ano33a, Nix19]. **Tomography** [WMT01]. **Tondokument** [Lüd13]. **Tonspurerhaltung** [Lüd13]. **Tool** [vG95]. **Top** [Kha20, Ano18c]. **topography** [SLA<sup>+</sup>00]. **Torn** [Ano32b]. **torus** [RFF<sup>+</sup>01]. **total** [KBvB<sup>+</sup>05]. **total-reflection** [KBvB<sup>+</sup>05]. **Townsend** [Ble02]. **Traced** [Ano06]. **traduction** [Mon66]. **Traité** [Cur10]. **transform** [TGDS99]. **Transformation** [Ano33b, Mos12a, Rut05i, Rut11g, Rut26f, Rut28d, Rut28e, Rut28f, Rut35k, RS66, Lu87, Rez28, Rut04n, Rut04j, Rut04b, Rut05g,



Rut05b, Rut05o, Rut12d, Rut36c, Rut36d, Rut36e, RG11]. **Transformations** [OKR35b, OKR35a, Rut06e, Rut06f, Rut11c, Rut35e, RL07, Lor70b, Rut07b, Hub13]. **Transformed** [Ano08a]. **transient** [CBZ<sup>+</sup>12]. **transition** [Yuh92]. **Transmission** [Rut01d, SSWB80a, Sad81, BKP<sup>+</sup>06, CSN<sup>+</sup>00, Lu87, Phi83, Pye78, Rut03h, SSWB80b, Wil83b, Rut02d]. **Transmutation** [Ano19, Ano33d, F.33, Kri19b, Kri19c, Kri19d, Mar20, OR33, OKR33, OHR34a, OHR34b, Rom64, Rut34i, Rut37b, Rut38d, Rut38e, Lor70f, Rut70h, Rut38f, Cam19, Rut30g, Rut33a, Rut33h, Rut33j, Rut33d, Rut33e, Rut33f, Rut33g, Rut37e, Rut37f, Lor70e, Seg80b, Tre74a, Ano33c, Ano37i, Lau37, Mon66, Kri20]. **transmutations** [Leo05, Oak19, Rut34e]. **Transmute** [Ano22]. **Transmuted** [Ano32b]. **transport** [KIS<sup>+</sup>89, TF89]. **transported** [YHS97]. **Transuranic** [Kra18, Sto97]. **transuranium** [Sea88, Wel90]. **trapped** [GR89]. **Traveling** [Dro20]. **Travelling** [Rod19]. **Treatise** [Sod04]. **Treatment** [Liv62]. **Trenn** [Stu78, Gar81]. **Tribute** [Ano37l, Foc37, Pan57, Pan64, Ano37j, Focxx, Kub11, MSB<sup>+</sup>37]. **Tributes** [Ano37i, Ano38a, MSB<sup>+</sup>37, Lau37]. **Trieste** [Meh73]. **trifluoromethanesulfonyl** [NOSK08, NOH<sup>+</sup>10]. **Trilogy** [AH13]. **Trimethylpropylammonium** [NOSK08]. **Trinity** [Ree06]. **Trip** [Rut25h, Wad20]. **tritium** [Eid48]. **Triumphs** [DeB19]. **trudy** [Rez71, Rez72]. **True** [MM03, RCRC04]. **Truths** [Kae36]. **Tube** [Coo13, Kor12, RB15, RBR15, Rut17]. **Tungsten** [Bra98, KEJ87]. **tunneling** [FIY<sup>+</sup>99, LSN<sup>+</sup>09]. **Turn** [BS79, Ano81, Sin81, Stu79b, Whe80, Hei79a, Rig79]. **Turning** [Gre07]. **Twentieth** [Ano12a, Rut12a, VRWB12]. **Two** [Ano32b, Ano04, Ble02, Hon98, Lav14, Bar83, Oli66a, Oli66b, Oli85b]. **Type** [Rut29a].

**U.S.** [CAN88]. **Übertragung** [Rut02d]. **ucenyj** [Kap73a]. **ucitel** [Kap73a]. **új** [RA45]. **UK** [Fla17]. **Ultimate** [Ano32a, Kae36]. **Ultra** [GRR<sup>+</sup>31, Rut98, RMM<sup>+</sup>29, CFMO12]. **Ultra-Microscopic** [RMM<sup>+</sup>29]. **Ultra-Penetrating** [GRR<sup>+</sup>31]. **ultra-shallow** [CFMO12]. **Ultra-violet** [Rut98]. **ultrathin** [HGM<sup>+</sup>94]. **Umwandlungen** [RL07]. **Umwandlungsgeschwindigkeit** [Rut11h]. **unbounded** [Kae48]. **Undergraduate** [Ear66]. **Underpinnings** [Hon98]. **underwater** [Rut16e]. **UNESCO** [Wil17]. **unfold** [FLK92]. **Uniformity** [Rut13i, Ish83]. **Unit** [Ale46]. **Universe** [Kae36, KT88]. **Universität** [Lüd13, Sod02]. **Universities** [Ano09a, Lon16b]. **University** [Ano12a, Ano12b, Ano09b, Bir61, Bro86, Cla06, Dav37, Eve06, Hah62, Hei71, Rut12a, Rut33h, Sod02, Szy85, Tre75b, dB14, Ano18d, Cot10, Har07, Kri19b, Kri19a, Lüd13, Sod03, Ter38, VRWB12]. **Unknown** [Rut15j, Rut15k, Rut15l, Ano71c]. **Unlocked** [Ano32a]. **Unlocking** [Wen53]. **unprecedented** [Oak19]. **Unravelling** [FR13j]. **Unseen** [Dys05]. **Unterschied** [Rut04b, Rut05b]. **Untersuchungen** [Rut11h]. **Unwin** [Bur64]. **UO** [Tho84]. **Upcoming** [Ben20]. **upon** [Rut04c, Rut04d, RR08d].

**Upper** [RCW<sup>+</sup>26, Kra13]. **Upset** [Ano32b]. **Uranic** [Gen95]. **Uranium** [HS89, RO99, Rut00d, RS03c, RB05b, RB06a, RB06b, Rut66b, SL90, GF10, HS39, Hol30, Rut03d, RB05a, Rut99]. **Urans** [HS39]. **Ursache** [RS02b, RS02a]. **Ursprung** [Rut08b]. **Use** [Con82, Dav71b, Ear66, HW92, LGF<sup>+</sup>99, Mos13a, Ale46, Gro89, HKH96, Rut11e]. **Used** [Ano32b]. **Useful** [Dav71a, MD69]. **Using** [Eic72, NOSK08, SHCK96, Bar85, BPSW91, CGL<sup>+</sup>94, CFMO12, Cle81, CBZ<sup>+</sup>12, ESRDV84, FTT96, Ish83, KKGW85, NFM<sup>+</sup>07, NOH<sup>+</sup>10, NMSK13, OHN<sup>+</sup>09, PCK<sup>+</sup>08, STB<sup>+</sup>01, Sku89, Tho84, WV07, vdK89]. **Utilization** [Sim82]. **Utilize** [Rut24i].

**V** [dB14, Rut07j, Rut09f, Rut22n]. **vacua** [Rut24e, Rut24f, Rut24g, Rut24h]. **Valley** [Ben20]. **Vapor** [KEJ87, Hwa82, Hwa83, KIS<sup>+</sup>89, Sin93]. **Vapours** [Rut97a]. **variable** [vdK89]. **variations** [RG10]. **Variety** [Sno67]. **Vast** [Ano32a]. **vector** [Agu96, BB80, Far87]. **Vega** [Spe19]. **velocities** [RR14]. **Velocity** [Rut01a, Rut06k, Rut97c, RH06a, Rut06m, Rut07g, Rut07j, Rut07h, Rut19f]. **Verhalten** [HS39]. **verification** [Bur13b]. **Verifying** [Cha76]. **Verlagsgesellschaft** [Mos13b]. **Verleihung** [Lüd13]. **Version** [Ear66, ESWW82, Mon66]. **Versuche** [Rut02e]. **versus** [dAMxx]. **Verwandlung** [Rut04b, Rut05b]. **Verwendung** [Rut11e]. **very** [Gro89, Rut02c]. **VI** [RB09, Rut22o]. **via** [BB80, BSS88]. **vibration** [Rut16e]. **Victoria** [Bir61]. **Victorian** [NL00]. **Victorian-age** [NL00]. **view** [BKP<sup>+</sup>06, Jak79, Lon03]. **Views** [Ano31b, Fel19]. **vii** [Pia24, Rut11h]. **VII** [Rut11h]. **viii** [Mos13b, Sin81, Stu79b, BR11c, Eve06, Rut99, Rut02f]. **VIII** [BR11c]. **Villars** [Pia24]. **vinylpyridine** [HW92]. **violet** [Rut98]. **Viruses** [RMM<sup>+</sup>29]. **Viscosity** [Rut95]. **Visibility** [Ree06]. **Visionary** [FR13h]. **Visit** [Jen85]. **Visualizing** [Rut09g, Rut09h]. **vitae** [Coh95]. **Vitesse** [Rut07h, RH06a]. **Vito** [Ano12a]. **VLSI** [GRS87]. **Vol** [Ano64, Ano66e, Aro65a, Bur64, Osg66, Mon66, Seg62, Seg64, RC62]. **voltage** [CBZ<sup>+</sup>12]. **Voltages** [Rut27g, RBR15]. **Volterra** [Ano12a, dB14]. **Volts** [Ano32c]. **Volume** [Aro66, BM66, FK85, Rut08h, Seg66]. **Vorlesung** [Rut21d]. **vs** [Hon98].

**W** [Ano45, Ano81, Pia24, dB14, FGM<sup>+</sup>00, Gro89]. **W.** [Rön58]. **W/TiNy/TiSiz/Si** [Gro89]. **waged** [Mor18]. **Wall** [Ano00b]. **Walton** [Ano32b, DYF67]. **Wandering** [Rut34n]. **War** [Bad05, Hag17, Pri08, Sta03, Kat15, BC16]. **warfare** [Mor18, Rut15j, Rut15k, Rut15l]. **warheads** [CAN88]. **Wärmeentwicklung** [RR12]. **Wars** [Stu18]. **wartime** [CSW96]. **Warum** [CSW97]. **Was** [dCENdCA58, Ano37i, Kae39, Lau37, Sat18, Bad66, She17]. **Wasn't** [Kri19e]. **waste** [STB<sup>+</sup>01]. **Water** [BR16, RR08d, Rut15d]. **watershed** [RC13]. **Watson** [Stu79b, Gri09]. **Wave** [NM12, DBE<sup>+</sup>85, Rut14f, SC13]. **wave-length** [Rut14f]. **Wave-particle** [NM12]. **Wavelength**

[RdCENdCA14a]. **Waves** [Rut96b, Rut97b, Rut26g, Rut96a, Rut16e]. **Way** [Ano22]. **Wayne** [McD19]. **ways** [Rut15f]. **Weak** [Rut05d]. **weapons** [Bad05, CAN88, Mor18]. **Website** [Gra02]. **Weiss** [Pia24, Büh98a]. **Well** [Ano07, MDJF83]. **Well-Known** [Ano07]. **Wells** [Sno67, Sno68, PPA+02]. **werden** [CSW97]. **were** [Bey49, Mor18]. **Westin** [Wel90]. **Westminster** [Ano37j, Wal18]. **wharenui** [O’C17]. **Where** [She17]. **Which** [Ano08a]. **Whirl** [Ano23b]. **Whitworth** [Ano09a]. **Who** [Kat12, Spe19, Bat72, Cli87, Clo18, Fei11, RCO+54]. **whom** [Ano08g]. **Whose** [Kae39]. **wie** [Büh98a]. **will** [Wal18]. **William** [Ole81, Sin81, Stu79b, Whe80, Hug08, Jen08, Ole81]. **Williams** [Ano12a]. **Wilson** [Bru79, Sei86, Stu85, Tre85]. **window** [SWZ+05]. **Winner** [Ano37i, Ano09a, Lau37, Tho08b]. **Winners** [Ano99, Ano16, Far53, Far63c]. **Winnipeg** [Rut09e]. **wins** [Wil17]. **Winston** [Sno67, Sno68]. **Within** [Jen85, Dem03]. **Without** [Ano19, Ano32c, Jen85, Ten20]. **Woman** [RC04, RCRC05, Ged16]. **women** [RCRC90]. **Won** [Dys05, Cat04]. **Wood** [Ano12a, dB14, McD19]. **Worcester** [VRWB12]. **Work** [Ano32b, Ano37i, Boh61, Kap80e, Kle66, Lau37, Mar54, Rut25c, Ano09a, Coc46, Gei38a, Hou30, NBG+84, Rut05j, Rut33j]. **workers** [Sod02, Sod03]. **working** [Nix19, Oli84]. **works** [dAMxx, Won20]. **World** [Ano32c, Ano33a, Anoxxd, Arr06, BM66, BC16, Cle19, Dyl20a, Kri19e, Stu18, Ber07, Jak79, Mac11, Mer96, Moo66, Mor18, Seg80b, Bad05, Hag17]. **Worthies** [dB32]. **Wounds** [Sta03]. **wrath** [VPW14]. **writings** [Low79, Ole81, Ole81]. **Written** [Ano38b]. **wrote** [Ged16]. **WW1** [Mor18]. **Wybourne** [Tre75b].

**X** [Ced00, Adl97, And90, Bau73a, Bau73b, BBR80, Bra98, Bra61, Bur86, CYM+03, CSN+00, CCR85, DHS97, HV84, KKK+99, KBvB+05, KSKF93, MD13b, MD13a, Mos14a, PAF+98, Pip01, PCK+08, Rön58, RB15, RBR15, Rut16c, Rut17, Rut18, Rut25c, RW25, Rut29a, SER+01, Seg80a, Sin93, Sku89, SDD+08, Vas90, Win94, WVH+99, WYV+99]. **X-Ray** [Mos14a, Rut29a, And90, BBR80, Bra98, Bra61, Bur86, CYM+03, CSN+00, CCR85, DHS97, HV84, KKK+99, KBvB+05, KSKF93, PAF+98, PCK+08, Rut16c, RW25, SER+01, Sin93, Sku89, SDD+08, Vas90, Win94, WVH+99, WYV+99]. **X-Rays** [MD13b, MD13a, Rön58, Rut18, Rut25c, Seg80a]. **XCIV** [Rut14f]. **XCIX** [RC25]. **XCVIII** [Rut12e]. **Xe** [Wan96]. **Xi** [RSWE27, Bro86, Stu85, Har07, Rut00f]. **xii** [Bat72, Stu85, Szy85, RT09]. **XIII** [Rut06j]. **XIX** [RB04c, Rut05m, Rut06l, RR13e]. **XL** [TR96]. **XLI** [RS02h, Rut06m]. **XLII** [RH06b, RC22]. **XLIII** [Rut03d, Rut12h, Rut16d]. **XLIV** [RS03d]. **XLVI** [Rut06k, dB32]. **XLVII** [Rut03e]. **XV** [Rut03f]. **XVI** [Rut01e, Rut10g]. **XVII** [Rut17]. **XX** [Rut95, RC12b]. **XXI** [Cha12, RR09d]. **xxii** [Hei71, Rut06n]. **XXIII** [Rut08h]. **XXIV** [RR08c, Rut24l]. **XXV** [Rut05n]. **XXVIII** [Rut21e]. **XXXI** [Rut14g]. **XXXIII** [RS02i]. **XXXIV** [RG02b, RR13c, Rut14h, RBR15]. **XXXV** [Rut97a, RB15]. **XXXVII** [Rut05o, Rut14i]. **XXXVIII** [Rut14j].

**Yale** [Bro86, Hei71, Szy85]. **Yarns** [Moo78]. **YBaCuO** [HGM<sup>+</sup>94]. **Year** [FR13j, Coc46, RC13, Ten20]. **Years** [Ano22, Ano32b, Ano45, Kri19a, Rog13, Rut38a, Rutxx, AK15, Ano95, Con62, DMPA08, EC13, Gam85, Gib17, HJS70, Kae48, Mor74, Sea88, Wel90, Wil60]. **Yesterday** [Ano09a]. **Yielding** [Ano32b]. **York** [Ble57, Dav37, Sin81, Stu79b]. **Young** [App62].

**zählen** [RG09b]. **Zählrohr** [Kor12]. **Zealand** [Pip01, RC62, Seg62, Tre75b, Anoxxc, Bad87, Foc37, Focxx, Fra05, McG84, Pip01]. **Zealander** [Ano08d, Ano09b]. **Zealanders** [Gra68, Gra72, MB<sup>+</sup>85]. **zeolites** [BSS88]. **Zerfallen** [Rut04a]. **Zn** [CBZ<sup>+</sup>12]. **ZnO** [CYM<sup>+</sup>03, DJBW83, IOI<sup>+</sup>11]. **Zr** [Cat93]. **zum** [HM31, Har38, Lüd13]. **zur** [FH60, RM00b, Gam28, Gam29b, Har38, vW35]. **zwischen** [Rut04b, Rut05b].

## References

**Abhaya:2006:SPF**

[AAPN06] S. Abhaya, G. Amarendra, B. K. Panigrahi, and K. G. M. Nair. Silicide phase formation in Ni/Si system: Depth-resolved positron annihilation and Rutherford backscattering study. *Journal of Applied Physics*, 99(3):033512, 2006. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Aguiar:2009:RSR**

[AB09] C. E. Aguiar and F. A. Barone. Rutherford scattering with radiation damping. *American Journal of Physics*, 77(4):344–348, April 2009. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Adams:1972:FGN**

[Ada72] J. B. Adams, F.R.S. Four generations of nuclear physicists. *Notes and Records of the Royal Society of London*, 27(1):75–94, August 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic).

**Adloff:1997:XCB**

[Adl97] Jean-Pierre Adloff. The “X”-compounds, a breakthrough in the early history of radioactivity. *Radiochimica Acta*, 77(1–2):1–8, April 1997. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter>.

com/view/j/ract.1997.77.issue-1-2/ract.1997.77.12.1/ract.1997.77.12.1.xml.

**Adloff:2003:CNP**

- [Adl03] Jean-Pierre Adloff. The centennial of the 1903 Nobel Prize for Physics. *Radiochimica Acta*, 91(12):681–688, December 2003. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.2003.91.issue-12-2003/ract.91.12.681.23428/ract.91.12.681.23428.xml>.

**Adloff:2012:NPA**

- [Adl12] Jean-Pierre Adloff. Nobel Prize awards in radiochemistry. *Radiochimica Acta*, 100(8–9):509–521, August 2012. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.2012.100.issue-8-9/ract.2012.1953/ract.2012.1953.xml>.

**Al-Ghazi:2013:NNP**

- [AG13] Muthana Al-Ghazi. Notes on nuclear physics in 1932. *Physics Today*, 66(11):11, November 2013. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). See [RC13].

**Aguiar:1996:RLV**

- [Agu96] C. E. Aguiar. The Runge–Lenz vector and perturbed Rutherford scattering. *American Journal of Physics*, 64(8):1042–1048, August 1996. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Aaserud:2013:LLQ**

- [AH13] Finn Aaserud and J. L. Heilbron. *Love, Literature, and the Quantum Atom: Niels Bohr's 1913 Trilogy Revisited*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2013. ISBN 0-19-968028-0 (hardcover). viii + 284 pp. LCCN QC774.B64 A19 2013.

**Al-Khalili:2011:NPS**

- [AK11] Jim Al-Khalili. Nuclear physics since Rutherford and his legacy to science. Conference slides for talk at the Nuclear and Particle Physics Divisional Conference, 4–7 April 2011, University of Glasgow., 2011. URL <https://www.stfc.ac.uk/files/nuclear-physics-since-rutherford/>.

**Aaserud:2015:OHY**

- [AK15] Finn Aaserud and Helge Kragh, editors. *One hundred years of the Bohr atom: proceedings from a conference*, volume 1 of *Scientia Danica. Series M, Mathematica et physica*. Det Kongelige Danske Videnskabernes Selskab, Copenhagen, Denmark, 2015. ISBN 87-7304-387-7. ISSN 1904-5514. LCCN QC172 .O63 2015. URL <http://www.ijqf.org/wps/wp-content/uploads/2015/06/Bohr-Book.pdf>.

**Alexander:1946:LEP**

- [Ale46] Jerome Alexander. Letter to the Editor: Prior use of the Rutherford unit. *Science*, 104(2699):276, September 20, 1946. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic).

**Allibone:1964:RML**

- [All64] T. E. Allibone. Rutherford Memorial Lecture, 1963. The industrial development of nuclear power. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 282(1391):447–463, 1964. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/282/1391/447>.

**Adloff:1995:DR**

- [AM95] Jean-Pierre Adloff and H. J. MacCordick. The dawn of radiochemistry. *Radiochimica Acta*, 70–71(S1):13–22, December 1995. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.1995.70-71.issue-s1/ract.1995.7071.special-issue.13/ract.1995.7071.special-issue.13.xml>.

**Anderson:1964:DE**

- [And64] David L. Anderson. *The Discovery of the Electron*, volume 3 of *The Development of science*. Van Nostrand, Princeton, NJ, USA, 1964. vi + 138 pp. LCCN QC793.5.E622 A53 1964.

**Anderson:1973:TQA**

- [And73] Herbert Anderson. Three questions about the sustained nuclear chain reaction. *The University of Chicago Magazine*, 65(5):3–7, March/April 1973. ISSN 0041-9508. URL <http://library.ucsd.edu/dc/object/bb3960604v>.

**Anderson:1981:DE**

- [And81] David L. Anderson. *The Discovery of the Electron*. The Development of science. Arno Press, New York, NY, USA, 1981. ISBN 0-405-13834-2. vi + 138 pp. LCCN QC793.5.E622 A53 1981.

**Anderson:1990:AIA**

- [And90] D. R. Anderson. Analysis of iridium–aluminum thin films by X-ray photoelectron spectroscopy and Rutherford backscattering spectroscopy. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 8(3):2251, May 1990. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Angus:2000:TLE**

- [Ang00] A. Angus. A theory of low energy nuclear reactions and its implications to nuclear physics. In *APS Division of Nuclear Physics Meeting Abstracts*. American Physical Society, Ridge, NY 11961, USA, October 2000. URL <http://adsabs.harvard.edu/abs/2000APS...DNP.JF011A>.

**Anonymous:2016:MTA**

- [Ano17] Anonymous. The march of time: Atomic power! Periscope Film LLC archive, April 17, 201617. URL <https://www.youtube.com/watch?v=iTJJ7tkD5L4>.

**Anonymous:1902:PN**

- [Ano02] Anonymous. Personal notes. *The Taranaki Herald [New Zealand]*, 50(11915):2, March 13, 1902. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19020313.2.11>.

**Anonymous:1904:P**

- [Ano04a] Anonymous. Personal. *The Taranaki Herald [New Zealand]*, 50(12562):7, May 24, 1904. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19040524.2.43>.

**Anonymous:1904:PR**

- [Ano04b] Anonymous. Professor Rutherford. *The Taranaki Herald [New Zealand]*, 53(12707):7, November 12, 1904. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19041112.2.38.5>.

**Anonymous:1904:PRR**

- [Ano04c] Anonymous. Professor Rutherford on radium. *Science*, 19 (493):899–900, June 10, 1904. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://science.sciencemag.org/content/19/493/899.2>.

**Anonymous:1905:DP**

- [Ano05] Anonymous. Doomsday postponed. *New York Times*, ??(??):6, January 29, 1905. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/96582025>.

**Anonymous:1906:ART**

- [Ano06] Anonymous. Ancestry of radium traced by scientists: Prof. Rutherford learns it can be obtained from actinium. *New York Times*, ??(??):1, December 29, 1906. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/results/8D6194946E9472>.

**Anonymous:1907:RLM**

- [Ano07] Anonymous. Rutherford leaves McGill: Well-known physicist accepts a chair in Manchester, England. *New York Times*, ??(??):1, January 13, 1907. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/96715096/>.

**Anonymous:1908:AMC**

- [Ano08a] Anonymous. Atom of matter can be detected: Prof. Rutherford, expert on radio-activity, makes successful experiments. Substances transformed. Accomplished by expulsion of an ‘alpha particle,’ which Prof. Rutherford believes is an atom of helium. *New York Times*, ??(??):C3, November 8, 1908. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/96833123>.

**Anonymous:1908:NPC**

- [Ano08b] Anonymous. The Nobel Prizes: Chemistry award to Manchester. *Manchester Guardian*, page 6, December 10, 1908. CODEN ????. ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/474854722.html>.



**Anonymous:1908:P**

- [Ano08c] Anonymous. Personal. *The Taranaki Herald [New Zealand]*, 54(13657):4, March 23, 1908. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19080323.2.29>.

**Anonymous:1908:PRB**

- [Ano08d] Anonymous. Professor Rutherford. A brilliant New Zealander. *The Taranaki Herald [New Zealand]*, 54(13821):7, November 30, 1908. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19081130.2.54>.

**Anonymous:1908:PRBb**

- [Ano08e] Anonymous. Professor Rutherford banquetted at Stockholm. *The Taranaki Herald [New Zealand]*, 54(13835):5, December 15, 1908. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19081215.2.40>.

**Anonymous:1908:PRR**

- [Ano08f] Anonymous. Professor Rutherford return to Manchester. *Manchester Guardian*, ??(??):4, December 22, 1908. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/474857506.html>.

**Anonymous:1908:PRW**

- [Ano08g] Anonymous. Professor Rutherford to whom the Bressa Prize has been awarded. *Manchester Guardian*, ??(??):7, March 21, 1908. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/474772218.html>.

**Anonymous:1909:DPR**

- [Ano09a] Anonymous. The dinner to Professor Rutherford in the Whitworth Hall yesterday to celebrate the award to him of the Nobel Prize for Physics [sic]. Professor Rutherford's work. Reply by the guest. Physics at Manchester universities. Research and discovery. *Manchester Guardian*, ??(??):8, February 10, 1909. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/474849957.html>. Rutherford's Nobel Prize is in *Chemistry*, not Physics.

**Anonymous:1909:NSN**

- [Ano09b] Anonymous. The new science; a New Zealander honoured. *The Taranaki Herald [New Zealand]*, 55(13861):5, January 12, 1909. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19090112.2.30.2>.

**Anonymous:1909:RLD**

- [Ano09c] Anonymous. Radium. Lecture by Dr. Home. *The Taranaki Herald [New Zealand]*, 55(14011):3, September 16, 1909. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=search&d=TH19090916.2.46>.

**Anonymous:1912:BRL**

- [Ano12a] Anonymous. Book review: *Lectures delivered at the Celebration of the Twentieth Anniversary of the Foundation of Clark University, under the auspices of the Department of Physics*. By Vito Volterra, Ernest Rutherford, Robert Williams Wood, and Carl Barus. *Mathematical Gazette*, 6(99):354–355, July 1912. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL <http://www.jstor.org/stable/3605052>.

**Anonymous:1912:EPE**

- [Ano12b] Anonymous. The extension of the Physical and Electrotechnical Laboratories of the University of Manchester. *Nature*, 89(2211):46, March 14, 1912. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v89/n2211/pdf/089046a0.pdf>.

**Anonymous:1915:CA**

- [Ano15] Anonymous. The constitution of the atom. *Science*, 41(1048):160–162, January 29, 1915. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1640604>.

**Anonymous:1919:AGR**

- [Ano19] Anonymous. Alchemists' goal reached by Briton?: *Paris Matin* says Sir Ernest Rutherford has discovered transmutation. Ramsay made like claim but British chemist died without making full reports of his experiments. *New York Times*,

??(??):2, December 9, 1919. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/100384859>.

**Anonymous:1920:PBA**

- [Ano20a] Anonymous. Physics at the British Association. *Nature*, 106(2663):357–358, November 11, 1920. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v106/n2663/pdf/106357a0.pdf>. From this meeting report: “The results thus show that the elements may be considered as being composed of these hydrogen nuclei, or ‘protons’ as Sir Ernest Rutherford would have us call them, . . .” It is believed that this is the first published mention of the word proton.

**Anonymous:1920:SLA**

- [Ano20b] Anonymous. *Science and life. Aberdeen addresses*. Murray, London, UK, 1920. xii + 229 pp. LCCN ????. URL <http://krishikosh.egranth.ac.in/bitstream/1/2036416/1/12331.pdf>; <http://www.biodiversitylibrary.org/item/59715>.

**Anonymous:1922:WTE**

- [Ano22] Anonymous. Way to transmute elements is found: Dream of scientists for a thousand years achieved by Dr. Rutherford. new age, says Richardson. Remarkable result of bombarding nitrogen gas with the alpha rays of radium. Result of a chemical collision. Dr. Kendall on Rutherford. results of the discovery. energy of high power. *New York Times*, ??(??):34, January 8, 1922. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/100061168/>.

**Anonymous:1923:MBB**

- [Ano23a] Anonymous. A miracle of broadcasting — the BBC’s biggest experiment. *Radio Times*, ??(??):??, September 28, 1923. Cited in [Wil83a, page 466], with the quote “An historic milestone in the History of Wireless was reached the other night by the broadcasting of the Presidential Address of the world famous scientist Sir Ernest Rutherford . . . It was the first occasion in this or any other country on which the voice of a public man had been transmitted simultaneously through six

wireless stations hundreds of miles apart and also made to operate loud-speakers at overflow meetings . . . Perhaps the most amazing result of the experiment was that the sound of the speaker's voice was heard in the North of Scotland before it reached those who were sitting in the back of the hall in which he was actually speaking."

**Anonymous:1923:PES**

- [Ano23b] Anonymous. Pictures electrons speeding in atom: Sir Ernest Rutherford says some whirl around at rate of 93,000 miles a second. He doubts atomic power. Sees no prospect of releasing immense stores of energy by rapid disintegration. Praises applied research. New President of British Association recognizes no distinction in favor of pure science. *New York Times*, ??(??):3, September 13, 1923. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/103179172>.

**Anonymous:1931:RKN**

- [Ano31a] Anonymous. Die radioaktiven Konstanten nach dem Stand von 1930. (German) [Radioactive constants as of 1930]. *Physikalische Zeitschrift*, 32:569-??, ????. 1931. CODEN PHZTAO. ISSN 0369-982X. Mitglieder (Members): M. Curie, A. Debierne, A. S. Eve, H. Geiger, O. Hahn, S. C. Lind, St. Meyer, E. Rutherford, E. Schweidler. Experten (Experts): J. Chadwick, I. Joliot-Curie, K. W. F. Kohlrausch, A. F. Kovarik. L. W. McKeethan, L. Meitner U. H. Schlundt.

**Anonymous:1931:NVb**

- [Ano31b] Anonymous. News and views. *Nature*, 127(3213):826-832, May 30, 1931. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v127/n3213/pdf/127826b0.pdf>.

**Anonymous:1932:AGM**

- [Ano32a] Anonymous. The atom is giving up its mighty secrets: The latest success in smashing the ultimate particle of matter leads onward toward the solution of the mystery of the cosmos and the day when vast stores of energy may be unlocked for man. *New York Times*, ??(??):xxl, May 8, 1932. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/99628645/>.

**Anonymous:1932:ATA**

- [Ano32b] Anonymous. Atom torn apart, yielding 60% more energy than used. But two British scientists succeed only once in each 10,000,000 bombarded. Battered with protons. Hydrogen atoms are thus transmuted into helium — conservation theory seen upset. Tests made for 3 years. Dr. J. D. Cockcroft and Dr. E. T. S. Walton of Cavendish Laboratory, Cambridge explain work. *New York Times*, ??(?):1, May 2, 1932. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/99718000/>.

**Anonymous:1932:SGD**

- [Ano32c] Anonymous. Science's greatest discovery. The atom split at 100,000 volts. Secret of Cambridge Laboratory. Making a new world. Energy without limit. *Reynold's Illustrated News*, ??(4):261, May 1, 1932.

**Anonymous:1933:APW**

- [Ano33a] Anonymous. Atom-powered world absurd, scientists told. *New York Herald Tribune*, ??(?):1, 37, September 12, 1933.

**Anonymous:1933:BAB**

- [Ano33b] Anonymous. The British Association: Breaking down the atom: Transformation of the elements. *The Times [London, UK]*, ??(?):6, September 12, 1933. ISSN 0140-0460, 0956-1382.

**Anonymous:1933:BAS**

- [Ano33c] Anonymous. The British Association. Some of the papers. Transmutation of atoms. Kelvin to Rutherford. *Manchester Guardian*, ??(?):9-10, September 6, 1933. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/483467389.html>.

**Anonymous:1933:TAL**

- [Ano33d] Anonymous. Transmutation of the atom. Lord Rutherford's review of a quarter of a century's progress. A popular belief exploded. *Manchester Guardian*, ??(?):12, September 12, 1933. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/483537140.html>.

**Anonymous:1936:AKS**

- [Ano36a] Anonymous. Award of the T. K. Sidey Summer-time Medal and Prize [to Lord Rutherford of Nelson, O.M., D.Sc., F.R.S., F.R.S.N.Z., in 1933]. *Transactions and Proceedings of the Royal Society of New Zealand*, 65:??, 1936. CODEN TRN-ZAS. ISSN 0035-9181. URL <https://natlib.govt.nz/records/1060593>.

**Anonymous:1936:RLE**

- [Ano36b] Anonymous. [Reprint of letters from Ernest Rutherford to his mother]. *The Taranaki Herald [New Zealand]*, ??(??):??, ??? 1936.

**Anonymous:1937:ABR**

- [Ano37a] Anonymous. Abbey burial for Rutherford. *New York Times*, ??(??):24, October 21, 1937. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/102141852>.

**Anonymous:1937:DLRc**

- [Ano37b] Anonymous. Death of Lord Rutherford. *The Times [London, UK]*, ??(??):7, October 20, 1937. ISSN 0140-0460, 0956-1382.

**Anonymous:1937:DLRb**

- [Ano37c] Anonymous. Death of Lord Rutherford. A great scientist. collapse after operation. *Manchester Guardian*, ??(??):11, October 20, 1937. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/484341394.html>.

**Anonymous:1937:DLRa**

- [Ano37d] Anonymous. Death of Lord Rutherford. Greatest experimental scientist since Faraday. The splitting of the atom. *Manchester Guardian*, ??(??):7, October 20, 1937. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/484289240.html>.

**Anonymous:1937:FLR**

- [Ano37e] Anonymous. The funeral of Lord Rutherford. *Nature*, 140 (3548):754, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140754a0.html>.

**Anonymous:1937:LRa**

- [Ano37f] Anonymous. Lord Rutherford. *Manchester Guardian*, ??(??):10, October 20, 1937. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/484312284.html>.

**Anonymous:1937:LRb**

- [Ano37g] Anonymous. Lord Rutherford. *New York Times*, ??(??):22, October 21, 1937. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/102068592>.

**Anonymous:1937:LRM**

- [Ano37h] Anonymous. Lord Rutherford, O.M., F.R.S. *Nature*, 140(3547):717, October 23, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3547/pdf/140717a0.pdf>.

**Anonymous:1937:LRP**

- [Ano37i] Anonymous. Lord Rutherford, physicist, is dead: British Nobel Prize winner, 66, famous as atom-smasher, dies after operation. High tributes are paid. Transmutation of elements was by-product of work in radioactive field. *New York Times*, ??(??):1, October 20, 1937. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/102092451>.

**Anonymous:1937:NPT**

- [Ano37j] Anonymous. Nations pay tribute at Rutherford rites: King also represented at funeral in Westminster Abbey for famous physicist. *New York Times*, ??(??):23, October 26, 1937. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/102179037>.

**Anonymous:1937:SLR**

- [Ano37k] Anonymous. Soviet and Lord Rutherford: Scientists to honour his memory. *Manchester Guardian*, ??(??):24, November 14, 1937. CODEN ???? ISSN 0307-756X. URL <http://pqasb.pqarchiver.com/guardian/doc/481627301.html>.

**Anonymous:1937:STL**

- [Ano37l] Anonymous. Soviet tribute [to] Late Lord Rutherford. Gathering in Moscow. *New Zealand Herald*, 74(22905):15, December 7, 1937. URL <http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&c1=search&d=NZH19371207.2.170>.

**Anonymous:1938:DTL**

- [Ano38a] Anonymous. Dominion tributes to Lord Rutherford. *Nature*, 141(3575):841–842, May 7, 1938. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v141/n3575/pdf/141841a0.pdf>.

**Anonymous:1938:LRL**

- [Ano38b] Anonymous. Lord Rutherford likened to Newton: Jeans, reading last speech of late scientist, hails him at Calcutta Congress. Puts him above Faraday. Address, written for meeting, calls on India to foster agricultural research. *New York Times*, ??(??):21, January 4, 1938. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/102745232>.

**Anonymous:1938:OLR**

- [Ano38c] Anonymous. [Obituary: Lord Rutherford]. *Proceedings of the Physical Society, London*, 50(3):441–466, May 2, 1938. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://iopscience.iop.org/0959-5309/50/3>.

**Anonymous:1945:MWK**

- [Ano45] Anonymous. Mr. W. Kay: 51 years as laboratory steward. *Manchester Guardian*, ??(??):6–??, December 27, 1945. ISSN 0307-756X.

**Anonymous:1945:AKS**

- [Ano46a] Anonymous. Award of the T. K. Sidey Summer-Time Medal and Prize [to Lord Rutherford of Nelson, O.M., D.Sc., F.R.S., F.R.S.N.Z., in 1933]. *Transactions and Proceedings of the Royal Society of New Zealand*, 75:482, 1945–1946. CODEN TRNZAS. ISSN 0035-9181. URL [http://rsnz.natlib.govt.nz/volume/rsnz\\_75/rsnz\\_75\\_](http://rsnz.natlib.govt.nz/volume/rsnz_75/rsnz_75_)



04\_005710.html; <https://natlib.govt.nz/records/1039422>.

**Anonymous:1946:LR**

- [Ano46b] Anonymous. Lord Rutherford. *Notes and Records of the Royal Society of London*, 4(1):103–108, April 1946. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://www.jstor.org/stable/531246>. Transcript of a BBC radio talk on 16 December 1945 by Sir Henry Tizard about Lord Rutherford.

**Anonymous:1948:RCP**

- [Ano48] Anonymous. Rutherford Commemoration, Paris, 7 and 8 November 1947. *Notes and Records of the Royal Society of London*, 6(1):67–68, December 1, 1948. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/6/1/67>.

**Anonymous:1950:FQL**

- [Ano50] Anonymous. Foreword [with quote by Lord Rutherford]. *Physics Bulletin*, 1(1):1, 1950. CODEN PHSBB4. ISSN 0031-9112. URL <http://stacks.iop.org/0031-9112/1/i=1/a=002>.

**Anonymous:1959:GCP**

- [Ano59] Anonymous. George Crowe: A profile. *New Scientist*, 6(149):516–517, September 24, 1959. CODEN NWSCAL. ISSN 0262-4079 (print), 1364-8500 (electronic).

**Anonymous:1960:BRE**

- [Ano60] Anonymous. Book review: *Ernest Rutherford, Atom Pioneer*, by John Rowland. *The American Biology Teacher*, 22(1):47, 1960. ISSN 0002-7685 (print), 1938-4211 (electronic). URL <http://www.jstor.org/stable/4439230>.

**Anonymous:1964:ERL**

- [Ano64] Anonymous. Essay review: *Lord Rutherford in Manchester. The Collected Papers of Lord Rutherford of Nelson. Vol. 2, Manchester* by H. Lipson, James Chadwick. *Science Progress (1933–)*, 52(208):666–668, October 1964. CODEN SCPRAY. ISSN 0036-8504 (print), 2047-7163 (electronic). URL <http://www.jstor.org/stable/43426630>.

**Anonymous:1966:RLR**

- [Ano66a] Anonymous. Recollections of Lord Rutherford. A lecture by Academician P. L. Kapitza. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 294(1437):123–137, 1966. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/294/1437/123>.

**Anonymous:1966:RSEa**

- [Ano66b] Anonymous. Rutherford, Sir Ernest (Baron Rutherford of Nelson, O.M., F.R.S.). In Alexander H. McLintock, editor, *An Encyclopaedia of New Zealand: Q–Z*, page ?? Owen, Wellington, New Zealand, 1966. URL <http://www.teara.govt.nz/en/1966/rutherford-sir-ernest>. Three volumes.

**Anonymous:1966:RSEc**

- [Ano66c] Anonymous. Rutherford, Sir Ernest: Portraits of Rutherford. In Alexander H. McLintock, editor, *An Encyclopaedia of New Zealand: Q–Z*, page ?? Owen, Wellington, New Zealand, 1966. URL <http://www.teara.govt.nz/en/1966/rutherford-sir-ernest/page-3>. Three volumes.

**Anonymous:1966:RSEb**

- [Ano66d] Anonymous. Rutherford, Sir Ernest: Rutherford’s chief honours and scholastic distinctions. In Alexander H. McLintock, editor, *An Encyclopaedia of New Zealand: Q–Z*, page ?? Owen, Wellington, New Zealand, 1966. URL <http://www.teara.govt.nz/en/1966/rutherford-sir-ernest/page-2>. Three volumes.

**Anonymous:1966:CPL**

- [Ano66e] Anonymous. The collected papers of Lord Rutherford of Nelson. Vol. III — The Cavendish Laboratory. *Contemporary Physics*, 7(3):230–231, 1966. CODEN CTPHAF. ISSN 0010-7514 (print), 1366-5812 (electronic).

**Anonymous:1971:ER**

- [Ano71a] Anonymous. Ernest Rutherford (1871–1937). *The Physics Teacher*, 9(7):382, 1971. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Anonymous:1971:RGR**

- [Ano71b] Anonymous. Rutherford and Geiger re-evaluated. *Nature*, 232(5313):599, August 27, 1971. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v232/n5313/pdf/232599a0.pdf>.

**Anonymous:1971:U**

- [Ano71c] Anonymous. [unknown]. *The Bulletin of Nelson College Old Boys' Association*, ??(??):??, July 1971.

**Anonymous:1972:RCC**

- [Ano72] Anonymous. Rutherford Centenary celebrations. *Notes and Records of the Royal Society of London*, 27(1):5, August 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/27/1/5>.

**Bunge:1981:BRR**

- [Ano81] Anonymous. Book review: M. Bunge and W. R. Shea, *Rutherford and Physics at the Turn of the Century*. *Journal for the History of Astronomy*, 12:75, January 1981. CODEN JHSAA2. ISSN 0021-8286 (print), 1753-8556 (electronic). URL <https://ui.adsabs.harvard.edu/#abs/1981JHA...12...75S>.

**Anonymous:1994:EOL**

- [Ano94] Anonymous. Errata: The Origin of the Liquid-Drop Model and the Interpretation of Nuclear Fission. *Perspectives on Science*, 2(2):254, Summer 1994. CODEN PRSIEU. ISSN 1063-6145 (print), 1530-9274 (electronic). Correction of printers error in bottom three equations from page 90.

**Anonymous:1995:HYM**

- [Ano95] Anonymous. *A hundred years and more of Cambridge physics*. Cambridge University Physics Society, Cambridge, UK, third edition, 1995. ISBN 0-9507343-1-4. 47 pp. LCCN ????

**Anonymous:1999:DOR**

- [Ano99] Anonymous. Discovering our roots: The PhD Lineage Contest winners. *APS News*, 8(3):??, March 1999. URL <https://>

[/www.aps.org/publications/apsnews/199903/backpage.cfm](http://www.aps.org/publications/apsnews/199903/backpage.cfm). The article list the “Most Cited Forebears” as “J. J. Thomson and Ernest B. Rutherford.”.

**Murdin:2000:AP**

- [Ano00a] Anonymous. Alpha particle. In Paul Murdin, editor, *Encyclopedia of Astronomy and Astrophysics*, page ?? CRC Press, 2000 N.W. Corporate Blvd., Boca Raton, FL 33431-9868, USA, November 2000. ISBN 0-333-75088-8. URL <http://adsabs.harvard.edu/abs/2000eaa..bookE4841..>

**Anonymous:2000:NWC**

- [Ano00b] Anonymous. The nuclear wall chart: The discovery of radioactivity. Web site., 2000. URL <http://www2.lbl.gov/abc/wallchart/chapters/03/4.html>.

**Anonymous:2001:FMP**

- [Ano01] Anonymous. A few more pounds. *Physics in Perspective (PIP)*, 3(3):313, September 2001. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/PL00000534>.

**Anonymous:2002:P**

- [Ano02] Anonymous. People. *Physics Education*, 37(6):543–550, November 2002. CODEN PHEDA7. ISSN 0031-9120 (print), 1361-6552 (electronic). URL <http://adsabs.harvard.edu/abs/2002PhyEd..37..543..>

**Anonymous:2004:TSP**

- [Ano04] Anonymous. Two strong personalities. *Physics in Perspective (PIP)*, 6(2):248, June 2004. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic).

**Anonymous:2005:RC**

- [Ano05] Anonymous. Rutherford is crazy. *Physics in Perspective (PIP)*, 7(2):263, June 2005. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic).

**Anonymous:2006:MRD**

- [Ano06] Anonymous. May, 1911: Rutherford and the discovery of the atomic nucleus. *APS News*, 15(5), May 2006. URL <https://www.aps.org/publications/apsnews/200605/history.cfm>.

**Anonymous:2009:CAL**

- [Ano09a] Anonymous. ChemInform abstract: Lord Rutherford (1871–1937): The Newton of the atom and the winner of the Nobel Prize for Chemistry, 1908. *ChemInform*, 40(6), February 2009. ISSN 1522-2667.

**Anonymous:2009:ERF**

- [Ano09b] Anonymous. Ernest Rutherford and Frederick Soddy, McGill University, Montréal, Québec. Web site., 2009. URL <http://www.aps.org/programs/outreach/history/historicsites/rutherfordsoddy.cfm>. From the site: “The English plaque read[s]: ‘At this location, Ernest Rutherford and Frederick Soddy, during 1901–03, correctly explained radioactivity as emission of particles from the nucleus and established the laws of the spontaneous transmutation of the elements.’”.

**Anonymous:2009:NCL**

- [Ano09c] Anonymous. No cancer link to Ernest Rutherford’s old laboratory. *Chem. Ind. (London)*, page ??, 2009. URL <http://pubs.rsc.org/en/content/database/haz2912002845>.

**Anonymous:2010:AHR**

- [Ano10] Anonymous. APS honors Rutherford and Soddy. *APS News*, 19(2), February 2010. URL <http://www.aps.org/publications/apsnews/201002/honorspic.cfm>.

**Anonymous:2011:RNA**

- [Ano11] Anonymous. Rutherford and the nuclear atom. *CERN Courier: International Journal of High-Energy Physics*, 51(4):c1, May 2011. CODEN CECO2. ISSN 0304-288X (print), 2077-9550 (electronic). URL <https://cds.cern.ch/record/1734657>.

**Anonymous:2016:CNP**

- [Ano16] Anonymous. Cambridge’s 92 Nobel Peace Prize winners — part 1: from Ernest Rutherford to Bertrand Russell. *Cambridge News*, ??(??):??, January 11, 2016. URL <http://www.cambridge-news.co.uk/Cambridge-s-92-Nobel-Peace-Prize-winners-1-Ernest/story-28495103-detail/story.html>.

**Anonymous:2017:CP**

- [Ano17a] Anonymous. Cavendish pioneers. *Physics World*, 30(3):56, 2017. CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL <http://stacks.iop.org/2058-7058/30/i=3/a=43>.

**Anonymous:2017:NAN**

- [Ano17b] Anonymous. Name announced for Northumberland proton beam cancer centre. ITV Report, February 22, 2017. URL <http://www.itv.com/news/tyne-tees/2017-02-22/name-announced-for-northumberland-proton-beam-cancer-centre/>

**Anonymous:2017:RCM**

- [Ano17c] Anonymous. Rutherford centenary marked with new exhibition. Web site., November 14, 2017.

**Anonymous:2017:RLB**

- [Ano17d] Anonymous. Rutherford's legacy — the birth of nuclear physics in Manchester. Web site., November 2, 2017. URL <http://www.manchester.ac.uk/discover/news/rutherfords-legacy--the-birth-of-nuclear-physics-in-manchester/>.

**Anonymous:2018:BRR**

- [Ano18a] Anonymous. Beware the rise of the radical right: Academic freedom is on the hit list when radical politicians gain office — as they have done in Europe. *Nature*, 563(7733):599, November 26, 2018. URL <https://www.nature.com/articles/d41586-018-07527-2>.

**Anonymous:2018:CAC**

- [Ano18b] Anonymous. Christchurch Arts Centre CEO's new priority — bringing the site to life. *The Press [Christchurch, NZ]*, ??(??):??, February 5, 2018. URL <https://www.stuff.co.nz/the-press/christchurch-life/art-and-stage/visual-art/101026482/christchurch-arts-centre-ceos-new-priority-bringing-the-site-to-life>.

**Anonymous:2018:HPL**

- [Ano18c] Anonymous. Historic physics lab is one of England's top ten places for progress. Web story., August 7,

2018. URL <https://www.manchester.ac.uk/discover/news/historic-physics-lab-is-one-of-englands-top-ten-places-for-progress/>.

**Anonymous:2018:PON**

[Ano18d] Anonymous. PM opens new Ernest Rutherford building at University of Canterbury. Web article, February 15, 2018. URL <http://www.voxy.co.nz/national/5/303736>.

**Anonymous:2018:RSC**

[Ano18e] Anonymous. The Royal Society of Canada presents its awards — the Rutherford Memorial Medal in Physics for Alexandre Blais. Markets Insider Web site., September 18, 2018. URL <https://markets.businessinsider.com/news/stocks/the-royal-society-of-canada-presents-its-awards-the-rutherford-memorial-medal-in-physics-for-alexandre-blais-1027544799>.

**Anonymous:2018:SHJ**

[Ano18f] Anonymous. Stephen Hawking to join Newton, Darwin in final resting place. *U.S. News and World Report*, March 20, 2018. CODEN XNWRAV. ISSN 0041-5537. URL <https://www.usnews.com/news/world/articles/2018-03-20/stephen-hawking-to-join-newton-darwin-in-final-resting-place>. From the story: “British physicist Stephen Hawking is to take his place among some of the greatest scientists in history when his ashes are interred inside Westminster Abbey, close to the graves of Isaac Newton and Charles Darwin. . . . Interment inside Westminster Abbey is a rarely bestowed honor. The most recent burials of scientists there were those of Ernest Rutherford, a pioneer of nuclear physics, in 1937, and of Joseph John Thomson, who discovered electrons, in 1940.”

**Anonymous:2019:AER**

[Ano19a] Anonymous. From the archive: Ernest Rutherford’s compelling Kiwi story. Web site, June 29, 2019. URL <https://www.noted.co.nz/currently/social-issues/ernest-rutherfords-compelling-kiwi-story/>.

**Anonymous:2019:PC**

[Ano19b] Anonymous. Proton, a century on. Web site., June 13, 2019. URL <https://www.miragenews.com/proton-a-century-on/>.

**Anonymous:2021:CKS**

- [Ano21] Anonymous. Children: Know the scientist: Ernest Rutherford. *The Hindu*, ??(??):??, June 17, 2021. URL <https://www.thehindu.com/children/know-the-scientist-ernest-rutherford/article34837002.ece>.

**Anonymous:20xx:ERF**

- [Anoxxa] Anonymous. Ernest Rutherford: Father of modern nuclear physics. New Zealand Herald Archives., 20xx. URL <http://www.nzherald.co.nz/tengreatest/>.

**Anonymous:20xx:LSH**

- [Anoxxb] Anonymous. A life of science: The history of Ernest Rutherford. Web site, 20xx. URL <http://myweb.usf.edu/~mhigh/>.

**Anonymous:20xx:RJN**

- [Anoxxc] Anonymous. The Rutherford Journal: The New Zealand journal for the history of science and technology. Web site, 20xx. URL <http://rutherfordjournal.org/>.

**Anonymous:20xx:RNW**

- [Anoxxd] Anonymous. Rutherford's nuclear world. Web site, 20xx. URL <https://www.aip.org/history/exhibits/rutherford/sections/>.

**Appleton:1962:YR**

- [App62] Sir E. V. (Edward Victor) Appleton. The young Rutherford. In *The collected Papers of Lord Rutherford of Nelson. Vol. 1. New Zealand, Cambridge, Montreal* [RC62], pages 15–24. LCCN ????. URL [http://samples.sainsburysebooks.co.uk/9781317698920\\_sample\\_844125.pdf](http://samples.sainsburysebooks.co.uk/9781317698920_sample_844125.pdf).

**Arons:1965:BRCb**

- [Aro65a] Arnold Arons. Book review: *The Collected Papers of Lord Rutherford of Nelson. Vol. II. Manchester. American Journal of Physics*, 33(5):420, May 1965. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Arons:1965:BRCa**

- [Aro65b] Arnold Arons. Book review: E. N. da C. Andrade, *Rutherford and the Nature of the Atom. American Journal of Physics*,



33(5):416, May 1965. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Arons:1966:BRC**

- [Aro66] A. B. Arons. Book review: *The Collected Papers of Lord Rutherford of Nelson. Volume III*, Published under the direction of Sir James Chadwick. *American Journal of Physics*, 34(9):828–829, September 1966. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**ArroyoCamejo:2006:SQG**

- [Arr06] Silvia Arroyo Camejo. *Skurrile Quantenwelt. (German) [Crazy Quantum World]*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2006. ISBN 3-540-29720-0. xiii + 246 pp. LCCN QC174.12 .A77 2006. EUR 29.95, SFR 51.00. URL <http://www.springer.com/physics/quantum+physics/book/978-3-540-29720-8>.

**Asimov:1964:FS**

- [Asi64] Isaac Asimov. [Frederick Soddy]. In *Biographical Encyclopedia of Science and Technology*, page ?? ????, New York, NY, USA, 1964. Article number 398.

**Aston:1970:RR**

- [Ast70] F. W. Aston. Rutherford and radioactivity. In Homberger et al. [HJS70], pages 175–177. ISBN 0-224-61914-4. LCCN AC5 .H64.

**Abelson:1986:CPA**

- [ATS86] J. R. Abelson, C. C. Tsai, and T. W. Sigmon. Compositional profile of the amorphous silicon/nitride interface studied with Rutherford backscattering. *Applied Physics Letters*, 49(14):850, 1986. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Babbitt:1971:PIC**

- [Bab71] Donald G. Babbitt. Probabilistic interpretation of the classical scattering cross section. *Journal of Mathematical Physics*, 12(1):53–57, January 1971. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL [http://jmp.aip.org/resource/1/jmapaq/v12/i1/p53\\_s1](http://jmp.aip.org/resource/1/jmapaq/v12/i1/p53_s1).

**Badash:1965:RBC**

- [Bad65] Lawrence Badash. Radioactivity before the Curies. *American Journal of Physics*, 33(2):128–135, February 1965. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL <http://scitation.aip.org/content/aapt/journal/ajp/33/2/10.1119/1.1971267>.

**Badash:1966:HNA**

- [Bad66] Lawrence Badash. How the “newer alchemy” was received. *Scientific American*, 215(2):88–95, August 1966. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v215/n2/pdf/scientificamerican0866-88.pdf>.

**Badash:1967:NRF**

- [Bad67] Lawrence Badash. Nagaoka to Rutherford, 22 February 1911. *Physics Today*, 20(4):55–60, April 1967. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/20/4/10.1063/1.3034264>. Reprinted in [Bad85b].

**Badash:1968:RBA**

- [Bad68] Lawrence Badash. Rutherford, Boltwood, and the age of the Earth: The origin of radioactive dating techniques. *Proceedings of the American Philosophical Society held at Philadelphia for promoting useful knowledge*, 112(3):157–169, June 1968. CODEN PAPCAA. ISSN 0003-049X (print), 2326-9243 (electronic).

**Badash:1969:RBL**

- [Bad69] Lawrence Badash, editor. *Rutherford and Boltwood: letters on radioactivity*, volume 4 of *Yale studies in the history of science and medicine*. Yale University Press, New Haven, CT, USA, 1969. ISBN 0-300-01110-5. xxii + 378 pp. LCCN QC16.R8 A43.

**Badash:1971:IBE**

- [Bad71] Lawrence Badash. The importance of being Ernest Rutherford. *Science*, 173(4000):873, September 3, 1971. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1971Sci..173..873B>; <http://www.jstor.org/stable/1731789>.

**Badash:1974:RCC**

- [Bad74] Lawrence Badash. *Rutherford correspondence catalog*, volume 3 of *National catalog of sources for history of physics*. Center for History of Physics, American Institute of Physics, New York, NY, USA, 1974. vii + 174 pp. LCCN QC7 .N35 no.3.

**Badash:1975:ER**

- [Bad75] Lawrence Badash. [Ernest Rutherford]. In Charles Coulston Gillispie, editor, *Dictionary of Scientific Biography*, volume 12, pages 25–?? Charles Scribner's Sons, New York, NY, USA, 1975.

**Badash:1979:OBS**

- [Bad79a] Lawrence Badash. The origins of big science: Rutherford at McGill. In Bunge and Shea [BS79], pages 23–?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Badash:1979:SSR**

- [Bad79b] Lawrence Badash. The suicidal success of radiochemistry. *British Journal for the History of Science*, 12(3):245–256, November 1979. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL <http://www.jstor.org/stable/4025999>.

**Badash:1983:NPR**

- [Bad83] Lawrence Badash. Nuclear physics in Rutherford's laboratory before the discovery of the neutron. *American Journal of Physics*, 51(10):884–889, October 1983. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Badash:1985:KRK**

- [Bad85a] Lawrence Badash. *Kapitza, Rutherford, and the Kremlin*. Yale University Press, New Haven, CT, USA, 1985. ISBN 0-300-01465-1. xi + 129 pp. LCCN QC16.K25 B3 1985.

**Badash:1985:NRF**

- [Bad85b] Lawrence Badash. Nagaoka to Rutherford, 22 February 1911. In Weart and Phillips [WP85], pages 103–107. ISBN 0-88318-468-0 (paperback). LCCN QC7 .H694 1985. Reprint of [Bad67].

**Badash:1987:INZ**

- [Bad87] Lawrence Badash. The influence of New Zealand on Rutherford's scientific development. In Reingold and Rothenberg [RR87], pages 379–390. ISBN 0-87474-785-6. LCCN Q124.6 .S39 1987. Papers from a conference at Melbourne, Australia 25–30 May 1981.

**Badash:2004:BRJ**

- [Bad04a] Lawrence Badash. Book review: J. L. Heilbron: *Ernest Rutherford and the Explosion of Atoms*. *Isis*, 95(1):131–132, March 2004. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/10.1086/423554>.

**Badash:2004:REB**

- [Bad04b] Lawrence Badash. Rutherford, Ernest, Baron Rutherford of Nelson (1871–1937), physicist. In *Oxford Dictionary of National Biography*, page ?? Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2004. URL <http://www.oxforddnb.com/view/article/35891>.

**Badash:2005:APN**

- [Bad05] Lawrence Badash. American physicists, nuclear weapons in World War II, and social responsibility. *Physics in Perspective (PIP)*, 7(2):138–149, June 2005. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-003-0215-6>; <http://www.springerlink.com/content/u2638016081u076h/>.

**Badash:2008:RE**

- [Bad08] Lawrence Badash. Rutherford, Ernest. In *Complete Dictionary of Scientific Biography*, page ?? Charles Scribner's Sons, Detroit, MI, USA, 2008. ISBN 0-684-31559-9. URL [http://www.encyclopedia.com/topic/Ernest\\_Rutherford.aspx](http://www.encyclopedia.com/topic/Ernest_Rutherford.aspx).

**Badash:2009:REB**

- [Bad09] Lawrence Badash. Rutherford, Ernest, Baron Rutherford of Nelson (1871–1937). In *Oxford Dictionary of National Biography*, page ????. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, January 3, 2009.

ISBN 0-19-861412-8. URL <http://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-35891>.

**Badash:20xx:ERB**

- [Badxx] Lawrence Badash. Ernest Rutherford, Baron Rutherford of Nelson: British physicist. Encyclopædia Britannica online., 20xx. URL <http://www.britannica.com/biography/Ernest-Rutherford>.

**Bahcall:2000:HSS**

- [Bah00] John Norris Bahcall. How the sun shines. Nobel Web site., 2000. URL [http://en.wikipedia.org/wiki/John\\_N.\\_Bahcall](http://en.wikipedia.org/wiki/John_N._Bahcall); [http://www.nobelprize.org/nobel\\_prizes/themes/physics/fusion/](http://www.nobelprize.org/nobel_prizes/themes/physics/fusion/).

**Baily:2013:EAM**

- [Bai13] C. Baily. Early atomic models — from mechanical to quantum (1904–1913). *European Physical Journal H*, 38:1–38, January 2013. CODEN EPJHAD. ISSN 2102-6459 (print), 2102-6467 (electronic). URL <http://adsabs.harvard.edu/abs/2013EPJH...38....1B>.

**Baldwin:2015:MNH**

- [Bal15] Melinda Baldwin. *Making Nature: the History of a Scientific Journal*. University of Chicago Press, Chicago, IL, USA, 2015. ISBN 0-226-26145-X (hardcover), 0-226-26159-X (e-book). 309 pp. LCCN Q1.N23 B35 2015.

**Baldwin:2019:NP**

- [Bal19] Melinda Baldwin. Nature and physics. *Physics Today*, 72(10):??, October 29, 2019. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <https://physicstoday.scitation.org/doi/10.1063/PT.6.4.20191029a/full/>.

**Baldwin:2021:ERA**

- [Bal21] Melinda Baldwin. Ernest Rutherford's ambitions. *Physics Today*, 74(5):26–33, May 2021. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <https://doi.org/10.1063%2Fpt.3.4747>.

**Barus:1905:SBR**

- [Bar05] C. Barus. Scientific books: Radioactivity. *Science*, 21(540): 697–698, May 5, 1905. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1905Sci...21..697R>; <http://www.sciencemag.org/content/21/540/697>.

**Barus:1906:SBR**

- [Bar06] C. Barus. Scientific books: Radio-activity. *Science*, 23(581): 262, February 16, 1906. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1906Sci...23..262R>; <http://www.sciencemag.org/content/23/581/262.2.extract>.

**Barr:1971:AIP**

- [Bar71] E. Scott Barr. Anniversaries in 1971 of interest to physicists. *American Journal of Physics*, 39(8):859–867, August 1971. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL <http://adsabs.harvard.edu/abs/1971AmJPh..39..859B>; <http://scitation.aip.org/content/aapt/journal/ajp/39/8/10.1119/1.1986314>.

**Barton:1983:RST**

- [Bar83] G. Barton. Rutherford scattering in two dimensions. *American Journal of Physics*, 51(5):420–422, May 1983. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Barbour:1985:CED**

- [Bar85] J. C. Barbour. Calibration of an energy dispersive spectroscopy  $k$  factor using Rutherford backscattering. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 3(5):1895, September 1985. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Bates:1972:GMW**

- [Bat72] L. F. Bates. “A great man who did good things” [review of *Rutherford: Recollections of the Cambridge Days*, by Mark Oliphant (Elsevier, 1972). [Pp. xii + 158] Dfl 22.50; \$7.00]. *Contemporary Physics*, 13(5):501–502, 1972. CODEN CT-PHAF. ISSN 0010-7514 (print), 1366-5812 (electronic).

**Bauer:1973:ASA**

- [Bau73a] W. Bauer. Abstract: Study of aluminum oxide films by ion induced X rays and Rutherford back-scattering. *Journal of Vacuum Science Technology*, 10(1):273, January 1973. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**Bauer:1973:SAO**

- [Bau73b] Walter Bauer. Study of aluminum oxide films by ion-induced X rays and Rutherford backscattering. *Journal of Applied Physics*, 44(6):2606, 1973. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Bethe:1936:NPS**

- [BB36] H. A. Bethe and R. F. Bacher. Nuclear physics A. Stationary states of nuclei. *Reviews of Modern Physics*, 8(2):82–229, April 1, 1936. CODEN RMPHAT. ISSN 0034-6861 (print), 1538-4527 (electronic), 1539-0756. URL <http://link.aps.org/doi/10.1103/RevModPhys.8.82>; [http://rmp.aps.org/abstract/RMP/v8/i2/p82\\_1](http://rmp.aps.org/abstract/RMP/v8/i2/p82_1).

**Basano:1980:RSF**

- [BB80] L. Basano and A. Bianchi. Rutherford's scattering formula via the Runge–Lenz vector. *American Journal of Physics*, 48(5):400–401, May 1980. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Blood:1980:CSM**

- [BBR80] P. Blood, K. L. Bye, and J. S. Roberts. Composition studies of MBE GaInP alloys by Rutherford scattering and X-ray diffraction. *Journal of Applied Physics*, 51(3):1790, 1980. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Born:1969:AP**

- [BBSR69] Max Born, R. J. (Roger John) Blin-Stoyle, and J. M. Radcliffe. *Atomic Physics*. Dover books on physics and chemistry. Dover, New York, NY, USA, eighth edition, 1969. ISBN 0-486-65984-4. xiv + 495 + 11 pp. LCCN QC776 .B5713 1989. US\$11.95. URL <http://www.loc.gov/catdir/description/dover031/89012033.html>.

**Bruton:2016:LDA**

- [BC16] Elizabeth Bruton and Paul Coleman. Listening in the dark: audio surveillance, communication technologies, and the submarine threat during the First World War. *History and Technology*, 32(3):245–268, 2016. CODEN HITEE8. ISSN 0734-1512 (print), 1477-2620 (electronic).

**Bernal:2013:DAR**

- [BCM13] M. A. Bernal, F. J. Camacho, and R. Martinez. Dimensional analysis and Rutherford scattering. *European Journal of Physics*, 34(1):L5–L8, 2013. CODEN EJPHD4. ISSN 0143-0807 (print), 1361-6404 (electronic). URL <http://stacks.iop.org/0143-0807/34/i=1/a=L5>.

**Belloni:1982:BRR**

- [Bel82] Lanfranco Belloni. Book review: *La radioattività da Becquerel a Rutherford* by Giuseppe Bruzzaniti. *Isis*, 73(1):120–121, March 1982. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/232106>.

**Burge:1968:ODS**

- [BELG68] E. J. Burge, V. R. W. Edwards, V. E. Lewis, and N. K. Gan-guly. Optimum design of student experiments on Rutherford scattering. *American Journal of Physics*, 36(4):351–361, April 1968. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Benjamin:2020:UBA**

- [Ben20] Claudie Benjamin. Upcoming book about legendary celebs of Morningside Heights & Manhattan Valley. Web site, April 30, 2020. URL <https://ilovetheupperwestside.com/notable-new-yorkers-manhattans-upper-west-side-book/>

**Bernstein:2007:PHW**

- [Ber07] Jeremy Bernstein. *Plutonium: a history of the world's most dangerous element*. Joseph Henry Press, Washington, DC, USA, 2007. ISBN 0-309-10296-0 (hardcover), 1-280-84457-4, 0-309-10773-3 (e-book). x + 194 + 8 pp. LCCN QD181.P9 B47 2007. URL <http://www.loc.gov/catdir/toc/ecip075/2006038466.html>.



**Beyer:1949:FNP**

- [Bey49] Robert T. (Robert Thomas) Beyer, editor. *Foundations of nuclear physics: facsimiles of thirteen fundamental studies as they were originally reported in the scientific journals*. Dover, New York, NY, USA, 1949. 272 pp. LCCN QC173 .B485. See original paper [HS39] and later translation [Gra64].

**Bhattacharya:1982:LTA**

- [Bha82] R. S. Bhattacharya. Low-temperature annealing behavior of Se-implanted GaAs studied by high resolution Rutherford backscattering channeling. *Journal of Applied Physics*, 53 (3):1804, 1982. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Baird:1998:HHC**

- [BHN98] Davis Baird, R. I. G. Hughes, and Alfred Nordmann. *Heinrich Hertz: Classical Physicist, Modern Philosopher*, volume 198 of *Boston Studies in the Philosophy of Science*. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1998. ISBN 90-481-4881-2, 94-015-8855-4 (e-book). ISSN 0068-0346. xi + 324 pp. LCCN ????. URL <https://link.springer.com/book/10.1007/978-94-015-8855-3>.

**Birge:1957:BRE**

- [Bir57] Raymond T. Birge. Book reviews: *Ernest Rutherford, Atom Pioneer*. *Science*, 126(3267):268–269, August 9, 1957. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1957Sci..126..268R>; <http://www.jstor.org/stable/1752897>.

**Birks:1961:PRJ**

- [Bir61] J. B. (John Betteley) Birks, editor. *Proceedings of the Rutherford Jubilee International Conference, Held at Victoria University of Manchester, from 4–8 September 1961*. Heywood & Company, London, UK, 1961. LCCN ????

**Birks:1962:RM**

- [Bir62] J. B. Birks, editor. *Rutherford at Manchester*. Heywood and Company LTD, London, UK, 1962. x + 364 pp. LCCN ????

**Birks:1963:RM**

- [Bir63] J. B. (John Betteley) Birks, editor. *Rutherford at Manchester*. Benjamin, New York, NY, USA, 1963. x + 364 pp. LCCN QC16.R8 B57 1962.

**Bishop:1990:SRE**

- [Bis90] Carl B. Bishop. Simulation of Rutherford's experiment. *Journal of Chemical Education*, 67(10):889-??, October 1990. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed067p889>.

**Barradas:1997:SA A**

- [BJW97] N. P. Barradas, C. Jeynes, and R. P. Webb. Simulated annealing analysis of Rutherford backscattering data. *Applied Physics Letters*, 71(2):291, 1997. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Battistig:2006:VIS**

- [BKP<sup>+</sup>06] G. Battistig, N. Q. Khañh, P. Petrik, T. Lohner, L. Dobos, B. Pećz, J. García López, and Y. Morilla. A view of the implanted SiC damage by Rutherford backscattering spectroscopy, spectroscopic ellipsometry, and transmission electron microscopy. *Journal of Applied Physics*, 100(9):093507, 2006. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Blackett:1950:RA**

- [Bla50] P. M. S. (Patrick Maynard Stuart) Blackett. Rutherford and after. *Manchester Guardian Weekly*, 63(??):13, December 14, 1950. ISSN 0025-200X.

**Blackett:1959:RML**

- [Bla59] P. M. S. Blackett. The Rutherford Memorial Lecture, 1958. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 251(1266):293-305, 1959. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/251/1266/293>.

**Blackett:1972:R**

- [Bla72] Lord Blackett, F.R.S. Rutherford. *Notes and Records of the Royal Society of London*, 27(1):57-59, August 1972. CO-

DEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/27/1/57>.

**Blewett:1957:BRE**

- [Ble57] M. H. Blewett. Book review: *Ernest Rutherford: Atom Pioneer*. By John Rowland. 160 pp. Philosophical Library, Inc., New York, 1957. \$4.75. *Physics Today*, 10(8):32, August 1957. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://adsabs.harvard.edu/abs/1957PhT...10h..32R>; <http://scitation.aip.org/content/aip/magazine/physicstoday/article/10/8/10.1063/1.3060467>.

**Bleaney:1999:ISE**

- [Ble99] Brebis Bleaney. The importance of seeing Ernest. *Physics World*, 12(6):18, June 1999. CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL <http://stacks.iop.org/2058-7058/12/i=6/a=19>.

**Bleaney:2002:TOS**

- [Ble02] B. Bleaney. Two Oxford science professors, F. Soddy and J. S. E. Townsend. *Notes and Records of the Royal Society of London*, 56(1):83–88, January 22, 2002. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic).

**Boorse:1966:WAV**

- [BM66] Henry A. Boorse and Lloyd Motz, editors. *The World of the Atom, Volume 1*. Basic Books, New York, NY, USA, 1966. ??? pp. URL <http://adsabs.harvard.edu/abs/1966woat.book..701R>. With a foreword by I. I. Rabi.

**Boato:2007:MEC**

- [Boa07] Giovanni Boato. The measurement of the elementary charge by Rutherford and Geiger. *Physis: Rivista Internazionale di Storia della Scienza. Nuova Serie*, 44(1):137–151, 2007. CODEN PYSSA3. ISSN 0031-9414 (print), 2038-6265 (electronic).

**Bodanis:2020:WCC**

- [Bod20] David Bodanis. What companies can learn from a Cambridge physics laboratory: Ernest Rutherford's pioneering science facility offers great lessons in modern teamwork. Financial

Times online, January 15, 2020. URL <https://www.ft.com/content/e6172084-1aac-11ea-81f0-0c253907d3e0>.

**Bohr:1926:SER**

- [Boh26] Niels Bohr. Sir Ernest Rutherford, O.M., P.R.S. *Nature*, 118(2981S):51–52, December 18, 1926. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v118/n2981supp/pdf/118051a0.pdf>.

**Bohr:1937:ORH**

- [Boh37] Niels Bohr. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):752–753, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/pdf/140752b0.pdf>.

**Bohr:1961:RML**

- [Boh61] Niels Bohr. The Rutherford Memorial Lecture 1958: Reminiscences of the founder of nuclear science and of some developments based on his work. *Proceedings of the Physical Society, London*, 78(6):1083–1115, December 1, 1961. CODEN PPSOAU. ISSN 0370-1328 (print), 1747-3810 (electronic). URL <http://stacks.iop.org/0370-1328/78/i=6/a=301n>.

**Bohr:1963:EAP**

- [Boh63] Niels Bohr. *Essays, 1958–1962, on Atomic Physics and Human Knowledge*. Interscience Publishers, New York, NY, USA, 1963. x + 100 pp. LCCN QC6 .B599 1963.

**Bohr:1987:EAPb**

- [Boh87] Niels Bohr. *Essays 1958–1962 on atomic physics and human knowledge*, volume 3 of *The Philosophical writings of Niels Bohr*. Ox Bow Press, Woodbridge, CT, USA, 1987. ISBN 0-918024-55-2, 0-918024-54-4 (paperback). x + 100 pp. LCCN QC5.58 .B64213 1987 vol. 3; QC174.12 1987.

**Boltwood:1905:LOR**

- [Bol05] Bertram B. Boltwood. LIV. The origin of radium. *Philosophical Magazine (6)*, 9(52):599–613, 1905. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440509463308>.

**Boltwood:1906:PRA**

- [Bol06] Bertram B. Boltwood. The production of radium from actinium. *Nature*, 75(1933):54, November 15, 1906. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v75/n1933/pdf/075054c0.pdf>. See comments [Rut07e].

**Bouffard:1999:RME**

- [Bou99] Karen Bouffard. Rutherford meets Einstein. *The Physics Teacher*, 37(2):125, 1999. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Bowler:2014:RG**

- [Bow14] S. Bowler. Rutherford's geophysicists. *Astronomy and Geophysics*, 55(6):6.21–6.25, December 2014. CODEN ASGEF5. ISSN 1366-8781 (print), 1468-4004 (electronic). URL <http://adsabs.harvard.edu/abs/2014A%26G...55f6.21B>.

**Bragg:1970:PS**

- [BP70] Sir William Lawrence Bragg and George Porter, editors. *Physical Sciences*. The Royal Institution library of science. Elsevier Publishing Company, Barking, England, 1970. ISBN 0-444-20048-7. LCCN QC71 .P45.

**Bhuinya:1993:PNR**

- [BP93] C. R. Bhuinya and H. C. Padhi. Proton non-Rutherford backscattering analysis of aluminized Mylar at different incident energies. *Journal of Applied Physics*, 74(10):6120, 1993. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Bubert:1991:ICC**

- [BPSW91] Henning Bubert, Leopold Palmetshofer, Gerhard Stinger, and Marek Wielunski. Investigation of chromium, cobalt, and nickel-implantation in silicon using Auger electron spectrometry, secondary ion mass spectrometry, Rutherford backscattering spectrometry, and Monte Carlo simulation. *Analytical Chemistry (Washington, DC, USA)*, 63(15):1562–1570, 1991. CODEN ANCHAM. ISSN 0003-2700 (print), 1520-6882 (electronic).

**Boltwood:1911:EHD**

- [BR11a] Bertram B. Boltwood and Ernest Rutherford. Die Erzeugung von Helium durch Radium. (German) [The production of helium by radium]. *Mitteilungen der Radium-Kommission der kaiserlichen Akademie der Wissenschaften*, 8:1–24, 1911. ISSN 0258-5650.

**Boltwood:1911:PHP**

- [BR11b] Bertram B. Boltwood and Ernest Rutherford. Sur la production de l'hélium par le radium. (French) [On the production of helium by radium]. *Radium (Paris)*, 8(10):381–388, October 1911. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1911/10/radium\\_1911\\_\\_8\\_10\\_381\\_1/radium\\_1911\\_\\_8\\_10\\_381\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1911/10/radium_1911__8_10_381_1/radium_1911__8_10_381_1.html).

**Boltwood:1911:VEH**

- [BR11c] Bertram B. Boltwood and Ernest Rutherford. VIII. Die Erzeugung von Helium durch Radium. (German) [VIII. The production of helium by radium]. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse*, 120(1):313–336, March 16, 1911. CODEN SWWPAX. ISSN 0376-2629. URL <http://tinyurl.com/h4663p8>.

**Boltwood:1911:LPH**

- [BR11d] Professor Bertram B. Boltwood and Professor Ernest Rutherford, F.R.S. LV. Production of helium by radium. *Philosophical Magazine (6)*, 22(130):586–604, October 1911. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Bragg:1916:IAD**

- [BR16] William Henry Bragg and Sir Ernest Rutherford. Improvements in apparatus for detecting the direction of sound in water. British patent GB125446 (A) 1919-04-24., August 2, 1916. URL [http://worldwide.espacenet.com/publicationDetails/biblio?FT=D&date=19190424&DB=EPDOC&locale=en\\_EP&CC=GB&NR=125446A&KC=A&ND=4](http://worldwide.espacenet.com/publicationDetails/biblio?FT=D&date=19190424&DB=EPDOC&locale=en_EP&CC=GB&NR=125446A&KC=A&ND=4). British Patent Application GB19160010887 filed in 1916, granted in 1919.

**Bragg:1937:ORH**

- [Bra37] W. H. Bragg. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):752, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140752a0.html>.

**Bragg:1961:RML**

- [Bra61] Sir Lawrence Bragg, F.R.S. The Rutherford Memorial Lecture, 1960. The development of X-ray analysis. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 262(1309):145–158, 1961. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/262/1309/145>. Delivered at the University of Canterbury, Christchurch, New Zealand, on 21 September 1960.

**Bradbury:1998:TSC**

- [Bra98] C. A. Bradbury. Tungsten silicide composition analysis by Rutherford backscattering spectroscopy, Auger electron spectroscopy, and X-ray photoelectron spectroscopy. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 16(3):1103, May 1998. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Bragg:2004:R**

- [Bra04] Melvyn Bragg. Rutherford. BBC Radio 4 45-minute broadcast., February 19, 2004. URL <http://www.bbc.co.uk/programmes/p004y23q>.

**Brandt:2009:HCD**

- [Bra09] Siegmund Brandt. *The harvest of a century: discoveries of modern physics in 100 episodes*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2009. ISBN 0-19-954469-7 (hardcover). xiv + 500 pp. LCCN QC7 .B64 2009.

**Brescia:1983:RAR**

- [Bre83] Frank Brescia. The Rutherford atom revisited. *Journal of Chemical Education*, 60(8):646–??, August 1983. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed060p646>.

**Brennan:1997:HPS**

- [Bre97] Richard P. Brennan. *Heisenberg probably slept here: the lives, times, and ideas of the great physicists of the 20th Century*. Wiley, New York, NY, USA, 1997. ISBN 0-471-15709-0 (cloth). xi + 274 pp. LCCN QC15 .B74 1997; 97.E02533.

**Brenner:2000:RCR**

- [Bre00] David J. Brenner. Rutherford, the Curies, and radon. *Medical Physics*, 27(3):618, March 2000. CODEN MPHYA6. ISSN 0094-2405 (print), 1522-8541 (electronic).

**BNMRA:1931:PID**

- [Bri31] British Non-ferrous Metals Research Association. *A brief illustrated description of the headquarters and central laboratories*. British Non-ferrous Metals Research Association, London, UK, 1931. 15 pp. LCCN TA459 .B75. Published on the occasion of the official opening by Lord Rutherford, June 8th, 1931.

**Brink:1965:NF**

- [Bri65] David Maurice Brink. *Nuclear Forces*, volume 354 of *Commonwealth and international library: Selected readings in physics*. Pergamon Press, New York, NY, USA, 1965. ISBN 0-08-011034-7. viii + 232 pp. LCCN QC173 .B8513 1965.

**Brouet:1962:MFG**

- [Bro62] J. Brouet. Marchal, A. F. — un géant de la science: Ernest Rutherford. *Ciel et Terre*, 78:216-??, 1962. CODEN CIELAV. ISSN 0009-6709. URL <http://adsabs.harvard.edu/abs/1962C%26T...78T.216B>.

**Bronowski:1973:AM**

- [Bro73a] Jacob Bronowski. *The Ascent of Man*. British Broadcasting Corporation, London, UK, 1973. ISBN 0-563-10498-8. 448 pp. LCCN Q175 .B7918 1973; CB151.

**Bronowski:1973:SAR**

- [Bro73b] Jacob Bronowski. Structure in the atom: Rutherford and Niels Bohr. In *The Ascent of Man* [Bro73a], pages 333–341. ISBN 0-563-10498-8. LCCN Q175 .B7918 1973; CB151.



**Brown:1986:BRB**

- [Bro86] Laurie M. Brown. Book review: Badash Lawrence. *Kapitza, Rutherford, and the Kremlin*. New Haven: Yale University Press, 1985. Pp. xi + 129. ISBN 0-300-01465-1. £20.00. *British Journal for the History of Science*, 19(3):372, November 1986. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL <http://www.jstor.org/stable/4026544>.

**Brown:1997:NBB**

- [Bro97] Andrew Brown. *The neutron and the bomb: a biography of Sir James Chadwick*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1997. ISBN 0-19-853992-4 (hardcover). xiv + 384 + 16 pp. LCCN QC774.C43 B76 1997. URL <http://www.loc.gov/catdir/enhancements/fy0640/97200691-d.html>; <http://www.loc.gov/catdir/enhancements/fy0640/97200691-t.html>.

**Brockie:2018:NST**

- [Bro18] Bob Brockie. Naming space things. Stuff Web site [New Zealand]., May 7, 2018. URL <https://www.stuff.co.nz/science/103570068/bob-brockie-naming-space-things>. From the article: “One crater on Mars is named to honour Lord Ernest Rutherford, ...”.

**Bruker:1964:LRN**

- [Bru64] Marshall Bruker. Lord Rutherford of Nelson (1871–1937). *Journal of Nuclear Medicine*, 5:392–396, May 1964. ISSN 0161-5505 (print), 1535-5667 (electronic). URL <http://jnm.snmjournals.org/content/5/5/391.full.pdf+html>.

**Brush:1979:SRE**

- [Bru79] Stephen G. Brush. Scientific revolutionaries of 1905: Einstein, Rutherford, Chamberlin, Wilson, Stevens, Binet, Freud. In Bunge and Shea [BS79], page ?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Bunge:1979:RPT**

- [BS79] Mario Bunge and William R. Shea, editors. *Rutherford and Physics at the Turn of the Century*. Dawson, Kent, UK, 1979. ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). 184 pp. LCCN QC7.5 .R87 1979.

**Baumann:1988:NDP**

- [BSS88] Scott A. Baumann, Michael D. Strathman, and Steven L. Suib. Nondestructive depth profiling of rare-earth and actinide zeolites via Rutherford backscattering methods. *Analytical Chemistry (Washington, DC, USA)*, 60(10):1046–1051, 1988. CODEN ANCHAM. ISSN 0003-2700 (print), 1520-6882 (electronic).

**Buhrke:1998:LIW**

- [Büh98a] Thomas Bürke. “Ich weiß jetzt, wie ein Atom aussieht!” Ernest Rutherford (1871–1937). (German) [“I now know what an atom looks like!” Ernest Rutherford (1871–1937)]. In *Newtons Apfel: Sternstunden der Physik; von Galilei bis Lise Meitner. (German) [Newton’s apple: great moments of physics; from Galileo to Lise Meitner]* [Büh98b], pages 141–161. ISBN 3-406-44402-4, 3-406-42002-8 (paperback). LCCN ????

**Buhrke:1998:NAS**

- [Büh98b] Thomas Bürke. *Newtons Apfel: Sternstunden der Physik; von Galilei bis Lise Meitner. (German) [Newton’s apple: great moments of physics; from Galileo to Lise Meitner]*, volume 1202 of *Beck’sche Reihe*. Verlag C. H. Beck, München, Germany, 1998. ISBN 3-406-44402-4, 3-406-42002-8 (paperback). 258 pp. LCCN ????

**Burgers:1918:AVR**

- [Bur18] Johannes Martinus Burgers. *Het Atoommodel van Rutherford-Bohr. (Dutch) [The Atomic Model of Rutherford-Bohr]*. PhD thesis, Rijksuniversiteit te Leiden, Leiden, The Netherlands, 1918. xix + 265 pp. Uit Archives du Musée Teyler, series 3, vol. 4.

**Burton:1938:OLR**

- [Bur38] E. F. Burton. [Obituary: Lord Rutherford]. *University of Toronto Quarterly*, 7(?):329–338, ??? 1938. URL <http://musecommons.org/blog/2014/07/14/university-of-toronto-quarterly-adds-earlier-issues/>.

**Burcham:1964:RMC**

- [Bur64] W. E. Burcham. Rutherford at Manchester, 1907–19 The Collected Papers of Lord Rutherford of Nelson, Vol. 2. (London:

George Allen & Unwin, 1963.) [Pp. 590] 105s. *Contemporary Physics*, 5(4):304–308, 1964. CODEN CTPHAF. ISSN 0010-7514 (print), 1366-5812 (electronic).

**Burhop:1982:RML**

- [Bur82] E. H. S. Burhop, F.R.S. Rutherford Memorial Lecture, 1979. The new physics. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 380(1778):1–28, 1982. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/380/1778/1>. Lecture delivered at the University of Canterbury, Christchurch, New Zealand on 3 October 1979.

**Burcham:1983:RML**

- [Bur83] W. E. Burcham, F.R.S. The Rutherford Memorial Lecture, 1983: Rutherford and beta decay. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 389(1797):215–239, 1983. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/389/1797/215>. Lecture delivered at McGill University, Montreal on 24 May 1983, Carleton University, Ottawa on 25 May 1983, Chalk River Laboratories, Ontario on 26 May 1983, McMaster University, Hamilton on 27 May 1983 and Royal Society of Canada meeting, University of British Columbia on 31 May 1983.

**Burrow:1986:CAE**

- [Bur86] Brad J. Burrow. A correlation of Auger electron spectroscopy, X-ray photoelectron spectroscopy, and Rutherford backscattering spectrometry measurements on sputter-deposited titanium nitride thin films. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 4(6):2463, November 1986. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Burande:2013:CAR**

- [Bur13a] Chandrakant S. Burande. On the conceptual aspects of the Rutherford–Santilli neutron model. *AIP Conference Proceedings*, 1558:688–??, 2013. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465.

**Burande:2013:EVR**

- [Bur13b] Chandrakant S. Burande. On the experimental verification of Rutherford–Santilli neutron model. *AIP Conference Proceedings*, 1558:693–??, 2013. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465.

**Burande:2015:RSN**

- [Bur15] Chandrakant S. Burande. On the Rutherford–Santilli neutron model. *AIP Conference Proceedings*, 1648:510006, 2015. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465.

**Buckner:1988:ERB**

- [BVI88] J. L. Buckner, D. J. Vitkavage, and E. A. Irene. Ellipsometric and Rutherford backscattering characterization of low-energy hydrogen-, helium-, neon-, and argon-bombarded silicon. *Journal of Applied Physics*, 63(11):5288, 1988. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Bethe:1980:ORF**

- [BW80] H. A. Bethe and George Winter. Otto Robert Frisch. *Physics Today*, 33(1):99–100, January 1980. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://physicstoday.scitation.org/doi/abs/10.1063/1.2913924>. See correction [Dit80].

**Cameron:1979:CPS**

- [Cam79] Neil Cameron. 1900: The Cavendish physicists and the spirit of the ages. In Bunge and Shea [BS79], page ?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Campbell:1997:REM**

- [Cam97] John Campbell. Rutherfordium — elementary my dear Ernest. *New Zealand Science Teacher*, 86:36–37, 1997. ISSN 0110-7801. URL <http://www.rutherford.org.nz/hr104.htm>.

**Campbell:1998:ERS**

- [Cam98] John Campbell. Ernest Rutherford: scientist supreme. *Physics World*, 11(9):35–40, September 1998. CODEN PH-

WOEW. ISSN 0953-8585 (print), 2058-7058 (electronic).  
URL <http://stacks.iop.org/2058-7058/11/i=9/a=27>.

**Campbell:1999:RSS**

- [Cam99] John Campbell. *Rutherford: scientist supreme*. AAS Publications, Christchurch, New Zealand, 1999. ISBN 0-473-05700-X (hardcover). xvi + 516 + 32 + 16 pp. LCCN ????

**Campbell:2000:RNP**

- [Cam00] John Campbell. Rutherford and the Nobel Prize. *Physics World*, 13(11):21, November 2000. CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL <http://stacks.iop.org/2058-7058/13/i=11/a=22>.

**Campbell:2005:RCA**

- [Cam05] John Campbell. 1905, Rutherford, Canada, and all that. *Physics in Canada = La Physique au Canada*, 61(1):21–27, January/February 2005. ISSN 0031-9147. URL [http://www.cap.ca/onlineforms/temp\\_PiC\\_archive/2005-v61-n1.pdf](http://www.cap.ca/onlineforms/temp_PiC_archive/2005-v61-n1.pdf). The journal cover features a colored pastel portrait of 36-year-old Ernest Rutherford by R. G. Matthews, 1907.

**Campbell:2009:ISG**

- [Cam09] John Campbell. Inside story: The genius of Rutherford revisited. *CERN Courier: International Journal of High-Energy Physics*, 49(2):46, March 2009. CODEN CEEOA2. ISSN 0304-288X (print), 2077-9550 (electronic). URL <https://cds.cern.ch/record/1734353>; <https://cerncourier.com/inside-story-the-genius-of-rutherford-revisited/>.

**Campbell:2011:RRN**

- [Cam11] John Campbell. Rutherford — the road to the nuclear atom. *CERN Courier: International Journal of High-Energy Physics*, 51(4):20–24, May 2011. CODEN CEEOA2. ISSN 0304-288X (print), 2077-9550 (electronic). URL <https://cds.cern.ch/record/1734652>.

**Campbell:2014:AEM**

- [Cam14] John Campbell. Alchemy and earthquakes: making the Rutherford documentary. *New Zealand Science Teacher*, ??

(??):??, September 2, 2014. ISSN 0110-7801. URL <http://nzscienceteacher.co.nz/index.php/science-education-society/science-education-and-culture/alchemy-and-earthquakes-making-the-rutherford-documentary>.

**Campos:2015:RSL**

- [Cam15] Luis A. Campos. *Radium and the secret of life*. University of Chicago Press, Chicago, IL, USA, 2015. ISBN 0-226-23827-X (hardcover), 0-226-23830-X (e-book). 378 pp. LCCN QD181.R1 C36 2015.

**Campbell:2019:RTP**

- [Cam19] John Campbell. Rutherford, transmutation and the proton: The events leading to Ernest Rutherford's discovery of the proton, published in 1919. *CERN Courier: International Journal of High-Energy Physics*, 59(3):27–30, May 2, 2019. CODEN CECO2. ISSN 0304-288X (print), 2077-9550 (electronic). URL <https://cerncourier.com/rutherford-transmutation-and-the-proton/>.

**Cochran:1988:MWU**

- [CAN88] Thomas B. Cochran, William M. Arkin, and Robert S. Norris. Making warheads: U.S. nuclear weapons production: an overview. *Bulletin of the Atomic Scientists*, 44(1):13–16, January/February 1988. CODEN BASIAP. ISSN 0096-3402 (print), 1938-3282 (electronic). URL [http://docs.nrdc.org/nuclear/nuc\\_88010001a\\_79.pdf](http://docs.nrdc.org/nuclear/nuc_88010001a_79.pdf). See comment [Shi88].

**Cardinale:1998:SAC**

- [Car98] A. E. Cardinale. Dagli archivi della scienza, una ricorrenza centenaria. Rutherford e la scoperta dei raggi alfa e beta. (Italian) [From science's archives, a centennial: Rutherford and the discovery of alpha and beta rays]. *La Radiologia medica*, 96(3):149–153, September 1998. CODEN RAMEAN. ISSN 0033-8362 (print), 1826-6983 (electronic).

**Cattan:1993:PPR**

- [Cat93] E. Cattan. Physical properties of radio-frequency magnetron sputtered Pb(Zr,Ti)O<sub>3</sub> thin films: Direct determination of oxygen composition by Rutherford backscattering spectroscopy and nuclear reaction analysis. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*,

11(5):2808, September 1993. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Cathcart:2004:FCH**

- [Cat04] Brian Cathcart. *The fly in the cathedral: how a group of Cambridge scientists won the international race to split the atom*. Farrar, Strauss, and Giroux, New York, NY, USA, 2004. ISBN 0-374-15716-2 (hardcover). xii + 308 + 4 pp. LCCN Q141 .C2515 2004.

**Cathcart:2012:GFC**

- [Cat12] B. Cathcart. Glimpsing the fly in the cathedral: Marking the centennial of the first description of the atomic nucleus. *AIP Conference Proceedings*, 1441:29–33, September 2012. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. URL <http://adsabs.harvard.edu/abs/2012AIPC.1441...29C>.

**Crocco:2012:SAC**

- [CBZ<sup>+</sup>12] J. Crocco, H. Bensalah, Q. Zheng, V. Corregidor, E. Avles, A. Castaldini, B. Fraboni, D. Cavalcoli, A. Cavallini, O. Vela, and E. Dieguez. Study of asymmetries of Cd(Zn)Te devices investigated using photo-induced current transient spectroscopy, Rutherford backscattering, surface photo-voltage spectroscopy, and gamma ray spectroscopies. *Journal of Applied Physics*, 112(7):074503, 2012. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Cockcroft:1934:SPN**

- [CCJ<sup>+</sup>34] J. Cockcroft, J. Chadwick, F. Joliot, J. Joliot, N. Bohr, G. Gamov, P. A. M. Dirac, and W. Heisenberg, editors. *Structure et propriétés des noyaux atomiques. Rapports et discussions du septième conseil de physique tenu à Bruxelles du 22 au 29 octobre 1933 sous les auspices de l'institut international de physique Solway. (French) [Structure and properties of atomic nuclei. Reports and discussions of the Seventh Meeting on Physics held in Brussels from 22 to 29 October 1933 under the auspices of the Solway International Institute of Physics]*. Gauthier-Villars, Paris, France, 1934. LCCN ????.  
Publiés par la commission administrative de l'institut.

**Coulman:1985:GFT**

- [CCR85] Betty Coulman, Haydn Chen, and L. E. Rehn. Gauging film thickness: a comparison of an X-ray diffraction technique with Rutherford backscattering spectrometry. *Journal of Applied Physics*, 57(2):643, 1985. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Choi:2003:RBA**

- [CCR<sup>+</sup>03] H. W. Choi, M. G. Cheong, M. A. Rana, S. J. Chua, T. Osipowicz, and J. S. Pan. Rutherford backscattering analysis of GaN decomposition. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 21(3):1080, 2003. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Curie:1931:ACR**

- [CDE<sup>+</sup>31a] Marie Curie, A. Debierne, A. S. (Arthur Stewart) Eve, Hans Geiger, Otto Hahn, S. C. Lind, St. Meyer, Ernest Rutherford, and E. Schweidler. Additions and corrections — the radioactive constants as of 1930. Report of the International Radium-Standards Commission. *Journal of the American Chemical Society*, 53(12):4469, December 1, 1931. CODEN JACSAT. ISSN 0002-7863 (print), 1520-5126 (electronic), 1943-2984. See original report [CDE<sup>+</sup>31c].

**Curie:1931:RCRa**

- [CDE<sup>+</sup>31b] Marie Curie, A. Debierne, A. S. (Arthur Stewart) Eve, Hans Geiger, Otto Hahn, S. C. Lind, St. Meyer, Ernest Rutherford, and E. Schweidler. The radioactive constants as of 1930 Report of the International Radium-Standards Commission. *Reviews of Modern Physics*, 3(3):427–445, July 1931. CODEN RMPHAT. ISSN 0034-6861 (print), 1538-4527 (electronic), 1539-0756. URL <http://link.aps.org/doi/10.1103/RevModPhys.3.427>.

**Curie:1931:RCRb**

- [CDE<sup>+</sup>31c] Marie Curie, A. Debierne, A. S. (Arthur Stewart) Eve, Hans Geiger, Otto Hahn, S. C. Lind, St. Meyer, Ernest Rutherford, and E. Schweidler. The radioactive constants as of 1930. Report of the International Radium-Standards Commission. *Journal of the American Chemical Society*, 53(7):2437–2450,



July 1, 1931. CODEN JACSAT. ISSN 0002-7863 (print), 1520-5126 (electronic), 1943-2984. See additions and corrections [CDE<sup>+</sup>31a].

**Cederberg:2000:BRR**

- [Ced00] James Cederberg. Book review: *Rutherford: Scientist Supreme*[, by John Campbell, ISBN 0-473-05700-X]. *American Journal of Physics*, 68(9):873–874, September 2000. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Chan:2012:SPE**

- [CFMO12] T. K. Chan, F. Fang, A. Markwitz, and T. Osipowicz. Solid phase epitaxy of ultra-shallow Sn implanted Si observed using high-resolution Rutherford backscattering spectrometry. *Applied Physics Letters*, 101(8):081602, 2012. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Calabrese:1994:SAG**

- [CGL<sup>+</sup>94] R. Calabrese, V. Guidi, P. Lenisa, B. Maciga, G. Ciullo, G. Della Mea, G. P. Egeni, G. Lamanna, V. Rigato, V. Rudello, B. Yang, S. Zandolin, and L. Tecchio. Surface analysis of a GaAs electron source using Rutherford backscattering spectroscopy. *Applied Physics Letters*, 65(3):301, 1994. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Chadwick:1912:XAR**

- [Cha12] James Chadwick, B.Sc. XXI. The absorption of  $\gamma$ -rays by gases and light substances. *Proceedings of the Physical Society, London*, 24(1):152–157, February 23, 1912. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://iopscience.iop.org/article/10.1088/1478-7814/24/1/321>. Discussion by Ernest Rutherford on pages 156–157.

**Chadwick:1932:EN**

- [Cha32a] J. Chadwick. The existence of a neutron. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 136(830):692–708, June 1932. ISSN 0950-1207 (print), 2053-9150 (electronic).

**Chadwick:1932:PEN**

- [Cha32b] James Chadwick. Possible existence of a neutron. *Nature*, 129(3252):312, February 27, 1932. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v129/n3252/pdf/129312a0.pdf>. Cited in [Wil83a, page ], who notes that this paper is “almost certainly the first use of [electrical] counters in any major discovery in physics”. See also [Lew79].

**Chadwick:1933:BLN**

- [Cha33] J. Chadwick, F.R.S. Bakerian Lecture. The neutron. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 142(846):1–25, October 1, 1933. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/142/846/1>.

**Chadwick:1937:ORH**

- [Cha37] J. Chadwick. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):749–750, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140749a0.html>.

**Chadwick:1954:RML**

- [Cha54] Sir James Chadwick, F.R.S. The Rutherford Memorial Lecture, 1953. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 224(1159):435–447, 1954. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/224/1159/435>. Lecture delivered at McGill University, Montreal, Canada on 7 October 1953.

**Chadwick:1964:SPN**

- [Cha64] James Chadwick. Some personal notes on the search for the electron. In Henry Guerlac, editor, *Actes du Dixième Congrès International d’Histoire des Sciences*, pages 159–162. Hermann, Paris, France, 1964.

**Chadwick:1962:CPL**

- [Cha65] James Chadwick. *The collected papers of Lord [Ernest] Rutherford of Nelson*. Allen and Unwin, London, UK, 1962–

1965. 931 (vol. 1), 590 (vol. 2), 428 (vol. 3) pp. LCCN ????.  
Three volumes.

**Chandrasekhar:1976:VTR**

- [Cha76] S. Chandrasekhar, F.R.S. Verifying the theory of relativity. *Notes and Records of the Royal Society of London*, 30(2):249–260, January 1, 1976. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic).

**Chadwick:2014:CPLa**

- [Cha14a] James Chadwick. *The Collected Papers of Lord Rutherford of Nelson*, volume 1 of *Routledge Library Editions: 20th Century Science*. Taylor and Francis, Boca Raton, FL, USA, 2014. ISBN 1-138-01365-X (hardcover), 1-317-69892-4, 1-315-77925-0 (e-book). 964 pp. LCCN QC3 .R87. URL <http://www.tandfebooks.com/isbn/9781315779256>.

**Chadwick:2014:CPLb**

- [Cha14b] James Chadwick. *The Collected Papers of Lord Rutherford of Nelson*, volume 2 of *Routledge Library Editions: 20th Century Science*. Taylor and Francis, Boca Raton, FL, USA, 2014. ISBN 1-138-01366-8, 1-317-69889-4. 619 pp. LCCN QC3 .R87. URL <http://www.tandfebooks.com/isbn/9781315779249>.

**Chadwick:2014:CPLc**

- [Cha14c] James Chadwick. *The Collected Papers of Lord Rutherford of Nelson*, volume 3 of *Routledge Library Editions: 20th Century Science*. Taylor and Francis, Boca Raton, FL, USA, 2014. ISBN 1-138-01367-6, 1-317-69886-X. 29 pp. LCCN QC3 .R87 2014. URL <http://www.tandfebooks.com/isbn/9781315779232>.

**Chown:2001:MFS**

- [Cho01] Marcus Chown. *The Magic Furnace: the Search for the Origins of Atoms*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2001. ISBN 0-19-514305-1, 0-19-803266-8 (e-book). LCCN QC171.2 .C5 2001. URL <http://lib.myilibrary.com?id=83521>.

**Chao:1933:IHR**

- [CK33] C. Y. Chao and T. T. Kung. Interaction of hard  $\gamma$ -rays with atomic nuclei. *Nature*, 132(3340):709, November 4, 1933. CO-

DEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v132/n3340/pdf/132709a0.pdf>. See remark [Rut33i].

**Clarke:2005:RCU**

- [Cla06] Simon Clarke. Rutherford at Canterbury University College. *Rutherford Journal*, 1(??):??, ??? 2005–2006. CODEN ??? ISSN 1177-1380. URL <http://rutherfordjournal.org/article010112.html>.

**Clark:2013:RRR**

- [Cla13] Robin J. H. Clark. Rayleigh, Ramsay, Rutherford and Raman — their connections with, and contributions to, the discovery of the Raman effect. *Analyst (Cambridge, UK)*, 138(3):729–734, 2013. CODEN ANALAO. ISSN 0003-2654 (print), 1364-5528 (electronic). URL <http://pubs.rsc.org/en/content/articlelanding/2013/an/c2an90124b>.

**Clegg:1981:ESI**

- [Cle81] J. B. Clegg. Evaluation of secondary ion mass spectrometry profile distortions using Rutherford backscattering. *Applied Physics Letters*, 39(12):997, 1981. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Clegg:2019:SHH**

- [Cle19] Brian Clegg. *Scientifica Historica: How the World's Great Science Books Chart the History of Knowledge*. Ivy Press, Brighton, UK, 2019. ISBN 1-78240-878-9 (hardcover). 272 pp. LCCN ???

**Cline:1965:QPQ**

- [Cli65] Barbara Lovett Cline. *The questioners: physicists and the quantum theory*. Crowell, New York, 1965. vii + 274 pp. LCCN QC15 .C4. URL <http://catalog.hathitrust.org/api/volumes/oclc/372589.html>.

**Cline:1987:MWM**

- [Cli87] Barbara Lovett Cline. *Men who made a new physics: physicists and the quantum theory*. University of Chicago Press, Chicago, IL, USA, 1987. ISBN 0-226-11027-3 (paperback). xii + 274 pp. LCCN QC15 .C4 1987. URL <http://www.loc.gov/catdir/description/uchi051/87010786.html>;

<http://www.loc.gov/catdir/enhancements/fy0608/87010786-t.html>; <http://www.loc.gov/catdir/enhancements/fy0609/87010786-b.html>.

**Close:2018:RTO**

- [Clo18] Frank Close. Richard Taylor obituary: Scientist who shared the 1990 Nobel Prize in Physics for establishing that protons and neutrons are made up of quarks. *The Guardian*, ??(??):??, March 8, 2018. ISSN 0261-3077 (print), 1756-3224 (electronic). URL <https://www.theguardian.com/science/2018/mar/08/richard-taylor-obituary>.

**Chu:1999:ARB**

- [CLZ99] Wei-Kan Chu, Jiarui Liu, and Zuhua Zhang. Application of Rutherford backscattering spectrometry to cuprate superconductors. In Eric Faulques, editor, *Spectroscopy of Superconducting Materials*, ACS symposium series, pages 41–65. American Chemical Society, Washington, DC, 1999. ISBN 0-8412-3609-7. LCCN QC611.97.S64 S65 1999. URL <http://pubs.acs.org/doi/abs/10.1021/bk-1999-0730.ch003>.

**Cockcroft:1946:RLW**

- [Coc46] J. D. Cockcroft. Rutherford: Life and work after the year 1919, with personal reminiscences of the Cambridge period. *Proceedings of the Physical Society, London*, 58(6):625–633, November 1946. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://stacks.iop.org/0959-5309/58/i=6/a=301>.

**Cockcroft:1953:RML**

- [Coc53] John Cockcroft. The Rutherford Memorial Lecture. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 217(1128):1–8, 1953. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/217/1128/1>. Lecture delivered at Canterbury University College, Christchurch, New Zealand on 20 September 1952.

**Cockcroft:1963:BRC**

- [Coc63] J. D. Cockcroft. Book review: *The Collected Papers of Lord Rutherford of Nelson. Under the Scientific Direction of Sir James Chadwick*. *History of Science (UK)*, 2(1):

164–165, March 1963. CODEN HISCAR. ISSN 0073-2753 (print), 1753-8564 (electronic). URL <http://hos.sagepub.com/content/2/1/164.full.pdf+html>.

**Cohen:1940:BRR**

- [Coh40] I. Bernard Cohen. Book review: *Rutherford (1871–1937), Being the Life and Letters of the Rt. Hon. Lord Rutherford, O. M.* by A. S. Eve. *Isis*, 32(2):372–375, 1940. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/226265>.

**Cohen:1988:MDE**

- [Coh88] Montague Cohen. My Dear Eve...: The letters of Ernest Rutherford to Arthur Eve, 1907–1908. *Fontanus: from the collections of McGill University*, 1:3–37, 1988. ISSN 0838-2026. URL <http://fontanus.mcgill.ca/article/download/1/1>. See comments [dR92].

**Cohen:1989:MDE**

- [Coh89] Montague Cohen. My Dear Eve...: The letters of Ernest Rutherford to Arthur Eve. Part II, 1909–1911. *Fontanus: from the collections of McGill University*, 2:111–138, 1989. ISSN 0838-2026. URL <http://fontanus.mcgill.ca/article/download/25/24>. See comments [dR92].

**Cohen:1991:MDE**

- [Coh91] Montague Cohen. My Dear Eve...: The letters of Ernest Rutherford to Arthur Eve. Part III, 1912–1914. *Fontanus: from the collections of McGill University*, 4:69–108, 1991. ISSN 0838-2026. URL <http://fontanus.mcgill.ca/article/download/48/51>. See comments [dR92].

**Cohen:1992:MDE**

- [Coh92] Montague Cohen. My Dear Eve...: The letters of Ernest Rutherford to Arthur Eve. Part IV, 1915–1919. *Fontanus: from the collections of McGill University*, 5:123–159, 1992. URL <http://fontanus.mcgill.ca/article/view/64/72>.

**Cohen:1995:RCV**

- [Coh95] Montague Cohen. Rutherford's curriculum vitae, 1894–1907. *Medical Physics*, 22(6):841–859, June 1995. CODEN MPHYA6. ISSN 0094-2405 (print), 1522-8541 (electronic).

**Cohen:1997:ER**

- [Coh97] Montague Cohen. Ernest Rutherford and Frederick Soddy: An historic partnership. *The Chemical Intelligencer*, 3(2): 33–40, April 1997. CODEN CHEIFK. ISSN 0947-0662. URL <http://alsos.wlu.edu/information.aspx?id=696>.

**Condon:1962:YQP**

- [Con62] Edward U. Condon. 60 years of quantum physics. *Physics Today*, 15(10):37–49, October 1962. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://www.physicstoday.org/resource/1/PHTOAD/v15/i10>. Delayed 1951 Presidential address at the 1500th regular meeting of the American Philosophical Society of Washington, 2 December 1962, at the Natural History Museum Auditorium of the Smithsonian Institution, on the 60th anniversary of Planck's constant, *h*. Reprinted in [WP85, pages 310–318].

**Conway:1982:URB**

- [Con82] K. L. Conway. Use of Rutherford backscattering and channeling in the study of (Hg,Cd)Te. *Journal of Vacuum Science Technology*, 21(1):212, May 1982. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**Coolidge:1913:PRR**

- [Coo13] William D. Coolidge. A powerful Röntgen ray tube with a pure electron discharge. *Physical Review (Series II)*, 2(6): 409–430, December 1913. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://link.aps.org/doi/10.1103/PhysRev.2.409>.

**Cottrell:2010:RTB**

- [Cot10] P. L. Cottrell. Rutherford and Tinsley: the beginning and middle of nucleosynthesis at the University of Canterbury. *Memorie della Societa Astronomica Italiana*, 81(4):949–591, 2010. URL <http://adsabs.harvard.edu/abs/2010MmSAI..81..949C>; <http://sait.oat.ts.astro.it/MSAI810410/PDF/2010MmSAI..81..949L.pdf>.

**Chadwick:1921:RRS**

- [CR21] Sir James Chadwick and Joseph Rotblat. *Radioactivity and radioactive substances*. Pitman Publishing Ltd., London, UK, fourth edition, 1921. xv + 120 pp. LCCN ????. Written by

Sir James Chadwick, with foreword by Lord Rutherford, and revised and supplemented by Joseph Rotblat.

**Clark:2012:LAN**

- [CR12] Charles W. Clark and Joseph Reader. Light, atoms and nuclei: The optical discovery of deuterium. *Optics and Photonics News*, 23(5):36–41, May 2012. CODEN OPPHEL. ISSN 1047-6938 (print), 1541-3721 (electronic). URL [https://www.osa-opn.org/home/articles/volume\\_23/issue\\_5/features/light,\\_atoms\\_and\\_nuclei\\_the\\_optical\\_discovery\\_of/](https://www.osa-opn.org/home/articles/volume_23/issue_5/features/light,_atoms_and_nuclei_the_optical_discovery_of/). See also [RC13].

**Cragg:1971:LER**

- [Cra71] R. H. Cragg. Lord Ernest Rutherford of Nelson (1871–1937). *R. Inst. Chem., Rev.*, 4(2):129–145, 1971. URL <http://pubs.rsc.org/en/content/articlelanding/1971/rr/rr9710400129>.

**Crawford:1984:AAH**

- [Cra84] Elisabeth Crawford. Arrhenius, the atomic hypothesis, and the 1908 Nobel prizes in physics and chemistry. *Isis*, 75(3):503–522, September 1984. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/232940>.

**Crowther:1935:LRM**

- [Cro35] J. G. Crowther. Lord Rutherford, O.M., F.R.S. In Anonymous, editor, *Great Contemporaries: Essays by Various Hands*, pages 359–370. Cassell and Company, London, UK, 1935. LCCN D412 .G7.

**Crowther:1974:NPN**

- [Cro74a] J. G. Crowther. New physics, and a new professor. In *The Cavendish Laboratory, 1874–1974* [Cro74e], pages 160–175. ISBN 0-88202-029-3 (hardcover), 1-349-01670-5 (e-book). LCCN QC51.G72 C353 1974.

**Crowther:1974:RE**

- [Cro74b] J. G. Crowther. The Rutherford era. In *The Cavendish Laboratory, 1874–1974* [Cro74e], pages 203–212. ISBN 0-88202-029-3 (hardcover), 1-349-01670-5 (e-book). LCCN QC51.G72 C353 1974.



**Crowther:1974:RB**

- [Cro74c] J. G. Crowther. Rutherford's background. In *The Cavendish Laboratory, 1874–1974* [Cro74e], pages 160–175. ISBN 0-88202-029-3 (hardcover), 1-349-01670-5 (e-book). LCCN QC51.G72 C353 1974.

**Crowther:1974:CLa**

- [Cro74d] J. G. (James Gerald) Crowther. *The Cavendish Laboratory, 1874–1974*. MacMillan Publishing Company, New York, NY, USA, 1974. ISBN 0-333-14166-0. xvi + 464 pp. LCCN QC51.G72 C353 1974b.

**Crowther:1974:CLb**

- [Cro74e] J. G. (James Gerald) Crowther. *The Cavendish Laboratory, 1874–1974*. Science History Publications, New York, NY, USA, 1974. ISBN 0-88202-029-3 (hardcover), 1-349-01670-5 (e-book). xvi + 464 pp. LCCN QC51.G72 C353 1974.

**Cropper:2001:GPL**

- [Cro01] William H. Cropper. *Great physicists: the life and times of leading physicists from Galileo to Hawking*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2001. ISBN 0-19-513748-5. xii + 500 pp. LCCN QC15 .C76 2001. URL <http://www.loc.gov/catdir/enhancements/fy0637/2001021611-d.html>; <http://www.loc.gov/catdir/enhancements/fy0724/2001021611-b.html>.

**Cooper-Sarkar:2019:PLB**

- [CS19] Amanda Cooper-Sarkar. The proton laid bare. *CERN Courier: International Journal of High-Energy Physics*, 59 (3):38–43, May 2, 2019. CODEN CECO2. ISSN 0304-288X (print), 2077-9550 (electronic). URL <https://cerncourier.com/the-proton-laid-bare/>.

**Cole:2000:STD**

- [CSN<sup>+</sup>00] D. A. Cole, J. R. Shallenberger, S. W. Novak, R. L. Moore, M. J. Edgell, S. P. Smith, C. J. Hitzman, J. F. Kirchhoff, E. Principe, W. Nieveen, F. K. Huang, S. Biswas, R. J. Bleiler, and K. Jones. SiO<sub>2</sub> thickness determination by X-ray photoelectron spectroscopy, Auger electron spectroscopy, secondary ion mass spectrometry, Rutherford backscattering, transmission electron microscopy, and ellipsometry. *Journal*

*of Vacuum Science & Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 18(1):440, 2000. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Crawford:1996:NTW**

- [CSW96] Elisabeth Crawford, Ruth Lewin Sime, and Mark Walker. A Nobel tale of wartime injustice. *Nature*, 382(6590):393–395, August 1, 1996. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v382/n6590/abs/382393a0.html>.

**Crawford:1997:KIP**

- [CSW97] Elisabeth Crawford, Ruth Lewin Sime, and Mark Walker. Die Kernspaltung und ihr Preis. Warum nur Otto Hahn den Nobelpreis erhielt, Otto Frisch, Lise Meitner und Fritz Straßmann dagegen nicht berücksichtigt werden. (German) [Fission and its price. Why only Otto Hahn received the Nobel Prize: Otto Frisch, Lise Meitner and Fritz Strassmann are not taken into consideration]. *Kultur & Technik. Zeitschrift des Deutschen Museums München*, 21(2): 30–35, 1997. ISSN 0344-5690. URL <http://www.deutsches-museum.de/fileadmin/Content/data/Insel/Information/KT/heftarchiv/1997/21-2-30.pdf>. Translation from English by Dieter Beisel of [CSW96].

**Conn:1965:ENA**

- [CT65] G. K. T. (George Keith Thurburn) Conn and H. D. (Henry Dicken) Turner. *The Evolution of the Nuclear Atom*. Iliffe Books, London, UK, 1965. 266 pp. LCCN QC173 .C613 1966.

**Curie:1910:TR**

- [Cur10] Marie Curie. *Traité de radioactivité*. Gauthier-Villars, Paris, France, 1910. ???? pp. LCCN QC721 .C98. Two volumes.

**Cockcroft:1932:DLS**

- [CW32] John D. Cockcroft and Ernest T. S. Walton. Disintegration of lithium by swift protons. *Nature*, 129(3261):649, April 30, 1932. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v129/n3261/pdf/129649a0.pdf>.

**Chen:2003:PAD**

- [CYM<sup>+</sup>03] Z. Q. Chen, S. Yamamoto, M. Maekawa, A. Kawasuso, X. L. Yuan, and T. Sekiguchi. Postgrowth annealing of defects in ZnO studied by positron annihilation, X-ray diffraction, Rutherford backscattering, cathodoluminescence, and Hall measurements. *Journal of Applied Physics*, 94(8):4807, 2003. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Dale:1950:SPM**

- [Dal50] Henry Hallett Dale. Some personal memories of Lord Rutherford of Nelson. *Cawthron Lecture Series*, 25(??):19, ??? 1950. URL <http://copac.jisc.ac.uk/id/28882850>.

**Martins:20xx:CVH**

- [dAMxx] Roberto de Andrade Martins. Ciência versus historiografia: os diferentes níveis discursivos nas obras sobre história da ciência. (Portuguese) [Science versus historiography: the different discursive levels in the works on the history of science]. Report, Grupo de História, Teoria e Ensino de Ciências, Departamento de Raios Cósmicos e Cronologia do Instituto de Física ‘Gleb Wataghin’ da Unicamp, Universidade de São Paulo, São Paulo, Brazil, 20xx. URL <http://www.ghtc.usp.br/server/pdf/RAM-historiografia.PDF>.

**Danin:1966:R**

- [Dan66] Daniel Danin. *Rutherford*. ????, Moscow, USSR, 1966. ??? pp.

**Darwin:1956:DAN**

- [Dar56a] Charles G. Darwin. The discovery of atomic number. *New Zealand Science Review*, 14(??):102–108, August 1956. CODEN NZSRAJ. ISSN 0028-8667.

**Darwin:1956:RML**

- [Dar56b] Sir Charles Darwin, F.R.S. The Rutherford Memorial Lecture, 1956. The discovery of atomic number. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 236(1206):285–296, 1956. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/236/1206/285>. Lecture delivered at Nelson, New Zealand, on 5 April 1956.

**Davis:1937:LRS**

- [Dav37] Harry Davis. Lord Rutherford's survey of the newer alchemy: *The Newer Alchemy*. By Lord Rutherford. 67 pp. Cambridge: At the University Press. New York: The Macmillan Company. \$1.50. *New York Times*, ??(??):82, August 8, 1937. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/102202136>.

**Davies:1971:RSC**

- [Dav71a] J. A. Davies. Rutherford scattering and channeling: a useful combination for studying crystal surfaces. *Journal of Vacuum Science Technology*, 8(3):487, May 1971. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**Davies:1971:URS**

- [Dav71b] J. A. Davies. Use of Rutherford scattering for surface studies on single crystals. *Journal of Vacuum Science Technology*, 8(1):16, January 1971. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**deBaillehache:1914:RVV**

- [dB14] R. de Baillehache. Recensioni: Volterra, V., Rutherford, E., Wood, R. W. and Barus, C. — Clark University Lectures. *Scientia (Milan)*, 16(36):104–109, ??? 1914. CODEN SCIMAI. ISSN 0036-8687 (print), 1825-4373 (electronic). URL [http://serials.unibo.it/cgi-ser/start/it/spogli/df-s.tcl?prog\\_art=9028874](http://serials.unibo.it/cgi-ser/start/it/spogli/df-s.tcl?prog_art=9028874).

**deBroglie:1932:SWR**

- [dB32] Maurice de Broglie. Scientific worthies: XLVI. The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 129 (3262):665–669, May 7, 1932. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v129/n3262/pdf/129665a0.pdf>.

**deBroglie:1970:MAD**

- [dB70] Louis de Broglie. Mon anxiété devant le problème des quanta. (French) [My anxiety about the problem of quanta]. In Homberger et al. [HJS70], pages 181–188. ISBN 0-224-61914-4. LCCN AC5 .H64.

**Dangor:1985:RLB**

- [DBE+85] A. E. Dangor, R. Bingham, R. G. Evans, C. B. Edwards, and W. T. Toner. The Rutherford laboratory beat wave experiment. *AIP Conference Proceedings*, 130:130–133, 1985. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. URL <http://scitation.aip.org/content/aip/proceeding/aipcp/10.1063/1.35318>.

**Donne:1987:ARS**

- [DBvdV87] A. J. H. Donné, E. P. Barbian, and H. W. van der Ven. On the application of the Rutherford-scattering diagnostics to ion temperature measurements. *Journal of Applied Physics*, 62(8):3130, 1987. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Andrade:1937:ORH**

- [dCA37] E. N. da C. Andrade. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):754, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140753b0.html>.

**Andrade:1938:LR**

- [dCA38] E. N. da C. Andrade. Lord Rutherford. *Science Progress (1933-)*, 32(127):417–419, January 1938. CODEN SCPRAY. ISSN 0036-8504 (print), 2047-7163 (electronic). URL <http://www.jstor.org/stable/43412200>.

**Andrade:1956:BNAA**

- [dCA56a] E. N. da C. Andrade. The birth of the nuclear atom. *Proceedings of the Royal Society*, 244A(??):??, 1956.

**Andrade:1956:BNAb**

- [dCA56b] E. N. da C. Andrade. The birth of the nuclear atom. *Scientific American*, 195(5):93–107, November 1956. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v195/n5/pdf/scientificamerican1156-93.pdf>.

**Andrade:1958:RML**

- [dCA58] E. N. da C. Andrade. The Rutherford Memorial Lecture, 1957. The birth of the nuclear atom. *Proceedings of the Royal*

*Society of London. Series A, Mathematical and Physical Sciences*, 244(1239):437–455, April 22, 1958. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://www.jstor.org/stable/100261>.

**Andrade:1968:SRE**

- [dCA68] E. N. da C. Andrade, F.R.S. Some reminiscences of Ernest Marsden’s days with Rutherford at Manchester. *Notes and Records of the Royal Society of London*, 23(2):247–250, December 1968. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/23/2/247>. Prepared for *Sir Ernest Marsden’s 80th Birthday* booklet, to be published privately in Wellington, New Zealand, in February 1969.

**Andrade:1964:BFR**

- [dCAH64] E. N. da C. Andrade and W. V. Houston. Book and film reviews: Rutherford and the Nature of the Atom. *The Physics Teacher*, 2(7):339, 1964. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Andrade:1958:WSS**

- [dCENdCA58] E. N. da C. (Edward Neville da Costa) Andrade. When studying science was fun. *New Scientist*, ??(??):??, March 20, 1958. CODEN NWSCAL. ISSN 0262-4079 (print), 1364-8500 (electronic).

**Andrade:1964:RNA**

- [dCENdCA64] E. N. da C. (Edward Neville da Costa) Andrade. *Rutherford and the nature of the atom*, volume S35 of *Science study series*. Doubleday, New York, NY, USA, 1964. xix + 218 + 4 pp. LCCN QC16.R8 A5.

**Dean:2003:ISS**

- [Dea03] Katrina Dean. Inscribing settler science: Ernest Rutherford, Thomas Laby and the making of careers in physics. *History of Science (UK)*, 41(2):217–240, June 2003. CODEN HISCAR. ISSN 0073-2753 (print), 1753-8564 (electronic). URL <http://hos.sagepub.com/content/41/2/217.full.pdf+html>.

**DeBakcsy:2019:MTL**

- [DeB19] Dale DeBakcsy. The many triumphs and long fall of nuclear physicist Harriet Brooks (1876–1933). Web site., March 6, 2019. URL <https://womenshouldknow.net/nuclear-physicist-harriet-brooks/>.

**Dee:1967:RML**

- [Dee67] P. I. Dee. The Rutherford Memorial Lecture, 1965. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 298(1453):103–122, 1967. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/298/1453/103>. Lecture delivered at the University of Saskatoon, 29 September 1965, University of Britain Columbia, Vancouver, 5 October 1965, University of Ottawa, 19 October 1965, McGill University, Montreal, 22 October 1965.

**delRegato:1979:ER**

- [del79] J. A. del Regato. Ernest Rutherford. *International Journal of Radiation Oncology, Biology, Physics*, 5(4):539–552, April 1979. CODEN IOBPD3. ISSN 0360-3016 (print), 1879-355x (electronic). URL <http://www.sciencedirect.com/science/article/pii/0360301679908198>.

**Demetrian:2003:NDR**

- [Dem03] M. Demetrian. A note on derivation of Rutherford formula within Born approximation. *ArXiv Physics e-prints*, February 2003. URL <http://adsabs.harvard.edu/abs/2003physics...2102D>.

**Devons:1971:RRC**

- [Dev71] Samuel Devons. Recollections of Rutherford and the Cavendish. *Physics Today*, 24(12):38–45, December 1971. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/24/12/10.1063/1.3022474>.

**Devons:1991:RSH**

- [Dev91] S. Devons, F.R.S. Rutherford and the science of his day. *Notes and Records of the Royal Society of London*, 45(2):221–242, July 1991. CODEN NOREAY. ISSN

0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/45/2/221>; <http://www.jstor.org/stable/531700>. Rutherford memorial lecture, 1989, delivered in June 1989 at Canberra, Sydney, and Melbourne, Australia, and at Auckland, New Zealand.

**Daintith:1999:DS**

[DG99]

John Daintith and Derek Gjertsen, editors. *A Dictionary of Scientists*. Oxford paperback reference. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1999. ISBN 0-585-11047-6 (e-book), 0-19-280086-8 (paperback). 586 pp. LCCN Q141 .D52 1994. URL <http://www.loc.gov/catdir/enhancements/fy0637/99488304-d.html>; <http://www.loc.gov/catdir/enhancements/fy0637/99488304-t.html>; <http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=12306>.

**Dash:2007:SEC**

[DGC07]

S. P. Dash, D. Goll, and H. D. Carstanjen. Subsurface enrichment of Co in Si (100) at initial stages of growth at room temperature: a study by high-resolution Rutherford backscattering. *Applied Physics Letters*, 90(13):132109, 2007. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Dimitrov:1997:DDS**

[DHS97]

D. V. Dimitrov, G. C. Hadjipanayis, and C. P. Swann. Determination of the density of sputtered thin films by Rutherford backscattering spectroscopy and low angle X-ray diffraction. *AIP Conference Proceedings*, 392:607-??, 1997. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465.

**Ditchburn:1980:FO**

[Dit80]

R. W. Ditchburn. Frisch obituary. *Physics Today*, 33(5):86, May 1980. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). Correction to [BW80], noting that Frisch did not succeed to Rutherford's chair, but rather, was Jacksonian Professor of Natural Philosophy.

**Dangtip:2004:CCF**

[DJA<sup>+</sup>04]

S. Dangtip, P. Junphong, V. Ano, B. Lekprasert, D. Suwanakachorn, N. Thongnopparat, and T. Vilaithong. Characterization of a compact filament-driven multicusp ion source



for low energy time-of-flight Rutherford backscattering spectrometry application. *Review of Scientific Instruments*, 75(5):1869, 2004. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Dutta:1983:RBE**

- [DJBW83] Subhadra Dutta, Howard E. Jackson, J. T. Boyd, and C. W. White. Rutherford backscattering evidence for solid phase laser annealing of Corning 7059 glass and ZnO thin films. *Journal of Applied Physics*, 54(4):2125, 1983. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Dodds:1996:NGR**

- [DM96] S. A. Dodds and G. S. Mutchler. A novel geometry for Rutherford scattering. *American Journal of Physics*, 64(10):1295–1297, October 1996. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Diamantis:2008:CMS**

- [DMPA08] Aristidis Diamantis, Emmanouil Magiorkinis, Athanasios Papadimitriou, and Georgios Androutsos. The contribution of Maria Skłodowska-Curie and Pierre Curie to nuclear and medical physics. a hundred and ten years after the discovery of radium. *Hellenic Journal of Nuclear Medicine*, 11(1):33–38, January/April 2008. ISSN 1790-5427. URL <http://nuclmed.web.auth.gr/magazine/eng/jan08/33.pdf>.

**Deweerd:1996:CMR**

- [DMV<sup>+</sup>96] W. Deweerd, R. Moons, J. Verheyden, K. Milants, G. Langouche, and H. Pattyn. A combined Mössbauer and Rutherford backscattering spectroscopy analysis of the influence of nanosized cavities on CoSi<sub>2</sub> formation. *Applied Physics Letters*, 69(23):3584, 1996. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Downard:2008:CCD**

- [Dow08] K. M. Downard. Cavendish’s crocodile and dark horse: the lives of Rutherford and Aston in parallel. *Mass Spectrometry Review*, 26(5):713–723, September/October 2008. CODEN MSRVD3. ISSN 0277-7037 (print), 1098-2787 (electronic). URL <http://pubs.rsc.org/en/content/database/msb4204002102>.

**delRegato:1985:RP**

- [dR85] Juan A. del Regato. *Radiological physicists*. American Institute of Physics, Woodbury, NY, USA, 1985. ISBN 0-88318-469-9. 188 pp. LCCN QC774.A2 D44 1985.

**delRegato:1992:CMD**

- [dR92] Juan A. del Regato. Comments on “My dear Eve...”. Letters of Ernest Rutherford to Arthur Stewart Eve [FONTANUS I, 3–37 (1988), continued in II, 111–138 (1989) and lastly in FONTANUS IV, 69–108 (1991)]. *Medical Physics*, 19(2): 261–262, March 1992. CODEN MPHYA6. ISSN 0094-2405 (print), 1522-8541 (electronic). See [Coh88].

**Dronsfield:2020:BRT**

- [Dro20] Alan Dronsfield. Book review: *Traveling with the Atom: a Scientific Guide to Europe and Beyond*. Web site, March 20, 2020. URL <https://www.chemistryworld.com/review/traveling-with-the-atom-a-scientific-guide-to-europe-and-beyond/4011154.article>.

**Dungey:2018:CAP**

- [Dun18] Kim Dungey. Class act: From Palmerston to space. *Otago Daily Times*, ??(??):??, August 27, 2018. URL <https://www.odt.co.nz/lifestyle/magazine/class-act-palmerston-space>.

**Duggan:1968:RES**

- [DY68] Jerome L. Duggan and John F. Yegge. A Rutherford elastic scattering “experiment”. *Journal of Chemical Education*, 45(2):85, February 1968. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed045p85>.

**Duggan:1967:RSL**

- [DYF67] Jerome L. Duggan, John F. Yegge, and Kay Ford. Rutherford scattering with a low-energy Cockcroft–Walton accelerator. *American Journal of Physics*, 35(8):765–770, August 1967. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Dylla:2020:RNW**

- [Dyl20a] H. Frederick Dylla. Rutherford’s nuclear world. In *Scientific Journeys: a Physicist Explores the Culture, History and*

*Personalities of Science* [Dyl20b], pages 11–16. ISBN 3-030-55799-5 (paperback), 3-030-55800-2 (e-book). LCCN Q125 .D955 2020.

**Dylla:2020:SJP**

- [Dyl20b] H. Frederick Dylla. *Scientific Journeys: a Physicist Explores the Culture, History and Personalities of Science*. Springer, Cham, Switzerland, 2020. ISBN 3-030-55799-5 (paperback), 3-030-55800-2 (e-book). xxv + 222 pp. LCCN Q125 .D955 2020.

**Dyson:2005:BRS**

- [Dys05] Freeman J. Dyson. Book review: Seeing the unseen: *The Fly in the Cathedral: How a Group of Cambridge Scientists Won the International Race to Split the Atom*, by Brian Cathcart. Farrar, Straus and Giroux, 308 pp., \$25.00. *A Sense of the Mysterious: Science and the Human Spirit*, by Alan Lightman. Pantheon, 211 pp., \$23.00. *New York Review of Books*, 52(3):11–13, February 24, 2005. ISSN 0028-7504 (print), 1944-7744 (electronic). URL <http://www.nybooks.com/articles/archives/2005/feb/24/seeing-the-unseen/>.

**Earl:1966:MVR**

- [Ear66] James A. Earl. Modified version of the MIT Rutherford scattering apparatus for use in advanced undergraduate laboratories. *American Journal of Physics*, 34(6):483–488, June 1966. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Eve:1938:LR**

- [EC38] A. S. (Arthur Stewart) Eve and James Chadwick. Lord Rutherford 1871–1937. *Obituary Notices of Fellows of the Royal Society*, 2(6):394–423, January 1938. ISSN 1479-571X (print), 2053-9118 (electronic). URL <http://rsbm.royalsocietypublishing.org/content/royobits/2/6/394>; <http://www.jstor.org/stable/769080>.

**EITE:2013:YRI**

- [EC13] European Institute for Transuranium Elements and Roberto Caciuffo. *50 years of Research at the Institute for Transuranium Elements Karlsruhe*. European Union, Luxembourg, 2013. ISBN 92-79-29459-8. ix + 201 pp. LCCN ???? URL

<http://bookshop.europa.eu/en/50-years-of-research-at-the-institute-for-transuranium-elements-in-karlsruhe-pbLCNA25925/>.

**Eckert:2020:BRR**

- [Eck20] Michael Eckert. Book review: Roy MacLeod; Russell G. Egdell; Elizabeth Bruton, eds. *For Science, King, and Country: The Life and Legacy of Henry Moseley*. *Isis*, 111(1):196–197, March 2020. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic).

**Ellmer:1996:ARB**

- [EFKS96] H. Ellmer, W. Fischer, A. Klose, and D. Semrad. Assembly for Rutherford backscattering at exactly 180°. *Review of Scientific Instruments*, 67(5):1794, 1996. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Eichenberger:1972:NUO**

- [Eic72] Rudolph J. Eichenberger. Notes: Using the overhead projector in simulation of the Rutherford scattering experiment. *The Physics Teacher*, 10(3):147, 1972. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Eidinoff:1948:STH**

- [Eid48] Maxwell L. Eidinoff. The search for tritium: The hydrogen isotope of mass three. *Journal of Chemical Education*, 25(1):31–35, 1948. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic).

**Elder:1985:SAC**

- [Eld85] K. Elder. Summary abstract: Composition of the anodized Ta/GaAs system studied by Rutherford backscattering. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 3(3):691, May 1985. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Elfikky:2014:PSR**

- [Elf14] N. Elfikky. Protons are spinning on regular orbits and neutrons have different binding energies inside atoms. In *APS April Meeting Abstracts*. American Physical Society, Ridge, NY 11961, USA, March 2014. URL <http://adsabs.harvard.edu/abs/2014APS..APR.M7006E>;

<http://meetings.aps.org/Meeting/APR14/Session/M7.6>.

**Ellis:1960:ROA**

- [Ell60] C. D. Ellis. Rutherford: One aspect of a complex character. *Trinity Review*, ??(?):13–15, Lent 1960.

**England:2007:JPN**

- [EMR07] Philip England, Peter Molnar, and Frank Richter. John Perry's neglected critique of Kelvin's age for the Earth: A missed opportunity in geodynamics. *GSA Today*, 17(1):4–9, January 2007. ISSN 1052-5173 (print), 1943-2690 (electronic).

**Emmi:1990:SPF**

- [EMVK90] F. Emmi, L. J. Matienzo, D. C. VanHart, and J. J. Kaufman. Sensitivity of plasma fluorinated polyimide and poly(tetrafluoroethylene) to high-energy ion beams during Rutherford backscattering spectroscopy. In Edward Sacher, Jean-Jacques Pireaux, and Steven P. Kowalczyk, editors, *Metallization of Polymers*, chapter 15, pages 196–209. American Chemical Society, Washington, DC, USA, 1990. ISBN 0-8412-1868-4, 0-8412-1296-1 (e-book). LCCN TA491 .M46 1990. URL <http://pubs.acs.org/doi/abs/10.1021/bk-1990-0440.ch014>.

**Eloi:1995:RBS**

- [ERM95] Corinne C. Eloi, J. David. Robertson, and Vahid. Majidi. Rutherford backscattering spectrometry investigation of the effects of oxygen and hydrogen pretreatment of pyrolytically coated graphite on Pb atomization. *Analytical Chemistry (Washington, DC, USA)*, 67(2):335–340, 1995. CODEN AN-CHAM. ISSN 0003-2700 (print), 1520-6882 (electronic).

**Elman:1984:SDS**

- [ESRDV84] B. S. Elman, L. Salamanca-Riba, M. S. Dresselhaus, and T. Venkatesan. Stoichiometric determination of SbCl<sub>5</sub>-graphite intercalation compounds using Rutherford backscattering spectrometry. *Journal of Applied Physics*, 55(4):894, 1984. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Eiswirth:1982:ERS**

- [ESWW82] Marcus Eiswirth, Robert Schwankner, Fritz Weigel, and Victor Wishnevsky. Electrostatic radionuclide separation: A new version of Rutherford's "thorium cow". *Journal of Chemical Education*, 59(7):608, 1982. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic).

**Evans:1939:MPLa**

- [Eva39a] Ivor Burford Needham Evans. *Man of Power. The life story of Baron Rutherford of Nelson, O.M., F.R.S.* Stanley Paul and Co., London, UK, 1939. 288 + 16 + 1 + 8 pp. LCCN QC16.R8 E85. URL <http://catalog.hathitrust.org/api/volumes/oclc/6752772.html>.

**Evans:1939:MPLb**

- [Eva39b] Ivor Burford Needham Evans. *Man of Power. The life story of Baron Rutherford of Nelson, O.M., F.R.S.* Scientific Book Club, London, UK, 1939. 288 pp. LCCN QC16.R8 E92 1939. URL <http://catalog.hathitrust.org/api/volumes/oclc/6752772.html>.

**Evans:1996:EHR**

- [Eva96] C. H. Evans, editor. *Episodes from the History of the Rare Earth Elements*, volume 15 of *Chemists and chemistry*. Kluwer Academic Publishers, Norwell, MA, USA, and Dordrecht, The Netherlands, 1996. ISBN 0-7923-4101-5. xxv + 240 pp. LCCN QD172.R2 E65 1996. URL <http://www.loc.gov/catdir/enhancements/fy1006/96210275-d.html>; <http://www.loc.gov/catdir/enhancements/fy1006/96210275-t.html>.

**Eve:1905:LPR**

- [Eve05] A. S. Eve. LXV. The properties of radium in minute quantities. *Philosophical Magazine* (6), 9(53):708–712, 1905. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440509463320>. Ernest Rutherford added a note at the end of this paper; it is the only 'joint' work by them, despite their lifelong friendship.

**Eve:1906:SSC**

- [Eve06] A. S. Eve. Some scientific centres. VIII. The Macdonald Physics Building. McGill University, Montreal. *Nature*, 74

(1916):272–275, July 19, 1906. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v74/n1916/pdf/074272a0.pdf>.

**Eve:1937:ORH**

- [Eve37] A. S. (Arthur Stewart) Eve. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):746–748, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140746a0.html>.

**Eve:1939:RBL**

- [Eve39] A. S. (Arthur Stewart) Eve. *Rutherford: being the life and letters of the Rt Hon. Lord Rutherford, O.M.* Cambridge University Press, Cambridge, UK, 1939. 451 pp. LCCN ????. With a foreword by Baldwin of Bewdley.

**Eve:2013:RBL**

- [Eve13] A. S. (Arthur Stewart) Eve. *Rutherford: being the life and letters of the Rt. Hon. Lord Rutherford, O.M.* Cambridge University Press, Cambridge, UK, 2013. ISBN 1-107-67881-1 (paperback). xvi + 451 pp. LCCN ????

**F:1933:AT**

- [F.33] A. F. Atomic transmutation. *Nature*, 132(3333):432–433, September 16, 1933. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v132/n3333/pdf/132432a0.pdf>.

**Farber:1953:NPW**

- [Far53] Eduard Farber. *Nobel Prize winners in chemistry, 1901–1950*, volume 31 of *The Life of science library*. H. Schuman, New York, NY, USA, 1953. 219 pp. LCCN QD21 .F21n 1953.

**Farber:1963:ER**

- [Far63a] Eduard Farber. Ernest Rutherford. In *Nobel Prize winners in chemistry, 1901–1961* [Far63c], page ?? LCCN QD21 .F37 1963.

**Farber:1963:FS**

- [Far63b] Eduard Farber. Frederick Soddy. In *Nobel Prize winners in chemistry, 1901–1961* [Far63c], page ?? LCCN QD21 .F37 1963.

**Farber:1963:NPW**

- [Far63c] Eduard Farber. *Nobel Prize winners in chemistry, 1901–1961*, volume 41 of *The Life of science library*. Abelard-Schuman, London, UK, revised edition, 1963. vii + 341 pp. LCCN QD21 .F37 1963.

**Farina:1987:RCS**

- [Far87] Carlos Farina. The Rutherford cross section and the perihelion shift of Mercury with the Runge–Lenz vector. *American Journal of Physics*, 55(10):921–923, October 1987. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Fara:2001:GPI**

- [Far01] Patricia Fara. Group portraits IV — the Seventh Solvay Conference [Bruxelles, 22–29 October 1933]. *Endeavour*, 25(4):137–138, December 2001. CODEN ENDEAS. ISSN 0160-9327 (print), 1873-1929 (electronic).

**Farmelo:2016:PCS**

- [Far16] Graham Farmelo. Physics: Crucible of science. *Nature*, 534(7607):323–324, June 16, 2016. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic).

**Feather:1940:LR**

- [Fea40] Norman Feather. *Lord Rutherford*. Blackie and Sons Ltd., London, UK, 1940. vii + 195 pp.

**Feather:1962:RM**

- [Fea62a] N. Feather. Rutherford at McGill. *Contemporary Physics*, 4(1):73–78, 1962. CODEN CTPHAF. ISSN 0010-7514 (print), 1366-5812 (electronic).

**Feather:1962:RME**

- [Fea62b] Norman Feather. Rutherford at Manchester: an epoc in physics. In *The collected papers of Lord [Ernest] Rutherford of Nelson* [Cha65], pages 15–33. LCCN ????. Three volumes.



**Feather:1970:BRR**

- [Fea70] Norman Feather. Book review: *Rutherford and Boltwood: Letters on Radioactivity* by Lawrence Badash. *Isis*, 61(3): 414–415, Autumn 1970. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/229709>.

**Feather:1972:RFN**

- [Fea72] N. Feather, F.R.S. Rutherford — Faraday — Newton. *Notes and Records of the Royal Society of London*, 27(1): 45–55, August 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/27/1/45>.

**Feather:1973:LRa**

- [Fea73a] Norman Feather. *Lord Rutherford*. Priory Press Ltd, London, UK, 1973. ISBN 0-85078-157-4. xi + 195 + 8 pp. LCCN QC16.R8 F4 1973. Foreword by Sir Harrie Stewart Wilson Massey.

**Feather:1973:LRb**

- [Fea73b] Norman Feather. *Lord Rutherford*. Crane, Russak Comp., New York, NY, USA, 1973. xi + 195 + 8 pp. Foreword by Sir Harrie Stewart Wilson Massey.

**Feather:1977:RML**

- [Fea77] N. Feather, F.R.S. Rutherford Memorial Lecture, 1977: Some episodes of the  $\alpha$ -particle story, 1903–1977. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 357(1689):117–129, 1977. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/357/1689/117>. Lecture delivered at McGill University, Montreal, Canada on 28 September 1977.

**Feather:1979:SEA**

- [Fea79] Norman Feather. Some episodes of the alpha-particle story, 1903–1977. In Bunge and Shea [BS79], page ?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Feilden:2011:MWL**

- [Fei11] Tom Feilden. The man who looked inside the atom. BBC News broadcast, May 25, 2011. URL <http://www.bbc.com/news/science-environment-13542425>.

**Feldman:2019:NVW**

- [Fel19] Gerald Feldman. News and views: Why neutrons and protons are modified inside nuclei. *Nature*, 566(7744):332–333, February 21, 2019. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <https://www.nature.com/articles/d41586-019-00577-0>.

**Frederick-Frost:2017:LMH**

- [FF17] K. M. Frederick-Frost. For the love of a mother — Henry Moseley’s rare earth research. *Historical Studies in the Natural Sciences*, 47(4):529–567, September 2017. ISSN 1939-1811 (print), 1939-182X (electronic).

**Ferroni:2000:EMR**

- [FGM<sup>+</sup>00] M. Ferroni, V. Guidi, G. Martinelli, E. Comini, G. Sberveglieri, D. Boscarino, and G. Della Mea. Electron microscopy and Rutherford backscattering study of nucleation and growth in nanosized W–Ti–O thin films. *Journal of Applied Physics*, 88(2):1097, 2000. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Figurovskij:1960:SBG**

- [FH60] Nikolaĳ Aleksandroviĳ Figurovskij and Gerhard Harig. *Sowjetische Beiträge zur Geschichte der Naturwissenschaft. (German) [Soviet contributions to the history of natural science]*. Dt. Verl. der Wiss., Berlin, Germany, 1960. viii + 242 pp. LCCN Q125 1960. DM-Ost 17.50.

**Fujino:1999:SIB**

- [FIY<sup>+</sup>99] Y. Fujino, Y. Igarashi, S. Yamaura, N. Suzuki, and K. Iimura. Study of interdiffusion between thin Y–Ba–Cu–O films and MgO substrates by applying Rutherford backscattering spectrometry combined with scanning tunneling microscopy. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 17(5):2962, 1999. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**French:1985:NBC**

- [FK85] A. P. (Anthony Philip) French and P. J. Kennedy, editors. *Niels Bohr: a centenary volume*. Harvard University Press, Cambridge, MA, USA, 1985. ISBN 0-674-62415-7, 0-674-62416-5 (paperback). xiv + 403 pp. LCCN QC16.B63 N49 1985. US\$27.50.

**Flaig:2017:PER**

- [Fla17] Joseph Flaig. £100m Ernest Rutherford fund to attract skilled researchers to UK ahead of Brexit. *PE: the magazine for professional engineers*, ??(??):??, July/August 2017. ISSN 1930-5745 (print), 1930-6024 (electronic). URL <http://www.imeche.org/news/news-article/100m-ernest-rutherford-fund-to-attract-skilled-researchers-to-uk-ahead-of-brexite>.

**Fleck:1957:FSB**

- [Fle57] Alexander Fleck. Frederick Soddy. Born Eastbourne 2 September 1877. Died Brighton 26 September 1956. *Biographical Memoirs of Fellows of the Royal Society*, 3:203–216, 1957. CODEN BMFRA3. ISSN 0080-4606 (print), 1748-8494 (electronic). URL <http://rsbm.royalsocietypublishing.org/content/roybiogmem/3/203>.

**Fehl:1992:SUM**

- [FLK92] D. L. Fehl, R. J. Leeper, and R. P. Kensek. A simple unfold method for Rutherford scattering, intense ion-beam spectrographs. *Review of Scientific Instruments*, 63(10):4786, 1992. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Flower:1970:ERE**

- [Flo70] N. C. Flower. Ernest Rutherford's experiments on thorium. *Physics Education*, 5(4):214–220, July 1970. CODEN PHEDA7. ISSN 0031-9120 (print), 1361-6552 (electronic). URL <http://adsabs.harvard.edu/abs/1970PhyEd...5..214F>; <http://stacks.iop.org/0031-9120/5/i=4/a=306>.

**Freire:1989:ACS**

- [FLP+89] F. L. Freire, C. V. Barros Leite, B. K. Patnaik, G. B. Baptista, D. Naugle, R. K. Pandey, and W. Kirk. Analysis of the

composition of surface layers in high-temperature superconducting materials by the combination of Rutherford backscattering spectrometry and nuclear resonance reaction. *Journal of Applied Physics*, 65(1):400, 1989. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Focken:1937:LRN**

- [Foc37] Charles Melbourne Focken. Lord Rutherford of Nelson. A tribute to New Zealand's greatest scientist. Privately printed., 1937. URL <http://www.amazon.com/Lord-Rutherford-Nelson-Zealands-Scientist/dp/B00EN3WA90>.

**Focken:1938:PLL**

- [Foc39] Charles Melbourne Focken. The publications of the late Lord Rutherford. *Transactions and Proceedings of the Royal Society of New Zealand*, 68(??):17-25, ????. 1938-1939. CODEN TRNZAS. ISSN 0035-9181. URL [http://rsnz.natlib.govt.nz/volume/rsnz\\_68/rsnz\\_68\\_01\\_000100.pdf](http://rsnz.natlib.govt.nz/volume/rsnz_68/rsnz_68_01_000100.pdf); [http://rsnz.natlib.govt.nz/volume/rsnz\\_68/rsnz\\_68\\_01\\_000120.html](http://rsnz.natlib.govt.nz/volume/rsnz_68/rsnz_68_01_000120.html).

**Focker:19xx:TNZ**

- [Focxx] Charles M. Focker. A tribute to New Zealand's greatest scientist, 19xx. Unpublished pamphlet.

**Foster:1949:ASE**

- [Fos49] J. S. Foster. Arthur Stewart Eve. 1862-1948. *Obituary Notices of Fellows of the Royal Society*, 6(18):396-407, November 1, 1949. ISSN 1479-571X (print), 2053-9118 (electronic). URL <http://rsbm.royalsocietypublishing.org/content/6/18/396>; <http://www.jstor.org/stable/768932>.

**Fowler:1972:RML**

- [Fow72] P. H. (Peter Howard) Fowler, F.R.S. The Rutherford Memorial Lecture, 1971: Evolution of the elements. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 329(1576):1-16, 1972. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/329/1576/1>. Lecture delivered at Christchurch, New Zealand on 9 September 1971.

**Fowler:1983:EIM**

- [Fow83] D. E. Fowler. Electron inelastic mean free path (IMFP) in single crystal BeO by Rutherford backscattering (RBS) and Auger electron spectroscopy (AES). *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 1(2): 1021–1025, 1983. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic). April.

**Flack:1933:CM**

- [FR33] Alan W. Flack and Ernest Rutherford. *Constitution of matter*. ????, ????, 1933. 42 pp. LCCN ????

**Fernandez:2013:RAN**

- [FR13a] Bernard Fernandez and Georges Ripka. 1908: Rutherford is awarded the Nobel Prize. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], page 40. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:CR**

- [FR13b] Bernard Fernandez and Georges Ripka. The conjecture of Rutherford. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], pages 32–34. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:DGE**

- [FR13c] Bernard Fernandez and Georges Ripka. The death of a giant: Ernest Rutherford. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], pages 341–342. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:ER**

- [FR13d] Bernard Fernandez and Georges Ripka. Ernest Rutherford. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], page 17. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:RMR**

- [FR13e] Bernard Fernandez and Georges Ripka. Rutherford in Montreal: The radiation of thorium, the exponential decrease. In

*Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], page 19. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:RIN**

- [FR13f] Bernard Fernandez and Georges Ripka. Rutherford invents the nucleus. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], pages 74–76. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:RSR**

- [FR13g] Bernard Fernandez and Georges Ripka. Rutherford studies radioactivity:  $\alpha$ - and  $\beta$ -rays. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], page 18. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:RVN**

- [FR13h] Bernard Fernandez and Georges Ripka. Rutherford the visionary: The neutron. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], page 209. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:SER**

- [FR13i] Bernard Fernandez and Georges Ripka. Sir Ernest Rutherford, Cavendish Professor of Physics. In *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956* [FR13j], page 202. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). LCCN QC773 .F47 2013.

**Fernandez:2013:UMA**

- [FR13j] Bernard Fernandez and Georges Ripka. *Unravelling the Mystery of the Atomic Nucleus — a Sixty Year Journey 1896–1956*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2013. ISBN 1-4614-4180-3 (hardcover), 1-4614-4181-1 (e-book). xviii + 522 pp. LCCN QC773 .F47 2013.

**Furlong:2018:HSF**

- [FR18] Jason Furlong and John Ryder. Hunting submarines from the air. *Physics World*, 31(5):??, June 13, 2018.

CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL <https://physicsworld.com/a/hunting-submarines-from-the-air/>.

**Fraser:2005:ASD**

- [Fra05] G. J. Fraser. The antecedents and subsequent development of scientific radar in New Zealand. *Journal of Atmospheric and Solar-Terrestrial Physics*, 67:1411–1418, October 2005. CODEN JASPF3. ISSN 1364-6826 (print), 1879-1824 (electronic). URL <http://adsabs.harvard.edu/abs/2005JASTP...67.1411F>.

**Freedman:1979:FSP**

- [Fre79] Michael I. Freedman. Frederick Soddy and the practical significance of radioactive matter. *British Journal for the History of Science*, 12(3):257–260, November 1979. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL <http://www.jstor.org/stable/4026000>.

**Freeman:2012:PRC**

- [Fre12] S. Freeman. Preface: Rutherford Centennial Conference on Nuclear Physics. *Journal of Physics: Conference Series*, 381(1):011001, September 2012. CODEN JPCSDZ. ISSN 1742-6588 (print), 1742-6596 (electronic). URL <http://adsabs.harvard.edu/abs/2012JPhCS.381a1001F>.

**Fujinami:1996:CDS**

- [FTT96] M. Fujinami, A. Tsuge, and K. Tanaka. Characterization of defects in self-ion implanted Si using positron annihilation spectroscopy and Rutherford backscattering spectroscopy. *Journal of Applied Physics*, 79(12):9017, 1996. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Fulcher:1913:RA**

- [Ful13] Gordon S. Fulcher. The Rutherford atom. *Science*, 38(973):274–276, August 22, 1913. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1639928>; <http://www.sciencemag.org/content/38/973/274.2.extract>.

**Frisch:1967:DFH**

- [FW67] Otto Robert Frisch and John A. Wheeler. The discovery of fission: How it all began and mechanism of fis-

sion. *Physics Today*, 20(11):43–52, November 1967. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL [http://www.physicstoday.org/resource/1/phtoad/v20/i11/p43\\_s1](http://www.physicstoday.org/resource/1/phtoad/v20/i11/p43_s1). Reprinted in [WP85, pages 272–281].

**Frisch:1985:DF**

[FW85] Otto R. Frisch and John A. Wheeler. The discovery of fission. In Weart and Phillips [WP85], pages 272–281. ISBN 0-88318-468-0 (paperback). LCCN QC7 .H694 1985. Reprint of [FW67].

**Graetzer:1971:DNF**

[GA71] Hans G. Graetzer and David L. Anderson. *The discovery of nuclear fission: a documentary history*, volume 20 of *Van Nostrand Reinhold momentum books*. Van Nostrand Reinhold, New York, NY, USA, 1971. viii + 120 pp. LCCN QC790 .G68.

**Gamow:1928:QAG**

[Gam28] George Gamow. Zur Quantentheorie des Atomkernes. (German) [On the quantum theory of the atomic nucleus]. *Zeitschrift für Physik*, 51(3–4):204–212, March 1928. CODEN ZEPYAA. ISSN 0044-3328. URL <http://www.springerlink.com/content/mw52h8867mr4x185/>. Reprinted in [Bey49, pages 77–85].

**Gamow:1929:DSA**

[Gam29a] George Gamow. Discussion on the structure of atomic nuclei. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 123(792):386–387, April 6, 1929. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://www.jstor.org/stable/pdfplus/95202.pdf>.

**Gamow:1929:QAG**

[Gam29b] George Gamow. Zur Quantentheorie der Atomzertrümmerung. (German) [On the quantum theory of atomic fission]. *Zeitschrift für Physik*, 52(7–8):510–515, July 1929. CODEN ZEPYAA. ISSN 0044-3328. URL <http://www.springerlink.com/content/t240444152t66876/>.



**Gamow:1930:MDC**

- [Gam30] George Gamow. Mass defect curve and nuclear constitution. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 126(803):632–644, March 3, 1930. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://www.jstor.org/stable/pdfplus/95297.pdf>.

**Gamow:1985:TYS**

- [Gam85] George Gamow. *Thirty years that shook physics: the story of quantum theory*. Dover, New York, NY, USA, 1985. ISBN 0-486-24895-X (paperback). xiv + 224 + 9 pp. LCCN QC174.12 .G35 1985. US\$4.95. URL <http://www.loc.gov/catdir/description/dover032/85006797.html>.

**Ganesh:2017:CPB**

- [Gan17] A. S. Ganesh. Chadwick’s path-breaking discovery. *The Hindu*, ??(??):??, February 27, 2017. URL <http://www.thehindu.com/children/Chadwick%25E2%2580%2599s-path-breaking-discovery/article17375928.ece>.

**Ganesh:2018:MBC**

- [Gan18a] A. S. Ganesh. Meet Brooks, Canada’s first female nuclear physicist. *The Hindu*, ??(??):??, July 23, 2018. URL <https://www.thehindu.com/children/meet-brooks-canadas-first-female-nuclear-physicist/article24494177.ece>; <https://www.thehindu.com/todays-paper/tp-in-school/meet-brooks-canadas-first-female-nuclear-physicist/article24490550.ece>.

**Ganesh:2018:SST**

- [Gan18b] A. S. Ganesh. Soddy suggests the term “isotope”. *The Hindu*, ??(??):??, February 19, 2018. URL <http://www.thehindu.com/children/soddy-suggests-the-term-isotope/article22795117.ece>.

**Garrett:1962:NAS**

- [Gar62] Alfred B. Garrett. The nuclear atom: Sir Ernest Rutherford. *Journal of Chemical Education*, 39(6):287–288, June 1962. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed039p287>.

**Garber:1981:BRS**

- [Gar81] Elizabeth Garber. Book review: *The Self-Splitting Atom: The History of the Rutherford–Soddy Collaboration* by Thaddeus J. Trenn. *Isis*, 72(3):503, September 1981. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/230279>.

**Greco:2000:RBS**

- [GC00] D. Greco and A. D. Compaan. Rutherford backscattering study of sputtered CdTe/CdS bilayers. *Journal of Applied Physics*, 87(4):1722, 2000. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Geake:1961:RM**

- [Gea61] J. E. Geake. Rutherford in Manchester. *Contemporary Physics*, 3(2):155–158, 1961. CODEN CTPHAF. ISSN 0010-7514 (print), 1366-5812 (electronic).

**Geake:1962:JNA**

- [Gea62] J. E. Geake. The jubilee of the nuclear atom. *Endeavour*, 21(??):3–4, ????. 1962. CODEN ENDEAS. ISSN 0160-9327 (print), 1873-1929 (electronic).

**Gearhart:2014:FHE**

- [Gea14a] Clayton A. Gearhart. The Franck–Hertz experiments, 1911–1914 experimentalists in search of a theory. *Physics in Perspective (PIP)*, 16(3):293–343, September 2014. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-014-0139-3>.

**Gearhart:2014:OFH**

- [Gea14b] Clayton A. Gearhart. The origins of the Franck–Hertz experiments. In *APS Meeting Abstracts*. American Physical Society, Ridge, NY 11961, USA, March 2014. URL <http://adsabs.harvard.edu/abs/2014APS..APRB10002G>; <http://meetings.aps.org/Meeting/APR14/Event/218192>.

**Geddes:2016:WHB**

- [Ged16] John Geddes. Why Harriet Brooks fits the bill: A pioneering physicist, Brooks wrote that a woman ‘has the right to the practice of her profession’. *Maclean’s*, ??(??):??, March

9, 2016. ISSN 0024-9262. URL <http://www.macleans.ca/politics/ottawa/why-harriet-brooks-fits-the-bill/>.

**Geiger:1938:LLR**

- [Gei38a] Hans Geiger. Das Lebenswerk von Lord Rutherford of Nelson. (German) [The life work of Lord Rutherford of Nelson]. *Naturwissenschaften*, 26(11):161–164, March 1938. CODEN NATWAY. ISSN 0028-1042 (print), 1432-1904 (electronic). URL <http://link.springer.com/article/10.1007/BF01774120>.

**Geiger:1938:MRM**

- [Gei38b] Hans Geiger. Memories of Rutherford in Manchester. *Nature*, 141(3562):244, February 5, 1938. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v141/n3562/pdf/141244a0.pdf>.

**Genet:1995:DUR**

- [Gen95] Michel Genet. The discovery of uranic rays: A short step for Henri Becquerel but a giant step for science. *Radiochimica Acta*, 70–71(S1):3–12, December 1995. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.1995.70-71.issue-s1/ract.1995.7071.special-issue.3/ract.1995.7071.special-issue.3.xml>.

**George:1938:LRO**

- [Geo38] A. George. Lord Rutherford ou l'alchimiste. (French) [Lord Rutherford or the alchemist]. *La Revue de France*, ??(??): 525–533, ??? 1938.

**Geiger:1910:LNP**

- [GF10] Hans Geiger, Ph.D. and Professor Ernest Rutherford F.R.S. LXXV. The number of  $\alpha$  particles emitted by uranium and thorium and by uranium minerals. *Philosophical Magazine (6)*, 20(118):691–698, October 1910. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Gagnon:1991:RTA**

- [GHCA91] G. Gagnon, A. Houdayer, J. F. Currie, and A. Azelmad. Rapid thermal annealing effect on near-surface stoichiometry of GaAs by heavy-ion Rutherford backscattering. *Journal of*

*Applied Physics*, 70(2):1036, 1991. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Gibb:2017:YDC**

- [Gib17] John Gibb. 50 years of decimal currency. *Otago Daily Times*, ??(??):??, July 10, 2017. URL [https://en.wikipedia.org/wiki/Banknotes\\_of\\_the\\_New\\_Zealand\\_dollar#/media/File:New\\_zealand\\_rbnz\\_100\\_dollars\\_2016.00.00\\_b141a\\_pnl\\_af\\_16145450\\_f.jpg](https://en.wikipedia.org/wiki/Banknotes_of_the_New_Zealand_dollar#/media/File:New_zealand_rbnz_100_dollars_2016.00.00_b141a_pnl_af_16145450_f.jpg); <https://www.odt.co.nz/news/dunedin/50-years-decimal-currency>.

**Gibson:2019:SIH**

- [Gib19] Susannah Gibson. *The Spirit of Inquiry: How One Extraordinary Society Shaped Modern Science*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2019. ISBN 0-19-883337-7 (hardcover). xxi + 377 pp. LCCN Q41.C194 G537 2019.

**Giudice:2012:BSL**

- [Giu12] Gian Francesco Giudice. Big Science and the Large Hadron Collider. *Physics in Perspective (PIP)*, 14(1):95–112, March 2012. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-011-0078-1>.

**Glorfeld:2020:SHH**

- [Glo20] Jeff Glorfeld. Science history: Hans Geiger counts particles: His device changed physics and films. *Cosmos magazine* Web site, April 26, 2020. URL <https://cosmosmagazine.com/physics/science-history-hans-geiger-counts-particles>.

**Guerra:2006:efd**

- [GLR06] Francesco Guerra, Matteo Leone, and Nadia Robotti. Enrico Fermi's discovery of neutron-induced artificial radioactivity: Neutrons and neutron sources. *Physics in Perspective (PIP)*, 8(3):255–281, September 2006. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-006-0296-0>; <http://www.springerlink.com/content/w233203272t22206/>.

**Guerra:2012:DAR**

- [GLR12] Francesco Guerra, Matteo Leone, and Nadia Robotti. The discovery of artificial radioactivity. *Physics in Perspective (PIP)*, 14(1):33–58, March 2012. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-011-0064-7>; <http://www.springerlink.com/content/v1733673628jr058/>.

**Geiger:1909:DRP**

- [GM09] Hans Geiger and Ernest Marsden. On a diffuse reflection of the  $\alpha$ -particles. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 82(557):495–500, July 31, 1909. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/82/557/495>.

**Geiger:1913:LLD**

- [GM13] Dr. Hans Geiger and Ernest Marsden. LXI. The laws of deflexion of  $\alpha$  particles through large angles. *Philosophical Magazine (6)*, 25(148):604–623, 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786440408634197>.

**Good:2010:RG**

- [Goo10] Gregory A. Good. Rutherford’s geophysicists. *Physics Today*, 63(7):42–47, 2010. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/63/7/10.1063/1.3463627>.

**Gordon:1955:CRS**

- [Gor55] M. M. Gordon. Concerning the Rutherford scattering formula. *American Journal of Physics*, 23(5):247–248, May 1955. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Geiger:1912:LPR**

- [GR12] Dr. Hans Geiger and Prof. E. Rutherford, F.R.S. LVII. Photographic registration of  $\alpha$  particles. *Philosophical Magazine (6)*, 24(142):618–623, October 1912. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Gignac:1989:RBS**

- [GR89] Lynne M. Gignac and Subhash H. Risbud. Rutherford backscattering spectroscopy and electron microprobe analyses of argon gas trapped in alumina thin films. *Applied Physics Letters*, 54(2):129, 1989. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Graetzer:1964:DNF**

- [Gra64] Hans G. Graetzer. Discovery of nuclear fission. *American Journal of Physics*, 32(9):9–15, January 1964. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). See [HS39, Bey49, HS89].

**Grayland:1968:FNZ**

- [Gra68] Eugene Charles Grayland. *Famous New Zealanders*. Whitcombe and Tombs, Christchurch, New Zealand, 1968. 205 pp. LCCN CT2883 .G7.

**Grayland:1972:MFN**

- [Gra72] Eugene Charles Grayland. *More famous New Zealanders*. Whitcombe and Tombs, Christchurch, New Zealand, 1972. ISBN 0-7233-0335-5 (hardcover). 174 + 12 pp. LCCN CT2883 .G73.

**Graham:2002:ERW**

- [Gra02] Andrew Graham. Ernest Rutherford website. *The Physics Teacher*, 40(3):190, 2002. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Gregory:2007:TPG**

- [Gre07] Robert B. Gregory. Turning plastic into gold: An analogy to demonstrate the Rutherford gold foil experiment. *Journal of Chemical Education*, 84(4):626–??, April 2007. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed084p626>.

**Grinberg:2009:ACS**

- [Gri09] N. Grinberg. The American Chemical Society lists Professor Csaba Horvath among great scientists such as Crick and Watson, Linus Pauling, Pierre and Marie Curie, and Ernest Rutherford. foreword. *Journal of Chromatography. A*, 1216(8):1213–1214, February 20, 2009. CODEN JCRAEY. ISSN 0021-9673 (print), 1873-3778 (electronic).

**Grove:1989:AER**

- [Gro89] C. L. Grove. The Auger electron, Rutherford backscattering, secondary neutral mass, and secondary ion mass spectroscopies characterization of a W/TiNy/TiSiz/Si barrier structure for use in  $1.0 - \mu$  m very large scale integrated circuit contacts. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 7(3):1596, May 1989. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Geiger:1931:DUP**

- [GRR<sup>+</sup>31] H. Geiger, Lord Rutherford, E. Regener, F. A. Lindemann, C. T. R. Wilson, J. Chadwick, L. H. Gray, G. T. P. Tarrant, G. M. B. Dobson, William Bragg, Owen W. Richardson, Arthur Eddington, F. Soddy, and S. Chapman. Discussion on ultra-penetrating rays. *Proceedings of the Royal Society of London. Series A*, 132(819):331–352, July 2, 1931. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Geffken:1987:CMD**

- [GRS87] Robert M. Geffken, James G. Ryan, and George J. Slusser. Contact metallurgy development for VLSI logic. *IBM Journal of Research and Development*, 31(6):608–616, November 1987. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

**Gulwadi:1991:RSR**

- [GRS<sup>+</sup>91] Sadanand M. Gulwadi, Mulpuri V. Rao, David S. Simons, O. W. Holland, Won-Pyo Hong, Catherine Caneau, and Harry B. Dietrich. Range statistics and Rutherford backscattering studies on Fe-implanted  $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ . *Journal of Applied Physics*, 69(1):162, 1991. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Guillaumont:1995:DAR**

- [GT95] Robert Guillaumont and Didier Trubert. On the discovery of artificial radioactivity. *Radiochimica Acta*, 70–71 (S1):39–50, December 1995. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.1995.70-71.issue-s1/ract.1995.7071.special-issue.39/ract.1995.7071.special-issue.39.xml>.

**Gueben:1938:LR**

- [Gué38] G. Guében. [Lord Rutherford]. *Revue des Questions Scientifiques*, 113(??):5–19, 1938. CODEN RQSCAN. ISSN 0035-2160.

**Guston:2012:PTM**

- [Gus12] David H. Guston. The pumpkin or the tiger? Michael Polanyi, Frederick Soddy, and anticipating emerging technologies. *Minerva*, 50(3):363–379, September 2012. CODEN MINEFY. ISSN 0026-4695 (print), 1573-1871 (electronic). URL <http://link.springer.com/content/pdf/10.1007/s11024-012-9204-8.pdf>.

**Garbarino:1973:RSE**

- [GW73] John R. Garbarino and M. A. Wartell. The Rutherford scattering experiment: CAI in the laboratory. *Journal of Chemical Education*, 50(11):792–??, November 1973. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed050p792>.

**Hartcup:1984:CA**

- [HA84] Guy Hartcup and T. E. Allibone. *Cockroft and the atom*. Adam Hilger Ltd., Bristol, UK, 1984. 320 pp. LCCN ????

**Hagmann:2017:MUP**

- [Hag17] Johannes-Geert Hagmann. Mobilizing US physics in World War I. *Physics Today*, 70(8):44–50, August 2017. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic).

**Hahn:1962:SRP**

- [Hah62] Otto Hahn. Some reminiscences of Professor Ernest Rutherford during his time at McGill University, Montreal. In *The collected papers of Lord [Ernest] Rutherford of Nelson* [Cha65], pages 164–168. LCCN ????. Three volumes.

**Hahn:1967:MER**

- [Hah67a] Otto Hahn. In Montreal with Ernest Rutherford — fall 1905 to summer 1906. In *Otto Hahn: a scientific autobiography* [Hah67b], chapter 3, pages 24–36. LCCN QD22.H2 1967. Translated and edited by Willy Ley. With an introduction by Glenn T. Seaborg.



- [Hah67b] **Hahn:1967:OHS**  
Otto Hahn. *Otto Hahn: a scientific autobiography*. MacGibbon and Kee, London, UK, 1967. xxiv + 296 + 16 pp. LCCN QD22.H2 1967. Translated and edited by Willy Ley. With an introduction by Glenn T. Seaborg.
- [Har07] **Harker:1907:SSC**  
J. A. Harker. Some scientific centres, XI. The Physical Laboratories of Manchester University. *Nature*, 76(1982):640–642, October 24, 1907. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v76/n1982/pdf/076640a0.pdf>.
- [Har38] **Harteck:1938:EAL**  
Paul Harteck. Zur Entwicklung der Atomphysik. Lord Ernest Rutherford of Nelson zum Gedächtnis. (German) [On the development of atomic physics. Lord Ernest Rutherford of Nelson in memoriam]. *Angewandte Chemie*, 51(1):1–3, January 8, 1938. CODEN ANCEAD. ISSN 0044-8249 (print), 1521-3757 (electronic).
- [Har60] **Harteck:1960:PCB**  
Paul Harteck. Physical chemists in Berlin: 1919–1933. *Journal of Chemical Education*, 37(9):462, 1960. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed037p462>.
- [Har01] **Harper:2001:AGG**  
Eamon Harper. In appreciation: George Gamow: Scientific amateur and polymath. *Physics in Perspective (PIP)*, 3(3):335–372, September 2001. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://adsabs.harvard.edu/abs/2001PhP....3..335H>; <http://link.springer.com/article/10.1007/PL00000536>; <http://www.springerlink.com/content/m0htmt9ww9b9jjv1/>; <http://www.springerlink.com/openurl.asp?genre=journal&issn=1422-6944>.
- [Har05] **Harvie:2005:DSH**  
David Harvie. *Deadly sunshine: the history and fatal legacy of radium*. Tempus, Stroud, Gloucestershire, UK, 2005. ISBN 0-7524-3395-4 (paperback). 288 + 16 pp. LCCN QD181.R1 H37 2005.

**Hau:1982:SRE**

- [Hau82] Kit-Tai Hau. A simulation of Rutherford experiment. *Journal of Chemical Education*, 59(11):973–??, November 1982. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed059p973.2>.

**Hayward:1963:BRP**

- [Hay63] Evans Hayward. Book review: *Proceedings of the Rutherford Jubilee International Conference, Manchester 1961*, J. B. Birks, editor. *Physics Today*, 16(1):63–64, January 1963. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/16/1/10.1063/1.3050719>.

**Hubbell:1977:RRD**

- [HBA77] Harry H. Hubbell, Jr., Robert D. Birkhoff, and John D. Allen. Rutherford revisited: Deflection of an electron in inverse first-, second-, and third-power central fields. *American Journal of Physics*, 45(9):826–832, September 1977. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Heisenberg:1934:CTG**

- [Hei34] Werner Heisenberg. Considérations théoriques générales sur la structure du noyau. (French) [General theoretical considerations of the structure of the nucleus]. In Cockcroft et al. [CCJ<sup>+</sup>34], pages 289–335. LCCN ????. Publiés par la commission administrative de l’institut.

**Heimann:1967:RNN**

- [Hei67] P. M. Heimann, B.A., B.Sc. Rutherford, Nagaoka, and the nuclear atom. *Annals of Science*, 23(4):299–303, 1967. CODEN ANNSA8. ISSN 0003-3790 (print), 1464-505X (electronic).

**Heilbron:1968:SPR**

- [Hei68] John L. Heilbron. The scattering of  $\alpha$  and  $\beta$  particles and Rutherford’s atom. *Archive for History of Exact Sciences*, 4(4):247–307, January 1968. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL <http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=4&issue=4&spage=247>.

**Heimann:1971:BRP**

- [Hei71] P. M. Heimann. Book review: Physical sciences: *Rutherford and Boltwood: Letters on Radioactivity*. Ed. by Lawrence Badash. New Haven & London: Yale University Press. Pp. xxii + 378. 1969. £5.621/2. *British Journal for the History of Science*, 5(3):301–302, June 1971. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL <http://www.jstor.org/stable/4025329>.

**Heilbron:1974:HGJ**

- [Hei74] J. L. Heilbron. *H. G. J. Moseley: The life and letters of an English physicist, 1887–1915*. University of California Press, Berkeley, CA, USA, 1974. ISBN 0-520-02375-7. xiii + 312 pp. LCCN QC16.M68 H44.

**Heibert:1979:SPT**

- [Hei79a] Erwin N. Heibert. The state of physics at the turn of the century. In Bunge and Shea [BS79], page ?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Heilbron:1979:PMR**

- [Hei79b] John L. Heilbron. Physics at McGill in Rutherford's time. In Bunge and Shea [BS79], pages 42–?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Heilbron:1981:RBA**

- [Hei81] John L. Heilbron. Rutherford–Bohr atom. *American Journal of Physics*, 49(3):223–231, March 1981. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL [http://ajp.aapt.org/resource/1/ajpias/v49/i3/p223\\_s1](http://ajp.aapt.org/resource/1/ajpias/v49/i3/p223_s1).

**Heilbron:2003:ERE**

- [Hei03] John L. Heilbron. *Ernest Rutherford: and the explosion of atoms*. Oxford portraits in science. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2003. ISBN 0-19-512378-6. 1 v. ( 139 ) pp. LCCN ????

**Heilbron:2008:MHG**

- [Hei08] J. L. Heilbron. Moseley, Henry Gwyn Jeffreys. In *Complete Dictionary of Scientific Biography*, page ?? Charles Scribner's Sons, Detroit, MI, USA, 2008. ISBN 0-684-31559-9.

URL [http://www.encyclopedia.com/topic/Henry\\_Gwyn\\_Jeffreys\\_Moseley.aspx](http://www.encyclopedia.com/topic/Henry_Gwyn_Jeffreys_Moseley.aspx).

**Hendry:1984:CPT**

- [Hen84] John Hendry, editor. *Cambridge physics in the thirties*. Adam Hilger Ltd., Bristol, UK, 1984. ISBN 0-85274-761-6. 209 pp. LCCN QC51.G72 C352 1984.

**Herzfeld:1972:BAR**

- [Her72] Karl F. Herzfeld. Bohr atom: a remark on the early history. *Science (New Series)*, 175(4028):1393–1394, March 24, 1972. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic).

**Herron:1977:RNA**

- [Her77] J. Dudley Herron. Rutherford and the nuclear atom. *Journal of Chemical Education*, 54(8):499–??, August 1977. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed054p499.1>.

**Herman:1984:ARB**

- [Her84] Michael H. Herman. Applications of Rutherford backscattering spectrometry to refractory metal silicide characterization. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 2(4):748, 1984. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Herrmann:2001:BRR**

- [Her01a] Günter Herrmann. Book review: *Rutherford Scientist Supreme*, by John Campbell. *Angewandte Chemie, International Edition*, 40(18):3479, September 14, 2001. CODEN ANCEAD. ISSN 1433-7851 (print), 1521-3773 (electronic). URL [http://onlinelibrary.wiley.com/doi/10.1002/1521-3773\(20010917\)40:18%3C3479::AID-ANIE3479%3E3.O.CO%3B2-R/full](http://onlinelibrary.wiley.com/doi/10.1002/1521-3773(20010917)40:18%3C3479::AID-ANIE3479%3E3.O.CO%3B2-R/full).

**Herrmann:2001:BRS**

- [Her01b] Günter Herrmann. Buchbesprechung: *Rutherford Scientist Supreme*, von John Campbell. *Angewandte Chemie*, 113(18):3589, September 14, 2001. CODEN ANCEAD. ISSN

0044-8249 (print), 1521-3757 (electronic). URL [http://onlinelibrary.wiley.com/doi/10.1002/1521-3757\(20010917\)113:18%3C3589::AID-ANGE11113589%3E3.0.CO%3B2-7/abstract?2-7/abstract](http://onlinelibrary.wiley.com/doi/10.1002/1521-3757(20010917)113:18%3C3589::AID-ANGE11113589%3E3.0.CO%3B2-7/abstract?2-7/abstract).

**Hessenbruch:2000:RER**

- [Hes00] Arne Hessenbruch. Rutherford's 1901 experiment on radiation energy and his creation of a stable detector. *Archive for History of Exact Sciences*, 54(5):403–420, February 2000. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL <http://www.springerlink.com/openurl.asp?genre=article&issn=0003-9519&volume=54&issue=5&spage=403>.

**Hartog:1999:DNB**

- [HFD<sup>+</sup>99] D. J. Den Hartog, G. Fiksel, V. Davydenko, A. Ivanov, and V. Mishagin. A diagnostic neutral beam system for the MST reversed-field pinch: Charge-exchange recombination spectroscopy and Rutherford scattering (abstract). *Review of Scientific Instruments*, 70(1):869, 1999. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Huttner:1994:HRR**

- [HGM<sup>+</sup>94] D. Hüttner, U. Günther, O. Meyer, J. Reiner, and G. Linker. High-resolution Rutherford backscattering study of ultrathin YBaCuO film growth on SrTiO<sub>3</sub> and MgO. *Applied Physics Letters*, 65(22):2863, 1994. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Hartiti:1993:RBA**

- [HHAMS93] B. Hartiti, M. Hage-Ali, J. C. Muller, and P. Siffert. Rutherford backscattering analysis of phosphorus gettering of gold and copper. *Applied Physics Letters*, 62(26):3476, 1993. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Hyde:1987:HAD**

- [HHK87] Earl K. Hyde, Darleane C. Hoffman, and O. L. Keller, Jr. A history and analysis of the discovery of elements 104 and 105. *Radiochimica Acta*, 42(2):57–102, May 1987. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.1987.42.issue-2/ract.1987.42.2.57/ract.1987.42.2.57.xml>.

**Hills:2017:TRE**

- [Hil17] Jo Hills. Theater review: Ernest Rutherford entertaining with a passion for science: Ernest Rutherford Everyone Can Science; Crystal Palace; Saturday August 19 [2017]. *Taranaki Daily News*, ??(??):??, August 20, 2017. URL <https://www.stuff.co.nz/taranaki-daily-news/lifestyle/95957694/ernest-rutherford-entertaining-with-a-passion-for-science>.

**Homberger:1970:CMN**

- [HJS70] Eric Homberger, William Janeway, and Simon Schama, editors. *The Cambridge mind: ninety years of the Cambridge Review, 1879–1969*. Jonathan Cape, London, UK, 1970. ISBN 0-224-61914-4. 315 + 8 pp. LCCN AC5 .H64.

**Hasegawa:1996:LER**

- [HKH96] Masataka Hasegawa, Naoto Kobayashi, and Nobuyuki Hayashi. Low-energy Rutherford backscattering-ion channeling measurement system with the use of several tens keV hydrogen and a time-of-flight spectrometer. *Review of Scientific Instruments*, 67(10):3510, 1996. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Hess:2009:DCB**

- [HKM<sup>+</sup>09] M. Hess, U. K. Krieger, C. Marcolli, Th. Peter, R. H. Doremus, and W. A. Lanford. Diffusion constants of Br in NaCl measured by Rutherford backscattering spectroscopy. *Journal of Applied Physics*, 105(12):124910, 2009. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Hahn:1931:LRS**

- [HM31] Otto Hahn and Lise Meitner. Lord Rutherford zum sechzigsten Geburtstag. (German) [Lord Rutherford's sixtieth birthday]. *Naturwissenschaften*, 19(35):729, August 1931. CODEN NATWAY. ISSN 0028-1042 (print), 1432-1904 (electronic). URL <http://link.springer.com/article/10.1007/BF01522345>.

**Hashimoto:2011:ISH**

- [HNS<sup>+</sup>11] H. Hashimoto, K. Nakajima, M. Suzuki, K. Sasakawa, and K. Kimura. Improvement of sensitivity in high-resolution

Rutherford backscattering spectroscopy. *Review of Scientific Instruments*, 82(6):063301, 2011. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Holmes:1930:PAU**

- [Hol30] A. Holmes. The period of ‘actino-uranium’ and its bearing on the ages of radioactive minerals. *Nature*, 126(3175): 348–349, September 6, 1930. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://adsabs.harvard.edu/abs/1930Natur.126..348H>; <http://www.nature.com/nature/journal/v126/n3175/pdf/126348b0.pdf>. See [Rut29g].

**Hon:1998:HSP**

- [Hon98] Giora Hon. Hertz’s study of propagation vs. Rutherford’s study of structure: Two modes of experimentation and their theoretical underpinnings. In *Heinrich Hertz: Classical Physicist, Modern Philosopher* [BHN98], chapter 5, pages 59–72. ISBN 90-481-4881-2, 94-015-8855-4 (e-book). ISSN 0068-0346. LCCN ????. URL [https://link.springer.com/chapter/10.1007/978-94-015-8855-3\\_5](https://link.springer.com/chapter/10.1007/978-94-015-8855-3_5).

**Hon:2003:PSE**

- [Hon03] Giora Hon. From propagation to structure: The experimental technique of bombardment as a contributing factor to the emerging quantum physics. *Physics in Perspective (PIP)*, 5(2):150–173, May 2003. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-003-0124-8>.

**Hopkins:2021:BER**

- [Hop21] Abbott Hopkins. Biography: Ernest Rutherford — physicist and chemist. Magazine Web site, May 15, 2021. URL <https://www.insidewalessport.co.uk/biography-ernest-rutherford-physicist-and-chemist/>.

**Houtermans:1930:NAQ**

- [Hou30] Fritz G. Houtermans. Neuere Arbeiten über Quantentheorie des Atomkerns. (German) [New work on the quantum theory of the atomic nucleus]. *Ergebnisse der Exakten Naturwissenschaften*, 9(??):123–221, ????. 1930. CODEN EENAA3. ISSN 0367-0325.

**Howorth:1958:PRA**

- [How58] Muriel Howorth. *Pioneer research on the atom; Rutherford and Soddy in a glorious chapter of science; the life story of Frederick Soddy, M.A., LL.D., F.R.S., Nobel laureate*. New World Publications, London, 1958. 352 pp. LCCN QC16.S75 H6.

**Harding:1977:RA**

- [HRM79] Charles Harding, Ernest Rutherford, and P. B. (Philip Burton) Moon. *Rutherford and the atom*. Science foundation course (2nd version). Open University Educational Enterprises, Milton Keynes, UK, 1977–1979. LCCN ??? Nineteen-minute sound cassette.

**Hahn:1939:NVB**

- [HS39] Otto Hahn and Fritz Strassmann. Über den Nachweis und das Verhalten der bei der Bestrahlung des Urans mittels Neutronen entstehenden Erdalkalimetalle. (German) [Concerning the existence of alkaline earth metals resulting from the neutron irradiation of uranium]. *Naturwissenschaften*, 27(1): 11–15, January 1939. CODEN NATWAY. ISSN 0028-1042 (print), 1432-1904 (electronic). A facsimile is also available in [Bey49, pages 87–91] and in [Gra64]. Abridged English translation in [GA71, pages 44–47].

**Hahn:1989:PFA**

- [HS89] Otto Hahn and Fritz Strassmann. Proof of the formation of active isotopes of barium from uranium and thorium irradiated with neutrons; proof of the existence of more active fragments produced by uranium fission. *Journal of Chemical Education*, 66(5):362–363, May 1989. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed066p362>. English translation of [HS39]. Special issue commemorating fifty years of nuclear fission. See also [Gra64].

**Hazen:2010:GIS**

- [HT10] Robert M. Hazen and James Trefil, editors. *Great ideas of science: a reader in the classic literature of science*. Cognella, San Diego, CA, USA, 2010. 256 pp. LCCN Q161.2 .G74 2010.



**Hubisz:2001:BRR**

- [Hub01] John L. Hubisz. Book review: *Rutherford: Scientist Supreme*, by John Campbell. *The Physics Teacher*, 39(3):192, 2001. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Hubisz:2013:MBR**

- [Hub13] John L. Hubisz. MicroReviews by the book review editor: *Radioactive Transformations: Ernest Rutherford*. *The Physics Teacher*, 51(5):319, 2013. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Hughes:1990:BAM**

- [Hug90] R. I. G. Hughes. The Bohr atom, models, and realism. *Philosophical Topics*, 18(2):71–84, 1990. ISSN 0276-2080 (print), 2154-154X (electronic). URL <http://www.jstor.org/stable/43154077>.

**Hughes:1993:RCC**

- [Hug93] Jeffrey Alan Hughes. *The radioactivists: community, controversy and the rise of nuclear physics*. Ph.D. dissertation, University of Cambridge, Cambridge, UK, 1993. viii + 417 pp. URL <https://search.proquest.com/pqdtglobal/docview/301418262>.

**Hughes:2000:AMN**

- [Hug00] Jeff Hughes. 1932: the *annus mirabilis* of nuclear physics? *Physics World*, 13(7):43–48, July 2000. CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL <http://stacks.iop.org/2058-7058/13/i=7/a=30>.

**Hughes:2008:WKS**

- [Hug08] Jeff Hughes. William Kay, Samuel Devons and memories of practice in Rutherford's Manchester laboratory. *Notes and Records of the Royal Society of London*, 62(1):97–121, March 20, 2008. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://www.jstor.org/stable/20462652>.

**Hughes:2012:RRO**

- [Hug12] J. Hughes. Rutherford, radioactivity and the origins of nuclear physics. *Journal of Physics: Conference Series*,

381(1):012001, 2012. CODEN JPCSDZ. ISSN 1742-6588 (print), 1742-6596 (electronic). URL <http://stacks.iop.org/1742-6596/381/i=1/a=012001>.

**Hamm:1984:SIG**

- [HV84] R. A. Hamm and J. M. Vandenberg. A study of the initial growth kinetics of the copper-aluminum thin-film interface reaction by in situ X-ray diffraction and Rutherford backscattering analysis. *Journal of Applied Physics*, 56(2):293, 1984. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Huang:1992:URB**

- [HW92] Jian Huang and Mark S. Wrighton. Use of Rutherford backscattering spectroscopy to investigate anion exchange constants of protonated poly(4-vinylpyridine). *Chemistry of Materials*, 4(2):284–290, 1992. CODEN CMATEX. ISSN 0897-4756 (print), 1520-5002 (electronic).

**Hey:1996:EM**

- [HW96] Anthony J. G. Hey and Patrick Walters. *Einstein's mirror*. Cambridge University Press, Cambridge, UK, 1996. ISBN 0-521-43504-8 (hardcover), 0-521-43532-3 (paperback). xii + 291 pp. LCCN QC173.55 .H49 1996. URL <http://www.zentralblattmath.org/zmath/en/search/?an=0968.83002>.

**Hwang:1982:ALP**

- [Hwa82] H. L. Hwang. Analysis of low-pressure chemical vapor deposited silicon nitride by Rutherford backscattering spectrometry. *Applied Physics Letters*, 41(9):844, 1982. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Hwang:1983:EAL**

- [Hwa83] H. L. Hwang. Erratum: Analysis of low-pressure chemical vapor deposited silicon nitride by Rutherford backscattering spectrometry [Appl. Phys. Lett. **41**, 844 (1982)]. *Applied Physics Letters*, 42(3):305, 1983. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Huang:2015:MLI**

- [HZ15] Wenlong Huang and Ping Zhu. Mode locking and island suppression by resonant magnetic perturbations in Rutherford

regime. *Physics of Plasmas*, 22(3):032502, March 2015. CODEN PHPAEN. ISSN 1070-664X (print), 1089-7674 (electronic), 1527-2419.

**Igarashi:1994:IBB**

- [IFS194] Y. Igarashi, Y. Fujino, N. Suzuki, and K. Iimura. Interdiffusion between Y–Ba–Cu–O thin films and Al<sub>2</sub>O<sub>3</sub> substrates studied by applying Rutherford backscattering spectrometry combined with atomic force microscopy. *Journal of Applied Physics*, 76(10):5724, 1994. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Ihde:1964:BRR**

- [Ihd64] Aaron J. Ihde. Book review: *Rutherford at Manchester* (Birks, J. B., ed.). *Journal of Chemical Education*, 41(11):A896–??, November 1964. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed041pA896>.

**Izawa:2011:EIT**

- [IOI<sup>+</sup>11] Y. Izawa, T. Oga, T. Ida, K. Kuriyama, A. Hashimoto, H. Kotake, and T. Kamijoh. Evaluation of the interface of thin GaN layers on *c*- and *m*-plane ZnO substrates by Rutherford backscattering. *Applied Physics Letters*, 99(2):021909, 2011. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Ishibashi:1983:SUS**

- [Ish83] Kouichirou Ishibashi. Study of the uniformity and stoichiometry of CoSi<sub>2</sub> films using Rutherford backscattering spectroscopy and scanning electron microscopy. *Applied Physics Letters*, 43(7):660, 1983. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Ichihara:2009:HRR**

- [IYT<sup>+</sup>09] C. Ichihara, S. Yasuno, H. Takeuchi, A. Kobayashi, S. Mure, K. Fujikawa, and K. Sasakawa. High-resolution Rutherford backscattering spectrometry study on process dependent elemental depth profile change of hafnium silicate on silicon. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 27(4):937, 2009. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Jacobs:1972:LR**

- [Jac72] D. J. Jacobs. Lord Rutherford. *Physics Education*, 7 (3):170–172, 1972. CODEN PHEDA7. ISSN 0031-9120 (print), 1361-6552 (electronic). URL <http://stacks.iop.org/0031-9120/7/i=3/a=309>.

**Jaffe:1971:MNE**

- [Jaf71] Bernard Jaffe. *Moseley and the Numbering of the Elements*. The science study series. Doubleday, New York, NY, USA, 1971. xi + 178 pp. LCCN QC16.M68 J3.

**Jaffe:1972:MNE**

- [Jaf72] Bernard Jaffe. *Moseley and the Numbering of the Elements*, volume 40 of *Science study series*. Heinemann, London, UK, 1972. ISBN 0-435-55073-X. x + 178 pp. LCCN QC16.M68 J3 1972.

**Jaki:1979:RBW**

- [Jak79] Stanley L. Jaki. The reality beneath: The world view of Rutherford. In Bunge and Shea [BS79], page ?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Jarlskog:2008:LRN**

- [Jar08a] Cecilia Jarlskog. Lord Rutherford of Nelson, his 1908 Nobel Prize in Chemistry, and why he didn't get a second prize. *Journal of Physics: Conference Series*, 136(1):012001:1–012001:16, 2008. CODEN JPCSDZ. ISSN 1742-6588 (print), 1742-6596 (electronic). URL <http://stacks.iop.org/1742-6596/136/i=1/a=012001>. Presented at the XXIII Conference on Neutrino Physics and Astrophysics.

**Jarlskog:2008:RNP**

- [Jar08b] Cecilia Jarlskog. Rutherford's Nobel Prize and the one he didn't get. *CERN Courier: International Journal of High-Energy Physics*, 59(??):??, ??? 2008. CODEN CEEOA2. ISSN 0304-288X (print), 2077-9550 (electronic). URL <https://cerncourier.com/rutherford-nobel-prize-and-the-one-he-didnt-get/>.

**Jeynes:2012:ADQ**

- [JBS12] C. Jeynes, N. P. Barradas, and E. Szilágyi. Accurate determination of quantity of material in thin films by Rutherford

backscattering spectrometry. *Analytical Chemistry (Washington, DC, USA)*, 84(14):6061–6069, 2012. CODEN ANCHAM. ISSN 0003-2700 (print), 1520-6882 (electronic). PMID: 22681761.

**Jenkin:1985:FSV**

- [Jen85] John G. Jenkin. Frederick Soddy’s 1904 visit to Australia and the subsequent Soddy–Bragg correspondence: Isolation from without and within. *Historical Records of Australian Science*, 6(2):153–169, December 1985. CODEN HRASEI. ISSN 0727-3061 (print), 1448-5508 (electronic). URL <http://www.publish.csiro.au/paper/HR9850620153.htm>.

**Jensen:2000:CCN**

- [Jen00] Carsten Jensen. *Controversy and Consensus: Nuclear Beta Decay 1911–1934*, volume 24 of *Science networks historical studies*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 2000. ISBN 3-0348-9569-0 (paperback), 3-7643-5313-9 (hardcover), 3-0348-8444-3 (e-book). xv + 217 pp. LCCN QC793.5.B425 J46 2000. URL <http://www.springerlink.com/content/978-3-0348-8444-0>. Carsten Jensen died of cancer a few months after presenting his doctoral dissertation in 1990 at the University of Copenhagen. Finn Aaserud, Helge Kragh, Erik Rüdinger, and Roger H. Stuewer produced this book as a slightly edited version of that work, supplying additional figures, but leaving the prose largely untouched.

**Jenkin:2008:WLB**

- [Jen08] John Jenkin. *William and Lawrence Bragg, father and son: the most extraordinary collaboration in science*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 2008. ISBN 0-19-923520-1, 0-19-152859-5 (e-book). xiv + 458 pp. LCCN QC15 .J46 2008. URL <http://www.loc.gov/catdir/toc/ecip0726/2007036882.html>.

**Jenkin:2011:AEM**

- [Jen11] John G. Jenkin. Atomic energy is “moonshine”: What did Rutherford really mean? *Physics in Perspective (PIP)*, 13(2):128–145, June 2011. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-010-0038-1>.

**Jewess:2019:BRS**

- [Jew19] Michael Jewess. Book review: *For Science, King and Country: The Life and Legacy of Henry Moseley*. *Ambix: Journal of the Society for the History of Alchemy and Chemistry*, 66 (1):85–87, 2019. CODEN AMBXAO. ISSN 0002-6980 (print), 1745-8234 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/00026980.2018.1548411>.

**Jorgensen:2016:SGSa**

- [Jor16] Timothy J. Jorgensen. *Strange Glow: the Story of Radiation*. Princeton University Press, Princeton, NJ, USA, 2016. ISBN 0-691-16503-3, 1-4008-8052-1. xiii + 490 pp. LCCN QC475 .J67 2016.

**Joly:1913:LAP**

- [JR13] J. Joly, F.R.S. and Ernest Rutherford, F.R.S. LXIII. The age of pleochroic haloes. *Philosophical Magazine* (6), 25(148): 644–657, April 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Kaempffert:1936:UTS**

- [Kae36] Waldemar Kaempffert. Ultimate truths are sought in the atom. scientists, in their efforts to smash it, are shattering many of their old ideas as they near the rock bottom of the universe. *New York Times*, ??(?):SM6, March 24, 1936. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/101867279/>.

**Kaempffert:1939:RWC**

- [Kae39] Waldemar Kaempffert. Rutherford, whose career shaped the new physics: An authoritative biography of the man whose influence was paramount in its development. *New York Times*, ??(?):BR3, November 19, 1939. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/10301586>.

**Kaempffert:1948:RRB**

- [Kae48] Waldemar Kaempffert. The revolution that radium began: Fifty years after the Curies' great discovery, nuclear physics is still a realm unbounded. *New York Times*, ??

(?):SM13, SM25, SM27, December 26, 1948. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <https://search.proquest.com/hnpnewyorktimes/docview/108348269/>.

**Kapitza:1966:RLRa**

- [Kap66a] P. L. Kapitza. Recollections of Lord Rutherford. *Nature*, 210(5038):780–783, May 21, 1966. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v210/n5038/pdf/210780a0.pdf>.

**Kapitza:1966:RLRb**

- [Kap66b] P. L. Kapitza. Recollections of Lord Rutherford: a lecture by Academician P. L. Kapitza, F.R.S. *Proceedings of the Royal Society of London. Series A*, 294(1437):123–137, September 20, 1966. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic). URL <http://www.jstor.org/stable/2415460>.

**Kapicy:1973:RUU**

- [Kap73a] P. L. Kapicy. *Rezerford — učenij i učitel' : k 100-letiju so dnja roždenija. (Russian) [Rutherford — scientist and teacher: the 100th anniversary of his birth]*. Nauka, Moscow, Russia, 1973. 211 pp. LCCN ????

**Kapitza:1973:RLR**

- [Kap73b] P. L. Kapitza. Recollections of Lord Rutherford. In Mehra [Meh73], chapter 41, pages 749–765. ISBN 90-277-0345-0, 90-277-2536-5. LCCN QC173.96 .S95 1972. URL <http://www.springer.com/us/book/9789027703453>.

**Kapitza:1974:ETP**

- [Kap74] P. L. Kapitza. *Experiment, Theory and Practice. Papers and Talks*. Nauka, Moscow, Russia, May 1974. 288 pp. URL <http://adsabs.harvard.edu/abs/1974etp..book..288K>. English translation of Russian original *Eksperiment, teorija, praktika*.

**Kapitza:1980:ETPb**

- [Kap80a] P. L. Kapitza. *Experiment, Theory, Practice: Articles and Addresses*, volume 46 of *Boston Studies in the Philosophy of Science*. D. Reidel, Dordrecht, The Netherlands; Boston,

MA, USA; Lancaster, UK; Tokyo, Japan, 1980. ISBN 90-277-1062-7, 94-009-8977-6 (e-book). ISSN 0068-0346. 464 (est.) pp. LCCN ??? URL <https://link.springer.com/book/10.1007/978-94-009-8977-1>.

**Kapitza:1980:HRP**

- [Kap80b] P. L. Kapitza. History of a Rutherford portrait, 1933–1934. In *Experiment, Theory, Practice: Articles and Addresses* [Kap80a], chapter 29, pages 244–250. ISBN 90-277-1062-7, 94-009-8977-6 (e-book). ISSN 0068-0346. LCCN ??? URL [https://link.springer.com/chapter/10.1007/978-94-009-8977-1\\_29](https://link.springer.com/chapter/10.1007/978-94-009-8977-1_29).

**Kapitza:1980:MER**

- [Kap80c] P. L. Kapitza. In memory of Ernest Rutherford. In *Experiment, Theory, Practice: Articles and Addresses* [Kap80a], chapter 27, pages 229–230. ISBN 90-277-1062-7, 94-009-8977-6 (e-book). ISSN 0068-0346. LCCN ??? URL [https://link.springer.com/chapter/10.1007/978-94-009-8977-1\\_27](https://link.springer.com/chapter/10.1007/978-94-009-8977-1_27).

**Kapitza:1980:RLR**

- [Kap80d] P. L. Kapitza. Recollections of Lord Rutherford. In *Experiment, Theory, Practice: Articles and Addresses* [Kap80a], chapter 30, pages 251–270. ISBN 90-277-1062-7, 94-009-8977-6 (e-book). ISSN 0068-0346. LCCN ??? URL [https://link.springer.com/chapter/10.1007/978-94-009-8977-1\\_30](https://link.springer.com/chapter/10.1007/978-94-009-8977-1_30).

**Kapitza:1980:SWR**

- [Kap80e] P. L. Kapitza. The scientific work of Rutherford. In *Experiment, Theory, Practice: Articles and Addresses* [Kap80a], chapter 28, pages 231–243. ISBN 90-277-1062-7, 94-009-8977-6 (e-book). ISSN 0068-0346. LCCN ??? URL [https://link.springer.com/chapter/10.1007/978-94-009-8977-1\\_28](https://link.springer.com/chapter/10.1007/978-94-009-8977-1_28).

**Katzir:2012:WKP**

- [Kat12] Shaul Katzir. Who knew piezoelectricity? Rutherford and Langevin on submarine detection and the invention of sonar. *Notes and Records of the Royal Society of London*, 66(2): 141–157, June 20, 2012. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/66/2/141>.



**Katzir:2015:MWB**

- [Kat15] Shaul Katzir. Manchester at war: Bohr and Rutherford on problems of science, war and international communication. In Aaserud and Kragh [AK15], pages 495–510. ISBN 87-7304-387-7. ISSN 1904-5514. LCCN QC172 .O63 2015. URL <http://www.ijqf.org/wps/wp-content/uploads/2015/06/Bohr-Book.pdf>.

**Kauffman:1986:FSE**

- [Kau86] George B. Kauffman, editor. *Frederick Soddy (1877–1956): early pioneer in radiochemistry*, Chemists and chemistry. D. Reidel, Dordrecht, The Netherlands; Boston, MA, USA; Lancaster, UK; Tokyo, Japan, 1986. ISBN 90-277-1926-8, 94-009-5297-X (e-book). LCCN QC16.S75 F74 1986. URL <http://link.springer.com/book/10.1007/978-94-009-5297-3>.

**Kay:1963:RRB**

- [Kay63] William Alexander Kay. Recollections of Rutherford. Being the personal reminiscences of Lord Rutherford's laboratory assistant. Here published for the first time. Recorded and annotated by Samuel Devons. *The Natural Philosopher*, 1: 127–155, 1963. CODEN NPHLAC. ISSN 0547-9592.

**Karwacki:1993:MDF**

- [KB93] Eugene J. Karwacki and Scott M. Bauman. Measuring the depth of fluorine incorporation in high and low density polyethylene by Rutherford backscattering spectrometry. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 11(3):514–520, May 1993. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Klockenkamper:2005:NSD**

- [KBvB<sup>+</sup>05] R. Klockenkämper, M. Becker, A. von Bohlen, H. W. Becker, H. Krzyzanowska, and L. Palmetshofer. Near-surface density of ion-implanted Si studied by Rutherford backscattering and total-reflection X-ray fluorescence. *Journal of Applied Physics*, 98(3):033517, 2005. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Krusin-Elbaum:1987:OSR**

- [KEJ87] L. Krusin-Elbaum and R. V. Joshi. Oxidation of Si-Rich chemical-vapor-deposited films of tungsten silicide.

*IBM Journal of Research and Development*, 31(6):634–640, November 1987. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

**Kent:1963:FS**

- [Ken63] Andrew Kent. Frederick Soddy (1877–1956). *Proceedings of the Chemical Society, London*, ??(?):327–330, November 1963. CODEN PCSLAW. ISSN 0369-8718 (print), 2050-5612 (electronic). URL <http://pubs.rsc.org/en/content/articlepdf/1963/ps/ps9630000325>.

**Kozanecki:1991:RBL**

- [KG91] A. Kozanecki and R. Groetzschel. Rutherford backscattering and luminescence characteristics of neodymium implanted GaP, GaAs, and AlGaAs. *Journal of Applied Physics*, 69(3):1300, 1991. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Kramers:1923:ABT**

- [KH23] Hendrik Anthony Kramers and Helge Holst. *The Atom and the Bohr Theory of its Structure: an Elementary Presentation*. Gyldendal, Copenhagen, Denmark, 1923. xii + 210 pp. With a foreword by Sir Ernest Rutherford. Translated from the Danish by Robert Bruce Lindsay and Rachel T. Lindsay.

**Khan:2020:TMN**

- [Kha20] Sieeka Khan. Top 10 most notable science anniversaries in 2020. Web site., January 8, 2020. URL <https://www.sciencetimes.com/articles/24639/20200107/science.htm>.

**Kuhn:1967:SHQ**

- [KHFA67] Thomas S. Kuhn, John L. Heilbron, Paul Forman, and Lini Allen. *Sources for history of quantum physics: an inventory and report*, volume 68 of *Memoirs of the American Philosophical Society*. American Philosophical Society, Philadelphia, PA, USA, 1967. ix + 176 pp. LCCN QC174.1 .S66. URL <http://www.amphilsoc.org/guides/ahqp/>; <http://www.amphilsoc.org/guides/ahqp/s-t.htm#schrodinger>.

**Kim:2002:LCH**

- [Kim02] Dong-Won Kim. *Leadership and creativity: a history of the Cavendish Laboratory, 1871–1919*, volume 5 of *Archimedes*. Kluwer, Dordrecht, The Netherlands, 2002. ISBN 1-4020-0475-3. xxiv + 224 pp. LCCN QC51.G72 K45 2002. URL <http://www.loc.gov/catdir/enhancements/fy0813/2002514775-t.html>; <http://www.loc.gov/catdir/enhancements/fy0821/2002514775-d.html>.

**Kistiakowsky:1982:FA**

- [Kis82] George B. Kistiakowsky. The four anniversaries. *Bulletin of the Atomic Scientists*, 38(10):2–3, December 1982. CODEN BASIAP. ISSN 0096-3402 (print), 1938-3282 (electronic).

**Kobayashi:1989:ESQ**

- [KIS<sup>+</sup>89] Takane Kobayashi, Masaya Iwaki, Hideo Sakairi, Masakazu Aono, and Yoshizo Inomata. Evaluation of structural quality of a silicon carbide (6H-SiC) single crystal grown by a vapor transport method by Rutherford backscattering spectroscopy. *Journal of Applied Physics*, 65(4):1790, 1989. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Kugel:1985:NBS**

- [KKGW85] H. W. Kugel, R. Kaita, G. Gammel, and M. D. Williams. Neutral beam species measurements using in situ Rutherford backscatter spectrometry. *Review of Scientific Instruments*, 56(5):1105, 1985. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Khan:1999:XRD**

- [KKK<sup>+</sup>99] M. Nasir Khan, Hyun-Tak Kim, T. Kusawake, H. Kudo, K. Ohshima, and H. Uwe. X-ray diffraction and Rutherford backscattering spectrometry of  $\text{Ba}_1\text{Nb}_x\text{Ti}_{1-x}\text{O}_3$  thin films synthesized by laser ablation. *Journal of Applied Physics*, 86(4):2307, 1999. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Klein:1966:TQP**

- [Kle66] Martin J. Klein. Thermodynamics and quanta in Planck's work. *Physics Today*, 19(11):23–32, November 1966. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699

(electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/19/11/10.1063/1.3047812>. Reprinted in [WP85, 294–302].

**Klein:2010:PEN**

- [Kle10] Martin J. Klein. Paul Ehrenfest, Niels Bohr, and Albert Einstein: Colleagues and friends. *Physics in Perspective (PIP)*, 12(3):307–337, September 2010. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-010-0025-6>; <http://www.springerlink.com/content/g08710644434v387/fulltext.pdf>.

**Kensek:1990:DAR**

- [KLL<sup>+</sup>90] R. P. Kensek, J. R. Lee, R. J. Leeper, D. J. Johnson, T. R. Lockner, J. Maenchen, L. P. Mix, W. A. Stygar, D. E. Hebron, and D. F. Wenger. Data analysis for the Rutherford magnetic spectrograph on PBFA-II. *Review of Scientific Instruments*, 61(10):3247, 1990. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Kimura:1994:MAR**

- [KOhM94] Kenji Kimura, Kazuomi Ohshima, and Michi hiko Mannami. Monolayer analysis in Rutherford backscattering spectroscopy. *Applied Physics Letters*, 64(17):2232, 1994. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Korff:2012:GMU**

- [Kor12] Sebastian Korff. Das Geiger–Müller–Zählrohr. (German) [The Geiger–Müller counter tube]. *NTM Zeitschrift für Geschichte der Wissenschaften, Technik und Medizin*, 20(4):271–308, December 2012. CODEN NTMSBJ. ISSN 0036-6978 (print), 1420-9144 (electronic). URL <http://link.springer.com/content/pdf/10.1007/s00048-012-0080-y.pdf>.

**Kottke:1991:AES**

- [Kot91] M. Kottke. Auger electron spectroscopy and Rutherford backscattering characterization of TiNx/TiSiy contact barrier metallization. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures–Processing*,

*Measurement, and Phenomena*, 9(1):74, January 1991. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Kowarski:1953:HAN**

- [Kow53] Lew Kowarski. Hitting the atomic nucleus. *UNESCO Courier*, 6(12):3–4, December 1953. ISSN 0041-5278. URL <http://unesdoc.unesco.org/images/0007/000708/070862eo.pdf>.

**Kragh:1976:END**

- [Kra76] Helge Kragh. Elements no. 70, 71 and 72: Discoveries and controversies. In Evans [Eva96], chapter 5, pages 67–89. ISBN 0-7923-4101-5. LCCN QD172.R2 E65 1996. URL <http://www.loc.gov/catdir/enhancements/fy1006/96210275-d.html>; <http://www.loc.gov/catdir/enhancements/fy1006/96210275-t.html>.

**Kragh:2011:RBA**

- [Kra11] Helge Kragh. Resisting the Bohr atom: The early British opposition. *Physics in Perspective (PIP)*, 13(1):4–35, March 2011. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-010-0048-z>.

**Kragh:2012:RRA**

- [Kra12] Helge Kragh. Rutherford, radioactivity, and the atomic nucleus. *ArXiv e-prints*, February 2012. URL <http://adsabs.harvard.edu/abs/2012arXiv1202.0954K>.

**Kragh:2013:SEU**

- [Kra13] Helge Kragh. Superheavy elements and the upper limit of the periodic table: early speculations. *European Physical Journal H*, 38(3):411–431, April 2013. CODEN EPJHAD. ISSN 2102-6459 (print), 2102-6467 (electronic). URL <http://link.springer.com/article/10.1140/epjh/e2012-30043-7>.

**Krause:2014:CHW**

- [Kra14a] Michael Krause. *CERN: how we found the Higgs boson*. World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, 2014. ISBN 981-4623-55-5 (hardcover), 981-4623-46-6 (paperback), 981-4623-48-2 (e-book). xiii + 243 pp. LCCN QC793 .K73 2014.

**Krause:2014:DTR**

- [Kra14b] Michael Krause. Dalton, Thomson, Rutherford, Bohr. In *CERN: how we found the Higgs boson* [Kra14a], chapter 5, page ?? ISBN 981-4623-55-5 (hardcover), 981-4623-46-6 (paperback), 981-4623-48-2 (e-book). LCCN QC793 .K73 2014.

**Kragh:2018:TSE**

- [Kra18] Helge Kragh. *From Transuranic to Superheavy Elements: a Story of Dispute and Creation*. SpringerBriefs in history of science and technology. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2018. ISBN 3-319-75812-8, 3-319-75813-6 (electronic). viii + 106 pp. LCCN QD172.T7 K73 2018. URL <http://link.springer.com/10.1007/978-3-319-75813-8>.

**Krivit:2016:LHP**

- [Kri16] Steven B. Krivit, editor. *Lost History: a Precursor to Modern Research in Low-energy Nuclear Reactions (1912–1927)*, volume 3 of *Explorations in nuclear research*. Pacific Oaks Press, San Rafael, CA, USA, 2016. ISBN 0-9968864-0-0 (hardcover), 0-9968864-1-9 (paperback), 0-9968864-2-7 (Kindle), 0-9968864-3-5 (ePUB). xvii + 380 pp. LCCN QC794.8.L69 K76 2016. URL <http://stevenbkrivit.com/lost-history/>.

**Krivit:2019:YPH**

- [Kri19a] Steven B. Krivit. 100 years of physics history overturned at University of Manchester. Web site., July 8, 2019. URL <http://news.newenergytimes.net/2019/07/08/100-years-of-physics-history-overturned-at-university-of-manchester/>.

**Krivit:2019:BUM**

- [Kri19b] Steven B. Krivit. The backstory to the University of Manchester’s “transmutation” meeting. Web site, July 7, 2019. URL <http://news.newenergytimes.net/2019/07/07/the-backstory-to-the-university-of-manchesters-transmutation-meeting/>.

**Krivit:2019:NFR**

- [Kri19c] Steven B. Krivit. The Nobel Foundation’s retraction of the Rutherford transmutation claim. Web site., May 19,

2019. URL <http://news.newenergytimes.net/2019/05/19/the-nobel-foundations-retraction-of-the-rutherford-transmutation-claim/>.

**Krivit:2019:RRR**

[Kri19d] Steven B. Krivit. Rutherford's reluctant role in nuclear transmutation. Web site., May 18, 2019. URL <http://news.newenergytimes.net/2019/05/18/rutherfords-reluctant-role-in-nuclear-transmutation/>.

**Krivit:2019:WFS**

[Kri19e] Steven B. Krivit. The world's first successful alchemist (it wasn't Rutherford). Web site., May 14, 2019. URL <http://news.newenergytimes.net/2019/05/14/the-worlds-first-successful-chemist-it-wasnt-rutherford/>.

**Krivit:2020:BRT**

[Kri20] Steven B. Krivit. Book review: *Transmutation, The Inside Story*. Web site, June 12, 2020. See [Mar20].

**Kruse:1975:LSA**

[Kru75] Olan E. Kruse. A look at the small-angle end of the Rutherford scattering formula. *American Journal of Physics*, 43(4):328–330, April 1975. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Kyle:1976:ER**

[KS76] R. A. Kyle and M. A. Shampo. Ernest Rutherford. *JAMA: the Journal of the American Medical Association*, 235(15):1585–??, April 12, 1976. CODEN JAMAAP. ISSN 0098-7484 (print), 1538-3598 (electronic).

**Klose:1993:IGM**

[KSKF93] F. Klose, M. Steins, T. Kacsich, and W. Felsch. Interface and growth-mode characterization of Ce/Fe and CeH<sub>2</sub>/Fe multilayers by X-ray diffraction and Rutherford backscattering spectroscopy. *Journal of Applied Physics*, 74(2):1040, 1993. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Kovac:1984:ITC**

[KT84] Zlata Kovac and King-Ning N. Tu. Immersion tin: its chemistry, metallurgy, and application in electronic packaging

technology. *IBM Journal of Research and Development*, 28 (6):726–734, November 1984. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

**Kolb:1988:EUR**

- [KT88] Edward W. Kolb and Michael Stanley Turner, editors. *The Early Universe — reprints*, volume 70 of *Frontiers in physics*. Addison-Wesley, Reading, MA, USA, 1988. ISBN 0-201-11604-9. xvi + 719 pp. LCCN QB981 .K685 Suppl. URL <http://www.loc.gov/catdir/enhancements/fy0832/87037440-b.html>.

**Kubbinga:2011:TJJ**

- [Kub11] Henk Kubbinga. A tribute to J. J. Thomson. *Europhysics News*, 42(5):12–14, September/October 2011. CODEN EUPNAS. ISSN 0531-7479 (print), 1432-1092 (electronic). URL <http://www.europhysicsnews.org/articles/epn/abs/2011/05/epn2011425p12/epn2011425p12.html>.

**Kostinski:2011:RBO**

- [KY11] Sarah Kostinski and Nan Yao. Rutherford backscattering oscillation in scanning helium-ion microscopy. *Journal of Applied Physics*, 109(6):064311, 2011. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Laby:1938:ERO**

- [Lab38] T. H. Laby. [Ernest Rutherford: obituary]. *Australian National Review*, ??(??):??, January 1938.

**Laing:1937:ERO**

- [Lai37] R. M. Laing. [Ernest Rutherford: obituary]. *To-morrow*, ??(??):??, November 10, 1937.

**Lakhtakia:1996:MMH**

- [Lak96] A. (Akhlesh) Lakhtakia, editor. *Models and Modelers of Hydrogen: Thales, Thomson, Rutherford, Bohr, Sommerfeld, Goudsmit, Heisenberg, Schrödinger, Dirac, Sallhofer*. World Scientific Publishing Co. Pte. Ltd., P. O. Box 128, Farrer Road, Singapore 9128, 1996. ISBN 981-02-2302-1. xv + 424 pp. LCCN QC171.2 .M63 1996. URL <http://www.worldscientific.com/worldscibooks/10.1142/2788>.



**Laurence:1937:LRP**

- [Lau37] William L. Laurence. Lord Rutherford, physicist, is dead: British Nobel Prize winner, 66, famous as atom-smasher, dies after operation. High tributes are paid. Transmutation of elements was by-product of work in radioactive field. *New York Times*, ??(?):1, 18, October 20, 1937. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL <http://search.proquest.com/hnpnewyorktimes/docview/102092451>.

**Lavine:2014:TFR**

- [Lav14] Matthew Lavine. The two faces of radium in early American nuclear culture. *Bulletin for the History of Chemistry*, 39(1):53-??, 2014. CODEN BHCHET. ISSN 1053-4385. URL [http://www.scs.illinois.edu/%7Emainzv/HIST/bulletin\\_open\\_access/v39-1/v39-1%20p53-63.pdf](http://www.scs.illinois.edu/%7Emainzv/HIST/bulletin_open_access/v39-1/v39-1%20p53-63.pdf).

**Lu:2004:DDS**

- [LCL<sup>+</sup>04] Y. Lu, G. W. Cong, X. L. Liu, D. C. Lu, Z. G. Wang, and M. F. Wu. Depth distribution of the strain in the GaN layer with low-temperature AlN interlayer on Si(111) substrate studied by Rutherford backscattering/channeling. *Applied Physics Letters*, 85(23):5562, 2004. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Leo:1991:SCC**

- [LDLM91] G. Leo, A. V. Drigo, N. Lovergine, and A. M. Mancini. Structural characterization of CdS epilayers by channeling Rutherford backscattering spectrometry. *Journal of Applied Physics*, 70(4):2041, 1991. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Leenson:1998:ERA**

- [Lee98] I. A. Leenson. Ernest Rutherford, Avogadro's Number, and chemical kinetics. *Journal of Chemical Education*, 75(8):998-1003, August 1998. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed075p998>. See comment [Stu00].

**Lindsay:1965:RSA**

- [LEM65] Richard H. Lindsay, David H. Ehlers, and Raymond R. McLeod. Rutherford scattering apparatus for laboratory and

lecture demonstration. *American Journal of Physics*, 33(12):1055–1060, December 1965. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Leone:2005:HNT**

- [Leo05] Matteo Leone. A history of nuclear transmutations by natural alpha particles. *European Journal of Physics*, 26(6):1047–1056, November 2005. CODEN EJPHD4. ISSN 0143-0807 (print), 1361-6404 (electronic). URL <http://stacks.iop.org/0143-0807/26/i=6/a=012>.

**Levin:2017:TCS**

- [Lev17] Frank S. Levin. On theory and consensus in science: a journey in time. Web blog., October 17, 2017. URL <https://blog.oup.com/2017/10/theory-consensus-in-science/>.

**Lewis:1972:SRR**

- [Lew72] W. Bennett Lewis, F.R.S. Some recollections and reflections on Rutherford. *Notes and Records of the Royal Society of London*, 27(1):61–63, August 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/27/1/61>.

**Lewis:1979:EDC**

- [Lew79] W. Bennett Lewis. Early detectors and counters. *Nuclear Instruments and Methods*, 162(1–3):9–14, June 1979. CODEN NUIMAL. ISSN 0029-554X (print), 1878-3759 (electronic).

**Lewis:2002:DGO**

- [Lew02] Cherry Lewis. *The dating game: one man's search for the age of the Earth*. Cambridge University Press, Cambridge, UK, 2002. ISBN 0-521-89312-7 (paperback). ix + 258 pp. LCCN ????

**Reijnen:2004:RBS**

- [LFA<sup>+</sup>04] Liesbeth Reijnen, Bas Feddes, Arjan M.Vredenberg, Joop Schoonman, and Albert Goossens. Rutherford backscattering spectroscopy study of TiO<sub>2</sub>/Cu<sub>1.8</sub>S nanocomposites obtained by atomic layer deposition. *Journal of Physical Chemistry. B. Condensed matter, materials, surfaces, interfaces & biophysical*, 108(26):9133–9137, 2004. CODEN JPCBFK. ISSN 1089-5647 (print), 1520-6106 (electronic).

**Lee:2006:DSL**

- [LGA<sup>+</sup>06] Wai Peng Lee, Venkata R. Gundabala, Belinda S. Akpa, Michael L. Johns, Chris Jeynes, and Alexander F. Routh. Distribution of surfactants in latex films: A Rutherford backscattering study. *Langmuir*, 22(12):5314–5320, 2006. CODEN LANGD5. ISSN 0743-7463 (print), 1520-5827 (electronic). PMID: 16732658.

**Liendo:1999:URF**

- [LGF<sup>+</sup>99] J. A. Liendo, A. C. González, N. R. Fletcher, J. Gómez, D. D. Caussyn, S. H. Myers, C. Castelli, and L. Sajo-Bohus. Use of Rutherford forward scattering for the elemental analysis of evaporated liquid samples. *AIP Conference Proceedings*, 475(??):525, 1999. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. URL <http://scitation.aip.org/content/aip/proceeding/aipcp/10.1063/1.59184>.

**LaRose:2009:HRR**

- [LHB<sup>+</sup>09] J. D. LaRose, M. Huang, E. Bersch, M. Di, A. C. Diebold, S. Consiglio, R. D. Clark, and G. J. Leusink. High resolution Rutherford backscattering analysis of nanoscale thin films. *AIP Conference Proceedings*, 1173:80, 2009. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. URL <http://scitation.aip.org/content/aip/proceeding/aipcp/10.1063/1.3251265>.

**Lansaaker:2014:CGN**

- [LHNG14] Pia C. Lansåker, Anders Hallén, Gunnar A. Niklasson, and Claes G. Granqvist. Characterization of gold nanoparticle films: Rutherford backscattering spectroscopy, scanning electron microscopy with image analysis, and atomic force microscopy. *AIP Advances*, 4(10):107101, October 2014. CODEN AAIDBI. ISSN 2158-3226.

**Liau:1980:SSO**

- [Lia80] Z. L. Liau. Subtraction of signal overlaps in Rutherford backscattering spectrometry. *Applied Physics Letters*, 36(1):51, 1980. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Lightman:2018:SSI**

- [Lig18] Alan P. Lightman. *Searching for Stars on an Island in Maine*. Pantheon Books, New York, NY, USA, 2018. ISBN 1-101-87186-5 (hardcover), 1-101-87187-3 (e-book). viii + 226 pp. LCCN QB981 .L545 2017.

**Lind:1940:BRR**

- [Lin40] S. C. Lind. Book review: *Rutherford*. By A. S. Eve. *Journal of Physical Chemistry*, 44(6):832–833, June 1940. CODEN JPCHAX. ISSN 0022-3654 (print), 1541-5740 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/j150402a025>.

**Livesey:1962:KRP**

- [Liv62] D. L. Livesey. The Kepler and Rutherford problems: a geometrical treatment. *American Journal of Physics*, 30(9): 629–633, September 1962. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Liu:1997:CSN**

- [LMC97] Jiarui Liu, O. Minayeva, and Wei-Kan Chu. Cross section for non-Rutherford backscattering of  $\alpha$  on  $^{10}\text{B}$ . *AIP Conference Proceedings*, 392:627–??, 1997. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465.

**Longair:2003:TCP**

- [Lon03] M. S. Longair. *Theoretical concepts in physics: an alternative view of theoretical reasoning in physics*. Cambridge University Press, Cambridge, UK, second edition, 2003. ISBN 0-521-52878-X (paperback), 0-521-82126-6. xvii + 569 pp. LCCN QC20 .L64 2003. URL <http://www.loc.gov/catdir/description/cam031/2002073612.html>; <http://www.loc.gov/catdir/samples/cam041/2002073612.html>; <http://www.loc.gov/catdir/toc/cam031/2002073612.html>.

**Longair:2016:MEL**

- [Lon16a] Malcolm Longair. *Maxwell's Enduring Legacy*. Cambridge University Press, Cambridge, UK, 2016. ISBN 1-107-08369-9. xxi + 664 pp. LCCN ???? URL <http://www.cambridge.org/us/academic/subjects/physics/general-and-classical-physics/maxwells-enduring-legacy-scientific-history-cavendish-laboratory>.

**Longair:2016:RMM**

- [Lon16b] Malcolm Longair. Rutherford at McGill and Manchester Universities — new challenges in Cambridge. In *Maxwell's Enduring Legacy* [Lon16a], chapter 8, pages 171–193. ISBN 1-107-08369-9. LCCN ????. URL <http://www.cambridge.org/us/academic/subjects/physics/general-and-classical-physics/maxwells-enduring-legacy-scientific-history-cavendish-laboratory>.

**Longair:2016:RER**

- [Lon16c] Malcolm Longair. The Rutherford era — the radioactivists. In *Maxwell's Enduring Legacy* [Lon16a], chapter 9, pages 194–225. ISBN 1-107-08369-9. LCCN ????. URL <http://www.cambridge.org/us/academic/subjects/physics/general-and-classical-physics/maxwells-enduring-legacy-scientific-history-cavendish-laboratory>.

**Longair:2016:RES**

- [Lon16d] Malcolm Longair. Rutherford era — the seeds of the new physics. In *Maxwell's Enduring Legacy* [Lon16a], chapter 10, pages 226–249. ISBN 1-107-08369-9. LCCN ????. URL <http://www.cambridge.org/us/academic/subjects/physics/general-and-classical-physics/maxwells-enduring-legacy-scientific-history-cavendish-laboratory>.

**Rutherford:1970:HP**

- [Lor70a] Lord Rutherford of Nelson. Helium and its properties. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:NRT**

- [Lor70b] Lord Rutherford of Nelson. Neutron and radioactive transformations. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:NH**

- [Lor70c] Lord Rutherford of Nelson. New hydrogen. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:RRG**

- [Lor70d] Lord Rutherford of Nelson. Recent researches on the gamma rays. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:RRT**

- [Lor70e] Lord Rutherford of Nelson. Recent researches on transmutation of the elements. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:THE**

- [Lor70f] Lord Rutherford of Nelson. Transmutation of heavy elements. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Lorenz:1988:BBB**

- [Lor88] Mary V. Lorenz. Bowling balls and beads: A concrete analogy to the Rutherford experiment. *Journal of Chemical Education*, 65(12):1082-??, December 1988. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed065p1082>.

**Lovell:1975:PMS**

- [Lov75] Bernard Lovell. Patrick Maynard Stuart Blackett, Baron Blackett, of Chelsea. 18 November 1897–13 July 1974. *Biographical Memoirs of Fellows of the Royal Society*, 21(??): 1–115, November 1975. CODEN BMFRA3. ISSN 0080-4606 (print), 1748-8494 (electronic). URL <http://www.jstor.org/stable/769678>.

**Lovell:1976:PMB**

- [Lov76] Bernard Lovell. *P. M. S. Blackett: a biographical memoir*. The Royal Society, London, UK, 1976. ISBN 0-85403-077-8 (hardcover). vii + 115 pp. LCCN QC16.B52 L68.

**Lowood:1979:ERB**

- [Low79] Henry Lowood. *Ernest Rutherford: a bibliography of his non-technical writings*, volume 4 of *Berkeley papers in history of science*. Office for History of Science and Technology, University of California, Berkeley, CA, USA, 1979. ISBN 0-918102-02-2 (paperback). ISSN 0145-0379. iv + 61 pp. LCCN ????

**Lorentz:1923:AER**

- [LRdB<sup>+</sup>23] H. A. Lorentz, E. Rutherford, M. de Broglie, R. A. Millikan, H. Kamerlingh Onnes, P. Weiss, L. Brillouin, W. H. Bragg, W. J. de Haas, N. Bohr, and P. Ehrenfest, editors. *Atomes et Électrons: Rapports et discussions du conseil de physique tenu à Bruxelles du 1er au 6 avril 1921. (French) [Atoms and electrons: reports and discussions of the physics meeting held in Brussels from 1st to 6th April, 1921]*. Gauthier-Villars, Paris, France, 1923. vii + 271 + i pp. LCCN QC1 .I6 1921. Proceedings of the Solvay III international conference.

**Leavitt:1986:DPS**

- [LRF86] John A. Leavitt, David K. Rollins, and Quintus Fernando. Depth profile of silver in a matrix of silicon dioxide by Rutherford backscattering spectrometry. *Analytical Chemistry (Washington, DC, USA)*, 58(1):90–93, 1986. CODEN ANCHAM. ISSN 0003-2700 (print), 1520-6882 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ac00292a022>.

**Leeper:1988:RMS**

- [LSK<sup>+</sup>88] R. J. Leeper, W. A. Stygar, R. P. Kensek, J. R. Lee, D. J. Johnson, T. R. Lockner, J. Maenchen, D. E. Hebron, and D. F. Wenger. Rutherford magnetic spectrograph for intense ion beam measurements on PBFA-II. *Review of Scientific Instruments*, 59(8):1700, 1988. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Lemasson:2009:MRE**

- [LSN<sup>+</sup>09] A. Lemasson, A. Shrivastava, A. Navin, M. Rejmund, N. Keeley, V. Zelevinsky, S. Bhattacharyya, A. Chatterjee, G. de France, B. Jacquot, V. Nanal, R. G. Pillay, R. Raabe, and C. Schmitt. Modern Rutherford experiment: tunneling of the most neutron-rich nucleus. *Physical Review Letters*, 103(23):232701:1–232701:4, December 4, 2009. CODEN PRLTAO. ISSN 0031-9007 (print), 1079-7114 (electronic), 1092-0145. URL <http://journals.aps.org/prl/abstract/10.1103/PhysRevLett.103.232701>.

**Lu:1987:RBT**

- [Lu87] Zhiheng Lu. Rutherford backscattering and transmission electron microscopy study on phase transformation of As

heavily doped Si during post-rapid-thermal annealing. *Journal of Applied Physics*, 62(5):1756, 1987. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Luders:2013:TMA**

- [Lüd13] Stefan Lüders. Tonspurerhaltung unter Medientransformation: Ausarbeitung zum Tondokument aus dem Jahr 1931 Verleihung der Ehrendoktorwürde an Ernest Rutherford durch Max Born an der Universität Göttingen. (German) [Drafting the sound document from 1931. honorary doctorate for Ernest Rutherford by Max Born at the University of Göttingen]. Report, Universität Göttingen, Göttingen, Germany, February 12, 2013. URL <https://www.uni-goettingen.de/de/document/download/4d9895c0a993b9f5b648aba355199cde.pdf>.

**Liu:1999:RAS**

- [LxW99] Jian Liu and Pei xuan Wang. Rapid annealing study of neutron-irradiated GaAs by Rutherford backscattering spectrometry/channeling. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 17(5):2040, 1999. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**M:1938:OBR**

- [M.39] E. M. Obituary: Baron Rutherford of Nelson, 1871–1937. *Transactions and Proceedings of the Royal Society of New Zealand*, 68:4–25, 1938–1939. CODEN TRNZAS. ISSN 0035-9181. URL <http://natlib.govt.nz/records/1038328>; [http://rsnz.natlib.govt.nz/volume/rsnz\\_68/rsnz\\_68\\_01\\_000100.html](http://rsnz.natlib.govt.nz/volume/rsnz_68/rsnz_68_01_000100.html). Author listed only by initials, but most likely Ernest Marsden.

**Mackintosh:1997:CE**

- [Mac97] A. R. Mackintosh. The crocodile and the elephant. *Notes and Records of the Royal Society of London*, 51(2):309–316, July 22, 1997. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic).

**MacGregor:2011:ERH**

- [Mac11] I. J. Douglas MacGregor. Ernest Rutherford: his genius shaped our modern world. *Europhysics News*, 42(5):18–



21, September/October 2011. CODEN EUPNAS. ISSN 0531-7479 (print), 1432-1092 (electronic). URL <http://www.europhysicsnews.org/articles/epn/abs/2011/05/epn2011425p18/epn2011425p18.html>.

**Makower:1908:RST**

- [Mak08] W. (Walter) Makower. *The radioactive substances: their properties and behaviour*, volume 92 of *International scientific series*. Kegan Paul, London, UK, 1908. xii + 296 pp. LCCN QC721 .M2. URL <http://hdl.handle.net/2027/uc2.ark:/13960/t51g0k66x>; <http://www.archive.org/details/radioactivesubst00makorich>.

**Malley:1971:DBP**

- [Mal71] Marjorie Malley. The discovery of the beta particle. *American Journal of Physics*, 39(12):1454–1460, December 1971. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL <http://scitation.aip.org/content/aapt/journal/ajp/39/12/10.1119/1.1976694>.

**Mann:1976:LRG**

- [Man76] Frederick George Mann. *Lord Rutherford on the golf course*. Heffers Printers, Cambridge, UK, 1976. ISBN 0-9504840-0-8. 2 + v + 33 pp. LCCN GV964.R87 M36.

**Mantri:1977:SAE**

- [Man77] A. N. Mantri. On the small-angle end of the Rutherford scattering formula. *American Journal of Physics*, 45(11):1122–1123, November 1977. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Mancini:1982:RBA**

- [Man82] A. M. Mancini. Rutherford backscattering analysis of electrodeless gold contacts on cadmium telluride. *Journal of Applied Physics*, 53(8):5785, 1982. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Marsden:1938:ERO**

- [Mar38] Ernest Marsden. [Ernest Rutherford: obituary]. *New Zealand Railways Magazine*, ??(??):??, January/February 1938.

**Marsden:1954:RML**

- [Mar54] E. Marsden. The Rutherford Memorial Lecture, 1954. Rutherford — his life and work, 1871–1937. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 226(1166):283–305, 1954. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/226/1166/283>. Lecture delivered in South Africa in May 1954.

**Marcley:1961:ADP**

- [Mar61] Robert G. Marcley. Apparatus drawings project. Report number 16. Apparatus for measuring the Rutherford scattering of alpha particles by thin metal foils. *American Journal of Physics*, 29(6):349–354, June 1961. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Marquez:1972:DRS**

- [Mar72] L. Marquez. On the divergence of the Rutherford scattering amplitude in terms of Coulomb phase shifts. *American Journal of Physics*, 40(10):1420–1427, October 1972. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Marshall:2020:TIS**

- [Mar20] Robin Marshall. *Transmutation: The Inside Story*. Champagne Cat, ????, 2020. ISBN 1-07-974584-X. 137 pp. LCCN ????

**Massey:1972:NPT**

- [Mas72] Sir Harrie Massey, Sec.R.S. Nuclear physics today and in Rutherford's day. *Notes and Records of the Royal Society of London*, 27(1):25–44, August 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/27/1/25>.

**Miles:1985:FNZ**

- [MB+85] Sue Miles, Martin Ball, et al. *50 famous New Zealanders: portraits and biographies of 50 of the most famous New Zealanders*. Burnham House, Newmarket, Auckland, New Zealand, 1985. ISBN 0-908615-27-2. 115 pp. LCCN DU420.33 .M55 1985.

**Madakson:1990:ABG**

- [MB90] Peter Madakson and John Bruley. Analysis of buried GaAs layers in 100 silicon by electron energy loss spectroscopy, Rutherford backscattering spectroscopy, and ion channeling. *Applied Physics Letters*, 57(11):1126, 1990. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Miotti:2004:EDR**

- [MBS<sup>+</sup>04] L. Miotti, K. P. Bastos, G. V. Soares, C. Driemeier, R. P. Pezzi, J. Morais, I. J. R. Baumvol, A. L. P. Rotondaro, M. R. Visokay, J. J. Chambers, M. Quevedo-Lopez, and L. Colombo. Exchange-diffusion reactions in HfSiON during annealing studied by Rutherford backscattering spectrometry, nuclear reaction analysis and narrow resonant nuclear reaction profiling. *Applied Physics Letters*, 85(19):4460, 2004. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**McCloy:2019:RIA**

- [McC19] Nicola McCloy. Reefton: Illuminations along Rutherford's road. *NZ Herald*, ??(??):??, February 6, 2019. URL [https://www.nzherald.co.nz/travel/news/article.cfm?c\\_id=7&objectid=12201006](https://www.nzherald.co.nz/travel/news/article.cfm?c_id=7&objectid=12201006).

**McDevitt:2019:WWC**

- [McD19] Neale McDevitt. Wayne Wood calls it a career. *The McGill Reporter*, ??(??):??, December 18, 2019. ISSN 0848-8436. URL <https://reporter.mcgill.ca/wayne-wood-calls-it-a-career/>.

**McGee:1984:RML**

- [McG84] J. D. McGee, F.R.S. The Rutherford Memorial Lecture, New Zealand, 1982: Rutherford, radio and opto-electronics. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 393(1805):193–214, 1984. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/393/1805/193>. Lecture delivered at the University of Canterbury, Christchurch, on 28 September 1982, at the University of Otago, Dunedin, on 30 September 1982, at Victoria University of Wellington on 4 October 1982, and at the University of Auckland on 7 October 1982.

**Masse:1990:DCP**

- [MCJK90] Michael A. Masse, Russell J. Composto, Richard A. L. Jones, and Frank E. Karasz. Dopant concentration profiles in conducting poly(p-phenylenevinylene) by Rutherford backscattering spectrometry. *Macromolecules (Washington, DC, USA)*, 23(15):3675–3682, 1990. CODEN MAMOBX. ISSN 0024-9297 (print), 1520-5835 (electronic).

**McKown:1962:GAE**

- [McK62] Robin McKown. *Giant of the atom: Ernest Rutherford*. J. Messner, New York, NY, USA, 1962. 191 pp.

**Moseley:1913:RXRb**

- [MD13a] H. Moseley and C. G. Darwin. The reflection of the X-rays. *Nature*, 90(2257):594, January 30, 1913. URL <http://www.nature.com/nature/journal/v90/n2257/pdf/090594a0.pdf>.

**Moseley:1913:RXRa**

- [MD13b] Harry G. J. Moseley, M.A. and Charles G. Darwin, M.A. The reflexion of the X-rays. *Philosophical Magazine (6)*, 26(151):210–232, 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786441308634968>.

**McDayter:1967:GBB**

- [MD67] Walt McDayter and Norman Drew. The giants: The bomb builders. *Denver Post*, ??(??):??, February 3, 1967. URL <http://library.ucsd.edu/dc/object/bb0103915g>. This is a reasonably accurate 83-frame comic strip on the history of the building of the atomic bomb, with Leo Szilard as the central figure of the story.

**Mackintosh:1969:RSC**

- [MD69] William D. Mackintosh and John Arthur Davies. Rutherford scattering and channeling — a useful combination for chemical analysis of surfaces. *Analytical Chemistry (Washington, DC, USA)*, 41(4):26A–35A, April 1969. CODEN ANCHAM. ISSN 0003-2700 (print), 1520-6882 (electronic). PMID: 22725014.

**MacDonald:1983:HWD**

- [MDJF83] Jack R. MacDonald, J. A. Davies, T. E. Jackman, and L. C. Feldman. How well does  $^4\text{He}$  backscattering from low- $Z$  nuclei obey the Rutherford formula? *Journal of Applied Physics*, 54(4):1800, 1983. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Mecklenburg:1914:RRR**

- [Mec14] Werner Mecklenburg. Recensionen: Rutherford, E., *Radioactive Substanzen und ihre Strahlungen*. *Scientia (Milan)*, 16(37):280–286, 1914. CODEN SCIMAI. ISSN 0036-8687 (print), 1825-4373 (electronic).

**Mehra:1973:PCN**

- [Meh73] Jagdish Mehra, editor. *The physicist's conception of nature: Symposium on the Development of the Physicist's Conception of Nature in the 20th century. Held at the International Centre for Theoretical Physics, Miramare, Trieste, Italy, 18–25 September 1972*. D. Reidel, Dordrecht, The Netherlands; Boston, MA, USA; Lancaster, UK; Tokyo, Japan, 1973. ISBN 90-277-0345-0, 90-277-2536-5. LCCN QC173.96 .S95 1972. URL <http://www.springer.com/us/book/9789027703453>.

**Merricks:1996:WMN**

- [Mer96] Linda Merricks. *The world made new: Frederick Soddy, science, politics, and environment*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1996. ISBN 0-19-855934-8 (hardcover). vii + 223 pp. LCCN QC16.S75 M47 1996. URL <http://www.loc.gov/catdir/enhancements/fy0603/95042047-d.html>; <http://www.loc.gov/catdir/enhancements/fy0603/95042047-t.html>.

**Moseley:1911:RAP**

- [MF11] Harry G. J. Moseley, B.A. and Kasimir Fajans, Ph.D. Radioactive products of short life. *Philosophical Magazine* (6), 22(130):629–638, 1911. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786441008637158>.

**Makower:1912:PMR**

- [MG12] W. (Walter) Makower, M.A.D.Sc. and Hans Geiger, Ph.D. *Practical Measurements in Radio-Activity*. Longmans, Green,

and Co., London, UK, 1912. ix + 151 pp. LCCN QC721 .M19. URL <http://www.archive.org/details/practicalmeasure00makorich>.

**Millikan:1913:SBR**

- [Mil13] R. A. Millikan. Scientific books: *Radioactive Substances and Their Radiations*, [by Ernest Rutherford]. *Science*, 38 (966):29–30, July 4, 1913. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1913Sci...38...29R>; <http://www.sciencemag.org/content/38/966/29>.

**Millikan:1938:LRN**

- [Mil38] R. A. Millikan. Lord Rutherford of Nelson [obituary]. In *Yearbook of the American Philosophical Society for 1938*, pages 386–388. American Philosophical Society, Philadelphia, PA, USA, 1938. ISSN 0065-9762.

**Milsted:1995:EGM**

- [Mil95] David Milsted. Even geniuses make mistakes. *New Scientist*, 147(??):49–50, August 19, 1995. CODEN NWSCAL. ISSN 0262-4079 (print), 1364-8500 (electronic).

**Hess:2007:BEN**

- [MKM<sup>+</sup>07] M.Hess, U. K. Krieger, C. Marcolli, T. Huthwelker, M. Ammann, W. A. Lanford, and Th. Peter. Bromine enrichment in the near-surface region of Br-doped NaCl single crystals diagnosed by Rutherford backscattering spectrometry. *Journal of Physical Chemistry A*, 111(20):4312–4321, 2007. CODEN JPCAFH. ISSN 1089-5639 (print), 1520-5215 (electronic). PMID: 17461554.

**Moseley:1912:RRB**

- [MM12] Harry G. J. Moseley, B.A. and Walter Makower, M.A., D.Sc.  $\gamma$  radiation from radium B. *Philosophical Magazine (6)*, 23(134):302–310, 1912. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786440208637223>.

**Marshall:2003:ERT**

- [MM03] James L. Marshall and Virginia R. Marshall. Ernest Rutherford, the “true discoverer” of radon. *Bulletin for the History of Chemistry*, 28(2):76–83, 2003.

CODEN BHCHET. ISSN 1053-4385. URL [http://www.scs.illinois.edu/~mainzv/HIST/bulletin\\_open\\_access/v28-2/v28-2%20p76-83.pdf](http://www.scs.illinois.edu/~mainzv/HIST/bulletin_open_access/v28-2/v28-2%20p76-83.pdf). See comments and response [RCRC04, MM04].

**Marshall:2004:R**

- [MM04] James L. Marshall and Virginia R. Marshall. Reply. *Bulletin for the History of Chemistry*, 29(2):90, ??? 2004. CODEN BHCHET. ISSN 1053-4385. URL [http://www.scs.illinois.edu/~mainzv/HIST/bulletin\\_open\\_access/v29-2/v29-2/v29-2%20p90.pdf](http://www.scs.illinois.edu/~mainzv/HIST/bulletin_open_access/v29-2/v29-2/v29-2%20p90.pdf). See [RCRC04, MM03].

**Mommsen:1980:RRA**

- [MMKS<sup>+</sup>80] Hans Mommsen, Theo Mayer-Kuckuk, Wilhelm Sarter, Peter Schürkes, and Albrecht Weller. *Rutherford-Rückstreu-Analysen mit Protonen. (German) [Rutherford backscattering analysis with protons]*. Forschungsberichte des Landes Nordrhein-Westfalen, Fachgruppe Physik/Chemie/Biologie. VS Verlag für Sozialwissenschaften, Wiesbaden, West Germany, 1980. ISBN 3-531-02999-1 (print), 3-322-88124-5. LCCN Q1-390. URL <http://link.springer.com/openurl?genre=book%26isbn=978-3-531-02999-3>.

**Molinari:1963:LRN**

- [Mol63] J. L. Molinari. Lord Rutherford de Nelson (1871–1937). *Revista de la Asociacion Medica Argentina*, 77:291–296, June 1963. ISSN 0004-4830.

**Mongredien:1966:AOS**

- [Mon66] André Mongredien. Analyses d'ouvrages: *The Story of Atomic Theory and Atomic Energy* (Formerly titled: *The Atom Story*) par J. G. Feinberg; *Histoire de l'atome*, «Les grandes découvertes scientifiques» (traduction française de la première version de l'ouvrage ci-dessus) par J. G. Feinberg; Stephen Spriel; *L'histoire de l'énergie atomique* par Laura Fermi; Nicole Rey; *La découverte de l'atome*, (Petite Bibliothèque Payot, n° 26) par Alfred Romer; J. Métadier; *The Discovery of Radioactivity and Transmutation* (Classics of Science, vol. 2) par Alfred Romer; Becquerel; Rutherford; Crookes; P. Soddy; M. Curie; Laborde; Ramsay. *Revue d'Histoire des Sciences et de Leurs Applications*, 19(1): 77–81, January 1966. CODEN RHSAAM. ISSN 0048-7996

(print), 1969-6582 (electronic). URL <http://www.jstor.org/stable/23904840>.

**Moore:1966:NBM**

- [Moo66] Ruth E. Moore. *Niels Bohr: the man, his science, and the world they changed*. Alfred A. Knopf, New York, NY, USA, 1966. xi + 436 + vii + 8 pp. LCCN QC16.B55 M6.

**Moon:1974:ERA**

- [Moo74] Philip Burton Moon. *Ernest Rutherford and the atom. Pioneers of science and discovery*. Priory Press, London, UK, 1974. ISBN 0-85078-187-6. 96 pp. LCCN QC16.R8 M66.

**Moon:1978:RML**

- [Moo78] P. B. Moon, F.R.S. Rutherford Memorial Lecture, 1975. Yarns and spinners: Recollections of Rutherford and applications of swift rotation. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 360(1702):303–315, 1978. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/360/1702/303>. Lecture delivered at Monash University, Australia on 10 April 1975.

**Moralee:1974:HYC**

- [Mor74] Dennis Moralee. *A hundred years of Cambridge physics, 1874–1974*. Cambridge University Physics Society. Cambridge University Press, Cambridge, UK, 1974. ??? pp. LCCN ????

**Morrison:1975:RML**

- [Mor75] A. B. Morrison. Rutherford Memorial Lecture. The philosophy and technology of drug assessment in Canada. *The Canadian veterinary journal. La revue vétérinaire canadienne*, 16(9):247–256, September 1975. ISSN 0008-5286.

**Morgantaler:1984:MAT**

- [Mor84] G. Morgantaler. McGill alumnae through the decade: Part II. Harriet Brooks-Pitcher. *McGill News*, 64(4):20–??, 1984. ISSN 0709-9223.

**Morris:2018:WTW**

- [Mor18] Ian Morris. WW1 technology: From weapons to the world's first tank: Modern warfare is waged with technology, but how



different were things during WW1? *The Mirror*, ??(??):??, November 9, 2018. URL <https://www.mirror.co.uk/tech/ww1-technology-weapons-worlds-first-13564540>.

**Moseley:1912:NBP**

- [Mos12a] Harry G. J. Moseley, B.A. The number of  $\beta$  particles emitted in the transformation of radium. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 87(595):230–255, September 19, 1912. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/87/595/230>.

**Moseley:1912:RMO**

- [Mos12b] Harry G. J. Moseley, B.A. Radium as a means of obtaining high potentials. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 57(??):viii–ix, November 12, 1912. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10269585>.

**Moseley:1913:AHP**

- [Mos13a] Harry G. J. Moseley, B.A. The attainment of high potentials by the use of radium. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 88(605):471–476, July 1, 1913. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/88/605/471>.

**Moseley:1913:BRE**

- [Mos13b] Harry G. J. Moseley, B.A. [book review:] *Die Existenz der Molkule Experimentelle Studien*, by Prof. The. Svedberg. Pp. viii + 243 + iv plates (Leipzig: Akademische Verlagsgesellschaft m.b.H, 1912). *Nature*, 92(2300):367–368, November 27, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v92/n2300/pdf/092367b0.pdf>.

**Moseley:1913:HFS**

- [Mos13c] Harry G. J. Moseley, M.A. The high-frequency spectra of the elements, [Part I]. *Philosophical Magazine* (6), 26

(156):1024–1034, 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441308635052>.

**Moseley:1914:LEA**

- [Mos14a] H. Moseley. Letter to the Editor: [atomic models and X-ray spectra]. *Nature*, 92(2307):554, January 15, 1914. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v92/n2307/pdf/092554a0.pdf>.

**Moseley:1914:HFS**

- [Mos14b] Harry G. J. Moseley, M.A. The high-frequency spectra of the elements, Part II. *Philosophical Magazine (6)*, 27(160):703–713, 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786440408635141>.

**Mott:1963:RML**

- [Mot63] Nevill Mott. The Rutherford Memorial Lecture, 1962. Atomic physics and the strength of metals. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 275(1361):149–160, 1963. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/275/1361/149>.

**Mott:1972:RT**

- [Mot72] Sir Nevill Francis Mott, F.R.S. Rutherford and theory. *Notes and Records of the Royal Society of London*, 27(1):65–66, August 1, 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/27/1/65>.

**Moseley:1914:NIP**

- [MR14] Harry G. J. Moseley, M.A. and H. Robinson, M.Sc. The number of ions produced by the  $\beta$  and  $\gamma$  radiations from radium. *Philosophical Magazine (6)*, 28(165):327–337, 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908635216>.

**Meyer:1937:FTL**

- [MSB<sup>+</sup>37] Stefan Meyer, A. Norman Shaw, Niels Bohr, George Hevesy, le Duc de Broglie, Johannes Stark, Otto Hahn, Enrico Fermi,

L. Wertenstein, and Peter Kapitza. Further tributes to the late Lord Rutherford. *Energia elettrica*. Tribute to Lord Rutherford. *Nature*, 140(3555):1047–1054, December 18, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3555/index.html>.

**Mukunth:2019:CP**

[Muk19] Vasudevan Mukunth. A century of the proton. Web site, May 24, 2019. URL <https://thewire.in/the-sciences/a-century-of-the-proton>.

**Murrell:2001:AHC**

[Mur01] John N. Murrell. Avogadro and his constant. *Helvetica Chimica Acta*, 84(6):1314–1327, June 2001. CODEN HCACAV. ISSN 0018-019X (print), 1522-2675 (electronic). URL <http://tinyurl.com/hybax68>.

**Murray:2013:MDL**

[Mur13] Robert P. Murray. The 1896 magnetic detector of Lord Ernest Rutherford. Antique Wireless Association Web site., June 17, 2013. URL [http://www.antiquewireless.org/uploads/1/6/1/2/16129770/15-the\\_1896\\_magnetic\\_detector\\_of\\_lord\\_ernest\\_rutherford.pdf](http://www.antiquewireless.org/uploads/1/6/1/2/16129770/15-the_1896_magnetic_detector_of_lord_ernest_rutherford.pdf).

**Navarro:2006:EAD**

[Nav06] Jaume Navarro. Early attempts to detect the neutrino at the Cavendish Laboratory. *Physics in Perspective (PIP)*, 8(1):64–82, March 2006. CODEN PHPEF2. ISSN 1422-6944 (print), 1422-6960 (electronic). URL <http://link.springer.com/article/10.1007/s00016-005-0249-z>.

**Norton:1984:KOO**

[NBG<sup>+</sup>84] P. R. Norton, P. E. Bindner, K. Griffiths, T. E. Jackman, J. A. Davies, and J. R. Stig. Kinetic oscillations in oxidation of CO over Pt(100): a study by Rutherford backscattering, nuclear microanalysis, LEED, and work function techniques. *Journal of Chemical Physics*, 80(8):3859, 1984. CODEN JCPSA6. ISSN 0021-9606 (print), 1089-7690 (electronic).

**Nakajima:2007:SOO**

[NFM<sup>+</sup>07] Kaoru Nakajima, Akira Fujiyoshi, Zhao Ming, Motofumi Suzuki, and Kenji Kimura. In situ observation of oxygen

getting by titanium overlayer on  $\text{HfO}_2/\text{SiO}_2/\text{Si}$  using high-resolution Rutherford backscattering spectroscopy. *Journal of Applied Physics*, 102(6):064507, 2007. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Niaz:1998:CRA**

- [Nia98] Mansoor Niaz. From cathode rays to alpha particles to quantum of action: A rational reconstruction of structure of the atom and its implications for chemistry textbooks. *Science Education*, 82(5):527–552, September 1998. CODEN SEDUAV. ISSN 0036-8326 (print), 1098-237X (electronic). URL [http://www.umich.edu/~chemstu/content\\_weeks/F\\_06\\_Week4/Thompson\\_Rutherford\\_Bohr.pdf](http://www.umich.edu/~chemstu/content_weeks/F_06_Week4/Thompson_Rutherford_Bohr.pdf).

**Nicolson:1932:PFN**

- [Nic32] Harold Nicolson. *Public faces, a novel*. Constable and Company, Ltd., London, UK, 1932. 350 pp. LCCN PZ3.N5487 Pu PR6027.I4.

**Nixon:2019:SEH**

- [Nix19] Scott Nixon. The story of Exeter’s Harriet Brooks to be told on stage: Nuclear pioneer’s great-great niece working on play. Web site, March 11, 2019. URL <https://www.lakeshoreadvance.com/entertainment/local-arts/the-story-of-exeters-harriet-brooks-to-be-told-on-stage>.

**Nakajima:2003:SPH**

- [NJS<sup>+</sup>03] K. Nakajima, S. Joumori, M. Suzuki, K. Kimura, T. Osipowicz, K. L. Tok, J. Z. Zheng, A. See, and B. C. Zhang. Strain profiling of  $\text{HfO}_2/\text{Si}(001)$  interface with high-resolution Rutherford backscattering spectroscopy. *Applied Physics Letters*, 83(2):296, 2003. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Nobes:2000:ROT**

- [NL00] D. C. Nobes and B. Lintott. Rutherford’s “old tin shed”: mapping the foundations of a Victorian-age lecture hall. In D. A. Noon, G. F. Stickley, and D. Longstaff, editors, *Eighth International Conference on Ground Penetrating Radar*, volume 4084 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, pages 887–892. SPIE Optical Engineering Press, Bellingham, WA, USA, April 2000.

URL <http://adsabs.harvard.edu/abs/2000SPIE.4084..887N>.

**Niaz:2012:RWP**

- [NM12] Mansoor Niaz and Cecilia Marcano. *Reconstruction of Wave-particle Duality and Its Implications for General Chemistry Textbooks*. Springer briefs in education. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2012. ISBN 94-007-4395-5 (paperback). viii + 46 pp. LCCN QC476.W38 N53 2012. URL <http://www.springerlink.com/content/978-94-007-4395-3>.

**Nakajima:2013:SSB**

- [NMSK13] Kaoru Nakajima, Motoki Miyashita, Motofumi Suzuki, and Kenji Kimura. Surface structures of binary mixtures of imidazolium-based ionic liquids using high-resolution Rutherford backscattering spectroscopy and time of flight secondary ion mass spectroscopy. *Journal of Chemical Physics*, 139(22):224701, 2013. CODEN JCPSA6. ISSN 0021-9606 (print), 1089-7690 (electronic).

**Nakajima:2010:OSS**

- [NOH<sup>+</sup>10] Kaoru Nakajima, Atsushi Ohno, Hiroki Hashimoto, Motofumi Suzuki, and Kenji Kimura. Observation of surface structure of 1-alkyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide using high-resolution Rutherford backscattering spectroscopy. *Journal of Chemical Physics*, 133(4):044702, 2010. CODEN JCPSA6. ISSN 0021-9606 (print), 1089-7690 (electronic).

**Norton:1979:ASS**

- [Nor79] P. R. Norton. Abstract: Surface structure studies by Rutherford backscattering and LEED. *Journal of Vacuum Science Technology*, 16(2):469, March 1979. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**Nakajima:2008:OMO**

- [NOSK08] Kaoru Nakajima, Atsushi Ohno, Motofumi Suzuki, and Kenji Kimura. Observation of molecular ordering at the surface of trimethylpropylammonium bis(trifluoromethanesulfonyl)imide using high-resolution Rutherford backscattering spectroscopy. *Langmuir*, 24(9):4482–4484, 2008. CODEN LANGD5. ISSN 0743-7463 (print), 1520-5827 (electronic). PMID: 18361537.

- Needham:1938:BMS**
- [NP38] Joseph Needham and Walter Pagel, editors. *Background to modern science; ten lectures at Cambridge arranged by the History of Science Committee, 1936*. The Cambridge library of modern science: general editor: C. P. Snow. Cambridge University Press, Cambridge, UK, 1938. xii + 243 + 1 pp. LCCN Q125 .N44 1938. URL <https://archive.org/stream/backgroundtomode032734mbp>.
- Needham:1940:BMS**
- [NP40] Joseph Needham and Walter Pagal. *Background to modern science: ten lectures at Cambridge arranged by the History of Science Committee*. Cambridge library of modern science. Cambridge University Press, Cambridge, UK, 1940. 243 pp. LCCN ???? With contributions by F. M. Cornford, W. Dampier, Lord Rutherford, and others.
- Okumura:1998:GPR**
- [OaHNM98] Kohei Okumura, Shi aki Hyodo, Shoji Noda, and Yusei Maruyama. Growth of Pt–Rh alloy crystallites on  $\alpha$ -Al<sub>2</sub>O<sub>3</sub> studied by atomic force microscopy and Rutherford backscattering spectroscopy. *Journal of Physical Chemistry. B. Condensed matter, materials, surfaces, interfaces & biophysical*, 102(13):2350–2355, 1998. CODEN JPCBFK. ISSN 1089-5647 (print), 1520-6106 (electronic).
- ORNL:2019:PNT**
- [Oak19] Oak Ridge National Laboratory. Products of nuclear transmutations are spotted with unprecedented detail. Web site, December 17, 2019.
- OConnell:2017:HEN**
- [O’C17] Tim O’Connell. History etched in new carvings for Nelson College wharenui. *Nelson Mail*, December 1, 2017. ISSN 1173-5678. URL <https://www.stuff.co.nz/nelson-mail/99304656/history-etched-in-new-carvings-for-nelson-college-wharenui>.
- Oehrlein:1986:RBS**
- [Oeh86] Gottlieb S. Oehrlein. Rutherford backscattering studies of plasma-etched silicon. *Journal of Applied Physics*, 59(9): 3053, 1986. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Oesper:1970:BRR**

- [Oes70] Ralph E. Oesper. Book review: *Rutherford and Boltwood: Letters on radioactivity*, (Badash, Lawrence). *Journal of Chemical Education*, 47(10):A728–??, October 1970. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed047pA728>.

**Osgood:1964:RHA**

- [OH64] Thomas H. Osgood and H. Sim Hirst. Rutherford and his alpha particles. *American Journal of Physics*, 32(9):681–686, September 1964. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**OHara:1975:GJS**

- [O'H75] J. G. O'Hara. George Johnstone Stoney, F.R.S. and the concept of the electron. *Notes and Records of the Royal Society of London*, 29(2):265–276, March 1975. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://www.jstor.org/stable/531468>.

**Ohno:2009:OSS**

- [OHN<sup>+</sup>09] Atsushi Ohno, Hiroki Hashimoto, Kaoru Nakajima, Moto-fumi Suzuki, and Kenji Kimura. Observation of surface structure of 1-butyl-3-methylimidazolium hexafluorophosphate using high-resolution Rutherford backscattering spectroscopy. *Journal of Chemical Physics*, 130(20):204705, 2009. CODEN JCPSA6. ISSN 0021-9606 (print), 1089-7690 (electronic).

**Oliphant:1934:TEOa**

- [OHR34a] Mark L. E. Oliphant, Paul Harteck, and Ernest Rutherford. Transmutation effects observed with heavy hydrogen. *Nature*, 133(3359):413, March 17, 1934. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v133/n3359/pdf/133413a0.pdf>.

**Oliphant:1934:TEOb**

- [OHR34b] Mark L. E. Oliphant, Ph.D., Paul Harteck, Ph.D., and Lord Rutherford, O.M., F.R.S. Transmutation effects observed with heavy hydrogen. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 144(853):692–703, May 1, 1934.

ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/144/853/692>.

**Oliphant:1933:TLP**

- [OKR33] Mark L. E. Oliphant, Ph.D., B. B. Kinsey, B.A., and Lord Rutherford, O.M., F.R.S. The transmutation of lithium by protons and by ions of heavy isotope of hydrogen. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 141(845):722–733, September 1, 1933. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/141/845/722>.

**Oliphant:1935:SNT**

- [OKR35a] Mark L. E. Oliphant, A. E. Kempton, and Lord Rutherford, O.M., F.R.S. Some nuclear transformations of beryllium and boron and the masses of light elements. *Proceedings of the Royal Society of London. Series A, Mathematical and Physical Sciences*, 150(869):241–258, May 1, 1935. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/150/869/241>.

**Oliphant:1935:ADE**

- [OKR35b] Mark L. E. Oliphant, A. R. Kempton, and Lord Rutherford, O.M., F.R.S. The accurate determination of the energy released in certain nuclear transformations. *Proceedings of the Royal Society of London. Series A, Mathematical and Physical Sciences*, 149(867):406–416, April 1, 1935. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/149/867/406>.

**Olesko:1981:BRM**

- [Ole81] Kathryn M. Olesko. Book review: *Max Planck. A Bibliography of His Non-Technical Writings* by Henry Lowood; *William Henry Bragg and William Lawrence Bragg. A Bibliography of Their Non-Technical Writings* by Henry Lowood; *Ernest Rutherford. A Bibliography of His Non-Technical Writings* by Henry Lowood. *Isis*, 72(2):289–290, June 1981. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/230982>.



**Oliphant:1947:RCP**

- [Oli47] M. L. Oliphant. Rutherford celebrations in Paris. *Nature*, 160 (4075):806–807, December 6, 1947. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v160/n4075/pdf/160806a0.pdf>.

**Oliphant:1966:TEa**

- [Oli66a] Mark L. Oliphant. The two Ernests — I. *Physics Today*, 19(9):35–49, September 1966. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/19/9/10.1063/1.3048466>. Reprinted in [Oli85b].

**Oliphant:1966:TEb**

- [Oli66b] Mark L. Oliphant. The two Ernests — II. *Physics Today*, 19(10):41–51, October 1966. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/19/10/10.1063/1.3047765>. Reprinted in [Oli85b].

**Oliphant:1972:RRC**

- [Oli72a] Sir Mark Oliphant. *Rutherford: recollections of the Cambridge days*. Elsevier, Amsterdam, The Netherlands, 1972. ISBN 0-444-40968-8. xii + 162 pp. LCCN QC16.R8 O54.

**Oliphant:1972:SPR**

- [Oli72b] Sir Mark Oliphant, F.R.S. Some personal recollections of Rutherford, the man. *Notes and Records of the Royal Society of London*, 27(1):7–23, August 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/27/1/7>.

**Oliphant:1984:CCW**

- [Oli84] Mark Oliphant. Change and continuity. Working with Rutherford. In Hendry [Hen84], page ?? ISBN 0-85274-761-6. LCCN QC51.G72 C352 1984.

**Oliphant:1985:BR**

- [Oli85a] Mark Oliphant. Bohr and Rutherford. In French and Kennedy [FK85], pages 68–70. ISBN 0-674-62415-7, 0-674-62416-5 (paperback). LCCN QC16.B63 N49 1985. US\$27.50.

**Oliphant:1985:TE**

- [Oli85b] Mark L. Oliphant. The two Ernests. In Weart and Phillips [WP85], pages 173–193. ISBN 0-88318-468-0 (paperback). LCCN QC7 .H694 1985. Reprint of [Oli66a, Oli66b].

**Oppenheimer:1964:ERB**

- [Opp64] J. Robert Oppenheimer. Ernest Rutherford: Book review of *Rutherford and the Nature of the Atom*, by E. N. da C. Andrade, Anchor, 213 pp. *New York Review of Books*, ??(??): ??, May 14, 1964. ISSN 0028-7504 (print), 1944-7744 (electronic). URL <http://www.nybooks.com/articles/1964/05/14/ernest-rutherford/>.

**Oliphant:1933:ETE**

- [OR33] M. L. E. Oliphant and Lord Rutherford, O.M., F.R.S. Experiments on the transmutation of elements by protons. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 141(843): 259–281, July 3, 1933. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/141/843/259>.

**O'Shea:1971:ERH**

- [O'S71] P. P. O'Shea. Ernest Rutherford. His honours and distinctions. *Proceedings of the Royal Society of New Zealand*, 99(??):??, 1971. CODEN PSNZAP. ISSN 0557-4161.

**O'Shea:1972:ERH**

- [O'S72] P. P. O'Shea. Ernest Rutherford. His honours and distinctions. *Notes and Records of the Royal Society of London*, 27(1):67–74, August 1972. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://www.jstor.org/stable/530917>.

**Osgood:1966:BRC**

- [Osg66] Thomas H. Osgood. Book review: *The Collected Papers of Lord Rutherford of Nelson, Vol. 3: The Cavendish Laboratory*, Under scientific direction of Sir James Chadwick. *Physics Today*, 19(5):93–95, May 1966. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic).

**PaetzgenSchieck:2015:KNR**

- [Pae15a] Hans Paetz gen.Schieck. *Key nuclear reaction experiments: discoveries and consequences*. IOP expanding physics. IOP Publishing, Bristol, UK, 2015. ISBN 0-7503-1174-6 (print), 0-7503-1173-8 (e-book), 0-7503-1175-4 (mobi). ISSN 2053-2563. ??? pp. LCCN QC794 .P345 2015. URL <http://iopscience.iop.org/book/978-0-7503-1173-1>.

**PaetzgenSchieck:2015:RSA**

- [Pae15b] Hans Paetz gen.Schieck. Rutherford scattering and the atomic nucleus. In *Key nuclear reaction experiments: discoveries and consequences* [Pae15a], pages 2:1–2:9. ISBN 0-7503-1174-6 (print), 0-7503-1173-8 (e-book), 0-7503-1175-4 (mobi). ISSN 2053-2563. LCCN QC794 .P345 2015. URL <http://iopscience.iop.org/book/978-0-7503-1173-1>.

**Partyka:1998:XRD**

- [PAF<sup>+</sup>98] P. Partyka, R. S. Averback, D. V. Forbes, J. J. Coleman, and P. Ehrhart. X-ray diffraction and channeling-Rutherford backscattering spectrometry studies of ion implantation damage in  $\text{Al}_x\text{Ga}_{1-x}\text{As}$ . *Journal of Applied Physics*, 83(3):1265, 1998. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Paneth:1957:TFS**

- [Pan57] F. A. Paneth, F.R.S. A tribute to Frederick Soddy. *Nature*, 180(4595):1085–1087, November 23, 1957. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v180/n4595/pdf/1801085a0.pdf>.

**Paneth:1964:TFS**

- [Pan64] F. A. Paneth. A tribute to Frederick Soddy. In Herbert Dingle and G. R. Martin, editors, *Chemistry and Beyond: a selection from the writings of the late Professor F. A. (Friedrich Adolf) Paneth*, pages 85–89. Interscience Publishers, New York, NY, USA, 1964. LCCN Q113 .P18 1964. With the assistance of Eva Paneth. Reprint of [Pan57].

**Partridge:1996:NFS**

- [Par96] A. Partridge. Nanocluster formation by spin coating: Quantitative atomic force microscopy and Rutherford backscattering spectrometry analysis. *Journal of Vacuum Science &*

*Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 14(2):585, March 1996. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Petrov:1983:ACB**

- [PBFt83] I. Petrov, M. Braun, T. Fried, and H. E. Sa therblom. Atomic concentrations of binary compound thin films on elemental substrates determined by Rutherford backscattering techniques. *Journal of Applied Physics*, 54(3):1358, 1983. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Priyantha:2008:IMA**

- [PCK<sup>+</sup>08] W. Priyantha, H. Chen, M. Kopczyk, R. J. Smith, A. Kayani, A. Comouth, M. Finsterbusch, P. Nachimuthu, and D. McCready. Interface mixing of Al Fe and Fe Al bilayer systems and the role of Ti as a stabilizing interlayer using Rutherford backscattering spectrometry and X-ray reflectometry. *Journal of Applied Physics*, 103(1):014508, 2008. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Peierls:1953:RLA**

- [Pei53] R. E. Peierls. 6th Rutherford Lecture: The atomic nucleus and its constituents. *Proceedings of the Physical Society A*, 66(4):313–324, April 1953. URL <https://ui.adsabs.harvard.edu/#abs/1953PPSA...66..313P>.

**Peierls:1988:RB**

- [Pei88] Sir Rudolf Peierls, F.R.S. Rutherford and Bohr. *Notes and Records of the Royal Society of London*, 42(2):229–241, July 1, 1988. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic).

**Peierls:1997:RB**

- [Pei97a] Rudolf Peierls. Rutherford and Bohr. *Current Science*, 73(8):707–712, October 25, 1997. CODEN CUSCAM. ISSN 0011-3891. URL [http://www.currentscience.ac.in/Downloads/download\\_pdf.php?titleid=id\\_073\\_08\\_0707\\_0712\\_0](http://www.currentscience.ac.in/Downloads/download_pdf.php?titleid=id_073_08_0707_0712_0). Text of the Rutherford Memorial Lecture delivered at the National Physical Laboratory, New Delhi, November 10, 1987.

**Peierls:1997:AH**

- [Pei97b] Sir Rudolf Ernst Peierls. *Atomic Histories*, volume 18 of *Masters of modern physics*. American Institute of Physics, Woodbury, NY, USA, 1997. ISBN 1-56396-243-8 (hardcover). xvii + 378 pp. LCCN QC71 .P38 1997.

**Peierls:2010:RB**

- [Pei10] Rudolf Peierls. Rutherford and Bohr. *Resonance*, 15(5):476–487, May 2010. CODEN RESOFE. ISSN 0971-8044 (print), 0973-712X (electronic). Text of the Rutherford Memorial Lecture delivered by Sir Rudolf Peierls, FRS, on 10 November 1987 at the National Physical Laboratory, New Delhi. Reproduced from *Current Science*, Vol.73, pp.707–712, 25 October, 1997.

**Phillips:1983:RBC**

- [Phi83] J. M. Phillips. Rutherford backscattering/channeling and transmission electron microscopy analysis of epitaxial BaF<sub>2</sub> films on Ge and InP. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 1(2):246, 1983. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Piaggio:1924:RAE**

- [Pia24] H. T. H. Piaggio. Review: *Atomes et Électrons* by H. A. Lorentz, E. Rutherford, M. de Broglie, R. A. Millikan, H. Kamerlingh Onnes, P. Weiss, L. Brillouin, W. H. Bragg, W. J. de Haas, N. Bohr, P. Ehrenfest, pp. vii + 271 + i (1923), (Gauthier-Villars). *Mathematical Gazette*, 12(170):117–119, May 1924. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL <http://www.jstor.org/stable/3604665>.

**Pippard:2001:BRR**

- [Pip01] Sir Brian Pippard, F.R.S. Book review: Rutherford, from New Zealand: John Campbell, *Rutherford, scientist supreme*. ASS Publications, Christchurch, New Zealand. Pp. 494, \$50 (hardback). ISBN 0-473-05700-X. *Notes and Records of the Royal Society of London*, 55(3):494–495, September 22, 2001. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic).

**Prieto:2006:QAC**

- [PMCF<sup>+</sup>06] P. Prieto, C. Morant, A. Climent-Font, A. Muñoz, E. Elizalde, and J. M. Sanz. Quantitative analysis of CN/TiCN/TiN multilayers and their thermal stability by Auger electron spectroscopy and Rutherford backscattering spectrometry depth profiles. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 24(2):250, 2006. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Pierson:1988:PTR**

- [PNFO88] Bruce Pierson, Kenneth W. Nebesny, Quintus Fernando, and Tetsuya Ogura. Palladium-tin ratios in electroless copper plating catalysts determined by Rutherford backscattering spectrometry. *Analytical Chemistry (Washington, DC, USA)*, 60(24):2661–2665, 1988. CODEN ANCHAM. ISSN 0003-2700 (print), 1520-6882 (electronic).

**Podgorsak:2010:RPM**

- [Pod10a] Ervin B. Podgoršak, editor. *Radiation Physics for Medical Physicists*. Biological and Medical Physics, Biomedical Engineering; SpringerLink: Bücher. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., second enlarged edition, 2010. ISBN 3-642-00875-5, 3-642-00874-7. xxxiii + 745 pp. LCCN R895 .P632 2010.

**Podgorsak:2010:RBM**

- [Pod10b] Ervin B. Podgoršak. Rutherford–Bohr model of the atom. In *Radiation Physics for Medical Physicists* [Pod10a], pages 139–175. ISBN 3-642-00875-5, 3-642-00874-7. LCCN R895 .P632 2010.

**Polak:1960:EQA**

- [Pol60] L. S. Polak. Die Entstehung der Quantentheorie des Atoms (Das Rutherford–Bohrsche Atommodell). (German) [The emergence of the quantum theory of the atom (the Rutherford–Bohr atomic model)]. In *Sowjetische Beiträge zur Geschichte der Naturwissenschaft. (German) [Soviet contributions to the history of natural science]* [FH60], pages 226–242. LCCN Q125 1960. DM-Ost 17.50.

**Pollard:1991:NP**

- [Pol91] Ernest Pollard. Neutron pioneer. *Physics World*, 4(10):31–33, October 1991. CODEN PHWOEW. ISSN 0953-8585

(print), 2058-7058 (electronic). URL <http://stacks.iop.org/2058-7058/4/i=10/a=28>. James Chadwick, who was born 100 years ago this month, discovered the neutron in 1932. One of his research students remembers those heady days of nuclear physics in the 1920s and 1930s.

**Pool:1952:BRE**

- [Poo52] M. L. Pool. Book review: Ernest Rutherford and James Chadwick and C. D. Ellis, *Radiations from Radioactive Substances*, 1951. Reissue of the edition of 1930, with corrections. *American Journal of Physics*, 20(7):459, October 1952. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL <http://scitation.aip.org/content/aapt/journal/ajp/20/7/10.1119/1.1933285>.

**Pereira:2002:DPI**

- [PPA<sup>+</sup>02] S. Pereira, E. Pereira, E. Alves, N. P. Barradas, K. P. O'Donnell, C. Liu, C. J. Deatcher, and I. M. Watson. Depth profiling InGaN/GaN multiple quantum wells by Rutherford backscattering: The role of intermixing. *Applied Physics Letters*, 81(16):2950, 2002. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Preston:2005:BFM**

- [Pre05] Diana Preston. *Before the fallout: from Marie Curie to Hiroshima*. Berkley Books, New York, NY, USA, 2005. ISBN 0-425-20789-7. xiv + 400 pp. LCCN ????

**Price:2008:EW**

- [Pri08] Colin Price. Ernest at war 1917. Web document, October 8, 2008. URL <http://www.outreach.canterbury.ac.nz/resources/Rutherford%2520Science%2520resources/activity/Ernest%2520at%2520war%25201917.doc>.

**Pyenson:1978:ITE**

- [Pye78] Lewis Pyenson. The incomplete transmission of a European image: Physics at Greater Buenos Aires and Montreal, 1890–1920. *Proceedings of the American Philosophical Society held at Philadelphia for promoting useful knowledge*, 122(2):92–114, April 24, 1978. CODEN PAPCAA. ISSN 0003-049X (print), 2326-9243 (electronic). URL <http://www.jstor.org/stable/986625>.

**Rutherford:1902:ERA**

- [RA02a] Ernest Rutherford and S. I. Allen. Erregte Radioaktivität und in der Atmosphäre hervorgerufene Ionisation. (German) [Excited radioactivity and induced ionization in the atmosphere]. *Physikalische Zeitschrift*, 3(11):225–230, March 1, 1902. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/nyp.33433062733203?urlappend=%3Bseq=259>.

**Rutherford:1902:ERI**

- [RA02b] Ernest Rutherford, M.A., D.Sc. and S. J. Allen, M.Sc. Excited radioactivity and ionization of the atmosphere. *Philosophical Magazine (6)*, 4(24):704–723, 1902. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440209462893>.

**Rutherford:1945:UAA**

- [RA45] Ernest Rutherford and Komjáthy Aladár. *Az új alkémia: az atomkutatás módszerei és eredményei, illusztrációkkal. (Hungarian) [The new alchemy: nuclear research methods and results, illustrations]*. Bibliotheca, Budapest, Hungary, 1945. 72, 2 t. pp. LCCN ????

**Rutherford:1929:DSA**

- [RAC+29] Sir Ernest Rutherford, F. W. (Francis William) Aston, James Chadwick, C. D. (Charles Drummond) Ellis, George Gamow, Ralph Howard Fowler, Owen W. Richardson, and Douglas R. Hartree. Discussion on the structure of atomic nuclei. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 123(792):373–390, April 6, 1929. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic). URL <http://www.jstor.org/stable/pdfplus/95202.pdf>.

**Radvanyi:2013:DBP**

- [Rad13] Pierre Radvanyi. The discussion between P. Curie and E. Rutherford (1900–1904). *European Physical Journal H*, 38(4): 433–441, September 2013. CODEN EPJHAD. ISSN 2102-6459 (print), 2102-6467 (electronic). URL <http://link.springer.com/article/10.1140/epjh/e2013-30019-8>.



**Ramage:1975:CDR**

- [Ram75] J. C. Ramage. A convincing demonstration of the Rutherford  $\csc^4(\theta/2)$  law. *American Journal of Physics*, 43(1):51–58, January 1975. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Raz:1963:BRJ**

- [Raz63] B. James Raz. Book review: J. B. Birks, *The Proceedings of the Rutherford Jubilee International Conference, Manchester, 1961*. *American Journal of Physics*, 31(4):307–308, April 1963. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Rutherford:1901:NGR**

- [RB01] Ernest Rutherford, M.A., D.Sc. and Miss Harriet T. Brooks, M.A. The new gas from radium. *Transactions of the Royal Society of Canada*, 7(Section III):21–25, May 23, 1901. CODEN TRSCAI. ISSN 0035-9122. URL <http://hdl.handle.net/2027/inu.32000004343010?urlappend=%3Bseq=819>; <http://www.biodiversitylibrary.org/page/10745147>.

**Rutherford:1902:CRR**

- [RB02a] Ernest Rutherford, M.A., D.Sc. and H. T. Brooks, M.A. I. Comparison of the radiations from radioactive substances. *Philosophical Magazine (6)*, 4(19):1–23, July 1902. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1902:NGR**

- [RB02b] Ernest Rutherford, M.A., D.Sc. and Miss Harriet T. Brooks, M.A. New gas from radium. *Chemical News and Journal of Physical Science*, 85(2213):196–197, April 25, 1902. CODEN CHNWAY. URL <https://archive.org/details/chemicalnewsjo8586londuft>.

**Rutherford:1903:HERa**

- [RB03a] Ernest Rutherford and Howard T. Barnes. Heating effect of the radium emanation. *Nature*, 68(1774):622, October 29, 1903. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v68/n1774/pdf/068622a0.pdf>.

**Rutherford:1903:HERb**

- [RB03b] Ernest Rutherford and Howard T. Barnes. Heating effect of the radium emanation. *Nature*, 69(1780):126, December 10, 1903. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v69/n1780/pdf/069126d0.pdf>.

**Rutherford:1904:HEG**

- [RB04a] Ernest Rutherford and Howard T. Barnes. The heating effect of the gamma rays from radium. *Nature*, 71(1833):151–152, December 15, 1904. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL [www.nature.com/nature/journal/v71/n1833/pdf/071151a0.pdf](http://www.nature.com/nature/journal/v71/n1833/pdf/071151a0.pdf).

**Rutherford:1904:HERb**

- [RB04b] Ernest Rutherford and Howard T. Barnes. Heating effects of the radium emanation. *Physical Review*, 18(2):118–119, February 1904. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://journals.aps.org/pr/abstract/10.1103/PhysRevSeriesI.18.116>. Abstract of a paper presented at the meeting of the Physical Society held on December 30, 1903.

**Rutherford:1904:XHE**

- [RB04c] Ernest Rutherford, F.R.S. and H. T. Barnes, D.Sc. XIX. Heating effect of the radium emanation. *Philosophical Magazine (6)*, 7(38):202–219, February 1904. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440409463101>.

**Rutherford:1905:PRU**

- [RB05a] Ernest Rutherford and Bertram B. Boltwood. Proportion of radium and uranium in minerals. *Chemical News and Journal of Physical Science*, 92(??):38–39, ????. 1905. CODEN CHNWAY.

**Rutherford:1905:RPR**

- [RB05b] Ernest Rutherford and Bertram B. Boltwood. The relative proportion of radium and uranium in radio-active minerals. *American Journal of Science*, 20 (series 4)(115):55–56, July 1905. CODEN AJSCAP. ISSN 0002-9599 (print),

1945-452X (electronic). URL <http://www.ajsonline.org/content/s4-20/115/55.citation>.

**Rutherford:1905:LHE**

- [RB05c] Ernest Rutherford, F.R.S. and H. T. Barnes, D.Sc. LVIII. Heating effect of the  $\gamma$  rays from radium. *Philosophical Magazine (6)*, 9(53):621–628, May 1905. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440509463313>.

**Rutherford:1906:PRR**

- [RB06a] Ernest Rutherford and Bertram B. Boltwood. Proportion relative de radium et d'uranium contenus dans les minéraux radioactifs. (French) [The relative proportion of radium and uranium in radio-active minerals]. *Radium (Paris)*, 3(7):197–198, July 1906. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1906/07/radium\\_1906\\_\\_3\\_7\\_197\\_1/radium\\_1906\\_\\_3\\_7\\_197\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1906/07/radium_1906__3_7_197_1/radium_1906__3_7_197_1.html).

**Rutherford:1906:RPR**

- [RB06b] Ernest Rutherford and Bertram B. Boltwood. The relative proportion of radium and uranium in radio-active minerals. *American Journal of Science*, 22 (series 4)(127):1–3, July 1906. CODEN AJSCAP. ISSN 0002-9599 (print), 1945-452X (electronic). URL <http://www.ajsonline.org/content/s4-22/127/1.citation>.

**Rutherford:1909:VPH**

- [RB09] Professor Ernest Rutherford, F.R.S. and Dr. Bertram B. Boltwood. VI. Production of helium by radium. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 54(6):1–2, December 24, 1909. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10286944>.

**Rutherford:1915:XEP**

- [RB15] Sir Ernest Rutherford, F.R.S. and J. Barnes, Ph.D. XXXV. Efficiency of production of X rays from a Coolidge tube. *Philosophical Magazine (6)*, 30(177):361–367, September 1915. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908635406>.

**Rutherford:1932:RAE**

- [RB32] Lord Rutherford, O.M., F.R.S. and B. V. Bowden, B.A. The  $\gamma$  rays from actinium emanation and their origin. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 136(829): 407–412, May 2, 1932. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/136/829/407>.

**Rutherford:1915:XMF**

- [RBR15] Sir Ernest Rutherford, F.R.S., J. Barnes, Ph.D., and H. Richardson, M.Sc. XXXIV. Maximum frequency of the X rays from a Coolidge tube for different voltages. *Philosophical Magazine (6)*, 30(177):339–360, September 1915. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908635405>.

**Rutherford:1903:PRE**

- [RC03] Ernest Rutherford and H. L. Cooke. A penetrating radiation from the Earth's surface. *Physical Review*, 16(3):183, March 1, 1903. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://journals.aps.org/pri/abstract/10.1103/PhysRevSeriesI.16.173>. Minutes of the Eighteenth Meeting.

**Rutherford:1912:MCP**

- [RC12a] Ernest Rutherford and James Chadwick. Sur une méthode de compensation pour la comparaison de quantités de radium et sur quelques applications de cette méthode. (French) [On a balance method for the comparison of quantities of radium and on some applications of this method]. *Radium (Paris)*, 9(5):195–200, May 1912. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1912/05/radium\\_1912\\_\\_9\\_5\\_195\\_1/radium\\_1912\\_\\_9\\_5\\_195\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1912/05/radium_1912__9_5_195_1/radium_1912__9_5_195_1.html).

**Rutherford:1912:XBM**

- [RC12b] Professor Ernest Rutherford, F.R.S. and James Chadwick, B.Sc. XX. A balance method for comparison of quantities of radium and some of its applications. *Proceedings of*

*the Physical Society, London*, 24(1):141–151, February 23, 1912. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://iopscience.iop.org/article/10.1088/1478-7814/24/1/320>.

**Rutherford:1919:RAG**

- [RC19] Ernest Rutherford and Arthur H. Compton. Radio-activity and gravitation. *Nature*, 104(2617):412, December 25, 1919. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v104/n2617/pdf/104412c0.pdf>.

**Rutherford:1921:DEP**

- [RC21a] Ernest Rutherford and James Chadwick. The disintegration of elements by  $\alpha$  particles. *Nature*, 107(2680):41, March 10, 1921. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v107/n2680/pdf/107041b0.pdf>.

**Rutherford:1921:LAD**

- [RC21b] Sir Ernest Rutherford, F.R.S. and James Chadwick, Ph.D. LXXXIX. The artificial disintegration of light elements. *Philosophical Magazine (6)*, 42(251):809–825, November 1921. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786442108633822>.

**Rutherford:1922:XDE**

- [RC22] Sir Ernest Rutherford, F.R.S. and James Chadwick, Ph.D. XLII. The disintegration of elements by  $\alpha$  particles. *Philosophical Magazine (6)*, 44(261):417–432, September 1922. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1924:BEA**

- [RC24a] Ernest Rutherford and James Chadwick. The bombardment of elements by alpha particles. *Nature*, 113(2839):457, March 29, 1924. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v113/n2839/pdf/113457a0.pdf>.

**Rutherford:1924:FEA**

- [RC24b] Sir Ernest Rutherford and J. Chadwick. Further experiments on the artificial disintegration of elements. *Proceedings of the Physical Society, London*, 36(1):417–422, 1924. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://iopscience.iop.org/article/10.1088/1478-7814/36/1/347/meta>.

**Rutherford:1924:LON**

- [RC24c] Sir Ernest Rutherford, F.R.S. and James Chadwick, Ph.D. LII. On the origin and nature of the long-range particles observed with sources of radium C. *Philosophical Magazine (6)*, 48(285):509–526, September 1924. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1925:XSP**

- [RC25] Professor Sir Ernest Rutherford, O.M., F.R.S. and J. Chadwick, Ph.D. XCIX. Scattering of  $\alpha$ -particles by atomic nuclei and the law of force. *Philosophical Magazine (6)*, 50(299):889–913, November 1925. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1927:LSP**

- [RC27] Prof.Sir Ernest Rutherford, O.M., P.R.S. and James Chadwick, Ph.D., F.R.S. LII. The scattering of  $\alpha$ -particles by helium. *Philosophical Magazine (7)*, 4(22):605–620, September 1927. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908564362>.

**Rutherford:1929:ERA**

- [RC29] Sir Ernest Rutherford and James Chadwick. Energy relations in artificial disintegration. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 25(2):186–192, April 1929. CODEN PCPSA4. ISSN 0008-1981.

**Rutherford:1962:CPL**

- [RC62] Ernest Rutherford and James Chadwick. *The collected Papers of Lord Rutherford of Nelson. Vol. 1. New Zealand, Cambridge, Montreal*. Allen and Unwin, London, UK, 1962. 931 pp. LCCN ????

**Rutherford:1963:CPM**

- [RC63] Ernest Rutherford and James Chadwick. *Collected papers. Manchester. 1963*, volume 2. Allen and Unwin, London, UK, 1963. 590 + 13 pp. LCCN ????

**Rutherford:1965:CPC**

- [RC65] Ernest Rutherford and James Chadwick. *Collected papers. Cambridge. 1965*, volume 3. Allen and Unwin, London, UK, 1965. 428 + 14 pp. LCCN ????

**Rayner-Canham:2004:HBC**

- [RC04] G. Rayner-Canham. Harriet Brooks: Canada's first woman physicist. In *APS March Meeting Abstracts*. American Physical Society, Ridge, NY 11961, USA, March 2004. URL <http://adsabs.harvard.edu/abs/2004APS..MAR.D5001R>; <http://flux.aps.org/meetings/YR04/MAR04/baps/abs/S1250001.html>.

**Reader:2013:WYN**

- [RC13] Joseph Reader and Charles W. Clark. 1932, a watershed year in nuclear physics. *Physics Today*, 66(3):44–49, March 2013. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). See also [CR12], and corrections and comments [AG13].

**Rutherford:1930:RRS**

- [RCE30] Sir Ernest Rutherford, James Chadwick, and C. D. (Charles Drummond) Ellis. *Radiations from Radioactive Substances*. Cambridge University Press, Cambridge, UK, 1930. xi + 1 + 588 pp. LCCN QC721 .R94.

**Rutherford:1932:DSA**

- [RCE<sup>+</sup>32] Lord Rutherford, O.M., F.R.S., F. R. S. J. Chadwick, F. R. S. C. D. Ellis, R. H. Fowler, F.R.S., J. C. McLennan, F.R.S., F. A. Lindemann, F.R.S., and N. F. Mott. Discussion on the structure of atomic nuclei. opening address. *Proceedings of the Royal Society of London. Series A*, 136(830):735–762, June 1, 1932. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic). URL <http://www.jstor.org/stable/95819>. Partially reprinted in [RJ65].

**Rutherford:1951:RRS**

- [RCE51] Sir Ernest Rutherford, Sir James Chadwick, and C. D. Ellis. *Radiations from Radioactive Substances*. Cambridge University Press, Cambridge, UK, 1951. xi + 588 pp. LCCN QC721 .R94 1951.

**Robinson:1954:RWK**

- [RCO+54] Harold Roper Robinson, J. D. Cockcroft, M. L. Oliphant, E. Marsden, and A. S. Russell. *Rutherford, by those who knew him, being the collection of the first five Rutherford lectures of the Physical Society*. Physical Society (Great Britain), London, UK, 1954. 69 pp. LCCN QC16.R8 P5.

**Rayner-Canham:1990:PWN**

- [RCRC90] M. F. Rayner-Canham and G. W. Rayner-Canham. Pioneer women in nuclear science. *American Journal of Physics*, 58(11):1036–1043, November 1990. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL <http://adsabs.harvard.edu/abs/1990AmJPh..58.1036R>; <http://scitation.aip.org/content/aapt/journal/ajp/58/11/10.1119/1.16269>.

**Rayner-Canham:1992:HBP**

- [RCRC92] Marelene F. Rayner-Canham and Geoffrey Rayner-Canham. *Harriet Brooks: Pioneer Nuclear Scientist*. McGill-Queen's University Press, Montréal, QC, Canada, 1992. ISBN 0-7735-0881-3. ix + 168 pp. LCCN QC16.B79 R39 1992. URL <http://www.jstor.org/stable/10.2307/j.ctt7zqmj>.

**Rayner-Canham:2004:RTD**

- [RCRC04] Marlene F. Rayner-Canham and Geoffrey W. Rayner-Canham. Rutherford, the “true discoverer of radon”. *Bulletin for the History of Chemistry*, 29(2):89–90, ??? 2004. CODEN BHCHET. ISSN 1053-4385. URL [http://www.scs.illinois.edu/~mainzv/HIST/bulletin\\_open\\_access/v29-2/v29-2%2520p89-90.pdf](http://www.scs.illinois.edu/~mainzv/HIST/bulletin_open_access/v29-2/v29-2%2520p89-90.pdf). See [MM03, MM04].

**Rayner-Canham:2005:HBC**

- [RCRC05] Marelene F. Rayner-Canham and Geoffrey W. Rayner-Canham. Harriet Brooks (1876–1933): Canada's first woman physicist. *Physics in Canada = La Physique au*



*Canada*, 61(1):29–32, January/February 2005. ISSN 0031-9147. URL [http://www.cap.ca/onlineforms/temp\\_PiC\\_archive/2005-v61-n1.pdf](http://www.cap.ca/onlineforms/temp_PiC_archive/2005-v61-n1.pdf); [http://www.cap.ca/pic/archives/61.1\(2005\)/Jan2005-offprint-Rayner-Canham.pdf](http://www.cap.ca/pic/archives/61.1(2005)/Jan2005-offprint-Rayner-Canham.pdf). The journal cover features a colored pastel portrait of 36-year-old Ernest Rutherford by R. G. Matthews, 1907.

**Rutherford:1926:DES**

- [RCW<sup>+</sup>26] Sir Ernest Rutherford, S. Chapman, C. T. R. Wilson, Henry Jackson, E. V. Appleton, R. L. Smith-Rose, R. H. Barfield, W. H. Eccles, G. M. B. Dobson, G. C. Simpson, and F. A. Lindemann. Discussion on the electrical state of the upper atmosphere. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 111(757):1–13, May 1, 1926. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic). URL <http://rspa.royalsocietypublishing.org/content/111/757/1>.

**Rutherford:1913:RRC**

- [RdCENdCA13] Ernest Rutherford and E. N. da C. (Edward Neville da Costa) Andrade. The reflection of  $\gamma$  rays from crystals. *Nature*, 92(2296):267, October 30, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v92/n2296/pdf/092267a0.pdf>.

**Rutherford:1914:WSR**

- [RdCENdCA14a] Sir Ernest Rutherford, F.R.S. and E. N. da C. (Edward Neville da Costa) Andrade, B.Sc., Ph.D. The wavelength of the soft  $\gamma$  rays from radium B. *Philosophical Magazine (6)*, 27(161):854–868, May 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786440508635156>.

**Rutherford:1914:SPR**

- [RdCENdCA14b] Sir Ernest Rutherford, R.R.S. and E. N. da C. (Edward Neville da Costa) Andrade, B.Sc., Ph.D. The spectrum of the penetrating  $\gamma$  rays from radium B and radium C. *Philosophical Magazine (6)*, 28(164):263–273, August 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440808635207>.

**Rutherford:1931:OR**

- [RE31] Lord Rutherford, O.M., F.R.S. and C. D. Ellis, F.R.S. The origin of the  $\gamma$ -rays. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 132(820):667–688, August 1, 1931. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/132/820/667>.

**Reed:2006:SLV**

- [Ree06] B. C. Reed. Seeing the light: Visibility of the July '45 Trinity atomic bomb test from the inner solar system. *The Physics Teacher*, 44(9):604–606, December 2006. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic). URL <http://adsabs.harvard.edu/abs/2006PhTea..44..604R>.

**Reeves:2008:FNF**

- [Ree08] Richard Reeves. *A Force of Nature: the Frontier Genius of Ernest Rutherford*. Great discoveries. W. W. Norton & Co., New York, NY, USA, 2008. ISBN 0-393-05750-X (hardcover), 0-393-33369-8 (paperback). 207 pp. LCCN QC16.R8 R44 2008.

**Reed:2015:ABS**

- [Ree15a] Bruce Cameron Reed. *The atomic bomb: the story of the Manhattan Project: how nuclear physics became a global geopolitical game-changer*. IOP concise physics. Morgan and Claypool Publishers and IOP Publishing, San Rafael, CA, USA and Bristol, UK, 2015. ISBN 1-62705-990-3 (print), 1-62705-991-1 (e-book), 1-62705-993-8 (mobi). ISSN 2053-2571 (print), 2054-7307 (electronic). 239 (est.) pp. LCCN QC773.3.U5 R443 2015eb. URL <http://iopscience.iop.org/book/978-1-6270-5991-6>.

**Reed:2015:BS**

- [Ree15b] Bruce Cameron Reed. The background science. In *The atomic bomb: the story of the Manhattan Project: how nuclear physics became a global geopolitical game-changer* [Ree15a], pages 2:1–2:30. ISBN 1-62705-990-3 (print), 1-62705-991-1 (e-book), 1-62705-993-8 (mobi). ISSN 2053-2571 (print), 2054-7307 (electronic). LCCN QC773.3.U5 R443 2015eb. URL <http://iopscience.iop.org/book/978-1-6270-5991-6>.

**Reed:2016:BRL**

- [Ree16] Cameron Reed. Book review: Luis A. Campos. *Radium and the Secret of Life*. *Isis*, 107(2):431–432, June 2016. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic).

**Reisenfeld:1971:RC**

- [Rei71] G. Reisenfeld. Rutherford and the Curies. *The Lancet (London, England)*, 297(7690):132, January 16, 1971. CODEN LANCAO. ISSN 0140-6736 (print), 1474-547x (electronic).

**Reichelt:1979:PCF**

- [Rei79] K. Reichelt. Preparation of CuI films on NaCl single crystals by reactive sputtering and characterization by electron microscopy and Rutherford backscattering. *Journal of Vacuum Science Technology*, 16(3):896, May 1979. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**Rennie:1986:RBS**

- [REJ86] J. Rennie, S. R. Elliott, and C. Jeynes. Rutherford backscattering study of the photodissolution of Ag in amorphous GeSe<sub>2</sub>. *Applied Physics Letters*, 48(21):1430, 1986. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Reuter:1981:SIM**

- [Reu81] W. Reuter. Secondary ion mass spectrometry and Rutherford backscattering spectroscopy for the analysis of thin films. *Journal of Vacuum Science Technology*, 18(2):282, March 1981. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**Rezerford:1921:NSA**

- [Rez21] Ernest Rezerford. Nuklearnoe stroenie atoma. (Russian) [Nuclear structure of the atom]. *Uspekhi Fizicheskikh Nauk*, 2(2):194–221, February 1921. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1921/2/d/>.

**Rezerford:1923:IRJ**

- [Rez23] Ernest Rezerford. Iskusstvennoe rasshheplenie jelementov. (Russian) [Artificial splitting of elements]. *Uspekhi Fizicheskikh Nauk*, 3(2–3):198–213, February 1923. CODEN UF-

NAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1923/2/c/>.

**Rezerford:1924:BAC**

- [Rez24] Ernest Rezerford. Biografija al'fa-chasticy. (Russian) [Biography of alpha particles]. *Uspekhi Fizicheskikh Nauk*, 4(2–3):187–204, February 1924. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1924/2/e/>.

**Rezerford:1925:EIR**

- [Rez25] Ernest Rezerford. Estestvennoe i iskusstvennoe razlozhenie jelementov. (Russian) [Natural and artificial expansion of the elements]. *Uspekhi Fizicheskikh Nauk*, 5(1–2):28–44, January 1925. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1925/1/b/>.

**Rezerford:1928:AJI**

- [Rez28] Ernest Rezerford. Atomnye jadra i ih prevrashhenija. (Russian) [Atomic nuclei and their transformation]. *Uspekhi Fizicheskikh Nauk*, 8(1):35–60, January 1928. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1928/1/c/>.

**Rezerford:1929:DSA**

- [Rez29] Ernest Rezerford. Diskussija o strukture atomnogo jadra. (Russian) [The debate about the structure of the atomic nucleus]. *Uspekhi Fizicheskikh Nauk*, 9(5–6):551–573, May 1929. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1929/5/b/>; [http://ufn.ru/ufn29/ufn29\\_5/Russian/r295b.pdf](http://ufn.ru/ufn29/ufn29_5/Russian/r295b.pdf).

**Rezerford:1932:DSA**

- [Rez32] Lord Rezerford. Diskussija o strukture atomnogo jadra. (Russian) [The debate about the structure of the atomic nucleus]. *Uspekhi Fizicheskikh Nauk*, 12(5–7):525–556, May 1932. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1932/5/b/>; [http://ufn.ru/ufn32/ufn32\\_5/Russian/r325b.pdf](http://ufn.ru/ufn32/ufn32_5/Russian/r325b.pdf).

**Rezerford:1938:SAR**

- [Rez38] Lord Rezerford. Sovremennaja alhimija. (Russian) [Modern alchemy]. *Uspekhi Fizicheskikh Nauk*, 19(1):18–48,

January 1938. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL <http://ufn.ru/ru/articles/1938/1/b/>; [http://ufn.ru/ufn38/ufn38\\_1/Russian/r381\\_b.pdf](http://ufn.ru/ufn38/ufn38_1/Russian/r381_b.pdf).

**Rezerford:1971:INT**

- [Rez71] Ernest Rezerford. *Izbrannye naučnye trudy. (Russian) [Selected scientific papers]*. Nauka, Moscow, Russia, 1971. 431 pp. Russian translation from Ju. M. Cipeňjuk.

**Rezerford:1972:INT**

- [Rez72] Ernest Rezerford. *Izbrannye naučnye trudy. (Russian) [Selected scientific papers]*. Nauka, Moscow, Russia, 1972. 532 pp.

**Reardon:2001:RSD**

- [RFF<sup>+</sup>01] J. C. Reardon, G. Fiksel, C. B. Forest, A. F. Abdrashitov, V. I. Davydenko, A. A. Ivanov, S. A. Korepanov, S. V. Murchatın, and G. I. Shulzhenko. Rutherford scattering diagnostic for the Madison symmetric torus reversed-field pinch. *Review of Scientific Instruments*, 72(1):598, 2001. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Rutherford:1902:MAS**

- [RG02a] Ernest Rutherford and S. G. Grier. Magnetische Ablenkbarkeit der Strahlen von radioaktiven Substanzen. (German) [Magnetic deflectability of radiation from radioactive substances]. *Physikalische Zeitschrift*, 3(17):385–390, June 1, 1902. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/nyp.33433062733203?urlappend=%3Bseq=419>.

**Rutherford:1902:XDR**

- [RG02b] Ernest Rutherford, M.A., D.Sc. and A. G. Grier, M.Sc. XXXIV. Deviable rays of radioactive substances. *Philosophical Magazine (6)*, 4(21):315–330, September 1902. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440209462849>.

**Rutherford:1908:EMC**

- [RG08a] Ernest Rutherford and Hans Geiger. An electrical method of counting the number of  $\alpha$ -particles from radio-active sub-

stances. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 81(546):141–161, August 27, 1908. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Rutherford:1908:CNPb**

- [RG08b] Ernest Rutherford and Hans Geiger. La charge et la nature des particules  $\alpha$ . (French) [The charge and nature of  $\alpha$  particles]. *Radium (Paris)*, 5(9):265–271, September 1908. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1908/09/radium\\_1908\\_\\_5\\_9\\_265\\_0/radium\\_1908\\_\\_5\\_9\\_265\\_0.html](http://radium.journaldephysique.org/articles/radium/abs/1908/09/radium_1908__5_9_265_0/radium_1908__5_9_265_0.html).

**Rutherford:1908:MEN**

- [RG08c] Ernest Rutherford and Hans Geiger. Une méthode électrique de numération des particules à émises par les substances radioactives. (French) [An electrical method for counting particles emitted by radioactive substances]. *Radium (Paris)*, 5(9):257–264, September 1908. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1908/09/radium\\_1908\\_\\_5\\_9\\_257\\_0/radium\\_1908\\_\\_5\\_9\\_257\\_0.html](http://radium.journaldephysique.org/articles/radium/abs/1908/09/radium_1908__5_9_257_0/radium_1908__5_9_257_0.html).

**Rutherford:1908:CNPa**

- [RG08d] Professor Ernest Rutherford, F.R.S. and Hans Geiger, Ph.D. The charge and nature of the  $\alpha$ -particle. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 81(546):162–173, August 27, 1908. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/81/546/162>.

**Rutherford:1908:IMC**

- [RG08e] Professor Ernest Rutherford, F.R.S. and Hans Geiger, Ph.D. IX. A method of counting the number of  $\alpha$  particles from radioactive matter. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 52(9):1–3, March 14, 1908. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10273414>.

**Rutherford:1909:LNT**

- [RG09a] Ernest Rutherford and Hans Geiger. Die Ladung und Natur des  $\alpha$ -Teilchens. (German) [The charge and nature of the  $\alpha$ -particle]. *Physikalische Zeitschrift*, 10(2):42–46, January 15, 1909. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/mdp.39015023919049?urlappend=%3Bseq=70>.

**Rutherford:1909:EMR**

- [RG09b] Ernest Rutherford and Hans Geiger. Eine elektrische Methode, die von radioaktiven Substanzen ausgesandten  $\alpha$ -Teilchen zu zählen. (German) [An electrical method of counting of  $\alpha$  particles emitted by radioactive substances]. *Physikalische Zeitschrift*, 10(1):1–6, January 1, 1909. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/mdp.39015023919049?urlappend=%3Bseq=29>.

**Rutherford:1910:LPV**

- [RG10] Professor Ernest Rutherford, F.R.S. and Hans Geiger, Ph.D. LXXVI. The probability variations in the distribution of  $\alpha$  particles. *Philosophical Magazine (6)*, 20(118):698–707, October 1910. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1911:LTN**

- [RG11] Prof. Ernest Rutherford, F.R.S. and Dr. Hans Geiger. LVIII. Transformation and nomenclature of the radioactive emanations. *Philosophical Magazine (6)*, 22(130):621–629, October 1911. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441008637157>.

**Rutherford:1906:MVP**

- [RH06a] Ernest Rutherford and Otto Hahn. Masse et vitesse des particules  $\alpha$  émises par le radium et l'actinium radium. (French) [mass and velocity of  $\alpha$  particles expelled from radium and actinium]. *Radium (Paris)*, 3(11):321–326, November 1906. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1906/11/radium\\_1906\\_\\_3\\_11\\_321\\_0/radium\\_1906\\_\\_3\\_11\\_321\\_0.html](http://radium.journaldephysique.org/articles/radium/abs/1906/11/radium_1906__3_11_321_0/radium_1906__3_11_321_0.html).

**Rutherford:1906:XMP**

- [RH06b] Ernest Rutherford, F.R.S. and Otto Hahn, Ph.D. XLII. Mass of the  $\alpha$  particles from thorium. *Philosophical Magazine* (6), 12(70):371–378, October 1906. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440609463550>.

**Righini:1979:ATC**

- [Rig79] Guglielmo Righini. Astrophysics at the turn of the century. In Bunge and Shea [BS79], page ?? ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Riley:1970:SMP**

- [Ril70] James F. Riley. The sole meeting of Pierre Curie and Ernest Rutherford. *The Lancet (London, England)*, 2 (7682):1076–1077, November 21, 1970. CODEN LAN-CAO. ISSN 0140-6736 (print), 1474-547x (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0140673670903004>.

**Rittenhouse:1992:RES**

- [Rit92] Robert C. Rittenhouse. Rutherford: Exploring the scattering of alpha particles. *Journal of Chemical Education*, 69(8): 637–??, August 1992. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed069p637.1>.

**Rutherford:1965:DSA**

- [RJ65] Lord Rutherford, O.M., F.R.S. and J.Chadwick, F.R.S. Discussion on the structure of atomic nuclei. In *Nuclear Forces* [Bri65], pages 121–137. ISBN 0-08-011034-7. LCCN QC173 .B8513 1965. Partial reprint of [RCE<sup>+</sup>32].

**Rutherford:1934:BHI**

- [RK34] Lord Rutherford, O.M., F.R.S. and A. E. Kempton, B.A. Bombardment of the heavy isotope of hydrogen by  $\alpha$  particles. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 143(850):724–730, February 1, 1934. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/143/850/724>.



**Ruoff:1988:DID**

- [RKL88] Arthur L. Ruoff, Edward J. Kramer, and Che-Yu Li. Developer-induced debonding of photoresist from copper. *IBM Journal of Research and Development*, 32(5):631–635, September 1988. CODEN IBMJAE. ISSN 0018-8646 (print), 2151-8556 (electronic).

**Rutherford:1907:RUG**

- [RL07] Ernest Rutherford and Max Levine. *Radioaktive Umwandlungen. (German) [Radioactive transformations]*, volume 21 of *Wissenschaft einzeldarstellungen aus der Naturwissenschaft und der technik*. Friedrich Vieweg und Sohn, Braunschweig, Germany, 1907. 7 + 285 + 51 pp. LCCN QC721 .R96. URL <http://archive.org/details/radioaktiveumwan00ruth>.

**Rutherford:1933:ALR**

- [RLB33] Lord Rutherford, O.M., F.R.S., W. B. Lewis, B.A., and B. V. Bowden, B.A. Analysis of the long range  $\alpha$  particles from radium C' by the magnetic focussing method. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 142(846):347–361, October 1, 1933. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/142/846/347>.

**Rutherford:1900:ERB**

- [RM00a] Ernest Rutherford and R. K. McClung. Energy of Röntgen and Becquerel rays and the energy required to produce an ion in gases. *Proceedings of the Royal Society of London*, 67 (435–441):245–250, January 1900. CODEN PRSLAZ. ISSN 0370-1662 (print), 2053-9126 (electronic).

**Rutherford:1900:EBR**

- [RM00b] Ernest Rutherford and R. K. McKling, [i.e., McClung]. Über die Energie der Becquerel- und Röntgenstrahlen und über die zur Erzeugung von Ionen in Gasen nötige Energie. (German) [Energy of Röntgen and Becquerel rays and the energy required to produce an ion in gases]. *Physikalische Zeitschrift*, 2(4):53–55, October 27, 1900. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/mdp.39015068319659?urlappend=%3Bseq=73>.

**Rutherford:1901:ERB**

- [RM01] Ernest Rutherford and R. K. McClung. Energy of Röntgen and Becquerel rays and the energy required to produce an ion in gases. *Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 196(274-286):25–59, January 1901. CODEN PTRMAD, PTMSFB. ISSN 1364-503X (print), 1471-2962 (electronic).

**Rutherford:1929:DUM**

- [RMM<sup>+</sup>29] Sir Ernest Rutherford, O.M., Sir Charles Martin, F.R.S., Professor Paul A. Murphy, Dr. J. A. Arkwright, F.R.S., J. E. Barnard, F.R.S., Dr. Kenneth M. Smith, Dr. W. E. Gye, Professor J. C. G. Ledingham, F.R.S., Dr. R. N. Salaman, Professor F. W. Twort, Dr. C. H. Andrewes, Captain S. R. Douglas, F.R.S., Dr. Edward Hindle, Dr. W. B. Brierley, and Professor A. E. Boycott, F.R.S. Discussion on “ultra-microscopic viruses infecting animals and plants.”. *Proceedings of the Royal Society B: Biological Sciences*, 104(733):537–560, May 4, 1929. CODEN PRSBC7. ISSN 0950-1193 (print), 2053-9185 (electronic).

**Raniero:2013:RBS**

- [RMM<sup>+</sup>13] W. Raniero, G. Maggioni, G. Della Mea, M. Campostrini, S. Marigo, and M. Nardo. Rutherford backscattering spectrometry (RBS) analysis of dichroic systems for optical applications. *AIP Conference Proceedings*, 1530:133–??, 2013. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465.

**Rutherford:1913:LSP**

- [RN13] Professor Ernest Rutherford, F.R.S. and J. M. Nuttall, M.Sc. LVII. Scattering of  $\alpha$  particles by gases. *Philosophical Magazine (6)*, 26(154):702–712, October 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rodriguez:2004:RSA**

- [RN04] María A. Rodríguez and Mansoor Niaz. A reconstruction of structure of the atom and its implications for general physics textbooks: A history and philosophy of science perspective. *Journal of Science Education and Technology*, 13(3):409–424, 2004. CODEN JSEEEP. ISSN 1059-0145 (print), 1573-

1839 (electronic). URL <http://www.jstor.org/stable/40186660>.

**Rutherford:1899:ITU**

- [RO99] Professor Ernest Rutherford, M.A., B.Sc. and Professor Robert B. Owens, E.E. II. thorium and uranium radiation. *Transactions of the Royal Society of Canada*, 5 (Section III):9–12, May 26, 1899. CODEN TRSCAI. ISSN 0035-9122. URL <http://tinyurl.com/pw5lo8z>; <http://www.biodiversitylibrary.org/page/10793245>. This paper contains the discovery of radon, before Pierre and Marie Curie (1899), and Ernst Dorn (1900). See [Bre00].

**Rodgers:2019:TAS**

- [Rod19] Glen E. Rodgers. *Travelling with the Atom: a Scientific Guide to Europe and Beyond*. Royal Society of Chemistry, Cambridge, UK, 2019. ISBN 1-78801-528-2 (paperback), 1-78801-702-1 (e-book). xxxii + 551 pp. LCCN QC171.2 .R63 2020.

**Roeckl:1995:AR**

- [Roe95] E. Roeckl. Alpha radioactivity. *Radiochimica Acta*, 70–71 (S1):107–122, December 1995. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.1995.70-71.issue-s1/ract.1995.7071.special-issue.107/ract.1995.7071.special-issue.107.xml>.

**Rogers:2013:NDY**

- [Rog13] J. D. Rogers. The neutron’s discovery — 80 years on. *Physics Procedia*, 43:1–9, 2013. CODEN PPHRCK. ISSN 1875-3892. URL <http://adsabs.harvard.edu/abs/2013PhPro..43...1R>.

**Romer:1960:RAA**

- [Rom60] Alfred Romer. *The Restless Atom: the Awakening of Nuclear Physics*. Science study series, S12. Anchor Books, Garden City, NY, USA, 1960. 198 pp. LCCN QC773 .R6.

**Romer:1964:DRT**

- [Rom64] Alfred Romer, editor. *The Discovery of Radioactivity and Transmutation*, volume 2 of *Classics of science*. Dover, New York, NY, USA, 1964. xi + 233 pp. LCCN QC795 .R66.

**Romer:1982:RAA**

- [Rom82] Alfred Romer. *The Restless Atom: the Awakening of Nuclear Physics*. Dover, New York, NY, USA, 1982. ISBN 0-486-24310-9 (paperback). 198 pp. LCCN QC773 .R6 1982.

**Romer:1997:PPR**

- [Rom97] Alfred Romer. Proton or prouton?: Rutherford and the depths of the atom. *American Journal of Physics*, 65(8): 707–716, August 1997. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Rontgen:1958:XRE**

- [Rön58] Wilhelm Conrad Röntgen. *X-rays and the electric conductivity of gases: comprising papers by W. C. Röntgen (1895-1896), J. J. Thomson, and E. Rutherford (1896); with an historical introduction by N. Feather*. Livingstone, Edinburgh, UK, 1958. iii + 70 pp. LCCN ????

**Roth:1974:DDD**

- [Rot74] J. Roth. Determination of the depth distribution of implanted helium atoms in niobium by Rutherford backscattering. *Applied Physics Letters*, 25(11):643, 1974. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Rowland:1955:ERA**

- [Row55] John Rowland. *Ernest Rutherford, atom pioneer*. Shorter lives series. Laurie, London, UK, 1955. 160 pp. LCCN QC16.R8 R6.

**Rowland:1957:ERA**

- [Row57] John Rowland. *Ernest Rutherford, atom pioneer*. Shorter lives series. Philosophical Library, New York, NY, USA, 1957. 160 pp. LCCN QC16.R8 R6.

**Rutherford:1907:EHT**

- [RP07] Professor Ernest Rutherford, F.R.S. and J. E. Petavel, F.R.S. The effect of high temperature on the activity of the products of radium. *British Association for the Advancement of Science, Report*, ??(??):456–457, August 5, 1907. CODEN BAASAX. ISSN 0365-8694. URL <http://biodiversitylibrary.org/page/29717619>. Report of the 77th Meeting, Leicester, 31 July–7 August, 1907.

**Rutherford:1907:SED**

- [RR07] Ernest Rutherford and Thomas Royds. Spectre de l'émanation du radium. (French) [spectrum of the emissions of radium]. *Radium (Paris)*, 5(7):200–201, July 1907. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1908/07/radium\\_1908\\_\\_5\\_7\\_200\\_1/radium\\_1908\\_\\_5\\_7\\_200\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1908/07/radium_1908__5_7_200_1/radium_1908__5_7_200_1.html).

**Rutherford:1908:SED**

- [RR08a] Ernest Rutherford and Thomas Royds. Spectre de l'émanation du radium. (French) [Spectrum of the emanation of radium]. *Radium (Paris)*, 5(7):200–201, July 1908. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1908/07/radium\\_1908\\_\\_5\\_7\\_200\\_1/radium\\_1908\\_\\_5\\_7\\_200\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1908/07/radium_1908__5_7_200_1/radium_1908__5_7_200_1.html).

**Rutherford:1908:SRE**

- [RR08b] Ernest Rutherford and Thomas Royds. Spectrum of the radium emanation. *Nature*, 78(2019):220–221, July 9, 1908. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v78/n2019/pdf/078220c0.pdf>.

**Rutherford:1908:XSR**

- [RR08c] Ernest Rutherford, F.R.S. and Thomas Royds, M.Sc. XXIV. Spectrum of the radium emanation. *Philosophical Magazine (6)*, 16(92):313–317, August 1908. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440808636511>.

**Rutherford:1908:LAR**

- [RR08d] Prof. Ernest Rutherford, F.R.S. and Thomas Royds, M.Sc. LXVIII. The action of the radium emanation upon water. *Philosophical Magazine (6)*, 16(95):812–818, November 1908. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441108636558>.

**Rutherford:1908:NP**

- [RR08e] Professor Ernest Rutherford, F.R.S. and Thomas Royds, M.Sc. The nature of the  $\alpha$  particle. *Memoirs and Pro-*

*ceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 53(1):1–3, November 19, 1908. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10332050>.

**Rutherford:1909:NPS**

- [RR09a] Ernest Rutherford and Thomas Royds. Nature des particules  $\alpha$  des substances radioactives. (French) [Nature of  $\alpha$  particles from radioactive substances]. *Radium (Paris)*, 6(2):47–50, February 1909. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1909/02/radium\\_1909\\_\\_6\\_2\\_47\\_1/radium\\_1909\\_\\_6\\_2\\_47\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1909/02/radium_1909__6_2_47_1/radium_1909__6_2_47_1.html).

**Rutherford:1909:NPR**

- [RR09b] Ernest Rutherford and Thomas Royds. The nature of the  $\alpha$ -particle from radioactive substances. *Jahrbuch der Radioaktivität und Elektronik*, 6(??):1–7, 1909. CODEN JAREAS. ISSN 0368-1289.

**Rutherford:1909:NAP**

- [RR09c] Professor Ernest Rutherford, F.R.S. and Thomas Royds, M.Sc. Nature of the alpha particle. *Chemical News and Journal of Physical Science*, 99(2566):49, January 29, 1909. CODEN CHNWAY. URL <http://archive.org/stream/chemicalnewsjour99londonoft#page/49/mode/1up>.

**Rutherford:1909:XNP**

- [RR09d] Professor Ernest Rutherford, F.R.S. and Thomas Royds, M.Sc. XXI. The nature of the  $\alpha$  particle from radioactive substances. *Philosophical Magazine (6)*, 17(98):281–286, February 1909. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440208636599>.

**Rutherford:1912:WDR**

- [RR12] Professor Ernest Rutherford and Harold Roper Robinson. Wärmeentwicklung durch Radium and Radiumemanation. (German) [Heat generation by radium and radium emanation]. *Sitzungsberichte der Mathematisch-Naturwissenschaftliche Klasse der Kaiserlichen Akademie der Wissenschaften*, 121(8):1491–1516, July 4, 1912. CODEN SWWPAX. ISSN 0376-2629. URL <http://tinyurl.com/joqzp7e>.

**Rutherford:1913:MGR**

- [RR13a] Ernest Rutherford and Harold Roper Robinson. Über die Masse und die Geschwindigkeiten der von den radioaktiven Substanzen ausgesendeten  $\alpha$  Teilchen. (German) [On the mass and speed of  $\alpha$  particles emitted from radioactive substances]. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse*, 122(9):1855–1884, December 4, 1913. CODEN SWW-PAX. ISSN 0376-2629. URL <http://tinyurl.com/h4g4c5b>.

**Rutherford:1913:LARb**

- [RR13b] Prof. Ernest Rutherford, F.R.S. and H. Richardson, M.Sc. LXXXII. Analysis of the  $\gamma$  rays of the thorium and actinium products. *Philosophical Magazine (6)*, 26(156):937–948, December 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441308635041>.

**Rutherford:1913:XHE**

- [RR13c] Prof. Ernest Rutherford, F.R.S. and Harold Roper Robinson, M.Sc. XXXIV. Heating effect of radium and its emanation. *Philosophical Magazine (6)*, 25(146):312–330, February 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1913:LAG**

- [RR13d] Professor Ernest Rutherford, F.R.S. and H. Richardson, B.Sc. LXXXVI. The analysis of the gamma rays from radium B and radium C. *Philosophical Magazine (6)*, 25(149):722–734, May 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1913:XAR**

- [RR13e] Professor Ernest Rutherford, F.R.S. and H. Richardson, M.Sc. XIX. Analysis of the  $\gamma$  rays from radium D and radium E. *Philosophical Magazine (6)*, 26(152):324–332, August 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786441308634974#abstract>.

**Rutherford:1913:LARa**

- [RR13f] Professor Ernest Rutherford, F.R.S. and Harold Roper Robinson, M.Sc. LIX. The analysis of the  $\beta$  rays from

radium B and radium C. *Philosophical Magazine* (6), 26 (154):717–729, October 1913. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441308635016>.

**Rutherford:1914:LMV**

- [RR14] Sir Ernest Rutherford, F.R.S. and Harold Roper Robinson. LVII. The mass and velocities of the  $\alpha$  particles from radioactive substances. *Philosophical Magazine* (6), 28(166): 552–572, October 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441008635235>.

**Reingold:1987:SCC**

- [RR87] Nathan Reingold and Marc Rothenberg, editors. *Scientific colonialism: a cross-cultural comparison*. Smithsonian Institution Press, Washington, DC, USA, 1987. ISBN 0-87474-785-6. LCCN Q124.6 .S39 1987. Papers from a conference at Melbourne, Australia 25–30 May 1981.

**Raisanen:1995:ADI**

- [RR95] J. Räsänen and E. Rauhala. Angular distributions of  $^{12}\text{C}$ ,  $^{14}\text{N}$ , and  $^{16}\text{O}$  ion elastic scattering by sulfur near the Coulomb barrier and the high-energy limits of heavy-ion Rutherford scattering. *Journal of Applied Physics*, 77(4): 1762, 1995. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Raisanen:1994:NRC**

- [RRKH94] J. Räsänen, E. Rauhala, J. M. Knox, and J. F. Harmon. Non-Rutherford cross sections in heavy ion elastic recoil spectrometry: 40–70 MeV  $^{32}\text{S}$  ions on carbon, nitrogen, and oxygen. *Journal of Applied Physics*, 75(7):3273, 1994. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Rutherford:1914:SRE**

- [RRR14] Ernest Rutherford, F.R.S., Harold Roper Robinson, M.Sc., and W. F. Rawlinson, B.Sc. Spectrum of the  $\beta$  rays excited by  $\gamma$  rays. *Philosophical Magazine* (6), 28(164):281–286, August 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440808635210>.



**Rutherford:1902:UNR**

- [RS02a] Ernest Rutherford and Frederick Soddy. Die Ursache und Natur der Radioaktivität. I. Teil. (German) [The cause and nature of radioactivity. Part I]. *Zeitschrift für Physikalische Chemie — Stöchiometrie und Verwandtschaftslehre*, 42(1): 81–109, October 28, 1902. CODEN ZEPCAC. ISSN 0372-8501.

**Rutherford:1902:CNRc**

- [RS02b] Ernest Rutherford and Frederick Soddy. Die Ursache und Natur der Radioaktivität. II. Teil. (German) [The cause and nature of radioactivity. Part II]. *Zeitschrift für Physikalische Chemie — Stöchiometrie und Verwandtschaftslehre*, 42(2): 174–192, December 9, 1902. CODEN ZEPCAC. ISSN 0372-8501.

**Rutherford:1902:LRT**

- [RS02c] Ernest Rutherford and Frederick Soddy. LXXXIV. The radioactivity of thorium compounds. II. The cause and nature of radioactivity. *Journal of the Chemical Society, Transactions*, 81(??):837–860, ??? 1902. CODEN JCHTA3. ISSN 0368-1645 (print), 2050-5450 (electronic). URL <http://pubs.rsc.org/en/Content/ArticleLanding/1902/CT/ct9028100837>. See also Part I [RS02g].

**Rutherford:1902:CPT**

- [RS02d] Ernest Rutherford and Frederick Soddy. Note on the condensation points of the thorium and radium emanations. *Proceedings of the Chemical Society, London*, 18(256):219–220, November 26, 1902. CODEN PCSLAW. ISSN 0369-8718 (print), 2050-5612 (electronic).

**Rutherford:1902:NCP**

- [RS02e] Ernest Rutherford and Frederick Soddy. Note on the condensation points of thorium and radium emanations. *Proceedings of the Chemical Society, London*, 2(??):19–20, ??? 1902. CODEN PCSLAW. ISSN 0369-8718 (print), 2050-5612 (electronic).

**Rutherford:1902:RAT**

- [RS02f] Ernest Rutherford, M. A., D. Sc. and Frederick Soddy, B. A. (Oxon.). The radio-activity of thorium compounds. II. the

cause and nature of radio-activity. *Chemical News and Journal of Physical Science*, 86(2231):97–101, August 29, 1902. CODEN CHNWAY. URL <https://hdl.handle.net/2027/njp.32101075379980?urlappend=%3Bseq=105>.

**Rutherford:1902:LCN**

- [RS02g] Ernest Rutherford, M.A., D.Sc. and Frederick Soddy, B.A. LXIV. The cause and nature of radioactivity. Part II. *Philosophical Magazine (6)*, 4(23):569–585, November 1902. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440209462881>.

**Rutherford:1902:XCN**

- [RS02h] Ernest Rutherford, M.A., D.Sc. and Frederick Soddy, B.A. XLI. The cause and nature of radioactivity. Part I. *Philosophical Magazine (6)*, 4(21):370–396, September 1902. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440209462856>.

**Rutherford:1902:XRT**

- [RS02i] Ernest Rutherford, M.A., D.Sc. and Frederick Soddy, B.A. XXXIII. The radioactivity of thorium compounds. I. An investigation of the radioactive emanation. *Journal of the Chemical Society, Transactions*, 81(??):321–350, ??? 1902. CODEN JCHTA3. ISSN 0368-1645 (print), 2050-5450 (electronic).

**Rutherford:1902:RTCb**

- [RS02j] Ernest Rutherford, M.S., D.Sc. and Frederick Soddy, B.A. (Oxon.). The radio-activity of thorium compounds. I. An investigation of the radio-active emanation [part II]. *Chemical News and Journal of Physical Science*, 85(2220):282–285, June 13, 1902. CODEN CHNWAY. URL <http://hdl.handle.net/2027/njp.32101075379998?urlappend=%3Bseq=290>.

**Rutherford:1902:RTCa**

- [RS02k] Ernest Rutherford, M.S., D.Sc. and Frederick Soddy, B.A. (Oxon.). The radioactivity of thorium compounds. I. An investigation of the radioactive emanation [part I]. *Chemical News and Journal of Physical Science*, 85(2219):271–

272, June 6, 1902. CODEN CHNWAY. URL <http://hdl.handle.net/2027/njp.32101075379998?urlappend=%3Bseq=279>.

**Rutherford:1902:RTCc**

- [RS02l] Ernest Rutherford, M.S., D.Sc. and Frederick Soddy, B.A. (Oxon.). The radioactivity of thorium compounds. I. An investigation of the radioactive emanation [part III]. *Chemical News and Journal of Physical Science*, 85(2221):293–295, June 20, 1902. CODEN CHNWAY. URL <http://hdl.handle.net/2027/njp.32101075379998?urlappend=%3Bseq=301>.

**Rutherford:1902:RTCd**

- [RS02m] Ernest Rutherford, M.S., D.Sc. and Frederick Soddy, B.A. (Oxon.). The radioactivity of thorium compounds. I. An investigation of the radioactive emanation [part IV]. *Chemical News and Journal of Physical Science*, 85(2222):304–308, June 27, 1902. CODEN CHNWAY. URL <http://hdl.handle.net/2027/njp.32101075379998?urlappend=%3Bseq=312>.

**Rutherford:1903:LCR**

- [RS03a] Ernest Rutherford, M.A., D.Sc. and Frederick Soddy, M.A. LIX. Condensation of the radioactive emanations. *Philosophical Magazine (6)*, 5(29):561–576, May 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440309462959>.

**Rutherford:1903:LRC**

- [RS03b] Ernest Rutherford, M.A., D.Sc. and Frederick Soddy, M.A. LX. Radioactive change. *Philosophical Magazine (6)*, 5(29):576–591, May 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440309462960>.

**Rutherford:1903:RU**

- [RS03c] Ernest Rutherford, M.A., D.Sc. and Frederick Soddy, M.A. The radioactivity of uranium. *Philosophical Magazine (6)*, 5(28):441–445, ??? 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440309462942>.

**Rutherford:1903:XCS**

- [RS03d] Ernest Rutherford, M.A., D.Sc. and Frederick Soddy, M.A. XLIV. A comparative study of the radioactivity of radium and thorium. *Philosophical Magazine* (6), 5(28):445–457, April 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440309462943>.

**Rutherford:1966:TE**

- [RS66] E. Rutherford and F. Soddy. The transformation of the elements. In Boorse and Motz [BM66], pages 449–?? URL <http://adsabs.harvard.edu/abs/1966woat.book..449R>. With a foreword by I. I. Rabi.

**Rutherford:1934:OAH**

- [RSA<sup>+</sup>34a] Lord Rutherford, O.M., F.R.S., N. V. Sidgwick, F. W. Aston, P. Harteck, F. Soddy, M. Polanyi, E. K. Rideal, R. H. Fowler, R. P. Bell, J. D. Bernal, and W. Jevons. Discussion on heavy hydrogen: Opening address. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 144(851):1–5, March 1, 1934. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/144/851/1>.

**Rutherford:1934:DHH**

- [RSA<sup>+</sup>34b] Lord Rutherford, O.M., F.R.S., N. V. Sidgwick, F.R.S., F. W. Aston, F.R.S., Dr. P. Harteck, Professor F. Soddy, Dr. M. Polanyi, Professor E. K. Rideal, F.R.S., Professor R. H. Fowler, F.R.S., R. P. Bell, J. D. Bernal, and Dr. W. Jevons. Discussion on heavy hydrogen: Opening address. *Proceedings of the Royal Society of London. Series A*, 144(851):1–28, March 1, 1934. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic). URL <http://www.jstor.org/stable/2935574>.

**Rebouta:1989:LSL**

- [RSdS<sup>+</sup>89] L. Rebouta, J. C. Soares, M. F. da Silva, J. A. Sanz-García, E. Diéguez, and F. Agulló-López. Lattice site location of europium in LiNbO<sub>3</sub> by Rutherford backscattering channeling experiments. *Applied Physics Letters*, 55(2):120, 1989. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Richtmyer:1927:ECC**

- [RSWE27] Floyd Karker Richtmyer, Edwin Emery Slosson, Henry Baldwin Ward, and Edward Ellery. Editorial comment: The convention — the chapter reports — Sir Ernest Rutherford as a Sigma Xi Fellow — the Midwest Alumni Association — alumni letters. *Sigma Xi Quarterly*, 15(4):77–80, December 1927. CODEN SXQUAP. ISSN 0096-977X (print), 2327-7548 (electronic). URL <http://www.jstor.org/stable/27824350>.

**Rutherford:1909:XDD**

- [RT09] Professor Ernest Rutherford, F.R.S. and Y. Tuomikoski. XII. Differences in the decay of the radium emanation. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 53(12):1–2, April 7, 1909. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10332198>.

**Rubinin:1997:NBP**

- [Rub97] P. E. Rubinin. Niels Bohr and Petr Léonidovich Kapitza. *Physics-Uspekhi*, 40(1):95–100, 1997. CODEN PHUSEY. ISSN 1063-7869 (print), 1468-4780 (electronic). URL <http://stacks.iop.org/1063-7869/40/i=1/a=A05>.

**Russell:1937:MAL**

- [Rus37] A. S. Russell. More about Lord Rutherford. *The Listener*, 18(??):966–??, ??? 1937.

**Russell:1951:LRM**

- [Rus51] A. S. Russell. Lord Rutherford: Manchester, 1907–19: a partial portrait. *Proceedings of the Physical Society, London, Section A*, 64 (part 3)(375A):217–225, March 1, 1951. CODEN PPSAAM. ISSN 0370-1298 (print), 1747-3829 (electronic). URL <http://stacks.iop.org/0370-1298/64/i=3/a=301>. 5th Rutherford Lecture, delivered 8th December 1950.

**Russell:1956:FSI**

- [Rus56a] Alexander S. Russell. F. Soddy, interpreter of atomic structure. *Science*, 124(3231):1069–1070, November 30, 1956. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://science.sciencemag.org/content/124/3231/1069>.

**Russell:1956:FS**

- [Rus56b] Alexander S. Russell. [Frederick Soddy]. *Chemistry and Industry*, 47(??):1420–1421, ??? 1956. CODEN CHINAG. ISSN 0009-3068 (print), 2047-6329 (electronic).

**Russell:1961:FS**

- [Rus61] Alexander S. Russell. [Frederick Soddy]. In Eduard Farber, editor, *Great Chemists*, pages 1463–1468. Interscience Publishers, New York, NY, USA, 1961.

**Rutherford:1891:EE**

- [Rut91] Ernest Rutherford. Evolution of the elements. Talk given before the Science Society., 1891.

**Rutherford:1894:LMI**

- [Rut94] Ernest Rutherford. LIX. Magnetization of iron by high-frequency discharges. *Transactions and Proceedings of the New Zealand Institute*, 27:481–513, 1894. CODEN TRN-ZAS. ISSN 0035-9181. URL [http://rsnz.natlib.govt.nz/volume/rsnz\\_27/rsnz\\_27\\_00\\_003960.html](http://rsnz.natlib.govt.nz/volume/rsnz_27/rsnz_27_00_003960.html); <https://natlib.govt.nz/records/1042594>. Read before the Philosophical Institute of Canterbury, 7 November 1894.

**Rutherford:1895:XMV**

- [Rut95] Ernest Rutherford. XX. Magnetic viscosity. *Transactions of the New Zealand Institute*, 28:182–204, 1895. CODEN TRN-ZAS. ISSN 0035-9181. URL [http://rsnz.natlib.govt.nz/volume/rsnz\\_28/rsnz\\_28\\_00\\_001320.html](http://rsnz.natlib.govt.nz/volume/rsnz_28/rsnz_28_00_001320.html).

**Rutherford:1896:MDEb**

- [Rut96a] Ernest Rutherford. 3. A magnetic detector of electrical waves [abstract]. *British Association for the Advancement of Science, Report*, ??(?):724, September 21, 1896. CODEN BAASAX. ISSN 0365-8694. URL <http://biodiversitylibrary.org/page/30116954>. Report of the 66th Meeting, Liverpool, September 1896.

**Rutherford:1896:MDEa**

- [Rut96b] Ernest Rutherford. A magnetic detector of electrical waves and some of its applications. *Proceedings of the Royal Society of London*, 60(1):184–186, January 1, 1896. CODEN PRSLAZ. ISSN 0370-1662 (print), 2053-9126 (electronic).

**Rutherford:1897:XEG**

- [Rut97a] Ernest Rutherford. XXXV. On the electrification of gases exposed to Röntgen rays, and the absorption of Röntgen radiation by gases and vapours. *Philosophical Magazine (5)*, 43 (263):241–255, April 1897. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1897:MDE**

- [Rut97b] Ernest Rutherford, M.A. A magnetic detector of electrical waves and some of its applications. *Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 189(??):1–24, January 1897. CODEN PTRMAD, PTMSFB. ISSN 1364-503X (print), 1471-2962 (electronic).

**Rutherford:1897:LVR**

- [Rut97c] Ernest Rutherford, M.A., B.Sc. LIV. The velocity and rate of recombination of the ions of gases exposed to Röntgen radiation. *Philosophical Magazine (5)*, 44(270):422–440, November 1897. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786449708621085>.

**Rutherford:1898:DEU**

- [Rut98] Ernest Rutherford. The discharge of electrification by ultra-violet light. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 9(??):401–416, ??? 1898. CODEN PCPSA4. ISSN 0008-1981. URL <http://www.biodiversitylibrary.org/page/30529581>.

**Rutherford:1899:URE**

- [Rut99] Ernest Rutherford. VIII. Uranium radiation and the electrical conduction produced by it. *Philosophical Magazine (5)*, 47(284):109–163, January 1899. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1900:RPS**

- [Rut00a] Ernest Rutherford. Radioactivity produced in substances by the action of thorium compounds. *Philosophical Magazine (5)*, 49(297):161–192, February 1900. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1900:RRAa**

- [Rut00b] Ernest Rutherford. Reviews: A radio-active substance emitted from thorium compounds. *Journal of Physical Chemistry*, 5(1):89, 1900. CODEN JPCHAX. ISSN 0022-3654 (print), 1541-5740 (electronic).

**Rutherford:1900:RRAb**

- [Rut00c] Ernest Rutherford. Reviews: Radio-activity produced by the action of thorium compounds. *Journal of Physical Chemistry*, 5(1):90, 1900. CODEN JPCHAX. ISSN 0022-3654 (print), 1541-5740 (electronic).

**Rutherford:1900:RUR**

- [Rut00d] Ernest Rutherford. Reviews: Uranium radiation and the electrical conductivity produced by it. *Journal of Physical Chemistry*, 5(1):88, 1900. CODEN JPCHAX. ISSN 0022-3654 (print), 1541-5740 (electronic).

**Rutherford:1900:TER**

- [Rut00e] Ernest Rutherford. Über eine von Thoriumverbindungen emittierte radioaktive Substanz. (German) [On a radioactive substance emitted by thorium compounds]. *Physikalische Zeitschrift*, 1(32):347–348, May 12, 1900. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/mdp.39015068319667?urlappend=%3Bseq=365>.

**Rutherford:1900:XRP**

- [Rut00f] Ernest Rutherford. XI. Radioactivity produced in substances by the action of thorium compounds. *Philosophical Magazine (5)*, 49(297):161–192, February 1900. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1900:RAS**

- [Rut00g] Ernest Rutherford, M.A., B.Sc. I. A radio-active substance emitted from thorium compounds. *Philosophical Magazine (5)*, 49(296):1–14, January 1900. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440009463821>.

**Rutherford:1901:DEGb**

- [Rut01a] Ernest Rutherford. Discharge of electricity from glowing platinum and the velocity of the ions. *Physical Review (Series I)*,



13(6):321–344, December 1901. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://link.aps.org/doi/10.1103/PhysRevSeriesI.13.321>.

**Rutherford:1901:ETE**

- [Rut01b] Ernest Rutherford. Einfluss der Temperatur auf die Emanationen radioaktiver Substanzen. (German) [Influence of temperature on the emanations of radioactive substances]. *Physikalische Zeitschrift*, 2(??):429–431, 1901. CODEN PHZTAO. ISSN 0369-982X.

**Rutherford:1901:ERA**

- [Rut01c] Ernest Rutherford. Emanations from radio-active substances. *Nature*, 64(1650):157–158, June 13, 1901. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v64/n1650/pdf/064157a0.pdf>.

**Rutherford:1901:TER**

- [Rut01d] Ernest Rutherford. Transmission of excited radioactivity. *Bulletin of the American Physical Society*, 2:37–43, 1901. CODEN BAPSA6. ISSN 0003-0503. URL <https://books.google.com/books?id=w1PPAAAAMAAJ>.

**Rutherford:1901:XDC**

- [Rut01e] Ernest Rutherford, M.A. XVI. Dependence of the current through conducting gases on the direction of the electric field. *Philosophical Magazine (6)*, 2(8):210–228, August 1901. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440109462680>.

**Rutherford:1901:DEGa**

- [Rut01f] Ernest Rutherford, M.A., D.Sc. Discharge of electricity from glowing platinum. *Transactions of the Royal Society of Canada*, 7(Section III):27–33, May 23, 1901. CODEN TRSCAI. ISSN 0035-9122. URL <http://tinyurl.com/zsjq72y>; <http://www.biodiversitylibrary.org/page/10745153>.

**Rutherford:1902:LER**

- [Rut02a] Ernest Rutherford. LXXV. Excited radioactivity and ionization of the atmosphere. *Philosophical Magazine (6)*, 4(24):

704–723, December 1902. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1902:PRR**

- [Rut02b] Ernest Rutherford. Penetrating rays from radio-active substances. *Nature*, 66(1709):318–319, July 31, 1902. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v66/n1709/pdf/066318a0.pdf>.

**Rutherford:1902:SDS**

- [Rut02c] Ernest Rutherford. Sehr durchdringende Strahlen von radioaktiven Substanzen. (German) [Very penetrating rays from radioactive substances]. *Physikalische Zeitschrift*, 3(22):517–520, August 15, 1902. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/nyp.33433062733203?urlappend=%3Bseq=551>.

**Rutherford:1902:UER**

- [Rut02d] Ernest Rutherford. Übertragung erregter Radioaktivität. (German) [Transmission of excited radioactivity]. *Physikalische Zeitschrift*, 3(10):210–214, February 15, 1902. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/nyp.33433062733203?urlappend=%3Bseq=244>.

**Rutherford:1902:VER**

- [Rut02e] Ernest Rutherford. Versuche über erregte Radioaktivität. (German) [Experiments on excited radioactivity]. *Physikalische Zeitschrift*, 3(12):254–257, March 15, 1902. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/mdp.39015068320996?urlappend=%3Bseq=272>.

**Rutherford:1902:VEB**

- [Rut02f] Ernest Rutherford, M.A., D.Sc. VIII. The existence of bodies smaller than atoms. *Transactions of the Royal Society of Canada*, 8(Section III):79–86, May 27, 1902. CODEN TRSCAI. ISSN 0035-9122. URL <http://tinyurl.com/ou88zxd>; <http://www.biodiversitylibrary.org/page/10792013>.

**Rutherford:1903:AEH**

- [Rut03a] Ernest Rutherford. The amount of emanation and helium from radium. *Nature*, 68(1764):366–367, August 20, 1903.

CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v68/n1764/pdf/068366d0.pdf>.

**Rutherford:1903:MEA**

- [Rut03b] Ernest Rutherford. Die magnetische und elektrische Ablenkung der leicht absorbierbaren Radiumstrahlen. (German) [The magnetic and electric deflection of easily-absorbed radium rays]. *Physikalische Zeitschrift*, 4(8): 235–240, January 15, 1903. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/mdp.39015068320988?urlappend=%3Bseq=261>.

**Rutherford:1903:RAO**

- [Rut03c] Ernest Rutherford. Radio-activity of ordinary materials. *Nature*, 67(1744):511–512, April 2, 1903. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v67/n1744/pdf/067511e0.pdf>.

**Rutherford:1903:XRU**

- [Rut03d] Ernest Rutherford. XLIII. The radioactivity of uranium. *Philosophical Magazine (6)*, 5(28):441–445, April 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1903:XSR**

- [Rut03e] Ernest Rutherford. XLVII. Some remarks on radioactivity. *Philosophical Magazine (6)*, 5(28):481–485, April 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440309462946>.

**Rutherford:1903:XME**

- [Rut03f] Ernest Rutherford. XV. The magnetic and electric deviation of the easily absorbed rays from radium. *Philosophical Magazine (6)*, 5(26):177–187, February 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440309462912>.

**Rutherford:1903:LRP**

- [Rut03g] Professor Ernest Rutherford. LX. Radioactive processes [with discussion]. *Proceedings of the Physical Society, London*, 18 (??):595–600, ??? 1903. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://iopscience.iop.org/article/10.1088/1478-7814/18/1/360/>.

**Rutherford:1903:IER**

- [Rut03h] Ernest Rutherford, M.A., D.Sc. IV. Excited radioactivity and the method of its transmission. *Philosophical Magazine (6)*, 5(25):95–117, January 1903. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440309462900>.

**Rutherford:1904:ZRE**

- [Rut04a] Ernest Rutherford. Das Zerfallen der radioactiven Elemente. (German) [The disintegration of the radioactive elements]. *Fiz. Obezr. Varsava*, 5(5):202–213, ??? 1904.

**Rutherford:1904:UZR**

- [Rut04b] Ernest Rutherford. Der Unterschied zwischen radioaktiver und chemischer Verwandlung. (German) [the difference between radioactive and chemical transformation]. *Jahrbuch der Radioaktivität und Electronik*, 1(2):103–127, ??? 1904. CODEN JAREAS. ISSN 0368-1289. URL <https://archive.org/details/jahrbuchderradi00unkngoog>.

**Rutherford:1904:DRA**

- [Rut04c] Ernest Rutherford. Does the radio-activity of radium depend upon its concentration? *Nature*, 69(1784):222, January 7, 1904. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v69/n1784/pdf/069222c0.pdf>.

**Rutherford:1904:DRR**

- [Rut04d] Ernest Rutherford. Does the radioactivity of radium depend upon its concentration? *Physical Review*, 18(2):117–118, February 1904. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://journals.aps.org/pri/abstract/10.1103/PhysRevSeriesI.18.116>. Abstract of a paper presented at the meeting of the Physical Society held on December 30, 1903.

**Rutherford:1904:HERa**

- [Rut04e] Ernest Rutherford. Heating effect of the radium-emanation. *Transactions of the Australasian Association for the Advancement of Science*, 10(??):86–91, ??? 1904.

**Rutherford:1904:NRR**

- [Rut04f] Ernest Rutherford. Nature of the  $\gamma$  rays from radium. *Nature*, 69(1793):436–437, March 10, 1904. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v69/n1793/pdf/069436e0.pdf>.

**Rutherford:1904:RERa**

- [Rut04g] Ernest Rutherford. The radiation and emanation of radium. Part I. *Technics*, 2(7):11–16, July 1904.

**Rutherford:1904:RErb**

- [Rut04h] Ernest Rutherford. The radiation and emanation of radium. Part II. *Technics*, 2(8):171–175, August 1904.

**Rutherford:1904:SCR**

- [Rut04i] Ernest Rutherford. Succession of changes in radioactive bodies, 1904.

**Rutherford:1904:STP**

- [Rut04j] Professor Ernest Rutherford. Slow transformation products of radium. *Transactions of the International Electrical Congress St. Louis*, 1:285–301, 1904.

**Rutherford:1904:RA**

- [Rut04k] Ernest Rutherford, D.Sc., F.R.S., F.R.S.C. *Radio-activity*. Cambridge University Press, Cambridge, UK, 1904. x + 399 pp. LCCN ??? URL <http://www.biodiversitylibrary.org/ia/radioactivit00ruth>; <http://www.biodiversitylibrary.org/item/127262>.

**Rutherford:1904:BLS**

- [Rut04l] Ernest Rutherford, F.R.S. Bakerian Lecture: The succession of changes in radio-active bodies. *Proceedings of the Royal Society of London*, 73(495):493–496, May 27, 1904. CODEN PRSLAZ. ISSN 0370-1662 (print), 2053-9126 (electronic). Lecture delivered 19 May 1904.

**Rutherford:1904:DRE**

- [Rut04m] Ernest Rutherford, F.R.S. Disintegration of the radioactive elements. *Harper's Magazine*, 108(644):279–284, January 1904. CODEN HAMAA3. ISSN 1045-7143. URL <http://harpers.org/archive/1904/01/disintegration-of-the-radioactive-elements/>.

**Rutherford:1904:LST**

- [Rut04n] Ernest Rutherford, F.R.S. LXIII. Slow transformation products of radium. *Philosophical Magazine* (6), 8(47):636–650, November 1904. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440409463234>.

**Rutherford:1904:RERC**

- [Rut04o] Ernest Rutherford, M.A., D.Sc., F.R.S. The radiation and emanation of radium. *Scientific American*, 58 (1502 (supplement)):24073–24075, 24086–24088, October 15, 1904. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v58/n1502supp/index.html>.

**Rutherford:1905:CCR**

- [Rut05a] Ernest Rutherford. Charge carried by the  $\alpha$  rays from radium. *Nature*, 71(1844):413–414, March 2, 1905. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v71/n1844/pdf/071413c0.pdf>.

**Rutherford:1905:UZR**

- [Rut05b] Ernest Rutherford. Der Unterschied zwischen radioaktiver und chemischer Verwandlung. (German) [The difference between radioactive and chemical transformation]. *Fiz. Obezr., Varsava*, 6(??):20–40, ??? 1905.

**Rutherford:1905:PAR**

- [Rut05c] Ernest Rutherford. Les problèmes actuels de la radioactivité (Int Cong at St Louis Sep 1904). (French) [Current problems of radioactivity]. *Archives des Sciences Physiques et Naturelles*, 19(??):31–59, ??? 1905. CODEN ASPNA4. ISSN 0365-7116. URL <http://archive.org/stream/archivesdesscien419gen#page/n34/mode/1up>; <http://biodiversitylibrary.org/page/29632040>.

**Rutherford:1905:NRW**

- [Rut05d] Ernest Rutherford. Note on the radioactivity of weak radium solutions. *Philosophical Magazine* (6), 9(53):711–712, 1905. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). This note is embedded in the paper by A. S. Eve, *LXV. The properites of radium in minute quantities* in this issue, pages 708–712, doi:10.1080/14786440509463320.

**Rutherford:1905:PCR**

- [Rut05e] Ernest Rutherford. Positive charge of  $\alpha$  rays. *Electrical Review, New York*, 46(??):490, 1905.

**Rutherford:1905:PPR**

- [Rut05f] Ernest Rutherford. Present problems of radioactivity. *The Popular Science Monthly*, 67(??):5–34, May 1905. URL <http://www.biodiversitylibrary.org/page/1800385>; <https://archive.org/details/popularsciencemo67newy>. Shortened English version of [Rut05c] with new results.

**Rutherford:1905:PTL**

- [Rut05g] Ernest Rutherford. Produits de transformation lente du radium. (French) [Products of slow transformation from radium]. *Radium (Paris)*, 2(11):355–361, November 1905. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1905/11/radium\\_1905\\_\\_2\\_11\\_355\\_1/radium\\_1905\\_\\_2\\_11\\_355\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1905/11/radium_1905__2_11_355_1/radium_1905__2_11_355_1.html). Translation from English to French by Léon Bloch.

**Rutherford:1905:RA**

- [Rut05h] Ernest Rutherford. *Radio-activity*. Cambridge University Press, Cambridge, UK, second edition, 1905. xi + 558 pp. URL <http://archive.org/details/radioactivity00ruth>. Dedicated to “J. J. Thomson. A tribute of my respect and admiration.”.

**Rutherford:1905:STP**

- [Rut05i] Ernest Rutherford. Slow transformation products of radium. *Nature*, 71(1841):341–342, February 9, 1905. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v71/n1841/pdf/071341d0.pdf>.

**Rutherford:1905:AAE**

- [Rut05j] Professor Ernest Rutherford. Anmerkung [zu der Arbeit von A. S. Eve: Die Eigenschaften geringer Radiummengen]. (German) [Note on the work of A. S. Eve: The features of smaller quantities of radium]. *Physikalische Zeitschrift*, 6(9):269, May 1, 1905. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/njp.32101044932927?urlappend=%3Bseq=299>.

**Rutherford:1905:SPR**

- [Rut05k] Ernest Rutherford, F.R.S. I. Some properties of the  $\alpha$  rays from radium. *Transactions of the Royal Society of Canada*, 11(Section III):3–16, May 24, 1905. CODEN TRSCAI. ISSN 0035-9122. URL <http://tinyurl.com/j36rwnn>; <http://www.biodiversitylibrary.org/page/10738535>.

**Rutherford:1905:RCE**

- [Rut05l] Ernest Rutherford, F.R.S. Radium — the cause of the Earth's heat. *Harper's Magazine*, 110(657):390–396, February 1905. CODEN HAMAA3. ISSN 1045-7143. URL <http://harpers.org/archive/1905/02/radium-the-cause-of-the-earths-heat/>.

**Rutherford:1905:XSP**

- [Rut05m] Ernest Rutherford, F.R.S. XIX. Some properties of the  $\alpha$  rays from radium. *Philosophical Magazine (6)*, 10(55):163–176, July 1905. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440509463356>.

**Rutherford:1905:XCC**

- [Rut05n] Ernest Rutherford, F.R.S. XXV. Charge carried by the  $\alpha$  and  $\beta$  rays of radium. *Philosophical Magazine (6)*, 10(56):193–208, August 1905. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440509463363#.Vn8IdJSGipo>.

**Rutherford:1905:XST**

- [Rut05o] Ernest Rutherford, F.R.S. XXXVII. Slow transformation products of radium. *Philosophical Magazine (6)*, 10(57):



290–306, September 1905. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440509463376>.

**Rutherford:1905:BLS**

- [Rut05p] Professor Ernest Rutherford, F.R.S. Bakerian Lecture: The succession of changes in radio-active bodies. *Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 204(372–386):169–219, January 1905. CODEN PTRMAD, PTMSFB. ISSN 1364-503X (print), 1471-2962 (electronic). URL <http://www.jstor.org/stable/90915>. Lecture delivered 19 May 1904.

**Rutherford:1906:ARA**

- [Rut06a] Ernest Rutherford. Absorption of the radio-active emanations by charcoal. *Nature*, 74(1920):634, October 25, 1906. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://adsabs.harvard.edu/abs/1906Natur...74Q.634R>; <http://www.nature.com/nature/journal/v74/n1930/pdf/074634a0.pdf>.

**Rutherford:1906:DID**

- [Rut06b] Ernest Rutherford. Distribution de l'intensité du rayonnement des sources radioactives. (French) [Distribution of the intensity of the radiation from radioactive sources]. *Radium (Paris)*, 3(9):257–260, September 1906. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1906/09/radium\\_1906\\_\\_3\\_9\\_257\\_0/radium\\_1906\\_\\_3\\_9\\_257\\_0.html](http://radium.journaldephysique.org/articles/radium/abs/1906/09/radium_1906__3_9_257_0/radium_1906__3_9_257_0.html).

**Rutherford:1906:MED**

- [Rut06c] Ernest Rutherford. Magnetic and electric deflection of the  $\alpha$  rays from radium. *Physical Review (Series I)*, 22(2):122–123, February 1906. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://link.aps.org/doi/10.1103/PhysRevSeriesI.22.122>.

**Rutherford:1906:PPR**

- [Rut06d] Ernest Rutherford. Present problems of radioactivity. In *Congress of Arts and Science, Universal Exposition, St. Louis, 1904*, pages 157–186. ????, ????, 1906. Reprinted in [Rut86].

**Rutherford:1906:RTa**

- [Rut06e] Ernest Rutherford. *Radioactive Transformations*, volume 3 of *Mrs. Hepsa Ely Silliman Memorial Lectures*. Charles Scribner's Sons, New York, NY, USA, 1906. 287 (est.) pp. LCCN ????. URL <http://archive.org/details/radioactivetrans00ruth>. Lectures at Yale University, March 1905.

**Rutherford:1906:RTb**

- [Rut06f] Ernest Rutherford. *Radioactive Transformations*. Yale University Press, New Haven, CT, USA, 1906. ????. pp.

**Rutherford:1906:RRC**

- [Rut06g] Ernest Rutherford. The recent radium controversy. *Nature*, 74(1930):634–635, October 25, 1906. CODEN NAT-UAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL [www.nature.com/nature/journal/v74/n1930/pdf/074634b0.pdf](http://www.nature.com/nature/journal/v74/n1930/pdf/074634b0.pdf).

**Rutherford:1906:SPR**

- [Rut06h] Ernest Rutherford. Some properties of the  $\alpha$  rays from radium. II. *Physical Review (Series I)*, 22(2):123–125, February 1906. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://link.aps.org/doi/10.1103/PhysRevSeriesI.22.123>.

**Rutherford:1906:EES**

- [Rut06i] Ernest Rutherford. Über einige Eigenschaften der  $\alpha$ -Strahlen des Radiums. (German) [On some properties of  $\alpha$  rays of radium]. *Physikalische Zeitschrift*, 7(5):137–143, March 1, 1906. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/njp.32101044932919?urlappend=%3Bseq=167>.

**Rutherford:1906:XSP**

- [Rut06j] Ernest Rutherford. XIII. Some properties of the  $\alpha$  rays from radium. *Philosophical Magazine (6)*, 11(61):166–176, January 1906. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1906:XRV**

- [Rut06k] Ernest Rutherford. XLVI. The retardation of the velocity of the alpha particles in passing through matter. *Philo-*

*sophical Magazine (6)*, 11(64):553–554, 1906. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440609463470>.

**Rutherford:1906:XRP**

- [Rut06l] Ernest Rutherford, F.R.S. XIX. Retardation of the  $\alpha$  particle from radium in passing through matter. *Philosophical Magazine (6)*, 12(68):134–146, August 1906. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440609463525>.

**Rutherford:1906:XMV**

- [Rut06m] Ernest Rutherford, F.R.S. XLI. The mass and velocity of the  $\alpha$  particles expelled from radium and actinium. *Philosophical Magazine (6)*, 12(70):348–371, October 1906. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440609463549>.

**Rutherford:1906:XDI**

- [Rut06n] Ernest Rutherford, F.R.S. XXII. Distribution of the intensity of the radiation from radioactive sources. *Philosophical Magazine (6)*, 12(68):152–158, August 1906. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440609463528>.

**Rutherford:1907:RGR**

- [Rut07a] Ernest Rutherford. *Die Radioaktivität. (German) [Radioactivity]*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1907. viii + 597 pp. URL <http://archive.org/details/dieradioaktivitt00ruth>. Translation to German by Emil Aschkinass.

**Rutherford:1907:LPO**

- [Rut07b] Ernest Rutherford. LXXIII. The production and origin of radium. *Philosophical Magazine (6)*, 14(84):733–749, December 1907. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440709463736>.

**Rutherford:1907:ORa**

- [Rut07c] Ernest Rutherford. The origin of radium. *Nature*, 76(1962):126, June 6, 1907. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v76/n1962/pdf/076126a0.pdf>.

**Rutherford:1907:ORb**

- [Rut07d] Ernest Rutherford. Origin of radium. *Nature*, 76(1983):661, October 31, 1907. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v76/n1983/pdf/076661b0.pdf>.

**Rutherford:1907:PRA**

- [Rut07e] Ernest Rutherford. Production of radium from actinium. *Nature*, 75(1942):270–271, January 17, 1907. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v75/n1942/pdf/075270a0.pdf>. See [Bol06].

**Rutherford:1907:SCA**

- [Rut07f] Ernest Rutherford. Some cosmical aspects of radioactivity. *Journal of the Royal Astronomical Society of Canada*, 1(3):145–165, May–June 1907. CODEN JRASA2. ISSN 0035-872X. URL <http://adsabs.harvard.edu/abs/1907JRASC...1..145R>.

**Rutherford:1907:MGR**

- [Rut07g] Ernest Rutherford. Über Masse und Geschwindigkeit des von Radium und Aktinium ausgesandten  $\alpha$ -Teilchens. (German) [On the mass and velocity of  $\alpha$ -particles emitted by radium and actinium]. *Jahrbuch der Radioaktivität und Elektronik*, 4(??):1–6, 1907. CODEN JAREAS. ISSN 0368-1289.

**Rutherford:1907:VEP**

- [Rut07h] Ernest Rutherford. Vitesse et énergie des particules  $\alpha$  des substances radioactives. (French) [Velocity and energy of  $\alpha$  particles from radioactive substances]. *Radium (Paris)*, 4(2):84–87, February 1907. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1907/02/radium\\_1907\\_\\_4\\_2\\_84\\_1/radium\\_1907\\_\\_4\\_2\\_84\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1907/02/radium_1907__4_2_84_1/radium_1907__4_2_84_1.html). Translation from English to French by Léon Bloch.

**Rutherford:1907:PORb**

- [Rut07i] Professor Ernest Rutherford, D.Sc., F.R.S. The production and origin of radium. *Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 52(6):v–vii, October 29, 1907. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10273394>.

**Rutherford:1907:VVE**

- [Rut07j] Ernest Rutherford, F.R.S. V. The velocity and energy of the  $\alpha$  particles from radioactive substances. *Philosophical Magazine (6)*, 13(73):110–117, January 1907. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440709463587>.

**Rutherford:1907:PORa**

- [Rut07k] Professor Ernest Rutherford, F.R.S. The production and origin of radium. *British Association for the Advancement of Science, Report*, ??(??):456, August 1, 1907. CODEN BAASAX. ISSN 0365-8694. URL <http://biodiversitylibrary.org/page/29717619>. Report of 77th Meeting, Leicester, 31 July–7 August, 1907.

**Rutherford:1908:CNA**

- [Rut08a] Ernest Rutherford. The chemical nature of the alpha particles from radioactive substances. Nobel Lecture, December 11, 1908. URL [http://www.nobelprize.org/nobel\\_prizes/chemistry/laureates/1908/rutherford-lecture.html](http://www.nobelprize.org/nobel_prizes/chemistry/laureates/1908/rutherford-lecture.html).

**Rutherford:1908:URB**

- [Rut08b] Ernest Rutherford. Der Ursprung des Radiums (Bericht). (German) [The origin of radium (report)]. *Jahrbuch der Radioaktivität und Elektronik*, 5(2):153–166, 1908. CODEN JAREAS. ISSN 0368-1289.

**Rutherford:1908:LNTa**

- [Rut08c] Ernest Rutherford. Die Ladung und Natur des  $\alpha$ -Teilchens. (German) [the charge and nature of  $\alpha$  particles]. *Jahrbuch der Radioaktivität und Elektronik*, 5(??):408–423, 1908. CODEN JAREAS. ISSN 0368-1289.

**Rutherford:1908:LNTb**

- [Rut08d] Ernest Rutherford. Die Ladung und Natur des  $\alpha$ -Teilchens. (German) [the charge and nature of  $\alpha$  particles]. *Radium (Paris)*, 6(9):265–271, September 1908. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1909/09/radium\\_1909\\_\\_6\\_9\\_257\\_0/radium\\_1909\\_\\_6\\_9\\_257\\_0.html](http://radium.journaldephysique.org/articles/radium/abs/1909/09/radium_1909__6_9_257_0/radium_1909__6_9_257_0.html).

**Rutherford:1908:DEG**

- [Rut08e] Ernest Rutherford. The discharge of electricity from glowing bodies. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, ??(??):343–344, December 11, 1908. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1908:NCP**

- [Rut08f] Ernest Rutherford. The nature and charge of the  $\alpha$  particles from radioactive substances. *Nature*, 79(2036):12–15, November 5, 1908. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL [www.nature.com/nature/journal/v79/n2036/pdf/079012a0.pdf](http://www.nature.com/nature/journal/v79/n2036/pdf/079012a0.pdf).

**Rutherford:1908:RAR**

- [Rut08g] Ernest Rutherford. Recent advances in radioactivity (RI Talk 31 Jan 1908). *Nature*, 77(2001):422–426, March 5, 1908. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v77/n2001/pdf/077422a0.pdf>. Report of a joint lecture with Hans Geiger, *A method of counting  $\alpha$  particles*, given to the Manchester Literary and Philosophical Society in February 1908. According to [Coh88, page 29], “the definitive paper on the Geiger counter was presented to the Royal Society on June 18, 1908 and published in [RG08a].”.

**Rutherford:1908:XER**

- [Rut08h] Ernest Rutherford. XXIII. Experiments with the radium emanation. (1). The volume of the emanation. *Philosophical Magazine (6)*, 16(92):300–312, August 1908. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440808636510>.

**Rutherford:1908:ISP**

- [Rut08i] Ernest Rutherford, F.R.S. II. Some properties of the radium emanation. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 53 (2):1–2, November 19, 1908. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10332054>.

**Rutherford:1909:BPR**

- [Rut09a] Ernest Rutherford. The boiling point of the radium emanation. *Nature*, 79(2051):457–458, February 18, 1909. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v79/n2051/pdf/079457c0.pdf>.

**Rutherford:1909:ATPa**

- [Rut09b] Ernest Rutherford. Die Atom-Theorie in der Physik. (German) [Atomic theory in physics]. *Naturwissenschaftliche Rundschau*, 24(38):481–485, September 23, 1909. CODEN NARSAC. ISSN 0028-1050. URL <http://tinyurl.com/ju9juxa>.

**Rutherford:1909:ATPb**

- [Rut09c] Ernest Rutherford. Die Atom-Theorie in der Physik. (German) [Atomic theory in physics]. *Naturwissenschaftliche Rundschau*, 24(39):496–501, September 30, 1909. CODEN NARSAC. ISSN 0028-1050. URL <http://tinyurl.com/gnnttvu>.

**Rutherford:1909:NFA**

- [Rut09d] Ernest Rutherford. Die neuesten Fortschritte der Atomistik. (German) [The latest advances of atomism]. *Phys. Zeits.*, 10 (??):762–771, ??? 1909.

**Rutherford:1909:OAS**

- [Rut09e] Ernest Rutherford. Opening address to Section A of the British Association at Winnipeg, 1909. *Nature*, 81(2078):257–263, August 26, 1909. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v81/n2078/abs/081248a0.html>.

**Rutherford:1909:VAR**

- [Rut09f] Ernest Rutherford. V. The action of the  $\alpha$  rays on glass. *Memoirs and Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 54(5):1, December 24, 1909. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10286942>.

**Rutherford:1909:VA**

- [Rut09g] Ernest Rutherford. Visualizing the atom. I. *Scientific American*, 68(1759 (supplement)):178–179, 1909. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v68/n1759supp/full/scientificamerican09181909-178supp.html>.

**Rutherford:1909:VAI**

- [Rut09h] Ernest Rutherford. Visualizing the atom. II. *Scientific American*, 68(1760 (supplement)):202–203, 1909. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v68/n1760supp/full/scientificamerican09251909-202supp.html>.

**Rutherford:1909:APM**

- [Rut09i] Professor Ernest W. Rutherford. Address of the President of the Mathematical and Physical Section. *Science*, 30(766):289–302, September 3, 1909. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1909Sci...30..289R>; <http://www.sciencemag.org/content/30/766/289>.

**Rutherford:1909:LCR**

- [Rut09j] Ernest Rutherford, F.R.S. LXVII. Condensation of the radium emanation. *Philosophical Magazine (6)*, 17(101):723–729, May 1909. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440508636648>.

**Rutherford:1909:ATD**

- [Rut09k] President of the Section Professor Ernest Rutherford, M.A., D.Sc., F.R.S. Atomic theory and the determination of



atomic magnitudes. *British Association for the Advancement of Science, Report*, ??(??):373–385, August 1909. CODEN BAASAX. ISSN 0365-8694. URL <http://biodiversitylibrary.org/page/29718566>. Report of the 79th Meeting, Winnipeg, August 25–September 1, 1909.

**Rutherford:1909:RAR**

- [Rut09l] Professor Ernest Rutherford, M.A., LL.D., D.Sc., F.R.S. Recent advances in radioactivity. *Chemical News and Journal of Physical Science*, 99(2576, 2577):171–174, 181–183, April 8, 16, 1909. CODEN CHNWAY. URL <http://archive.org/stream/chemicalnewsjour99londonoft#page/171/mode/1up>.

**Rutherford:1910:EAMa**

- [Rut10a] Ernest Rutherford. Existieren die Atome, Molekeln und Elektronen?. (German) [Do atoms, molecules and electrons exist?]. *Umschau*, 14(??):341–344, 1910.

**Rutherford:1910:EAMb**

- [Rut10b] Ernest Rutherford. Existieren die Atome, Molekeln und Elektronen?. (German) [Do atoms, molecules and electrons exist?]. *Umschau*, 14(??):369–372, 1910.

**Rutherford:1910:PPa**

- [Rut10c] Ernest Rutherford. Properties of polonium. *Nature*, 82(2104):491–492, February 24, 1910. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v82/n2104/pdf/082491a0.pdf>.

**Rutherford:1910:PPb**

- [Rut10d] Ernest Rutherford. Properties of polonium. *Scientific American*, 102(14):288–289, April 2, 1910. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://adsabs.harvard.edu/abs/1910SciAm.102..288R>; <http://www.nature.com/scientificamerican/journal/v102/n14/pdf/scientificamerican04021910-288.pdf>.

**Rutherford:1910:RSN**

- [Rut10e] Ernest Rutherford. Radium standards and nomenclature. *Nature*, 84(2136):430–431, October 6, 1910. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (elec-

tronic). URL <http://www.nature.com/nature/journal/v84/n2136/pdf/084430a0.pdf>.

**Rutherford:1910:TLP**

- [Rut10f] Ernest Rutherford. Theory of the luminosity produced in certain substances by  $\alpha$ -rays. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 83(566):561–572, May 11, 1910. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Rutherford:1910:XAR**

- [Rut10g] Professor Ernest Rutherford, F.R.S. XVI. Action of the  $\alpha$  rays on glass. *Philosophical Magazine (6)*, 19(109):192–194, January 1910. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440108636788>.

**Rutherford:1911:CTR**

- [Rut11a] Ernest Rutherford. Conference on the theory of radiation. *Nature*, 88(2194):82–83, November 16, 1911. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://adsabs.harvard.edu/abs/1911Natur...88...82R>; <http://www.nature.com/nature/journal/v88/n2194/pdf/088082a0.pdf>.

**Rutherford:1911:ISR**

- [Rut11b] Ernest Rutherford. *An international standard of radium*. Akademische Verlagsgesellschaft, Leipzig, Germany, 1911. ??? pp. LCCN ???

**Rutherford:1911:RTb**

- [Rut11c] Ernest Rutherford. *Radioactive Transformations*. Yale University Press, New Haven, CT, USA, 1911. 287 (est.) pp.

**Rutherford:1911:RTa**

- [Rut11d] Ernest Rutherford. Radioactivity of thorium. *Journal of the Röntgen Society*, 7(?):23–30, ??? 1911.

**Rutherford:1911:RDV**

- [Rut11e] Ernest Rutherford. *Radiumnormalmasse und deren Verwendung bei radioaktiven Messungen. (German) [Normal radium measurements and their use in radioactive measure-*

ments]. Akademische Verlags-Gesellschaft, Leipzig, Germany, 1911. 45 pp. LCCN ????

**Rutherford:1911:RN**

[Rut11f] Ernest Rutherford. Research note. *Athenaeum*, ??(?):??, ??? 1911.

**Rutherford:1911:TR**

[Rut11g] Ernest Rutherford. The transformation of radium. *Journal of the Society of Chemical Industry, London*, 30(11):3–14, May 31, 1911. CODEN JSCIAN. ISSN 0368-4075.

**Rutherford:1911:VUR**

[Rut11h] Ernest Rutherford. VII. Untersuchungen über die Radiumemanation. II. Die Umwandlungsgeschwindigkeit. (German) [VII. Investigations of radium. II. The conversion speed]. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse*, 120(1):303–312, March 16, 1911. CODEN SWWPAX. ISSN 0376-2629. URL <http://tinyurl.com/j6vfqkg>.

**Rutherford:1911:LSP**

[Rut11i] Professor Ernest Rutherford, F.R.S. LXXIX. The scattering of  $\alpha$  and  $\beta$  particles by matter and the structure of the atom. *Philosophical Magazine* (6), 21(125):669–688, May 1911. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.math.ubc.ca/~cass/rutherford/rutherford669.html>; <http://www.tandfonline.com/doi/abs/10.1080/14786440508637080>. Reprinted in [Rut12].

**Rutherford:1911:SRS**

[Rut11j] Professor Ernest Rutherford, F.R.S. The scattering of the  $\alpha$  and  $\beta$  rays and the structure of the atom. *Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 55(??):xviii–xx, March 7, 1911. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/10270241>.

**Rutherford:1912:LDC**

[Rut12a] Ernest Rutherford. *Lectures delivered at the celebration of the twentieth anniversary of the foundation of Clark University*,

September 7–11, 1909. *The history of the alpha rays from radioactive substances*. Clark University, Worcester, MA, USA, 1912. iv + 161 pp.

**Rutherford:1912:LRS**

- [Rut12b] Ernest Rutherford. Sur l'origine des rayons  $\beta$  et  $\gamma$  des substances radioactives. (French) [On the origin of  $\beta$  and  $\gamma$  rays from radioactive substances]. *Radium (Paris)*, 9(10):337–341, October 1912. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1912/10/radium\\_1912\\_\\_9\\_10\\_337\\_0/radium\\_1912\\_\\_9\\_10\\_337\\_0.html](http://radium.journaldephysique.org/articles/radium/abs/1912/10/radium_1912__9_10_337_0/radium_1912__9_10_337_0.html).

**Rutherford:1912:ORS**

- [Rut12c] Ernest Rutherford. Sur l'origine des rayons  $\beta$  et  $\gamma$  des substances radioactives. note additionnelle au précédent mémoire. (French) [On the origin of  $\beta$  and  $\gamma$  rays of radioactive substances. Additional note on the preceding paper]. *Radium (Paris)*, 9(11):399, November 1912. CODEN RADMA2. ISSN 0370-3223 (print), 2437-2455 (electronic). URL [http://radium.journaldephysique.org/articles/radium/abs/1912/11/radium\\_1912\\_\\_9\\_11\\_399\\_1/radium\\_1912\\_\\_9\\_11\\_399\\_1.html](http://radium.journaldephysique.org/articles/radium/abs/1912/11/radium_1912__9_11_399_1/radium_1912__9_11_399_1.html).

**Rutherford:1912:TR**

- [Rut12d] Ernest Rutherford. The transformation of radium. *Journal of the Society of Chemical Industry, London*, 31(13):659–662, July 15, 1912. CODEN JSCIAN. ISSN 0368-4075. URL <http://onlinelibrary.wiley.com/doi/10.1002/jctb.5000311301/abstract>.

**Rutherford:1912:XEG**

- [Rut12e] Ernest Rutherford. XCVIII. On the energy of the group of  $\beta$  rays from radium. *Philosophical Magazine (6)*, 24(144):893–894, 1912. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441208634886>.

**Rutherford:1912:CEP**

- [Rut12f] Ernest Rutherford, F.R.S. The chemical-effects produced by the radiations from active matter. *British Medical Journal*, 2(2694):371–373, August 17, 1912. CODEN BMJOAE. ISSN

0007-1447. URL <http://www.bmj.com/content/2/2694/353.full.pdf+html>; <http://www.jstor.org/stable/25298231>.

**Rutherford:1912:RST**

- [Rut12g] Ernest Rutherford, F.R.S. *Radioactive substances and their radiations*. Cambridge University Press, Cambridge, UK, 1912. viii + 699 pp. LCCN ????

**Rutherford:1912:XOR**

- [Rut12h] Ernest Rutherford, F.R.S. XLIII. The origin of  $\beta$  and  $\gamma$  rays from radioactive substances. *Philosophical Magazine* (6), 24 (142):453–462, October 1912. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786441008637351>.

**Rutherford:1913:BRS**

- [Rut13a] Ernest Rutherford. The British radium standard. *Nature*, 92 (2301):402–403, December 4, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v92/n2301/pdf/092402c0.pdf>.

**Rutherford:1913:HRR**

- [Rut13b] Ernest Rutherford. *Handbuch der Radiologie. 2. Radioaktive Substanzen und ihre Strahlungen. (German) [Handbook of radiology. 2. Radioactive substances and their radiations]*. Akademie-Verlag, Berlin, Germany, 1913. ix + 642 pp. LCCN ????. Translation to German by Adolf Bestelmeyer.

**Rutherford:1913:ICSa**

- [Rut13c] Ernest Rutherford. International Conference on the Structure of Matter. *Nature*, 92(2299):347, November 20, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://adsabs.harvard.edu/abs/1913Natur...92..347R>; <http://www.nature.com/nature/journal/v92/n2299/pdf/092347b0.pdf>.

**Rutherford:1913:ICsb**

- [Rut13d] Ernest Rutherford. International Conference on the Structure of Matter. *Science*, 38(988):806–807, December 5, 1913. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1913Sci>.

...38..806R; <http://www.sciencemag.org/content/38/988/806>.

**Rutherford:1913:NIP**

- [Rut13e] Ernest Rutherford. A new International Physical Institute. *Nature*, 90(2255):545–546, January 16, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v90/n2255/pdf/090545a0.pdf>.

**Rutherford:1913:RAS**

- [Rut13f] Ernest Rutherford. *Radio-active substances and their radiations*. Cambridge University Press, Cambridge, UK, 1913. vii + 699 pp. See review by J. W. Strutt, *Nature* **91**, 28–29 (13 March 1913), doi:10.1038/091028a0.

**Rutherford:1913:RSI**

- [Rut13g] Ernest Rutherford. *Radioaktive Substanzen und ihre Strahlungen. (German) [Radioactive substances and their radiations]*, volume 2 of *Handbuch der Radiologie*. Akademische Verlagsgesellschaft, Leipzig, Germany, 1913. ix + 642 pp. LCCN ????

**Rutherford:1913:SA**

- [Rut13h] Ernest Rutherford. The structure of the atom. *Nature*, 92 (2302):423, December 11, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v92/n2302/pdf/092423a0.pdf>.

**Rutherford:1913:URA**

- [Rut13i] Ernest Rutherford. Uniformity in radio-active nomenclature. *Nature*, 91(2278):424, June 26, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://adsabs.harvard.edu/abs/1913Natur...91..424R>; <http://www.nature.com/nature/journal/v91/n2278/pdf/091424a0.pdf>.

**Rutherford:1914:SAM**

- [Rut14a] Ernest Rutherford. The structure of atoms and molecules. Abstract of a discussion at the British Association, August 18, 1914.

**Rutherford:1914:SAa**

- [Rut14b] Ernest Rutherford. The structure of the atom. *Scientia (Milan)*, 16(38):337–351, S143–S159 (French translation), 1914. CODEN SCIMAI. ISSN 0036-8687 (print), 1825-4373 (electronic).

**Rutherford:1914:SAb**

- [Rut14c] Ernest Rutherford. The structure of the atom. *Philosophical Magazine (6)*, 27(159):488–498, March 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440308635117>.

**Rutherford:1914:DSA**

- [Rut14d] Sir Ernest Rutherford. Discussion on the structure of atoms and molecules. *British Association for the Advancement of Science, Report*, 293–294, 301, August 18, 1914. CODEN BAASAX. ISSN 0365-8694. URL <http://biodiversitylibrary.org/page/30399786>. Report of the 84th Meeting, Australia, July 28–August 1931, 1914.

**Rutherford:1914:LSA**

- [Rut14e] Sir Ernest Rutherford. LVII. The structure of the atom. *Philosophical Magazine (6)*, 27(159):488–498, March 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1914:XWL**

- [Rut14f] Sir Ernest Rutherford. XCIV. The wave-length of the soft  $\gamma$  rays from radium B. *Philosophical Magazine (6)*, 27(161):854–868, May 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1914:XSP**

- [Rut14g] Sir Ernest Rutherford. XXXI. The spectrum of the penetrating  $\gamma$  rays from radium B and radium C. *Philosophical Magazine (6)*, 28(164):263–273, August 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1914:XSR**

- [Rut14h] Sir Ernest Rutherford. XXXIV. Spectrum of the  $\beta$  rays excited by  $\gamma$  rays. *Philosophical Magazine (6)*, 28(164):281–286,

August 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1914:XCB**

- [Rut14i] Sir Ernest Rutherford. XXXVII. The connexion between the  $\beta$  and  $\gamma$  ray spectra. *Philosophical Magazine* (6), 28(165): 305–319, September 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1914:XRC**

- [Rut14j] Sir Ernest Rutherford. XXXVIII. Radium constants on the international standard. *Philosophical Magazine* (6), 28(165): 320–327, September 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1914:CBR**

- [Rut14k] Sir Ernest Rutherford, F.R.S. The connexion between the  $\beta$  and  $\gamma$  ray spectra. *Philosophical Magazine* (6), 28(165): 305–319, September 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908635214>.

**Rutherford:1914:RCI**

- [Rut14l] Sir Ernest Rutherford, F.R.S. Radium constants on the International Standard. *Philosophical Magazine* (6), 28(165): 320–327, ??? 1914. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908635215>.

**Rutherford:1915:EFC**

- [Rut15a] Ernest Rutherford. Exhibition of fine crystals of autunite. *Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 59(?):xvii, March 9, 1915. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/35770878>.

**Rutherford:1915:EPC**

- [Rut15b] Ernest Rutherford. [experiments on piezoelectric crystals]. Secret report, Board of Inventions and Research, London, UK, 1915. Cited in [Wil83a, page 358].



**Rutherford:1915:HGJ**

- [Rut15c] Ernest Rutherford. Henry Gwyn Jeffreys Moseley. *Nature*, 96(2393):33–34, September 9, 1915. CODEN NAT-UAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://adsabs.harvard.edu/abs/1915Natur...96...33R>; <http://www.nature.com/nature/journal/v96/n2393/pdf/096033b0.pdf>. Obituary for Harry Moseley, killed in the Battle of Gallipoli in Turkey on 10 August 1915, in a counterattack led by Kemal Atatürk (later founder, and first President, of the Republic of Turkey).

**Rutherford:1915:MCS**

- [Rut15d] Ernest Rutherford. On methods of collection of sound from water and the determination of the direction of sound. Secret report, Board of Inventions and Research, London, UK, September 30, 1915. Cited in [Wil83a, pages 351 and 614].

**Rutherford:1915:OSG**

- [Rut15e] Ernest Rutherford. Origin of the spectra given by beta and gamma rays of radium. *Proceedings of the Manchester Literary and Philosophical Society (Manchester Memoirs)*, 59(??):xvii–xix, March 9, 1915. CODEN MPMLAQ. ISSN 0076-3721. URL <http://biodiversitylibrary.org/page/35770878>.

**Rutherford:1915:PWD**

- [Rut15f] Ernest Rutherford. [possible ways of detecting submarines]. Secret report, Board of Inventions and Research, London, UK, 1915. Cited in [Wil83a, page 357].

**Rutherford:1915:REAb**

- [Rut15g] Ernest Rutherford. Radiations from exploding atoms. *Engineering (London, UK)*, 99(??):657–659, ??? 1915. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1915:REAc**

- [Rut15h] Ernest Rutherford. Radiations from exploding atoms. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, 75(??):363–364, ??? 1915. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1915:REAA**

- [Rut15i] Ernest Rutherford. Radiations from exploding atoms (ri talk 4 jun 1915). *Nature*, 95(2383):494–498, July 1, 1915. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v95/n2383/pdf/095494b0.pdf>.

**Rutherford:1915:URa**

- [Rut15j] Ernest Rutherford. [unknown: report 1 on submarine warfare]. Secret report, Board of Inventions and Research, London, UK, 1915. Cited in [Wil83a, pages 348 and 614].

**Rutherford:1915:URb**

- [Rut15k] Ernest Rutherford. [unknown: report 2 on submarine warfare]. Secret report, Board of Inventions and Research, London, UK, 1915. Cited in [Wil83a, pages 348 and 614].

**Rutherford:1915:URc**

- [Rut15l] Ernest Rutherford. [unknown: report 3 on submarine warfare]. Secret report, Board of Inventions and Research, London, UK, 1915. Cited in [Wil83a, pages 348 and 614].

**Rutherford:1915:CMEa**

- [Rut15m] Professor Sir Ernest Rutherford, F.R.S. The constitution of matter and the evolution of the elements. *Smithsonian Institution, Annual Report*, pages 167–202, 1915. CODEN SIAPAT. ISSN 0097-644X. URL <http://www.biodiversitylibrary.org/item/53518#page/197/>.

**Rutherford:1915:CMEb**

- [Rut15n] Professor Sir Ernest Rutherford, F.R.S. The constitution of matter and the evolution of the elements. *The Popular Science Monthly*, 87(??):105–142, ??? 1915.

**Rutherford:1916:HGJ**

- [Rut16a] Ernest Rutherford. H. G. J. Moseley 1887–1915. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 93A:xxii–xxviii, 1916. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Rutherford:1916:REA**

- [Rut16b] Ernest Rutherford. Radiations from exploding atoms. *Scientific American*, 82(2116 (supplement)):52–53, ??? 1916. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v82/n2116supp/full/scientificamerican07221916-52supp.html>.

**Rutherford:1916:XRS**

- [Rut16c] Ernest Rutherford. X-ray spectra of the elements. *Engineering (London, UK)*, 101(?):320–??, ??? 1916. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1916:XLR**

- [Rut16d] Sir Ernest Rutherford. XLIII. Long-range alpha particles from thorium. *Philosophical Magazine (6)*, 31(184):379–386, April 1916. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1916:PNA**

- [Rut16e] Sir Ernest Rutherford, F.R.S. Preliminary note about a novel method of measuring the amplitude of vibration of a diaphragm and the generation of underwater supersonic waves. Report, Admiralty Board of Invention and Research, London, UK, September 28, 1916.

**Rutherford:1917:XPP**

- [Rut17] Sir Ernest Rutherford, F.R.S. XVII. Penetrating power of the X radiation from a Coolidge tube. *Philosophical Magazine (6)*, 34(201):153–162, September 1917. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908635691>.

**Rutherford:1918:XR**

- [Rut18] Ernest Rutherford. X-rays. *Journal of the Röntgen Society*, 14(?):75–86, July 1918.

**Rutherford:1919:APT**

- [Rut19a] Ernest Rutherford. Atomic projectiles and their collisions with light atoms. *Science*, 50(1299):467–473, November 21,

1919. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1642276>.

**Rutherford:1919:CPL**

- [Rut19b] Ernest Rutherford. Collision of  $\alpha$ -particles with light atoms. *Nature*, 103(2595):415–418, July 24, 1919. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v103/n2595/pdf/103415a0.pdf>.

**Rutherford:1919:HNC**

- [Rut19c] Ernest Rutherford. The history and needs of the Cavendish Laboratory. Report, Cambridge University, Cambridge, UK, 1919. Cited in [Wil83a, page 415].

**Rutherford:1919:RE**

- [Rut19d] Ernest Rutherford. Radium and the electron. *Nature*, 104(2610):226–230, November 6, 1919. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v104/n2610/pdf/104226a0.pdf>.

**Rutherford:1919:LCPa**

- [Rut19e] Professor Sir Ernest Rutherford, F.R.S. LI. Collision of  $\alpha$  particles with light atoms I. Hydrogen. *Philosophical Magazine (6)*, 37(222):537–561, 1919. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1919:LCPb**

- [Rut19f] Professor Sir Ernest Rutherford, F.R.S. LII. Collision of  $\alpha$  particles with light atoms II. Velocity of the hydrogen atoms. *Philosophical Magazine (6)*, 37(222):562–571, June 1919. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic).

**Rutherford:1919:LCPc**

- [Rut19g] Professor Sir Ernest Rutherford, F.R.S. LIII. Collision of  $\alpha$  particles with light atoms. III. Nitrogen and oxygen atoms. *Philosophical Magazine (6)*, 37(222):571–580, June 1919. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440608635918>.

**Rutherford:1919:LCPd**

- [Rut19h] Professor Sir Ernest Rutherford, F.R.S. LIV. Collision of  $\alpha$  particles with light atoms. IV. An anomalous effect in nitrogen. *Philosophical Magazine (6)*, 37(222):581–587, June 1919. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440608635919>. Reprinted in [Rut10a].

**Rutherford:1920:BA**

- [Rut20a] Ernest Rutherford. The building up of atoms. *Engineering (London, UK)*, 110(??):382, ??? 1920. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1920:EMPa**

- [Rut20b] Ernest Rutherford. Electricity and matter [Part I]. *Engineering (London, UK)*, 111(??):296–297, March 1920. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1920:EMPb**

- [Rut20c] Ernest Rutherford. Electricity and matter [Part II]. *Engineering (London, UK)*, 111(??):345–347, March 1920. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1920:EMPc**

- [Rut20d] Ernest Rutherford. Electricity and matter [Part III]. *Engineering (London, UK)*, 111(??):379–381, April 1920. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1920:NCA**

- [Rut20e] Ernest Rutherford. Nuclear constitution of atoms. *Nature*, 105(2642):500–501, June 17, 1920. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v105/n2642/pdf/105500b0.pdf>.

**Rutherford:1920:SA**

- [Rut20f] Sir Ernest Rutherford. The stability of atoms. *Proceedings of the Physical Society, London*, 33(1):389–394, December 1920. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://adsabs.harvard.edu/abs/1920PPSL...33..389R>; <http://iopscience.iop.org/article/10.1088/1478-7814/33/1/337/>; <http://stacks.iop.org/1478-7814/33/i=1/a=337>.

**Rutherford:1920:BLN**

- [Rut20g] Sir Ernest Rutherford, F.R.S. Bakerian Lecture: Nuclear constitution of atoms. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 97(686): 374–400, July 1, 1920. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic). URL <http://web.lemoyne.edu/~giunta/ruth1920.html>; <http://www.jstor.org/stable/93888>.

**Rutherford:1921:EMPa**

- [Rut21a] Ernest Rutherford. Electricity and matter. [Part I]. *Engineering (London, UK)*, 111(??):296–297, ??? 1921. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1921:EMPb**

- [Rut21b] Ernest Rutherford. Electricity and matter. [Part II]. *Engineering (London, UK)*, 111(??):345–347, ??? 1921. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1921:EMPc**

- [Rut21c] Ernest Rutherford. Electricity and matter. [Part III]. *Engineering (London, UK)*, 111(??):379–381, ??? 1921. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1921:KAR**

- [Rut21d] Ernest Rutherford. *Über die Kernstruktur der Atome : Baker-Vorlesung. (German) [The nuclear structure of atoms: aker Lecture]*. S. Hirzel, Leipzig, Germany, 1921. iii + 35 + 4 pp. LCCN ??? Translation to German by Else Norst of [Rut20g].

**Rutherford:1921:XCP**

- [Rut21e] Ernest Rutherford. XXVIII. On the collision of  $\alpha$  particles with hydrogen atoms. *Philosophical Magazine (6)*, 41(242):307–308, ??? 1921. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786442108636223>.

**Rutherford:1921:SA**

- [Rut21f] Sir Ernest Rutherford. Stability of atoms. *Proceedings of the Physical Society, London*, 33(1):389–394, ??? 1921. CODEN PPSOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://iopscience.iop.org/article/10>.

1088/1478-7814/33/1/337; <http://stacks.iop.org/1478-7814/33/i=1/a=337>.

**Rutherford:1921:LML**

- [Rut21g] Sir Ernest Rutherford, F.R.S. LI. The mass of the long-range particles from thorium C. *Philosophical Magazine* (6), 41(244):570–574, April 1921. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786442108636248>.

**Rutherford:1921:RE**

- [Rut21h] Sir Ernest Rutherford, F.R.S. Radium and the electron. *Smithsonian Institution, Annual Report*, pages 193–203, 1921. CODEN SIAPAT. ISSN 0097-644X. URL <http://biodiversitylibrary.org/page/47763583>; <http://www.biodiversitylibrary.org/page/29986939>. For year ending 30 June 1919.

**Rutherford:1922:ADEa**

- [Rut22a] Ernest Rutherford. Artificial disintegration of the elements. *Nature*, 109(2740):584–586, May 6, 1922. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v109/n2740/pdf/109584a0.pdf>.

**Rutherford:1922:ADEb**

- [Rut22b] Ernest Rutherford. Artificial disintegration of the elements. *Nature*, 109(2741):614–617, May 13, 1922. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v109/n2741/pdf/109614a0.pdf>.

**Rutherford:1922:ADEc**

- [Rut22c] Ernest Rutherford. Artificial disintegration of the elements. *Journal of the Chemical Society, Transactions*, 121(?):400–415, 1922. CODEN JCHTA3. ISSN 0368-1645 (print), 2050-5450 (electronic).

**Rutherford:1922:DE**

- [Rut22d] Ernest Rutherford. Disintegration of elements. *Nature*, 109(2735):418, April 1, 1922. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www>.

nature.com/nature/journal/v109/n2735/pdf/109418a0.pdf.

**Rutherford:1922:EMa**

- [Rut22e] Ernest Rutherford. Electricity and matter. *Institution of Electrical Engineers Journal (London)*, 60(??):613–618, ??? 1922.

**Rutherford:1922:EMb**

- [Rut22f] Ernest Rutherford. Electricity and matter. *Nature*, 110 (2753):182–185, August 5, 1922. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v110/n2753/pdf/110182a0.pdf>.

**Rutherford:1922:IME**

- [Rut22g] Ernest Rutherford. Identification of a missing element. *Nature*, 109(2746):781, June 17, 1922. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v109/n2746/pdf/109781a0.pdf>. Translation of Georges Urbain, *The Atomic Numbers of Ytterbium, Lutecium, and Celtium*. See comments about this paper in the book chapter *Elements No. 70, 71 and 72: Discoveries and Controversies* [Eva96, pages 77–78].

**Rutherford:1922:Ra**

- [Rut22h] Ernest Rutherford. Radioactivity. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, 88(??):411–413, ??? 1922. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1922:Rb**

- [Rut22i] Ernest Rutherford. Radioactivity. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, 88(??):501–504, ??? 1922. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1922:RPIa**

- [Rut22j] Ernest Rutherford. Radioactivity [Part I]. *Engineering (London, UK)*, 113(??):299–300, March 1922. CODEN ENGNA2. ISSN 0013-7782.



- Rutherford:1922:RPIb**
- [Rut22k] Ernest Rutherford. Radioactivity [Part II]. *Engineering (London, UK)*, 113(?):331–332, March 1922. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1922:RPIc**
- [Rut22l] Ernest Rutherford. Radioactivity [Part III]. *Engineering (London, UK)*, 113(?):365–366, March 1922. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1922:RPId**
- [Rut22m] Ernest Rutherford. Radioactivity [Part IV]. *Engineering (London, UK)*, 113(?):386–387, March 1922. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1922:RPIe**
- [Rut22n] Ernest Rutherford. Radioactivity [Part V]. *Engineering (London, UK)*, 113(?):414–415, April 1922. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1922:RPIf**
- [Rut22o] Ernest Rutherford. Radioactivity [Part VI]. *Engineering (London, UK)*, 113(?):464–466, April 1922. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1922:EMc**
- [Rut22p] Sir Ernest Rutherford, F.R.S. Electricity and matter. *The Electrical Review (London)*, 90(2326):893–896, June 23, 1922. CODEN ELREAG. ISSN 0013-4384. URL <http://archive.org/stream/electricalreview90lond#page/893/mode/1up>; <http://hdl.handle.net/2027/nyp.33433090837513?urlappend=%3Bseq=433>. Abstract of thirteenth Kelvin Lecture, delivered at the Institution of Electrical Engineers.
- Rutherford:1923:APTa**
- [Rut23a] Ernest Rutherford. Atomic projectiles and their properties. *Engineering (London, UK)*, 115(?):242–243, March 1923. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1923:APTb**
- [Rut23b] Ernest Rutherford. Atomic projectiles and their properties. *Engineering (London, UK)*, 115(?):264–266, March 1923. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1923:APTc**

- [Rut23c] Ernest Rutherford. Atomic projectiles and their properties. *Engineering (London, UK)*, 115(?):306–308, March 1923. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1923:APTd**

- [Rut23d] Ernest Rutherford. Atomic projectiles and their properties. *Engineering (London, UK)*, 115(?):338–340, March 1923. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1923:APTe**

- [Rut23e] Ernest Rutherford. Atomic projectiles and their properties. *Engineering (London, UK)*, 115(?):358–359, March 1923. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1923:APTf**

- [Rut23f] Ernest Rutherford. Atomic projectiles and their properties. *Engineering (London, UK)*, 115(?):798–800, June 1923. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1923:APTg**

- [Rut23g] Ernest Rutherford. Atomic projectiles and their properties. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, 90(?):366–367, April 1923. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1923:APTh**

- [Rut23h] Ernest Rutherford. Atomic projectiles and their properties. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, 91(?):60–61, July 1923. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1923:APTi**

- [Rut23i] Ernest Rutherford. Atomic projectiles and their properties. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, 91(?):120–121, August 1923. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1923:APTj**

- [Rut23j] Ernest Rutherford. Atomic projectiles and their properties. *The Electrician: the Oldest Weekly Illustrated Journal of*

*Electrical Engineering, Industry, Science and Finance*, 91(??):144–145, August 1923. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1923:CLE**

- [Rut23k] Ernest Rutherford. Capture and loss of electrons by alpha particles. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 21(??):504–510, ??? 1923. CODEN PCPSA4. ISSN 0008-1981.

**Rutherford:1923:ESMa**

- [Rut23l] Ernest Rutherford. The electrical structure of matter. *Nature*, 112(2811):409–419, September 15, 1923. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v112/n2811/pdf/112409a0.pdf>.

**Rutherford:1923:LHPa**

- [Rut23m] Ernest Rutherford. Life-history of an  $\alpha$  particle. *Engineering (London, UK)*, 115(??):769–770, ??? 1923. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1923:LHPb**

- [Rut23n] Ernest Rutherford. The life history of an  $\alpha$ -particle. *Nature*, 112(2808):305–312, August 25, 1923. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v112/n2808/pdf/112305a0.pdf>.

**Rutherford:1923:LP**

- [Rut23o] Ernest Rutherford. The life of an  $\alpha$ -particle. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, 91(??):194–195, ??? 1923. CODEN ELETAU. ISSN 0367-0805.

**Rutherford:1923:PAB**

- [Rut23p] Ernest Rutherford. Presidential address: British Association for the Advancement of Science. *Bulletin of the American Association of University Professors*, 9(8):58–60, December 1923. CODEN ??? ISSN 0883-1610 (print), 2330-5908 (electronic).

**Rutherford:1923:ESMc**

- [Rut23q] Professor Sir Ernest Rutherford. The electrical structure of matter. *Journal of the Society of Chemical Industry, London*, 42(37):874–882, September 14, 1923. CODEN JSCIEN. ISSN 0368-4075. URL <http://onlinelibrary.wiley.com/doi/10.1002/jctb.5000423703/abstract>.

**Rutherford:1923:ESMb**

- [Rut23r] Sir Ernest Rutherford. The electrical structure of matter. *Science*, 58(1499):209–221, September 21, 1923. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1923Sci...58..209R>; <http://www.sciencemag.org/content/58/1499/209>.

**Rutherford:1923:PAE**

- [Rut23s] Professor Sir Ernest Rutherford, D.Sc., LL.D., Ph.D., F.R.S. Presidential address: The electrical structure of matter. *British Association for the Advancement of Science, Report*, ??(??):1–24, ??? 1923. CODEN BAASAX. ISSN 0365-8694. URL <http://biodiversitylibrary.org/page/30498814>. Report of the 91st meeting, Liverpool, September 12–19, 1923.

**Rutherford:1924:ESMa**

- [Rut24a] Ernest Rutherford. Die elektrische Struktur der Materie. (German) [The electrical structure of matter]. *Naturwissenschaften*, 12(1):1–14, January 1924. CODEN NATWAY. ISSN 0028-1042 (print), 1432-1904 (electronic). URL <http://adsabs.harvard.edu/abs/1924NW.....12....1R>.

**Rutherford:1924:ESMb**

- [Rut24b] Ernest Rutherford. Die elektrische Struktur der Materie. (German) [The electrical structure of matter]. *Strahlentherapie*, 16(??):883–913, ??? 1924.

**Rutherford:1924:EDR**

- [Rut24c] Ernest Rutherford. Early days of radioactivity. *Journal of The Franklin Institute*, 198(3):281–290, September 1924. CODEN JFINAB. ISSN 0016-0032 (print), 1879-2693 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0016003224903462>.

- Rutherford:1924:NA**
- [Rut24d] Ernest Rutherford. The nucleus of the atom. *Engineering (London, UK)*, 117(?):458–459, April 1924. CODEN EN-GNA2. ISSN 0013-7782.
- Rutherford:1924:PGHa**
- [Rut24e] Ernest Rutherford. Properties of gases in high and low vacua. *Engineering (London, UK)*, 117(?):330, March 1924. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1924:PGHb**
- [Rut24f] Ernest Rutherford. Properties of gases in high and low vacua. *Engineering (London, UK)*, 117(?):365–366, March 1924. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1924:PGHc**
- [Rut24g] Ernest Rutherford. Properties of gases in high and low vacua. *Engineering (London, UK)*, 117(?):387, March 1924. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1924:PGHd**
- [Rut24h] Ernest Rutherford. Properties of gases in high and low vacua. *Engineering (London, UK)*, 117(?):429, March 1924. CODEN ENGNA2. ISSN 0013-7782.
- Rutherford:1924:EAC**
- [Rut24i] Sir Ernest Rutherford. The energy in the atom: Can man utilize it? *Popular Science Narratives*, 2(?):109–111, ??? 1924.
- Rutherford:1924:LHA**
- [Rut24j] Sir Ernest Rutherford. Life history of an alpha particle from radium. *The Scientific Monthly*, 18(4):337–353, April 1924. CODEN SCMOAA. ISSN 0096-3771 (print), 2327-7513 (electronic). URL <http://adsabs.harvard.edu/abs/1924SciMo..18..337R>; <http://www.jstor.org/stable/7283>.
- Rutherford:1924:NADb**
- [Rut24k] Professor Sir Ernest Rutherford, F.R.S. The natural and artificial disintegration of the elements. *The Scientific Monthly*, 19(6):561–578, December 1924. CODEN SCMOAA. ISSN 0096-3771 (print), 2327-7513 (electronic).

URL <http://adsabs.harvard.edu/abs/1924SciMo..19..561R>; <http://www.jstor.org/stable/7231>.

**Rutherford:1924:XCL**

- [Rut24l] Professor Sir Ernest Rutherford, F.R.S. XXIV. The capture and loss of electrons by  $\alpha$  particles. *Philosophical Magazine (6)*, 47(278):277–303, February 1924. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786442408634367>.

**Rutherford:1924:NADa**

- [Rut24m] Sir Ernest Rutherford, Kt., D.Sc., LL.D., Ph.D., D.Phys., F.R.S. The natural and artificial disintegration of the elements. *Journal of The Franklin Institute*, 198(6):725–744, December 1924. CODEN JFINAB. ISSN 0016-0032 (print), 1879-2693 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0016003224904510>.

**Rutherford:1925:DAN**

- [Rut25a] Ernest Rutherford. Disintegration of atomic nuclei. *Nature*, 115(2892):493–494, April 4, 1925. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v115/n2892/pdf/115493a0.pdf>.

**Rutherford:1925:EM**

- [Rut25b] Ernest Rutherford. Electricity and matter. *The Scientific Monthly*, 20(2):121–128, February 1925. CODEN SCMOAA. ISSN 0096-3771 (print), 2327-7513 (electronic). URL <http://www.jstor.org/stable/7117>.

**Rutherford:1925:MWX**

- [Rut25c] Ernest Rutherford. Moseley's work on X-rays. *Nature*, 116(2913):316–317, August 29, 1925. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v116/n2913/pdf/116316a0.pdf>.

**Rutherford:1925:SAA**

- [Rut25d] Ernest Rutherford. The stability of atoms. *Discovery: The Popular Journal of Knowledge*, 6(?):402–403, March 1925. URL <http://hdl.handle.net/2027/mdp.39015031957932>.

**Rutherford:1925:SAb**

- [Rut25e] Ernest Rutherford. The stability of atoms. *Journal of the Royal Society of Arts*, 73(3773):389–403, March 13, 1925. CODEN JRSAA4. ISSN 0035-9114. URL <http://www.jstor.org/stable/41357678>.

**Rutherford:1925:SANa**

- [Rut25f] Ernest Rutherford. Studies of atomic nuclei. *Engineering (London, UK)*, 119(??):437–438, April 1925. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1925:SANb**

- [Rut25g] Sir Ernest Rutherford. Studies of atomic nuclei. *Science*, 62(1601):209–211, September 4, 1925. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1925Sci...62..209R>; <http://www.jstor.org/stable/1649947>; <http://www.sciencemag.org/content/62/1601/209>.

**Rutherford:1925:TR**

- [Rut25h] Sir Ernest Rutherford. [trip report]. *Sydney Morning Herald*, ??(??):??, 1925. Written sometime between July and December 1925, and cited in [Wil83a, page 462], as “one of the most monumentally dull pieces of writing that anyone could imagine — indeed it seems almost immature, and might have been written by a rather uninteresting child of fifteen.”

**Rutherford:1925:ESM**

- [Rut25i] Professor Sir Ernest Rutherford, D.Sc., LL.D., Ph.D.F.R.S. The electrical structure of matter. *Smithsonian Institution, Annual Report*, 1924:161–185, 1925. CODEN SIAPAT. ISSN 0097-644X. URL <http://www.biodiversitylibrary.org/page/8803463>. For year ending 30 June 1924.

**Rutherford:1926:LSE**

- [Rut26a] E. Rutherford. A letter from Sir Ernest Rutherford. *Sigma Xi Quarterly*, 14(4):77–78, December 1926. CODEN SXQUAP. ISSN 0096-977X (print), 2327-7548 (electronic).

**Rutherford:1926:ARAA**

- [Rut26b] Ernest Rutherford. Alpha rays and atomic structure [Part I]. *Engineering (London, UK)*, 123(??):375–376, April 1926. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1926:ARAb**

- [Rut26c] Ernest Rutherford. Alpha rays and atomic structure [Part II]. *Engineering (London, UK)*, 123(??):409–410, April 1926. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1926:ARAc**

- [Rut26d] Ernest Rutherford. Alpha rays and atomic structure [Part III]. *Engineering (London, UK)*, 123(??):460–461, April 1926. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1926:ARAd**

- [Rut26e] Ernest Rutherford. Alpha rays and atomic structure [Part IV]. *Engineering (London, UK)*, 123(??):492–493, April 1926. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1926:ANT**

- [Rut26f] Ernest Rutherford. Atomic nuclei and their transformation (12th Guthrie Lecture, 25 Feb 1927). *Proceedings of the Physical Society, London*, 39(1):359–372, 1926. CODEN PP-SOAU. ISSN 0959-5309 (print), 2051-2171 (electronic). URL <http://stacks.iop.org/0959-5309/39/i=1/a=332>.

**Rutherford:1926:EWT**

- [Rut26g] Ernest Rutherford. Electric waves and their propagation. *Nature*, 118(2979):809–811, December 4, 1926. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v118/n2979/pdf/118809a0.pdf>.

**Rutherford:1926:ESM**

- [Rut26h] Ernest Rutherford. *The Electrical Structure of Matter*. ????, 1926. ???? pp. LCCN Q11 .S66 1924.

**Rutherford:1926:RGAa**

- [Rut26i] Ernest Rutherford. The rare gases of the atmosphere [Part I]. *Engineering (London, UK)*, 121(??):353–354, March 1926. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1926:RGA b**

- [Rut26j] Ernest Rutherford. The rare gases of the atmosphere [Part II]. *Engineering (London, UK)*, 121(??):388–390, March 1926. CODEN ENGNA2. ISSN 0013-7782.



**Rutherford:1926:RGAc**

- [Rut26k] Ernest Rutherford. The rare gases of the atmosphere [Part III]. *Engineering (London, UK)*, 121(?):438, April 1926. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1926:RGAd**

- [Rut26l] Ernest Rutherford. The rare gases of the atmosphere [Part IV]. *Engineering (London, UK)*, 121(?):458–459, April 1926. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1927:RASa**

- [Rut27a] Ernest Rutherford.  $\alpha$  rays and atomic structure [Part I]. *Engineering (London, UK)*, 123(?):375–376, ?? 1927.

**Rutherford:1927:RASb**

- [Rut27b] Ernest Rutherford.  $\alpha$  rays and atomic structure [Part II]. *Engineering (London, UK)*, 123(?):409–410, ?? 1927.

**Rutherford:1927:RASc**

- [Rut27c] Ernest Rutherford.  $\alpha$  rays and atomic structure [Part III]. *Engineering (London, UK)*, 123(?):460–461, ?? 1927.

**Rutherford:1927:RASd**

- [Rut27d] Ernest Rutherford.  $\alpha$  rays and atomic structure [Part IV]. *Engineering (London, UK)*, 123(?):492–493, ?? 1927.

**Rutherford:1927:APSa**

- [Rut27e] Ernest Rutherford. Address of the President, Sir Ernest Rutherford, at the Anniversary Meeting, November 30, 1926. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 113(765):481–495, January 1, 1927. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Rutherford:1927:RN**

- [Rut27f] Ernest Rutherford. Radioactive nuclei. *Sigma Xi Quarterly*, 15(4):82–86, December 1927. CODEN SXQUAP. ISSN 0096-977X (print), 2327-7548 (electronic). URL <http://www.jstor.org/stable/27824352>.

**Rutherford:1927:SAI**

- [Rut27g] Ernest Rutherford. Scientific aspects of intense magnetic fields and high voltages. *Nature*, 120(3031):809–811, De-

ember 3, 1927. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v120/n3031/pdf/120809a0.pdf>.

**Rutherford:1927:SRA**

- [Rut27h] Ernest Rutherford. Structure of radioactive atoms and the origin of the  $\alpha$ -rays. In *Atti del Congresso internazionale dei fisici Como-Pavia-Roma, 11-20 settembre 1927*, volume 1, pages 55–64. Nicola Zanichelli, Bologna, Italia, 1927.

**Rutherford:1927:SRP**

- [Rut27i] Ernest Rutherford. Study and research in physics. *Nature*, 120(3027):657–659, November 5, 1927. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v120/n3027/pdf/120657a0.pdf>.

**Rutherford:1927:APSB**

- [Rut27j] Sir Ernest Rutherford. Address of the President, Sir Ernest Rutherford, at the Anniversary Meeting, November 30, 1926. *Proceedings of the Royal Society of London Series B*, 101(706):1–15, January 1, 1927. CODEN PRLBA4. ISSN 0950-1193 (print), 2053-9185 (electronic). URL <http://adsabs.harvard.edu/abs/1927RSPSB.101....1.>; <http://rspb.royalsocietypublishing.org/content/101/706>; <http://www.jstor.org/stable/27824304>.

**Rutherford:1927:RSE**

- [Rut27k] Sir Ernest Rutherford. Report from Sir Ernest Rutherford. *Sigma Xi Quarterly*, 15(4):81, December 1927. CODEN SXQUAP. ISSN 0096-977X (print), 2327-7548 (electronic). URL <http://www.jstor.org/stable/27824351>.

**Rutherford:1927:LSR**

- [Rut27l] Sir Ernest Rutherford, O.M., P.R.S. LI. Structure of the radioactive atom and origin of the  $\alpha$ -rays. *Philosophical Magazine (7)*, 4(22):580–605, September 1927. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440908564361>. Cited in [Wil83a, page 441] as ‘a great paper’. Wilson (page 559) later notes that this paper inspired George Gamow to his prediction of the quantum tunneling effect in 1929 (credit also goes to Edward Condon

and Ronald Gurney who wrote two papers in 1928 on that idea, and to Robert Oppenheimer, who published a paper on that topic five months before those of Condon and Gurney).

**Rutherford:1928:APSa**

- [Rut28a] Ernest Rutherford. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, November 30, 1927. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 117(777):300–316, January 2, 1928. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Rutherford:1928:OPB**

- [Rut28b] Ernest Rutherford. Obituary: Prof. Bertram B. Boltwood. *Nature*, 121(3037):64–65, January 14, 1928. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://adsabs.harvard.edu/abs/1928Natur.121..64R>; <http://www.nature.com/nature/journal/v121/n3037/pdf/121064a0.pdf>.

**Rutherford:1928:PPH**

- [Rut28c] Ernest Rutherford. Production and properties of high-frequency radiation. *Nature*, 122(3084):883–886, December 8, 1928. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v122/n3084/pdf/122883a0.pdf>.

**Rutherford:1928:TMPa**

- [Rut28d] Ernest Rutherford. Transformation of matter [Part I]. *Engineering (London, UK)*, 125(??):315–316, March 1928. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1928:TMPb**

- [Rut28e] Ernest Rutherford. Transformation of matter [Part II]. *Engineering (London, UK)*, 125(??):360, March 1928. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1928:TMPc**

- [Rut28f] Ernest Rutherford. Transformation of matter [Part III]. *Engineering (London, UK)*, 125(??):387, March 1928. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1928:APSB**

- [Rut28g] Sir Ernest Rutherford, O.M. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, November 30, 1927. *Proceedings of the Royal Society of London Series B*, 102(717):239–255, January 2, 1928. CODEN PRLBA4. ISSN 0950-1193 (print), 2053-9185 (electronic). URL [http://adsabs.harvard.edu/abs/1928RSPSB.102..239.](http://adsabs.harvard.edu/abs/1928RSPSB.102..239;); [http://rspb.royalsocietypublishing.org/content/102/717/239.](http://rspb.royalsocietypublishing.org/content/102/717/239)

**Rutherford:1929:HFR**

- [Rut29a] Ernest Rutherford. High frequency radiation of the X-ray type. *Science*, 69(1784):259–263, March 8, 1929. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://adsabs.harvard.edu/abs/1929Sci....69..259R>; [http://www.sciencemag.org/content/69/1784/259.](http://www.sciencemag.org/content/69/1784/259)

**Rutherford:1929:MMRa**

- [Rut29b] Ernest Rutherford. Molecular motions in rarefied gases [Part I]. *Engineering (London, UK)*, 127(??):319–321, March 1929. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1929:MMRb**

- [Rut29c] Ernest Rutherford. Molecular motions in rarefied gases [Part II]. *Engineering (London, UK)*, 127(??):347–348, March 1929. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1929:MMRc**

- [Rut29d] Ernest Rutherford. Molecular motions in rarefied gases [Part III]. *Engineering (London, UK)*, 127(??):381, March 1929. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1929:MMRd**

- [Rut29e] Ernest Rutherford. Molecular motions in rarefied gases [Part IV]. *Engineering (London, UK)*, 127(??):449–450, March 1929. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1929:NPS**

- [Rut29f] Ernest Rutherford. Note by Professor Sir Ernest Rutherford [Max Planck]. *Naturwissenschaften*, 17(26):483, June 28, 1929. CODEN NATWAY. ISSN 0028-1042 (print), 1432-1904 (electronic).

**Rutherford:1929:OAA**

- [Rut29g] Ernest Rutherford. Origin of actinium and age of the Earth. *Nature*, 123(3096):313–314, March 2, 1929. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v123/n3096/pdf/123313b0.pdf>. See also [Hol30].

**Rutherford:1929:PR**

- [Rut29h] Ernest Rutherford. Penetrating radiations. *The Engineer*, 147(??):413, April 1929. CODEN ENGIAL. ISSN 0013-7758.

**Rutherford:1929:RRB**

- [Rut29i] Ernest Rutherford. Recent reactions between theory and experiment. The Raman effect: The constitution of hydrogen gas. *Nature*, 124(3136):878–880, December 7, 1929. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v124/n3136/pdf/124878a0.pdf>.

**Rutherford:1929:APSa**

- [Rut29j] Sir Ernest Rutherford, O.M. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, November 30, 1928. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 122(789):1–23, January 1, 1929. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://adsabs.harvard.edu/abs/1929RSPSA.122...1R>; <http://rspa.royalsocietypublishing.org/content/130/813/239>.

**Rutherford:1929:APSB**

- [Rut29k] Sir Ernest Rutherford, O.M. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, November 30, 1928. *Proceedings of the Royal Society of London Series B*, 104(729):97–119, January 1, 1929. CODEN PRLBA4. ISSN 0950-1193 (print), 2053-9185 (electronic). URL <http://adsabs.harvard.edu/abs/1929RSPSB.104...97>; <http://rspb.royalsocietypublishing.org/content/104/729/97>.

**Rutherford:1930:APSa**

- [Rut30a] Ernest Rutherford. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, November

30, 1929. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 126(801):184–203, January 1, 1930. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Rutherford:1930:ANTa**

[Rut30b] Ernest Rutherford. Atomic nuclei and their structure [Part I]. *Engineering (London, UK)*, 129(?):371–372, March 1930. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1930:ANTb**

[Rut30c] Ernest Rutherford. Atomic nuclei and their structure [Part II]. *Engineering (London, UK)*, 129(?):397–398, March 1930. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1930:ANTc**

[Rut30d] Ernest Rutherford. Atomic nuclei and their structure [Part III]. *Engineering (London, UK)*, 129(?):437–438, April 1930. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1930:ANTd**

[Rut30e] Ernest Rutherford. Atomic nuclei and their structure [Part IV]. *Engineering (London, UK)*, 129(?):470–471, April 1930. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1930:BF**

[Rut30f] Ernest Rutherford. Back of frontispiece. *Scientific American*, 142(6):423, June 1930. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v142/n6/pdf/scientificamerican0630-423.pdf>.

**Rutherford:1930:TM**

[Rut30g] Ernest Rutherford. The transmutation of matter. *Engineering (London, UK)*, 129(?):549–550, ??? 1930. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1930:APSb**

[Rut30h] Sir Ernest Rutherford, O.M. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, November 30, 1929. *Proceedings of the Royal Society of London Series B*, 105(740):518–537, January 1, 1930. CODEN PRLBA4. ISSN 0950-1193 (print), 2053-9185 (electronic).

URL <http://adsabs.harvard.edu/abs/1930RSPSB.105..518>.; <http://rspb.royalsocietypublishing.org/content/105/740/518>.

**Rutherford:1930:IMF**

- [Rut30i] Sir Ernest Rutherford, O.M., P.R.S. Intense magnetic fields and low temperature research. *Nature*, 126(3188):884–885, December 6, 1930. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v126/n3188/pdf/126884a0.pdf>.

**Rutherford:1931:APSa**

- [Rut31a] Ernest Rutherford. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, December 1, 1930. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 130(813):239–259, January 1, 1931. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Rutherford:1931:GLD**

- [Rut31b] Lord Rutherford. Goettingen lecture 14 December 1931. Audio recording, December 14, 1931. URL <https://vimeo.com/18514971>.

**Rutherford:1931:TGR**

- [Rut31c] Lord Ernest Rutherford.  $\alpha$ -Teilchen grosser Reichweite und die Entstehung der  $\gamma$ -Strahlen. (German) [ $\alpha$  particles and long range origin of  $\gamma$  rays], volume [Jg. 82.] 1931, Fachgr. II, Nr 19, 1931 of *Sonderdrucke aus den Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen: Mathematisch-physikalische Klasse*. Weidmann, Berlin, Germany, 1931. 248–251 pp. LCCN ????

**Rutherford:1931:ATG**

- [Rut31d] Lord Ernest Rutherford.  $\alpha$  Teilchen grosser Reichweite und die Entstehung der  $\gamma$  Strahlen. (German) [Long range  $\alpha$  particles and origin of  $\gamma$  rays]. *Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen. Mathematisch-Physikalische Klasse*, 19:248–251, 1931. URL [http://gdz.sub.uni-goettingen.de/dms/load/img/?PPN=PPN252457811\\_1931&DMDID=DMDLOG\\_0046&LOGID=LOG\\_0046&PHYSID=PHYS\\_0254](http://gdz.sub.uni-goettingen.de/dms/load/img/?PPN=PPN252457811_1931&DMDID=DMDLOG_0046&LOGID=LOG_0046&PHYSID=PHYS_0254).

**Rutherford:1931:APSB**

- [Rut31e] Sir Ernest Rutherford, O.M. Address of the President, Sir Ernest Rutherford, O.M., at the Anniversary Meeting, December 1, 1930. *Proceedings of the Royal Society of London Series B*, 107(752):348–368, January 1, 1931. CODEN PRLBA4. ISSN 0950-1193 (print), 2053-9185 (electronic). URL <http://adsabs.harvard.edu/abs/1931RSPSB.107..348.>; [http://rspb.royalsocietypublishing.org/content/107/752/348.](http://rspb.royalsocietypublishing.org/content/107/752/348)

**Rutherford:1931:HP**

- [Rut31f] The Right Honourable Lord Rutherford, O.M., F.R.S. Helium and its properties. *Nature*, 128(3221):137–138, July 25, 1931. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v128/n3221/pdf/128137a0.pdf>.

**Rutherford:1932:APT**

- [Rut32a] Ernest Rutherford. Atomic projectiles and their applications. *Nature*, 130(3289):730–731, November 12, 1932. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v130/n3289/pdf/130730d0.pdf>.

**Rutherford:1932:EFR**

- [Rut32b] Ernest Rutherford. Erinnerungen an die Frühzeit der Radioaktivität. (German) [Memories of the early days of radioactivity]. *Zeitschrift für Elektrochemie*, 38(7 (or 8a??)): 476–480, July 1932. CODEN ZEELAI. ISSN 0372-8382.

**Rutherford:1932:BF**

- [Rut32c] Lord Rutherford. Back of frontispiece. *Scientific American*, 147(2):69, August 1932. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <http://www.nature.com/scientificamerican/journal/v147/n2/pdf/scientificamerican0832-69.pdf>.

**Rutherford:1932:OGRa**

- [Rut32d] Lord Rutherford. Origin of the gamma rays. *Nature*, 129(3256):457–458, March 26, 1932. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v129/n3256/pdf/129457a0.pdf>.



**Rutherford:1932:OGRb**

- [Rut32e] Lord Rutherford. The origin of the gamma-rays. *The Scientific Monthly*, 34(6):483–486, June 1932. CODEN SCMOAA. ISSN 0096-3771 (print), 2327-7513 (electronic). URL <http://www.jstor.org/stable/15205>.

**Rutherford:1933:AT**

- [Rut33a] Ernest Rutherford. Atomic transmutation. *The Times (London)*, ??(??):??, September 12, 1933.

**Rutherford:1933:GMS**

- [Rut33b] Ernest Rutherford. Great men of science: a history of scientific progress. *Nature*, 132(3332):367–369, September 9, 1933. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v132/n3332/pdf/132367a0.pdf>.

**Rutherford:1933:HH**

- [Rut33c] Ernest Rutherford. Heavy hydrogen. *Nature*, 132(3347):955–956, December 23, 1933. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v132/n3347/pdf/132955a0.pdf>.

**Rutherford:1933:RRTa**

- [Rut33d] Ernest Rutherford. Recent researches on the transmutation of the elements. *Nature*, 131(3307):388–389, March 18, 1933. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v131/n3307/pdf/131388a0.pdf>.

**Rutherford:1933:RR Tb**

- [Rut33e] Ernest Rutherford. *Recent researches on the transmutation of the elements*. Macmillan and Co., London, UK, 1933. 388–389 pp. LCCN Q1 .N2 v.131 p.388-389. Reprinted from [Rut33d].

**Rutherford:1933:TA**

- [Rut33f] Ernest Rutherford. *The transmutation of the atom*. British Broadcasting Corp., London, UK, 1933. 27 pp. LCCN QD461 .R97.

**Rutherford:1933:TE**

- [Rut33g] Ernest Rutherford. The transmutation of the elements. *Discovery: The Popular Journal of Knowledge*, 14(?):105–108, April 1933.

**Rutherford:1933:ATE**

- [Rut33h] Lord Rutherford. *The artificial transmutation of the elements: being the thirty-fifth Robert Boyle lecture, delivered before the Oxford University Junior Scientific Club on 2nd June 1933*, volume 35. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1933. 12 pp. LCCN QD461 .R8.

**Rutherford:1933:RIH**

- [Rut33i] Lord Rutherford. [remark on “Interaction of hard  $\gamma$ -rays with atomic nuclei”]. *Nature*, 132(3340):709, November 4, 1933. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v132/n3340/pdf/132709a0.pdf>. See [CK33].

**Rutherford:1933:RQC**

- [Rut33j] Right Honourable Lord Rutherford of Nelson, O.M.F.R.S. A review of a quarter of a century’s work on atomic transmutation. *British Association for the Advancement of Science, Report*, ??(?):431–432, September 11, 1933. CODEN BAASAX. ISSN 0365-8694. URL <http://biodiversitylibrary.org/page/30565300>. Report the annual meeting, Leicester, September 6–13, 1933.

**Rutherford:1934:NHb**

- [Rut34a] Ernest Rutherford. The new hydrogen. *Nature*, 133(3361):481–484, March 31, 1934. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v133/n3361/pdf/133481a0.pdf>.

**Rutherford:1934:NHc**

- [Rut34b] Ernest Rutherford. The new hydrogen. *Nature*, 133(3361):488, March 31, 1934. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v133/n3361/pdf/133488c0.pdf>.

**Rutherford:1934:NHd**

- [Rut34c] Ernest Rutherford. *The new hydrogen*. Macmillan and Co., London, UK, 1934. 481–484 pp. LCCN Q1 .N2 v.133 p.481-484.

**Rutherford:1934:NHf**

- [Rut34d] Ernest Rutherford. The new hydrogen. *Proceedings of the Royal Institution of Great Britain*, 28(??):277–289, ??? 1934. CODEN PIGBAI. ISSN 0035-8959.

**Rutherford:1934:TM**

- [Rut34e] Ernest Rutherford. The transmutations of matter. *Engineering (London, UK)*, 137(??):420–422, ??? 1934. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1934:OMC**

- [Rut34f] Lord Rutherford. Obituary: Madame Curie. *Nature*, 134 (3377):90–91, July 21, 1934. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v134/n3377/pdf/134090a0.pdf>.

**Rutherford:1934:OSD**

- [Rut34g] Lord Rutherford. Opening survey on disintegration and synthesis of nuclei and elementary particles. In *International Conference on Physics, London. Vol. I, Nuclear Physics*, pages 4–16, 162. Physical Society, London, UK, 1934.

**Rutherford:1934:RAA**

- [Rut34h] Lord Rutherford. Report of the Academic Assistance Council. *The Times (London)*, ??(??):??, November 16, 1934.

**Rutherford:1934:TA**

- [Rut34i] Lord Rutherford. The transmutation of the atom. *The Scientific Monthly*, 38(1):15–23, January 1934. CODEN SCMOAA. ISSN 0096-3771 (print), 2327-7513 (electronic). URL <http://www.jstor.org/stable/15525>.

**Rutherford:1934:NHa**

- [Rut34j] Sir Ernest Rutherford. The new hydrogen. *Scientia (Milan)*, 55(265):341–349, S125–S132 (French translation), 1934.

CODEN SCIMAI. ISSN 0036-8687 (print), 1825-4373 (electronic). URL [http://amshistorica.unibo.it/diglib.php?inv=7&int\\_ptnum=55&term\\_ptnum=361&format=jpg](http://amshistorica.unibo.it/diglib.php?inv=7&int_ptnum=55&term_ptnum=361&format=jpg).

**RutherfordofNelson:1934:EBS**

- [Rut34k] Lord Rutherford of Nelson. Exiles in British sanctuary. *Science*, 79(2059):533–534, June 15, 1934. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1660602>.

**RutherfordofNelson:1934:NH**

- [Rut34l] Lord Rutherford of Nelson. The new hydrogen. *Science*, 80(2063):21–25, July 13, 1934. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://science.sciencemag.org/content/80/2063/21>.

**RutherfordofNelson:1934:PAF**

- [Rut34m] Lord Rutherford of Nelson. [Public appeal for funds]. *The Times [London, UK]*, ??(??):??, 1934. ISSN 0140-0460, 0956-1382. Cited in [Wil83a, page 484], and published after May 1934.

**RutherfordofNelson:1934:WSE**

- [Rut34n] Lord Rutherford of Nelson. Wandering scholars: Exiles in British sanctuary. *The Times [London, UK]*, ??(??):??, May 3, 1934. ISSN 0140-0460, 0956-1382. Cited in [Wil83a, page 484].

**RutherfordofNelson:1934:PLI**

- [Rut34o] Lord Rutherford of Nelson, O.M., M.A., D.Sc., F.R.S. The periodic law and its interpretation. *Journal of the Chemical Society*, 28:635–642, January 1934. CODEN JC SOA9. ISSN 0368-1769 (print), 2050-5574 (electronic).

**Rutherford:1935:LE**

- [Rut35a] Ernest Rutherford. [letter to the editor]. *The Times [London, UK]*, ??(??):??, May 1, 1935. ISSN 0140-0460, 0956-1382. Cited in [Wil83a, page ], and on the subject of the claims against the USSR for the cost of Peter Kapitza's laboratory equipment that was to be shipped from Cambridge to him in the USSR, where he was being denied the right to travel abroad.

**Rutherford:1935:R**

- [Rut35b] Ernest Rutherford. *Radioactivity*. Macmillan and Co., London, UK, 1935. 289–292 pp. LCCN Q1 .N2 v.135 p. 289–292.

**Rutherford:1935:RON**

- [Rut35c] Ernest Rutherford. Radioactivity: Old and new. *Nature*, 135 (3408):289–292, February 23, 1935. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v135/n3408/pdf/135289a0.pdf>.

**Rutherford:1935:AP**

- [Rut35d] Lord Rutherford. Atomic physics. *Nature*, 135(3418):683–685, May 4, 1935. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v135/n3418/pdf/135683a0.pdf>.

**Rutherford:1935:NRT**

- [Rut35e] Lord Rutherford. The neutron and radioactive transformations. *Proceedings of the Royal Institution of Great Britain*, 28(??):655–658, ??? 1935. CODEN PIGBAI. ISSN 0035-8959.

**Rutherford:1935:ERPa**

- [Rut35f] Lord Rutherford, O.M., F.R.S. Electromagnetic radiations [Part I]. *Engineering (London, UK)*, 139(??):314–316, March 1935. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1935:ERPb**

- [Rut35g] Lord Rutherford, O.M., F.R.S. Electromagnetic radiations [Part II]. *Engineering (London, UK)*, 139(??):341–342, March 1935. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1935:ERPc**

- [Rut35h] Lord Rutherford, O.M., F.R.S. Electromagnetic radiations [Part III]. *Engineering (London, UK)*, 139(??):357–358, March 1935. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1935:ERPd**

- [Rut35i] Lord Rutherford, O.M., F.R.S. Electromagnetic radiations [Part IV]. *Engineering (London, UK)*, 139(??):434–436, April 1935. CODEN ENGNA2. ISSN 0013-7782.

**Rutherford:1935:OMC**

- [Rut35j] Lord Rutherford, O.M., F.R.S. Obituary: Marie Curie. *The Slavonic and East European Review*, 13(39):673–676, April 1935. CODEN ????. ISSN 0037-6795 (print), 2222-4327 (electronic). URL <http://www.jstor.org/stable/4203041>. Reprinted from [Rut34f].

**Rutherford:1935:TE**

- [Rut35k] Lord Rutherford, O.M., F.R.S. The transformation of energy. *Nature*, 137(3456):135–137, January 25, 1935. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v137/n3456/pdf/137135a0.pdf>.

**Rutherford:1936:EAA**

- [Rut36a] Ernest Rutherford. The electric arc and its application. *Proceedings of the Royal Institution of Great Britain*, 24(??):673–680, ????. 1936. CODEN PIGBAL. ISSN 0035-8959.

**Rutherford:1936:SDa**

- [Rut36b] Ernest Rutherford. *Science in development*, volume 12 of *British Science Guild. Norman Lockyer lecture*. British Science Guild, London, UK, 1936. 20 pp. LCCN ????

**Rutherford:1936:TEa**

- [Rut36c] Ernest Rutherford. The transformation of energy. *Nature*, 137(3456):135–140, January 25, 1936. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v137/n3456/pdf/137135a0.pdf>.

**Rutherford:1936:TEb**

- [Rut36d] Ernest Rutherford. *The transformation of energy*. Macmillan and Co., London, UK, 1936. 135–140 pp. LCCN Q1 .N2 v.137 p.135-140.

**Rutherford:1936:TEc**

- [Rut36e] Ernest Rutherford. *The transformation of energy*, volume 1936 of *Watt anniversary lectures*. “Telegraph” Printing Works, Greenock, UK, 1936. 16 pp. LCCN ????. Watt Anniversary Lecture for 1936 delivered before the Greenock Philosophical Society on 17th January 1936.

**Rutherford:1936:RAG**

- [Rut36f] Ernest Lord Rutherford. *Radioaktivität und Atomtheorie. (German) [Radioactivity and atomic theory]*. ????, ????, 1936. 17 pp. LCCN ????

**Rutherford:1936:PSL**

- [Rut36g] Lord Rutherford, O.M., D.Sc., LL.D., F.R.S. Protection of science and learning. *New Statesman and Nation [London]*, 11(??):453, ????, 1936. CODEN ????. ISSN 0952-102X.

**Rutherford:1936:RAT**

- [Rut36h] Lord Rutherford, O.M., D.Sc., LL.D., F.R.S. Radioactivity and atomic theory: Sixteenth Faraday Lecture, delivered at the Royal Institution on February 12th, 1936. *Journal of the Chemical Society*, 30:508–516, April 1936. CODEN JC SOA9. ISSN 0368-1769 (print), 2050-5574 (electronic). URL <http://pubs.rsc.org/en/content/articlelanding/1936/jr/jr9360000508>.

**Rutherford:1936:SDb**

- [Rut36i] Lord Rutherford, O.M., D.Sc., LL.D., F.R.S. Science in development. *Nature*, 138(3499):865–869, November 21, 1936. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v138/n3499/pdf/138865a0.pdf>.

**Rutherford:1936:SPSa**

- [Rut36j] Lord Rutherford, O.M., D.Sc., LL.D., F.R.S. Society for the Protection of Science and Learning. *Science*, 83(2155):372, April 17, 1936. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.sciencemag.org/content/83/2155/372.1.citation>.

**Rutherford:1936:SPSb**

- [Rut36k] Ernest Rutherford, President of the Academic Assistance Council. A society for the protection of science and learning. *British Medical Journal*, 1(3924):607, March 21, 1936. CODEN BMJOAE. ISSN 0007-1447. URL <http://www.bmj.com/content/1/3924/607.1>; <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2458296/>.

**Rutherford:1937:NAB**

- [Rut37a] Ernest Rutherford. *The Newer Alchemy: based on the Henry Sidgwick Memorial Lecture delivered at Newnham College, Cambridge, November 1936*. MacMillan Publishing Company, New York, NY, USA, 1937. 67 pp. LCCN ????

**Rutherford:1937:NAT**

- [Rut37b] Ernest Rutherford. *The Newer Alchemy: The Transmutation of Elements, How It Has Been Accomplished, and What It Means*. Cambridge University Press, Cambridge, UK, 1937. viii + 67 + 13 pp. LCCN QD461 RUT. Based on the Henry Sidgwick Memorial Lecture delivered at Newnham College Cambridge November 1936.

**Rutherford:1937:SD**

- [Rut37c] Ernest Rutherford. *Science in development*, volume 1936 of *Norman Lockyer lecture / British Science Guild*. British Association for the Advancement of Science, London, UK, 1937. 20 pp. LCCN ????

**Rutherford:1937:SIH**

- [Rut37d] Ernest Rutherford. The search for the isotopes of hydrogen and helium of mass 3. *Nature*, 140(3538):303–305, August 21, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3538/pdf/140303a0.pdf>. Cited in [Wil83a, page ] as Rutherford's last paper (but see comment in entry Rutherford:1937:THEb).

**Rutherford:1937:THEa**

- [Rut37e] Ernest Rutherford. The transmutation of heavy elements. *Nature*, 139(3517):540, March 27, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v139/n3517/pdf/139540a0.pdf>.

**Rutherford:1937:THEb**

- [Rut37f] Ernest Rutherford. The transmutation of heavy elements. *Proceedings of the Royal Institution of Great Britain*, 29(4): 630–635, October 1937. CODEN PIGBAI. ISSN 0035-8959.



**Rutherford:1937:RAT**

- [Rut37g] Lord Rutherford. *Radioactivity and Atomic Theory*. United States Government Printing Office, Washington, DC, USA, 1937. 161–175. pp. LCCN Q??? Sixteenth Faraday lecture, delivered at the Royal Institution on February 12, 1936. Reprinted from the *Journal of the Chemical Society*, April 1936.

**Rutherford:1938:FYP**

- [Rut38a] Ernest Rutherford. Forty years of physics. In Needham and Pagel [NP38], pages 49–74. LCCN Q125 .N44 1938. URL <https://archive.org/stream/backgroundtomode032734mbp>. Two lectures, *The History of Radioactivity* and *The Development of the Theory of Atomic Structure*, revised and prepared for the press by J. A. Ratcliffe after the death of Lord Rutherford.

**Rutherford:1938:NAC**

- [Rut38b] Ernest Rutherford. *Novodobá alchymie. (Czech) [The new alchemy]*, volume 9 of *Elektrotechnická knihovna*. Elektrotechnický svaz Československý, Praha, Czechoslovakia, 1938. 53 + i pp. LCCN ????

**Rutherford:1938:JMI**

- [Rut38c] Lord Rutherford. Jubilee meeting of the Indian Science Congress. *Nature*, 141(3557):1–2, January 1, 1938. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v141/n3557/pdf/141001a0.pdf>. Address prepared before Rutherford's death for the meeting.

**Rutherford:1938:TMa**

- [Rut38d] Lord Rutherford. Transmutation of matter. *Nature*, 141(3558):58–61, January 8, 1938. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v141/n3557/pdf/141001a0.pdf>. Address prepared before Rutherford's death for the meeting of the Indian Science Congress, and delivered by Sir James Hopwood Jeans. See also [Ano38b].

**Rutherford:1938:TMb**

- [Rut38e] Lord Rutherford. *Transmutation of Matter*. ????, ????, 1938. ???? pp. LCCN Q11 .S66 1938.

**RutherfordofNelson:1938:THE**

- [Rut38f] Lord Rutherford of Nelson. The transmutation of heavy elements. *The Scientific Monthly*, 46(1):66–68, January 1938. CODEN SCMOAA. ISSN 0096-3771 (print), 2327-7513 (electronic). URL <http://www.jstor.org/stable/16512>.

**Rutherford:1965:Fa**

- [Rut65a] Ernest Rutherford. Foreword. In *Science and the Human Temperament* [SMJ35a], page ????. LCCN Q171 .S3 1935a. Foreword by Lord Rutherford of Nelson.

**Rutherford:1965:Fb**

- [Rut65b] Ernest Rutherford. Foreword. In *Science and the Human Temperament* [SMJ35b], page ????. LCCN ????. Foreword by Lord Rutherford of Nelson.

**Rutherford:1966:PH**

- [Rut66a] Ernest Rutherford. The  $\alpha$  particle and helium. In Boorse and Motz [BM66], pages 641–?? URL <http://adsabs.harvard.edu/abs/1966woat.book..641R>. With a foreword by I. I. Rabi.

**Rutherford:1966:DRU**

- [Rut66b] Ernest Rutherford. The discovery of the  $\alpha$ - and  $\beta$ -rays from uranium. In Boorse and Motz [BM66], pages 437–?? URL <http://adsabs.harvard.edu/abs/1966woat.book..437R>. With a foreword by I. I. Rabi.

**Rutherford:1966:NA**

- [Rut66c] Ernest Rutherford. The Nuclear Atom. In Boorse and Motz [BM66], pages 701–?? URL <http://adsabs.harvard.edu/abs/1966woat.book..701R>. With a foreword by I. I. Rabi.

**Rutherford:1970:APT**

- [Rut70a] Ernest Rutherford. Atomic projectiles and their collisions with light atoms. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:LHA**

- [Rut70b] Ernest Rutherford. Life history of an alpha particle from radium. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:REA**

- [Rut70c] Ernest Rutherford. Radiations from exploding atoms. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:RRR**

- [Rut70d] Ernest Rutherford. Recent researches in radio-activity. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:DSA**

- [Rut70e] Sir Ernest Rutherford. Discussion on the structure of atomic nuclei. In I. E. (Ian Ellery) McCarthy, editor, *Nuclear Reactions*, Commonwealth and international library. Selected readings in physics, pages 125–135. Pergamon Press, New York, NY, USA, 1970. ISBN 0-08-006630-5. LCCN QC794 .M17 1970. URL <http://www.sciencedirect.com/science/article/pii/B9780080066301500106>.

**Rutherford:1970:NA**

- [Rut70f] Sir Ernest Rutherford. Nucleus of the atom. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:SAN**

- [Rut70g] Sir Ernest Rutherford. Studies of atomic nuclei. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1970:TM**

- [Rut70h] Sir Ernest Rutherford. Transmutation of matter. In Bragg and Porter [BP70], page ?? ISBN 0-444-20048-7. LCCN QC71 .P45.

**Rutherford:1986:PPR**

- [Rut86] Ernest Rutherford. Present problems of radioactivity. In Katherine Russell Sopka, editor, *Physics for a new century: papers presented at the 1904 St. Louis congress*, The History of modern physics, pages 233–262. American Institute of Physics, New York, NY, USA, 1986. ISBN 0-88318-487-7. ISSN 1800-1950. LCCN QC6.9 .P48 1986. US\$30.00. Introduction by Albert E. Moyer.

**Rutherford:1988:OAA**

- [Rut88] Ernest Rutherford. Origin of actinium and age of the Earth. In Kolb and Turner [KT88], pages 239–?? ISBN 0-201-11604-9. LCCN QB981 .K685 Suppl. URL <http://adsabs.harvard.edu/abs/1988eur..book..239R>.

**Rutherford:2004:RA**

- [Rut04] Ernest Rutherford. *Radio-activity*. Dover phoenix editions. Dover, New York, NY, USA, 2004. ISBN 0-486-49585-X. viii + 399 pp. LCCN QC795 .R775 2004. URL <http://www.loc.gov/catdir/enhancements/fy0617/2004047848-d.html>.

**Rutherford:2007:RA**

- [Rut07a] Ernest Rutherford. *Radio-activity*. Juniper Grove, New York, NY, USA, second edition, 2007. ISBN 1-60355-058-5. xi + 580 pp. LCCN QC795 .R775 2007.

**Rutherford:2007:RT**

- [Rut07b] Ernest Rutherford. *Radioactive transformations*. Juniper Grove, New York, NY, USA, 2007. ISBN 1-60355-054-2. 5 + 287 pp. LCCN QC721 .R87 2007.

**Rutherford:2010:CPL**

- [Rut10a] Ernest Rutherford. Collision of  $\alpha$  particles with light atoms. IV. An anomalous effect in nitrogen. *Philosophical Magazine*, 90(Supplement 1):31–37, February 2010. CODEN PHMAA4. ISSN 0031-8086. URL <http://www.tandfonline.com/doi/full/10.1080/14786431003659230>. Reprint of [Rut19h].

**Rutherford:2010:RRS**

- [Rut10b] Ernest Rutherford. *Radiations from radioactive substances*. Cambridge University Press, Cambridge, UK, 2010. ISBN 1-108-00901-8 (paperback). xi + 588 pp. LCCN QC721 .R94 1951. Reprint of [RCE51].

**Rutherford:2012:SPM**

- [Rut12] Ernest Rutherford, F.R.S. The scattering of  $\alpha$  and  $\beta$  particles by matter and the structure of the atom. *Philosophical Magazine*, 92(4):379–398, February 2012. CODEN PHMAA4. ISSN 1478-6435 (Print), 1478-6443 (electronic). URL <http://www.tandfonline.com/doi/full/10.1080/14786435.2011.617037#abstract>. Reprint of [Rut11i].

**Rutherford:2014:NAB**

- [Rut14] Ernest Rutherford. *The newer alchemy: based on the Henry Sidgwick Memorial Lecture delivered at Newnham College Cambridge November 1936*. Cambridge University Press, Cambridge, UK, 2014. ISBN 1-107-44042-4 (paperback). 67 pp. LCCN ????. Reprint of [Rut37b].

**Rutherford:2015:RGR**

- [Rut15] Ernest Rutherford. *Die Radioaktivität. (German) [Radioactivity]*. Severus Verlag, Hamburg, Germany, 2015. ISBN 3-95801-299-X, 3-95801-298-1. 597 pp. LCCN ????

**Rutherford:20xx:FYA**

- [Rutxx] Ernest Rutherford. *Forty Years of Atomic Theory. ????, ????, 20xx*. LCCN ????

**Rutherford:1895:MIH**

- [Rut5 ] Ernest Rutherford. Magnetization of iron by high-frequency discharges. Thesis, Canterbury College, Christchurch, New Zealand, 1895 (??).

**Rutherford:1916:LRA**

- [RW16] Sir Ernest Rutherford, F.R.S. and A. B. Wood, M.Sc. Long-range alpha particles from thorium. *Philosophical Magazine (6)*, 31(184):379–386, April 1916. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786440408635510>.

**Rutherford:1925:NXR**

- [RW25] Ernest Rutherford and William A. Wooster. The natural X-ray spectrum of radium B. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 22(6):834–837, November 1925. CODEN PCPSA4. ISSN 0008-1981.

**Rutherford:1931:ALR**

- [RWL31a] Lord Rutherford, O.M., F.R.S., F. A. B. Ward, Ph.D., and W. B. Lewis, B.A. Analysis of the long range  $\alpha$  particles from radium C. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 131(818):684–703, June 3, 1931. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/131/818/684>.

**Rutherford:1931:APE**

- [RWL31b] Lord Rutherford, O.M., F.R.S., C. E. Wynn-Williams, Ph.D., and W. B. Lewis, B.A. Analysis of the  $\alpha$  particles emitted from thorium C and actinium C. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 133(822):351–366, October 1, 1931. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/133/822/351>.

**Rutherford:1933:ARA**

- [RWLB33] Lord Rutherford, O.M., F.R.S., C. E. Wynn-Williams, Ph.D., W. B. Lewis, B.A., and B. V. Bowden, B.A. Analysis of  $\alpha$  rays by an annular magnetic field. *Proceedings of the Royal Society of London. Series A, Containing Papers of a Mathematical and Physical Character*, 139(839):617–637, March 3, 1933. ISSN 0950-1207 (print), 2053-9150 (electronic). URL <http://rspa.royalsocietypublishing.org/content/139/839/617>.

**Rutherford:1930:NMA**

- [RWWW30] Ernest Rutherford, F. A. B. Ward, and C. E. Wynn-Williams. A new method of analysis of groups of alpha-rays. (1) The alpha-rays from radium C, thorium C, and actinium C. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 129(809):211–234, September 3, 1930. CODEN PRLAAZ. ISSN 1364-5021 (print), 1471-2946 (electronic).

**Sadana:1981:TEM**

- [Sad81] D. K. Sadana. Transmission electron microscopy and Rutherford backscattering studies of single and double discrete buried damage layers in  $P^+$  implanted Si on subsequent laser annealing. *Journal of Applied Physics*, 52(2):744, 1981. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Sarton:1927:MNE**

- [Sar27] George Sarton. Moseley: The numbering of the elements. *Isis*, 9(1):96–111, February 1927. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/224174>.

**Saris:1979:ACI**

- [Sar79] F. W. Saris. Abstract: Crystallography of InAs–GsSb superlattices by Rutherford backscattering and channeling. *Journal of Vacuum Science Technology*, 16(5):1506, September 1979. CODEN JVSTAL. ISSN 0022-5355 (print), 2331-1754 (electronic).

**Satherley:2018:WSH**

- [Sat18] Dan Satherley. Was Stephen Hawking really the greatest scientist of our time? Newshub Web site., March 15, 2018. URL <http://www.newshub.co.nz/home/world/2018/03/was-stephen-hawking-really-the-greatest-scientist-of-our-time.html>.

**Semrad:1986:AMS**

- [SBEO86] D. Semrad, P. Bauer, K. Eder, and W. Obermann. Apparatus for measuring the stopping power of active materials evaporated in situ and characterized by Auger electron spectrometry and Rutherford backscattering. *Review of Scientific Instruments*, 57(7):1368, 1986. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Selmke:2013:PRS**

- [SC13] Markus Selmke and Frank Cichos. Photonic Rutherford scattering: a classical and quantum mechanical analogy in ray and wave optics. *American Journal of Physics*, 81(6):405–413, June 2013. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Schlundt:1931:BRR**

- [Sch31] Herman Schlundt. Book review: *Radiations from Radioactive Substances*, (Rutherford, Sir Ernest; Chadwick, James; Ellis, C. D.). *Journal of Chemical Education*, 8(8):1669–??, August 1931. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic).

**Schuster:1933:BF**

- [Sch33] Sir Arthur Schuster. *Biographical fragments*. MacMillan, London, UK, 1933. xiii + 268 pp. LCCN QC16.S27 A3.

**Schrodinger:1957:STM**

- [Sch57] Erwin Schrödinger. *Science theory and man*. George Allen and Unwin ltd., London, UK, 1957. xxiv + 2 + 27–223

pp. LCCN Q171 .S3 1957a. URL <http://www.zbp.univie.ac.at/schrodinger/ebibliographie/publications.htm>. Formerly published under the title *Science and the human temperament*. Translated from German by James Vincent Murphy W. H. Jonston. Foreword by Ernest Rutherford.

**Schwarz:2013:ABM**

- [Sch13] W. H. Eugen Schwarz. 100th anniversary of Bohr's model of the atom. *Angewandte Chemie, International Edition*, 52(47):12228–12238, 2013. CODEN ACIEF5. ISSN 1433-7851 (print), 1521-3773 (electronic). Dedicated to Professor Werner Kutzelnigg on the occasion of his 80th birthday.

**Schwarz:2015:RCH**

- [Sch15] Joe Schwarz. The right chemistry: How the Manhattan Project and 'the bomb' came to be. *The Montreal Gazette*, ??(??):??, May 10, 2015. ISSN 0384-1294. URL <http://montrealgazette.com/technology/science/the-right-chemistry-how-the-manhattan-project-and-the-bomb-came-to-be>.

**Shih:1991:TFI**

- [SCP<sup>+</sup>91] D.-Y. Shih, C.-A. Chang, J. Paraszczak, S. Nunes, and J. Cataldo. Thin-film interdiffusions in Cu/Pd, Cu/Pt, Cu/Ni, Cu/NiB, Cu/Co, Cu/Cr, Cu/Ti, and Cu/TiN bilayer films: Correlations of sheet resistance with Rutherford backscattering spectrometries. *Journal of Applied Physics*, 70(6):3052, 1991. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Smeets:2008:SRT**

- [SDD<sup>+</sup>08] D. Smeets, J. Demeulemeester, D. Deduytsche, C. Detavernier, C. M. Comrie, C. C. Theron, C. Lavoie, and A. Vantomme. Simultaneous real-time X-ray diffraction spectroscopy, Rutherford backscattering spectrometry, and sheet resistance measurements to study thin film growth kinetics by Kissinger plots. *Journal of Applied Physics*, 104(10):103538, 2008. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Seaborg:1988:NFT**

- [Sea88] Glenn T. Seaborg. Nuclear fission and transuranium elements: Fifty years ago. Report LBL-26111, Lawrence Berke-



ley National Laboratory, Berkeley, CA, USA, September 25, 1988. 22 pp. URL <http://www.osti.gov/servlets/purl/6573006-pQpF8b/>.

**Seeger:1965:BRJ**

- [See65] Raymond J. Seeger. Book review: J. B. Birks, *Rutherford at Manchester*. *American Journal of Physics*, 33(8):664–665, August 1965. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Segre:1962:BRC**

- [Seg62] Emilio Segrè. Book review: *The Collected Papers of Lord Rutherford of Nelson*, vol. 1, New Zealand, Cambridge, Montreal. Published under the direction of Sir James Chadwick. *Science*, 137(3535):1044, September 28, 1962. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1710140>.

**Segre:1964:BRC**

- [Seg64] Emilio Segrè. Book review: *The Collected Papers of Lord Rutherford of Nelson*, vol. 2, Manchester. Published under the direction of Sir James Chadwick. *Science*, 143(3607):672, February 14, 1964. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1713483>.

**Segre:1966:BRC**

- [Seg66] E. Segrè. Book review: *The Collected Papers of Lord Rutherford of Nelson, volume 3, Cambridge*. Published under the direction of Sir James Chadwick. *Science*, 151(3717):1522, March 25, 1966. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1718043>.

**Segre:1976:PSN**

- [Seg76] Emilio Segrè. *Personaggi e scoperte nella fisica contemporanea. (Italian) [Personalities and discoveries in contemporary physics]*. Biblioteca della EST. Edizioni scientifiche e tecniche Mondadori, Milano, Italia, 1976. 297 pp. LCCN QC7 .S44. Ciclo di lezioni tenute dal nov. 1972 fino al marzo 1973.

**Segre:1980:XRQ**

- [Seg80a] Emilio Segrè. *From X-rays to quarks: modern physicists and their discoveries*. W. H. Freeman, New York, NY, USA, 1980. ISBN 0-7167-1146-X, 0-7167-1147-8 (paperback). ix + 337 pp. LCCN QC7 .S4413. English translation of [Seg76].

**Segre:1980:RNW**

- [Seg80b] Emilio Segrè. Rutherford in the new world: the transmutation of elements. In *From X-rays to quarks: modern physicists and their discoveries* [Seg80a], chapter 3, pages 46–60. ISBN 0-7167-1146-X, 0-7167-1147-8 (paperback). LCCN QC7 .S4413. English translation of [Seg76].

**Segre:1980:SEL**

- [Seg80c] Emilio Segrè. Sir Ernest and Lord Rutherford of Nelson. In *From X-rays to quarks: modern physicists and their discoveries* [Seg80a], chapter 6, pages 101–118. ISBN 0-7167-1146-X, 0-7167-1147-8 (paperback). LCCN QC7 .S4413. English translation of [Seg76].

**Segre:1985:HPR**

- [Seg85] Emilio Segrè. Historical perspective: Refugee scientists and nuclear energy. *Annals of the New York Academy of Sciences*, 452(1):xv–xix, 1985. CODEN ANYAA9. ISBN 0-89766-298-9, 0-89766-299-7 (paperback). ISSN 0077-8923 (print), 1749-6632 (electronic). Sixth International Conference on Collective Phenomena: reports from the Moscow Refusnik Seminar / edited by Inga Fischer-Hjalmars and Joel L. Lebowitz. Contributions from the Moscow Refusnik Seminar and from two International Conferences on Collective Phenomena, one held in Stockholm, Sweden, 1–2 December 1983, and the other in Tel Aviv, Israel, 31 May–1 June 1984.

**Seidel:1986:BRN**

- [Sei86] Robert W. Seidel. Book review: Nuclear physics under Rutherford at Cambridge: *Rutherford: Simple Genius* by David Wilson; *Cockcroft and the Atom* by T. E. Allibone and Guy Hartcup; *Oliphant* by Stewart Cockburn and David Ellyard; *Cambridge Physics in the Thirties* by John Hendry. *Historical Studies in the Physical and Biological Sciences*, 17(1):175–181, 1986. CODEN HSPSEW. ISSN 0890-9997 (print), 1533-8355 (electronic). URL <http://www.jstor.org/stable/27757578>.

**Sene:1987:A0B**

- [Sen87] Monique Sené. Analyses d'ouvrages: *Cockroft and the Atom* par Guy Hartcup; T. E. Allibone. *Revue d'Histoire des Sciences*, 40(1):135–136, January 1987. CODEN RHSAAM. ISSN 0151-4105 (print), 1969-6582 (electronic). URL <http://www.jstor.org/stable/23632765>; [http://www.persee.fr/doc/rhs\\_0151-4105\\_1987\\_num\\_40\\_1\\_4493\\_t1\\_0135\\_0000\\_2](http://www.persee.fr/doc/rhs_0151-4105_1987_num_40_1_4493_t1_0135_0000_2).

**Schuler:2001:DTA**

- [SER<sup>+</sup>01] T. M. Schuler, D. L. Ederer, N. Ruzycski, G. Glass, W. A. Hollerman, A. Moewes, M. Kuhn, and T. A. Callcott. Diffusion of TiN into aluminum films measured by soft X-ray spectroscopy and Rutherford backscattering spectroscopy. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 19(5):2259, 2001. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Scharff-Goldhaber:1985:MCI**

- [SG85] G. Scharff-Goldhaber. Marie Curie's influence on science and on society. Web document., August 1985. URL <https://www.bnl.gov/bwis/Files/pdf/Marie%20Curie-byScharffGoldhaber.pdf>. Talk given at Symposium held at the University of Wisconsin/Milwaukee on September 6, 1985 in honor of the fiftieth anniversary of the death of Marie Curie (Nov. 7, 1867–July 4, 1934).

**Shaw:1937:RM**

- [Sha37] A. N. Shaw. Rutherford at McGill. *McGill News*, ??(??): 15–??, December 1937. ISSN 0709-9223.

**Shamos:1987:GEP**

- [Sha87a] Morris H. (Morris Herbert) Shamos, editor. *Great experiments in physics: firsthand accounts from Galileo to Einstein*. Dover, New York, NY, USA, 1987. ISBN 0-486-25346-5 (paperback). viii + 370 pp. LCCN QC7 .G74 1987.

**Shanker:1987:ARB**

- [Sha87b] Kartik Shanker. Auger and Rutherford backscattering compositional analysis of GaInAs anodic oxide. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures–Processing, Measurement, and Phenomena*, 5

(3):624, May 1987. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Sekiba:2009:MSM**

- [SHAI09] D. Sekiba, M. Horikoshi, S. Abe, and S. Ishii. Mg segregation in Mg-rich Mg–Ni switchable mirror studied by Rutherford backscattering, elastic recoil detection analysis, and nuclear reaction analysis. *Journal of Applied Physics*, 106(11):114912, 2009. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Stoffel:1996:SMS**

- [SHCK96] Nancy C. Stoffel, Meng Hsieh, Sweta Chandra, and Edward J. Kramer. Surface modification studies of polyimide films using Rutherford backscattering and forward recoil spectrometry. *Chemistry of Materials*, 8(5):1035–1041, 1996. CODEN CMATEX. ISSN 0897-4756 (print), 1520-5002 (electronic).

**Shea:1983:IRH**

- [She83a] William R. Shea. Introduction: From Rutherford to Hahn. In *Otto Hahn and the Rise of Nuclear Physics* [She83b], pages 1–18. ISBN 90-277-1584-X. LCCN QC773 .O87 1983. URL [http://link.springer.com/chapter/10.1007/978-94-009-7133-2\\_1](http://link.springer.com/chapter/10.1007/978-94-009-7133-2_1).

**Shea:1983:OHR**

- [She83b] William R. Shea, editor. *Otto Hahn and the Rise of Nuclear Physics*, volume 22 of *The University of Western Ontario series in philosophy of science*. D. Reidel, Dordrecht, The Netherlands; Boston, MA, USA; Lancaster, UK; Tokyo, Japan, 1983. ISBN 90-277-1584-X. 252 pp. LCCN QC773 .O87 1983. URL <http://link.springer.com/book/10.1007/978-94-009-7133-2>.

**Sherwin:2017:WWA**

- [She17] Adam Sherwin. Where was the atom split? Campaign to correct ignorance of England’s historic achievements. Web article., June 16, 2017. URL <https://inews.co.uk/essentials/atom-split-campaign-correct-ignorance-englands-historic-achievements/>.

**Shire:1972:RNA**

- [Shi72] E. S. Shire. *Rutherford and the nuclear atom*. Longman advanced physics topics. Longman, London, UK, 1972. ISBN 0-582-32227-8. 65 pp. LCCN QC16.R8 S55.

**Shire:1988:LLE**

- [Shi88] George B. Shire. Letter: Lasers and enrichment. *Bulletin of the Atomic Scientists*, 44(4):53, May 1988. CODEN BASIAP. ISSN 0096-3402 (print), 1938-3282 (electronic). See [CAN88].

**Shoenberg:1982:RML**

- [Sho82] D. Shoenberg, F.R.S. The Rutherford Memorial Lecture, 1980. Magnetic oscillations in metals. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 379(1776):1–14, 1982. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/379/1776/1>. Lecture delivered at the National Physical Laboratory of India, New Delhi on 6 November 1980 and at the University of Colombo, Sri Lanka on 19 November 1980.

**Siegfried:2011:AAC**

- [Sie11] Tom Siegfried. Atomic anatomy: A century ago, Ernest Rutherford inaugurated the nuclear age. *Science News (Washington, DC)*, 179(10):30–32, May 7, 2011. CODEN SCNEBK. ISSN 0036-8423 (print), 1943-0930 (electronic). URL <http://www.jstor.org/stable/41332340>.

**Silversmith:1971:RA**

- [Sil71] Ernest F. Silversmith. The “Rutherford Atom”. *Journal of Chemical Education*, 48(8):A499–??, August 1971. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed048pA499.2>.

**Simons:1982:URB**

- [Sim82] D. G. Simons. Utilization of Rutherford backscatter spectroscopy for the determination of thin-film densities. *Journal of Applied Physics*, 53(5):3900, 1982. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Sime:1996:LML**

- [Sim96] Ruth Lewin Sime. *Lise Meitner: a life in physics*, volume 13 of *California studies in the history of science*. University of California Press, Berkeley, CA, USA, 1996. ISBN 0-520-08906-5 (hardcover), 0-520-20860-9 (paperback), 0-585-05524-6 (e-book). xiii + 526 pp. LCCN QC774.M4 S56 1996. URL <http://www.loc.gov/catdir/bios/ucal051/95035246.html>; <http://www.loc.gov/catdir/description/ucal041/95035246.html>.

**Sinclair:1981:BRR**

- [Sin81] S. B. Sinclair. Book review: *Rutherford and Physics at the Turn of the Century*. Edited by Mario Bunge and William R. Shea. New York: Science History Publications; Folkestone: Dawson, 1979. Pp. viii + 184. £12.50. *British Journal for the History of Science*, 14(1):96–97, March 1981. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL <http://www.jstor.org/stable/4026083>.

**Sindzingre:1993:PEC**

- [Sin93] T. Sindzingre. Plasma enhanced chemical vapor deposition silicon oxides as studied by X-ray photoelectron spectroscopy, Rutherford backscattering, electron recoil detection analysis, infrared spectroscopy, and electron spin resonance. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 11(4):1851, July 1993. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Skulina:1989:CAG**

- [Sku89] K. M. Skulina. Calibration of an argon in germanium standard using Rutherford backscattering spectrometry for energy dispersive X-ray spectroscopy. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 7(4):2794, July 1989. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Seaborg:1990:EBU**

- [SL90] Glenn Theodore Seaborg and Walter D. Loveland. *The Elements Beyond Uranium*. Wiley, New York, NY, USA, 1990. ISBN 0-471-89062-6. xiii + 359 pp. LCCN QD172.T7 S35 1990. URL <http://www.loc.gov/catdir/description/wiley031/90012643.html>; <http://www.loc.gov/catdir/toc/onix02/90012643.html>.

**Slotte:2000:IST**

- [SLA<sup>+</sup>00] J. Slotte, A. Laakso, T. Ahlgren, E. Rauhala, R. Salonen, J. Räisänen, A. Simon, I. Uzonyi, Á. Z. Kiss, and E. Somorjai. Influence of surface topography on depth profiles obtained by Rutherford backscattering spectrometry. *Journal of Applied Physics*, 87(1):140, 2000. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Slaughter:2013:HMM**

- [Sla13] Aimee Chantel Esther Slaughter. *Harnessing the Modern Miracle: Physicists, Physicians, and the Making of American Radium Therapy*. Ph.D. dissertation, University of Minnesota, St. Paul, MN, USA, 2013. vi + 229 pp. URL [https://conservancy.umn.edu/bitstream/handle/11299/162520/Slaughter\\_umn\\_0130E\\_14633.pdf](https://conservancy.umn.edu/bitstream/handle/11299/162520/Slaughter_umn_0130E_14633.pdf).

**Spangenburg:2008:NBA**

- [SM08] Ray Spangenburg and Diane Kit Moser, editors. *Niels Bohr: Atomic Theorist*. Makers of modern science. Chelsea House, New York, NY, USA, revised edition, 2008. ISBN 0-8160-6178-5. xvi + 141 pp. LCCN QC16.B63 S63 2008.

**Smeltzer:1997:RRR**

- [Sme97a] Ronald Smeltzer. Rutherford's rare records. *Physics World*, 19(1):19, January 1997. CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL <http://iopscience.iop.org/article/10.1088/2058-7058/10/1/15>.

**Smeltzer:1997:LRR**

- [Sme97b] Ronald K. Smeltzer. Lord Rutherford's recorded lecture at Göttingen. *ARSC Journal*, 28(2):174–187, Fall 1997. CODEN ???? ISSN 2151-4402. URL [http://www.arsc-audio.org/members\\_only/journals/v28n2p174-187.pdf](http://www.arsc-audio.org/members_only/journals/v28n2p174-187.pdf).

**Smith:1937:ORH**

- [Smi37] F. E. Smith. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):754, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140754a0.html>.

**Schrodinger:1935:SHTa**

- [SMJ35a] Erwin Schrödinger, James Vincent Murphy, and Walter Henry Johnston. *Science and the Human Temperament*. G. Allen and Unwin Ltd., London, 1935. 151 pp. LCCN Q171 .S3 1935a. Foreword by Lord Rutherford of Nelson.

**Schrodinger:1935:SHTb**

- [SMJ35b] Erwin Schrödinger, James Vincent Murphy, and Walter Henry Johnston. *Science and the Human Temperament*. W. W. Norton & Co., New York, NY, USA, 1935. xxiv + 1 + 27–192 pp. LCCN ???? Foreword by Lord Rutherford of Nelson.

**Stygar:1991:ORS**

- [SML91] W. A. Stygar, L. P. Mix, and R. J. Leeper. Optimized Rutherford-scattering geometries for intense ion-beam diagnostics. *Review of Scientific Instruments*, 62(6):1527, 1991. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Staroselskaya-Nikitina:1967:ER**

- [SN67] O. A. Staroselskaya-Nikitina. *Ernest Rutherford, 1871–1937*. Isdatelstvo Nayka, Moscow, USSR, 1967. ???? pp.

**Shao:2005:MAA**

- [SN05] Lin Shao and Michael Nastasi. Methods for the accurate analysis of channeling Rutherford backscattering spectrometry. *Applied Physics Letters*, 87(6):064103, 2005. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Snow:1958:ARB**

- [Sno58] C. P. Snow. The age of Rutherford: The birth of the atom. *Atlantic Monthly*, 102(?):76–80, November 1958. ISSN 1072-7825 (print), 2151-9463 (electronic). URL <http://www.unz.org/Pub/AtlanticMonthly-1958nov-00076>.

**Snow:1967:VMR**

- [Sno67] C. P. Snow. *Variety of men: Rutherford, G. H. Hardy, H. G. Wells, Einstein, Lloyd George, Winston Churchill, Robert Frost, Dag Hammarskjöld, Stalin*. MacMillan, London, UK, 1967. 204 pp. LCCN ????



**Snow:1968:OSG**

- [Sno68] C. P. Snow. *Ogni sorta di gente: Rutherford, G. H. Hardy, H. G. Wells, Einstein, Lloyd George, Winston Churchill, Robert Frost, Dag Hammarskjöld, Stalin*. De Donato, Bari, Italy, 1968. 314 + 12 pp. LCCN ???? Italian translation of [Sno67].

**Soddy:1902:ARP**

- [Sod02] Frederick Soddy. An account of the researches of Professor Rutherford and his co-workers. *McGill University Magazine*, ??(?):??, December 1902.

**Soddy:1903:SRA**

- [Sod03] Frederick Soddy. Some recent advances in radioactivity. An account of the researches of Professor Rutherford and his co-workers at McGill University. *The Contemporary Review*, 83 (??):708–720, ???? 1903.

**Soddy:1904:RAE**

- [Sod04] Frederick Soddy. Radio-activity: An elementary treatise, from the standpoint of the disintegration theory. *The Electrician: the Oldest Weekly Illustrated Journal of Electrical Engineering, Industry, Science and Finance*, ??(?):165–170, ???? 1904. CODEN ELETAU. ISSN 0367-0805.

**Soddy:1908:IR**

- [Sod08] Frederick Soddy. *The interpretation of radium*. J. Murray, London, UK, second edition, 1908. xviii + 256 pp. LCCN QC721 .S65.

**Soddy:1913:IAC**

- [Sod13] Frederick Soddy. Intra-atomic charge. *Nature*, 92(2301):399–400, December 4, 1913. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v92/n2301/pdf/092399c0.pdf>. This is the paper, sent from the Physical Chemistry Laboratory at the University of Glasgow, that introduced the concept of nuclear isotopes. From page 400: “The same algebraic sum of the positive and negative charges in the nucleus, when the arithmetical sum is different, gives what I call ‘isotopes’ or ‘isotopic elements’, because they occupy the same place in the periodic table. They are chemically identical, and save only as regards the relatively few physical properties which depend upon atomic mass directly, physically identical also.”.

**Soddy:1920:IRS**

- [Sod20] Frederick Soddy. *The interpretation of radium, and the structure of the atom*. J. Murray, London, UK, fourth revised and enlarged edition, 1920. xvi + 260 pp. LCCN QC721 .S65 1920.

**Soddy:1922:IRS**

- [Sod22] Frederick Soddy. *The interpretation of radium and the structure of the atom*. Putnam, New York, NY, USA, fourth revised and enlarged edition, 1922. xvi + 260 pp. LCCN QC721 .S65 1922.

**Soddy:1937:ORH**

- [Sod37] Frederick Soddy. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):753, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140753a0.html>.

**Soddy:1949:SAE**

- [Sod49] Frederick Soddy. *The Story of Atomic Energy*. Nova Atlantis, London, UK, 1949. viii + 136 pp. LCCN QC780 .S6.

**Soddy:2002:NRN**

- [Sod02] Frederick Soddy. *Die Natur des Radiums: nach sechs an der Universität zu Glasgow im Jahre 1908 gehaltenen freien populären Experimentalvorlesungen. (German) [The nature of radium: six free popular experimental lectures held at Glasgow University in 1908]*, volume 289 of *Ostwalds Klassiker der exakten Wissenschaften*. Harri Deutsch, Frankfurt am Main, Germany, 2002. ISBN 3-8171-3289-1. lviii + vi + 297 pp. LCCN QC796.R1 S63 2002. Translation to German by G. Siebert. Introduction and notes by Robert J. Schwankner.

**Soddy:2004:IRS**

- [Sod04] Frederick Soddy. *The interpretation of radium and the structure of the atom*. Dover phoenix editions. Dover, New York, NY, USA, 2004. ISBN 0-486-43877-5. xvi + 260 pp. LCCN QC795 .S615 2004. URL <http://www.loc.gov/catdir/enhancements/fy0618/2004051910-d.html>.

**Sommerfeld:1938:LRN**

- [Som38] Arnold Sommerfeld. Lord Rutherford of Nelson, Nekrolog. (German) [Lord Rutherford of Nelson, Obituary]. *Sitzungsberichte der Mathemat.-naturwissenschaftlichen Klasse der Bayerischen Akademie der Wissenschaften zu München*, ??(??):81–??, ??? 1938.

**Speed:2019:WCA**

- [Spe19] Richard Speed. Who cares about a Soyuz launch or a Vega delay when there's space gin to be had? The Register Web site, July 9, 2019. URL [https://www.theregister.co.uk/2019/07/09/space\\_roundup/](https://www.theregister.co.uk/2019/07/09/space_roundup/).

**Szilagy:2008:OSI**

- [SPL+08] E. Szilágyi, P. Petrik, T. Lohner, A. A. Koós, M. Fried, and G. Battistig. Oxidation of SiC investigated by ellipsometry and Rutherford backscattering spectrometry. *Journal of Applied Physics*, 104(1):014903, 2008. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Sommerfeld:1937:NRG**

- [SR37] Arnold Sommerfeld and E. Rüdhardt. Nachruf Rutherford, Gratulation Millikan, Planck Gedächtnisrede auf Mach. Rede zu Plancks 80. Geburtstag. (German) [Obituary of Rutherford, congratulations to Millikan, Planck's memorial speech on Mach. Speech for Planck's 80th birthday]. *München. med. Wochenschr.*, ??(??):829–??, ??? 1937.

**Sadana:1980:TEM**

- [SSWB80a] D. K. Sadana, M. Stratham, J. Washburn, and G. R. Booker. Transmission electron microscopy and Rutherford backscattering studies of different damage structures in P<sup>+</sup> implanted Si. *Journal of Applied Physics*, 51(11):5718, 1980. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Sadana:1980:CTE**

- [SSWB80b] D. K. Sadana, M. Strathman, J. Washburn, and G. R. Booker. On the comparison of transmission electron microscopy and channeled Rutherford backscattering techniques to evaluate the multilayer subsurface damage structures. *Applied Physics Letters*, 37(2):234, 1980. CODEN

APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Semon:1976:CSS**

- [ST76] Mark D. Semon and John R. Taylor. Cross sections for screened potentials. *Journal of Mathematical Physics*, 17(8):1366–1370, August 1976. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL [http://jmp.aip.org/resource/1/jmapaq/v17/i8/p1366\\_s1](http://jmp.aip.org/resource/1/jmapaq/v17/i8/p1366_s1).

**Stabler:1961:KLR**

- [Sta61] H. P. Stabler. Kepler's Laws and Rutherford scattering demonstration. *American Journal of Physics*, 29(4):xiii, April 1961. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Stanley:2003:EHW**

- [Sta03] Matthew Stanley. "An expedition to heal the wounds of war": The 1919 eclipse and Eddington as Quaker adventurer. *Isis*, 94(1):57–89, March 2003. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/10.1086/376099>.

**Shutthanandan:2001:IAI**

- [STB<sup>+</sup>01] V. Shutthanandan, S. Thevuthasan, D. R. Baer, E. M. Adams, S. Maheswaran, M. H. Engelhard, J. P. Icenhower, and B. P. McGrail. Investigation of alkali ion exchange processes in waste glasses using Rutherford backscattering spectrometry and nuclear reaction analysis. *AIP Conference Proceedings*, 576(??):454, 2001. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. URL <http://scitation.aip.org/content/aip/proceeding/aipcp/10.1063/1.1395347>.

**Stein:1983:CR**

- [Ste83] Lawrence Stein. The chemistry of radon. *Radiochimica Acta*, 32(1–3):163–172, June 1983. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.1983.32.issue-1-3/ract.1983.32.13.163/ract.1983.32.13.163.xml>.

**Stone:1997:CTE**

- [Sto97] Richard Stone. Chemistry: Transuranic element names finally final. *Science*, 277(5332):1601, September 12, 1997.

CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic).

**Straumann:2011:FSC**

- [Str11] Norbert Straumann. On the first Solvay Congress in 1911. *European Physical Journal H*, 36(3):379–399, November 2011. CODEN EPJHAD. ISSN 2102-6459 (print), 2102-6467 (electronic). URL <http://link.springer.com/article/10.1140/epjh/e2011-20043-9>.

**Stuewer:1978:BRS**

- [Stu78] Roger H. Stuewer. Book review: *The Self-Splitting Atom: The History of the Rutherford–Soddy Collaboration*, by Thaddeus J. Trenn]. *American Journal of Physics*, 46(9):960, September 1978. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Stuewer:1979:NPR**

- [Stu79a] Roger H. Stuewer, editor. *Nuclear physics in retrospect: proceedings of a symposium on the 1930s*. University of Minnesota Press, Minneapolis, MN, USA, 1979. ISBN 0-8166-0869-5. LCCN QC773 .S95 1977.

**Stuewer:1979:RHT**

- [Stu79b] Roger H. Stuewer. Rutherford and his times: *Rutherford and Physics at the Turn of the Century*. Papers from a symposium, Montreal, October 1977. Mario Bunge and William R. Shea, eds., Dawsons, Folkestone, Ken, England and Science History Publications (Neale Watson), New York, 1979. viii, 184 pp. *Science*, 204(4394):742–743, May 1979. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://science.sciencemag.org/content/204/4394/742>.

**Stuewer:1983:NEH**

- [Stu83] Roger H. Stuewer. The nuclear electron hypothesis. In Shea [She83b], pages 19–67. ISBN 90-277-1584-X. LCCN QC773 .O87 1983. URL [http://link.springer.com/chapter/10.1007/978-94-009-7133-2\\_2](http://link.springer.com/chapter/10.1007/978-94-009-7133-2_2).

**Stuewer:1985:BRD**

- [Stu85] Roger H. Stuewer. Book reviews: David Wilson, *Rutherford: Simple Genius*. London: Hodder and Stoughton, 1983.

Pp. 639. ISBN 0-340-23805-4. £14.95. Guy Hartcup and T. E. Allibone, *Cockcroft and the Atom*. Bristol: Adam Hilger, 1984. Pp. xii + 320. ISBN 0-85274-759-4. £18.95. John Hendry (ed), *Cambridge Physics in the Thirties*. Bristol: Adam Hilger, 1984. Pp. xi + 209. ISBN 0-85274-761-6. £17.50. *British Journal for the History of Science*, 18(3):357–360, November 1985. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL <http://www.jstor.org/stable/4026397>.

**Stuewer:1986:ND**

- [Stu86a] Roger H. Stuewer. The naming of the deuteron. *American Journal of Physics*, 54(3):206–218, March 1986. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic). URL [http://ajp.aapt.org/resource/1/ajpias/v54/i3/p206\\_s1](http://ajp.aapt.org/resource/1/ajpias/v54/i3/p206_s1).

**Stuewer:1986:RSM**

- [Stu86b] Roger H. Stuewer. Rutherford's satellite model of the nucleus. *Historical Studies in the Physical and Biological Sciences*, 16(2):321–352, 1986. CODEN HSPSEW. ISSN 0890-9997 (print), 1533-8355 (electronic). URL <http://www.jstor.org/stable/27757568>.

**Stuewer:1994:OLD**

- [Stu94] Roger H. Stuewer. The origin of the liquid-drop model and the interpretation of nuclear fission. *Perspectives on Science*, 2(1):76–129, Spring 1994. CODEN PRSIEU. ISSN 1063-6145 (print), 1530-9274 (electronic). URL <http://alsos.wlu.edu/information.aspx?id=1736>. See errata [Ano94].

**Sturm:2000:ERA**

- [Stu00] James E. Sturm. Ernest Rutherford, Avogadro's Number, and chemical kinetics revisited. *Journal of Chemical Education*, 77(10):1278, October 2000. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://adsabs.harvard.edu/abs/2000JChEd..77.1278S>; <http://pubs.acs.org/doi/abs/10.1021/ed077p1278.2>. See [Lee98].

**Stuewer:2018:AIN**

- [Stu18] Roger H. Stuewer. *The Age of Innocence: Nuclear Physics Between the First and Second World Wars*. Oxford Univer-

sity Press, Walton Street, Oxford OX2 6DP, UK, 2018. ISBN 0-19-186658-X, 0-19-882787-3 (hardback), 0-19-256290-8 (e-book). xv + 484 pp. LCCN QC773 .S78 2018.

**Sutton:2001:RE**

- [Sut01] Michael A. Sutton. Rutherford, Ernest. In *Encyclopedia of Life Sciences*, page ?? Wiley, New York, NY, USA, 2001. ISBN 0-470-01590-X.

**Sutton:2019:PPD**

- [Sut19] Chris Sutton. The pursuit of proton decay. *CERN Courier: International Journal of High-Energy Physics*, 2019. CODEN CEEOA2. ISSN 0304-288X (print), 2077-9550 (electronic). URL <https://cerncourier.com/the-pursuit-of-proton-decay/>.

**Swann:1940:BRR**

- [Swa40] W. F. G. Swann. Book review: *Rutherford: Being the Life and Letters of the Rt Hon. Lord Rutherford, O.M.*, by A. S. Eve. *Science*, 91(2350):46–48, January 12, 1940. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1666320>.

**Stahl:1965:T**

- [SWS65] Kathleen M. (Kathleen Mary) Stahl, Edward Ward, and Henry Swanzy. *This is Tanganyika*. BBC Transcription Service, England, 1965. LCCN ???? One 57-minute sound disc. Compiled and written by Kathleen Stahl. Narrated by Edward Ward. The man who saw the atom: a biographical portrait of Lord Rutherford, compiled and narrated by Henry Swanzy.

**Shao:2005:OEW**

- [SWZ+05] Lin Shao, Y. Q. Wang, X. Zhang, C. J. Wetteland, M. Nastasi, P. E. Thompson, and J. W. Mayer. Optimized energy window of He beams for accurate determination of depth in channeling Rutherford backscattering spectrometry. *Applied Physics Letters*, 86(22):221913, 2005. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Szyborski:1985:LRK**

- [Szy85] K. Szyborski. Letters from Russia: *Kapitza, Rutherford, and the Kremlin*, Lawrence Badash. Yale University Press,

New Haven, CT, 1985, xii + 128. *Science*, 228(4701):844–845, May 17, 1985. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://science.sciencemag.org/content/228/4701/844>.

**Tabet:1997:DTA**

- [Tab97] M. F. Tabet. Deconvolution of tip affected atomic force microscope images and comparison to Rutherford backscattering spectrometry. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures–Processing, Measurement, and Phenomena*, 15(4):800, July 1997. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Tanaka:1977:RSI**

- [Tan77] Minoru Tanaka. The reception of Soddy’s idea of isotope and the development of radioactivity studies in Japan. *Japanese Studies in the History of Science*, 16(??):119–123, ??? 1977. CODEN JSHIAE. ISSN 0090-0176.

**Tang:1997:DRB**

- [TCZY97] J. Y. Tang, H. S. Cheng, Z. Y. Zhou, and F. J. Yang. Development from Rutherford backscattering to high energy backscattering spectrometry. *AIP Conference Proceedings*, 392:639–??, 1997. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465.

**Temmer:1989:HRM**

- [Tem89] G. M. Temmer. How Rutherford missed discovering quantum mechanical identity. *American Journal of Physics*, 57(3):235–237, March 1989. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Tennenbaum:2020:NPR**

- [Ten20] Jonathan Tennenbaum. Nuclear power’s ray of hope: hydrogen–boron fusion. Part 2: an 85-year-old experiment could open the door to nuclear fusion without billion-degree laser beams. Web site, April 22, 2020. URL <https://asiatimes.com/2020/04/nuclear-powers-ray-of-hope-hydrogen-boron-fusion/>; <https://www.hb11.energy/>.



**Terroux:1938:RCA**

- [Ter38] F. R. Terroux. The Rutherford collection of apparatus at McGill University. *Transactions of the Royal Society of Canada*, 32(??):9–16, 1938. CODEN TRSCAI. ISSN 0035-9122.

**Terroux:1967:MR**

- [Ter67] Ferdinand R. Terroux. A memorial to Rutherford. *McGill News*, 48(6):19–20, 1967. ISSN 0709-9223.

**Testani:2019:PFA**

- [Tes19] Amanda Testani. Paul François awarded Rutherford Medal in Physics. McGill Reported Web site., September 17, 2019.

**Teare:1989:RBS**

- [TF89] S. W. Teare and C. W. Fischer. Rutherford backscattering spectroscopy studies of ion transport in anodic oxides of Al/GaAs. *Journal of Applied Physics*, 65(6):2479, 1989. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Tilden:1936:FS**

- [TG36] Sir William A. (William Augustus) Tilden, F.R.S., D.Sc., LL.D., Sc.D. and Samuel Glasstone. [Frederick Soddy]. In *Chemical Discovery and Invention in the Twentieth Century*, page 140. G. Routledge and Sons, Ltd., London, UK, 1936. LCCN QD15 .T5 1936.

**Tompkins:1999:ASO**

- [TGDS99] Harland G. Tompkins, Richard B. Gregory, Paul W. Deal, and Steven M. Smith. Analysis of silicon oxynitrides with spectroscopic ellipsometry and Auger spectroscopy, compared to analyses by Rutherford backscattering spectrometry and Fourier transform infrared spectroscopy. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 17(2):391, 1999. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Trenn:1974:GMS**

- [TGMR74] Thaddeus J. Trenn, Hans Geiger, Ernest Marsden, and E. Rutherford. The Geiger–Marsden scattering results and

Rutherford's atom, July 1912 to July 1913: The shifting significance of scientific evidence. *Isis*, 65(1):74–82, March 1974. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/228883>.

**Thompson:2011:DDS**

- [TGP11] Richard L. Thompson, S. C. Gurumurthy, and Manjunatha Pattabi. Depth distribution of silver particulate films deposited in softened polystyrene substrates studied through Rutherford backscattering spectrometry. *Journal of Applied Physics*, 110(4):043533, 2011. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Thomson:1903:CET**

- [Tho03] J. J. (Joseph John) Thomson. *Conduction of Electricity Through Gases*. Cambridge physical series. Cambridge University Press, Cambridge, UK, 1903. vi + 1 + 566 pp. LCCN QC711 .T49.

**Thomson:1906:CET**

- [Tho06] J. J. (Joseph John) Thomson. *Conduction of Electricity Through Gases*. Cambridge physical series. Cambridge University Press, Cambridge, UK, second edition, 1906. vi + 2 + 678 pp. LCCN QC711 .T5.

**Thomson:1936:RR**

- [Tho36] J. J. (Joseph John) Thomson. *Recollections and Reflections*. G. Bell and Sons, Ltd., London, UK, 1936. viii + 451 pp. LCCN QC16.T45 A3 1936. URL [https://archive.org/stream/in.ernet.dli.2015.176233/2015.176233.Recollections-And-Reflections\\_djvu.txt](https://archive.org/stream/in.ernet.dli.2015.176233/2015.176233.Recollections-And-Reflections_djvu.txt).

**Thomson:1937:ORHa**

- [Tho37a] J. J. Thomson. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Nature*, 140(3548):751–752, October 30, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL <http://www.nature.com/nature/journal/v140/n3548/abs/140751a0.html>.

**Thomson:1937:ORHb**

- [Tho37b] J. J. Thomson. Obituary: The Right Hon. Lord Rutherford of Nelson, O.M., F.R.S. *Cambridge Review*, ??:??, November 5, 1937.

**Thomson:1937:RR**

- [Tho37c] J. J. (Joseph John) Thomson. *Recollections and Reflections*. The Macmillan Company, New York, NY, USA, 1937. viii + 451 + 9 pp. LCCN QC16.T45 A3 1937.

**Thomson:1965:RLR**

- [Tho65] George Thomson. The Rutherford Lecture, 1964. Rutherford in nineteenth-century Cambridge. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 283(1395):481–490, 1965. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/283/1395/481>.

**Thomson:1970:LRO**

- [Tho70] J. J. Thomson. Lord Rutherford: An obituary. In Homberger et al. [HJS70], pages 177–181. ISBN 0-224-61914-4. LCCN AC5 .H64.

**Thomson:1975:RR**

- [Tho75] J. J. (Joseph John) Thomson. *Recollections and reflections*. History, philosophy, and sociology of science. Arno Press, New York, NY, USA, 1975. ISBN 0-405-06622-8. viii + 451 + 9 pp. LCCN QC16.T45 A3 1975.

**Thompson:1984:SAS**

- [Tho84] K. A. Thompson. Summary abstract: Surface structural determination of UO<sub>2</sub> (111) and (100) using Rutherford backscattering. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 2(2):1005, 1984. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Thomas:2008:LRNa**

- [Tho08a] Professor Sir John Meurig Thomas. Lord Rutherford (1871–1937): Der Newton des Atoms und Chemie-Nobelpreisträger des Jahres 1908. (German) [Lord Rutherford (1871–1937): The Newton of the atom and Nobel Prize for Chemistry in 1908]. *Angewandte Chemie*, 120(49):9532–9541, November 2008. CODEN ANCEAD. ISSN 0044-8249 (print), 1521-3757 (electronic).

**Thomas:2008:LRNb**

- [Tho08b] Professor Sir John Meurig Thomas. Lord Rutherford (1871–1937): The Newton of the atom and the winner of the No-

bel Prize for Chemistry, 1908. *Angewandte Chemie, International Edition*, 47(49):9392–9401, November 6, 2008. CODEN ACIEF5. ISSN 1433-7851 (print), 1521-3773 (electronic).

**Tilton:1996:HAR**

- [Til96] Homer Benjamin Tilton. The hydrogen atom: The Rutherford model. In Lakhtakia [Lak96], pages 33–47. ISBN 981-02-2302-1. LCCN QC171.2 .M63 1996. URL <http://adsabs.harvard.edu/abs/1996mmh..book...33T>.

**Tipler:2013:PKA**

- [Tip13] Frank J. Tipler. Perry, Kelvin, and the age of the sun. *European Physical Journal H*, 38(3):405–409, April 2013. CODEN EPJHAD. ISSN 2102-6459 (print), 2102-6467 (electronic). URL <http://link.springer.com/article/10.1140/epjh/e2012-30021-5>.

**Tizard:1946:LR**

- [Tiz46a] Sir Henry Tizard. Lord Rutherford. *Notes and Records of the Royal Society of London*, 4(1):103–108, April 1946. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://www.jstor.org/stable/531246>. Transcript of a BBC radio talk on 16 December 1945 by Sir Henry Tizard about Lord Rutherford.

**Tizard:1946:RML**

- [Tiz46b] Sir Henry Tizard, K.C.B., F.R.S. The Rutherford Memorial Lecture. *Journal of the Chemical Society*, ??(?):980–986, 1946. CODEN JCSEA9. ISSN 0368-1769 (print), 2050-5574 (electronic).

**Tanner:2011:RL**

- [TJ11] Peter Tanner and Paul Jay. Rutherford’s legacy. *Physics World*, 24(11):24, November 2011. CODEN PHWOEW. ISSN 0953-8585 (print), 2058-7058 (electronic). URL <http://stacks.iop.org/2058-7058/24/i=11/a=36>.

**Touboltsev:2003:ELL**

- [TJRS03] V. Touboltsev, P. Jalkanen, J. Räsänen, and P. J. M. Smulders. On erbium lattice location in ion implanted  $\text{Si}_{0.75}\text{Ge}_{0.25}$  alloy: Computer simulation of Rutherford backscattering/channeling. *Journal of Applied Physics*, 93(6):3668, 2003.

CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Thevuthasan:1999:RBC**

- [TMJ+99] S. Thevuthasan, D. E. McCready, W. Jiang, E. D. McDaniel, S. I. Yi, and S. A. Chambers. Rutherford backscattering and channeling studies of Al and Mg diffusion in iron oxide thin films. *AIP Conference Proceedings*, 475(??):508, 1999. CODEN APCPCS. ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. URL <http://scitation.aip.org/content/aip/proceeding/aipcp/10.1063/1.59180>.

**Tammen:1995:IIS**

- [TMO+95] H. F. Tammen, S. A. H. Moorman, T. Oyevaar, F. C. Schüller, and A. J. H. Donné. Investigation of ion sawtooth activity by Rutherford scattering. *Review of Scientific Instruments*, 66(1):327, 1995. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Todd:2014:BHL**

- [Tod14] Neil Todd. A brief history of Lord Rutherford's radium. *Notes and Records of the Royal Society of London*, 68(3):279–300, September 20, 2014. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://rsnr.royalsocietypublishing.org/content/68/3/279>.

**Thomson:1896:XPE**

- [TR96] J. J. Thomson, M.A., F.R.S. and Ernest Rutherford, M.A. XL. On the passage of electricity through gases exposed to Röntgen rays. *Philosophical Magazine (5)*, 42(258):392–407, November 1896. CODEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1080/14786449608620932>.

**Trenn:1971:RSS**

- [Tre71a] Thaddeus J. Trenn. Rutherford and Soddy: From a search for radioactive constituents to the disintegration theory of radioactivity. *RETE: Strukturgeschichte der Naturwissenschaften*, 1(??):51–70, ????. 1971. CODEN RETECK. ISSN 0340-4617.

**Trenn:1971:RED**

- [Tre71b] Thaddeus Joseph Trenn. *The Rise and Early Development of the Disintegration Theory of Radioactivity*. Ph.D. thesis, University of Wisconsin–Madison, Madison, WI, USA, 1971. 392 pp. URL <http://search.proquest.com/pqdtglobal/docview/302608982>.

**Trenn:1973:BRR**

- [Tre73] Thaddeus J. Trenn. Book review: *Rutherford: Recollections of the Cambridge Days* by Mark Oliphant. *Isis*, 64(2):278–279, June 1973. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/229637>.

**Trenn:1974:JTS**

- [Tre74a] Thaddeus J. Trenn. The justification of transmutation: speculations of Ramsay and experiments of Rutherford. *Ambix: Journal of the Society for the History of Alchemy and Chemistry*, 21(1):53–77, March 1, 1974. CODEN AMBXAO. ISSN 0002-6980 (print), 1745-8234 (electronic). URL <http://www.maneyonline.com/doi/abs/10.1179/amb.1974.21.1.53>.

**Trenn:1974:RAT**

- [Tre74b] Thaddeus J. Trenn, Ph.D. Rutherfords Alpha-Teilchen. (German) [Rutherford's alpha particles]. *Annals of Science*, 31(1):49–72, 1974. CODEN ANNSA8. ISSN 0003-3790 (print), 1464-505X (electronic).

**Trenn:1975:BRR**

- [Tre75a] Thaddeus J. Trenn. Book review: *Rutherford: The Father of Nuclear Energy* by T. E. Allibone. *Isis*, 66(3):430–431, September 1975. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/228872>.

**Trenn:1975:BRS**

- [Tre75b] Thaddeus J. Trenn. Book review: *The Structure of Matter: Rutherford Centennial Symposium, Held at the University of Canterbury, Christchurch, New Zealand, 7–9 July 1971* by B. G. Wybourne. *Isis*, 66(2):295–296, June 1975. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/229454>.

**Trenn:1975:RAT**

- [Tre75c] Thaddeus J. Trenn, editor. *Radioactivity and Atomic Theory*. Taylor and Francis Ltd., London, 1975. ISBN 0-470-88520-3, 0-85066-077-7. xv + 517 pp. LCCN QC795 .S62 1975.

**Trenn:1975:RRA**

- [Tre75d] Thaddeus J. Trenn. Rutherford and recoil atoms: The metamorphosis and success of a once stillborn theory. *Historical Studies in the Physical Sciences*, 6(??):513–547, 1975. CODEN HSPSAS. ISSN 0073-2672 (print), 2327-7394 (electronic). URL <http://www.jstor.org/stable/27757348>.

**Trenn:1976:BRE**

- [Tre76a] Thaddeus J. Trenn. Book review: *Ernest Rutherford and the Atom* by P. B. Moon. *Isis*, 67(3):500, September 1976. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/230710>.

**Trenn:1976:RAB**

- [Tre76b] Thaddeus J. Trenn. Rutherford on the alpha-beta-gamma classification of radioactive rays. *Isis*, 67(1):61–75, March 1976. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/231134>.

**Trenn:1977:BRR**

- [Tre77a] Thaddeus J. Trenn. Book review: *Rutherford Correspondence Catalog* by Lawrence Badash. *Isis*, 68(1):158–159, March 1977. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/230417>.

**Trenn:1977:SSA**

- [Tre77b] Thaddeus J. Trenn. *The self-splitting atom: the history of the Rutherford-Soddy collaboration*. Taylor and Francis, Boca Raton, FL, USA, 1977. ISBN 0-85066-109-9. xii + 175 pp. LCCN QC790 .T73.

**Trenn:1979:RMP**

- [Tre79a] Thaddeus J. Trenn. Rutherford in the McGill physical laboratory. In Bunge and Shea [BS79], pages 88–109. ISBN 0-88202-184-2 (New York), 0-7129-0918-4 (Cannon House Folkestone). LCCN QC7.5 .R87 1979.

**Trenn:1979:RRA**

- [Tre79b] Thaddeus J. Trenn. Rutherford's *Radio-Activity* and alpha ray research: The case of a misdated letter. *Ambix: Journal of the Society for the History of Alchemy and Chemistry*, 26(2):134–136, 1979. CODEN AMBXAO. ISSN 0002-6980 (print), 1745-8234 (electronic). URL <http://www.tandfonline.com/doi/abs/10.1179/amb.1979.26.2.134>.

**Trenn:1983:WHR**

- [Tre83] Thaddeus J. Trenn. Why Hahn's radiothorium surprised Rutherford in Montreal. In Shea [She83b], pages 201–212. ISBN 90-277-1584-X. LCCN QC773 .O87 1983. URL [http://link.springer.com/chapter/10.1007/978-94-009-7133-2\\_8](http://link.springer.com/chapter/10.1007/978-94-009-7133-2_8).

**Trenn:1985:BRR**

- [Tre85] Thaddeus J. Trenn. Book review: *Rutherford: Simple Genius* by David Wilson. *Isis*, 76(1):132–133, March 1985. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/232851>.

**Thomson:1928:CET**

- [TT33] Sir J. J. (Joseph John) Thomson and G. P. (George Paget) Thomson. *Conduction of Electricity Through Gases*. Cambridge University Press, Cambridge, UK, third edition, 1928–1933. ???? pp. LCCN QC711 .T5 1928.

**Thomson:1969:CET**

- [TT69] Sir J. J. (Joseph John) Thomson and G. P. (George Paget) Thomson. *Conduction of Electricity Through Gases*. Dover, New York, NY, USA, 1969. 491 (vol. 1), vi + 608 (vol. 2) pp. LCCN QC711 .T5 1969.

**Turner:2001:BRR**

- [Tur01] John F. C. Turner. Book review: *Rutherford, Scientist Supreme*, (Campbell, John). *Journal of Chemical Education*, 78(3):313–??, March 2001. CODEN JCEDA8. ISSN 0021-9584 (print), 1938-1328 (electronic). URL <http://pubs.acs.org/doi/abs/10.1021/ed078p313>.

**Tammen:1992:RST**

- [TvBO<sup>+</sup>92] H. F. Tammen, A. A. E. van Blokland, T. Oyevaar, F. C. Schüller, and A. J. H. Donné. Rutherford scattering at TEX-



TOR. *Review of Scientific Instruments*, 63(10):4583, 1992. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Vasile:1990:CTN**

- [Vas90] M. J. Vasile. The characterization of titanium nitride by X-ray photoelectron spectroscopy and Rutherford backscattering. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 8(1):99, January 1990. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**vanBlokland:1992:ITM**

- [vBBD<sup>+</sup>92] A. A. E. van Blokland, E. P. Barbian, A. J. H. Donné, A. F. van der Grift, T. W. M. Grimbergen, Th. Oyevaar, F. C. Schuller, H. F. Tammen, H. W. van der Ven, T. F. Vijverberg, F. D. A. de Winter, G. Bertschinger, A. Cosler, and M. Korten. Ion temperature measurements in tokamak plasmas by Rutherford scattering. *Review of Scientific Instruments*, 63(6):3359, 1992. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**vanBlokland:1990:ITM**

- [vBBGO90] A. A. E. van Blokland, E. P. Barbian, T. W. M. Grimbergen, and Th. Oyevaar. Ion temperature measurements by means of Rutherford scattering at TEXTOR. *Review of Scientific Instruments*, 61(10):3116, 1990. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**vanBlokland:1989:MIT**

- [vBD89] A. A. E. van Blokland and A. J. H. Donné. Measurement of ion temperatures by means of Rutherford scattering of energetic neutrals above the limiting angle. *Journal of Applied Physics*, 65(2):468, 1989. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**vandenBroek:1907:TPS**

- [vdB07] Antonius van den Broek. Das  $\alpha$ -Teilchen und das periodische System der Elemente. (German) [The  $\alpha$  particle and the periodic system of elements]. *Annalen der Physik (1900)*, 328 (23):199–203, 1907. ISSN 1521-3889. URL <http://onlinelibrary.wiley.com/doi/10.1002/andp.19073280614/abstract>.

**vandenBroek:1913:RPS**

- [vdB13] Antonius van den Broek. Die Radioelemente, das periodische System und die Konstitution der Atome. (German) [The radio elements, the periodic system, and the constitution of atoms]. *Physikalische Zeitschrift*, 14(1):32–41, January 1913. CODEN PHZTAO. ISSN 0369-982X. URL <http://hdl.handle.net/2027/njp.32101054770894?urlappend=%3Bseq=70>.

**vanderKolk:1989:SPS**

- [vdK89] G. J. van der Kolk. A study of Pd-Ta on Si(100) using Auger electron spectroscopy, Rutherford backscattering spectrometry, and variable energy positron annihilation. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 7(3):1601, May 1989. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**vonGunten:1995:RTE**

- [vG95] Hans R. von Gunten. Radioactivity: A tool to explore the past. *Radiochimica Acta*, 70–71(S1):304–413, December 1995. CODEN RAACAP. ISSN 0033-8230 (print), 2193-3405 (electronic). URL <http://www.degruyter.com/view/j/ract.1995.70-71.issue-s1/ract.1995.7071.special-issue.305/ract.1995.7071.special-issue.305.xml>.

**Villeneuve:2005:TCR**

- [Vil05] David M. Villeneuve. Toward creating a Rutherford atom. *Science*, 307(5716):1730–1731, March 18, 2005. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/3841814>; <http://www.sciencemag.org/content/307/5716/1730.summary>.

**vanIJzendoorn:1989:SDP**

- [vIS89] L. J. van IJzendoorn and J. P. W. Schellekens. Si-depth profiling with Rutherford backscattering in photoresist layers: a study on the effects of degradation. *Journal of Applied Physics*, 65(2):799, 1989. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Valdecasas:2014:WBN**

- [VPW14] Antonio G. Valdecasas, Maria L. Pelaez, and Quentin D. Wheeler. What’s in a (biological) name? The wrath of

Lord Rutherford. *Cladistics*, 30(2):215–223, April 2014. ISSN 0748-3007 (print), 1096-0031 (electronic).

**Volterra:1912:LDC**

- [VRWB12] V. Volterra, Ernest Rutherford, R. W. Wood, and C. Barus. *Lectures delivered at the celebration of the twentieth anniversary of the foundation of Clark University, under the auspices of the Department of Physics. Worcester, Massachusetts, September 7–11. 1909*. G. E. Stechert and Co., 1912. vii + 161 pp.

**Vucinich:1986:BRK**

- [Vuc86] Alexander Vucinich. Book review: *Kapitza, Rutherford, and the Kremlin* by Lawrence Badash. *Isis*, 77(3):547–548, September 1986. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/231648>.

**Voinov:2009:SRC**

- [VV09] V. Voinov and E. Voinov. A statistical reanalysis of the classical Rutherford’s experiment. *Communications in Statistics: Simulation and Computation*, 39(1):157–171, 2009. CODEN CSSCDB. ISSN 0361-0918.

**vonWeizsacker:1935:TKG**

- [vW35] C. F. von Weizsäcker. Zur Theorie der Kernmassen. (German) [On the theory of nuclear mass]. *Zeitschrift für Physik*, 96(7–8):431–458, July 1935. CODEN ZEPYAA. ISSN 0044-3328. URL <http://link.springer.com/article/10.1007/BF01337700>.

**Wade:2020:GKR**

- [Wad20] Pamela Wade. Great Kiwi road trip: Nelson to Picton. Web site., January 9, 2020. URL <https://www.stuff.co.nz/travel/destinations/nz/118147568/great-kiwi-road-trip-nelson-to-picton>.

**Wall:2018:SHI**

- [Wal18] Mike Wall. Stephen Hawking to be interred in Westminster Abbey: The late physicist’s ashes will share a final resting place with the remains of Newton, Darwin and other historic figures. *Scientific American*, ??(??):

??, March 21, 2018. CODEN SCAMAC. ISSN 0036-8733 (print), 1946-7087 (electronic). URL <https://www.scientificamerican.com/article/stephen-hawking-to-be-interred-in-westminster-abbey/>.

**Wang:1996:DLS**

- [Wan96] Ke-Ming Wang. Determination of the lateral spread of Xe ions in silicon nitride and hydrated silicon nitride films by oblique incidence Rutherford backscattering. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 14(1):240, January 1996. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Wattenberg:1993:BNA**

- [Wat93] Albert Wattenberg. The birth of the nuclear age. *Physics Today*, 46(1):44–51, January 1993. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <https://physicstoday.scitation.org/doi/pdf/10.1063/1.881378>.

**Wang:1986:SII**

- [WCGC86] P. W. Wang, H. S. Cheng, W. M. Gibson, and J. W. Corbett. Studies of implanted iron in silicon by channeling and Rutherford backscattering. *Journal of Applied Physics*, 60(4):1336, 1986. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Wu:2002:DDT**

- [WCZ<sup>+</sup>02] M. F. Wu, ChangChun Chen, DeZhang Zhu, Shengqiang Zhou, A. Vantomme, G. Langouche, B. S. Zhang, and Hui Yang. Depth dependence of the tetragonal distortion of a GaN layer on Si(111) studied by Rutherford backscattering/channeling. *Applied Physics Letters*, 80(22):4130, 2002. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Weiner:1970:PGD**

- [Wei70] Charles Weiner. Physics in the Great Depression. *Physics Today*, 23(10):31–38, October 1970. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL [http://www.physicstoday.org/resource/1/phtoad/v23/i10/p31\\_s1](http://www.physicstoday.org/resource/1/phtoad/v23/i10/p31_s1). Reprinted in [WP85, pages 115–121].

**Weiner:1972:MNP**

- [Wei72] Charles Weiner. 1932 — moving into the new physics. *Physics Today*, 25(5):40–49, May 1972. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://scitation.aip.org/content/aip/magazine/physicstoday/article/25/5/10.1063/1.3070853>. Reprinted in [Wei85].

**Weiner:1985:MNP**

- [Wei85] Charles Weiner. 1932 — moving into the new physics. In Weart and Phillips [WP85], pages 332–339. ISBN 0-88318-468-0 (paperback). LCCN QC7 .H694 1985. Reprint of [Wei72].

**Weinberg:2011:PPR**

- [Wei11] Steven Weinberg. Particle physics, from Rutherford to the LHC. *Physics Today*, 64(8):29–32, August 1, 2011. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic). URL <http://physicstoday.scitation.org/doi/full/10.1063/PT.3.1216>.

**Welch:1990:PRW**

- [Wel90] Robert Alonzo Welch, editor. *Proceedings of the Robert A. Welch foundation conferences on chemical research. Fifty years with transuranium elements: October 22–23, 1990, the Westin Oaks Hotel, Houston, Texas*, volume 34. Robert A. Welch Foundation, Houston, TX, USA, 1990. ISSN 0557-1588. LCCN QD181.U7 R632 1990.

**Wendt:1953:UBS**

- [Wen53] Gerald Wendt. Unlocking the basic secrets of nature: Alpha, beta, gamma — the ABC of nuclear physics. *UNESCO Courier*, 6(12):5–7, December 1953. ISSN 0041-5278. URL <http://unesdoc.unesco.org/images/0007/000708/070862eo.pdf>.

**Wereide:1923:GPR**

- [Wer23] Th. Wereide. The General Principle of Relativity applied to the Rutherford–Bohr atom-model. *Physical Review*, 21(4):391–396, April 1923. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL <http://link.aps.org/doi/10.1103/PhysRev.21.391>.

**Weiner:1972:EHN**

- [WH72] Charles Weiner and Elspeth Hart, editors. *Exploring the history of nuclear physics: proceedings of the American Institute of Physics–American Academy of Arts and Sciences conferences on the history of nuclear physics, 1967 and 1969*, volume 7 of *AIP conference proceedings*. American Institute of Physics, Woodbury, NY, USA, 1972. ISSN 0094-243X, 1551-7616, 1935-0465. LCCN QC173 .E88 1972.

**Whetham:1904:MER**

- [Whe04] W. C. D. Whetham. Matter and electricity: [review of books by J. J. Thomson and M. Curie, and papers by P. Curie and M. Curie and E. Rutherford and F. Soddy]. *The Quarterly Review*, 199(??):100–126, ??? 1904.

**Wheaton:1980:BRR**

- [Whe80] Bruce R. Wheaton. Book review: *Rutherford and Physics at the Turn of the Century* by Mario Bunge; William R. Shea. *Isis*, 71(2):317–318, June 1980. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/230202>.

**Whetstone:2018:LMS**

- [Whe18] David Whetstone. LEGO man Steve Mayes has been splitting the atom for the Great Exhibition of the North: The North Shields modeller has been creating a Timeline of Northern Innovation to display in the Mining Institute. Web article., February 27, 2018. URL <https://www.chroniclelive.co.uk/whats-on/arts-culture-news/lego-man-steve-mayes-been-14343862>.

**Whitton:1982:RBN**

- [Whi82] J. L. Whitton. Rutherford backscattering, nuclear reaction, and channeling studies of nitrogen implanted single-crystal stainless steel. *Applied Physics Letters*, 41(2):150, 1982. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Wicher:1965:ERS**

- [Wic65] E. R. Wicher. Elementary Rutherford scattering simulator. *American Journal of Physics*, 33(8):635–636, August 1965. CODEN AJPIAS. ISSN 0002-9505 (print), 1943-2909 (electronic).

**Wielopolski:1978:RBS**

- [Wie78] Lucian Wielopolski. Rutherford backscattering spectra distorted by peak pulse pileup. *Journal of Applied Physics*, 49(9):4943, 1978. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Wilson:1960:RME**

- [Wil60] Charles Thomas Rees Wilson, C.H., F.R.S. Reminiscences of my early years. *Notes and Records of the Royal Society of London*, 14(2):163–173, June 1960. CODEN NOREAY. ISSN 0035-9149 (print), 1743-0178 (electronic). URL <http://www.jstor.org/stable/531086>.

**Williams:1964:FSC**

- [Wil64] T. I. Williams. Frederick Soddy and the concept of isotopes. *Endeavour*, 23(??):54–??, ????. 1964. CODEN ENDEAS. ISSN 0160-9327 (print), 1873-1929 (electronic).

**Williams:1969:FS**

- [Wil69] T. I. Williams. [Frederick Soddy]. In *Biographical Dictionary of Scientists*, page ?? ????, London, UK, 1969.

**Wilson:1974:ATP**

- [Wil74] Jerry D. Wilson. Apparatus for teaching physics: Rutherford scattering box with 107 GeV accelerator. *The Physics Teacher*, 12(7):437, October 1974. CODEN PHTEAH. ISSN 0031-921X (print), 1943-4928 (electronic).

**Wilson:1983:RSG**

- [Wil83a] David Wilson. *Rutherford, simple genius*. Hodder and Stoughton, London, UK, 1983. ISBN 0-340-23805-4. 638 + 8 pp. LCCN QC16.R8 W54 1983. US\$14.95. URL <http://catalog.hathitrust.org/api/volumes/oclc/10560773.html>.

**Wilson:1983:CAS**

- [Wil83b] R. G. Wilson. Correlation among secondary ion mass spectrometry, cross-section transmission electron microscopy, and Rutherford backscattering analyses for defect density and depth distribution determination. *Applied Physics Letters*, 43(6):549, 1983. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Wilkins:2015:ORP**

- [Wil15] Robert N. Wilkins. Opinion: Rutherford Park on McTavish Reservoir is an important green space. *The Montreal Gazette*, ??(??):??, May 20, 2015. ISSN 0384-1294. URL <http://montrealgazette.com/news/local-news/opinion-rutherford-park-on-mctavish-reservoir-is-an-important-green-space>; <https://www.google.com/maps/@45.5043152,-73.5776287,16.75z>.

**Williams:2017:CHR**

- [Wil17] David Williams. Christchurch heritage restoration wins UNESCO award. *Newsroom*, ??(??):??, November 6, 2017. URL <https://www.newsroom.co.nz/2017/11/06/58442/christchurch-heritage-restoration-wins-unesco-award>. Story about the renovation of the cathedral in Christchurch, NZ, damaged by earthquakes in 2010 and 2011, with the remark “In the bowels of the Clock Tower building is Rutherford’s Den, where Nobel Prize-winning physicist Ernest Rutherford conducted his early experiments.”.

**Winton:1994:CXR**

- [Win94] G. H. Winton. Correlation of X-ray photoelectron spectroscopy and Rutherford backscattering spectroscopy depth profiles on  $\text{Hg}_{1-x}\text{Cd}_x\text{Te}$  native oxides. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 12(1):35, January 1994. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Wittmaack:1988:SEA**

- [WM88] K. Wittmaack and N. Menzel. Significantly extended analytical potential of Rutherford backscattering spectrometry by in situ combination with low-energy sputtering. *Applied Physics Letters*, 53(18):1708, 1988. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Weyland:2001:ETN**

- [WMT01] Matthew Weyland, Paul A. Midgley, and John Meurig Thomas. Electron tomography of nanoparticle catalysts on porous supports: A new technique based on Rutherford scattering. *Journal of Physical Chemistry. B. Condensed matter, materials, surfaces, interfaces & biophysical*, 105(33):7882–7886, 2001. CODEN JPCBFK. ISSN 1089-5647 (print), 1520-6106 (electronic).



- [Won20] Wong:2020:SHM  
Gilbert Wong. Scientifica historica: The 150 most important works of science. The New Zealand Listener Web site, January 21, 2020. URL <https://www.noted.co.nz/culture/culture-books/scientifica-historica-brian-clegg-book-review>.
- [Woo46] Wood:1946:CL  
Alexander Wood. *The Cavendish Laboratory*. Cambridge University Press, Cambridge, UK, 1946. 59 + 8 pp.
- [WP85] Weart:1985:HP  
Spencer R. Weart and Melba Phillips, editors. *History of physics*, volume 2 of *Readings from Physics Today*. American Institute of Physics, Woodbury, NY, USA, 1985. ISBN 0-88318-468-0 (paperback). 375 pp. LCCN QC7 .H694 1985.
- [WR31] Webster:1931:CEP  
H. C. Webster and Professor Sir Ernest Rutherford. The capture of electrons by  $\alpha$ -particles. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 27(1):116, January 1931. CODEN PCPSA4. ISSN 0008-1981. URL <http://adsabs.harvard.edu/abs/1931PCPS...27..116W>.
- [Wri64] Wright:1964:CSP  
Stephen John Wright, editor. *Classical scientific papers: physics: facsimile reproductions of famous scientific papers*. Mills & Boon, Limited, London, UK, 1964. xix + 393 pp. LCCN QC71 .W73 1964. URL <https://archive.org/details/ClassicalScientificPapersPhysics>.
- [Wuy91] Wuyts:1991:CRB  
K. Wuyts. A combined Rutherford backscattering and Auger electron spectroscopy analysis of Ni/Au/Te ohmic contacts to *n*-GaAs. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 9(2):228, March 1991. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).
- [WV07] Went:2007:IBC  
M. R. Went and M. Vos. Investigation of binary compounds using electron Rutherford backscattering. *Applied Physics*

*Letters*, 90(7):072104, 2007. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Windawi:1976:ALA**

- [WVCW76] H. M. Windawi, S. P. Varma, C. B. Cooper, and F. Williams. Analysis of lead azide thin films by Rutherford backscattering. *Journal of Applied Physics*, 47(8):3418, 1976. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Wu:1996:CRB**

- [WVD<sup>+</sup>96] M. F. Wu, A. Vantomme, J. De Wachter, S. Degroote, H. Pattyn, G. Langouche, and H. Bender. Comprehensive Rutherford backscattering and channeling study of ion-beam-synthesized ErSi<sub>1.7</sub> layers. *Journal of Applied Physics*, 79(9):6920–6925, May 1996. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Wu:1999:ESL**

- [WVH<sup>+</sup>99] M. F. Wu, A. Vantomme, S. M. Hogg, G. Langouche, W. Van der Stricht, K. Jacobs, and I. Moerman. Elastic strain in In<sub>0.18</sub>Ga<sub>0.82</sub>N layer: a combined X-ray diffraction and Rutherford backscattering/channeling study. *Applied Physics Letters*, 74(3):365, 1999. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Wybourne:1972:SMR**

- [Wyb72] Brian G. Wybourne, editor. *The structure of matter: Rutherford Centennial Symposium, Christchurch, 7–9 July 1971*. University of Canterbury, Christchurch, New Zealand, 1972. ISBN 0-900322-17-7. LCCN QC173 .R83 1971. Symposium held 7–9 July 1971 in honor of the centenary of the birth of Ernest Rutherford.

**Wu:1999:SAL**

- [WYV<sup>+</sup>99] M. F. Wu, Shude Yao, A. Vantomme, S. M. Hogg, G. Langouche, J. Li, and G. Y. Zhang. Strain in AlGa<sub>N</sub> layer studied by Rutherford backscattering/channeling and X-ray diffraction. *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures—Processing, Measurement, and Phenomena*, 17(4):1502, 1999. CODEN JVSTBM. ISSN 1071-1023 (print), 1520-8567 (electronic).

**Wang:1991:ILS**

- [WZS<sup>+</sup>91] Ke-Ming Wang, Qing-Tai Zao, Bo-Rong Shi, Zhong-Lie Wang, Xiang-Dong Liu, and Ji-Tian Liu. Investigation of lateral straggling of Hg ions in Si<sub>3</sub>N<sub>4</sub> by normal and glancing angle Rutherford backscattering. *Applied Physics Letters*, 58 (13):1401, 1991. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Young:1997:RSD**

- [YHS97] F. C. Young, D. D. Hinshelwood, and S. J. Stephanakis. A Rutherford scattering diagnostic for intense pulsed proton beams transported in low-pressure gases. *Review of Scientific Instruments*, 68(1):281, 1997. CODEN RSINAK. ISSN 0034-6748 (print), 1089-7623 (electronic).

**Yatsurugi:1984:SSH**

- [YKH<sup>+</sup>84] Yoshifumi Yatsurugi, Osamu Kuboi, Masanori Hashimoto, Hisao Nagai, Michi Aratani, Minoru Yanokura, Isao Kohno, and Tadashi Nozaki. Studies of *a*-Si:H growth mechanism by Rutherford recoil measurement of H and D in films prepared from SiH<sub>4</sub>-D<sub>2</sub> and SiD<sub>4</sub>-H<sub>2</sub>. *Applied Physics Letters*, 44(2):246, 1984. CODEN APPLAB. ISSN 0003-6951 (print), 1077-3118 (electronic), 1520-8842.

**Yuhara:1992:PTS**

- [Yuh92] Junji Yuhara. Phase transition of the Si(111)-Au surface from  $\sqrt{3} \times \sqrt{3}$  to  $5 \times 1$  structure studied by means of the low-energy electron diffraction, Auger electron spectroscopy, and Rutherford backscattering spectroscopy techniques. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 10(2):334, March 1992. CODEN JVTAD6. ISSN 0734-2101 (print), 1520-8559 (electronic).

**Ziegler:1974:DBI**

- [ZB74] J. F. Ziegler and J. E. E. Baglin. Does backscattering of <sup>4</sup>He ions by nuclei obey the Rutherford cross-section formula? *Journal of Applied Physics*, 45(4):1888, 1974. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

**Zhou:2012:DPT**

- [ZCS<sup>+</sup>12] Shengqiang Zhou, Lin Chen, Artem Shalimov, Jianhua Zhao, and Manfred Helm. Depth profile of the tetragonal distor-

tion in thick GaMnAs layers grown on GaAs by Rutherford backscattering channeling. *AIP Advances*, 2(4):042102, 2012. CODEN AAIDBI. ISSN 2158-3226.

**Ziman:1969:RMLa**

- [Zim69a] J. M. Ziman, F.R.S. The Rutherford Memorial Lecture, 1968. Some problems of the growth and spread of science into developing countries. *Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, 311(1506):349–369, 1969. CODEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL <http://rspa.royalsocietypublishing.org/content/311/1506/349>. Lecture delivered at the University of Delhi, India, on 2 December 1968, during a tour of scientific institutions in India and Pakistan, as a guest of the Indian University Grants Committee and of the Pakistan Atomic Energy Commission.

**Ziman:1969:RMLb**

- [Zim69b] J. M. Ziman, F.R.S. The Rutherford Memorial Lecture, 1968: Some problems of the growth and spread of science into developing countries. *Proceedings of the Royal Society of London. Series B. Biological sciences*, 174(1034):69–89, 1969. CODEN PRLBA4. ISSN 0962-8452 (print), 1471-2954 (electronic). URL <http://rspb.royalsocietypublishing.org/content/174/1034/69>. Lecture delivered at the University of Delhi, India, on 2 December 1968, during a tour of scientific institutions in India and Pakistan, as a guest of the Indian University Grants Committee and of the Pakistan Atomic Energy Commission. Reprint of [Zim69a].

**Zhang:2002:DER**

- [ZWJ<sup>+</sup>02] Y. Zhang, W. J. Weber, W. Jiang, A. Hallén, and G. Possnert. Damage evolution and recovery on both Si and C sublattices in Al-implanted 4H-SiC studied by Rutherford backscattering spectroscopy and nuclear reaction analysis. *Journal of Applied Physics*, 91(10):6388, 2002. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.