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

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## Title word cross-reference

(100) [Tho84]. 1.0 –  $\mu$  [Gro89]. **\$1.50** [Dav37]. 1/2 [Hei71]. 180° [EFKS96]. **\$23.00** [Dys05]. **\$25.00** [Dys05]. **\$4.75** [Ble57]. **\$50** [Pip01].  $5 \times 1$  [Yuh92]. **\$7.00** [Bat72]. <sup>†</sup> [SSWB80a, Sad81]. <sup>10</sup> [LMC97]. <sup>12</sup> [RR95]. <sup>14</sup> [RR95]. <sup>16</sup> O [RR95]. <sup>32</sup> [RRKH94]. <sup>4</sup> [MDJF83, ZB74]. <sup>o</sup> [Mon66]. <sub>0.18</sub> [WVH+99]. <sub>0.25</sub> [TJRS03]. <sub>0.47</sub> [GRS+91]. <sub>0.53</sub> [GRS+91]. <sub>0.75</sub> [TJRS03]. <sub>0.82</sub> [WVH+99]. <sub>1</sub> [KKK+99]. <sub>1-x</sub> [KKK+99, PAF+98, Win94]. <sub>1.7</sub> [WVD+96]. <sub>1.8</sub> [LFA+04]. <sub>2</sub> [CSN+00, DMV+96, IFS194, Ish83, NJS+03, NFM+07, OaHNM98, LFA+04, REJ86, Tho84, YKH+84]. <sub>3</sub> [Cat93, HGM+94, IFS194, KKK+99, OaHNM98, RSdS+89, WZS+91]. <sub>4</sub> [WZS+91, YKH+84]. <sub>5</sub> [ESRDV84]. <sub>x</sub> [KKK+99, PAF+98, Win94]. <sub>a</sub> [YKH+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+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+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+11]. -Rays [Cha12, FR13g, Rut10f, RE31, Rut66b, CK33, Rut27l, Rut27h, Rut33i]. -Si [YKH+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].

1-alkyl-3-methylimidazolium [NOH+10]. 1-butyl-3-methylimidazolium [OHN+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.£ [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+31b, Rut31a, Rut31e]. 1930s [Stu79a]. 1931 [Rut31b]. 1933 [CCJ+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+23]. 1st [LRdB+23].

**20.00** [Bro86]. **20th** [Meh73, Bre97]. **22** [Bad67, Bad85b,  $CCJ^+34$ ]. **2nd** [Rut33h].

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

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

**7059** [DJBW83].

**80th** [SR37].

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+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+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, RS02i, RB05b, Rut06a, RB06a, RB06b, Rut13f, SBEO86]. Activity [Ano08a, Bar06, MG12, RP07, Sod04, Rut00c, RS02i, Rut03c, Rut04c, Rut04k, Rut05h, RC19, Rut04, Rut07a, TMO<sup>+</sup>95, Tre79b]. **Actuels** [Rut05c]. Adam [Stu85]. Additional [Rut12c]. additionnelle [Rut12c]. Additions [CDE+31a]. Address [Rut09i, Rut23p, Rut27e, Rut27j, Rut28a, Rut29j, Rut29k, Rut30a, Rut30h, Rut31a, Rut31e, RCE+32, RSA+34b, RSA+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, 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+99]. alhimija [Rez38]. alkali [STB+01]. alkaline [HS39]. alkémia [RA45]. alkyl [NOH+10]. Allen [Bur64]. Allibone [Sei86, Stu85, Sen87, Tre75a]. Alloy [OaHNM98, TJRS03]. alloys [BBR80]. AlN [LCL+04]. along [McC19]. Alpha [Ano08a, Ano22, Mar61, Ano00a, Nia98, OH64, Roe95, Rut06k, Rut08a, RW16, Rut23k, RC24a, Rut24j, Rut26b, Rut26c, Rut26d, Rut26e, RWWW30, 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+01]. alumnae [Mor84]. Alumni [RSWE27]. Amateur [Har01]. American [WH72, Bad05, Gri09, Lav14, Sla13]. among [Gri09, Wil83b]. amorphous [ATS86, REJ86]. Amount [Rut03a]. Amplitude [Mar72, Rut16e]. Analogy [Gre07, Lor88, SC13]. Analysen [MMKS+80]. Analyses [Mon66, Sen87, GR89, TGDS99, Wil83b]. Analysis [And90, Bra61, FLP+89, Hwa82, HHK87, LHB+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+90, KOhM94, LHNG14, LGF+99, Man82, MBS+04, MMKS+80, Par96, Phi83, PMCF<sup>+</sup>06, RMM<sup>+</sup>13, Reu81, RR13d, RR13f, SHAI09, Sha87b, SN05, STB+01, Sin93, Wuy91, ZWJ+02, Hwa83, RR13b, RR13e]. analytical [WM88]. anatomy [Sie11]. Ancestry [Ano06]. Anchor [Opp64]. Andrade [Aro65b, Opp64]. angle [DHS97, Kru75, Man77, WZS+91, vBD89]. angles [GM13]. Angular [RR95]. Animals [RMM<sup>+</sup>29]. anion [HW92]. Anmerkung [Rut05j]. annealing [BJW97, Bha82, CYM+03, DJBW83, GHCA91, LxW99, Lu87, MBS<sup>+</sup>04, Sad81]. annihilation [AAPN06, CYM+03, FTT96, vdK89]. Anniversaries [Bar71, 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]. 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+12]. Atmosphäre [RA02a]. Atmosphere [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, Ful13, Gar81, Gea62, Her72, Hug90, Kae36, Kra11, KH23, Lau37, Mon66, Nia98, Pod10b, RN04, Rom60, Rom82, Rut09b, Rut09c, Rut09g, Rut09h, Rut11j, Rut13h, Rut14b, Rut14c, Rut24i, Rut34i, Sch13, Sil71, Sno58, Stu78, Tho08a, Tho08b, Til96, TGMR74, 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, Rut12, She17, Shi72, Sod20, Sod22, Sod04, Tre77b, Whe18]. Atom [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, Dar56b, F.33, FR13j, Gam29a, Jen11, Kow53, Kra12, Mon66, Mos14a, OaHNM98, Pei53, Pei97b, PBFt83, Ree06, LFA+04, Rus56a, Rut09k, Rut19a, Rut23a, Rut23b, Rut23c, Rut23d, Rut23e, Rut23f, Rut23g, Rut23h, Rut23i, Rut23j, Rut25a, Rut25g, Rut26f, Rut27a, Rut27b, Rut27c, Rut27d, RAC+29, Rut30b, Rut30c, Rut30d, Rut30e, Rut32a, RCE+32, Rut33a, Rut35d, Rut37g, RJ65, Rut70, Rutxx, Sie11, Sod49, SM08, Tre75c, Ano23b, Bai13, Boh87, Cat12, CK33, CCJ+34, Dar56a, Gam28, Gam29b, Har38, Hou30, IFSI94, LHNG14, Pae15b, Par96, Pol60, Ree15a, Rez29, Rez32, Rut25f, RC25, Rut26b, Rut26c, Rut26d, Rut26e, Rut33i, Rut33j, Rut36f, Rut36h, Sod13, Tab97, Mot63]. Atomic [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, Rut10a, vdB13, LRdB<sup>+</sup>23, Bad04a]. Atomskerns [Hou30]. Atomtheorie [Rut36f]. Atomzertrümmerung [Gam29b]. Atommodel [Bur18]. Attainment [Mos13a]. attempts [Nav06]. attract [Fla17]. audio [BC16]. **Auger** [Bra98, BPSW91, Bur86, CSN+00, Fow83, Gro89, Kot91, PMCF+06,

SBEO86, Sha87b, TGDS99, Wuy91, Yuh92, vdK89]. August [Hil17]. Ausarbeitung [Lüd13]. ausgesandten [Rut07g, RG09b]. ausgesendeten [RR13a]. auspices [Ano12a, CCJ+34, VRWB12]. aussieht [Büh98a]. Australia [Jen85]. Authoritative [Kae39]. autobiography [Hah67b]. Autunite [Rut15a]. Avogadro [Lee98, Mur01, Stu00]. avril [LRdB+23]. Awakening [Rom60, Rom82]. Award [Ano08b, Ano09a, Ano36a, Ano46a, Wil17]. Awarded [FR13a, Ano08g]. awards [Adl12, Ano18e]. azide [WVCW76].

B [Hav63, 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+07, JBS12, LHB+09, LGA+06, NOSK08, OaHNM98, LFA+04, SHCK96, ATS86, AAPN06, And90, Bar85, BJW97, BKP+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+12, DJA+04, DGC07, DMV+96, DHS97, DJBW83, Eld85, EFKS96, ESRDV84, FGM+00, Fow83, FLP+89, FTT96, FIY+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+04, MDJF83, MB90, Man82, MCJK90, MBS+04, MMKS+80, NJS+03, NFM+07, NOH<sup>+</sup>10, NMSK13, Nor79, NBG<sup>+</sup>84, Oeh86, OHN<sup>+</sup>09, Par96]. backscattering [PAF+98, PPA+02, PBFt83, Phi83, PNFO88, PMCF+06, PCK+08, RMM+13, RSdS+89, Rei79, REJ86, Reu81, Rot74, SSWB80b, SSWB80a, Sad81, Sar79, SER+01, SHAI09, SBEO86, Sha87b, SN05, SWZ+05, SCP+91, STB+01, Sin93, Sku89, SLA+00, SDD+08, SPL+08, Tab97, TCZY97, TF89, TMJ+99, Tho84, TGP11, TGDS99, TJRS03, Vas90, WCGC86, WZS+91, Wan96, WV07, Whi82, Wie78, Wil83b, WVCW76, Win94, WM88, WVD+96, WVH+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, 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]. behavior [Bha82]. behaviour [Mak08]. Being [Bad71, Coh40, Swa40, Eve39, Eve13, RCO+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 [SL90]. Bibliography [Ole81, Low79]. Bibliothèque [Mon66]. big [Bad79a, Giu12]. Biggest [Ano23a]. bilayer [PCK<sup>+</sup>08, SCP<sup>+</sup>91]. bilayers [GC00]. bill [Ged16]. binary [NMSK13, PBFt83, WV07]. Binding [Elf14]. Binet [Bru79]. Biografija [Rez24]. Biographical [Sch33, Lov76]. biographies [MB+85]. Biography [Kae39, Bro97, Rez24]. biological [VPW14]. Birks [Ihd64, Raz63, See65, Hay63]. Birth [dCA56a, dCA56b, dCA58, Sno58, Ano17d, Kap73a]. Birthday [SR37, HM31]. **Bis** [NOSK08, Büh98b, NOH+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, Bir57, Ble57, Bro86, Ano81, Ced00, Coc63, Coh40, Dvs05, Fea70, Gar81, Hav63, Hei71, Her01a, Hub01, Hub13, Ihd64, Jew19, 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, Mil13, Whe04]. Born [Fle57, Lüd13, Dem03, Lüd13]. Boron [OKR35a]. 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]. Broglie [Pia24]. Bromine [MKM+07]. Brooks [DeB19, Gan18a, Ged16, Mor84, Nix19, RCRC92, RC04, RCRC05]. Brooks-Pitcher [Mor84]. Brussels [CCJ+34, LRdB+23]. Bruxelles [CCJ+34, Far01, LRdB+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+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]. Cambridge Bat72, Dav37, Dvs05, Rut37a, RC62, Rut14, Seg62, Tre73, Ano32b, Ano32c, Ano95, Ano16, 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]. Canada [Ano18e, Cam05, Gan18a, Mor75, RC04, RCRC05]. cancer [Ano09c, Ano17b]. Canterbury [Tre75b, Ano18d, Cla06, Cot10]. Capture [Rut23k, WR31, Rut24l]. carbide [KIS+89]. carbon [RRKH94]. Career [Kae39]. 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, RS02f, RS02c, RS02a, RS02g]. Cavendish [Ano66e, FR13i, Osg66, Woo46, Ano32b, Ano17a, Cam79, Cro74d, Cro74e, Dev71, Dow08, Kim02, Nav06, Rut19c]. cavities [DMV+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]. 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+09]. changed [Moo66]. changer [Ree15a]. Changes [Rut04l, Rut05p, Rut04i]. channeled [SSWB80b]. Channeling [Dav71a, MD69, Bha82, Con82, HKH96, LDLM91, LxW99, LCL+04, MB90, PAF<sup>+</sup>98, Phi83, RSdS<sup>+</sup>89, Sar79, SN05, SWZ<sup>+</sup>05, TMJ<sup>+</sup>99, TJRS03,

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WCGC86, Whi82, WVD+96, WVH+99, WYV+99, WCZ+02, ZCS+12].
channeling-Rutherford [PAF+98]. Chapter [RSWE27, How58].
Character [Ell60]. characteristics [KG91]. Characterization
[DJA+04, FTT96, LHNG14, BVI88, Gro89, Her84, KSKF93, Kot91, LDLM91,
Rei79, Vas90]. characterized [SBEO86]. Charcoal [Rut06a]. Charge
[Boa07, HFD+99, Rut05a, RG08d, Rut08f, Sod13, Rut05e, RG08b, RG09a,
Rut05n, Rut08c, Rut08d]. Charge-exchange [HFD+99]. Chart [Ano00b].
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]. Chemistry
[Ano08b, Ano09a, KT84, Nia98, NM12, Sch15, Ste83, Tho08a, Tho08b, Far53,
Far63c, Jar08a, Sto97]. chemists [Har60]. Chief [Ano66d]. 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]. Cockroft [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+54, Rut15d]. College [Rut37a, Rut14, Cla06, O'C17]. Collider
[Giu12]. Collision
[Ano22, Rut19b, Rut21e, Rut10a, Rut19e, Rut19f, Rut19g, Rut19h].
Collisions [Rut19a]. Combination [Dav71a, MD69, FLP+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<sup>+</sup>31a, CDE<sup>+</sup>31b, CDE<sup>+</sup>31c]. Committee [NP38, NP40].
communication [BC16, Kat15]. community [Hug93]. compact [DJA+04].
Company [Dav37]. comparaison [RC12a]. comparative [RS03d].
compared [TGDS99]. Comparison
[RC12b, CCR85, RC12a, SSWB80b, Tab97, RB02a]. compelling [Ano19a].
compensation [RC12a]. Complex [Ell60]. Composition
[BBR80, Eld85, Bra98, Cat93, FLP+89]. Compositional [ATS86, Sha87b].
compound [PBFt83]. Compounds
[Adl97, Rut00a, RS02c, RS02h, ESRDV84, Rut00g, Rut00b, Rut00c, Rut00e,
Rut00f, RS02j, RS02i, RS02k, RS02l, WV07]. Comprehensive [WVD+96].
comprising [Rön58]. Computer [TJRS03]. Concentration
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[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, Wel90]. 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, Rut14i]. 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<sup>+</sup>31a, Poo52]. Correlation [Wil83b, Win94, Bur86]. Correlations [SCP+91]. Correspondence [Jen85, Tre77a, Bad74]. CoSi [DMV<sup>+</sup>96, Ish83]. Cosmical [Rut07f]. Cosmos [Ano32a]. Coulomb [Mar72, RR95]. Council [Rut34h]. counter [Kor12]. counters [Lew79]. Counting [RG08a, RG08e, RG08c, RG09b]. Countries [Zim69a, Zim69b]. Country [Jew19]. 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, Wil83b, ZB74]. 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+91]. Cu/Ni [SCP+91]. Cu/NiB [SCP+91]. Cu/Pd [SCP+91]. Cu/Pt [SCP+91]. Cu/Ti [SCP+91]. Cu/TiN [SCP+91]. CuI [Rei79]. Culture [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+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+03]. Deconvolution [Tab97]. découverte [Mon66]. découvertes [Mon66]. Decrease [FR13e]. Defect [Gam30, Wil83b]. defects [CYM+03, FTT96]. deflectability [RG02a]. Deflection [HBA77, Rut06c, Rut03b]. deflexion [GM13]. degradation [vIS89]. delay [Spe19]. delivered [Ano12a, Rut12a, Rut33h, Rut36h, Rut37a, Rut14, VRWB12]. della [Car98]. Demonstrate [Gre07]. Demonstration [LEM65, Sta61, Ram75]. densities [Sim82]. density [DHS97, KB93, KBvB+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+04, PPA+02, TGP11, WCZ+02, ZCS+12, BSS88, IYT+09, KB93, PMCF+06, Rot74, SWZ+05, SLA+00, Wil83b, Win94, vIS89]. Depth-resolved [AAPN06]. depths [Rom97]. deren [Rut11e]. Derivation [Dem03]. description [Bri31, Cat12]. Design [BELG68]. dessus [Mon66]. 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<sup>+</sup>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, Fra05, Har38, Rut36b, Rut36i, Rut37c]. **Developments** [Boh61]. Deviable [RG02b]. deviation [Rut03f]. devices [CBZ<sup>+</sup>12]. Devons [Hug08, Kay63]. Dfl [Bat72]. Diagnosed [MKM+07]. diagnostic [HFD<sup>+</sup>99, RFF<sup>+</sup>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]. difference [Rtt04b, Rtt05b]. Difference [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<sup>+</sup>09, SER<sup>+</sup>01, MBS<sup>+</sup>04, TMJ<sup>+</sup>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<sup>+</sup>34b, RSA<sup>+</sup>34a, RJ65, Rut70, Rad13, Rut03g]. discussions [CCJ<sup>+</sup>34, LRdB<sup>+</sup>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<sup>+</sup>02, ZCS<sup>+</sup>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]. Dopant [MCJK90]. Doped [MKM<sup>+</sup>07, Lu87]. double [Sad81]. doubts [Ano23b]. d'ouvrages [Mon66, Sen87]. **Down** [Ano33b]. **Dr.** [Ano09c, Ano22, Ano32b]. **Drafting** [Lüd13]. Drawings [Mar61]. Dream [Ano22]. driven [DJA+04]. Drop [Ano94, Stu94]. drug [Mor75]. Duality [NM12]. d'uranium [RB06a]. durch [BR11a, BR11c, Lüd13, RR12]. durchdringende [Rut02c]. During [EMVK90, BC16, Hah62, Lu87, MBS+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 [Stu79b]. Effect [RB03a, RB03b, RB04a, Rut04e, RP07, Rut19h, Rut29i, Cla13, GHCA91, RB04c, RB05c, RR13c, Rut10al. Effects [ERM95, OHR34a, OHR34b, Rut12f, RB04b, vIS89]. Efficiency [RB15]. Efforts [Kae36]. Ehrendoktorwürde [Lüd13]. Ehrenfest [Kle10, Pia24]. Eigenschaften [Rut05j, Rut06i]. Einfluss [Rut01b]. einige [Rut06i]. Einstein [Sno67, Sno68, Bou99, Bru79, HW96, Kle10, Sha87a]. Elastic [WVH+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+00, Fow83, Rut19d, Rut21h, WMT01, BKP+06, Bra98, BPSW91, Bur86, CGL+94, CSN+00, GR89, Gro89, HBA77, Ish83, Kot91, LHNG14, Lu87, MB90, O'H75, Phi83, PMCF+06, Rei79, SSWB80b, SSWB80a, Sad81, SBEO86, Sin93, Stu83, WV07, Wil83b, Wuy91, Yuh92, vdK89]. Electronic [KT84]. Electronics [McG84]. Electrons [Ano23b, Rut23k, WR31, LRdB+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, Sea88, Seg80b, Wel90, vdB07, vdB13]. **Elephant** [Mac97]. Elettrica [MSB<sup>+</sup>37]. 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, RS02j, RS02j, RS02k, RS02l, RS02h, 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+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+04, HKH96, Kri16, MB90, RR95, Rut07h, Rut07j, Rut36c, Rut36d, Rut36e, SWZ+05, Sku89, TCZY97, WM88, Yuh92, vdK89, Ano32c, RM00b, Mon66, Tre75a]. England [Stu79b, Ano07, Ano18c, She17]. English [Hei74]. enhanced [Sin93]. Enrichment [MKM+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, Anoxxa, Anoxxb, Bad71, Bad75, Bad04a, Bad08, Badxx, Ble99, Bro62, Büh98a, Cam97, Cam98, Cam19, Coh88, Coh89, Coh91, Coh92, Coh97, Dea03, Far63a, FR13c, FR13d, Fla17, Flo70, Gra02, Gri09, Hah67a, Hei03, Hil17, 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, Tre76a]. Ernests [Oli66a, Oli66b, Oli85b]. Errata [Ano94]. Erratum [Hwa83]. erregte [Rut02e, RA02a]. erregter [Rut02d]. ErSi [WVD+96]. Erzeugung [BR11a, BR11c, RM00b]. Essay [Ano64]. Essays [Boh63, Boh87]. establishing [Clo18]. Estestvennoe [Rez25]. etched [O'C17, Oeh86]. Europe [Ano18a]. European [Pye78]. europium [RSdS+89]. evaluate [SSWB80b]. evaluated [Ano71b]. Evaluation [Cle81, IOI+11, KIS+89]. evaporated [LGF+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+02]. exactly [EFKS96]. Exchange [MBS<sup>+</sup>04, HFD<sup>+</sup>99, HW92, STB<sup>+</sup>01]. Exchange-diffusion  $[MBS^+04]$ . 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+85, DY68, GW73, Hau82, LSN+09, Lor88]. 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+89, Sha87a, Tre74a, Rut02e, Rut08h]. Expert [Ano08a]. Explain [Ano32b]. exploded [Ano33d]. Exploding [Rut15i, Rut16b, Rut15g, Rut15h]. Explore [vG95]. 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]. facsimile [Wri64]. facsimiles [Bey49]. Factor [Hon03, Bar85]. Fall [DeB19, Hah67a]. fallout [Pre05]. Famous [Ano37i, Ano37j, Gra68, Lau37, Gra72, MB+85, Wri64]. Faraday [Rut36h, Ano37d, Ano38b, Fea72]. Farrar [Dys05]. fatal [Har05]. Father [Anoxxa, Tre75a, Jen08]. **Favor** [Ano23b]. **Fe** [GRS+91, KSKF93, PCK+08]. Fe-implanted [GRS+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+04]. filament-driven [DJA+04]. Film [dCAH64, CCR85, HV84, HGM<sup>+</sup>94, SCP<sup>+</sup>91, Sim82, SDD<sup>+</sup>08]. Films Bau73a, JBS12, KEJ87, LHB+09, LGA+06, SHCK96, And90, Bau73b, Bur86, Cat93, DHS97, DJBW83, FGM+00, FIY+99, GR89, IFSI94, Ish83, KKK+99, LHNG14, PBFt83, Phi83, Rei79, Reu81, SER+01, SCP+91, TMJ+99, TGP11, Wan96, WVCW76, YKH<sup>+</sup>84]. **Final** [Ano18f, Sto97, Wal18]. **Finally** [Sto97]. Fine [Rut15a]. First [Kav63, Kri19e, RC04, RCRC05, Cat12, Gan18a, HBA77, Mor18, RCO+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+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]. francaise [Mon66]. Franck [Gea14a, Gea14b]. 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 [RB06a, RG08b, RR09a, BR11b, CCJ+34, Geo38, Hei34, LRdB+23, Rut05c, Rut05g, Rut06b, RH06a, RR07, Rut07h, RG08c, RR08a, 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+84]. fund [Fla17]. fundamental [Bey49]. funds [Rut34m]. Funeral [Ano37e, Ano37j]. Furnace [Cho01]. Further [MSB+37, RC24b].

G [Hei74, Mon66, Rut16a, Sno67, Sno68, Tre75b]. Ga [GRS+91, PAF+98, WVH+99]. **GaAs** [Bha82, CGL+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, Tre76b, CBZ<sup>+</sup>12, RR13d, Rut32d, Wen53]. Gamma-Rays [Rut32e]. GaMnAs [ZCS+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 [Ano371]. 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, 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+07]. GeV [Wil74]. Giant [FR13c, Gen95, McK62]. Giants [MD67]. gin [Spe19]. Giroux [Dys05]. Giuseppe [Bel82]. given [Rut15e]. Giving [Ano32a]. glancing [WZS+91]. Glasgow [Sod02]. Glass [Rut09f, DJBW83, Rut10g]. glasses [STB+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, Cro01, HT10, Rut33b, Sha87a, Bat72, Bre97, Büh98b, Gri09, Kae48, Nix19, Wei70, Whe18]. great-great [Nix19]. Greater [Pve78]. Greatest [Ano32c, Foc37, Focxx, Sat18, Ano37d]. green [Wil15]. grosser [Rut31d, Rut31c]. Group [Dys05, Far01, Rut12e, Cat04]. Groups [RWWW30]. grown [KIS+89, ZCS+12]. Growth [OaHNM98, Zim69a, Zim69b, DGC07, FGM+00, HV84, HGM+94, KSKF93, SDD+08, YKH+84]. growth-mode [KSKF93]. GsSb [Sar79]. Guest [Ano09a]. 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+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]. 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+34b, RSA<sup>+</sup>34a, Rut38f, GHCA91, RRKH94, RR95, Rut37e, Rut37f]. heavy-ion [GHCA91, RR95]. 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, BR11d, BR11b, BVI88, KY11, Rot74, RC27, BR11b]. helium-[BVI88]. helium-ion [KY11]. Hendry [Stu85, Sei86]. Henri [Gen95]. Henry [Hei08, Jew19, Ole81, FF17, Rut15c, Rut37a, Rut14]. her [Ged16]. here [Bre97, Kay63]. heritage [Wil17]. Hertz [BHN98, Gea14a, Gea14b, Hon98]. hervorgerufene [RA02a]. hexafluorophosphate [OHN+09]. HfO [NJS+03, NFM+07]. HfSiON [MBS+04]. **Hg** [Con82, WZS+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+89, HNS+11, KB93, NJS+03, NFM+07, NOH+10, NMSK13, OHN+09, RR95, Rut24e, Rut24f, Rut24g, Rut24h, TCZY97, Ano37i, Lau37]. High-Energy [EMVK90, RR95]. High-Frequency [Mos13c, Mos14b, Rut94, Rut5, Rut28c]. High-Resolution [NOSK08, HGM+94, IYT+09, CFMO12, DGC07, HNS+11, NJS+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+54]. Hiroshima [Pre05]. Histoire [Mon66]. história [dAMxx]. Historic [Ano18c, Coh97, She17, Wal18]. Historical [Seg85, Rön58]. Histories [Pei97b]. historiografia [dAMxx]. historiography [dAMxx]. History [Adl97, Anoxxb, Anoxxc, Eva96, Gar81, Her72, HHK87, Kap80b, Kri16, Kri19a, O'C17, RN04, Rut19c, Rut23n, Rut24j, Rut33b, Sin81, Stu78, Stu79b, WP85, Ber07, FH60, GA71, Har05, Kim02, KHFA67, Leo05, dAMxx, Rut12a, Rut23m, Tod14, Tre77b, WH72, NP38, NP40]. htt [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]. 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, Til96, BVI88, Eid48, HKH96, Rut33c, Rut34j, Rut34a, Rut34b, Rut34c, Rut34d, Rut34l, Ano32b, Rut19e]. hydrogen-[BVI88]. hypothesis [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+90, LSK+88, Mor84, Mos14b, Oli66b, RO99, RS02b, RS02f, RS02c, RS02i, Rut04h, Rut06h, Rut08i, Rut09h, Rut11h, Rut19f, Rut20c, Rut21b, Rut22k, Rut26c, Rut26j, Rut27b, Rut28e, Rut29c, Rut30c, Rut35g]. III [Ano66e, Coh91, RS02k, 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 [NMSK13]. imidazolium-based [NMSK13]. imide [NOSK08, NOH+10]. Immense [Ano23b]. Immersion [KT84]. implantation [BPSW91, PAF+98]. implanted [BKP+06, Bha82, CFMO12, FTT96, GRS+91, KBvB+05, KG91, Rot74, SSWB80a, Sad81, TJRS03, WCGC86, Whi82, ZWJ+02]. Implications

[Ang00, Nia98, NM12, RN04]. Importance [Bad71, Ble99]. important [Wil15]. Improvement [HNS+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+29]. Influence [Kae39, SG85, SLA+00, DMV+96, Rut01b]. **infrared** [Sin93, TGDS99]. InGaN [PPA+02]. InGaN/GaN [PPA+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+88, SML91, YHS97]. intensité [Rut06b]. Intensity [Rut06b, Rut06n]. Interaction [CK33, Rut33i]. intercalation [ESRDV84]. Interdiffusion [IFSI94, FIY+99]. interdiffusions [SCP+91]. Interest [Bar71]. Interface [KSKF93, PCK+08, ATS86, HV84, IOI+11, NJS+03]. **interlayer** [LCL<sup>+</sup>04, PCK<sup>+</sup>08]. intermixing [PPA<sup>+</sup>02]. International [Bir61, CDE+31b, Dys05, Hay63, Meh73, Raz63, Cat04, CCJ+34, Kat15, Rut11b, Rut14j, CDE+31a, CDE+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+01, TMO+95, WZS+91, WV07, RS02j, RS02j, RS02k, RS02l, RS02h]. Investigations [Rut11h]. Ion [Bau73a, EMVK90, RM00b, RM00a, RM01, vBBGO90, vBBD+92, Bau73b, BPSW91, Cle81, CSN+00, DJA+04, DBvdV87, FLK92, FTT96, GHCA91, Gro89, HKH96, KBvB+05, KY11, LSK+88, MB90, NMSK13, PAF+98, RRKH94, RR95, Reu81, STB+01, SML91, TMO+95, TF89, TJRS03, Wil83b, WVD+96, vBD89]. ion-beam [FLK92, SML91]. ion-beam-synthesized [WVD+96]. ion-implanted [KBvB<sup>+</sup>05]. ion-induced [Bau73b]. Ionen [RM00b]. ionic [NMSK13]. Ionisation [RA02a]. Ionization [RA02b, RA02a, Rut02a]. Ions [MR14, OKR33, Rut01a, RRKH94, Rut97c, WZS+91, Wan96, ZB74]. iridium [And90]. Iron [Rut94, Rut5, TMJ+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, RS02l, 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, Anoxxc]. journals [Bey49]. Journey [FR13j, Lev17]. 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+84]. Kinetics [Lee98, Stu00, HV84, SDD+08]. King [Jew19, Ano37j]. Kissinger [SDD+08]. Kiwi [Ano19a]. knew [Kat12, RCO+54]. know [Büh98a]. Knowledge [Boh63, 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, 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+99, Sad81]. Lasers [Shi88]. Last [Ano38b]. lastly [dR92]. Late [Ano38b, Foc39, MSB<sup>+</sup>37, Wal18, Ano37l]. **lateral** [WZS<sup>+</sup>91, Wan96]. Latest [Ano32a, Rut09d]. Latex [LGA+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+04, LCL+04, WVH+99, WYV+99, WCZ+02]. layers [FLP+89, IOI+11, MB90, Sad81, WVD+96, ZCS+12, vIS89]. lead [WVCW76]. Leadership [Kim02]. leading [Cam19, Cro01]. Leads [Ano32a]. 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+54, Sod02, dB14, Ano12a]. **LEED** [Nor79, NBG+84]. **Legacy** [Ano17d, Jew19, Lon16a, AK11, Har05, TJ11]. LEGO [Whe18]. leicht [Rut03b]. Leipzig [Mos13b]. length [Rut14f]. lente [Rut05g]. Lenz [Agu96, BB80, Far87]. Léonidovich [Rub97]. 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, Rut27l]. Library [Ble57]. Life [Anoxxb, Coc46, Coh40, Jew19, Mar54, MF11, Rut23m, Rut23n, Rut23o, Rut24j, 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, Rut10a]. Lightman [Dys05]. LII [Rut19f, RC24c, RC27]. LIII [Rut19g]. Like [Ano19, Büh98a]. 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+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+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+04, DHS97, Hwa82, Hwa83, KB93, LCL+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+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 [RS02f]. 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]. Macmillan [Dav37]. Madame [Rut34f]. Made [Ano19, Ano32b, Cli87, Clo18, Mer96]. Madison [RFF+01]. Magic [Cho01]. Magnetic [Mur13, Rut96b, Rut97b, Rut06c, Rut27g, Rut30i, RLB33, RWLB33, HZ15, KLL+90, LSK+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, 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 [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, TGMR74]. 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, 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<sup>+</sup>09, SER<sup>+</sup>01]. Measurement [Boa07, vBD89, HKH96, YKH+84]. Measurements [MG12, Bur86, CYM+03, DBvdV87, KKGW85, LSK+88, Rut11e, SDD+08,

vBBGO90, vBBD<sup>+</sup>92]. Measuring [KB93, Mar61, Rut16e, SBEO86]. mechanical [Bai13, SC13, Tem89]. Mechanism [FW67, YKH+84]. Medal [Ano36a, Ano46a, Ano18e]. 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]. **Methode** [RG09b, RG08c, RC12a]. Methods [SN05, BSS88, Rut15d, RA45]. methylimidazolium [NOH+10, OHN+09]. MeV [RRKH94]. Mg [SHAI09, TMJ+99]. Mg-rich [SHAI09]. MgO [FIY+99, HGM+94]. Michael [Gus12]. microanalysis [NBG<sup>+</sup>84]. microprobe [GR89]. MicroReviews [Hub13]. microscope [Tab97]. Microscopic [RMM<sup>+</sup>29]. Microscopy [OaHNM98, BKP+06, CSN+00, FGM+00, FIY+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+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+09, Mor18, Sla13, 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]. Moscow [Ano37l]. Moseley [FF17, Hei74, Hei08, Jaf71, Jaf72, Rut15c, Rut16a, Rut25c, Sar27, Jew19].

Mössbauer [DMV<sup>+</sup>96]. most [Ber07, Jen08, LSN<sup>+</sup>09, MB<sup>+</sup>85]. 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+91, Mon66, RR95, WVH+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+04]. Nanoparticle [WMT01, LHNG14]. Nanoscale [LHB+09]. nanosized [DMV+96, FGM+00]. narrow [MBS+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, RS02f, RS02c, RS02a, RS02g, RG08b, Rut08c, Rut08d, RG09a, RR09b, RC24c, Sod02, Wen53, RR09a]. 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, Seg62, Seg64]. neodymium [KG91]. neon [BVI88]. neon- [BVI88]. Neuere [Hou30]. neuesten [Rut09d]. Neutral [KKGW85, Gro89, HFD+99]. neutrals [vBD89]. neutrino [Nav06]. Neutron [Cha32a, Cha32b, Cha33, FR13h, GLR06, Pol91, Rog13, Rut35e, Bad83, Bro97, Bur13a, Bur13b, Bur15, HS39, LSN+09, LxW99]. Neutron-Induced [GLR06]. neutron-irradiated [LxW99]. neutron-rich [LSN+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, Büh98b, Fea72, Tho08a, Tho08b, Wal18]. Newtons [Büh98b]. Ni [AAPN06, SHAI09, SCP+91, Wuy91]. Ni/Au/Te [Wuy91]. Ni/Si [AAPN06]. NiB [SCP+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, RRKH94, Rut10a, Whi82, Rut19g]. níveis [dAMxx]. No [Ano23b, Ano09c, Kra76]. **Nobel** [Adl03, Ano37i, Clo18, How58, Jar08a, Lau37, Adl12, Ano08b, Ano09a, Ano09a, Ano16, Cam00, CSW96, CSW97, Far53, Far63c, FR13a, Jar08b, Kri19c, Tho08a, Tho08b]. Nobelpreis [CSW97]. Nobelpreisträger [Tho08a]. Nomenclature [Rut10e, Rut13i, RG11]. Non [Ole81, RRKH94, BP93, LMC97, Low79]. Non-Rutherford [RRKH94, BP93, LMC97]. Non-Technical [Ole81, Low79]. Nondestructive [BSS88]. Normal [Rut11e, WZS+91]. North [Whe18]. Northern [Whe18]. Northumberland [Ano17b]. 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, 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, Tre75a, Ada72, AG13, And73, Ano17d, Bad05, Bey49, Cam11, Cat93, CAN88, FLP+89, Gan18a, Gar62, GA71, Hei67, Her77, Hug93, Hug00, Kae48, Leo05, MBS<sup>+</sup>04, NBG<sup>+</sup>84, Pae15a, RCRC90, RC13, Ree15a, Rut21d, RA45, SHAI09, Shi72, STB+01, Sie11, Stu83, WH72, Wen53, Whi82, ZWJ<sup>+</sup>02, vW35, Rez21, Stu79a]. nucleation [FGM<sup>+</sup>00]. Nuclei [BB36, CR12, Gam29a, Rut25a, Rut25g, Rut26f, Rut27f, RAC+29, RCE+32, RJ65, Rut70, CK33, CCJ<sup>+</sup>34, Fel19, MDJF83, Rez28, Rut25f, RC25, Rut30b, Rut30c, Rut30d, Rut30e, Rut33i, Rut34g, ZB74]. nucleosynthesis [Cot10]. Nucleus [Ano06, FR13f, FR13j, Kow53, Kra12, Pei53, 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<sup>+</sup>99, OaHNM98, Rez29, Rez32, FGM<sup>+</sup>00, FIY<sup>+</sup>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, Ano38c, Boh37, Bra37, Bur38, Cha37, Eve37, M.39, Rut28b, Rut34f, Rut35j, Smi37, Sod37, Tho37a, Tho37b, Clo18, Dit80, Lab38, Lai37, Mar38, Mil38, Tho70, SR37, Som38]. oblique [Wan96]. obras [dAMxx]. Observation [NOSK08, NOH<sup>+</sup>10, OHN<sup>+</sup>09, NFM<sup>+</sup>07]. observed

[CFMO12, OHR34a, OHR34b, RC24c]. **Obtained** [Ano06, LFA+04, SLA+00]. Obtaining [Mos12b]. October [CCJ+34, Far01, Stu79b, Wel90]. octobre [CCJ<sup>+</sup>34]. office [Ano18a]. Ogni [Sno68]. ohmic [Wuv91]. Old [Kae36, NL00, Rut35c, Ano09c]. Oliphant [Bat72, Sei86, Tre73]. Once [Ano32b, Tre75d]. One [AK15, Ell60, Gib19, Ano18c, Jar08b, Lew02]. Only [Ano32b, CSW97]. Onnes [Pia24]. Onward [Ano32a]. 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, Rut31cl. originally [Bey49]. origine [Rut12b, Rut12c]. Origins [Cho01, Gea14b, Hug12, Bad79a]. oscillation [KY11]. Oscillations [Sho82, NBG+84]. other [Wal18]. Otto [CSW97, BW80, CSW97, Hah67b, She83b]. Our [Ano99, Mac11, Sat18]. ouvrage [Mon66]. Overhead [Eic72]. overlaps [Lia80]. overlayer [NFM<sup>+</sup>07]. Overturned [Kri19a]. overview [CAN88]. Oxford [Ble02, Rut33h]. Oxidation [KEJ87, SPL+08, NBG+84]. Oxide [Bau73a, Bau73b, Sha87b, TMJ<sup>+</sup>99]. oxides [Sin93, TF89, Win94]. Oxygen [ERM95, Rut19g, Cat93, NFM<sup>+</sup>07, RRKH94]. oxynitrides [TGDS99].

## $\mathbf{P}$

[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, RS02j, RS02i, RS02k, RS02l, Coh89, Coh91, Coh92, Mor84, Mos14b, RS02b, RS02f, RS02a, RS02g, 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]. Partial [Rus51]. Particle [Ano08a, Ano32a, Fea77, Mal71, Ano00a, RG08d, RR08e, RR09b, RR09d, Rut23n, Rut23o, Rut24j, Rut66a, 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, 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]. Pauling [Gri09]. pay [Ano37j]. Payot [Mon66]. Pb [Cat93, ERM95]. **PBFA** [KLL+90, LSK+88]. **PBFA-II** [KLL+90, LSK+88]. Pd [SCP+91, vdK89]. Peace [Ano16]. peak [Wie78]. Penetrating [GRR+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 [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** [Cat93, Har07, Har60, Hei71, Rut09i, Rut13e, Tre79a, Ano12b, RCO+54]. Physicians [Sla13]. Physicist [Ano07, Ano37i, Ano37j, BHN98, DeB19, 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, 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, Bey49, Boh87, Bra09, Büh98b, Cli87, Con62, Gam85, 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+34, FR13i, Fre12, Ano12a]. Physik [Büh98b, Rut09b, Rut09c]. physique [CCJ+34, LRdB+23]. Pictures [Ano23b]. Pierre [DMPA08, Gri09, Ril70]. piezoelectric [Rut15b]. piezoelectricity [Kat12]. pileup [Wie78]. pinch [HFD+99, RFF+01].

Pioneer [How58, RCRC90, RCRC92, Kau86, Nix19, Pol91, Row55, Row57, Ano60, Ble57, Bir57]. pioneering [Ged16]. pioneers [Ano17a]. Pitcher [Mor84]. Place [Ano18f, Wal18]. places [Ano18c]. Planck [Ole81, SR37, Kle66, Rut29f, SR37]. **Plancks** [SR37]. **plane** [IOI+11]. Plants [RMM+29]. Plasma [EMVK90, Sin93, Oeh86]. plasma-etched [Oeh86]. plasmas [vBBD+92]. Plastic [Gre07]. plates [Mos13b]. plating [PNFO88]. Platinum [Rut01f, Rut01a]. play [Nix19]. pleochroic [JR13]. plots [SDD+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+03]. Postponed [Ano05]. potential [WM88]. Potentials [Mos12b, Mos13a, ST76]. Pounds [Ano01]. pour [RC12a]. Power [All64, Ano22, Ano17, Eva39a, Eva39b, Ano23b, HBA77, Rut17, SBEO86]. 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 [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, 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+09, LRF86, ZCS+12]. **profiles** [MCJK90, PMCF<sup>+</sup>06, SLA<sup>+</sup>00, Win94]. **profiling** [BSS88, MBS+04, NJS+03, PPA+02, vIS89]. **Progress** [Rut33b, Ano33d, Ano18c]. Project [Mar61, Ree15a, Sch15]. Projectiles [Rut19a, Rut23a, Rut23b, Rut23c, Rut23d, Rut23e, Rut23f, Rut23g, Rut23h, Rut23i, Rut23j, Rut32al. Projector [Eic72]. Proof [HS89]. Propagation [Hon98, Hon03, Rut26g]. properites [Eve05]. Properties [Rut05k, Rut06h, Rut08i, Rut10c, Rut10d, Rut24e, Rut24f, Rut24g, Rut24h, Rut28c, Cat93, CCJ+34, Mak08, Rut05m, Rut06i, Rut06j, Rut23a, Rut23b, Rut23c, Rut23d, Rut23e, Rut23f, Rut23g, Rut23h, Rut23i, Rut23j, Rut31fl. Proportion [RB05a, RB05b, RB06a, RB06b]. propriétés [CCJ+34]. Prospect [Ano23b]. Protection [Rut36g, Rut36j, Rut36k]. Proton [Ano19b, BP93, Muk19, Rom97, Ano17b, Cam19, CS19, Sut19, YHS97]. protonated [HW92]. Protonen [MMKS+80]. Protons [Ano32b, CW32, Elf14, OR33, OKR33, Clo18, Fel19, MMKS+80]. prouton [Rom97]. Pt [NBG+84, OaHNM98, SCP+91]. Public [Nic32, Rut34m]. Publications [Foc39, Pip01, Sin81, Stu79b]. Published [Aro66, Kay63, Seg62, Seg64, Seg66, Cam19]. pulse [Wie78]. pulsed [YHS97]. Pumpkin [Gus12]. Pure [Ano23b, Coo13]. pursuit [Sut19]. Puts [Ano38b]. **Pyrolytically** [ERM95].

Quaker [Sta03]. quality [KIS+89]. Quanta [Kle66, dB70]. Quantentheorie [Gam28, Gam29b, Hou30, Pol60]. Quantenwelt [Arr06]. Quantitative [Par96, PMCF+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+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, 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, Rut04, Rut07a, Sod04, Cat93, Rut00g,

Rut00b, RS02i, vdB13, Tre79b]. Radio-Active [Rut04l, Rut05p, RG08a, Rut13i, MF11, Rut01c, Rut02b, RB05b, Rut06a, RB06a, RB06b, Rut13f, Rut00g, Rut00b, RS02i]. Radio-Activity [Ano08a, Bar06, MG12, Sod04, Rut00c, Rut03c, Rut04c, Rut04k, Rut05h, RC19, Rut04, Rut07a, RS02i, Tre79b]. radio-frequency [Cat93]. radioactifs [RB06a]. Radioactive [Ano37i, Bad68, CDE+31a, CDE+31b, CDE+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, RS02i, RS02k, RS02l, Rut02c, RG02b, RS02h, RS03a, Rut04m, Rut04i, Rut04b, Rut04a, Rut05b, Rut06n, Rut07h, Rut07j, RG08c, RG09b, RR09b, RR09a, RG11, Rut11e, Rut12a, Rut12b, Rut12c, Rut12h, RR13a, RR14, Rut27l, Rut27h, 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, RS02h, 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, RS02f, Rut02a, RS02j, RS02k, RS02l, Rut02d, RS02a, Rut02e, RS02g, 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+31a, CDE+31b, CDE+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, Sla13, Bol05, BR11a, BR11d, BR11b, BR11c, DMPA08, Eve05, Har05, RS02d, RS02e, Rut03b, RS03d, Rut03f, Rut04d, RB04b, Rut04n, Rut04j, RB04c, Rut05j]. radium [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+31a, CDE+31b, CDE+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+91, RWL31a, RLB33, RW16, Rut16d, Rut21g, RC24c, Rut31d, Rut31c]. Rapid [Ano23b, GHCA91, LxW99, Lu87]. Rapports [CCJ+34, LRdB+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+03, CSN+00, CCR85, CBZ+12, DHS97, HV84, KKK<sup>+</sup>99, KBvB<sup>+</sup>05, KSKF93, PAF<sup>+</sup>98, PCK<sup>+</sup>08, Rut14i, Rut16c, RW25, SER+01, SC13, Sin93, Sku89, SDD+08, Vas90, Win94, WVH+99, WYV+99]. Rayleigh [Cla13]. rayonnement [Rut06b]. rayons [Rut12b, Rut12c]. Rays [Ano22, Bau73a, Cha12, FR13g, GRR+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, 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+13]. re [Ano71b]. re-evaluated [Ano71b]. reached [Ano19]. reaction [And73, Cat93, FLP+89, HV84, MBS+04, Pae15a, SHAI09, STB+01, Whi82, ZWJ+02]. **Reactions** [Ang00, Kri16, Rut29i, MBS+04]. reactive [Rei79]. reader [HT10]. Reading [Ano38b]. real [SDD+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+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+31b, Rut08b, Rut27k, Rut34h, KHFA67, Rut15j, Rut15k, Rut15l, Rut25h, CDE+31a, CDE+31c, Mar61]. reported [Bey49]. Reports [Ano19, RSWE27, LRdB+23, CCJ+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, Sod03]. Reservoir [Wil15]. resistance [SCP+91, SDD+08]. Resisting [Kra11]. Resolution [LHB+09, NOSK08, Bha82, CFMO12, DGC07, HNS+11, HGM+94, IYT+09, NJS+03, NFM+07, NOH+10, NMSK13, OHN+09]. **resolved** [AAPN06]. resonance [FLP+89, Sin93]. resonant [HZ15, MBS+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, Dys05, Fea70, Gar81, Hay63, Hei71, Her01a, Hil17, Hub01, Hub13, Ihd64, Jew19, 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+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]. 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]. Royal [Rut36h, Ano18e]. rozdenija [Kap73a]. Rt [Coh40, Swa40, Eve39]. Rt. [Eve13]. Rückstreu [MMKS+80]. Rückstreu-Analysen [MMKS<sup>+</sup>80]. Runge [Agu96, BB80, Far87]. Russell [Ano16]. Russia [Szy85]. Russian [Kap73a, Rez21, Rez23, Rez24, Rez25, Rez28, Rez29, Rez32, Rez38, Rez71, Rez72]. Rutherford

[dCA37, Ano12a, Ano36a, Ano37h, Ano38c, Ano46a, Ano60, Ano64, Ano66e, Ano66b, Ano09b, Aro65a, Aro66, Bad04a, Bad04b, Bad09, Badxx, Bir57, Bir61, Ble57, Boh26, Boh37, Bra37, Bro86, Bru64, Bru79, Büh98a, Bur64, Bur38, 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, Jak79, 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]. Rutherford [dB14, dB32, dR92, ATS86, 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, Ano46b, Ano48, Ano50, Ano66a, Ano66b, Ano66d, Ano66c, Ano71a, Ano71b, Ano72, Ano05, Ano06, Ano09a, Ano09c, Ano10, Ano11, Ano16, Ano17c, Ano17d, Ano18d, Ano18e, Ano19a, Anoxxa, Anoxxb, Anoxxc, Anoxxd, App62, Aro65b, Ast70, Bad67, Bad68, Bad69, Bad71, Bad74, Bad75, Bad79a, Bad83, Bad85a, Bad85b, Bad04b, Bad08, Bad09, Bar85, BJW97, Bar83, BB80]. Rutherford [BKP<sup>+</sup>06, Bau73a, Bau73b, BSS88, BCM13, Bha82, BP93, Bir62, Bir63, Bis90, Bla50, Bla59, Bla72, BBR80, Boa07, Boh61, Bou99, Bow14, Bra98, Bra61, Bra04, Bre00, Bre83, Bro73b, Bro62, BPSW91, BVI88, Büh98a, BS79, Ano81, Bur13a, Bur13b, Bur15, Bur64, Bur83, BELG68, Bur18, Bur82, Bur86, CGL<sup>+</sup>94, Cam98, Cam99, Cam00, Cam05, Cam09, Cam11, Cam14, Cam19, Car98, Cat93, Cha54, CFMO12, CYM+03, CCR+03, CLZ99, Cla13, Cla06, Cle81, Coc46, Coc53, Coh88, Coh89, Coh91, Coh92, Coh95, Coh97, CSN+00, Con82, Cot10, CCR85, CBZ+12, Cro74c, Cro74b, DBE+85, DJA+04, Dan66, Dar56b, DGC07, Dav71a, Dav71b, Dav37, Dea03, Dee67, Dem03, Dev71, Dev91, DMV+96, DHS97, DM96, DBvdV87, Dow08, DYF67, DY68, DJBW83, Ear66, Eic72, ESWW82, Eld85, Ell60]. Rutherford [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+00, Fla17, Flo70, Foc39, Fow72, Fow83, Fre12, FLP+89, FTT96, FIY+99, Ful13, GHCA91, GW73, Gar62, Gea61, Gei38b, Geo38, GR89, Goo10, Gor55, Gra02, GC00, Gre07, Gri09, Gro89, Gué38, GRS+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, How58, HW92, HZ15, HBA77, Hub13, Hug08, Hug12, HGM<sup>+</sup>94, Hwa82, IYT<sup>+</sup>09, IFSI94, Ish83, IOI<sup>+</sup>11, Jac72, Jar08b, Jen11, JBS12, Kae39, Kap73a, Kap66a, Kap66b, Kap73b, Kap80b, Kap80c, Kap80d]. Rutherford [Kap80e, KB93, Kat12, Kat15, Kay63, KLL+90, KKK+99, KOhM94, KBvB<sup>+</sup>05, KSKF93, KIS<sup>+</sup>89, KY11, Kot91, KG91, Kra12, Kri19c, Kri19d,

Kri19e, Kru75, KKGW85, KS76, LHB+09, Lab38, Lai37, LHNG14, Lau37, LRF86, LGA+06, Lee98, LSK+88, LSN+09, LDLM91, Lew72, Lia80, LGF+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+37, MBS+04, MMKS+80, Moo74, Moo78, Mor75, Mot63, Mot72, Mur13, NJS+03, NFM+07, NOSK08, NOH+10, NMSK13, NL00, Nor79, NBG+84, O'S71, O'S72, Oeh86, OHN+09, OaHNM98, Oli47, Oli72a, Oli72b, Oli84, Oli85a, Opp64, OH64, Pae15b, Par96, PAF+98, Pei88, Pei97a]. Rutherford [Pei10, PPA+02, PBFt83, Phi83, PNFO88, Pip01, Pod10b, Pol60, PMCF+06, PCK+08, Rad13, RRKH94, RR95, Ram75, RMM+13, RCRC04, RFF+01, RSdS+89, Ree08, Rei79, LFA+04, Rei71, REJ86, Reu81, RSWE27, Ril70, Rit92, RCO+54, Rom97, Rot74, Row55, Row57, Rus37, Rus51, Rut26a, Rut27k, Rut29f, SSWB80b, SSWB80a, Sad81, Sar79, SER<sup>+</sup>01, See65, Seg80b, Sei86, SHAI09, SC13, SBEO86, Sha87b, SN05, SWZ<sup>+</sup>05, Sha37, She83a, SCP<sup>+</sup>91, Shi72, Sho82, STB<sup>+</sup>01, Sie11, Sim82, Sin93, Sku89, SLA+00, SDD+08, Sme97b, Sme97a, Sno58, Sno67, Sno68, Sod02, Sod03, SR37, Sta61, SN67, SHCK96, Stu79b, Stu85, Stu86b, Stu00, SML91, Sut01, SPL+08, Tab97, TvBO+92, TMO+95, TCZY97, TJ11, TF89, Tem89, Ter38, Ter67, TMJ<sup>+</sup>99, Tho08a, Tho08b, Tho84, TGP11, Tho65]. Rutherford [Tho70, Til96, Tiz46a, Tiz46b, Tod14, TGDS99, TJRS03, Tre71a, TGMR74, Tre74a, Tre74b, Tre75d, Tre76b, Tre77b, Tre79a, Tre79b, Tre83, VPW14, Vas90, Vil05, VV09, WCGC86, WZS<sup>+</sup>91, Wan96, Wei11, WV07, Wer23, WMT01, Whi82, Wic65, Wie78, Wil15, Wil74, Wil83b, Wil83a, WVCW76, Win94, WM88, WVD+96, WVH+99, WYV+99, WCZ+02, Wuy91, Wyb72, YKH<sup>+</sup>84, YHS97, Yuh92, ZWJ<sup>+</sup>02, ZCS<sup>+</sup>12, ZB74, Zim69a, Zim69b, del79, vBD89, vBBGO90, vBBD+92, 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+04]. Sallhofer [Lak96]. samples [LGF+99]. Samuel [Hug08, Kay63]. Sanctuary [Rut34k, Rut34n]. Santilli [Bur13a, Bur13b, Bur15]. Satellite [Stu86b]. Saturday [Hil17]. sawtooth [TMO+95]. Says [Ano19, Ano22, Ano23b]. SbCl [ESRDV84]. scale [Gro89]. scanning [FIY+99, 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+99, Hei68, Kru75, LGF+99, Man77, Pae15b, RR95, RFF+01, Rit92, Rut11i, RC27, Rut12, SC13, SML91, TvBO+92, TMO+95, YHS97, vBD89, vBBGO90, vBBD+92, RN13, RC25]. Scholars [Rut34n]. Scholastic [Ano66d]. Schrödinger [Lak96]. Science

[dCENdCA58, Ano09b, Ano20b, Ano23b, Ano32c, Anoxxb, Anoxxc, Boh61, Dea03, Dev91, Dys05, Gen95, Gib19, Jew19, Mon66, RN04, Rut33b, Rut36b, Rut36i, Rut36j, Rut36k, Rut37c, Rut38c, SG85, SMJ35a, SMJ35b, Sch57, Sin81, Stu79b, Zim69a, Zim69b, AK11, Bad79a, Ble02, Bro62, Car98, Far16, FH60, HT10, Hil17, How58, Jen08, Kat15, Lev17, dAMxx, Mer96, Moo66, NP38, NP40, RCRC90, Ree15b, Rut36g, Giu12, dAMxx, Rut23p]. Sciences [Hei71, WH72]. Scientific [Bar05, Bar06, Bru79, Coc63, Eve06, Har07, Har01, Kap80e, Mil13, Rut27g, Rut33h, Rut33b, TGMR74, dB32, Bev49, Fra05, Hah67b, Osg66, Rez71, Rez72, Wri64]. scientifiques [Mon66]. Scientist [Ano37c, Ano38b, Ced00, Clo18, Foc37, Her01a, Her01b, Hub01, RCRC92, Tur01, Ano37d, 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+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+91, SDD+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+04, NFM+07, SSWB80a, Sad81, TJRS03, WZS+91, WCZ<sup>+</sup>02, Yuh92, ZWJ<sup>+</sup>02, vIS89, vdK89]. **Si-depth** [vIS89]. **Si-Rich** [KEJ87]. sic [Ano09a, BKP+06, KIS+89, SPL+08, ZWJ+02]. SiD [YKH+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+09, KIS+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+08]. Since [AK11, Ano37d]. Single [Dav71b, MKM<sup>+</sup>07, Fow83, KIS<sup>+</sup>89, Rei79, Sad81, Whi82].

single-crystal [Whi82]. SiO [NFM+07, CSN+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, Rut05j, 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+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+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+94, DJA+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+90, LSK+88]. spectrographs [FLK92]. spectrometer [HKH96]. spectrometries [SCP+91]. Spectrometry [CLZ99, ERM95, MKM+07, JBS12, SHCK96, BPSW91, Bur86, CFMO12, Cle81, CSN+00, CCR85, DJA+04, ESRDV84, FLP+89, FIY+99, Her84, Hwa82, Hwa83, IYT+09, IFSI94, KB93, KKK+99, KKGW85, LRF86, LDLM91, Lia80, LxW99, MCJK90, MBS+04, Par96, PAF+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+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+09, PMCF+06, Reu81, SER+01, Sim82, Sin93, Sku89, SDD+08, TF89, TGDS99, Vas90, Win94, Wuy91, Yuh92, ZWJ+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]. Spread [Zim69a, Zim69b, Wan96]. Spriel [Mon66]. sputter [Bur86]. sputter-deposited [Bur86]. sputtered [Cat93, DHS97, GC00]. sputtering [Rei79, WM88]. SrTiO [HGM+94]. St [Rut05c]. Stability [Rut20f, Rut21f, PMCF+06, Rut25d, Rut25e]. stabilizing [PCK+08]. Stable [Hes00]. stage [Nix19]. stages [DGC07]. stainless [Whi82]. Stalin [Sno67, Sno68]. Stand [Ano31a]. Standard [Rut13a, Rut11b, Rut14j, Sku89, Rut14l]. Standards [CDE+31a, CDE+31b, CDE+31c, Rut10e]. Standpoint [Sod04]. Stars [Lig18]. State [RCW<sup>+</sup>26, Hei79a]. States [BB36]. Stationary [BB36]. Statistical [VV09]. statistics [GRS+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 [SBEO86]. Stores [Ano23b, Ano32a]. Story [Cam09, Fea77, Jor16, Kra18, Mon66, Sod49, Ano19a, Eva39a, Eva39b, Fea79, Gam85, How58, Nix19, Ree15a, Mon66]. Stoughton [Stu85]. straggling [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+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+29, RCE+32, RJ65, Rut70, Tre75b, Gro89, Hei34, NOH+10, Nor79, OHN+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+34, Rut27l]. structures [NMSK13, SSWB80b, SSWB80a]. Struktur [Rut24a, Rut24b]. strukture [Rez29, Rez32]. Stuart [Lov75]. Student [BELG68]. Studied [OaHNM98, ATS86, Bha82, CYM+03, Eld85, IFSI94, KBvB+05, LCL+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, 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+00, GC00, HV84, HGM+94, IYT+09, LxW99, Lu87, NBG<sup>+</sup>84, REJ86, RS03d, SDD<sup>+</sup>08, WVD<sup>+</sup>96, WVH<sup>+</sup>99, vIS89, vdK89]. Studying [dCENdCA58, Dav71a]. sublattices [ZWJ+02]. 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+04]. substrates [FIY+99, IFSI94, IOI+11, PBFt83, TGP11]. Subsurface [DGC07, SSWB80b]. Subtraction [Lia80]. Succeed [Ano32b]. Success [Ano32a, Bad79b, Tre75d]. Successful [Ano08a, Kri19e]. Succession [Rut04], 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+89]. 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>+</sup>94, Dav71b, MKM<sup>+</sup>07, NOSK08, NMSK13, Nor79, RC03, SHCK96, Tho84, CBZ<sup>+</sup>12, FLP<sup>+</sup>89, GHCA91, KBvB<sup>+</sup>05, NOH<sup>+</sup>10, OHN<sup>+</sup>09, SLA<sup>+</sup>00, Yuh92]. Surfaces [Dav71a, MD69]. Surfactants [LGA+06]. surprised [Tre83]. surveillance [BC16]. Survey [Dav37, Rut34g]. sustained [And73]. Svedberg [Mos13b]. Swift [CW32, Moo78]. switchable [SHAI09]. symmetric [RFF+01]. Symposium [Meh73, Tre75b, Wyb72, Stu79a, Stu79b]. synthesis [Rut34g]. synthesized [KKK<sup>+</sup>99, WVD<sup>+</sup>96]. **System** [Ree06, vdB07, vdB13, AAPN06, Eld85, HFD+99, HKH96]. systems  $[PCK^{+}08, RMM^{+}13].$ 

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+12, Win94, Wuy91]. teacher [Kap73a]. teaching [Wil74]. Technical [Ole81, Low79]. Technique [Hon03, WMT01, CCR85]. Techniques [Bad68, NBG+84, 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+89, LCL+04, Rut01b, vBBGO90, vBBD+92]. 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** [Wel90]. **Textbooks** [Nia98, NM12, RN04]. TEXTOR [TvBO+92, vBBGO90]. Thaddeus [Gar81, Stu78]. Thales [Lak96]. Theater [Hil17]. Their [Hon98, Kae36, Mil13, Ole81, Rut19a, Cla13, Mak08, PMCF+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, 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+06]. Thermodynamics [Kle66]. thick [ZCS+12]. thickness [CSN+00, CCR85]. Thin [JBS12, LHB+09, Mar61, SCP+91, And90, Bur86, Cat93, DHS97, DJBW83, FGM+00, FIY+99, GR89, HV84, IFSI94, IOI+11, KKK+99, PBFt83, Reu81, Sim82, SDD+08, TMJ+99, WVCW76]. **Thin-film** [SCP+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, RS02h, RW16, RWWW30, RWL31b, ESWW82, Flo70, GF10, Rut00g, Rut00b, Rut00c, Rut00e, Rut00f, RS02d, RS02e, RS02j, RS02i, RS02k, RS02l, RS03d, RH06b, Rut11d, RR13b, Rut16d, Rut21g]. Thoriumverbindungen [Rut00e]. those [RCO+54]. Thousand [Ano22]. threat [BC16]. Three [And73, Eid48]. Thus [Ano32b]. Ti [Cat93, FGM+00, KKK+99, PCK+08, SCP+91]. **TiCN** [PMCF+06]. **Tiger** [Gus12]. **Time** [Ano46a, Ano17, Kay63, Ano36a, DJA+04, Hah62, HKH96, Hei79b, Lev17, NMSK13, Sat18, SDD+08]. time-of-flight [DJA+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+04]. tip [Tab97]. **TiSiy** [Kot91]. **TiSiz** [Gro89]. **titanium** [Bur86, NFM<sup>+</sup>07, Vas90]. titled [Mon66]. Today [Mas72]. tokamak [vBBD+92]. Told [Ano33a, Nix19]. Tomography [WMT01]. Tondokument [Lüd13]. Tonspurerhaltung [Lüd13]. Tool [vG95]. top [Ano18c]. topography [SLA+00]. **Torn** [Ano32b]. **torus** [RFF+01]. **total** [KBvB+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

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U.S. [CAN88]. Übertragung [Rut02d]. ucenyj [Kap73a]. ucitel [Kap73a]. új [RA45]. UK [Fla17]. Ultimate [Ano32a, Kae36]. Ultra [GRR+31, Rut98, RMM+29, CFMO12]. Ultra-Microscopic [RMM+29]. Ultra-Penetrating [GRR+31]. ultra-shallow [CFMO12]. Ultra-violet [Rut98]. ultrathin [HGM+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]. Unravelling [FR13j]. Unseen [Dys05]. Unterschied [Rut04b, Rut05b]. Untersuchungen [Rut11h]. Unwin [Bur64]. UO [Tho84]. 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]. Ursrung [Rut08b]. Use [Con82, Dav71b, Ear66, HW92, LGF+99, Mos13a, Ale46, Gro89, HKH96, Rut11e]. Used [Ano32b]. Useful [Dav71a, MD69]. Using [Eic72, NOSK08, SHCK96, Bar85, BPSW91, CGL+94, CFMO12, Cle81, CBZ+12, ESRDV84, FTT96, Ish83, KKGW85, NFM+07, NOH+10, NMSK13, OHN+09, PCK+08, STB+01, Sku89, Tho84, WV07, vdK89]. Utilization [Sim82]. Utilize [Rut24i].

V [dB14, Rut07j, Rut09f, Rut22n]. vacua [Rut24e, Rut24f, Rut24g, Rut24h]. Vapor [KEJ87, Hwa82, Hwa83, KIS+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+00, Gro89]. W. [Rön58].
W/TiNy/TiSiz/Si [Gro89]. waged [Mor18]. Wall [Ano00b]. Walton
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[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].
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Watson [Stu79b, Gri09]. Wave [NM12, DBE+85, Rut14f, SC13].
wave-length [Rut14f]. Wave-particle [NM12]. Wavelength
[RdCENdCA14a]. Waves [Rut96b, Rut97b, Rut26g, Rut96a, Rut16e]. Way
[Ano22]. ways [Rut15f]. Weak [Rut05d]. weapons [Bad05, CAN88, Mor18].
Website [Gra02]. Weiss [Pia24, Büh98a]. Well [Ano07, MDJF83].
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X [Ced00, Adl97, And90, Bau73a, Bau73b, BBR80, Bra98, Bra61, Bur86, CYM<sup>+</sup>03, CSN<sup>+</sup>00, CCR85, DHS97, HV84, KKK<sup>+</sup>99, KBvB<sup>+</sup>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<sup>+</sup>99, KBvB<sup>+</sup>05, KSKF93, PAF<sup>+</sup>98, PCK<sup>+</sup>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, Szv85, RT09]. XIII [Rut06j]. XIX [RB04c, Rut05m, Rut06l, RR13e]. XL [TR96]. XLI [RS02g, 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 [RS02h]. XXXIV [RG02b, RR13c, Rut14h, RBR15]. **XXXV** [Rut97a, RB15]. **XXXVII** [Rut050, Rut14i]. XXXVIII [Rut14j].

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[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/cgibin/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/cgibin/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.

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[Ano20a]

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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.

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[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. McKeehan, L. Meitner U. H. Schlundt.

# Anonymous:1931:NVb

[Ano31b]

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#### 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]

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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/.

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[Ano33a]

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### Anonymous:1933:BAB

[Ano33b]

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#### Anonymous:1933:BAS

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#### Anonymous:1933:TAL

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#### 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 TRNZAS. 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.

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[Ano37k]

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#### Anonymous:1937:STL

[Ano37l]

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### Anonymous:1938:DTL

[Ano38a]

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### Anonymous:1938:LRL

[Ano38b]

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### 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.

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[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\_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

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# Anonymous:1948:RCP

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[Ano 50]

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.

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[Ano 59]

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### 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.

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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.

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[Ano66e]

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### Anonymous:1971:ER

[Ano71a]

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[Ano71b]

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# 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.

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[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.

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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

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#### Anonymous:1999:DOR

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### Murdin:2000:AP

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#### 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.

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 $[CDE^{+}31b]$ 

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### Curie:1931:RCRb

 $[CDE^{+}31c]$ 

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).

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[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.

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 $[CGL^{+}94]$ 

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.

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[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.

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[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.

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[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.

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[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.

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[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).

# ${\bf Chadwick: 2014: CPLa}$

[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.

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[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.

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[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.

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[CK33] C. Y. Chao and T. T. Kung. 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 remark [Rut33i].

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

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[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.

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[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.

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[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-lt.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.

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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.

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[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.

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John Cockcroft. The Rutherford Memorial Lecture. Proceedings of the Royal Society A: Mathematical, Physical, and Engineering Sciences, 217(1128):1–8, 1953. CO-DEN PRLAAZ. ISSN 0080-4630 (print), 2053-9169 (electronic). URL http://rspa.royalsocietypublishing.org/content/217/1128/1. Lecture delivered at Canterbury Uni-

versity College, Christchurch, New Zealand on 20 September 1952.

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[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.

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[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.

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[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].

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[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].

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[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].

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33–40, April 1997. CODEN CHEIFK. ISSN 0947-0662. URL
http://alsos.wlu.edu/information.aspx?id=696.

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[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].

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[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).

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[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.

[Cot10]

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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/MSAIt810410/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\_\bigselectric 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.

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[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.

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[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 (ebook). LCCN QC51.G72 C353 1974.

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[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.

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[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.

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[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.

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[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.

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[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.

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[CS19]

Amanda Cooper-Sarkar. The proton laid bare. CERN Courier: International Journal of High-Energy Physics, 59 (3):38-43, May 2, 2019. CODEN CECOA2. ISSN 0304-288X (print), 2077-9550 (electronic). URL https://cerncourier.com/the-proton-laid-bare/.

### Cole:2000:STD

 $[CSN^{+}00]$ 

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.

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[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.* lliffe Books, London, UK, 1965. 266 pp. LCCN QC173 .C613 1966.

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[Cur10]

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

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[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.

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 $[CYM^{+}03]$ 

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.

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[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.

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[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.

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[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. CO-DEN 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.

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[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).

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[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).

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[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. CO-DEN SCIMAI. ISSN 0036-8687 (print), 1825-4373 (electronic). URL 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.

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[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.

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[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.

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[dCA56a]

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

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[dCA56b]

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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.

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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.

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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.

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A. S. Eve. LXV. The properites of radium in minute quantities. *Philosophical Magazine* (6), 9(53):708–712, 1905. CO-DEN 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.

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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.

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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.

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[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.

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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 ????

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[Far53] Eduard Farber. Nobel Prize winners in chemistry, 1901–1950, volume 31 of The Life of science library. H. Schuman,

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[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.

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[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.

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[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 00359149 (print), 1743-0178 (electronic). URL http://rsnr.
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[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. CO-DEN 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.

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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.

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[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.

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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.

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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).

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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.

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Nikolaj Aleksandrovic Figurovskij and Gerhard Harig. Sowjetische Beiträge zur Geschichte der Naturwissenschaft.

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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.

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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-brexit.

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[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.

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[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.

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[Hah67b]

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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).

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[Har60]

Paul Harteck. Physical chemists in Berlin: 1919–1933. Journal of Chemical Education, 37(9):462, 1960. CODEN

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[Har05]

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.

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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).

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[Hei68]

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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 ????

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[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.

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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%3E3.0.C0%3B2-R/full.

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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).

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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.

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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.

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Masataka Hasegawa, Naoto Kobayashi, and Nobuyuki Hayashi. Low-energy Rutherford backscattering-ion channeling measurement system with the use of several tens keV

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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.

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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].

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

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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.

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[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.

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[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].

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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 fify years of nuclear fission. See also [Gra64].

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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.

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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).

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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).

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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.

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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.

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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.

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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.

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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.

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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).

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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.

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[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.

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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.

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[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.

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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):

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Cecilia Jarlskog. Rutherford's Nobel Prize and the one he didn't get. CERN Courier: International Journal of High-Energy Physics, 59(??):??, ???? 2008. CO-DEN CECOA2. ISSN 0304-288X (print), 2077-9550 (electronic). URL https://cerncourier.com/rutherfords-nobel-prize-and-the-one-he-didnt-get/.

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[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.

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[Jen 85]

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.

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[Jen00]

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Laing:1937:ERO

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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.

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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????

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Liesbeth Reijnen, Bas Feddes, Arjan M.Vredenberg, Joop Schoonman, and Albert Goossens. Rutherford backscattering spectroscopy study of  ${\rm TiO_2~/Cu_{1.8}S}$  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).

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[LGA+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.

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[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.

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S. C. Lind. Book review: Rutherford. By A. S. Eve. Journal of Physical Chemistry, 44(6):832–833, June 1940. CO-DEN JPCHAX. ISSN 0022-3654 (print), 1541-5740 (electronic). URL http://pubs.acs.org/doi/abs/10.1021/j150402a025.

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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.

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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.

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[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 ????

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[LRdB+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.

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Verleihung der Ehrendoktorwürde an Ernest Rutherford durch Max Born an der Universität Göttingen. (German)
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Jian Liu and Pei xuan Wang. Rapid annealing study of neutron-irradiated GaAs by Rutherford backscattering spectrometry/channeling. Journal of Vacuum Science &

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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. Author listed only by initials, but most likely Ernest Marsden.

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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).

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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.

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[Mar54]

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[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).

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 $[{\rm MB}^{+}85]$ 

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.

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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.

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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.

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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.

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J. D. McGee, F.R.S. The Rutherford Memorial Lecture, New Zealand, 1982: Rutherford, radio and opto-electronics.

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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).

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Robin McKown. *Giant of the atom: Ernest Rutherford.* J. Messner, New York, NY, USA, 1962. 191 pp.

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[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.

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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.

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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.

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Jack R. MacDonald, J. A. Davies, T. E. Jackman, and L. C. Feldman. How well does <sup>4</sup>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.

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Werner Mecklenburg. Recensioni: Rutherford, E., Radioactive Substanzen und ihre Strahlungen. Scientia (Milan), 16 (37):280–286, 1914. CODEN SCIMAI. ISSN 0036-8687 (print), 1825-4373 (electronic).

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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.

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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.

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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.

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[Mil13] R. A. Millikan. Scientific books: Radioactive Substances and Their Radiations, [by Ernest Rutherford]. Science, 38

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sciencemag.org/content/38/966/29.

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[Mil38] R. A. Millikan. Lord Rutherford of Nelson [obituary]. In Year-book of the American Philosophical Society for 1938, pages 386–388. American Philosophical Society, Philadelphia, PA,

USA, 1938. ISSN 0065-9762.

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0262-4079 (print), 1364-8500 (electronic).

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[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.

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[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

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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. See comments and response [RCRC04, MM04].

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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. See [RCRC04, MM03].

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 $[MMKS^+80]$ 

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.

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[PCK<sup>+</sup>08]

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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).

 ${\bf Peierls:1997:RB}$ 

[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. Text of the Rutherford Memorial Lecture delivered at the National Physical Laboratory, New Delhi, November 10, 1987.

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[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.

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[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.

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H. T. H. Piaggio. Review: Atomes et Électrons by H. A. Lorentz, E. Rutherford, M. de Broglie, R. A. Millikan, H.

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[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).

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[PMCF<sup>+</sup>06]

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[PNFO88]

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[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.

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[Pod10b]

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[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.

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[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.

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[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.

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[PPA+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.

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[Pri08]

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[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 Philodelphia 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.

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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.

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[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. CO-DEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL http://www.tandfonline.com/doi/abs/10.1080/14786440209462893.

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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????

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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.

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[Ram75]

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[Raz63]

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[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. CO-DEN TRSCAI. ISSN 0035-9122. URL http://hdl.handle.net/2027/inu.32000004343010?urlappend=%3Bseq=819; http://www.biodiversitylibrary.org/page/10745147.

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[RB02a]

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[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/chemicalnewsjo8586londuoft.

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[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.

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[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.

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[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.

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[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/pri/abstract/10.1103/PhysRevSeriesI.18.116. Abstract of a paper presented at the meeting of the Physical Society held on December 30, 1903.

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[RB04c]

Ernest Rutherford, F.R.S. and H. T. Barnes, D.Sc. XIX. Heating effect of the radium emanation. *Philosophi-*

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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.

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[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.

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[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.

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[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.

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[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.

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[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.

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[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. CO-DEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL http://www.tandfonline.com/doi/abs/10.1080/14786440908635405.

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[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.

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[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.

#### 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.

## ${\bf Ruther ford: 1921: LAD}$

[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.

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[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).

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[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.

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[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 ????

## ${\bf Ruther ford: 1963: CPM}$

[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+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.ctt7zqmq.

## 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. 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/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

 $[RCW^+26]$ 

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.

## ${\bf Ruther ford: 1913: RRC}$

[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.

## ${\bf Ruther ford: 1914: WSR}$

[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 (elec-

tronic). 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 γ rays from radium B and radium C. *Philo-sophical Magazine* (6), 28(164):263–273, August 1914. CO-DEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL http://www.tandfonline.com/doi/abs/10. 1080/14786440808635207.

### ${\bf Ruther ford: 1931: OR}$

[RE31]

Lord Rutherford, O.M., F.R.S. and C. D. Ellis, F.R.S. The origin of the γ-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.

## ${\bf Reed:2015:ABS}$

[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.

### ${\bf Reed:2016:BRL}$

[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 UFNAAG. 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.

#### 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. CO-DEN 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.

#### 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.

## Rezerford:1971:INT

[Rez71]

Ernest Rezerford. *Izbrannye naučnye trudy. (Russian) [Selected scientific papers]*. Nauka, Moscow, Russia, 1971. 431 pp. Russian translation from Ju. M. Cipenjuk.

#### Rezerford:1972:INT

[Rez72]

Ernest Rezerford. *Izbrannye naučnye trudy. (Russian) [Selected scientific papers]*. Nauka, Moscow, Russia, 1972. 532 pp.

#### Reardon:2001:RSD

[RFF+01]

J. C. Reardon, G. Fiksel, C. B. Forest, A. F. Abdrashitov, V. I. Davydenko, A. A. Ivanov, S. A. Korepanov, S. V. Murachtin, 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. CO-DEN 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 substances. 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.

#### 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.

#### 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 (elec-

tronic). 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].  $Radium~(Paris),~3(11):321-326,~November~1906.~CODEN~RADMA2.~ISSN~0370-3223~(print),~2437-2455~(electronic). URL http://radium.journaldephysique.org/articles/radium/abs/1906/11/radium_1906__3_11_321_0/radium_1906__3_11_321_0.html.$ 

#### 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 LANCAO. 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 focusing 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.

# ${\bf Ruther ford: 1900: ERB}$

[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

 $[RMM^{+}29]$ 

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

 $[RMM^+13]$ 

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 Maga*-

zine (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].

#### 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 F

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

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### 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. CO-DEN 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.

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[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. CO-DEN 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.

#### 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.

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[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.

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#### Rutherford:1908:NP

[RR08e]

Professor Ernest Rutherford, F.R.S. and Thomas Royds, M.Sc. The nature of the α particle. Memoirs and Proceedings 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  $\alpha$  particules 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.

## Rutherford:1909:NPR

[RR09b]

Ernest Rutherford and Thomas Royds. The nature of the  $\alpha$ -particle from radioactive substances. Jahrbuch der Radioaktivität und Electronik, 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/chemicalnewsjour99londuoft#page/49/mode/1up.

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[RR09d]

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#### 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.

### ${\bf Ruther ford: 1913: MGR}$

[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.

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[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).

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[RR13d]

Professor Ernest Rutherford, F.R.S. and H. Richardson, B.Sc. LXXVI. 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.

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[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.

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[RR95]

J. Räisänen and E. Rauhala. Angular distributions of <sup>12</sup>C, <sup>14</sup>N, and <sup>16</sup>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. Räisänen, E. Rauhala, J. M. Knox, and J. F. Harmon. Non-Rutherford cross sections in heavy ion elastic recoil spectrometry: 40–70 MeV <sup>32</sup>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

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## 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 [RS02f].

### 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).

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[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:LCN

[RS02f]

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. CO-DEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL http://www.tandfonline.com/doi/abs/10.1080/14786440209462881.

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[RS02g]

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. CO-DEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL http://www.tandfonline.com/doi/abs/10.1080/14786440209462856.

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[RS02h]

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

[RS02i]

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.

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[RS02j]

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.

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[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 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

[RS021]

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. CO-DEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL http://www.tandfonline.com/doi/abs/10.1080/14786440309462959.

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[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.

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[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

 $[RSA^{+}34a]$ 

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+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

 $[RSdS^{+}89]$ 

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 con-

vention — 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.

## ${\bf Russell: 1937: MAL}$

[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; 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.

### 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 ultraviolet 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).

### ${\bf Ruther ford: 1900: RUR}$

[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. CO-DEN 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 (elec-

tronic). 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. CO-DEN 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. CO-DEN 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. CO-DEN 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. CO-DEN 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 Ad-

vancement 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 bod-

ies, 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.

# ${\bf Ruther ford: 1905: UZR}$

[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. CO-DEN 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. 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. CO-DEN 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.

#### 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 NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL 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.

# ${\bf Ruther ford: 1906: EES}$

[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).

# ${\bf Ruther ford: 1906: XRV}$

[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. CO-DEN PHMAA4. ISSN 1941-5982 (print), 1941-5990 (electronic). URL http://www.tandfonline.com/doi/abs/10.1080/14786440609463470.

### Rutherford:1906:XRP

[Rut061]

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. CO-DEN 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. CO-DEN 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 Electronik, 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. 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. CO-DEN 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.

## Rutherford:1908:URB

[Rut08b]

Ernest Rutherford. Der ursrung des radiums (bericht). (German) [The origin of radium (report)]. *Jahrbuch der Radioaktivität und Electronik*, 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 Electronik, 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.

### 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.

## 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. CO-DEN 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. CO-DEN 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.

# ${\bf Ruther ford: 1909: OAS}$

[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 α 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

[Rut091]

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/chemicalnewsjour99londuoft#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 SCA-MAC. 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.

### ${\bf Ruther ford: 1910: RSN}$

[Rut10e]

Ernest Rutherford. Radium standards and nomenclature. *Nature*, 84(2136):430–431, October 6, 1910. CO-DEN 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-Geschellschaft, 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.

## ${\bf Ruther ford: 1911: VUR}$

[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.

### 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.

#### 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.

## ${\bf Ruther ford: 1913: BRS}$

[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).

### ${\bf Ruther ford: 1914: CBR}$

[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.

# ${\bf Ruther ford: 1915: EPC}$

[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).

# ${\bf Ruther ford: 1915: MCS}$

[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-

## Rutherford:1916:XRS

[Rut16c]

Ernest Rutherford. X-ray spectra of the elements. *Engineering (London, UK)*, 101(??):320–??, ???? 1916. CODEN ENGNA2. ISSN 0013-7782.

# ${\bf Ruther ford: 1916: XLR}$

[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. CO-DEN 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. CO-DEN 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. CO-DEN 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. CO-DEN 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 longrange 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 ele-Nature, 109(2740):584–586, May 6, 1922. DEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL http://www.nature.com/nature/journal/

v109/n2740/pdf/109584a0.pdf.

Rutherford:1922:ADEb

[Rut22b] Artificial disintegration of the ele-Ernest Rutherford. Nature, 109(2741):614-617, May 13, 1922. DEN 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

Ernest Rutherford. Disintegration of elements. Nature, 109 (2735):418, April 1, 1922. CODEN NATUAS. ISSN 0028-

0836 (print), 1476-4687 (electronic). URL http://www.

[Rut22d]

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.

# ${\bf Ruther ford: 1922: RPIb}$

[Rut22k] Ernest Rutherford. Radioactivity [Part II]. Engineering (London, UK), 113(??):331–332, March 1922. CODEN ENGNA2. ISSN 0013-7782.

# ${\bf Ruther ford: 1922: RPIc}$

[Rut221] 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

[Rut220] 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. CO-DEN 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 03670805.

#### 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 03670805.

#### 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 JSCIAN. 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 ENGNA2. ISSN 0013-7782.

## Rutherford:1924:PGHa

[Rut24e] Ernest Rutherford. Properties of gases in high and low vacua. Engineering (London, UK), 117(??):330, March 1924. CO-DEN 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. CO-DEN 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. CO-DEN 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 SC-MOAA. 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. CO-DEN 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.

# ${\bf Ruther ford: 1925: SAa}$

[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 Phys-

ical 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. CO-

DEN 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:RGAb

Ernest Rutherford. The rare gases of the atmosphere [Part II]. [Rut26j] Engineering (London, UK), 121(??):388-390, March 1926.

CODEN ENGNA2. ISSN 0013-7782.

		Rutherford:1926:RGAc
[Rut26k]	Ernest Rutherford. The rare ga III]. Engineering (London, UK CODEN ENGNA2. ISSN 0013-	(i), 121(??):438, April 1926.
		Rutherford:1926:RGAd
[Rut26l]	Ernest Rutherford. The rare ga IV]. Engineering (London, UK), CODEN ENGNA2. ISSN 0013-7	121(??):458–459, April 1926.
		Rutherford:1927:RASa
[Rut27a]	Ernest Rutherford. $\alpha$ rays and Engineering (London, UK), 123	
		Rutherford:1927:RASb
[Rut27b]	Ernest Rutherford. $\alpha$ rays and Engineering (London, UK), 123	
		Rutherford:1927:RASc
[Rut27c]	Ernest Rutherford. $\alpha$ rays and Engineering (London, UK), 123	
		Rutherford:1927:RASd
[Rut27d]	Ernest Rutherford. $\alpha$ rays and Engineering (London, UK), 123	
		Rutherford:1927:APSa
[Rut27e]	Ernest Rutherford. Address of Rutherford, at the Anniversary I Proceedings of the Royal Socie cal, and Engineering Sciences, 1 1927. CODEN PRLAAZ. ISSN (electronic).	Meeting, November 30, 1926. ty A: Mathematical, Physi- 13(765):481–495, January 1,
		Rutherford:1927:RN
[Rut27f]	Ernest Rutherford. Radioactive terly, 15(4):82–86, December 1920096-977X (print), 2327-7548 (elejstor.org/stable/27824352.	27. CODEN SXQUAP. ISSN
		Rutherford:1927:SAI

Ernest Rutherford. Scientific aspects of intense magnetic fields and high voltages.  $Nature,\ 120(3031):809-811,\ De-$ 

[Rut27g]

cember 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/101/1706; 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. CO-DEN 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://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.

## ${\bf Ruther ford: 1929: MMRa}$

[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).

# ${\bf Ruther ford: 1930: ANTa}$

[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.

# ${\bf Ruther ford: 1930: ANTd}$

[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.

### 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.

# 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.

# ${\bf Ruther ford: 1933: AT}$

[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:RRTb

[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.

# ${\bf Ruther ford: 1934: NHd}$

[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 SC-MOAA. 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.

# RutherfordofNelson:1934:EBS

[Rut34k] Lore

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 JCSOA9. ISSN 0368-1769 (print), 2050-5574 (electronic).

# ${\bf Ruther ford: 1935: LE}$

[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 PIGBAI. 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.

### ${\bf Ruther ford: 1936: RAT}$

[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 JCSOA9. 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 / Britsh 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. CO-DEN 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 ???? 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. CO-DEN 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:DSA

[Rut70]

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: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. Longrange 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 α 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 α 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<sup>+</sup> implanted Si on subsequent laser

annealing. Journal of Applied Physics, 52(2):744, 1981. CO-DEN 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.

# Schwarcz:2015:RCH

[Sch15] Joe Schwarcz. 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+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 Berkeley 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 Segré. 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. Segré. 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].

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[Seg80c]

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