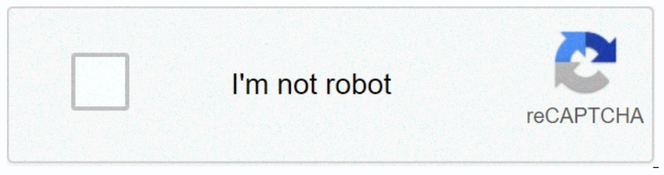

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Effective nuclear charge of sulfur

Albright, Thomas A., and Jeremy K. Burdett. Problems in molecular orbital theory. In 1992, Oxford University Press. Allen, Leland C. Electronegativity is the average energy of an electron of valence-shell electrons in terrestrial free atoms. Journal of the American Chemical Society, volume 111, number 25, 1989, pp. 9003–9014. doi:10.1021/ja00207a003 Allen, Leland C. Electronegativity is the average energy of an electron of valence-shell electrons in earth state free atoms. Journal of the American Chemical Society, volume 111, number 25, 1989, pp 9003–9014. doi:10.1021/ja00207a003 Allred, A. L. Electronegativity values from thermochemical data. Journal of Inorganic and Nuclear Chemistry, volume 17, number 3-4, 1961, pp. 215–221. doi:10.1016/0022-1902(61)80142-5 Allred, A. L., and E. G. Rochow. An electronegativity scale based on electrostatic force. Journal of Inorganic and Nuclear Chemistry, volume 5, number 4, 1958, pp. 264–268. doi:10.1016/0022-1902(58)80003-2 Anders, Edward, and Nicolas Grevesse. Abundance of elements: meteorites and solar. Geochimica et Cosmochimica Acta, volume 53, number 1, 1989, pp. 197–214. doi:10.1016/0016-7037(89)90286-X Andersen, T., H. K. Haugen, and H. Hotop. Binding energies in atomic negative ions: III. Journal of Data of Physical Reference and Chemistry, volume 28, number 6, 1999, pp. 1511–1533. Ball, David W. Elementary etymology: What's in a name? Journal of Chemical Education, volume 62, number 9, 1985, pp. 787–788. doi:10.1021/ed062p787 Batsanov, S. S. Van der Waals Radii of Elements. Inorganic materials, volume 37, number 9, 2001, pp. 871–885. See the abstract Bearden, J. A., and A. F. Burr. Reassessment of atomic energy levels of X-rays. Reviews of Modern Physics, volume 39, number 1, 1967, pp. 125–142. doi:10.1103/RevModPhys.39.125 Bondi, A. Van der Waals Volumes and Radii. The Journal of Physical Chemistry, volume 68, number 3, 1964, pp. 441–451. doi:10.1021/j100785a001 Bowen, H. J.M. Environmental Chemistry of the Elements. In 1979, the Government of London began to do so. Boyd, Russell J., and Kenneth E. Edgecombe. Atomic and group electronegativity of molecules' electronic density distributions. Journal of the American Chemical Society, volume 110, number 13, 1988, pp 4182–4186. doi:10.1021/ja00221a014 Bratsch, Steven G. Mulliken electronegativitys reviewed: I. Calculation and conversion to Pauling units. Journal of Chemical Education, volume 65, number 1, 1988, pp. 34–41. Doi:10.1021/ed065p34 Cardarelli, François. Materials Manual: A concise reference of the desktop, 2nd edition. 2008. 1000. Cardona, M., and L. Ley, editors. Photoemission in Solids I: General Principles. Berlin: Springer-Verlag, 1978. Chase, Malcolm W., editor. JPCRD Monograph No. 9: NIST-JANAF Thermochemical Tables, (Part I and Part Woodbury, NY: American Chemical Society and the American Institute of Physics, 1998. Clementi, E., and D. L. Raimondi. Atomic detection constants of SCF functions. Journal of Chemical Physics, volume 38, number 11, 1963, pp. 2686–2689. doi:10.1063/1.1733573 Cohen, E. Richard, David R. Lide, and George L. Trigg, editors. AIP Physics Desk Reference, 3rd edition. In 2003, Springer-Verlag New York, Inc., 2003. Connelly, Neil G., Ture Damhus, Richard M. Hartshorn and Alan T. Hutton. Nomenclature of Inorganic Chemistry: Recommendations of IUPAC 2005. ^ a b 1.0 1.1 1.2 1.3 1.4 1.4 1.5 Cordero, Beatriz, Verónica Gómez, Ana E. Platero-Prats, Marc Revés, Jorge Echeverría, Eduard Cremades, Flavia Barragán and Santiago Álvarez. Covalent Radii Revisited. Dalton Transactions, number 21, 2008, pp 2832-2838. Doi:10.1039/b801115j Croswell, Ken. Sky Alchemy. In 1995 a series of filmants were made in the study of the anchor. From Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Donohue, Jerry. The structures of the elements, 2nd edition. Malabar, Florida: Robert E. Krieger Editorial, 1974. Dronskowski, Richard. Computational Chemistry of Solid State Materials. Weinheim, Germany: WILEY-VCH Verlag GmbH & Co. KGaa, 2005. Ebbing, Darrell D., and Steven D. Gammon. General Chemistry, 8th edition. Boston, MA: Houghton Mifflin Company, 2005. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Emsley, John. The Elements, 3rd edition. Oxford: Oxford University Press, 1998. Firestone, Richard B. Isotope Table, 8th edition, volume 2. Edited by Virginia S. Shirley, with assistant editors Coral M. Baglin, S. Y. Frank Chu and Jean Zipkin. In 1996, John Wiley & Sons, Inc., 1996. Galasso, Francis S. Structure and properties of inorganic solids. Oxford: Pergamon Press, 1970. Ghosh, Dulal C., and Kartick Gupta. A new electronegativity scale of 54 periodic table elements based on the polarization of atoms. Journal of Theoretical and Computational Chemistry, volume 5, number 4, 2006, pp. 895–911. doi:10.1142/S0219633606002726 Greenwood, N. N., and A. Earnshaw. Chemistry of the Elements, 2nd edition. 1997: In 1997, butterworth-Heinemann. Gregoryanz, Eugene, Viktor V. Struzhkin, Russell J. Hemley, Mikhail I. Yemetics, Ho-kwang Mao, and Yuri A. Timofeev. Superconductivity in the Chalcogens until multimegabar pressures. Physical revision B, volume 65, number 6, 2002, pp. 064504–1 to 064504–6. Doi:10.1103/PhysRevB.65.064504 Gwyn Williams. Electron binding energies. gwyn/ebindene.html. It is accessed on 30 April 2010. Ho, C. Y., R. W. Powell, and P. E. Liley. Thermal conductivity of the elements: a complete review. Journal of Data of Physical Reference and Chemistry, volume 3, supplement 1, 1974, pp. I–1 in I–796. A. L. Critical temperature of the elements and the periodic system. Journal of Chemical Education, volume 50, number 5, 1973, pp. 335–336. doi:10.1021/ed050p335 Huheey, James E., Ellen A. Keiter and Richard L Keiter. Inorganic Chemistry: Principles of Structure and Reactivity, 4th edition. In 1993, harpercollins college publishers. International Labour Organization (IIT). International chemical safety card for sulfur. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for sulfur. . It was accessed on 5 May 2010. Jessberger, Elmar K., Alexander Christoforidis and Jochen Kissel. Aspects of the composition of main elements of Halley's dust. Nature, volume 332, number 21, 1988, pp. 691–695. Doi:10.1038/332691a0 Kaufman, Victor, and W.C. Martin. Wavelengths and energy level classifications for sulfur spectra (S I through 16th century). Journal of Data of Physical Reference and Chemistry, volume 22, number 2, 1993, pp. 279–375. Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Krause, M. O. Atomic radiative yields without radiation for K and L. Journal of Data of Physical Reference and Chemistry, volume 8, number 2, 1979, pp. 307–327. Li, Wai-Kee, Gong-Du Zhou and Thomas Mak. Advanced Structural Inorganic Chemistry. Oxford: Oxford University Press, 2008. Liboff, Richard L. Introductory Quantum Mechanics, 3rd edition. Reading, MA: Addison Wesley Longman, Inc., 1998. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Mann, Joseph B., Terry L. Meek and Leland C. Allen. Configuration energies of the main elements of the group. Journal of the American Chemical Society, volume 122, number 12, 2000, pp. 2780–2783. doi:10.1021/ja992866e Manuel, O., editor. Origin of the elements in the solar system: implications of post-1957 observations. ^1.0 1.1 1.2 1.3 1.3 1.5 1.5 1.6 « Kluwer Academic Publishers Martin, W.C. Electronic structure of the elements. The European Physical Journal C — Particles and fields, volume 15, number 1–4, 2000, pp. 78–79. doi:10.1007/BF02683401 McDonough, W. F. Compositional model for the Earth's core. pp. 547–568 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Mechtly, Eugene A. Properties of materials. pp. 4–1 to 4-33 in reference data for engineers: Radio, Electronics, Computer and Communications. By Mac E. Van Valkenburg, edited by Wendy M. Middleton. Woburn, MA: Butterworth-Heinemann, 2002. doi:10.1016/B978-075067291-7/50006-6 Miessler, Gary and Donald A. Tarr. Inorganic Inorganic 3rd edition. Upper Saddle River, N.J.: Pearson Prentice Hall, 2004. Nagle, Jeffrey K. Atomic polarization and electronegativity. Journal of the American Chemical Society, volume 112, number 12, 1990, pp. 4741–4747. doi:10.1021/ja00168a019 National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for sulfur. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for sulfur. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). The Register of Toxic Effects of Chemical Substances for Sulfur. . It was accessed on 5 May 2010. Nicholas, J. V., and D. R. White. Temperature. pp. 8–41 to the thermodynamic properties of individual phases. Edited by A. R. H. Goodwin, W. A. Wakeham, and K. N. Marsh. Amsterdam: Elsevier Science, 2003. Orem, W. H., and R.B. Finkelman. Formation of coal and geochemistry. pp. 191–222 in Sediments, Diagenesis and Sedimentary Rocks. Edited by Fred T. Mackenzie. Oxford: Elsevier Ltd., 2005. Oxtoby, David W., H. P. Gillis and Alan Campion. Principles of Modern Chemistry, 6th edition. Belmont, CA: Thomson Brooks/Cole, 2008. Palme, H., and Hugh St.C. O'Neill. Cosmochemical estimates of the composition of the mantle. pp. 1–38 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Pauling, Linus. The nature of the chemical bond, 3rd edition. Ithaca, NY: Cornell University Press, 1960. Pearson, Ralph G. Absolute electronegativity and hardness: application to inorganic chemistry. Inorganic Chemistry, volume 27, number 4, 1988, pp 734–740. 10.1021/ic00277a030 Pekka Pyykkö. Radis Covalents Auto-consistents, year 2009. pyykko/Radii09.pdf. Retrieved November 20, 2010. Pyykkö, Pekka and Michiko Atsumi. Molecular Double-Bond Covalent Radii for Elements Li-E112. Chemistry - A European Journal, volume 15, number 46, 2009, pp. 12770–12779. doi:10.1002/chem.200901472 Pyykkö, Pekka, and Michiko Atsumi. Molecular Single-Bond Covalent Radii for Elements 1-118. Chemistry - A European Journal, volume 15, number 1, 2009, pp. 186–197. doi:10.1002/chem.200800987 Pyykkö, Pekka, Sebastian Riedel and Michael Patzschke. Triple-Bond Covalent Radii. Chemistry - A European Journal, volume 11, number 12, 2005, pp. 3511–3520. doi:10.1002/chem.200401299 Rohrer, Gregory S. Structure and union in crystalline materials. Cambridge: Cambridge University Press, 2001. Samsonov, G. V., editor. Manual of the Physicochemical Properties of the Elements. In 1968 the journal Plenum Publishing Corporation was published. Sanderson, R. T. Simple inorganic substances. Juggling, FL: Robert E. Editorial Co., Inc., 1989. Sanderson, R. T. Principles of Electronegativity: Part I. General Nature. Journal of Chemical Education, volume 65, number 2, 1988, pp. 112–118. Doi:10.1021/ed065p112 Sanderson, R. T. Polar Covalence. In 1983, the New York government began doing so. Sansonetti, J. E., and W.C. Martin. Manual of basic atomic spectroscopic data. Journal of Data of Physical Reference and Chemistry, volume 34, number 4, 2005, pp. 1559–2259. doi:10.1063/1.1800011 Scientific Group Thermodata Europe (SGTE). Pure substances: Part 1 - Elements and compounds of AgBr in Ba3N2. Edited by I. Hurtado and D. Neuschütz. Berlin: Springer-Verlag, 1999. doi:10.1007/10652891_3 Shannon, R. D. Effective Ion radii Reviewed and Systematic Studies of Intertamic Distances in Halides and Chalcogenides. Acta Crystallographica Section A, volume 32, number 5, 1976, pp. 751–767. doi:10.1107/S0567739476001551 Silbey, Robert J., Robert A. Alberty, and Moungi G. Bawendi. Physical Chemistry, 4th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Singman, Charles N. Atomic volume and allotropy of the elements. Journal of Chemical Education, volume 61, number 2, 1984, pp. 137–142. doi:10.1021/ed061p137 Slater, J.C. Atomic radius in crystals. The Journal of Chemical Physics, volume 41, number 10, 1964, pp. 3199–3204. doi:10.1063/1.1725697 Smith, Derek W. Electronegativity in Two Dimensions: Reassessment and Resolution of the Pearson-Pauling Paradox. Journal of Chemical Education, volume 67, number 11, 1990, pp. 911–914. doi:10.1021/ed067p911 Smith, Derek W. Inorganic substances: A prelude to the study of inorganic descriptive chemistry. Cambridge: Cambridge University Press, 1990. Speight, james G. Perry's standard tables and formulas for chemical engineers. In 2003, McGraw-Hill Companies, Inc., 2003. Steudel, Ralf and Bodo Eckert. Solid sulfur allotropes. pp. 1–79 in elemental sulphide and sulfur-rich compounds I. Edited by Ralf Steudel. Berlin: Springer-Verlag, 2003. doi:10.1007/b12110 U.S. Department of Transportation (DOT), Transport Canada (TC), Mexico Secretariat for Transport and Communications (SCT) and Centro de Información Química para Emergencias (CIQUIME). Emergency response guide 2008. Vainshtein, Boris K., Vladimir M. Fridkin and Vladimir L. Indenbom. Structure of the Crystals, 2nd edition. Modern crystallography 2. Edited by Boris K. Vainshtein, A. A. Chernov, and L. A. Shuvalov. Berlin: Springer-Verlag, 1995. Voigt, H. H., editor. Landolt-Börnstein—Group VI Astronomy and Astrophysics. Berlin: Springer–Verlag, 1993. Waber, J. T., and Don T. Cromer. Orbital radius of atoms and ions. Journal of Chemical Physics, volume 42, number 12, 1965, pp. 4116–4123. doi:10.1063/1.1695904 Waldron, Kimberley A., Erin M. Fehringer, Amy E. Streeb, Jennifer E. Trosky, and Joshua J. Pearson. Projection Based on Slater Effective Nuclear Load as a Versatile Tool for Teaching Periodic Trends. Journal of Chemical Education, volume 78, number 5, 2001, pp. 635–639. doi:10.1021/ed078p635 Wieser, Michael E., and Tyler B. Coplen. Atomic weights of the elements 2009 (Technical Report of the IUPAC). Pure and Applied Chemistry, volume 83, number 2, 2011, pp. 359–396. doi:10.1351/PAC-REP-10-09-14 Pians, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Young, K. F., and H. P. R. Frederikse. In 1997, the band released their first album, The Static Dielectric Constant of Inorganic Solids. Journal of Data of Physical Reference and Chemistry, volume 2, number 2, 1973, pp. 313–409. Zefirov, Yu. V. Comparative analysis of van der Waals Radii systems. Reports of crystallography, volume 42, number 1, 1997, pp. 111–116. Page 2 International Labour Organization (IIT). International chemical safety card for aluminium (powder). . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for antimony. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for argon. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Barium. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Bromine. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for cadmium. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for calcium. It was accessed on 5 May 2010. International Labour Organization (IIT). International carbon chemical safety card. Carbon. It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for black carbon. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for chlorine. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for fluorite. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Grey Arsenic. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for hafnium (powder, dry). . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for hafnium (powder, wet with water). . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Helium. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for hydrogen. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Krypton (Liquefied, Refrigerated). . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for lithium. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for magnesium (Pellets). . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for magnesium (powder). It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for mercury. Mercury. It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for Molybdenus. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for neon. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Nitrogen (Compressed Gas). . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Nitrogen (Liquefied). . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for oxygen. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Oxygen (Liquefied). . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Potassium. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for radon. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for silicon. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for sodium. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for sulfur. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Tantalum. It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for Thallium. . It was accessed on 5 May 2010. 2010. organisation (IIT). International chemical safety card for Thorium. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for white phosphorus. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for Xenon. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for zinc. . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for zirconium (unstable powder). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for aluminium (powder). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for antimony. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for argon. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Barium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Bromine. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for cadmium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for calcium. . It was accessed on 5 May 2010. National Security Institute Health at Work (NIOSH). International carbon chemical safety card. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International carbon chemical safety card . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for chlorine. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for fluorite. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Grey Arsenic. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for hafnium (powder, dry). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for hafnium (powder, wet with water). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Helium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for hydrogen. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Krypton (Liquefied, Refrigerated). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for lithium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for magnesium (Pellets). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for magnesium (powder). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for mercury. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Molybdenus. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). international chemical safety for neon. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for nitrogen nitrogen gas). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Nitrogen (Liquefied). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for oxygen. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Oxygen (Liquefied). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Potassium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for radon. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for silicon. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for sodium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for sulfur. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Tantalum. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Thallium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Thorium. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for white phosphorus. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International security card for Xenon. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for zinc. . It is accessed by the National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for zirconium (unstable powder). . It was accessed on 5 May 2010. Page 3 Albright, Thomas A., and Jeremy K. Burdett. Problems in molecular orbital theory. In 1992, Oxford University Press. Allen, Leland C. Electronegativity is the average energy of an electron of valence-shell electrons in terrestrial free atoms. Journal of the American Chemical Society, volume 111, number 25, 1989, pp. 9003–9014. doi:10.1021/ja00207a003 Allen, Leland C. Electronegativity is the average energy of an electron of valence-shell electrons in earth state free atoms. Journal of the American Chemical Society, volume 111, number 25, 1989, pp 9003–9014. doi:10.1021/ja00207a003 Allred, A. L. Electronegativity values from thermochemical data. Journal of Inorganic and Nuclear Chemistry, volume 17, number 3-4, 1961, pp. 215–221. doi:10.1016/0022-1902(61)80142-5 Allred, A. L., and E. G. Rochow. An electronegativity scale based on electrostatic force. Journal of Inorganic and Nuclear Chemistry, volume 5, number 4, 1958, pp. 264–268. doi:10.1016/0022-1902(58)80003-2 Anders, Edward, and Nicolas Grevesse. Abundance of elements: meteorites and solar. Geochimica et Cosmochimica Acta, volume 53, number 1, 1989, pp. 197–214. doi:10.1016/0016-7037(89)90286-X Andersen, T., H. K. Haugen, and H. Hotop. Binding energies in atomic negative ions: III. Journal of Data of Physical Reference and Chemistry, volume 28, number 6, 1999, pp. 1511–1533. Assael, Marc J., Konstantinos Kakosimos, R. Michael Banish, Jürgen Brillo, Ivan Egry, Robert Brooks, Peter N. Quested, Kenneth C. Mills, Akira Nagashima, Yuzuru Sato and William A. Wakeham. Reference data for the density and viscosity of liquid aluminium and liquid iron. Journal of Data of Physical Reference and Chemistry, volume 35, number 1, 2006, pp. 285–300. doi:10.1063/1.2149380 Barron, T. H. K., and G. K. Blanc. Thermal capacity and thermal expansion at low temperatures. ^1.0 1.1 1.2 1.3 1.3 1.4 1.5 1.5 1.6 Kluwer Academic. Barsan, Michael E., editor. NIOSH Pocket Guide for Chemical Risks. Cincinnati, Ohio: NIOSH Publications, 2007. Batsanov, S. S. Van der Waals Radii of Elements. Inorganic materials, volume 37, number 9, 2001, pp. 871–885. See the abstract Bearden, J. A., and A. F. Burr. Reassessment of atomic energy levels of X-rays. Reviews of Modern Physics, volume 39, number 1, 1967, pp. 125–142. doi:10.1103/RevModPhys.39.125 Bedford, R. E., G. Bonnier, H. Maas and F. Pavese. Recommended temperature values on the international temperature scale of 1990 for a selected set of secondary reference points. Metrology, volume 33, number 2, 1996, pp. 133–154. doi:10.1088/0026-1394/33/2/3 Bowen, H. J.M. Environmental Chemistry of the In 1979, the Government of London began to do so. Boyd, Russell J., and Kenneth E. Edgecombe. Atomic and group electronegativity of molecules' electronic density distributions. Journal of the American Chemical Society, volume 110, number 13, 1988, pp 4182–4186. doi:10.1021/ja00221a014 Bratsch, Steven G. Mulliken electronegativitys reviewed: I. Calculation and conversion to Pauling units. Journal of Chemical Education, volume 65, number 1, 1988, pp. 34–41. Doi:10.1021/ed065p34 Cardarelli, François. Materials Manual: A concise reference of the desktop, 2nd edition. 2008. 1000. Cardona, M., and L. Ley, editors. Photoemission in Solids I: General Principles. Berlin: Springer-Verlag, 1978. Clementi, E., and D. L. Raimondi. Atomic detection constants of SCF functions. Journal of Chemical Physics, volume 38, number 11, 1963, pp. 2686–2689. doi:10.1063/1.1733573 Cohen, E. Richard, David R. Lide, and George L. Trigg, editors. AIP Physics Desk Reference, 3rd edition. In 2003, Springer-Verlag New York, Inc., 2003. Collins, J. G., G. K. White, and C. A. Swenson. Thermal expansion of aluminium below 35 K. Journal of Low Temperature Physics, volume 10, number 1-2, 1973, pp. 69–77. doi:10.1007/BF00655242 Connelly, Neil G., Ture Damhus, Richard M. Hartshorn, and Alan T. Hutton. Nomenclature of Inorganic Chemistry: Recommendations of IUPAC 2005. ^ a b 1.0 1.1 1.2 1.3 1.4 1.4 1.5 Cordero, Beatriz, Verónica Gómez, Ana E. Platero-Prats, Marc Revés, Jorge Echeverría, Eduard Cremades, Flavia Barragán and Santiago Álvarez. Covalent Radii Revisited. Dalton Transactions, number 21, 2008, pp 2832-2838. doi:10.1039/b801115j Cronan, D. S. Eastern Pacific basal metallic sediments. Bulletin of the Geological Society of America, volume 87, number 6, 1976, pp. 928–934. doi:10.1130/0016-7606(1976)872.0.CO;2 of Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Desai, P. D., H.M. James, and C. Y. Ho. Electric resistivity of aluminum and manganese. Journal of Data of Physical Reference and Chemistry, volume 13, number 4, 1984, pp. 1131–1172. Dronskowski, Richard. Computational Chemistry of Solid State Materials. Weinheim, Germany: WILEY-VCH Verlag GmbH & Co. KGaa, 2005. Ebbing, Darrell D., and Steven D. Gammon. General Chemistry, 8th edition. Boston, MA: Houghton Mifflin Company, 2005. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Emsley, John. The Elements, 3rd edition. Oxford: Oxford University Press, 1998. Firestone, Richard B. Isotope Table, 8th edition, volume 2. Edited by Virginia S. Shirley, with assistant editors Coral M. Baglin, S. Y. Frank Chu and Jean Zipkin. In 1996, John Wiley & Sons, Inc., 1996. Ghosh, Dulal C., and Kartick Gupta. A new electronegativity scale of 54 Periodic table based on the polarization of atoms. Journal of Theoretical and Computational Chemistry, volume 5, number 4, 2006, pp. 895–911. doi:10.1142/S0219633606002726 Greenwood, N. N., and A. Earnshaw. Chemistry of the Elements, 2nd edition. 1997: In 1997, butterworth-Heinemann. Jordi. Electron binding energies. gwyn/ebindene.html. It is accessed on 30 April 2010. Ho, C. Y., R. W. Powell, and P. E. Liley. Thermal conductivity of the elements: a complete review. Journal of Data of Physical Reference and Chemistry, volume 3, supplement 1, 1974, pp. I–1 in I–796. Höhne, G. W. H., W. F. Hemminger, and H.-J. 6300 Sassheim, Austria Differential Scanning Calorimetry, 2nd edition. Berlin: Springer-Verlag, 2003. Horvath, A. L. Critical temperature of the elements and the periodic system. Journal of Chemical Education, volume 50, number 5, 1973, pp. 335–336. doi:10.1021/ed050p335 Huheey, James E., Ellen A. Keiter and Richard L Keiter. Inorganic Chemistry: Principles of Structure and Reactivity, 4th edition. In 1993, harpercollins college publishers. Ihde, Aaron J. The development of modern chemistry. In 1984, dover Publications, Inc., 1984. International Labour Organization (IIT). International chemical safety card for aluminium (powder). . It was accessed on 5 May 2010. International Labour Organization (IIT). International chemical safety card for aluminium (powder). . It was accessed on 4 May 2010. Jensen, J. E., R.B. Stewart, W. In Tuttle, H. Brechna, and A. G. Prodell, editors. Brookhaven National Laboratory Selected Cryogenic Data Notebook. BNL 10200-R, Vol. 1, Brookhaven National Laboratory, August 1980. Jessberger, Elmar K., Alexander Christoforidis and Jochen Kissel. Aspects of the composition of main elements of Halley's dust. Nature, volume 332, number 21, 1988, pp. 691–695. Doi:10.1038/332691a0 Kaufman, Victor, and W.C. Martin. Wavelengths and energy level classifications for aluminum spectrums (Al I via Al XIII). Journal of Data of Physical Reference and Chemistry, volume 20, number 5, 1991, pp. 775–857. Kaxiras, Efthimios. Atomic structure and electronics of solids. Cambridge: Cambridge University Press, 2003. King, H. W. Allotropic structures dependent on the pressure of the elements. Bulletin of alloy phase diagrams, volume 4, number 4, 1983, pp. 449–450. Doi:10.1007/BF02868110 Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Kittel, Charles. Introduction to Solid State Physics, 5th edition. In 1976, John Wiley & Sounds, Inc. Krause, M. O. Atomic radiative yields and no radiation for the shells K and L. Magazine of and chemical reference data, volume 8, number 2, 1979, pp. 307–327. Li, Y.-H., and J. E. Schoonmaker. Chemical composition and mineralogy of marine sediments. pp. 1–36 in sediments, diagenesis and sedimentary rocks. Edited by Fred T. Mackenzie. Oxford: Elsevier Ltd., 2005. Liboff, Richard L. Introductory Quantum Mechanics, 3rd edition. Reading, MA: Addison Wesley Longman, Inc., 1998. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Mann, Joseph B., Terry L. Meek and Leland C. Allen. Configuration energies of the main elements of the group. Journal of the American Chemical Society, volume 122, number 12, 2000, pp. 2780–2783. doi:10.1021/ja992866e Manuel, O., editor. Origin of the elements in the solar system: implications of post-1957 observations. ^1.0 1.1 1.2 1.3 1.3 1.5 1.5 1.6 « Kluwer Academic Publishers Marshall, James L. Discovery of the Elements: A Search for the Fundamental Principles of the Universe, 2nd edition. Boston, MA: Pearson Custom Publishing, 2002. Martin, W.C. Electronic structure of the elements. The European Physical Journal C — Particles and fields, volume 15, number 1–4, 2000, pp. 78–79. doi:10.1007/BF02683401 McDonough, W. F. Compositional model for the Earth's core. pp. 547–568 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Mechtly, Eugene A. Properties of materials. pp. 4–1 to 4-33 in reference data for engineers: Radio, Electronics, Computer and Communications. By Mac E. Van Valkenburg, edited by Wendy M. Middleton. Woburn, MA: Butterworth-Heinemann, 2002. doi:10.1016/B978-075067291-7/50006-6 Miessler, Gary L., and Donald A. Tarr. Inorganic Chemistry, 3rd edition. Upper Saddle River, N.J.: Pearson Prentice Hall, 2004. Nagle, Jeffrey K. Atomic polarization and electronegativity.

Journal of the American Chemical Society, volume 112, number 12, 1990, pp. 4741–4747. doi:10.1021/ja00168a019 National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for aluminium (powder). . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for aluminium (powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). The Register of Toxic Effects of Chemical Substances for Aluminium. . It was accessed on 5 May 2010. Nicholas, J. V., and D. R. White. Temperature. pp. 8–41 to the thermodynamic properties of individual phases. Edited by A. R. H. Goodwin, W. A. Wakeham, and K. N. Marsh. Amsterdam: Elsevier Science, 2003. Orem, W. H., and R.B. Finkelman. Formation of coal and geochemistry. pp. 191–222 in Diagenesis and Sedimentary Rocks. Edited by Fred T. Mackenzie. Oxford: Elsevier Ltd., 2005. Oxtoby, David W., H. P. Gillis and Alan Campion. Principles of Modern Chemistry, 6th edition. Belmont, CA: Thomson Brooks/Cole, 2008. Palme, H., and Hugh St.C. O'Neill. Cosmochemical estimates of the composition of the mantle. pp. 1–38 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Pauling, Linus. The nature of the chemical bond, 3rd edition. Ithaca, NY: Cornell University Press, 1960. Pearson, Ralph G. Absolute electronegativity and hardness: application to inorganic chemistry. Inorganic Chemistry, volume 27, number 4, 1988, pp 734–740. 10.1021/ic00277a030 Pekka Pyykkö. Radis Covalents Auto-consistents, year 2009. pyykko/Radii09.pdf. Retrieved November 20, 2010. Pyykkö, Pekka and Michiko Atsumi. Molecular Double-Bond Covalent Radii for Elements Li-E112. Chemistry - A European Journal, volume 15, number 46, 2009, pp. 12770–12779. doi:10.1002/chem.200901472 Pyykkö, Pekka, and Michiko Atsumi. Molecular Single-Bond Covalent Radii for Elements 1-118. Chemistry - A European Journal, volume 15, number 1, 2009, pp. 186–197. doi:10.1002/chem.200800987 Pyykkö, Pekka, Sebastian Riedel and Michael Patzschke. Triple-Bond Covalent Radii. Chemistry - A European Journal, volume 11, number 12, 2005, pp. 3511–3520. doi:10.1002/chem.200401299 Ringnes, Vivi. Origin of the names of chemical elements. Journal of Chemical Education, volume 66, number 9, 1989, pp. 731–738. doi:10.1021/ed066p731 Rohrer, Gregory S. Structure and binding in crystalline materials. Cambridge: Cambridge University Press, 2001. Sanderson, R. T. Simple inorganic substances. Malabar, FL: Robert E. Krieger Publishing Co., Inc., 1989. Sanderson, R. T. Principles of Electronegativity: Part I. General Nature. Journal of Chemical Education, volume 65, number 2, 1988, pp. 112–118. doi:10.1021/ed065p112 Sansonetti, J. E., and W.C. Martin. Manual of basic atomic spectroscopic data. Journal of Data of Physical Reference and Chemistry, volume 34, number 4, 2005, pp. 1559–2259. doi:10.1063/1.1800011 Scientific Group Thermodata Europe (SGTE). Pure substances: Part 1 - Elements and compounds of AgBr in Ba3N2. Edited by I. Hurtado and D. Neuschütz. Berlin: Springer-Verlag, 1999. doi:10.1007/10652891_3 Shannon, R. D. Effective Ion radii Reviewed and Systematic Studies of Intertamic Distances in Halides and Chalcogenides. Acta Crystallographica Section A, volume 32, number 5, 1976, pp. 751–767. doi:10.1107/S0567739476001551 Silbey, Robert J., Robert A. Alberty, and Moungi G. Bawendi. Physical Chemistry, 4th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Singh, Meenakshi, Jian Wang, Mingliang Tian, Qi Zhang, Alexis Pereira, Nitesh Kumar, Thomas E. Mallouk, and Moses H. W. Chan. Synthesis and superconductivity of electrochemically grown single-crystal aluminum nanowires. Materials Chemistry, volume 21, number 23, 2009, pp. 5557–5559. doi:10.1021/cm901302z Singman, Charles N. Atomic volume and allotropy of the elements. Journal of Chemical Education, volume 61, number 2, 1984, pp. 137–142. doi:10.1021/ed061p137 Slater, J.C. Atomic radius in crystals. The Journal of Chemical Physics, volume 41, number 10, 1964, pp. 3199–3204. doi:10.1063/1.1725697 Smith, Derek W. Electronegativity in Two Dimensions: Reassessment and Resolution of the Pearson-Pauling Paradox. Journal of Chemical Education, volume 67, number 11, 1990, pp. 911–914. doi:10.1021/ed067p911 Smith, Derek W. Inorganic substances: A prelude to the study of inorganic descriptive chemistry. Cambridge: Cambridge University Press, 1990. Stewart, G. R. Measurement of specific low temperature heat. Review of scientific instruments, volume 54, number 1, 1983, pp. 1–11. doi:10.1063/1.1137207 Stewart, G. R. Specific low temperature heat measurement. Review of scientific instruments, volume 54, number 1, 1983, pp. 1–11. Doi:10.1063/1.1137207 Tari, A. The specific heat of matter at low temperatures. In 2003, Imperial College Press was one of the first to do so. Turkevich, Anthony L. The average chemical composition of the lunar surface. pp. 1159–1168 in Proceedings of the 4th Lunar Science Conference, volume 2. Houston, TEXAS, March 5-8, 1973. Edited by W. A. Gose. Oxford: Pergamon Press, 1973. U.S. Department of Transportation (DOT), Transport Canada (TC), Mexico Secretariat for Transportation and Communications (SCT), and Centro de Información Química para Emergencias (CIQUIME). Emergency response guide 2008. Vainshtein, Boris K., Vladimir M. Fridkin and Vladimir L. Indenbom. Structure of the Crystals, 2nd edition. Modern crystallography 2. Edited by Boris K. Vainshtein, A. A. Chernov, and L. A. Shuvalov. Berlin: Springer-Verlag, 1995. Voigt, H. H., editor. Landolt-Börnstein—Group VI Astronomy and Astrophysics. Berlin: Springer–Verlag, 1993. Waber, J. T., and Don T. Cromer. Orbital radius of atoms and ions. Journal of Chemical Physics, volume 42, number 12, 1965, pp. 4116–4123. Doi:10.1063/1.1695904 Waldron, Kimberley A., Erin M. Amy E. Streeb, Jennifer E. Trosky and Joshua J. Pearson. Detection percentages based on effective nuclear load slater as a versatile tool for teaching periodic trends. Journal of Chemical Education, volume 78, number 5, 2001, pp. 635–639. doi:10.1021/ed078p635 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Wieser, Michael E., and Tyler B. Coplen. Atomic weights of the elements 2009 (Technical Report of the IUPAC). Pure and Applied Chemistry, volume 83, number 2, 2011, pp. 359–396. doi:10.1351/PAC-REP-10-09-14 Yawns, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Page 4 Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Page 5 Allred, A. L. Electronegativity values from thermochemical data. Journal of Inorganic and Nuclear Chemistry, volume 17, number 3-4, 1961, pp. 215–221. doi:10.1016/0022-1902(61)80142-5 Allred, A. L., and E. G. Rochow. An electronegativity scale based on electrostatic force. Journal of Inorganic and Nuclear Chemistry, volume 5, number 4, 1958, pp. 264–268. doi:10.1016/0022-1902(58)80003-2 Anders, Edward, and Nicolas Grevesse. Abundance of elements: meteorites and solar. Geochimica et Cosmochimica Acta, volume 53, number 1, 1989, pp. 197–214. doi:10.1016/0016-7037(89)90286-X Andersen, T., H. K. Haugen, and H. Hotop. Binding energies in atomic negative ions: III. Journal of Data of Physical Reference and Chemistry, volume 28, number 6, 1999, pp. 1511–1533. Batsanov, S. S. Van der Waals Radii of Elements. Inorganic materials, volume 37, number 9, 2001, pp. 871–885. See the abstract Bearden, J. A., and A. F. Burr. Reassessment of atomic energy levels of X-rays. Reviews of Modern Physics, volume 39, number 1, 1967, pp. 125–142. doi:10.1103/RevModPhys.39.125 Bowen, H. J.M. Environmental Chemistry elements. In 1979, the Government of London began to do so. Cardarelli, François. Materials Manual: A concise reference of the desktop, 2nd edition. 2008. 1000. Cardona, M., and L. Ley, editors. Photoemission in Solids I: General Principles. Berlin: Springer-Verlag, 1978. Clementi, E., and D. L. Raimondi. Atomic detection constants of SCF functions. Journal of Chemical Physics, volume 38, number 11, 1963, pp. 2686–2689. doi:10.1063/1.1733573 Cohen, E. Richard, David R. Lide, and George L. Trigg, editors. AIP Physics Desk Reference, 3rd edition. In 2003, Springer-Verlag New York, Inc., 2003. Connelly, Neil G., Ture Damhus, Richard M. Hartshorn and Alan T. Hutton. Nomenclature of inorganic chemistry: IUPAC 2005. Cambridge: RSC Publishing, 2005. Cordero, Beatriz, Verónica Gómez, Ana E. Platero-Prats, Marc Revés, Jorge Echeverría, Eduard Cremades, Flavia Barragán and Santiago Álvarez. Covalent Radii Revisited. Dalton Transactions, number 21, 2008, pp 2832-2838. Doi:10.1039/b801115j Cox, P. A. Elements: their origin, abundance and distribution. Oxford: Oxford University Press, 1989. From Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Debessai, M., J. J. Hamlin and J. S. Schilling. Comparison of CT pressure depends on the trivalent superconductors of Sc, Y, La, and Lu electrons up to megabar pressures. Physical revision B, volume 78, number 6, 2008, pp. 064519–1 to 064519–10. Doi:10.1103/PhysRevB.78.064519 Droneskowski, Richard. Computational Chemistry of Solid State Materials. Weinheim, Germany: WILEY-VCH Verlag GmbH & Co. KGaa, 2005. Ebbing, Darrell D., and Steven D. Gammon. General Chemistry, 8th edition. Boston, MA: Houghton Mifflin Company, 2005. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Emsley, John. The Elements, 3rd edition. Oxford: Oxford University Press, 1998. Firestone, Richard B. Isotope Table, 8th edition, volume 2. Edited by Virginia S. Shirley, with assistant editors Coral M. Baglin, S. Y. Frank Chu and Jean Zipkin. In 1996, John Wiley & Sons, Inc., 1996. Galasso, Francis S. Structure and properties of inorganic solids. Oxford: Pergamon Press, 1970. Ghosh, Dulal C., and Kartick Gupta. A new electronegativity scale of 54 periodic table elements based on the polarization of atoms. Journal of Theoretical and Computational Chemistry, volume 5, number 4, 2006, pp. 895–911. doi:10.1142/S0219633606002726 Greenwood, N. N., and A. Earnshaw. Chemistry of the Elements, 2nd edition. 1997: In 1997, butterworth-Heinemann. Jordi. Electron binding energies. gwyn/ebindene.html. It is accessed on 30 April 2010. Hamlin, J. J., and J. S. Schilling. Sc-induced superconductivity at 74 GPa. Physical revision B, volume 76, number 1, 2007, pp. 012505–1 to 012505–4. doi:10.1103/PhysRevB.76.012505 Ho, C. Y., R. W. Powell, and P. E. Liley. Thermal conductivity of the elements: a complete review. Journal of Data of Physical Reference and Chemistry, volume 3, supplement 1, 1974, pp. I–1 in I–796. Horvath, A. L. Critical temperature of the elements and the periodic system. Journal of Chemical Education, volume 50, number 5, 1973, pp. 335–336. doi:10.1021/ed050p335 Huheey, James E., Ellen A. Keiter and Richard L Keiter. Inorganic Chemistry: Principles of Structure and Reactivity, 4th edition. In 1993, harpercollins college publishers. Ihde, Aaron J. The development of modern chemistry. In 1984, dover Publications, Inc., 1984. V., and J. Sugar. Wavelengths and energy level classifications of Scandium Spectra for all stages of ionization. Journal of Data of Physical Reference and Chemistry, volume 17, number 4, 1988, pp. 1679–1789. Kaxiras, Efthimios. Atomic structure and electronics of solids. Cambridge: Cambridge University Press, 2003. King, H. W. Temperature-dependent othrotic structures of the elements. Bulletin of alloy phase diagrams, volume 3, number 2, 1982, pp. 275–276. Doi:10.1007/BF02892394 Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Krause, M. O. Atomic radiative yields without radiation for K and L. Journal of Data of Physical Reference and Chemistry, volume 8, number 2, 1979, pp. 307–327. Liboff, Richard L. Introductory Quantum Mechanics, 3rd edition. Reading, MA: Addison Wesley Longman, Inc., 1998. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Mann, Joseph B., Terry L. Meek, Eugene T. Knight, Joseph F. Capitani and Leland C. Allen. Energies of configuration of the elements d-block. Journal of the American Chemical Society, volume 122, number 21, 2000, pp. 5132–5137. doi:10.1021/ja9928677 Manuel, O., editor. Origin of the elements in the solar system: implications of post-1957 observations. ^1.0 1.1 1.2 1.3 1.3 1.5 1.5 1.6 « Kluwer Academic Publishers Marshall, James L. Discovery of the Elements: A Search for the Fundamental Principles of the Universe, 2nd edition. Boston, MA: Pearson Custom Publishing, 2002. Martin, W.C. Electronic structure of the elements. The European Physical Journal C — Particles and fields, volume 15, number 1–4, 2000, pp. 78–79. doi:10.1007/BF02683401 McDonough, W. F. Compositional model for the Earth's core. pp. 547–568 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Mechtly, Eugene A. Properties of materials. pp. 4–1 to 4-33 in reference data for engineers: Radio, Electronics, Computer and Communications. By Mac E. Van Valkenburg, edited by Wendy M. Middleton. Woburn, MA: Butterworth-Heinemann, 2002. doi:10.1016/B978-075067291-7/50006-6 Miessler, Gary L., and Donald A. Tarr. Inorganic Chemistry, 3rd edition. Upper Saddle River, N.J.: Pearson Prentice Hall, 2004. Nagle, Jeffrey K. Atomic polarization and electronegativity. Journal of the American Chemical Society, volume 112, number 12, 1990, pp. 4741–4747. doi:10.1021/ja00168a019 National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for lead. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). The Register of Toxic Effects of Chemical Substances for Lead. . It was accessed on 5 May 2010. Nicholas, J. V., and D. R. White. Temperature. pp. 8–41 to the thermodynamic properties of individual phases. Edited by A. R. H. Goodwin, W. A. Wakeham, and K. N. Marsh. Amsterdam: Elsevier Science, 2003. Orem, W. H., and R.B. Finkelman. Formation of coal and geochemistry. pp. 191–222 in Sediments, Diagenesis and Sedimentary Rocks. Edited by Fred T. Mackenzie. Elsevier Ltd., 2005. Oxtoby, David W., H. P. Gillis and Alan Campion. Principles of Modern Chemistry, 6th edition. Belmont, CA: Thomson Brooks/Cole, 2008. Palme, H., and H. Beer. Meteorites and the composition of the solar photosphere. pp. 204–206 in Landolt-Börnstein—Group VI: Astronomy and Astrophysics. Edited by H. H. Voigt. In 1993 he settled in New York: Springer-Verlag. doi:10.1007/10057790_59 Palme, H., and Hugh St.C. O'Neill. Cosmochemical estimates of the composition of the mantle. pp. 1–38 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Pauling, Linus. The nature of the chemical bond, 3rd edition. Ithaca, NY: Cornell University Press, 1960. Pearson, Ralph G. Absolute electronegativity and hardness: application to inorganic chemistry. Inorganic Chemistry, volume 27, number 4, 1988, pp 734–740. 10.1021/ic00277a030 Pekka Pyykkö. Radis Covalents Auto-consistents, year 2009. pyykko/Radii09.pdf. Retrieved November 20, 2010. Preston-Thomas, H. The international temperature scale of 1990 (ITS-90). Metrology, volume 27, number 1, 1990, pp. 3–10. doi:10.1088/0026-1394/27/1/002 Pyykkö, Pekka, and Michiko Atsumi. Molecular Double-Bond Covalent Radii for Elements Li-E112. Chemistry - A European Journal, volume 15, number 46, 2009, pp. 12770–12779. doi:10.1002/chem.200901472 Pyykkö, Pekka, and Michiko Atsumi. Molecular Single-Bond Covalent Radii for Elements 1-118. Chemistry - A European Journal, volume 15, number 1, 2009, pp. 186–197. doi:10.1002/chem.200800987 Pyykkö, Pekka, Sebastian Riedel and Michael Patzschke. Triple-Bond Covalent Radii. Chemistry - A European Journal, volume 11, number 12, 2005, pp. 3511–3520. doi:10.1002/chem.200401299 Rohrer, Gregory S. Structure and union in crystalline materials. Cambridge: Cambridge University Press, 2001. Samsonov, G. V., editor. Manual of the Physicochemical Properties of the Elements. In 1968 the journal Plenum Publishing Corporation was published. Sanderson, R. T. Simple inorganic substances. Malabar, FL: Robert E. Krieger Publishing Co., Inc., 1989. Sanderson, R. T. Principles of Electronegativity: Part I. General Nature. Journal of Chemical Education, volume 65, number 2, 1988, pp. 112–118. Doi:10.1021/ed065p112 Sanderson, R. T. Polar Covalence. In 1983, the New York government began doing so. Sansonetti, J. E., and W.C. Martin. Manual of basic atomic spectroscopic data. Journal of Data of Physical Reference and Chemistry, volume 34, number 4, 2005, pp. 1559–2259. doi:10.1063/1.1800011 Scientific Group Thermodata Europe (SGTE). Pure substances: Part 1 - Elements and compounds of ba3N2. Edited by I. Hurtado and D. Neuschütz. Berlin: Springer-Verlag, 1999. doi:10.1007/10652891_3 Shannon, R. D. Effective Ion radii Reviewed and Systematic Studies of Intertamic Distances in Halides and Chalcogenides. Acta Crystallographica Section A, volume 32, number 5, 1976, pp. 751–767. doi:10.1107/S0567739476001551 Silbey, Robert J., Robert A. Alberty, and Moungi G. Bawendi. Physical Chemistry, 4th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Singman, Charles N. Atomic volume and allotropy of the elements. Journal of Chemical Education, volume 61, number 2, 1984, pp. 137–142. doi:10.1021/ed061p137 Slater, J.C. Atomic radius in crystals. The Journal of Chemical Physics, volume 41, number 10, 1964, pp. 3199–3204. doi:10.1063/1.1725697 Smith, Derek W. Electronegativity in Two Dimensions: Reassessment and Resolution of the Pearson-Pauling Paradox. Journal of Chemical Education, volume 67, number 11, 1990, pp. 911–914. doi:10.1021/ed067p911 Smith, Derek W. Inorganic substances: A prelude to the study of inorganic descriptive chemistry. Cambridge: Cambridge University Press, 1990. Stewart, G. R. Measurement of specific low temperature heat. Review of scientific instruments, volume 54, number 1, 1983, pp. 1–11. Doi:10.1063/1.1137207 Tari, A. The specific heat of matter at low temperatures. In 2003, Imperial College Press was one of the first to do so. Vainshtein, Boris K., Vladimir M. Fridkin and Vladimir L. Indenbom. Structure of the Crystals, 2nd edition. Modern crystallography 2. Edited by Boris K. Vainshtein, A. A. Chernov, and L. A. Shuvalov. Berlin: Springer-Verlag, 1995. Voigt, H. H., editor. Landolt-Börnstein—Group VI Astronomy and Astrophysics. Berlin: Springer–Verlag, 1993. Waber, J. T., and Don T. Cromer. Orbital radius of atoms and ions. Journal of Chemical Physics, volume 42, number 12, 1965, pp. 4116–4123. doi:10.1063/1.1695904 Waldron, Kimberley A., Erin M. Fehringer, Amy E. Streeb, Jennifer E. Trosky, and Joshua J. Pearson. Detection percentages based on effective nuclear load slater as a versatile tool for teaching periodic trends. Journal of Chemical Education, volume 78, number 5, 2001, pp. 635–639. doi:10.1021/ed078p635 Wieser, Michael E., and Tyler B. Coplen. Atomic weights of the elements 2009 (Technical Report of the IUPAC). Pure and Applied Chemistry, volume 83, number 2, 2011, pp. 359–396. doi:10.1351/PAC-REP-10-09-14 Pians, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Page 8 Assael, Marc J., Agni E. Kalyva, Konstantinos D. Antoniadis, R. Michael Banish, Ivan Egry, Jiangtao Wu, Erhard Kaschnitz, and William A. Wakeham. Reference data for the density and viscosity of liquid copper and liquid tin. Journal of Data of Physical Reference and Chemistry, volume 39, number 3, 2010, pp. 033105–1 to 033105-8. doi:10.1063/1.3467496 Assael, Marc J., Konstantinos Kakosimos, R. Michael Banish, Jürgen Brillo, Ivan Egry, Robert Brooks, Peter N. Quested, Kenneth C. Mills, Akira Nagashima, Yuzuru Sato, and William A. Wakeham. Reference data for the density and viscosity of liquid aluminium and liquid iron. Journal of Data of Physical Reference and Chemistry, volume 35, 2006, pp. 2006 doi:10.1063/1.2149380 by Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Us, Christian and Siegfried Hunklinger. Physics at low temperature. Berlin: Springer-Verlag, 2005. Jensen, J. E., R.B. Stewart, W. In Tuttle, H. Brechna, and A. G. Prodell, editors. Brookhaven National Laboratory Selected Cryogenic Data Notebook. BNL 10200-R, Vol. 1, Brookhaven National Laboratory, August 1980. Kerley, Gerald I., editor. State equations for Ser, Ni, W and Au. SAND2003-3784, National Sandia Laboratories, October 2003. Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Madelung, Otfried, editor. Semiconductors — Basic data, 2nd edition. Berlin: Springer–Verlag, 1996. Pierson, Hugh O. Carbon Manual, Graphite, Diamond and Fullerenes. Park Ridge, N.J.: Noyes Publications, 1993. Span, Roland, Eric W. Lemmon, Richard T. Jacobsen, Wolfgang Wagner and Akimichi Yokozeki. A status reference equation for thermodynamic nitrogen properties for temperatures from 63,151 to 1000 K and pressures at 2200 MPa. Journal of Data of Physical Reference and Chemistry, volume 29, number 6, 2000, pp. 1361–1433. Straumanis, M. E., and E. Z. Aka. Lacy parameters, thermal expansion coefficients, and atomic weights of pure silicon and germanium. Journal of Applied Physics, volume 23, number 3, 1952, pp. 330–334. doi:10.1063/1.1702202 Tegeler, Ch., R. Span, and W. Wagner. A new argon state equation covering the region of fluids for melting line temperatures at 700K at pressures of up to 1000 MPa. Journal of Data of Physical Reference and Chemistry, volume 28, number 3, 1999, pp. 779–850. Vargaftik, N.B., E.B. Gelman, V. F. Kozhevnikov, and S. P. Naursakov. State Equation and Critical Point of Cesium. International Journal of Thermophysics, volume 11, number 3, 1990, pp. 467–476. doi:10.1007/BF00500839 Pians, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Page 9 A., J. W. Osmium, the densest metal known. Platinum Metals Review, volume 39, number 4, 1995, p. 164. Arblaster, J. W. Crystallographic properties of Iridium: Evaluation of absolute zero properties at the melting point. Platinum Metals Review, volume 54, number 2, 2010, pp. 93–102. doi:10.1595/147106710X493124 Assael, Marc J., Konstantinos Kakosimos, R. Michael Banish, Jürgen Brillo, Ivan Egry, Robert Brooks, Peter N. Quested, Kenneth C. Mills, Akira Nagashima, Yuzuru Sato, and William A. Wakeham. Data for the Density and Viscosity of Liquid Aluminium and Liquid Iron. Journal of Data of Physical Reference and Chemistry, volume 35, number 1, 2006, pp. 285–300. doi:10.1063/1.2149380 by Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Holman, G. J. F., and C. A. ten Seldam. A critical assessment of the thermophysical properties of Mercury. Journal of Data of Physical Reference and Chemistry, volume 23, number 5, 1994, pp. 807–827. Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Pian, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Younglove, B. A. Thermophysical properties of fluids. I. Argon, Ethylene, Parahydrogen, Nitrogen, Nitrogen Trifluoride and Oxygen. Journal of Data of Physical Reference and Chemistry, volume 11, supplement 1, 1982, pp. 1–1 to 1–353. Page 10 A., J. W. Osmium, the densest metal known. Platinum Metals Review, volume 39, number 4, 1995, p. 164. From Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Jensen, J. E., R.B. Stewart, W. In Tuttle, H. Brechna, and A. G. Prodell, editors. Brookhaven National Laboratory Selected Cryogenic Data Notebook. BNL 10200-R, Vol. 1, Brookhaven National Laboratory, August 1980. Kerley, Gerald I., editor. State equations for Ser, Ni, W and Au. SAND2003-3784, National Sandia Laboratories, October 2003. Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Pian, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Younglove, B. A. Thermophysical properties of fluids. I. Argon, Ethylene, Parahydrogen, Nitrogen, Nitrogen Trifluoride and Oxygen. Journal of Data of Physical Reference and Chemistry, volume 11, supplement 1, 1982, pp. 1–1 to 1–353. Page 11 Assael, Marc J., Agni E. Kalyva, Konstantinos Antoniadis, R. Michael Banish, Ivan Egry, Jiangtao Wu, Erhard Kaschnitz and William A. Wakeham. Reference data for the density and viscosity of liquid copper and liquid tin. Journal of Data of Physical Reference and Chemistry, volume 39, number 3, 2010, pp. 033105–1 to 033105-8. doi:10.1063/1.3467496 Chi, T.C. Electrical resistivity of the alkaline elements. Journal of Data of Physical Reference and Chemistry, volume 8, number 2, 1979, pp. 339–438. Jensen, J. E., R.B. Stewart, W. In Tuttle, H. Brechna, and A. G. Prodell, editors. Brookhaven National Laboratory Selected Cryogenic Data Notebook. BNL 10200-R, Vol. 1, Brookhaven National Laboratory, August 1980. Kerley, Gerald I., editor. State equations for Ser, Ni, W and Au. SAND2003-3784, National Sandia Laboratories, October 2003. Kerley, Gerald I., editor. State equations for Titanium and Ti6A14V alloy. SAND2003-3785, National Sandia Laboratories, October 2003. Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Lassner, Erik and Wolf-Dieter Schubert. Tungsten: Properties, Chemistry, Element Technology, Alloys and Chemical Compounds. ^1.0 1.1 1.2 1.3 1.3 1.4 1.5 1.5 1.6 Kluwer Academic. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Madelung, Otfried, editor. Semiconductors — Basic data, 2nd edition. Berlin: Springer–Verlag, 1996. Šifner, O., and J. Klomfar. Thermodynamic properties of Xenon from Triple Point to 800 K with pressures of up to 350 MPa. Journal of Data of Physical Reference and Chemistry, volume 23, number 1, 1994, pp. 63–152. Steudel, Ralf and Bodo Eckert. Solid sulfur allotropes. pp. 1–79 in elemental sulphide and sulfur-rich compounds I. Edited by Ralf Steudel. Berlin: Springer-Verlag, 2003. doi:10.1007/b12110 Straumanis, M. E., and E. Z. Aka. Lacy parameters, thermal expansion coefficients, and atomic weights of pure silicon and germanium. Journal of Applied Physics, volume 23, number 3, 1952, pp. 330–334. doi:10.1063/1.1702202 Pians, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Page 12 Allred, A. L. Electronegativity values from thermochemical data. Journal of Inorganic and Nuclear Chemistry, volume 17, number 3-4, 1961, pp. 215–221. doi:10.1016/0022-1902(61)80142-5 Allred, A. L., and E. G. Rochow. An electronegativity scale based on electrostatic force. Journal of Inorganic and Nuclear Chemistry, volume 5, number 4, 1958, pp. 264–268. doi:10.1016/0022-1902(58)80003-2 Anders, Edward, and Nicolas Grevesse. Abundance of elements: meteorites and solar. Geoximics et Record, volume 53, number 1, 1989, pp. 197–214. doi:10.1016/0016-7037(89)90286-X Andersen, T., H. K. Haugen, and H. Hotop. Binding energies in atomic negative ions: III. Journal of Data of Physical Reference and Chemistry, volume 28, number 6, 1999, pp. 1511–1533. Ball, David W. Elementary etymology: What's in a name? Journal of Chemical Education, volume 62, number 9, 1985, pp. 787–788. doi:10.1021/ed062p787 Barsan, Michael E., editor. NIOSH Pocket Guide for Chemical Risks. Cincinnati, Ohio: NIOSH Publications, 2007. Batsanov, S. S. Van der Waals Radii of Elements. Inorganic materials, volume 37, number 9, 2001, pp. 871–885. See the abstract Bondi, A. Van der Waals Volumes and Radii. The Journal of Physical Chemistry, volume 68, number 3, 1964, pp. 441–451. doi:10.1021/j100785a001 Bowen, H. J.M. Environmental Chemistry of the Elements. In 1979, the Government of London began to do so. Bratsch, Steven G. Mulliken electronegativitys reviewed: I. Calculation and conversion to Pauling units. Journal of Chemical Education, volume 65, number 1, 1988, pp. 34–41. doi:10.1021/ed065p34 Campbell, J. L. Fluorescence yields and steep-kronig odds for Atomic substandles L. Part II: The L1 Subshell Revisited. Atomic data and nuclear data tables, volume 95, number 1, 2009, pp. 115–124. doi:10.1016/j.adt.2008.08.002 Campbell, J. L. Fluorescence yields and coster-kronig odds for atomic subsuckles L. Atomic data and nuclear data tables, volume 85, number 2, 2003, pp. 291–315. Doi:10.1016/S0092-640X(03)00059-7 Cardarelli, François. Materials Manual: A concise reference of the desktop, 2nd edition. 2008. 1000. Chauvin, Remi. Explicit periodic trend of van der Waals Radii. The Journal of Physical Chemistry, volume 96, number 23, 1992, pp. 9194–9197. doi:10.1021/j100202a023 Clementi, E., D. L. Raimondi, and W. P. Reinhardt. Atomic projection constants of SCF functions. II. Atoms with 37 to 86 Electrons. Journal of Chemical Physics, volume 47, number 4, 1967, pp. 1300–1307. doi:10.1063/1.1712084 Cohen, E. Richard, David R. Lide, and George L. Trigg, editors. AIP Physics Desk Reference, 3rd edition. In 2003, Springer-Verlag New York, Inc., 2003. Connelly, Neil G., Ture Damhus, Richard M. Hartshorn and Alan T. Hutton. Nomenclature of Inorganic Chemistry: Recommendations of IUPAC 2005. ^ a b 1.0 1.1 1.2 1.3 1.4 1.4 1.5 Cordero, Beatriz, Verónica Gómez, Ana E. Platero-Prats, Marc Revés, Jorge Echeverría, Eduard Cremades, Flavia Barragán and Santiago Álvarez. Covalent Radii Revisited. Dalton Transactions, number 21, 2008, pp 2832-2838. Cronan, D. S. Eastern Pacific basal metallic sediments. Bulletin of the Geological Society of America, volume 87, number 6, 1976, pp. 928–934. doi:10.1130/0016-7606(1976)872.0.CO;2 of Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Dronskowski, Richard. Computational Chemistry of Solid State Materials. Weinheim, Germany: WILEY-VCH Verlag GmbH & Co. KGaa, 2005. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Emsley, John. The Elements, 3rd edition. Oxford: Oxford University Press, 1998. Firestone, Richard B. Isotope Table, 8th edition, volume 2. Edited by Virginia S. Shirley, with assistant editors Coral M. Baglin, S. Y. Frank Chu and Jean Zipkin. In 1996, John Wiley & Sons, Inc., 1996. Galasso, Francis S. Structure and properties of inorganic solids. Oxford: Pergamon Press, 1970. Ghosh, Dulal C., and Kartick Gupta. A new electronegativity scale of 54 periodic table elements based on the polarization of atoms. Journal of Theoretical and Computational Chemistry, volume 5, number 4, 2006, pp. 895–911. doi:10.1142/S0219633606002726 Greenwood, N. N., and A. Earnshaw. Chemistry of the Elements, 2nd edition. 1997: In 1997, butterworth-Heinemann. Jordi. Electron binding energies. gwyn/ebindene.html. It is accessed on 30 April 2010. Ho, C. Y., R. W. Powell, and P. E. Liley. Thermal conductivity of the elements: a complete review. Journal of Data of Physical Reference and Chemistry, volume 3, supplement 1, 1974, pp. I–1 in I–796. Ho, Joe, Kent M. Ervin and W.C. Lineberger. Fotoelectron Spectroscopy of Metal Cluster Anions: Cu-n, Ag-n, and Au-n. Journal of Chemical Physics, volume 93, number 10, 1990, pp. 6987–7002. doi:10.1063/1.459475 Höhne, G. W. H., W. F. Hemminger, and H.-J. 6300 Sassheim, Austria Differential Scanning Calorimetry, 2nd edition. Berlin: Springer-Verlag, 2003. Horvath, A. L. Critical temperature of the elements and the periodic system. Journal of Chemical Education, volume 50, number 5, 1973, pp. 335–336. doi:10.1021/ed050p335 Hotop, H., and W.C. Lineberger. Binding energies in atomic negative ions: II. Journal of Data of Physical Reference and Chemistry, volume 14, number 3, 1985, pp. 731–750. Huheey, James E., Ellen A

Leino. The new element 111. Zeitschrift für Physik A Hadrons and Nuclei, volume 350, number 4, 1995, Doi:10.1007/BF01291182 Hofmann, S., V. Ninov, F. P. Heßberger, P. Armbruster, H. Folger, G. Münzenberg, H. J. Schött, A. G. Popeko, A. V. Yeremin, S. Saro, R. Janik, and M. Leino. The new element 112. Zeitschrift für Physik A Hadrons and Nuclei, volume 354, number 3, 1996, pp. 229–230. doi:10.1007/s002180050036 Ihde, Aaron J. Development of modern chemistry. In 1984, dover Publications, Inc., 1984. Jensen, William B. Why Helium ends up in -ium. Journal of Chemical Education, volume 81, number 7, 2004, p. 944. doi:10.1021/ed081p944 Marshall, James L. Discovery of the Elements: A Search for the Fundamental Principles of the Universe, 2nd edition. Boston, MA: Pearson Custom Publishing, 2002. Münzenberg, G., P. Armbruster, F. P. Heßberger, S. Hofmann, K. Poppensieker, W. Reisdorf, J. H. R. Schneider, W. F. W. Schneider, K.-H. Schmidt, C.-C. Sahm, and D. Vermeulen. Observation of a α-decay in the 58Fe reaction in 209Bi → 267109. Zeitschrift für Physik A Hadrons and Nuclei, volume 309, number 1, 1982, pp. 89–90. Doi:10.1007/BF01420157 Münzenberg, G., P. Armbruster, H. Folger, F. P. Heßberger, S. Hofmann, J. Keller, K. Poppensieker, W. Reisdorf, K.-H. Retrieved January 23, 2014. Schött, M. E. Leino and R. Hingmann. Identification of item 108. Zeitschrift für Physik A Hadrons and Nuclei, volume 317, number 2, 1984, pp. 235–236. Doi:10.1007/BF01421260 Münzenberg, G., S. Hofmann, F. P. Heßberger, W. Reisdorf, K. H. Schmidt, J. H. R. Schneider, P. Armbruster, C.C. Sahm, and B. Thuma. Identification of item 107 α correlation strings. Zeitschrift für Physik A Hadrons and Nuclei, volume 300, number 1, 1981, pp. 107–108. Doi Nobel Foundation:10.1007/BF01412623. Glenn T. Seaborg: Nobel Prize in Chemistry 1951. . It was accessed on 1 July 2009. Nobel Foundation. Sir William Ramsay: Nobel Prize in Chemistry 1904. . It is accessed on 16 July 2009. Partington, J. R. Discovery of oxygen. Journal of Chemical Education, volume 39, number 3, 1962, pp. 123–125. doi:10.1021/ed039p123 Perrier, C., and E. Segrè. Some chemical properties of element 43. Journal of Chemical Physics, volume 5, number 9, 1937, pp. 712–716. Doi:10.1063/1.1750105 Quadbeck-Seeger, Hans-Jürgen. World of elements: Elements of the World. Translated by José Oliveira. Bad Dürkheim, Germany: Wiley-VCH Verlag GmbH && amp; Co. KGaA, 2007. Seaborg, Glenn T., and Walter D. Loveland. Elements beyond uranium. In 1990, John Wiley & Sons, Inc., 1990. Thompson, S. G., A. Ghiorso and G. T. Seaborg. The new Element Berkelium (atomic number 97). Physical revision, volume 80, number 5, 1950, pp. 781–789. Doi:10.1103/PhysRev.80.781 Thompson, S. G., K. Street, Jr., A. and G. T. Seaborg. The new element Californium (atomic number 98). Physical revision, volume 80, number 5, 1950, pp. 790–796. doi:10.1103/PhysRev.80.790 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Page 14 Barber, Robert C., Paul J. Karol, Hiromichi Nakahara, Emanuele Vardaci and Erich W. Vogt. Discovery of elements with atomic numbers greater than or equal to 113 (IUPAC Technical Report). Pure and Applied Chemistry, volume 83, number 7, 2011, pp. 1485–1498. doi:10.1351/PAC-REP-10-05-01 Cox, P. A. Elements: their origin, abundance and distribution. Oxford: Oxford University Press, 1989. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Ghiorso, A., B. G. Harvey, G. R. Choppin, S. G. Thompson, and G. T. Seaborg. New element Mendelevium, atomic number 101. Physical revision, volume 98, number 5, 1955, pp. 1518–1519. doi:10.1103/PhysRev.98.1518 Ghiorso, A., J.M. Nitschke, J. R. Alonso, C. T. Alonso, M. Nurmia, G. T. Seaborg, E. K. Hulet, and R. W. Lougheed. Item 106. Physical Review Letters, volume 33, number 25, 1974, pp. 1490–1493. doi:10.1103/PhysRevLett.33.1490 Ghiorso, A., M. Nurmia, J. Harris, K. Eskola, and P. Eskola. Positive identification of two alpha particle emiting isotopes of element 104. Physical Review Letters, volume 22, number 24, 1969, pp. 1317–1320. Doi:10.1103/PhysRevLett.22.1317 Ghiorso, A., S. G. Thompson, G. H. Higgins, G. T. Seaborg, M. H. Studier, P. R. Fields, S.M. Fried, H. Diamond, J. F. Mech, G. L. Pyle, J. R. Huizenga, A. Hirsch, W.M. Manning, C. I. Browne, H. L. Smith, and R. New elements Einsteinium and Fermium, Atomic Numbers 99 and 1 Physical review, volume 99, number 3, 1955, pp. 1048–1049. doi:10.1103/PhysRev.99.1048 Ghiorso, A., T. Sikkeland, J. R. Walton, and G. T. Seaborg. Element N No. 102. Physical Review Letters, volume 1, number 1, 1958, pp. 18–21. doi:10.1103/PhysRevLett.1.18 Ghiorso, Albert, Matti Nurmia, Kari Eskola, James Harris and Pirkko Eskola. New Element Hahnium, atomic number 105. Physical Review Letters, volume 24, number 26, 1970, pp. 1498–1503. doi:10.1103/PhysRevLett.24.1498 Ghiorso, Albert, Torbjørn Sikkeland, Almon E. Larsh, and Robert M. Latimer. New element, Lawrencium, atomic number 103. Physical Review Letters, volume 6, number 9, 1961, pp. 473–475. doi:10.1103/PhysRevLett.6.473 Griffith, W. P. Four Metal Bicentennium of the Platinum Group: Part II: Osmium and Iridium- Events surrounding their discoveries. Platinum Metals Review, volume 48, number 4, 2004, pp. 182–189. doi:10.1595/147106704X4844 Hoffman, Darleane C., Albert Ghiorso, and Glenn T. Seaborg. The transuranium village: The inner story. London, England: Imperial College Press, 2000. Hofmann V. Ninov, F. P. Heßberger, P. Armbruster, H. Folger, G. Münzenberg, H. J. Schött, A. G. Popeko, A. V. Yeremin, A. N. Andreyev, S. Saro, R. Janik, and M. Leino. Production and decline of 269110. Zeitschrift für Physik A Hadrons and Nuclei, volume 350, number 4, 1995, pp. 277–280. Doi:10.1007/BF01291181 Hofmann, S., V. Ninov, F. P. Heßberger, P. Armbruster, H. Folger, G. Münzenberg, H. J. Schött, A. G. Popeko, A. V. Yeremin, A. N. Andreyev, S. Saro, R. Janik, and M. Leino. The new element 111. Zeitschrift für Physik A Hadrons and Nuclei, volume 350, number 4, 1995, pp. 281–282. Doi:10.1007/BF01291182 Hofmann, S., V. Ninov, F. P. Heßberger, P. Armbruster, H. Folger, G. Münzenberg, H. J. Schött, A. G. Popeko, A. V. Yeremin, S. Saro, R. Janik, and M. Leino. The new element 112. Zeitschrift für Physik A Hadrons and Nuclei, volume 354, number 3, 1996, pp. 229–230. doi:10.1007/s002180050036 Ihde, Aaron J. Development of modern chemistry. In 1984, dover Publications, Inc., 1984. Jensen, William B. Why Helium ends up in -ium. Journal of Chemical Education, volume 81, number 7, 2004, p. 944. doi:10.1021/ed081p944 Lewis, David G. The Early Life of Smithson Tennant FRS (1761–1815). Platinum Metals Review, volume 55, number 3, 2011, pp. 196–200. doi:10.1595/147106711X581710 Marshall, James L. Discovery of the elements: A search for the fundamental principles of the Universe, 2nd edition. Boston, MA: Pearson Custom Publishing, 2002. Münzenberg, G., P. Armbruster, F. P. Heßberger, S. Hofmann, K. Poppensieker, W. Reisdorf, J. H. R. Schneider, W. F. W. Schneider, K.-H. Schmidt, C.-C. Sahm, and D. Vermeulen. Observation of a α-decay in the 58Fe reaction in 209Bi → 267109. Zeitschrift für Physik A Hadrons and Nuclei, volume 309, number 1, 1982, pp. 89–90. Doi:10.1007/BF01420157 Münzenberg, G., P. Armbruster, H. Folger, F. P. Heßberger, S. Hofmann, J. Keller, K. Poppensieker, W. Reisdorf, K.-H. Retrieved January 23, 2014. Schött, M. E. Leino and R. Hingmann. Identification of item 108. Zeitschrift für Physik A Hadrons and Nuclei, volume 317, number 2, 1984, pp. 235–236. Doi:10.1007/BF01421260 Münzenberg, G., S. Hofmann, F. P. Heßberger, W. Reisdorf, K. H. Schmidt, J. H. R. Schneider, P. Armbruster, C.C. Sahm, and B. Thuma. Identification of item 107 α correlation strings. Zeitschrift für Physik A Hadrons and Nuclei, volume 300, number 1, 1981, pp. 107–108. Doi Nobel Foundation:10.1007/BF01412623. George de Hevesy: Nobel Prize in Chemistry 1943. . It is accessed on 14 July 2009. Nobel Foundation. Glenn T. Seaborg: Nobel Prize in Chemistry 1951. . It was accessed on 1 July 2009. Nobel Foundation. Sir William Ramsay: The Chemistry Award 1904. . It is accessed on 16 July 2009. Oganessian, Yu. Ts., F. Sh. Abdullin, P. D. Bailey, D. E. Benker, M. E. Bennett, S. N. Dmitriev, J. G. Ezold, J. H. Hamilton, R. A. Henderson, M. G. Itkis, Yu. V. Lobanov, A. N. Mezentsev, K. J. Moody, S. L. Nelson, A. N. Polyakov, C. E. Porter, A. V. Ramayya, F. D. Riley, J.B. Roberto, M. A. Ryabinin, K. P. Rykaczewski, R. N. Sagaidak, D. A. Shaughnessy, I. V. Shirokovsky, M. A. Stoyer, V. G. Subbotin, R. Sudowe, A.M. Sukhov, Yu. S. Tsyganov, V. K. Utyonkov, A. A. Voinov, G. K. Vostokin, and P. A. Wilk. ^Synthesis of a new element with the atomic number Z=117. Physical Review Letters, volume 104, number 14, 2010, pp. 142502–1 to 142502–4. Doi:10.1103/PhysRevLett.104.142502 Oganessian, Yu. Ts., F. Sh. Abdullin, S. N. Dmitriev, M. G. Itkis, Yu. V. Lobanov, A. N. Mezentsev, A. N. Polyakov, R. N. Sagaidak, I. V. Shirokovsky, V. G. Subbotin, A.M. Sukhov, Yu. S. Tsyganov, V. K. Utyonkov, A. A. Voinov, G. K. Vostokin, P. D. Bailey, D. E. Benker, J. G. Ezold, C. E. Porter, F. D. Riley, J.B. Roberto, K. P. Rykaczewski, M. E. Bennett, R. Sudowe, J. H. Hamilton, A.V. Ramayya, R. A. Henderson, K. J. Moody, S. L. Nelson, D. A. Shaughnessy, M. A. Stoyer, P. A. Wilk, and M. A. Physical Review Letters, volume 104, number 14, 2010, pp. 142502–1 to 142502–4. Doi:10.1103/PhysRevLett.104.142502 Oganessian, Yu. Ts., V. K. Utyonkov, and K. J. Moody. Synthesis of 292116 in the reaction of 248Cm+48Ca. Atomic Core Physics, volume 64, number 8, 2001, pp. 1349–1355. Doi:10.1134/1.1398925 Oganessian, Yu. Ts., V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, I. V. Shirokovsky, Yu. S. Tsyganov, G. G. Gulbekian, S. L. Bogomolov, B. N. Gikal, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, O. V. Ivanov, G. V. Buklanov, K. Subotic, M. G. Itkis, K. J. Moody, J. F. Wild, N. J. Stoyer, M. A. Stoyer, and R. W. Superheavy core synthesis in reaction 48Ca+244Pu: 28811 Physical revision C, volume 62, number 4, 2000, pp. 041604–1 to 041604–4. Doi:10.1103/PhysRevC.62.041604 Oganessian, Yu. Ts., V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, I. V. Shirokovsky, Yu. S. Tsyganov, G. G. Gulbekian, S. L. Bogomolov, B. N. Gikal, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, O. V. Ivanov, G. V. Buklanov, K. Subotic, M. G. Itkis, K. J. Moody, J. F. Wild, N. J. Stoyer, M. A. Stoyer, R. W. Lougheed, C. A. Karelin, and A. N. Observation of the decline of 292116. Physical revision C, volume 63, number 1, 2001, pp. 011301–1 to 011301–2. Doi:10.1103/PhysRevC.63.011301 Oganessian, Yu. Ts., V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, R. N. Sagaidak, I. Shirokovsky, Yu. S. Tsyganov, A. A. Voinov, G. G. Gulbekian, S. L. Bogomolov, B. N. Gikal, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, K. Subotic, V. I. Zagrebaev, G. K. Vostokin, M. G. Itkis, K. J. Moody, J.B. Patin, D. A. Shaughnessy, M. A. Stoyer, N. J. Stoyer, P. A. Wilk, J.M. Kenneally, J. H. Landrum, J. F. Wild, and R. W. Synthesis of the isotopes of elements 118 and 116 in fusion reactions 249Cf and 245Cm+48Ca. Physical revision C, volume 74, number 4, 2006, pp. 044602–1 to 044602–9. Doi:10.1103/PhysRevC.74.044602 Oganessian, Yu. Ts., V. K. Utyonkoy, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, I. V. Shirokovsky, Yu. S. Tsyganov, G. G. Gulbekian, S. L. Bogomolov, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, A. A. Voinov, G. V. Buklanov, K. Subotic, V. I. Zagrebaev, M. G. Itkis, J.B. Patin, K. J. Moody, J. F. Wild, M. A. Stoyer, N. J. Stoyer, D. A. Shaughnessy, J.M. Kenneally, and R. W. Experiments on the synthesis of element 115 in reaction 243Am(48Ca,xn)291-x115. Physical revision C, volume 69, number 2, 2004, pp. 021601–1 to 021601–5. doi:10.1103/PhysRevC.69.021601 Seaborg, Glenn T., and Walter D. Loveland. Elements beyond uranium. In 1990, John Wiley & Sons, Inc., 1990. Thompson, S. G., A. Ghiorso and G. T. Seaborg. The new Element Berkelium (atomic number 97). Physical revision, volume 80, number 5, 1950, pp. 781–789. doi:10.1103/PhysRev.80.781 Thompson, S. G., K. Street, Jr., A. Ghiorso, and G. T. Seaborg. The new element Californium (atomic number 98). Physical revision, volume 80, number 5, 1950, pp. 790–796. doi:10.1103/PhysRev.80.790 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Page 15 Bernstein, Jeremy. Plutonium: A story of the most dangerous element in the world. Ithaca, NY: Cornell University Press, 2007. Cassebaum, H., and J. A. Schufle. Scheele's priority for the discovery of oxygen. Journal of Chemical Education, volume 52, number 7, 1975, pp. 442–444. Doi:10.1021/ed052p442 Cox, P. A. Elements: their origin, abundance and distribution. Oxford: Oxford University Press, 1989. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Ghiorso, A., B. G. Harvey, G. R. Choppin, S. G. Thompson, and G. T. Seaborg. New element Mendelevium, atomic number 101. Physical revision, volume 98, number 5, 1955, pp. 1518–1519. doi:10.1103/PhysRev.98.1518 Ghiorso, A., J.M. Nitschke, J. R. Alonso, C. T. Alonso, M. Nurmia, G. T. Seaborg, E. K. Hulet, and R. W. Lougheed. Item 106. Physical Review Letters, volume 33, number 25, 1974, pp. 1490–1493. doi:10.1103/PhysRevLett.33.1490 Ghiorso, A., M. Nurmia, J. Harris, K. Eskola, and P. Eskola. Positive identification of two Isotopes of element 104. Physical Review Letters, volume 22, number 24, 1969, pp. 1317–1320. Doi:10.1103/PhysRevLett.22.1317 Ghiorso, A., S. G. Thompson, G. H. Higgins, G. T. Seaborg, M. H. Studier, P. R. Fields, S.M. Fried, H. Diamond, J. F. Mech, G. L. Pyle, J. R. Huizenga, A. Hirsch, W.M. Manning, C. I. Browne, H. L. Smith, and R. New elements Einsteinium and Fermium, Atomic Numbers 99 and 1 Physical review, volume 99, number 3, 1955, pp. 1048–1049. doi:10.1103/PhysRev.99.1048 Ghiorso, A., T. Sikkeland, J. R. Walton, and G. T. Seaborg. Element N No. 102. Physical Review Letters, volume 1, number 1, 1958, pp. 18–21. doi:10.1103/PhysRevLett.1.18 Ghiorso, Albert, Matti Nurmia, Kari Eskola, James Harris and Pirkko Eskola. New Element Hahnium, atomic number 105. Physical Review Letters, volume 24, number 26, 1970, pp. 1498–1503. doi:10.1103/PhysRevLett.24.1498 Ghiorso, Albert, Torbjørn Sikkeland, Almon E. Larsh, and Robert M. Latimer. New element, Lawrencium, atomic number 103. Physical Review Letters, volume 6, number 9, 1961, pp. 473–475. doi:10.1103/PhysRevLett.6.473 Griffith, W. P. Four Metal Bicentennium of the Platinum Group: Part II: Osmium and Iridium- Events surrounding their discoveries. Platinum Metals Review, volume 48, number 4, 2004, pp. 182–189. doi:10.1595/147106704X4844 Griffith, W. P. Four Metal Bicentennium of the Platinum Group: Part I: Rhodium and Palladium-Events surrounding their discoveries. Platinum Metals Review, volume 47, number 4, 2003, pp. 175–183. Hoffman, Darleane C., Albert Ghiorso and Glenn T. Seaborg. The transuranium village: The inner story. London, England: Imperial College Press, 2000. Ihde, Aaron J. The development of modern chemistry. In 1984, dover Publications, Inc., 1984. Jensen, William B. Why Helium ends up in -ium. Journal of Chemical Education, volume 81, number 7, 2004, p. 944. Doi:10.1021/ed081p944 Kennedy, Donald. In Memoriam: Philip Hauge Abelson, 1913-2004. Science, volume 305, number 5685, 2004, p. 765. doi:10.1126/science.305.5685.765 Klickstein, Herbert S. Pierre Curie- An appreciation of his scientific achievements. Journal of Chemical Education, volume 24, number 6, 1947, pp. 278–282. doi:10.1021/ed024p278 Lewis, David G. The Early Life of Smithson Tennant FRS (1761–1815). Platinum Metals Review, volume 55, number 3, 2011, pp. 196–200. doi:10.1595/147106711X581710 Los Alamos National Laboratory. LANL as Joseph W. Kennedy. . It was accessed on 1 July 2009. Marinsky, J. A., L. E. Glendenin, and C. D. Coryell. Chemical identification of neodymium and element 61 radioisotopes. Journal of the American Chemical Society, volume 69, number 11, 1947, pp. 2781–2785. doi:10.1021/ja01203a059 Marshall, James L. Discovery of the Elements: A Search for the Beginnings of the Universe, 2nd edition. Boston, MA: Pearson Custom Publishing, 2002. Neville, Roy G. Steps leading up to the Discovery of Oxygen, 1774: A bicentenary tribute to Joseph Priestley. Journal of Chemical Education, volume 51, number 7, 1974, pp. 428–431. Nobel Foundation doi:10.1021/ed051p428. Edwin M. McMillan: Nobel Prize in Chemistry 1951. . It was accessed on 1 July 2009. Nobel Foundation. Frederick Soddy: Nobel Prize in Chemistry 1921. . It is accessed on 15 July 2009. Nobel Foundation. Glenn T. Seaborg: Nobel Prize in Chemistry 1951. . It was accessed on 1 July 2009. Nobel Foundation. Marie Curie: Nobel Prize in Chemistry 1911. . It is accessed on 15 July 2009. Nobel Foundation. Marie Curie: Nobel Prize in Physics 1903. . It is accessed on 15 July 2009. Nobel Foundation. Otto Hahn: Nobel Prize in Chemistry 1944. . It is accessed on 15 July 2009. Nobel Foundation. Pierre Curie: Nobel Prize in Physics 1903. . It is accessed on 15 July 2009. Nobel Foundation. Sir William Ramsay: Nobel Prize in Chemistry 1904. . It is accessed on 16 July 2009. Partington, J. R. Discovery of oxygen. Journal of Chemical Education, volume 39, number 3, 1962, pp. 123–125. doi:10.1021/ed039p123 Physics Today. Death notice: Arthur C. Wahl. . It was accessed on 1 July 2009. Quadbeck-Seeger, Hans-Jürgen. World of elements: Elements of the World. Translated by José Oliveira. Bad Dürkheim, Germany: Wiley-VCH Verlag GmbH && amp; Co. KGaA, 2007. Seaborg, Glenn T., and Walter D. Loveland. Elements beyond uranium. In 1990, John Wiley & Sons, Inc., 1990. Sime, Ruth Lewin. Lise Meitner: A life in physics. Berkeley, CA: University of California Press, 1996. Thompson, S. G., A. Ghiorso and G. T. Seaborg. The new Element Berkelium (atomic number 97). Physical revision, volume 80, number 5, 1950, pp. 781–789. doi:10.1103/PhysRev.80.781 Thompson, S. G., K. Street, Jr., A. Ghiorso, and G. T. Seaborg. The new element Californium (atomic number 98). Physical revision, volume 80, number 5, 1950, pp. 790–796. doi:10.1103/PhysRev.80.790 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Weeks, Mary Elvira. The Contributions from Charles Hatchett. Journal of Chemical Education, volume 15, number 4, 1938, pp. 153–158. doi:10.1021/ed015p153 Weeks, Mary Elvira. Daniel Rutherford and the discovery of nitrogen. Journal of Chemical Education, volume 11, number 2, 1934, pp. 101–107. doi:10.1021/ed011p101 Williams, Kathryn R. Discovery of oxygen and other priestley matters. Journal of Chemical Education, volume 80, number 10, 2003, pp. 1129–1131. doi:10.1021/ed080p1129 Page 16 Corish, J., and G.M. Rosenblatt. Name and symbol of the item with atomic number 111 (IUPAC Recommendations 2004). Pure and Applied Chemistry, volume 76, number 12, 2004, pp. 2101–2103. doi:10.1351/pac200476122101 Corson, D. R., K. R. MacKenzie, and E. Segrè. Artificially radioactive element 85. Physical revision, volume 58, number 8, 1940, pp. 672–678. Doi:10.1103/PhysRev.58.672 Cox, P. A. Elements: their origin, abundance and distribution. Oxford: Oxford University Press, 1989. Ekeberg, A. G. Of the properties of the Earth Yttria, compared to those of fossil glucine, in which the first of these lands is contained; and the discovery of a new metal substance (Tantalium). In journal of Natural Philosophy, Chemistry, and the Arts, volume 3, 1802, pp. 251–255. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Ghiorso, A., B. G. Harvey, G. R. Choppin, S. G. Thompson, and G. T. Seaborg. New element Mendelevium, atomic number 101. Physical revision, volume 98, number 5, 1955, pp. 1518–1519. doi:10.1103/PhysRev.98.1518 Ghiorso, A., J.M. Nitschke, J. R. Alonso, C. T. Alonso, M. Nurmia, G. T. Seaborg, E. K. Hulet, and R. W. Lougheed. Item 106. Physical Review Letters, volume 33, number 25, 1974, pp. 1490–1493. doi:10.1103/PhysRevLett.33.1490 Ghiorso, A., M. Nurmia, J. Harris, K. Eskola, and P. Eskola. Positive identification of two alpha particle emiting isotopes of element 104. Physical Review Letters, volume 22, number 24, 1969, pp. 1317–1320. Doi:10.1103/PhysRevLett.22.1317 Ghiorso, A., S. G. Thompson, G. H. Higgins, G. T. Seaborg, M. H. Studier, P. R. Fields, S.M. Fried, H. Diamond, J. F. Mech, G. L. Pyle, J. R. Huizenga, A. Hirsch, W.M. Manning, C. I. Browne, H. L. Smith, and R. New elements Einsteinium and Fermium, Atomic Numbers 99 and 1 Physical review, volume 99, number 3, 1955, pp. 1048–1049. doi:10.1103/PhysRev.99.1048 Ghiorso, A., T. Sikkeland, J. R. Walton, and G. T. Seaborg. Element N No. 102. Physical Review Letters, volume 1, number 1, 1958, pp. 18–21. doi:10.1103/PhysRevLett.1.18 Ghiorso, Albert, Matti Nurmia, Kari Eskola, James Harris and Pirkko Eskola. New Element Hahnium, atomic number 105. Physical Review Letters, volume 24, number 26, 1970, pp. 1498–1503. Doi:10.1103/PhysRevLett.24.1498 Albert, Matti Nurmia, Kari Eskola, James Harris i Pirkko Eskola. Nou Element Hahnium, número atòmic 105. Physical Review Letters, volum 24, número 26, 1970, pp. 1498–1503. doi:10.1103/PhysRevLett.24.1498 Ghiorso, Albert, Torbjørn Sikkeland, Almon E. Larsh, i Robert M. Latimer. Nou element, Lawrencium, número atòmic 103. Physical Review Letters, volum 6, número 9, 1961, pp. 473–475. doi:10.1103/PhysRevLett.6.473 Griffith, W. P. Bicentenari de Quatre Metalls del Grup Platí: Part I: Rhodium i Palladium- Esdeveniments que envolten els seus descobriments. Platinum Metals Review, volum 47, número 4, 2003, pp. 175–183. Hoffman, Darleane C., Albert Ghiorso i Glenn T. Seaborg. El poble transuranium: La història interior. Londres, Anglaterra: Imperial College Press, 2000. Hofmann, S., V. Ninov, F. P. Heßberger, P. Armbruster, H. Folger, G. Münzenberg, H. J. Schött, A. G. Popeko, A. V. Yeremin, A. N. Andreyev, S. Saro, R. Janik, i M. Leino. Producció i decadència de 269110. Zeitschrift für Physik A Hadrons and Nuclei, volum 350, número 4, 1995, pp. 277–280. Doi:10.1007/BF01291181 Hofmann, S., V. Ninov, F. P. Heßberger, P. Armbruster, H. Folger, G. Münzenberg, H. J. Schött, A. G. Popeko, A. V. Yeremin, A. N. Andreyev, S. Saro, R. Janik, i M. Leino. El nou element 111. Zeitschrift für Physik A Hadrons and Nuclei, volum 350, número 4, 1995, pp. 281–282. Doi:10.1007/BF01291182 Hofmann, S., V. Ninov, F. P. Heßberger, P. Armbruster, H. Folger, G. Münzenberg, H. J. Schött, A. G. Popeko, A. V. Yeremin, S. Saro, R. Janik, i M. Leino. El nou element 112. Zeitschrift für Physik A Hadrons and Nuclei, volum 354, número 3, 1996, pp. 229–230. doi:10.1007/s002180050036 Ihde, Aaron J. El desenvolupament de la química moderna. El 1984, dover Publications, Inc., 1984. Marshall, James L. Discovery of the Elements: A Search for the Fundamental Principles of the Universe, 2a edició. Boston, MA: Pearson Custom Publishing, 2002. Münzenberg, G., P. Armbruster, F. P. Heßberger, S. Hofmann, K. Poppensieker, W. Reisdorf, J. H. R. Schneider, W. F. W. Schneider, K.-H. Schmidt, C.-C. Sahm, i D. Vermeulen. Observació d'una α-decadència en la reacció 58Fe el 209Bi → 267109. Zeitschrift für Physik A Hadrons and Nuclei, volum 309, número 1, 1982, pp. 89–90. Doi:10.1007/BF01420157 Münzenberg, G., P. Armbruster, H. Folger, F. P. Heßberger, S. Hofmann, J. Keller, K. Poppensieker, W. Reisdorf, K.-H. [Consulta: 23 gener 2014]. Schött, M. E. Leino i R. Hingmann. La identificació de l'element 108. Zeitschrift für Physik A Hadrons and Nuclei, volum 317, número 2, 1984, pp. 235–236. Doi:10.1007/BF01421260 Münzenberg, G., S. Hofmann, F. P. Heßberger, W. Reisdorf, K. H. Schmidt, J. H. R. Schneider, P. Armbruster, C.C. Sahm, i B. Thuma. Identificació de l'element 107 per α cadenes de correlació. Zeitschrift für Physik Hadrons and Nuclei, volume 300, number 1, 1981, pp. 107–108. Doi Nobel Foundation:10.1007/BF01412623. Glenn T. Seaborg: Nobel Prize in Chemistry 1951. . It was accessed on 1 July 2009. Perrier, C., and E. Segrè. Some chemical properties of element 43. Journal of Chemical Physics, volume 5, number 9, 1937, pp. 712–716. Doi:10.1063/1.1750105 Quadbeck-Seeger, Hans-Jürgen. World of elements: Elements of the World. Translated by José Oliveira. Bad Dürkheim, Germany: Wiley-VCH Verlag GmbH && amp; Co. KGaA, 2007. Seaborg, Glenn T., and Walter D. Loveland. Elements beyond uranium. In 1990, John Wiley & Sons, Inc., 1990. Thompson, S. G., A. Ghiorso and G. T. Seaborg. The new Element Berkelium (atomic number 97). Physical revision, volume 80, number 5, 1950, pp. 781–789. doi:10.1103/PhysRev.80.781 Thompson, S. G., K. Street, Jr., A. Ghiorso, and G. T. Seaborg. The new element Californium (atomic number 98). Physical revision, volume 80, number 5, 1950, pp. 790–796. doi:10.1103/PhysRev.80.790 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Weeks, Mary Elvira. The scientific contributions of the Elhuyar brothers. Journal of Chemical Education, volume 11, number 7, 1934, pp. 413–419. doi:10.1021/ed011p413 Page 17 Barber, Robert C., Paul J. Karol, Hiromichi Nakahara, Emanuele Vardaci, and Erich W. Vogt. Discovery of elements with atomic numbers greater than or equal to 113 (IUPAC Technical Report). Pure and Applied Chemistry, volume 83, number 7, 2011, pp. 1485–1498. doi:10.1351/PAC-REP-10-05-01 Cox, P. A. Elements: their origin, abundance and distribution. Oxford: Oxford University Press, 1989. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Featherstonhaugh, G. W. New Metal, Tentatively called Vanadium, and letter from Professor Del Rio. American Monthly Journal of Geology and Natural Sciences, volume 1, 1831, pp. 67–70. Ihde, Aaron J. The development of modern chemistry. In 1984, dover Publications, Inc., 1984. Jensen, William B. Why Helium ends up in -ium. Journal of Chemical Education, volume 81, number 7, 2004, p. 944. doi:10.1021/ed081p944 Marshall, James L. Discovery of the Elements: A Search for the Fundamental Principles of the Universe, 2nd edition. Boston, MA: Pearson Custom Publishing, 2002. Nobel Foundation. Sir William Ramsay: Nobel Prize in Chemistry 1904. . It is accessed on 16 July 2009. Oganessian, Yu. Ts., F. Sh. Abdullin, P. D. Bailey, D. E. Benker, M. E. Bennett, S. N. Dmitriev, J. G. Ezold, J. H. Hamilton, R. A. Henderson, M. G. Itkis, Yu. V. Lobanov, A. N. Mezentsev, K. J. S. L. Nelson, A. N. Polyakov, C. E. Porter, A. V. Ramayya, F. D. Riley, J.B. Roberto, M. A. Ryabinin, K. P. Rykaczewski, R. N. Sagaidak, D. A. Shaughnessy, I. V. Shirokovsky, M. A. Stoyer, V. G. Subbotin, R. Sudowe, A.M. Sukhov, Yu. S. Tsyganov, V. K. Utyonkov, A. A. Voinov, G. K. Vostokin, and P. A. Wilk. ^Synthesis of a new element with the atomic number Z=117. Physical Review Letters, volume 104, number 14, 2010, pp. 142502–1 to 142502–4. Doi:10.1103/PhysRevLett.104.142502 Oganessian, Yu. Ts., F. Sh. Abdullin, S. N. Dmitriev, M. G. Itkis, Yu. V. Lobanov, A. N. Mezentsev, A. N. Polyakov, R. N. Sagaidak, I. V. Shirokovsky, V. G. Subbotin, A.M. Sukhov, Yu. S. Tsyganov, V. K. Utyonkov, A. A. Voinov, G. K. Vostokin, P. D. Bailey, D. E. Benker, J. G. Ezold, C. E. Porter, F. D. Riley, J.B. Roberto, K. P. Rykaczewski, M. E. Bennett, R. Sudowe, J. H. Hamilton, A.V. Ramayya, R. A. Henderson, K. J. Moody, S. L. Nelson, D. A. Shaughnessy, M. A. Stoyer, P. A. Wilk, and M. A. Physical Review Letters, volume 104, number 14, 2010, pp. 142502–1 to 142502–4. Doi:10.1103/PhysRevLett.104.142502 Oganessian, Yu. Ts., V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, I. V. Shirokovsky, Yu. S. Tsyganov, G. G. Gulbekian, S. L. Bogomolov, B. N. Gikal, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, O. V. Ivanov, G. V. Buklanov, K. Subotic, M. G. Itkis, K. J. Moody, J. F. Wild, N. J. Stoyer, M. A. Stoyer, and R. W. Superheavy core synthesis in reaction 48Ca+244Pu: 28811 Physical revision C, volume 62, number 4, 2000, pp. 041604–1 to 041604–4. Doi:10.1103/PhysRevC.62.041604 Oganessian, Yu. Ts., V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, I. V. Shirokovsky, Yu. S. Tsyganov, G. G. Gulbekian, S. L. Bogomolov, B. N. Gikal, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, O. V. Ivanov, G. V. Buklanov, K. Subotic, M. G. Itkis, K. J. Moody, J. F. Wild, N. J. Stoyer, M. A. Stoyer, R. W. Lougheed, C. A. Karelin, and A. N. Observation of the decline of 292116. Physical revision C, volume 63, number 1, 2001, pp. 011301–1 to 011301–2. Doi:10.1103/PhysRevC.63.011301 Oganessian, Yu. Ts., V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, R. N. Sagaidak, I. V. Shirokovsky, Yu. S. Tsyganov, A. A. Voinov, G. G. Gulbekian, S. L. Bogomolov, B. N. Gikal, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, K. Subotic, V. I. Zagrebaev, G. K. Vostokin, M. G. Itkis, K. J. Moody, J.B. Patin, D. A. Shaughnessy, M. A. Stoyer, N. J. Stoyer, P. A. Wilk, J.M. Kenneally, J. H. Landrum, J. F. Wild, and R. W. Synthesis of the isotopes of elements 118 and 116 in fusion reactions 249Cf and 245Cm+48Ca. Physical review C, volume 74, number 4, 2006, Doi:10.1103/PhysRevC.74.044602 Oganessian, Yu. Ts., V. K. Utyonkoy, Yu. V. Lobanov, F. Sh. Abdullin, A. N. Polyakov, I. V. Shirokovsky, Yu. S. Tsyganov, G. G. Gulbekian, S. L. Bogomolov, A. N. Mezentsev, S. Iliev, V. G. Subbotin, A.M. Sukhov, A. A. Voinov, G. V. Buklanov, K. Subotic, V. I. Zagrebaev, M. G. Itkis, J.B. Patin, K. J. Moody, J. F. Wild, M. A. Stoyer, N. J. Stoyer, D. A. Shaughnessy, J.M. Kenneally, and R. W. Experiments on the synthesis of element 115 in reaction 243Am(48Ca,xn)291-x115. Physical revision C, volume 69, number 2, 2004, pp. 021601–1 to 021601–5. doi:10.1103/PhysRevC.69.021601 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Page 18 Allred, A. L. Electronegativity values from thermochemical data. Journal of Inorganic and Nuclear Chemistry, volume 17, number 3-4, 1961, pp. 215–221. doi:10.1016/0022-1902(61)80142-5 Allred, A. L., and E. G. Rochow. An electronegativity scale based on electrostatic force. Journal of Inorganic and Nuclear Chemistry, volume 5, number 4, 1958, pp. 264–268. doi:10.1016/0022-1902(58)80003-2 Anders, Edward, and Nicolas Grevesse. Abundance of elements: meteorites and solar. Geochimica et Cosmochimica Acta, volume 53, number 1, 1989, pp. 197–214. doi:10.1016/0016-7037(89)90286-X Andersen, T., H. K. Haugen, and H. Hotop. Binding energies in atomic negative ions: III. Journal of Data of Physical Reference and Chemistry, volume 28, number 6, 1999, pp. 1511–1533. Batsanov, S. S. Van der Waals Radii of Elements. Inorganic materials, volume 37, number 9, 2001, pp. 871–885. See the abstract Bearden, J. A., and A. F. Burr. Reassessment of atomic energy levels of X-rays. Reviews of Modern Physics, volume 39, number 1, 1967, pp. 125–142. doi:10.1103/RevModPhys.39.125 Bedford, R. E., G. Bonnier, H. Maas and F. Pavese. Recommended temperature values on the international temperature scale of 1990 for a selected set of secondary reference points. Metrology, volume 33, number 2, 1996, pp. 133–154. doi:10.1088/0026-1394/33/2/3 Bondi, A. Van der Waals Metal Volumes and Radius in Covalent Compounds. The Journal of Physical Chemistry, volume 70, number 9, 1966, pp. 3006–3007. doi:10.1021/j100881a503 Bondi, A. Van der Waals Volumes and Radii. The Journal of Physical Chemistry, volume 68, number 3, 1964, pp. 441–451. doi:10.1021/j100785a001 Bowen, H. J.M. Environmental Chemistry of the Elements. In 1979, the Government of London began to do so. Bratsch, Steven G. Mulliken electronegativitys reviewed: I. Calculation and conversion to Pauling units. Journal of Chemical Education, volume 65, number 1, 1988, pp. 34–41. Doi:10.1021/ed065p34 Cardarelli, François. Materials Manual: A concise reference of the desktop, 2nd edition. 2008. 1000. M., and L. Ley, editors. Photoemission in Solids I: General Principles. Berlin: Springer-Verlag, 1978. Clementi, E., and D. L. Raimondi. Atomic detection constants of SCF functions. Journal of Chemical Physics, volume 38, number 11, 1963, pp. 2686–2689. doi:10.1063/1.1733573 Cohen, E. Richard, David R. Lide, and George L. Trigg, editors. AIP Physics Desk Reference, 3rd edition. In 2003, Springer-Verlag New York, Inc., 2003. Connelly, Neil G., Ture Damhus, Richard M. Hartshorn and Alan T. Hutton. Nomenclature of Inorganic Chemistry: Recommendations of IUPAC 2005. ^ a b 1.0 1.1 1.2 1.3 1.4 1.4 1.5 Cordero, Beatriz, Verónica Gómez, Ana E. Platero-Prats, Marc Revés, Jorge Echeverría, Eduard Cremades, Flavia Barragán and Santiago Álvarez. Covalent Radii Revisited. Dalton Transactions, number 21, 2008, pp 2832-2838. doi:10.1039/b801115j Cronan, D. S. Eastern Pacific basal metallic sediments. Bulletin of the Geological Society of America, volume 87, number 6, 1976, pp. 928–934. doi:10.1130/0016-7606(1976)872.0.CO;2 of Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor && Francis, 2002. Desai, P. D., T. K. Chu, H.M. James, and C. Y. Ho. Electrical resistivity of selected elements. Journal of Data of Physical Reference and Chemistry, volume 13, number 4, 1984, pp. 1069–1096. Dronskowski, Richard. Computational Chemistry of Solid State Materials. Weinheim, Germany: WILEY-VCH Verlag GmbH & Co. KGaa, 2005. Ebbing, Darrell D., and Steven D. Gammon. General Chemistry, 8th edition. Boston, MA: Houghton Mifflin Company, 2005. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Emsley, John. The Elements, 3rd edition. Oxford: Oxford University Press, 1998. Firestone, Richard B. Isotope Table, 8th edition, volume 2. Edited by Virginia S. Shirley, with assistant editors Coral M. Baglin, S. Y. Frank Chu and Jean Zipkin. In 1996, John Wiley & Sons, Inc., 1996. Galasso, Francis S. Structure and properties of inorganic solids. Oxford: Pergamon Press, 1970. Ghosh, Dulal C., and Kartick Gupta. A new electronegativity scale of 54 periodic table elements based on the polarization of atoms. Journal of Theoretical and Computational Chemistry, volume 5, number 4, 2006, pp. 895–911. doi:10.1142/S0219633606002726 Greenwood, N. N., and A. Earnshaw. Chemistry of the Elements, 2nd edition. 1997: In 1997, butterworth-Heinemann. Jordi. Electron binding energies. gwyn/ebindene.html. It is accessed on 30 April 2010. Ho, C. Y., R. W. Powell, and P. E. Liley. Thermal conductivity of the elements: a complete review. Journal of Data of Physical Reference and Chemistry, volume 3, supplement 1, 1974, pp. I–1 in I–796. Höhne, G. W. H., W. F. Hemminger, and H.-J. 6300 Sassheim, Austria Differential Scan 2nd edition. Berlin: Springer-Verlag, 2003. Horvath, A. L. Critical temperature of the elements and the periodic system. Journal of Chemical Education, volume 50, number 5, 1973, pp. 335–336. doi:10.1021/ed050p335 Huheey, James E., Ellen A. Keiter and Richard L. Keiter. Inorganic Chemistry: Principles of Structure and Reactivity, 4th edition. In 1993, harpercollins college publishers. International Labour Organization (IIT). International chemical safety card for zinc. . It was accessed on 5 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Zinc (Powder). . It was accessed on 4 May 2010. Jensen, J. E., R.B. Stewart, W. In Tuttle, H. Brechna, and A. G. Prodell, editors. Brookhaven National Laboratory Selected Cryogenic Data Notebook. BNL 10200-R, Vol. 1, Brookhaven National Laboratory, August 1980. Kaxiras, Efthimios. Atomic structure and electronics of solids. Cambridge: Cambridge University Press, 2003. Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Kittel, Charles. Introduction to Solid State Physics, 5th edition. In 1976, John Wiley & Sounds, Inc. Krause, M. O. Atomic radiative yields and no radiation for K and L. Journal of Physical and Chemical Reference Data, volume 8, number 2, 1979, pp. 307–327. Li, Y.-H., and J. E. Schoonmaker. Chemical composition and mineralogy of marine sediments. pp. 1–36 in sediments, diagenesis and sedimentary rocks. Edited by Fred T. Mackenzie. Oxford: Elsevier Ltd., 2005. Liboff, Richard L. Introductory Quantum Mechanics, 3rd edition. Reading, MA: Addison Wesley Longman, Inc., 1998. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Mann, Joseph B., Terry L. Meek and Leland C. Allen. Configuration energies of the main elements of the group. Journal of the American Chemical Society, volume 122, number 12, 2000, pp. 2780–2783. doi:10.1021/ja992866e Mann, Joseph B., Terry L. Meek, Eugene T. Knight, Joseph F. Capitani, and Leland C. Allen. Energies of configuration of the elements d-block. Journal of the American Chemical Society, volume 122, number 21, 2000, pp. 5132–5137. doi:10.1021/ja9928677 Manuel, O., editor. Origin of the elements in the solar system: implications of post-1957 observations. ^1.0 1.1 1.2 1.3 1.3 1.5 1.5 1.6 « Kluwer Academic Publishers Martin, W.C. Electronic structure of the elements. The European Physical Journal C — Particles and fields, volume 15, number 1–4, 2000, pp. 78–79. doi:10.1007/BF02683401 Mechtly, Eugene A. Properties of materials. pp. 4–1 to 4–33 in reference for Radio, Electronics, Computers and Communications. By Mac E. Van Valkenburg, edited by Wendy M. Middleton. Woburn, MA: Butterworth-Heinemann, 2002. doi:10.1016/B978-075067291-7/50006-6 Miessler, Gary L., and Donald A. Tarr. Inorganic Chemistry, 3rd edition. Upper Saddle River, N.J.: Pearson Prentice Hall, 2004. Nagle, Jeffrey K. Atomic polarization and electronegativity. Journal of the American Chemical Society, volume 112, number 12, 1990, pp. 4741–4747. doi:10.1021/ja00168a019 National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for zinc. . It was accessed on 5 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Zinc (Powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). The Register of Toxic Effects of Chemical Substances for Zinc. . It was accessed on 5 May 2010. Nicholas, J. V., and D. R. White. Temperature. pp. 8–41 to the thermodynamic properties of individual phases. Edited by A. R. H. Goodwin, W. A. Wakeham, and K. N. Marsh. Amsterdam: Elsevier Science, 2003. Orem, W. H., and R.B. Finkelman. Formation of coal and geochemistry. pp. 191–222 in Sediments, Diagenesis and Sedimentary Rocks. Edited by Fred T. Mackenzie. Oxford: Elsevier Ltd., 2005. Oxtoby, David W., H. P. Gillis and Alan Campion. Principles of Modern Chemistry, 6th edition. Belmont, CA: Thomson Brooks/Cole, 2008. Palme, H., and H. Beer. Meteorites and the composition of the solar photosphere. pp. 204–206 in Landolt-Börnstein—Group VI: Astronomy and Astrophysics. Edited by H. H. Voigt. In 1993 he settled in New York: Springer-Verlag. doi:10.1007/10057790_59 Palme, H., and Hugh St.C. O'Neill. Cosmochemical estimates of the composition of the mantle. pp. 1–38 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Pauling, Linus. The nature of the chemical bond, 3rd edition. Ithaca, NY: Cornell University Press, 1960. Pearson, Ralph G. Absolute electronegativity and hardness: application to inorganic chemistry. Inorganic Chemistry, volume 27, number 4, 1988, pp 734–740. 10.1021/ic00277a030 Pekka Pyykkö. Radis Covalents Auto-consistents, year 2009. pyykko/Radii09.pdf. Retrieved November 20, 2010. Preston-Thomas, H. The international temperature scale of 1990 (ITS-90). Metrology, volume 27, number 1, 1990, pp. 3–10. doi:10.1088/0026-1394/27/1/002 Pyykkö, Pekka, and Michiko Atsumi. Molecular Double-Bond Covalent Radii for Elements Li-E112. Chemistry - A European Journal, volume 15, number 46, 2009, pp. 12770–12779. doi:10.1002/chem.200901472 Pyykkö, Pekka, and Michiko Atsumi. A single molecular link Radius for elements 1-118. Chemistry - A European Journal, volume 15, number 1, 2009, pp. 186–197. Doi:10.1002/chem.200800987 Ringnes, Vivi. Origin of the names of chemical elements. Journal of Chemical Education, volume 66, number 9, 1989, pp. 731–738. doi:10.1021/ed066p731 Rohrer, Gregory S. Structure and binding in crystalline materials. Cambridge: Cambridge University Press, 2001. Samsonov, G. V., editor. Manual of the Physicochemical Properties of the Elements. In 1968 the journal Plenum Publishing Corporation was published. Sanderson, R. T. Simple inorganic substances. Malabar, FL: Robert E. Krieger Publishing Co., Inc., 1989. Sanderson, R. T. Principles of Electronegativity: Part I. General Nature. Journal of Chemical Education, volume 65, number 2, 1988, pp. 112–118. Doi:10.1021/ed065p112 Sanderson, R. T. Polar Covalence. In 1983, the New York government began doing so. Sansonetti, J. E., and W.C. Martin. Manual of basic atomic spectroscopic data. Journal of Data of Physical Reference and Chemistry, volume 34, number 4, 2005, pp. 1559–2259. doi:10.1063/1.1800011 Shannon, R. D. Effective Ion radii Reviewed and Systematic Studies of Intertamic Distances in Halides and Chalcogenides. Acta Crystallographica Section A, volume 32, number 5, 1976, pp. 751–767. doi:10.1107/S0567739476001551 Silbey, Robert J., Robert A. Alberty, and Moungi G. Bawendi. Physical Chemistry, 4th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Singman, Charles N. Atomic volume and allotropy of the elements. Journal of Chemical Education, volume 61, number 2, 1984, pp. 137–142. doi:10.1021/ed061p137 Slater, J.C. Atomic radius in crystals. The Journal of Chemical Physics, volume 41, number 10, 1964, pp. 3199–3204. doi:10.1063/1.1725697 Smith, Derek W. Electronegativity in Two Dimensions: Reassessment and Resolution of the Pearson-Pauling Paradox. Journal of Chemical Education, volume 67, number 11, 1990, pp. 911–914. doi:10.1021/ed067p911 Smith, Derek W. Inorganic substances: A prelude to the study of inorganic descriptive chemistry. Cambridge: Cambridge University Press, 1990. Stewart, G. R. Measurement of specific low temperature heat. Review of scientific instruments, volume 54, number 1, 1983, pp. 1–11. doi:10.1063/1.1137207 Stewart, G. R. Specific low temperature heat measurement. Review of scientific instruments, volume 54, number 1, 1983, pp. 1–11. doi:10.1063/1.1137207 Sugar, Jack and Arlene Musgrove. Energy levels of Zinc, Zn I through Zn XXX. Journal of Data of Physical Reference and Chemistry, volume 24, number 6, 1995, pp. 1803–1872. Tari, A. The specific heat of matter at low temperatures. In 2003, Imperial College Press was one of the first to do so. U.S. Department of Transportation (DOT), Transport Canada (TC), Mexico Secretariat for Transportation and Communications (SCT), and Centro de Información Química para Emergencias Emergency response guide 2008. Vainshtein, Boris K., Vladimir M. Fridkin and Vladimir L. Indenbom. Structure of the Crystals, 2nd edition. Modern crystallography 2. Edited by Boris K. Vainshtein, A. A. Chernov, and L. A. Shuvalov. Berlin: Springer-Verlag, 1995. Voigt, H. H., editor. Landolt-Börnstein—Group VI Astronomy and Astrophysics. Berlin: Springer–Verlag, 1993. Waber, J. T., and Don T. Cromer. Orbital radius of atoms and ions. Journal of Chemical Physics, volume 42, number 12, 1965, pp. 4116–4123. doi:10.1063/1.1695904 Waldron, Kimberley A., Erin M. Fehringer, Amy E. Streeb, Jennifer E. Trosky, and Joshua J. Pearson. Detection percentages based on effective nuclear load slater as a versatile tool for teaching periodic trends. Journal of Chemical Education, volume 78, number 5, 2001, pp. 635–639. doi:10.1021/ed078p635 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Wieser, Michael E., and Tyler B. Coplen. Atomic weights of the elements 2009 (Technical Report of the IUPAC). Pure and Applied Chemistry, volume 83, number 2, 2011, pp. 359–396. doi:10.1351/PAC-REP-10-09-14 Pians, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Zefirov, Yu. V. Comparative analysis of van der Waals Radii systems. Reports of crystallography, volume 42, number 1, 1997, pp. 111–116. Page 19 International Labour Organization (IIT). International chemical safety card for aluminium (powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for antimony. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for argon. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Barium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Bromine. It is accessed by the International Labour Organization (IIT). International chemical safety card for cadmium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for calcium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International carbon chemical safety card. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for black carbon. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for chlorine. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for chrome. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for cobalt. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for copper. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for fluorite. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Grey Arsenic. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for hafnium (powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Helium. . Accessed on 4 2010. International Labour Organization (IIT). International chemical safety card for hydrogen. . It was accessed on 4 May 2010. International Labour Organization (IIT). International International Security card for Indium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for iodine. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Krypton (Liquefied, Refrigerated). . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for lead. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for lithium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for magnesium (Pellets). . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for magnesium (powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for manganese. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for mercury. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for Molybdenus. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for neon. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Nickel. . It was accessed on 4 May 2010. International Organization of (IID). International Chemical Safety Card for Nitrogen (Compressed Gas). . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for No, no. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for oxygen. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Oxygen (Liquefied). . It was accessed on 4 May 2010. International Labour Organization (IIT). International platinum chemical safety card. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Potassium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for radon. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Rodi (Powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for selenium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for silicon. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for silver. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for sodium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for strontium (powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International Card of chemistry for sulfur. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Tantalum. Tantalum. It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for tellurium (powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for Thallium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for Thorium. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for tin (powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Tungsten. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for white phosphorus. . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for Xenon. . It was accessed on 4 May 2010. International Labour Organization (IIT). International Chemical Safety Card for Zinc (Powder). . It was accessed on 4 May 2010. International Labour Organization (IIT). International chemical safety card for zirconium (unstable powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for aluminium (powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for antimony. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for argon. . It was accessed on 4 May 2010. Institute Health and Safety at Work (NIOSH). International Chemical Safety Card for Barium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for berile. It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Bromine. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for cadmium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for calcium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International carbon chemical safety card. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for black carbon. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for chlorine. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for chrome. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for cobalt. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for copper. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for fluorite. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Grey Arsenic. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for hafnium (powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Helium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for hydrogen. . accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Indium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and No, no, no, no. International chemical safety card for iodine. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Krypton (Liquefied, Refrigerated). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for lead. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for lithium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for magnesium (Pellets). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for magnesium (powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for manganese. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for mercury. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Molybdenus. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for neon. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Nickel. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Nitrogen (Compressed Gas). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Nitrogen (Liquefied). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for oxygen. . It was accessed on 4 May 2010. National Health and Safety at Work (NIOSH). International Chemical Safety Card for Oxygen (Liquefied). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). (NIOSH). Chemical safety card for Platinum. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Potassium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for radon. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Rodi (Powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for selenium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for silicon. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for silver. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for sodium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for strontium (powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for sulfur. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Tantalum. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for tellurium (powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Thallium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Thorium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). Card international chemical safety for tin (powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Tungsten. Tungsten. It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for white phosphorus. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Xenon. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International Chemical Safety Card for Zinc (Powder). . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for zirconium (unstable powder). . It was accessed on 4 May 2010. Page 20 Albright, Thomas A., and Jeremy K. Burdett. Problems in molecular orbital theory. In 1992, Oxford University Press. Allen, Leland C. Electronegativity is the average energy of an electron of valence-shell electrons in terrestrial free atoms. Journal of the American Chemical Society, volume 111, number 25, 1989, pp. 9003–9014. doi:10.1021/ja00207a003 Allred, A. L. Electronegativity values from thermochemical data. Journal of

Inorganic and Nuclear Chemistry, volume 17, number 3-4, 1961, pp. 215–221. doi:10.1016/0022-1902(61)80142-5 Allred, A. L., and E. G. Rochow. An electronegativity scale based on electrostatic force. Journal of Inorganic and Nuclear Chemistry, volume 5, number 4, 1958, pp. 264–268. doi:10.1016/0022-1902(58)80003-2 Anders, Edward, and Nicolas Grevesse. Abundance of elements: meteorites and solar. Geochimica et Cosmochimica Acta, volume 53, number 1, 1989, pp. 197–214. doi:10.1016/0016-7037(89)90286-X Andersen, T., H. K. Haugen, and H. Hotop. Binding energies in atomic negative ions: III. Journal of Data of Physical Reference and Chemistry, volume 28, number 6, 1999, pp. 1511–1533. Barsan, Michael E., editor. NIOSH Pocket Guide for Chemical Risks. Cincinnati, Ohio: NIOSH Publications, 2007. Batsanov, S. S. Van der Waals Radii of Elements. Inorganic materials, volume 37, number 9, 2001, pp. 871–885. See the abstract Bedford, R. E., G. Bonnier, H. Maas and F. Pavese. Recommended temperature values on the international temperature scale of 1990 for a selected set of secondary reference points. Metrology, volume 33, number 2, 1996, pp. 133–154. doi:10.1088/0026-1394/33/2/3 Bondi, A. Van der Waals Volumes and Radii. The Journal of Physical Chemistry, volume 68, number 3, 1964, pp. 441–451. doi:10.1021/j100785a001 Bratsch, Steven G. Mulliken electronegativities reviewed: I. Calculation and conversion to Pauling units. Journal of Chemical Education, volume 65, number 1, 1988, pp. 34–41. doi:10.1021/ed065p34 Campbell, J. L. fluorescence and Coster-Kronig Coster-Kronig atomic sub-players L. Atomic data and nuclear data tables, volume 85, number 2, 2003, pp. 291–315. Doi:10.1016/S0092-640X(03)00059-7 Cardarelli, François. Materials Manual: A concise reference of the desktop, 2nd edition. 2008. 1000. Clementi, E., D. L. Raimondi, and W. P. Reinhardt. Atomic projection constants of SCF functions. II. Atoms with 37 to 86 Electrons. Journal of Chemical Physics, volume 47, number 4, 1967, pp. 1300–1307. doi:10.1063/1.1712084 Cohen, E. Richard, David R. Lide, and George L. Trigg, editors. AIP Physics Desk Reference, 3rd edition. In 2003, Springer-Verlag New York, Inc., 2003. Connelly, Neil G., Ture Damhus, Richard M. Hartshorn and Alan T. Hutton. Nomenclature of Inorganic Chemistry: Recommendations of IUPAC 2005. ^ a b 1.0 1.1 1.2 1.3 1.4 1.4 1.5 Cordero, Beatriz, Verónica Gómez, Ana E. Platero-Prats, Marc Revés, Jorge Echeverría, Eduard Cremades, Flavia Barragán and Santiago Álvarez. Covalent Radii Revisited. Dalton Transactions, number 21, 2008, pp 2832-2838. Doi:10.1039/b801115j Cox, P. A. Elements: their origin, abundance and distribution. Oxford: Oxford University Press, 1989. From Podesta, Michael. Understanding the properties of matter, 2nd edition. London: Taylor & Francis, 2002. Dronskowski, Richard. Computational Chemistry of Solid State Materials. Weinheim, Germany: WILEY-VCH Verlag GmbH & Co. KGaa, 2005. Ebbing, Darrell D., and Steven D. Gammon. General Chemistry, 8th edition. Boston, MA: Houghton Mifflin Company, 2005. Emsley, John. Nature Building Blocks: an A-Z guide to the elements. Oxford: Oxford University Press, 2003. Emsley, John. The Elements, 3rd edition. Oxford: Oxford University Press, 1998. Firestone, Richard B. Isotope Table, 8th edition, volume 2. Edited by Virginia S. Shirley, with assistant editors Coral M. Baglin, S. Y. Frank Chu and Jean Zipkin. In 1996, John Wiley & Sons, Inc., 1996. Galasso, Francis S. Structure and properties of inorganic solids. Oxford: Pergamon Press, 1970. Ghosh, Dulal C., and Kartick Gupta. A new electronegativity scale of 54 periodic table elements based on the polarization of atoms. Journal of Theoretical and Computational Chemistry, volume 5, number 4, 2006, pp. 895–911. doi:10.1142/S0219633606002726 Greenwood, N. N., and A. Earnshaw. Chemistry of the Elements, 2nd edition. 1997: In 1997, butterworth-Heinemann. Jordi. Electron binding energies. gwyn/ebindene.html. It is accessed on 30 April 2010. Ho, C. Y., R. W. Powell, and P. E. Liley. Thermal conductivity of the elements: a complete review. Journal of Data of Physical Reference and Chemistry, volume 3, supplement 1, 1974, pp. I–1 in I–796. Höhne, G. W. H., W. F. Hemminger, and H.-J. 6300 Sassheim, Austria Differential Scanning Calorimetry, 2nd edition. Berlin: Springer-Verlag, 2003. Horvath, A. L. Temperature of the elements and the periodic system. Journal of Chemical Education, volume 50, number 5, 1973, pp. 335–336. doi:10.1021/ed050p335 Hotop, H., and W.C. Lineberger. Binding energies in atomic negative ions: II. Journal of Data of Physical Reference and Chemistry, volume 14, number 3, 1985, pp. 731–750. Huheey, James E., Ellen A. Keiter and Richard L Keiter. Inorganic Chemistry: Principles of Structure and Reactivity, 4th edition. In 1993, harpercollins college publishers. Ihde, Aaron J. The development of modern chemistry. In 1984, dover Publications, Inc., 1984. International Labour Organization (IIT). International chemical safety card for Indium. . It was accessed on 4 May 2010. Kittel, Charles. Introduction to Solid State Physics, 8th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Kittel, Charles. Introduction to Solid State Physics, 5th edition. In 1976, John Wiley & Sons, Inc. Krause, M. O. Atomic radiative yields and no radiation for K and L. Journal of Physical and Chemical Reference Data, volume 8, number 2, 1979, pp. 307–327. Liboff, Richard L. Introductory Quantum Mechanics, 3rd edition. Reading, MA: Addison Wesley Longman, Inc., 1998. Lide, David R., editor. Chemistry and Physics Manual of the CRC, 88th edition. Boca Raton, Florida: Taylor & Francis Group, 2008. Mann, Joseph B., Terry L. Meek and Leland C. Allen. Configuration energies of the main elements of the group. Journal of the American Chemical Society, volume 122, number 12, 2000, pp. 2780–2783. doi:10.1021/ja992866e Manuel, O., editor. Origin of the elements in the solar system: implications of post-1957 observations. ^1.0 1.1 1.2 1.3 1.3 1.5 1.5 1.6 « Kluwer Academic Publishers Marshall, James L. Discovery of the Elements: A Search for the Fundamental Principles of the Universe, 2nd edition. Boston, MA: Pearson Custom Publishing, 2002. Martin, W.C. Electronic structure of the elements. The European Physical Journal C — Particles and fields, volume 15, number 1–4, 2000, pp. 78–79. doi:10.1007/BF02683401 McDonough, W. F. Compositional model for the Earth's core. pp. 547–568 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Mechtly, Eugene A. Properties of materials. pp. 4–1 to 4-33 in reference data for engineers: Radio, Electronics, Computer and Communications. By Mac E. Van Valkenburg, edited by Wendy M. Middleton. Woburn, MA: Butterworth-Heinemann, 2002. doi:10.1016/B978-075067291-7/50006-6 Miessler, Gary L., and Donald A. Tarr. Inorganic Chemistry, 3rd edition. Upper Saddle River, N.J.: Pearson Prentice Hall, 2004. Moore, Charlotte E. Ionization Potentials and Ionization Limits derived from Optical Spectrum Analysis. Washington, D.C.: National Bureau of Standards, 1970. What K. Atomic polarization and electronegativity. Journal of the American Chemical Society, volume 112, number 12, 1990, pp. 4741–4747. doi:10.1021/ja00168a019 National Institute of Occupational Safety and Health (NIOSH). International chemical safety card for Indium. . It was accessed on 4 May 2010. National Institute of Occupational Safety and Health (NIOSH). The Register of Toxic Effects of Chemical Substances for Indian. . It was accessed on 5 May 2010. Nicholas, J. V., and D. R. White. Temperature. pp. 8–41 to the thermodynamic properties of individual phases. Edited by A. R. H. Goodwin, W. A. Wakeham, and K. N. Marsh. Amsterdam: Elsevier Science, 2003. Orem, W. H., and R.B. Finkelman. Formation of coal and geochemistry. pp. 191–222 in Sediments, Diagenesis and Sedimentary Rocks. Edited by Fred T. Mackenzie. Oxford: Elsevier Ltd., 2005. Oxtoby, David W., H. P. Gillis and Alan Campion. Principles of Modern Chemistry, 6th edition. Belmont, CA: Thomson Brooks/Cole, 2008. Palme, H., and H. Beer. Meteorites and the composition of the solar photosphere. pp. 204–206 in Landolt-Börnstein—Group VI: Astronomy and Astrophysics. Edited by H. H. Voigt. In 1993 he settled in New York: Springer-Verlag. doi:10.1007/10057790_59 Palme, H., and Hugh St.C. O'Neill. Cosmochemical estimates of the composition of the mantle. pp. 1–38 in The Mantle and the Nucleus. Edited by Richard W. Carlson. Oxford: Elsevier Ltd., 2005. Pauling, Linus. The nature of the chemical bond, 3rd edition. Ithaca, NY: Cornell University Press, 1960. Pearson, Ralph G. Absolute electronegativity and hardness: application to inorganic chemistry. Inorganic Chemistry, volume 27, number 4, 1988, pp 734–740. 10.1021/ic00277a030 Pekka Pyykkö. Radis Covalents Auto-consistents, year 2009. pyykko/Radii09.pdf. Retrieved November 20, 2010. Preston-Thomas, H. The international temperature scale of 1990 (ITS-90). Metrology, volume 27, number 1, 1990, pp. 3–10. doi:10.1088/0026-1394/27/1/002 Pyykkö, Pekka, and Michiko Atsumi. Molecular Double-Bond Covalent Radii for Elements Li-E112. Chemistry - A European Journal, volume 15, number 46, 2009, pp. 12770–12779. doi:10.1002/chem.200901472 Pyykkö, Pekka, and Michiko Atsumi. Molecular Single-Bond Covalent Radii for Elements 1-118. Chemistry - A European Journal, volume 15, number 1, 2009, pp. 186–197. doi:10.1002/chem.200800987 Pyykkö, Pekka, Sebastian Riedel and Michael Patzschke. Triple-Bond Covalent Radii. Chemistry - A European Journal, volume 11, number 12, 2005, pp. 3511–3520. doi:10.1002/chem.200401299 Ringnes, Vivi. Origin of the names of chemical elements. Journal of Chemical Education, volume 66, number 9, 1989, pp. 731–738. Doi:10.1021/ed066p731 Rohrer, Gregory S. and union in crystalline materials. Cambridge: Cambridge University Press, 2001. Samsonov, G. V., editor. Manual of the Physicochemical Properties of the Elements. In 1968 the journal Plenum Publishing Corporation was published. Sanderson, R. T. Simple inorganic substances. Malabar, FL: Robert E. Krieger Publishing Co., Inc., 1989. Sanderson, R. T. Principles of Electronegativity: Part I. General Nature. Journal of Chemical Education, volume 65, number 2, 1988, pp. 112–118. Doi:10.1021/ed065p112 Sanderson, R. T. Polar Covalence. In 1983, the New York government began doing so. Sansonetti, J. E., and W.C. Martin. Manual of basic atomic spectroscopic data. Journal of Data of Physical Reference and Chemistry, volume 34, number 4, 2005, pp. 1559–2259. doi:10.1063/1.1800011 Shannon, R. D. Effective Ion radii Reviewed and Systematic Studies of Intertamic Distances in Halides and Chalcogenides. Acta Crystallographica Section A, volume 32, number 5, 1976, pp. 751–767. doi:10.1107/S0567739476001551 Silbey, Robert J., Robert A. Alberty, and Moungi G. Bawendi. Physical Chemistry, 4th edition. Hoboken, N.J.: John Wiley & Sons, Inc., 2005. Singman, Charles N. Atomic volume and allotropy of the elements. Journal of Chemical Education, volume 61, number 2, 1984, pp. 137–142. doi:10.1021/ed061p137 Slater, J.C. Atomic radius in crystals. The Journal of Chemical Physics, volume 41, number 10, 1964, pp. 3199–3204. doi:10.1063/1.1725697 Smith, Derek W. Electronegativity in Two Dimensions: Reassessment and Resolution of the Pearson-Pauling Paradox. Journal of Chemical Education, volume 67, number 11, 1990, pp. 911–914. doi:10.1021/ed067p911 Smith, Derek W. Inorganic substances: A prelude to the study of inorganic descriptive chemistry. Cambridge: Cambridge University Press, 1990. Stewart, G. R. Measurement of specific low temperature heat. Review of scientific instruments, volume 54, number 1, 1983, pp. 1–11. doi:10.1063/1.1137207 Stewart, G. R. Specific low temperature heat measurement. Review of scientific instruments, volume 54, number 1, 1983, pp. 1–11. Doi:10.1063/1.1137207 Tari, A. The specific heat of matter at low temperatures. In 2003, Imperial College Press was one of the first to do so. Vainshtein, Boris K., Vladimir M. Fridkin and Vladimir L. Indenbom. Structure of the Crystals, 2nd edition. Modern crystallography 2. Edited by Boris K. Vainshtein, A. A. Chernov, and L. A. Shuvalov. Berlin: Springer-Verlag, 1995. Voigt, H. H., editor. Landolt-Börnstein—Group VI Astronomy and Astrophysics. Berlin: Springer–Verlag, 1993. Waber, J. T., and Don T. Cromer. Orbital radius of atoms and ions. Journal of Chemical Physics, volume 42, number 12, 1965, pp. 4116–4123. doi:10.1063/1.1695904 Wagman, Donald D., William H. Evans, Vivian B. Parker, Richard H. Schumm, Iva Halow, Sylvia M. Bailey, Kenneth L. Churney and Ralph L. Nuttall. Thermal elements: a complete review. Journal of Data of Physical Reference and Chemistry, volume 11, supplement 2, 1982, pp. 2–1 to 2–392. Waldron, Kimberley A., Erin M. Fehringer, Amy E. Streeb, Jennifer E. Trosky and Joshua J. Pearson. Detection percentages based on effective nuclear load slater as a versatile tool for teaching periodic trends. Journal of Chemical Education, volume 78, number 5, 2001, pp. 635–639. doi:10.1021/ed078p635 Weeks, Mary Elvira, and Henry M. Leicester. Discovery of the Elements, 7th edition. Easton, PA: Journal of Chemical Education, 1968. Wieser, Michael E., and Tyler B. Coplen. Atomic weights of the elements 2009 (Technical Report of the IUPAC). Pure and Applied Chemistry, volume 83, number 2, 2011, pp. 359–396. doi:10.1351/PAC-REP-10-09-14 Pians, Carl L. Liquid density of the elements. Chemical Engineering, volume 114, number 12, 2007, pp. 44–46. Pian, Carl L. The yawn manual of physical properties for hydrocarbons and chemicals. Houston, TEXAS: Gulf Publishing Company, 2005. Zefirov, Yu. V. Comparative analysis of van der Waals Radii systems. Reports of crystallography, volume 42, number 1, 1997, pp. 111–116. Page 21 Click to view quotes 143 pm 140 pm 161 pm 120 pm 224 pm 112 pm 182 pm 8 pm 114 pm 152 pm 197 pm 77 pm 183 pm 272 pm 299 pm 129 pm 125 pm 128 pm 128 pm to 175 pm 173 pm 199 pm 71 pm 179 pm 153 pm 1 pm 144 pm 159 pm 174 pm 37 pm 167 pm 133 pm 136 pm 126 pm 188 pm 175 pm 157 pm 172 pm to 160 pm 1 pm 155 pm 140 pm 181 pm 140 pm 125 pm 147 pm 74 pm 74 pm 137 pm 110 pm 139 pm 151 pm 235 pm 182 pm 181 pm 161 pm 137 pm 1 pm 250 pm 1 pm 180 pm 164 pm 116 pm 118 pm 144 pm 191 pm 215 pm 103 pm 147 pm 135 pm 143 pm 176 pm 171 pm 180 pm 173 pm 158 pm 2 pm 2 pm 1 pm 135 pm 194 pm 182 pm 137 pm Smith, Derek W. Inorganic substances: A prelude to the study of inorganic descriptive chemistry. Cambridge: Cambridge University Press, 1990. 1990.