

NAMED UNITS OF MEASUREMENT

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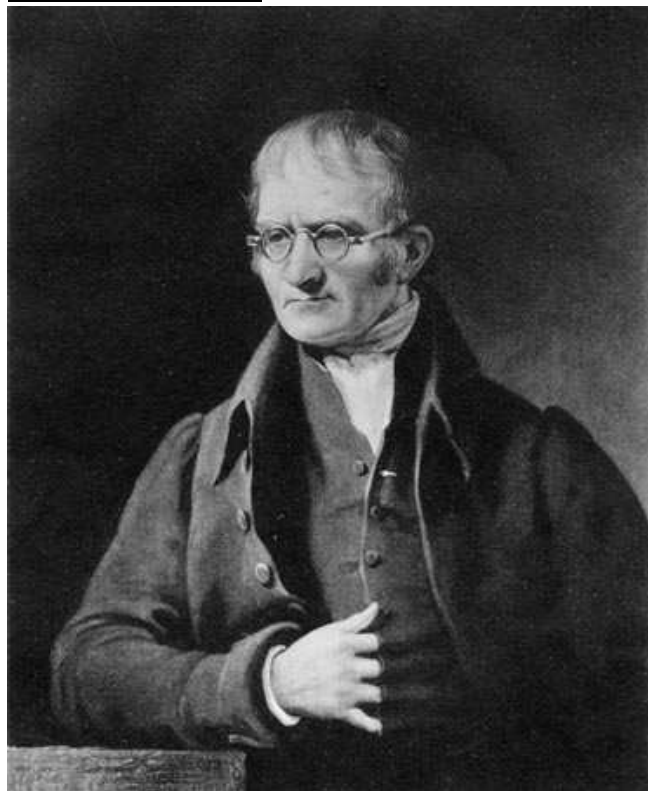
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For suggestions, corrections, additional information, and comments please send e-mails to c1000@careerchem.com

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Atomic mass unit (u, Da)

John Dalton



6 September 1766 - 27 July 1844

British, b. Eaglesfield, near Cockermouth, Cumberland, England

Dalton (1/12th mass of C¹² atom)

Dalton's atomic theory

Dalton, J., *A New System of Chemical Philosophy*, R. Bickerstaff: London, 1808 - 1827.

Biographical References:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of*

Scientists, Institute of Physics Publishing: Bristol, UK, 1994

Farber, Eduard (ed.), *Great Chemists*, Interscience Publishers: New York, 1961

Maurer, James F. (ed.) *Concise Dictionary of Scientific Biography*, Charles Scribner's Sons: New York, 1981

Abbott, David (ed.), *The Biographical Dictionary of Scientists: Chemists*, Peter Bedrick Books: New York, 1983

Partington, J.R., *A History of Chemistry*, Vol. III, Macmillan and Co., Ltd.: London, 1962, p. 755

Greenaway, F. *Endeavour* **1966**, 25, 73

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Thackray, A. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1973, Vol. 3, 573

Clarification on symbols used: personal communication on April 26, 2013 from Prof. O. David Sparkman, Pacific Mass Spectrometry Facility, University of the Pacific, Stockton, CA.

Capacitance (Farads, F)

Michael Faraday



22 September 1791 - 25 August 1867

British, b. Newington Butts, near London, England

Faraday, M., *Phil. Trans.* **1832**, 122, 125

Faraday, M., *Phil. Trans.* **1835**, 125, 41

Faraday, M., *Phil. Mag.* **1843**, 22, 200

Faraday, M., *Phil. Trans.* **1834**, 124, 77

Faraday, M., *Phil. Trans.* **1838**, 128, 1

Faraday, M., *Phil. Trans.* **1838**, 128, 79

Faraday, M., *Phil. Trans.* **1846**, 136, 21

Biographical references:

Anon., *J. Chem. Soc.* **1868**, 21, xxi

Farber, Eduard (ed.), *Great Chemists*, Interscience Publishers: New York, 1961

Abbott, David (ed.), *The Biographical Dictionary of Scientists: Chemists*, Peter BedrickBooks: New York, 1983

Partington, J.R., *A History of Chemistry*, Vol. IV, Macmillan and Co., Ltd.: London, 1964, p. 99

James, F.A.J.L. *Educ. Chem.* **1991**, 28, 128

James, F.A.J.L. *ACS Symp. Ser.* **1989**, 390, 32

Cable, M.; Smedley, J.W. *Glass Technol.* **1989**, 30, 39

Proc. Roy. Soc. London **1868-1869**, 17, i-lxviii signed by H B J

Williams, L.P. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1981, Vol. 4, 527

Charge (Coulombs, C)

Charles Augustin de Coulomb



14 June 1736 - 23 August 1806

French, b. Angoulême, France

Coulomb, C.A., *Mémoires de l'Académie Royale des Sciences* **1785**, 569

Coulomb, C.A., *Mémoires de l'Académie Royale des Sciences* **1785**, 578

Biographical references:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of Scientists*, Institute of Physics Publishing: Bristol, UK, 1994

Gillmor, C.S. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1981, Vol. 3, 439

Conductance (Siemens, Ω^{-1})

Ernst Werner von Siemens

13 December 1816 - 6 December 1892

German, b. Lenthe, Hanover, Germany

Karl Wilhelm (Sir Charles William) von Siemens

4 April 1823 - 19 November 1883

German-British, b. Lenthe, Hanover, Germany

Siemens, W., *Ann. Physik* **1860**, 110, 1

Biographical references:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of Scientists*, Institute of Physics Publishing: Bristol, UK, 1994

Hughes, T.P. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1975, Vol. 12, 424

Current (Amps, A)

André Marie Ampère

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Andre Marie Ampere

22 January 1775 - 10 June 1836

French, b. Lyon, France

Ampere, A.M., *Ann. Chim. Phys. Ser. II*, **1820**, 15, 59

Ampere, A.M., *Ann. Chim. Phys. Ser. II*, **1822**, 20, 60

Ampere, A.M., *Théorie des phénomènes électrodynamiques uniquement déduite de l'expérience*, 1826

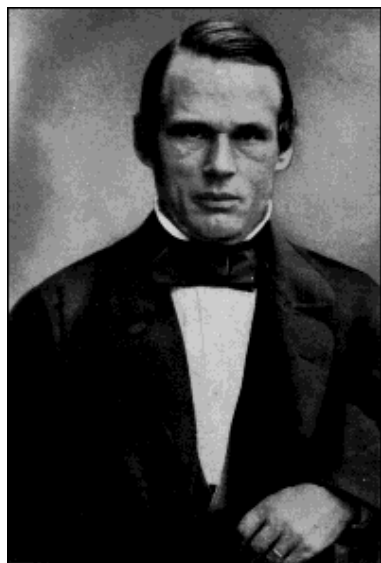
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Dimension (Ångstroms, Å)

Anders Jonas Ångström



13 August 1814 - 21 June 1874
Swedish, b. Lödgö, Sweden

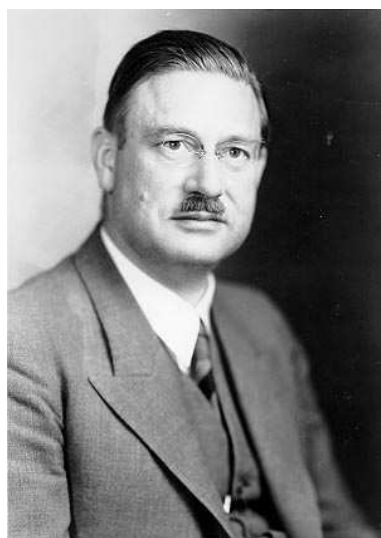
Ångstrom, A., *Recherches sur le Spectre Solaire*, Uppsala, 1868

Biographical references:

Maier, C.L. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1970, Vol. 1, 166

Dipole Moment (Debyes, D)

Peter Joseph Wilhelm Debye



24 March 1844 - 2 November 1966
Dutch-American, b. Maastricht, Netherlands
Nobel Prize Chemistry 1936

Dipole moment

Debye, P. *Physik. Z.* **1921**, 22, 302

Debye, P. *Ann. Physik* **1915**, 46, 809

Debye, P.; Deans, W.M. (eds.) *The Dipole Moment and Chemical Structure*, Blackie & Sons, Ltd.: London, 1932

Biographical references:

Davies, M., *Biog. Memoirs Fellows Roy. Soc.* **1970**, 16, 175

Williams, J.W., *Biog. Memoirs Natl. Acad. Sci.* **1975**, 46, 23

Millar, D.; Millar, I.; Millar, J.; Millar, M., *Chambers Concise Dictionary of Scientists*, W. & R. Chambers: Edinburgh, 1989

Anon., *Chem. Eng. News* **1998**, 76(2), 171

Fleck, G. in James, Laylin K. (ed.), *Nobel Laureates in Chemistry 1901 - 1992*, American Chemical Society: Washington, DC, 1993, p. 228

Wirtz, K., *Angew. Chem.* **1960**, 72, 1

Abbott, David (ed.), *The Biographical Dictionary of Scientists: Chemists*, Peter Bedrick Books: New York, 1983

Energy (Hartrees; Joules, J)

Douglas Rayner Hartree



27 March 1897 - 12 February 1958
British, b. Cambridge, England

Biographical references:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of Scientists*, Institute of Physics Publishing: Bristol, UK, 1994

James Prescott Joule



24 December 1818 - 11 October 1889

British, b. Salford, England

Joule, J.P., *Phil. Mag.* **1843**, 23, 263

Joule, J.P., *Phil. Mag.* **1843**, 23, 347

Joule, J.P., *Phil. Mag.* **1843**, 23, 435

Biographical references:

Rosenfeld, L. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1973, Vol. 7, 180

Force (Newton, N)

Sir Isaac Newton

25 December 1642 - 20 March 1727

British, b. Woolsthorpe, Lincolnshire, England

Newton, I. *Principia Mathematica Philosophiae Naturalis*, 1687

Biographical references:

Cohen, I.B. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1974, Vol. 10, 42

Frequency (Hertz, Hz)

Heinrich Rudolf Hertz



22 February 1857 - 1 January 1894

German, b. Hamburg, Germany

Hertz, H.R., *Ann. Physik* **1889**, 36, 769

Hertz, H., *Sitzber. Berlin Akad. Wissen. Wied. Ann.* **1888**, 34, 551

Hertz, H., *Electric Waves*, Macmillan: London, 1893

Biographical references:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of Scientists*, Institute of Physics Publishing: Bristol, UK, 1994

Hermann, A. *Naturwiss.* **1988**, 75, 219

Inductance (Henrys, H)

Joseph Henry

17 December 1797 - 13 May 1878

American, b. Albany, New York, USA

Henry, J., *Am. J. Sci.* **1832**, 22, 403

Henry, J., *J. Franklin Institute* **1835**, 15, 169

Henry, J., *Proc. Am. Phil. Soc.* **1842**, 2, 193

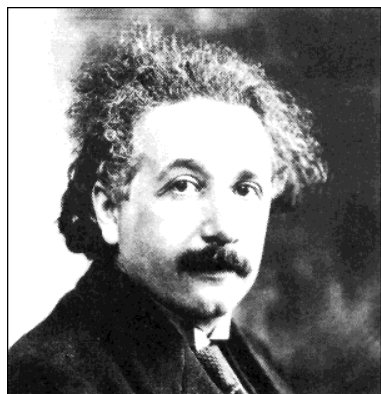
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Newcomb, S. *Biog. Memoirs Natl. Acad. Sci.* **1905**, 5, 1

Light Flux

Albert Einstein



14 March 1879 - 18 April 1955

German-Swiss-American, b. Ulm, Bavaria, Germany

Biographical references:

Wheeler, J.A., *Biog. Memoirs Natl. Acad. Sci.* **1980**, 51, 97

Whittaker, Sir E., *Biog. Memoirs Fellows Roy. Soc.* **1955**, 1, 37

Magnetic Field Strength (Gauss, G; Teslas, T; Webers, Wb)

Carl Friedrich Gauss



30 April 1777 - 23 February 1855

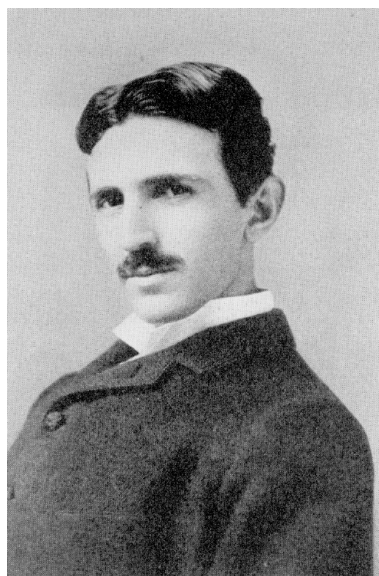
German, b. Brunswick, Germany

Gauss, C., *Commentationes Societatis regiae Scientiarum Gottingensis recentiores*, **1841**, 8, ?

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Index of Biographies, University of St. Andrew's,
<http://www-groups.dcs.st-and.ac.uk/~history/BiogIndex.html>

Nikola Tesla



9 July 1856 - 7 January 1943
Croatian-American, b. Smiljan, Croatia

Biographical references:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of Scientists*, Institute of Physics Publishing: Bristol, UK, 1994

Wilhelm Eduard Weber



24 October 1804 - 23 June 1891
German, b. Wittenberg, Germany

Biographical references:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of Scientists*, Institute of Physics Publishing: Bristol, UK, 1994

Buettner, J. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1990, Vol. 18, Supplement II, 978

Woodruff, A.E. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1976, Vol. 14, 203

Potential Difference (Volts, V)

Count Alessandro Giuseppe Anastasio Volta



18 February 1745 - 5 March 1827

Italian, b. Como, duchy of Milan, Italy

Volta, A., *Phil. Trans.* **1800**, 90, 403

Biographical references:

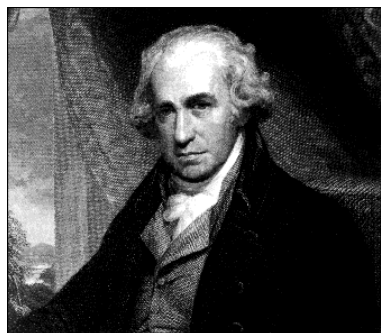
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Heilbron, J.L. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1974, Vol. 14, 69

Power (Watts, W)

James Watt



19 January 1736 - 25 August 1819
Scottish, b. Greenock, Scotland

Biographical references:

Daintith, J.; Mitchell, S.; Tootill, E.; Gjersten, D., *Biographical Encyclopedia of Scientists*, Institute of Physics Publishing: Bristol, UK, 1994

Partington, J.R., *A History of Chemistry*, Vol. III, Macmillan and Co., Ltd.: London, 1962, p. 344

Dorn, H. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1974, Vol. 14, 196

Pressure (Pascals, Pa; Torr)

Blaise Pascal



19 June 1623 - 19 August 1662
French, b. Clermont-Ferrand, Puy-de-Dôme, France

Pascal, B., *Traité de l'Équilibre des Liqueurs*, 1663

Biographical references:

Abbott, David (ed.), *The Biographical Dictionary of Scientists: Mathematicians*, Peter Bedrick Books: New York, 1986

Taton, R. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1974, Vol. 10, 330

Evangelista Torricelli



10 June 1608 - 14 November 1647

Italian, b. Faenza, Italy

Torricelli, E., letter to Michelangelo Ricci from Florence, June 11, 1644

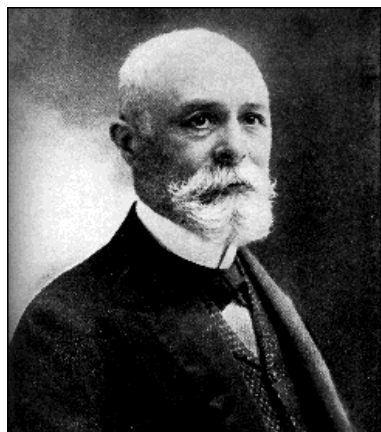
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Gliozzi, M. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1974, Vol. 13, 433

Radiation (Becquerels, Bq; Curies, Ci; Grays, Gy)

Antoine Henri César Becquerel



15 December 1852 - 25 August 1908

French, b. Paris, France

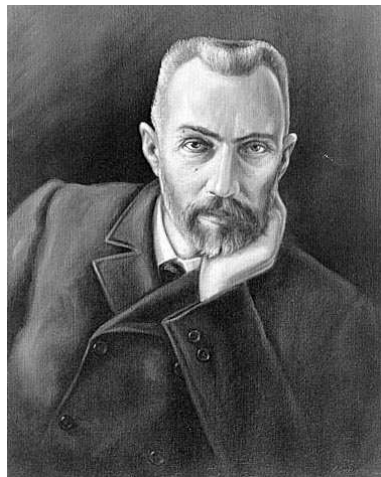
Becquerel, A.H., *Compt. Rend.* **1896**, 122, 420

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Biographical references:

Knight, D.M. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1981, Vol. 1, 557

Pierre Curie



15 May 1859 - 19 April 1906
French, b. Paris, France

Biographical references:

Abbott, David (ed.), *The Biographical Dictionary of Scientists: Chemists*, Peter Bedrick Books: New York, 1983

Wyart, J. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1981, Vol. 3, 503

Marie Curie (Manya Sklodowska)



7 November 1867 - 4 July 1934
Polish-French, b. Warsaw, Poland

Curie, P.; Desains, P., *Compt. Rend.* **1880**, 90, 1506
Curie, M.S., Curie, P., *Compt. Rend.* **1898**, 127, 175
Curie, M.S.; Curie, P.; Bémont, G., *Compt. Rend.* **1898**, 127, 1215

Biographical references:

Weill, A.R. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1981, Vol. 3, 497

Louis Harold Gray



10 November 1905 - 9 July 1965

British, b. London, England

Gray, L.H.; Read, J. *Nature* **1939**, 144, 439; 509

Biographical references:

Loutit, J.F.; Scott, O.C.A. *Biog. Mem. Fellows Roy. Soc.* **1966**, 12, 195

Howard, A. *Int. J. Rad. Biol.* **1965**, 9, 509

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Resistance (Ohms, Ω)

Georg Simon Ohm



16 March 1789 - 6 July 1854
German, b. Erlangen, Bavaria, Germany

Ohm, G.S., *J. Chem. Physik (Schweigger's Journal)* **1826**, 46, 137

Biographical references:

Caneva, K.L. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1974, Vol. 10, 186

Temperature (Celsius, °C; Fahrenheit, °F; Réaumur, °R; Kelvin, K)

Anders Celsius



27 November 1704 - 25 April 1744
Swedish, b. Uppsala, Sweden

"Observationer om twänne beständiga grader pa en thermometer" in *Kungliga Svenska vetenskapsakademiens handlingar* **1742**, 121 - 180

Biographical references:

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Lindroth, S. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1971, Vol. 3, 173

Gabriel Daniel Fahrenheit

24 May 1686 - 16 September 1736

German, b. Danzig, Germany

Fahrenheit, G.D., *Phil. Trans.* **1724**, 33, 1; 78; 114; 140; 179

Biographical references:

Gough, J.B. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1981, Vol. 4, 527

Réne-Antoine Ferchault de Réaumur

28 February 1683 - 18 October 1757

French, b. La Rochelle, France

Biographical references:

Gough, J.B. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1975, Vol. 11, 327
Editorial *Endeavour* **1957**, 16, 183

William Thomson, 1st Baron Kelvin of Largs



26 June 1824 - 17 December 1907

Scottish, b. Belfast, Northern Ireland

Thomson, W., *Cambridge Phil. Soc. Proc.* **1848**,
Thomson, W., *Phil. Mag.* **1848**, 33, 313
Thomson, W., *Trans. Roy. Soc. Edinburgh* **1851**
Thomson, W., *Phil. Mag.* **1852**, 4, 8; 105; 168; 424

Biographical references:

Millar, D.; Millar, I.; Millar, J.; Millar, M., *Chambers Concise Dictionary of Scientists*, W. & R. Chambers: Edinburgh, 1989
Buchwald, J.Z. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1976, Vol. 13, 374

Time (sedimentation) (Svedbergs, Sv)

Theodor (The) Svedberg



30 August 1884 - 25 February 1971
Swedish, b. near Gavle, Sweden

Nobel Prize Chemistry 1926

Svedberg, T., *Kolloid Z. Erg. Bd. Zu* **1925**, 36, 53
Svedberg, T., *Colloid Chemistry*, 2nd ed., ACS Monograph Series, The Chemical Catalog Co., Inc.: N.Y., 1928
Svedberg, T.; Pedersen, K.O., *The Ultracentrifuge*, Oxford U Press: London, 1940

Biographical references:

Kerker, M. in James, Laylin K. (ed.), *Nobel Laureates in Chemistry 1901 - 1992*, American Chemical Society: Washington, DC, 1993, p. 158
Claesson, S.; Pedersen, K.O. *Biol. Memoirs Fellows Roy. Soc.* **1972**, 18, 595

Viscosity (Poise, p)

Jean Léonard Marie Poiseuille

22 April 1797 - 26 December 1869

French, b. Paris, France

Poiseuille, J.L.M., *Compt. Rend.* **1840**, 11, 961; 1041

Poiseuille, J.L.M., *Compt. Rend.* **1841**, 12, 112

Poiseuille, J.L.M., *Ann. Physik Chem.* **1843**, 58, 424

Biographical references:

Pedersen, K.M. in Gillispie, Charles Coulston (ed.), *Dictionary of Scientific Biography*, Charles Scribner & Sons: New York, 1975, Vol. 11, 62