

NAMED CONCEPTS IN CHEMISTRY

(L – Z)

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Irving Langmuir



31 January 1881 - 16 August 1957
American, b. Brooklyn, New York, USA

Nobel Prize Chemistry 1932

Langmuir-Blodgett film
see Katherine Burr Blodgett

Langmuir adsorption isotherm
Langmuir, I., *J. Am. Chem. Soc.* **1932**, 54, 2798
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Sir Joseph Larmor



11 July 1857 - 19 May 1942

Irish, b. Magheragall, Ireland

Larmor precession, Larmor frequency

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Wendell Mitchell Latimer

22 April 1893 – 6 July 1955

American, b.

Latimer diagram

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Giauque, W.F. *Science* **1955**, 122, 406.

Max Theodor Felix von Laue



9 October 1879 - 24 April 1960
German, b. Pfaffendorf, Koblenz, Germany

Nobel Prize Physics 1914

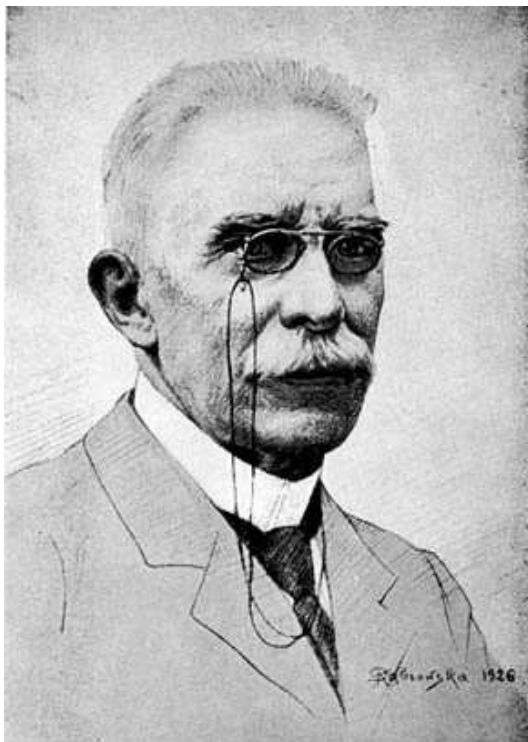
Laue symmetry groups

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Henri Louis Le Châtelier



8 October 1850 - 17 September 1936
French, b. Paris, France

Le Châtelier's principle

Le Châtelier, H.L., *Compt. Rend.* **1884**, 99, 786

Le Châtelier, H.L., *Compt. Rend.* **1888**, 106, 355; 598; 687; 1008

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Desch, C.H., *Roy. Soc. Obit. Not.* **1936 - 1938**, 2, 251

Chengteh Lee

B3LYP (Becke-Lee-Yang-Parr) method

see Axel D. Becke

Biographical references:

John Edward Leffler

27 December 1920 – 18 May 2000

American, b. Brookline, Massachusetts, USA

Leffler hypothesis

Leffler, J.E., *Science* **1953**, 117, 340

Bell-Evans-Polanyi principle

Be(II)-Ma(rcus)-Ha(mmond)-Po(lanyi)-Th(ornton)-Le(ffler) principle

see Ronald Percy Bell

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New Providence, New Jersey, 1998

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Alfred Beverley (Barry) Philip Lever

21 February 1936 –

British-Canadian, b. London, England

Lever ligand electrochemical parameters

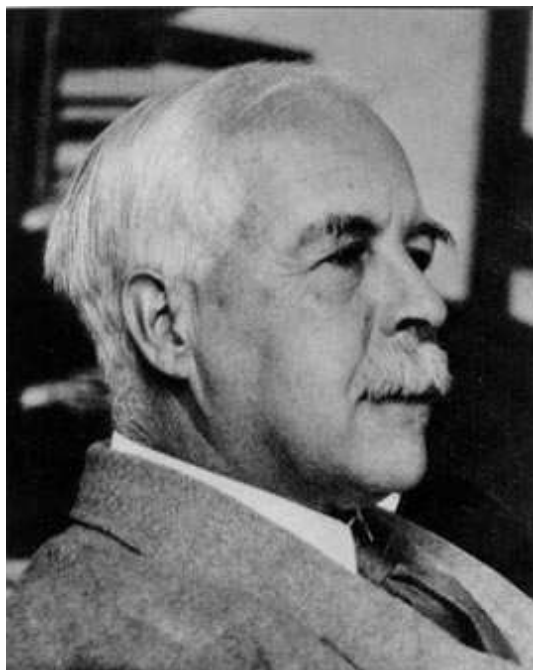
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Gilbert Newton Lewis



23 October 1875 - 23 March 1946

American, b. Weymouth, Massachusetts, USA

Lewis structures

Lewis, G.N., *J. Am. Chem. Soc.* **1916**, 38, 762

Lewis acid and Lewis base

Lewis, G.N., *Valence and the Structure of Atoms and Molecules*, ACS Monograph, The Chemical Catalog Co.: New York, 1923.

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Christopher Andrew Lipinski

1 February 1944 -

Scottish-American, b. Dundee, Scotland

Lipinski rule of 5

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Reginald Bernard Little

27 July 1966 -

American, b. Lithonia, Georgia

Little effect

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Little, R.B. *J. Magnetism Magnetic Mater.* **2008**, 320, 540

Biographical information:

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Fritz Wolfgang London

7 March 1900 - 30 March 1954

German-American, b. Breslau, Germany, now Wroclaw, Poland

London dispersion forces

London, F., *Z. Physik* **1930**, 63, 245

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Heitler-London treatment

see Walter Heitler

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Johann Josef Loschmidt



15 March 1821 - 8 July 1895

Austrian, b. Putschirn, near Carlsbad, Bohemia, now Karlovy Vary, Czech Republic

Loschmidt number (same as Avogadro's number)

Loschmidt, J., *Proc. Acad. Sci. Vienna* **1865**, 52, 395

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Thomas Martin Lowry



26 October 1874 - 2 November 1936
British, b. Low Moor, Bradford, Yorks, England

Brønsted-Lowry definition of an acid
see Johannes Nicolaus Brønsted

Biographical references:

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

23 November 1874 - 11 October 1954
American, b. Boston, Massachusetts, USA

Lyman series ($n \geq 2$ to $n = 1$)
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Hubert Maehr

25 February 1935 –

Austrian-American, b. Schlins, Austria

Maehr stereochemical descriptors

Maehr, H., *J. Chem. Educ.* **1985**, 62, 114

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Rudolph Arthur Marcus



21 July 1923 -

Canadian-American, b. Montreal, Quebec, Canada

Nobel Prize Chemistry 1992

Rice-Ramsperger-Kassel-Marcus theory

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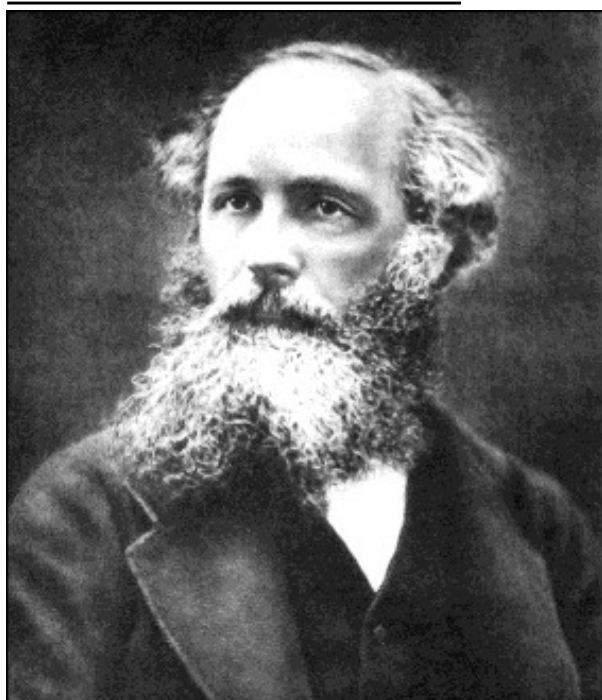
Allan Marshall Maxam

American, b. ?

Maxam-Gilbert DNA sequencing method
see Walter Gilbert

Biographical references:

James Clerk Maxwell



13 June 1831 - 5 November 1879
Scottish, b. Edinburgh, Scotland

Maxwell-Boltzmann statistics, Maxwell-Boltzmann distribution
see Ludwig Edward Boltzmann

Biographical references:

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

Hans Horst Meyer

17 March 1853 - 6 October 1939

German, b. Insterburg, East Prussia

Meyer-Overton theory, correlation, hypothesis, rule

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Robert Andrews Millikan



22 March 1868 - 19 December 1953

American, b. Morrison, Illinois, USA

Millikan oil drop experiment

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William Hobson Mills

6 July 1873 - 22 February 1959

British, b. London, England

Mills-Nixon effect

Mills, W.; Nixon, I.G. *J. Chem. Soc.* **1930**, 2510

Biographical references:

Mann, F.G. *Biog. Memoirs Fellows Roy. Soc.* **1960**, 6, 201

August Ferdinand Möbius

17 November 1790 - 26 September 1868

German, b. Schulpforta, Germany

Möbius strip (applied to Möbius orbital configuration)

Möbius, A.F. *Ber. Verhandl. Konigl. Sachs. Ges. Wissen. Math.-phys. Klasse*, **1863**, 15, 18 - 57

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Friedrich Mohs

29 January 1773 - 29 September 1839

German, b. Gernrode, Anhalt-Bernburg, Germany

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Christian Møller

22 December 1904 - 1980

Danish, b. Notmark, Denmark

Møller-Plesset single point energy calculation

Møller, C.; Plesset, M.S., *Phys. Rev.* **1934**, 46, 618

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Rory A. More O'Ferrall

9 November 1937 – 15 June 2012

British, b. Sevenoaks, Kent, England

More O'Ferrall-Jencks diagram

see William Platt Jencks

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Robert Sanderson Mulliken



7 June 1896 - 31 October 1986

American, b. Newburyport, Massachusetts, USA

Nobel Prize Chemistry 1966

Mulliken population analysis

Mulliken, R.S., *J. Chem. Phys.* **1955**, 23, 1833

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Wilfred S. Nathan

British, b. ?

Baker-Nathan effect

see John William Baker

Biographical references:

Melvin Spencer Newman

10 March 1908 - 30 May 1993

American, b. New York, New York, USA

Newman projection

Newman, M.S., *J. Chem. Educ.* **1955**, 32, 344

Biographical references:

Paquette, L.A.; Orchin, M., *Biog. Memoirs Natl. Acad. Sci.* **1998**, 73, 335

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Ivor G. Nixon

Mills-Nixon effect

see William Mills

Biographical references:

Ronald Stanley Nyholm

29 January 1917 - 4 December 1971

Australian-British, b. Broken Hill, NSW, Australia

Gillespie-Nyholm model

see Ronald James Gillespie

Biographical references:

Craig, D.P. *Biog. Mem. Fellows Roy. Soc.* **1972**, 18, 445

Julius Robert Oppenheimer

22 April 1904 - 18 February 1967

American, b. New York, New York, USA

Born-Oppenheimer approximation

see Max Born

Biographical references:

Bethe, H.A., *Biog. Memoirs Natl. Acad. Sci.* **1997**, 71, 175

Bethe, H.A., *Biog. Memoirs Fellows Roy. Soc.* **1968**, 14, 391

Albert Warner Overhauser

17 August 1925 – 10 December 2011

American, b. San Diego, California, USA

Nuclear Overhauser effect (NOE)

Overhauser, A.W., *Phys. Rev.* **1955**, 92, 411

Biographical references:

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Charles Ernest Overton

25 February 1865 - 27 January 1933

British, b. Stretton, Cheshire, England

Meyer-Overton theory, correlation, hypothesis, rule

Meyer, H.H. *Arch. Exp. Pathol. Pharmacol.* **1899**, 42, 109

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George Edward Pake

1 April 1924 –

American, b. Jeffersonville, Ohio, USA

Pake pattern

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Viktor Alekseevich Palm

1926 –

Koppel-Palm solvent parameters

see Ilmar A. Koppel

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Rudolph Pariser

8 December 1923 -

American, b. Harbin, China

PPP theory

Pople, J.A. *Int. J. Quantum Chem.* **1990**, 37, 349

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Robert Ghormley Parr

22 September 1922 –

American, b. Chicago, Illinois, USA

B3LYP (Becke-Lee-Yang-Parr method)

see Axel D. Becke

Biographical references:

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New Providence, New Jersey, 1998

Louis Carl Heinrich Friedrich Paschen

22 January 1865 - 25 February 1947

German, b. Schwerin, Mecklenburg, Germany

Paschen series ($n \geq 4$ to $n = 3$)

Paschen, F., *Ann. Physik* **1908**, 27, 537

Paschen's law

Biographical references:

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Louis Pasteur

27 December 1822 - 28 September 1895

French, b. Dole, Jura, France

Pasteur effect

Pasteur, L. *Ann. Chim. Phys.* **1860**, 58, 323

Pasteur, L. *Compt. Rend.* **1860**, 50, 849

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Charles Scribner & Sons: New York, 1980, Vol. 10, 350

Wolfgang Pauli



25 April 1900 - 14 December 1958
Austrian-American, b. Vienna, Austria

Nobel Prize Physics 1945

Pauli exclusion principle

Pauli, W., *Naturwiss.* **1924**, 12, 741

Pauli principle

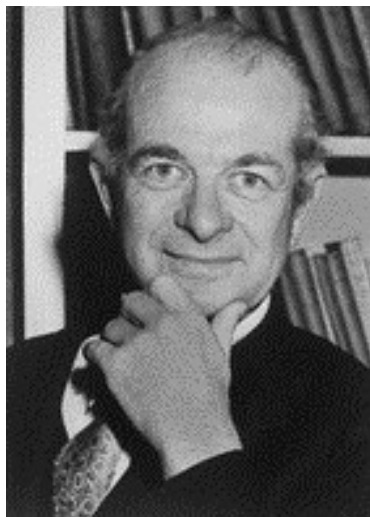
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Linus Carl Pauling



28 February 1901 – 19 August 1994
American, b. Portland, Oregon

Nobel Prize Chemistry 1954
Nobel Prize Peace 1962

Pauling electronegativity scale

Pauling, L., *J. Am. Chem. Soc.* **1932**, 54, 3570

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see Robert Brainard Corey

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Ralph Gottfrid Pearson

12 January 1919 -
American, b. Chicago, Illinois, USA

Pearson's principle of hard and soft acids and bases (HSAB)

Pearson, R.G., *J. Am. Chem. Soc.* **1963**, 85, 3533

Pearson, R.G.; Songstad, J., *J. Am. Chem. Soc.* **1967**, 89, 1827

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Biographical references:

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Paul Pfeiffer

21 April 1875 - 4 March 1951

German, b. Elberfeld, Wuppertal, Germany

Pfeiffer effect

Pfeiffer, P.; Quehl, K. *Chem. Ber.* **1931**, 64, 2667

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Hungarian-British, b. Budapest, Hungary

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S. P. L. SØRENSEN (1868–)

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