

# Index of Named Things in Chemistry and Physics

© Dr. John Andraos, 2000 - 2008

Department of Chemistry York University  
4700 Keele Street Toronto ONTARIO M3J 1P3 CANADA

For suggestions corrections additional information and comments please send e-mails to [jandraos@yorku.ca](mailto:jandraos@yorku.ca)

<http://www.chem.yorku.ca/NAMED/>

3D QSAR (quantitative structure-activity relationships) (Marshall, G.R.)  
A1 and A2 mechanisms (Ingold, C.K.)  
Abderhalden drying pistol  
Abderhalden ninhydrin reaction  
Abderhalden optical method  
absolute zero measurements (Giauque W.F.)  
Acetoacetic ester synthesis (Simonsen J.L.)  
acidity function (Hammett L.P.)  
actinometry (Bunsen, R./Roscoe, H.)  
Action of currents on magnets (Oersted H.)  
Active transport of solutes against concentration gradient (Overton, C.E.)  
Acyloin condensation (Bouveault L.)  
Adam's catalyst  
Adam's reagent  
Adamite  
Adamsite  
Adkins catalyst  
Albery-Siebrand model  
Alderrule  
Aldol condensation (Kane R.);  
Aldrin  
Allihn condenser  
Allred-Rochow electronegativity scale  
Allylic rearrangement (Claisen L.)  
Alpha effect nucleophiles (Edwards, J.O./Pearson, R.G.)  
alpha particles (Rutherford E.)  
ampere unit (current)  
Ampère's law  
anchimeric assistance (Winstein S.)  
Andresen's acid  
Angeli's salt  
Angstrom length

angstrom unit (dimension)  
Appel's reagent  
Application of Marcus theory to proton transfer reactions (Kresge, A.J.)  
Arbuzov-Michaelis reaction  
Arduengo carbene  
Armstrong and Wynne's acid  
Arndt-Eistert synthesis  
aromatic substitution (Koerner, W.)  
Arrhenius (dissociation of ions in water)  
Arrhenius equation  
Asinger reaction  
asymmetric induction (Cram D.J.)  
Asymmetric molecule without asymmetric carbon atom  
(Christie, G.H./Kenner, J.)  
Atom economy as reaction metric (Trost, B.M.)  
atomic force microscopy (Binnig G./Gerber C./Quate C.F.)  
atomic nucleus (Rutherford E.)  
atomic spectra (Kirchhoff G.; Hartley W.N.; Bunsen R.)  
atoms in molecules (AIM) (Bader R.F.W.)  
Auger effect  
Auger electron spectroscopy  
Avogadro Law  
Avogadro's number  
Babinet's principle  
Bachmann-Gomberg reaction  
Badger rules and equation  
Badische acid  
Baeyer-Villiger oxidation  
Baker-Nathan effect  
Baldwin's rules  
Balmer series  
Bamberger rearrangement  
Bamford-Stevens reaction  
Banfield-Kenyon radical  
Barbier-Wieland reaction  
Bardeen-Cooper-Schrieffer theory of superconductivity  
Barkhausen effect  
Bartlett-Condon-Schneider reaction  
Barton ester  
Barton reaction  
Barton-McCombiere reaction  
Bates reagent  
Bayer's acids  
BCS (Bardeen-Cooper-Schrieffer) theory of superconductivity  
Becke-Lee-Yang-Parr method

Beckman pH meter  
Beckmann rearrangement  
Beckmann thermometer, Beckmann method  
Becquerel-Curie (discovery of radioactivity)  
becquerel unit (radiation)  
Beer-Lambert-Bouguer law  
Beilstein test  
Bell equation  
Bell-Evans-Polanyi principle  
Bellea reagent  
Benedict test  
Benedict's solution  
Benkeser reduction  
Benson's additivity rules  
Benzidine rearrangement (Hofmann A.W.)  
Benzilic acid rearrangement (Liebig J.)  
Benzoin condensation (Lapworth A.J.)  
Bergman cyclization  
Bernoulli (kinetic theory of gases)  
Berry pseudorotation  
Berthelot's equation  
Bertrand carbene  
Berzelius (isomerism concept)  
Berzelius/Ostwald (catalysis concept)  
BET (Brunauer-Emmett-Teller) method  
Bigeleisen-Goepper-Mayer heavy atom approximation  
Bigeleisen-Wolfsberg equation  
Biginelli reaction  
Bindschedler's green  
Biot-Savart law  
Biot-Savart law  
Birch reduction  
Birks scheme for excimer fluorescence  
Bischler-Napieralski reaction  
Black (discovery of latent and specific heat)  
Blackbody radiation (Planck M.)  
Blagden's law (freezing point depression)  
Bloch equations  
Bloch-Siegert effect  
Bodenstein steady state approximation  
Bohr correspondence principle  
Bohr magneton  
Bohr model of the atom  
Bohr radius  
Boltzmann constant

Borch reduction  
Bordwell carbon acidity scale in polar non-hydrogen-bond solvents  
Born-Oppenheimer approximation  
Borodin-Hunsdiecker reaction  
Bose-Einstein statistics  
Bouguer's law  
Bouveault-Blanc reaction  
Boyd-Edgecombe electronegativity parameters  
Boyle's law  
Brackett series  
Bragg equation  
Bratton-Marshall reagent  
Bravais lattices  
Bravais-Friedel's law  
Bredereck's reagent  
Bredt's rule  
Briggs-Haldane solution to Michaelis-Menten equation  
Brillouin scattering  
Broenner's acid  
Broensted catalyst  
Bronsted catalysis law  
Bronsted-Bjerrum equation  
Bronsted-Lowry acid  
Brook rearrangement  
Brown's reagent  
Brownian motion  
Bucherer reaction  
Buchner funnel  
Bunnett-Olsen equations  
Bunsen burner  
Burgess reagent  
Cadiot-Chodkevicz reaction  
Cahn-Ingold-Prelog rules  
Calvin cycle  
Cannizzaro reaction  
Captodative effect (Viehe, H.G.)  
Carnelley's melting point-molecular symmetry rule  
Carnot cycle  
Caro's acid  
Carr-Purcell experiment  
catalysis (Ostwald W.)  
celcius unit (temperature)  
cell-free fermentation (Buchner E.)  
Celsius temperature scale  
Chadwick (discovery of neutron)

chain mechanism (concept of chain transfer and vinyl polymerization kinetics) (Flory P.J.)  
Chain reacting atomic pile (Fermi E.)  
chair and boat ring conformations (Sachse H./Mohr E.)  
Chapman rearrangement  
Charles' law  
Chauvin-Herisson mechanism  
chemical high pressure methods (Bergius F./Bosch C.)  
chemiosmotic theory (Mitchell P.)  
Cherenkov effect  
Chichibabin hydrocarbon (biradical)  
Chichibabin pyridine amination  
Chichibabin pyridine condensation  
chromatography (Tswett M.)  
Chugaev reaction  
Ciamician photodisproportionation  
Ciamician synthesis of pyridines from pyrroles  
Claisen adapter  
Claisen condensation  
Claisen rearrangement  
Claisen's alkali  
Claisen-Ireland rearrangement  
Claisen-Schmidt reaction  
Clapeyron equation of state  
Clausius statement of second law of thermodynamics  
Cleland rules  
Cleland's reagent  
Clemmensen reduction  
Cleve's alpha acid  
Cleve's beta acid  
Cleve's delta acid  
Cleve's gamma acid  
co-ordination numbers in inorganic compounds (Werner A.)  
Collin's reagent  
Collman's reagent  
colloids (Zsigmondy R./Svedberg T.)  
colour (Graebe, C./Liebermann, C./Witt, O.N./Armstrong, H.E.)  
combinatorial chemistry  
combustion and explosives (Hinshelwood C.N./Semenov N.N.)  
common ion effect (Ingold C.K.)  
Comparative molecular field analysis (CoMFA) (Cramer, R.D. III)  
Compton effect  
Compton wavelength  
Concept of atropisomerism (Kuhn, R.)  
concept of complementarity in biological macromolecules (Pauling, L.)

Concept of conformation (Haworth, W.N.)  
Concept of isobestic point (Thiel, A./Prideaux, E.B.R.)  
concept of isosteres (Langmuir I.; Mulliken R.; Hund F.)  
Concept of osmosis ("endosmose") and diffusion ("exosmose")  
(Dutrochet, R.H.)  
Concept of overvoltage (Caspari, W.A.)  
Concept of philicity of singlet carbenes (Moss, R.A.)  
Concept of quark (Gell-Mann, M./Zweig, G.)  
Concept of resonance hybrids (Bury, C.R.)  
Concept of transport numbers for cations and anions (Hittorf, W.)  
concept of valence (Frankland, Sir E.)  
Concept that green parts of plants absorb carbon dioxide thus transforming  
light energy into chemical energy (Dutrochet, R.H.)  
Concepts in condensed matter physics (Landau L.D.)  
condensed matter physics (Landau L.D.)  
conformation in organic synthesis (Barton D.H.R./Hassel O.)  
connection between structure and function of proteins (Anfinsen C.B.)  
Connection between SN<sub>2</sub> mechanism and Walden inversion rule  
(Phillips, H./Kenyon, J.)  
Conservation of energy (Helmholtz H./Tyndall J.)  
Cooley-Tukey algorithm  
Cope elimination  
Cope rearrangement  
Coppinger's radical  
Corey aldehyde  
Corey lactone  
Corey's reagent  
Corey-Kim reaction  
Corey-Kim reagent  
Corey-Winter reaction  
Coricycle  
Cori ester  
Coriolis force  
Cornforth reagent  
Cornforth rearrangement  
Cornish-Bowden plot  
Cotton effect  
coulomb unit (charge)  
Coulomb's law  
covalent bonding (Lewis G.N.)  
Cox-Yates acidity function  
CPK space filling models (Corey-Pauling-Koltun)  
Crabtree's catalyst  
Cram's rule  
Creutz-Taube complex

Criegee reaction  
Criegee rearrangement  
crossover experiment (Hurd C.D.)  
crystal lattice energy (Mayer J.E.; Lennard-Jones J.E.)  
crystallization of enzymes (Sumner J.B.)  
Curie law  
Curie point  
Curie temperature  
curie unit (radiation)  
Curie-Weiss law  
Curtin-Hammett principle (Acree S.F.)  
Curtius reaction  
Dahl's acid I  
Dahl's acid II  
Dahl's acid III  
Dakin reaction  
Dakin-West reaction  
dalton unit of atomic mass  
Dalton's atomic theory  
Dalton's law of multiple proportions  
Dalton's law of partial pressures  
Dalton's law of solubility of gases in liquids  
Daniell cell  
Darzens reaction  
Davies condenser  
Davy reagent methyl  
Davydov splitting  
Davydov splitting/exciton theory  
de Broglie wavelength  
de Broglie's law  
Dean-Stark apparatus  
Debye equation  
Debye model T<sub>3</sub> law  
debye unit (dipole moment)  
Debye-Huckell law  
Debye-Waller factor  
Delayed excimer fluorescence (Birks, J.B.)  
Delepin reaction  
density functional theory (Parr R.G./Yang W./Kohn W./Becke A./Lee C.)  
Dess-Martin oxidation  
development of the cyclotron (Lawrence E.O.)  
Dewar benzene  
Dewar flask  
Dewar PMO method  
Dewar-Chat-Duncanson model

Dexter excitation transfer  
Di-pi-methane rearrangement (Zimmerman H.E.)  
Diamagnetism (Faraday M./Weber M.W.)  
Diastereomer and enantiomer definitions  
Dieckmann condensation  
Diels-Alder reaction  
Diels-Alder reaction  
Dienone-phenol rearrangement (von Auwers K.)  
Diffraction of light  
Dimroth condenser  
Dimroth-Reichardt parameter  
Dipole moment (Debye, P.)  
Dipole moment measurements to elucidate stereochemistry (Jensen, K.A.)  
Dirac bra-ket notation  
directing groups in aromatic chemistry (Holleman A.F.)  
discovery of C<sub>60</sub> (Kroto H.W./Smalley R.E./Curl R.F.)  
discovery of carbon-14 (Kamen, M.)  
Discovery of cathode rays (Plücker, J./Hittorf)  
Discovery of continuous wavelet transform (Zweig, G.)  
Discovery of cyclodextrins (Villiers, A.)  
discovery of cytochromes (Keilin, D.)  
Discovery of dendrimers (Tomalia, D.A./Vögtle, F.)  
discovery of deuterium (Urey H.C.)  
discovery of electron (Thomson J.J.)  
Discovery of hydrated electron (Boag, J.W.)  
Discovery of magnetic properties of crystals (Plücker, J.)  
discovery of metallocenes (Wilkinson G./Fischer E.O.)  
discovery of neutron (Chadwick J.)  
Discovery of optical activity and rotation of plane polarized light (Biot, J.B.)  
Discovery of optical activity in coordination compounds (Werner, A.; King, V.L.)  
discovery of organometallic complexes of dihydrogen (Kubas, G.J./Ryan, R.R./Swanson, B.I./Vergamini, P.J./Wasserman, H.J.)  
discovery of organometallic complexes of dinitrogen (Allen, A.D./Senoff, C.V.)  
discovery of parahydrogen (Harteck P.)  
discovery of recombinant DNA (Berg P.)  
Discovery of rotational barrier in ethane (Pltzer, K.S.)  
discovery of sedimentation equilibrium (Perrin J.B.)  
discovery of streptomycin (Schatz, A./Waksman, S.E.)  
discovery of transfer-RNA (Altman S./Cech T.R.)  
disintegration of the elements (Rutherford E.)  
Dispersion of light into component colours (Newton I.)  
distinction between atoms and molecules (Cannizzaro, S.)  
DNA as source of heredity (Avery, O.T.)

DNA base complementarity (Chargaff, E.)  
Dobereiner lamp  
Doebner-Miller reaction  
Doering-Zeiss intermediate  
Doetz reaction  
Doppler effect  
Doppler effect  
doubling of reaction rate with 10 degree increment in temperature  
Dreiding molecular models  
Dufton column  
Dulong-Petit law  
Dunitz angle  
dye lasers (Schaefer, F.P.)  
E1 and E2 elimination mechanisms (Ingold, C.K./Hughes, E.D.)  
Eadie plot  
Eaton reagent  
Eau-de-Javelle  
Eau-de-Labarraque  
Ebert and Merz acids  
Edman degradation  
Edman's reagent  
Edward-Lemieux effect (anomeric effect)  
Edwardsequeation  
Effect of resonance on electronic transitions  
(Pauling, L./Lewis, G.N./Calvin, M.)  
Eglinton reaction  
Effect of resonance on electronic transitions  
(Pauling, L./Lewis, G.N./Calvin, M.)  
Ehrenfest adiabatic theorem  
Ehrenfest symmetry factor  
Ehrenfest theorem  
Ehrlich's reagent  
Eigen curve  
Eight-fold way (Gell-Mann, M.)  
Einstein constant  
Einstein law of specific heat  
Einstein mass-energy equation  
Einstein model  
Einstein temperature  
einstein unit (light flux)  
Einstein unit of luminescence  
Einstein-Smoluchowski equation  
El-Sayed's rule  
Elbs reaction  
Electrode kinetics (Eyring, H./Laidler, K.J.)

Electromagnetic radiation (Hertz H.)  
electron capture detector (Lovelock, J.E.)  
electron configuration (aufbauprinciple) (Bohr N.)  
electron diffraction by crystals (Davisson C.J./Thomson G.P.)  
electron microscopy (Ruska E./Siegbahn K.)  
electron spin (Uhlenbeck G./Goudsmit S.A.)  
electron spin resonance, electron paramagnetic resonance (Zavoiskii, E.K.)  
Electronic theory of organic chemistry (Robinson, R./Ingold, C.K.)  
electrophilicity-nucleophilicity (Fry H.S./Bronsted J.N./Lowry T.M./Lapworth A./Lewis G.N.)  
electrophoresis (Tiselius A.)  
electrostatic (field) effect (London F.)  
Ellman's reagent  
energy production from ATP by enzyme catalysis (Engelhardt, V.A.)  
Entner-Doudoroff pathway  
Environmental impact factor as reaction metric (Sheldon, R.A.)  
enzyme inhibition plots (Dixon, M.)  
Enzyme-substrate Pn nomenclature (Schechter, I.)  
Erlenmeyer (azlactone) reaction  
Erlenmeyer flask  
Eschenmoser fragmentation  
Eschenmoser's salt  
Eschweiler-Clarke reaction  
Etard reaction  
Evans auxiliary  
Evans blue  
Evans principle  
Evans-Polanyi relation  
Experimental verification of Gibbs phase rule (Roozeboom, H.)  
Experimental verification of tetrahedral asymmetry at carbon (Fischer, E.)  
Eyring equation  
Eyring transition state theory  
Fabry-Pérot interferometer  
Factor analysis method (Malinowski, E.R.)  
Fahrenheit temperature scale  
fahrenheit unit (temperature)  
Fajan's bonding rules  
farad unit (capacitance)  
Faraday constant  
Faraday law  
Favorskii rearrangement  
Fehling's solution  
Fenske equation  
Fenton reaction  
Fenton reagent

Fermat(refraction of light)  
Fermat's principle of least time  
Fermi-Dirac distribution  
ferrocene  
Ferromagnetism theory (Heisenberg, W.)  
Fetizon's reagent  
Feynman diagrams  
Feynman ratchet and pawl  
Fick's first and second laws of diffusion  
Fiegl's spot tests  
Fieser's reagent  
Fieser's solution  
Fieser-Woodward rules  
Finkelstein reaction  
Fischer carbene  
Fischer esterification  
Fischer indole synthesis  
Fischer projections  
Fischer-Hafner reaction  
Fischer-Hepp rearrangement  
Fischer-Tropsch process  
Flory-Huggins theory  
Forsling's acid  
Forster cycle  
Foucault's pendulum  
Fourier heat theorem  
Fourier heat theorem  
fractionation factor theory (Kresge A.J./Gold V.)  
Franck-Condon principle  
Fraunhofer diffraction lines  
Fremy's salt  
Fresnel (diffraction of light)  
Fresnel rhombs  
Freund's acid  
Friedel-Crafts acylation and alkylation  
Friedel's law of mean indices  
Friedel's law of rational symmetric intercepts  
Friedlander reaction  
Friedrichs condenser  
Fries rearrangement  
Frisch-Buttenberg-Wiechell reaction  
frontier molecular orbital theory (Fukui K.)  
Frost polygon  
Fukui frontier molecular orbital theory  
Gabriel reaction

Gaede diffusion pump  
Gaede vacuum pump  
Galvani (electric current)  
Gamow-Condon-Gurney law  
Gamow-Teller selection rule  
Gatterman reaction  
Gatterman-Koch reaction  
gauche effect (Wolfe S.)  
Gauss (magnetic force measurement)  
gauss unit (magnetic field strength)  
Gauss' law  
Gay-Lussac's law  
Geiger counter  
Geiger-Nuttall law  
General theory of relativity (Einstein A.)  
general valence bond theory (Goddard (III) W.A.)  
Gibbs equation  
Gibbs free energy  
Gibbs phase rule  
Gibbs reagent  
Gibbs-Duhem equation  
Gieger-Nuttall law  
Gillespie-Nyholm model  
Gilman reagents  
Girard reagent P  
Girard reagent T  
Glan prism  
Glaser coupling  
Glauber's salt  
Gmelin's salt  
Gold's reagent  
Gomberg radical  
Gooch crucible  
Gouy-Chapman diffuse double layer  
Graham reaction  
Graham's law  
Gray unit of radiation  
Grieco condensation  
Griess diazotization  
Griffin beaker  
Grignard reaction  
Grignard reagent  
Grob fragmentation  
Gross-Butler equation  
Grotrian diagrams

Grotthuss chain  
Grotthuss-Draper law  
group displacement law (Fajans K.; Soddy F.)  
Grubbs ruthenium catalyst  
Grunwald-Winstein equation  
Guggenheim method  
Haber process  
Hagemann's ester  
Hahn spin echoes  
Haldane equation  
Haldane relationships  
Hall effect  
Hamilton operator  
Hammett acidity function  
Hammett equation  
Hammick reaction  
Hammond postulate  
Hammond-Herbstroeter plot  
Hanes-Woolf plot  
Hanle effect  
Hansch constant  
Hantzsch pyridine synthesis  
Harden and Young's ester  
Harries ozonolysis  
Hartmann-Hahn experiment  
Hartree equation  
hartree unit (energy)  
Hartree-Fock-Roothaan theory  
Haworth formulas  
Haworth phenanthrene synthesis  
Heck reaction  
Heisenberg uncertainty principle  
Heitler-London treatment  
Helferich method;  
Hell-Volhard-Zelinsky reaction  
Hellman-Feynman theorem  
Hellmann-Feynman theorem  
Helmholtz (conservation of energy)  
Helmholtz equation  
Hempel column  
Hempel pipet  
Henderson-Hasselbalch equation  
Hendrickson's reagent  
Henry (induction concept)  
Henry reaction

henry unit (inductance)  
Henry's law  
hertz unit (frequency)  
Hess' law  
Heterogeneous catalysis (Eyring, H./Laidler, K.J.)  
Heyns catalyst  
Hickman oil diffusion pump  
Hill plot  
Hinshelwood equation  
Hirschfunnel  
Hofmann elimination  
Hofmann rule  
Hofmann-Löffler-Freytag reaction  
Hofmann-Martius rearrangement  
Hofmeister series  
Hofstee plot  
Holzmann column  
Hoogsteen base pairing  
Hooke's law  
Hooker oxidation  
Horner-Emmons reaction  
Hosomi-Sukurai reaction  
host-guest chemistry (Cram D.J./Lehn J.M./Pedersen C.J.)  
Houben-Hoesch reaction  
Hubble's law  
Hückel  $4n + 2$  rule  
Hückel molecular orbital theory  
Hudson's rules  
Humphreys series  
Hund's rules  
Hunig's base  
Huygen's principle (wave nature of light)  
Huygens principle  
hybridization in chemical bonding (Pauling L.)  
Hydroboration reaction (Brown H.C.)  
hydrogen bonding (Latimer W.H./Rodebush W.H./Huggins M.L.)  
Hydrogen spectrum transitions (Balmer J./Brackett F./Lyman T./Paschen F./Pfund A.H./Humphreys C.J.)  
hyperconjugation (Wheland G.W.)  
Induced currents (Faraday M.)  
inductive effect (Lewis G.N./Ingold C.K./Lowry T.M.)  
infrared spectroscopy (Coblentz W.W.)  
Insulation (Faraday M.)  
Interference of light  
interpretation of pH rate profiles as straight line segments

intimate and solvent separated ion pairs (Cram D.J./Winstein S.)  
ion exchange resins (Adams B.A./Holmes E.L.)  
ionization theory (Arrhenius S.)  
Ising model  
Isomer enumeration (Crum Brown, A./Cayley, A./Henze, H.R./Blair, C.M./Polya, G.)  
isotope concept (Soddy, F.)  
isotope effect (Reitz O.)  
isotopic exchange (Urey H.C.)  
isotopic labelling experiment (Urey H.C./Ingold C.K./Rittenberg D./Schoenheimer R.)  
Jablonski diagram  
Jacobs oxidative coupling  
Jacobsen's catalyst  
Jaffe's base  
Jaffe's reaction  
Jahn-Teller effect  
Janovsky's complex  
Janovsky's reaction  
Japp-Klingemann reaction  
Jencks' clock  
Johnson noise  
Jones effect  
Jones oxidation  
Jones reagent  
Josephson effect  
Josephson frequency-voltage quotient  
Joule (mechanical equivalent of heat)  
joule unit (energy)  
Joule's law  
Joule-Thomson coefficient  
Julia synthesis  
Kalle's salt  
Kamlet-Taft solvent parameters  
Kaptein's rules  
Kaptein-Closs rules  
Kaptein-Closs rules  
Kapustinskii equation  
Karl Fischer reagent  
Karplus equation  
Karstedt catalyst  
Kasha's rule  
Kasha-Vavilov rule  
Keeffe-Jenckse equations  
Kekule structures

Kelvin (absolute temperature scale)  
kelvin unit (temperature)  
Kemp reaction  
Kemp's triacid  
Kepler's laws  
Kerr electro-optic effect  
Kerr magneto-optic effect  
Kharasch cyclization reaction  
Kiliani reagent  
Kiliani-Fischer reaction  
kinetics of adsorption (Langmuir I.)  
King-Altman method  
Kipp gas generator  
Kirchhoff's circuit laws  
Kirchhoff's diffraction theory  
Kirchhoff's law of heat radiation  
Kirchhoff's laws (electrolytes)  
Kirkwood-Onsager equation  
Kjeldahl method of nitrogen determination  
Knoevenagel condensation  
Knorr reaction  
Knudsen vacuum gauge  
Koch's acid  
Kochi reaction  
Koelsch radical  
Kohler's ketone  
Kohlrausch current theory  
Kohlrausch law of independent migration of ions  
Kohlrausch relaxation  
Kohlrausch square root law  
Kolbe-Schmitt reaction  
Koopmans theorem  
Koppel-Palm solvent parameters  
Koser's reagent  
Koshland reagent, number 1, number 2, number 3  
Kosower Z-values  
Kreb's cycle  
Krebs cycle  
Kulinkovich reaction  
Kunig's salt  
Ladenburg benzene  
Lalancette's reagent  
Lambert's law  
Lande g-factor  
Langevine equation

Langmuir adsorption isotherm  
Langmuir equation  
Langmuir-Blodgett film  
Laporte rule  
Larmor precession frequency  
Laser drop experiment (Banks, J.T./Scaiano, J.C.)  
laser spectroscopy (Bloembergen N./Schawlow A.L.)  
Laue symmetry groups  
Laurent's acid  
Lauth's violet  
Lavoisier's law  
Law of conservation of parity (Landau, L.D./Lifshitz, L.D.)  
law of mass action (Waage, P./Guldberg C./Harcourt A.V./Esson W.)  
law of osmotic pressure (van't Hoff J.H.)  
Lawesson's reagent  
laws of chemical kinetics (van't Hoff J.H./Wilhelmy L.F.)  
Laws of electrolysis (Faraday M.)  
Lazier catalyst  
Le Chatelier's principle  
Leffler hypothesis  
Lemieux-Johnson oxidation;  
Lemieux-Johnson reagent  
Lemieux-von Rudloff reagent  
Lennard-Jones potential  
Lenz's law  
Lenz's law  
Lessing rings  
Leuckart reaction  
Lever ligand electrochemical parameters  
Lewis acid  
Lewis structures  
Lewsite  
Liebermann-Burchard method or reaction  
Liebeskind-Srogl coupling  
Liebig condenser  
Ligand field theory (Ballhausen, C.J.)  
Light scattering  
Lindlar's catalyst  
linear free energy relationships (Bronsted J.N./Pedersen K./Hammett L.P.)  
Lineweaver-Burk plot  
Lipinski rule of 5  
liquid-liquid and gas-liquid chromatography (Martin A.J.P./Synge R.L.M.)  
liquification of helium (Kamerlingh-Onnes H.)  
Lissajous figures  
Little effect

Lobry de Bruyn-van Eckenstein transformation  
London dispersion forces  
London equations (superconductivity)  
Lorentz-Lorentz formula  
Loschmidt number  
Loschmidt number  
Lossen rearrangement  
Lowdin orthogonalization  
Lyman series  
Macdonald coupling  
Mach angle  
Mach number  
Madelung constant  
Madelung series  
Maier stereochemical descriptors  
Magic acid (superacid) (Olah, G.A.)  
Maillard browning reaction  
Malonic ester synthesis (Perkin W.H. Jr.)  
Malus theorem  
Mannich reaction  
Mannich's bases  
Marcus equation  
Marcus-Hush relationship  
Marfey's reagent  
Marignac's salt  
Mariotte bottle  
Mariotte's law  
Markovnikov rule  
Markush structures  
Marschalk reaction  
Marsh arsenic test  
Martin sulfurane dehydrating agent  
Martius yellow  
Martyloff rearrangement  
mass spectrometry (Aston F.W.)  
Massieu functions  
Matrix isolation spectroscopy (Pimentel, G.C./Porter, G.)  
Maxam-Gilbert method of DNA sequencing  
Maxwell electromagnetic equations  
Maxwell's thermodynamic equations  
Maxwell-Boltzmann distribution  
McFadyen-Stevens rearrangement  
McLafferty rearrangement  
McLeod vacuum gauge  
McLeod vacuum gauge

McMurry reaction  
McMurry's reagent  
Meerwein arylation reaction  
Meerwein ester  
Meerwein salt  
Meerwein-Ponndorf-Verley reaction  
Meisenheimer complex  
Meisenheimer reaction  
Meldola's blue  
Meldrum's acid  
Mendeleev's periodic law  
Menschutkin reaction  
Merrifield solid phase synthesis  
mesomeric (resonance) effect (Lucas H.J./Arndt F./Ingold C.K.)  
method of Hanes and Wong  
Meutert's rule  
Meyer steric hindrance  
Meyer-Overton theory, correlation, rule, hypothesis  
Meyer-Schuster rearrangement  
Meyer's aldehyde synthesis  
Meyer's reagent  
Michael addition  
Michaelis-Menten equation  
Michelson-Morley experiment  
Michler's hydride/base  
Michler's ketone  
microanalytical methods for organic substances (Pregl F.)  
Midland's reagent  
Miller's law  
Millikan oil drop experiment  
Mills-Nixon effect  
Mitscherlich (law of isomorphism)  
Mitsunobu reaction  
Mitsunobu reagent  
Möbius strip  
Mohr titration  
Mohr's salt  
Mohs hardness scale  
molecular mechanics calculations (Allinger N.L.)  
Moller-Plesset single point energy calculation  
Moore's ketene  
More O'Ferrall-Jencks diagram  
Morse potential  
Moseley's law  
Mosher amides

Mosher esters  
Mosher's acid  
Mosher's acid chloride  
Mossbauer spectroscopy  
Mukaiyama aldol condensation  
Mukaiyama reaction  
Mukaiyama's reagent  
Müller-Müller-Rodloff biradical rule  
Müller's hydrocarbon (biradical)  
Mulliken population analysis  
Mulliken-Jaffe electronegativity scale  
Murahashi reaction  
Muthmann's liquid  
mutorotations (Hudson C.S.)  
Nazarov's reagent  
Neber reaction  
Néel temperature  
Nef reaction  
Negishi coupling  
Nernst equation  
Nernst heat theorem  
Nernst radical chain  
Nessler reagent  
Neuberg degradation  
Neuberg ester  
Neumann's law  
Neville and Winther's acid  
Newman projection  
Newman-Kwart rearrangement  
Newton (dispersion of light)  
newton unit (force)  
Newton's gravitational constant  
Newton's law of motion; gravitation  
Newton's rings  
Nicholas reaction, Nicholas cation  
Nicol prism  
Niementowski's dye  
Nishimura catalyst  
NMR lineshape analysis and coalescence phenomena (Gutowsky H.S.)  
No-barrier multi-dimensional Marcus theory (Guthrie, J.P.)  
noble gas compounds (XePtF<sub>6</sub>) (Bartlett, N.)  
non-equilibrium thermodynamics (Prigogine I.)  
normal salt effect (Ingold C.K./Winstein S.)  
Norrish Type I/II reactions  
Noyori reaction

Noyori reagent  
Nozaki reaction  
nuclear fission (Hahn O./Meitner L.)  
nuclear magnetic resonance (Purcell E.M./Bloch F.)  
Nuclear Overhauser effect  
nuclear shell model (Goeppert-Mayer M.)  
Nyström reagent  
octant rule (Djerassi C./Woodward R.B.)  
octet rule (Lewis G.N./Langmuir I.)  
Oersted law (action of currents on magnets)  
ohm unit (resistance)  
Ohm's law  
Olah's reagent  
Onsager limiting law  
Onsager reciprocal relations  
Operators in physical mathematics (Heaviside O.)  
Oppenauer oxidation  
Oppolzer's auxiliary  
Orton rearrangement  
Ostwald dilution law  
Oxidation numbers (Johnson, O.C.)  
Paal-Knorr reaction  
Pake pattern  
Pariser-Parr-Pople (PPP) method  
Parnas apparatus  
Parr calorimeter bomb  
partition functions (Giauque W.; Eyring H.; Halford; Eidenhoff)  
Pascal pressure unit  
pascal unit (pressure)  
Pascal's law of pressure  
Paschen's series  
Paschen-Back effect  
Passerini reaction  
Pasteur pipette  
Pasteur principle  
Pasteur separation of racemic tartrates  
Paterno-Büchi reaction  
Patterson functions  
Pauli exclusion principle  
Pauli principle  
Pauling electronegativity scale  
Pauson-Khand reaction  
Payne's reagent  
Pearlman's catalyst  
Pearson's HSAB principle

Penningvacuum gauge  
Perkin reaction  
Perkin rearrangement  
Perkin triangle  
Peroxide effect (Kharasch, M.S./Mayo, F.R.)  
Perrin (negative charges in cathode rays)  
Petasis reagent  
Peterson oxidation  
Pettit's complex  
Peyrone's salt  
Pfeiffer effect  
Pfitzner-Moffatt reagent  
Pfund series  
pH indicators (Lubs H.A./Clark W.M./Acree S.F.)  
phase contrast microscopy (Zernike F.)  
phosphorescence (Sidot T.)  
Photoaffinity labelling (Thornton, E.R./Westheimer, F.H.)  
photoelectric effect (Einstein A.)  
Photovoltaic effect (Becquerel E.)  
Pictet-Spengler isoquinoline synthesis  
Piloty's acid  
pinacol rearrangement (Fittig R.)  
Pirani vacuum gauge  
Piria's acid  
Pitzer ring strain  
Planck's constant  
Planck's equation quanta concept  
Planck's radiation law  
Pockel effect  
Pockel effect  
poise unit (viscosity)  
polarography (Heyrovsky M.)  
Polonovski reaction  
polymer chemistry (Staudinger H.)  
polymerase chain reaction (PCR) method (Mullis, K.B.)  
Pope's complex  
Potential difference  
potential energy surfaces (Marcelin R.)  
Poynting vector  
prebiotic synthesis of amino acids and biologically important molecules (Miller, S.L./Urey, H.C.)  
Prelog's rules  
Prevost reaction  
Prevost theory of exchanges (dynamic equilibrium between cold and hot bodies)

Prilezhaev reaction

Principle of least action (Maupertuis, P.L.M.)

principle of least motion (Rice F.O./Teller E.)

principle of microscopic reversibility (Ingold C.K.)

principle of non-perfect synchronization (Bernasconi C.F.)

Prins reaction

Probe technique to observe spectroscopically invisible transients (Scaiano, J.C.)

protecting groups in organic synthesis (Bergman M.)

protein and peptide structure (Fischer E.)

protein structures (alpha-helix; beta-sheet; kinks) (Pauling L./Corey R.B.)

proton inventory technique (Schowen R.L.)

proton sponge

Proust's law

Pulfrich's photometer

Pulfrich's refractometer

Pulse radiolysis (Gray, L.H./Boag, J.W.)

Pummerer rearrangement

Pump-probe technique (Buettner, A.V./Snively, B.B./Peterson, O.G.)

"Push-pull" mechanism (Swain, C.G.)

quantum concept (Planck M.)

radio carbon dating (Libby W.F.)

radiotracers (Paneth, F./Hevesy, G.)

Radziszewski reaction

Ramachandran plot

Ramachandran triple helix (collagen)

Raman spectroscopy

Ramberg-Bäcklund reaction

Raney nickel

Rankine temperature scale

rankine unit (temperature)

Raoult's law

Raschig rings

Raybin's reagent

Rayleigh scattering

Rayleigh-Jeans law

reaction intermediates concept (carbocations) (Stieglitz J./Norris J.F.)

reactivity-selectivity principle (Giese B.)

Reaumur temperature scale

Reaumur unit (temperature)

Redfield sequence

Reformatskii reaction

Reformatskii reagent

Regitz diazotransfer

Rehm-Weller equation

Reichardt's dye  
Reichstein substance G  
Reichstein substance S  
Reimer-Tiemann reaction  
Reinecke salt  
Renner-Teller effect  
retrosynthetic analysis (Corey E.J.)  
Reynold's number  
Reynolds number  
Rice-Ramsperger-Kassel (RRK) theory  
Rice-Ramsperger-Kassel-Marcus (RRKM) theory  
Ringer's solution  
Ritchie equation  
Ritter reaction  
Ritz principle procedure  
RNA codons for protein synthesis (Boyer, P.)  
Robinson annulation  
Rochelle/Seignette salt  
Roentgen ray  
Rondeau's reagent  
Rosanoff-Fischer projection rules  
Rosenmund catalyst  
Rosenmund reduction  
Rotation of light by magnetism (Faraday M.)  
Rotatory polarization (Fresnel A.)  
Ruff-Fenton reaction  
Ruhemann's purple  
Rule of alternating polarities (Lapworth, A.)  
Rupe rearrangement  
Russell-Saunders coupling  
Rutherford scattering  
Rychnovsky TEMPO catalyst  
Rydberg constant  
Rydberg formula  
Rydberg orbital  
Rydberg transition  
Sandmeyer reaction  
Sanger method of DNA sequencing  
Sanger's reagent  
Sarett procedure  
Sarett reagent  
Sawicki reagent  
Saytzeff rule  
scaling laws (de Gennes P.G.)  
scanning tunnelling microscopy (Binnig G./Rohrer H.)

Scatchard plot  
Schachtschneider method of vibrational frequency calculations  
Schaeffer's acids  
Schenck sensitization mechanism  
Schiemann reaction  
Schiff's base  
Schlenkequilibrium  
Schlenktube  
Schlenk-Brauns biradical  
Schoenberg's reagent  
Schoenberg reaction  
Schoenberg rearrangement  
Schollkopf's acid  
Schott glass  
Schotten-Baumann reaction  
Schottky barrier junction  
Schrodinger equation  
Schrodinger's constant for a fixed nucleus  
Schwartz's reagent  
Schweizer's reagent  
Seebeck effect  
Self-induction (Henry J.)  
Setchenow (Sechenov) equation  
Seyferth-Gilbert reagent  
Shapiro reaction  
Sharpless epoxidation  
Sharpless-Jacobsen hydroxylation  
Sheibley's reagent  
Shoolery rule  
siemens unit (conductance)  
Simmons-Smith cyclopropanation  
Simmons-Smith reagent  
site-directed mutagenesis (Smith M.)  
sixteen and eighteen electron rule for organometallic complexes (Tolman, C.A.)  
Skraup reaction  
Slater determinant  
Slater orbital  
Smiles rearrangement  
Smoluchowski equation  
SN1 and SN2 mechanisms (Ingold C.K./Hughes E.D.)  
SNR1 mechanism (Bunnett, J.F.)  
Snatzke's reagent  
Snell's law  
Snell's law of refraction

Solvent effects in kinetics (Eyring, H./Laidler, K.J.)  
solvolysis (Ward A.M./Hammett L.P.)  
Sommelet-Hauser reaction  
Sommerfeld model  
Sorensen pH scale  
Southern blot  
Soxhlet extractor  
special salt effect (Winstein S.)  
Special theory of relativity (Einstein A.)  
Stahl oxidative amination  
Stark effect  
Stark-Einstein law of photochemical equivalence  
Staudinger reaction  
Staudinger's ketene  
Stedman column  
Stefan law of temperature radiation  
Stefan-Boltzmann constant  
Stephen reduction  
stereochemistry concept (Pasteur L./van't Hoff J.H./Le Bel J.A.)  
stereoisomerism (Meyer V./Auwers K.)  
steric effect (Meyer V.)  
Stern-Gerlach experiment  
Stern-Volmer plot  
Stetter reaction  
Stevens rearrangement  
Still-Wittig reaction  
Stille coupling  
Stobbe condensation  
Stockmayer potential  
Stokes law  
Stokes' law of fluorescence  
Stoltz oxidative etherification  
Stopped-flow technique (Chance, B./Gibson, Q.H.)  
Stork enamine synthesis  
B-strain (bond) (Brown, H.C.)  
F-strain (force) (Brown, H.C.)  
I-strain (internal) (Brown, H.C.)  
Strecker amino acid synthesis  
substituent effect (Hammett L.P.)  
superconductivity at low temperatures (Kamerlingh-Onnes H.)  
Surface charge (Faraday M.)  
Suzuki coupling  
svedberg unit (sedimentation time)  
Swain-Lupton equation  
Swain-Schaad equation

Swain-Scott equation  
Swern oxidation  
Swern reagent  
Synthesis of a dinucleoside monophosphate  
Synthesis of a gene  
synthesis of new radioactive elements using slow neutrons (Fermi E.)  
synthesis of radioactive elements (Joliot F./Joliot-Curie I.)  
Szilard-Chalmers effect  
Szilard-Chalmers effect  
Taft equation  
Tait free path  
tautomerism (Laar C./Butlerov A./Baeyer A./Wislicenus J./Meyer K.H./Knor L./Nef J.U./Michael A.)  
Tebbe reagent  
Teller-Redlich product rule  
Temperature jump (T-jump) technique (Eigen, M.)  
tesla unit (magnetic field strength)  
Theory of electric and magnetic susceptibilities (Van Vleck J.H.)  
Thiele's hydrocarbon (biradical)  
Thiele reagent  
Thiele tube  
thin layer chromatography (Meinhard J.E./Hall N.F./Keller C.J./Kirchner J.K./Miller J.M.)  
Thompson (discovery of electron)  
Thomson absolute temperature scale (Kelvin)  
Thomson cross-section  
Thomson model of atom  
Thorpe reaction  
Three phase test for reaction intermediates (Rebek, J.)  
Three point model for molecular chiral recognition  
(Easson, E.H./Stedman, E./Ogston, A.G.)  
Tiemann rearrangement  
Tiffeneau-Demjanov rearrangement;  
time resolved spectroscopy and kinetics (Norrish R.G.W./Porter G./Eigen M.)  
Tishenkore reaction  
Tobias acid  
Tollens reagent  
Tollenstest  
Tolman cone angle  
Topliss decision tree  
torr unit (pressure)  
Torricelli barometer  
Torricelli pressure unit  
Townsend effect  
transmutation of the elements (Brooks, H.)

Troeger's base  
Tuppy's maleimide  
Turner-Czerny optical arrangement  
Two laser-two colour experiment (Bernstein, R.B./Smalley, R.E./Rentzepis, P.M./Scaiano, J.C.)  
Tyndall effect  
Ugi condensation reaction  
Ullmann reaction  
ultraviolet spectroscopy (Hartley W.N./Huntington A.K.)  
Uemura oxidation  
use of enzymes to catalyze simple organic reactions (Acree S.F./Kastle J.H./Loevenhart A.S./Cornforth J.W./Prelog V.)  
valence shell electron pair repulsion theory (VSEPR) (Gillespie R.J.)  
Van Allen belts  
van Boom's reagent  
van de Graaff electrostatic generator  
van der Waals equation of state  
van Vleck paramagnetism  
van't Hoff theory of dilute solutions  
van't Hoff's law of osmosis  
Van't Hoff's plot, equation  
van't Hoff-Le Bel asymmetric carbon model  
Variable Marcus intrinsic barriers for deprotonation of carbon acids (Bunting, J.W./Stefanidis, D.)  
Vaska compound  
vectorial analysis of net dipole moment (Thomson J.J.)  
Vedejs reagent  
Velocity of light measurement (Fizeau A.)  
Verdet constant  
Verification of absolute configuration of tartaric acid (Bijvoet, B.M.)  
Verlet algorithm in reaction dynamics  
Vernier calipers  
Viehe's salt  
Vigreux column  
Viktor Meyer method  
Vilsmeier reagent  
Vilsmeier-Haack-Arnold reaction  
Volkenstein-Goldstein method  
volt unit (potential difference)  
Voltaic cell  
von Pechmann reaction  
von Richter reaction  
Vorbrueggen coupling  
Wacker reaction  
Wadsworth-Emmons reaction

Wagner-Meerwein rearrangement  
Walborsky reagent  
Walden inversion rule  
Wallach reaction  
Walsh diagrams  
Wanzliche equilibrium  
Watson-Crick base pairing in DNA (Donohue, J.)  
watts unit (power)  
wave nature of electron (Davisson C.J./Germer L.H.)  
Wawzonek-Yeakey rearrangement  
weber unit (magnetic field strength)  
Weerman degradation  
Weibull distribution  
Weinreb amide  
Weiss reaction  
Wentzel-Kramer-Brillouin-Jeffreys (WKBJ) method  
Werner (configuration of inorganic compounds)  
Wessely oxidation  
Westheimer principle  
Wharton reaction  
Wheatstone bridge  
Wheland intermediate  
whole number rule for isotopes (Aston, F.W.)  
Widmer condenser  
Wieland-Miescher ketone  
Wien displacement law constant  
Wien's displacement law  
Wignert tunnelling correction  
Wigner's rules  
Wilkinson's catalyst  
Willgerodt reaction  
Williams glycinates  
Williamson ether synthesis  
Willstatter imines  
Wilson cloud chamber  
Wilson-Sommerfeld quantization rules (Wilson W./Sommerfeld A.)  
Winstein-Holness equation  
Wittig reaction  
Wittig reagent  
Wittig rearrangement  
Wohl degradation  
Wohler urea synthesis  
Wolff rearrangement;  
Wolff-Kishner reduction;  
Woodward's reagent

Woodward-Hoffmann rules  
Wurster's dye  
Wurster's reagent  
Wurtz reaction  
Wurtz-Fittig reaction  
x-ray diffraction (Laue M./Bragg W.L./Bragg W.H.)  
Young (interference of light)  
Young's modulus of elasticity  
Young's modulus of elasticity  
Yukawa-Tsuno equation  
Zeeman displacement  
Zeeman effect  
Zeigler-Natta catalyst  
Zeise's dimer  
Zeise's salt  
Zeleny electroscopes  
Zemplen degradation of sugars  
Zemplen's saponification  
Zimmerli vacuum gauge  
Zimmerman-Traxler transition state  
Zincke reaction  
ZINDO (Zerner-INDO) method  
Zucker-Hammett hypothesis