

Index of Named Things in Chemistry and Physics

© Dr. John Andraos, 2000 - 2011

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 c1000@careerchem.com

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

3D QSAR (quantitative structure-activity relationships) (Marshall, G.R.)
A1 and A2 mechanisms (Ingold, C.K.)
Abbé refractometer
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
Alder rule
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
Bamberger-Goldschmidt synthesis of isoquinolines
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-McCombie 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
Belleau 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.)
Carius tube
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 rearrangement

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 SN2 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

Cori cycle
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
Craig countercurrent extraction
Craig's rotatory evaporator
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 T3 law
debye unit (dipole moment)
Debye-Huckel law

Debye-Waller factor
Delayed excimer fluorescence (Birks, J.B.)
Delepine 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-Chatt-Duncanson model
Dexter excitation transfer
Di-pi-methane rearrangement (Zimmerman H.E.)
Diamagnetism (Faraday M./Weber M.W.)
Diastereomer and enantiomer definitions
Dieckmann condensation
Dieldrin
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 c60 (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 co-ordination 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
Dreschel bottle
Dufon 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)
Edwards equation
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 (aufbau principle) (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 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 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
Fritsch-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-Herkstroeter 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
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
Hershberg stirrer
Hershberg dropping tube
hertz unit (frequency)
Hess' law
Heterogeneous catalysis (Eyring, H./Laidler, K.J.)
Heyns catalyst
Hickman oil diffusion pump
Hill plot
Hinshelwood equation
Hirsch funnel
Hofmann elimination
Hofmann rule
Hofmann-Löffler-Freytag reaction
Hofmann-Martius rearrangement
Hofmeister series
Hofstee plot
Holzman column
Hoogsteen base pairing
Hooke's law
Hooker oxidation
Horner-Emmons reaction
Hosomi-Sukarai reaction
host-guest chemistry (Cram D.J./Lehn J.M./Pedersen C.J.)
Houben-Hoesch reaction
Hubble's law
Huckel $4n + 2$ rule
Huckel 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
Kapustinskii equation
Karl Fischer reagent
Karplus equation
Karstedt catalyst

Kasha's rule
Kasha-Vavilov rule
Keeffe-Jencks 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
Langevin 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
Lewisite
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)
Lorenz-Lorentz formula
Loschmidt number
Lossen rearrangement
Lowdin orthogonalization
Lyman series
Macdonald coupling
Mach angle

Mach number
Madelung constant
Madelung series
Maehr 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
Martynoff 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-Ponndorff-Verley reaction
Meisenheimer complex
Meisenheimer reaction
Meldola's blue
Meldrum's acid
Mendeleev's periodic law
Menshutkin reaction
Merrifield solid phase synthesis
mesomeric (resonance) effect (Lucas H.J./Arndt F./Ingold C.K.)
method of Hanes and Wong
Meuterties rule
Meyer steric hindrance
Meyer-Overton theory, correlation, rule, hypothesis

Meyer-Schuster rearrangement
Meyers aldehyde synthesis
Meyers 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
Mobius 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
Nevile 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 (XePtF₆) (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.)
Nysted 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-Buchi reaction
Patterson functions
Pauli exclusion principle
Pauli principle
Pauling electronegativity scale
Pauson-Khand reaction
Payne's reagent
Pearlman's catalyst
Pearson's HSAB principle
Penning vacuum 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
Petri dish
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
Pockels 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./Snavely, 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.)
Reamur temperature scale
Reaumur unit (temperature)
Redfield sequence
Reformatskii reaction
Reformatskii reagent
Regitz diazo group transfer
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
Rieke zinc
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
Schlenk equilibrium
Schlenk tube

Schlenk-Brauns biradical
Schmidt reaction
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-Hilbert reagent
Shapiro reaction
Sharpless epoxidation
Sharpless-Jacobsen hydroxylation
Sheibley's reagent
Shoolery rule
siemens unit (conductance)
Signer osmometer
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.)
Sprengel vacuum pump
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
Taft equation
Tait free path
tautomerism (Laar C./Butlerov A./Baeyer A./Wislicenus J./Meyer K.H./Knorr 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.)
Tishenko reaction
Tobias acid
Töpler mercury pump
Tollens reagent
Tollens test
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
Wanzlich 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
Wenker synthesis
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
Wigner tunnelling correction
Wigner's rules
Wilkinson's catalyst
Willgerodt reaction
Williams glycinate
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