University of Leeds Classification of Books
Chemistry

[A	**General]**	
A-0.01	Periodicals	
A-0.02	Series	
A-0.03	Collections of essays, Festschriften etc.	
A-0.04	Guides to the literature; bibliographies	*Organic chemistry : see S-0.04*
A-0.05	Laboratory techniques and methods	*See also General Science A-4*
A-0.051	Mathematics and computing for chemistry	*See also Mathematics A-1.2*
A-0.061	History of chemistry: textbooks and collective bibliography	
	No longer used : see History of Science F-6	
A-0.062	History of chemistry: individual chemists	
	No longer used : see History of Science C-9	
A-0.07	Education	
A-0.08	Early textbooks	*No longer used*
A-0.09	Tables and collections of data	
A-0.1	Early analysis textbooks	*No longer used : see B-1*
A-0.19	Handbooks; dictionaries; encyclopaedias	
A-1	General texts	
A-2	Physical chemistry textbooks	
A-2.2	Physical chemistry problems	

[B	**Analysis]**
B-1	General works; textbooks (including purity, trace analysis, microanalysis)
B-1.1	Qualitative analysis
B-1.2	Quantitative analysis
B-2	Volumetric methods
B-3	Thermal methods (including differential thermal analysis)
B-4	Gravimetric methods (including thermogravimetric methods)
B-5	Instrumental methods (including potentiometry, voltammetry, polarography, conductometry, etc.)
B-6	Optical methods (including fluorimetry, turbidimetry, spectrophotometry, refractometry, etc.)
B-7	Chromatography: general texts
B-7.1	Paper & thin-layer
B-7.2	Liquid; gas/liquid
B-7.3	Gas

B-7.4 Gel chromatography

B-7.5 Electrophoresis

B-7.6 Ion-exchange

B-7.7 Affinity chromatography

B-8 Nuclear radiation methods (including activation analysis, isotopic dilution methods, spectrochemical analysis by X-ray fluorescence)
For X- and gamma ray spectroscopy : see D-8

B-9 Specific reagents in analysis

B-10 Analysis of particular substances

Inorganic chemicals : divide like Q, e.g. B-10.65 Nitrogen

Organic chemicals : see S-0.1

[C Theoretical chemistry]

C-0 General works; textbooks (including electronic structure and properties of molecules; mathematical treatments of crystal field theory; theoretical spectroscopy)

C-1 Quantum chemistry and valency theory

C-1.1 Mathematics for quantum chemistry

C-2 Symmetry and group theory

C-3 Rate of reactions and rate processes

C-4 Statistical thermodynamics *See also Physics J-3*

[D Spectroscopy in chemistry]

D-1 General works; textbooks *For theoretical basis see C-0*

See also Physics H-2

D-1.1 Atomic spectroscopy

D-1.2 Molecular spectroscopy

D-2 Nuclear magnetic resonance spectroscopy *See also Physics E-6.1*

D-2.1 Organic applications

D-2.2 Inorganic applications

D-3 Electron spin resonance and electron paramagnetic resonance spectroscopy
see also Physics E-6

D-4 Microwave spectroscopy

D-5 Infrared spectroscopy *See also Physics H-2, H-3*

D-5.1 Organic applications *Structure determination* :. *See S-0.13*

D-5.2 Inorganic applications

D-6 Raman spectroscopy (including laser Raman) *See also Physics H-3*

D-7 Ultraviolet and visible spectroscopy (including fluorescence, phosphorescence)

D-7.1 Organic applications

D-7.2 Inorganic applications *Analytical applications* : *see B-6*

D-8 X and gamma ray spectroscopy (including Mossbauer spectroscopy)

D-8.5 X-ray photoelectron spectroscopy; electron spectroscopy

D-9 Neutron scattering spectroscopy

D-10 Mass spectrometry

D-10.1 Organic applications

D-11 Ion cyclotron resonance spectrometry

D-14 Low energy electron emission spectroscopy

D-15 Tunnelling spectroscopy

[E Properties of matter]

E-0 General

E-10 Gaseous state *See also Physics C-2.3*

E-20 Liquid state *See also Physics C-2.2*

E-23 Liquid crystals *See also General Biology B-3*

E-34 Solid state *See also Physics C-2.1, D-0*

E-34.1 Crystallography, crystals *See also General Biology B-3, Physics D-3*

E-50 Solutions and solvents (including non-aqueous solvents)

E-50.1 Physico-chemical theory of solutions; acids and bases, solution equilibria etc.

E-70 Colloid and surface chemistry (including adsorption, aerosols, surfactants)

Industrial applications : see Chemical Engineering R-3.5

E-80 Polymer and macromolecular science: general works on plastics, resins, polymerisation etc.

[G Chemical kinetics]

G-0 Reaction kinetics

Industrial applications : see Chemical Engineering A-6

G-1 Catalysis

Industrial applications : see Chemical Engineering R-4.49

G-3 Kinetics of polymerisation

[J Chemical thermodynamics]

J-1 Chemical thermodynamics, phase rule, thermochemistry

General thermodynamics : see Physics J-3

Industrial applications : see Chemical Engineering A-4.5

J-2 Thermodynamic properties of substances, fused salts

[K Radiochemistry]

Radioactive elements : see Q-2

Radioactive metals : see Materials D-13.6

Radiological protection : see Physics E-2.5

K-0 General

K-1 Radiation chemistry

K-2 Isotopes and tracer application *See also General Biology D-5, Physics E-4*

L-0 Photochemistry
Including organic photochemistry

N-0 Electrochemistry

[Q Inorganic chemistry]

Q-0.02 General works; textbooks

Q-0.021 Structural inorganic chemistry *Crystallography : see E-34.1*

Q-0.05 Techniques of inorganic chemistry *See also A-0.05*

Q-0.19 Handbooks; treatises

Q-0.2 Miscellaneous reactions and properties

Q-0.8 Coordination chemistry

Q-1 Metals and non-metals

Q-2 Radioactive elements in general *See also Materials D-13.6*

[Q-10 Group 0 *No longer used*]

Q-11 Helium

Q-12 Neon

Q-13 Argon

Q-14 Krypton

Q-15 Xenon

[Q-20 Group I *No longer used*]

Q-21 Hydrogen

Q-22 Lithium *Compounds: see S-9.54*

Q-23 Sodium *Compounds: see S-9.54*

Q-24 Potassium *Compounds: see S-9.54*

Q-25 Rubidium

Q-26 Caesium, Francium

Q-27 Copper *Compounds: see S-9.54*

Q-28 Silver *Compounds: see S-9.54*

Q-29 Gold *Compounds: see S-9.54*

[Q-30 Group II *No longer used]*

Q-31 Calcium

Q-32	Strontium	
Q-33	Barium	
Q-34	Radium	
Q-35	Beryllium	
Q-36	Magnesium	
Q-37	Zinc	*Compounds: see S-9.53*
Q-38	Cadmium	
Q-39	Mercury	
[Q-40	Group III	*No longer used*
Q-41	Scandium	
Q-42	Yttrium	
Q-43	Rare earth elements (Lanthanides)	
Q-44	Actium and actinides	*Protactinium : see Q-64; Thorium : see Q-54*
Q-45	Boron	*Compounds: see S-9.52*
Q-46	Aluminium	*Compounds: see S-9.52*
Q-47	Gallium	
Q-48	Indium	
Q-49	Thallium	
[Q-50	Group IV	*No longer used*
Q-51	Titanium	
Q-52	Zirconium	
Q-53	Hafnium	
Q-54	Thorium	
Q-55	Carbon	
Q-56	Silicon	
Q-57	Germanium	
Q-58	Tin	*Compounds: see S-9.51*
Q-59	Lead	*Compounds: see S-9.51*
[Q-60	Group V	*No longer used]*
Q-61	Vanadium	
Q-62	Niobium	
Q-63	Tantalum	
Q-64	Protactinium	
Q-65	Nitrogen	
Q-66	Phosphorus	
Q-67	Arsenic	
Q-68	Antimony	
Q-69	Bismuth	

[Q-70	Group VI	*No longer used]*
Q-71	Chromium	
Q-72	Molybdenum	
Q-73	Tungsten	
Q-74	Uranium	
Q-75	Oxygen; Air; Water	
Q-76	Sulphur	
Q-77	Selenium	
Q-78	Tellurium	
Q-79	Polonium	
[Q-80	Group VII	*No longer used]*
Q-81	Manganese	
Q-82	Technetium	
Q-83	Rhenium	
Q-84	Neptunium	
Q-85	Fluorine	
Q-86	Chlorine	
Q-87	Bromine	
Q-88	Iodine	
Q-89	Astatine	
[Q-90	Group VIII	*No longer used]*
Q-91	Iron	
Q-92	Cobalt	
Q-93	Nickel	
Q-94	Ruthenium	
Q-95	Rhodium	
Q-96	Palladium	
Q-97	Osmium	
Q-98	Iridium	
Q-99	Platinum	

[S Organic chemistry]

S-0.02 Textbooks; general works

S-0.021 Treatises

S-0.03 Classification and nomenclature

S-0.04 Guides to the literature of organic chemistry; general reference works in organic chemistry

S-0.05 Practical organic chemistry (including safety) *See also A-0.05*

S-0.053 Synthetic methods

S-0.054 Techniques for specific processes

[S-0.06 History and philosophy] *No longer used : see History of Science F-6*

S-0.1 Analysis *See also B*

S-0.11 Qualitative analysis

S-0.12 Quantitative analysis

S-0.13 Structure determination by spectroscopy

Organic applications of spectroscopy generally : see D

S-0.2 Theoretical and physical organic chemistry

S-0.21 Electronic structure and properties of molecules (including valency and bonding, molecular orbital theory, aromaticity, non-benzenoid compounds)

S-0.22 Stereochemistry; conformational analysis; ORD; CD

S-0.23 Theory of organic reactions: general texts

S-0.231 Particular types of reaction mechanisms (including substitution, elimination etc.)

S-0.232 Particular types of processes (including oxidation, catalysis, molecular rearrangement)

S-0.233 Reactive intermediates (including ions, free radicals, carbenes, nitrenes etc.)

S-0.3 Organic chemistry problems

S-0.5 Carbon dioxide

S-1 Hydrocarbons

S-1.1 Aliphatic and alicyclic

S-1.2 Olefins

S-1.3 Acetylenes

S-1.4 Aromatics

S-2 Hydroxy, peroxy compound and ethers

S-2.1 Alcohols

S-2.2 Phenols

S-2.3 Ethers

S-2.4 Peroxides

S-3 Halogen compounds

S-4	Carboxylic acids and their derivatives	
S-5	Carbonyl compounds	
S-5.1	Aldehydes and ketones	
S-5.2	Quinones	
S-6	Nitrogen compounds	
S-6.1	Carbonic acid derivatives (urea, carbamic acids, guanidines etc.)	
S-6.2	Cyanogen and cyanates	
S-6.3	Hydroxylamine and hydrazine derivatives	
S-6.4	Nitro and nitroso compounds	
S-6.5	Amines	
S-6.6	Diazo, azo, azoxy compounds	
S-6.7	Other	
S-7	Sulphur, selenium and tellurium compounds	
S-9	Miscellaneous	
S-9.1	Phosphorous, arsenic, antimony & bismuth compounds	
S-9.4	Silicon compounds	
S-9.5	Organometallic compounds	
S-9.51	Tin and lead	
S-9.52	Boron and aluminium	
S-9.53	Zinc	
S-9.54	Lithium, sodium, potassium, copper, silver, gold	
S-9.55	Other	
S-30	Heterocyclic compounds	
S-30.1	Monocyclic (furans, pyrimidines, thiophenes etc.)	
S-30.2	Polycyclic (purines, indoles, quinolines etc.)	
S-32	Macrocyclic compounds	
S-38	Natural products	*See also Food Science B-4.6, B-6.2*
S-38.1	Amino acids, peptides, proteins	*Peptides ; see also General Biology U-3.1*
S-38.2	Colouring matters	
S-38.22	Carotenoids	*See also General Biology U-3.22*
S-38.23	Anthocyanins	
S-38.24	Pteridines	*See also General Biology U-3.24*
S-38.25	Tannins	*See also General Biology U-3.25*
S-38.3	Alkaloids	*See also General Biology U-3.3*
S-38.4	Purines, nucleic acids, nucleotides & nucleosides	
S-38.5	Carbohydrates	
S-38.51	Monosaccharides (sugars)	
S-38.52	Polysaccharides (including starch)	

S-38.6	Fats, oils, waxes	*See also General Biology U-3.6*
S-38.7	Steroids	*See also General Biology U-3.7*
S-38.8	Terpenes and essential oils	*See also General Biology U-3.8*
S-38.9	Other natural products not in the above	

Y-0 **Industrial chemistry**
Stack only; Chemical Engineering used for new additions

Y-0.02 Texts & catalogues
Y-0.03 Congresses
Y-0.1 Laboratory techniques
Y-0.19 Dictionaries & encyclopaedias
Y-0.2 Formulas
Y-0.3 Handbooks
Y-1 Forensic chemistry
Y-3 Photochemistry
Y-7 Electrochemistry
Y-11 Ceramics, glass, cement
Y-23 Explosives; pyrotechnics
Y-25 Coal tar
Y-26 Combustion
Y-27 Lubricants
Y-29 Cellulose; paper
Y-31 Petroleum & derivatives
Y-33 Dyestuffs
Y-35 Essential oils; perfumes
Y-37 Plastics, paints, inks, coatings
Y-39 Oils, fats, waxes
Y-41 Sugar
Y-43 Adhesives
Y-45 Detergents
Y-47 Rubber
Y-51 Alcohol; Brewing
Y-53 Food; Drugs
Y-99 Miscellaneous

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