Notice to Authors 2003

CHEMISTRY
A EUROPEAN JOURNAL

General Information

Chemistry—A European Journal was founded by the German Chemical Society and VCH. It is now jointly owned by the chemical societies of Austria (GÖCh), Belgium (SRC & KVCV), the Czech Republic (ČSCH), France (SFC), Germany (GDCh), Greece (AGS), Hungary (MKE), Italy (SCI), the Netherlands (KNCV), Poland (PTCh), Portugal (SPQ), Spain (RSEQ), and Sweden (SCS), and is published by WILEY-VCH. The journal has 24 issues per year and contains papers from all fields of chemistry.

Contributions should be in English, but may be accompanied by an abstract in the language of the authors. The correspondence author will receive **page proofs** (in most cases as compressed PDF files). The correspondence author will also receive a complementary copy of the journal and a reprint PDF file, restricted to 25 printouts, free of charge. Manuscripts will be edited with a view to brevity and clarity. Queries regarding manuscripts should be sent to chemistry@wiley-vch.de.

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The authors must inform the editor of manuscripts submitted, soon to be submitted, or in press at other journals that have a bearing on the manuscript being submitted. *Chemistry—A European Journal* does not publish manuscripts that have already appeared in print or electronically.

The Notice to Authors as well as the Conditions for Publication are also available on the WWW on the *Chemistry* home page (http://www.chemeurj.org/).

Categories of Contributions

1. Concepts

The Concepts section contains short articles emphasizing the general concepts that have guided important developments in a specific area and their implications for future research. The reference sections should include the key papers that have contributed to conceptual advances in the field under review, rather than being fully comprehensive. The author should aim to provide the nonspecialist reader with a useful conceptual guide and the expert with a new angle on a familiar problem. Although Concept articles are generally written upon invitation of the editor, unsolicited manuscripts are also welcome. All contributions are subject to peer review.

The Concept articles may be organized as the author wishes, but should include a very short Abstract (400 characters; an additional version in the authors' native language may also be included) that succinctly describes the concepts under discussion. A graphical abstract for the table of contents and keywords should also be provided. Articles should consist of around 10 double-spaced pages of text (including references, tables, and legends). The liberal use of schemes and figures is encouraged.

2. Full Papers

Full papers must either be of current general interest or of great significance to a more specialized readership. All contributions will be judged on the criteria of originality, quality, and novelty. Papers that are suitable for consideration will be sent to a minimum of two referees. Based on the referees' recommendations, the Editor will make a decision on whether to accept a contribution. Manuscripts may not have been published previously, except in the form of a preliminary communication (reprint requested).

Chemistry does not publish full papers that consist mainly of results reported in a previous communication with an added experimental section.

3. Correspondence

Comments on publications in *Chemistry—A European Journal* are welcome if they contribute to the scientific discussion.

Manuscript and Disk Preparation

A *disk* (MS DOS or Macintosh format) should be submitted with the final accepted version of the manuscript; the text should be saved as a single file, graphics should be sent on a separate disk (further details will be provided on acceptance of the manuscript). Not all graphics programs are suitable for use by our printer; please consult the *Chemistry* Checklist (printed immediately after the Notice to Authors or available as a PDF file on http://www.chemeurj.org). If possible, the standard Symbol font should be used to create Greek letters, rather than special characters or graphics embedded in the text. Use a tabulator to indicate new paragraphs. If you use LaTeX, please send standard LaTeX files only; please do not include your own style sheets or macros.

Organization of Full Papers

We can process your manuscript faster if you lay it out as described below.

Title page: Title; authors' names with academic titles, an asterisk denotes the correspondence author; affiliations of all the authors, including the full postal address, fax number, and e-mail address of the correspondence author; series title, number, and reference to previous paper in the series, if applicable; dedication, if applicable.

Abstract should be brief (600–2000 characters) and not too technical. An additional version of the abstract in the authors'

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native language may also be supplied. When written in a non-Roman alphabet, this must be in camera-ready form: the text must fit into a single column 8.5 cm wide; type size, 2 mm (7 point); about 4 mm between lines (single-spaced).

Keywords: A maximum of five keywords to appear in the printed and online indexes should be given in alphabetical order. At least two keywords from the core keyword list, which is also available on the WWW (see section on Keywords at the end of the Notice to Authors), should be included to aid online searching.

Introduction should include relevant references.

Results and Discussion may be combined or kept separate and may be further divided by subheadings. This section should not be cluttered with technical details. Abbreviations and acronyms should be used sparingly and consistently. Where they first appear in the text, they should—apart from the most common ones such as NMR, IR, and UV—be defined; you may prefer to explain large numbers of abbreviations and acronyms in a footnote on the first page.

Experimental Section should be given in sufficient detail to enable others to repeat your work. In theoretical papers, technical details such as computational methods should likewise be confined to an appropriately named section.

In so far as practical, authors should use a systematic name (IUPAC or Chemical Abstracts) for each title compound in the Experimental Section. Please do not use computer programs to generate elaborate systematical names or use long multi-line compound names; for the sake of clarity general descriptors such as compound **2**, dendrimer **3**, or alcohol **4** should be used.

Equipment and conditions used for the measurement of physical data should be described at the beginning of the Experimental Section. Quantities of reactants, solvents etc. should be included in parentheses rather than in the running text (e.g., triphenylstannyl chloride (0.964 g, 2.5 mmol) in toluene (20 mL)). Physical data should be quoted with decimal points and negative exponents (e.g., 25.8 $\mathrm{J\,K^{-1}\,mol^{-1}}$). The purity of all new compounds should be verified by elemental analysis, to an accuracy of within ±0.4%. In special cases, for instance, when the compound is unstable or not available in sufficient quantities for complete analysis, the exact relative molecular mass obtained from a high-resolution mass spectrum and a clean ^{13}C NMR spectrum (as additional material for inspection by the referees) should be supplied.

Detailed presentation of physical data: $R_f = 0.38$ ($CHCl_3$/MeOH 9:1); m.p. 20 °C; $[\alpha]^{20}_{D} = -13.5$ ($c = 0.2$ in acetone); ^{1}H NMR (200 MHz, [D$_8$]THF, 25 °C, TMS): $\delta = 1.3$ (q, ^3J(H,H) = 8 Hz, 2H; CH_2), 0.9 (t, ^3J(H,H) = 8 Hz, 3H; CH_3); IR (Nujol): $\tilde{\nu} = 1790\ \mathrm{cm^{-1}}$ (C=O); UV/Vis (n-hexane): λ_{max} (ε) = 320 (5000), 270 nm (12000 $\mathrm{mol^{-1}\,dm^3\,cm^{-1}}$); MS (70 eV, EI): m/z (%): 108 (20) [$M^+ - \mathrm{H}$], 91 (100) [$C_7H_7^+$]; elemental analysis calcd (%) for $C_{12}H_{11}AsOS$ (278.2): C 51.85, H 3.99, As 26.93, S 11.53; found: C 51.59, H 3.96, As 27.07, S 11.39.

Acknowledgments

References: In the text the numbers should be typed in square brackets as superscripts (e.g., Wittig[3]) and, if applicable, after punctuation. If you use the automatic reference collation system of your word-processing program, please convert the references into text before submitting the disk; otherwise they may disappear when typeset. Journal titles should be abbreviated according to the Chemical Abstracts Service Source Index (CASSI). Please follow the examples below.

Journals: [1] a) B. M. Trost, *Chem. Eur. J.* **1998**, *4*, 2405–2412; b) H. J. Ache, *Angew. Chem.* **1989**, *101*, 1–21; *Angew. Chem. Int. Ed. Engl.* **1989**, *28*, 1–20; c) H. Frey, *Angew. Chem.* **1998**, *110*, 2313–2318; *Angew. Chem. Int. Ed.* **1998**, *37*, 2193–2197.
[2] a) A. Kraft, *Chem. Commun.* **1996**, 77–79, and references therein; b) *Sci. Am.* **1984**, *250*(4), 7–8; c) B. Krebs, H. U. Hürter, *Acta Crystallogr. Sect. A* **1981**, *37*, 163.

Books: Without editor: [3] E. Wingender, *Gene Regulation in Eukaryotes*, VCH, Weinheim, **1993**, p. 215. With editor: [4] T. D. Tullius in *Comprehensive Supramolecular Chemistry, Vol. 5* (Eds.: J. L. Atwood, J. E. D. Davies, D. D. MacNicol, F. Vögtle, K. S. Suslick), Pergamon, Oxford, **1996**, pp. 317–343.

Miscellaneous: [5] a) C. R. A. Botta (Bayer AG), DE-B 2235093, **1973** [*Chem. Abstr.* **1974**, *80*, 55356c]; b) A. Student, PhD thesis, University of Newcastle (UK), **1991**; c) G. Maas, *Methoden Org. Chem. (Houben-Weyl) 4th ed. 1952*, Vol. E21/1, pp. 379–397; d) "Synthesis in Biochemistry": R. Robinson, *J. Chem. Soc.* **1936**, 1079; e) S. Novick, "Biography of Rotational Spectra for Weakly Bound Complexes", to be found under http://www.wesleyan.edu/chem.bios/vdw.html, **1999**; f) G. M. Sheldrick, SHELXS-96, Program for the Solution of Crystal Structures, University of Göttingen, Göttingen (Germany), **1996**.

Legends: Each figure and scheme should have a legend; these should be listed together at the end of the reference section of the text file rather than being included with the drawings in the graphics files.

Tables must have a brief title and should only be subdivided by three horizontal lines (head rule, neck rule, foot rule). Footnotes in tables are denoted [a], [b], [c], etc.

Illustrations (structural formulas, figures, schemes) must be submitted camera-ready on separate sheets and on disk and should, if possible, be designed for reduction to a one-column format (8.5 cm wide). The maximum width is the two-column format (17.5 cm wide). For optimum reproduction, illustrations should be larger than the desired final size. We recommend: font for script, Helvetica; size of lettering, 3–3.5 mm; total maximum width, 14 cm (or 28 cm for two-column width) for 60% reduction.

Italicize symbols of physical quantities, but not their units (e.g., *T* for temperature, in contrast to T for the unit Tesla, but K as unit; *J*, but Hz; *a*, but nm), stereochemical information (*cis*, *Z*, *R*, etc.), locants (*N*-methyl, *α*-amino) and symmetry (C_{2v}). Chemical formulas should be numbered with boldface Arabic numerals (e.g., **1**). Labels of axes are to be separated from their units by a slash (e.g., *T*/K). Abbreviations such as Me, Et, *n*Bu, *i*Pr, *s*Bu, *t*Bu and Ph (not ϕ) may be used in formulas. General substituents should be indicated by R^1, R^2 (not R_2, which means 2R) or R, R′ (not R'). The spatial arrangement of the substituents should be indicated by hatched lines (||||) and a wedge. A minus sign must be as long as the crossbar of a plus sign.

Part of the additional cost for the reproduction of color figures must be paid by the author (details will be provided after acceptance of the manuscript). Good prints should be submitted for the referees and editors; for reproduction, originals should be provided as slides or on disk (please contact the editorial office for details on the latter option; data transmission by e-mail is very costly and should be avoided if possible).

Cover picture/frontispiece: We encourage authors to submit pictures for the cover page and for frontispieces.

Graphical Abstract: A short text for the table of contents should be included as the last page and saved as part of the main text. It should tempt browsers to read the article, and so need not summarize the entire paper. Graphics (formulas, part of a figure) should be kept small.

Crystal Structure Analysis

If a crystal structure analysis is not an essential part of the paper, only a footnote is required indicating where the detailed results can be found. Otherwise, the following data should be given in the manuscript: crystal dimensions, crystal system, space group, unit cell dimensions and volume, ρ_{calcd}, $2\theta_{max}$, radiation, wavelength, scan mode, temperature of measurement, no. of measured and independent reflections, no. of reflections included in refinement, σ limits, whether and how Lorentzian polarization and absorption corrections were performed (μ, min/max transmission), method of structure solution and program, method of refinement and program, no. of parameters, treatment of H atoms. R, wR, whether refined against $|F|$ or $|F^2|$, residual electron density. An ORTEP-type plot will not be reproduced when it merely serves to confirm the structure of a synthetic intermediate.

Authors should deposit their data before submitting their manuscripts or update data already available, so that referees can retrieve the information directly from the database.

For organic and organometallic compounds: send your data (**without** structure factors) to the Cambridge Crystallographic Data Centre as an ASCII file by e-mail or as a hard copy (CCDC, 12 Union Road, Cambridge CB2 1EZ (UK); tel: (+44) 1223-336-408; fax: (+44) 1223-336-033; e-mail: deposit@ccdc.cam.ac.uk; WWW: http://www.ccdc.cam.ac.uk). The data will be assigned a registry number, which should be included with the following standard text in the manuscript: "CCDC-... contain(s) the supplementary crystallographic data for this paper. These data can be obtained free of charge via www.ccdc.cam.ac.uk/conts/retrieving.html (or from the Cambridge Crystallographic Data Centre, 12 Union Road, Cambridge CB2 1EZ, UK; fax: (+44) 1223-336-033; or e-mail: deposit@ccdc.cam.ac.uk)."

For inorganic compounds: The Fachinformationszentrum Karlsruhe only accepts data deposited in electronic form. Send the data by e-mail, on disk, or by FTP (in the last case, contact FIZ beforehand) to FIZ, 76344 Eggenstein-Leopoldshafen (Germany); tel: (+49) 7247-808-205; fax: (+49) 7247-808-666; e-mail: crysdata@fiz-karlsruhe.de; FTP: ftp.fiz-karlsruhe.de (path: /pub/csd); WWW: http://crystal.fiz-karlsruhe.de under "Products and Services". You will be given a CSD number, which should be included with the following standard text in the manuscript: "Further details of the crystal structure investigation(s) can be obtained from the Fachinformationszentrum Karlsruhe, 76344 Eggenstein-Leopoldshafen, Germany, (fax: (+49) 7247-808-666; e-mail: crysdata@fiz.karlsruhe.de) on quoting the depository number CSD-. . ."

Supporting Information

Supporting information may be included for deposition on the WWW; the author must keep a copy to make available to readers who do not have access to the WWW. This material undergoes the peer review process and must therefore be included as hard copies with the original submission. Succinct text and the necessary graphics should then be sent as a single MS Word (preferably Word 7)/MS Word for Macintosh file with the revised version on a separate disk marked "supporting information for" + MS number + correspondence author name. In this case only, graphics should be present as imports in the file and not as separate files to which the document refers. Supporting Information should **not include** crystallographic data that are available from CCDC or FIZ.

Basic Keyword List

An interjournal browsing facility has been developed for the readers of the Wiley-VCH journals *Advanced Synthesis & Catalysis*, *Angewandte Chemie International Edition*, *Chemistry—A European Journal*, *European Journal of Inorganic Chemistry*, *European Journal of Organic Chemistry*, *Journal für praktische Chemie* and *Zeitschrift für anorganische und allgemeine Chemie*: in the Internet you will be able to jump between lists of thematically related contributions by mouse click.

To be able to offer this option on the WWW we have compiled a common keyword catalogue that is printed here and is also available online (see http://www.chemeurj.org/). To assist you in finding keywords, they are listed according to category. As with all such records, a few guidelines facilitate its use, and these are briefly explained below:

1. At least two of the maximum of five keywords assigned to an article must come from this list.
2. Named reactions will be incorporated only in exceptional cases. Generally the reaction type is selected instead. For example, Diels–Alder reactions will be found under "cycloadditions" and Claisen rearrangements under "rearrangements".
3. Heteroanalogues of compounds are mainly classified under the C variants, for example, (hetero)cumulenes, (hetero)dienes. A few aza and phospha derivatives are exceptions.
4. Compounds with inorganic components that are central to the article are listed under the element, for instance, iron complexes under "iron" and the type of ligand. Some group names like "alkali metals" exist alongside the names of important members of the group like "lithium". In such cases the group name is used for these members only when comparative studies are described. The members not appearing separately are also categorized under the group name.
5. A keyword in the form "N ligand" is only chosen if a considerable portion of the paper deals with the coordination of any ligand ligating through the atom concerned (in the example, nitrogen).
6. Spectroscopic methods are assigned as keywords only if the article is about the method itself or if the spectroscopic technique has made an important contribution to the problem under investigation.
7. "Structure elucidation" is intended only if the crux of the paper is a structural elucidation or if a combination of several spectroscopic techniques were needed for conclusive solution of the structure.
8. An attempt has been made to avoid synonyms and to select more general concepts rather than specialized terms. Thus the term "double-decker complexes" is excluded in favor of "sandwich complexes". See also points 2. and 3. in these guidelines.
9. Enzymes should be assigned to one of the six main enzyme classes.

This list will be a "living" catalogue to be flexible enough to absorb the new developments in chemistry. We therefore welcome all suggestions from our readers and authors that might improve its user-friendliness. The current version may be found in the World Wide Web under the following address: http://www.wiley-vch.de/vch/journals/keyword.php

Analytical Chemistry and Spectroscopic Methods

Analytical methods
Circular dichroism
Cyclic voltammetry
Electron diffraction
Electron microscopy
Electrophoresis
ENDOR spectroscopy
EPR spectroscopy
EXAFS spectroscopy
Fluorescence spectroscopy
Gas chromatography
High-throughput screening
Ion chromatography
Ion exchange
IR spectroscopy
Isotopic labeling
Laser spectroscopy
Liquid chromatography
Luminescence
Mass spectrometry
Moessbauer spectroscopy
Neutron diffraction
NMR spectroscopy
Photoelectron spectroscopy
Plasma chemistry
Raman spectroscopy
Rotational spectroscopy
Scanning probe microscopy
Sensors
Surface analysis
Surface plasmon resonance
Trace analysis
UV/Vis spectroscopy
Vibrational spectroscopy
X-ray absorption spectroscopy
X-ray diffraction
ZEKE spectroscopy

Biological Chemistry and Chemical Biology (including Biochemistry, Bioorganic Chemistry, Bioinorganic Chemistry, Medicinal Chemistry, and Molecular and Cell Biology)

Allosterism
Amino acids
Angiogenesis
Antibiotics
Antibodies
Antifungal agents
Antigens
Antisense agents
Antitumor agents
Antiviral agents
Azapeptides
Azasugars
Bioinformatics
Bioinorganic chemistry
Biomimetic synthesis
Bioorganic chemistry
Biosensors
Biosynthesis
Biotransformations
C-glycosides

Carbohydrates
Carbon dioxide fixation
Carotenoids
Cell adhesion
Cell recognition
Cerebrosides
Chaperone proteins
Cobalamines
Cofactors
Combinatorial chemistry
Cyclitols
Cyclodextrins
Cytokines
DNA
DNA cleavage
DNA damage
DNA methylation
DNA recognition
DNA replication
DNA structures
Dopamines
Drug delivery
Drug design
Electron transport
Enzyme models
Enzymes
Fibrous proteins
Fluorescent probes
Gene expression
Gene sequencing
Gene technology
Genomics
Glycoconjugates
Glycolipids
Glycopeptides
Glycoproteins
Glycosides
Glycosylation
Growth factors
Helical structures
Heme proteins
Hormones
Hydrolases
Immobilization
Immunoassays
Immunochemistry
Immunology
Inhibitors
Ion channels
Ionophores
Isomerases
Ligases
Lipids
Lipophilicity
Lipoproteins
Liposomes
Lyases
Medicinal chemistry
Membrane proteins
Membranes
Metabolism
Metalloenzymes
Metalloproteins
Micelles
Molecular evolution
mRNA
Mutagenesis
Natural products
Neurochemistry
Neurotransmitters
Nitrogen fixation
Nitrogenases
Nucleic acids
Nucleobases
Nucleosides
Nucleotides
Oligonucleotides
Oligosaccharides
Oxidoreductases
Peptide nucleic acids
Peptides
Peptidomimetics
Pheromones
Phospholipids
Photoaffinity labeling
Photosynthesis
Phytochemistry
Polyketides
Polymerase chain reaction
Prostaglandins
Protein design
Protein engineering
Protein folding
Protein models
Protein modifications
Protein structures
Proteins
Proteomics
Proton transport
Radiopharmaceuticals
Receptors
Redox chemistry
Ribonucleosides
Ribozymes
RNA
RNA recognition
RNA structures
Sensitizers
Sequence determination
Sialic acids
Siderophores
Signal transduction
Sphingolipids
Steroids
Structure – activity relationships
Terpenoids
Toxicology
Transferases
tRNA
Vesicles
Vitamins

Catalysis

Asymmetric catalysis
Autocatalysis
Biphasic catalysis
Catalytic antibodies
Enzyme catalysis
Heterogeneous catalysis
Homogeneous catalysis
Phase-transfer catalysis
Supported catalysts

Coordination Chemistry: Compound Classes

Cage compounds
Chelates
Clathrates
Cluster compounds
Cuprates
Dendrimers
Heterometallic complexes
Metallacycles
Metallocenes
Nitrogen oxides
Polyoxometalates
Sandwich complexes
Ylides

Coordination Chemistry: Ligand Classes

Alkene ligands
Alkyne ligands
Allyl ligands
Arene ligands
As ligands
Bridging ligands
Carbene ligands
Carbonyl ligands
Carboxylate ligands
Carbyne ligands
Cyclopentadienyl ligands
Diene ligands
Dioxygen ligands
Fluorinated ligands
Hydride ligands
Isocyanide ligands
Macrocyclic ligands
N ligands
N,O ligands
N,P ligands
O ligands
Oxo ligands
Peroxo ligands
Phosphane ligands
P ligands
Si ligands
S ligands
Tridentate ligands
Tripodal ligands
Vinylidene ligands

Coordination Chemistry: Methodology and Reactions

Carbon dioxide fixation
Chemical vapor deposition
Chiral resolution
Crystal engineering
Ligand design
Matrix isolation
Metathesis
Neighboring-group effects
Nitrogen fixation
O-O activation
Oxidation
Radical reactions
Reduction
Ring-opening polymerization
Solvent effects
Solvolysis
Substituent effects
Template synthesis

Coordination Chemistry: Structure

- Agostic interactions
- Aurophilicity
- Charge transfer
- Cooperative effects
- Coordination modes
- Donor – acceptor systems
- Electron-deficient compounds
- Electronic structure
- Electrostatic interactions
- Fluxionality
- Helical structures
- Host-guest systems
- Hydrogen bonds
- Inclusion compounds
- Isolobal relationship
- Jahn-Teller distortion
- Ligand effects
- Metal – metal interactions
- Multiple bonds
- Noncovalent interactions
- Pi interactions
- Stacking interactions
- Structure elucidation
- Through-bond interactions
- Through-space interactions

Elements and Element Groups

- Actinides
- Alkali metals
- Alkaline earth metals
- Aluminum
- Antimony
- Argon
- Arsenic
- Barium
- Beryllium
- Bismuth
- Boron
- Bromine
- Cadmium
- Calcium
- Carbon
- Cerium
- Cesium
- Chalcogens
- Chlorine
- Chromium
- Cobalt
- Copper
- Deuterium
- Fluorine
- Gallium
- Germanium
- Gold
- Group 13 elements
- Group 14 elements
- Hafnium
- Halogens
- Helium
- Hydrogen
- Indium
- Iodine
- Iridium
- Iron
- Krypton
- Lanthanides
- Lanthanum
- Lead
- Lithium
- Magnesium
- Manganese
- Mercury
- Molybdenum
- Neon
- Nickel
- Niobium
- Nitrogen
- Noble gases
- Osmium
- Oxygen
- Palladium
- Phosphorus
- Platinum
- Pnicogens
- Potassium
- Rhenium
- Rhodium
- Rubidium
- Ruthenium
- Samarium
- Scandium
- Selenium
- Silicon
- Silver
- Sodium
- Strontium
- Sulfur
- Tantalum
- Technetium
- Tellurium
- Thallium
- Tin
- Titanium
- Tungsten
- Uranium
- Vanadium
- Xenon
- Ytterbium
- Yttrium
- Zinc
- Zirconium

Environmental and Atmospheric Chemistry

- Anions
- Atmospheric chemistry
- Cations
- Chlorine
- Computer chemistry
- Cycloaddition
- Denitrification
- Desulfurization
- Environmental chemistry
- Fluorine
- Gas-phase reactions
- Green chemistry
- Halogenation
- Kinetics
- Molecular dynamics
- Molecular modeling
- Nitrogen oxides
- Oxidation
- Ozone
- Peroxides
- Photochemistry
- Photolysis
- Photooxidation
- Radical ions
- Radical reactions
- Radicals
- Reaction mechanisms
- Reactive intermediates
- Sensors
- Toxicology
- Trace analysis
- Waste prevention
- Water chemistry

Inorganic Chemistry

- Alanes
- Allotropy
- Alloys
- Aluminosilicates
- Amalgams
- Amorphous materials
- Anions
- Automerization
- Autoxidation
- Azides
- Bond theory
- Boranes
- Borates
- Carbene homologues
- Carbides
- Carboranes
- Cations
- Chain structures
- Chromates
- Clathrates
- Cluster compounds
- Cyanides
- Electron-deficient compounds
- Fluorides
- Halides
- High-pressure chemistry
- Host – guest systems
- Hydrates
- Hydrides
- Hydrothermal synthesis
- Hypervalent compounds
- Inclusion compounds
- Intercalations
- Intermetallic phases
- Isoelectronic analogues
- Isomers
- Layered compounds
- Lewis acids
- Lewis bases
- Main group elements
- Metal – metal interactions
- Mixed-valent compounds
- Nitrides
- Nonstoichiometric compounds
- Organic – inorganic hybrid composites
- Perovskite phases
- Peroxides
- Phosphaalkenes
- Phosphaalkynes
- Phosphanes
- Phosphazenes
- Platinates
- Pnictides
- Polyanions
- Polycations
- Polychalcogenides
- Polyhalides
- Polymorphism
- Polyoxometalates
- Radical ions
- Radicals

Silanes
Silicates
Sol–gel processes
Solid-phase synthesis
Solid-state reactions
Solid-state structures

Spinel phases
Stannanes
Subvalent compounds
Synthesis design
Titanates

Topochemistry
Transition metals
Transuranium elements
Valence isomerization
Vanadates

Zeolite analogues
Zeolites
Zincates
Zintl anions
Zintl phases

Materials Science: General

Alloys
Amorphous materials
Automerization
Block copolymers
Ceramics
Charge carrier injection
Chemical vapor deposition
Chemical vapor transport
Clays
Cluster compounds
Colloids
Conducting materials
Copolymerization
Crystal engineering
Crystal growth

Cyclooligomerization
Cyclotrimerization
Dendrimers
Energy conversion
Fullerenes
Gels
Glasses
Holography
Imprinting
Intercalations
Interfaces
Intermetallic phases
Ladder polymers
Layered compounds

Liquid crystals
Materials science
Mechanical properties
Membranes
Mesophases
Mesoporous materials
Metal–metal interactions
Metallomesogens
Micelles
Microporous materials
Monolayers
Nanostructures
Nanotechnology
Nanotubes

Nonlinear optics
Polymerization
Polymers
Ring-opening polymerization
Scanning probe microscopy
Semiconductors
Sensitizers
Sensors
Superconductors
Surface chemistry
Thin films
Vesicles
Zeolite analogues
Zeolites

Miscellaneous

History of Science

Organic Chemistry: Compound Classes

Alcohols
Aldehydes
Alkaloids
Alkanes
Alkenes
Alkynes
Allenes
Allylic compounds
Amides
Amines
Amino acids
Amino alcohols
Amino aldehydes
Amphiphiles
Anhydrides
Anions
Annulenes
Arenes
Arynes
Azides
Azo compounds
Azomethine ylides
Betaines

Biaryls
Calixarenes
Carbanions
Carbenes
Carbenoids
Carbocations
Carbocycles
Carbohydrates
Carboxylic acids
Carotenoids
Catenanes
Cations
Cavitands
Crown compounds
Cryptands
Cumulenes
Cyanides
Cyanines
Cyclodextrins
Cyclophanes
Dendrimers
Diazo compounds
Dyes/Pigments

Enols
Enones
Enynes
Fatty acids
Fragrances
Fullerenes
Fused-ring systems
Heterocycles
Hydrazones
Hydrides
Hydrocarbons
Ketones
Lactams
Lactones
Ladder polymers
Macrocycles
Mannich bases
Medium-ring compounds
Metallacycles
Natural products
Nitrogen heterocycles
Oxygen heterocycles
Peroxides

Pheromones
Phosphorus heterocycles
Phthalocyanines
Polycycles
Polymethines
Porphyrinoids
Quinodimethanes
Quinones
Radical ions
Radicals
Rotaxanes
Schiff bases
Small ring systems
Spiro compounds
Steroids
Sulfonamides
Sulfur heterocycles
Surfactants
Terpenoids
Ylides
Zwitterions

Organic Chemistry: Methodology and Reactions

Acylation
Aldol reaction
Alkylation
Allylation
Amination

Annulation
Aromatic substitution
Aromaticity
Asymmetric amplification
Asymmetric catalysis

Asymmetric synthesis
Automerization
Autoxidation
Biomimetic synthesis
C–C activation

C–C coupling
C–H activation
C1 building blocks
Carbonylation
Carboxylation

Chiral auxiliaries
Chiral pool
Cleavage reactions
Combinatorial chemistry
Cracking
Cross-coupling
Cyclization
Cycloaddition
Cyclotrimerization
Dehydrogenation
Dihydroxylation
Dimerization
Domino reactions
Electrocyclic reactions
Electrophilic addition
Electrophilic substitution
Elimination
Ene reaction
Epoxidation
Flash pyrolysis
Glycosylation
Grignard reaction
Halogenation
Heck reaction
High-pressure chemistry
Hydroamination
Hydroboration
Hydroformylation
Hydrogen transfer
Hydrogenation
Hydrolysis
Hydrosilylation
Hydrostannation
Hydroxylation
Immobilization
Insertion
Ionic liquids
Isomerization
Lithiation
Metalation
Michael addition
Molecular diversity
Multicomponent reactions
Nucleophilic addition
Nucleophilic substitution
Olefination
Oligomerization
Oxidation
Oxygenation
Ozonolysis
Perfluorinated solvents
Pericyclic reaction
Phosphorylation
Photooxidation
Polymerization
Protecting groups
Protonation
Radical reactions
Rearrangement
Reduction
Regioselectivity
Retro reactions
Ring contraction
Ring expansion
Sigmatropic rearrangement
Solid-phase synthesis
Solvent effects
Solvolysis
Steric hindrance
Substituent effects
Synthesis design
Synthetic methods
Template synthesis
Topochemistry
Total synthesis
Transesterification
Umpolung
Wittig reactions

Organic Chemistry: Stereochemistry and Structures

Atropisomerism
Chemoselectivity
Chiral resolution
Chirality
Configuration determination
Conformation analysis
Conjugation
Diastereoselectivity
Enantioselectivity
Hyperconjugation
Kinetic resolution
Strained molecules
Structure elucidation
Tautomerism
Valence isomerization

Physical Chemistry and Chemical Physics (including Electrochemistry, Kinetics, Photochemistry, Radiochemistry, Thermodynamics and Theoretical Chemistry)

Ab initio calculations
Absorption
Acidity
Adsorption
Basicity
Bond energy
Bond theory
Calorimetry
CARS (Coherent Anti-Stokes Raman Scattering)
Charge carrier injection
Chemisorption
Chromophores
Colloids
Computer chemistry
Conducting materials
Conical intersections
Crystal engineering
Crystal growth
Cyclic voltammetry
Density functional calculations
Donor – acceptor systems
Electrochemistry
Electron microscopy
Electron transfer
ELF (Electron Localization Function)
Energy conversion
Femtochemistry
Fluorescence
Fluorescent probes
Fractals
FRET (fluorescence resonant energy transfer)
Gas-phase reactions
Gels
Glasses
Heats of formation
High-pressure chemistry
High-temperature chemistry
Hot-atom chemistry
Hydrophobic effect
Imaging agents
Ion pairs
Ion-molecule reactions
Ionization potentials
Isotope effects
Isotopes
Kinetics
Laser chemistry
Lewis acids
Lewis bases
Linear free energy relationships
Liquid crystals
Liquids
Magnetic properties (including magnetochemistry)
Matrix isolation
Mesophases
Metallomesogens
Metastable compounds
Microreactors
Molecular dynamics
Molecular modeling
Monolayers
Nanotechnology
Neighboring-group effects
Phase diagrams
Phase transitions
Photochemistry
Photochromism
Photolysis
Physisorption
Plasma chemistry
Radiochemistry
Radiopharmaceuticals
Reaction mechanisms
Reactive intermediates
Redox chemistry
Salt effect
Semiempirical calculations
Single-molecule studies
Singlet oxygen
Sol – gel processes
Solvatochromism
Spin crossover
Statistical mechanics
Statistical thermodynamics
Structure – activity relationships
Superacidic systems
Supercritical fluids
Thermochemistry
Thermodynamics
Time-resolved spectroscopy
Transition states
Voltammetry

Supramolecular Chemistry

Aggregation
Host – guest systems
Molecular devices
Molecular evolution
Molecular recognition
Nanostructures
Pi interactions
Receptors
Self-assembly
Supramolecular chemistry