Detailed information on the "Russian Chemical Bulletin," the contents of the issues with text and graphical abstracts, as well as the annual subject and author indices and instructions for authors with appendices (in the MS Word and PDF format) are available through the Internet at ***http://russchembull.ru*** *(from 2004),* ***http://rcb.ioc.ac.ru*** *(1993—2003).*

Instructions for Authors

1. General information

1.1. The *Russian Chemical Bulletin* publishes papers containing the results of original studies as **Full Papers, Brief Communications, or Letters to the Editor**. The journal also publishes **Analytical Reviews** (including **author´s reviews and prognostic reviews**)* dealing with topical problems of chemical science as well as information communications. The journal publishes studies in **all fields of chemical science** including general and inorganic chemistry, physical chemistry and chemical physics, organic chemistry, organometallic and coordination chemistry, and chemistry of natural compounds, bioorganic and biomolecular chemistry, chemistry of polymers.** In addition, papers on supramolecular chemistry, nanochemistry, materials chemistry, and other interdisciplinary studies are also accepted. The journal does not publish papers dealing with highly specialized or purely applied subjects.

Papers containing material published or submitted for publication in other journals are not accepted.

1.2. **Author´s analytical reviews** are survey papers covering studies mostly carried out by the author or a group of authors and devoted to a common topic.*** **Prognostic and analytical reviews** should provide a critical analysis of the state-of-the-art and the prospects for the development of topical lines in the chemical sciences.

Full Papers of any size are accepted. The size of a **Brief Communication** should not exceed eight typewritten pages (three figures are taken as one page). **Letters to the Editor** should briefly present fundamentally important scientific results requiring rapid publication. A **Letter to the Editor** should not exceed in size four typewritten pages. The Editors reserve the right to edit and abridge papers irrespective of their size.

1.3. Communications on the activity of Divisions of the Academy of Sciences and chemical institutes, announcements and accounts of conferences in chemistry, information on national and international foundations supporting basic research, on scientific and engineering programs, on competitions and prizes in chemistry, and on international cooperation in the field of chemistry appear in the **Information** section. Papers dealing with the search, processing, and presentation of chemical information in electronic form (chemical informatics) and with the description of new chemical computer programs and various projects related to the use of information technologies in chemistry are also covered by this section.

1.4. The journal publishes papers regardless of the country of origin of the author and affiliation.

1.5. **For publication**, authors are requested to submit the following **materials** and **documents** to the editorial office:*

(1) a cover letter (one copy);

(2) the manuscript signed by each author, which should include an abstract, figures and figure captions, and tables (all in duplicate) (see clauses 2.1, 2.2 and Appendix 1);

(3) a structured list of key words for the subject index (in duplicate, see clause 2.3 and Appendix 2);

(4) a graphical abstract (in duplicate, see clause 2.4 and Appendix 3);

(5) a running title in duplicate (see clause 2.5 and Appendix 4);

* An analytical review is a generalizing paper devoted to the analysis of topical problems in which published data are used to illustrate one or another statement. Exhaustive reviews of enumerative character are not accepted for publication.

** The journal publishes papers devoted to structure determination, synthesis, and study of the properties of both natural products and their analogs as well as papers in which chemical approaches are employed to study biomacromolecules (nucleic acids, proteins, *etc.*), biological objects, and processes.

*** To evaluate the contribution of the authorrs research to the given field of chemistry, authors are advised not to restrict themselves to citing their own works.

* This can be done by e-mail: incoming@ioc.ac.ru.

Published in Russian in *Izvestiya Akademii Nauk. Seriya Khimicheskaya,* No. 1, pp. 295—308, January, 2010.

1066-5285/10/5901-0304

(6) computer files for all the materials submitted on a floppy disk, a flash drive, or by e-mail (see Appendices 5 and 6);
(7) information on the authors including positions, academic degrees and academic status, postal addresses, telephone numbers, fax, and E-mail addresses with indication of the author to whom correspondence should be addressed;
(8) the copyright transfer form signed by each author (see Appendix 7).

1.6. The receipt of a contribution for consideration including the date and the registration number of the paper will be acknowledged within a week after the manuscript has arrived at the editorial office.*

1.7. The paper should be concisely written, complete and self-contained, and edited.** The authors should not divide artificially the material for a single paper (dealing with a common topic) into several smaller publications or duplicate the same data in tables, schemes, and figures.

1.8. The authors are fully responsible for the validity of experimental data presented in the paper.

1.9. Papers submitted to the editorial office are refereed and edited.

1.10. A manuscript sent to the authors for revision should be returned in the revised form (in duplicate) **together with the original version** as quickly as possible. **A letter from the authors** containing answers to **all** the critical remarks and comments and explaining **all** the changes made in the manuscript should be enclosed in the revised version. The revised version as a computer file should be enclosed. **Manuscripts retained for revision for more than two months or those requiring yet another revision will be considered as newly arrived**.

The date the manuscript was **first received** at the editorial office and the date it was accepted for publication **after revision** are both indicated in the publication.

1.11. If required, the edited manuscript before typesetting, the proof, and/or the camera-ready-copy are sent to the authors for checking before publication. **No alterations or additions in the proof and/or camera-ready-copy are allowed**. If the author has not signed the proof for printing by the date specified in the accompanying letter, for reasons independent of the editors, the editors **reserve the right to sign the proof for printing**.

1.12. Ten reprints of the published papers from the Russian and English versions each and (on request) the corresponding PDF files are given to the authors free of charge.

2. The structure of publications

2.1. **Reviews**, **Full Papers**, and **Brief Communications** appear in the journal beginning with the title of the paper, names and addresses of the authors, the full names of the scientific institutions, and their full addresses including postal codes, fax numbers, and E-mail addresses. Then a brief abstract (no more than 20 lines) and keywords (no more than 10 words, see Appendix 1) reflecting as fully as possible the field of investigations and the results obtained must be given.

2.2. **A theoretical or physicochemical** paper normally contains a brief introduction and formulation of the problem, an experimental section (or methodical part), and discussion of the results with a **conclusion**, while a paper devoted to **synthesis** consists of a general part (introduction and the purpose of the study), discussion of the results with a **conclusion**, and an experimental section. References, figures, figure captions, and tables should be presented on separate sheets at the end of the paper.

Letters to the Editor are not divided into sections; they should include the title, the authors´ names, the names of the scientific institutions, and an abstract with keywords.

2.3. The authors are to present a structured **list of words for the Subject Index and for inclusion in the database on the journal's web site** (to enable *on-line* search for the paper using the keywords). The structured (*i.e.,* grouped in "blocks" according to their meaning) list of words for the Subject Index should include the words mentioned in the title of the paper, **all** the keywords given after the abstract in the beginning of the paper, the names of new compounds, and the concepts from the text of the paper reflecting its essence most comprehensively (see Appendix 2).

2.4. The graphical abstract should be enclosed on a separate page in a 139×56 mm frame and should represent a **comprehensive illustration** (a key scheme, the structure of a compound, a chemical equation, a plot, *etc.*) reflecting the essence of the paper in graphical form (see Appendix 3). Text is allowed only when it is of paramount importance; repetition of the title of the paper or the text of the abstract should be avoided.

2.5. The authors suggest a running title of the paper in English (no more than 45 characters including spaces, see Appendix 4) on a separate sheet.

* * *

Manuscripts in which the above rules are not observed may be returned to the authors.

* * *

These instructions were approved at the session of the Editorial Board on December 22, 1992; amendments were approved on December 17, 1999 at the session of the Editiorial Board and on December 18, 2002, at the session of the Bureau of the Editorial Board.

* Please, indicate the registration number and the surname of the first author in all future correspondence.

** The detailed description of the journal´s housestyle for the preparation of papers is given in Appendix 8.

Appendix 1

Examples of the paper title, list of the authors, institution addresses, abstracts, and key words

Synthesis of *N*-phenyl-substituted derivatives of morphine alkaloids

S. K. Moiseev,[a] I. V. Bakhanova,[a] H. Schmidhammer,[b] and V. N. Kalinin[a]*

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[b]Institute of Pharmaceutical Chemistry, University of Innsbruck, Innrain 52a, A-6020 Innsbruck, Austria. Fax: +43 (512) 507 2940

A method for the preparation of *N*-phenyl-substituted morphine alkaloids by treatment of the corresponding *N*-nor-derivatives with Ph_3Bi in the presence of $Cu(OAc)_2$ is proposed. 17-Nor-17-phenylthebaine obtained in this way can serve as a convenient starting material for the preparation of other *N*-phenyl-substituted alkaloids.

Key words: thebaine, morphine alkaloids, arylation, triphenylbismuth.

Appendix 2

Structured list of words for the Subject Index

Thebaine
— analogs
— — 17-northebaines
— — 17-phenyl-17-northebaine
— — synthesis
— — preparation of *N*-phenyl-substituted alkaloids
Triphenylbismuth
— phenylation of alkaloids
Alkaloids
— morphine
Arylation
— of alkaloids
Morphine alkaloids
— *N*-phenyl-substituted (6*R*,7*R*,14*R*)-17-phenyl-6,7,8,14-tetrahydro-17-northebaines
— — synthesis
— — absolute configuration
— *N*-phenyl-substituted (6*R*,7*R*,14*R*)-7-(hydroxy-1-methyl)-17-phenyl-6,7,8,14-tetrahydro-17-nor-6,14-ethenothebaines
— — synthesis
— — absolute configuration

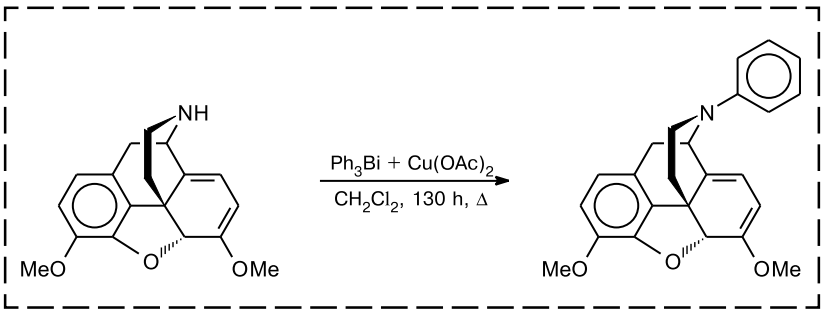
Appendix 3

Element of the journal contents including a graphical abstract

Synthesis of *N*-phenyl-substituted derivatives of morphine alkaloids

S. K. Moiseev, I. V. Bakhanova
H. Schmidhammer, and V. N. Kalinin

Russ. Chem. Bull, *1999*, ***48***, *No. 3, 586*
Izv. Akad. Nauk, Ser. Khim., 1999, No. 3, 592



Appendix 4

Running title

N-Phenyl-substituted morphine alkaloids

Appendix 5

Guidelines for the preparation of papers as computer files*

When the manuscript is prepared using a computer, the following software and file formats are advised (the preferred ones are asterisked*):

Graphics: Bitmap graphics must be provided in the TIFF format with a resolution of at least 300 dpi for black-and-white photographs (256 gray scales) and at least 600 dpi for full-tone drawings (bilevel, black-and-white). Color photographs should be presented with a resolution of 300 dpi in the TIFF format (LZW compression) or in the JPG format with a minimum compression.

Vector figures (not diagrams) must necessarily be submitted in the WMF, EPS CorelDraw* (preferably, version 9.0) or Adobe Illustrator format or, alternatively, as they were originally created (please, indicate the name of the program and the version used). The EPS format should be prepared with convertion of fonts into curves and with the print preview.

If the program used by the author is seldom encountered, it is desirable to save additionally the drawing files in the Enhanced Windows Metafile (EMF) or Windows Metafile (WMF) format.

Diagrams should be submitted as files in SigmaPlot (version 5.00 or earlier), Microsoft Excel, Origin for Windows (up to version 5.0). When these programs are not at the author´s disposal, a table of the reference points typed using tabulation and the types of transformations for the curves should be enclosed as a text file and as a hard copy.

Chemical structures: ChemWindow,* ISIS Draw, ChemDraw (only embedded in the text, without enclosing separate files).

Three-dimensional structures based on X-ray diffraction data: the HPGL format, strictly without text inscriptions.

The use of Microsoft Graph (delivered together with Microsoft Word) **is not recommended**, due to the poor quality of this software.

The use of PaintBrush (Windows) or Paint (Windows 95) and Microsoft Draw (delivered with Microsoft Word) **is not allowed**.

The preparation of the publication in the editorial office requires the author´s file of the manuscript (and the files for all the subsequent modifications of the paper) with inserted illustrations. To prevent the possible font mismatch and rule out problems in reading the drawings, the electronic version should better be supplemented by a PDF file with all fonts and illustrations enclosed.

In the case of large file sizes, ZIP and RAR archives are accepted. It is not recommended to send self-unpacking archives, as they can be rejected by the e-mail program and require an obligatory check by an antiviral program. Files should better be named according to DOS rules, *i.e.*, using only Roman characters and numerals and not more than eight characters in the filename and three characters in the extension.

The References in the text are given as subscripts and typed in **Bold**. Variables should be typed in *Italic*.

* Templates for work with the programs Word for Windows 2.0, ChemWindow, and MS Equation Editor and a file with more detailed instructions can be obtained at the editorial office. They are also available through the Internet at **http://rcb.ioc.ac.ru**.

Appendix 6

Description of a data storage medium

Number of the paper: _____ (filled in at the editorial office)

Author to whom correspondence should be addressed: _____

_____

Telephone: _____

Fax: _____

E-mail: _____

Program	**Version**
Text editors:	
❑ Microsoft Word for Windows	_____
Graphic programs:	
❑ CorelDraw	_____
❑ Adobe Illustrator	_____
❑ Free Hand	_____
❑ Microgafx Designer	_____
❑ AutoCAD	_____
❑ Other	_____
Diagrams:	
❑ SigmaPlot	_____
❑ Harvard Graphics	_____
❑ Microsoft Excel	_____
❑ Origin for Windows	_____
❑ Other	_____
Chemical Structures:	
❑ ChemWindow	_____
❑ ISIS Draw	_____
❑ ChemDraw	_____
❑ Other	_____

Filenames: _____

This data storage medium contains files with the final version of the paper; the contents corresponds exactly to the hardcopy of the paper. The data storage medium has been checked by the antiviral program _____

_____ , version _____ .

Date: _____.

Signature: _____.

Appendix 7

Copyright transfer agreement

Author _____

_____

Title _____

_____

_____

Transfer of copyright

The undersigned, with the consent of all co-authors (if any, subsequently called the "Author"), hereby transfer the exclusive copyright interest in the above-cited article (subsequently called the "Work") in any form to the publisher of the journal "Russian Chemical Bulletin" (subsequently called the "Publisher"). From the moment this agreement is signed (provided that the article is accepted for publication), the Publisher reserves the exclusive right to edit, adapt, and modify the work; to translate the work into any language, and to reproduce and publish the work in all forms and formats in all media and by all means whether now existing (including through the Internet/WWW, information systems with search facilities, and other on-line means) or devised in the future. This copyright transfer agreement is for the full term of copyright in the work (including all renewals, extensions, and revisions) and is effective throughout the world. The Publisher holds the right to freely transfer and license the rights granted by this agreement to other organizations or persons.

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Author (signature) _____

Name (printed) _____

Position (if employer representative) _____

Institution _____

Date _____

Appendix 8

3. Housestyle for the preparation of manuscripts for the journal Russian Chemical Bulletin

1. Manuscripts are typed **double space** (without corrections and insertions) on white paper of the standard size (the A4 format, 210×297 mm) with margins on the left of 4 cm; the font size should be 12 or 13. A page should contain no more than 30 lines 60 to 65 characters each. The template presented on the journal´s web site is meant only for the preparation of files.

2. In addition to the hardcopy, **the authors should also submit manuscripts as computer files on IBM-compatible carrier of any format**.* Appendix 5 gives the main recommendations for the authors on how to prepare the computer version of the paper. A form with the description of the content of the data storage medium (filenames, the programs and versions of the programs used, see Appendix 6) should be enclosed.

* The files can be sent to the editorial board by e-mail (incoming@ioc.ac.ru).

3. All the pages of the manuscript including tables, references, figure captions, the list of keywords for the Subject Index, and the graphical abstract should be numbered. Each table is titled and typed on a separate page.

4. Equations, schemes, tables, figures, and references should be numbered in the **order in which they are mentioned in the text**.

5. Figures are enclosed separately (in duplicate). Half-tone photographs are to be **on white glossy paper** in duplicate (photocopies are not accepted). For figures drawn using a computer, the corresponding **graphical files** should be presented (see Appendices 5 and 6). Figures produced by hand must be **drawn clearly using india ink and white paper or good tracing paper**. The size of the figure should ensure good reproduction of all details (the minimum size is 90×120 mm, and the maximum size is 200×285 mm); the units of measure on the coordinate axes are normally presented using a slash (C/mol L^{-1}; ν/cm^{-1}). Relative or conventional units and % are exceptions; they are given in parentheses: C (%); U (rel. unit). On the back side of each figure the authors´ names, the number of the figure, and the number of the corresponding page in the manuscript must be written with a graphite pencil. The position of this figure should be marked in the margins of the manuscript. It is not advisable to present as figures data that can be concisely expressed in tables or within the text (spectral frequencies, absorption maxima, chemical shifts, and so on) or overview spectra that provide no special information. **The necessary spectra should not be drawn by hand**.

6. Chemical, physical, and mathematical characters should be **typed on the computer**.

Cumbersome mathematical designations should be avoided. For example, it is recommended to use fractional exponents rather than roots, the "exp" symbol for exponential dependences, the slash (/) for fractions (if they are not too complex), *etc*. Equations must be typed with a first line indent, and the number of the equation is to be placed at the right edge of the page. Only formulas and equations that are referred to in the text should be numbered.

Example:

$$C_{1,eq} = K_{1,eq} \cdot M/V_{min} = A_1 \exp[-\Delta Q_1/(RT_{max})] M\varepsilon_{max}/V_0; \quad (6)$$

In the structural formulas of chemical compounds, the atoms that are discussed in the text should be numbered; for related compounds, it is sufficient to number atoms in one of the structures.

7. Standard physicochemical methods of investigation and common reagents or solvents are denoted by generally accepted abbreviations. An exhaustive list of abbreviations used to denote generally accepted terms, reagents, and solvents that do not require expansion in the text is given in Appendix 9. Other abbreviations and acronyms are defined in the text when mentioned **for the first time**.

8. For chemical compounds that are described for the first time or for complex compounds that are the main objects of the study, **full names** should be given (usually, in the Experimental), along with the formulas. Compounds should be named **according to IUPAC rules** (organometallic complexes may be named according to *Chemical Abstracts* nomenclature).

Compounds repeatedly mentioned in the text are usually encoded by Arabic figures, which are typed in **Boldface** in the text and in the schemes or underlined. Full names of compounds are accompanied by codes in parentheses; otherwise, parentheses are not required. When numerals are combined with letter indices, Roman letters are used. Related compounds designated by the same formula are denoted by the same number; derivatives containing different substituents are denoted by numbers with letters, for example, RX: alcohol (X = OH), **1a**; acetate (X = OAc), **1b**; and *p*-toluenesulfonate (X = OTs), **1c**. **The order in which the numbers of compounds increase should strictly correspond to the order in which they appear in the text**. The number of compounds in schemes should increase from left to right and top-down. If the abstract contains the numbers of compounds, they should correspond to those used in the paper.

Chemical names of simple compounds should better be replaced by their chemical formulas or symbolic notations, *e.g.*, NaBr should be used instead of "sodium bromide," and AcOH, instead of "acetic acid." The accepted designations of amino acids and carbohydrates (Ala, Glc, *etc*.) may also be used.

The designations of isomers, stereochemical symbols, and symbols of atoms that mark the substitution positions in molecules of organic compounds are typed in *italic*, for example, *tert*-butyl, *p*-xylene, (*S*)-*N*-isopropyl-α-methylbenzylamine ((*S*)-**1a**), *N*-oxide, and 1-*O*-methyl-*sn*-glycerol.

The oxidation numbers of elements with their names should be typed in SMALL CAPS and enclosed in parentheses (iron(II)), and the oxidation numbers with the symbols of elements are given as superscripts (Fe^{II}).

9. **Physical parameters** should be expressed in SI units. **In some cases**, **units of measure** other than SI units can also be used; these include **decimals** and **multiples** of SI units having special names (see Appendix 10) and other units that can be exactly defined in terms of the SI units (see Appendix 11). In **highly specialized areas**, it is allowed to use units defined in terms of the best available experimental values of certain physical constants; the factors for conversion of these units into SI units are subject to change as a result of new experimental measurements of the constant involved (*e.g.*, 1 eV = $1.60218 \cdot 10^{-19}$ J; 1 amu = $1.66054 \cdot 10^{-27}$ kg).

The symbols of physical variable should be typed in *italic*, and their **units** are typed in normal font, *e.g.*, T/K.

10. **Spectroscopic data** are best cited in the Experimental in the following form. UV (EtOH), λ_{max}/nm (ε (or log ε)): 239 (6900), 305 (1200). IR (CCl_4), ν/cm^{-1}: 3310 (≡C—H); 1722 (C=O). Descriptions of **NMR spectra** should include chemical shifts, multiplicities, integral intensities, assignment, and spin-spin coupling constants, for example: ^{1}H NMR (acetone-d_6), δ: 1.00, 1.15 (both s, 3 H each, C(4)Me, C(9)Me); 3.53 (d, 1 H, H(6), J = 7.5 Hz); 3.78 (s, 3 H, OMe); 4.01 (dd, 1 H, H(7), J_1 = 7.5 Hz, J_2 = 9.5 Hz); 6.21 (br.d, 1 H, NH, J = 9.5 Hz); 7.40—8.00 (m, 5 H, Ar).

^{1}H and ^{13}C NMR chemical shifts obtained using instruments operating at frequencies below 400 MHz (or 100 MHz for ^{13}C) should be presented to two and one decimal places, respectively; spin-spin coupling constants measured using these instruments should be cited to within one decimal place.

If all spectra have been recorded at the same temperature and in the same solvent, chemical shifts are measured in the δ scale and expressed in ppm, and spin—spin coupling constants are expressed in Hz, it is desirable to present the repeating information once in the preamble to the Experimental.

If some spectral data are discussed in the text, they should be given as, *e.g.*, δ_H 3.78 and δ_C 51.2.

Parameters of ^{13}C, ^{31}P, and other NMR spectra should be written in accordance with IUPAC rules (see *Pure and Appl. Chem.*, 1972, **29**, 627): downfield shifts from the standard are denoted by the "+" sign and upfield shifts are given with "—."

When assigning NMR signals, one should comment on whether the assignment is **unambiguous**, *i.e.*, based on special experiments such as isotope substitution, DEPT, 2D techniques (this should be specified), based on analogies (the relevant references should be given), or based on the author´s opinion.

The following designations are proposed for numbering protons, carbon atoms, *etc.*: H(3), C(3), $H_2C(3)$. The protons contained in complex groups responsible for a particular signal should be underlined (*e.g.*, $C\underline{H}_2CH_2CH_3$). If a signal in the spectrum is described as a doublet, a triplet, *etc.* (rather than a singlet or a multiplet), the corresponding number of spin-spin coupling constants should be given (one for a doublet, a triplet, *etc.*, two for a doublet of doublets and a doublet of triplets, three for a doublet of doublets of doublets, *etc.*).

Parameters of the **ESR spectra** are to be written as follows: $g = 2.0645$, $a_H(1\ H) = 1.9$ mT.

Mass spectra should be presented as numerical *m/z* values and relative ion currents either as plain text or as a table. The ionization method used, ionization energy, mass numbers of characteristic ions, genesis of these ions, and the intensity with respect to the major ion should be given. Examples: MS (EI, 70 eV), *m/z* (I_{rel} (%)): 386 $[M]^+$ (36), 368 $[M - H_2O]^+$ (100), 353 $[M - H_2O - Me]^+$ (23), *etc.* MS (CI, 200 eV), *m/z* (I_{rel} (%)): 387 $[M + H]^+$ (100), 369 $[M + H - H_2O]^+$ (23), *etc.* In papers devoted to mass spectrometry, mass spectra should correspond to the form recommended by *Org. Mass Spectrom.,* 1979, **14**, 1.

Example of presentation of the data from a high-resolution mass spectrum: Found: *m/z* 376.2020 $[M]^+$. $C_{22}H_{32}O_3S$. Calculated: M = 376.2089.

For chiral compounds (not racemates), specific **optical rotation** values should be presented, which may be calculated according to the formula

$$[\alpha]_\lambda^{temp} = \frac{\alpha_{obs} \cdot 100}{c \cdot l},$$

where α_{obs} is the measured rotation in deg; *c* is the concentration in g·(100 mL)$^{-1}$, and *l* is the cell length in dm. Then in the preamble to the Experimental, it should be written that "specific optical rotation is expressed in (deg mL) (g dm)$^{-1}$, and the concentration is expressed in g·(100 mL)$^{-1}$". The solvent used, the wavelength, and the temperature of measurements are also to be indicated. For example: $[\alpha]_D^{23}$ +35.8 (*c* 1.1, MeOH).

11. In the Experimental, it is necessary either to specify the **sources of the nontrivial reagents used** (*e.g.*, "commercial preparations" and the name of the company) or to give reference to the **procedures for their synthesis**. Operations used **for the additional treatment** of reagents and solvents should be described (or references to relevant publications should be given). **Adequate evidence** supporting the **structure** attributed to **newly synthesized compounds** described in the Experimental and data confirming the homogeneity and indicating the degree of purity of these compounds should be presented. In particular, this should include the **data from elemental analysis, high-resolution mass spectra**, or other data confirming **unambiguously** the **composition** of the compound (either in the Experimental or in tables). For compounds known previously, published data should be presented only when the values found in the study markedly deviate from published data (for example, m.p. 68 °C; *cf.* Ref. 5: m.p. 97 °C). The elements in empirical molecular formulas should be arranged according to the system of *Chemical Abstracts*: C, H, and then according to the Roman alphabet. The formulas of molecular compounds and onium salts are given with a dot (for example, $C_6H_{12}N_2 \cdot 2HCl$).

Example of presentation of the main characteristics and data from elemental analysis for a newly synthesized compound: m.p. 16—17.5 °C (from pentane), b.p. 197—198 °C (1.5 Torr), d_4^{20} 0.9980, n_D^{20} 1.4935. Found (%): C, 39.74; H, 4.07; Cl, 43.68; N, 5.71. $C_8H_{10}Cl_3NO$. Calculated (%): C, 39.62; H, 4.16; Cl, 43.85; N, 5.78.

12. **X-ray diffraction data** should comply with the recommendations of the Commission of Crystallographic Data of the International Union of Crystallography (*Acta Crystallogr., Sect. A*, 1983, **39**, 174); the molecule(s) (with numbered atoms) and crystal packing should be presented as figures together with tables containing the **necessary** geometric characteristics of molecules (**selected** bond lengths, bond angles, and torsion angles).

It is recommended to present atoms as thermal ellipsoids except the cases of disorder, strong libration vibrations of molecular fragments or bulky molecules indicating the ellipsoid's probabilities in the figure captions.

Full tables of atomic coordinates, thermal factors, or full tables of bond lengths and bond angles will not be included in the publication but will be deposited with the Cambridge Structural Database (CSDB) for organic compounds or with the Inorganic Crystal Structure Database (ICSD, Gmelin Institute, Karlsruhe) for inorganic compounds. For this purpose, in addition to the printed **full tables** enclosed as an appendix to the paper (*not for publication*), authors should enclose a separate floppy disk with files named **filename.res** or **filename.cif**, corresponding to the ultimate structure refinement, and comments matching particular structures in the text to particular files (filename.res should contain inaccuracies in the determination of atomic coordinates and bond lengths and angles). The atom numbering in the files and in the figures in the paper should be the same. Crystallographic data (unit cell parameters, space group, *etc.* and experimental and structure refinement details) are given in the Experimental or in tables. The following data are given in succession in the Experimental: conditions of growing the crystals, the type of diffractometer, monochromator, type of radiation, experimental temperature, scan mode, absorption corrections, the method of solving the structure, refinement of positions and thermal parameters of nonhydrogen atoms, the refinement of hydrogen atoms, and the program package used.

For example: "The single crystals of complex **1** were prepared by crystallization from chloroform. The X-ray diffraction experiment was performed on a Siemens P3/PC diffractometer (graphite monochromator, λ(Mo-Kα) = 0.71073 Å, temperature 153 K, $\theta/2\theta$ scan mode). The crystallographic data and the main refinement parameters for compound **1** are listed in Table 1. The absorption corrections were applied using experimental curves of azimuthal scanning (T_{min}/T_{max}). The structure was solved by the direct method. The positions and thermal parameters of nonhydrogen atoms were refined in isotropic and then in the anisotropic approximation using the full-matrix least-squares method. A solvation molecule of the solvent was identified in the crystal structure of **1**. A fragment of the molecule is disordered

over two positions with equal populations. The hydrogen atoms were placed in the geometrically calculated positions and included in the refinement according to the "riding" model. All the calculations were carried out using the SHELXTL PLUS 5 program package."

The table "Crystallographic data and X-ray diffraction experiment parameters" should include the following rows: formula, molecular weight, symmetry, space group, a/Å, b/Å, c/Å, α/deg, β/deg, γ/deg, V/Å^3, Z, d_{calc}/g cm^{-3}, scanning area, the number of measured reflections (R_{int}), the number of reflections with $I > 2\sigma(I)$, the number of refined parameters, $R_1(I > 2\sigma(I))$, and wR_2 (over all reflections).

13. The **list of references** should include references to the most important relevant publications. **All references** included in the list should be mentioned in the paper. **References** to publications should be given in the text as **superscripts typed in boldface**; the numbering of references in the list should correspond to the order in which they are mentioned in the text. The list of references is typed in a separate page indicating the last names and initials of **all authors** (*et al*. is not allowed). The references should be given in the original spelling; hieroglyphic texts should be cited in Roman transcription. The titles of Russian journals and handbooks should be abbreviated in accordance with the abbreviations recommended by Springer (see Appendix 12).

References should be arranged as follows:

Books: *Internal Rotation in Molecules*, Ed. W. J. Orville-Thomas, Wiley, New York, 1974, 329 pp.; A. L. Buchachenko, A. M. Vasserman, *Stabil'nye radikaly* [*Stable Radicals*], Khimiya, Moscow, 1973, 58 pp. (in Russian).

When the reference relates to a particular page: L. G. Menchikov, O. M. Nefedov, in *Chemistry of Carbenes and Small-sized Cyclic Compounds,* Ed. O. M. Nefedov, Mir, Moscow, 1989, p. 45.

Papers in Collections: G. Olah, O. Faroog, G. K. S. Prakash, in *Activation and Functionalization of Alkanes*, Ed. C. L. Hill, Wiley-Interscience, New York, 1992.

Journals: E. G. Gal´pern, I. V. Stankevich, A. L. Chistyakov, L. A. Chernozatonskii, *Chem. Phys. Lett.*, 1997, **269**, 85.

For Russian journals translated into English, the English-language version is also referred to, *e.g.*, D. N. Laikov, Yu. A. Ustynyuk, *Izv. Akad. Nauk, Ser. Khim.,* 2005, 804 [*Russ. Chem. Bull., Int. Ed.,* 2005, **54**, 820].

Patents: RF Pat. 9854; *Buyll. Izobret.*, 1978, 61 (in Russian), or: US Pat. 55973; *Chem. Abstrs*., 1982, **97**, 150732.

Theses: B. G. Kovalev, D. Sc. (Chem.) Thesis, Institute of Phytochemistry, Uzbek Acad. Sci., Tashkent, 1990, 293 pp. (in Russian).

Conference abstracts: G. V. Loukova, O. N. Babkina, T. A. Bazhenova, N. M. Bravaya, V. V. Strelets, *The 195th Meeting of the Electrochemical Society (2—6 May, 1999)*, *Abstrs.*, Seattle (USA), 1999, 979.

Deposition: G. Ivanov, *EPR spektry fullerenov* [*The ESR Spectra of Fullerenes*], Moscow, 1990, 26 pp.; Dep. in VINITI 17.10.90, 23161 (in Russian).

Computer programs: G. M. Sheldrick, *SHELXL93, Program for the Refinement of Crystal Structure*, Göttingen University, Göttingen (Germany), 1993.

Databases: *Cambridge Structural Database System, Version 5.17*, 1999.

References to unpublished results or private communications should be given only as footnotes; they are not included in the list of references and not numbered. When citing unpublished results or private communications, it is necessary to submit permission from the person whose results are referred to.

Appendix 9

List of abbreviations that do not need to be explained in the paper

***Standard physicochemical methods of analysis and terms*:** AO, atomic orbital(s); CD, circular dichroism; CI, chemical ionization; *de*, diastereomeric excess; DSC, differential scanning calorimetry; DTA, differential thermal analysis; DTG, differential thermogravimetry; *ee*, enantiomeric excess; EI, electron impact; ESI, electrospray ionization; ESR, electron spin resonance; FAB, fast atom bombardment, GC, gas chromatography, GLC, gas-liquid chromatography; GC/MS and GLC/MS, chromatomass spectrometry; HFC, hyperfine coupling; HFS, hyperfine structure; HOMO, highest occupied molecular orbital; HPLC, high-performance liquid chromatography; IR, infrared; LUMO, lowest unoccupied molecular orbital; MALDI-TOF, matrix assisted laser desorption/ionization time-of-flight mass spectrometry; MO, molecular orbital(s); MS, mass spectrometry; NMR, nuclear magnetic resonance; *2D homonuclear procedures*: COSY, correlated spectroscopy; TOCSY, total correlation spectroscopy; NOESY, nuclear Overhauser effect spectroscopy; *2D heteronuclear procedures*: HSQC, heteronuclear single quantum coherence; HMBC, heteronuclear multi-band correlation; COLOC, correlation spectroscopy *via* long coupling; NOE, nuclear Overhauser effect; NQR, nuclear quadrupole resonance; OMC, organometallic compound; PLC, preparative layer chromatography; STM, scanning tunneling microscopy; TGA, thermogravimetric analysis; TLC, thin layer chromatography; UV, ultraviolet; XPS, X-ray photoelectron spectroscopy; EXAFS (extended X-ray absorption fine structure), a structure analysis method based on processing of the extended fine structure observed in the X-ray absorption spectra of solids or molecules.

***Solvents, reagents, radicals, ligands, and protecting groups*:** Ac, acetyl; acac, acetylacetonate; Ac_2O, acetic anhydride; AcOEt, ethyl acetate; AcOH, acetic acid; Ad, adamantyl; AIBN, azobis(isobutyronitrile); Alk, alkyl; All, allyl; Ar, aryl; 9-BBN, 9-borabicyclo[3.3.1]nonane; Bn, benzyl ($PhCH_2$); Boc, *tert*-butyloxycarbonyl; bpy, 2,2´-bipyridine; Bu, *n*-butyl; Bu^i, isobutyl; Bu^t, *tert*-butyl; BuOH (or Bu^{n}OH), *n*-butyl alcohol; Bu^{s}OH, *sec*-butyl alcohol; Bu^{t}OH, *tert*-butyl alcohol; Bz, benzoyl (PhCO); Cp, cyclopentadienyl; Cp*, pentamethylpentadienyl; DDABCO, 1,4-diazabicyclo[2.2.2]octane; DBU, 1,8-diazabi-

cyclo[5.4.0]undec-7-ene; DCC, dicyclohexylcarbodiimide; DDQ, 2,3-dichloro-5,6-dicyano-1,4-benzoquinone; DEAD, diethyl azodicarboxylate; DIBAH, diisobutylaluminum hydride; dien, diethylenetriamine; DIPT, diisopropyl tartrate; DMAP, 4-dimethylaminopyridine; DME , 1,2-dimethoxyethane (monoglyme); DMF, dimethylformamide; DMSO, dimethyl sulfoxide; en, ethylenediamine (only as a ligand); Et, ethyl; Et_2O, diethyl ether; EtOH, ethanol; Ger, geranyl; Far, farnesyl; Fc, ferrocenyl; Hacac, acetylacetone; Hal, halogen; H_4edta, ethylenediaminetetraacetic acid; Het, hetaryl; HMPA, hexamethylphosphoric triamide; hmta, hexamethylenetetramine; LDA, lithium diisopropylamide; MCPBA, *m*-chloroperbenzoic acid; Me, methyl; MeCN, acetonitrile; Me_2CO, acetone; MeOH, methanol; Mes, mesityl (1,3,5-trimethylphenyl); MOM, methoxymethyl; MPPA, monoperoxyphthalic acid; Ms, methanesulfonyl (mesyl); MTPA, α-methoxy-α-trifluoromethylphenylacetic acid; NBS, *N*-bromosuccinimide; NCS, *N*-chlorosuccinimide; NIS, *N*-iodosuccinimide; PCC, pyridinium chlorochromate; PDC, pyridinium dichromate; Ph, phenyl; pn, propylenediamine; PPTS, pyridinium *para*-toluenesulfonate; Pr, *n*-propyl; Pr^i, isopropyl; Pr^iOH, iso-propyl alcohol; py, pyridyl; Py, pyridine; Pyr, pyrazolyl; TBS, *tert*-butyldimethylsilyl; Tf, trifluoromethanesulfonyl; TFA, trifluoroacetic acid, TFAA, trifluoroacetic anhydride; THF, tetrahydrofuran; THP, tetrahydropyran-2-yl (in AlkOTHP type derivatives); TMEDA, *N*,*N*,*N*′,*N*′-tetramethylethylenediamine; TMS, trimethylsilyl (not tetramethylsilane!); Tol, tolyl; TPS, *tert*-butyldiphenylsilyl; Tr, trimethylphenyl (trityl); Ts, *para*-toluenesulfonyl (tosyl).

Appendix 10

Fractions and multiples of SI units with special names*

Physical quantity	Name of unit	Symbol for unit	Relation to SI units
Length	ångström	Å	10^{-10} m
Volume	liter	L	10^{-3} m^3
Mass	tonne	t	10^3 kg
Pressure	bar	bar	10^5 N m^{-2}
	pascal	Pa	N m^{-2}
Energy	erg	erg	10^{-7} J
Kinematic viscosity, diffusion coefficient	stokes	St	10^{-4} m^2 s^{-1}
Dynamic viscosity	poise	P	10^{-1} kg m^{-1} s^{-1}
Magnetic flux	maxwell	Mx	10^{-8} Wb
Magnetic flux density (magnetic induction)	gauss	G	10^{-4} T
Conductance	siemens	S	Ω^{-1}
Force	dyne	dyn	10^{-5} N

* The list is not exhaustive.

Appendix 11

Units exactly defined in terms of the SI units*

Physical quantity	Name of unit	Symbol for unit	Relation to SI units
Time	minute	min	60 s
	hour	h	3600 s
Force	kilogram-force	kgf	9.80665 N
Pressure	atmosphere	atm	101325 N m^{-2}
	torr	Torr	(101325/760) N m^{-2}
Energy	kilowatt hour	kW h	$3.6 \cdot 10^4$ J
	thermochemical calorie	cal (thermochem.)	4.184 J
	international calorie	cal	4.1868 J
Radioactivity	curie	Ci	$3.7 \cdot 10^{10}$ s^{-1}

* The list is not exhaustive.

Appendix 12

Journal abbreviations*

The list of abbreviations used for the titles of Russian journals**

Bioorganicheskaya khimiya [*Sov. J. Bioorg. Chem.*; from 1992, *Russ. J. Bioorg. Chem.* (Engl. Transl.)]
Biofizika [*Biophysics* (Engl. Transl.)]
Biokhimiya [*Biochemistry* (*USSR*); from 1994, *Biochemistry* (*Moscow*) (Engl. Transl.)]
Doklady AN SSSR; from 1992 — ***Doklady AN*** [*Dokl. Chem.* (or *Dokl. Biochem. Phys. Chem.*; *Dokl. Chem. Technol.*; *Dokl. Phys. Chem.* (Engl. Transl.)]
Elektrokhimiya [*Sov. Electrochem.*; 1992, *Russ. J. Electrochem.* (Engl. Transl.)]
Fizika Goreniya i Vzryva [*Comb., Explos., and Shock Waves* (Engl. Transl.)]
Fizika Tverdogo Tela [*Sov. Phys. Sol. State* (Engl. Transl.)]
Genetika [*Sov. Genetics* (Engl. Transl.)]
Geokhimiya [*Geochemistry* (Engl. Transl.)]
Izvestiya AN SSSR, Seriya Khimicheskaya (before 1992) [*Bull. Acad. Sci. USSR, Div. Chem. Sci.* (Engl. Transl.)] (before 1992); ***Izvestiya AN, Seriya khimicheskaya*** (from 1992) [1992, *Bull. Russ. Acad. Sci., Div. Chem. Sci.*; from 1993, *Russ. Chem. Bull.* (Engl. Transl.); since 2000, *Russ. Chem. Bull., Int. Ed.*].
Izvestiya AN SSSR, Neorganicheskie Materialy; 1991, ***Neorganicheskie Materialy*** [*Inorg. Mater.* (Engl. Transl.)]
Izvestiya AN SSSR, Seriya Fizicheskaya; from 1992, ***Izvestiya AN, Seriya Fizicheskaya*** [*Bull. Russ. Acad. Sci., Physics* [(Engl. Transl.)]
Izvestiya Vuzov. Khimiya i Khimicheskaya Tekhnologiya [*Izv. Vuz. Khim. Khim. Tekhnol.* (in Russian)]
Izvestiya SO AN SSSR. Seriya Khimicheskikh Nauk [*Izv. Sib. Otd. Akad. Nauk SSSR, Ser. Khim. Nauk* (Engl. Transl.)]
Khimiko-Farmatsevticheskii Zhurnal [*Pharm. Chem. J.* (Engl. Transl.)]
Khimiya Geterotsiklicheskikh Soedinenii [*Chem. Heterocycl. Compd.* (Engl. Transl.)]
Khimiya Vysokikh Energii [*High Energy Chem.* (Engl. Transl.)]
Khimiya i Tekhnologiya Topliv i Masel [*Chem. Technol. Fuels and Oils* (Engl. Transl.)]
Khimiya Prirodnykh Soedinenii [*Chem. Nat. Compd.* (Engl. Transl.)]
Kinetika i Kataliz [*Kinet. Catal.* (Engl. Transl.)]
Kristallografiya [*Sov. Phys.-Crystallogr.*; from 1994, *Crystallogr. Repts.* (Engl. Transl.)]
Kolloidnyi Zhurnal [*Colloid. J. USSR*; from 1992, *Colloid J.* (Engl. Transl.)]
Koordinatsionnaya Khimiya [*Sov. J. Coord. Chem.*; 1992, *Russ. J. Coord. Chem.* (Engl. Transl.)]
Metalloorganicheskaya Khimiya [*Organomet. Chem. USSR* (Engl. Transl.)]
Mikrobiologiya [*Microbiology* (Engl. Transl.)]
Molekulyarnaya Biologiya [*Mol. Biol.* (Engl. Transl.)]
Neftekhimiya [*Petroleum Chemistry* (Engl. Transl.)]
Pis´ma v Zhurnal Eksperimental´noi i Teoreticheskoi Fiziki [*JETP Lett.* (Engl. Transl.)]
Radiokhimiya [*Sov. Radiochem.* (Engl. Transl.)]
Teoreticheskaya i Eksperimental´naya Khimiya [*Theor. Exp. Chem.* (Engl. Transl.)]
Teoreticheskie Osnovy Khimicheskoi Tekhnologii [*Theor. Foundations Chem. Technol.* (Engl. Transl.)]
Ukrainskii Khimicheskii Zhurnal [*Ukr. Khim. Zh.* (in Russian)]
Uspekhi Khimii [*Russ. Chem. Rev.* (Engl. Transl.)]
Vestnik MGU, Seriya 2. Khimiya [*Vestn. Mosk. Univ., Ser. Khim.* (Engl. Transl.)]
Vysokomolekulyarnye soedineniya; from 1967, ***Seriya A*** or ***B*** [*Polym. Sci. USSR*; from 1967, *Ser. A* or *B*; from 1992, *Polym. Sci., Ser. A* or *B* (Engl. Transl.)]
Zhurnal Analiticheskoi khimii [*J. Anal. Chem. USSR*; from 1992, *J. Anal. Chem.* (Engl. Transl.)]
Zhurnal Eksperimental´noi i Teoreticheskoi Fiziki [*J. Exp. Theor. Phys.* (Engl. Transl.)]
Zhurnal Fizicheskoi Khimii [*Russ. J. Phys. Chem.* (Engl. Transl.)]
Zhurnal Neorganicheskoi Khimii [*J. Inorg. Chem. USSR*; from 1992, *Russ. J. Inorg. Chem.* (Engl. Transl.)]
Zhurnal Obshchei Khimii [*J. Gen. Chem. USSR*; from 1992, *Russ. J. Gen. Chem.* (Engl. Transl.)]
Zhurnal Organicheskoi Khimii [*J. Org. Chem. USSR*; from 1992, *Russ. J. Org. Chem.* (Engl. Transl.)]
Zhurnal Prikladnoi Spektroskopii [*J. Appl. Spectr.*, (Engl. Transl.)]
Zhurnal Prikladnoi Khimii [*J. Appl. Chem. USSR*; 1992, *Russ. J. Appl. Chem.* (Engl. Transl.)]
Zhurnal Strukturnoi Khimii [*J. Struct. Chem.* (*USSR*); s 1992 g. — *Russ. J. Struct. Chem.* (Engl. Transl.)]
Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva Imeni D. I. Mendeleeva [*Mendeleev Chem. J.* (Engl. Transl.)]
Zavodskaya Laboratoriya [*Ind. Lab.* (Engl. Transl.)]

The list of abbreviations used for the titles of foreign journals

Accounts of Chemical Research
Acta Biochimica et Biophysica Academiae Scientiarum Hungaricae
Acta Chemica Scandinavica. Series A
Acta Chemica Scandinavica. Series B
Acta Chimica Academiae Scientiarum Hungaricae
Acta Chimica (Budapest)
Acta Crystallographica (1948—1967)
Acta Crystallographica, Section A (from 1968)
Acta Crystallographica, Section B (from 1968)
Acta Crystallographica, Section C (from 1968)
Acta Vitaminologica et Enzymologica
Advanced Materials
Advances in Alicyclic Chemistry
Advances in Carbohydrate Chemistry and Biochemistry
Advances in Chemical Physics
Advances in Chromatography
Advances in Colloid and Interface Science
Advances in Enzymology and Related Areas of Molecular Biology
Advances in Free-Radical Chemistry
Advances in Heterocyclic Chemistry
Advances in Immunology
Advances in Inorganic Chemistry and Radiochemistry
Advances in Lipid Research
Advances in Macromolecular Chemistry
Advances in Magnetic Resonance
Advances in Mass Spectrometry
Advances in Organic Chemistry
Advances in Organometallic Chemistry
Advances in Photochemistry
Advances in Protein Chemistry
Advances in Structure Research by Diffraction Methods
Afinidad

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* The list of abbreviations used in the list of references can also be found through the Internet at **http://rcb.ioc.ac.ru**

** The full title of journal is given, the abbreviated notation is shown by the bold italic typeface and the abbreviated title of the English version is given in brackets. *Example:* ***Zhurnal Organicheskoi Khimii*** — *Zhurn. Organ. Khimii* [*Russ. J. Org. Chem.* (from 1993) (Engl. Transl.)].

***Agric**ultural and **Biol**ogical **Chem**istry*
***AIChE J**ournal*
***AIChE Monogr**aph **Ser**ies*
***AIChE Pap**ers*
***Am**erican **J**ournal of **Pharm**acy (and the Sciences Supporting Public Health)*
***Am**erican **J**ournal of **Sci**ence*
Analyst (London)
***Anal**ytical **Biochem**istry*
***Anal**ytical **Chem**istry*
Anal**ytica **Chim**ica **Acta
***Anal**ytical **Lett**ers*
***Angew**andte **Chem**ie*
***Angew**andte **Chem**ie, **Int**ernational **Ed**ition in **Engl**ish* (с 1962 г.)
***Angew**andte **Chem**ie, **Suppl**ement*
Ann**ales de **Chimie (Paris)
Ann**ales de **Microbiol**ogie **(Paris)
***Ann**ales **Pharm**aceutiques **Fr**ancaises*
***Annu**al **Rep**orts in **Med**icinal **Chem**istry*
Annu**al **Rep**orts on the **Progr**ess of **Chem**istry, **Sect**ion **A,
Annu**al **Rep**orts on the **Progr**ess of **Chem**istry, **Sect**ion **B
***Annu**al **Rev**iew of **Biochem**istry*
***Annu**al **Rev**iew of **NMR Spectrosc**opy*
***Antibiot**ics **Annu**al* (1953—1959)
Antibiot**ics and **Chemother**apy **(Basel)
Antibiot**ics and **Chemother**apy **(Washington, DC)
***Antimicrob**ial **Agents Annu**al* (1960)
***Antimicrob**ial **Agents** and **Chemother**apy* (from 1961)
***Appl**ied **Spectrosc**opy*
***Arch**ives of **Biochem**istry* (1942—1951)
***Arch**ives of **Biochem**istry and **Biophys**ics*
***Arch**iv der **Pharm**azie und **Ber**ichte der **Deutsch**en **Pharm**azeutischen **Ges**ellschaft* (up to 1971)
***Arch**iv der **Pharm**azie **(Weinheim, Ger**many*) (from 1972)
Ark**iv för **Kemi (up to 1970)
***Arzneim**ittel-**Forsch**ung*
***Aust**ralian **J**ournal of **Biol**ogical **Sci**ences*
***Aust**ralian **J**ournal of **Chem**istry*
***Ber**ichte der **Bunsenges**ellschaft für **Phys**ikalische **Chem**ie* (from 1963)
***Ber**ichte der **Deutsch**en **Chem**ischen **Ges**ellschaft* (up to 1946)
***Biochem**ical and **Biophys**ical **Res**earch **Commun**ications*
Biochemistry
***Biochem**ical **J**ournal*
***Biochem**ical **Pharmacol**ogy*
***Biochem**ical **Prep**arations*
***Biochem**ical **Rev**iews*
***Biochem**ical **Soc**iety **Trans**actions*
***Biochem**ische **Z**eitschrift*
Biochim**ica et **Biophys**ica **Acta
***Bioinorg**anic **Chem**istry*
Biol**ogical **Chem**istry **Hoppe-Seyler (from 1985)
***Biomed**ical **Mass Spectrom**etry*
***Bioorg**anic **Chem**istry*
Biopolymers
***Br**itish **J**ournal of **Ind**ustrial **Med**icine*
***Br**itish **J**ournal of **Pharmacol**ogy and **Chemother**apy* (up to 1967)
***Br**itish **J**ournal of **Pharmacol**ogy* (from 1968)
***Bull**etin de **Acad**emie **Pol**onaise des **Sci**ences, **Ser**ie des **Sci**ences **Chim**iques*
***Bull**etin of the **Chem**ical **Soc**iety of **Jap**an*
***Bull**etin des **Soc**iétés **Chim**iques **Belg**es*
***Bull**etin de la **Soc**iété **Chim**ique de **Fr**ance*
***Cancer Res**earch*
***Can**adian **J**ournal of **Biochem**istry*
***Can**adian **J**ournal of **Chem**istry*
***Can**adian **J**ournal of **Pharm**aceutical **Sci**ences*
***Can**adian **J**ournal of **Spectrosc**opy*
***Carbohydr**ate **Chem**istry*
***Carbohydr**ate **Res**earch*
***Catal**ysis **Lett**ers*
***Chem**ica **Scr**ipta* (from 1971)
***Chem**ical **Abstr**acts*
***Chem**ical **Commun**ications* (up to 1969)
Chem**ical **Eng**ineer **(London)
Chem**ical and **Eng**ineering **News
***Chem**ical **Eng**ineering (New York)*
***Chem**ische **Ber**ichte* (from 1947)
***Chem**istry in **Br**itain*
***Chem**istry of **Heterocycl**ic **Compound**s*
Chem**ische **Ind**ustrie **(Düsseldorf)
Chem**istry and **Ind**ustry **(London)
***Chem**ie-**Ing**enieur-**Tech**nik*
***Chem**istry **Lett**ers*
Chem**icke **Listy
***Chem**istry in **N**ew **Z**ealand*
***Chem**ical and **Pharm**aceutical **Bull**etin*
***Chem**ical **Phys**ics*
Chem**istry and **Phys**ics of **Carbon
***Chem**ical **Phys**ics **Lett**ers*
Chem**istry and **Phys**ics of **Lipids
***Chem**ical **Rev**iews*
***Chem**ische **Rundsch**au*
***Chem**ical **Soc**iety **Rev**iews*
Chem**ie in **Unserer Zeit
***Chem**isches **Zentralbl**att*
***Chem**iker-**Z**eitung*
Chimia
Chim**ie et **Ind**ustrie **(Paris)
Chromatographia
***Chromatogr**aphic **Rev**iews*
***Collect**ion of **Czech**oslovak **Chem**ical **Commun**ications*
***Colloid** and **Polymer Sci**ence*
***Comput**er **Programs** for **Chem**istry*
***Comput**ers in **Chem**istry and **Instrum**entation*
***Comput**ing **Rev**iews*
*Comptes **R**endus Hebdomadaires des Séances de l´**Acad**émie des **Sci**ences* (up to 1965)
*Comptes **R**endus Hebdomadaires des Séances de l´**Acad**émie des **Sci**ences, **Ser**ie **A,***
*Comptes **R**endus Hebdomadaires des Séances de l´**Acad**émie des **Sci**ences, **Ser**ie **B,***
*Comptes **R**endus Hebdomadaires des Séances de l´**Acad**émie des **Sci**ences, **Ser**ie **C,***
*Comptes **R**endus Hebdomadaires des Séances de l´**Acad**émie des **Sci**ences, **Ser**ie **D,***
*Comptes **R**endus des **Séances** de la **Soc**ieté de **Biol**ogie et de Ses Filiales*
***Coord**ination **Chem**istry **Rev**iews*
Croat**ica **Chem**ica **Acta
***Curr**ent **Sci**ence*
***Drug Metab**olism **Rev**iews*
***Egypt**ian **J**ournal of **Chem**istry*
Electrochim**ica **Acta
***Eur**opean **J**ournal of **Biochem**istry*
***Eur**opean **Polymer J**ournal*
Experientia
***Faraday Discuss**ions of the **Chem**ical **Soc**iety*
***Faraday Symp**osia of the **Chem**ical **Soc**iety*
Farmacia (Bucharest)
Farmaco (Pavia)
***Farm**acia y **Quim**ica*
***FEBS (Fed**eration of **Eur**opean **Biochem**ical **Soc**ieties) **Lett**ers*
***FEBS Proc**eedings of the **Meet**ings*
Fortschr**itter der **Chem**ischen **Forsch**ung* (1949—1973); from 1974, ***Top. Curr. Chem.
Fortschr**itte der **Chem**ie **Org**anischer **Naturst**offe* (1938—1979); from 1980, ***Prog. Chem. Org. Prod.
***Fresenius´** Zeitschrift für **Anal**ytische **Chem**ie* (from 1947)
***Gazz**etta **Chim**ica **Ital**iana*

Giornale di Biochimica
Giornale di Microbiologia
Helvetica Chimica Acta
Heterocycles
Heterocyclic Compounds
Hoppe-Seyler´s Zeitschrift für Physiologische Chemie (up to 1984)
Industrial and Engineering Chemistry
Indian Journal of Biochemistry (up to 1970)
Indian Journal of Biochemistry and Biophysics (from 1971)
Indian Journal of Chemistry (up to 1975)
Indian Journal of Chemistry, Section A (from 1976)
Indian Journal of Chemistry, Section B (from 1976)
Inorganic Chemistry
Inorganica Chimica Acta
Inorganica Chimica Acta, Reviews
Inorganic and Nuclear Chemistry Letters
Inorganic Synthesis
International Chemical Engineering
International Journal of Biochemistry
International Journal of Peptide and Protein Research
International Journal of Protein Research
International Journal of Sulfur Chemistry
Ion Exchange and Solvent Extraction
Israel Journal of Chemistry
Italian Journal of Biochemistry
Journal of Agricultural and Food Chemistry
Journal of the American Chemical Society
Journal of the American Leather Chemists´ Association
Journal of the American Leather Chemists´ Association, Supplement
Journal of the American Oil Chemists´ Society
Journal of the American Pharmaceutical Association
Journal of Antibiotics, Series A
Journal of Antibiotics, Series B
Journal of Applied Chemistry
Journal of Applied Chemistry and Biotechnology
Journal of Applied Crystallography
Journal of Biochemistry (Tokyo)
Journal of Biological Chemistry
Journal of Carbohydrates, Nucleosides, Nucleotides
Journal of Chemical Education
Journal of Chemical Engineering Education
Journal of Chemical Engineering of Japan
Journal of Chemical Physics
Journal of Chemical Research (Miniprint)
Journal of Chemical Research (Synopses)
Journal of the Chemical Society (up to 1965)
Journal of the Chemical Society [*Section*] *A* (1966—1971)
Journal of the Chemical Society [*Section*] *B* (1966—1971)
Journal of the Chemical Society [*Section*] *C* (1966—1971)
Journal of the Chemical Society [*Section*] *D* (1970—1971)
Journal of the Chemical Society, Chemical Communications (from 1972)
Journal of the Chemical Society, Dalton Transactions (from 1972)
Journal of the Chemical Society, Faraday Transactions 1 (from 1972)
Journal of the Chemical Society, Faraday Transactions 2 (from 1972)
Journal of the Chemical Society, Perkin Transactions 1 (from 1972)
Journal of the Chemical Society, Perkin Transactions 2 (from 1972)
Journal of the Chemical Society, Transactions
Journal of the Chinese Biochemical Society
Journal of the Chinese Chemical Society (Peking)
Journal of the Chinese Chemical Society (Taipei)
Journal of Chromatography
Journal of Chromatographic Science
Journal of Crystal Growth
Journal of Crystal and Molecular Structure
Journal of Drug Research
Journal of the Electrochemical Society
Journal of Endocrinology
Journal of Food Science
Journal of Gas Chromatography
Journal of Heterocyclic Chemistry
Journal of Immunology
Journal of the Indian Chemical Society
Journal of Inorganic and Nuclear Chemistry
Journal of Labelled Compounds
Journal of Life Sciences
Journal of Macromolecular Chemistry (1966)
Journal of Macromolecular Science [*Part A*] *Chemistry* (from 1967)
Journal of Magnetic Resonance
Journal of Medicinal Chemistry
Journal of Molecular Biology
Journal of Molecular Spectroscopy
Journal of Molecular Structure
Journal of the Natural Products (from 1979)
Journal of the New Zealand Institute of Chemistry
Journal of Organic Chemistry
Journal of Organometallic Chemistry
Journal of Pharmacology and Experimental Therapeutics
Journal of Pharmacy and Pharmacology
Journal of Photochemistry
Journal of Physical Chemistry
Journal of Physical and Chemical Reference Data
Journal of Physical and Colloid Chemistry
Journal für Praktische Chemie
Journal of Quantitative Spectroscopy and Radiative Transfer
Journal of Raman Spectroscopy
Journal of Research of the National Bureau of Standards
Journal of Research of the National Bureau of Standards, Section A, Physics and Chemistry
Journal of Science of the Hiroshima University, Series A, Mathematics, Physics, Chemistry
Journal of Science of the Hiroshima University, Series A-2, Physics and Chemistry
Journal of the Society of Chemical Industry, London
Journal of the Society of Chemical Industry, London, Abstracts
Journal of the Society of Chemical Industry, London, Review Section
Journal of the Society of Chemical Industry, London, Transactions and Communications
Journal of the Society of Leather Technologists and Chemists
Journal of Steroid Biochemistry
Justus Liebigs Annalen der Chemie (up to 1978)
Kagaku Kogaku (Abridged Edition in English)
Kemija u Industriji
Kemia-Kemi
Kemisk Tidskrift
Khimiya u Industrya (Sofia)
Kjemi
Kobunshi Kagaku (up to 1974)
Kobunshi Ronbunshu (from 1975)
Kogyo Kagaku Zasshi (up to 1972)
Kolloid Zeitschrift und Zeitschrift für Polymere
Lancet
Laser Chemistry
Liebigs Annalen der Chemie (from 1979)
Lipids
Liquid Crystals
Macromolecular Chemistry
Macromolecular Synthesis
Macromolecules
Magnetic Resonance in Chemistry (from 1985)
Magyar Kemiai Folyoirat
Magyar Kemikusok Lapja
Makromolekulare Chemie
Mass Spectrometry
Memoirs of the Faculty of Science, Kyushu University, Series C
Memoirs of the Institute for Protein Research, Osaka University
Methods of Biochemical Analysis
Methods in Carbohydrate Chemistry
Methods in Enzymology

***Microchem**ical **J**ournal*
***Microchem**ical **J**ournal, **Symp**osium **Ser**ies*
Microchim**ica **Acta
***Mol**ecular **Cryst**als and **Liq**uid **Cryst**als*
***Mol**ecular **Phys**ics*
***Mol**ecular **Spectrosc**opy*
Mol**ecular **Struc**ture by **Diffr**action **Methods
Monatsber**ichte der **D**eut**sch**en **Akad**emie der **Wiss**enschaften zu **Berlin
***Monatsh**efte für **Chem**ie*
***Nachr**ichten aus **Chem**ie und **Tech**nik* (up to 1976)
***Nachr**ichten aus **Chem**ie, **Tech**nik und **Lab**oratorium* (from 1977)
*National **A**cademy of **S**ciences **N**ational **R**esearch **C**ouncil **Di**vision of **Chem**istry and **Chem**ical **Technol**ogy **Annu**al **Rep**ort*
Nature (London)
Nature (Paris)
Naturwissenschaften
*New **J**ournal of **Chem**istry* (from 1987)
Nippon Kagaku Kaishi (from 1972)
Nippon Kagaku Zasshi
***Org**anic **Magn**etic **Reson**ance* (up to 1984)
***Org**anic **Mass Spectrom**etry*
***Org**anic **Photochem**istry*
***Org**anic **Prep**arations and **Proced**ures **Int**ernational*
***Org**anic **React**ions*
***Org**anic **React**ion **Mech**anisms*
***Org**anic **Sulfur Comp**ounds*
***Org**anic **Synth**eses*
***Organomet**allic **Chem**istry*
***Organomet**allic **Chem**istry **Rev**iews, **Sect**ion **A**,*
***Organomet**allic **Chem**istry **Rev**iews, **Sect**ion **B**,*
***Organomet**allic **React**ions*
Organometallics
*Österreichische **Chem**iker-**Zeit**ung*
Pesticides
***Pestic**ide **Sci**ence*
***Pharm**aceutical **J**ournal*
Pharmazie
Phosphorus
Phosphorus** and **Sulfur (up to 1975)
***Phosphorus**, **Sulfur**, and **Relat**ed **Elem**ents* (1976—1988)
***Phosphorus**, **Sulfur**, **Silicon**, and **Relat**ed **Elem**ents* (from 1989)
***Photochem**istry*
***Photochem**istry and **Photobiol**ogy*
***Phys**ical **Rev**iew*
***Phys**ical **Rev**iew **Lett**ers*
Phytochemistry
***Pol**ish **J**ournal of **Chem**istry* (from 1978)
***Pol**ish **J**ournal of **Pharmacol**ogy and **Pharm**acy*
Proc**eedings of the **Chem**ical **Soc**iety, **London
***Proc**eedings of the **Indian Acad**emy of **Sci**ences, **Sect**ion **A**,*
Proc**eedings of the **Indian Acad**emy of **Sci**ences, **Sect**ion **B
***Proc**eedings of the **J**ap**an Acad**emy*
Proc**eedings of the **K**oninklijke **Ned**erlandse **Akad**emie van **Wet**enschappen, **Ser**ies **B
***Proc**eedings of the **Nat**ion**al Acad**emy of **Sci**ences of the **U**nited **S**tates of **A**merica*
Proc**eedings of the **R**oyal **Soc**iety of **Edinburgh
Proc**eedings of the **R**oyal **Soc**iety of **London**, **Ser**ies **A
Proc**eedings of the **R**oyal **Soc**iety of **London**, **Ser**ies **B
***Prog**ress in **Bioorg**anic **Chem**istry*
***Prog**ress in the **Chem**istry of **Org**anic **Nat**ural **Prod**ucts* (from 1980)
***Prog**ress in **Inorg**anic **Chem**istry*
***Prog**ress in **Med**icinal **Chem**istry*
***Prog**ress in **Nucleic Acid Res**earch and **Mol**ecular **Biol**ogy*
***Prog**ress in **Nucl**ear **Magn**etic **Reson**ance **Spectrosc**opy*
***Prog**ress in **Phys**ical **Org**anic **Chem**istry*
***Prog**ress in **Stereochem**istry*
Prog**ress in **Thin-Layer Chromatogr**aphy and **Relat**ed **Methods
***Pure** and **Appl**ied **Chem**istry*
*Quarterly **Rev**iews, **Chem**ical **Soc**iety*
***Quimia** (**Barcelona**)*
Recent Dev**elopments in the **Chem**istry of **Nat**ural **Carbon Comp**ound**s
Recherches
***Rec**ord of **Chem**ical **Prog**ress*
Rec**ueil des **Trav**aux **Chim**iques des **Pays-Bas
***Rev**ista **Bras**ileira de **Chim**ica*
***Rev**iew of the **Pol**ish **Acad**emy of **Sci**ences*
***Rev**iews of **Pure** and **Appl**ied **Chem**istry*
***Rev**ue de **Chim**ie, **Acad**emia de la **Repub**lique **Pop**ulaire **Roum**aine*
***Rev**ue **Roum**aine de **Biochim**ie*
***Rev**ue **Roum**aine de **Chim**ie*
***Rocz**niki **Chem**ii* (up to 1977)
***Schweiz**erische **Apoth**eker-**Zeit**ung*
Science
***Sciences** (New York **Acad**emy of **Sci**ences)*
Sciences (Paris)
*South **Afr**ical **J**ournal of **Chem**istry*
Spectrochim**ica **Acta**, **Part A
Spectrochim**ica **Acta**, **Part B
***Spectrosc**opy **Lett**ers*
Steroids
***Steroids** and **Lipids Res**earch*
Struc**ture and **Bonding (Berlin)
Synlett
Synthesis
***Synth**etic **Commun**ications*
***Synth**etic **Met**als*
Talanta
Tetrahedron
Tetrahedron Asymmetry (from 1990)
***Tetrahedron Lett**ers* (from 1980)
***Top**ics in **Curr**ent **Chem**istry* (from 1974)
***Top**ics in **Stereochem**istry*
***Trans**actions of the **Faraday Soc**iety*
***Transition Met**al **Chem**istry*
***Transition Met**al **Chem**istry (**Weinheim, Ger**many)*
***Trends** in **Biochem**istry **Sci**ences*
Xenobiotica
***X-Ray Spectrom**etry*
***Yakugaku Zasshi** (**J**ournal of **Pharm**aceutical **Soc**iety of **Jap**an)*
Yuki Gosei Kagaku Kyokai Shi
*Zeitschrift für **Analy**tische **Chemie*** (up to 1944)
*Zeitschrift für **Anorg**anische und **Allg**emeine **Chem**ie*
*Zeitschrift für **Chem**ie*
*Zeitschrift für **Elektrochem**ie* (1952—1962)
*Zeitschrift für **Elektrochem**ie und **Angew**andte **Phys**ikalische **Chem**ie* (up to 1951)
*Zeitschrift für **Kristallogr**aphie* (from 1978)
*Zeitschrift für **Naturforsch**ung, **Teil A**,*
*Zeitschrift für **Naturforsch**ung, **Teil B**,*
*Zeitschrift für **Naturforsch**ung, **Teil C**,*
*Zeitschrift für **Phys**ikalische **Chem**ie (**Frankfurt am Main**)*
*Zeitschrift für **Phys**ikalische **Chem**ie (**Leipzig**)*
*Zeitschrift für **Phys**ikalische **Chem**ie (**München**)*
*Zeitschrift für **Phys**ikalische **Chem**ie (**Wiesbaden**)*