

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://www.russchembull.ru>, <http://www.springer.com/journal/11172>, and www.springerlink.com.

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**)*¹ dealing with topical problems of chemical science as well as information communications. The journal publishes studies in **various 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*², chemistry of polymers. In addition, papers on supramolecular chemistry, nanochemistry, materials chemistry, medicinal 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** should represent an integration and analysis of results of a series of studies dealing with a common topic mostly carried out by one author or a group of authors.*³ **Prognostic and analytical reviews** should provide a critical consideration of the current state and prospects for development of

*¹ An analytical review is a generalizing paper devoted to the analysis of topical problems in which published data (at least 50% of references should be within the last 15 years) are used to illustrate one or another statement. Exhaustive reviews of enumerative character are not accepted for publication.

*² 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.

*³ To evaluate the contribution of the author's research to the given field of chemistry, authors are advised not to restrict themselves to citing their own works.

relevant issues of chemical sciences. The size of reviews is not strictly limited.

1.3. The size of **Full Papers** is not strictly limited; however, it is desirable that it does not exceed 16 pages of typewritten text (three figures are considered equivalent to one page). The size of a **Brief Communication** should not exceed eight typewritten pages. **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.

1.4. 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.

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

1.6. **For registration and publication**, authors are requested to submit the following **materials and documents** to the editorial office:*⁴

*⁴ The files of manuscripts, enclosed materials, and documents should be sent to the editorial office e-mail address: incoming@ioc.ac.ru (or bring to the editorial office on a flash card). After receiving notification on the assignment of the registration number from the editorial office, the author should send the first page and the documents indicated in clauses 1.6.1 and 1.6.7 with original signatures to the editorial office by ordinary mail, with indication of the registration number. Address: room 236, N. D. Zelinsky Institute of Organic Chemistry, 47 Leninsky prosp., 119991 Moscow, Russian Federation.

- (1) a cover letter (one copy);
- (2) the manuscript, including an abstract, tables, figures, and figure captions (1 copy, see clauses 2.1, 2.2 and Appendix 1);
- (3) a graphical abstract (see clause 2.3 and Appendix 2);
- (4) a running title in duplicate (see clause 2.4 and Appendix 3);
- (5) computer files for all the materials*⁵ submitted in the formats indicated in Appendix 4, including pdf, are provided by e-mail (see Appendices 4 and 5);
- (6) 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;
- (7) the copyright transfer form signed by each author (see Appendix 6);
- (8) **the list of experts** in the fields considered in the paper (at least six persons) with indicated places of employment and e-mail addresses.

1.7. 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.*⁶

1.8. The manuscript should be concisely written, prepared according to the house style,*⁷ and thoroughly edited. The authors should not divide artificially the material of a single paper into several smaller publications addressing a common topic or duplicate the same data in tables, schemes, and figures.

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

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

1.11. A manuscript sent to the authors for revision should be returned in the revised form 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, the date it was received at the editorial office **after revision**, and the date it was **accepted for publication** after revision are indicated.

1.12. 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 ac-

companying letter, for reasons independent of the editors, the editors **reserve the right to sign the proof for printing.**

1.13. PDF files of the published papers from the Russian and English versions each 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 key words (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. Before the list of references, there should be acknowledgments, data about funding of the research, compliance with ethical standards, and the presence/absence of the conflict of interest.*⁸ The list of references should be given at the end of the paper. Figures, figure captions, and tables should appear in the manuscript as they are mentioned; besides, they should be presented in separate files named "tables" and "figures".

Letters to the Editor are not divided into sections; they should include the title, the authors' names and affiliations, the text of the manuscript with the necessary experimental details, acknowledgments, data about funding of the research, compliance with ethical standards, the presence/absence of the conflict of interest,*⁸ and the abstract and keywords in English.

2.3. 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 2). 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.

2.4. The authors suggest a running title of the paper in English (no more than 45 characters including spaces, see Appendix 3) 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 at the sessions of the Editorial Board on December 17, 1999, December 13, 2010, and November 11, 2019.

*⁵ The materials indicated in clauses 1.6.3—1.6.6 should be presented as a single file.

*⁶ Please, indicate the registration number and the surname of the first author in all future correspondence.

*⁷ The detailed description of the journal's house style for the preparation of papers is given in Appendix 7.

*⁸ This information should be indicated in all manuscripts submitted in 2021.

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

Chromium and tungsten complexes with a paramagnetic gallaimidazole ligand

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The reaction of digallane [(dpp-bian)Ga—Ga(dpp-bian)] (**1**) (dpp-bian is 1,2-bis[(2,6-diisopropylphenyl)imino]acenaphthene dianion) with chromium or tungsten hexacarbonyl affords the complexes [(dpp-bian)Ga—Cr(CO)₅] (**2**) and [(dpp-bian)Ga—W(CO)₅] (**3**), respectively, containing the neutral radical [(dpp-bian)Ga·]. In both cases, temperature-dependent solvation of the gallium center was observed in a tetrahydrofuran solution. The recrystallization of compound **2** from pyridine gave the new complex [(dpp-bian)(Py)Ga—Cr(CO)₅] (**4**). New compounds **2**–**4** were characterized by EPR and IR spectroscopy and elemental analysis. The molecular structures of complexes **2**–**4** were established by single-crystal X-ray diffraction.

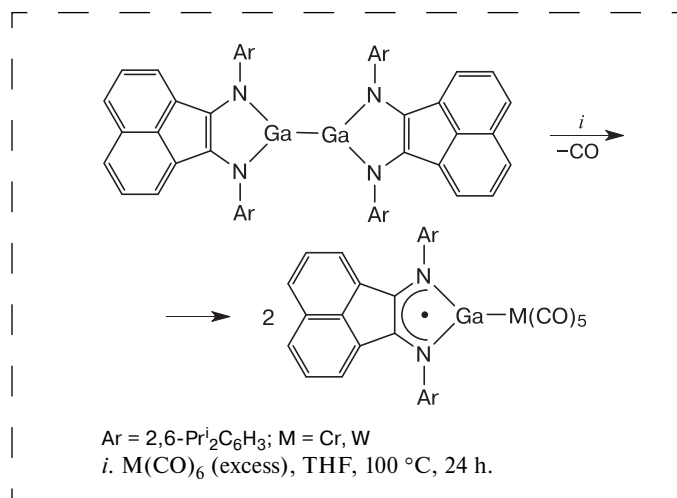
Key words: gallium, gallaimidazoles, chromium, tungsten, metal–metal bonds, redox-active ligands, molecular structure.

Element of the journal contents including a graphical abstract

Chromium and tungsten complexes with a paramagnetic gallaimidazole ligand

V. G. Sokolov, A. A. Skatova, A. V. Piskunov,
E. V. Baranov, I. L. Fedushkin, Y. Zhao,
and X.-J. Yang

Russ. Chem. Bull., 2020, 69, No. 8, 1537–1543
Izv. Akad. Nauk, Ser. Khim., 2020, No. 8, 1537–1543



Running title

Cationic polyisoprene structure

*Appendix 4***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*):

Text editors: Microsoft Word for Windows. Tables are accepted only in the MS Word format.

The text should not contain cross-references, inserts, templates, links to published sources, or hyperlinks.

Graphics: Bitmap graphics must be provided in the TIFF format with a resolution of at least 600 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 600 dpi in the TIFF format (LZW compression) or in the JPG format with a minimum compression.

The files for schemes and graphs **without half-tone inserts** should be in TIFF, JPG, or PDF format in the black-and-white mode (Line_art, Black_and_White, Bitmap). The pixelized (raster) drawings are accepted only as TIFF or JPG files.

The **half-tone drawings or graphs with half-tone inserts** should be submitted as TIFF, JPG, or PDF files in the half-tone black-and-white mode (Grayscale). The pixelized (raster) drawings are accepted only as TIFF or JPG files.

Color drawings should be presented in the TIFF, JPG, or PDF format in the CMYK (for color printing) or RGB (for the colored figures in the electronic version) modes. The pixelized (raster) drawings are accepted only as TIFF or JPG files.

Vector figures (not diagrams) must necessarily be submitted in the WMF, EPS CorelDraw* (preferably, version 13.0) 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 conversion of fonts into curves and with the print preview.

Vector illustrations **should not contain dotter fill patterns** such as Noise, Black&white noise, or Top noise. For vector graphics, all fonts used should be embedded in the file.

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, Microsoft Excel, Origin for Windows. 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: ChemDraw, ChemWindow, ISIS Draw (embedded in the text with enclosing initial files).

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, 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*.

*Appendix 5***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:

ChemDraw _____

ChemWindow _____

ISIS Draw _____

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 6

Copyright transfer agreement

Author _____

Title _____

The undersigned, with the consent of all co-authors (if any, subsequently called the "Author"), hereby transfer, without compensation, the exclusive copyrights to the given manuscript (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 online 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 7

3. House style for the preparation of manuscripts for the journal *Russian Chemical Bulletin*

1. Manuscripts are typed **double space** (without corrections and insertions) 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 text **should not contain cross-references, inserts, templates, links to published sources, or hyperlinks**.

2. **The authors should submit manuscripts as computer files on IBM-compatible carrier of any format.**^{*9} Appendix 4 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 5) should be enclosed.

3. All pages of the manuscript including the list references, tables, figure captions, key words for the subject index, and the graphical abstract should be **numbered**. Each table should be entitled and given in 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. All graphical files including the images for the graphical abstract may also be submitted to the editorial office in original formats. For figures, the corresponding **graphical files** should be presented (see Appendices 4 and 5). 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); **a graph** should have designations for coordinate axes (the measured value and the units of measure), curves, and other details the units of measure on the coordinate axes are normally presented using a slash ($C/\text{mol L}^{-1}$; ν/cm^{-1}). Relative or conventional units and % are exceptions; they are given in parentheses: C (%); U (rel. units). The lines within the figure should be numbered (the digits are typed in italic: *1, 2*, etc.), and each number should be explained in the figure caption (not in the figure). The experimental points should be preferably depicted as hatched and empty circles, squares, triangles, and rhombuses. The curves may also differ in being drawn with either continuous or dashed line. All lines should be clearly drawn and have a thickness (usually 3 pt) that would allow reducing the figure to the final size in the journal. The coordinate axes should be drawn in black (not gray) lines in most cases. The background of the graph or diagram should be white with no grid lines. Elements of **diagrams** and **photos** (columns, gel tracks, and so on) should be numbered by italicized Arabic numerals (*1, 2*, etc.), and the numbers should be explained in the figure caption (not in the figure).

A figure should have a title and an informative caption, which should provide understanding of its meaning without resorting to the text (conditions specific to the given experiment should be

^{*9} The files should be sent to the Editorial Board by e-mail (incoming@ioc.ac.ru).

indicated). 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.**

Publishing of color illustrations is free for authors provided that they appear **only in the electronic version of the paper**, while the same figures in the printed version are black-and-white. The authors should bear in mind that the black-and-white figures in the printed version would retain the captions of the color electronic version; therefore, references to color should be avoided in the figure captions. The authors should select colors in such a way that information content is retained in black-and-white printing. The colored lines in the plots should be marked with letters, numbers, or special symbols; alternatively, the line styles should be different for different colors. The colored areas in illustrations should preferably be marked with different signs or special symbols, rather than by the same symbols of different colors. When there is a large number of colored areas in similar color shades it is desirable to additionally mark the areas by symbols or hatching. The inscriptions and designations should be either black or white depending on the background and not colored.

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:

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

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 8. 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 9) and other units that can be exactly defined in terms of the SI units (see Appendix 10). 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 · 10⁻¹⁹ J; 1 amu = 1.66054 · 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 $\log \epsilon$): 239 (6900), 305 (1200). IR (CCl₄), ν/cm^{-1} : 3310 ($\equiv\text{C-H}$); 1722 (C=O). Descriptions of **NMR spectra** should include chemical shifts, multiplicities, integral intensities, assignment, and spin-spin coupling constants, for example: ¹H 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).

¹H and ¹³C NMR chemical shifts obtained using instruments operating at frequencies below 400 MHz (or 100 MHz for ¹³C) 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.

It is necessary to present the chemical shifts of the standard.

Example of notation with solvent signals being used as the standard: "The ¹H NMR chemical shifts are referred to the residual signal of CHCl₃ (δ_{H} 7.27) for solutions in CDCl₃ and to the residual signal of CHD₂OD (δ_{H} 3.31) for solutions in CD₃OD. The ¹³C NMR chemical shifts are referred to the central solvent signal (δ_{C} 77.0) for solutions in CDCl₃ and to δ_{C} 49.0 for solutions in CD₃OD.

If all spectra have been recorded at the same temperature and in the same solvent, 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 ¹³C, ³¹P, 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), C(3)H₂. The protons contained in complex groups responsible for a particular signal should be underlined (e.g., CH₂CH₂CH₃). 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.). For multiplets, range of chemical shifts should be indicated.

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

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 – H₂O]⁺ (100), 353 [M – H₂O – Me]⁺ (23), etc. MS (CI, 200 eV), m/z (I_{rel} (%)): 387 [M + H]⁺ (100), 369 [M + H – H₂O]⁺ (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 647.3587 [M + Na]⁺; calculated for C₃₃H₆₀NaO₅SSi₂⁺ 647.3592; found m/z 663.3327 [M + K]⁺; calculated for C₃₃H₆₀KO₅SSi₂⁺ 663.3332.

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

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

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 (λ), and the temperature (temp) of measurements are also to be indicated. For example: $[\alpha]_{\text{D}}^{23} + 35.8$ (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 be presented as drawing(s) of the molecule (with atom numbering) or the crystal packing and tables containing the **required** geometric characteristics of molecules (**selected** bond lengths, bond angles, and torsion angles). It is recommended to present atoms as thermal ellipsoids (except for cases of disorder, total librations of moieties or bulky molecules), with the probability being indicated in the caption. **Full tables** of atomic coordinates, thermal factors, and full tables of bond lengths and bond angles are not reported in the papers, but are deposited with the Cambridge Crystallographic Data Centre (CCDC) for organic compounds and the Inorganic Crystal Structure Database (ICSD, Gmelin Institute, Karlsruhe) for inorganic compounds. Before submitting the manuscript to the editorial office, the authors should check the quality of cif files at the checkCIF website of the International Union of Crystallography (<http://checkcif.iucr.org>). Any warnings of A and/or B level should be addressed and explained in the checkCIF pdf document, which is submitted to the editorial office together with the cif files. The filename.cif files should contain res and hkl files corresponding to the final structure refinement. At least, a combination of cif and fcf files should be submitted. The atom numbering should be the same in these files and in the figures in the manuscript.

It is necessary to indicate the **CCDC or ICSD number** for each structure in the manuscript.

The crystallographic data (unit cell parameters, space group, etc. and experimental and structure refinement details) should be given in Experimental or in tables. In Experimental, the following data should be successively given: crystal growth conditions, type of diffractometer, monochromator, radiation, radiation wavelength, temperature of the experiment, scan mode, absorption corrections, structure solution method, refinement of positions and thermal parameters of nonhydrogen atoms, hydrogen atom refinement details, and the program package used.

Example of notation: "Single crystal X-ray diffraction analysis was performed on Bruker Apex II (for **2**, **3**, **8**, and **10**) or Bruker Apex II DUO (for **5–7** and **9**) diffractometers equipped with

a CCD detector (Mo-K α , $\lambda = 0.71073$ Å, graphite monochromator).²⁷ The semiempirical correction was applied using the SADABS program for all compounds.²⁸ The structures were solved by direct methods and refined by the full-matrix least-squares method in the anisotropic approximation for all non-hydrogen atoms. The hydrogen atoms of the OH groups of water and alcohol molecules in complexes **2**, **5**, **8**, and **9** were located from difference Fourier maps, while positions of other hydrogen atoms were generated geometrically. All hydrogen atoms were refined in the isotropic approximation by the riding model. The solvent molecules in complexes **2** and **7–10** disordered over several positions were eliminated from the refinement by the SQUEEZE\Platon procedure. The calculations were carried out by the SHELX program package²⁹ using OLEX2.³⁰

The crystallographic parameters and structure refinement details for compounds **2**, **3**, and **5–10** are summarized in Tables 4–6. The structural data for compounds **2**, **3**, and **5–10** are deposited with the Cambridge Crystallographic Data Centre (CCDC Nos 1993446 (**2**), 1993447 (**3**), 1993448 (**5**), 1993449 (**6**), 1993450 (**7**), 1993451 (**8**), 1993561 (**9**), and 1993562 (**10**)); they are available from deposit@ccdc.cam.ac.uk or http://www.ccdc.cam.ac.uk/data_request/cif. The geometry of the metal polyhedra was determined using the SHAPE 2.1 program.^{31,32**10}

Example: Table 4. Crystallographic data and structure refinement details for compound **2**

Parameter	Value
Molecular formula	$C_{121}H_{167}Cd_2EuN_2O_{16}$
M	2282.32
T/K	150(2)
System	Triclinic
Space group	$P\bar{1}$
$a/\text{Å}$	17.370(19)
$b/\text{Å}$	18.346(11)
$c/\text{Å}$	21.352(14)
α/deg	81.600(11)
β/deg	88.36(3)
γ/deg	84.373(19)
$V/\text{Å}^3$	6699(9)
Z	2
$d_{\text{calc}}/\text{g cm}^{-3}$	1.132
μ/mm^{-1}	0.830
$\lambda_{\text{max}}/\text{deg}$	26.000
$T_{\text{min}}/T_{\text{max}}$	0.658/0.811
Number of reflections	
measured	59215
independent	26221
with $I > 2\sigma I$	20010
(R_{int})	(0.0297)
Number of refined parameters	4856
GOOF	1.023
R_1 ($I > 2\sigma I$)	0.03388
wR_2 (for all reflections)	0.0887
Residual electron density	–0.628/1.104
$(\Delta\rho_{\text{min}}/\Delta\rho_{\text{max}})/e \text{ Å}^{-3}$	

*10 M. A. Shmelev, Yu. K. Voronina, N. V. Gogoleva, A. A. Sidorov, M. A. Kiskin, F. M. Dolgushin, Yu. V. Nelyubina, G. G. Aleksandrov, E. A. Varaksina, I. V. Taydakov, and I. L. Eremenko, *Russ. Chem. Bull.*, 2020, 1557.

The table "Crystallographic data and X-ray diffraction experiment details" should include the following rows: molecular formula, molecular weight, system, space group, unit cell parameters: $a/\text{Å}$, $b/\text{Å}$, $c/\text{Å}$, α/deg , β/deg , γ/deg , $V/\text{Å}^3$, Z , (Z'), density $d_{\text{calc}}/\text{g cm}^{-3}$, absorption coefficient ν/cm^{-1} , scanning area, the number of measured reflections (R_{int}), the number of reflections with $I \geq 2\sigma(I)$, the number of refined parameters, R_1 ($I \geq 2\sigma(I)$), wR_2 (for 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). Each entry in the reference list should include only one publication. 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 11). In all cases, it is necessary to give references to the digital object identifier (DOI).

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. Farooq, G. K. S. Prakash, in *Activation and Functionalization of Alkanes*, Ed. C. L. Hill, Wiley-Interscience, New York, 1992.

Journals: L. Konnert, F. Lamaty, J. Martinez, E. Colacino, *Chem. Rev.*, 2017, **117**, 13757; DOI: 10.1021/acs.chemrev.7b00067.

For Russian journals translated into English, the English-language version is only referred to, e.g., V. B. Sokolov, G. F. Makhaeva, A. Yu. Aksinenko, V. V. Grigoriev, E. F. Shevtsova, S. O. Bachurin, *Russ. Chem. Bull.*, 2017, **66**, 1821; DOI: 10.1007/s11172-017-1953-y.

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 8

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; 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; FAB, fast atom bombardment; GC, gas chromatography; GLC, gas-liquid chromatography; GC/MS and GLC/MS, chromatography-mass 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.

Solvents, reagents, radicals, ligands, and protecting groups: Ac, acetyl; acac, acetylacetonate; Ac₂O, 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 (PhCH₂); Boc, *tert*-butyloxycarbonyl; bpy, 2,2'-bipyridine; Bu, *n*-butyl; Buⁱ, isobutyl; Bu^t, *tert*-butyl; BuOH (or BuⁿOH), *n*-butyl alcohol; Bu^sOH, *sec*-butyl alcohol; Bu^tOH, *tert*-butyl alcohol; Bz, benzoyl (PhCO); Cp, cyclopentadienyl; Cp*, pentamethylpentadienyl; DDABCO, 1,4-diazabicyclo[2.2.2]octane; DBU, 1,8-diazabicyclo[5.4.0]undec-7-ene; DCC, dicyclohexylcarbodiimide; DDQ, 2,3-dichloro-5,6-dicyano-1,4-benzoquinone; DEAD, diethyl azodicarboxylate; DIBAL, diisobutylaluminum hydride; dien, diethylenetriamine; DIPT, diisopropyl tartrate; DMAP, 4-di-

methylaminopyridine; DME, 1,2-dimethoxyethane (monoglyme); DMF, dimethylformamide; DMSO, dimethyl sulfoxide; en, ethylenediamine (only as a ligand); Et, ethyl; Et₂O, diethyl ether; EtOH, ethanol; Ger, geranyl; Far, farnesyl; Fc, ferrocenyl; Hacac, acetylacetone; Hal, halogen; H₄edta, ethylenediamine-tetraacetic acid; Het, hetaryl; HMPA, hexamethylphosphoric triamide; hmta, hexamethylenetetramine; LDA, lithium diisopropylamide; MCPBA, *m*-chloroperbenzoic acid; Me, methyl; MeCN, acetonitrile; Me₂CO, 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*-bro-

mosuccinimide; NCS, *N*-chlorosuccinimide; NIS, *N*-iodosuccinimide; PCC, pyridinium chlorochromate; PDC, pyridinium dichromate; Ph, phenyl; pn, propylenediamine; PPTS, pyridinium *para*-toluenesulfonate; Pr, *n*-propyl; Prⁱ, isopropyl; PrⁱOH, *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 9

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 10

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 · 10 ⁴ J
	thermochemical calorie	cal (thermochem.)	4.184 J
	international calorie	cal	4.1868 J
Radioactivity	curie	Ci	3.7 · 10 ¹⁰ s ⁻¹

* The list is not exhaustive.

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) [in 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 Prirodnikh Soedinenii [Chem. Nat. Compd. (Engl. Transl.)]
Kinetika i Kataliz [Kinet. Catal. (Engl. Transl.)]
Kristallografiya [Sov. Phys.-Crystallogr.; from 1994, Crystallogr. Repts. (Engl. Transl.)]

* The list of abbreviations (CAS Source Index (CASSI) Search Tool) used in the list of references can also be found through the Internet at <http://cassi.cas.org/>

** 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.)].

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. Chem. J. (in Russian)]
Uspekhi Khimii [Russ. Chem. Rev. (Engl. Transl.)]
Vestnik MGU, Seriya 2. Khimiya [Moscow Univ. Chem. Bull. (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
Agricultural and Biological Chemistry
AIChE Journal
AIChE Monograph Series
AIChE Papers
American Journal of Pharmacy (and the Sciences Supporting Public Health)
American Journal of Science
Analyst (London)
Analytical Biochemistry
Analytical Chemistry
Analytica Chimica Acta
Analytical Letters
Angewandte Chemie
Angewandte Chemie, International Edition in English (c 1962 г.)
Angewandte Chemie, Supplement
Annales de Chimie (Paris)
Annales de Microbiologie (Paris)
Annales Pharmaceutiques Francaises
Annual Reports in Medicinal Chemistry
Annual Reports on the Progress of Chemistry, Section A
Annual Reports on the Progress of Chemistry, Section B
Annual Review of Biochemistry
Annual Review of NMR Spectroscopy
Antibiotics Annual (1953—1959)
Antibiotics and Chemotherapy (Basel)
Antibiotics and Chemotherapy (Washington, DC)
Antimicrobial Agents Annual (1960)
Antimicrobial Agents and Chemotherapy (from 1961)
Applied Spectroscopy
Archives of Biochemistry (1942—1951)
Archives of Biochemistry and Biophysics
Archiv der Pharmazie und Berichte der Deutschen Pharmazeutischen Gesellschaft (up to 1971)
Archiv der Pharmazie (Weinheim, Germany) (from 1972)
Arkiv för Kemi (up to 1970)
Arzneimittel-Forschung
Australian Journal of Biological Sciences
Australian Journal of Chemistry
Berichte der Bunsengesellschaft für Physikalische Chemie (from 1963)
Berichte der Deutschen Chemischen Gesellschaft (up to 1946)
Biochemical and Biophysical Research Communications
Biochemistry
Biochemical Journal
Biochemical Pharmacology
Biochemical Preparations
Biochemical Reviews
Biochemical Society Transactions
Biochemische Zeitschrift
Biochimica et Biophysica Acta
Bioinorganic Chemistry
Biological Chemistry Hoppe-Seyler (from 1985)
Biomedical Mass Spectrometry
Bioorganic Chemistry
Biopolymers
British Journal of Industrial Medicine
British Journal of Pharmacology and Chemotherapy (up to 1967)
British Journal of Pharmacology (from 1968)
Bulletin de Academie Polonaise des Sciences, Serie des Sciences Chimiques
Bulletin of the Chemical Society of Japan
Bulletin des Sociétés Chimiques Belges
Bulletin de la Société Chimique de France
Cancer Research
Canadian Journal of Biochemistry
Canadian Journal of Chemistry
Canadian Journal of Pharmaceutical Sciences
Canadian Journal of Spectroscopy
Carbohydrate Research
Catalysis Letters
Chemica Scripta (from 1971)
Chemical Abstracts
Chemical Communications (up to 1969)
Chemical Engineer (London)
Chemical and Engineering News
Chemical Engineering (New York)
Chemische Berichte (from 1947)
Chemistry in Britain
Chemistry of Heterocyclic Compounds
Chemische Industrie (Düsseldorf)
Chemistry and Industry (London)
Chemie-Ingenieur-Technik
Chemistry Letters
Chemicke Listy
Chemistry in New Zealand
Chemical and Pharmaceutical Bulletin
Chemical Physics
Chemistry and Physics of Carbon
Chemical Physics Letters
Chemistry and Physics of Lipids
Chemical Reviews
Chemische Rundschau
Chemical Society Reviews
Chemie in Unserer Zeit
Chemisches Zentralblatt
Chemiker-Zeitung
Chimia
Chimie et Industrie (Paris)
Chromatographia
Chromatographic Reviews
Collection of Czechoslovak Chemical Communications
Colloid and Polymer Science
Computer Programs for Chemistry
Computers in Chemistry and Instrumentation
Computing Reviews
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences (up to 1965)
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, Serie A,
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, Serie B,
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, Serie C,
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, Serie D,

- Comptes Rendus des Séances de la Société de Biologie et de Ses Filiales*
Coordination Chemistry Reviews
Croatica Chemica Acta
Current Science
Drug Metabolism Reviews
Egyptian Journal of Chemistry
Electrochimica Acta
European Journal of Biochemistry
European Polymer Journal
Experientia
Faraday Discussions of the Chemical Society
Faraday Symposia of the Chemical Society
Farmacía (Bucharest)
Farmaco (Pavia)
Farmacía y Química
FEBS (Federation of European Biochemical Societies) Letters
FEBS Proceedings of the Meetings
Fortschritte der Chemischen Forschung (1949–1973); from 1974, *Top. Curr. Chem.*
Fortschritte der Chemie Organischer Naturstoffe (1938–1979); from 1980, *Prog. Chem. Org. Prod.*
Fresenius' Zeitschrift für Analytische Chemie (from 1947)
Gazzetta Chimica Italiana
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 Carbohydrate 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 (Synopsis)
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 Liebig's Annalen der Chemie (up to 1978)
Kagaku Kagaku (Abridged Edition in English)
Kemija u Industriji
Kemia-Kemi
Kemisk Tidskrift
Khimiya u Industriya (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
Microchemical Journal
Microchemical Journal, Symposium Series
Microchimica Acta
Molecular Crystals and Liquid Crystals
Molecular Physics
Molecular Spectroscopy
Molecular Structure by Diffraction Methods
Monatsberichte der Deutschen Akademie der Wissenschaften zu Berlin
Monatshefte für Chemie
Nachrichten aus Chemie und Technik (up to 1976)
Nachrichten aus Chemie, Technik und Laboratorium (from 1977)
National Academy of Sciences National Research Council Division of Chemistry and Chemical Technology Annual Report
Nature (London)
Nature (Paris)
Naturwissenschaften
New Journal of Chemistry (from 1987)
Nippon Kagaku Kaishi (from 1972)
Nippon Kagaku Zasshi
Organic Magnetic Resonance (up to 1984)
Organic Mass Spectrometry
Organic Photochemistry
Organic Preparations and Procedures International
Organic Reactions
Organic Reaction Mechanisms
Organic Sulfur Compounds
Organic Syntheses
Organometallic Chemistry
Organometallic Chemistry Reviews, Section A
Organometallic Chemistry Reviews, Section B
Organometallic Reactions
Organometallics
Österreichische Chemiker-Zeitung
Pesticides
Pesticide Science
Pharmaceutical Journal
Pharmazie
Phosphorus
Phosphorus and Sulfur (up to 1975)
Phosphorus, Sulfur, and Related Elements (1976—1988)
Phosphorus, Sulfur, Silicon, and Related Elements (from 1989)
Photochemistry
Photochemistry and Photobiology
Physical Review
Physical Review Letters
Phytochemistry
Polish Journal of Chemistry (from 1978)
Polish Journal of Pharmacology and Pharmacy
Proceedings of the Chemical Society, London
Proceedings of the Indian Academy of Sciences, Section A
Proceedings of the Indian Academy of Sciences, Section B
Proceedings of the Japan Academy
Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen, Series B
Proceedings of the National Academy of Sciences of the United States of America
Proceedings of the Royal Society of Edinburgh
Proceedings of the Royal Society of London, Series A
Proceedings of the Royal Society of London, Series B
Progress in Bioorganic Chemistry
Progress in the Chemistry of Organic Natural Products (from 1980)
Progress in Inorganic Chemistry
Progress in Medicinal Chemistry
Progress in Nucleic Acid Research and Molecular Biology
Progress in Nuclear Magnetic Resonance Spectroscopy
Progress in Physical Organic Chemistry
Progress in Stereochemistry
Progress in Thin-Layer Chromatography and Related Methods
Pure and Applied Chemistry
Quarterly Reviews, Chemical Society
Quimica (Barcelona)
Recent Developments in the Chemistry of Natural Carbon Compounds
Recherches
Record of Chemical Progress
Recueil des Travaux Chimiques des Pays-Bas
Revista Brasileira de Química
Review of the Polish Academy of Sciences
Reviews of Pure and Applied Chemistry
Revue de Chimie, Academia de la Republique Populaire Roumaine
Revue Roumaine de Biochimie
Revue Roumaine de Chimie
Roczniki Chemii (up to 1977)
Schweizerische Apotheker-Zeitung
Science
Sciences (New York Academy of Sciences)
Sciences (Paris)
South African Journal of Chemistry
Spectrochimica Acta, Part A
Spectrochimica Acta, Part B
Spectroscopy Letters
Steroids
Steroids and Lipids Research
Structure and Bonding (Berlin)
Synlett
Synthesis
Synthetic Communications
Synthetic Metals
Talanta
Tetrahedron
Tetrahedron Asymmetry (from 1990)
Tetrahedron Letters (from 1980)
Topics in Current Chemistry (from 1974)

<i>Topics in Stereochemistry</i>	<i>Zeitschrift für Elektrochemie</i> (1952—1962)
<i>Transactions of the Faraday Society</i>	<i>Zeitschrift für Elektrochemie und Angewandte Physikalische Chemie</i> (up to 1951)
<i>Transition Metal Chemistry</i>	<i>Zeitschrift für Kristallographie</i> (from 1978)
<i>Transition Metal Chemistry (Weinheim, Germany)</i>	<i>Zeitschrift für Naturforschung, Teil A,</i> <i>Zeitschrift für Naturforschung, Teil B,</i> <i>Zeitschrift für Naturforschung, Teil C,</i>
<i>Trends in Biochemistry Sciences</i>	<i>Zeitschrift für Physikalische Chemie (Frankfurt am Main)</i>
<i>Xenobiotica</i>	<i>Zeitschrift für Physikalische Chemie (Leipzig)</i>
<i>X-Ray Spectrometry</i>	<i>Zeitschrift für Physikalische Chemie (München)</i>
<i>Yakugaku Zasshi (Journal of Pharmaceutical Society of Japan)</i>	<i>Zeitschrift für Physikalische Chemie (Wiesbaden)</i>
<i>Yuki Gosei Kagaku Kyokai Shi</i>	
<i>Zeitschrift für Analytische Chemie</i> (up to 1944)	
<i>Zeitschrift für Anorganische und Allgemeine Chemie</i>	
<i>Zeitschrift für Chemie</i>	
