

Guidelines for Authors of *Russian Journal of General Chemistry*

1. GENERAL REMARKS

Manuscripts that do not comply with these guidelines or contain numerous grammatical, spelling, or stylistic errors will not be considered and will be returned to the authors for corrections. The editor may request any additional information related to the manuscript (details of procedure, spectra, and other experimental data). Failure to comply with the editor's requests may result in rejection. Regardless of the original peer review, the manuscript can be rejected or returned for revision at any stage of preparation for publication if serious mistakes, plagiarism, or incorrect citations are discovered.

Russian Journal of General Chemistry publishes articles on topical problems of chemistry and related subjects, including those at the frontier of other scientific fields such as physics, biology, and geology. All submitted manuscripts are subject to independent peer review. As a rule, the journal publishes articles that present the results of finalized studies. Material of low interest or those containing mainly a summary of previously published works will not be accepted. Along with regular research articles, following consultation with the editorial board, the journal also publishes reviews provided that the subject is topical and relevant. Short communications requiring rapid publication in order to claim priority can be submitted in the form of letters to the editor. These should be one or two pages long, usually without tables or figures. Discussion articles of four pages or less are also welcome.

2. MANUSCRIPT SUBMISSION

The submission should include:

- The text including a full title page;
- The list of authors, their affiliations, full postal address, phone number, and e-mail addresses;
- A reference to any previous published report on the area of study.
- A scanned copy of completed copyright transfer agreement signed by all authors;
- A cover letter is optional and may contain any relevant information (including but not limited to suggestions of peers to review the manuscript; please note that the suggested peers cannot be former or present coauthors, collaborators, or supervisors).

Please be aware that strict compliance with the guidelines will significantly aid the processing of your submission.

3. MANUSCRIPT FORMAT

All pages should be numbered, including the title page, main text, list of references, tables, and figures. The manuscript should be written in English (American usage and spelling). If English is not your native language, you are encouraged to ask your colleagues or specialized language service providers for assistance.

The following order should be followed as closely as possible: title page (general information, see below for details); introduction; results and discussion; experimental; conclusions; acknowledgments; list of references; tables; figures; corresponding author with contact details.

The title page should start with the title following common capitalization rules. The title should be as brief and informative as possible. Please do not use abbreviations or special terms in the title. In general “Study of the Properties of...” can be made less wordy: “Properties of...”. The title should be followed by the surnames and initials of all the authors, their affiliations, the e-mail address of the corresponding author, abstract (no longer than 600 words) containing the most important aspects of the study, and a list of keywords (three to six terms most fully describing the manuscript contents). It is strongly recom-

mended that abbreviations or uncommon terms not be used in the abstract. Literature references in the abstract are not allowed. The keywords ideally should be single nouns.

The main text of the manuscript should start on the second page. It is recommended that the major parts of longer sections of text be separated with subheadings. Section headings should be given in capital letters on separate lines, first-level subheadings should be in italics on separate lines with title capitalization, and second-level subheadings should be in boldface.

The **Introduction** should provide a brief description of the studied field. Excessive information not related to the subject of the manuscript should be avoided. Excessive citation of the same scientific group should be avoided wherever possible; in the most cases, one to two references to the most significant or recent articles are sufficient. In the case of multiple references by the same author, the scientific significance of each cited article should be clearly stated. It is definitely unacceptable if the references in the introduction are limited to self-citations. Common knowledge available from general textbooks or student manuals should generally be avoided. Usually there is no need to use a first-level subheading in the introduction; however, it can be used in longer review texts. The introduction should generally finish with a statement of the specific problem being addressed in the manuscript.

The **Results** should be given and discussed as briefly as possible but as fully as necessary to achieve the goals stated in the introduction. Any extraneous results should be avoided. As much of the results as possible should be given in tables. Duplication of tabulated information in figures and/or in the text should be avoided. For instance, the text may include a description of general trends and analysis of the tabulated results; however, the full listing of the tabulated data in the text is unacceptable. Spectral and structural data in the main text should be limited to those necessary for discussion of the results in order to achieve the goals stated in the introduction.

Normally the **Conclusions** should not be divided into separate subsections, unless they follow a long discussion or review. In the conclusions, the achievement (or failure) of the goal stated in the introduction should be clearly demonstrated. Replication of insignificant results should be avoided. This section should not be a word-for-word copy of either the abstract or research goals.

The **Experimental** section should briefly describe all procedures and methods used throughout the work. Detailed description of trivial procedures (filtration, distillation, sampling, pH measurement, etc.) should be avoided unless the effects caused by these procedures are part of the investigation. On the other hand, the description of the experiment should be as complete as necessary for an independent laboratory to replicate the work. In particular, the description of a synthesis should include a complete list of chemicals and solvents with their purity grades and sources. Instrumental measurements using complex equipment should include the instrument type, brand name and model, as well as the measurement presets and options. Limiting the experimental section to unpublished procedures or to sources that are not easily accessible (local conference abstracts not available online, publications in rare languages, older textbooks, or private communications) should be avoided. In these cases, the reference should be accompanied by a complete description of the procedure necessary for its repetition. If several similar preparations or measurements are described, one of them should be described in detail, whereas for the others, listing the differences from the basic procedure is sufficient. Experimental details of the preparation of all new compounds should be included (see Section 5 for the guidelines).

Acknowledgments of assistance and financial support should follow the Experimental section. Acknowledgements of collaborators should include a brief description of their impact, e.g., provision of materials, experimental assistance, helpful discussion, manuscript preparation, etc.

4. DESCRIPTION OF COMPOUNDS

All newly synthesized compounds should be properly named. The nomenclature should follow current IUPAC guidelines. For brevity, throughout the manuscript chemical compounds can be referred to as Roman numbers (in boldface, without brackets); their numbering should follow the order they appear in the text. Similar structural formulas must not be used multiple times. For common chemicals,

ligands, and solvents, corresponding acronyms are allowed, such as THF, DMSO, TMS, Py, *acac*, en, etc., with the full name following its first mention. The following abbreviations are allowed in the description of compounds: boiling point, bp; melting point, mp; molar weight, *M*; formula weight, FW.

Elements in the elemental formulas of organic compounds should be ordered as C, H, with the remaining elements in alphabetical order. Molecular complexes and onium salts should be denoted using a dot (e.g. C₆H₇N·HCl). The following abbreviations are recommended in formulas: alkyl Alk, aryl Ar, heteryl Ht, halogen Hlg, CH₃ Me, C₂H₅ Et, C₃H₇ Pr (*i*-Pr), C₄H₉ Bu (or extended to *s*-Bu, *i*-Bu, or *t*-Bu), C₆H₅ Ph, CH₃CO Ac, mesyl Ms, tosyl Ts, as well as those commonly accepted for amino acids, nucleotides, and protective groups. Structures and schemes that exceed the page width are not allowed. Please carefully arrange structures in the schemes in order to keep them as compact as possible, but still clearly readable. Bond angles and bond lengths in schemes should appear as close to normal as possible. In most cases, structure editors (ChemDraw, ChemSketch, etc.) format structures using a predefined template; please select the most appropriate and use it throughout the whole manuscript.

The structures of new compounds should be checked with extreme care, since mistakes will be replicated in reference databases. The structures of new compounds cannot be included unless they are fully supported by structural proof of their identity and purity. An example of the presentation of names follows (note the use of a period, not a comma, for decimals).

5-Amino-4-[(morpholin-4-yl)carbonyl]-1-(phenylamino)-2,3-dihydro-1H-imidazol-2-one. Yield 21%, mp 229–231°C. IR spectrum, ν , cm⁻¹: 1644 (C=O), 1707 (C=O), 3056–3444 (NH, NH₂). ¹H NMR spectrum, δ , ppm: 3.40–3.45 m (4H, 2CH₂, morpholine), 3.60–3.67 m (4H, 2CH₂, morpholine), 5.98 s (2H, NH₂), 6.57–6.63 m (2H, C₆H₅), 6.80–6.87 m (1H, C₆H₅), 7.17–7.24 m (2H, C₆H₅), 8.64 s (1H, NH), 9.80 s (1H, NH). ¹³C NMR spectrum, δ C, ppm: 45.36, 66.71, 88.55, 113.02, 120.45, 129.42, 141.80, 147.74, 149.77, 163.23. Found, %: C 55.56; H 5.39; N 23.01. C₁₄H₁₇N₅O₃. Calculated, %: C 55.44; H 5.65; N 23.09. *M* 303.

5. PHYSICAL VALUES AND EQUATIONS

It is necessary to maintain a common style of names and acronyms throughout the entire manuscript; they should be explained after their first use. SI units should always be used. As noted above, decimals rendered with a dot.

The symbols of physical quantities and variables should be italicized (e.g., *T*, *K*), whereas their units should be in plain roman text. Subscripts and superscripts must be carefully placed at their correct positions.

Equations should be typed on separate lines and numbered in the order they appear in the manuscript. Please note that equations that are part of the text and do not need a reference should not be numbered. Sophisticated mathematical expressions should not be placed inside the text; please use either the Microsoft Word Equation tool or a special plugin (MathType, MathCad, etc.).

6. REFERENCES

The list of references should start on a new page. All the authors should be listed (“et al.” is not permitted).

In the main text, the reference numbers are given without superscript in square brackets. The numbering of references should be in the order they appear in the text, tables, and figures. More than one reference cannot be grouped under the same number. Listing of the same reference under different numbers is also not permitted.

In the reference list, the reference number should be followed by the names of authors, source title, and the necessary descriptive fields (see examples below). Titles are not necessary in the case of journal articles. A DOI should be given wherever available.

In the case of substantial deviation from the examples given below, the editor may return the manuscript for revision without a peer review.

BOOKS

Citing books and chapters in books is recommended in order to demonstrate the significance of the study and to show the wide range of available knowledge relevant to the study. On the other hand, references to books and book chapters are not recommended in the discussion or experimental sections; in this case, it is important that a page or section be cited rather than the whole book.

[1] Gordon, A.J. and Ford, R.A., *The Chemist's Companion. A Handbook of Practical Data, Techniques and References*, New York: Wiley, 1972, p. 53.

JOURNAL ARTICLES

[2] Zhang, L., Chae, S.-R., Hendren, Z., Park, J.-S., and Wiesner, M.R., *Chem. Eng. J.*, 2012, vols. 204–206, p. 87. doi 10.1016/j.cej.2012.07.103

COLLECTIONS OF ABSTRACTS AND REPORTS

References to abstracts must be kept to a minimum and be less than two years old. Either the corresponding journal article should be found, or the text should be rewritten so that the reference is avoided. In most cases references to abstracts or other sources that are not readily accessible should be avoided.

[3] Paronikyan, E.G., Noravyan, A.S., Dzhagaspantan, I.A., and Arzanunts, E.M., (*Proc. of the II Int. Conf. "Chemistry and Biological Activity of Oxygen- and Sulfur-Containing Heterocycles"*), vol. 1, Moscow, 2003, p. 382.

PATENTS

References to patents should include the issuing country, patent number, and year.

[4] Swiler, D.R., US Patent 2002069326, 2002.

PhD THESIS OR ABSTRACT

PhD theses are referred to using the name of the author, university, and year. However, a reference to a thesis is not recommended if a relevant journal article, book chapter, or patent can be substituted.

[5] Karpushkin, E., *PhD Thesis (Physics)*, Charles University, Prague, 2013.

SOFTWARE

It is necessary to accurately refer to the version of any software since it may influence the results. The software developer should be included if applicable or, alternatively, the company name. A reference to the original research paper describing the software algorithm or implementation may substitute as the reference to the software.

[6] Sheldrick, G.M., *SHELXL93*, Program for the Refinement of Crystal Structure. Gottingen University, Goettingen (Germany), 1993.

DATABASES AND WEB PAGES

If applicable, the specific ID should be referenced rather than the entire database.

A reference to a webpage should include the access date. It is not recommended to refer to private or public webpages that can be easily changed or deleted. It is recommended that any references to webpages be limited to static sources giving instrument or chemical provider information.

[7] Cambridge Structural Database System, Version 5.17, 1999.

[8] Cambridge Structural Database System, ID 877865.

[9] *L*-Alanine Product Page. <http://www.sigmaaldrich.com/catalog/product/sigma/a7627>. Accessed January 05, 2014.

7. TABLES

Each table should start on a new page, accompanied by the title and its number as stated in the text. Tables should be created with the relevant program of the text processor used and not be manually assembled from drawing elements. Abbreviations should be kept to a minimum; in case of inevitable numerous abbreviations, they should be explained in a footnote. It is recommended that large tables be subdivided into logical parts (e.g., elemental analysis data, spectral data, etc.).

The tables should not consist of less than four lines. In such a case, please describe data in the text. Where possible, compounds should be represented by a general structure with groups or substituents represented as R = Me, Et, Ph, etc.

In tables describing the preparation of series of compounds, the following column order is recommended: compound number (Roman numeral) or successive preparation number (Arabic numerals); if applicable the substituent in the general structure, preparation method (if applicable), yield (%), boiling point (pressure in mm Hg should be given as well), melting point (including the recrystallization solvent if applicable), other physical parameters (*d*, *n*_D, *M*_{RD}), elemental analysis data (found, %: C, H, etc.; formula; calculated, %: C, H, etc.), molecular weight (*M*) (found and calculated). The relevant derivatives (picrates, hydrazones) should be included in the same table.

8. FIGURES

It is recommended that figures be prepared using appropriate software. The figure should not be larger than 150 × 200 mm. Pictures and photographs should have a resolution that suffices to maintain all the necessary details when reproduced in the journal. Please note that all the figures should be in grayscale for printing purposes and all necessary details should be clear. Colored figures may be submitted for online versions only.

In a plot, the scale of all similar curves should be the same. If necessary, different types of curves can be combined in the same plot using two or more scales. Plots containing more than five curves should be avoided, except when they are perfectly distinguishable or extraction of a single curve is unnecessary (e.g., in the case of kinetic or dilution series illustrating a general trend).

The curves in the plot should be either labeled with successive Arabic numerals or generic labels. The first type of label is preferred when it is necessary to refer to a single curve in the text, or when a generic label cannot be easily constructed. In other cases, self-explanatory labels are preferred over bare numerals, e.g. 10%, 20%, and 30% with a corresponding description in the caption (e.g., “Acetone volume fractions in a mixed solvent are given close to the respective curves”).

Trivial plot captions should be avoided. They should be explanatory rather than descriptive. For instance, “Logarithm of rate constant as a function of reciprocal temperature” is a trivial caption duplicating the axis captions; “Determination of activation energy from Arrhenius equation” is better.

9. ELECTRONIC VERSION

The electronic copy of the manuscript and other relevant files should be sent to genchemistry@mail.ru and/or anisimova-elena-@mail.ru. Large files should be packed into standard archives (zip, rar, 7z, etc.). The use of file exchangers is possible.

The submission should include separate files for each figure. To simplify the review process, the figures can be included in the main text of the manuscript; however, separate files with self-explanatory names should also be submitted.

If any special software was used to prepare the submission, its version should be indicated. The source files for plots can be included to facilitate the editorial process.

The main text should be submitted in Microsoft Word format (*.doc or *.docx); a *.pdf file of the document may also be submitted for reference. Times New Roman font (11 pt) should be used for text with 1.5–2 line spacing and with 2 cm margins on each side. Greek symbols should be typed with Times New Roman font as well. The use of Symbol font is not recommended. Lines within a paragraph should be continuous, i.e., not ending with a carriage return (Enter key).

The following recommendations should be considered when preparing figures:

(1) Plots should be created in vector format (e.g., CorelDraw, OriginPro). This significantly facilitates the editorial process and speeds up publication. If the format used is not widely known, it is recommended to save it as a PDF file with the default printer settings set to “High quality print.”

(2) When it is impossible to save a figure in vector format, a black-and-white TIFF format should be used with a resolution of at least 600 dpi.

(3) In the case of photographs, a grayscale TIFF with 300 dpi resolution and 256 shades of grey is recommended. If the informative part of the picture contains any caption, two versions of the picture should be provided: with and without a caption.

(4) To create the illustrations of modeled molecular structures, it is recommended to use ChemBio3d or GaussView software. The image should be saved in PDF format as described above.

10. WORKING WITH PROOFS

We provide the corresponding author with a tentative timeline for the editorial process so that he/she is prepared in advance for working with proofs. After the manuscript is accepted in its final form and typeset, the corresponding author is provided with a galley proof for checking. We ask that corrections be sent within three working days in order to speed up publication. In the proof, only minor stylistic changes and typesetting corrections of mistakes are allowed.