

INSTRUCTIONS FOR AUTHORS

1. Overview

1.1. The international journal *Chemistry of Natural Compounds* publishes previously unpublished results of experimental research on the **isolation, structure elucidation, synthesis, and chemical transformations of NATURAL COMPOUNDS and their structure—activity (biological) relationships**. Subject matter can be submitted as experimental articles and short communications in Russian or good English. English articles with grammatical errors will not be published regardless of their content even with a favorable review. Articles on **essential oils** are accepted only for plants studied for the first time as short communications (no more than four pages). **Information** about published monographs, reports on conferences, advertisement of issued products, and announcements of chemistry competitions is published in the journal.

1.2. **Submitted articles** should be clearly stated and condensed as much as possible. Artificial division of articles into separate communications is not allowed.

The length of articles should be less than 15 pages; **short communications**, 4 pages, including figures, diagrams, tables, and references.

Short communications should contain new research results without a detailed experimental section. Only names and references to the appropriate sources should be given for previously isolated known compounds.

Review articles are accepted only by request of the editorial board.

The editorial board retains the right to shorten articles regardless of their length.

1.3. The text of an article by authors from the Republic of Uzbekistan should be submitted to the editorial board in printed and electronic form on a flash drive. Authors from other countries should send articles only by electronic mail. The editorial board acknowledges receipt of the materials and provides a registration number.

1.4. An article that is returned to the author for revision and correction must be submitted together with the new version (one copy) within one month to the editorial board.

1.5. An article should be accompanied by supporting documentation and Consent for Publication.

1.6. The author accepts responsibility for the accuracy of data in the article.

1.7. All articles submitted to the editorial board are peer-reviewed and edited.

1.8. The journal does not pay honoraria.

The editorial board requests authors to prepare articles according to the instructions given below. Manuscripts composed without observing these instructions will not be reviewed by the editorial board.

2. Publication structure

2.1. Articles and short communications begin with a title followed by the initials and last names of authors, the full name of the institution, postal address with postal code,

fax number, and e-mail address (if the authors work in different institutions, their names and addresses must be given using numbers).

Next, experimental articles contain an abstract (at most 8 lines), keywords (no more than 8-10), a short introduction and the goal of the research, a discussion of the results, an experimental section, references, and figures. Articles have the following section headings: Keywords, Experimental, and References.

Short communications do not have an abstract, keywords, and experimental section.

All pages including tables and figures should be numbered and submitted in a **single file**.

An article must be signed by all authors. An asterisk (*) must indicate to whom correspondence should be sent and his/her address (e-mail) and telephone number.

Latin names of plants and microorganisms (*Italic*) should be followed.

All newly isolated or synthesized compounds should be named according to IUPAC nomenclature. Numbers must be used to denote compounds that are repeated in the article text. Formulas of compounds are enumerated with Arabic numbers (**Bold**). All physical quantities should be given in SI units. Decimal quantities should have a period and not a comma between the whole number and the fraction.

3. Manuscript format requirements

3.1. All text, tables, and formulas in them (except for 3.5) should be typed only in **Times New Roman** font with **1.5** spacing and size 12 in Microsoft Word for Windows word processor.

The text should be typed **in one column** on the whole page without right justification and **without hyphenation of words**, using all necessary fonts, **Normal**, **Bold**, or **Italic**, and superscripts and subscripts.

3.2. The number of figures should be held to a **minimum**.

Structural formulas are included in the text.

Inclusion of identical structural formulas and those of well-known compounds is not allowed. If reactions are described in the text, then reagent formulas should not be given in the schemes (over arrows).

Graphics files of figures should be submitted in vector format (WMF). Labels of coordinate axes and all legends should be given in Russian and Latin scripts. Dimensions of quantities on coordinate axes are usually set off by a comma (C, mol·L⁻¹; v, cm⁻¹). Wordy legends should be avoided. Curves in figures should be numbered using Arabic numerals that are explained in captions to the figures.

The location of the corresponding figure is noted in the text. The figure format should be clear enough to show all details. Data that can be summarized briefly in a table or the text (frequencies, absorption maxima, chemical shifts, etc.) and general spectra that do not have special significance should not be shown as figures.

3.3. References to all tables must be given in the text. All columns in tables must have headings. No abbreviations except for those accepted in this journal should be used in the tables. Quantities in column headings should indicate the units of measurement in which they are expressed. **Structural formulas are given in tables**. All tables should be constructed of only horizontal lines that separate the headings and the end of the table.

3.4. Formulas instead of lengthy names of simple chemical compounds must be given, e.g., NaBr, CO₂, CCl₂, CCl₄, N₂, O₂, H₂O, H₂O₂, HCl, H₂SO₄, NaOH, KOH, KMnO₄, Na₂SO₄, LiAlH₄, NaBH₄, MeOH (CH₃OH), CHCl₃, CDCl₃, C₆H₆, D₂O, etc.

Common abbreviations should be used in articles: kilogram, kg; gram, g; milligram, mg; centimeter, cm; liter, L; milliliter, mL; gram-molecule, g-mol; gram-equivalent, g-eq; millimole, mmol; millimicron, μm , nm; *ortho*-, *meta*-, *para*-, *o*-, *m*-, *p*-; molecular weight, MW; molar, M; normal, N; decinormal, 0.1 N; Raman spectrum, RS; infrared absorption spectrum, IR spectrum; ultraviolet absorption spectrum, UV spectrum; nuclear magnetic resonance spectrum, NMR spectrum; ¹³C nuclear magnetic resonance spectrum, ¹³C NMR spectrum; proton magnetic resonance spectrum, PMR spectrum; x-ray crystal structure analysis, XSA, gas-liquid chromatography, GC; high-performance liquid chromatography, HPLC; high-performance thin-layer chromatography, HPTLC; thin-layer chromatography, TLC; paper chromatography, PC; optical rotary dispersion, ORD; circular dichroism, CD; electron impact, EI; atomic mass unit, amu; tetramethylsilane, TMS; hexamethyldisiloxane, HMDS; chemical shift, δ ; spin-spin coupling constant, SSCC; dimethylsulfoxide, DMSO; dimethylformamide, DMF; tetrahydrofuran, THF; ion-exchange chromatography, IEC; acetyl, Ac; butyl, Bu; methyl, Me; phenyl, Ph; pyridine, Py; ethyl, Et; tosyl, Ts; benzyl (PhCH₂), Bn; benzoyl (PhCO), Bz and also accepted abbreviations for amino acids, protecting groups, and carbohydrates. Commonly accepted Latin abbreviations for widely distributed reagents should be used in schemes and figures; Russian ones, in the text.

3.5. The following abbreviations must be used to denote constants in analyses for a new compound: bp 69°C (12 mm); mp 232°C (MeOH); $[\alpha]_D^{20} +14.1^\circ$ (*c* 2.01; CHCl₃); d_4^{20} 0.9604; n_D^{20} 1.6818; R_f 0.56.

With the exception of special instances, the note "**Elemental analyses of all compounds agreed with those calculated**" instead of "analytical data for described compounds" should be given in the Experimental section.

3.6. D- and L-isomers are denoted by capital Latin letters. Designations of conformations, isomerism, configurations, etc. should be written in **Italic**. For example, *cis*-, *trans*-, or *Z*-isomer; *R,S*-enantiomers; *tert*-butyl, *N*-oxide, *O*-methyl. Indices and exponents should be written as MR_D.

3.7. Information about chromatography methods and solvent systems (numbered by Arabic numerals); instruments on which spectra were recorded; solvents; prisms; ionization energy; and temperature ranges should be given at the beginning of the Experimental section.

If the authors submit a series of studies using the same instruments, systems, etc., the statement "**General comments** have been published [1]" should be used.

The brand of instrument, temperature, length and diameter (*l*, *d*) of the column (1.2 m × 3 mm), eluent, stationary phase, solid inert support, content in percent of stationary phase of solid support, and carrier gas should be specified for HPLC and GC. The adsorbent, eluent, and developer should be given for TLC.

Figures and photographs of chromatograms should not be submitted.

3.8. Figures of spectra are accepted in exceptional instances. Spectral data should be formatted as follows:

- UV spectrum (EtOH, λ_{max} , nm): 220, 248, 313 (log ϵ 4.34; 3.61; 4.00);
- IR spectrum (KBr, ν , cm⁻¹): 1740 (C=O), 1595, 1515 (Ar);

c) NMR spectra should be given according to IUPAC recommendations [*Pure Appl. Chem.*, **29**, 627 (1972)]. Parts per million (1 ppm = 2 cm) should be given along the abscissa in NMR spectra; the relative signal intensity, along the ordinate; keeping in mind that the most intense peak is 8 cm. Multiplicity of resonances is given by the abbreviations: s, singlet; d, doublet; dd, doublet of doublets; t, triplet; q, quartet; m, multiplet. Chemical shifts of protons are given on the δ -scale. Numbering of H and C atoms should follow the accepted designations H-1, H-2, ...; C-1, C-2, ...; H-1a, H-2 β -; CH₃-5 (Me-5); AcO-10.

PMR spectrum (400 MHz, CDCl₃, δ , ppm, J/Hz): 0.61 (3H, s, H-15), 0.98 (3H, d, $J = 6$, CH₃-9), 4.20 (1H, q, $J_{6\alpha 7\alpha} = 4$; $J_{6\alpha 7\beta} = 2$, H-6); 4.84 (1H, $W_{1/2} = 12$, H-3 α), 5.88 (2H, s, CH₂O₂ - 4.5), 5.19 (2H, m, H-2', H-2'').

¹³C NMR spectrum (25.15 MHz, CDCl₃, δ , ppm): 30.06 (t, C-4), 72.01 (d, C-7), 244.2 (s, C-9);

d) Mass spectra should be given as numerical values of m/z (for all or the most characteristic ions) by rows or collated in a separate table with an indication of the relative peak intensities of ions in percent of the base peak. Mass spectrum (EI, 70 eV), m/z (I_{rel} , %): 386 ([M]⁺, 100), 371 (24), 275 (35), etc.;

e) X-ray crystal structure analysis (XSA) data must be formulated with atomic numbering as follows: C12, H3, O25, N1, C12–C13 bond; constant $a = 9.276(6)$ Å (uncertainties in the determination of a are given in parentheses). X-ray crystal structure data should be deposited in the Cambridge Crystallographic Data Centre (CCDC) and the number given in the article.

CIF files of structures must also be sent to the editorial board together with the manuscript for peer-review. The editor *enCIFer*, which is available on the Internet at the address <http://www.ccdc.cam.ac.uk/products/encifer/index.html>, can be used to compile CIF files. The submitted file must be checked beforehand for A, B, and C type warnings using the program *checkCIF*, which is available at the address <http://journals.iucr.org/services/cif/checking/checkfull.html>. If type A warnings are observed, the editorial board will return the submitted CIF file and the article to the authors for correction of the structural information or an explanation of the errors. The occurrence of type B and C warnings requires the corresponding comments in the text.

3.9. Graphs and figures of HPLC chromatograms should be submitted in WMF format; three-dimensional molecular structures from XSA, in HPGL or WMF format (not more than 100 kB); photographs, photographs of electrophoregrams, and 2D NMR spectra (8-10 font size for notations within spectra); in JPG format (600 dpi resolution, not more than 200 kB) and black-and-white script.

Figures and graphs: Microsoft Excel. If these programs cannot be used to draw diagrams, tables of reference points (x, y) should be given as a text file.

3.10. **The list of references must be carefully checked because the electronic version of the journal is included in the international information system enabling linking from any citation to the original source (Cross Ref).** References to the literature in the text are enclosed in square brackets. All references are given in the original script. Symbolic texts may be cited both in Russian (cf. *Ref. Zh. Khim.*) and in Latin (cf. *Chem. Abstr.*). The citation journals must be cited for references to articles from difficultly accessible sources, patents, and deposited manuscripts.

All cited literature is listed at the end of the article and is formatted as follows:

a) **for journal articles: the initials and last names of all authors** with the abbreviation of the journal in Italic [*Ref. Zh. Khim.*, B13, 1-19 (1978), volume (bold), number, page, year (in parentheses)]:

Kh. M. Shakhidoyatov, I. Coldham, T. F. Ibragimov, *Khim. Prir. Soedin.*, 791 (2010).

P. Kh. Yuldashev, B. Tashkhodzhaev, K. K. Turgunov, M. M. Mirzaeva, *Chem. Nat. Cmpd.*, 46, 774 (2010).

b) **for books:** initials and last names of all authors, full title of the book (Italic), publisher, location of publisher, year, pages. References to the original sources must be given for translated publications:

K. Weygand and G. Hilgetag, *Experimental Methods in Organic Chemistry* [Russian translation], Khimiya, Moscow, 1968, 944 pp. [*Organisch-chemische Experimentierkunst*, Barth, Leipzig, 1964].

S. K. Cherepanov, *Vascular Plants of the USSR* [in Russian], Nauka, Leningrad, 1981, 305 pp.

c) **for articles in collections:**

I. A. Bessonova, in: *Progress in Research on Alkaloid-Bearing Plants* [in Russian], Kh. N. Aripova, ed., Fan, Tashkent, 1993, p. 62.

d) **for patents:** the last name and initials of authors, country, patent number, year, and reference to citation journal:

Jpn. Pat. 8-119866 (1996); *Chem. Abstr.*, 125, 123688n (1996)

References to patent applications must include the *Byulletin Izobretenii* number, page and year: Authors, Pat. Appl. 537594 (1979); *Byull. Izobret.*, No. 6, 15 (1979)

N. P. Goncharova, A. I. Glushenkova, V. N. Syrov, M. Kh. Dzhukharova, Z. A. Khushbaktova, and N. T. Tulyaganov, USSR Pat. No. 1,480,175, *Otkrytiya. Izobreteniya*, No. 18, 256 (1989)

e) **for dissertation:** B. G. Kovalev, Doctoral Dissertation in Chemical Sciences, Inst. Chem. Plant Substances, AS RU, Tashkent, 1990, 293 pp.

f) **for abstracts:** P. Kh. Yuldashev, M. G. Levkovich, B. Tashkhodzhaev, M. M. Mirzaeva, and N. D. Abdullaev, in: *Proceedings of the Scientific Conference "Critical Problems of the Chemistry of Natural Compounds"* [in Russian], Tashkent, 2010, p. 13

Literature relating to a single problem and not further used separately is given by a single citation. Foreign last names are given in the text in Russian; in the list of references, in the original script.

References to unpublished work are not allowed.

A reference to a preceding article in a series is not given as a footnote but is included in the list of references.