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## INSTRUCTIONS TO AUTHORS

Articles in The Ukrainica Bioorganica Acta (UBA) are published in English and Ukrainian. The editors give priority to articles written in English, as they can be sent for evaluation to a wider range of reviewers.

To submit an article, send a file in DOTX and PDF format to the Executive Secretary of the Editorial Board by e-mail at [uba@bioorganica.org.ua](mailto:uba@bioorganica.org.ua).

### GUIDE FOR AUTHORS

The UBA Editorial Board will consider publication of original works on topical issues of bioorganic chemistry, medical chemistry, organic chemistry and other related disciplines.

#### COVER LETTER AND COPYRIGHT

The authors should submit the following documents with the manuscript: (1) Cover letter; (2) Copyright transfer agreement, signed by all authors to transfer the copyright to the journal (scanned copy). The license agreement shall be valid only after the article is accepted for publication, after which no part of the publication may be used for commercial purposes without the permission of the publisher

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#### MANUSCRIPT DESIGN

Please, use the UBA Template to create your manuscripts:

Template\_paper (dotx)

Template\_review (dotx)

#### The type of articles

The Editorial Board chooses the following publication formats:

**Research Article** (no more than 40 thousand characters with spaces);

**Review and Digest paper** (up to 60 thousand and 30 thousand characters, respectively);

**Short Communications** (up to 10 thousand characters, no more than 4 pages template);

**Publicistic articles on different topic subjects** (are not indexed in scientometric databases);

## General design requirements

- Text is presented in an *MS Word* text editor, chemical formulas and diagrams must be printed using the *ChemDraw* editor (*ACS Document 1996* style) and inserted into the template as an object.
- Mathematical signs and symbols, Greek letters, units of measurement, as well as initials of authors, volume numbers and pages in literature sources should be separated by the non-breaking space by pressing Ctrl + Shift + Spacebar.
- For chemical compounds first described in the article or which are the main object of study, in addition to the formula, the full name according to the IUPAC nomenclature is given. To do this, we recommend using: 1. *IUPAC Nomenclature of Organic Chemistry*; Rigaudy, J.; Klesney, S. P., Eds; Pergamon: Oxford, 1979. 2. *A Guide to IUPAC Nomenclature of Organic Compounds (Recommendation 1993)*; Blackwell Scientific Publication, 1993; (див. <http://www.acdlabs.com>). 3. *The ACS Style Guide*; Dodd, J. S., Ed.; American Chemical Society: Washington, DC, 1997.
- Compounds mentioned in the text more than once should be numbered in Arabic numerals (or denoted by a unique code, for example, "protein *CDKN1B-A*") and indicated in the text and in diagrams in bold without parentheses. In case of using the full name of the compound, according to the IUPAC system, the number should be given in parentheses. We recommend using only the Latin alphabet for letter indexing.
- The use of abbreviations in the names of compounds should follow well-known rules (see list), in special cases, it is mandatory to provide a decipherment in the text of the article.
- Symbols of physical constants, stereochemical symbols and prefixes that characterize the structural features or positions of the substituent in the molecule are written next to the formulas in Latin letters and are highlighted in italics (for example, *d*, *J*, *k*, *c*, *m* / *z*, *o*-, *m*-, *p* -, *t*-, *cis*-, *trans*-, *de*, *ee*, (*R*)-enantiomer).
- The dimensions of all physical quantities are expressed in the International SI System. In numbers, the whole part is separated from the fractional point.
- In molecular formulas, the elements are arranged according to the System of Abstract Abstracts: C, H and then in the Latin alphabet.
- If specific organisms (animals, plants, microorganisms) were used in the research, during the first mention of them in the text of the article it is necessary to indicate the full species name of these organisms in Latin (italics) according to modern taxonomy, and in case of repeated mention of the genus

letter, except when the generic names of different organisms begin with the same letter. Then use abbreviations of several letters, such as *Staph. aureus*, *Str. lactis*.

- When experimenting with laboratory animals, as well as biomaterials from donors or patients, all procedures must be performed in accordance with the bioethical standards of the country where the experiment is performed.
- The editors welcome the authors' submission of supporting materials (file: supporting\_materials.pdf), which confirm the authenticity of the results presented in the paper. In their absence, we strongly recommend that you provide the original spectral data for at least one of the basic structures described in the article.
- When using non-standard homemade devices, it is advisable to provide photographic images.

## **Figures and Tables**

### ***Color***

- The editors welcome the use of color in graphic images. Color images are published at no extra charge. The use of color in tables, captions to images or body text is possible only with the permission of the editor.
- All images should be clear to readers after printing on both color and black-and-white printers, so we recommend avoiding too light blue and yellow lines.

### ***Graphs and Diagrams***

- Use serif fonts (Arial, Calibri, Helvetica) for text on graphs and charts. The size of fonts on different graphic objects in the article should be approximately the same. Try not to use letters less than 1.5 mm high and more than 7 mm high.

### ***Tables***

- Tables must have at least two rows and two columns, a serial number and a title. Notes to tables are indexed by letters, which are arranged in alphabetical order directly below the tables.
- Tables that require to turn clockwise a page for reading are not allowed.

### ***Illustrations and Photos***

- For illustrations, you must provide graphic files in TIFF (or JPG) format with a minimum resolution of 600 dpi and an image width of 8.5 cm for single-column and 17 cm for two-column format. • Illustrations published by other authors are allowed in review publications, but in this case the author of

the manuscript is obliged to provide documentary evidence of permission to use these materials from the copyright owner.

### **The Manuscript Structure:**

- UDC (Universal Decimal Classification)
- The Paper Title
- The Authors names
- Affiliations
- Resume and Keywords
- Introduction
- Results and discussion
- Conclusions
- Experimental section
- Acknowledgments and Data on financial support
- Author Contributions
- Notification of the presence or absence of Conflict of Interests
- References
- Foreign language Resume

### ***UDC (Universal Decimal Classification)***

The UDC classification index is given as a separate line at the beginning of the manuscript on the left. Abbreviated UDC tables in Ukrainian can be found on the relevant website:  
(<http://www.udcsummary.info/php/index.php?lang=uk&pr=Y>)

### ***The Paper Title***

The title page of the manuscript should begin with an informative title (no more than 8-10 significant words), which should accurately reflect the essence of the work. Printed in bold, size 16.

### ***Authors names and affiliations***

Under the title of the article are the names of the authors and the name of the institution where the work was performed. The author should be identified for correspondence (\*), indicating his contact telephone number and e-mail, as well as the ORCID index. Use a superscript (superscript) to index authors from different scientific institutions.

### ***Resume, Foreign language resume and Keywords***

The abstract (summary) should be structured and include relevance, purpose, methods, results and conclusions. The maximum number of keywords is five. The abstract should be repeated at the end of the article in an expanded form (from 1800 characters) in a language other than the language of the main text of the article (Ukrainian or English).

### ***Introduction***

The introduction summarizes the history of the subject (with reference to relevant literature sources), indicates the goal of the study.

### ***Results and Discussions***

This part presents the main material of the study, with a comprehensive justification of scientific results. The use of common expressions, tautologies, and duplication of results in text, tables, and figures should be avoided.

### ***Conclusions***

Accompanied by recommendations and suggestions for future research in this area.

### ***Experimental sections***

At the beginning of the experimental part, information on materials and reagents, as well as instruments and measurement conditions are given. The chemical methods indicate the amount of reagents in molar and mass units (for catalysts - mass and molar percents), the volume of solvents, the number and yields of the obtained compounds (in mass units and percent), when growing crystals it is necessary to specify the solvent. To characterize the optically active compounds indicate the values of enantiomeric (*ee*) or diastereomeric (*de*) excesses. Sorbent and eluent should be mentioned to describe thin layer and preparative chromatography.

For all newly synthesized compounds, their physical and spectral characteristics, as well as elemental analysis data or high-resolution mass spectra, must be provided. ***An editor may accept an article that does not contain all the physicochemical parameters of the new compounds if he considers that the data provided are sufficient to confirm their structure.***

### **Physico-chemical characteristics of substances should be given in the following order**

#### **• Physical state, melting and boiling point, retention factor, polarization rotation constant**

For each crystalline product, indicate the range of melting points together with the solvent used during recrystallization, and for liquid products, the boiling point. Relevant literature data must be provided for the substances described previously. In the case of TLC, the retention factor ( $R_f$ ), calculated according to the standard method and with a value less than one, as well as the eluent and the imaging method are indicated. To describe the HPLC / HPLC assay data, the retention time ( $t_R$ ) and column type should also be indicated. To characterize the optically active substances, give the data of polarimetric analysis (the value of the specific rotation of the plane of polarization  $\alpha$  and the concentration of the measured solution).

#### ***Examples:***

Pale yellow oil; TLC (hexane/EtOAc 4:6, KMnO<sub>4</sub>-stain)  $R_f$  0.28;  $[\alpha]_D^{20}$  -21.7 (*c* 0.60, CHCl<sub>3</sub>)

White solid; TLC (hexane-ethyl acetate 3:1, UV-vis)  $R_f$  0.55; mp 76–77 °C (Et<sub>2</sub>O/hexane)

Yellow oil; bp 85–90 °C/0.1 mmHg

Chiral HPLC: 91:9 *er*,  $t_R$  (*R*)-major enantiomer, 17.8 min;  $t_R$  (*S*)-minor enantiomer, 23.6 min (Chiralcel OJ-H column; 40% 2-propanol in hexane; 0.5 mL/min).

### • NMR Spectra

Indicate the operating frequency of the device, the standard used and the solvent. If TMS is not used as a standard for NMR spectra, the chemical shift of the standard should be indicated on the  $\delta$  scale.

For describing NMR spectra, please, use the following abbreviations:

s - singlet, br s - extended singlet, d - doublet, t - triplet, q - quartet, dd - doublet of doublets, dt - doublet of triplets, m - multiplet. For signals described as "doublet", "triplet", "doublet of doublets", etc. (and not "singlet" or "multiplet"), it is necessary to provide the corresponding Coupling Constants Spin-Spin Interaction ( $J$ , Hz). If additional studies have been performed to establish the structure or spatial interactions of the atoms, the two-dimensional methods used should be indicated. To describe the <sup>13</sup>C NMR spectra, the ratio of a particular signal to a particular carbon atom is given only when the determination is made on the basis of two-dimensional experiments.

#### **Examples:**

<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  7.30–7.27 (m, 2H), 7.19–7.17 (m, 3H), 4.44 (dt,  $J$  47.4, 6.2 Hz, 2H), 2.61 (t,  $J$  7.5 Hz, 2H), 1.74–1.59 (m, 4H), 1.42–1.33 (m, 8H)

<sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>)  $\delta$  142.8, 128.4, 128.2, 125.6, 84.2 (d,  $J_{C-F}$  162.8 Hz), 35.9, 31.5, 30.4 (d,  $J_{C-F}$  19.1 Hz), 29.4, 29.2, 29.2, 25.1 (d,  $J_{C-F}$  5.5 Hz)

<sup>19</sup>F NMR (282 MHz, CDCl<sub>3</sub>)  $\delta$  -218.02 (tt,  $J$  48.1, 24.9 Hz)

<sup>31</sup>P NMR (202 MHz, CDCl<sub>3</sub>)  $\delta$  11.14 (d,  $J$  72.0 Hz)

### • IR and UV Spectra

For IR and UV spectra, the characteristic band frequencies, wavelengths of absorption maxima, extinction coefficients (or their logarithms) and the conditions under which the spectrum was recorded must be indicated.

#### **Examples:**

IR (KBr)  $\nu$  3034, 1718, 1627, 1379, 1250, 1046, 835, 754, 728

UV (EtOH)  $\lambda$  (lg  $\epsilon$ ) 277 (4.70), 323 (4.38)

### • Mass-spectra

Indicate the numerical values of  $m/z$ . It is necessary to indicate the method and energy of ionization, the mass numbers of characteristic ions, their intensity relative to the main ion and, preferably, their genesis. In high-resolution mass spectra, the found and calculated values of  $m/z$  are given with four decimal places; if the value of  $m/z$  found corresponds to a nonmolecular ion, the gross formula and the calculated value of  $m/z$  are given for it.

**Examples:**

MS (CI)  $m/z$  (%) 324 ( $M^+$ , 100), 323 (40), 293 (10), 266 (20), 248 (5), 208 (5), 193 (10), 165 (3), 87 (18)

GS/LRMS (EI)  $m/z$  (%) 392 ( $M^+$ , 100), 320 (1.0), 293 (6.1), 292 (29.4), 216 (1.4), 202 (4.5), 163 (12.7), 162 (100), 145 (10.0), 131 (21.4), 105 (22.7), 103 (29.1), 77 (9.5), 70 (1.0)

LC/MS (CI)  $m/z$  122 (M-OEt)<sup>+</sup>, 168 (M+H)<sup>+</sup>

**High-Resolution Mass-spectra Examples:**

HRMS (ESI)  $m/z$  Calcd. for  $C_{22}H_{44}NO_4$  (M+H)<sup>+</sup> 386.3270. Found 386.3265

HRMS (ESI)  $m/z$  Calcd. for  $C_{16}H_{16}Cl_2O_2Na^+$  (M+Na)<sup>+</sup> 333.0425. Found 333.0419

**Elemental Analysis:**

Anal. Calcd. for  $C_{16}H_{17}NO_6$ : C, 60.18; H, 5.37; N, 4.39. Found: C, 60.36; H, 5.57; N, 4.54

**• X-ray data**

X-ray data should be presented in the form of a drawing of a molecule with numbered atoms (or crystal packaging) and the basic geometric parameters in the form of a table or a caption to the drawing. Complete tables of atomic coordinates, temperature factors, bond lengths, valence and torsion angles are not published in the journal, but are deposited with the Cambridge Crystallographic Data Centre (CCDC) ([deposit@ccdc.cam.ac.uk](mailto:deposit@ccdc.cam.ac.uk)). The experimental part provides crystallographic data (unit cell parameters, spatial group, etc.), details of the experiment and refinement of structures, as well as the registration number of the depositor in the Cambridge Bank.

**References**

The list of References is compiled in the order of citing sources in the text (indicated by numbers in square brackets) and submitted at the end of the article. It must provide the following information: surnames and initials of all authors in the original transcription, the full title of the article, the title of the journal or book and the following information: 1) for periodicals - year of publication, volume, number of the periodical (except for publications with continuous pagination), numbers of the first and last pages; 2) for non-periodicals - the name of the publisher, place of publication, year of publication. For non-English articles, in the absence of an official translation of the title of the publication, it is submitted in transliterated form (<http://litopys.org.ua/links/intrans.htm>). The language of the original publication should also be noted. Abbreviations according to ISO 4 (<https://paperpile.com/guides/journal-abbreviations-list/>) are used to abbreviate the titles of periodicals.

**Examples of References****Books:**

1. Joule, J. A.; Mills, K. *Heterocyclic Chemistry*, fifth ed., Wiley-Blackwell: New Jersey, 2010.

2. *Fluorine-containing Amino Acids: Synthesis and Properties*, Kukhar V. P., Soloshonok, V. A., Eds., John Wiley & Sons: New York, 1995.
3. Kafarski, P.; Lejczak, B. In *Aminophosphonic and Aminophosphinic Acids: Chemistry and Biological Activity*; Kukhar, V. P., Hudson, H. R., Eds.; John Wiley & Sons: Chichester, UK, 2000; pp 407-442.

#### **Journals:**

1. Gerus, I. I.; Balabon, O. A.; Pazenok, S. V.; Lui, N.; Kondratov, I. S.; Tarasenko, K. V.; Shaitanova, E. N.; Ivasyshyn, V. E.; Kukhar, V. P. Synthesis and Properties of Polyfunctional Cyclic  $\beta$ -Alkoxy- $\alpha,\beta$ -Unsaturated Ketones Based on 4-Methylene-1,3-dioxolanes. *Eur. J. Org. Chem.* **2018**, 2018, 3853–3861.
2. Kondratyuk, K. M.; Lukashuk, O. I.; Golovchenko, A. V.; Komarov, I. V.; Brovarets, V. S.; Kukhar, V. P. Synthesis of 5-amino-2-aminoalkyl-1,3-oxazol-4-ylphosphonic acid derivatives and their use in the preparation of phosphorylated peptidomimetics. *Tetrahedron* **2013**, 69, 6251–6261.
3. Radchenko, I. V.; Kostyuchenko, N. V.; Naidenova, I. Yu.; Batrak, G. N.; Poda, G. I.; Mogilevich, S. E.; Kibirev, V. K.; Luik, A. I. Similarity of the effects of *tosyl-L*-arginine methyl ester, atropine, caffeine and antitumour alkylating agent on some biological functions of thrombin and platelet 2-lipoxygenase. *Ukr. Biokhim. Zh. (1978)* **1993**, 65, 37–40 (in Ukr.).

#### **Extended abstract of PhD Dissertations and PhD Theses:**

1. Grygorenko, O. O. *Extended abstract of PhD dissertation (Chemistry)*, Kyiv, 1998. (in Ukr.)
2. Thompson, A. Ph.D. Dissertation, Clemson University, 2007.

#### **Abstracts of reports at conferences:**

1. Kukhar, V. P.; Kondratov, I. S.; Gerus, I. I. *A New Synthesis of Fluorocontaining Mevalonic and Mevaldinic Acids*, 18<sup>th</sup> International Symposium on Fluorine Chemistry, Bremen, Germany, **2006**, 204.

#### **Patents/Chem Abstr:**

1. US Patent No 7375249 B2. Process for the synthesis of enantiomeric indanylamine derivatives / Boulton, L. T.; Lennon, I. C.; Bahar, E. Patent appl. No 11/358995 21.02.2006. Publ. 20.05.2008.

#### **Websites and Other Online Formats:**

1. Triarhou, L. C. Dopamine and Parkinson's Disease. In Madame Curie Bioscience Database [Internet]. (Austin, TX: Landes Bioscience;) 2000-2013. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK6271/> (accessed on June 30, 2020).
2. Dopamine, CID=681. In PubChem Database. National Center for Biotechnology Information [Internet]. Available from: <https://pubchem.ncbi.nlm.nih.gov/compound/dopamine#section=Use-and-Manufacturing> (accessed on June 30, 2020).

### **Acknowledgements and/or Financial support data**

The authors provide brief information on Ukrainian and/or foreign funding of the research project, as well as personal thanks for consultations and interpretation of the results.

### **Notification of the presence or absence of conflicts of interest**

It is desirable to report the absence of conflicts of interest or to declare their existence, especially if it concerns the results of the study, their interpretation and the conclusions of the reviewers.

### **Author Contributions**

If there are more than four authors in the article, you should provide brief information about the personal contribution of each author.

## **PEER REVIEW PROCESS**

*The Ukrainica Bioorganica Acta* operates a single blind review process. In the Cover letter, the authors may suggest of three to five independent expert reviewers to assess the scientific quality of the paper. It is recommended that reviewers do not have publications with any of the authors of the article for the last five years. If necessary, the authors can indicate up to two scholars to whom they would ask not to send the article for review.

All contributions will be initially assessed by the editor for suitability for the journal during the week. After this the editor invites independent experts to peer review. (Authors are sent an e-mail confirmation and the number of the manuscript in the editorial system, which will need to be indicated in the correspondence for this article).

Reviewers have three weeks to evaluate the scientific value and technical quality of the article. Then, based on their reviews, the Editor makes one of the following decisions:

- ***Accept the article in its current form.***

In case when two positive reviewer reports are received, the manuscript proceeds to publication. Authors will be able to submit improved versions of graphic images and correct minor grammatical and stylistic errors. The electronic version of the article will be published within a month.

- ***Accept the article after minor revision.***

Authors will have one month to respond to reviewers' criticism, add experiments or graphics to the article, and send revised version to the editors.

- ***Accept the article after major revision.***

The authors are given two months to revise their manuscript and the revised version then enters a second round of peer review (two weeks).

- ***Reject the article.***

The Editor-in-chief makes the final decisions concerning the publication.

## **PUBLISHING ETHICS**

The Editorial Board of *The Ukrainica Bioorganica Acta* (**UBA**) in its work endorses policy of Elsevier publishing house (Publishing Ethics) aimed at providing the highest standards of publishing ethics and follows the guidelines on ethics of research publication (Committee on Publication Ethics, COPE). Adherence to the regulations on publication ethics by all of involved in publication process provides protection of authors' intellectual property right, credibility of a journal in the eyes of international scientific community and excludes the possibility of illegal use of author's materials for benefits of particular persons. The reviewing and publication processes of the **UBA** follow the recommendations developed by Elsevier publishing house.

## **OPEN ACCESS POLICY**

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