DIRECTIONS FOR AUTHORS

The Editorial Board takes to press **original experimental works**; **surveys** in urgent problems of biochemistry; **methodical works** with a description of new or improved methods of biochemical investigations; **papers in the history of biochemical science** which elucidate the evolution of ideas, formation and development of scientific schools or dedicated to creative portraits of researches; the discussion papers; **new books reviews**; **news items**. Ukrains'kyi Biokhimichnyi Zhurnal also publishes the works from various sections of relative sciences, that is: cell and molecular biology, bioorganic chemistry, biophysics, plant and microorganism physiology and biochemistry, medical biochemistry, pharmacology, genetics where biochemical methods of investigation were used in the discussion of investigation results.

The papers are published in the journal in **Ukrainian**, **Russian** or **English**.

Presentation and work with manuscripts

The author sends (in a simple but not registered letter) or brings the printed paper manuscript, figures, tables and other materials to the Editorial Office in duplicate as well as on a disc (CD or DVD) or on USB flash drives. The presented USB flash drives files should contain the material sent to the Editorial Office only.

Tables, figures or other illustrative materials are presented each on a separate page (by a separate file on electron carriers).

File format for the text and tables – document MS Word (doc, docx or rtf), for figures, other illustrative material – tif, bmp, wmf, gif, jpg, eps or pdf.

The date of the paper receipt is the date of its arrival to the Editorial Office. The above Directions being violated, the paper is not registered at the Editorial Office, is not reviewed and returned; the authors are usually informed about that.

The papers submitted to Ukrains'kyi Biokhimichnyi Zhurnal are reviewed by leading specialists in the corresponding field of biochemistry. The paper being corrected due to the reviewer's notes, the author sends back the manuscript copy in duplicate, its electron version (on CD, DVD or USB flash drives or by E-mail to editor@biochem.kiev.ua to the Editorial Office with a necessary answer to the reviewer.

The Editorial Board sends to the author a page-proof by e-mail for the control reading. It should be read urgently and the next day the editor should be informed about the errors by e-mail or by phone (with indicating the page, column, paragraph, line where some correction is to be made) or about their absence. In case of delay, the Editorial Board has the right to remove the paper from the issue.

The review being negative and excluding the paper corrections, its copy remains at the Editorial Office archives and the other one supplemented with a review is sent to the author.

General requirements to manuscripts

The experimental work volume, including references, tables, figures with legends explaining obtained results (all on separate pages), should not exceed 20 pages (40 000 printed characters), that of the survey 30 pages (60 000 printed characters), printed out (type size 14, tables – type size 10; line spacing – 1.5).

The paper manuscript should be signed by each author.

Information about authors (surname, name, post and e-mail addresses, work and home telephone with city code, including fax, mobile telephone) is given on a separate page.

Figures, photographs, schemes may be black-and-white or colour. Colour illustrative material is preferred.

If figures and schemes published by other authors are used in the paper the author should have the permission from the copyright owner of those figures and schemes.

Separate requirements to manuscripts design

Text

Times New Roman type; 14 point type (tables – 10 point type); line spacing – 1.5.

All manuscript pages should be enumerated.

Tables and illustrative material

All columns in tables should have denominations and filled with corresponding data (if the experiment is not performed you write «–», if indices were not obtained you write «0».

The top of photographs should be indicated.

Place of figures and tables is to be shown in the manuscript text margins.

The manuscript structure

UDC (Universal Decimal Classification) is in the upper left corner of the first page, then follows the paper title, author's (authors') surname(s) and initials, the Institution where the work has

been done, e-mail, summary in the language of the paper (about 2/3 of a page) with main results of investigations and conclusions, then follow key words (about 10 words) for including the paper in certain sections of abstract journals. The key words should be mentioned both in the paper title and in summary.

At the end of the paper, References are followed by the paper title, author's (authors') surname(s) and initials, official names of institutions where the work has been done, e-mail, summary and key words in Russian and English in correspondence with the original Ukrainian text. If the paper is written in Ukrainian and English, this information is given in the Ukrainian and English or in the Ukrainian and Russian languages.

Recommended structure of the paper:

• **Introduction** (without title)

The paper begins with the brief history of the problem with reference to sources and substantiation of the research objective

• **Materials and methods**

The section Materials and Methods should present the description of the methods, reagents and experiment conditions in such a way that the experiment could be reproduced. Generally known methods may be referred only. Names of companies and countries producers of the reagents and materials used in the experiments should be given. The number and species of the used animals as well as the methods of anaesthetization and euthanasia should be defined.

All the designations and denominations of physical and chemical units of measurement should be given in SI system. Amino acids are designated by three letters.

The **enzymes** being used in the work, their recommended or systematic **name** and **cipher** should be given, following recommendations of International Biochemical Society (Enzyme Nomenclature – Acad. Press. San Diego. California and Supplement (1-6) in Eur. J. Biochem. (1993-1997, 1999) or electron version: http://www.chem.qmul.ac.uk/iubmb/enzyme.

The **enzyme activity** should be expressed through the rate of the catalyzed reaction in μM of the transformed substrate for 1 min per 1 mg of protein. Sometimes they use two more units of enzymatic activity: standard unit of activity U (IU) and catal (cat, in brief) simplifying the transition to SI system. Specific enzyme activity is usually expressed in μM/min per 1 mg of protein or in un.act./mg, cat/kg (R. M. C. Dawson, D. C. Elliott, W. H. Elliott, K. M. Jones. Data for Biochemical Research. 3th edition. Clarendon Press, Oxford, 1986). In all cases the reaction conditions are specified, i.e. temperature, pH, substrate concentration.

Solutions should be concentrated in M, mM, μM, etc., but not in normal concentration (n.). If concentration is expressed in percent, it should be specified, i.e., indices mass/mass, mass/volume, volume/volume should be mentioned. Salts used for making solutions – crystallohydrates or waterless – should be mentioned.

A term **relative molecular mass** M_r (ratio between substance molecule mass to 1/12 of carbon atom C_{12}), having no size, or term **molecular mass** (M_w) expressed in Da (Dalton) or in kDa are used for substances characteristics.

When describing the data determined using the **methods of visible or UV-absorption spectroscopy** one should remember that they characterize optical density. For quantitative estimation of cell density in the suspension one should use transparence (T), the scattering being accounted. In other cases the term "absorption" (A) is used, but not "extinction" or "optical density".

If particular organisms (animals, plants, microorganisms) used in the research are mentioned for the first time, their full species name in Latin should be given in the paper text, following modern taxonomy; under the second mentioning the genus name should be denominated by one letter, except for the cases when genus names of different organisms begin with the same letter. Then, abbreviations of several letters are used, e.g., Staph. aureus, Str. lactis.

Word abbreviations, except for generally known ones, should not be given in Tables and Figure legends (with rare exception and then their interpretation in notes is obligatory). It is not worth giving arbitrarily abbreviated words, especially if they are brief. There is no point, for example, in abbreviating such words as peroxidase, glucosidase, etc.

Digital data should be rounded off due to the accepted rules, allowing for the average experiment error. **The value difference authenticity should be substantiated** by statistical analysis, citing the concrete methods. The same results should not be presented in Tables and Figures.

• **Results and discussion**

In this section one should avoid the direct repetition of the table data. The result discussion should be limited by considering the most important established facts basing on preliminary data on the problem under study.

- **Conclusions** (without title)
- **References**

References are composed due to the order of citing the sources in the text (they are denominated by digits in square brackets) and are given at the paper end. References are given in the original language without titles of journal papers, but with indicating the volume, periodical issue and page. The titles of books (monographs, collected works, etc.) theses, author's synopses should be presented in complete form. One cannot refer to non-published materials. The number of authors being four, all their names are indicated in references, if there are five or more authors, only three names are given with following et al. Works of the recent years should prevail in references (no more than 20 titles in experimental work, about 100 titles in the survey). References of the works of recent years should prevail.

Examples of References

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5. *Nagaoka K., Suzuki T., Kawano T. et al.* // Biochem. Biophys. Acta. – 2006. – **1759**, N 3–4. – P. 132–140.
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9. *Заявка* на винахід, a200805004 UA, МПК[8] A61K35/56, A61K31/66, A61P9/00, A61P11/00, A61P15/00. Спосіб диференційованого одержання фізіологічно активних композицій із тканин морських молюсків рапанів / Даценко З. М., Комісаренко С. В., Кечун Лю (CN), Чекман І. С., Борода А. М., Луговська Г. Г., Канівець Н. В., Моісеєва Л. Г., Лівень Хань (CN); заявл. 18.04.2008.