GUIDELINES FOR AUTHORS

General statements

The journal "Nuclear Physics and Atomic Energy" (NPAE) publishes articles, not published previously, which are completed works in Nuclear Physics, Atomic Energy, Radiation Physics, Plasma Physics, Radiobiology and Radioecology, Engineering and Methods of Experiment, which contain new results of theoretical and experimental researches, or are reviews of the current status and actual problems in corresponding fields.

Contributor should submit an electronic version of a manuscript, written in Ukrainian or English, in Miscrosoft Word format (doc) as a single file by e-mail to the journal address: jnpae@kinr.kiev.ua. It is necessary to send also figures (photos) in one of the following formats: jpg, gif, pcx, bmp, tif.

The manuscript should be submitted with the official <u>Cover letter</u> signed by the institution's manager (Director) where the work is carried out. The INR, Kyiv scientists should submit an article after presentation at scientific seminar with the corresponding protocol signed. The publication should be approved by all coauthors, if any.

All papers submitted to the journal are peer reviewed. At the first stage, an article is reviewed by one of experts in the corresponding field and, if necessary, is modified by authors. The single-blind peer review system is used, when names of reviewers are hidden from authors, while names of authors – not. At the second stage the manuscript is estimated by one of members of the NPAE Editorial Board (EB) – analyzed are all versions of the manuscript, questions and critics from the previous expert and authors' responses. Additional questions and critics are possible at this stage too. After conclusion of the EB member, the final decision is accepted at the general EB meeting. We would be grateful if the authors indicate at least three experts who could review their manuscript, preferably not from the authors' institution. At the same time, the journal reserves the right to involve other reviewers.

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The texts of the manuscripts and all the materials should be carefully edited and verified. The Editorial Board reserves the right to reject articles with unsatisfactory quality of the submitted material. Manuscripts, where the rules for authors are not met, will not be considered.

Format of a manuscript in Microsoft Word

The paper size is A4. Margins: up - 2 cm, bottom - 2.5 cm, right - 1 cm, left - 3 cm. Font: Times New Roman, line spacing -1.5. Tabulation: 0.5 cm.

Pictures and photographs should be clear. In the paper version of the journal, the images will usually be black and white; color images will only be present in the electronic version. The inscriptions on the figures and photographs should, as far as possible, be replaced by the letters, and the curves should be marked with the numbers which are explained in the figure's caption. All physical quantities should be reported in units of the SI system, and all inscriptions and unit names in the figures and in the tables should be submitted in the main language of the article (Ukrainian or English). It is not desirable to give in the form of figures the data that can be presented in a text or a table. Word abbreviations in text, tables, and figures are not allowed. It is necessary to avoid unjustified introduction of new terms and slang expressions. Refer to isotopes as ³H, ¹⁴C, ⁶⁰Co, etc.

The full article size (1.5 spacing, with figures and references) should not exceed 14 pages (28 pages – for reviews). The text must be clear, concise, without long introduction and repetitions, as well as duplication of data, presented in tables, figures and figure captions, in the text. The abstract and the section "Conclusions"

should not duplicate each other. The article should be structured (with sections such as "Introduction", "Experimental measurements", "Results and Discussion", "Conclusions", etc.).

Specific instructions

UDC (**PACS**) **numbers:** font size – 11 pt, text – normal, alignment – to the left.

Authors (initials, surnames): font size -12 pt, text - bold, alignment - centered.

Affiliations: font size – 11 pt, text – italic, alignment – centered.

Title of article: font size – 12 pt, text – capital bold letters, alignment – centered, without point in the end. Headers are separated from the text by one empty line above and below.

Abstract: font size -11 pt, text - normal, alignment - in width.

Keywords: 11 pt, text – normal, alignment – in width.

The authors, the names of the organizations, the title of the article, the abstract, the keywords are given in the original language, and additionally at the end of the article – in other language (Ukrainian or English), if it is possible for the authors.

Text of the article: font size -12 pt, text - normal, alignment - in width. Words must be separated by only one space, with no space after the word before the punctuation marks. Text is typed using only the soft hyphenation (a hyphen in combination with the Ctrl key). A hard space is placed between the value and the unit of its measurement (Ctrl + Shift + spacebar).

Subtitle of the first (second) level: font size -12 (11) pt, text - bold, alignment - centered. All sections should be numerated (except "References"). Before and after the subsection title - blank lines.

Figures and photos: width of the figure should be 8 or 16 cm, figures should be numbered (Fig. 1), referenced in the text, with 11 pt captions below, 1.5 spacing, captions centered (if one line) or justified (if more than one line). One line should be left blank below figure caption.

Tables: similar to Figures; formatted with a single-line box around the outside borders and single lines between rows and columns.

Equations: prepared in MathType, centered, with number on the right like (1).

References: font size – 11 pt, text – normal, alignment – in width. All the authors' names are presented if their number is not more than three; if more – only name of the first author is given with "et al.". Examples of References see below (more examples can be found in the latest issues on the journal website). References in the text of the article should be given in square brackets in the form of an ordinal number: [1], [2 - 4]. In the References to copyright certificates and patents, it is necessary to specify their class and the full date of publication.

Information on all authors is given on a separate sheet: surname, name and patronymic (full and with signature), scientific degree, title, position, full name of the Institution, contact phone number and e-mail of the authors.

Examples for references

For articles in journals:

- 1. H. Sakamoto et al. Microscopic analysis of nuclear collective motions in terms of the boson expansion theory: (I). Formulation. Nucl. Phys. A 486 (1988) 1.
- P.C. de Holanda, A.Y. Smirnov. Solar neutrino spectrum, sterile neutrinos, and additional radiation in the Universe. Phys. Rev. D 83 (2011) 113011.
 For books:
- 3. F. Iachello, A. Arima. The Interacting Boson Model (Cambridge: Cambridge University Press, 1987) 458 p.
- 4. K. Abrahams, K. Allaart, A.E.L. Dieperink (ed.). *Nuclear Structure* (New York and London: Plenum Press, 1981) 512 p.

For chapters in books:

- 5. M.A. Listengarten. Gamma rays internal conversion. In: *Gamma Rays*, Ed. L.A. Sliv (Moskva, Leningrad: Publishing House of the USSR Academy of Sciences, 1961) p. 271. (Rus) For conference proceedings:
- 6. O.O. Gritzay et al. Research of isolated resonances using the average energy shift method for filtered neutron beam. Proc. of the 3-rd Int. Conf. "Current Problems in Nucl. Phys. and At. Energy", Kyiv, Ukraine, June 7 12, 2010 (Kyiv, 2011) p. 483. For preprints:
- 7. P.F. de Salas et al. Status of neutrino oscillations 2017. arXiv:1708.01186 [hep-ph].