

Journal Glass Physics and Chemistry

Instruction for Submission of Manuscripts

The manuscripts submitted for the publication should correspond to the scope of the journal *Fizika i Khimiya Stekia* (Glass Physics and Chemistry), which publishes the theoretical and experimental works on the structure and properties of inorganic glasses and glass-forming melts. The Journal covers different aspects of studies on the structural relaxation, glass transition, and crystallization phenomena; the analytical and metrological support of the investigations on the properties of glasses and glass-forming melts; the physicochemical principles of technological processes for glass manufacturing. The Journal publishes also papers on other glass-based materials (porous, ion-exchanged, and implanted glasses) and processes of their production. The papers on the structure and properties of other materials (including organic glasses) and the papers concerning the allied sciences are published only in cases when they provide insight into the general problems of the vitreous state of the matter.

PAPERS

The Journal publishes four types of papers.

Original papers.

Review papers. The author of the review paper must submit beforehand the paper topic, an outline of the paper, and its approximate length in order for the Editorial Board to decide if the paper qualifies to be published in the Journal.

Short Communications (comparatively short text, not more than two figures). Papers of this type can present interesting experimental results without their discussion.

Letters to the Editor (comparatively short text, not more than two figures). Letters are restricted to brief reports of new findings that are of high priority. In the case of a positive decision, Letters are given priority in publication.

MANUSCRIPT STRUCTURE

Original papers. Use the following structure for the original papers.

Abstract (A brief description of subjects, used techniques, specific results, and conclusions; length, no more than one third of a printed page).

Introduction (Justification for the research with the required literature review).

Experimental. (A description of the essence and procedure of a theoretical method is presented for theoretical works.) Necessary information for the reader to understand the significance of the data, which will be presented in the **Results** section must be given, including glass compositions, sample preparation, methods of measurements, errors of measurement, etc. A description of the applicability limits of a theory or modeling should be given for theoretical works.

Results. Experimental and (or) calculated data must be given with numerical values of their errors. Either in the text or in the figure captions, the basis for all

lines drawn in figures must be described: whether they are the result of an approximation with a specific method (least-squares method, etc.) or are manually drawn for the graphic representation of trends in the behavior. If the maxima (minima) observed in spectra are identified, the method for determining the peak positions and the errors of the determination must be presented. The results obtained should be compared with the data available in the literature.

Discussion. The logical interrelations between the data obtained should be revealed, and the salient points comprising the novelty of the work must be stated in detail. The final results are compared with the data which determined the state of the problem prior to the submitted work. It is acceptable to combine the sections **Discussion** and **Results**.

Conclusion. The essence of the research and the novelty of the results obtained are outlined. The use of the abbreviations introduced in the text and references is unacceptable. The section should be larger than the Abstract, but the repetition of numerical data and the discussion of results must be avoided.

References.

Review papers.

The **Abstract**, **Introduction**, and **References** are the obligatory sections. Other sections are at the discretion of the author, depending on the subject-matter of the work. A detailed subdivision of the manuscript is recommended.

Short Communications and Letters to the Editor.

The **Abstract** (and **References** if required) are the obligatory sections. Other sections are not necessary.

Note. The authors are advised to formulate the titles of their papers by using words which would point out to the main subject of the paper (to make easier the search of the paper in bibliography databases).

REQUIREMENTS FOR SUBMISSION AND PREPARATION OF MANUSCRIPT

Accompanying materials. The manuscript should be submitted with the accompanying documents of the organizations of all the authors. If the work was carried out by the authors of different organizations, the names and postal addresses of all the organizations must be given. The manuscript should be signed by all of the authors. The full name, full postal addresses, official and home telephone numbers, and, if possible, e-mail and fax number of the author to whom correspondence should be addressed must be presented on a separate sheet.

General. Manuscript and figures must be submitted in duplicate, and photographs must be in triplicate. The text must be legibly typed (no smaller than 12 point font), double-spaced, and on regular (A4) paper. The margins must be no less than 3 cm on the left, ~ 2-2.5 cm on the top and bottom, and ~ 1-1.5 cm on the right. At the top of the first page, type the surnames and initials of the authors, the title of the paper, the names and postal addresses of the organizations, the abstract, and then the text.

The Editorial Board reserves the right not to accept any manuscript that violates any of the instructions given above.

It is desirable, if possible, that the author(s) submit a diskette with the document in WORD or ASCII text or send these documents by e-mail (see below).

Text. Papers should be written in a simple and clear language and carefully edited by the authors. Wherever possible, the authors should avoid long sentences and aim for brevity. Vulgarisms, terms unadmitted in scientific literature, and transliteration of foreign terms are unacceptable. When using nontraditional terms or usual terms with a nontraditional meaning, they should be well defined in the paper. It is desirable that the author(s) of papers presented in Russian give the recommendations for the English translation of nontraditional terms.

All symbolic notations and abbreviations that are not universally accepted or that have been first introduced by the authors should be defined. Disagreement between the text, figures, and tables is unacceptable. Dimensions must be given everywhere they are necessary (including the plot axes). It is preferable to employ SI units; however, other units, including subsidiary, are also acceptable. As a rule, the presentation of the same date in figures and tables should be ruled out (except for the cases dictated by the discussion character). In the text, the use of abbreviations, except for universally accepted (*et al.*, etc., wI %, mol %, at %, etc.), should be avoided.

The paper reporting the experimental material should contain the data on exact as-analyzed or as-batched compositions of the studied glasses. The description of experimental instruments should be attended by their essential characteristics when they are not widely used. A brief description of the experimental technique is possible only with reference to the earlier work published in the journal *Glass Physics and Chemistry*.

Symbols and equations. All symbols, equations, and chemical formulas should be neatly and large typed or written in black.

In order to distinguish between capital and lowercase letters that are similar in appearance, in equations and symbolic notations in the text, double-underline capital letters, and draw a double line above low-case letters. The following pairs of letters and symbols should be distinguished and identified in the margin or in some other way: the letters *e* and *l*, the letter *O* and the numeral 0, two parallel lines and two unities, and the letters *I* and *J*. Accurately trace out Greek letters ζ, (zeta), ξ (xi), ν (nu), and θ (theta), and identify them in the margin. Underline Greek letters in red and vectors in blue. Circle manuscript letters with any pencil, and identify them in the margin.

References. References should be numbered in the order in which they are cited in the text. For the list of References (except for translated monographs), use the original language. If the work cited is a translation of the foreign book, cite the original work as well whenever possible, using the following format: author's names, title of book, editor, city, publisher, year of publication, volume, edition, chapter, and pages. The reference under the same number to two or more papers (including the papers of the same authors), as well as the reference to the same paper under different numbers, is unacceptable. References to unpublished works of the authors of the manuscript that have been submitted for publication are acceptable. In this case, the reference must include the name of the Journal in which the paper has been submitted, followed by "in press". The

reference of the "personal communication" type including the full name of the information source is also acceptable.

References should be listed in the following style:

Books

Pavlushkin, N.M., *Osnovy tekhnologii sitallov* (Principles of Glass Ceramics Technology), Moscow: Stroiizdat, 1970 (in the text, specific page numbers are given if required).

Journal articles

Golubkov, V.V., A Problem of Inhomogeneous Glass Structure, *Fiz.-Khim. Stekla*, 1998, vol. 24, no. 3, pp. 289-304 [*Glass Phys. Chem.* (Engl. transl.), 1998, vol.24,no.3,pp.196-207];

Almeida, R.M., Vibrational Spectroscopy of Glasses, *J. Non-Cryst. Solids*, 1988, vol. 106, nos. 1-3, pp. 347-358.

If the title of a paper in a journal is in a language other than English, leave it in the original language. In Russian, English, French, and German, use the following abbreviations: vol. (volume), no. (number), and p.(page).

Collected volumes

Andreev, N.S., Mazurin, O.V., Porai-Koshits, E.A., Roskova, G.R. and Filipovich.I.V.N., *Yavlenie likvatsii v steklakh*. (Phase Separation in Glasses), Shultz, M.M., Ed., Leningrad: Nauka, 1974.

Collections of articles

Mazurin, O.V., Thermal Ionic Relaxation in Inorganic Glasses, in *Svoistva i razrabotka novykh opticheskikh stekol* (Properties and Development of New Optical Glasses), Tsarevskii, E.N., Ed., Leningrad: Mashinostroenie, 1977, pp.101-120.

Proceedings of conferences

Silin, A.R., Structural Defects in Vitreous Silicon Dioxide, *Proc. XV Int. Congress on Glass*, Leningrad, 1989, vol. 1a, pp. 234-239;

Kokorina, V.E, Effect of Chemical Bonding on the Glass Formation and Properties of Glasses, in *Trudy V Vsesoyuznogo soveshchaniya po stekloobraznomu sostoyaniyu* (Proc. V All-Union Conf. on the Vitreous State), Leningrad: Nauka, 1971, pp. 87-94.

Theses

Mirnaya, T.A., Liquid-Crystal Melts and Glasses in Binary Salt Systems with Carboxylate Ion, *Cand. Sci. (Chem.) Thesis*, Kiev: Institute of General and Inorganic Chemistry, 1984.

Deposited papers

Artyushkin, N.G., Evstrop'ev, K.K., and Pronkin, A.A., *O prirode provodimosti v tverdykh ftorofosfatnykh steklakh* (On the Nature of Electric Conductivity in Solid Fluorophosphate Glasses), Available from VINITI, 1974, Leningrad, no. 1731-74-Dep.

Patents or inventors certificates

Pavlushkin, N.M., Sarkisov, P.D., and Levina, V.S., The Glass, Inventor's Certificate no. 336287, *Byull. izobret.*, 1972, no. 14, p. 77;

Silveran, A., Method of Producing of Glass, US Patent 2838882, 1958 (it is desirable to give the patent class).

All publications should be cited in their original language.

Tables. Tables must be numbered by Arabic numerals (if their number is more than one) and have a heading. When the table lists the data calculated by equations, their numbers must be included in the table. Explanations in the form of Notes are acceptable.

Illustrations. Figures (except for photographs) must be submitted in duplicate. They can be either in the form of a computer drawing (printed on a laser or ink-jet printer), or drawn on a white or tracing paper with Indian ink, or represented as high-quality xeroxes of originals. The sizes of figures must be no less than 5 x 6 cm and no more than 18 x 24 cm.

Drawings should be legible and clear. Curves in figures are labeled by numerals or letters, which are defined in figure captions.

Photographs should be submitted as high-quality, black and white, glossy prints. Each print must be in triplicate. Any inscriptions on the right side of a print are unacceptable. Label the top of the print (if required) on the reverse side. The magnification is given in the photograph caption. Micrographs should be accurately trimmed in an identical rectangular format. Figures including micrographs should be planned either for the column width (80 mm) or for the page width (170 mm) of the English-language edition of the Journal (page height is 220 mm). Do not tape or glue photographs.

Each illustration should be identified on the back of one copy with a soft pencil by the number, the name of the first author, and the title of the paper. Indicate by marginal notation in the text where the figures are to be inserted. Collect the illustration captions on a separate sheet.

Additional information for the English-language edition of the Journal. In cases when the paper is submitted in Russian, the following additional data should be submitted for the English-language edition of the Journal:

(1) recommended English translation of special terms nontraditional for the Journal;

(2) English transliteration of Russian personal names cited in the paper and references that are accepted to transliterate in a different way than it is specified by the corresponding transliteration system (for example, Shultz instead of Shul'ts or Vishnevskii instead Vishnevskii). The same holds true for the transliteration of Russian names of the authors of the paper;

(3) spellings (in the original language) of foreign names cited in the Russian text with the exception of well-known personal names (Newton, Einstein, etc.);

(4) foreign names (in the original language) [educational institutions, companies, products (for example, devices), etc.] presented in the Russian text in the Russian transliteration;

(5) reference to an original book (author's names, title of book, editor, city, publisher, year of publication, volume, edition, chapter, and pages) in its original language, if the work cited in the text is a translation of a foreign book into Russian.

INSTRUCTIONS FOR SUBMITTING MANUSCRIPTS IN THE ELECTRONIC FORM

1. Manuscripts written in English may be submitted by e-mail. For all manuscripts submitted on the paper and sent by post it is desirable to send an electronic copy of the paper by e-mail. For submitting your paper in the electronic form, please prepare a file containing the text of the manuscript and files with figures (each figure being saved in a separate file). The size of each file should not exceed 1 MB.

2. Please compress your files (if necessary) using PKZIP or ARJ packers only. The names of files with figures should contain the figure number and also give some hint about the paper name. Send your files attached to an accompanying letter in which the manuscript title (abridged) and first author's name should be indicated. Please specify the journal title, Glass Phys. Chem., in the SUBJECT field of the letter.

The e-mail address used by the Editorial Board is mazurin@w.spb.ru

3. Preferable formats for the text of the paper are MS Word for Windows (versions not later than Word'97 for Windows'98). Please use standard Windows TrueType fonts (Times New Roman or Arial) and 12 pt font size. As an exception, the submission of manuscripts in the ASCII code is also possible. The Editorial Board retains the right of rejecting manuscripts submitted in the CHIWRITER and TEX formats.

4. Graphic files should be presented in the BMP format or any other format that can be imported into MS Word'97 file. The resolution of no less than 300 dpi is necessary (600 dpi, 256 gray-scale level being preferable).

ADDITIONAL INFORMATION FOR AUTHORS

The authors must respond to a referee's report within six months including time allowed for mailing. If there is no response after six months, the Editorial Board refuses the publication of the manuscript. If the authors disagree with the referee's evaluation, another referee reviews the paper. If his decision is also negative, the Editorial Board refuses to publish the paper. Any refused with two negative referee's reports or accepted and not answered (for six months) manuscripts will not be returned.

After acceptance, the paper is scientifically and stylistically edited. The essential changes in the manuscript are approved by the authors.

Authors receive the Russian proof for inspection. The corrections associated with author's errors in the manuscript signed by the authors can be introduced in the composition type only as an exception.

In order to improve the quality of the translation, the Editorial Board is comprised of highly qualified experts in the journal's scope who understand the English language and are able to correct any mistakes in the English-language proof. Because the time of inspection of this proof is short, only the authors from St. Petersburg and Moscow can look through a translation of their paper and introduce the required corrections. However, for the authors having e-mail address it is possible to send the proofs by e-mail.