TRANSACTIONS OF ACADEMENERGO
Guide for Authors

Transactions of Academenergo is included into the list of editions recommended by Higher Attestation Commission for publication of papers for Ph.D and Doctoral theses for the following sciences and specialties:

Sciences	Specialties
05.00.00 Technical science	01.02.00 Mechanics
	01.04.00 Physics
	05.14.00 Power Engineering
02.00.00 Chemistry	05.17.00 Chemical Engineering

1. General guidelines

1.1. Journal "*Transactions of Academenergo*" printed original articles which are presently not under consideration for publication in another journal and not published previously.

1.2. The journal accepts papers prepared using Microsoft Word 2003 or the most recent version. Margins (left and right 35mm, top and bottom 44 mm) should arranged so as to place the text within 140×209 mm frame. Please ensure that the manuscript is **at least 8 pages** in length, including the main text, figures, tables and references. The manuscript should be submitted in electronic form signed by the authors.

1.3. The body of the manuscript should be arranged as follows:

- title
- initials and last name(s) of author(s)
- affiliation of author(s)
- e-mail of each author
- keywords
- abstract
- main text (including figures and tables)
- references (no more than 20 references)

1.4. The abstract should contain the objectives, methods and procedures, the main scientific and engineering results. References cited in figures or tables (or in their legends and footnotes) should be numbered according to the place in the text where that table or figure is first cited. Each figure and table should have their own caption. References must be numbered sequentially as they appear in the text using square brackets […].

1.5. Information about each author (full name, affiliation, position, academic degree and title, correspondence address, phone number) and the abstract in English (see the sample below) should be submitted in a separate file. IN addition the last page of the manuscript should be signed by all authors and submitted to the journal as a separate file.

If the paper is prepared by a group of authors, please specify the address for correspondence.

1.4. The only criterion for publication in *Transactions of Academenergo* is scientific quality of papers. No fees are charged for publication.

2. Guidelines for submission, refereeing and publication of scientific papers

2.1. Submit the paper prepared according to the guidelines together with the information about the authors and the abstract in English to the editors via svetlana_kislova@mail.ru. The obtained paper is reviewed by a copy editor and this is the stage when corrections concerning the paper formatting may be requested. Then the paper is sent to external refereeing.

2.2. *Transaction of Academenergo* performs refereeing of all submitted papers that meet its scope to obtain their expert assessment. All referees are acknowledged experts with the expertise that is specific to the manuscript subject and have recently (within the last 3 years) published their papers on the subject. Referees should review the paper within 3 weeks. The journal does not pay for refereeing.

Refereeing of papers is absolutely anonymous. The obtained review is scanned without the referee's signature and sent to authors if there are some comments to be addressed. The reviews are kept by the editors for 5 years.

Papers invited by the editorial board are not submitted for external refereeing.

2.3. If there are some comments on the manuscript, the latter is sent back to the author for revision. Authors should provide detailed answer to all the referees' comments and return the paper in a week.

In case of unfavourable review, authors receive a substantiated denial of publication.

Upon the request of the Ministry of Education and Science of the Russian Federation, the journal agrees that it will send them the copy of the review.

2.4. Contents of the journal and the full text of articles available on the website www.knc.ru/publishing/journal_ru and in the database of Scientific Electronic Library www.elibrary.ru.

By submitting the manuscript to the journal "*Transaction of Academenergo*" the authors provide a version of the non-exclusive right to use their article for publication in the scientific journal "*Transaction of Academenergo*" and to post on the website e-library.ru in the paid or free access, the authors automatically agree to distribute of their manuscript in different databases.

The list of database is not limited.

Further comments on the manuscript formatting deal with **Microsoft Word for Windows** Software**.**

3. Manuscript template for *Transactions of Academenergo*

UDC 621.31.22:621.592 *(Times New Roman, 12 points)*
(blank line)
PAPER TITLE *(Times New Roman, 14 points)*
(blank line)
I.I. Ivanov*, P.P. Petrov** *(Times New Roman, 12 points)*
ivanov@mail.ru, petrovpp@list.ru *(Times New Roman, 11 points)*
(blank line)

* Research Center for Power Engineering Problems *(Times New Roman, 11 points)*
** Moscow Power Engineering Institute *(Times New Roman,11 points)*
(2 blank lines)

Keywords: 5-8 terms *(Times New Roman,11 points)*
(blank line)

Abstract *(Times New Roman,11 points)*
(blank line)
The text should be printed in Times New Roman font, **11 points** single-spaced (no less than 8-10 lines!).
(blank line)

Introduction *(Times New Roman,11 points)*
(blank line)
The paper text (except headings) should be printed in Times New Roman font, **11 points** single-spaced.
(blank line)

Theoretical part *(Times New Roman, 11 points)*
(blank line)
Subsequent sections of the paper, except the text itself, may contain formulae, tables, figures, which should be centered. Formulae, figures and tables should be separated from the text with a blank line before and after them and should be numbered sequentially. Formulae should be aligned left with a 1 cm indent.

(1 blank line before and after the formula)

$$E = mc^2 \qquad (1)$$

(blank line)

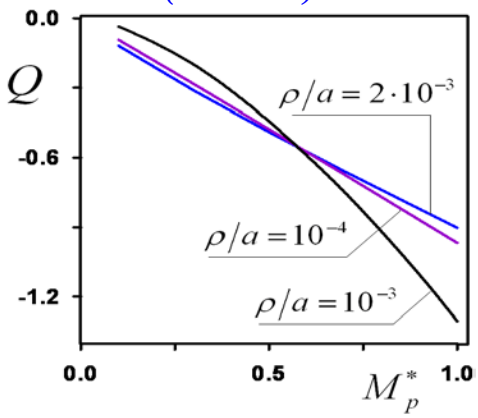

Fig.1. Caption *(Times New Roman, 11 points)*
(blank line)
Figures and tables should be referred to throughout the paper as follows - Fig.1 (2, 3, etc.) or Table 1 (2, 3, etc.). Figures should have captions.

(blank line)

Table 1. Heading *(Times New Roman, 11 points)*
(blank line)

Steel type	σ_o	σ_u	σ_u^{true}	$\left(\frac{dW}{dV}\right)_c$	K_{1c}	ψ	n	$\frac{\sigma_u^{true}}{\sigma_o}$	$\bar{\varepsilon}_f$
	(MPa)	(MPa)	(MPa)	(MPa)	(MPa /m)	(%)			
A	1514	1750	2333	23.67	76.8	25	7.79	1.541	0.288
B	1039	1136	2064	26.34	159.6	45	6.42	1.987	0.599

(blank line)
Please use the international system of units (SI)

(blank line)

References *(Times New Roman, 11 points)*

(blank line)

References to foreign sources should be given in the original language. See the example below.

(for books)

1. Kiselev, V.V. Analysis of research potential / V.V. Kiselev, T.E. Kuznetsova, Z.Z. Kuznetsov. – M.: Nauka, 1991. – 126 p.

(for journals)

2. Gudkov, V.A. Study of molecular and supramolecular structure of some liquid crystalline polymers / V.A. Gudkov// Journal of Structural Chemistry. – 1991. – Vol. 32. – No.4. – P. 86–91.

(for proceedings)

3. Andreev, A.A. Key Elements to Organize Research Work/ A.A. Andreev, M.L. Zakirov, G.N. Kuzmin // Proceedings of Conf. Barnaul, 14–16 April 1997. – Barnaul: Alt. University Publ. House, 1997. – P. 21–32.

(for theses)

4. Medvedeva, E.A. Higher Education in Library Science in the USSR: Problems of Profile Development (History, Current State, Prospects): Thesis ... Cand. of Pedagog. Sciences: defended on 12.04.2000: approved on 24.09.2000 / E.A. Medvedeva. – M.: Moscow St. Cult. Univ. Publishing House, 2000. – 151 p.

4. Abstract template

V.N.Shlyannikov, S.Yu.Kislova *(Times New Roman, 11 points)*

CONSTRAINT PARAMETERS ACCOUNTING FOR CRACK TIP CURVATURE *(Times New Roman, 11 points)*

e-mail: shlyannikov@mail.ru, svetlana_kislova@mail.ru *(Times New Roman, 11 points)*

Research Center for Power Engineering Problems of the Russian Academy of Sciences (Times New Roman,11 points)

Keywords: mixity and constraint parameters, crack growth angle, finite element analysis, small scale yielding, second order stress field, elastic-plastic behavior of the material, analytical HRR-results. *(Times New Roman,11 points)*

Abstract *(Times New Roman,11 points)*

The results of calculations for both elastic-plastic mixity and constraint parameters in full range of mode I and mode II combinations accounting for crack-tip curvature are presented. Full-field finite element analysis based on a modified boundary layer approach is employed to model the mode mixity effects on elastic-plastic crack tip behavior. More accurate plane strain solutions without the simplifications of the second stress radial and angular functions by using the full-field FEM data and analytical HRR-results for mixed mode crack have been presented. In the present work we proposed to complete the boundary conditions for compatibility equation proceeding from the assumption that the stresses have to have extremum along the crack growth direction. From this point of view, nonlinear analysis has been made by solving the partial differential equations governing the dominant singularity to study the displacements, stresses and strains near the crack tip for the complete range of mixed mode loading between Mode I and II.