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Instructions for the preparation of a Archives MSE paper

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Abstract

Purpose of this paper (Could you please put your information in this box, answering the following question): What are the reason(s) for writing the paper or the aims of the research? Please take into consideration the fact the full text of an abstract should contain no more than 1000-2000 characters (including spaces).

Design/methodology/approach (Please leave in the title a suitable word); (Could you please put your information in this box, answering the following questions): How are the objectives achieved? Please include the main method(s) used for the research. What is the approach to the topic and what is the theoretical or subject scope of the paper?

Findings (Could you please put your information in this box, answering the following questions): What was found in the course of the work? This will refer to analysis, discussion, or results. What is/are the main conclusion(s)?

Research limitations/implications (Please leave in the title a suitable word); (Could you please put your information in this box): If research is reported in the paper this section must be completed and should include suggestions for future research and any identified limitations in the research process.

Practical implications (Could you please put your information in this box, answering the following questions): What outcomes and implications for practice, applications and consequences are identified? Not all papers will have practical implications but most will. If not it is necessary to omit this part of an abstract. What changes to practice should be made as a result of this paper? In each paper the point including the research limitation/implications or practical implications must be taken into consideration.

Originality/value (Could you please put your information in this box, answering the following questions): What is original value of the paper? What is new in the paper? Please state the value of the paper and to whom.

Keywords: In addition could you please provide up to five keywords which encapsulate the principal topics of the paper (according to the classification being in force so far). First two keywords must be selected from the chosen set of the further part of that instruction called "Scope", however the first keyword must be the title of the scope section which was chosen for your paper and the second one must be selected from the detailed keywords given in a given section of scope.

1. Introduction

The paper should begin with the introduction in which the state-of-the-art of the issue concerning the paper will be presented generally and concisely. It is necessary to quote references taking into consideration the remarks included in the section

"References". It is necessary to present the aim of works included in the paper and clearly emphasise the originality of solutions and content-related approach to the issue worked out and described by authors. Exemplary section headings and range of the subsequent sections of the paper are given roughly which we wish you to adopt during the preparation of your paper.

Table 1.
Editorial requirements

No	Item	Explanation
1.	Paper size	Please use non-standard format (205 x 280) without page numbering. Only this paper size will be accepted.
2.	Length	Short paper must have 4 pages and exceptionally only after the previous agreement with the Editor can have 3 pages. Research and technical papers must have minimum 6 pages (only after the previous agreement with the Editor), however, it is advised that they have 8 pages, they can have 10 pages (only after the previous agreement with the Editor).
3.	Margins /Columns	Total text width: 17.7 cm; Pages: Maximum length: 21.8 cm; top margin 3.0 cm; bottom margin: 3.2 cm; left and right margins 1.4 cm; Columns: each column 8.45 cm wide with 0.8 cm middle margin do not begin a new section directly at the bottom of a page, but transfer the heading to the top of the next column; you may exceed the length of the text area by one line only in order to complete a section of text or paragraph.
4.	Page layout	The main body of the text should be left and right justified. Please remember about the 'fine-tuning': Do not end the page with a heading; do not start a page with an incomplete line; do not underline any part of the text.
5.	Fonts and line spacing	The 9 pt Times New Roman font in 1.0 line spacing is required
6.	Title	The title should have no more than 10 words (articles are not counted) and situated in two lines and centre-justified Title of the paper (26 point, bold, Times New Roman), Authors' initial and surname^a (11 point, bold, Times New Roman) and the name of ^a Department, University, address City, Country, (each 10 point, Times New Roman).
7.	Abstract	Please provide a structured abstract (9 points), set out under 5-6 sub-headings: Purpose; Design/Methodology/Approach; Findings; Research limitations/implications or/and Practical implications; and, Originality/value of paper. The words purpose, design and next sub-headings should be written in a bold style (9 points, please do not cancel them), and the abstract itself <u>should contain no more than 1000-2000 characters (including spaces)</u> . Please write concisely and clearly. The abstract should reflect only what appears in the original paper. The word Abstract should written in the bold style (14 point)
8.	Keywords	The words Keywords (9 points, each beginning with a big letter and separated by semicolon)
9.	Style	Section headings (14 points, bold, Times New Roman), subsection headings (12 points, bold, Times New Roman) should be left justified. Before section headings use two blank spaces and before subsection headings use two blank spaces. The creation of sub-subsections is not foreseen. Table and figure headings (9 points) should be numbered consecutively and centre-justified
10.	Colour	Short papers are printed as black and white. Full papers can be printed in full colour so pictures and photos should be prepared as multicolour ones. Authors will be informed about other conditions.

Papers are only published in English. Each typescript must be accompanied by a statement that it has not been submitted for publication elsewhere in English. The Archives MSE place great emphasis on the quality of the published papers. All papers are refereed. A full double-blind refereeing process is used. Papers are sent to 2 experts for their peer review. The reviewers' recommendations determine whether a paper will be accepted/ accepted subject to change/ subject to resubmission with significant changes/ rejected. For papers which require changes, most often the same reviewers will be used to ensure that the quality of the revised paper is acceptable. The Editor-in-Chief reserves the right to refuse any typescript, whether on invitation or otherwise, and to make suggestions and/or modifications before publication. Typescripts which have been accepted become the property of the Publisher. It is a condition of acceptance that copyright shall be vested in the Publisher. The Publisher shall not be held responsible for errors which are the result of authors' oversights.

2. Description of the approach, work methodology, materials for research, assumptions, experiments etc.

In this section it is necessary to present in details assumptions and course of own researches to such an extent that a reader could repeat those works if he was going to confirm achieved results. In short papers those information should be given in as short a version as possible.

2.1. Title

The paper title should precise clearly and in details its subject matter and should have no more than 10 words (articles are not counted). If a given paper has been published in a short version so far (eg in proceedings of any scientific conference), it is possible to publish it in a full version under condition that the title will be

slightly changed and its contents will be significantly broadened, and in the references the citation of the short paper will be mentioned. In such a case it is necessary to submit a paper in a full version in the on-line registration system, however, in the header for the Editorial Board on the first page it is necessary to write “research or technical paper in a full version” and suitably change title of that paper in the comparison to its short version. Then none of fragments of a text and an abstract of a short paper can be repeated in a research or technical paper in a full version.

2.2. Format

The paper should be prepared according to the requirements provided in Table 1. Please pay attention to the fact that the subsection should be not shorter than 0.5 column.

2.3. Tables

Tables should be presented in the form shown in Table 1. They should be arranged throughout the text **but do not put the table at the first page**, preferably being included on the same page as they are first discussed. They should have a self-contained caption and be positioned in flush-left alignment with the text margin within the column. If they do not fit into one column they may be placed across both columns in which case place them at the top or at the bottom of a page.

2.4. Figures

Figures should be presented as in Figure 1. They should be clearly displayed by leaving at last single line of spacing above and below them.

When placing a figure at the top of the page, the top of figure should be at the same level as the bottom of the first text line. All notations and lettering should be no less than 2.5 mm high. The use of heavy black and/or colour bold lettering should be avoided as they will look unpleasantly dark when printed. They also must be located close to the first reference to them in the text and numbered consecutively. A figure caption should be placed immediately below the figures. Photographs and figures should be prepared in colour at min. 300 dpi resolution. Please do not use patterns in vector graphics. It is required to prepare them in Corel Draw in TIFF or JPEG format (prepared in MS Word are not accepted). Please remember that they cannot be reduced or enlarged after placement in MS Word application, because they loose the image quality

Tables and figures placed across both columns should begin and end the page.

2.5. Equations

Equations should be placed flush-left with the text margin of the column and should be preceded and followed by one blank line.

$$S(t) = \lambda \cdot d^3 - \sum_{i=1}^f s_i \quad (1)$$

If they are numbered make sure that they are numbered consequently. Put the numbers in parentheses flush with the right-hand margin level with the last line of the equation.

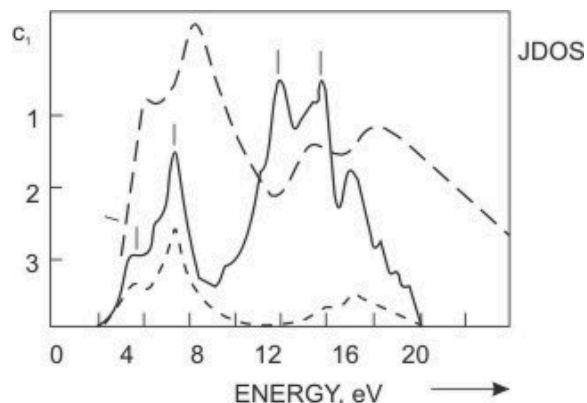


Fig. 1. Good quality figure with clear lettering

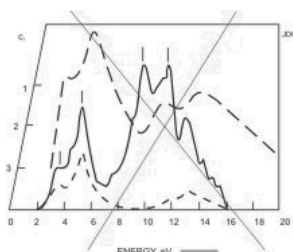


Fig. 2. Bad quality, distorted figure; lettering is too small

3. Description of achieved results of own researches

3.1. General remarks

In that section it is necessary to present achieved results of own researches in details e.g. researches or calculations illustrating them in details and legibly by pictures, diagrams, photos eg. metallographical ones, results, calculations, tables etc. and giving in details casual and result relations between stated facts confirming or excluding data known from the literature. That section should have a character of a scientific discussion, although in order to do that the separate section can be created and in the given one only the information about achieved results of researches can be included. In short papers you should rather limit yourself to a discussion.

3.2. Scope

Thematic scope of papers is given below:

MATERIALS:

Metallic Alloys, Tool Materials, Superplastic Materials, Ceramics and Glasses, Composites, Amorphous Materials, Nanomaterials, Biomaterials, Multifunctional Materials, Smart Materials, Engineering Polymers

PROPERTIES:

Ductility, Crack Resistance, Fatigue, Creep-resistance, Fracture Mechanics, Mechanical Properties, Electrical Properties, and Magnetic Properties, Corrosion, Erosion, Wear Resistance, Non-Destructive Testing, Reliability Assessment, Toxicity, Working Properties of Materials and Products

METHODOLOGY OF RESEARCH, ANALYSIS AND MODELLING:

Electron Microscopy, X-ray Phase Analysis, Metallography, Quantitative Metallography, Image Analysis, Computer Assistance in the Engineering Tasks and Scientific Research, Numerical Techniques, Statistic Methods, Residual Life Analysis, Process Systems Design, Mould Flow Analysis, Rapid Prototyping, CAM, CAMS, CAQ, Engineering Design, Technological Design, Materials Design, Computational Material Science, Materials and Engineering Databases, Expert Systems, Artificial Intelligence Methods

MATERIALS MANUFACTURING AND PROCESSING:

Casting, Powder Metallurgy, Welding, Sintering, Heat Treatment, Thermo-Chemical Treatment, Thin & Thick Coatings, Surface Treatment, Machining, Plastic Forming, Quality Assessment, Automation Engineering Processes, Robotics, Mechatronics, Technological Devices and Equipment, Theoretical Fundamentals of Cleaner Production, Industrial Application of Cleaner Production Methods, Production and Operations Management, Production Planning and Control, Manufacturing Technology Management, Quality Management, Environmental Management, Safety and Health Management, Project Management, Physical Distribution and Logistics Management, Supply Chain Management, Productivity and Performance Management

EDUCATION AND RESEARCH TRENDS IN MATERIALS SCIENCE AND ENGINEERING:

Development of New Curricula for BSc, MSc and PhD Studies, Challenges of the Widening Labour Market, Complementary Roles of Developed and Developing Nations in Promoting a Global Industrial and Economical Infrastructure and Requirements on Common International Research and Teaching Development, Computer Aided Teaching, E-learning

4. Conclusions

It is necessary to present clearly the main conclusions from the whole paper. It is required to present them in a few points after the general conclusion. The author's achievements and originality of research and the authors' input in the undertaken subject matter and value of study should be emphasised. Practical application and possible directions of further works can be pointed out.

Acknowledgements

Acknowledgements should be placed before reference.

Additional information

Here information concerning eg. the presentation of the paper during any scientific conference can be given.

If possible, equalize columns on last page.

References

- [1] W.M. Smith, Surface Materials Processing. Second Edition, Backmann Verlag, Berlin-London-Paris-Warsaw, 2006.
- [2] E.C. Lee, C.Y. Nian, Y.S. Tarn, Design of a materials processing technologies, Archives of Materials Science and Engineering 28 (2007) 48-56.
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- [4] X.L. Wu, In situ formation by laser cladding of a TiC composite coating with a gradient distribution, Surface and Coatings Technology 122 (2006) 111-115.
- [5] J. Kopač, M. Soković, Cutting properties of the PVD and CVD coatings on the ceramic substrates, Journal of Achievements in Materials and Manufacturing Engineering 18 (2006) 278-285.
- [6] L.A. Dobrzański, J. Mikula, D. Pakula, Cutting properties of the ceramic tool materials based on Si₃N₄ and Al₂O₃, Proceedings of the 12th Scientific International Conference „Achievements in Mechanical and Materials Engineering” AMME'2003, Gliwice - Zakopane, 2003, 221-225.

References should be collected at the end of your paper. Please do not begin them on a new page unless this is absolutely necessary. They should be listed in the order in which they are cited in the text. Citation of reference should be made within square brackets. Please write full titles of Journals and papers.

The list of references should include at least 15 positions mainly in English. However, if they are not written in English their titles should be written in English transliteration, and in the bracket it is necessary to give a language of the original eg. (in Polish). No less than 30% of the cited works should include the ones published in the previous Issues of the Archives of Polish Academy of Sciences, the Publisher's Journals, including Journal of Achievements in Materials and Manufacturing Engineering, and in the proceedings of the previous International Scientific Conferences of Polish Academy of Sciences, among others: AMT, AMME, and CAM²S conferences. One should not cite more than 25% of papers of his/her own authorship or co-authorship. It is necessary to pay attention that among literature references the positions from the year of the publication and from the year before the publication should be mentioned (no less than 20%).

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