

Instructions for Authors

Scope of the Journal

Journal of Metallurgy and Materials Science (JMMS) publishes original articles, review reports and short communications in the areas of minerals, metals and materials tracing the overall life cycle of structural as well as functional materials. The journal lays special emphasis on fundamental sciences related to metallic materials and their applications.

The scope of JMMS may be enumerated as: Mineral processing; Extractive metallurgy: ferrous and nonferrous; Processing of metals; Advanced joining of metals; Mechanical behavior of materials; Materials failure mechanisms including Creep, Fatigue, Fracture and Corrosion; Characterization of materials; Nondestructive Techniques; Functional materials; Computational materials engineering; Metallurgical waste recycling and utilization of metallurgical and electronic wastes.

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Submission Guidelines

Authorship

All authors are instructed to make substantial contributions to the conception of the study; or acquisition, interpretation or analysis of data for the study. Drafting or revising of the manuscript is necessary for important intellectual content. Author should submit, final approved version only.

Manuscript formatting

Authors are advised to follow the below criteria for formatting their manuscripts. Use of Times new roman font with font size 12 along with single spaced sentences is compulsory throughout the manuscript.

Word limitations

The abstract of author's manuscript should contain no more than 250 words. The word limit for the body of the manuscript is 4000 words excluding references. Provided, there is no limitation for number of references. JMMS instructs the authors to closely follow the above-mentioned word count limit.

Sections

JMMS encourages author to organize the manuscript with headings and subheadings. According to author's research field the section headings should be arranged. Sections can be divided into subsections, if required; for better segmentation and understanding purpose.

Headings

Author must mention each heading in a separate line. Manuscript headings should be typed in a consistent manner for guidance of copyeditor. Each heading should be typed using bold uppercase with font size of 14. Subheadings may be typed using Italic sentence case with font size of 12.

Cross reference

If author is taking some information from elsewhere; i.e., from a book, journal, web or conference paper, then citation in text is mandatory and the reference number should be mentioned parenthetically. One author can also cite his/her own paper. Author must ensure that every reference cited in text is added to the reference list.

Content

Authors are recommended to submit original research to JMMS. The manuscript submitted, or any part of it, should not be under consideration by any other journal. Any conjoining publications must be cited. JMMS Editors have right to judge potentially overlapping publications on a case-by-case basis.

Manuscript submission

Title

It should be concise, clear but also should capture the conceptual significance for broad group of readers. Use of abbreviations should be avoided. And authors are instructed to use sentence case format in bold.

Author names & affiliations

Name of each author must be clearly indicated. Authors are advised to provide the first name, middle name followed by the surname. Each of the names must spelled accurately and follows the upper-case format. Affiliation details with full postal address with font size 10 need to be attached immediately after the names of authors.

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Among all the authors, one need to take charge of corresponding author, whose responsibility is to ensure that the author list and summary of the author contributions in the manuscript is accurate and complete. Further, he/she need to answer any future queries regarding the content of the submitted manuscript. The corresponding author will also take charge of correspondence at all stages of refereeing, publication and after publication. The email address and the contact details of the corresponding author need to be mentioned in the footnotes of the first page of the manuscript.

Abstract

In a research paper, abstract of 250 words will be included in the starting of the paper. It will be presented separately from the manuscript. So, author must ensure that, it should stand alone as well as concise. An abstract must render the general significance and conceptual advance of work done. It should be organized by stating the purpose of the research, methods adopted, major findings and important conclusions. Authors are advised not to cite references in this particular section, also avoid use of non-standard abbreviations.

Keywords

Keywords are the words or phrases, that readers enter into search engine to find a particular content. Authors are suggested to think of important index terms that would define the content of their manuscript. To identify the subjects under which the article may be indexed, 3-6 key words should be provided immediate after the abstract. Make the keyword as specific as possible. Also add abbreviations and acronyms if only it is familiar to readers.

Introduction

The introduction should present the objective of the research problem/study in a broader context in such a way that, it could be understood even by a non-expert in the respective field.

Author are recommended to provide with an adequate background of the problem. This segment should end with a statement explaining the primary aim of the investigation and whether it is achieved or not avoiding detailed summary of the research manuscript.

Background

In background section, motivation/reason for particular research being performed, are to be explained. Also, in the end of this section a statement implying, objective of the study should be mentioned.

Methods

This section should explain the methodology adopted by providing sufficient details like each condition and criteria to do the experiment; viz, ambient temperature, pressure etc. So that, this very work can be reproduced by any individual researcher. If any method is already published, then it should be referred. However, if any changes are made to the methods, then it should be mentioned and discussed briefly. The raw materials used in the work are to be included with its sources. It's purity and full chemical formula is required for recording of very minute details. All characterization techniques adopted to complete the work are to be added along with the manufacturer name of that particular instrument. Further, the statistical tool used to analyze the data should be mentioned.

Results

Authors are suggested to submit clear and concise results in a logical sequence. If required author can split this section into different sub sections for better understanding of the results. It should include all positive and negative yield findings. For this section author should use past tense. Author can make use of tables, figures as well as graphs as supporting documents; for better understanding and explain the same accordingly in the body of the text.

Discussions

This section should convey the significance of the work findings. It should explain how the findings affect the existing knowledge. It should be brief but tightly argued. Author can also combine results and discussion sections. Citations allowed for this section must be limited. Author should mention the possible short comings and limitations to the proposed theory. What advances author got from the findings should be mentioned along with some derived postulates that could be experimented in future, from the key findings.

Conclusions

The important conclusions of the study should be presented in a final paragraph. It should stand alone. How does the as present study advance knowledge and understanding in the particular field, must be interpreted with clear statements. Better findings are to be highlighted in this section.

Acknowledgement

This section contains a short text to acknowledge the contribution of colleagues, agencies, institutions etc.; that helps the author to complete the research for the very manuscript. It should

be put above the reference section; i.e., in the end of the manuscript. Author should take care, to take permission of the individuals before putting their names here.

References

In the text, references to the literature should be presented within square bracket indicating the reference number [1].

- Paper: [1] J Singh, A. Kumar: Investigation of structural, morphological and electrochemical properties of mesoporous La₂CuCoO₆ rods fabricated by facile hydrothermal route. Int J Miner Metal Mater 27, 987–995, 2020
- Book: [2] J D Verhoeven: Fundamentals of physical metallurgy, 1st Edition, New York: Wiley, New York, pp. 55-61, 1975
- Online document: [3] Cory Mitchell: Fractal Indicator Definition and Applications. Technical analysis basic education. Available via <https://www.investopedia.com/terms/f/fractal.asp> Retrieved 3 August 2020

Abbreviations

All abbreviations should be defined on first use in the text along with the abbreviation in parenthesis. E. g. Scanning Electron Microscope (SEM). Ensure consistency of the same throughout the manuscript. Please keep abbreviations to a minimum.

Units and symbols

It is mandatory to define the symbols and acronyms at first mention within the text and also in titles and abstracts. The authors are requested to follow internationally accepted rules for nomenclature, abbreviations, symbols and units.

Equations

Mathematical equations, suitably numbered, should be inserted in the text through "Equation editor" of MS word, so it can be presented as editable text but not as image in body of manuscript; as per the example

$$P(e) = \frac{1}{2} \left[1 - \operatorname{erf} \left(\frac{K}{2\sqrt{2}} \right) \right] \quad \dots (1)$$

Computer code

Pseudo algorithms, as presented below, with appropriate reference should be submitted.

Title: To compute power spectral density and corresponding frequency

Input: Time domain data X(t)

Output:

- Read the signal X(t)
- Crop the signal and get the length N
- Supply sampling frequency, *fs*
- Do fast Fourier transformation of the signal

Xk=fft(X(1:N), fs);

- Compute power spectral density and corresponding frequency by

$$P = Xk.* \text{conj}(Xk) / N;$$

$$f = fs*(1: fs)/N.$$

Plagiarism Policy

- Authors are requested to submit unique manuscript free from plagiarism.
- We follow the guideline of UGC for handling plagiarism as per rule published here: https://www.ugc.ac.in/pdfnews/7771545_academic-integrity-Regulation2018.pdf
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- Authors will be asked to resubmit manuscript if the similarity is above 10 to 40%.
- For more than 40% similarity, the manuscript will be rejected.

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