Journal of Scientific Research

Author Guidelines

Editorial policy: The 'Journal of Scientific Research' is a peer-reviewed international journal which appears as 3 online issues (one print volume) per year. This journal is a unifying force, going across the barriers between disciplines, addressing all related topics and materials. An International Editorial Board (along with an Advisory Board) comprising of renowned academics from various fields guides our editorial policy and direction.

The Journal is devoted to the publication of original research (Research paper, Review paper, Short communication) covering the following fields:

Section A: Physical and Mathematical Sciences: Physics, Mathematics, Statistics, Geophysics, Computer, Environmental Science, Communications and Information technology, Engineering and related branches.

Section B: Chemical and Biological Sciences: Chemistry, Biochemistry, Pharmacy, Biology, Genetics, Fisheries and related branches.

The author(s) should submit an original research finding that has not been offered to any other journals for prior or simultaneous publication.

Manuscript: The manuscript, which includes an abstract (not more than 200 words, 9 pt Times New Roman), should have main text typed in 10 pt Times New Roman. The sequence should be: Title, Author's name and affiliation, Abstract, Keywords, Introduction, Main texts, Acknowledgements and References. Short communication may not have heading and subheading etc but references should be listed as usual. Research Papers (not normally more than 6000 words in length) and Short communications (not more than 3000 words in length) will be considered.

Details on how to structure an article, including specific information on Tables, figures and references, are available in **Instructions for Typesetting JSR Manuscript Using MS-Word**.

How to submit: The text of the article is to be prepared using **Microsoft Word**. **Please submit articles online at:** www.banglajol.info/index.php/JSR

Only if unable to submit online

send by email to Editor-in-Chief (JSR) at: jsr_editor@ru.ac.bd

Publication charge: A modest publication charge of accepted articles (does not include Reprints) to defray the partial cost of journal printing is applicable for <u>accepted articles of volume 2 and onward</u> – authors will get notification for that at appropriate time after acceptance of their articles. The rate per page of accepted paper is

a. Tk.   200 (Bangladesh)
b. US$ 5 (SAARC countries)
c. US$ 10 (all other countries)

Method of payment at present is via **Telegraphic Transfer (TT), Money Gram, Swift Code Transfer** to JSR account.

Payable to: Journal of Scientific Research, Rajshahi University

(Address: Faculty of Sciences, Rajshahi University, Rajshahi-6205, Bangladesh).

JSR Bank Current Account: 330 07685 (Agrani Bank Ltd., Rajshahi University, Rajshahi-6205, Bangladesh). Swift code: AGBKBDDH027.

Correspondence

The Editor-in-Chief (JSR)   e-mail: jsr_editor@ru.ac.bd
Faculty of Sciences, Rajshahi University   Tel : +880-721-750041/4115
Rajshahi-6205, Bangladesh   Fax: +880-721-750064

Submission Preparation Checklist

As part of the submission process, authors are required to check off their submission's compliance with all of the following items, and submissions may be returned to authors that do not adhere to these guidelines:

1. The submission has not been previously published, nor it is before another journal for consideration (or an explanation has been provided in Comments to the Editor).

2. The file is in **Microsoft Word file format (doc and NOT docx)**.

3. E-mails and affiliation of all co-authors have been provided in the Metadata (mandatory) while submitting manuscript.

4. The text adheres to the style, fonts, font sizes in abstract, text, figures, tables and bibliographic requirements outlined in the **Author Guidelines** and **Instructions for Typesetting JSR Manuscripts using MS Word**'.

5. **Copyright:** Submission of paper implies transfer of copyright from the authors to the Journal of Scientific Research, Faculty of Science, Rajshahi University.

Instructions for Typesetting JSR Manuscript Using MS-Word[*]

First Author[†], Second Author[#], Third Author

Department, University Name, Address,
City, ZIP/Zone, Country

Abstract

The abstract should summarize the context, content and conclusions of the paper in less than 200 words. It should not contain any references or displayed equations. Typeset the abstract in 9 pt Times New Roman with inter line spacing of 9 pt, making an indentation of 0.5 cm on the left and right margins. Typeset similarly for keywords below.

Keywords: Keyword1; Keyword2; Keyword3; Keyword4.

1. General Appearance

Contributions to *Journal of Scientific Research* will be reproduced by using the author's submitted typeset manuscript. It is therefore essential that the manuscript be in its final form, and of good appearance. The typeset manuscript should be submitted in <u>MS Word format</u> **preferably via journal website** www.banglajol.info/index.php/JSR or **only** if unable to do so, then via e-mail to jsr_editor@ru.ac.bd (**provide e-mails of all the co-authors in the Metadata during web submission**).

2. The Main Text

Contributions are to be in English. Authors are encouraged to have their contributions checked for grammar. English spelling should be used. Abbreviations are allowed but should be spelt out in full when first used. Integers ten and below are to be spelt out. Italicize foreign language phrases (e.g., Latin, French).

The **text is to be typeset in 10 pt Times New Roman, single spaced with interline spacing of 13 pt**. <u>Text area (excluding running title) is 5 inches across and 7.7 inches deep</u>. Final pagination and insertion of running titles will be done by the publisher. Number each page of the manuscript using any legible means (typewritten or handwritten when applicable).

---

[*]Title should not normally exceed 2 lines. Typeset the title in 11 pt Times New Roman, Titlecase and boldface.
[†]Please typeset names in 9 pt Times New Roman, Titlecase and boldface.
[#]*Corresponding author*: author@ru.ac.bd (Use the footnote to indicate corresponding author).

3. Major Headings

Major headings should be typeset in boldface (10 pt) with the first letter of important words capitalized.

3.1. *Sub-headings*

Sub-headings should be typeset in boldface italic (10 pt) and capitalize the first letter of the first word only. Section number to be in boldface Roman.

3.1.1. *Sub-subheadings*

Typeset sub-subheadings in medium face (10 pt) italic and capitalize the first letter of the first word only. Section numbers to be in roman.

3.2. *Numbering and spacing*

Sections, sub-sections and sub-subsections are numbered in Arabic numerals. Use single spacing before all section headings, and single spacing after section headings. Flush left all paragraphs that follow after section headings.

3.3. *Lists of items*

List of items may be numbered as follows:
  (i)   item one,
  (ii) item two,
       (a) lists within lists can be numbered with lowercase alphabets,
       (b) second item.

4. Equations

Displayed equations should be numbered consecutively in the paper, with the number set flush right and enclosed in parentheses.

$$\gamma_{qv} = 2\pi\omega_{qv}\sum_{ij}\int\frac{d^3k}{\Omega_{BZ}}\left|g_{qv}(\mathbf{k},i,j)\right|^2\delta(\varepsilon_{k,i}-\varepsilon_F)\delta(\varepsilon_{k+q,j}-\varepsilon_F),\tag{1}$$

Equations should be referred to in abbreviated form, e.g., "Eq. (1)" or "(2)". In multiple-line equations, the number should be given on the last line.

   Displayed equations are to be centered on the page width. Standard English letters like x are to appear as x (italicized) in the text if they are used as mathematical symbols. Punctuation marks are used at the end of equations as if they appeared directly in the text.

Theorem 1. Theorems, lemmas, definitions, etc. are to be numbered consecutively in the paper. Use double spacing before and after theorems, lemmas, etc.

Proof. Proofs should end with a square box   □

5. Illustrations and Photographs

Figures are to be inserted in the text nearest their first reference. If the author requires the publisher to reduce the figures, ensure that the figures (including letterings and numbers) are large enough to be clearly seen after reduction. If photographs are to be used, only black and white ones are acceptable.
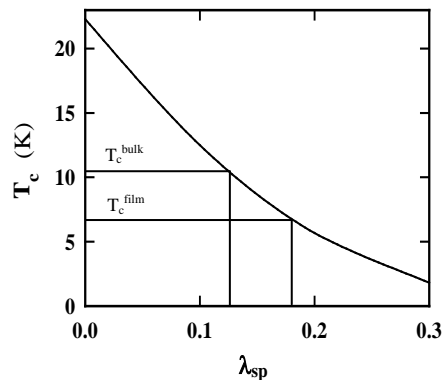

Fig. 1. This is the caption for the figure. If the caption is less than one line then it is centered. Long captions are justified to the full text width.

Figures are to be sequentially numbered in Arabic numerals. The caption must be placed below the figure. Typeset in 9 pt Times New Roman with line spacing of 10 pt. Use double spacing between a caption and the text that follows immediately.

It is the author's responsibility to obtain permission from the publisher and author (where applicable) of a previously published material such as figures. The legend of such figures must contain reference/citation of such permission.

6. Tables

Tables should be inserted in the text as close to the point of reference as possible. Some space (at least 1.5 times line spacing) should be left above the table caption and below the table.

Tables should be numbered sequentially in the text in Arabic numerals. Captions are to be centralized above the tables. Typeset tables and captions in 9 pt Times New Roman with line spacing of 12 pt.

Table 1. This is the caption for the table. If the caption is less than one line then it is centered. Long captions are justified to the table width manually.

System	ρ_o ($\mu\Omega$cm)	A ($\mu\Omega$cm)	θ_D (K)	B ($\mu\Omega$cm)
MgB_2	10.3	0.4	700	0.0
AlB_2	26.8	0.8	670	0.02
AgB_2	1.18	0.082	480	0.001

* With permission [1].

.

If tables need to extend over to a second page, the continuation of the table should be preceded by a caption, e.g., "Table 1 (*Continued*).".

7. Footnotes

Footnotes should be numbered sequentially in superscript lowercase roman letters.[1]

Acknowledgments

This section should come before the References and Appendices.

Appendix A.   Heading of Appendix

Appendices should be used only when absolutely necessary. They should come before the References. If there is more than one appendix, number them alphabetically. Number displayed equations occurring in the Appendix in this way, e.g., (A.1), (A.2), etc.

$$P(\omega)=\frac{3N(E_F)}{2\pi}\int_0^{2k_F}\frac{qdq}{2k_F^2}\,\mathrm{Im}\,t(q,\omega) \tag{A.1}$$

A.1. *This is the subappendix*

They should come before the References. If there is more than one appendix, number them alphabetically.

Appendix B.   Another Appendix

Appendices should be used only when sophisticated technical details are crucial to be included in the paper. If there is more than one appendix, number them alphabetically.

$$\lambda = \sum_{q\upsilon}\lambda_{q\upsilon} = \sum_{q\upsilon}\frac{\gamma_{q\upsilon}}{\pi\hbar N(E_F)\omega_{q\upsilon}^2} \tag{B.1}$$

where N(EF) is the density of states at the Fermi level.

---

[1] Footnotes should be typeset in 8 pt Times New Roman at the bottom of the page.

References

References in the text are to be numbered consecutively in Arabic numerals, in the order of first appearance and put within square bracket [1, 2] etc. Typeset <u>references in 9 pt Times New Roman</u>.

1. Y. Moritomo, Phys. Rev. B **60**, 10374 (1999).
2. M. Tinkham, Group Theory and Quantum Mechanics (McGraw-Hill, New York, 1964).
3. P. P. Edwards, in Superconductivity and Applications - *Proc. Taiwan Int. Symp. on Superconductivity*, ed. P. T. Wu et al. (World Scientific, Singapore, 1989) pp. 29–35.
4. F. Parvin, Ph.D. Thesis, Rajshahi University, Rajshahi, Bangladesh (2008).
5. P. F. Marteau and H. D. I. Arbabanel, Noise reduction in chaotic time series using scaled probabilistic methods, UCSD/INLS preprint (October 1990).
6. J. B. Neaton and A. Perali, arXiv: cond-mat/0104098.
7. B. W. Smucker, J. M. Hudson, M. A. Omary, and K. R. Dunbar, Inorg. Chem. **42**, 4714 (2003).
8. R. Eubank, Nonparametric Regression and Spline Smoothing, 2nd Edition (Marcel Dekker, New York, 1999).
9. J. G. Bednorz and K. A. Müller, Z. Phys B **64**, 189 (1986). <u>doi:10.1007/BF01303701</u>
10. P. Monthoux and D. Pines, Phys. Rev. B **50**, 16015 (1994). <u>doi:10.1103/PhysRevB.50.16015</u>
11. C. M. Varma, Phys. Rev. Lett. **83**, 3538 (1999). <u>doi:10.1103/PhysRevLett.83.3538</u>