

# Science and Technology Journal

## INSTRUCTION FOR AUTHORS

Enacted January 01, 2017

### General

*Science and Technology Journal (STJ)* is dedicated to the dissemination of fundamental knowledge in all areas of science and technology including Life Sciences and Environmental Sciences. STJ is published two issues in a year. Manuscripts that contain novel and significant information of general interest to scientific communities working in these areas are welcome to submit their research contribution for publication in this peer reviewed journal. Manuscript for submission to STJ should be prepared according to the following instructions.

### Aim and Objectives

The Northeastern Region (NER) of India, physiographically divided into Eastern Himalaya, northeastern hills and Brahmaputra and Barak valley plains, contains a profusion of habitats characterized by diverse biota and high level of endemism. Conservation International has included NER into 'Indo-Burma hot spot'. The region has been identified by the Indian Council of Agricultural Research as a center of rice germ plasm, while the National Bureau of Plant Genetic Resources, India, has highlighted the region as being rich in wild relatives of crop plants.

NER is sandwiched between two geological domains, Himalaya in the north and Burmese range in the east. Owing to above two reasons, it has attracted world scientific community to unravel the various facts of scientific enquiry with which the region is endowed with. The basic aim of this periodical, therefore, is to disseminate the scientific information of the region and the data generated by the regional, world and international scientific community on various aspects of scientific knowledge.

### Scope

The scope of this journal is to cover widely the research and development conducted in the various disciplines of physics, material science, chemistry, nuclear chemistry, earth sciences, mathematics, statistics, engineering and technology, plant science, animal science, molecular biology, biochemistry and physiology, proteomics, genome, bioinformatics, environmental science, forestry and horticulture.

### Types of Publication

Peer-reviewed contributions:

- Research Articles (full papers)
- Short Original Communications and Discussion Articles
- Review Articles
- Research Communications

Please ensure that the length of your paper is in harmony with the research area included and the science presented therein.

### Page Charges

Journal has no page charges. However, printing of color illustrations is chargeable.

### **Research and Publication Ethics**

The work described in article must have been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving human ([http://www.wma.net/en/30publications/10\\_policies/b3/index.html](http://www.wma.net/en/30publications/10_policies/b3/index.html)); EU Directives 2010/63/EU for animal experiments ([http://ec.europa.eu/environment/chemicals/lab\\_animals/legislation.en](http://ec.europa.eu/environment/chemicals/lab_animals/legislation.en)). In addition, the *Guidelines on Good Publication Practice* (<http://publicationethics.org/static/1999/1999pdf13.pdf>) should be applied. In case of studies involving radioisotopes and hazardous materials, it should be indicated that adequate safety measures were taken during the study.

### **Structural Data**

For paper related with structure of biological macromolecules, the atomic coordinates and related experimental data must be deposited at a member site of World Wide Protein Data Bank, RCSB, MSD-EBI, PDBj or BMRB. Paper must carry a statement that coordinates and structure factors (NMR restraints) have been deposited in Protein Data Bank.

### **NMR Assignments for Macromolecules**

Table listing resonance assignments will not be published in journal. However, resonance assignments may be submitted in separate CD to editor.

### **Submission declaration and Verification**

Submission of an article implies that the work described has not been published previously (except in form of abstract or as a part of published lecture or academic thesis), that it is not under consideration for publication elsewhere, that publication is approved by all authors and tacitly by responsible authorities where work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in another language without the written consent of copyright-holder.

### **Copyright**

Upon acceptance of an article, author will be asked to complete a 'Journal Publishing Agreement'. An e-mail will be sent to the corresponding author confirming acceptance of the manuscript together with a "Journal Publishing Agreement" form.

### **Language**

Manuscript should be written in good English (American or British usage is acceptable, but not a mixture of both). Editorial board is not supporting any language correction either free of payment basis.

### **Submission of Manuscript**

Article to this Journal is submitted by e-mail attachment to Editor-in-Chief ([diw\\_tiwari@yahoo.com](mailto:diw_tiwari@yahoo.com)) or uploaded on the Mizoram University website ([www.mzu.ac.in](http://www.mzu.ac.in)). Hard-copy submission is strictly not acceptable

## Permissions

Authors wishing to include figures, tables, or text passages that have already been published elsewhere are required to obtain permission from the copyright owner(s) for both the print and online format and to include evidence that such permission has been granted when submitting their papers. Any material received without such evidence will be assumed to originate from the authors.

## Peer Review

Submitted manuscripts will be reviewed independently by two referees who are the expert in the subject area. The editorial board may suggest authors to revise the manuscript according to the reviewers' opinion/comments. After revising the manuscript author may resubmit the revised manuscript files with a reply to each items of the reviewers' comments to the Editor for its possible consideration. If revised manuscript is not received within due date, the Editorial Board will not consider it further for publication. The Editorial Board will make a final decision of publication of the submitted manuscript or even can suggest further corrections, revisions and deletions of the article text, if necessary. A list of 3 potential reviewers with their name, address and e-mail addresses must be submitted along with the manuscript. However, the editor retains the sole right to decide whether or not the suggested reviewers are used.

## Preparation of Manuscript

Manuscript should be submitted in the file format of Microsoft Word 2003 or higher version. Manuscript should be formatted in A4 size, double spaced, using a font size of 12 with margins of 2.5 cm on each side and 3 cm for the upper and lower ends. Pages are to be numbered consecutively, beginning with the title page. Page number should be placed at the middle of the bottom of each page. The text should be in single column format. The layout of the text should be kept as simple as possible. However, formatting tools as bold face, italics, subscripts, superscripts etc. are to be used as per requirement. Figures and tables may be embedded in the running text or may be submitted separately. Use the table function, not spreadsheets, to make tables. Use the equation editor or MathType for equations. Manuscripts with mathematical content can also be submitted in LaTeX. LaTeX macro package (zip, 182 kB)

To avoid unnecessary errors Authors are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

## Statistical Expression

Mean and standard deviation should be described as mean  $\pm$ SD, with mean and standard error as mean  $\pm$ SE. P value should be described as  $P < 0.05$ .

## Units

The SI system must be used for all dimensional quantities. For time unit use 'sec', 'hr', 'day', 'wk', 'sun' and 'yr'. Use one space between unit and number except %, °, °C'. Use mg/L instead  $\text{mgL}^{-1}$ . All equations should be numbered in Arabic numerals.

## Structure of Article

### Research Papers

The full length research paper should describe important new experiments or theoretical results. The length of research article should be in limit of 6-10 printed pages including tables and illustrations. Divide your article

into clearly defined and numbered sections. The sections are as follows: 1. Introduction 2. Materials and methods 3. Result and discussion and 4. Conclusion. 'Results' and 'Discussions' could be included separately, if required.

### **Subdivision -**

Subsections should be numbered

1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

Accordingly, the subsections will be numbered as 1.1, 1.2 etc.

### **Title Page**

The title page should include:

The name(s) of the author(s)

A concise and informative title of the paper is to be given. Non Standard and uncommon abbreviations and formulae must be avoided

The affiliation(s) and address(es) of the author(s) is to be included.

*Author names and affiliation:* Name of each author starting with first name followed by last name should be written. Example: Suresh K. Tripathi, Zao P. Liu. Clearly indicate family name, if it is ambiguous. If some authors have different affiliations, use numbers as superscript 1, 2, 3... after the surname of authors and before the name of their affiliation. Corresponding author should be clearly indicated by asterisk (\*). Telephone and fax numbers should be essentially provided in addition to the e-mail address and complete postal address.

### **Abstract**

Abstract should be brief and factual and preferably should not exceed a limit of 250 words. State briefly, the purpose of the work, main and significant results and major conclusions. Abstract must be standing alone and references should not be included. Non- standard and uncommon abbreviations should not be included. Abbreviations should be defined at first mention and used consistently thereafter.

### **Keywords**

At the end of Abstract, 6 to 8 Keywords should be provided. It is suggested that avoid general and plural terms and multiple concepts (Example: 'and', 'of'). Abbreviations should not be included as key words. Words which are already in title should not be listed as keywords.

### **1. Introduction**

Introduction should be written for the general reader of the journal, not for the specialist. State the objective of the work and provide adequate background, avoid a detailed literature survey or a summary of the results. Introduction should be made very concise and, informative and avoid to add sub-headings.

### **2. Materials and methods**

Sufficient details should be provided for reproducibility of work. This section should describe the techniques utilized in the work, making clear the protocol of the study. Methods already published should be indicated by appropriate reference(s), and only modification, if any, should be given. The manufacturer, model number,

chemicals should be clearly mentioned. When appropriate, statistical tests should be described and supported by a reference to the original citation of the test.

### **3. Results and discussion**

Detailed results should be included clearly. Generally positive results should be included. Sub-headings should be avoided.

Significance of results of work should be discussed and repeat of result should be avoided. The excessive citations and discussion of published literature is not suggested. Discussion may also be combined with Result under section "Results and Discussion".

### **4. Conclusion**

A short 'Conclusion' section should be included for major findings of the study. Conclusion should be based on the evidence presented in the paper. Conclusion section may stand alone or as a sub-section of Discussion.

#### ***Acknowledgements***

Acknowledgments of people, grants, funds, etc. should be placed in a separate section on the title page. The names of funding organizations should be written in full.

#### **Data base and Accession Number**

Relevant unique identifiers or accession number (Bioinformatics) linking to genes, proteins, diseases or structures deposited in public data bases, these entities must be indicated in standard format (Example: GeneBank ID:BA123456).

#### **Electronic art works**

Please submit usable black and white illustrations, each as a separate file. All tables and figures (both numbered in Arabic numerals) must be quoted in the text as Figure and Table, and numbered according to their sequence. Legends should be placed in the white space of the drawing, not in the caption. If 'pie' or 'bar' charts are to be shown, use patterns for different pie slices or bars instead of color. Image should be produced near to desired size of the printed version. Regardless of application used, please "save as" or convert the images to one of the following format:

*EPS*: Vector drawing. Embed the fonts or save the text as "graphics".

TIFF: Colour or gray scaled photographs (half- tone). Use a minimum of 300 dpi.

TIFF: Bitmapped drawings: use a minimum of 1000 dpi.

TIFF: Combinations bitmapped/half-tone (colour or gray scale): use a minimum of 500 dpi.

Illustrations created in Microsoft office application

(word, power point, excel) can be send "as is". Please do not send the files that are optimized for screen use (Example: GIF, BMP, PICT, WPGJ, JPG, PDF etc.).

Black and white illustrations will not be charged. However, colored illustrations will be charged. Authors have to pay applicable charges at the time of paper acceptance.

#### **Figure captions**

Supply captions separately, not attached to the figure. A caption should comprise a brief title and a description of the illustrations.

## **Table**

Number tables in accordance of appearance in the text. Place footnotes to table below the Table body and indicate them with superscript lower case letters. Data presented in table do not duplicate results described in section 'Result' in the article.

## **References**

### ***Citation in text:***

References cited in the text should be essentially presented in the reference list. Cite references in the text by name and year in line with text.

Example: ..... requires less biomass for cultivation (Rai 2003). Hyen and Kim (2014) demonstrated conversion..... Many researchers focused on the effect of light on... (Sailo 2012; Pachuau et al. 2011; Johnson and Smith 2000)

### ***Reference list:***

Reference list entries should be alphabetized by the last names of the first author of each work. Order multi-author publications of the same first author alphabetically with respect to second, third, etc. author. Examples:

### ***References to Journal publication:***

Bhargava P, Mishra Y, Srivastava AK, Narayan OP, Rai LC (2008) Excess copper induces anoxygenic photo-synthesis in *Anabaena doliolum*: a proteomic assessment of its survival strategy. *Photosynth Res* 96: 61-74  
Meharg AA (1993) The role of plasmalemma in metal tolerance in angiosperms. *Physiol Plant* 88: 191-198.  
Rai LC, Raizada M (1985) Effect of nickel and silver ion on survival, growth, carbon fixation and nitrogenase activity in *Nostoc muscorum*: Regulation of toxicity by EDTA and calcium. *J Gen Appl Microbio* 31: 329-337.

### ***References to a book***

Wetzel RG, Likens GE (1991) *Limnological Analyses*. 2<sup>nd</sup> Edn. Springer-Verlag, New Yourk.

### ***Reference to a book chapter***

Erdmann N, Hagemann M (2001) Salt acclimation of algae and cyanobacteria: a comparison. In: Rai LC and Gaur JP (ed) *Algal Adaptation to Environmental Stresses: Physiological, Biochemical and Molecular Mechanisms*. 2<sup>nd</sup> edn. Springer-Verlag, Berlin, pp. 323-362

### ***Reference to a conference paper***

Feyen, J, Shannon K, Neville M. Variability of urban water supply and demand. In: Feyen, J, Shannon K, Neville M (edn). *Water and Urban Development Paradigms: Towards and Integration of Engineering, Design and Management Approaches*. International Urban Water Conference; 2008 Sep 15-19; Heverlee, Belgium. Boca Raton (FL): CRC Press; 2009. pp. 431-433.

### ***Reference to a Website***

EPA Victoria. Reusing and recycling water. Carlton: EPA Victoria; 2009 [cited 2009 Nov 20]. <http://www.epa.vic.gov.au/water/reuse/default.asp>.

### ***Thesis/Dissertation***

Keller AA (1996) Single and multiphase flow and transport in fractured porous media. Dissertation, Stanford University

### **Review papers**

Previously published material should be incorporated into an integrated presentation of our current understanding of a topic. Topic of scientific consensus as well as topics that remain controversial may be dealt with in the reviews. A review may be organized as follows: title page, introduction, body text, conclusion, acknowledgements, references, tables and figures, and figure legends.