

Journal of Biomimetics, Biomaterials, and Tissue Engineering

Online available at <http://www.scientific.net>

JBBTE Editor in Chief:

Andrew.J. Ruys, Biomedical Engineering, AMME J07, University of Sydney, NSW 2006, Australia.
andrew.ruys@sydney.edu.au

JBBTE Editors:

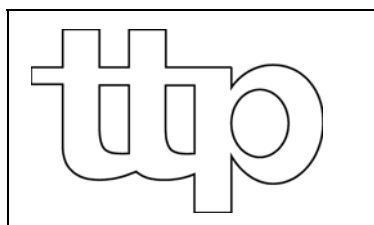
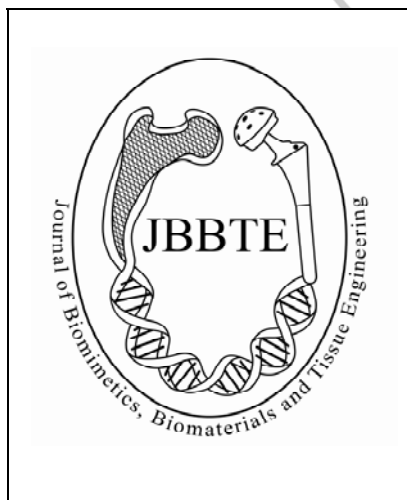
Simon X. Miao (Principal Editor), Institute of Health and Biomedical Innovation (IHBI): School of Engineering Systems, Queensland University of Technology, Brisbane QLD 4001, Australia

Min Wang (Principal Editor), The University of Hong Kong, Department of Mechanical Engineering, Pokfulam Road, Hong Kong, China P.R.

Alison Cappetta (Copy Editor), Biomedical Engineering (AMME), University of Sydney, NSW 2006, Australia

JBBTE Editorial Board:

Khor Khiam Aik	Nanyang Technological University, Singapore
Besim Ben-Nissan	University of Technology Sydney, Australia
William Bonfield	University of Cambridge, UK
Elizabeth Boughton	University of Sydney, Australia
Colin Dunstan	University of Sydney, Australia
Mohan Edirisinghe	University College of London, UK
Margaret Evans	CSIRO Biomolecular Engineering, Australia
Qingling Feng	Tsinghua University, China
Takao Hanawa,	Tokyo Medical and Dental University, Japan
Luke Hanley	University of Illinois, USA
John Hunt	University of Liverpool, UK
Hyoun-Ee Kim	Seoul National University, Korea
Qing Li	University of Sydney, Australia
Simon X. Miao	Queensland University of Technology, Australia
Veronique Migonney	University of Paris 13, France.
Bruce Milthorpe	University of NSW, Australia
Toshiki Miyazaki	Kyushu Institute of Technology, Japan
Tan Lay Poh	Nanyang Technological University, Singapore
Laura Poole-Warren	University of NSW, Australia
Andrew J. Ruys	University of Sydney, Australia
Anne Simmons	University of NSW, Australia
Charles C. Sorrell	University of NSW, Australia
Vinoy Thomas	University of Alabama at Birmingham (UAB), USA
Min Wang	University of Hong Kong, Hong Kong
Mei Wei	University of Connecticut, USA
Wenjian Weng	Zhejiang University, China
John Whitelock	University of NSW, Australia
Chengtie Wu	University of Queensland, Australia
Yu Yan	University of Leeds, UK
Hong Zhou	Anzac Research Institute, Sydney, Australia
Hala Zreiqat	University of Sydney, Australia



TransTech Publications Ltd

105 Springdale Lane
Millersville, PA 17551
U.S.A.

Brandrain 6
CH-8707 Uetikon-Zurich
Switzerland

Email: ttp@ttp.net
Fax: +1 717 872 4327
<http://www.ttp.net>

Journal of Biomimetics, Biomaterials, and Tissue Engineering

Online available at <http://www.scientific.net>

Introduction

Journal of Biomimetics, Biomaterials, and Tissue Engineering (JBBTE) is an international journal published by TransTech Publications Ltd – one of the leading scientific publishers in the advanced materials realm. JBBTE reports the current achievements and forecast research trends in biomaterials and tissue engineering, which are underpinned by the scientific and engineering inspiration to be gleaned from biomimetics.

Scope and Background

JBBTE is dedicated to publishing original research and expert review papers in the general areas of biomimetics, biomaterials, and tissue engineering. JBBTE is thus a multidisciplinary journal intersecting the areas of biology, biochemistry, materials science and engineering. While the editors will consider all manuscript submissions in these general areas, the intention of this journal is to explore the field of biomimetics and how it can be the key to scientific progress in the related areas of biomaterials and tissue engineering:

Biomimetics involves taking inspiration from nature in the development of technology. While the term "biomimetics" was coined some time ago, as a research field it is very new. Biomimetics involves the study and mimicking of natural processes, which may be useful in drug research, biomedical engineering, and unravelling the nanomachinery of life in general. Applied biochemistry and also mathematical and computational biochemistry are key tools in this regard. Biomimetics involves not only the design of new materials, but is also concerned with understanding the mechanisms by which natural materials achieve their material properties, from the information in the genome, to the nanostructure of life-forms and tissues, right up to the micro and macrostructure of natural biological structures. Biomimetics is a broad area, therefore the scope of this Journal will be principally confined to biomimetics as it relates to the fields of biomaterials and tissue engineering. However, broader research in the biomimetics field is also welcome.

Biomaterials relates to the study of biocompatible materials used for biomedical applications. It involves not only synthetic materials (e.g., biometals, biopolymers, bioceramics, and biocomposites), but also biological materials (e.g., proteins, cells, natural tissues, etc.). Biomaterials research encompasses various topics including: materials synthesis and characterisation, surface modification, biostability and biodegradation, and cell-material and/ or tissue-implant interactions. Typical biomaterials out of biomimetics include, but are not limited to, nano-biomaterials, smart biomaterials, hybrid biomaterials, nano-biocomposites, and hierarchically porous biomaterials.

Tissue Engineering is a newly emerging field that offers hope to people with compromised tissue function. Tissue engineering focuses on the construction of biological substitutes containing viable and functioning cells for the restoration, maintenance or improvement of tissue function. Tissue engineering embraces many research areas including: biomaterial scaffolds, stem cells, bioreactors, and cell biology. Tissue engineering is biomimetic in the sense that autografts are still the gold standard and the human body is a complex and sophisticated bioreactor.

Peer Review

JBBTE is a periodical published quarterly. Interested authors are requested to comply with the attached instructions for authors.

Submission

Manuscripts are to be submitted by email in MS-Word-2003 format, to the editor in Chief at andrew.ruys@sydney.edu.au.

Subscription Information

Journal of Biomimetics, Biomaterials, and Tissue Engineering (JBBTE) is a periodical published biannually by TransTech Publications Ltd. who can be contacted at <http://www.ttp.net>.

Journal of Biomimetics, Biomaterials, and Tissue Engineering

Instructions to Authors

Author's checklist

- MANDATORY:** I send original word documents (.doc. or .docx) or LaTeX files (.tex) to the editor.
(We need those documents to be able to publish your paper on our web page <http://www.scientific.net>)
- MANDATORY:** I used TTP's AuthorInstructions for preparing my paper.
(available on <http://www.ttp.net/Downloads.html>).
 - I set the **page settings** to the **A4** format;
margins: bottom 1.5 cm (0.59 in) and top 2.5 cm (0.98 in), right/left margins must be 2 cm (0.78 in).
 - I only used the fonts **Times Roman (Times New Roman) and Helvetica (Arial)**
for the entire document including special characters (character maps as α γ μ Ω $() \geq \pm \bullet \Gamma \{11 \bar{2} 0\}$)
Other fonts will cause the paper to reproduce incorrectly or may change a special character to a "square".
- MANDATORY: No foreign text** in the paper text, figures and tables.(for example Chinese letters.) .
- MANDATORY:** The **copyright** transfer agreement has been signed and sent to the editor. (available on <http://www.ttp.net/Downloads.html>).
- NOT MANDATORY: I wrote **full first and last name** with **email address** of all authors.
All authors will receive a personal free author login for downloading their own paper from our homepage <http://www.scientific.net> .
With this personal login you will be able to make your paper "OPEN Access" or order Offprints/Reprints of your paper.
- NOT MANDATORY: I also send a pdf of my paper.
- NOT MANDATORY:
I included color pictures and wish to have these printed in full color EUR 460.00 per page.
Please send an email to authors@ttp.net.
Online and on CD/DVD the pictures will always be shown in color, free of charge.

Your Paper's Title Starts Here: Please Center use Helvetica (Arial) 14

FULL First Author^{1, a}, FULL Second Author^{2, b} and Last Author^{3, c}

¹Full address of first author, including country

²Full address of second author, including country

³List all distinct addresses in the same way

^aemail, ^bemail, ^cemail

Keywords: List the keywords covered in your paper. These keywords will also be used by the publisher to produce a keyword index.

For the rest of the paper, please use Times Roman (Times New Roman) 12

Abstract. This template explains and demonstrates how to prepare your camera-ready paper for *Trans Tech Publications*. The best is to read these instructions and follow the outline of this text.

Please make the page settings of your word processor to A4 format (21 x 29,7 cm or 8 x 11 inches); with the margins: bottom 1.5 cm (0.59 in) and top 2.5 cm (0.98 in), right/left margins must be 2 cm (0.78 in).

We shall be able to publish your paper in electronic form on our web page <http://www.scientific.net>, if the paper format and the margins are correct.

Your manuscript will be reduced by approximately 20% by the publisher. Please keep this in mind when designing your figures and tables etc.

Introduction

All manuscripts must be in English, also the table and figure texts, otherwise we cannot publish your paper.

Please keep a second copy of your manuscript in your office. When receiving the paper, we assume that the corresponding authors grant us the copyright to use the paper for the book or journal in question. Should authors use tables or figures from other Publications, they must ask the corresponding publishers to grant them the right to publish this material in their paper.

Use *italic* for emphasizing a word or phrase. Do not use boldface typing or capital letters except for section headings (cf. remarks on section headings, below).

Organization of the Text

Section Headings. The section headings are in boldface capital and lowercase letters. Second level headings are typed as part of the succeeding paragraph (like the subsection heading of this paragraph).

Page Numbers. Do *not* number your paper:

Tables. Tables (refer with: Table 1, Table 2, ...) should be presented as part of the text, but in such a way as to avoid confusion with the text. A descriptive title should be placed above each table. Units in tables should be given in square brackets [meV]. If square brackets are not available, use curly {meV} or standard brackets (meV).

Special Signs. for example , α γ μ Ω $() \geq \pm \bullet \Gamma \{11\bar{2}0\}$ should always be written in with the fonts Times New Roman or Arial, especially also in the figures and tables.

Macros. Do not use any macros for the figures and tables. (We will not be able to convert such papers into our system)

Language. All text, figures and tables must be in English.

Figures. Figures (refer with: Fig. 1, Fig. 2, ...) also should be presented as part of the text, leaving enough space so that the caption will not be confused with the text. The caption should be self-contained and placed *below or beside* the figure. Generally, only original drawings or photographic reproductions are acceptable. Only very good photocopies are acceptable. Utmost care must be taken to *insert the figures in correct alignment with the text*. Half-tone pictures should be in the form of glossy prints. If possible, please include your figures as graphic images in the electronic version. For best quality the pictures should have a resolution of 300 dpi(dots per inch). Color figures are welcome for the online version of the journal. Generally, these figures will be reduced to black and white for the print version. The author should indicate on the checklist if he wishes to have them printed in full color and make the necessary payments in advance.

Equations. Equations (refer with: Eq. 1, Eq. 2, ...) should be indented 5 mm (0.2"). There should be one line of space above the equation and one line of space below it before the text continues. The equations have to be numbered sequentially, and the number put in parentheses at the right-hand edge of the text. Equations should be punctuated as if they were an ordinary part of the text. Punctuation appears after the equation but before the equation number, e.g.

$$c^2 = a^2 + b^2. \tag{1}$$

Literature References

References are cited in the text just by square brackets [1]. (If square brackets are not available, slashes may be used instead, e.g. /2/.) Two or more references at a time may be put in one set of brackets [3,4]. The references are to be numbered in the order in which they are cited in the text and are to be listed at the end of the contribution under a heading *References*, see our example below.

Summary

If you follow the “checklist” your paper will conform to the requirements of the publisher and facilitate a problem-free publication process.

References

- [1] Dj.M. Maric, P.F. Meier and S.K. Estreicher: Mater. Sci. Forum Vol. 83-87 (1992), p. 119
- [2] M.A. Green: *High Efficiency Silicon Solar Cells* (Trans Tech Publications, Switzerland 1987).
- [3] Y. Mishin, in: *Diffusion Processes in Advanced Technological Materials*, edited by D. Gupta Noyes Publications/William Andrew Publishing, Norwich, NY (2004), in press.
- [4] G. Henkelman, G.Johannesson and H. Jónsson, in: *Theoretical Methods in Condensed Phase Chemistry*, edited by S.D. Schwartz, volume 5 of *Progress in Theoretical Chemistry and Physics*, chapter, 10, Kluwer Academic Publishers (2000).
- [5] R.J. Ong, J.T. Dawley and P.G. Clem: submitted to *Journal of Materials Research* (2003)
- [6] P.G. Clem, M. Rodriguez, J.A. Voigt and C.S. Ashley, U.S. Patent 6,231,666. (2001)
- [7] Information on <http://www.weld.labs.gov.cn>