Journal Editorial Board

ISSN: 2150-4091 (Print) ISSN: 2150-4105 (Online)
http://www.scirp.org/journal/psn/

Editor-in-Chief
Prof. Kuo-Chen Chou
Gordon Life Science Institute, USA

Editorial Advisory Board
Dr. James J. Chou
Harvard Medical School, USA
Prof. Reba Goodman
Columbia University Health Sciences, USA
Dr. Robert L. Heinrikson
Protocis, Inc., USA
Prof. Robert H. Kretzinger
University of Virginia, USA

Editorial Board
Prof. Tarek Aboul-Fadl
Assiut University, Egypt
Dr. Fridoorn Jawad Ahmad
King Edward Medical University, Pakistan
Dr. Marcello Alecci
University of L'Aquila, Italy
Prof. Hakun Arslan
Merisit University, Turkey
Dr. Jean-Marc L. Beauger
Nanodynamics-88, Inc., USA
Dr. Giangiocomo Beretta
University of Milan, Italy
Dr. Attilio Castellari
University of Bologna, Italy
Dr. Bikas K. Chakrabarti
Saha Institute of Nuclear Physics, India
Prof. Khalil El-Hami
Kyoto University, Japan
Dr. Mohammadreza B. Esalminejad
Roya Institute, Iran
Dr. Marina Frontasyeva
Joint Institute for Nuclear Research, Russia
Prof. Shimin Fu
Tsinghua University, China
Dr. Neelam Gupta
National Bureau of Animal Genetic Resources, India
Dr. Tai-Yin Huang
Pennsylvania State University-Lehigh Valley, USA
Prof. Syed Kamrul Islam
University of Tennessee, USA
Dr. Yohichi Kumaki
Utah State University, USA
Prof. Petr Kuzmic
Gordon-Conwell Theological Seminary, USA
Dr. Peng Li
University of California, Irvine, USA
Prof. Giulio Lorenzini
University of Parma, Italy
Dr. Ping Lu
Communications Research Centre Canada, Canada
Prof. Mark Lee Morrissey
University of Oklahoma, USA
Dr. Sunil Nautiyal
Centre for Ecological Economics and Natural Resources, India
Dr. Edward Lee Nelson
University of California, Irvine, USA
Prof. Dimitrios P. Nikolelis
University of Athens, Greece
Dr. Dongfeng Pan
University of Virginia, USA
Dr. Judit M. Pap
Catholic University of America, USA
Dr. Qasem Ramadan
Swiss Federal Institute of Technology, Switzerland
Prof. Caesar Saloma
University of the Philippines Diliman, Philippines
Dr. Victor B. Semikoz
Russian Academy of Sciences, Russia
Dr. Mohammad Reza Shadnam
KPMG LLP, Canada
Prof. Chuan-Chou Shen
National Taiwan University, Chinese Taipei
Prof. Kenji Sorimachi
Dokkyo Medical University, Japan
Dr. Marco Taddia
University of Bologna, Italy
Dr. Swee Ngin Tan
Nanyang Technological University, Singapore
Dr. Vladislav Vasilyev
Australian National University, Austria
Dr. Rodrick Wallace
New York State Psychiatric Institute, USA
Dr. Chao-Fu Wang
National University of Singapore, Singapore
Dr. Chunsheng Wang
University of Maryland, USA
Dr. Xin Wang
Nanjing Institute of Geology and Palaeontology, China
Prof. Zhongbin Wu
Chinese Academy of Sciences, China
Prof. Fuqiang Xu
Chinese Academy of Sciences, China
Dr. Sharif Hussein Sharif Zein
University Science Malaysia, Malaysia
Dr. Li-Ru Zhao
LSU Health Sciences Center, USA
Dr. Weizhu Zhong
Pfizer Global Research and Development, USA

Guest Reviewers (According to Alphabet)
Salvador Alfaro
Zhiyong Liu
Rafael Luque
Sumin Tang
Takayuki Ban
Jo-Ming Tseng
Flora Laspey
Shahida Waheed
Maria Teresa Esposito
John R. Williams
Marina Frontasyeva
Jamsheer Hussain Zaidi
Yu Gao
Yongyuan Zang
Tomski Grigori
Nenghui Zhang
Raja Rizwan Hussain
Hongzhi Zhong
Yao Jiang
Junwu Zhu
Toshiyuki Kimura
Brijesh Rathi
Shuang Li
Toshifumi Satoh
Ruediger Schweiss
# TABLE OF CONTENTS

Volume 4, Number 11, November 2012

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology of fatal cases associated with pandemic influenza reported in Yemen</td>
<td>A. A. K. Thabet, N. M. Moulhee, A. Al-kohlani, M. Jahaf</td>
<td>803</td>
</tr>
<tr>
<td>Downregulation of transforming growth factor-β (TGF-β) and vascular endothelial growth factor (VEGF) in ehrlich ascites carcinoma-bearing mice using stearic acid-grafted carboxymethyl chitosan (SA-CMC)</td>
<td>S. A. Habib, Y. A. Aggour, H. A. Taha</td>
<td>808</td>
</tr>
<tr>
<td>Southward surface flow in the central South Pacific</td>
<td>K. E. Kenyon</td>
<td>819</td>
</tr>
<tr>
<td>In vitro evaluation of antioxidant and antibacterial activities of extracts of Hertia cheirifolia’s leaves</td>
<td>H. Bousselsela, A. Benhouda, M. Yahia, S. Benbia, A. Ghecham, A. Zidani</td>
<td>825</td>
</tr>
<tr>
<td>Morphology and solid particle erosion wear behavior of red mud composite coatings</td>
<td>H. Sutar, S. C. Mishra, S. K. Sahoo, A. Satapathy, V. Kumar</td>
<td>832</td>
</tr>
<tr>
<td>Phylogenetic analysis of the five internal genes and evolutionary pathways of the Greek H3N8 equine influenza virus</td>
<td>M. Bountouri, V. Nufis, E. Fragkiadaki, T. Kanellos, E. Xylouri</td>
<td>839</td>
</tr>
<tr>
<td>Manifestations of the earthquake preparations in the ionosphere total electron content variations</td>
<td>A. A. Namgaladze, O. V. Zolotov, M. I. Karpov, Y. V. Romanovskaya</td>
<td>848</td>
</tr>
<tr>
<td>Adsorption of Cu(II) on maghnite from aqueous solution: Effects of pH, initial concentration, interaction time and temperature</td>
<td>M. A. Zenasni, S. Benfarhi, A. Merlin, S. Molina, B. George, B. Meroufel</td>
<td>856</td>
</tr>
<tr>
<td>A two-dimensional electrophoresis reference map of the earthworm Eisenia fetida</td>
<td>X. Wang, Y. Zhang, Z. J. Sun</td>
<td>869</td>
</tr>
<tr>
<td>A potential energy profile of the catalytic cycle of pyruvate decarboxylase</td>
<td>C. Borriglione, C. Canepa</td>
<td>881</td>
</tr>
</tbody>
</table>

The figure on the front cover is from the article published in Natural Science, 2012, Vol. 4, No. 11, pp. 848-855 by Alexander A. Namgaladze, Oleg V. Zolotov, Mikhail I. Karpov and Yulia V. Romanovskaya.

Natural Science (NS)

Journal Information

SUBSCRIPTIONS


Subscription rates:
Print: $79 per copy.
To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements
Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)
E-mail: sub@scirp.org

COPYRIGHT

Copyright©2012 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:
E-mail: ns@scirp.org
Call for Papers

Natural Science
A Journal Published by Scientific Research Publishing, USA
www.scirp.org/journal/ns

Editor-in-Chief

Prof. Kuo-Chen Chou
Gordon Life Science Institute, USA

Editorial Advisory Board

Dr. James J. Chou
Prof. Reba Goodman

Editorial Board

Prof. Tarek About-Fadl
Dr. Fridoon Jawad Ahmad
Dr. Marcello Alecci
Prof. Hakan Arslan
Dr. Jean-Marc L. Beaujour
Dr. Giangiacomo Beretta
Dr. Attilio Castellari
Dr. Bikas K. Chakrabarti
Dr. Khalil El-Hami
Dr. Mohamadreza B. Esalminejad
Dr. Marina Frontasyeva
Prof. Shimin Fu
Dr. Neelam Gupta
Dr. Tai-Yin Huang
Prof. Syed Kamrul Islam
Dr. Yohichi Kumaki
Prof. Petr Kuzmic
Dr. Peng Li
Prof. Giulio Lorenzini
Dr. Ping Lu
Dr. Mark Lee Morrissey
Dr. Sunil Nautiyal
Dr. Edward Lee Nelson
Prof. Dimitrios P. Nikolaides
Dr. Dongfeng Pan
Prof. Zhongbin Wu
Dr. Judit M. Pap
Dr. Fuqiang Xu
Dr. Qasem Ramadan
Prof. Caesar Saloma
Dr. Victor E. Semikoz
Dr. Sharif Hussein Sharif Zein
Dr. Li-Ru Zhao
Dr. Mohammad Reza Shahnam

Natural Science is an international journal dedicated to the latest advancement of natural sciences. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of natural sciences. All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Astronomy & Space Sciences
  - Astronomy
  - Astrophysics
  - Atmospheric Science
  - Space Physics

- Earth Science
  - Geography
  - Geology
  - Geophysics/Geochemistry
  - Oceanography

- Chemistry
  - Analytical Chemistry
  - Biochemistry
  - Computational Chemistry
  - Inorganic Chemistry
  - Organic Chemistry
  - Physical Chemistry

- Life Science
  - Cell Biology
  - Computational Biology

- Genetics
- Immunology
- Medicine/Diseases
- Microbiology
- Molecular Biology
- Neuroscience
- Pharmacology/Toxicology
- Physiology
- Psychology
- Virology

- Physics
  - Applied Physics
  - Atomic, Molecular, and Optical Physics
  - Biophysics
  - High Energy/Particle Physics
  - Material Science
  - Plasma Physics

- Others
  - Education
  - History of Science
  - Science and Innovations

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

**Notes for Intending Authors**

Submitted papers should not be previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. For more details, please access the website.

**Website and E-Mail**

http://www.scirp.org/journal/ns

E-mail: ns@scirp.org