ISSN: 2150-4091



Natural Science





Editor-in-Chief Kuo-Chen Chou www.scirp.org/journal/ns

Journal Editorial Board

ISSN: 2150-4091 (Print) ISSN: 2150-4105 (Online)

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

......

Editor-in-Chief

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

Editorial Board

Prof. Tarek Aboul-Fadl Assiut University, Egypt

Prof. Fridoon Jawad Ahmad King Edward Medical University, Pakistan

Prof. Hakan ArslanMersin University, TurkeyProf. Khalil El-HamiKyoto University, Japan

Dr. Marina Frontasyeva Joint Institute for Nuclear Research, Russia

Prof. Reba Goodman Columbia University Health

Prof. Tai-Yin Huang Pennsylvania State University-Lehigh Valley, USA

Prof. Syed Kamrul IslamUniversity of Tennessee, USAProf. Robert H. KretsingerUniversity of Virginia, USAProf. Peng LiUniversity of California, USAProf. Giulio LorenziniUniversity of Parma, ItalyProf. Mark Lee MorrisseyUniversity of Oklahoma, USA

Prof. Sunil Nautiyal Institute for Social and Economic Change, India

Dr. Edward Lee NelsonUniversity of California, USAProf. Dimitrios P. NikolelisUniversity of Athens, GreeceDr. Dongfeng PanUniversity of Virginia, USADr. Ram Vinod RoySaint Louis University, USA

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. Kenji SorimachiDokkyo Medical University, JapanDr. Marco TaddiaUniversity of Bologna, Italy

Prof. Chao-Fu Wang National University of Singapore, Singapore

Prof. Xin Wang

Nanjing Institute of Geology and Palaeontology, China

Dr. Sharif H. ZeinUniversity of Hull, UK

Dr. Li-Ru ZhaoSUNY Upstate Medical University, USADr. Weizhu ZhongPfizer Global Research and Development, USA



Table of Contents

volume 8 Number 8	August 2016
Western Tropical North Pacific: A Climatology	
K. E. Kenyon	337
Advances for Opaque PBR Internally Illuminated for Fiber Optic for Microalgae Production	n
D. A. M. P. da Ponte, M. M. Werneck, D. A. Aranda	341
Reaction of Oxidized CuZnSOD with Polyphenols	
J. S. Summers, B. Hickman, M. E. Arrington, B. S. Stadelman,	
LL Brumaghim M. R. Vost, L. D. Schmitt, M. Hornby, S. Sprague	359

Natural Science (NS)

Journal Information

SUBSCRIPTIONS

The *Natural Science* (Online at Scientific Research Publishing, www.SciRP.org) is published monthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$89 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)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2016 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright © 2016 by author(s) and Scientific Research Publishing Inc.

REUSE RIGHTS FOR INDIVIDUAL PAPERS:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

DISCLAIMER OF LIABILITY

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 assume 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 Board

Prof. Tarek Aboul-Fadl Prof. Fridoon Jawad Ahmad Prof. Hakan Arslan Prof. Khalil El-Hami Dr. Marina Frontasyeva Prof. Reda Goodman

Prof. Reda Goodman Prof. Tai-Yin Huang Prof. Syed Kamrul Islam Prof. Robert H. Kretsinger Prof. Peng Li
Prof. Giulio Lorenzini
Prof. Mark Lee Morrissey
Prof. Sunil Nautiyal
Dr. Edward Lee Nelson
Prof. Dimitrios P. Nikolelis
Dr. Dongfeng Pan
Dr. Ram Vinod Roy

Prof. Caesar Saloma

Dr. Mohammad Reza Shadnam Prof. Kenji Sorimachi Dr. Marco Taddia Prof. Chao-Fu Wang Prof. Xin Wang Dr. Sharif H. Zein Dr. Li-Ru Zhao Dr. Weizhu Zhong

Dr. Victor B. Semikoz

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