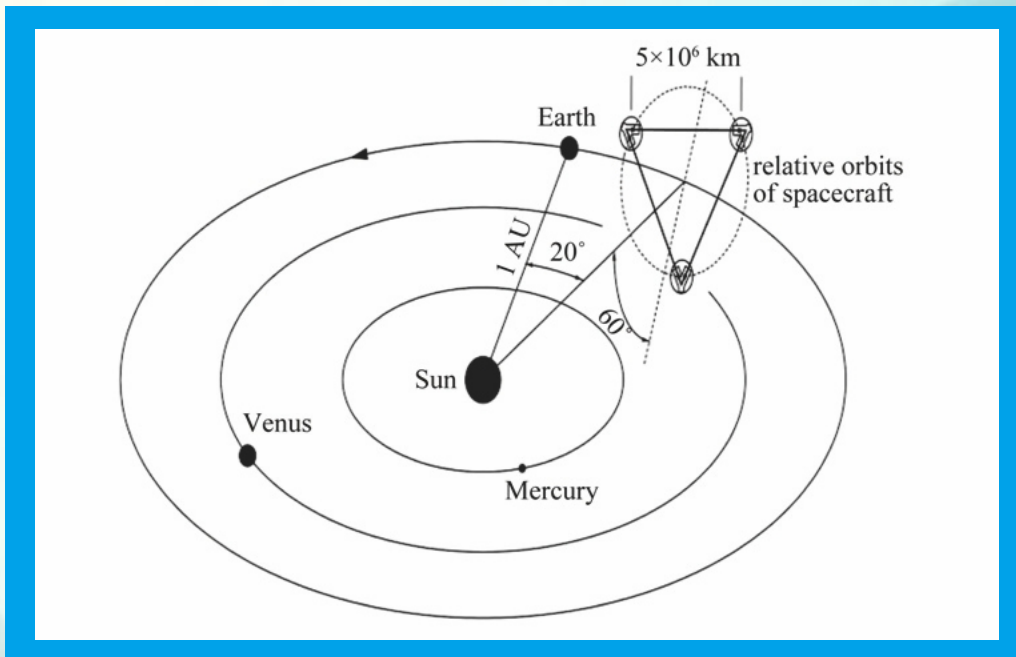


Natural Science



ISSN: 2150-4091



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 Advisory Board

Dr. James J. Chou
Prof. Reba Goodman
Dr. Robert L. Heinrichson
Prof. Robert H. Kretsinger

Harvard Medical School, USA
Columbia University Health Sciences, USA
Proteos, Inc., USA
University of Virginia, USA

Editorial Board

Prof. Tarek Aboul-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
Prof. Khalil El-Hami
Dr. Mohamadreza B. Eslaminejad
Dr. Marina Frontasyeva
Dr. Neelam Gupta
Dr. Tai-Yin Huang
Prof. Syed Kamrul Islam
Dr. Yohichi Kumaki
Dr. Peng Li
Prof. Giulio Lorenzini
Dr. Ping Lu
Prof. Mark Lee Morrissey
Dr. Sunil Nautiyal
Dr. Edward Lee Nelson
Prof. Dimitrios P. Nikolelis
Dr. Dongfeng Pan
Dr. Judit M. Pap
Dr. Qasem Ramadan
Prof. Caesar Saloma
Dr. Victor B. Semikoz
Dr. Mohammad Reza Shadnam
Prof. Kenji Sorimachi
Dr. Marco Taddia
Dr. Swee Ngin Tan
Dr. Vladislav Vasilyev
Dr. Rodrick Wallace
Dr. Chao-Fu Wang
Dr. Xin Wang
Prof. Zhengbin Wu
Dr. Fuqiang Xu
Dr. Sharif Hussein Sharif Zein
Dr. Li-Ru Zhao
Dr. Weizhu Zhong

Assiut University, Egypt
King Edward Medical University, Pakistan
University of L'Aquila, Italy
Mersin University, Turkey
Nanodynamics-88, Inc., USA
University of Milan, Italy
University of Bologna, Italy
Saha Institute of Nuclear Physics, India
Kyoto University, Japan
Royan Institute, Iran
Joint Institute for Nuclear Research, Russia
National Bureau of Animal Genetic Resources, India
Pennsylvania State University-Lehigh Valley, USA
University of Tennessee, USA
Utah State University, USA
University of California, Irvine, USA
University of Parma, Italy
Communications Research Centre Canada, Canada
University of Oklahoma, USA
Centre for Ecological Economics and Natural Resources, India
University of California, Irvine, USA
University of Athens, Greece
University of Virginia, USA
Catholic University of America, USA
Swiss Federal Institute of Technology, Switzerland
University of the Philippines Diliman, Philippines
Russian Academy of Sciences, Russia
KPMG LLP, Canada
Dokkyo Medical University, Japan
University of Bologna, Italy
Nanyang Technological University, Singapore
Austrian National University, Austria
New York State Psychiatric Institute, USA
National University of Singapore, Singapore
Nanjing Institute of Geology and Palaeontology, China
Chinese Academy of Sciences, China
Chinese Academy of Sciences, China
University of Hull, UK
SUNY Upstate Medical University, USA
Pfizer Global Research and Development, USA

Guest Reviewers (According to Alphabet)

Salvador Alfaro
Takayuki Ban
Blanca Bernal
Jason Blum
Maria Teresa Esposito
Pushan Kumar Dutta
Fang Fang
Marina Frontasyeva
Yu Gao
Tomski Grigori
Raja Rizwan Hussain
Yan Jiang
Toshiyuki Kimura

Ying Lai
Shuang Li
Dazhi Liu
Lin Liu
Zhiyong Liu
Rafael Luque
Piotr Macech
Lev A. Maslov
Ho Soon Min
Daniela Morelli
Fan Peng
Mohd. Yusri bin Abd. Rahman
Brijesh Rathi

Toshifumi Satoh
Ruediger Schweiss
Sumin Tang
Jo-Ming Tseng
Shahida Waheed
John R. Williams
Jamshed Hussain Zaidi
Yongyuan Zang
Nenghui Zhang
Hongzhi Zhong
Junwu Zhu

Table of Contents

Volume 6 Number 5

March 2014

Estimation of Annual Effective Dose Due to Ingestion of Natural Radionuclides in Cattle in Tin Mining Area of Jos Plateau, Nigeria	
J. A. Ademola.....	255
Mathematical Model of Cell Growth for Biofuel Production under Synthetic Feedback	
O. M. Kirthiga, L. Rajendran.....	262
Hurricane Initiation: An Hypothesis	
K. E. Kenyon.....	278
GIS and Multicriteria Decision Analysis for Landfill Site Selection in Al-Hashimyah Qadaa	
M. Ali Alanbari, N. Al-Ansari, H. K. Jasim.....	282
Gravitational Waves: Present Status and Future Prospectus	
N. Iqbal, S. Monga.....	305
Towards a Comprehensive Search of Putative Chitinases Sequences in Environmental Metagenomic Databases	
A. S. Romão-Dumaresq, A. M. Fróes, R. R. C. Cuadrat, F. P. Silva Jr., A. M. R. Dávila.....	323
Epidemiological Studies on the Relationship between PTSD Symptoms and Circadian Typology and Mental/Sleep Health of Young People Who Suffered a Natural Disaster, Great Hanshin-Awaji Earthquake	
K. Wada, H. Kuroda, M. Nakade, H. Takeuchi, T. Harada.....	338
Role of Topical Application of Growth Factors on Periodontal Repair	
A. Y. Al-Hijazi, A. K. A. Ali Al-Mahammadawy.....	351
Problems Challenging the Academic Performance of Physics Students in Higher Governmental Institutions in the Case of Arbaminch, Wolayita Sodo, Hawassa and Dilla Universities	
S. Mekonnen.....	362

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 © 2014 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 © 2014 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

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

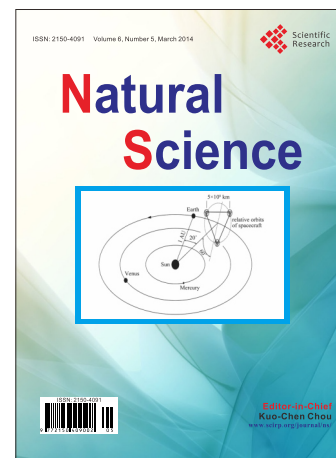
Dr. Robert L. Heinrichson
Prof. Robert H. Kretsinger

Editorial Board

Prof. Tarek Aboul-Fadl
Dr. Fridoon Jawad Ahmad
Dr. Marcello Alecci
Prof. Hakan Arslan
Dr. Jean-Marc L. Beaujour
Dr. Giangiacomo Beretta
Dr. Attilio Castellarin
Dr. Bikas K. Chakrabarti
Prof. Khalil El-Hami
Dr. Mohamadreza B. Eslaminejad
Dr. Marina Frontasyeva
Dr. Neelam Gupta
Dr. Tai-Yin Huang
Prof. Syed Kamrul Islam

Dr. Yohichi Kumaki
Dr. Peng Li
Prof. Giulio Lorenzini
Dr. Ping Lu
Prof. Mark Lee Morrissey
Dr. Sunil Nautiyal
Dr. Edward Lee Nelson
Prof. Dimitrios P. Nikolelis
Dr. Dongfeng Pan
Dr. Judit M. Pap
Dr. Qasem Ramadan
Prof. Caesar Saloma
Dr. Victor B. Semikoz
Dr. Mohammad Reza Shadnam

Prof. Kenji Sorimachi
Dr. Marco Taddia
Dr. Swee Ngin Tan
Dr. Vladislav Vasilyev
Dr. Rodrick Wallace
Dr. Chao-Fu Wang
Dr. Xin Wang
Prof. Zhengbin Wu
Dr. Fuqiang Xu
Dr. Sharif Hussein Sharif Zein
Dr. Li-Ru Zhao
Dr. Weizhu Zhong



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

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, world-wide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Scientific
Research**

Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org