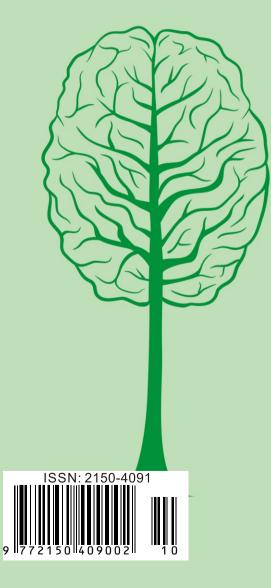




Natural Science





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

Journal Editorial Board

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

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

Associate Editor

Prof. Sheng-Xiang Lin Laval University Medical Center, Quebec, Canada

Editorial Board

Prof. Tarek Aboul-Fadl Assiut University, Egypt

Prof. Fridoon Jawad Ahmad King Edward Medical University, Pakistan

Prof. Hakan Arslan Mersin University, Turkey

Dr. Lincoln Lima CorrêaPara West Federal University, BrazilProf. Khalil El-HamiMohammed V University, Morocco

Dr. Marina FrontasyevaJoint Institute for Nuclear Research, RussiaProf. Reba GoodmanColumbia University Health Sciences, USA

Dr. Zufeng GuoJohns Hopkins University School of Medicine, USAProf. Tai-Yin HuangPennsylvania 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, USA

Prof. Caesar Saloma University of the Philippines Diliman, The Philippines

Dr. Victor B. Semikoz Russian Academy of Sciences, Russia

Dr. Mohammad Reza Shadnam KPMG LLP, Canada

Prof. Joseph J. Smulsky Institute of Earth's Cryosphere, Tyumen Scientific Centre, SB RAS, Federal

Research Center, Russia

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

Dr. Likun TanScientific Forming Technologies Corporation, USAProf. Chao-Fu WangNational University of Singapore, Singapore

Prof. Xin Wang

Nanjing Institute of Geology and Palaeontology, China

Dr. Sharif H. Zein University of Hull, UK

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



Volume 14 Number 10

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

October 2022

Table of Contents

G. S. Aljeddani.......448

Natural Science (NS)

Journal Information

SUBSCRIPTIONS

The *Natural Science* (Online at Scientific Research Publishing, https://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 © 2022 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 © 2022 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 https://www.scirp.org/journal/ns

Associate Editor

Prof. Sheng-Xiang Lin

Laval University Medical Center, Quebec, Canada

Editorial Board

Prof. Tarek Aboul-Fadl Prof. Fridoon Jawad Ahmad Prof. Hakan Arslan Dr. Lincoln Lima Corrêa Prof. Khalil El-Hami Dr. Marina Frontasyeva Prof. Reda Goodman Dr. Zufeng Guo 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 Prof. Caesar Saloma Dr. Victor B. Semikoz Dr. Mohammad Reza Shadnam Prof. Joseph J. Smulsky Prof. Kenji Sorimachi Dr. Marco Taddia Dr. Likun Tan Prof. Chao-Fu Wang Prof. Xin Wang Dr. Sharif H. 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

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

E-mail: ns@scirp.org

