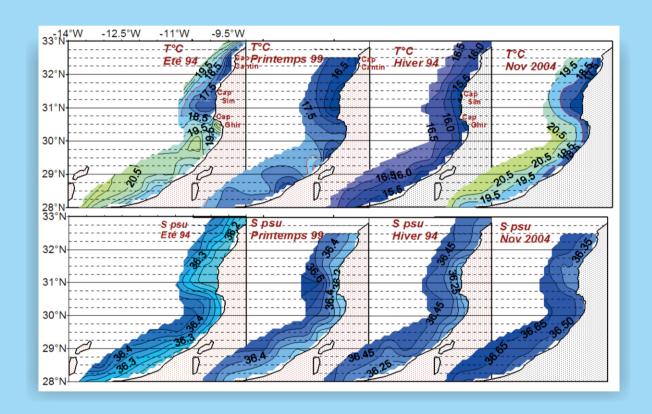


Natural Science





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, San Diego, California, USA

Editorial Advisory Board

Dr. James J. Chou Prof. Reba Goodman Dr. Robert L. Heinrikson Prof. Robert H. Kretsinger Prof. Harold A. Scheraga

Editorial Board

Prof. Tarek Aboul-Fadl Dr. Fridoon Jawad Ahmad Prof. Marcello Alecci Prof. Hakan Arslan Dr. Jean-Marc L. Beaujour Dr. Giangiacomo Beretta Dr. Attilio Castellarin Dr. Bikas K. Chakrabarti Dr. Khalil El-Hami

Dr. Mohamadreza B. Eslaminejad

Dr. Marina Frontasveva Prof. Shimin Fu Dr. Neelam Gupta Dr. Tai-Yin Huang Prof. Sved Kamrul Islam Dr. Yohichi Kumaki Dr. Petr Kuzmic Dr. Peng Li

Prof. Giulio Lorenzini

Dr. Ping Lu

Dr. Mark Lee Morrissev 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. Chuan-Chou Shen Prof. Kenji Sorimachi Dr. Marco Taddia Dr. Swee Ngin Tan Dr. Vladislav Vasilyev Dr. Rodrick Wallace

Dr. Chao-Fu Wang Dr. Chunsheng Wang Dr. Xin Wang

Dr. Zhengbin Wu Dr. Fuqiang Xu

Dr. Sharif Hussein Sharif Zein

Dr. Li-Ru Zhao

Judy Liu

Dr. Weizhu Zhong

Editorial Assistant

Harvard Medical School, USA

Columbia University Health Sciences, USA

Proteos, Inc., USA

University of Virginia, USA Cornell University, USA

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

Tsinghua University, China

National Bureau of Animal Genetic Resources, India Pennsylvania State University-Lehigh Valley, USA

University of Tennessee, USA Utah State University, USA

BioKin Ltd., USA

University of California, Irvine, USA

University of Parma, Italy

Communications Research Centre Canada, Canada

University of Oklahoma, USA 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

National Taiwan University, Chinese Taipei Dokkyo Medical University, Japan

University of Bologna, Italy

Nanyang Technological University, Singapore Australian National University, Austria New York State Psychiatric Institute, USA National University of Singapore, Singapore

University of Maryland, USA

Nanjing Institute of Geology and Palaeontology, China

Chinese Academy of Sciences, China Chinese Academy of Science, China University Science Malaysia, Malaysia LSU Health Sciences Center, USA

Pfizer Global Research and Development, USA

Scientific Research Publishing, USA Email: ns@scirp.org

Guest Reviewers (According to Alphabet)

Salvador Alfaro Takayuki Ban Marina Frontasyeva Yu Gao Tomski Grigori Toshiyuki Kimura

Rafael Luque Fan Peng Mohd. Yusri bin Abd. Rahman Toshifumi Satoh Ruediger Schweiss Shahida Waheed

John R. Williams Jamshed Hussain Zaidi Nenghui Zhang Hongzhi Zhong Junwu Zhu

TABLE OF CONTENTS

Volume 4, Number 1, January 2012

EARTH SCIENCE

SHRIMP zircon age of the high aeromagnetic anomaly zone in central Tarim Basin and its
geological implications
G. H. Wu, Z. Y. Chen, T. L. Qu, Y. L. Xu, C. Z. Zhang.
Hydrological seasonality of cape Ghir filament in Morocco
A. Makaoui, A. Orbi, J. Arestigui, A. B. Azzouz, J. Laarissi, A. Agouzouk, K. Hilmi
Encrusting protected reef Hon Nai in Cam Ranh Bay in the South China Sea
Y. Ya. Latypov
CHEMISTRY
Textile dyeing industry an environmental hazard
R. Kant
LIFE SCIENCE
Water-shedding ability of waterfowl and the brachistochrone problem
D. L. Schruben.
Female Agassiz's desert tortoise activity at a wind energy facility in southern California:
The influence of an El Niño event
J. R. Ennen, K. Meyer, J. Lovich.
Expression of casein kinase genes in glioma cell line U87: Effect of hypoxia and glucose or
glutamine deprivation
D. O. Minchenko, L. L. Karbovskyi, S. V. Danilovskyi, A. P. Kharkova, O. H. Minchenko
PHYSICS
Electromagnetic nature of the nuclear forces and a toroid model of nucleons in atomic nuclei
K. Kolikov, D. Ivanov, G. Krastev.
Thermal and structural studies of poly(vinyl alcohol) and hydroxypropyl cellulose blends
O. W. Guirguis, M. T. H. Moselhey
Simulation of small size divertor tokamak plasma edge at low density of plasma
A. H. Bekheit.
Modified atomic orbital theory applied to the calculation of high-lying $_2(K,T)_n^{\pm 1.3}P^{\circ}$ Rydberg series of
He-like ions
I. Sakho
OTHERS
A simple piecewise cubic spline method for approximation of highly nonlinear data
M. Zamani

The figure on the front cover is from the article published in Natural Science, 2012, Vol. 4, No. 1, pp. 5-13 by Ahmed Makaoui, *et al*.

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: \$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)

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

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, San Diego, California, USA

Editorial Advisory Board

Dr. James J. Chou Prof. Reba Goodman Dr. Robert L. Heinrikson Prof. Robert H. Kretsinger Prof. Harold A. Scheraga

Scientific Research

Natural

Science

Editorial Board

Prof. Tarek Aboul-Fadl Dr. Fridoon Jawad Ahmad Prof. Marcello Alecci Prof. Hakan Arslan Dr. Jean-Marc L. Beaujour Dr. Giangiacomo Beretta Dr. Attilio Castellarin Dr. Bikas K. Chakrabarti Dr. Khalil El-Hami Dr. Mohamadreza B. Eslaminejad

Dr. Marina Frontasveva Prof. Shimin Fu Dr. Neelam Gupta Dr. Tai-Yin Huang Prof. Syed Kamrul Islam

Dr. Yohichi Kumaki Dr. Petr Kuzmic Dr. Peng Li Prof. Giulio Lorenzini Dr. Ping Lu Dr. Mark Lee Morrissey Dr. Edward Lee Nelson Prof. Dimitrios P. Nikolelis Dr. Dongfeng Pan Dr. Judit M. Pap Dr. Oasem Ramadan Prof. Caesar Saloma Dr. Victor B. Semikoz Dr. Mohammad Reza Shadnam Prof. Chuan-Chou Shen

Prof. Kenji Sorimachi Dr. Marco Taddia Dr. Swee Ngin Tan Dr. Vladislav Vasilyev Dr. Rodrick Wallace Dr. Chao-Fu Wang Dr. Chunsheng Wang Dr. Xin Wang Dr. 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

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

E-mail: ns@scirp.org