

ISSN: 2165-3917 Volume 14, Number 6, June 2024



Open Journal of Applied Sciences



<https://www.scirp.org/journal/ojapps>

Journal Editorial Board

ISSN Print: 2165-3917 ISSN Online: 2165-3925

<https://www.scirp.org/journal/ojapps>

Editors-in-Chief

Prof. A. C. Matin
Prof. Harry E. Ruda

Stanford University School of Medicine, USA
University of Toronto, Canada

Editorial Board

Prof. Terry L. Alford
Dr. Y. Bilgin Altundas
Dr. Demetrios A. Arvanitis
Prof. Ezekiel Bahar
Prof. Der-Chen Chang
Prof. Yong Chen
Dr. Paul Crilly
Prof. Omayma Sayed Abdel Salam El-Kinawy
Prof. Andrzej T. Galecki
Dr. Krassimir Georgiev
Dr. Chunlei Guo
Prof. Paloma R. Horche
Dr. Sheng-He Huang
Dr. Jithesh Kottur

Arizona State University, USA
Schlumberger-Doll Research, USA
Academy of Athens, Greece
University of Nebraska, USA
Georgetown University, USA
Ecole Normale Supérieure, France
The University of Tennessee, Knoxville, USA
National Research Center, Fats and Oils Department, Egypt
University of Michigan Medical School, USA
Bulgarian Academy of Sciences (BAS), Bulgaria
University of Rochester, USA
Polytechnic University of Madrid, Spain
University of Southern California, USA
Department of Pharmacological Sciences, Icahn School of
Medicine at Mount Sinai, USA
The Chinese Academy of Sciences, China
“Gheorghe Asachi” Technical University, Romania
University of South Florida, USA
The University of Hong Kong, China
Indira Gandhi National Tribal University, India
Fisk University, USA
National Forensic Sciences University, GOA Campus, India
Shamakhi Astrophysical Observatory Named after Nasreddin Tusi of
Ministry of Sciences and Education of the Republic Azerbaijan,
Shamakhi, Azerbaijan

Prof. De-Qing Liang
Prof. Rodica Luca
Prof. Wen-Xiu Ma
Prof. Jukka P. Matinlinna
Dr. Vishnu Narayan Mishra
Prof. Richard Mu
Dr. Sandeep Munjal
Dr. Mahammad A. Nurmammadov

Prof. Valeriy Perminov
Dr. Jie Shen
Dr. M. P. Srinivasan
Dr. Tian Tang
Dr. Low-Hong Tong
Prof. Dimos A. Triantis
Dr. Yiru Xu
Dr. Yong Xu
Dr. Mehmet Yavuz
Prof. Changying Zhao
Prof. Shufeng Zhou

Tomsk Polytechnic University, Russia
University of Michigan, USA
National University of Singapore, Singapore
University of Alberta, Canada
National University of Singapore, Singapore
Technological Educational Institution of Athens, Greece
University of Michigan Medical School, USA
Ferris State University, USA
Necmettin Erbakan University, Türkiye
Shanghai Jiao Tong University, China
University of South Florida, USA

Table of Contents

Volume 14 Number 6

June 2024

Discussion on the Complex Structure of Nilpotent Lie Groups G_k

C. Y. Du, Y. Wang 1401

Application of the $N+2$ Transversal Network Method to the Study of a Coupled Resonator Filter

C. G. L. Nkouka Moukengue, C. O. Oboulhas Tsahat, H. Abba Labane, B. Mafouna Kiminou, A. Makouka 1412

Modeling the Drying Kinetics of Pigeon Pea [*Cajanus cajan* (L.) Millspaugh]

N. P. G. Pambou-Tobi, A. W. G. Tamba Sompila, M. Elenga, R. H. Gampoula, G. H. L. Banzouzi, S. P. Ntsossani 1425

Dynamic Non-Invasive Detection of NADH Based on Blood Flow-Mediated Skin Fluorescence (FMSF) Method

P. Liu, T. F. Bi, G. Z. Du, L. Yan, H. Y. Hou 1437

Applying Design Thinking in Ecotourism Curriculum Design: The Educational Design Ladder

Q. F. Song, A. N. Abukhalifeh 1454

Analyze the Impact of ITS in Improving the Efficiency of Road Tax and Fee Collection Use of Digital Technologies in the City of Bujumbura

F. Niyonkuru, I. W. Walumbuka, J. Ndikumagenge 1464

Sequential Analysis in the Identification of 3rd Order System Tract in the Abidjan Margin

B. A. Egoran, N. D. Ahoure, F. Y. P. Assalé, S. Mondé, L. V. N'da 1474

Sensory and Nutritional Properties and Stability of Formulated Organic Food Flavour Enhancers

B. Fadimatou, B. Bonheur, A. M. B. Loh 1490

GGA + U Study of the Optical Properties of α -BeH₂

U. Ofe 1507

Velocity Form Calculations of Generalized Oscillator Strengths for $3s \rightarrow (3p, 4p, 5p, 6p)$ Dipole Transitions of Atomic Sodium in Debye Plasma

L. Gomis, C. Diatta, M. S. Tall, I. G. Faye, R. Gomis, Y. Diouf, M. Coulibaly 1512

Defining Quantum Advantage for Building a Sustainable MVP to Deliver Quantum Computing Services

F. Raheman 1530

Optimal Classification of Minerals by Microscopic Image Analysis Based on Seven-State “Deep Learning” Combined with Optimizers

K. Krah, S. Ouattara, G. Ouattara, A. Clement, J. Vangah 1550

Science Societies’ Climate Statements: Some Concerns

W. Manheimer 1573

Prediction of Low Heating Value of Sugar Cane Bagasse as a Fuel for Industrial Boilers in the High Relative Humidity Region: Case of Cameroon

P. Kana-Donfack, M. Tientcheu-Nsiewe, D. Tcheukam-Toko, C. Kapseu 1604

Open Journal of Applied Sciences (OJAppS)

Journal Information

SUBSCRIPTIONS

The *Open Journal of Applied Sciences* (Online at Scientific Research Publishing, <https://www.scirp.org/>) is published monthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per issue.

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 © 2024 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 © 2024 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: ojapps@scirp.org

Call for Papers



Open Journal of Applied Sciences

ISSN Print: 2165-3917 ISSN Online: 2165-3925

<https://www.scirp.org/journal/ojapps>

Open Journal of Applied Sciences (OJAppS) is an international peer-reviewed, open-access journal publishing in English original research studies, reviews in diverse areas of applied 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 applied sciences and to keep a record of the state-of-the-art research in related areas.

Subject Coverage

The journal publishes original papers including but not limited to the following fields:

Applied Behavioral Science
Applied Biology
Applied Chemistry
Applied Ecology
Applied Economics
Applied Engineering

Applied Genetics
Applied Geography
Applied Linguistics
Applied Mathematics
Applied Mechanics
Applied Philosophy

Applied Physics
Applied Physiology
Applied Psychology
Applied Sociology
Artificial Intelligence
Computing Technology

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 have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submission, please access the website.

Website and E-Mail

<https://www.scirp.org/journal/ojapps>

E-mail: ojapps@scirp.org