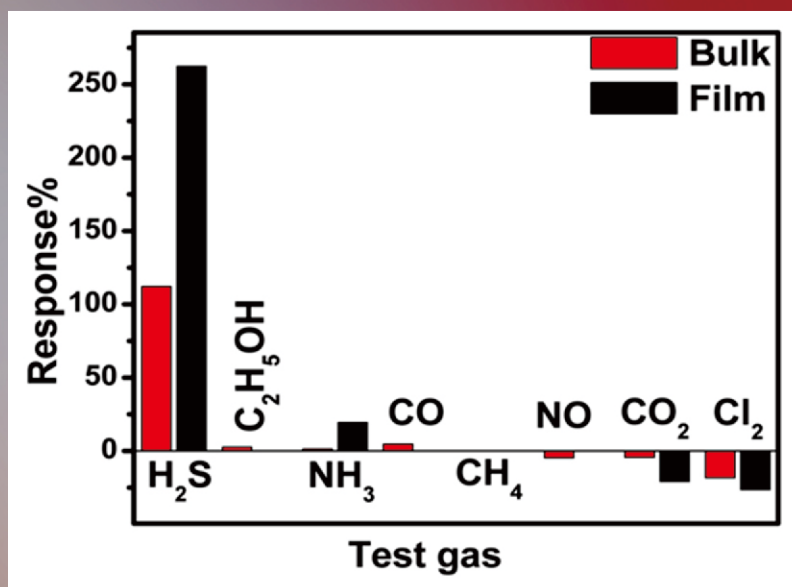
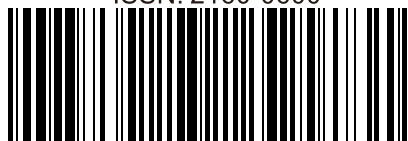


# Soft Nanoscience Letters

Special Issue on Indo-US International Workshop  
on Nanosensor Science & Technology



ISSN: 2160-0600



977216006000304A

# Journal Editorial Board

ISSN 2160-0600 (Print) ISSN 2160-0740 (Online)

<http://www.scirp.org/journal/snl>

---

## Honorary Editor-in-Chief

**Prof. Richard J. Spontak**

North Carolina State University, USA

## Editor-in-Chief

**Prof. Hai-Sheng Chen**

Chinese Academy of Sciences, China

**Prof. Francisco M. Márquez Linares**

University of Turabo, USA

## Editorial Board

**Prof. Mosaad A. Abdel-Wahhab**

National Research Center, Egypt

**Prof. Houyang Chen**

State University of New York, USA

**Prof. Veturia Chiroiu**

The Romanian Academy, Romania

**Prof. Fehim Findik**

Sakarya University, Turkey

**Prof. Sajan Daniel George**

Center of Smart Interfaces, Germany

**Dr. Cun-Yue Guo**

Graduate University of Chinese Academy of Sciences, China

**Prof. Chang-Sik Ha**

Pusan National University, South Korea

**Prof. Takayuki Kitamura**

Kyoto University, Japan

**Prof. Ling Bing Kong**

Nanyang Technological University, Singapore

**Prof. Hyoung-In Lee**

Inha University, South Korea

**Prof. Jong Keun Lee**

Kumoh National Institute of Technology, South Korea

**Prof. Joong Hee Lee**

Chonbuk National University, South Korea

**Prof. Tae-Woo Lee**

Pohang University of Science and Technology, South Korea

**Prof. Xingguo Li**

Peking University, China

**Prof. Der-Jang Liaw**

National Taiwan University of Science and Technology, Chinese Taipei

**Prof. Yuan-Hua Lin**

Tsinghua University, China

**Prof. Hui-Jun Liu**

Wuhan University, China

**Dr. Salerno Marco**

Italian Institute of Technology, Italy

**Prof. Anoop Kumar Mukhopadhyay**

Central Glass & Ceramic Research Institute, India

**Prof. Chun-Xu Pan**

Wuhan University, China

**Prof. Alessandro Pegoretti**

University of Trento, Italy

**Prof. Kleber Roberto Pirota**

State University of Campinas, Brazil

**Dr. Shao-Xing Qu**

Zhejiang University, China

**Dr. V. Rajendran**

Nano Science and Technology, KSR College of Technology, India

**Prof. Jyh-Ming Ting**

National Cheng Kung University, China

**Prof. De-Yi Wang**

Sichuan University, China

**Prof. Yi Xie**

University of Science and Technology of China, China

**Dr. Jin-Ying Yuan**

Tsinghua University, China

**Prof. Carmen Morant Zacarés**

Universidad Autónoma de Madrid, Spain

**Dr. Zhigang Zhu**

Cambridge University, UK

**Prof. Valtencir Zucolotto**

University of São Paulo, Brazil

## TABLE OF CONTENTS

Volume 3 Number 4A

November 2013

<b>Aptamers—A Promising Approach for Sensing of Biothreats Using Different Bioinformatics Tools</b>	
A. Sharma, R. K. Sharma.....	1
<b>Comparative H<sub>2</sub>S Sensing Characteristics of Fe<sub>2</sub>O<sub>3</sub>: Thin Film vs. Bulk</b>	
V. Balouria, A. Singh, N. S. Ramgir, A. K. Debnath, A. Mahajan, R. K. Bedi, D. K. Aswal, S. K. Gupta.....	6
<b>Nickel Decorated Single-Wall Carbon Nanotube as CO Sensor</b>	
N. B. Singh, B. Bhattacharya, U. Sarkar.....	9
<b>Sensing Behaviour of Some Nanocomposite Systems</b>	
D. Chakravorty, B. N. Pal, S. Banerjee, A. Mandal, S. Mitra, D. R. Saha.....	12
<b>Realization of Potassium Chloride Sensor Using Photonic Crystal Fiber</b>	
G. Palai, N. Muduli, S. K. Sahoo, S. K. Tripathy, S. K. Patanaik.....	16
<b>Electrochemical Synthesis of Titanium Nano Particles at Carbon Paste Electrodes and Its Applications as an Electrochemical Sensor for the Determination of Acetaminophen in Paracetamol Tablets</b>	
K. J. Gururaj, B. E. K. Swamy.....	20
<b>Hydrothermal Growth of Zinc Oxide Nanorods and Glucose-Sensor Application</b>	
S. Nozaki, K. Uchida, S. N. Sarangi, S. N. Sahu.....	23
<b>Detection of Cd<sup>2+</sup> Ions Using Surface Plasmon Coupled Emission on Engineered Silver-<math>\alpha</math> Nano Alumina Thin Film Hybrids</b>	
P. Mulpur, S. Patnaik, A. Chunduri, T. M. Rattan, A. M. Rao, V. Kamiseti.....	27
<b>Substrate Effect on Plasmon Resonance of a Gold Nanoparticle Embedded Amorphous BaTiO<sub>3</sub> Film</b>	
S. Ramakanth, K. C. J. Raju.....	32
<b>Design of a Concentration Sensor Based on Photonic Crystal Fiber Placed between Two Single Mode Fibers</b>	
J. K. Verma, S. P. Dash, S. K. Tripathy.....	36
<b>Trace Level Gas Sensing Characteristics of Nano-Crystalline Silver Decamolybdate</b>	
S. Misra, V. Jayaraman, T. Gnanasekaran.....	39
<b>Interaction of Boron-Nitrogen Substituted Graphene Nanoribbon with Nucleobases: The Idea of Biosensor</b>	
B. Bhattacharya, N. B. Singh, U. Sarkar.....	43
<b>Non-Enzymatic Glucose Sensor Based on the Novel Flower Like Morphology of Nickel Oxide</b>	
Z. H. Ibupoto, K. Khun, V. Beni, M. Willander.....	46

The figure on the front cover is from the article published in Soft Nanoscience Letters, 2013, Vol. 3, No. 4A, pp. 6-8 by Vishal Balouria, *et al.*

# **Soft Nanoscience Letters (SNL)**

## **Journal Information**

### **SUBSCRIPTIONS**

*Soft Nanoscience Letters* (Online at Scientific Research Publishing, [www.SciRP.org](http://www.SciRP.org)) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **SERVICES**

#### **Advertisements**

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### **Reprints (minimum quantity 100 copies)**

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

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **COPYRIGHT**

Copyright©2013 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.

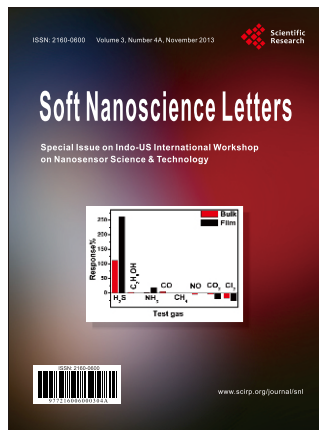
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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 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: [snl@scirp.org](mailto:snl@scirp.org)



# Soft Nanoscience Letters (SNL)

ISSN 2160-0600 (Print) ISSN 2160-0740 (Online)

<http://www.scirp.org/journal/snl>

**Soft Nanoscience Letters (SNL)** is a newly launched multidisciplinary peer-reviewed journal covering fundamental and applied research in the field of soft nanoscience, which includes polymers and colloids. This will necessarily address nanostructured polymers (e.g. block copolymers), nanocomposites, physical gels, microemulsions, surface/interface modification, new processes (e.g. electrospinning/spraying), confinement effects, the organic/biological interface, and responsive/functional polymers. Results may be experimental, theoretical or simulation in nature.

## Honorary Editor-in-Chief

Prof. Richard J. Spontak

North Carolina State University, USA

## Editor-in-Chief

Prof. Hai-Sheng Chen

Chinese Academy of Sciences, China

Prof. Francisco M. Márquez Linares

University of Turabo, USA

## Editorial Board

Prof. Mosaad A. Abdel-Wahhab

Prof. Joong Hee Lee

Dr. Shao-Xing Qu

Prof. Houyang Chen

Prof. Tae-Woo Lee

Dr. V. Rajendran

Prof. Veturia Chirou

Prof. Xingguo Li

Prof. Jyh-Ming Ting

Prof. Fehim Findik

Prof. Der-Jang Liaw

Prof. De-Yi Wang

Prof. Sajan Daniel George

Prof. Yuan-Hua Lin

Prof. Yi Xie

Dr. Cun-Yue Guo

Prof. Hui-Jun Liu

Dr. Jin-Ying Yuan

Prof. Chang-Sik Ha

Dr. Salerno Marco

Prof. Carmen Morant Zacarés

Prof. Takayuki Kitamura

Prof. Anoop Kumar Mukhopadhyay

Dr. Zhigang Zhu

Prof. Ling Bing Kong

Prof. Chun-Xu Pan

Prof. Valtencir Zucolotto

Prof. Hyoungh-In Lee

Prof. Alessandro Pegoretti

Prof. Jong Keun Lee

Prof. Kleber Roberto Pirota

## Subject Coverage

- Nano-biological Systems
- Nano-biotechnology
- Nano-devices
- Nano-electronics
- Nano-fabrication
- Nanofluidics and Nanoscale Flow
- Nano-material Processing

- Nano-material Synthesis
- Nano-mechanics
- Nano-medicine
- Nano-optics
- Nano-probes
- Nano-properties
- Nano-spectroscopy

- Nano-structures
- Nano-theory and Computation
- Nano-toxicology
- Organic Nanocrystals
- Organic/Polymeric Nanoparticles
- Polymer Nanocomposites

## 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 submissions, please access the website.

## Website and E-Mail

[www.scirp.org/journal/snl](http://www.scirp.org/journal/snl)

Email: [snl@scirp.org](mailto:snl@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](mailto:sub@scirp.org)

Advertisement: [service@scirp.org](mailto:service@scirp.org)