ENERGY AND ENVIRONMENT FOCUS

Special Issue

On

Recent Advances in Nanomaterials for Energy and the Environment

Call for Papers

An unprecedented action has to be implemented to build a powerful nation and to maintain clean energy economy by unraveling the climate change issues. To understand the current need of sustainable energy and its management, a prior roadmap of the grand challenges have to be proclaimed. At present scenario, scientists are in a position to control the materials at quantum level but how such systems should organize and work at desired level of effect, is a great challenge. Further, among various areas of research and development in energy generation – transmission –utilization, solar cells and fuel cells along with storage device including various batteries and supercapacitors are promising ones to list here. However, the efficiency and stability / durability are major concerns of existing technological deliverables. Hence, a breakthrough rather than an incremental increment in the energy research and technology is essential to dampen the energy crisis.

Recently, the increasing environmental concerns, namely, the large-scale emission of toxic chemicals into the atmosphere and the aqueous environment pose great uncertainty over the future wellbeing of the mankind. The emergence of nanostructured materials and new technologies can play a key role to face these challenges. Numerous research activities are underway to seek alternative ways to utilize nanostructured materials as the building blocks to construct light energy harvesting assemblies and for the degradation of various organic pollutants into CO_2 and water.

In order to address the above mentioned issues, we invite researchers to submit original research articles as well as review articles which will provide the recent trends, development of new technologies and advances in both environment and energy problems to utilize solar radiation as the renewable energy source. Potential topics include, but are not limited to:

- Recent advances in nanostructure materials based solar cell and fuel cell
- Photocatalysis for hydrogen production
- Role of semiconductor photocatalysis for the environmental remediation
- Sonophotocatalytic oxidation of organic pollutants
- Artificial photosynthesis-nanocomposites as light harvesting assemblies
- Environmental remediation

Manuscript Submission:

Manuscripts can be original research works on experimental or theoretical studies, or review articles. Manuscripts must be prepared according to Journal's guidelines, available at http://www.aspbs.com/efocus/inst-auth_efocus.htm

Prospective authors should submit **a single file** having text/figures/tables all together in MS Word format directly to one of the **Guest Editors via e-mail**. A graphical abstract is mandatory for all types of papers. All manuscripts will be peer-reviewed to ensure a high quality of articles. Please indicate in your cover letter that the submitted paper is original and has not been published previously and is not currently submitted to any other journal and will not be submitted elsewhere before a final decision is made by this journal.

KEY DATES:

Manuscript due: December 01, 2014
Authors' notification: January 31st, 2015
Tentative publication date: April, 2015

Potential authors are requested to provide the following information at your earliest convenience:
(1) Tentative Title of your Article
(2) 5-10 Keywords related to your proposed Article
(3) Mailing address, phone, fax and E-mail address

Guest Editors:

Prof. B. Neppolian Energy and Environmental Remediation Lab SRM-Research Institute, SRM University Chennai-603203, **India** Email id: neppolian.b@res.srmuniv.ac.in	**Dr. Bhalchandra A. Kakade** Assistant Professor SRM Research Institute SRM University, Kattanakulathur, Chennai-603 203. **India.** Email: bhalchandrakakade.a@res.srmuniv.ac.in
Prof. Muthupandian Ashokkumar School of Chemistry University of Melbourne Melbourne, **Australia** Email: masho@unimelb.edu.au	**Dr. Younggyu Son** Department of Environmental Engineering Kumoh National Institute of Technology 61 Daehak-ro, Gumi, Gyungbuk 730-701, **South Korea** E-mail: yson@kumoh.ac.kr
Prof. S. Anandan Nanomaterials & Solar Energy Conversion Lab, Department of Chemistry, National Institute of Technology, Trichy-620 015, **India.** Email: sanand@nitt.edu	**Prof. M.V. Shankar** Nano Catalysis Research Lab Department of Materials Science & Nanotechnology, Yogi Vemana University, KADAPA 516 003, Andra Pradesh, **India** Email: shankarnano@gmail.com