

# Reviews in Advanced Sciences and Engineering

(<http://www.aspbs.com/rase>)

## *A Special Issue on*

### *“Environmental remediation and advanced nano-functional materials for environmental conservation and green energy”*

#### Call for Papers

It is well known that the world has entered an era during which the environment has been contaminated to a certain extent, so the environment conservation and remediation is urgent. Assuming current policies and practices remain in place, most of the increased energy production is expected to come from the combustion of fuels, such as oil, ethanol, natural gas, and coal. A commensurate increase in CO<sub>2</sub> (a prominent greenhouse gas) emissions is anticipated. In order to keep the sustainable development of the society and economy, the utilization of green energy the technological driver of the future economy, such as hydroelectric, solar, wind, hydrothermal, and biomass is necessary. In order to moderate global reliance on exhaustible natural resources and their environmentally hazardous combustion, more scientific efforts should be directed toward reducing the cost of green energy production and environmental remediation.

Nanomaterials, notable for their nanoscale dimensions ranging from 1 nm to 100 nm, have been the subject of enormous interest due to their potential for wide-ranging industrial, biomedical, and electronic applications. The past decade has witnessed that steady growth in investment in nanotechnology by both government and industry around the world. The merits of nanomaterials, such as large specific surface areas and high surface activity, are able to offer new opportunities in the areas of environment remediation, energy conversion, and contaminants sensing and detection.

This special issue is devoted to the environmental remediation and advanced nano-functional materials related to environmental conservation and green energy.

**The topics of the special issues include but not limited to the following fields:**

- *Monitoring and analysis of the highly toxic species, such as radioactive ions, heavy metal ions, organic contaminants, bacteria, and viruses.*

- *Nano-photocatalysts, driven by UV light or visible light, for the degradation of organic contaminants (such as phenols and synthetic dyes) and bacteria.*
- *Design and theoretical simulation of functional nano-materials for environment conservation and green energy.*
- *New theories and technologies for source control, and remediation of affected environmental media.*
- *Advances in biological, physical and chemical processes for environment remediation and green energy.*

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## **Manuscript Submission:**

Manuscripts must be prepared according to Journal's guidelines, available at <http://www.aspbs.com/rase>. Submit your manuscripts in MS word or PDF format directly to the Guest Editor or one of the Co-Guest Editors related with the manuscript topic. The subject for each Editor is mentioned above.

All papers submitted to this issue will be subject to a peer review process to ensure high quality articles. Please make sure in the cover letter that the submitted paper has not been published previously and is not currently submitted for review to any other journal and will not be submitted elsewhere before a decision is made by this journal.

Please notify well in advance for your intension to submit a research paper.

## **KEY TIMETABLE DATES**

**Manuscript due: May. 30, 2012**

**Authors' notification: June 30, 2012**

**Publication date: August-September, 2012**