International Journal of Photoenergy

Special Issue on Solar Energy Conversion by Nanostructured TiO_2

Call for Papers

The growing demands for environmental protection and clean energy have spurred rapid development of efficient solar harvesting system for solar energy collection and conversion. TiO2 with proper electronic band structure, high quantum efficiency, and photonic and chemical innerness has been regarded as a versatile oxide semiconductor capable of utilizing sunlight to produce electrical and chemical energy. Its outstanding physicochemical properties have led to an array of advanced photocatalytic and photoelectrochemical applications, such as environmental photocatalysis, dye-sensitized solar cell, and solar fuel productions.

We invite researchers to contribute with original research articles and review articles on the solar energy harvesting and conversion applications of nanostructured TiO_2. Studies addressing the synthesis of novel visible-light-responsive TiO_2-based photocatalytic nanomaterials, fabrication and characterization of TiO_2-based solar cells, and deep insight into the kinetics and mechanism of the TiO_2-mediated photosystem are particularly encouraged to be submitted to this special issue. Potential topics include, but are not limited to:

- Kinetics and mechanism of TiO_2-mediated environmental photocatalysis
- TiO_2-based dye/semiconductor-sensitized solar cells
- Photocatalytic solar fuel production (water splitting and CO_2 reduction)
- Photocatalytic organic synthesis over TiO_2-mediated system
- Novel TiO_2-based nanomaterials for solar energy conversion

Before submission authors should carefully read over the journal's Author Guidelines which are located at http://www.hindawi.com/journals/ijp/guidelines/. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at http://mts.hindawi.com/submit/journals/ijp/sec/ according to the following timetable:

Manuscript Due	Friday, 6 June 2014
First Round of Reviews	Friday, 29 August 2014
Publication Date	Friday, 24 October 2014

Lead Guest Editor

JiaHong Pan, Photocatalysis and Nanotechnology Group, Institut für Technische Chemie, Leibniz Universität Hannover, Callinstraße 3, Hannover, Germany; pan@iftc.uni-hannover.de

Guest Editors

Detlef W. Bahnemann, Photocatalysis and Nanotechnology Group, Institut für Technische Chemie, Leibniz Universität Hannover, Callinstraße 3, Hannover, Germany; Bahnemann@iftc.uni-hannover.de

Qing Wang, Department of Materials Science & Engineering, National University of Singapore, Block E2, No. 05-27, 5 Engineering Drive 2, Singapore; msewq@nus.edu.sg

Chuanyi Wang, Xinjiang Technical Institute of Physics & Chemistry, Chinese Academy of Sciences, 40-1 South Beijing Road, Urumqi, China; cywang@ms.xjb.ac.cn

Xiwang Zhang, School of Applied Sciences and Engineering, Monash University Gippsland Campus, Churchill, VIC 3842, Australia; xiwang.zhang@monash.edu