



Journal of Nanomaterials

Special Issue on

**TiO<sub>2</sub>-Based Nanomaterials: Design, Synthesis, and Applications**

# 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. TiO<sub>2</sub> 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. Specifically, we seek to invite outstanding works covering more efficient and environmental friendly synthesis strategies for hierarchical TiO<sub>2</sub>-based materials with controlling the morphologies and structures and advanced photocatalytic and photoelectrochemical applications, such as environmental photocatalysis, dye-sensitized solar cell, and solar fuel productions.

To achieve this purpose, we invite authors to contribute original research articles as well as review articles which discuss the recent advances of TiO<sub>2</sub>-based nanomaterials that will stimulate the continuing efforts to understand the fabrication, characterization, properties, and application of highly active TiO<sub>2</sub>-based nanomaterials.

Potential topics include, but are not limited to:

- ▶ Surface modification and doping of hierarchical TiO<sub>2</sub> materials
- ▶ TiO<sub>2</sub> materials for water and air purification and environmental remediation
- ▶ TiO<sub>2</sub> materials for solar cells, water splitting, and CO<sub>2</sub> reduction
- ▶ TiO<sub>2</sub>-based materials for biomedical implants and tissue engineering

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## Manuscript Due

Friday, 31 October 2014

## First Round of Reviews

Friday, 23 January 2015

## Publication Date

Friday, 20 March 2015