



Journal of Nanomaterials

Special Issue on
Nanomaterials for Solar Energy Harvesting and Storage

CALL FOR PAPERS

The rising significance of energy production and storage has motivated us to seek environmental friendly and renewable energy resources such as solar energy. During the past decade, advanced nanomaterials have been shown to offer potential to meet the further increasing requirements for energy consumption. For example, conversion of the solar energy into chemical fuels by photocatalytic reactions, conversion of the greenhouse gas CO₂ into hydrocarbons fuels via photocatalytic reactions, and conversion and storage of solar energy by solar cells.

However, research in this field is still facing the challenge of the efficiency and stability of nanomaterials before coming into practical applications. Theoretical knowledge and experimental strategies will help us to design high-efficiency nanostructures that could serve for sustainable solar energy production and storage.

We would like to invite peer researchers to contribute original research articles as well as review articles that involve the theoretical understanding, material synthesis, structure characterization, and modification of chemical/physical properties for advanced solar energy nanomaterials. We are particularly interested in articles that can give new insight or stimulate novel idea to promote the research in this field to high level.

Potential topics include, but are not limited to:

- ▶ Design and synthesis of novel nanomaterials for solar energy conversion and storage
- ▶ Nanomaterial based devices for photovoltaics, photocatalysis, photoelectrochemical cells, and solar energy production process
- ▶ Advanced techniques for characterization and evaluation of energy nanomaterials
- ▶ New concepts principled for designing high-efficiency energy conversion nanomaterials
- ▶ Theoretical understanding of photoelectric conversion process

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jnm/seh/>.

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