

Journal of Nano Energy and Power Research

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Special issue on

Hydrogen & Nanomaterials: Recent Advances & Challenges

Submission Deadline: 31 December 2011

Guest Editor (s):

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Nanoscience and Nanotechnology, as emerging multidisciplinary research fields (chemistry, physics, biology, materials science, engineering, medicine, etc), have attracted considerable attention. The synthesis of materials at the nanoscale has shown an exceptional improvement of the material's properties (thermal, optical, electrical, magnetic, mechanical, thermodynamic, catalytic, etc) as well as the discovery of new materials with novel properties. At the nanometer scale, the materials possess large surface to volume ratios, and strong quantum confinement effects with less imperfections, etc.. This leads to the exploration and development of new technological applications in various domains.

Moreover, the search of renewable and clean energy attracted great attention from politicians as well as scientists, due to several factors including global warming, health problems and oil prices. Hydrogen is very promising as clean and green renewable energy resource and can replace majority of fossil fuels.

This special issue of Journal of Nano Energy and Power Research (JNEPR) invites the submission of high quality research articles related to "hydrogen & nanomaterials", including the synthesis and characterisations of nanomaterials; interaction of hydrogen with nanostructured materials; recent developments in some major applications such as hydrogen production, hydrogen storage, etc..

Subject Coverage

Topics covered by this special issue include, but are not limited to, the following:

- Hydrogen Production
- Hydrogen Storage Technology
- Hydrogen Storage Materials & Systems
- Hydrogen Induced Microstructural Changes
- Hydrogen Interaction with Thin Films
- Fuel Cells
- Solar Hydrogen
- Bio Hydrogen
- Hydrogen Gas Sensing
- Hydrogen Induced Stress & Cracking
- Computational Thermodynamics & Modelling

Notes for Intending Authors

Manuscripts must be prepared according to the Journal's guidelines, available at <http://aspbs.com/jnepr>. **Submit your cover letter and manuscript in MS Word or PDF format directly to the lead Guest Editor listed below.** All submissions to this special issue will be subjected to a strict peer review process to ensure that only high quality articles are published. **Please indicate in your 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 final decision is made by this journal.**

Important Dates

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On-line publication: TBC

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