

Special Issue on
Nanohybrid Materials for Energy Applications

CALL FOR PAPERS

Energy is a multidisciplinary domain that is driving the development of new nanostructured materials and processes and able to improve the performance of existing devices or enable new ones that are environmentally benign. In this context, nanohybrid materials are likely to remain one of the leading topics and have attracted intense attention. This is because of the boundless possible combinations of nanoscale inorganic, organic, and even bioactive materials with different properties allowing the construction of single nanohybrid material with a wide range of distinctive properties. Nanohybrid materials do not represent only a creative alternative to design new materials and compounds for academic research, but their improved or unusual features allow the development of innovative industrial applications. This intensifies the search for advanced functional nanohybrid materials and understanding the physical, chemical, and electrochemical properties for their applications. Future scientific and technological breakthroughs will depend, in large, on key achievements such as coupling the nanoscale materials to form the advanced functional nanohybrid materials. This special issue is relevant to the researchers and technologists who are interested in all aspects of advanced functional nanohybrid materials and their electrochemical process/mechanism at the interface for electrochemical energy device applications.

This special issue provides a platform for research and development of nanohybrid materials in energy applications. This special issue publishes original papers as well as review articles that cover the preparation of nanohybrid materials and their physical, chemical, and electrochemical properties, kinetics of electrode reaction, and device fabrication, optimization, and performance studies. The innovation and advancement should be focused on either the chemistry/electrochemistry used to produce the nanohybrid materials or applications of the prepared nanohybrid materials in electrochemical energy devices. Authors are also encouraged to submit manuscripts which bridge the gaps between research, development, and implementation.

Potential topics include but are not limited to the following:

- ▶ Nanohybrid materials for advanced batteries
- ▶ Nanohybrid materials for supercapacitors
- ▶ Nanohybrid materials for fuel cells
- ▶ Nanohybrid materials for photovoltaics
- ▶ Nanohybrid materials for hydrogen generation and storage
- ▶ Nanohybrid materials for water splitting

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijelc/nmead/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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Submission Deadline

Friday, 24 November 2017

Publication Date

April 2018