Journal of Nanomaterials

Hindawi

Special Issue on

Semiconductor Nanomaterials for Security and Healthcare: Present and Future Perspectives

CALL FOR PAPERS

Semiconductor nanostructures keep on prospering and breaking new grounds. Thanks to their multifunctionality and their size reduction to the nanoscale, semiconductors are considered to be some of the most attractive materials and that is why they are widely exploited in many different technological applications. Semiconducting structures have been applied in fabrication of the devices in everyday use and for the improvement of the safety of our lives. They are used to make sensor devices to monitor the environment and/or to analyze breath (in order to detect diseases), as well as in light-harvesting, biomedicine, energy storage and conversion, and so forth.

Semiconductor nanomaterials have not reached their potential limits yet. Intensive investigations have been carried out by scientific groups to improve their functional properties and to find new applications.

This special issue is focused to present the state of the art of the development of synthesis methods, the enhancement of the functional properties of nanostructured semiconductor materials, and the improvement of the traditional methods (including new strategies) for their use in security and healthcare.

We invite the researches to submit to this special issue their latest researches and developments in this area. Full research papers as well as reviews are welcome.

Potential topics include but are not limited to the following:

- Synthesis and characterization
- Hierarchically assembled and well-ordered structures
- Doped, functionalized, and hybrid materials
- Chemical and optical sensors
- Biosensors and applications in biomedicine
- Energy storage and conversion
- Optimization and development of new strategies for the applications of nanomaterials in security and healthcare

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/jnm/nhp/.

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

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