

In this issue

Research Article

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## LiF-MO (M=Co, Fe, Ni) Nanocomposite Thin Film as Anode Materials for Lithium-ion Battery

Published On: May 11, 2015 | Pages: 014 - 018

Author(s): Wenyuan Liu, Changfeng Ke, Xuehai Yan, Li Duan\*, Lin Li and Chong Liu

To investigate the electrochemical performance of MO (M=Co, Fe, Ni) nanostructures on lithium insertion and extraction, size-controlled LiF-MO nanocomposite thin-film electrodes, consisting of metallic M and M oxide (MO) nanoparticles in an amorphous, inert LiF matrix, were designed and fabricated using a RF sputtering system with metallic M and LiF mixture targets. T ...

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## Combined In vitro Effects of TiO<sub>2</sub> Nanoparticles and Dimethyl Sulfoxide (DMSO) on HepG2 Hepatocytes

Published On: April 13, 2015 | Pages: 002 - 010

Author(s): Andreea R Lupu\*, Lidia Cremer and Traian Popescu

Introduction: Professional workers that manufacture or use titanium dioxide (TiO<sub>2</sub>)-based paints are exposed to potentially toxic TiO<sub>2</sub> nanomaterials as well as to different paint solvents such as dimethyl sulfoxide (DMSO). In this context, we evaluate the combined cytotoxic effects of TiO<sub>2</sub> nanoparticles and DMSO on HepG2 human hepatocytes. ...

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Editorial

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## Impetus in Fabrication of Biosensors

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Author(s): Jagriti Narang\*, Nidhi Chauhan and Nitesh Malhotra

A biosensor is an element employed for the detection of an analyte by combining a biological component with a physico-chemical detector component. ...

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### Commentary

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## Graphene Solar Cells-Will it be the Ultimate Power Converter?

Published On: June 16, 2015 | Pages: 019 - 021

Author(s): Arghya Narayan Banerjee\*

Solar cells or photovoltaic (PV) cells involve the direct conversion of light energy into electrical energy. PV cells are basically p-n junctions made from layers of semiconducting materials. ...

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### Opinion

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## Self-Assembly as a Technique for Peptide-Based Materials

Published On: May 06, 2015 | Pages: 011 - 013

Author(s): Juan Wang and Xuehai Yan\*

Molecular self-assembly is a key function in biology and has been developed as an elegant technique for fabrication of various complex structures and functional materials. Key importance for structural formation in terms of self-assembly is molecular recognition pertaining to intermolecular weak interactions such as hydrophobic interactions, hydrogen bonds, p-p stacki ...

[Abstract View](#) | [Full Article View](#) | DOI: 10.17352/2455-3492.000003