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

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

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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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Self-Assembly as a Technique for Peptide-Based Materials

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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 ...

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