

Tuning of undoped ZnO thin film via plasma enhanced atomic layer deposition and its application for an inverted polymer solar cell. AIP Advances 2013, 3 (10), 102114. ...

Nanomaterials for Solar Application. Research Overview. Research interest: Dr. Cui's research is mainly focused on nanotechnology, semiconductor nanomaterials and ...

Field effect transistor memory cell, memory device and method for manufacturing a field effect transistor memory cell

Bulk Heterojunction Thin Film Solar Cells. In article number 2308021, Ru Zhou, Lei Wan, Baomin Xu, and co-workers report bulk heterojunction antimony chalcogenide solar cells constructed by integrating ...

A solar cell or photovoltaic cell (PV cell) is an electronic device that converts the energy of light directly into electricity by means of the photovoltaic effect. [1] It is a form of photoelectric cell, a ...

Muatez Mohammed, Zhongrui Li, Jingbiao Cui, and Tar-pin Chen, "Acid-doped multi-wall carbon nanotube/n-Si heterojunctions for enhanced light harvesting", Solar Energy ...

Graphene-Enriched P3HT and Porphyrin-Modified ZnO Nanowire Arrays for Hybrid Solar Cell Applications. The Journal of Physical Chemistry C 2012, 116 (17), 9433 ...

This study demonstrates that electrodeposition, which is easily adapted to other chemical systems, is a promising technique for large-scale fabrication of low-cost nanopillar solar cells.

Improving thin film solar cells with atomic layer deposited ZnO: Highly tunable buffer, intrinsic, and top contact layers in a single fabrication process. 2013 IEEE 39th Photovoltaic Specialists ...

5 ???&#0183; Solar cell, any device that directly converts the energy of light into electrical energy through the photovoltaic effect. The majority of solar cells are fabricated from silicon--with ...

Synthesis and characterization of ZnO nanowires grown on different seed layers: The application for dye-sensitized solar cells. Renewable Energy 2013, 60, 246-255. ...

In this study, we have investigated various approaches to improve CIGS solar cells after thin film deposition. CIGS devices have been fabricated by a hydrazine solution based process.

The theory of solar cells explains the process by which light energy in photons is converted into electric

current when the photons strike a suitable semiconductor device. The theoretical ...

Deep HOMO polymers comprising anthracene units for bulk heterojunction solar cells. *Journal of Industrial and Engineering Chemistry* 2016, 33, 209-220. ...

Jingbiao Cui Editor-in-Chief of *Nanoscience and Nanotechnology*. Professor, Department of Physics, The University of Memphis, USA. ... "Graphene enhanced P3HT and porphyrin ...

Solar radiation is a cheap and abundant energy for water remediation, hydrogen generation by water splitting, and CO<sub>2</sub> reduction. Supported photocatalysts have to be tuned ...

Graphene-enriched P3HT and porphyrin-modified ZnO nanowire arrays for hybrid solar cell applications

Research in the field of Applied Physics is conducted by Jingbiao Cui, Gary Glass, Paolo Grigolini, Arkadii Krokhin, Yuankun Lin, ... limitations is the crucial step towards the ...

The Optoelectronic Research Group, led by Professor Jingbiao Cui, uses both microscopy and spectroscopy to understand the structure and fundamental properties of semiconductors and ...

Perovskite solar cells can be damaged when partially shaded, owing to currents flowing in reverse. Two research groups have now increased the breakdown voltage of the ...

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