Iridium-containing photovoltaic panels

The field of polymer solar cells (PSCs) has seen rapid development after the reports of high-performance photovoltaic materials. Herein, iridium (Ir) ...

A series of novel donor-acceptor (D-A) copolymers P1-P5 with iridium-complexed moieties in their side chains have been synthesized on the ...

Each layer in the CIGS thin-film solar panel either plays a vital role in the solar energy conversion process or defines the application for the module.

By introducing various low concentrations of Iridium complexes to the famous donor polymer of PTB7-Th backbone, new heavy metal containing terpolymers have been demonstrated.

To rationalize this experimental fact, we prepared a new series of iridium photosensitizers specially designed for NiO based p-DSSC, in order to assess the role of a panel of factors on the ...

The photovoltaic performance of devices fabricated using three iridium complexes (1, 2, and 3) containing different main ligands (1-phenylisoquinoline, (4-isoquinolin-1-yl-phenyl)diphenylamine

We herein report an octahedral homoleptic tris-Ir (III) complex TBz3Ir as a donor material for BHJ OSCs with a PCE of over 11%.

OverviewPropertiesStructureProductionRear surface passivationRadiation toleranceExternal linksA copper indium gallium selenide solar cell (CIGS cell, sometimes CI(G)S or CIS cell) is a type of thin-film solar cell. It is manufactured by depositing a thin layer of copper indium gallium selenide solid solution on glass or plastic backing, along with electrodes on the front and back to collect electric current. Because the material has a high absorption coefficient and strongly absorbs sunlight, a much thinner film is required t...

Since its initial development, copper indium diselenide (CuInSe 2) thin-film technology has been considered

promising for solar cells because of its ...

Discover how iridium complexation is pushing polymer solar cell efficiencies beyond 18% through quantum mechanical effects and innovative material science. Imagine unrolling a solar panel like a ...

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