Based on solar cell research

It is predictable that PVK-based tandem solar cells will be a research frontier, attracting more and more interests. And the efficiency, large-area fabrication and stability are the most critical issues. As the PCEs for these PVK-based tandem devices are expected to continuously increase in the near future, more commercialization related issues ...

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This article aims to present a thorough review of research activities in using nanostructures, nano-enhanced materials, nanofluids, and so on for solar direct electricity ...

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Research interest is the development of new chemical approaches to solar energy conversion - harnessing solar energy either to produce electricity (photovoltaics) or molecular fuels (e.g. hydrogen). ... multifunctional inorganic/organic hybrids, and smart, advanced optical systems based on organic matter. Jenny Nelson Professor of Physics ...

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In this study, various types of dye molecules, including natural, organic, and metal-free organic dyes, designed for application in dye-sensitized solar cells (DSSCs), were investigated using various computational chemistry approaches. These sensitizers show promising potential for enhancing the photovoltaic performance of DSSCs. Additionally, ...

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