Development trend of solar cells

The paper considers the main trends in the development of the world market of solar photovoltaics over the past few years. It is shown that the industry is a very rapidly evolving one among...

New materials, concepts, and approaches in solar cell development have become the center of research in this field. This paper introduces the review of various recent generation technologies...

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Solar cells have over 50-years of development history; many different devices and technologies are studied over this time span, and interestingly it is still a hot research topic. Although the physical mechanisms involved in photovoltaic processes are rather fundamental, the characterization and classification of the research pathways seem ...

The silicon solar cell is the foundation of solar cell technology; its concept is ...

In last five years, a remarkable development has been observed in the photovoltaic (PV) cell technology. To overcome the consequences on global warming due to fossil fuel-based power generation, PV cell technology came out as an emerging and sustainable source of energy.

Already exhibiting solar to electrical power conversion efficiencies of over 16 %, organic-inorganic lead halide perovskite solar cells are one of the most promising emerging contenders in...

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