Develop thin-film solar power generation

Overview

MIT researchers have developed a scalable fabrication technique to produce ultrathin, lightweight solar cells that can be stuck onto any surface. The thin-film solar cells weigh about 100 times less than conventional solar cells while generating about 18 times more power-per-kilogram. Images for download on the MIT News office website are made available to non-commercial entities, press and the general public under a Creative Commons. Thin-film photovoltaic (PV) technologies address crucial challenges in solar energy applications, including scalability, cost-effectiveness, and environmental sustainability. This paper reviews critically, thin-film technologies such as amorphous silicon (a-Si), cadmium telluride (CdTe), and copper. Abstract - Thin films have been synthesized through vacuum-based deposition methods and chemical deposition techniques.

Article Content

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CdTe-based thin film photovoltaics: Recent advances, current

Cadmium telluride (CdTe)-based cells have emerged as the leading commercialized thin film photovoltaic technology and has intrinsically better temperature co-efficients, energy yield, and ...

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