

Title: Thin-film solar generator

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Hence, this paper proposes a thin-film flexible annular solar thermoelectric generator in a specific unique structure which can be used in mentioned applications.

In conclusion, we proposed and fabricated a thin-film solar thermoelectric generator utilizing the dilute solar flux for stable power generation, based on thermal concentration and ...

A new model for a multi-stage thermoelectric generator (TEG) is developed. An electrical and thermal model is built and simulated for different configurations of photovoltaic (PV) stand-alone hybrid ...

This paper reports a simulation procedure that aims to identify desirable heat flow and temperature distribution to improve the performance of thin-film STEGs.

This study presents a thin-film thermoelectric generator (TEG) specifically designed for use in solar-assisted sensors, representing a significant advancement in sustainable energy ...

he use of solar thermoelectric generators (STEGs)<sup>1,2</sup>. Thermoelectri develop a voltage gradient when a temperature gradient is applied<sup>3</sup>. For STEGs, a temperature gradient is of a solar sunlight<sup>1</sup>. While ...

To demonstrate the importance to optimally design solar selective absorber according to the practical operating conditions of STEGs, bismuth-telluride-based planar thin-film STEGs were ...

Thin-film solar cells are a type of solar cell made by depositing one or more thin layers (thin films or TFs) of photovoltaic material onto a substrate, such as glass, plastic or metal.

Thin-film solar thermoelectric generator (STEG) is proposed and fabricated. Integrated optimization design for thin-film STEG is considered. The directional heat flow is confined within the ...

We fabricated thin-film thermoelectric modules for thermal-photovoltaic hybrid solar generator. Bi 0.5 Sb 1.5



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Te<sub>3</sub> (p-type) and Bi<sub>2</sub>Te<sub>2.7</sub>Se<sub>0.3</sub> (n-type) thermoelectric thin films were ...

In conclusion, we proposed and fabricated a thin-film solar thermoelectric generator utilizing the dilute solar flux for stable power ...

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