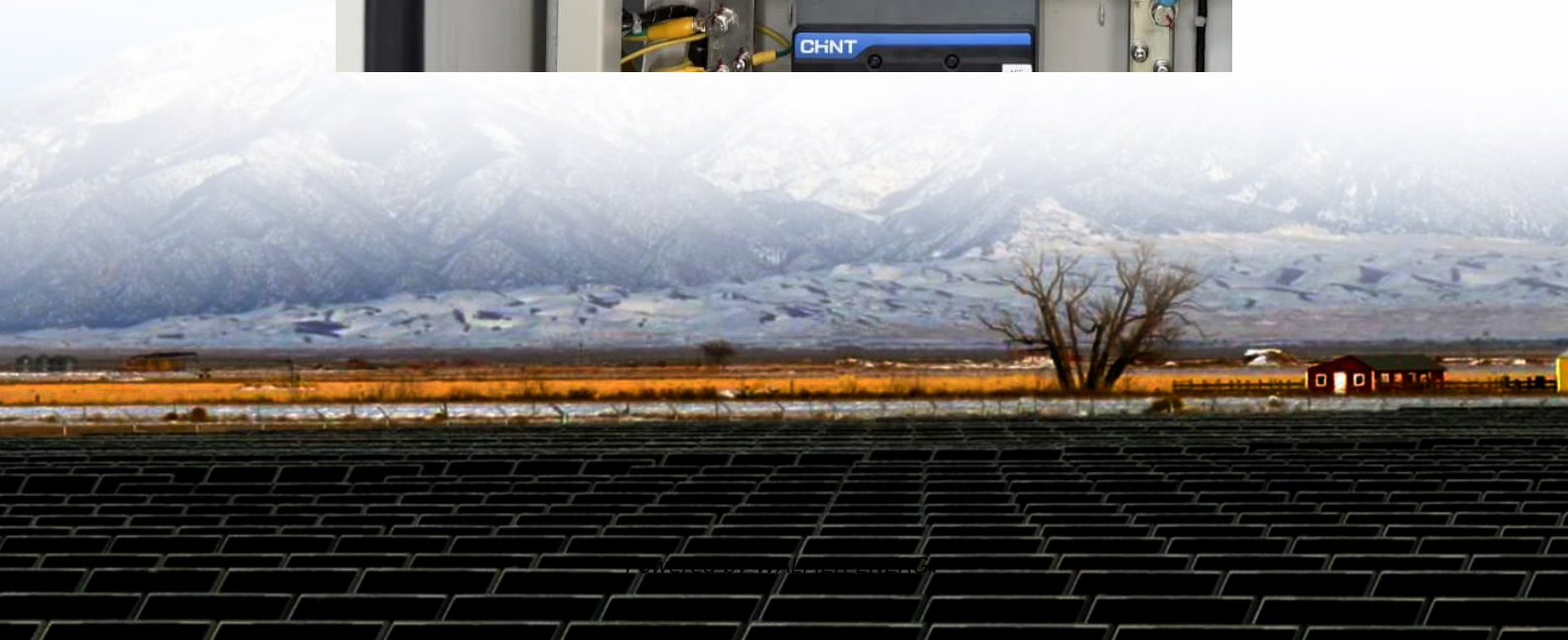


Antimony-cadmium thin film solar glass





Overview

Antimony selenide (Sb_2Se_3)-based thin-film solar cells have recently attracted worldwide attention as an abundant, low-cost, and efficient photovoltaic technology. The highest efficiencies recorded for

Do antimony sulfide selenide thin films adhere to glass substrates?

Antimony sulfide selenide thin films made by the chemical deposition method reported here lack adherence to glass substrates. Thus, the optical characteristics presented in Fig. 6 were recorded for the CD and VTE solar cell stacks. Fig. 6.

Will antimony sulfide selenide thin film solar cells benefit from CdTe?

Because antimony sulfide selenide thin film solar cells seen here essentially follow the scheme of commercial CdTe solar cells, they may benefit from the “lessons” learned from the CdTe solar cell technology. So far, such doping technology has not been successfully integrated into Sb-S-Se solar cells.

What is antimony sulfide selenide $\text{Sb}_2(\text{S}_x\text{Se}_{1-x})_3$ solar cells?

1. Introduction During the years 2009–2022, antimony sulfide selenide $\text{Sb}_2(\text{S}_x\text{Se}_{1-x})_3$ solar cells have established themselves as a research and development (R & D) theme, with the solar to electric energy conversion efficiency (η) of these solar cells steadily improving from less than 1 % in 2009 to above 10.5 % by the year 2020.

Which crucibles were used for the deposition of antimony sulfide selenide thin films?

For the deposition of antimony sulfide selenide thin films of variable bandgap across the absorber thickness, two molybdenum crucibles were used (Fig. 2 iv). These contained Sb_2S_3 and Sb_2Se_3 powders in different quantities, which were made into a paste with 50 mg of SbCl_3 and a few drops of propylene glycol.



Antimony-cadmium thin film solar glass

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