

N-type SnS thin films applicable for Solar cell

Harmless, high-efficient, thin, and light, low-cost Solar cell

Overview

Thin film solar cells using SnS (tin sulfide) have the following features

- Does not contain harmful elements such as Cd and Te
- Consists only of inexpensive elements (Sn and S)
(Raw materials cost 1/7 of silicon, 1/2 of CdTe and 1/14 of CIGS)
- Absorb light with a thickness of 2-3 microns
(silicon-based to -500 microns)

However, in order to realize SnS solar cells with high-efficiency homo-p-n junctions, it was necessary to realize n-type SnS thin films, which could not be produced because of technical problem. The present invention is the world's first n-type SnS thin film, which could not be produced until now, and it is also related to a solar cell using it.

Product Application

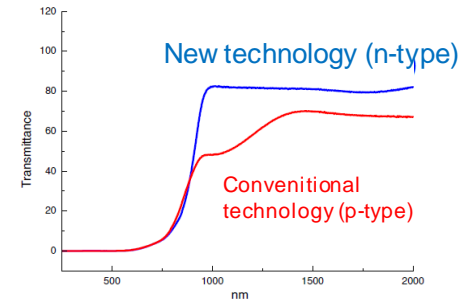
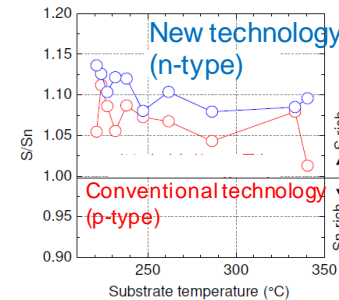
- ☐ Solar cells and photoelectric conversion elements

IP Data

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 Admin No. : T20-154

Features·Outstandings

<Result of SnS thin film>



N-type SnS thin film was fabricated.

Please contact us for technical detail

Related Works

[1] Issei Suzuki et al 2022 J. Phys. Energy 4 042002

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