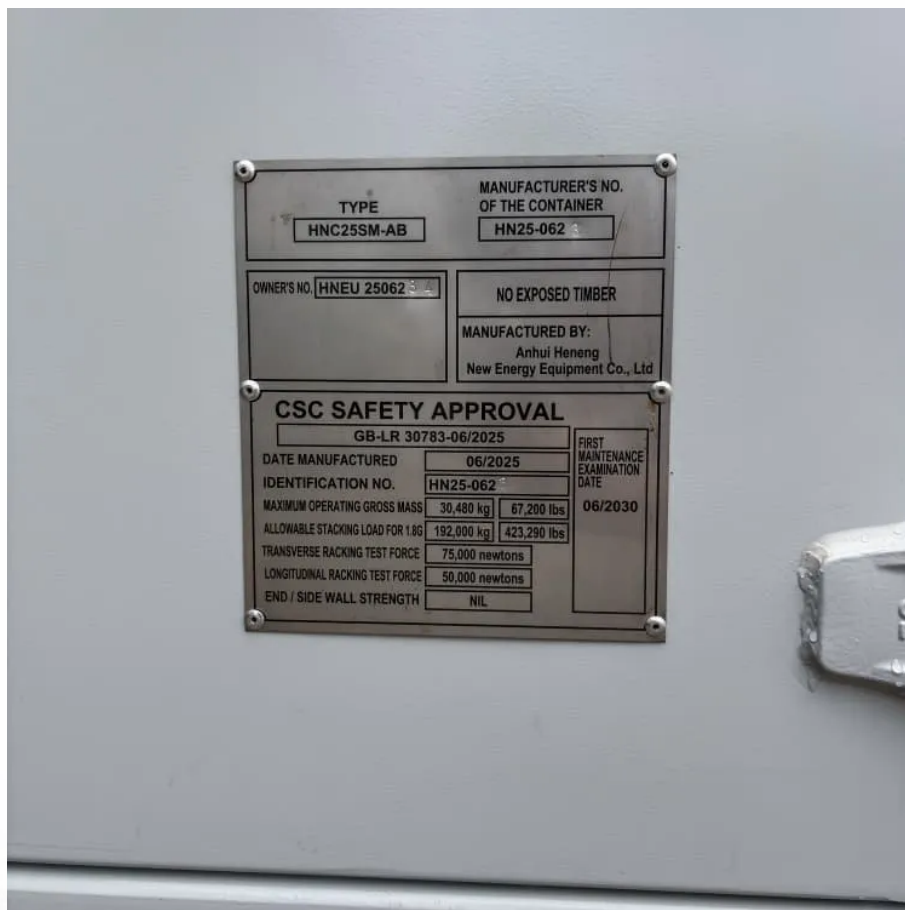


Cadmium telluride and perovskite solar glass





Overview

Can perovskite and cadmium telluride be used in tandem solar cells?

An integration of perovskite and cadmium telluride (CdTe) solar cells in a tandem configuration has the potential to yield efficient thin-film tandem solar cells. Owing to the promise of higher eff.

Can metal halide perovskites be used for tandem solar cells?

The benefit of a wide range of bandgap tunability available to metal halide perovskites makes them an excellent option for developing tandem solar cells with a narrower bandgap partner, such as silicon, [4 - 8] cadmium telluride (CdTe), [9, 10] copper indium gallium selenide (CIGS), [5, 11 - 13] another perovskite, [14 - 16] and organic materials.

What is a perovskite-cdsete tandem solar cell?

A perovskite-CdSeTe tandem solar cell could be fabricated with a wide-bandgap perovskite top cell and the CdSeTe as the bottom cell in either a two-terminal (2-T) or a four-terminal (4-T) arrangement.

Could a four-terminal solar cell be based on a perovskite absorber?

A research group at the University of Toledo in the United States has designed a four-terminal (4T) tandem solar cell with a top device relying on a perovskite absorber with a tunable wide-bandgap and a bottom cell using a commercially established narrow-bandgap absorber technology made of cadmium telluride (CdTe).



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Researchers use a cadmium telluride buffer ...

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4-T CdTe/Perovskite Thin Film Tandem Solar ...

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Researchers demonstrate 25%-efficient perovskite-cadmium tandem solar

May 17, 2024 · University of Toledo researchers say the cell has a top perovskite cell with a transparent back contact made of indium zinc oxide and a commercially established cadmium ...

U.S. scientists demonstrate 25%-efficient perovskite-cadmium ...

May 17, 2024 · The researchers say the cell has a top perovskite cell with a transparent back contact made of indium zinc oxide and a commercially established cadmium telluride bottom ...

Four-Terminal Perovskite-CdSeTe Tandem ...

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Researchers demonstrate 25%-efficient ...

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Cdte-Perovskite tandem Photovoltaics achieve record ...

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Novel technique boosts cadmium telluride ...

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Emerging innovations in solar photovoltaic (PV) ...

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Mingyang presents semi-transparent PV panels

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