

## **BLINK SOLAR**

# **Dili s ultra-thin solar glass**



## Overview

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How efficient are CIGSe solar cells on ultrathin glass substrates?

Demonstrated flexible, Cd-free Cu (In,Ga)Se<sub>2</sub> solar cells on emerging ultrathin glass substrates. Achieved a record efficiency of 17.81 % for flexible, Cd-free Cu (In,Ga)Se<sub>2</sub> solar cells on ultrathin glass substrates. Achieved an efficiency of 10.11 % for 60 cm<sup>2</sup> large-area Cd-free CIGSe cells.

Can flexible ultra-thin glass be used for CIGSe solar cells?

However, flexible ultra-thin glass (UTG) substrate, an emerging material used in the display and touch panel industry, holds immense promise for the future of photovoltaics. UTG offers distinct advantages, making it a more suitable candidate for high-efficiency CIGSe solar cells.

Can cadmium-free solar cells be used on ultra-thin glass?

The new cell concept was introduced in the study “ High-efficiency cadmium-free Cu (In,Ga)Se<sub>2</sub> flexible thin-film solar cells on ultra-thin glass as an emerging substrate,” published in the Journal of Alloys and Compounds.

Is flexible ultra-thin glass the future of photovoltaics?

Alternative flexible substrates such as polyimide (PI) and stainless steel (SS) have demonstrated efficiencies of 22.2 % and 20.56 % , respectively. However, flexible ultra-thin glass (UTG) substrate, an emerging material used in the display and touch panel industry, holds immense promise for the future of photovoltaics.

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### **Flexible and Semi-Transparent Ultra-Thin CIGSe Solar Cells ...**

Flexible and semi-transparent ultra-thin Cu (In,Ga)Se<sub>2</sub> solar cells on ultra-thin glass exhibit superior bifacial photovoltaic conversion efficiency to conventional ones on soda-lime ...

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### **High-efficiency cadmium-free Cu(In,Ga)Se<sub>2</sub> flexible thin-film solar**

This study successfully demonstrated high-efficiency Cu (In,Ga)Se<sub>2</sub> (CIGSe) thin-film solar cells on flexible ultra-thin glass (UTG) substrates, balancing mechanical flexibility ...



### **Radiation-resilient ultra-thin GaAs solar cells on glass ...**

Here we demonstrated an adhesive-free method of bonding ultra-thin GaAs solar cells to borosilicate glass by anodic bonding. This off-wafer processing method replaces the III ...

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## Ultra-Thin Glass: Flexible and Semi-Transparent Ultra-Thin CIGSe Solar

In article number 2001775, Joo Hyung Park and co-workers propose a flexible semi-transparent ultra-thin CIGSe solar cell on ultra-thin glass and explore photovoltaic ...

## Flexible and Semi-Transparent Ultra-Thin ...

Flexible and semi-transparent ultra-thin Cu (In,Ga)Se<sub>2</sub> solar cells on ultra-thin glass exhibit superior bifacial photovoltaic conversion ...



## CIGS cell with ultra-thin glass substrate hits record efficiency ...



Scientists at the Korea Institute of Energy Research (KIER) have developed a CIGS solar cell with ultra-thin glass (UTG), an emerging substrate known for its exceptional ...

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## CIGS solar cells on ultra-thin glass substrates: Determination

Here we report an original study on the mechanical properties of CIGS solar cells fabricated on 100  $\mu\text{m}$ -thick ultra-thin glass substrates. The Young's modulus and hardness of ...



## Ultra-Thin Glass: Flexible and Semi-Transparent ...

Ultra-Thin Glass: Flexible and Semi-Transparent Ultra-Thin CIGSe Solar Cells Prepared on Ultra-Thin Glass Substrate: A Key to Flexible Bifacial Photovoltaic Applications ...

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Sample Order  
UL/KC/CB/UN38.3/UL



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Abstract In article number 2001775, Joo Hyung Park and co-workers propose a flexible semi-transparent ultra-thin CIGSe solar cell on ultra-thin glass and explore photovoltaic ...

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