SOLAR CONCENTRATOR BASED ON GLASS SILICON NANSTRUCTURES

ALMA MATER STUDIORUM-UNIVERSITÀ DI BOLOGNA
CNR - CONSIGLIO NAZIONALE DELLE RICERCHE

Device for converting solar energy into electric power using a transparent panel of inorganic material, such as glass.

Protection: Italy

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INVENTION

The invention is a glass which nanostructures included and coupled to solar cells located on the edge. Nanostructures absorb the sun's ultraviolet light and re-emit it as light in red or NIR, which is converted by the solar cell into electricity.

ADVANTAGES

- Chemical and photochemical **stability of nanostructures** encapsulated in the glass;
- **Simplicity** of the nanomaterial production process, which avoids the use of dangerous reagents;
- **High transparency** in the visible and optical properties.

APPLICATIONS

- Sustainable architecture;
- Building and construction;
- Renewable energies.

CONTACTS

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