

# SOLAR CONCENTRATORS BASED ON SILICON NANOSTRUCTURES

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The invention refers to a device and method of making luminescent solar concentrators based on silicon nanostructures. This device converts solar energy into electric power from a transparent polymeric panel with silicon nanostructures luminescent.

**Protection:** Europe, USA.

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## INVENTION

This invention uses silicon nanostructures inside a polymeric panel, which allow to convert the ultraviolet light, useless and harmful for the illumination of the internal environments, into visible light, exploited by the device to generate electric power. The panel, coupled with solar cells, can be used in architectural elements such as windows or walls, given its high degree of transparency, thus also allowing the production of energy.

## ADVANTAGES

- Low environmental impact of the material, which is non-toxic and available in nature;
- High transparency and excellent color rendering index;
- More electric power produced in relation to the area of the solar cell.

## APPLICATIONS

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

## CONTACTS

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