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The UdL patents a system that increases the efficiency of high-concentration solar panels

It increases the amount of electricity obtained and lengthens the useful life of photovoltaic cells

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The University of Lleida (UdL) has just patented a system that increases the efficiency and reliability of high-concentration photovoltaic solar panels, that is, those that use optical systems such as mirrors to increase the production of electricity from sunlight. It is a hybrid heat sink with high energy fluxes that reduces the degree to which the receiver is heated, thus increasing the amount of electricity obtained and lengthening the useful life of solar systems.

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Prototype of the heat sink patented by the University of Lleida

The system is the result of three years of research by the UdL's Environmental and Agri-meteorological Energy Group, which culminated in a doctoral thesis. The lecturer from the School of Technology Jéròme Barrau explained that the hybrid heat sink ensured that photovoltaic cells attained more even temperatures, and that it was even possible to adapt the temperature profile to the specific needs of each application. "This feature increases the reliability of photovoltaic generators", said Barrau.

This patent will not only benefit the solar energy sector. The system developed by the UdL also has potential applications in the field of microelectronics. The researchers will continue their work on the cooling of the electronic chips that are used in everyday objects such as computers.

MÉS INFORMACIÓ

Heat sink patented by the University of Lleida (DOSSIER PDF)
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