

Title (en)  
OPTICAL ENERGY TRANSMISSION SYSTEM

Title (de)  
OPTISCHES ENERGIEÜBERTRAGUNGSSYSTEM

Title (fr)  
SYSTÈME DE TRANSMISSION D'ÉNERGIE OPTIQUE

Publication  
**EP 2929571 A2 20151014 (DE)**

Application  
**EP 13802582 A 20131205**

Priority  
• DE 102012111978 A 20121207  
• EP 2013075636 W 20131205

Abstract (en)  
[origin: WO2014086911A2] In order to improve an optical energy transmission system, comprising an energy-emitting unit, which has a laser radiation source for generating an energy-transmitting laser beam and an aiming device for aligning the energy-transmitting laser beam relative to an energy-receiving unit which the energy transmission system comprises and which comprises an optical/electrical converter, which converts the energy of the energy-transmitting laser beam directly into electrical energy, the improvement being such that, firstly, despite high optical power, the thermal destruction thresholds of the photovoltaic elements used are not reached and, secondly, laser safety is ensured, it is proposed that the converter has at least one converter element having a plurality of areas which reflect the energy-transmitting laser beam impinging on said converter element and which are arranged relative to one another such that the impinging energy-transmitting laser beam is deflected by one of the reflective areas to another of the reflective areas, and that at least some of the reflective areas are formed in each case by a conversion unit which reflects one part of the impinging laser beam and absorbs the other part thereof in a photovoltaic element which the conversion unit comprises, and in the process converts the optical energy directly into electrical energy.

IPC 8 full level  
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