

Title (en)

CONCENTRATOR PHOTOVOLTAIC DEVICE, PHOTOVOLTAIC DEVICE FOR USE THEREIN AND PRODUCTION METHOD THEREFOR

Title (de)

KONZENTRATOR-PHOTOVOLTAIK-VORRICHTUNG, PHOTOVOLTAIK-EINRICHTUNG ZUR VERWENDUNG DARIN SOWIE HERSTELLVERFAHREN HIERFÜR

Title (fr)

DISPOSITIF PHOTOVOLTAIQUE CONCENTRATEUR, ELEMENT PHOTOVOLTAIQUE UTILISE DANS CE DISPOSITIF ET PROCEDE POUR PRODUIRE CE DISPOSITIF

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2007036199A2] The invention relates to a concentrator photovoltaic device (10) with a number of photovoltaic devices (22) for directly converting solar energy into electrical energy. A number of photovoltaic devices (22) are each provided with a light entrance surface (20) of a solar cell (56), which has a surface area that is smaller than the light entrance surface (20) of the photovoltaic device (22). The first optical unit (24) is designed for concentrating or bundling the solar radiation, which enters through the light entrance surface (20), onto an area (34), which is determined by the smaller surface of the solar cell (56), is located at a distance from the light entrance surface (20), and which is provided with a smaller surface area than the light entrance surface (20). In order to be able to obtain a more economical device by using smaller surface area solar cells without any problems with regard to the positioning thereof, the invention provides that: the number of photovoltaic devices (22) are each provided with a holding device (30) with which the assigned solar cell (56) is positioned in the provided area (34); the holding device (30) is fixed via a first end (32) to the first optical unit (24) and; the solar cell (56) is fixed to an opposite second end (34) of the holding device (30). The invention also relates to a photovoltaic device for a device of the aforementioned type and to an advantageous production method.

IPC 8 full level

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