

Title (en)

SOLAR CELL AND METHOD OF MANUFACTURING A SOLAR CELL

Title (de)

SOLARZELLE UND VERFAHREN ZUR HERSTELLUNG EINER SOLARZELLE

Title (fr)

PILE PHOTOVOLTAÏQUE ET PROCÉDÉ DE FABRICATION D'UNE PILE PHOTOVOLTAÏQUE

Publication

**EP 2342758 A2 20110713 (EN)**

Application

**EP 09788336 A 20090923**

Priority

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- EP 08164942 A 20080923
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Abstract (en)

[origin: EP2166577A1] A solar cell is provided with a down-converter that converts incoming high energy photons into two or lower energy photons before conversion to electric current, in order to provide for more efficient conversion. The down-converter comprises a combination of Neodymium and Ytterbium ions in a sulfide. The sulfide may be Indium Sulfide, doped with the Neodymium and Ytterbium. The indium sulfide may be combined with a CIS (Copper Indium Sulfide) layer to form active layers of a solar cell, or the sulfide with Neodymium and Ytterbium may be used as a separate filter before conversion to electric current. A solar cell may be provided with an up converter realized by means of quantum dots in an absorber matrix.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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