Title (en)

ELECTRIC ENERGY PRODUCTION AND SUN PROTECTION DEVICE FOR MOTOR VEHICLES

Title (de)

EINRICHTUNG ZUR STROMERZEUGUNG UND ZUM ABSCHATTEN BEI KRAFTFAHRZEUGEN

Title (fr)

DISPOSITIF DE PRODUCTION DE COURANT ET DE PROTECTION CONTER LE SOLEIL POUR DES VEHICULES A MOTEUR

Publication

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Application

EP 01995616 A 20011215

Priority

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Abstract (en)

[origin: WO02053408A1] The invention relates to a device which is used to produce electric energy and provide motor vehicles with protection against the sun. In a first embodiment, a solar cell (1) having a rear-side reflector is placed on a suitable part of the bodywork (2) of a motor vehicle. An insulating and interior covering layer (3) is provided towards the inside underneath the bodywork part which can be the sheet metal of the roof of a motor vehicle. The solar cell is substantially comprised of a carrier layer (11), a reflecting layer (12) on the rear side of an active photovoltaic layer (13) and a protective layer (14) providing cover therefor above or towards the outside in the direction of incident radiation. The incident radiation, i.e. sunlight or daylight, is represented by the plurality of arrows (4) and the radiation which is reflected at the limit between the photovoltaic layer and the reflecting layer is represented by two arrows (5). The total amount of reflected radiation is represented by five arrows (6) and is composed of one part which is reflected at the limit between the photovoltaic layer and the reflecting layer and which exits from the photovoltaic layer, in addition to parts which are reflected on the surface of the protective layer and on the defining layer between the protective layer (14) and the photovoltaic layer. Thin-layered solar cells or transparent solar cells can also be provided in other embodiments.

IPC 1-7

B60L 8/00

IPC 8 full level

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See references of WO 02053408A1

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