

Title (en)

Method for producing a solar module with thin-film solar cells which are series connected in an integrated manner

Title (de)

Verfahren zur Herstellung eines Solarmoduls mit integriert serienschalteten Dünnschicht-Solarzellen

Title (fr)

Procédé de production d'un module solaire doté de cellules solaires à couches minces intégrées et connectées en série

Publication

EP 1269542 A1 20030102 (DE)

Application

EP 01935948 A 20010329

Priority

- DE 0101295 W 20010329
- DE 10017610 A 20000330

Abstract (en)

[origin: WO0175976A1] Known methods for producing large-surface, integrated thin-film solar modules with an amorphous, poly- or microcrystalline absorber layer always comprise division and conversion structuring processes which can cause instabilities in the structuring and which are relatively expensive. According to the inventive methods, which can be used to produce substrate solar cells (116) and superstrate solar cells, the mask (100) that is used provides for structuring itself during the deposition of layers for the back electrode (106) and the absorber layer (110) through its geometrical form. The use of a mask (110) that can be reused as an independent element after use in this method allows for a relatively free range of possible geometrical forms. This also enables applications inside and outside buildings from an aesthetic and informal point of view, including in the area of a window. These types of applications are also supported by the possibility of a structural connection between the solar modules produced according to the inventive method and light-collecting concentrator modules, in order to considerably increase their average and total energy conversion efficiency.

IPC 1-7

H01L 27/142; H01L 31/052; H01L 31/18

IPC 8 full level

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CPC (source: EP US)

H01L 31/046 (2014.12 - EP US); **H01L 31/0463** (2014.12 - EP US); **H01L 31/0543** (2014.12 - EP US); **Y02B 10/10** (2013.01 - EP US); **Y02E 10/52** (2013.01 - EP US)

Citation (examination)

- WO 8300409 A1 19830203 - SPEAR REGINALD G
- DE 1564935 A1 19700604 - TELEFUNKEN PATENT
- See also references of WO 0175976A1

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DOCDB simple family (publication)

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