

Title (en)

MODULAR, GLASS-COVERED SOLAR CELL ARRAY

Title (de)

MODULARE GLASBESCHICHTE SOLARZELLENANORDNUNG

Title (fr)

BATTERIE MODULAIRE DE PILES SOLAIRES REVOUEVERTE DE VERRE

Publication

EP 1078393 A2 20010228 (EN)

Application

EP 99944982 A 19990412

Priority

- US 9907907 W 19990412
- US 8163698 P 19980413
- US 9066398 A 19980604

Abstract (en)

[origin: WO9960606A2] A radiation tolerant solar cell array module which can be efficiently assembled into a larger solar panel to generate power for a spacecraft; the module includes at least first and second single-crystal solar cells. The first and second solar cells have front sides and back sides. At least one of the solar cells has a shallow junction N on P structure. A first contact is formed on at least the back side of the first solar cell. A second contact is formed on at least the back side of the second solar cell. A conductor is in electrical communication with the first contact and the second contact. A substantially transparent ceria-doped cover overlays at least a portion of each of the solar cells. The cover remains substantially transparent when exposed to an AMO space radiation environment. A substantially transparent adhesive is situated between the cover and the solar cell portions. The adhesive remains substantially transparent when exposed to a space radiation environment.

IPC 1-7

H01L 21/00; **H01L 31/0224**; **H01L 31/05**; **H01L 31/048**

IPC 8 full level

H01L 31/0224 (2006.01); **H01L 31/048** (2006.01); **H01L 31/05** (2006.01)

CPC (source: EP)

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DE

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