

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 September 2008 (04.09.2008)

PCT

(10) International Publication Number
WO 2008/106565 A3

(51) International Patent Classification:
H01L 31/042 (2006.01)

(21) International Application Number:
PCT/US2008/055201

(22) International Filing Date:
27 February 2008 (27.02.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/891,914 27 February 2007 (27.02.2007) US

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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
27 November 2008

(54) Title: STRUCTURES FOR LOW COST, RELIABLE SOLAR MODULES

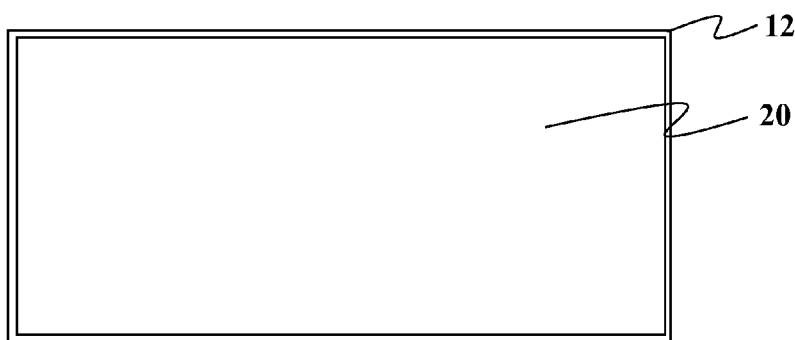


FIG. 16

(57) Abstract: Methods and devices are provided for improved large-scale solar installations. In one embodiment, a photovoltaic module is provided comprising a module front layer comprising a glass plate, a module back layer comprising an electrically conductive foil, and a plurality of solar cells arranged to be protected by the front layer and the back layer. In some embodiments, the module back layer is aluminum foil. The module back layer may have an externally exposed surface. The module back layer may be electrically grounded. An electrically insulating pottant material may be used with the solar cells to separate them from the module back layer. This allows for a high voltage withstand between the cells and the outer surface of the back layer.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/055201**A. CLASSIFICATION OF SUBJECT MATTER*****H01L 31/042(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 8 H01L 25, 31

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility Models and applications for Utility Models since 1975

Japanese Utility Models and applications for Utility Models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS(KIPO internal) & keyword : "photovoltaic", "photocell", "module"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	US 4,636,578 (ATLANTIC RICHFIELD COMPANY) 13 JANUARY 1987 See column 3, line 23 - column 4, line 65.	1 2-15, 17-27 16
Y	JP 10-331366 (NICHIIHA CORP.) 30 MAY 1997 See the whole document.	10-15, 17-27
Y	JP 2003-318430 (FUJI ELECTRIC CO. LTD.) 7 NOVEMBER 2003 See the whole document.	15
A	JP 7-217087 (FUJI ELECTRIC CO. LTD.) 15 AUGUST 1995 See the whole document	10-15, 17-27



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Date of the actual completion of the international search

10 OCTOBER 2008 (10.10.2008)

Date of mailing of the international search report

10 OCTOBER 2008 (10.10.2008)

Name and mailing address of the ISA/KR

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gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2008/055201

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