(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 December 2009 (17.12.2009)

PCT

(10) International Publication Number
WO 2009/152365 A1

(51) International Patent Classification:
H01L 31/0224 (2006.01) *H01L 31/0236* (2006.01)

(21) International Application Number:
PCT/US2009/047090

(22) International Filing Date:
11 June 2009 (11.06.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/131,698	11 June 2008 (11.06.2008)	US
61/131,687	11 June 2008 (11.06.2008)	US
61/131,688	11 June 2008 (11.06.2008)	US
61/133,028	24 June 2008 (24.06.2008)	US
61/210,545	20 March 2009 (20.03.2009)	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, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, 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, MK, 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 (Art. 21(3))*

(54) **Title**: SOLAR CELL FABRICATION WITH FACETING AND ION IMPLANTATION

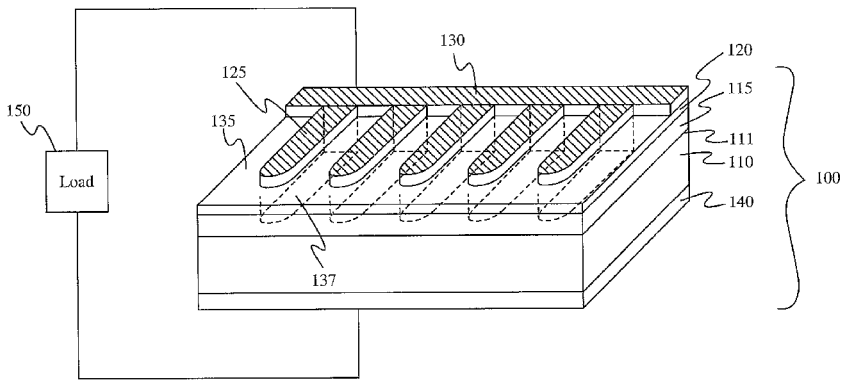


Fig. 1

(57) **Abstract**: Solar cells in accordance with the present invention have reduced ohmic losses. These cells include photo-receptive regions that are doped less densely than adjacent selective emitter regions. The photo-receptive regions contain multiple four-sided pyramids that decrease the amount of light lost to the solar cell by reflection. The smaller doping density in the photo-receptive regions results in less blue light that is lost by electron-hole recombination. The higher doping density in the selective emitter region allows for better contacts with the metallic grid coupled to the multiple emitter regions. Preferably, the selective emitter and photo-receptive regions are both implanted using a narrow ion beam containing the dopants.

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