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(54) Title: HIGH-EFFICIENCY, HIGH CURRENT SOLAR CELL AND SOLAR MODULE

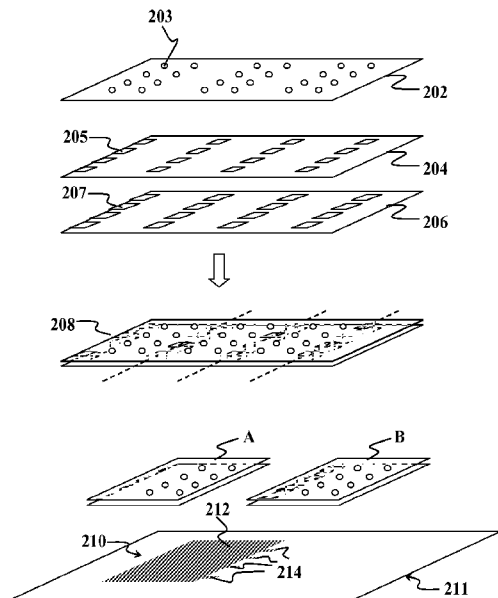


FIG. 3

(57) Abstract: Methods and devices are provided for high-efficiency solar cells. In one embodiment, a high current photovoltaic apparatus is provided comprising of a thin-film absorber layer solar module of arbitrary size having an electrical output with a current of greater than about 2 amperes when the module is under AM1.5G illumination at 25°C. Optionally, the current is at least about 5 amperes. Optionally, the current is at least about 15 amperes. Optionally, the current is at least about 50 amperes. Optionally, the current is at least about 100 amperes.



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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)

IPC8 H01L31/042

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)

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"Keywords: solar, photovoltaic, current, high"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4773944 A (PREM NATH et al.) 27 September 1988 See the Abstract, Column 2-3, Claim 1, 23, 24, 28, 29	1, 12-17, 38-47, 56 -63, 76
Y1		2-6
A		7-11, 18-37, 48-55, 64-75, 77-115
Y2	US 4559924 A (WILLIAM G. WILHELM) 24 December 1985	2-6
A	See the Abstract, Column 3, Figure 1, 5, 6	1, 7-115
A	KR 10-2007-0004593 A (SHOWA SHELL SEKIYU K. K.) 9 January 2007 See the Abstract	1-115
A	US 2004-187917 A1 (KARL PICHLER) 30 September 2004 See the Abstract	1-115

 Further documents are listed in the continuation of Box C. See patent family annex.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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