

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 February 2009 (05.02.2009)

PCT

(10) International Publication Number
WO 2009/018016 A3

(51) International Patent Classification:

H01L 31/052 (2006.01) **H01L 23/427** (2006.01)
F24J 2/34 (2006.01)

(21) International Application Number:

PCT/US2008/070762

(22) International Filing Date: 22 July 2008 (22.07.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/952,803 30 July 2007 (30.07.2007) 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, 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, 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:
9 April 2009

(54) Title: SOLAR HEAT MANAGEMENT IN PHOTOVOLTAIC SYSTEMS USING PHASE CHANGE MATERIALS

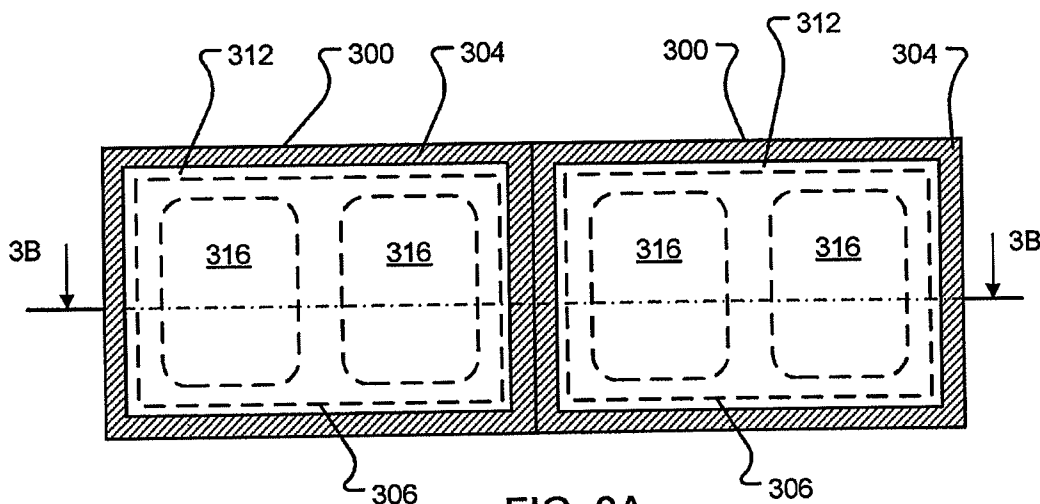


FIG. 3A

(57) Abstract: This disclosure describes systems, apparatuses and methods in which a phase change material is used in conjunction with a photovoltaic device to manage the device temperature due to the heat energy received by the device while the device is generating electricity. The use of the phase change material increases the average operating efficiency of the device by reducing the temperature change that the device is subjected to during operation. Furthermore, the disclosure describes how a phase change material may be selected and incorporated into a PV module based on the anticipated operating conditions and/or the characteristics of the photovoltaic device.

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/070762

A. CLASSIFICATION OF SUBJECT MATTER

INV. H01L31/052 F24J2/34 H01L23/427

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)

F24J H01L F28D

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

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

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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Date of the actual completion of the international search

3 February 2009

Date of mailing of the international search report

16/02/2009

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/070762

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International application No

PCT/US2008/070762

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