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- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM,

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(54) **Title:** BUSING SUB-ASSEMBLY FOR PHOTOVOLTAIC MODULES

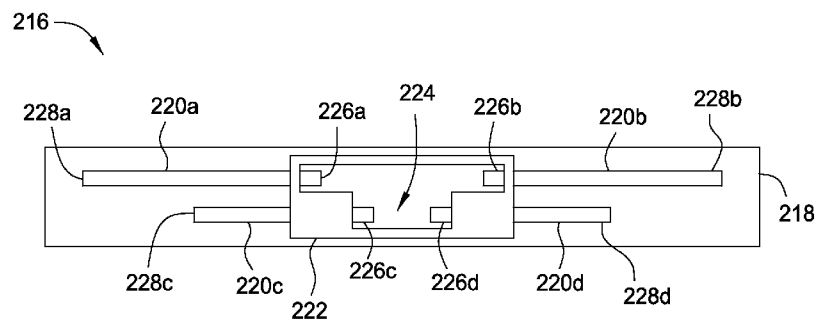


FIG. 2

(57) **Abstract:** Embodiments of the invention generally relate to a busing sub-assembly and methods of forming photovoltaic modules having busing sub-assemblies. The busing sub-assembly generally includes a carrier backsheet and a plurality of conductive ribbons coupled to the carrier backsheet. An electrically insulating cover is disposed over the conductive ribbons and the carrier backsheet. The ends of each conductive ribbon remain exposed for making an electrical connection to the conductive foil or a junction box. Methods of forming photovoltaic modules generally include positioning a flexible backsheet having an opening therethrough and a conductive foil thereon on a support. A busing sub-assembly is disposed on the flexible backsheet over the opening and in electrical contact with the conductive foil. The busing sub-assembly includes the components necessary to bus electrical current from a plurality of solar cells to a junction box, and can be applied to a photovoltaic module in a single process step.



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)

H01L 31/042; H02N 6/00; H01L 31/048; H02G 5/00

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

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: busing, sub-assembly, carrier backsheet, insulating cover, end portion, conductive ribbons

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2010-0012172 A1 (DAVID H. MEAKIN et al.) 21 January 2010 See abstract, paragraphs [0026]-[0030],[0050]-[0058], figure 2.	1-15
A	US 2008-0053701 A1 (STEPHEN C. ANTAYA et al.) 06 March 2008 See abstract, paragraphs [0035]-[0037], figures 2 and 3.	1-15
A	US 2007-0095384 A1 (DONALD FARQUHAR et al.) 03 May 2007 See abstract, paragraphs [0019]-[0021],[0028],[0034], figures 1,5 and 8.	1-15

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

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Information on patent family members

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