

Title (en)
FLEXIBLE INTEGRATED CONCENTRATORS FOR SOLAR CELLS

Title (de)
FLEXIBLE INTEGRIERTE KONZENTRATOREN FÜR SOLARZELLEN

Title (fr)
CONCENTRATEURS INTÉGRÉS FLEXIBLES POUR CELLULES SOLAIRES

Publication
EP 3607588 A4 20210106 (EN)

Application
EP 18780734 A 20180330

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Abstract (en)
[origin: WO2018187176A1] Disclosed herein are solar cell devices comprising a transparent substrate, a solar cell fabricated over the transparent substrate and a polymeric concentrator comprising a concentrating lens with a planar surface, wherein the concentrating lens is optically aligned with the solar cell such that the concentrating lens provides a uniform illumination over an entire surface of the solar cell. Also, disclosed herein are methods of making solar cell devices and in particular polymeric concentrators.

IPC 8 full level
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Citation (search report)
• [X] US 2014261625 A1 20140918 - MORGAN JOHN PAUL [CA], et al
• [X] US 2016380141 A1 20161229 - NAKAGAWA TOHRU [JP], et al
• [X] WO 2008143635 A1 20081127 - UNIV ILLINOIS [US], et al
• [X] EP 2387080 A2 20111116 - SONY CORP [JP]
• [X] US 2006037640 A1 20060223 - MIURA HIROTSUNA [JP]
• See also references of WO 2018187176A1

Designated contracting state (EPC)
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