Title (en)

MULTI-LAYER METAL FILM STACKS FOR SHINGLED SILICON SOLAR CELL ARRAYS

Title (de)

MEHRSCHICHT-METALLFILMSTAPEL FÜR SCHINDELFÖRMIGE SILIZIUMSOLARZELLENANORDNUNGEN

Title (fr)

EMPILEMENTS DE FILMS MÉTALLIQUES MULTICOUCHE POUR RÉSEAUX EN BARDEAUX DE CELLULES SOLAIRES EN SILICIUM

Publication

EP 3635792 A4 20210120 (EN)

Application

EP 18799289 A 20180510

Priority

- US 201762504532 P 20170510
- US 2018032159 W 20180510

Abstract (en)

[origin: WO2018209147A1] Shingled arrays of solar cells are disclosed. The solar cells used to form the shingled arrays are made using novel, new intercalation pastes. The pastes contain precious metal particles, intercalating particles, and an organic vehicle and can be used to improve the material properties of metal particle layers. Specific formulations have been developed to be screen-printed directly onto a dried metal particle layer and fired to make a fired multilayer stack. In some embodiments, the fired multilayer stack can etch through a dielectric layer to improve adhesion to a substrate. Such pastes can be used to great advantage by increasing the efficiency of silicon solar cells, specifically multi- and mono-crystalline silicon back-surface field (BSF), passivated emitter and rear contact (PERC) photovoltaic cells.

IPC 8 full level

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CPC (source: EP KR)

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Citation (search report)

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- See references of WO 2018209147A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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