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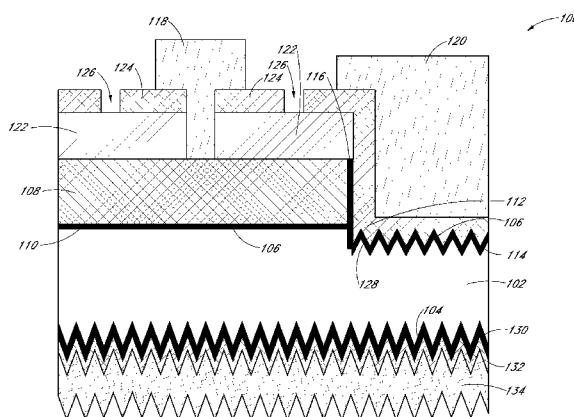
(54) Title: SOLAR CELL EMITTER REGION FABRICATION WITH DIFFERENTIATED P-TYPE AND N-TYPE REGION AR-
CHITECTURES

FIG. 1

(57) Abstract: Methods of fabricating solar cell emitter regions with differentiated P-type and N-type regions architectures, and resulting solar cells, are described. In an example, a back contact solar cell includes a substrate having a light-receiving surface and a back surface. A first polycrystalline silicon emitter region of a first conductivity type is disposed on a first thin dielectric layer disposed on the back surface of the substrate. A second polycrystalline silicon emitter region of a second, different, conductivity type is disposed on a second thin dielectric layer disposed on the back surface of the substrate. A third thin dielectric layer is disposed laterally directly between the first and second polycrystalline silicon emitter regions. A first conductive contact structure is disposed on the first polycrystalline silicon emitter region. A second conductive contact structure is disposed on the second polycrystalline silicon emitter region.