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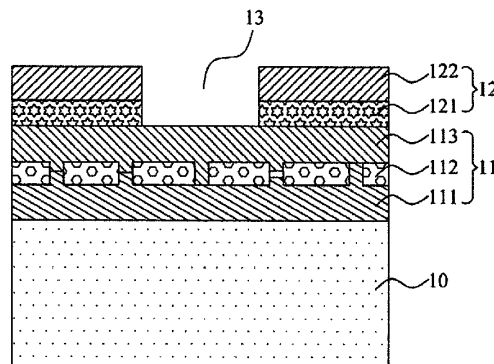


FIG. 1

(57) Abstract: The disclosure provides a passivated contact structure and a solar cell comprising the same, a cell assembly and a photovoltaic system. The passivated contact structure includes a first passivated contact region on a silicon substrate and a second passivated contact region on the first passivated contact region. The second passivated contact region has an opening connecting a conductive layer to the first passivated contact region. The first passivated contact region includes a first doped layer, a first passivation layer and a second doped layer. The second passivated contact region includes a second passivation layer and a third doped layer. The first passivation layer is a porous structure inlaid with the first doped layer and/or the second doped layer in a hole region. Utilizing the passivated contact structure provided in this invention, mitigates the serious recombination caused by metal directly contacting with silicon substrate.

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