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(54) METHOD OF MANUFACTURING A PEROVSKITE PHOTOVOLTAIC CELL

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ABSTRACT

A method of manufacturing a solar cell includes: providing a substrate; providing a first layer of transparent conductive oxide on the substrate; providing a first charge transport layer on the first layer of transparent conductive oxide; providing a perovskite-based light-absorber layer on the first charge transport layer; providing a second charge transport layer on the perovskite-based light absorber layer; providing a second layer of transparent conductive oxide on the second charge transport layer; providing a patterned metallic contact layer on the second layer of transparent conductive oxide. The step of providing a perovskite-based light absorber layer includes: providing a perovskite precursor solution including an additive including an organic phosphonic acid and/or a phosphonate salt in a concentration of 0.1 mMol-50 mMol in the perovskite precursor solution; applying the perovskite precursor solution upon the first charge transport layer; annealing the perovskite layer at 100-170° C.

