

System And Method Of Fabricating Provskite Based Solar Cell

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ABSTRACT

A system and a method for fabricating perovskite solar cells is proposed. The system includes multiple injection members (102, 104, 106, 108, 110) and multiple curing/heating members (114), wherein the multiple injection members are arranged such that at least one curing/heating member is in between each of the multiple injection members. The multiple injection members may inject ink on a substrate, held on a wafer chuck (112), which may get cured instantly by the heat from the at least curing/heating member arranged just after respective multiple injection members. The curing/member may be IR based device. Further, substrate may be continuously moving to receive the ink from the multiple injection members.

KEY APPLICATION AREAS

- 1.Perovskite solar cell manufacturing.
- 2.Photovoltaic device fabrication.
- 3.Printed electronics.
- 4.3D printing for solar cells.
- 5.Thin-film photovoltaic production.
- 6.Renewable energy manufacturing.

POTENTIAL USES

- 1.Rapid, continuous fabrication of perovskite solar cells.
- 2.Low-cost, scalable solar cell production.
- 3.Multi-layer 3D printing of photovoltaic devices.
- 4.Reduced material wastage during manufacturing.

5.High-throughput production of photovoltaic modules.

6.Manufacturing of stable, high-efficiency perovskite solar cells.