

Perovskites and Dye-sensitized solar Cells based printable Photovoltaic Devices

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Abstract

Among different gadget plans of perovskite sun powered cells (PSCs), carbon back contact anode based mesoscopic perovskite sun based cells (CPSCs) offer tidy up room free creation, plentiful accessibility of incorporated materials, versatility and motivating soundness in various reenacted and characteristic natural conditions 1-5. I have been building up this promising sun oriented cell innovation and have been engaged with its scaling up as a team with scholastic and modern accomplices. In my discussion, I will introduce and examine the intriguing outcomes identified with this sunlight based cell innovation around: The substitution of manual penetration of perovskite antecedent ink with robotized inkjet invasion strategy, which altogether improved the photovoltaic exhibition reproducibility. First historically speaking exhibition of extraordinary solidness of these CPSC under serious UV light brightening. An advancement revelation with respect to perovskite gems development in the thermo-muggy climate, which was seen in a computerized mugginess chamber and thus contributed for an extreme improvement (> half) in the sun oriented to-electrical change proficiency just as Our procedure ventures towards scaling up this minimal effort sunlight based cell innovation more than 20 x 20 cm² FTO-Glass substrates size. Our outcomes give a chance to acknowledge minimal effort PV manufacturing plants as decentralized energy creation units in every EU nation, in opposition to exceptionally costly Si-PV partners.

Biography

Syed Ghufuran Hashmi has recently joined University of Oulu-Finland as Tenure Track Assistant Professor. Before joining Oulu University, he worked in the Department of Applied Physics at Aalto University-Finland for more than a decade in different positions. He moved to Finland in 2007 and completed his Masters in Micro and Nanotechnology from Helsinki University of Technology. After that, he joined New Energy Technologies Research Group at Department of Applied Physics at Aalto University-Finland and completed his doctoral degree in Advanced Energy Systems. His scientific ideas have received nearly 2 ME funding from prestigious funding organizations such as Academy of Finland and Business Finland. He is presently the author of nearly 30 scientific publications, which has received more than 700+ citations.

Recent Publication

1. Ghufuran H, Martineau D, Grätzel M (2016) Air processed inkjet

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