Contribution ID: **468** Type: **Oral**

Utilization of PbI_2 recycle for perovskite solar cell fabrication

Tuesday 22 May 2018 10:00 (15 minutes)

Perovskite solar cells have several advantages over traditional solar cells such as the ability to control the film morphology during the deposition and crystallization of the perovskite layer. The efficiency of perovskite solar cells can be modified using physical and chemical techniques to achieve better efficiencies. In this paper, we study the fabrication of typical inverted structure perovskite solar cell using PbI_2 recycle. The optimization condition of PbI_2 recycle based perovskite solar cell is reported with the maximum power conversion efficiency of 4.14% which is comparable to the cell made by fresh PbI_2. Out finding has shown the potential of reuse PbI_2 precusor which eventually leads to cost reduction in perovskite solar cell fabrication.

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Session Classification: A14: Environment

Track Classification: Environmental Physics, Atmospheric Physics, Geophysics and Renewable Energy