

Supporting information

Tuning the crystal-growth of perovskite thin-films by adding 2-pyridylthiourea additive for highly efficient and stable solar cells prepared in ambient air

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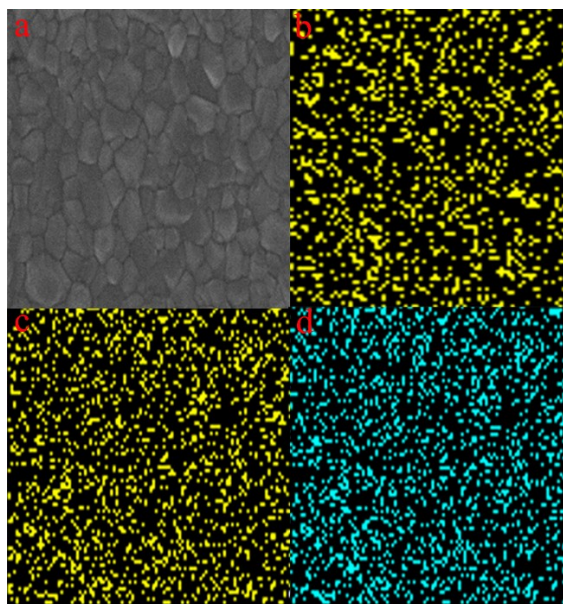


Figure S1 (a)The surface SEM image of perovskite thin film with 2-pyridylthiourea at 0.5 mg mL⁻¹ on FTO; its EDS elemental mapping of (b) I, (c) S and (d) Pb.

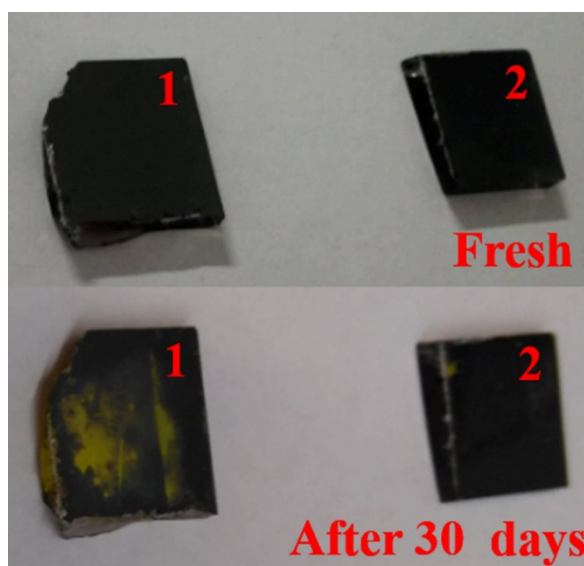


Figure S2 The pictures of the corresponding thin films under ambient atmosphere with a relative humidity of 55±5 % at room temperature after aging for 30 days. 1: perovskite; 2: perovskite with 2-pyridylthiourea.

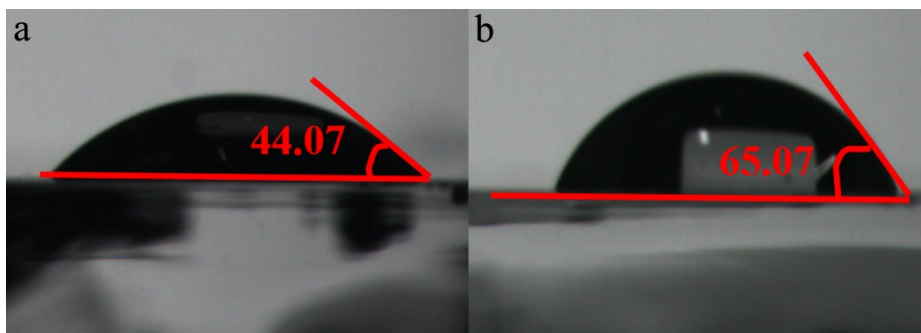


Figure S3 The contact angles between H₂O and (a) perovskite thin film, (b) perovskite thin film with 2-pyridylthiourea.