

Supporting Information

Impact of the hole-transport layer materials on the field-induced degradation of p-i-n perovskite solar cells

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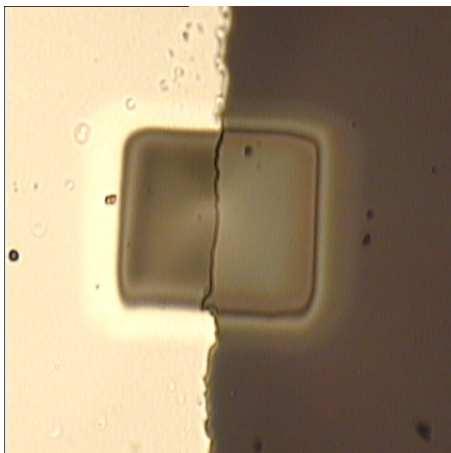
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Table S1. The techniques and conditions used for deposition of HTM films

HTM	Deposition technique	Conditions
PEDOT:PSS	Spin-coating	A thin layer of PEDOT: PSS (Clevios, PH 1000) was prepared by spin-coating the PEDOT: PSS solution filtered through a 0.45 μm poly(tetrafluoroethylene) (PTFE) filter at 3000 rpm for 40 s on the cleaned ITO substrates. Subsequently, PEDOT: PSS films was baked at 165 $^{\circ}\text{C}$ for 15 min in the air.
PTAA	Spin-coating	2.5 mg/ml solution in chlorobenzene, 4500 rpm, glove box
NiO _x	Spin-coating	A colloidal solution of NiO _x nanoparticles (~ 3 mg/ml) was deposited at 6000 rpm for 30 s and the resulting film was annealed at 150 $^{\circ}\text{C}$ for 15 min. in air.

a



b

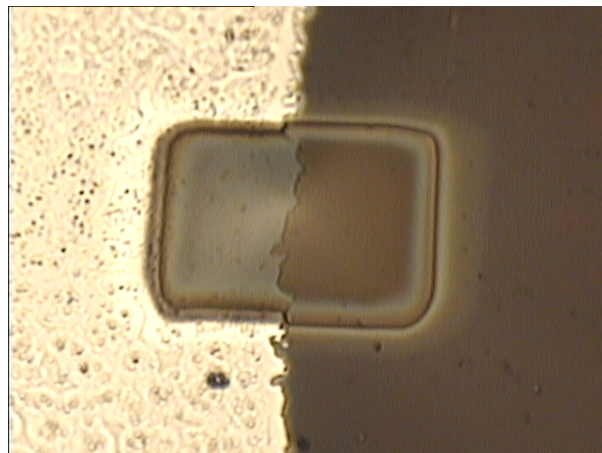


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