

Supporting information for

Synthesis of SnO₂ nanofibers and nanobelts electron transporting layer for efficient perovskite solar cells

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Fig. S1 Hysteresis analysis of SnO₂ nanofibers and nanobelts

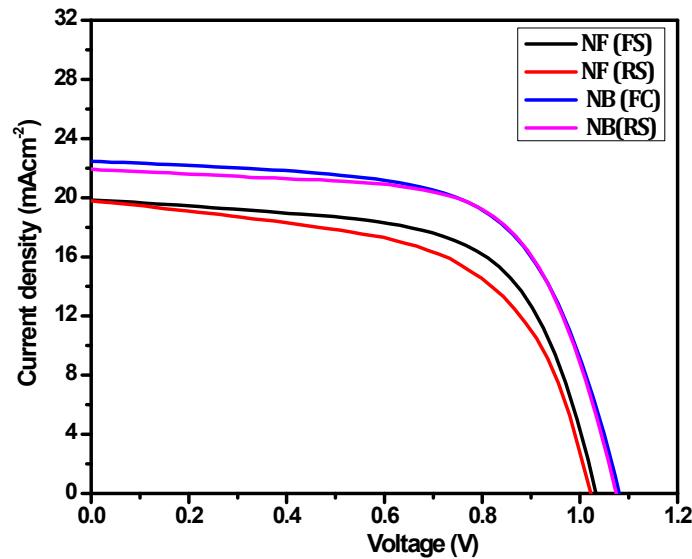
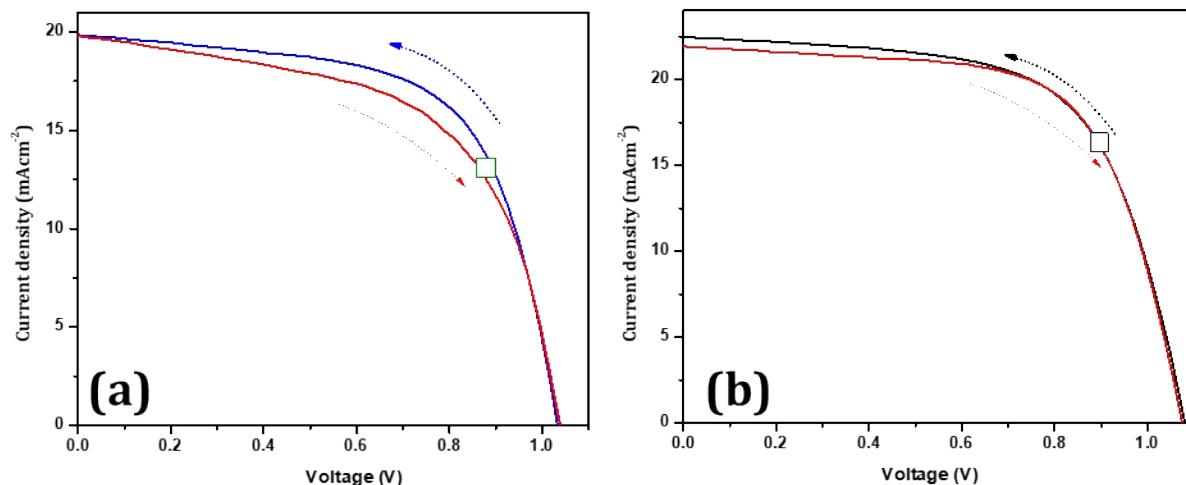


Figure S2. Analysis of steady-state photocurrent. Hysteresis analysis of PSC based on SnO₂ ETL. The square symbols that lies between the two curves represents the stabilized photocurrent near the maximum power point as measured by holding the device at constant voltage under illumination for 50 s in ambient conditions.



Reference

[1] H. J. Snaith, A. Abate, J. M. Ball, G. E. Eperon, T. Leijtens, N. K. Noel, S. D. Stranks, J. T.-W. Wang, K. Wojciechowski, W. Zhang, Anomalous Hysteresis in Perovskite Solar Cells. *J. Phys. Chem. Lett.* 2014, 5, 1511–1515 – 2691

[2] H. J. Snaith, A. Abate, J. M. Ball, G. E. Eperon, T. Leijtens, N. K. Noel, S. D. Stranks, J. T.-W. Wang, K. Wojciechowski, W. Zhang, Anomalous Hysteresis in Perovskite Solar Cells. *J. Phys. Chem. Lett.* 2014, 5, 1511–1515. – 2691

Table S1 Solar cell parameters measured for their forwards and reverse scan.

SnO ₂ ETL	Scan direction	J _{SC} (mA cm ⁻²)	V _{OC} (V)	FF	PCE (%)
NFs	Forward	1.021	19.78	0.59	11.92
	Reverse	1.032	19.83	0.63	12.892
NBs	Forward	21.94	1.075	0.63	14.86
	Reverse	22.46	1.081	0.66	16.02

Figure S3 Long-term stability of SnO₂ ETLs based PSCs for respective morphology (a) V_{OC} (b) J_{SC} (c) FF, and (d) PCE values as a function time (days) stored in nitrogen filled glove box at room temperature.

