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Supporting Information

Reduction and oxidation of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) induced by methylamine (CH_3NH_2)-containing atmosphere for perovskite solar cells

Tiefeng Liu, Fangyuan Jiang, Jinhui Tong, Fei Qin, Wei Meng, Youyu Jiang, Zaifang Li and Yinhua Zhou*

Wuhan National Laboratory for Optoelectronics, and School of Optical and Electronic Information, Huazhong University of Science and Technology, Wuhan 430074, China

*Corresponding author. E-mail: yh_zhou@hust.edu.cn

Table S1. Device performance of TiO_2-based and PEDOT:PSS-based perovskite solar cells with anti-solvent or MA-treatment to prepare the perovskite absorbers. (The data is averaged from 10 devices and the effective device area is 10.91 mm^2)

Devices type	treatment	V_{OC}(V)	J_{SC}(mA/cm^2)	FF	PCE(%)
TiO_2-based	Anti-sovlent	1.01±0.04	17.57±0.41	0.64±0.03	11.33±0.45
	MA-treatment	0.99±0.03	17.38±0.51	0.63±0.04	11.03±0.41
PEDOT:PSS-based	Anti-sovlent	0.81±0.03	16.44±0.67	0.71±0.04	9.29±0.59
	MA-treatment	0.60±0.05	4.73±1.27	0.55±0.05	1.69±0.38

Figure S1. Device performance of perovskite solar cells with the structure of glass/ITO/PEDOT:PSS/perovskite/PCBM/PEI/Ag where the PEDOT:PSS films and perovskite films are treated in different ways.

Devices sample	Hole-transporting layer	The method of preparing perovskite layer
Device 1	MA-treated PEDOT:PSS	Anti-solvent
Device 2	Untreated PEDOT:PSS	MA-treatment
Device 3 (reference)	Untreated PEDOT:PSS	Anti-solvent