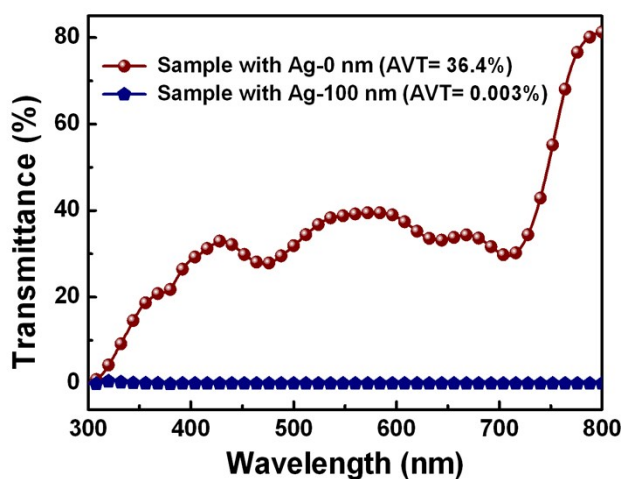


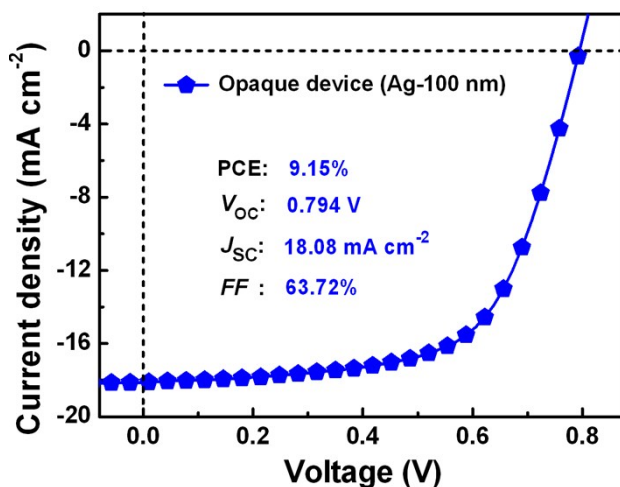
## Electronic Supplementary Information (ESI)

Long lifetime stable and efficient semitransparent organic solar cells using  
a ZnMgO-modified cathode combined with a thin MoO<sub>3</sub>/Ag anode

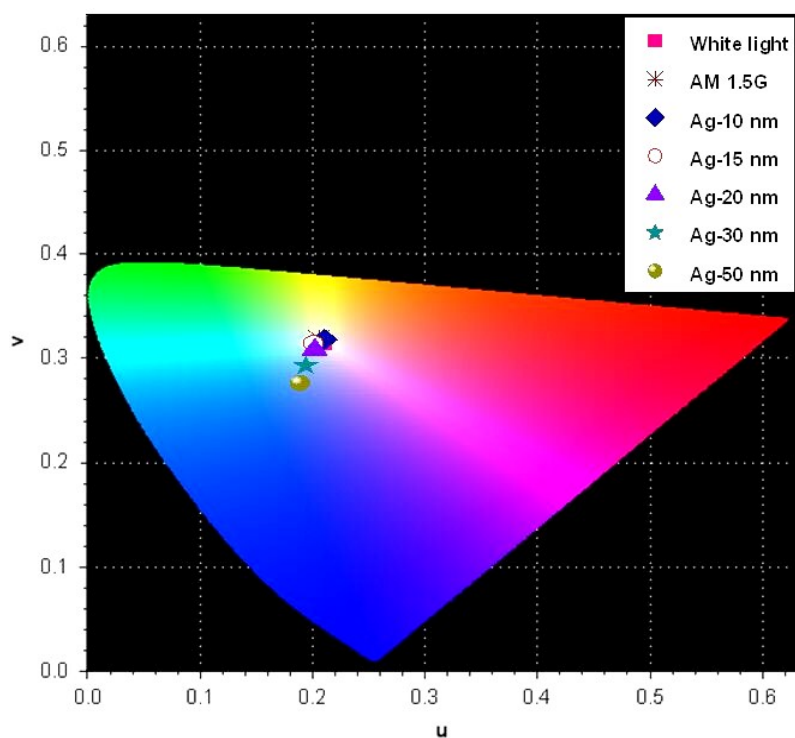
Zhigang Yin,<sup>ab</sup> Jiajun Wei,<sup>ab</sup> Shan-Ci Chen,<sup>a</sup> Dongdong Cai,<sup>a</sup> Yunlong Ma,<sup>ab</sup> Meng  
Wang<sup>ab</sup> and Qingdong Zheng<sup>\*a</sup>



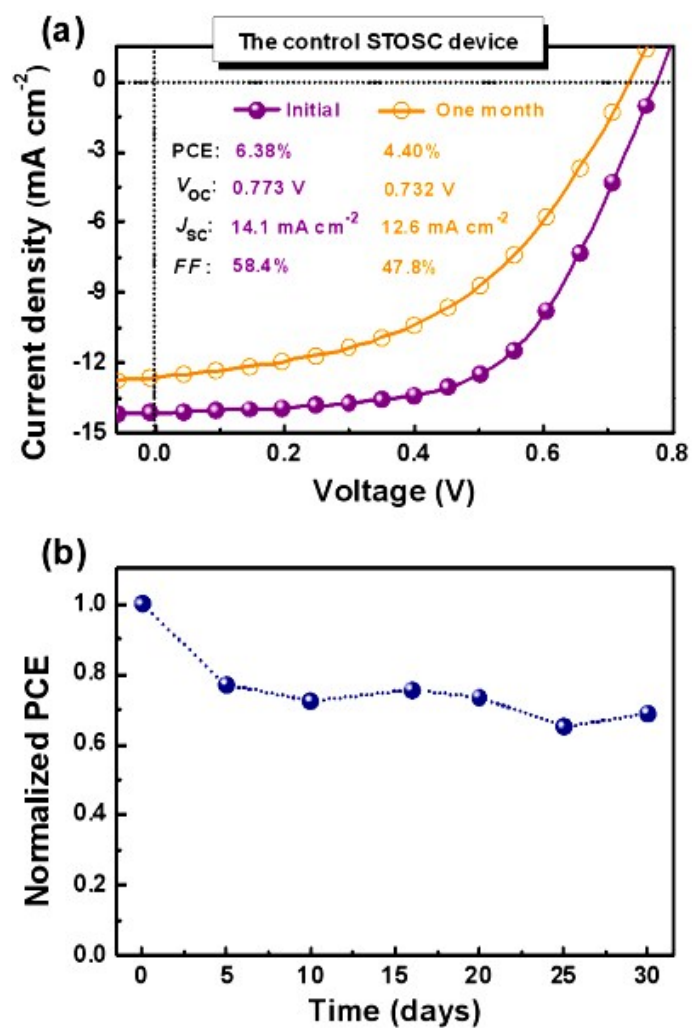
**Fig. S1** Transmission spectra for the device samples with Ag of 0 nm and 100 nm.



**Fig. S2** *J-V* curve of the opaque device using 100 nm-thick Ag in the anode.



**Fig. S3** Representation of color coordinates on the CIE 1960 UCS chromaticity diagram of the STOSCs based on the ZnMgO-modified cathode and the Ag anode with different thicknesses.



**Fig. S4** Device performance of the control STOSC device with the structure of ITO/PFN/PTB7-Th:PC<sub>71</sub>BM/MoO<sub>3</sub>/Ag-15 nm. (a) *J*-*V* curves under AM 1.5G irradiation (100 mW cm<sup>-2</sup>), and (b) Stability of the device as a function of storage time under ambient conditions.