

Supporting Information

Colored Semitransparent Polymer Solar Cells with Power Conversion Efficiency of 9.36 % by Controlling Optical Tamm State

Ping Shen,^a Mengnan Yao,^a Junshi Liu,^a Yongbing Long,^{*b} Wenbin Guo,^a
Liang Shen^{*a}

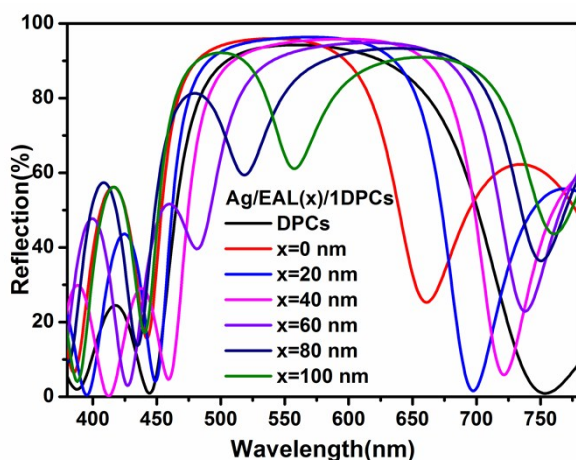


Fig. S1 Simulated reflection of Ag/EAL/1DPCs by TMM.

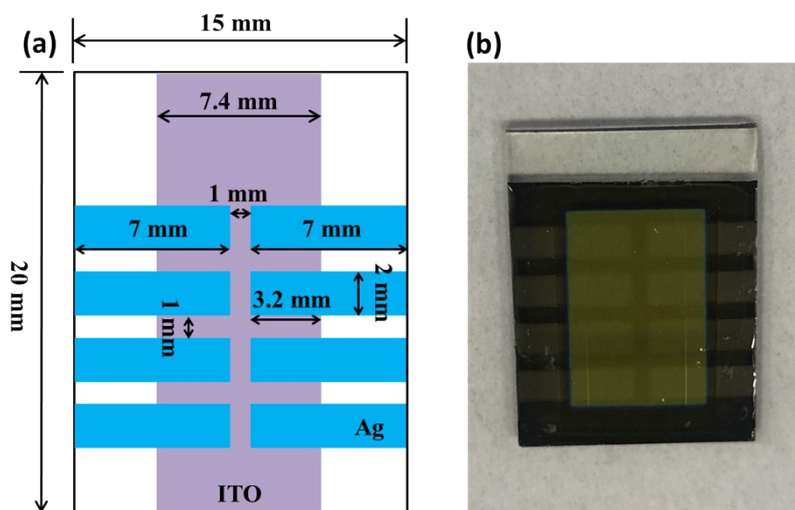


Fig. S2 (a) The sketch map of glass substrate with detail sizes and active area of the eight cells; (b) the picture of real ST-PSCs with EAL and 1DPCs.

Table S1: Summary of some representative ST-PSCs performance including device structure,

PCE and AVT

Device Structure	PCE (%)	AVT (%)	Ref.
ITO/PFN/PTB7-Th:PC ₇₁ BM/MoO ₃ /Ag /EAL/[WO ₃ /LiF] ⁵	9.36	14.31	This work
ITO/ZnO/C ₆₀ -SAM/PBDTTT-C-T:PC ₇₁ BM/MoO ₃ /Ag	6	25	11
Glass/graphene/PEDOT:PSS/ZnO-NP/PTB7:PC ₇₁ BM/PEDOT:PSS/Graphene	3.4	40	15
ITO/ZnO/PTB7-Th:FOIC/MoO ₃ /Au/Ag	10.3	37.4	22
ITO/ZnO/PTB7-Th:PC ₇₁ BM/MoO ₃ /(Au/Ag)/[MoO ₃ /LiF] ⁶	7.0	12.2	28
ITO/PFN/PTB7-Th:PC ₇₁ BM/MoO ₃ /Ag+Au NPs/Ag/ photonic crystal	7.07	20.38	29
ITO/C ₆₀ :NDNI/C ₆₀ /F4-ZnPc:C ₆₀ /DiNPB/DiNPB:NDP9/C ₆₀ :NDN1/C ₆₀ /DCV6T:C ₆₀ /BPAPF/BPAPF:NDP9/DiNPB:NDP9/C ₆₀ :NDN1/Al/Ag/Alq ₃	4.9	24	42
PET/ITO/TiO ₂ /C ₆₀ -SAM/PSEHTT:ICBA/PANI/Ag	6.87	36	43
ITO/ZnO/PBDTT-DPP:PC ₇₁ BM/MoO ₃ /Ag/Si NPs/Alq ₃	6.22	32	44
ITO/PEDOT:PSS/BDTT-S-TR:PC ₇₁ BM/ZnO/PDINO/AgNW	3.62	~30	45
ITO/TiO ₂ /PCDTBT:PC ₇₁ BM/WO ₃ /Ag/photonic crystal	5.31	25.1	46
ITO/PEDOT:PSS/PTB7:PC ₇₁ BM/bathocuproine (BCP)/ Ag/LiF/non-periodic photonic crystal	5.6	30	47
ITO/ZnO/PTB7-Th:ATT-2/MoO ₃ /Ag	7.7	37	48
ITO/PEDOT:PSS /PTB7-Th:IEICO-4Cl/PFN-Br/Au	8.38	25.7	49
ITO/ZnO/PTB7-Th:IHIC/MoO ₃ /Au/Ag	9.77	36	50