Electronic Supplementary Material (ESI) for Energy & Environmental Science.

Supporting Information

High efficiency solution processed polymer inverted triple-junction solar cell exhibiting conversion efficiency of 11.83%

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Table S1.

PSEHTT:$IC_{60}BA$ thickness (nm)	ETL	J_{SC} (mA/cm^2)	[a]J_{SC} (mA/cm^2)
70	LZO	10.10±0.01	9.85
80	LZO	10.65±0.02	10.02
90	LZO	10.25±0.01	9.96
100	LZO	9.55±0.01	9.12
80	ZnO	9.87±0.03	9.33
90	TiO_2	10.21±0.02	9.89

[a]Obtained from EQE spectra.

Table S2.

PTB7:$PC_{71}BM$ thickness (nm)	HTL	J_{SC} (mA/cm^2)	[a]J_{SC} (mA/cm^2)
90	MoO_3	14.86±0.01	14.22
100	MoO_3	15.54±0.02	15.01
110	MoO_3	15.42±0.02	14.98
120	MoO_3	15.24±0.03	14.91
80	WO_3	13.70±0.01	13.01
70	PEDOT:PSS	14.80±0.11	14.12

[a]Obtained from EQE spectra.

Table S3.

Structure	J_{SC} (mA/cm^2)	[a]J_{SC} (mA/cm^2)
Front Subcell	10.65±0.02	10.02
Bottom Subcell	15.54±0.02	15.01
Tandem Cell (M)[a]	10.30±0.01	9.94
Tandem Cell (C)[b]	10.88	-

[a]Obtained from EQE spectra.

Table S4.

PMDPP3T:$PC_{70}BM$ thickness (nm)	HTL	J_{SC} (mA/cm^2)	[a]J_{SC} (mA/cm^2)
110	LZO	17.10±0.01	16.84
120	LZO	17.51±0.01	16.96
130	LZO	16.68±0.03	16.12
140	LZO	14.40±0.02	14.13
120	TiO_X	16.33±0.02	16.01
130	GO	16.93±0.02	16.24

[a]Obtained from EQE spectra.

Table S5.

Configuration	J_{SC} (mA/cm^2)	[a]J_{SC} (mA/cm^2)
Front Subcell	8.10±0.02	7.88
Middle Subcell	8.00±0.02	7.84
Bottom Subcell	7.94±0.03	7.23
Tandem (M)	10.30±0.01	9.94
Tandem (C)	10.88	-
Triple (M)	7.83±0.03	7.45
Triple (C)	7.93	-

[a]Obtained from EQE spectra.