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Supplementary Information

High Performance Polymer Solar Cells Employing a Low-temperature Solution-processed Organic-inorganic Hybrid Electron Transport Layer

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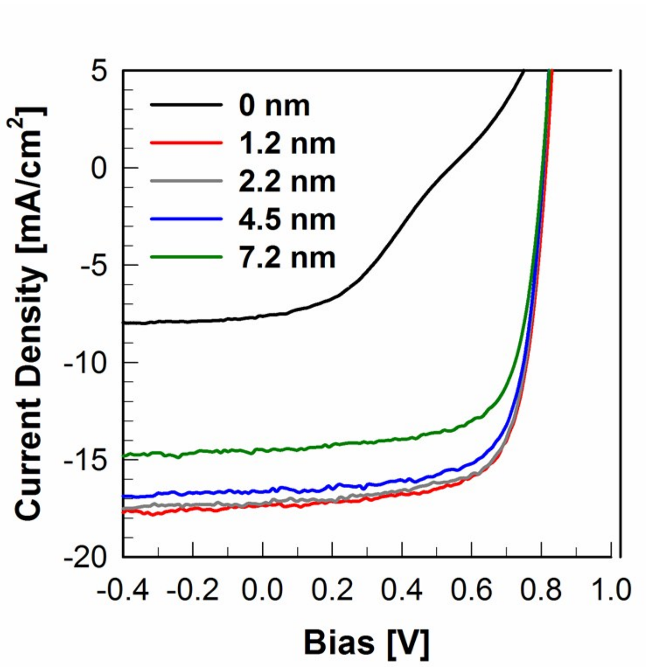

Figure S1. J–V curves of the devices with different thickness of PEIE-LiQ.

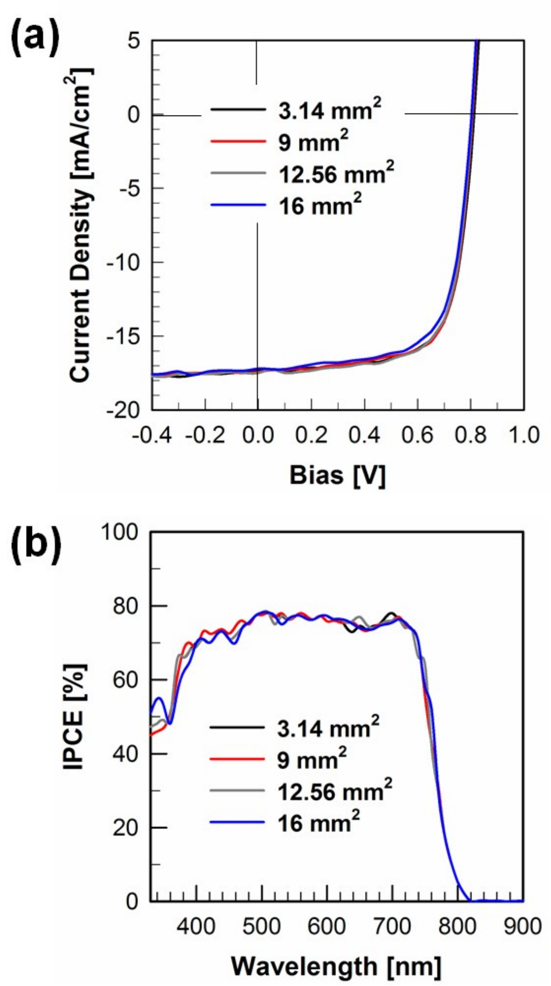

Figure S2. (a) J–V curves, (b) IPCE spectra of the devices with different active area.

Table S1. Electrical conductivity of the ETLs studied in this work.

ETL	Conductivity [S/cm]
PEIE	-
LiQ	1.25×10^{-4}
PEIE-LiQ	5.53×10^{-5}

Table S2. Photovoltaic parameters of the devices with different thickness of PEIE-LiQ.

PEIE-LiQ thickness [nm]	V_{OC} [V]	J_{SC} [mA/cm^2]	FF	PCE [%]
0	0.54	7.63	0.39	1.52
1.2	0.81	17.32	0.72	10.10
2.2	0.81	17.24	0.71	9.91
4.5	0.81	16.62	0.71	9.56
7.2	0.80	14.47	0.69	7.99

Table S3. Photovoltaic parameters employing PEIE-LiQ as an ETL at different active area.

Active area [mm^2]	V_{OC} [V]	J_{SC} [mA/cm^2]	FF	PCE [%]
3.14	0.81	17.32	0.72	10.10
9.00	0.81	17.35	0.71	9..98
12.56	0.80	17.25	0.71	9.80
16.00	0.80	17.20	0.70	9.61