Electronic supplementary information (ESI) for

Synthesis and Characterization of Indeno[1,2-b]fluorene-based
Low Bandgap Copolymers for Photovoltaic Cells

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Figure S1. $^1$H NMR spectra of PIF-DBT35 (a), PIF-DBT50 (b), PIF-DTP35 (c), and PIF-DTP50 (d).

Figure S2. Normalized PL spectra of polymers in different solvents.
Figure S3. FET Output characteristics of the copolymers.
Figure S4. IPCE spectra of the devices with configuration of ITO/PEDOT:PSS/PIF-polymer:PC$_{61}$BM/Al.

Figure S5. IPCE characteristics of the device, ITO/PEDOT:PSS/PIF-DBT$_{50}$:PC$_{71}$BM/Al.