

Supplementary Material

A N-type Naphthalene Diimide Ionene Polymer as Cathode Interlayer for Organic Solar Cells

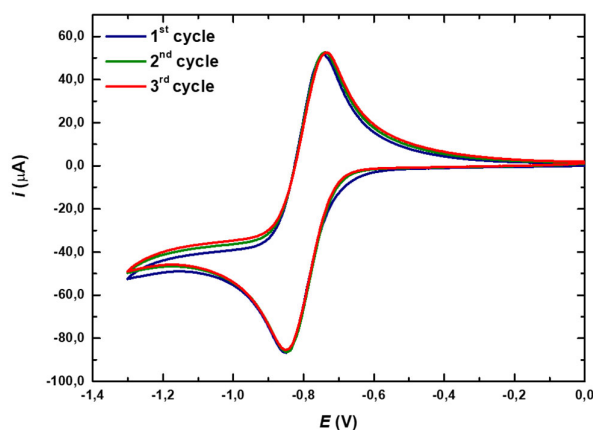


Figure S1. Cyclic voltammetry of NDI-OH in ACN (potential vs. Ag/AgCl).

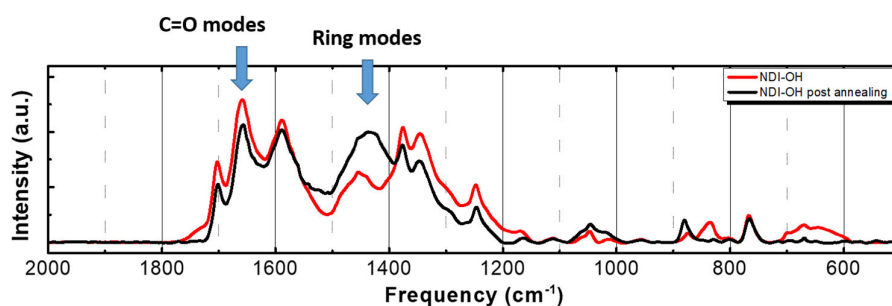


Figure S2. FTIR spectra of NDI-OH films without and with annealing.

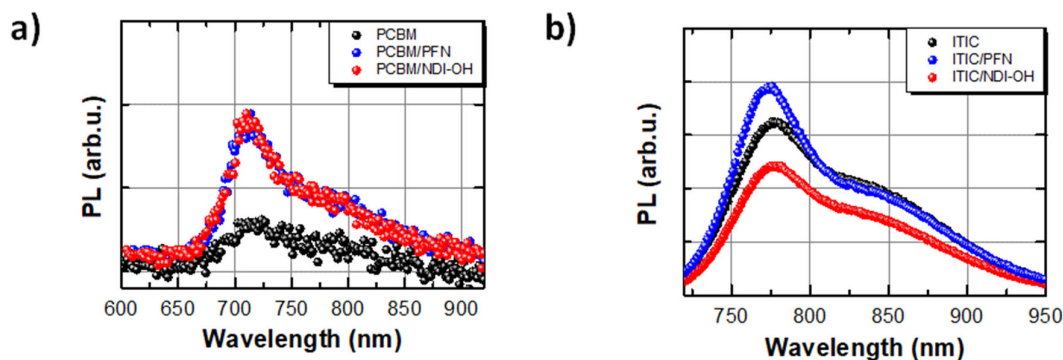


Figure S3. Steady state photoluminescence for PC₇₁BM/ILs film (a); excitation wavelength 500 nm. Steady state photoluminescence for ITIC/ILs film (b); excitation wavelength 700 nm.

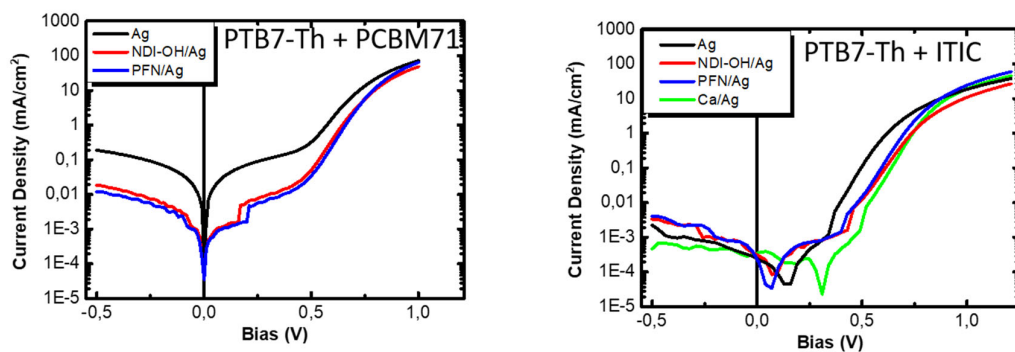


Figure S4. J-V curves in dark conditions of the devices. FA-based (left) and NFA-based PSCs (right).

Table S1. Thicknesses are an average out of 4 measurements of the glass/NDI-OH spin coated samples. Figure of merit values are an average out of 6 pixels each thickness.

NDI-OH Thickness [nm]	V _{oc} [V]	FF	J _{sc} [mA/cm ²]	PCE [%]
35	0,77	0,45	13,49	4,73
22	0,76	0,49	13,59	5,03
15	0,76	0,50	13,45	5,06
12	0,76	0,49	13,58	5,10
<10	0,77	0,50	13,68	5,22