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Electronic Supplementary Information

High efficient organic photovoltaic devices utilizing work-function tuned graphene oxide as the anode and cathode charge extraction layer

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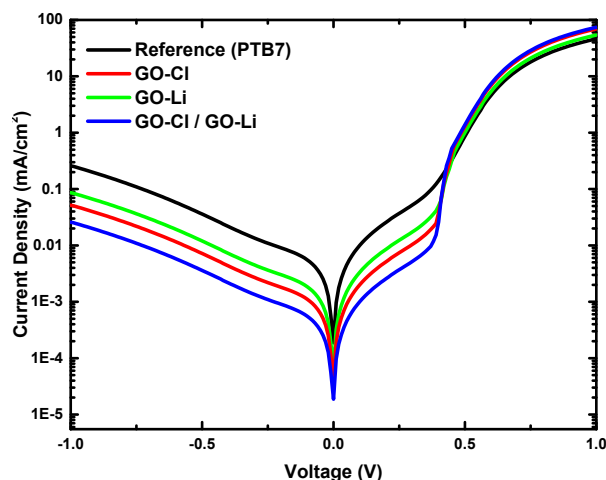


Figure S1. Dark J-V characteristics of PTB7:PC₇₁BM-based photovoltaic devices incorporating graphene-based HT and ET layers.

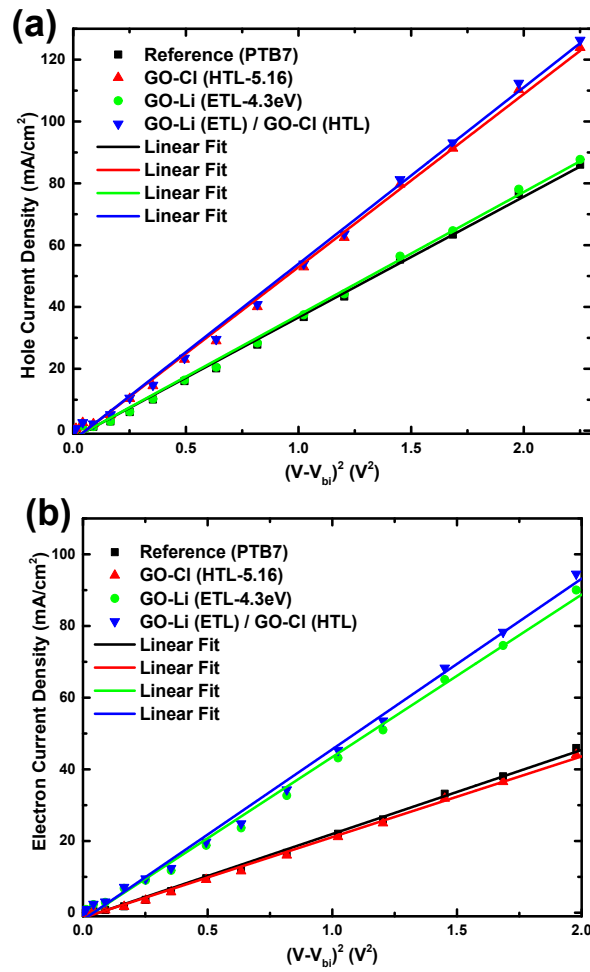


Figure S2. J - V^2 characteristics under dark conditions of the fabricated devices for the calculation of (a) hole and (b) electron mobilities using the Mott–Gurney equation

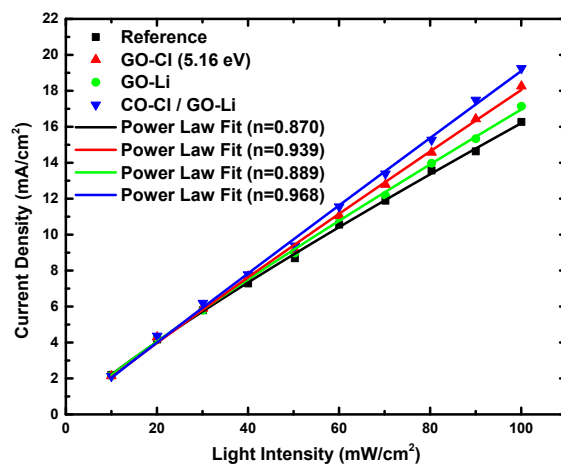


Figure S3. Measured J_{sc} of PTB7:PC₇₁BM BHJ OPVs using different combination of buffer layer plotted against light intensity (symbol) and fitted power law (line) yield n .

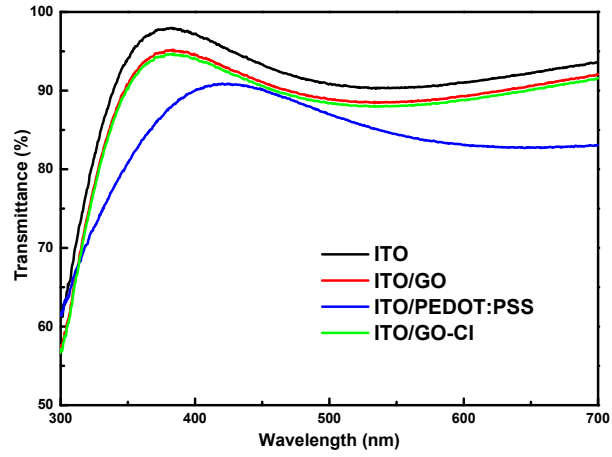


Figure S4. Transmission spectra of PEDOT:PSS, GO, GO-CI coated ITO substrates.

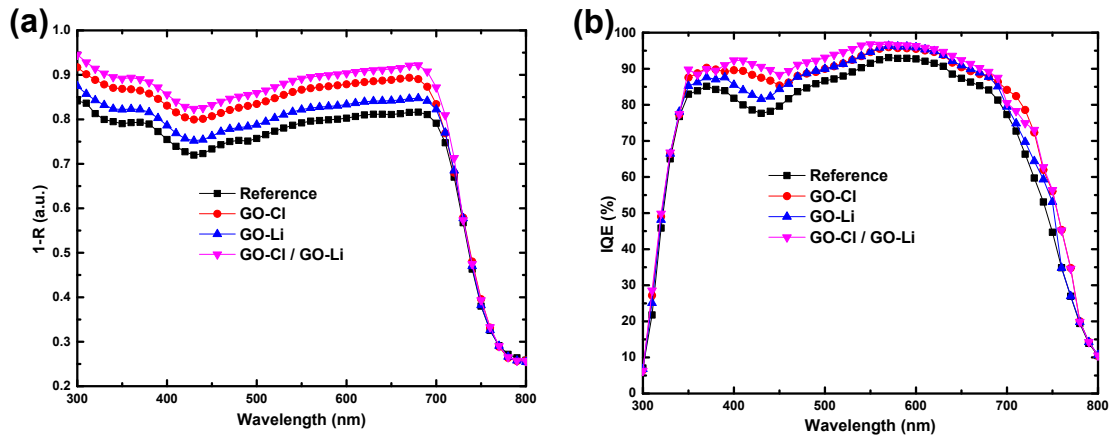


Figure S5. a) Reflected absorption spectra of the different devices tested b) Internal quantum efficiency of the devices assuming perfect reflection of the back electrode.