

Supporting Information:

Modifications in Morphology Resulting from Nanoimprinting Bulk Heterojunction Blends for Light Trapping Organic Solar Cell Designs

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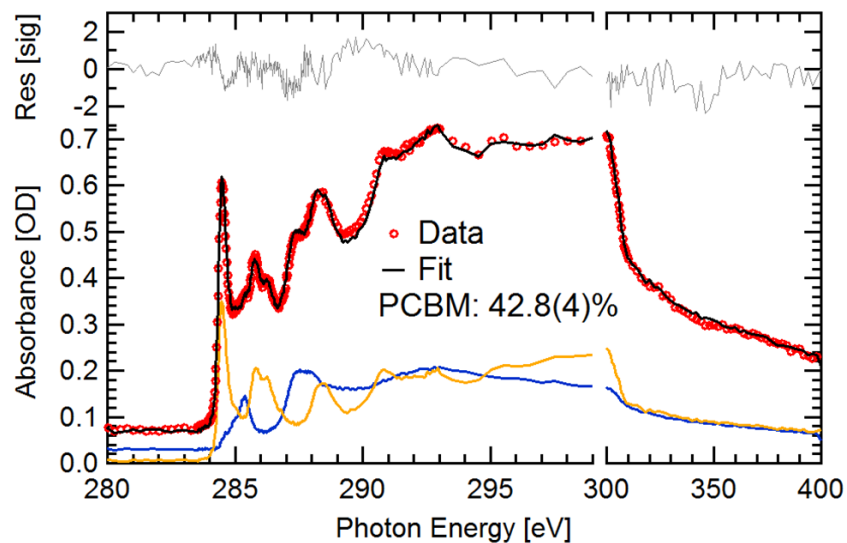


Figure S1. STXM composition fit of spuncast RReg P3HT:PCBM photoactive layer with 1:0.8 wt. ratio, or 44.4% PCBM by weight. The composition fit gave 42.8% by weight. Instead of taking a stack of images as for the nanopatterned samples, a line scan was acquired.

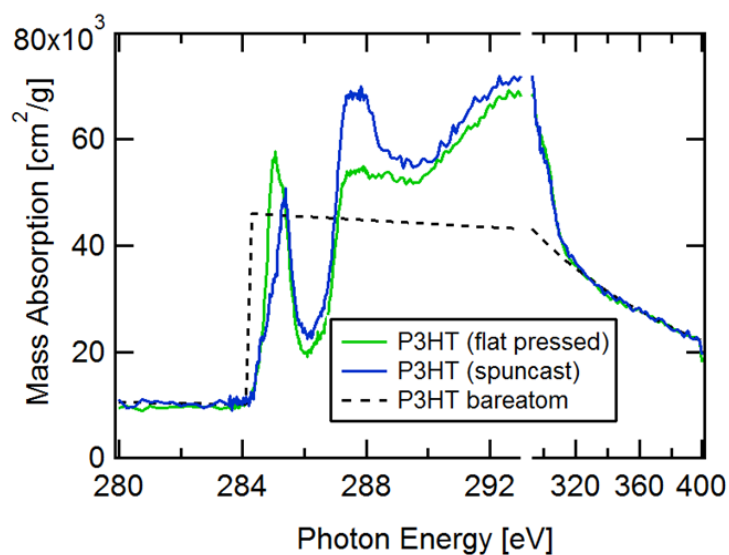


Figure S2. Mass absorption of RReg P3HT films spuncast and films spuncast and pressed with a flat PFPE mold. The additional peak for the flat pressed spectra is likely due to residual PSS that is pressed into the film since there is an absorption feature for PSS at ~285.0 eV.

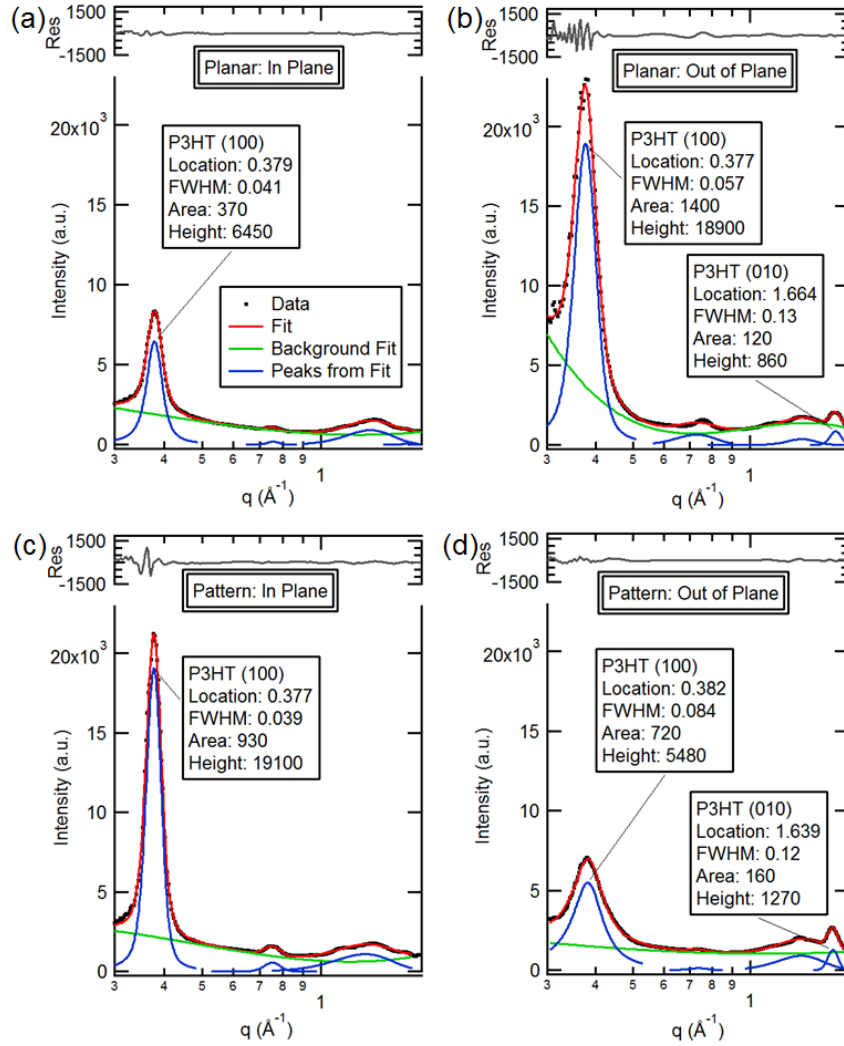


Figure S3. Multi-peak fits to in plane and out of plane sector averages from GIWAXS data (Fig. 4 of main text). Gaussians are used for all peaks except (100) P3HT peak, which is fit with a Voigt peak. A log-cubic background is simultaneously fit with the peak parameters. The location, FWHM, peak area, and peak height are shown for all (100) P3HT peaks and the out of plane (010) P3HT peaks. The ratio of in plane to out of plane (100) peak intensities and areas is 10 times and 5 times greater, respectively, for the nanopatterned compared to the non-patterned, planar sample. This indicates that polymer crystals are comparatively more face-on with respect to the substrate for the nanopatterned compared to the reference sample.