

Optimisation of diketopyrrolopyrrole:fullerene solar cell performance through control of polymer molecular weight and thermal annealing.

Zhenggang Huang, Elisa Collado Fregoso, Stoichko Dimitrov, Pabitra Shakya Tuladhar, Ying Woan Soon, Hugo Bronstein, Iain Meager, Weimin Zhang, Iain McCulloch, James R. Durrant*

Centre for Plastic Electronics, Department of Chemistry, Imperial College London, London SW7 2AZ, U.K.

Correspondence email: j.durrant@imperial.ac.uk

Supporting information

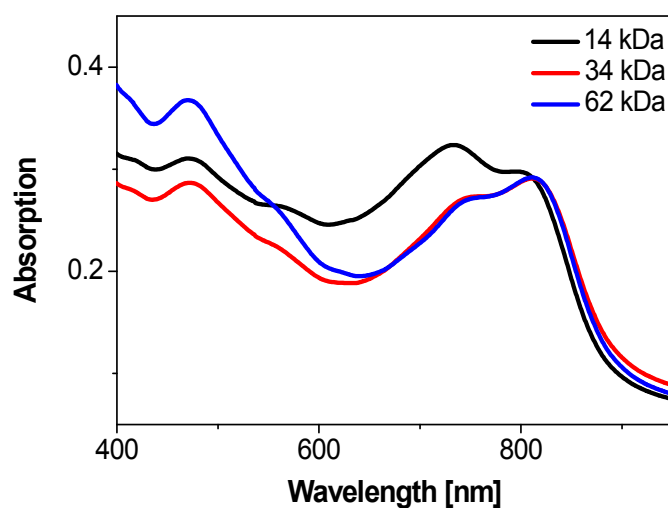


Figure S1: The UV/vis absorption of DPPTT-T:PC₇₁BM thin films with varying polymer molecular weight.

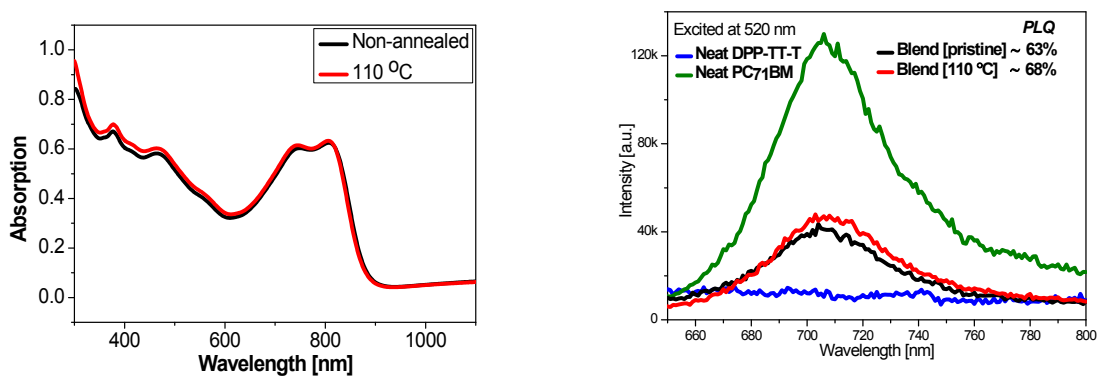


Figure S2: The UV/vis absorption (left) of the non-annealed (black) and annealed (red) DPPTT-T:PC₇₁BM films and the corresponding photoluminescence spectrum excited at 520 nm (right).

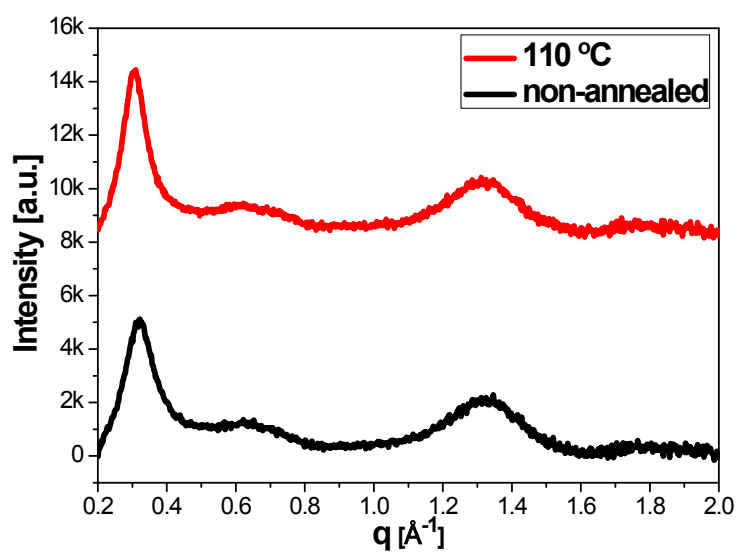


Figure S3: WAXS measurements of pristine (black) and annealed (red) DPPTT-T:PC₇₁BM (1:2) films.

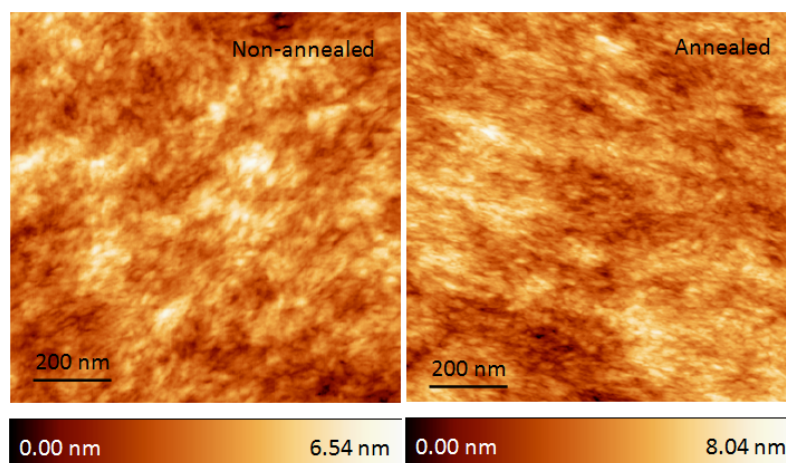


Figure S4: Topography images of DPPTT-T:PC₇₁BM (1:2) films (before and after annealing at 110 °C for 10 minutes) measured by atomic force microscopy.