Supplementary Information

Neat C_{60}:C_{70} buckminsterfullerene mixtures enhance polymer solar cell performance

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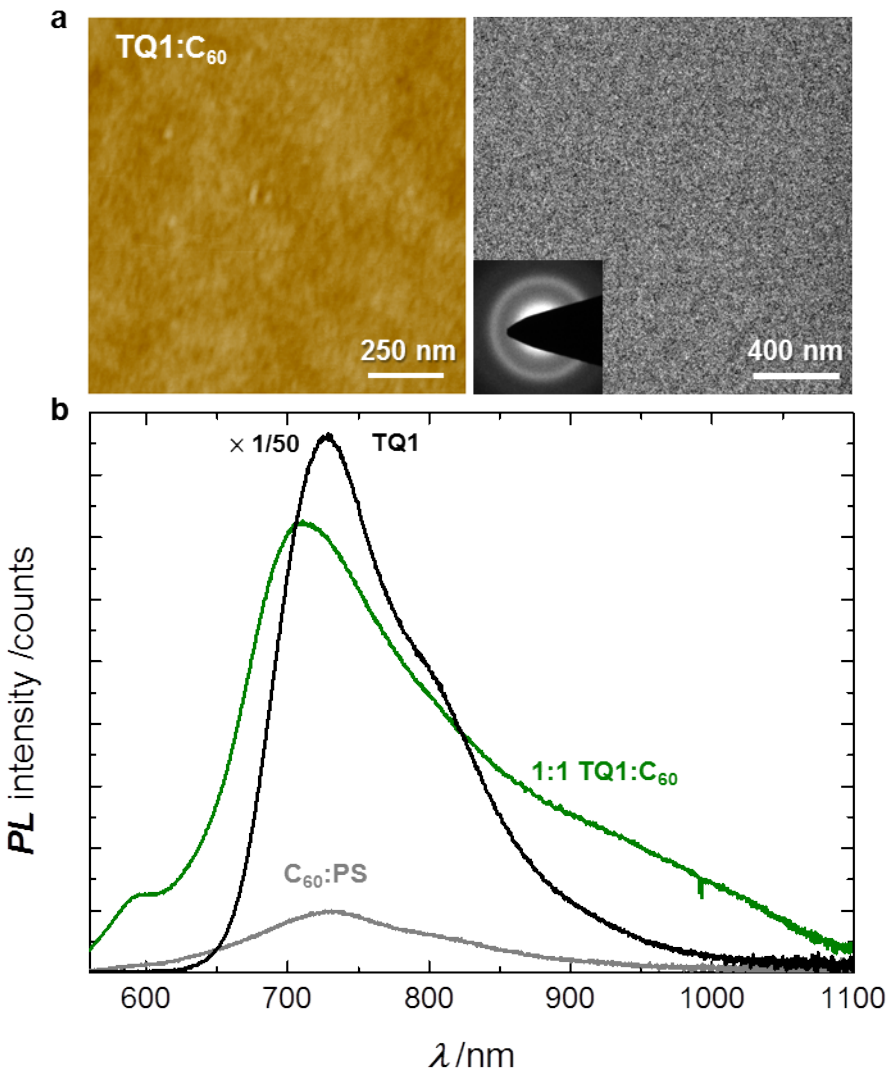

Figur

e S1. (a) AFM height image and TEM bright field image of a 1:1 TQ1:C_{60} film; inset: SAED pattern; (b) Photoluminescence (PL) spectra of a neat TQ1 film (black, signal reduced 50 times), 1:1 C_{60}:PS (grey) and 1:1 TQ1:C_{60} (green). Note that neat C_{60} was spin coated together with polystyrene (PS) to ease film formation.

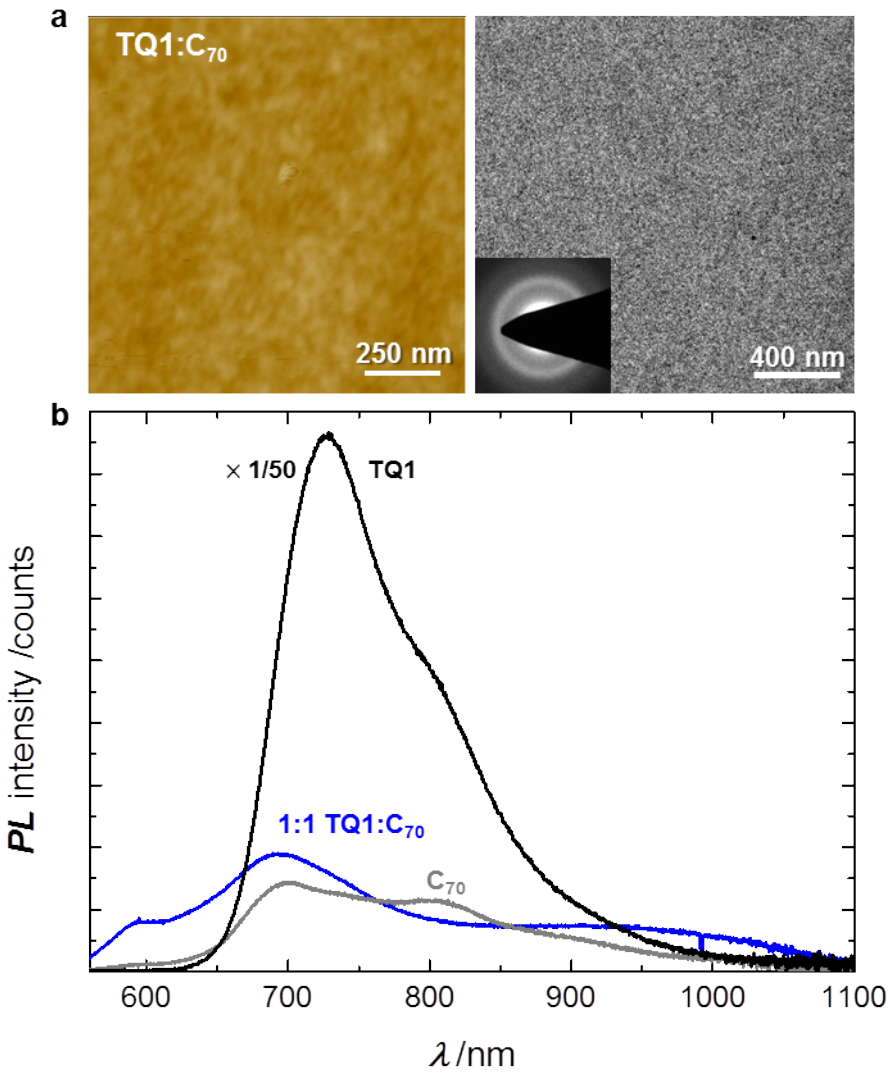

Figure S2. (a) AFM height image and TEM bright field image of a 1:1 TQ1:C_{70} film; inset: SAED pattern; (b) Photoluminescence (PL) spectra of a neat TQ1 film (black, signal reduced 50 times), C_{70} (grey) and 1:1 TQ1:C_{70} (blue).

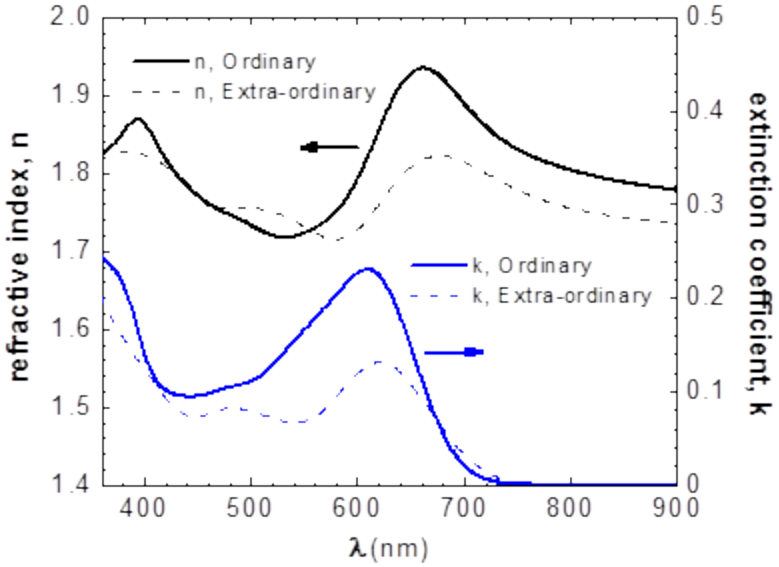

Figure S3. Ordinary and extra-ordinary refractive index *n* and extinction coefficient *k* obtained by modelling variable-angle spectroscopic ellipsometry (VASE) spectra of a 225 nm thick 2:1:1 TQ1:C_{60}:C_{70} film on a Si substrate with ~1 nm native oxide.

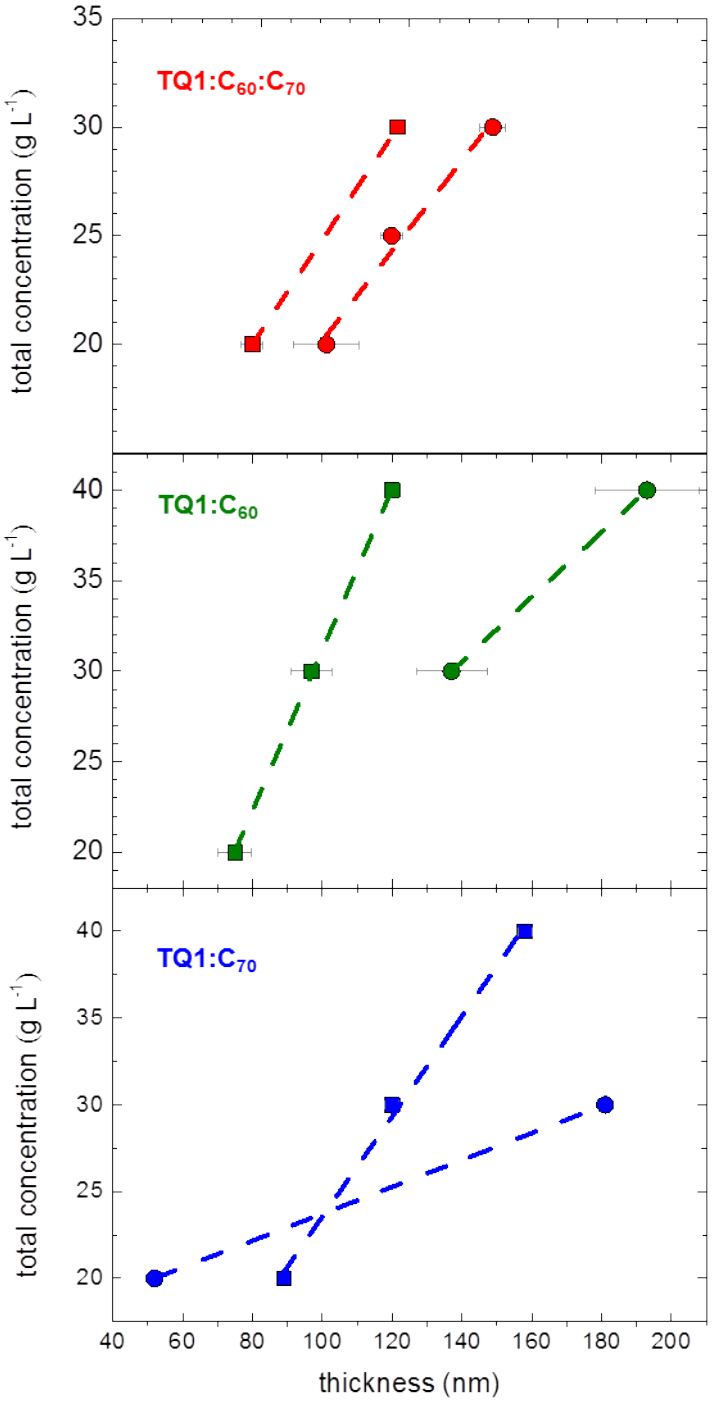

Figure S4. Active layer thickness as a function of total solution concentration for 2:1:1 TQ1:C_{60}:C_{70} (red), 1:1 TQ1:C_{60} (green) and1:1 TQ1:C_{70} (blue) for 1000 rpm (cubes) and 500 rpm (circles) spin-coating speeds.