Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics

Polymer-Regulated Epitaxial Crystallization of Methanofullerene on Mica

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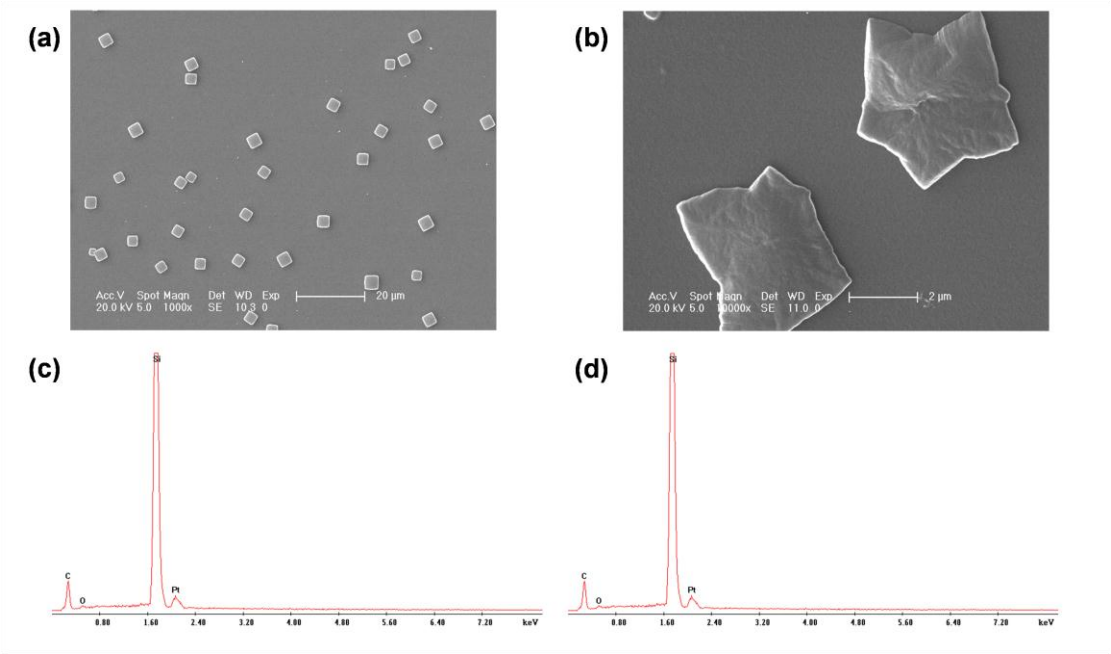

Fig. S1. (a, b) SEM images and (c-d) EDX spectra of (a, c) square and (b, d) polygonal crystals. The absence of sulfur singals in the EDX spectra of Fig. c and d indicates that the crystals showed in Fig. a and b are not P3HT, but PCBM crystals.

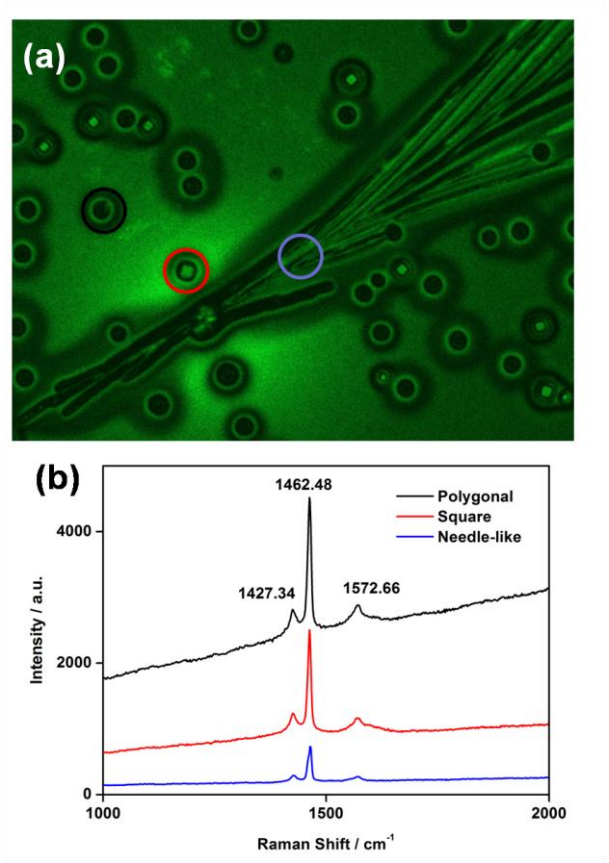

Fig. S2. (a) Optical microscopy image and (b) laser confocal Raman spectra of the (black) polygonal, (red) square and (blue) needle-like crystals showed in Fig. a. The three peaks located at 1427.34, 1462.48 and 1572.66 cm^{-1} agree well with the Raman signals reported in the literature [1].

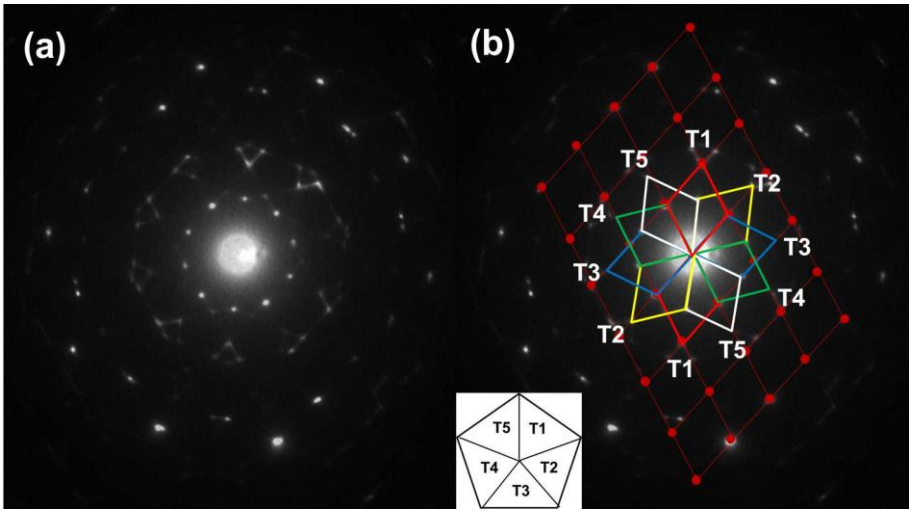

Fig. S3. (a) The original and the corresponding (b) indexed SAED patterns of PCBM crystals showing their five-fold twinned structure.

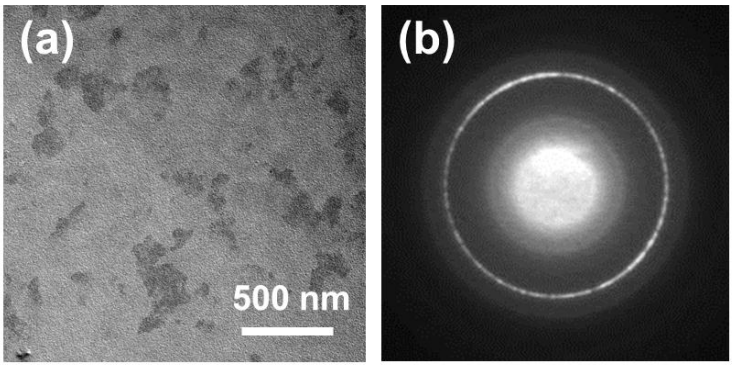

Fig. S4. (a) TEM image and the corresponding (b) SAED pattern of the glass-supported PCBM film after it was thermal annealed at 180 °C for 30 min.

Reference:

[1] Falke, S.; Eravuchira, P.; Materny, A.; Lienau, C. Raman spectroscopic identification of fullerene inclusions in polymer/fullerene blends. Journal of Raman Spectroscopy 2011; 42(10):1897-900.