Electronic Supplementary Material (ESI) for RSC Advances.

Organic transistors based on airbrushed small molecule- insulating polymer blends with mobilities exceeding 1 cm2/Vs

T. Kaimakamis,[a] C. Pitsalidis,[ab†] A. Papamichail,[a] A. Laskarakis,[a] and S. Logothetidis [a†]

[a] Laboratory for Thin Films, Nanosystems and Nanometrology (LTFN), Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece

[b] Department of Bioelectronics, Ecole Nationale Superieure des Mines, CMP-EMSE, MOC, 13541 Gardanne, France

[†] Corresponding authors: Charalampos Pitsalidis, S. Logothetidis

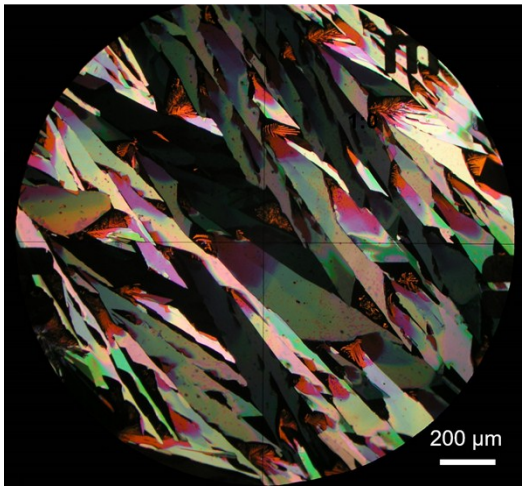

Fig. S1 Polarized optical microscopy (POM) image of airbrushed TIPS-PEN film on HMDS treated SiO2/Si substrates.

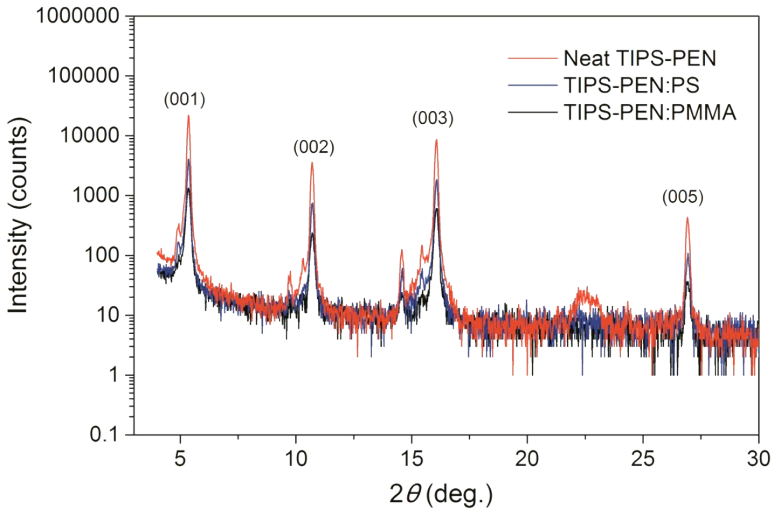

Fig. S2 Comparative XRD spectra of neat TIPS-PEN, TIPS-PEN :PMMA, TIPS-PEN :PS airbrushed films.

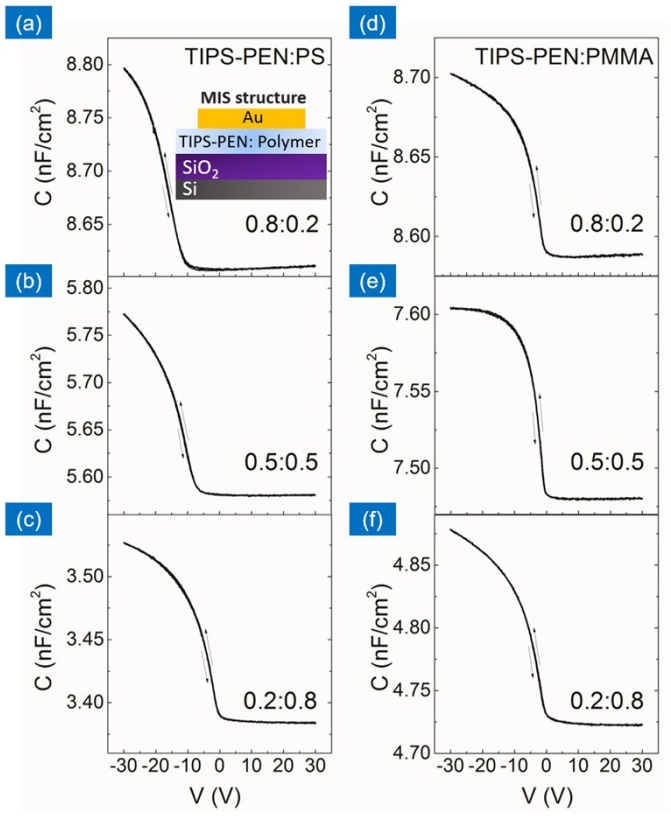

Fig. S3 Capacitance-voltage (C-V) diagrams of MIS capacitors based on airbrushed (a-c) TIPS-PEN :PS and (d-f) TIPS -PEN:PMMA blends for the different ratios respectively.

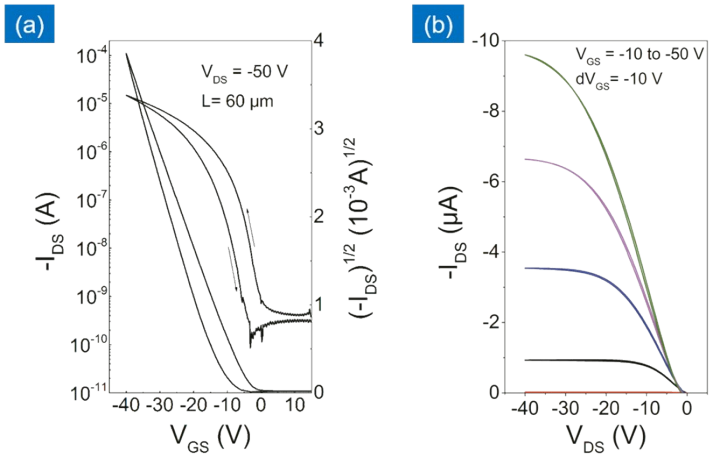

Fig. S4 (a) Transfer and (b) output I-V characteristics of airbrushed OFETs based on neat TIPS-PEN.

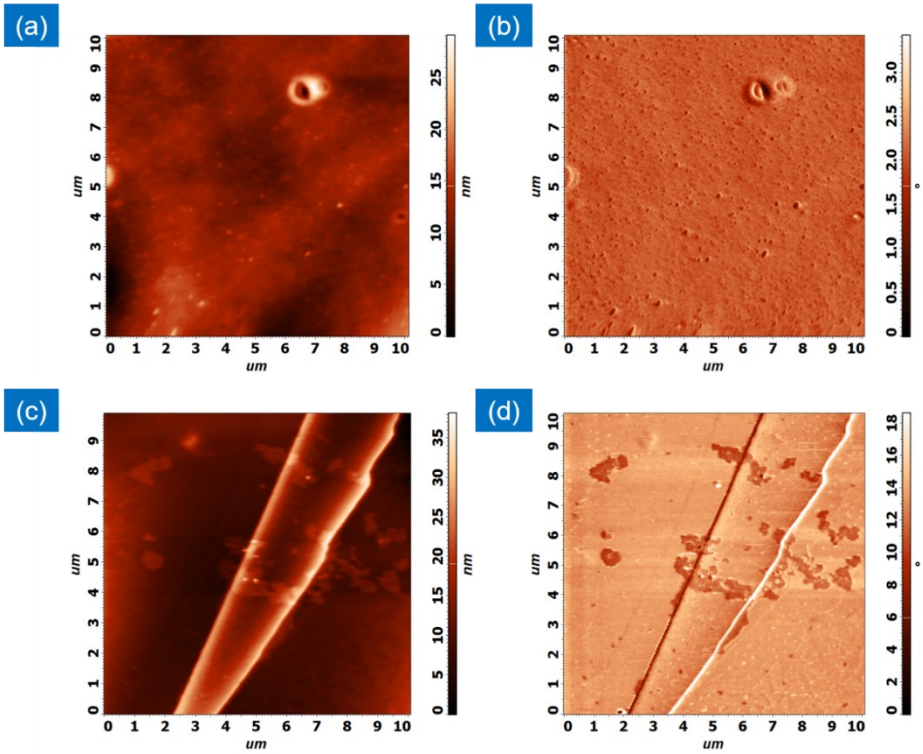

Fig. S5 AFM topography and phase images of the (a,b) TIPS-PEN :PS and (c,d) TIPS-PEN :PMMA airbrushed films after selective etching of TIPS-PEN using cyclohexane. The weight fraction ratio of the blends is 0.8:0.2.