

### Supplementary Information

"Growth, Morphology and Structure of Mixed Pentacene Films", Daphné Lubert-Perquel *et al.*

#### Note 1

A raw  $\omega$ -scan of the 100 % pentacene sample was taken at the position of bulk polymorph,  $2\theta = 12.4^\circ$  at tilt angle  $\Psi = 0$  and  $5^\circ$ . The scan confirms the presence of the bulk polymorph when the sample is tilted at  $\Psi = 5^\circ$ , whereas the contribution is negligible when  $\Psi = 0^\circ$ .

$2\theta / ^\circ$	12.4
$\Psi / ^\circ$	0 or 5
Range / $^\circ$	10
Step Size / $^\circ$	0.04
Time per Step / s	1

Table S 1 Parameters of the  $\omega$  scan for the 100% pentacene deposited at 0.5 Å/s.

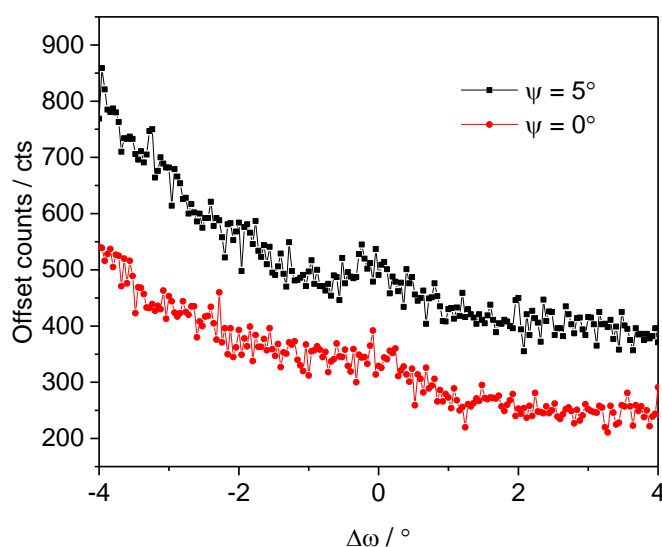


Figure S 1  $\omega$  scan centered at the bulk phase  $2\theta = 12.4^\circ$  and with tilt angles of  $\psi = 0$  and  $5^\circ$  for the 100% pentacene film grown at 0.5 Å/s with 200 nm thickness

#### Note 2

As mentioned in the main text, the lateral grain size was estimated from the AFM images using the threshold determination of grain boundaries in Gwyddion.<sup>1</sup> The thresholds are shown in Figure 2 as a red filter over the micrographs. The calculated sizes, expressed as diameters of spherical particles of identical area, are shown in Table S2.

Pentacene Concentration (%)	Grain size (nm)
0	2133
0.5	743
5	373
10	399
50	338
100	467

Table S 2 Lateral grain size calculated using the AFM micrographs. Average length given to the nearest nm due to accuracy of  $\pm 1$  nm.

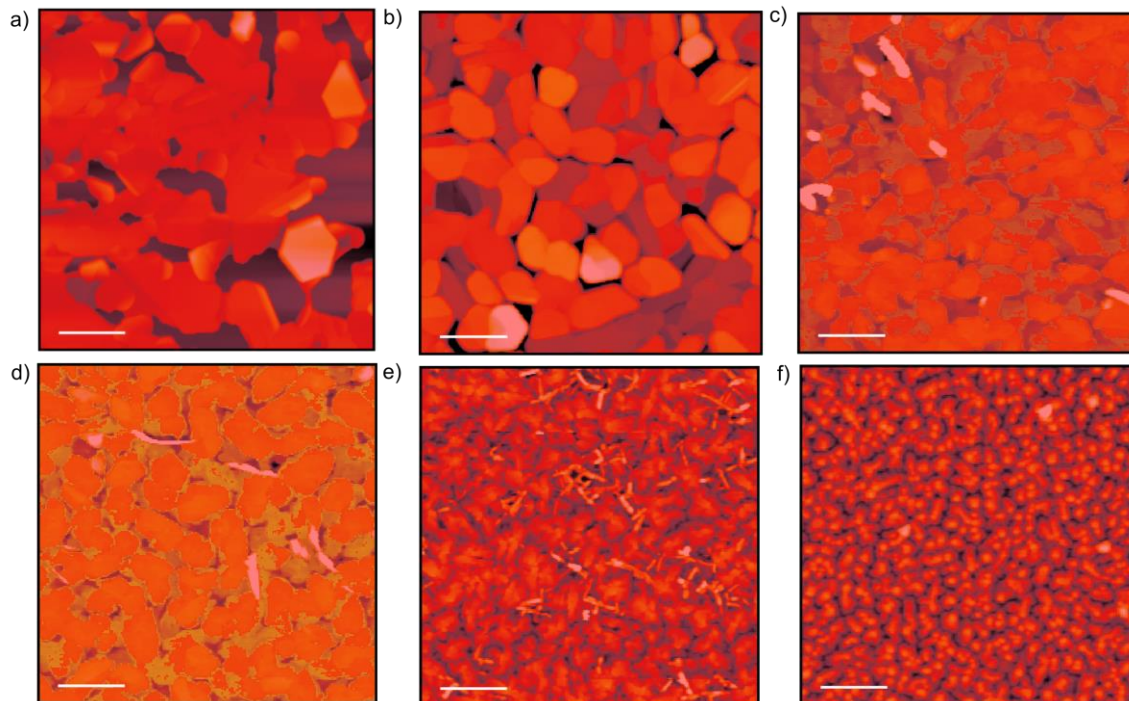


Figure S 2 AFM images of the mixed films with concentrations **a**, 0% **b**, 0.5% **c**, 5% **d**, 10% **e**, 50% **f**, 100% pentacene in *p*-terphenyl with a red filter showing the threshold boundaries used to calculate average grain area.

- 1 D. Nečas and P. Klapetek, Gwyddion: An open-source software for SPM data analysis, *Cent. Eur. J. Phys.*, 2012, **10**, 181–188.