Supporting Information

Interface engineering for highly sensitive solution processed organic photodiode

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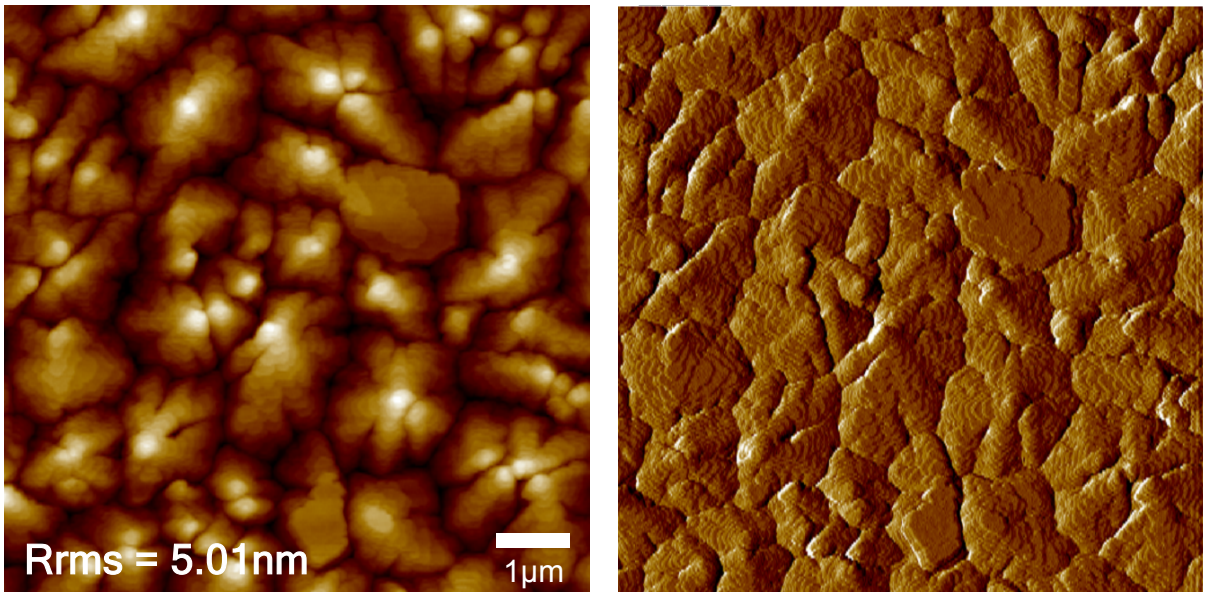

Figure S1. AFM height (left) and phase (right) image of Pentacene on the ITO-coated glass

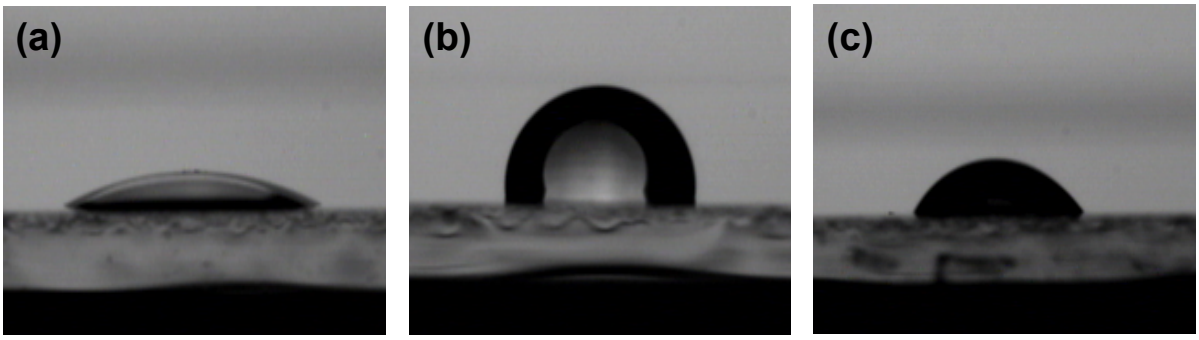

Figure S2. Photographs of water droplets on the different surface layers: (a) PEDOT:PSS, (b) Pentacene and (c) p-DTS(FBTTh$_2$)$_2$

Table S1. Surface energy of three different layers

	Contact angle (°)				
	Water	Diiodomethane	γ_s^p (mJ m^{-2}) [a]	γ_s^d(mJ m^{-2})[b]	γ_s [c] (γ_s^p +γ_s^d) (mJ m^{-2})
PEDOT:PSS	28	25	34.01	32.29	66.30
Pentacene	96	67	1.98	22.71	24.69
p-DTS(FBTTh$_2$)$_2$	64	52	16.04	25.02	41.24

[a] γ_s^p : the polar component
[b] γ_s^d : the dispersion component
[c] γ_s : the surface energy
(The γ_s values were calculated according to the following equation by fitting to the measured values of the contact angles :

$$1 + \cos\theta = \frac{2(\gamma_S^d)^{1/2}(\gamma_{IV}^d)^{1/2}}{\gamma_{IV}} + \frac{2(\gamma_S^p)^{1/2}(\gamma_{IV}^p)^{1/2}}{\gamma_{IV}}$$