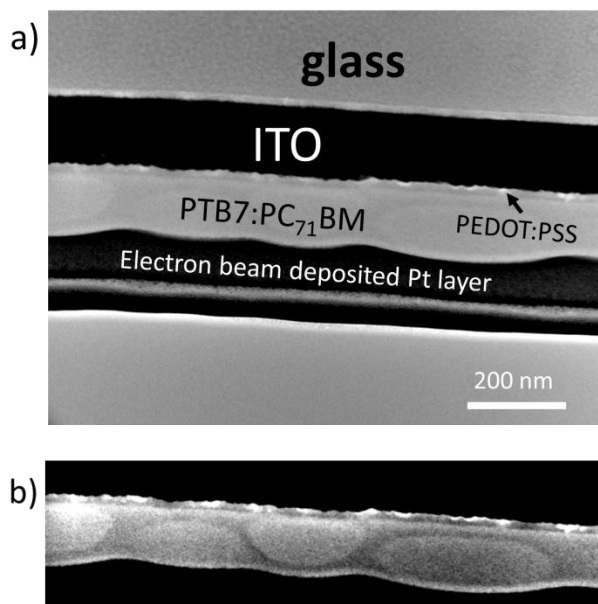
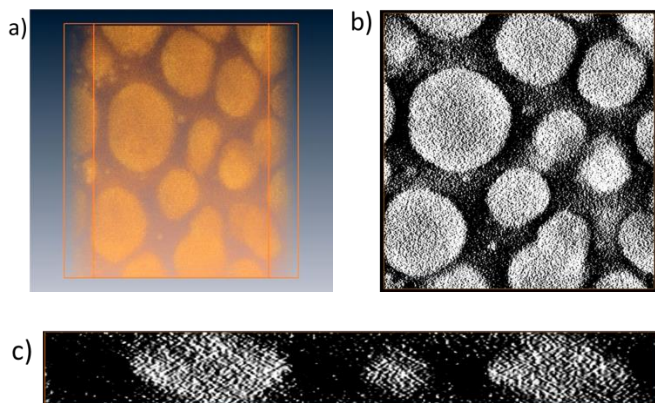


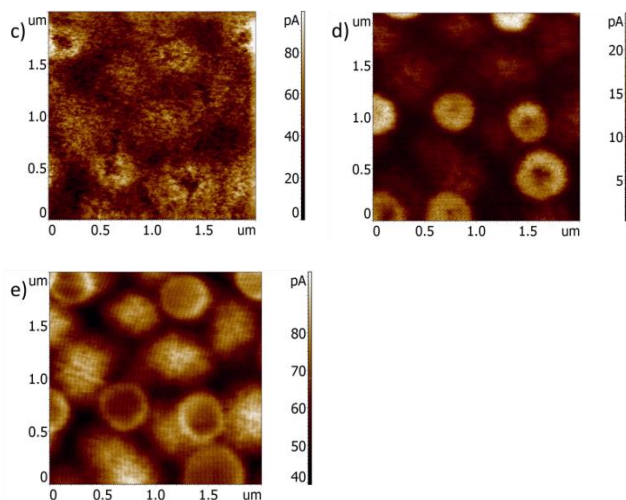
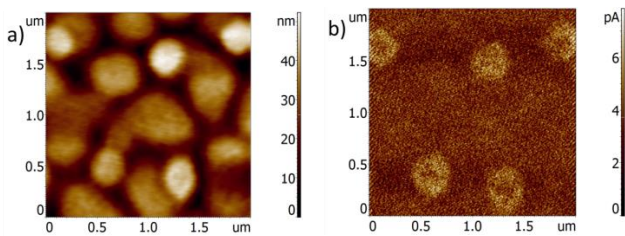
### Supporting Information 1



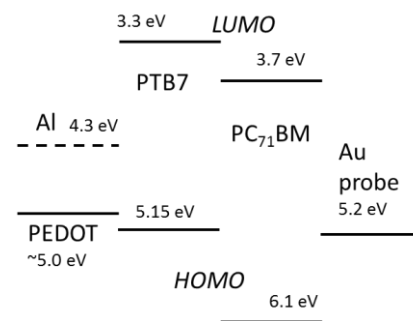
**Fig. S1.** a) Conventional TEM image of Sample 1 cross-section with all layers. The image was obtained with 5 micrometres defocusing; b) Central part of image a) with enhanced contrast.



**Fig. S2.** EFTEM tomography (carbon distribution) in the film without DIO: a) A 3D view, b) An XY cross-section in the middle of film, c) An XZ cross-section. Reconstructed volume is 1.2 x 1.2 x 0.15  $\mu\text{m}$ . See also Supplementary Information 2 for video with tomography reconstruction.



**Fig. S3.** AFM results for PTB7:PC<sub>71</sub>BM film deposited on glass/Al: a) topography; b), c), d) current images obtained at  $U_{tip}$ : b) +0.3 V; c) +3 V; d) -0.5 V; e) -3 V.



**Fig. S4.** Energy levels of the materials used in this work.<sup>6</sup>