

## Electronic Supplementary Information

### Light Emitting Electrochemical Cell (LEC) containing a Hole Blocking Layer of TmPyPB

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Figure S 1 shows the 3D surface maps of the TmPyPB (a) and TmPyPB:P4VP (b) layers deposited on glass substrates, measured by NanoFocus optical surface profilometer. The sample with TmPyPB:P4VP shows a smoother and more homogeneous surface compared to the sample without the polymer (the averaged ( $S_a$ ) and root mean squared ( $S_q$ ) surface roughness values are reported directly in the figure).

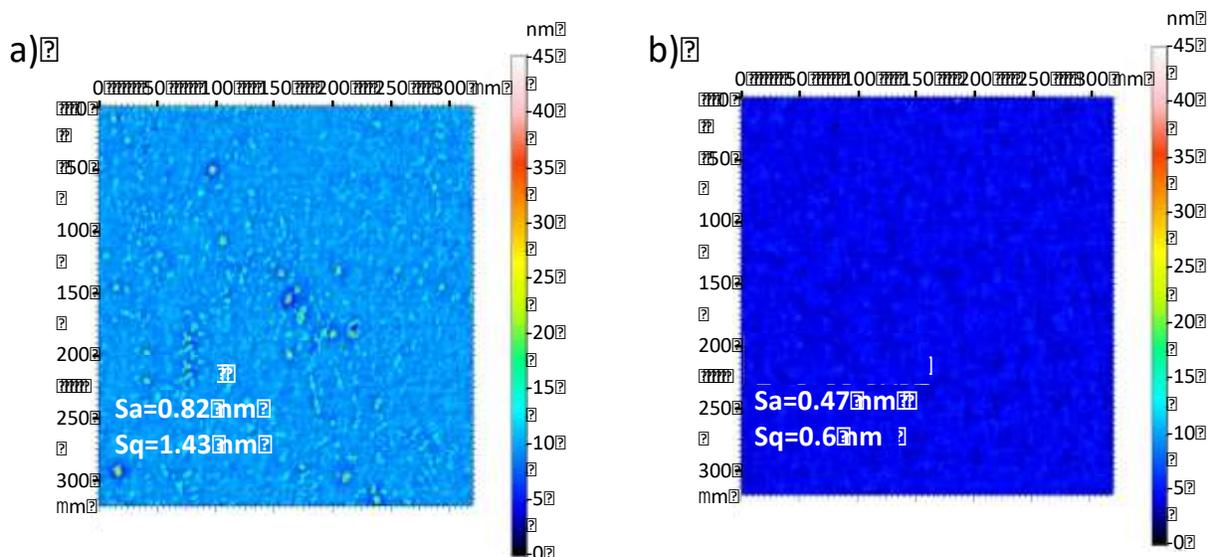
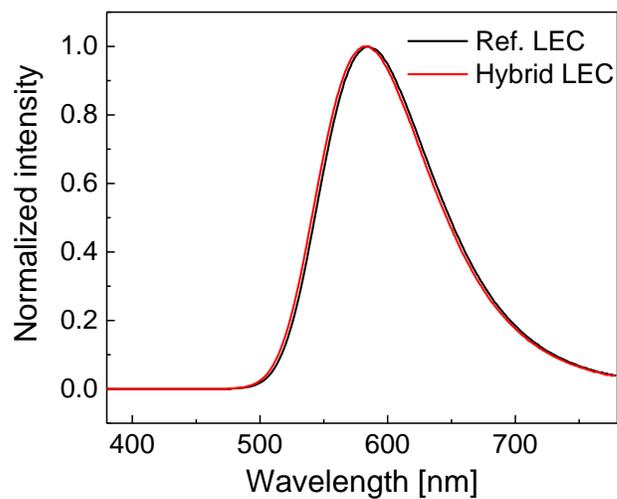


Figure S 1 3D maps of TmPyPB (a) and TmPyPB:P4VP (b) layer spin coated on glass substrates.

The normalized electroluminescence spectra of Ref. LEC and Hybrid LEC using an HBL of TmPyPB, taken at 4 V, are shown in Figure S 2. The EL maximum of the reference LEC is at 585 nm and only a minor 4 nm blue shift of peak of the hybrid device can be observed (581 nm).



**Figure S 2** Normalized electroluminescence spectra of the Ref. LEC (black line) and the Hybrid LEC (red line) using a HBL of TmPyPB taken at 4 V.