Towards low-temperature preparation of air-stable hybrid light-emitting diodes

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SUPPLEMENTARY INFORMATION
Device characterization:

Current density and luminance versus applied voltage were recorded using a Keithley 2400 combined with a Konica Minolta LS100 luminance meter. The instruments were controlled and the data captured using in-house software. XRD measurements were made using a Bruker-AXS D8-Discover diffractometer equipped with parallel incident beam (Göbel mirror), vertical 0-0 goniometer, XYZ motorized stage and with a GADDS (General Area Diffraction System).

ZnO film characterization:

Roughness Mean Square (RMS) values were measured by Atomic Force Microscopy (AFM), performed on tapping mode on a Molecular Imaging model Pico SPM II (Pico +). X-ray diffraction was done on ZnO films deposited onto Si (001) substrates at different temperatures using a Bruker-AXS D8-Discover diffractometer equipped with parallel incident beam (Göbel mirror), vertical 0-0 goniometer, XYZ motorized stage and with a GADDS (General Area Diffraction System. The X-ray diffractometer was operated at 40 kV and 40 mA to generate Cukα radiation. The GADDS detector was 30x30 cm with a 1024x1024 pixel sensor. We collected one frame (2D XRD pattern) covering 20-50º 2θ in grazing incidence mode (ω: 1º, 2θ: 34º) at a distance of 15cm from the sample to the detector. The exposition time was 300s per frame and it was chi-integrated to generate the conventional 2θ vs. intensity diffractogram.
Figure S1. Device performance of ITO/F8BT/MoO$_3$/Au.
Table S1 Crystallite size derived from X-ray diffraction measurements.

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<th>Substrate temperature (°C)</th>
<th>Orientation</th>
<th>Crystallite size (nm)</th>
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