Electronic Supplementary Information (ESI)

Modulating the luminance of organic light-emitting diodes via optical stimulation of a photochromic molecular monolayer at transparent oxide electrode

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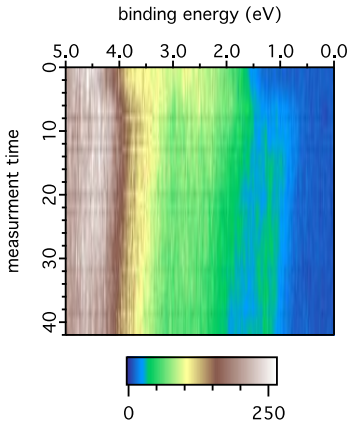

Figure S.1 displays the time evolution of the valence region measured on the ITO functionalized with SAM of PA-DAE. The PA-DAE was initially (see time scale on the left) in the open configuration. The sample was illuminated with UV *in situ* between minute 7 and minute 16 while the spectra were continuously measured. Upon illumination, a feature with onset at ca. 1.0 eV grows in intensity. This corresponds to switching from open to close configuration.

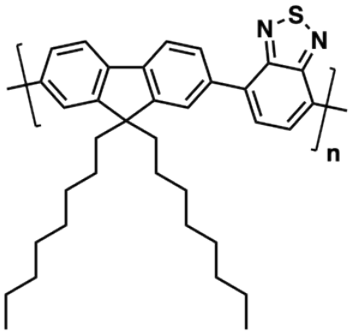

Figure S.2 shows the chemical structure of the green emitting polymer poly(9,9-dioctylfluorene-co-benzothiadiazole) (F8BT), which was employed as active material in the devices.

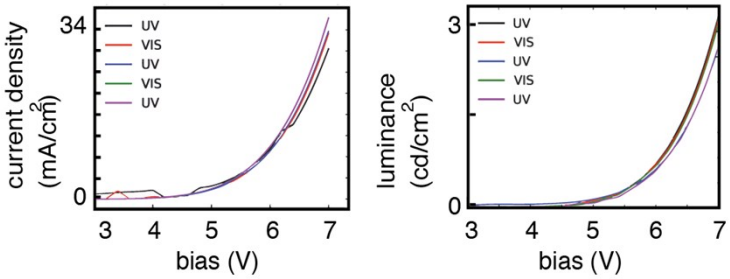

Figure S.3 shows a reference device fabricated using bare ITO as bottom electrode (device structure: ITO/F8BT/Ca/Al) and characterized upon the same irradiation cycles. The thickness of the device layers was kept constant for the sake of comparison. The *J*-*V* and *L*-*V* curves of the reference OLED show no light-induced modulation of the device performance during the irradiation cycles.