

Electronic Supplementary Information

Spontaneous formation of light-trapping nano-structures for top-illumination organic solar cells

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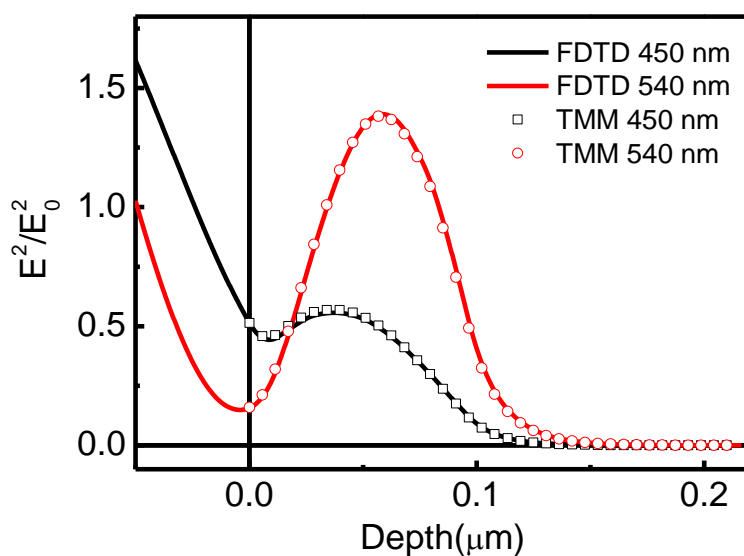


Fig. S1 E distribution in the device without a capping layer simulated by FDTD (lines) and TMM (dots) methods.

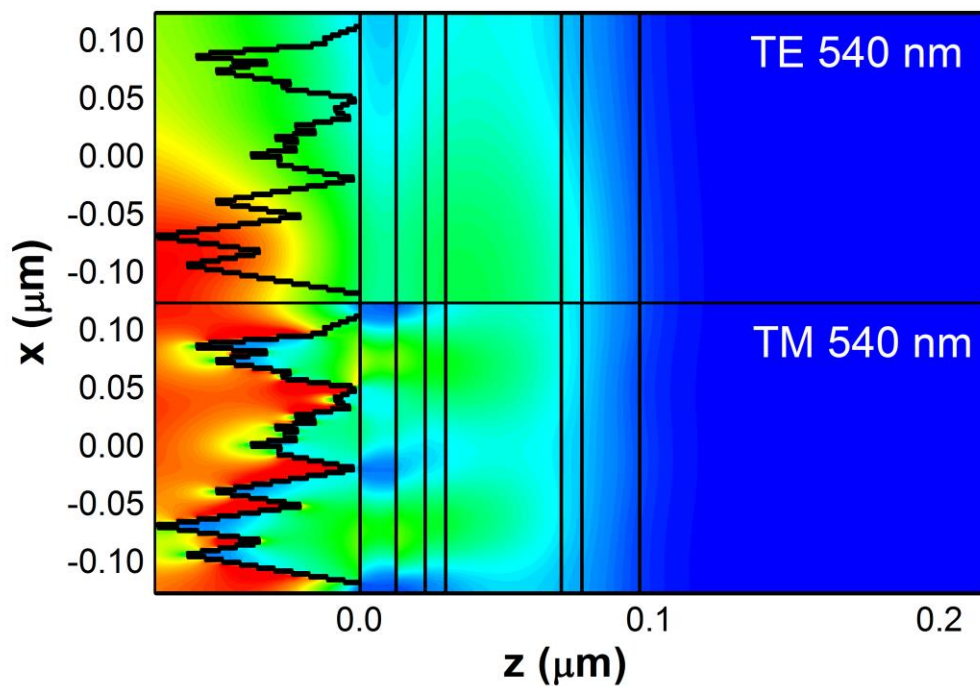


Fig. S2 *E* distribution in TE and TM polarization modes at wavelengths of 540 nm in the Bphen capped device. The device structure used in the simulation is depicted by black lines. From left to right: Air/Bphen/Ag/BCP/C₇₀/ DTDCTP:C₇₀/ DTDCTP/MoO₃/Ag.

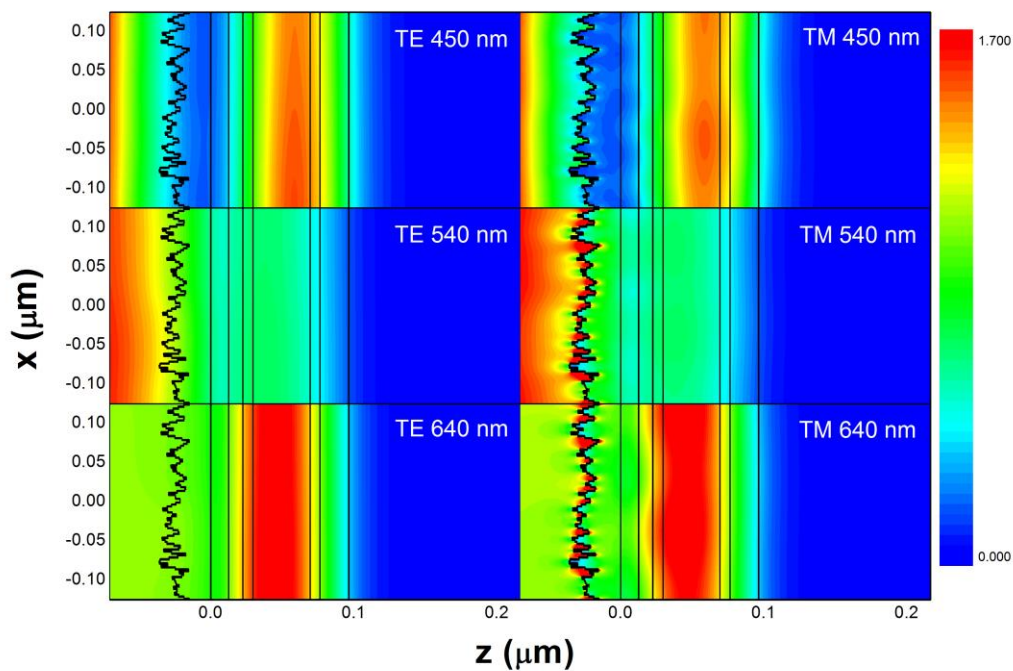


Fig. S3 *E* distribution in TE and TM polarization modes at wavelengths of 450 nm, 540 nm and 640 nm in the NTCDA-capped device. The device structure used in the simulation is depicted by black lines. From left to right: Air/NTCDA/Ag/BCP/C₇₀/DTDCTP:C₇₀/DTDCTP/MoO₃/Ag.

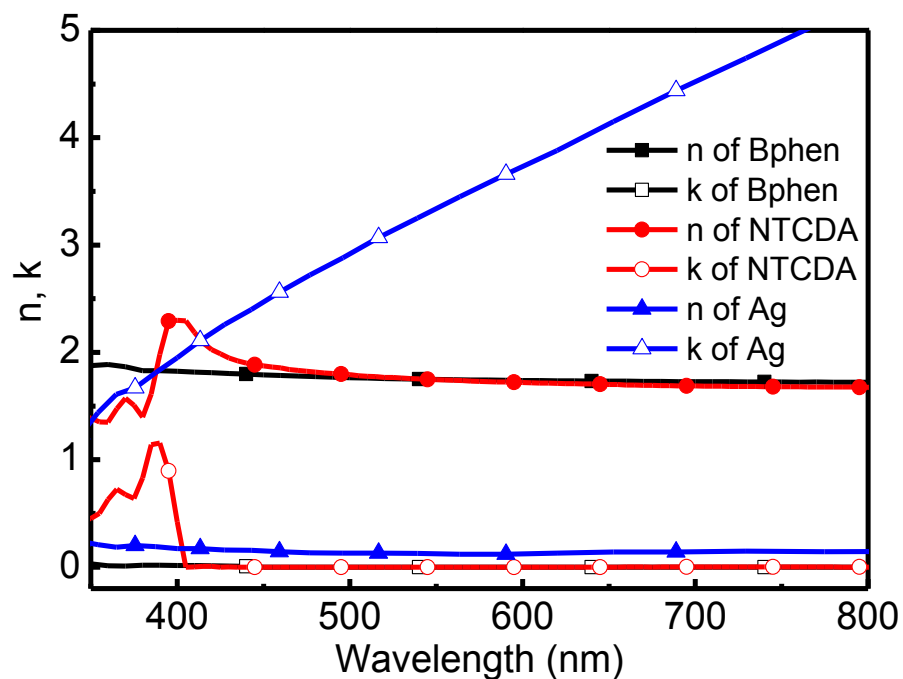


Fig. S4 Optical constants (n : refractive index, k : extinction coefficient) of Bphen, NTCDA and Ag. The values were obtained using a spectroscopic ellipsometer and used in the optical simulation.