Supporting Information

Enhanced light out-coupling efficiency of organic light-emitting diodes with extremely low haze by plasma treated nanoscale corrugation

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Luminance as a function of current density of the OLEDs

The higher enhancement of the luminance in the OLEDs with NCLE indicates extraction of the waveguide light [1-2]. The luminance of OLEDs as a function of current density is shown in Figure S1. As can be seen, the luminance increases as the height and width of NCLE increases due to the enhanced light out-coupling effect. The luminance of OLEDs are 10186 cd/m^2 (Ref), 11211 cd/m^2 (NCLE 2), and 12402 cd/m^2 (NCLE 3) at 300 mA/cm^2. The improved performance of the OLEDs with NCLE correspond to enhancements of 10.06% (NCLE 2) and 21.76% (NCLE 3) in luminance.

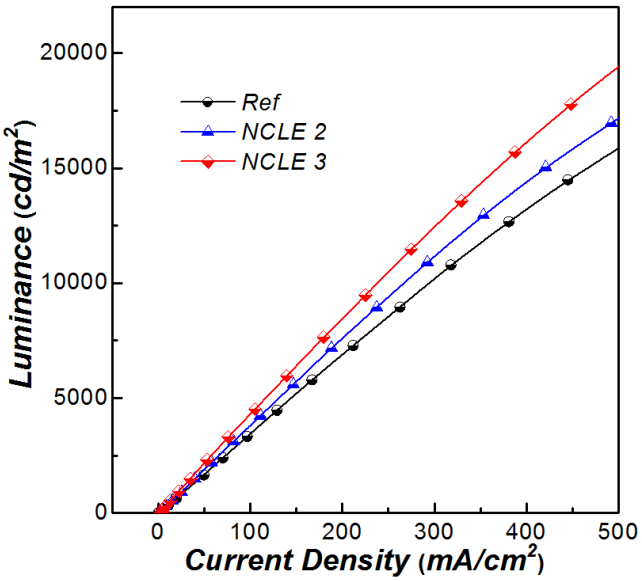

Figure S1. Device performance of typical OLEDs without NCLE for reference (black), OLEDs with NCLE 2 (blue) and NCLE 3 (red): luminance as a function of current density.

Reference

1. W. H. Koo, W. Youn, P. Zhu, X. -H. Li, N. Tansu, and F. So, *Adv. Funct. Mater.* 2012, **22**, 3454-3459.
2. K. Endo and C. Adachi, *Appl. Phys. Lett*. 2014, **104**, 121102.