



Reference Study: HLCT Materials_TPAAnPI

Highly Efficient Non-doped Blue Fluorescent OLEDs with Low Efficiency Roll-off Based on Hybridized Local and Charge Transfer Excited State Emitters

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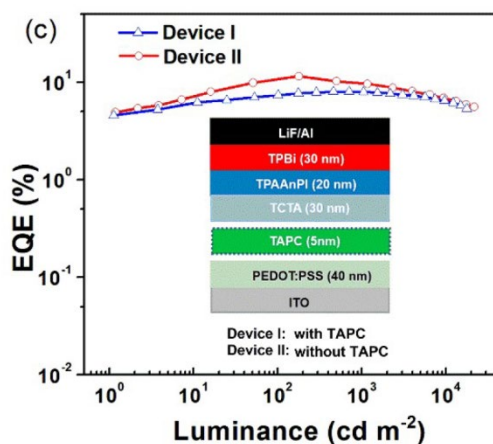
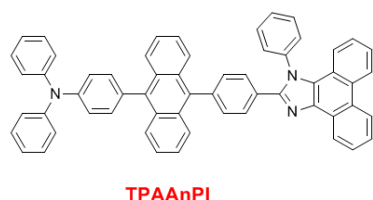
Reference: *Chem. Sci.*, 2020,11, 5058-5065

Abstract

- A twisting novel blue D- π -A molecule, TPAAnPI, involving the HLCT excited state was designed and synthesized.
- A fabricated optimized non-doped Device II based on TPAAnPI exhibited a maximum EQE of 11.47% and showed a novel blue emission at 470 nm with CIE coordinates of (0.15, 0.22).
- The EQE remained as high as 9.70% at the luminescence of 1000 cd m⁻² with roll-off of only 15%.

Materials & Devices

Device: ITO/PEDOT:PSS (40 nm)/TCTA (30 nm)/TPAAnPI (20 nm)/TPBi (30 nm)/LiF (1 nm)/Al (100 nm)



*Fig. 3(c) reference source: *Chem. Sci.*, 2020,11, 5058-5065

Materials are used by qualified for testing and research only, there are not guaranteed in patent contention by customer use.

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