

Supplementary Information

New carbazole-based host material for low-voltage and highly efficient red phosphorescent organic light emitting diodes†

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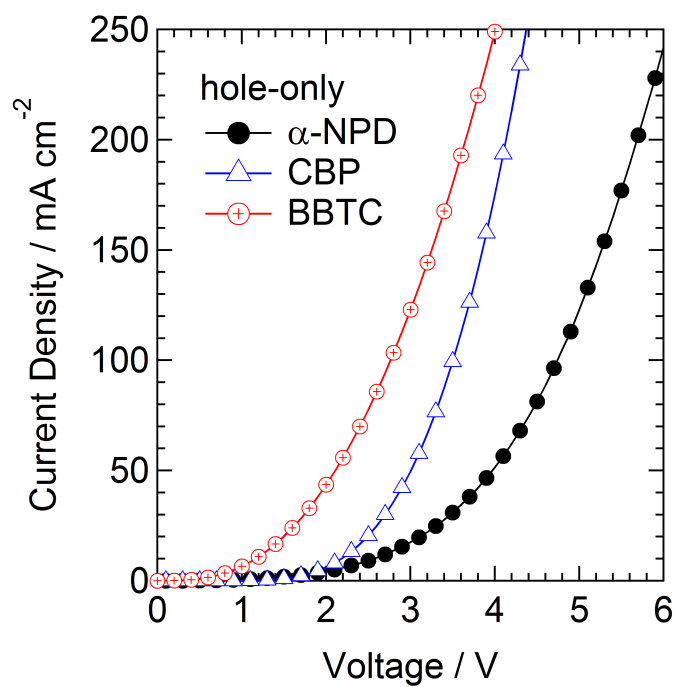


Fig. S1 Current density-voltage curves for the hole-only device of BBTC compared with α -NPD and CBP which are typical hole-transporting materials possessing good hole mobility.

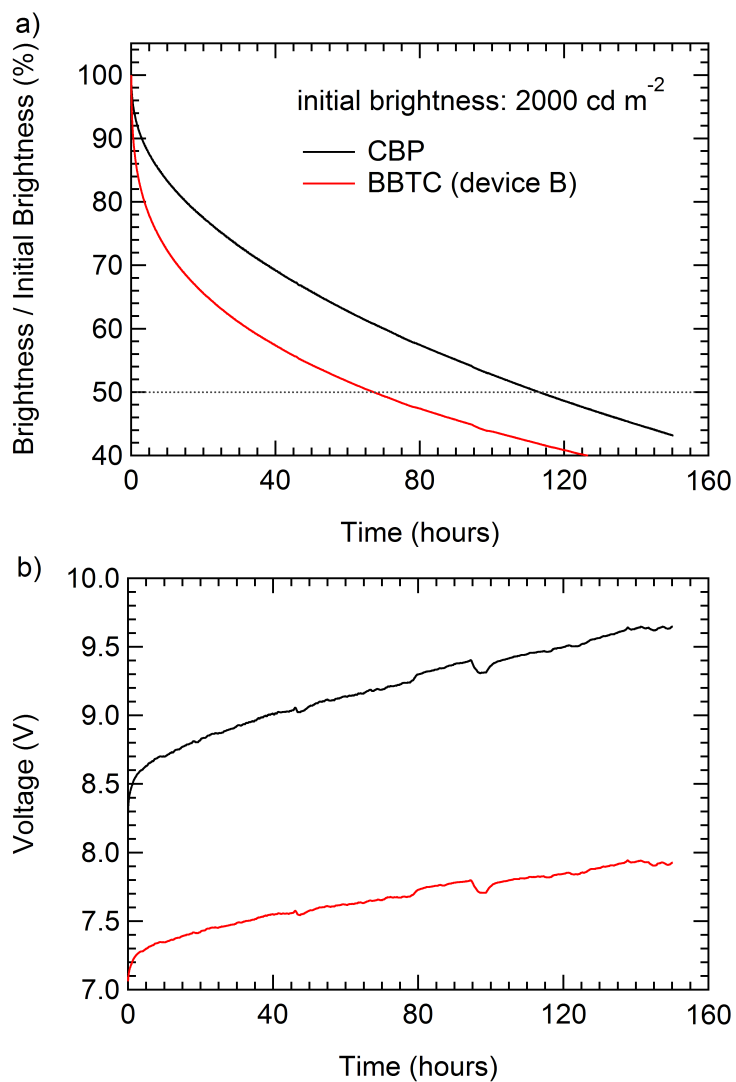


Fig. S2 The comparison of device stability test with the BBTC host (device B) and CBP host in the same device structure with (a) the brightness and (b) voltage variation during operation at 2000 cd m⁻². The half-lifetime of BBTC device is shorter, but the operating voltage and the voltage variation are much smaller and reduced than CBP device.

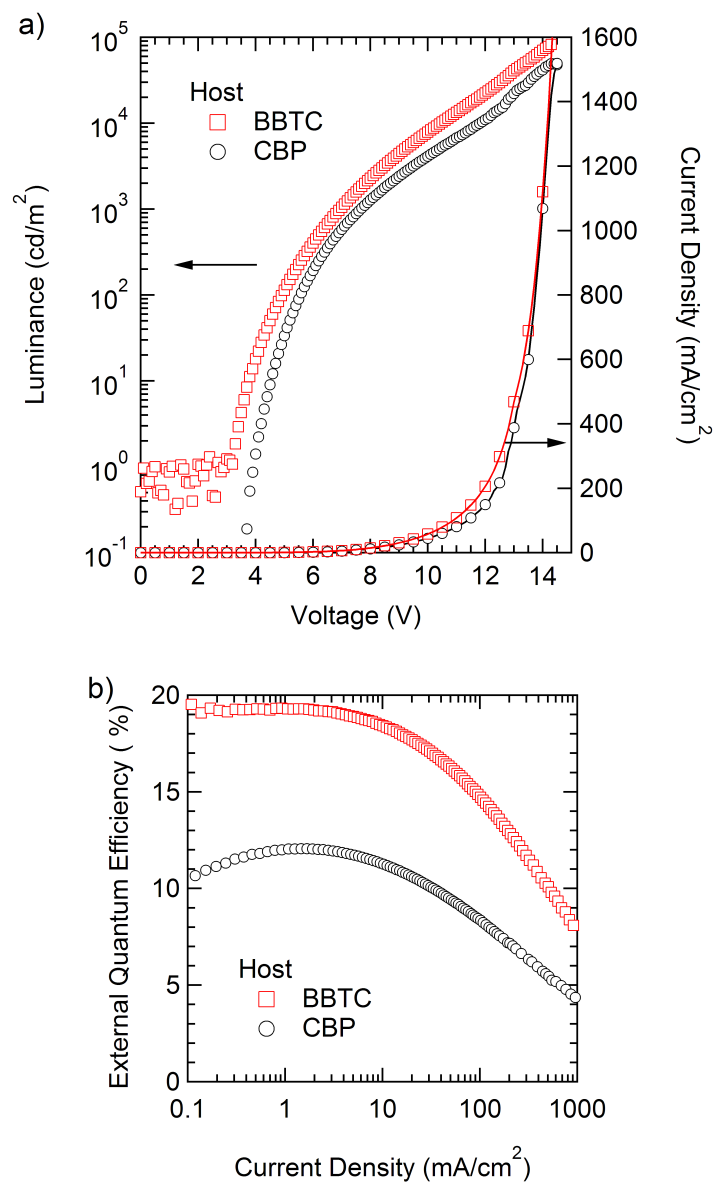


Fig. S3 The comparison of device performances between the BBTC host (device B) and CBP host in the same device structure in terms of (a) the current density-voltage-luminance and (b) external quantum efficiency characteristics.