

Supplementary Information

Towards high efficient TADF yellow-red OLEDs fabricated by solution deposition methods: critical influence of the active layer morphology

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Received: 22 November 2019; Accepted: 2 January 2020; Published: 4 January 2020

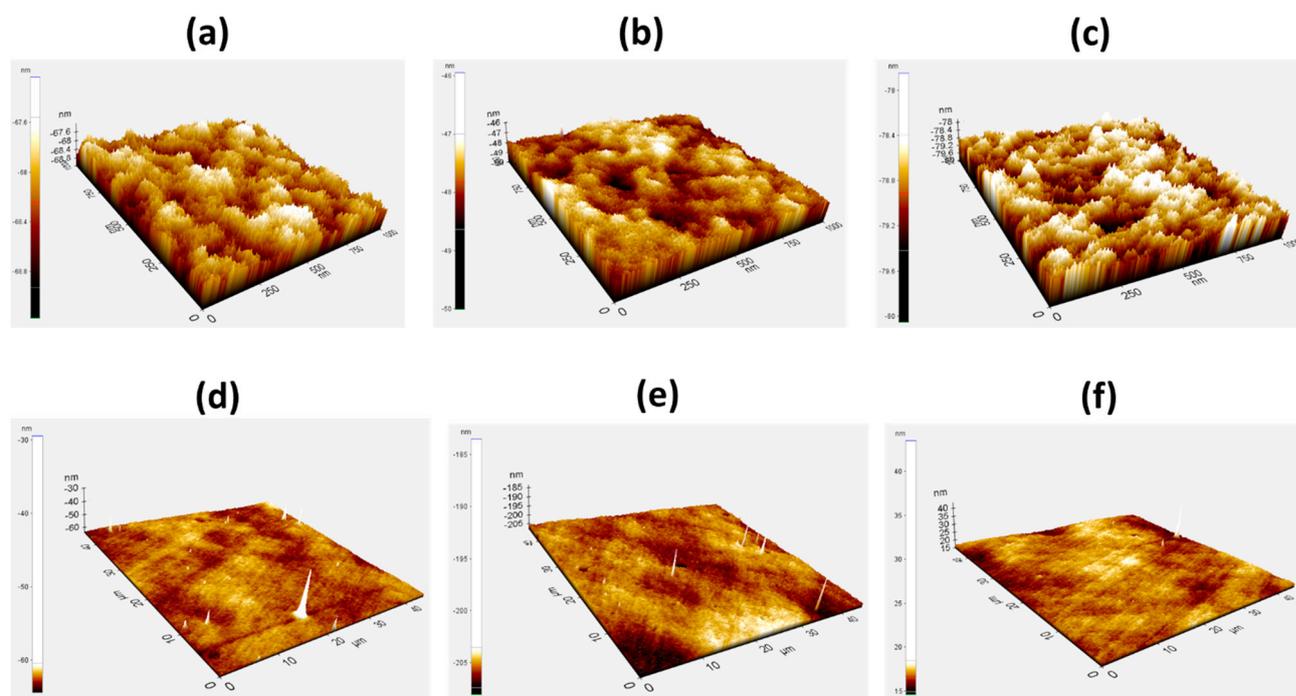


Figure S1. AFM Image of PVK:OXD-7:TXO-TPA of wt.%; (a) 5%, (b) 8%, and (c) 10% in dichlorobenzene, and (d) 5%, (e) 8%, and (f) 10% in chlorobenzene.

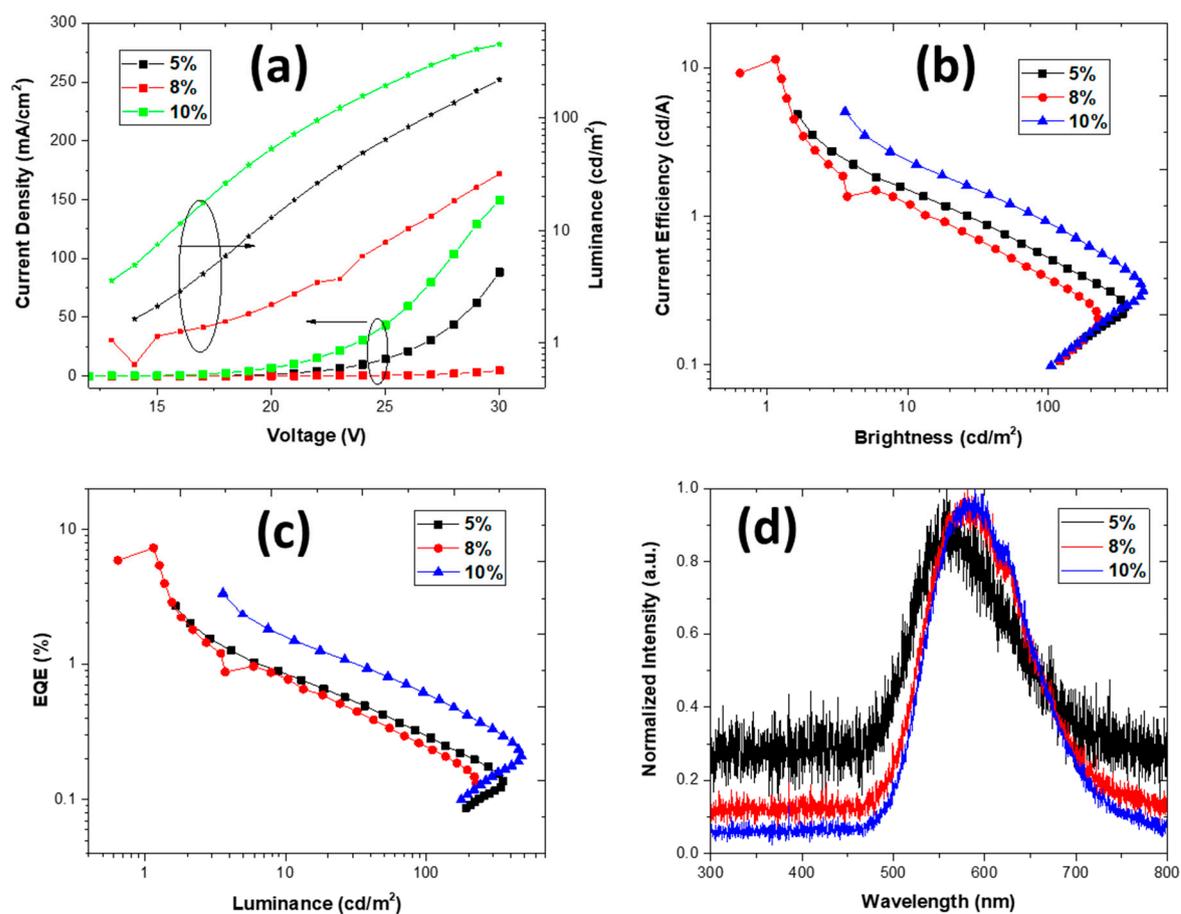


Figure S2. Device characteristics for structure ITO/PEDOT:PSS (40 nm)/PVK:OXD7:TXO-TPA (x wt.%) (25 nm)/TmPyPb (40 nm)/LiF (1 nm)/Al (100 nm) deposited from chloroform. (a) current density vs voltage vs luminance, (b) Current efficiency vs luminance, (c) EQE vs luminance and (d) electroluminescence spectra for 5, 8 and 10 wt.% (at 20 V).

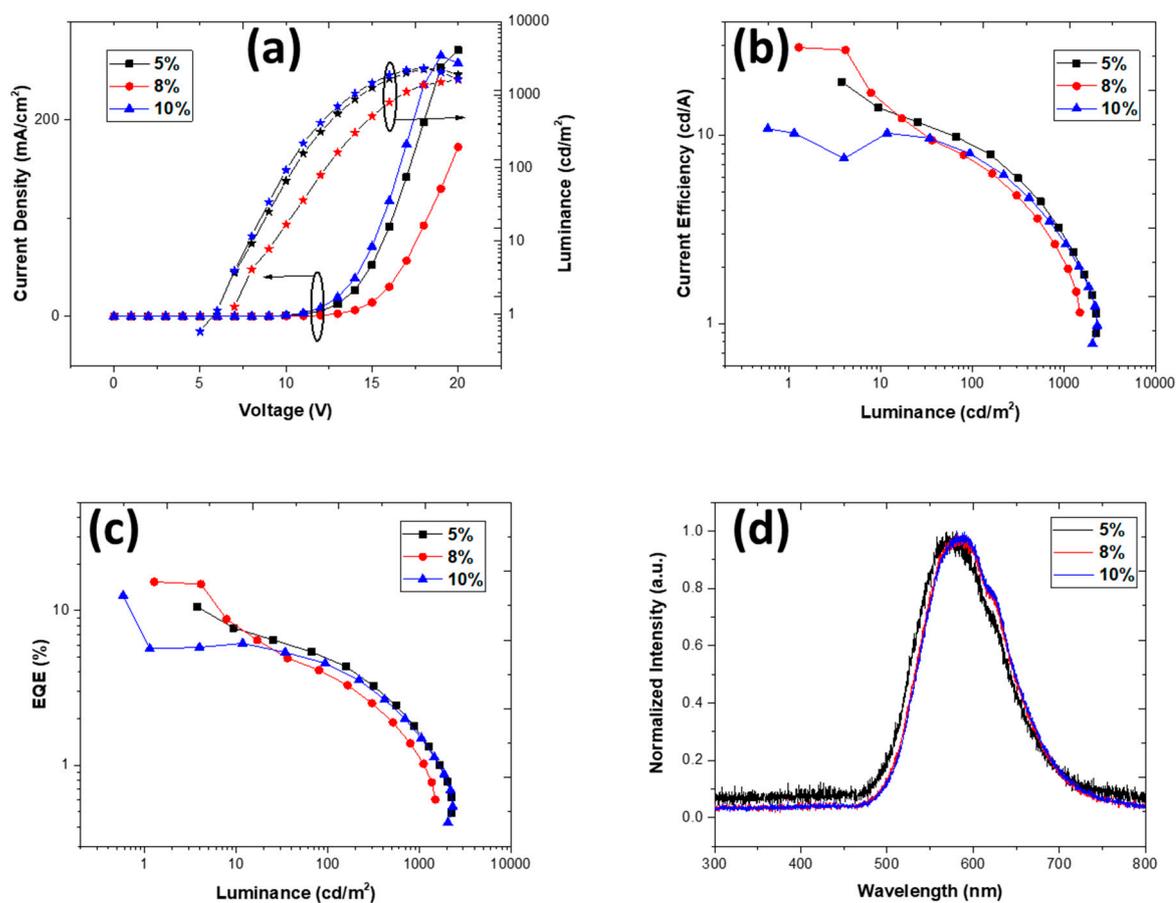


Figure S3. Device characteristics for structure ITO/PEDOT:PSS (40 nm)/PVK:OXD7:TXO-TPA (x wt.%) (50 nm)/TmPyPb (40 nm)/LiF (1 nm)/Al (100 nm) deposited from chlorobenzene. (a) current density vs voltage vs luminance, (b) Current efficiency vs luminance, (c) EQE vs luminance and (d) electroluminescence spectra for 5, 8 and 10 wt.% (at 20 V).

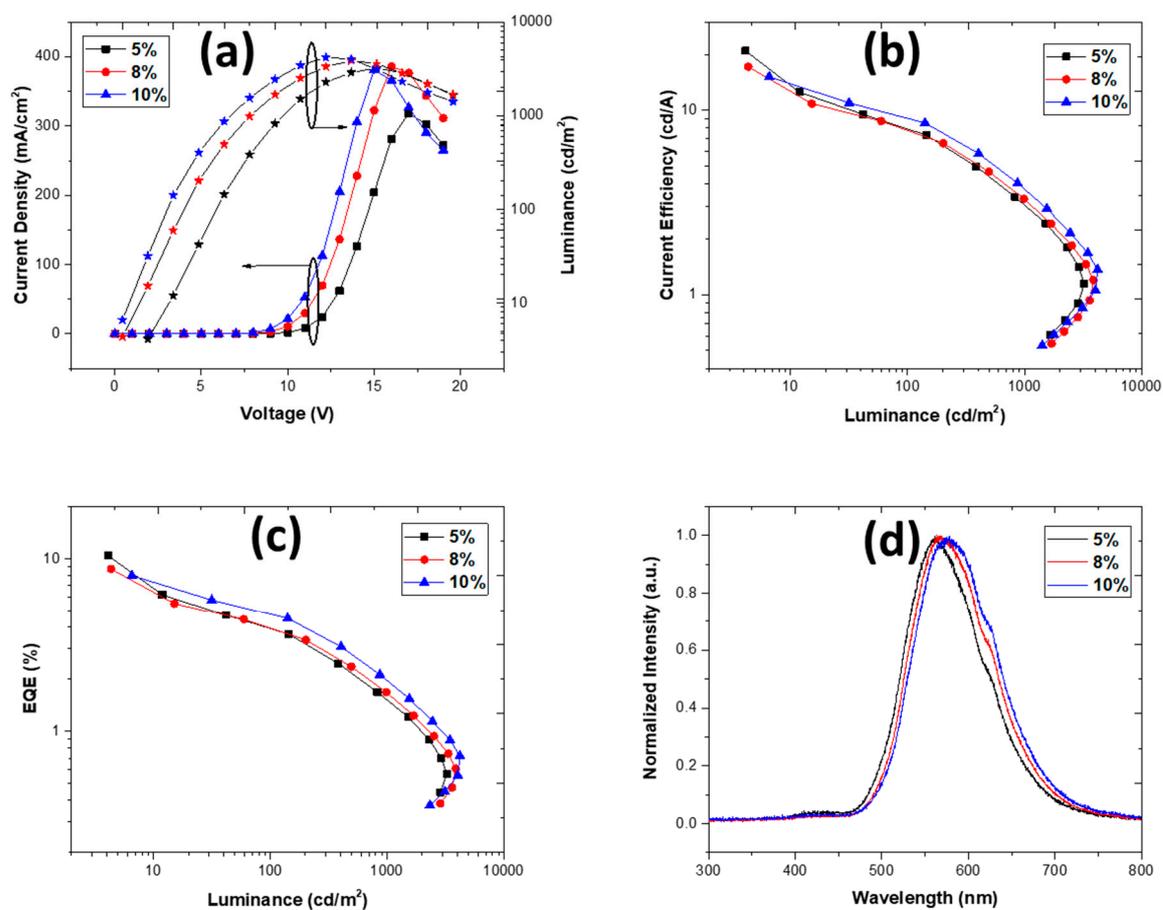


Figure S4. Device characteristics for structure ITO/PEDOT:PSS (40 nm)/PVK:OXD7:TXO-TPA (x wt.%) (25 nm)/TmPyPb (40 nm)/LiF (1 nm)/Al (100 nm) deposited from chlorobenzene. (a) current density vs voltage vs luminance, (b) Current efficiency vs luminance, (c) EQE vs luminance and (d) electroluminescence spectra for 5, 8 and 10 wt.% (at 20 V).

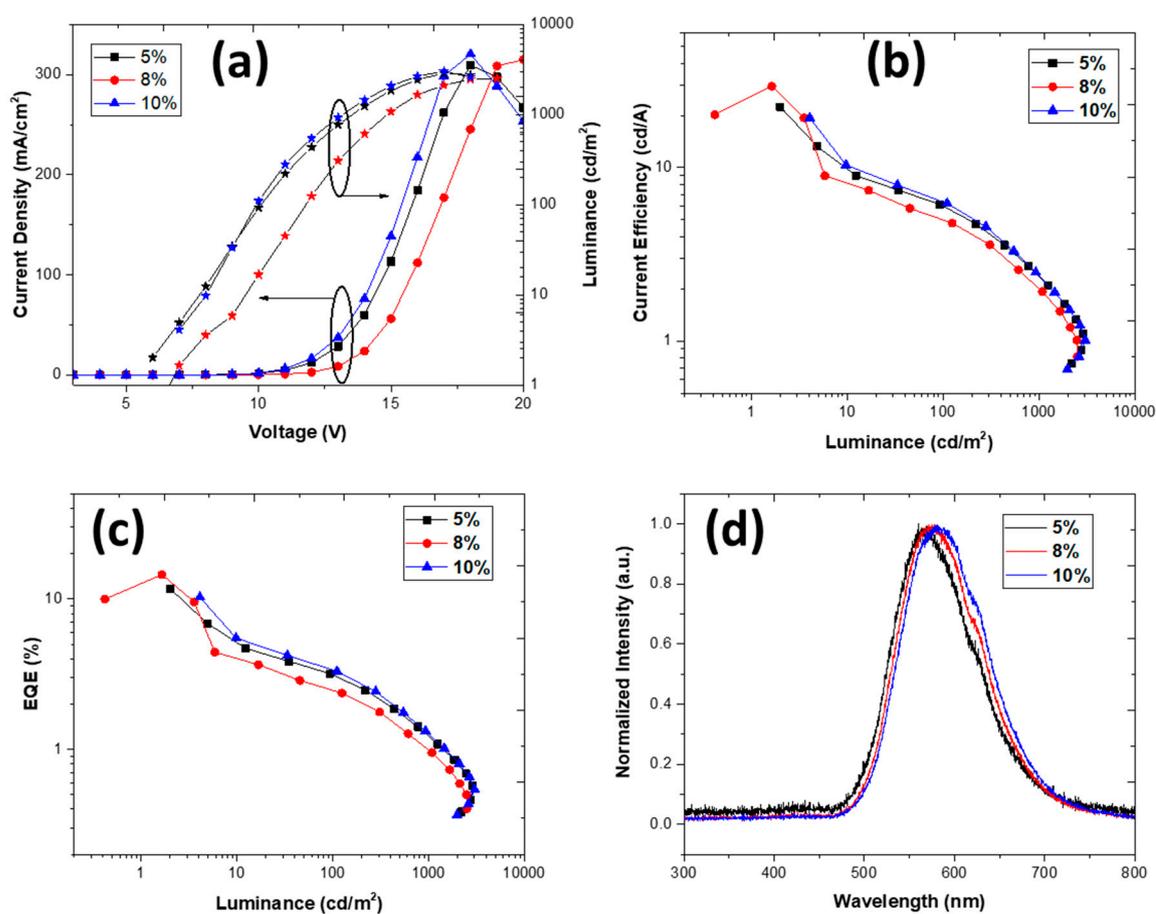


Figure S5. Device characteristics for structure ITO/PEDOT:PSS (40 nm)/PVK:OXD7:TXO-TPA (x wt.%) (40 nm)/TmPyPb (30 nm)/LiF (1 nm)/Al (100 nm) deposited from chlorobenzene. (a) current density vs voltage vs luminance, (b) Current efficiency vs luminance, (c) EQE vs luminance and (d) electroluminescence spectra for 5, 8 and 10 wt.% (at 20 V).

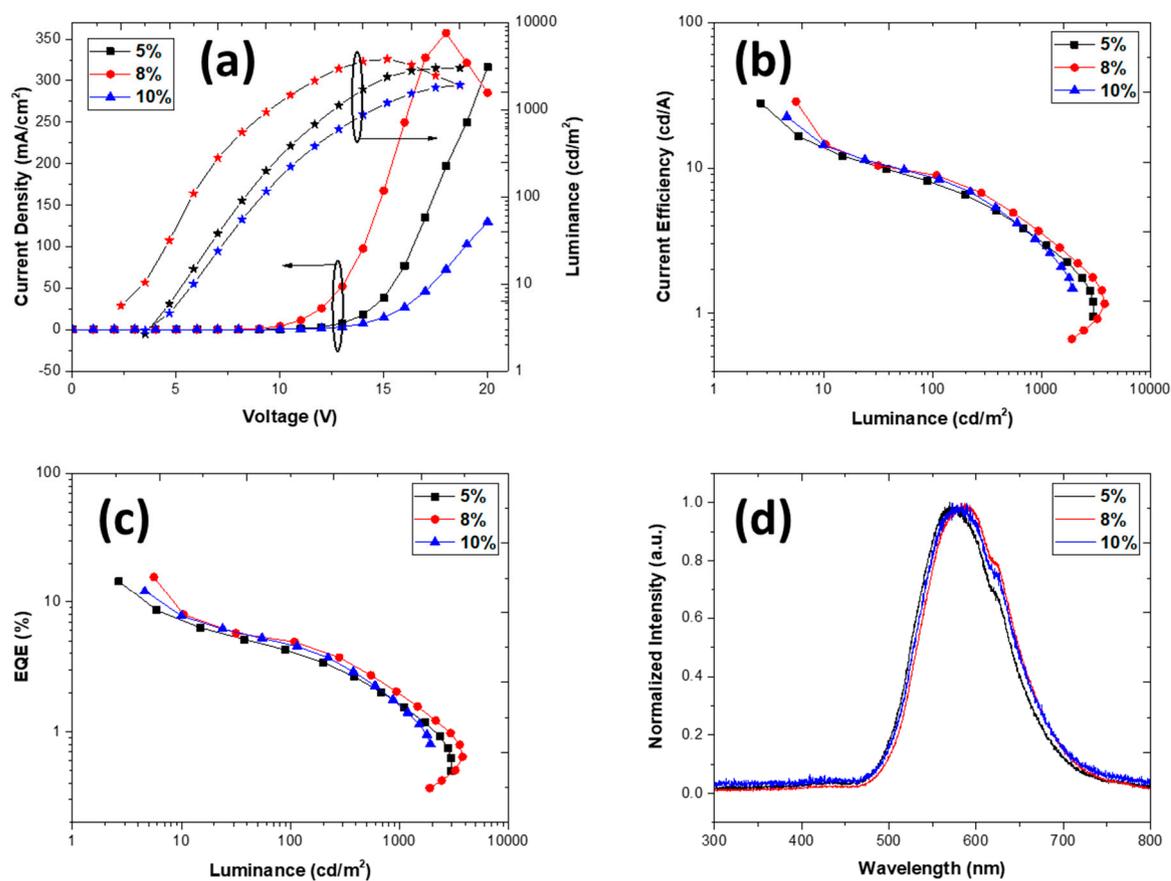


Figure S6. Device characteristics for structure ITO/PEDOT:PSS (40 nm)/PVK:OXD7:TXO-TPA (x wt.%) (40 nm)/TmPyPb (50 nm)/LiF (1 nm)/Al (100 nm) deposited from chlorobenzene. (a) current density vs voltage vs luminance, (b) Current efficiency vs luminance, (c) EQE vs luminance and (d) electroluminescence spectra for 5, 8 and 10 wt.% (at 20 V).