

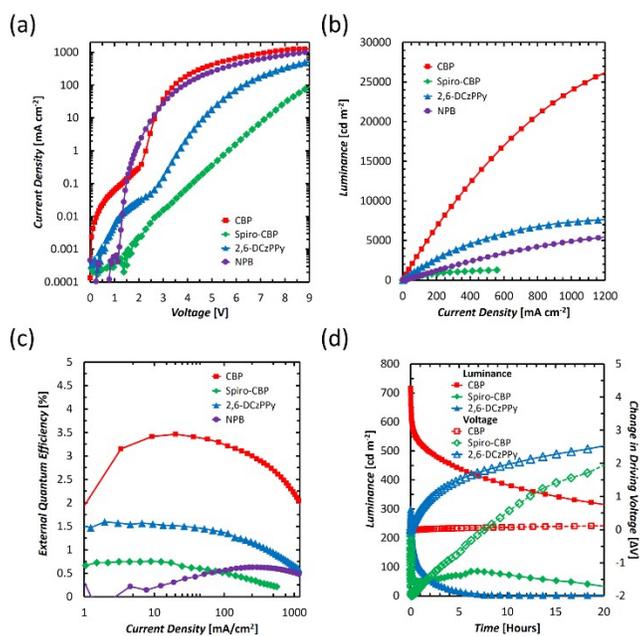
## Electronic Supplementary Information

### The Role of Excitons Within the Hole Transporting Layer in Quantum Dot Light Emitting Device Degradation

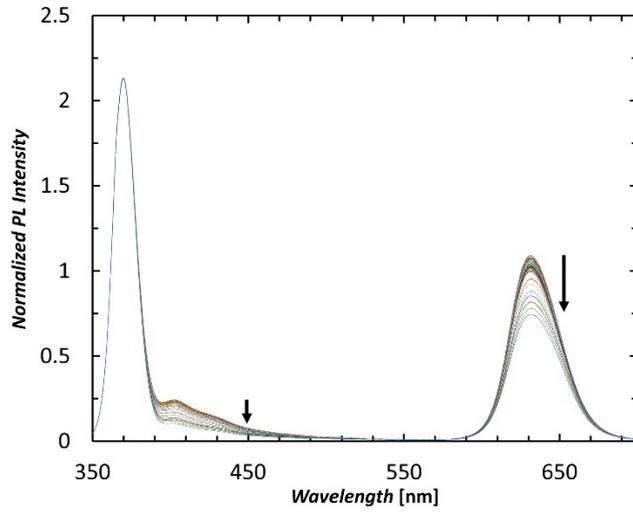
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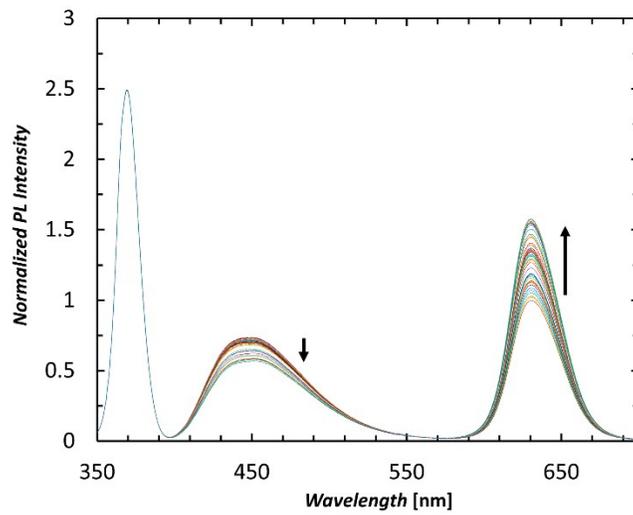
Email: [tadavids@uwaterloo.ca](mailto:tadavids@uwaterloo.ca)



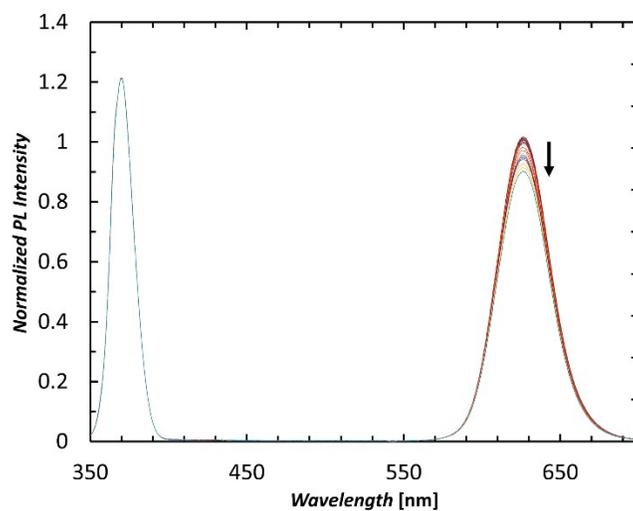
**Fig. S1.** (a) Current density vs voltage, (b) Luminance vs current density, (c) EQE vs current density, (d) Luminance (solid) and change in driving voltage ( $\Delta V = V(t) - V_0$ ) (dashed) electroluminescence lifetime curves for QLEDs with CBP (red square), Spiro-CBP (green diamond), 2,6-Dc2PPy (blue triangle), and NPB (purple circle) HTM layers.



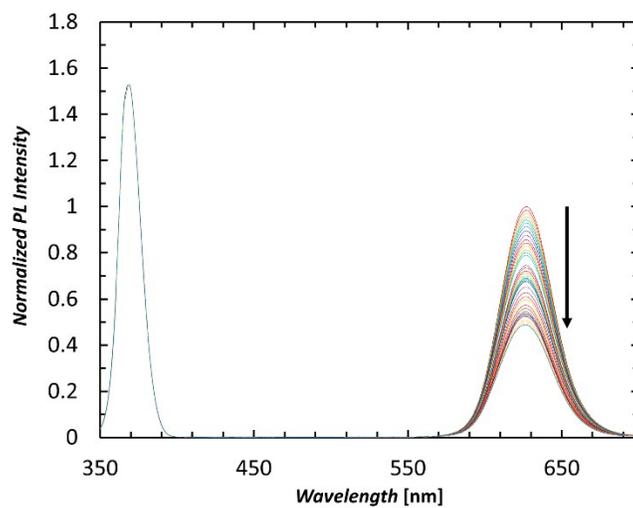
**Fig. S2.** Photoluminescence spectra for a QDLED with a Spiro-CBP HTM layer over 80 hours of constant UV irradiation



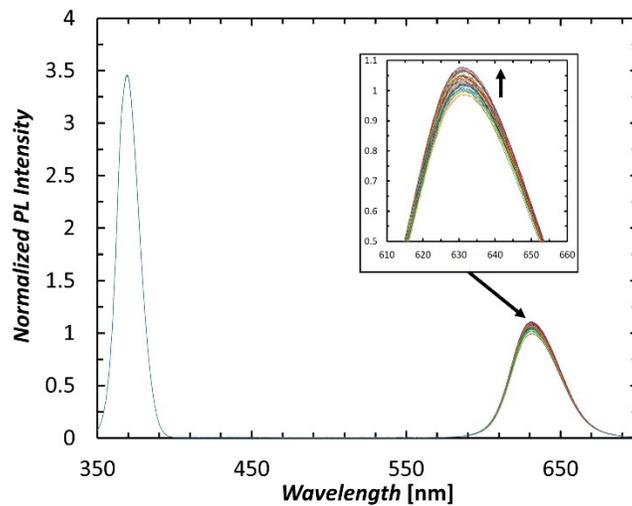
**Fig. S3.** Photoluminescence spectra for a QDLED with a NPB HTM layer over 80 hours of constant UV irradiation



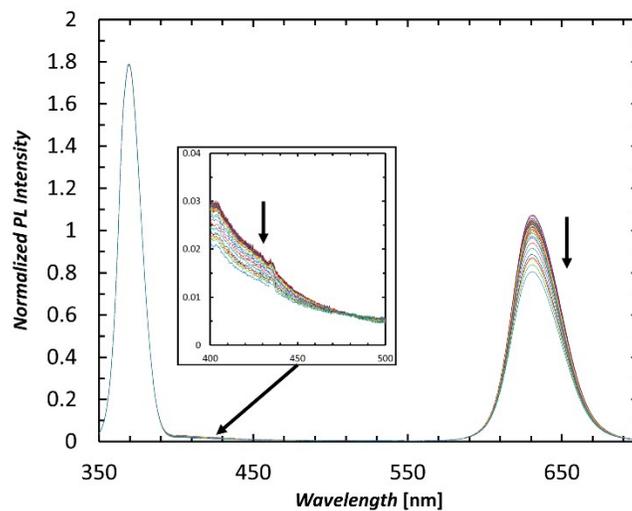
**Fig. S4.** Photoluminescence spectra for a QDLED with a 2,6-DCzPPy HTM layer over 80 hours of constant UV irradiation



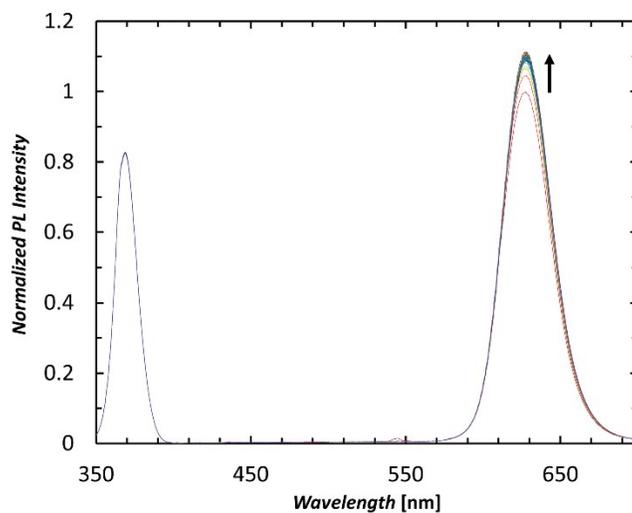
**Fig. S5.** Photoluminescence spectra for a QDLED with a mCP HTM layer over 80 hours of constant UV irradiation



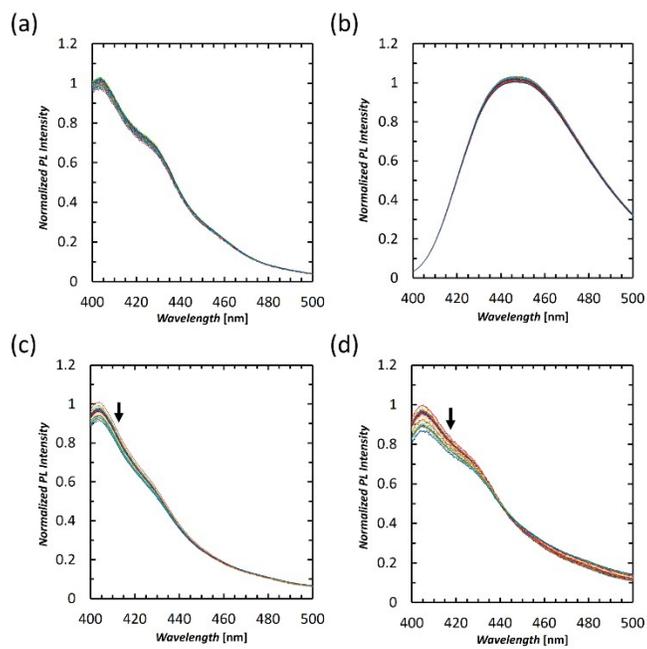
**Fig. S6.** Photoluminescence spectra for a QDLED with a TPBi spacer layer over 80 hours of constant UV irradiation



**Fig. S7.** Photoluminescence spectra for a QDLED with a Spiro-CBP/TPBi HTM layer over 80 hours of constant UV irradiation



**Fig. S8.** Photoluminescence spectra for a QD film over 80 hours of constant UV irradiation



**Fig. S9.** Photoluminescence spectra for films of (a) CBP, (b) NPB, (c) Spiro-CBP, and (d) Spiro-CBP/TPBi over 80 hours of constant UV irradiation