## Supporting Information

## Hybrid White Quantum Dot-Organic Light-Emitting Diodes with Stable $CIE_{x,y}$ Coordinates by Introduction of n-Type Modulation and Multi-Stacked Hole Transporting Layer

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Voltage [V]	WQD-OLED A	WQD-OLED B	WQD-OLED C
7	(0.307, 0.334)	(0.368, 0.260)	(0.340, 0.301)
8	(0.272, 0.332)	(0.338, 0.253)	(0.330, 0.294)
9	(0.245, 0.333)	(0.310, 0.255)	(0.312, 0.290)
10	(0.228, 0.337)	(0.322, 0.277)	(0.302, 0.300)
11	(0.227, 0.344)	(0.383, 0.321)	(0.310, 0.325)

 Table S1. Variations of CIE coordinates of 3 types of WQD-OLEDs according to the applied voltages.



Figure S1. Schematic diagrams of EML in WQD-OLEDs.





**Figure S2.** (a) The photographs showing stable white color for each voltage from 6 V (turnon) to 12 V (b) As-collected and/or normalized EL spectra at 8 V, which is a moderate driving voltage of 4 type WQD-OLEDs.



**Figure S3.** (a) Luminance-dependent variations of (a) power efficiency and (b) current efficiency of 4 types of WQD-OLEDs.



Figure S4. Voltage-dependent variations of luminance of WQD-OLED A and C.



Figure S5. The Cole-Cole plot of impedance of WQD-OLED A and C.