Electronic Supplementary Material (ESI) for Nanoscale Advances.

Improvement in hole transporting ability and device performance in quantum dot light emitting diodes

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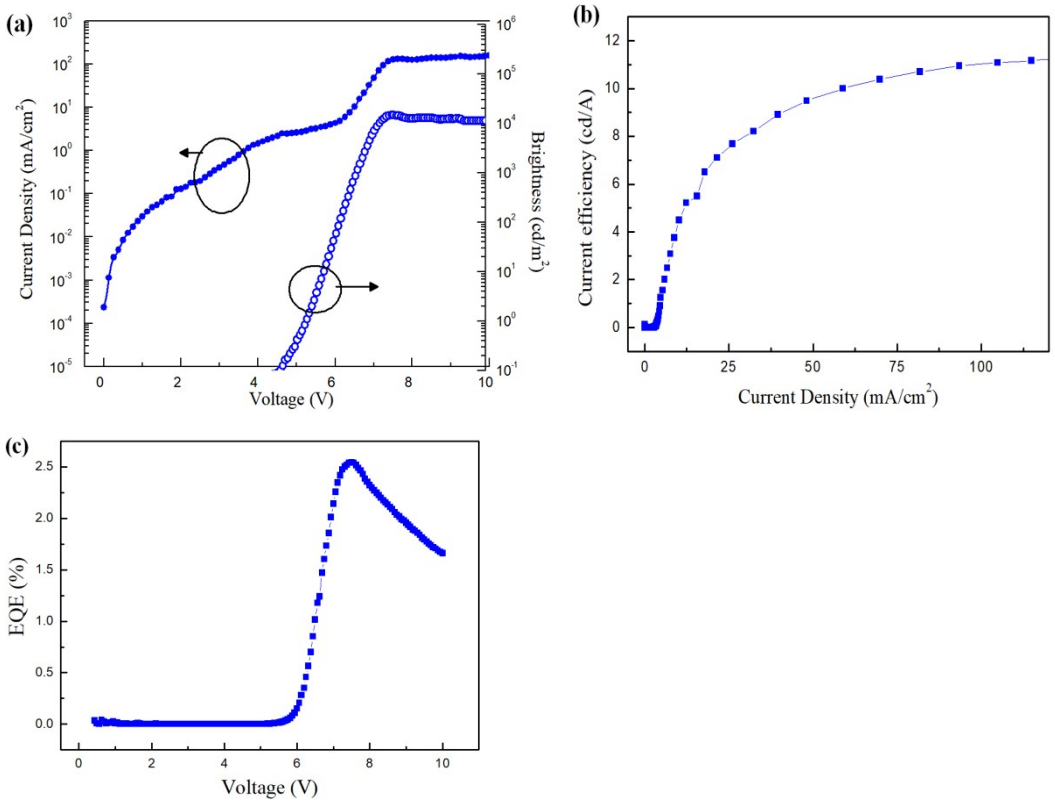

Figure S1. (a) Current density–voltage–brightness, (b) current efficiency–current density and (c) EQE–voltage characteristics of the device ITO/PEDOT:PSS/PVK/ CdSe QDs/ZnO NPs/Al.

Table S1. Performance of the device ITO/PEDOT:PSS/PVK/ CdSe QDs/ZnO NPs/Al.

Turn-on voltage [a] (V)	Max brightness [cd/m^2 @V]	Max current efficiency [cd/A @V]	Max EQE [% @V]
5.3	14,673 @7.56	11.27 @7.5	2.54 @7.5

[a] defined as the operating voltage when the brightness reached 1 cd/m^2.

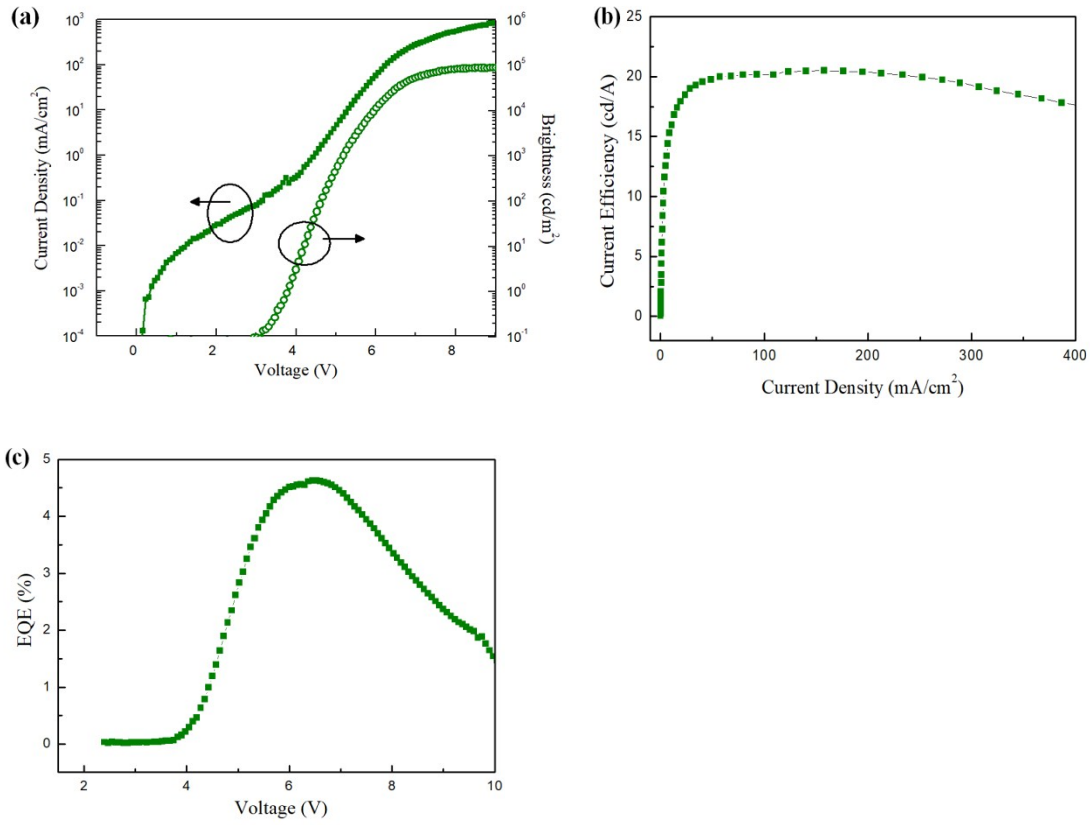

Figure S2. (a) Current density–voltage–brightness, (b) current efficiency–current density and (c) EQE–voltage characteristics of the device ITO/PEDOT:PSS+0.5 wt% BYK-P105/PVK/CdSe QDs/ZnO NPs/PEIE/LiF/Al.

Table S2. Performance of the device ITO/PEDOT:PSS+0.5 wt% BYK-P105/PVK/ CdSe QDs/ZnO NPs/PEIE/LiF/Al.

Turn-on voltage [a] (V)	Max brightness [cd/m^2 @V]	Max current efficiency [cd/A @V]	Max EQE [% @V]
3.8	111,458 @9.9	20.5 @6.5	4.6 @6.5

[a] defined as the operating voltage when the brightness reached 1 cd/m^2.

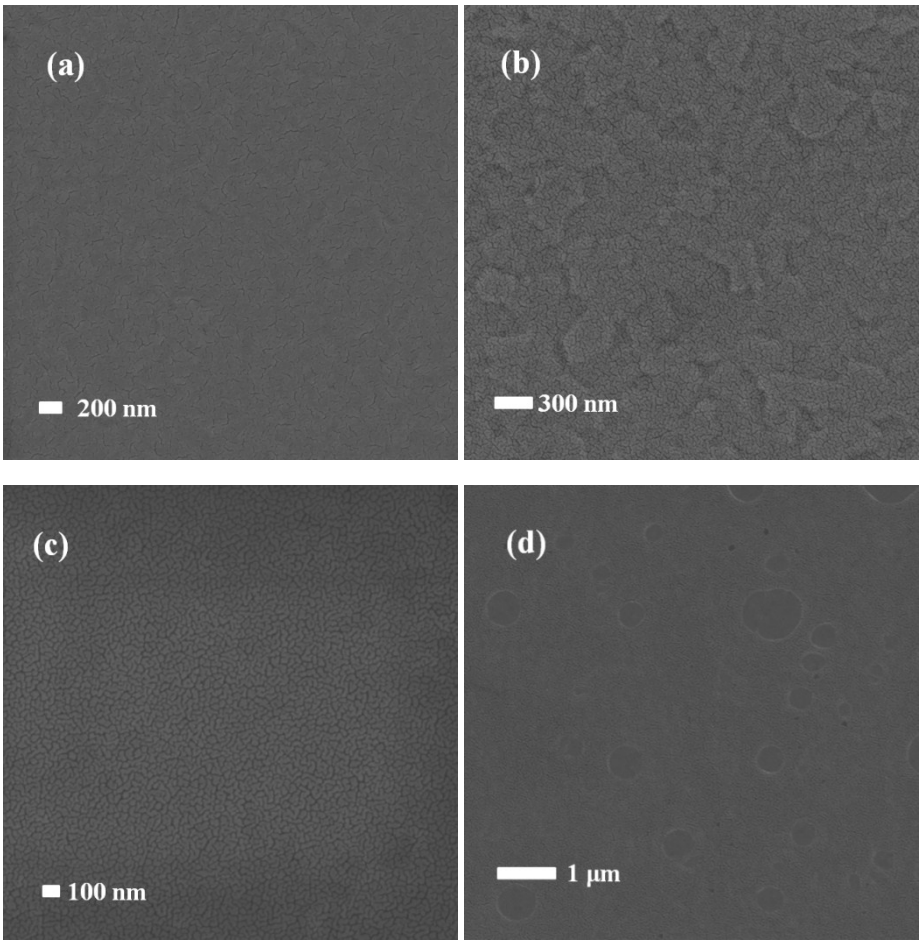

Figure S3. Top-view SEM images of (a) PEDOT:PSS, (b) PEDOT:PSS+BYK-P105, (c) PVK and (d) PVK+BYK-P105 thin films.