Highly-efficient solution-processed green phosphorescent organic light-emitting diodes with reduced efficiency roll-off using ternary blend hosts

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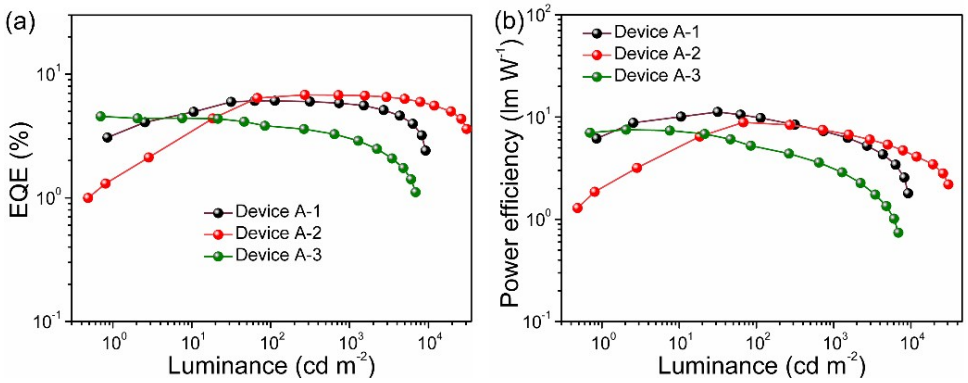

Figure S1. The EQE-L (left) and PE-L (right) characteristics for single host based devices.

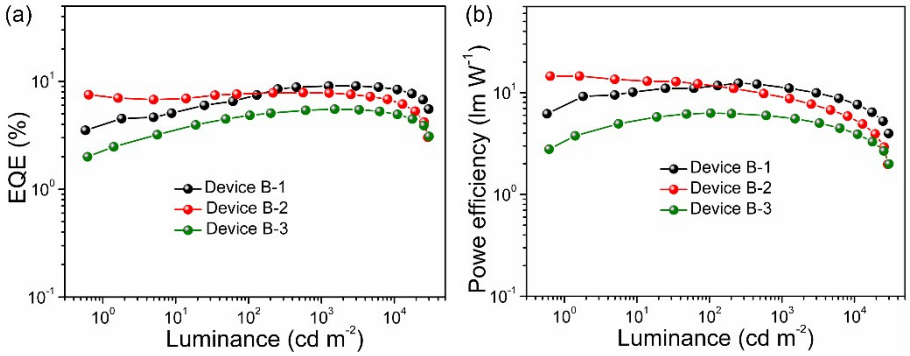

Figure S2. The EQE-L (left) and PE-L (right) characteristics for binary hosts based devices.

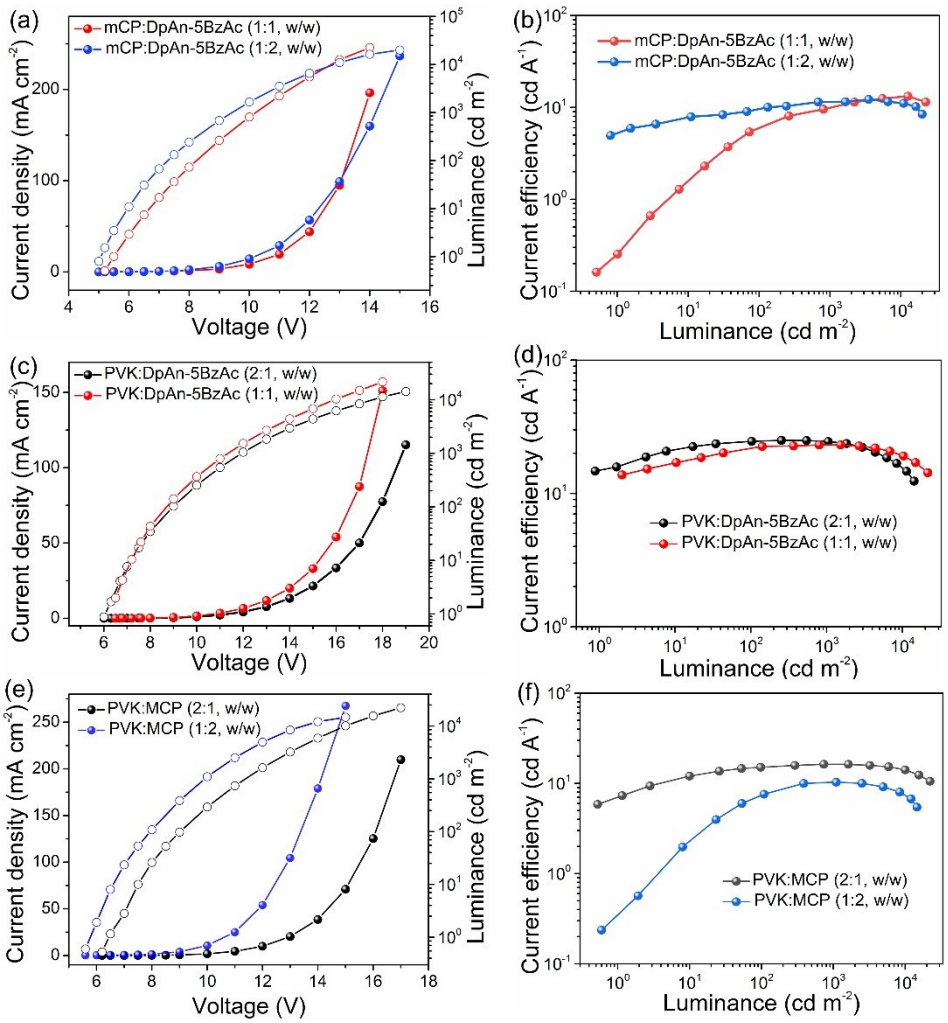

Figure S3. The current density-luminance-voltage (left) and current efficiency versus luminance (right) characteristics for Devices B-1 (a and b), B-2 (c and d) and B-3 (e and f) with different host doping ratios.

Table S1. Contact Angles of the various hosts deposited on a glass substrate

Material	Contact angle (deg)	
	DI water	EG
PVK	81.7	50.1
mCP	56.8	59.5
DpAn-5BzAc	74.9	76.5

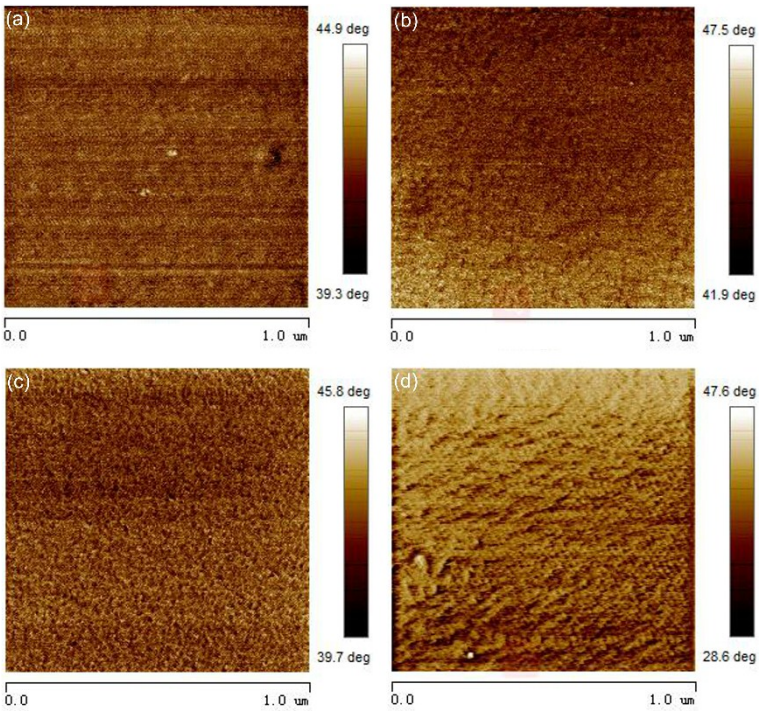

Figure S4. AFM phase images (1 μm × 1μm) of the (a) mCP:DpAn-5BzAc:Ir(ppy)$_2$acac; (b) PVK:DpAn-5BzAc:Ir(ppy)$_2$acac; (c) PVK:mCP:Ir(ppy)$_2$acac and (d) mCP:DpAn-5BzAc:TCTA:Ir(ppy)$_2$acac films deposited on glass substrate.

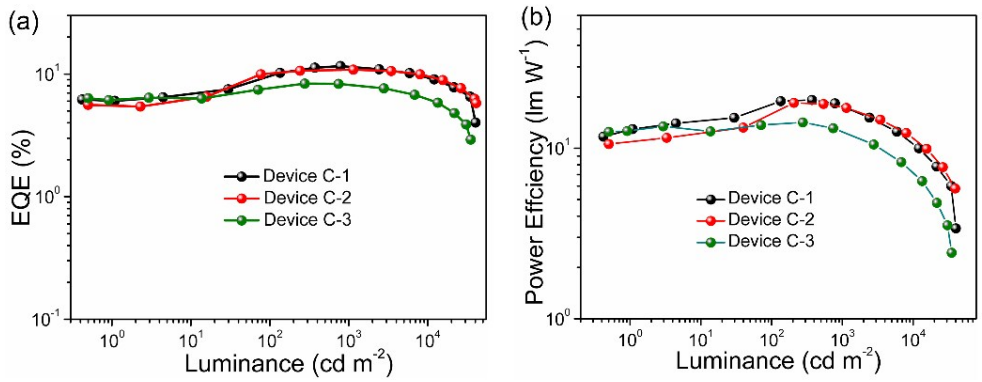

Figure S5. The EQE-L (left) and PE-L (right) characteristics for ternary blend hosts based devices.

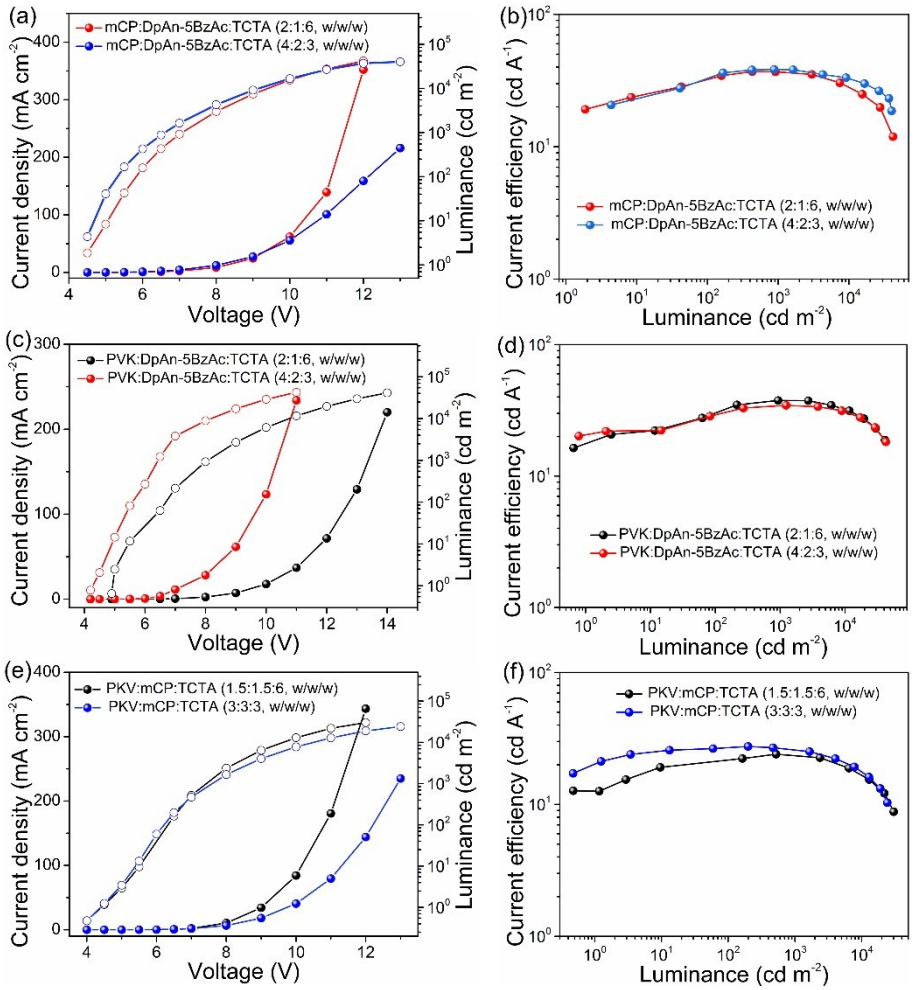

Figure S6. The current density-luminance-voltage (left) and current efficiency versus luminance (right) characteristics for Devices C-1 (a and b), C-2 (c and d) and C-3 (e and f) with different host doping ratios.

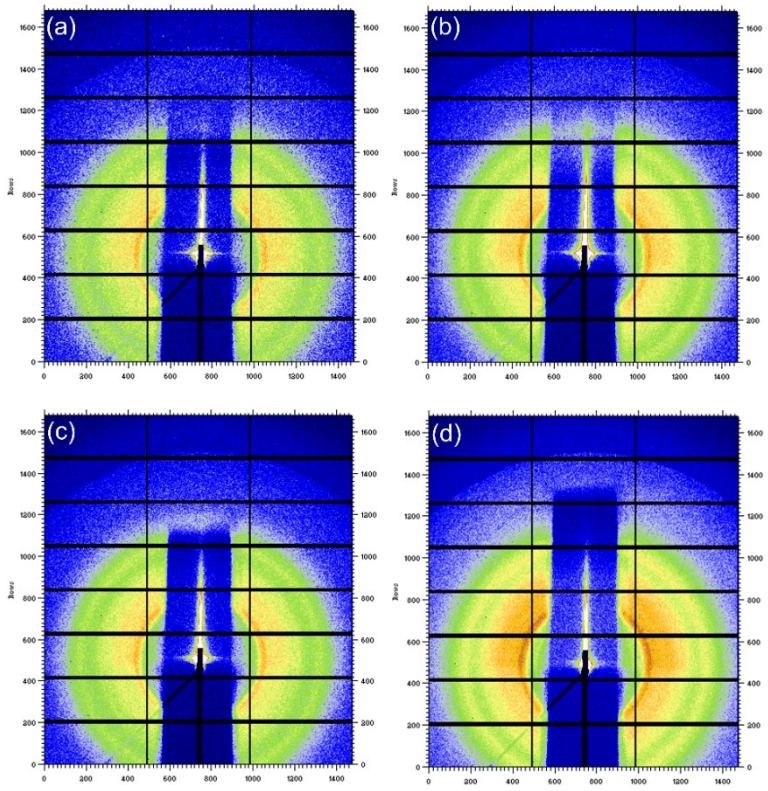

Figure S7. Two-dimensional (2D) GISAXS patterns of (a) mCP:DpAn-5BzAc: $Ir(ppy)_2acac$; (b) PVK:DpAn-5BzAc:$Ir(ppy)_2acac$; (c) PVK:mCP:$Ir(ppy)_2acac$ and (d) mCP:DpAn-5BzAc:TCTA:$Ir(ppy)_2acac$.

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