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Supporting Information

The application of high boiling point dissolution solvent on poly(N-vinylcarbazole) host toward improving the performance of blue electrophosphorescent devices

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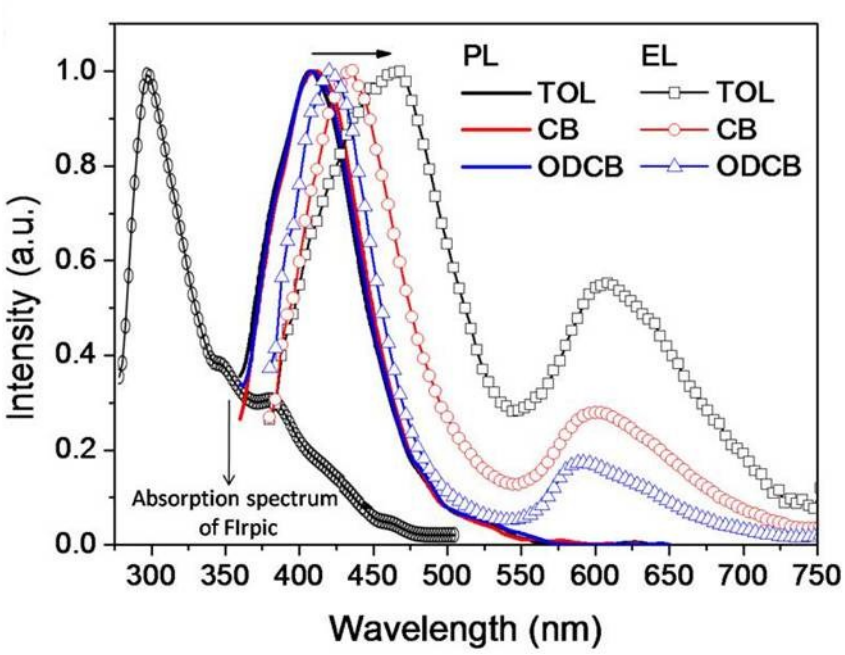

Figure S1. Absorption spectrum of FIrpic emitter, PL and the typical EL spectra of these PVK films using varied dissolution solvent, i.e. TOL, CB and ODCB.

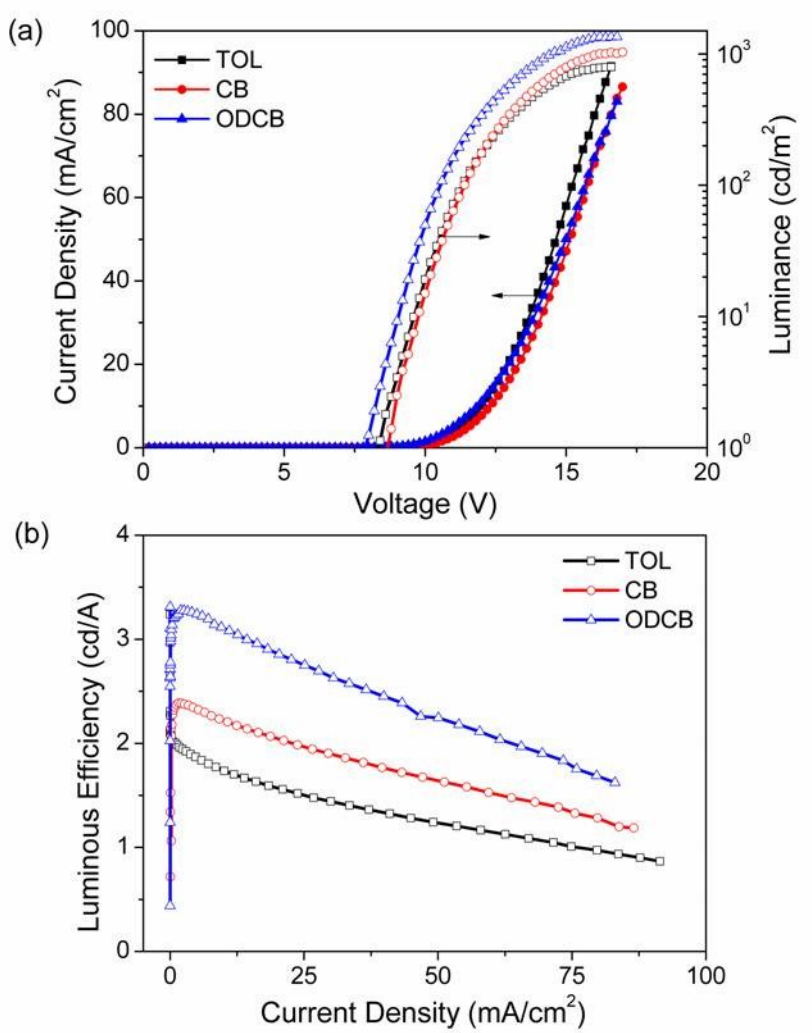

Figure S2. (a) J-V, L-V curves and (b) LE-J curves of PVK:FIrpic(1 wt.%) doped film based PhOLEDs.

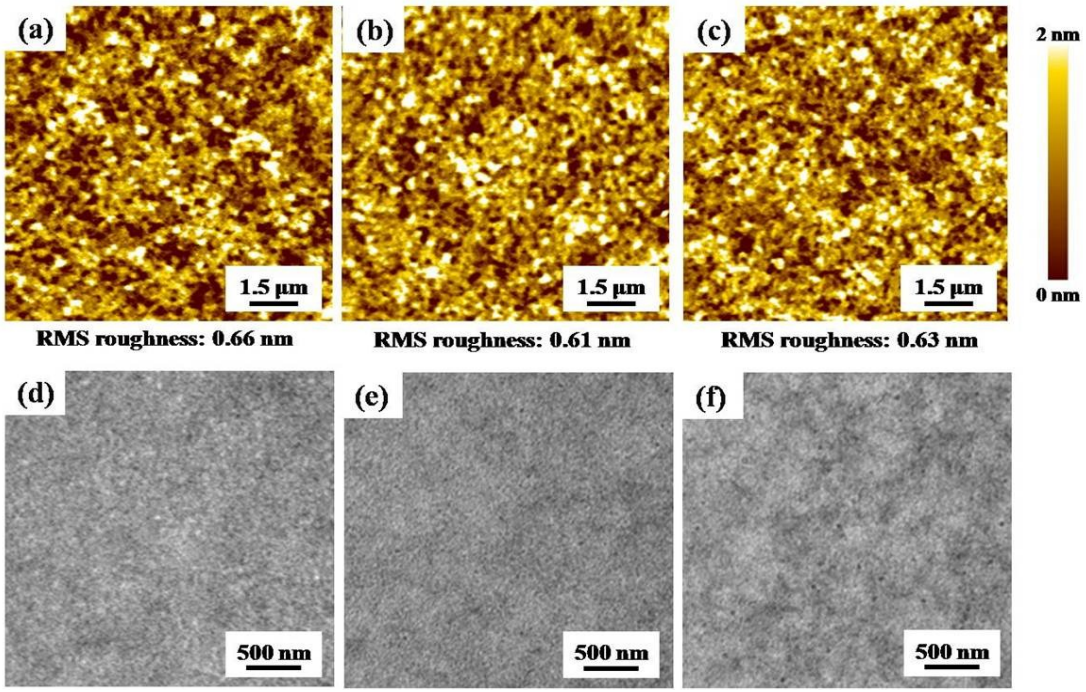

Figure S3. AFM and TEM morphological measurements on different PVK:FIrpic(10wt.%) doped films with varied dissolution solvents, that is TOL(a, d), CB (b, e) and ODCB (c, f).

As confirmed, there is no distinct difference among them, which confirms that the film-forming capabilities of these doped films are basically the same.

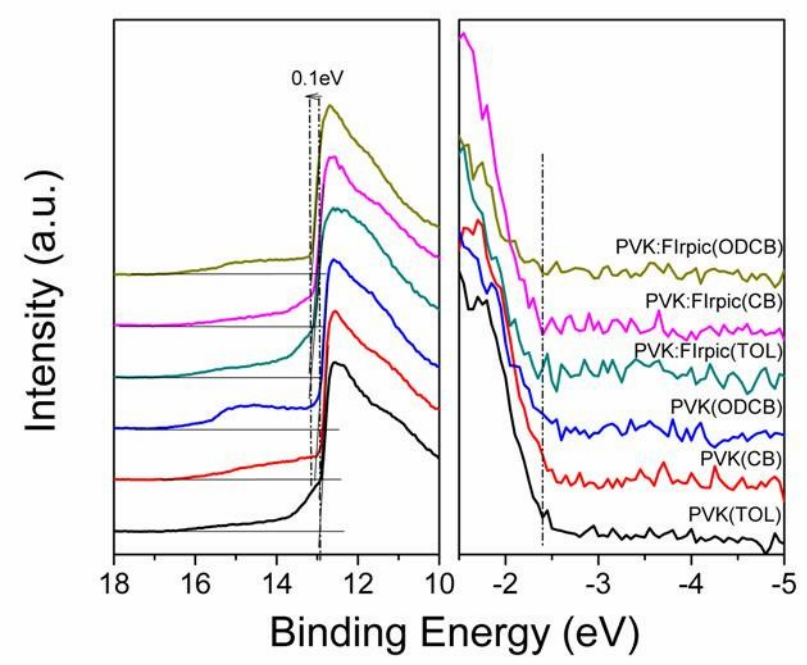

Figure S4. UPS spectra of these different film samples including PVK or PVK:FIrpic (10 wt.%) doped films using varied dissolution solvents. As confirmed, there is no distinct difference among them, which confirms that hole injection barriers in these devices are basically the same.