Supporting Information

Controlling Excimer Formation in Indolo[3,2,1*jk*]carbazole/9*H*-carbazole based host materials for RGB PhOLEDs

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1. NMR spectra



Figure S1 Proton NMR spectrum of 3.









Figure S4 Carbon NMR spectrum of 5CzICz.











Figure S7 Proton NMR spectrum of 6.



S-5











Figure S11 Proton NMR spectrum of 8.







Figure S13 Proton NMR spectrum of Cz₃ICz.



2. Theoretical calculations



Figure S15 Natural transition orbitals (NTOs) of the $S_0 \rightarrow S_1$ transition calculated by TD-DFT at the optimized S_0 geometry.

3. Thermal characterization



Figure S16 DSC analysis of the developed host materials (insert: second heating cycle).



Figure S17 TGA analysis of the developed host materials.

4. Electrochemical characterization



5. Electroluminescent spectra



Figure S21 EL spectra of devices R1-3 at a driving voltage of 8V.



Figure S22 EL spectra of devices G1-3 at a driving voltage of 8V.



Figure S23 EL spectra of devices B1-3 at a driving voltage of 8V.

6. Photophysical characterization



Figure S24 Normalized absorption and emission spectra of 5CzICz in various solvents.



Figure S25 Normalized absorption and emission spectra of Cz₂ICz in various solvents.



Figure S26 Normalized absorption and emission spectra of Cz₃ICz in various solvents.