Supporting Information for:

Novel Violet Emitting Material Synthesized by Stepwise Chemical Reactions

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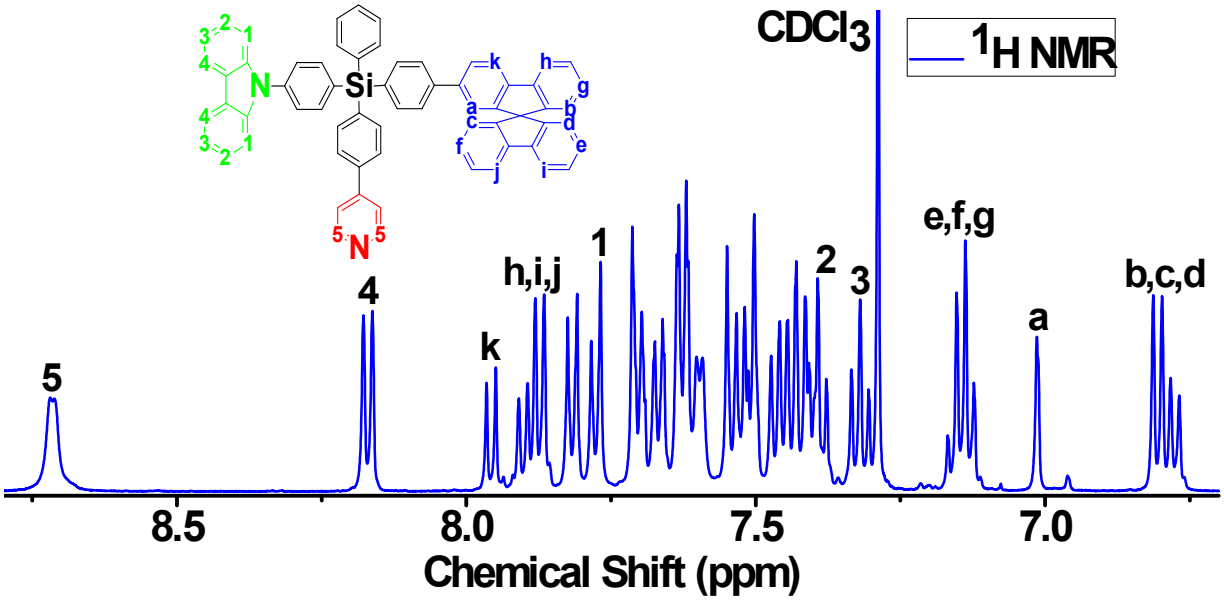
1. Structural Characterization



Fiugre S1 [1]H NMR spectra of the bipolar molecule CzPySiSF.

2. Morphology Properties

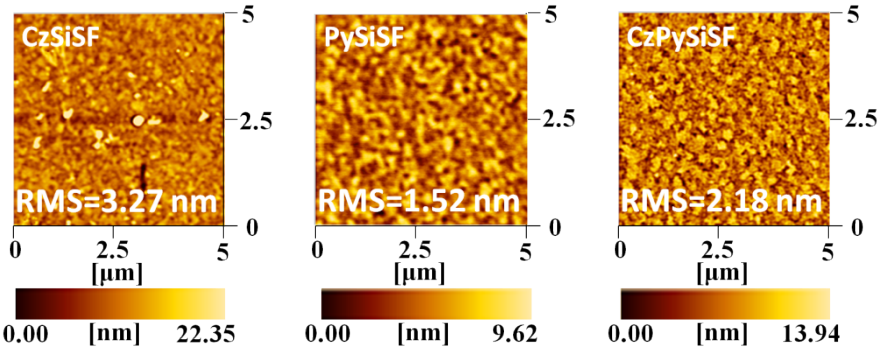


Figure S2 AFM images of (a) CzSiSF, (b) PySiSF and (c) CzPySiSF.

3. Photophysical Properties

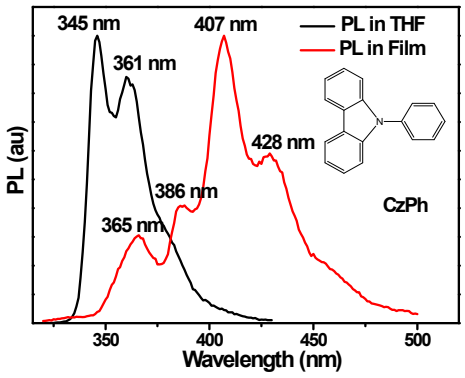


Figure S3 The PL spectra of CzPh in THF (10^{-5} M) and in film.

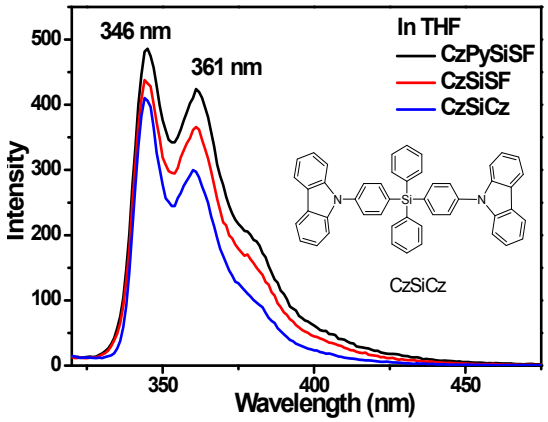


Figure S4 The relative intensity of emission spectra of CzSiCz, CzSiSF and CzPySiSF in THF for fluorescence quantum efficiency measurement. Inset: chemical structure of CzSiCz.

Table S1 The fluorescence quantum efficiency measurement data of CzSiCz, CzSiSF and CzPySiSF.

Compound	D	A	Q
CzSiCz	12182.726	0.09685	q
CzSiSF	15667.161	0.08034	1.55q
CzPySiSF	18648.471	0.09816	1.51q

Abbreviations: A= the value of absorbance; D= the area of emission spectra; Q= fluorescence quantum efficiency.

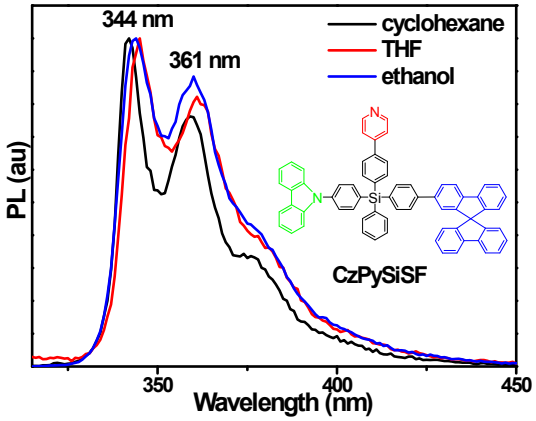


Figure S5 The PL spectra of CzPySiSF in different solvents (10^{-5} M).

4. Eletroluminescence Properties

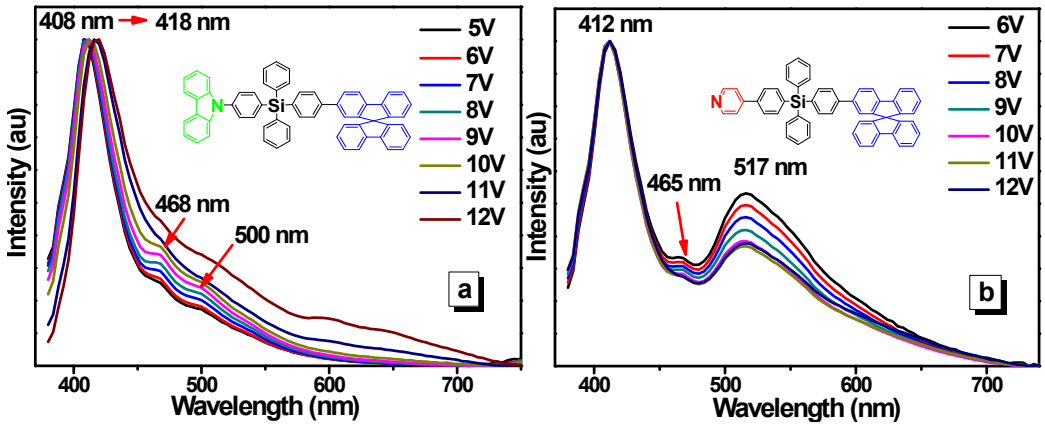


Figure S6 The EL spectra of (a) CzSiSF and (b) PySiSF in the device structure of ITO / PEDOT:PSS (40 nm) / NPB (80 nm) / TCTA (10 nm) / Emitting-layer (CzSiSF or PySiSF) (30 nm) / TPBi (30 nm) / LiF (0.5 nm) / Al (100 nm).

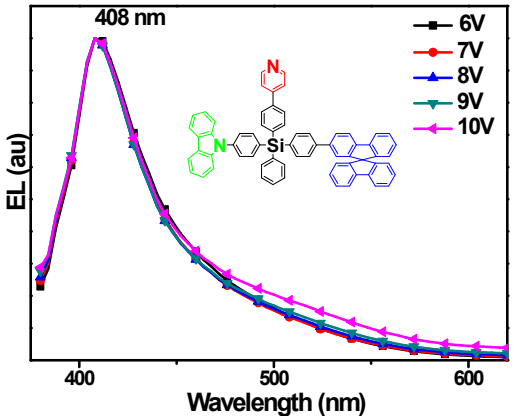


Figure S7 The normalized EL spectra of CzPySiSF at different voltages form 6 V to 10 V. The device structure is: ITO / PEDOT:PSS (40 nm) / NPB (80 nm) / TCTA (10 nm) / Emitting-layer (CzPySiSF) (30 nm) / TPBi (30 nm) / LiF (0.5 nm) / Al (100 nm).

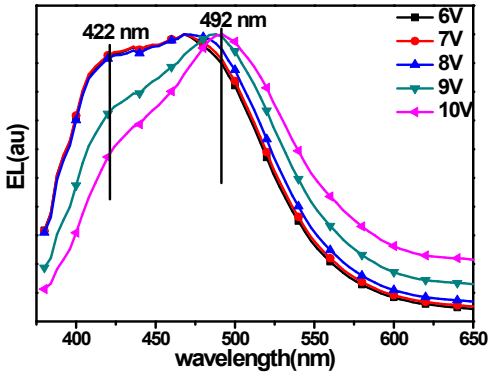


Figure S8 The normalized EL spectra of controlled device without emitting layer. The device structure is: ITO / PEDOT:PSS (40 nm) / NPB (80 nm) / TCTA (10 nm) / TPBi (30 nm) / LiF (0.5 nm) / Al (100 nm).

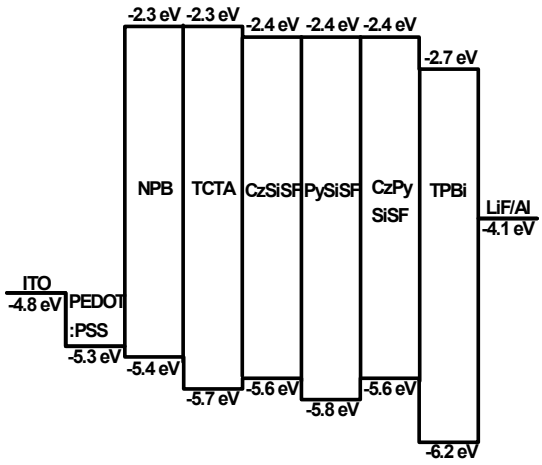


Figure S9 The energy level diagram of device.