Supporting Information

Unexpected $SiMe_3$ Effect on Color-tunable and Fluorescent Detection of Novel Dendritic Polyphenyl Naphthalimides with Aggregation-induced Emission Enhancement

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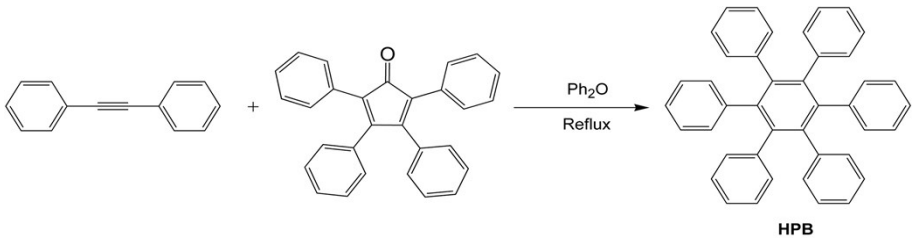
Experimental Section

Materials

Diphenylacetylene and 2, 3, 4, 5-tetraphenylcyclopenta-2, 4-diene-1-one was purchased from Aladdin Industrial Company.

Synthesis of hexaphenylbenzene (HPB)



HPB

1.78 g (10mmol) diphenylacetylene and 3.07 g (8mmol) 2, 3, 4, 5-tetraphenylcyclopenta-2, 4-diene-1-one were dispersed in 10 mL diphenyl ether. The mixture was refluxed for 2 h under argon. When the mixture was cooled to room temperature, the mixture was poured to 100mL methanol and precipitate was obtained. The product was further purified by silica gel column chromatography. White solid was obtained with a yield of 68%.

^1H NMR ($CDCl_3$, 400MH_Z, ppm): δ7.41 (m, 30H). ^{13}C NMR ($CDCl_3$, 100MH_Z, ppm): δ127.6, 127.9, 129.0, 133.6, 134.3. Anal.calcd for $C_{42}H_{30}$: C 94.34%, H 5.66%; found: C 94.47%, H 5.53 %.

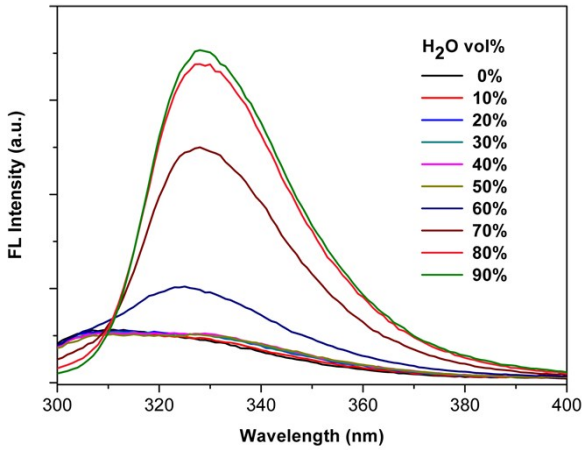


Figure S1. Fluorescence spectra of hexaphenylbenzene in 10 μM THF/H_2O solvents

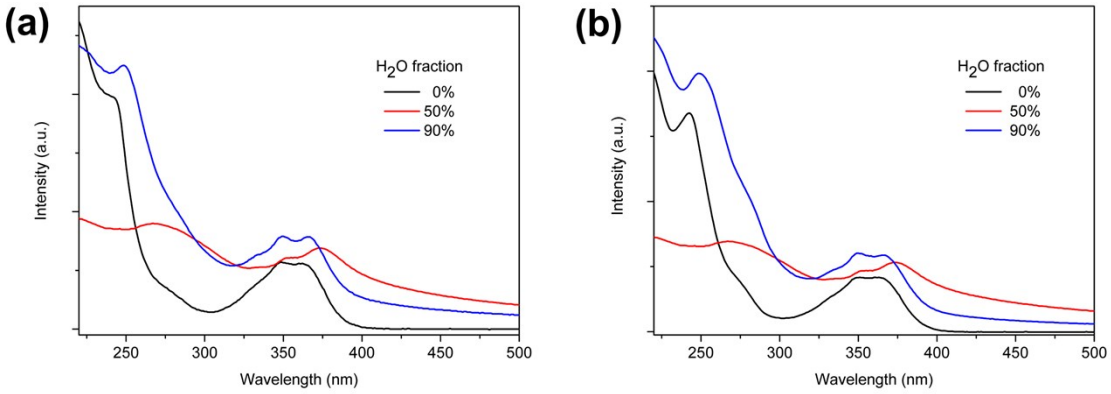


Figure S2. Absorption spectra of **NPI-Ph** (a) and **NPI-Si** (b) in 10 μM THF/H_2O solvents with different H_2O fractions