

Supporting Information

Thermoresponsive AIE supramolecular complexes in dilute solution: sensitively probing phase transition from two different temperature-dependent emission responses

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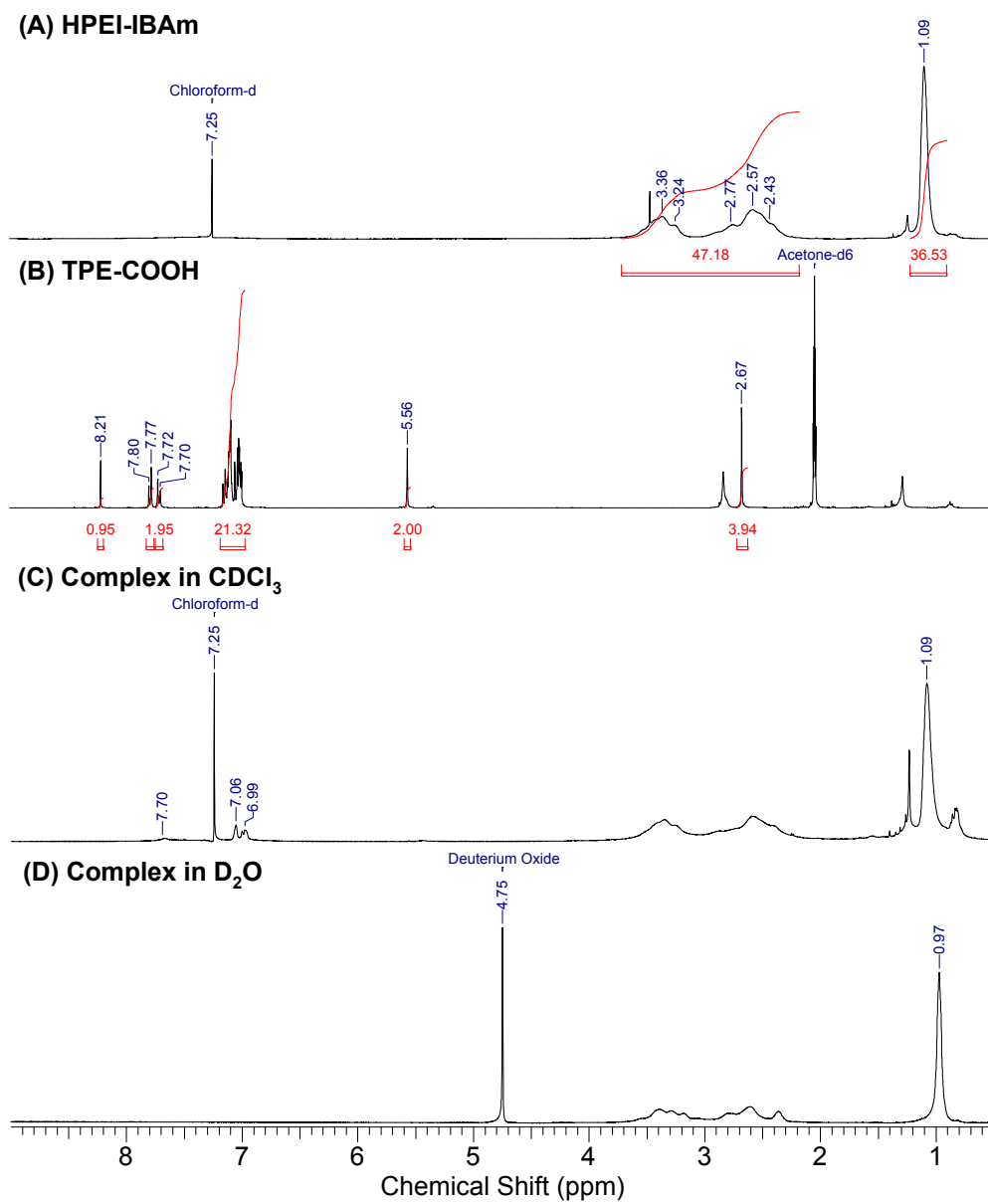


Fig. S1 Typical ^1H NMR spectra of (A) HPEI-IBAm; (B) TPE-COOH; (C) supramolecular complex in CDCl_3 and (D) supramolecular complex in D_2O ($[\text{TPE-COOH}]/[\text{HPEI-IBAm}]=3$)

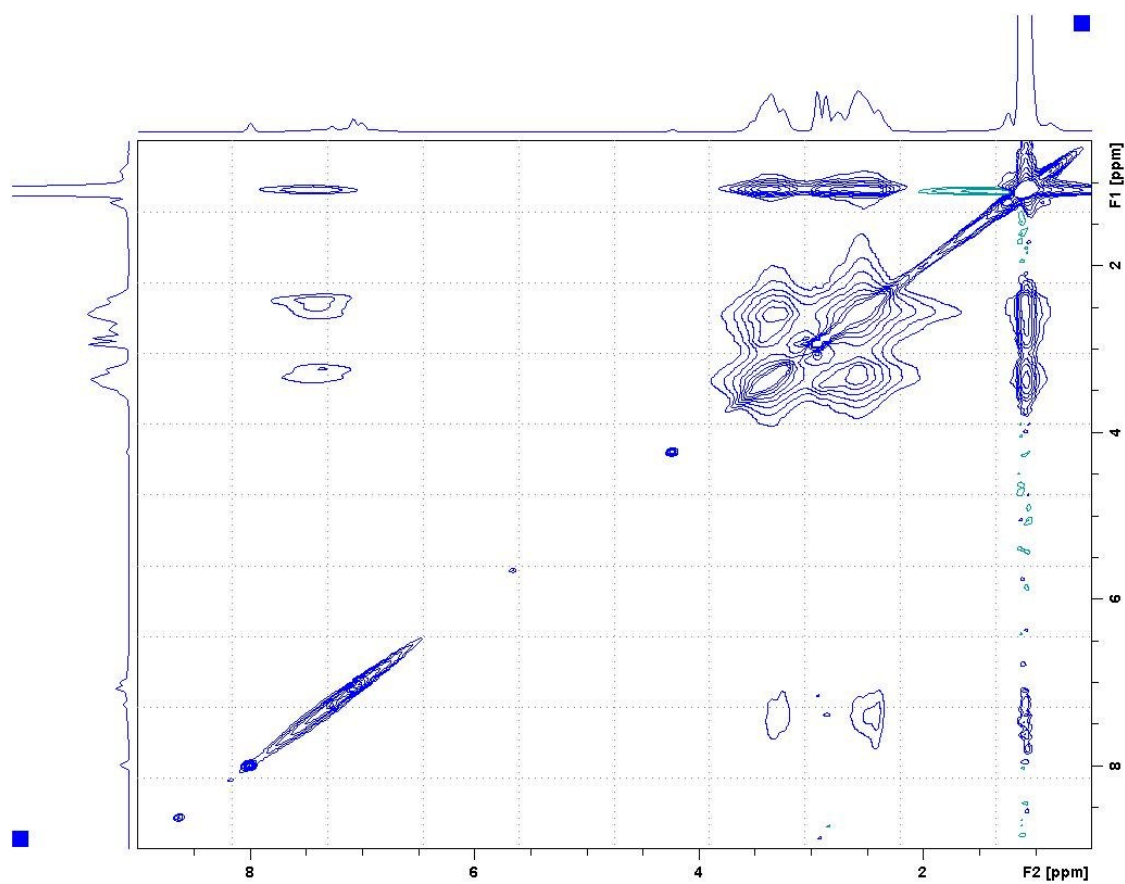


Fig. S2 Typical 2D NOESY ^1H NMR spectrum of supramolecular complex of HPEI-IBAm with TPE- N_3 in CDCl_3

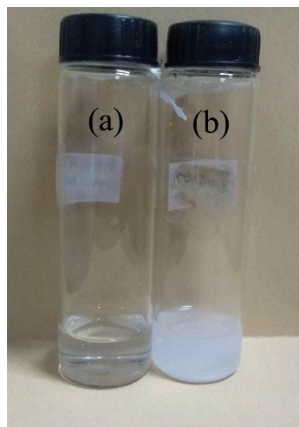


Fig. S3 Typical photographs of 5 mg/mL supramolecular complexes of (a) HPEI-IBAm and TPE-COOH and (b) HPEI-IBAm and TPE-N₃ in 9:1 H₂O/DMF (v/v) mixed solvents at 20 °C

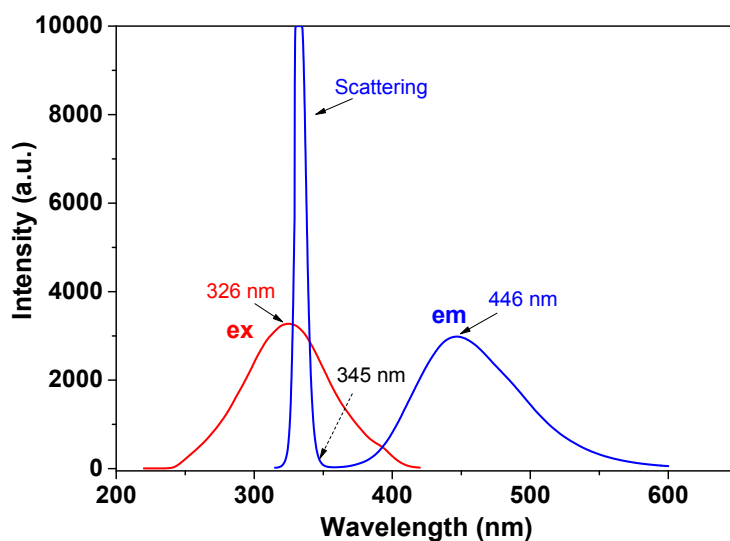


Fig. S4 Typical excitation and emission spectra of supramolecular complex of HPEI-IBAm and TPE-COOH in H₂O/DMF (v/v) mixed solvents

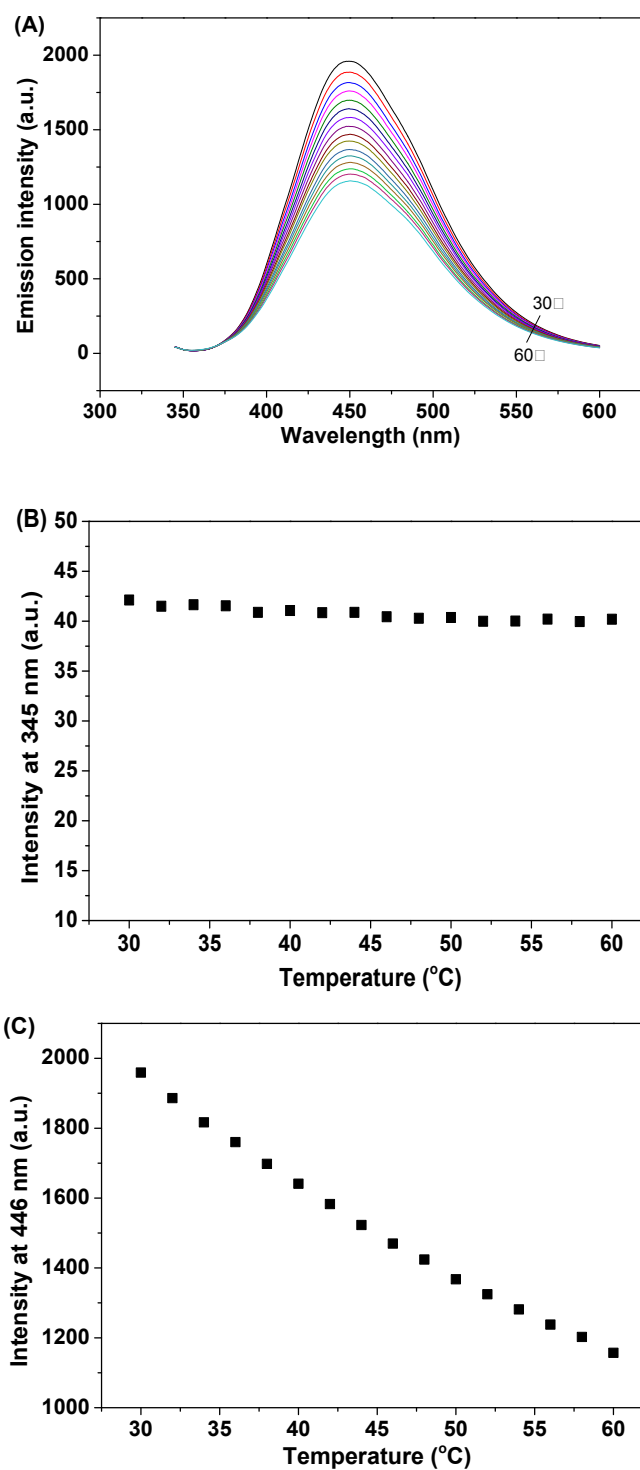


Fig. S5 Temperature-dependent (A) fluorescence spectra, (B) emission intensity at 345 nm and (C) emission intensity at 446 nm of supramolecular complex of HPEI and TPE-COOH in 49:1 H₂O/DMF mixed solvents (1 mg/mL)

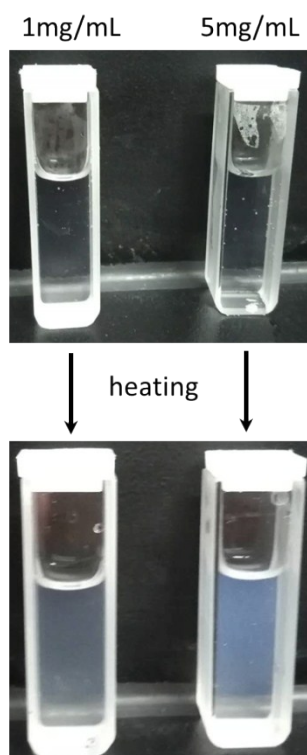


Fig. S6 Typical photographs of 1 mg/mL and 5 mg/mL supramolecular complex of HPEI-IBAm and TPE-COOH in 9:1 H₂O/DMF mixed solvents at 30 and 60 °C, respectively

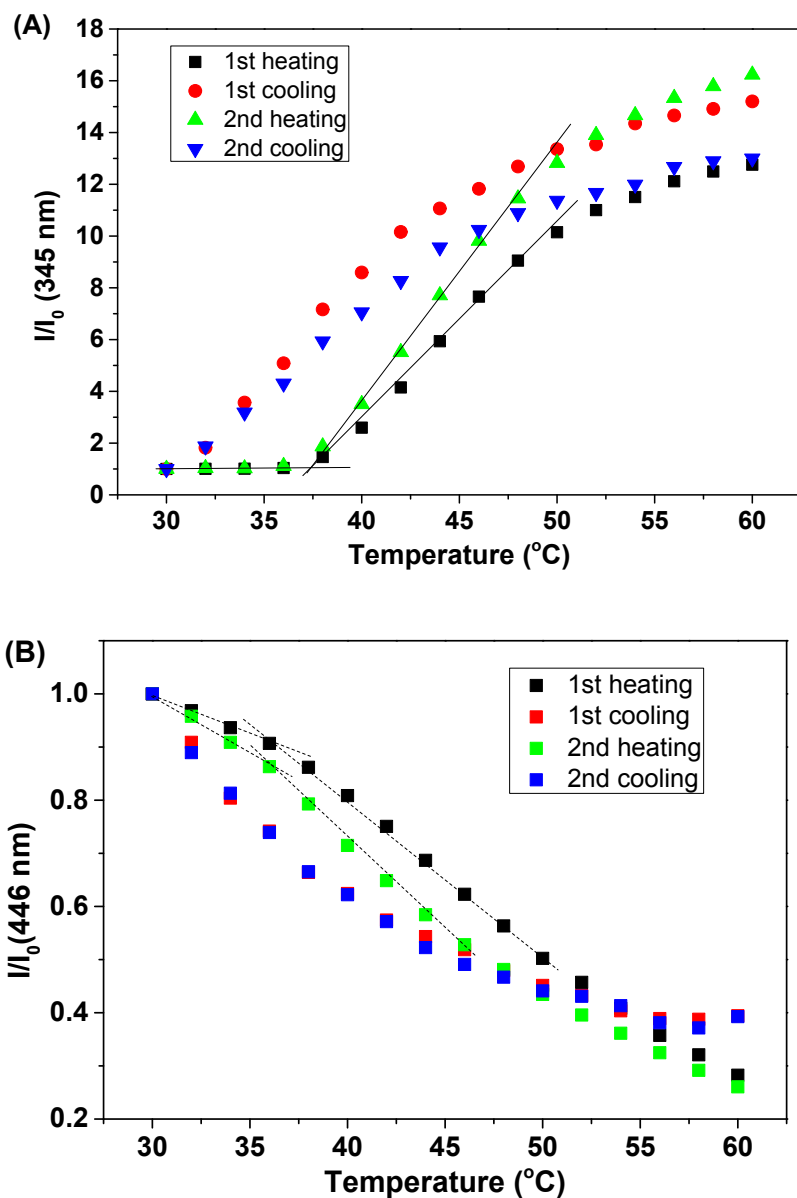


Fig. S7 Heating and cooling cycles of the emission intensity at (A) 345 nm and (B) 446 nm of supramolecular complex of HPEI-IBAm and TPE-COOH in 49:1 $\text{H}_2\text{O}/\text{DMF}$ mixed solvents (concentration of complex is 1 mg/mL; $[\text{HPEI-IBAm}]/[\text{TPE-COOH}]=1$; $\lambda_{\text{ex}}=326 \text{ nm}$)

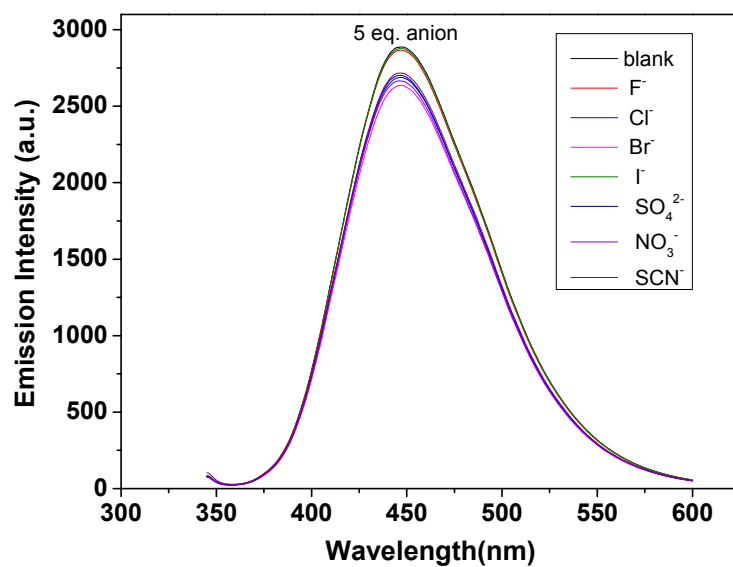


Fig. S8 Typical fluorescence spectra of supramolecular complex of HPEI-IBAm and TPE-COOH at 30 °C in the presence of 5 equivalent different anions (concentration of complex is 1 mg/mL; [HPEI-IBAm]/[TPE-COOH]=1; 9:1 H₂O/DMF mixed solvents are used; [anion]= 2.5×10^{-4} M; λ_{ex} = 326 nm)

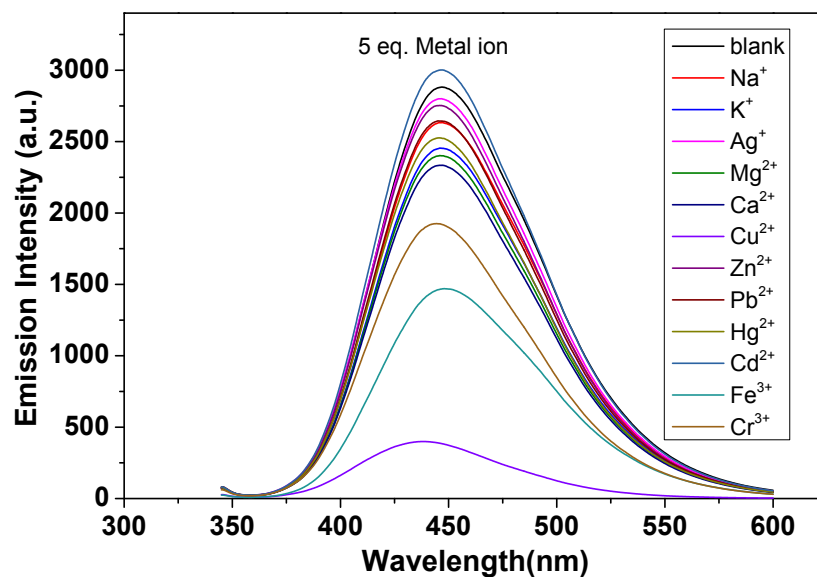


Fig. S9 Typical fluorescence spectra of supramolecular complex of HPEI-IBAm and TPE-COOH at 30 °C in the presence of 5 equivalent different cations (concentration of complex is 1 mg/mL; [HPEI-IBAm]/[TPE-COOH]=1; 9:1 H₂O/DMF mixed solvents are used; [cation]= 2.5×10^{-4} M; λ_{ex} = 326 nm)