

# Organic fluorescent compounds that display efficient aggregation-induced emission enhancement and intramolecular charge transfer

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Figure S1-S4: Characterization of compounds **1a-c**.

Figure S5: Absorption spectra of **1a-c**.

Figure S6: PL emission spectra of **1b**.

Figure S7: PL emission spectra of **1a-b** in DMF/H<sub>2</sub>O mixtures.

Figure S8: Cyclic voltammograms of **1a**.

Figure S9: Electron density contours and orbital energies calculated for the HOMOs and LUMOs of **1b-c**

## Characterization

### <sup>1</sup>H NMR

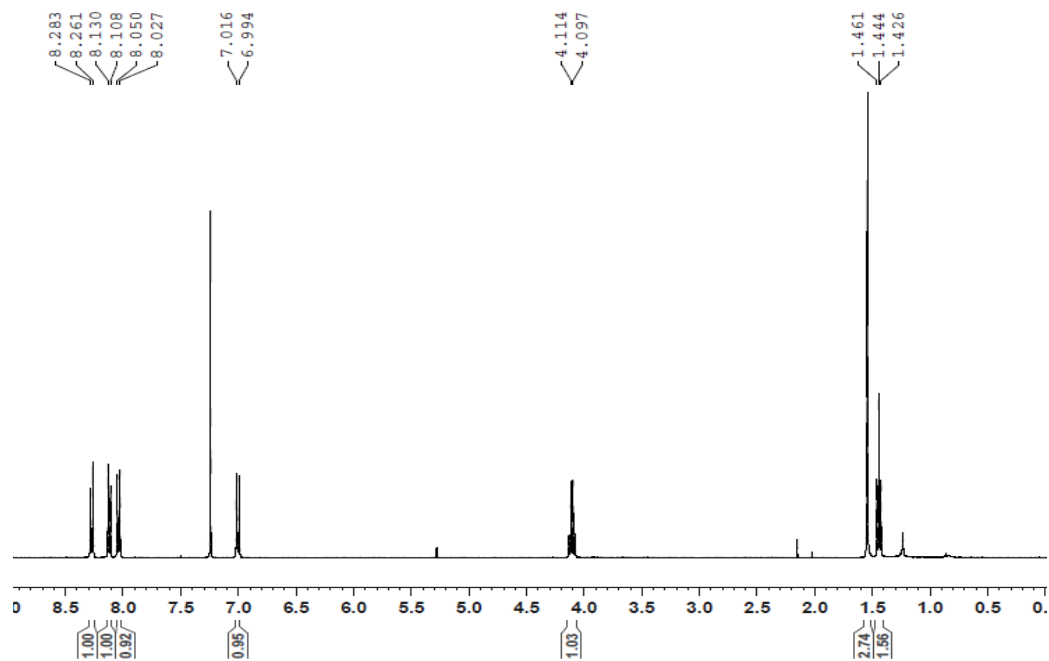


Figure S1 (1) <sup>1</sup>H NMR spectra of **1a**.

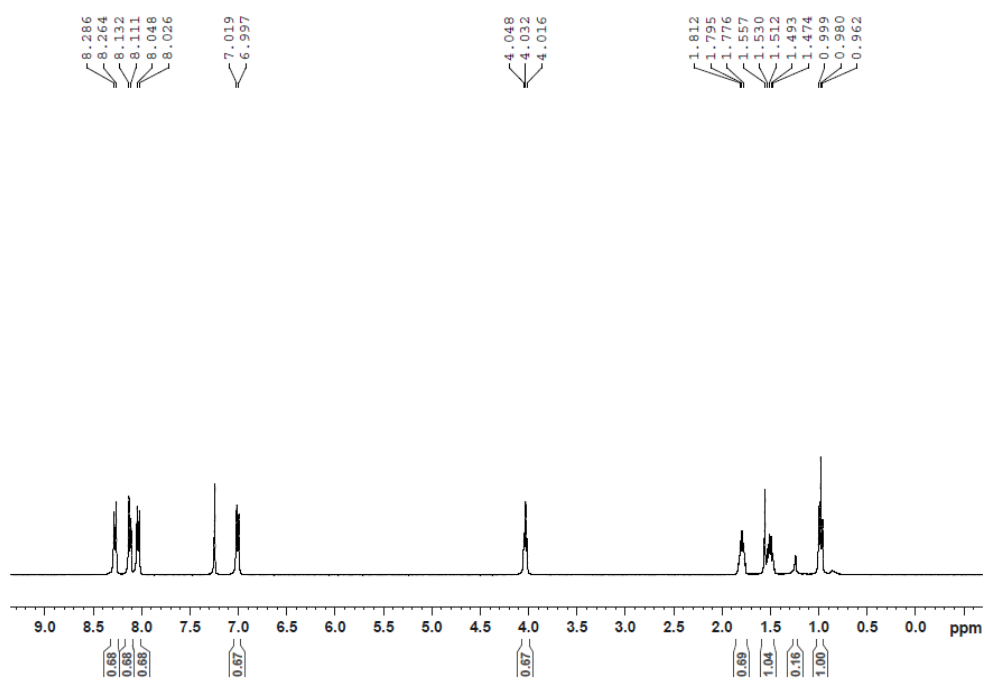


Figure S1 (2)  $^1\text{H}$  NMR spectra of **1b**.

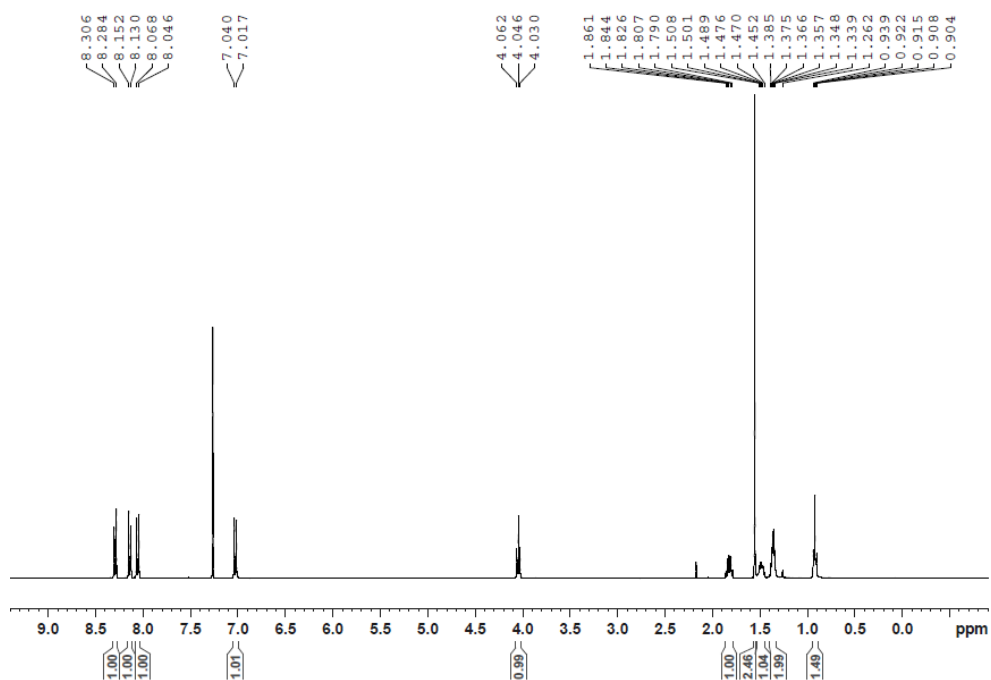


Figure S1 (3)  $^1\text{H}$  NMR spectra of **1c**.

$^{13}\text{C}$  NMR

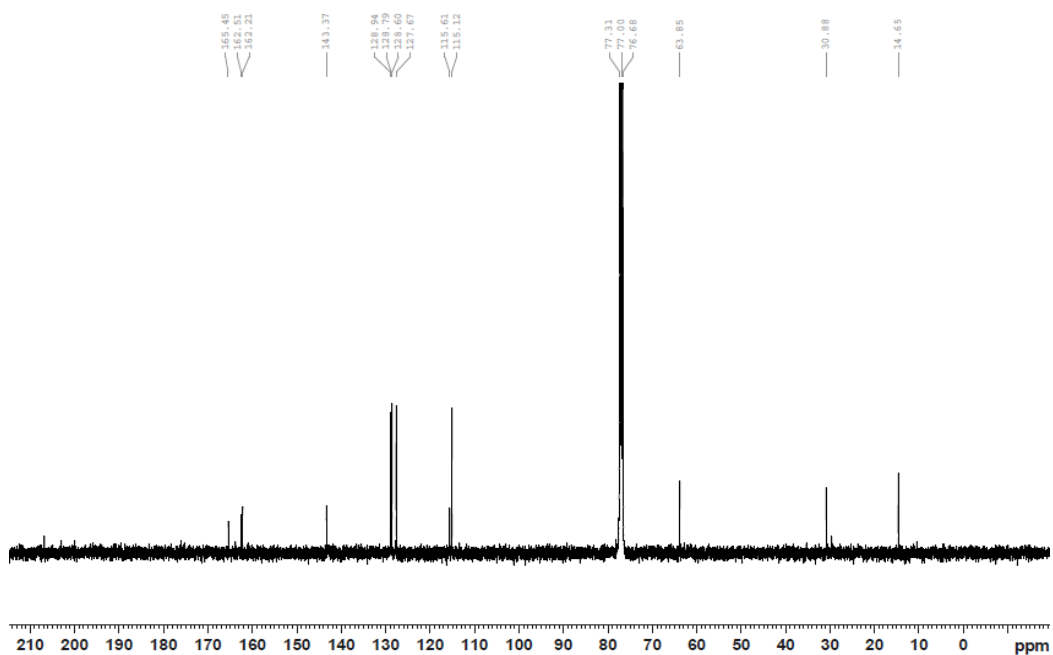


Figure S2 (1)  $^{13}\text{C}$  NMR spectra of **1a**.

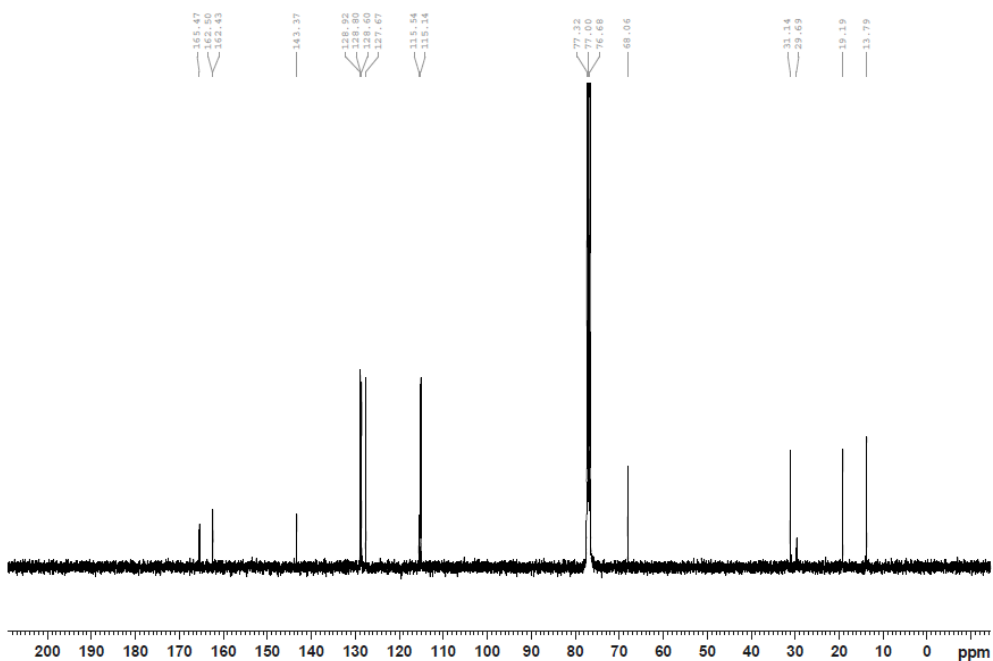


Figure S2 (2)  $^{13}\text{C}$  NMR spectra of **1b**.

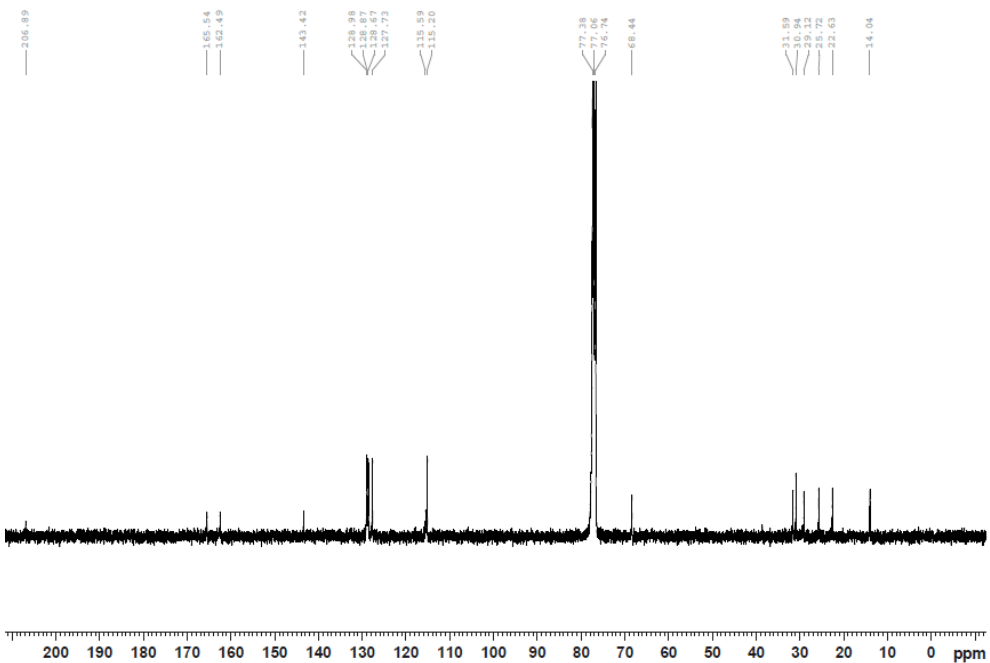
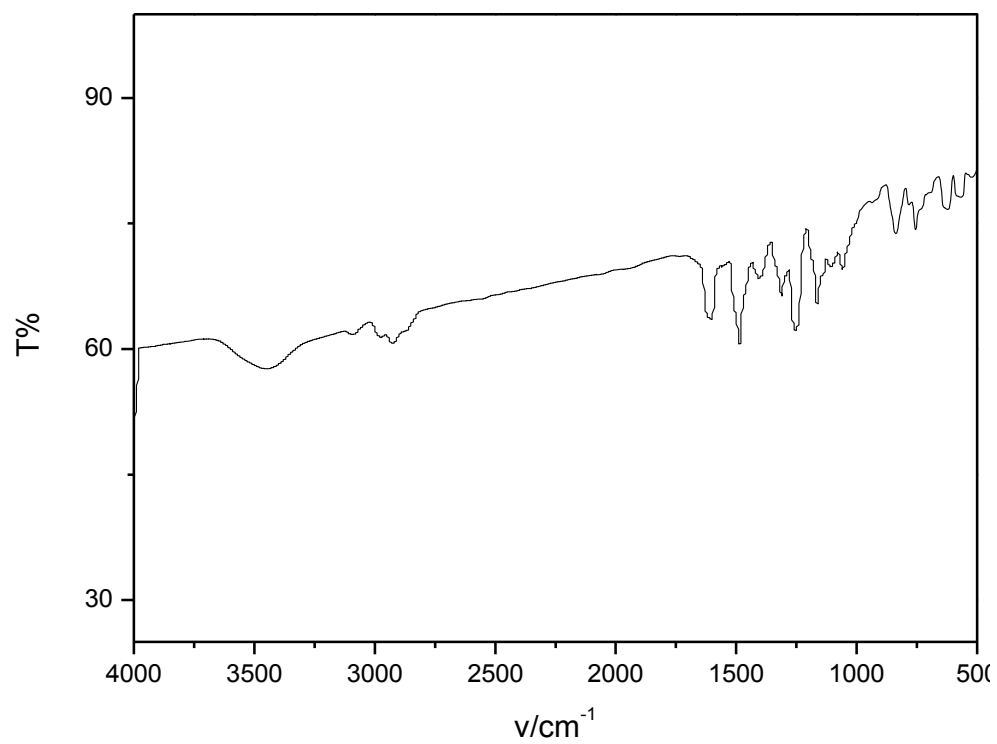
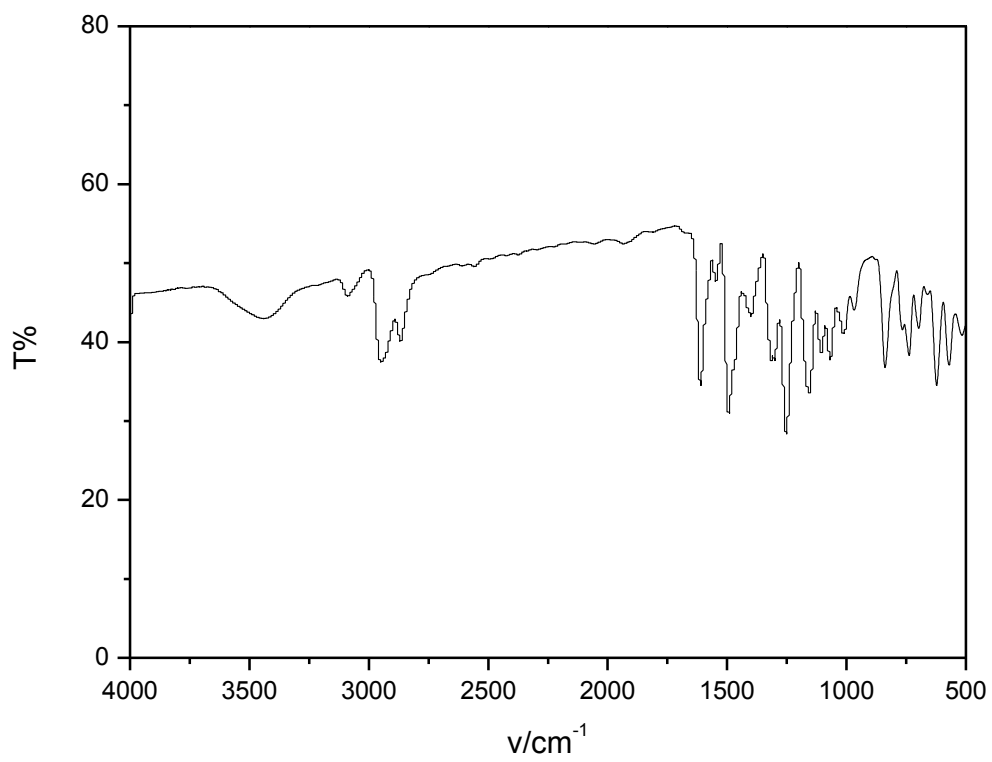


Figure S2 (3)  $^{13}\text{C}$  NMR spectra of **1c**.

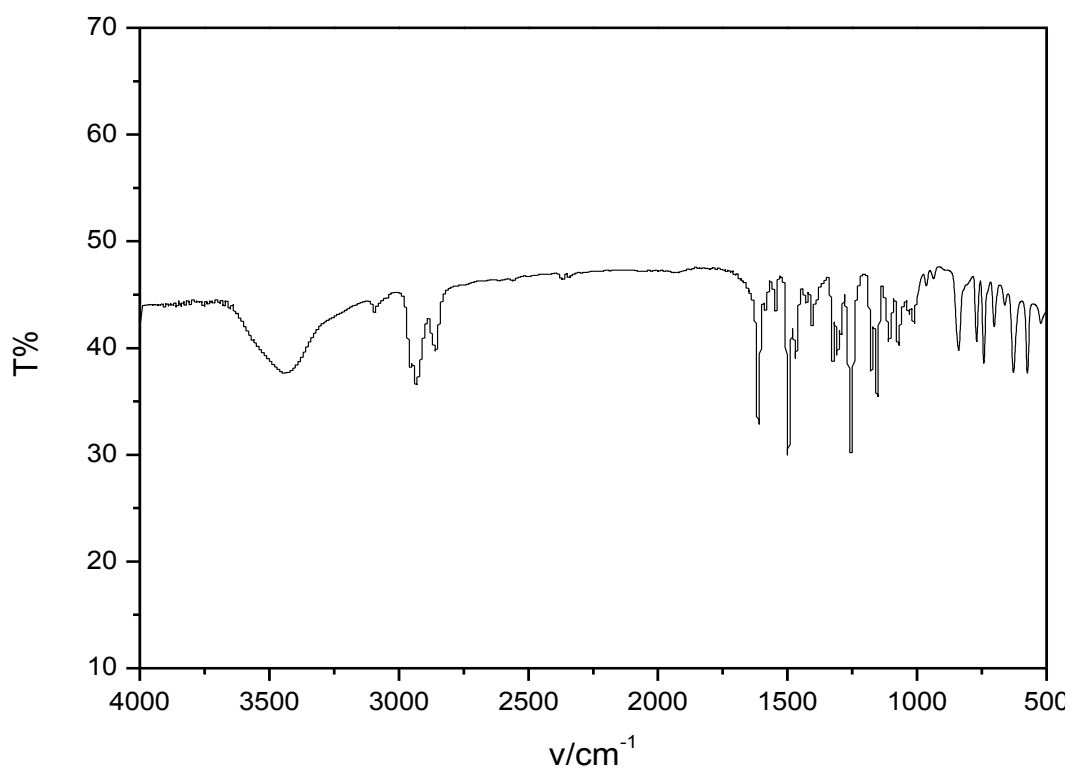
FT-IR



**Figure S3 (1)** IR spectra of **1a**.

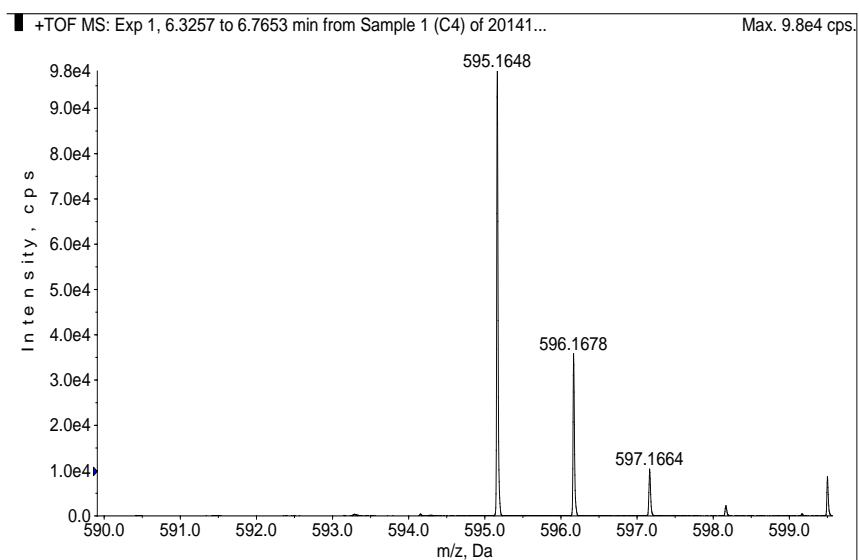


**Figure S3 (2)** IR spectra of **1b**.

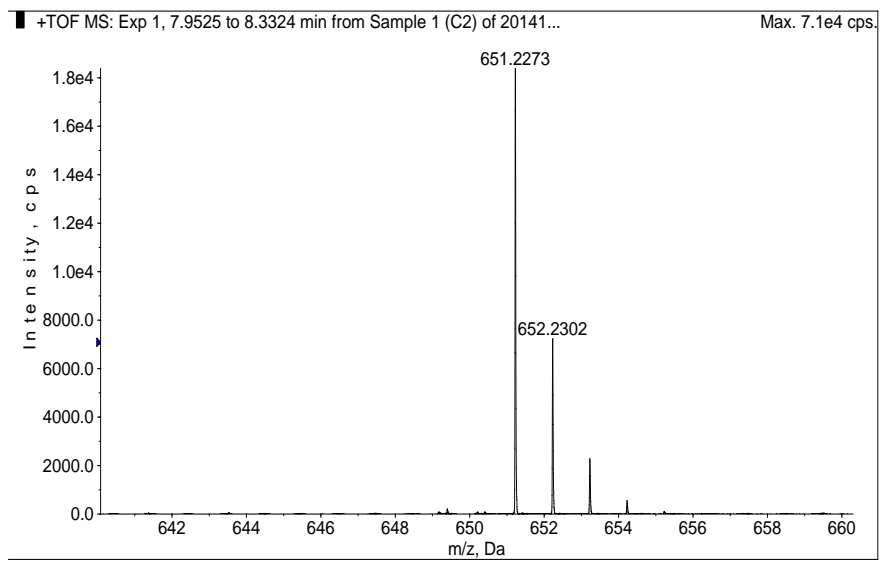


**Figure S3** (3) IR spectra of **1c**.

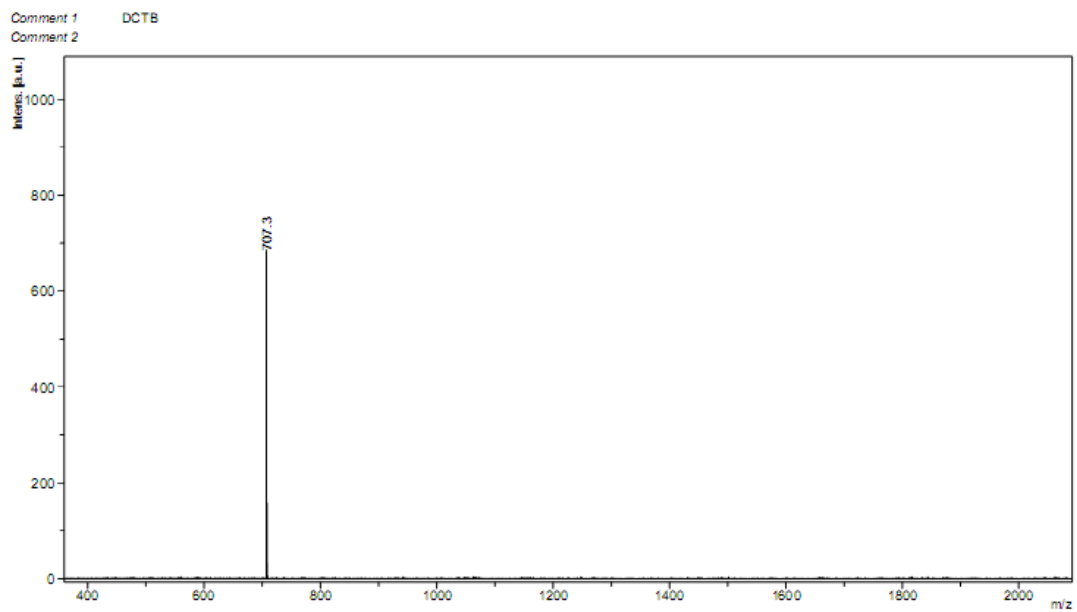
### TOF Ms



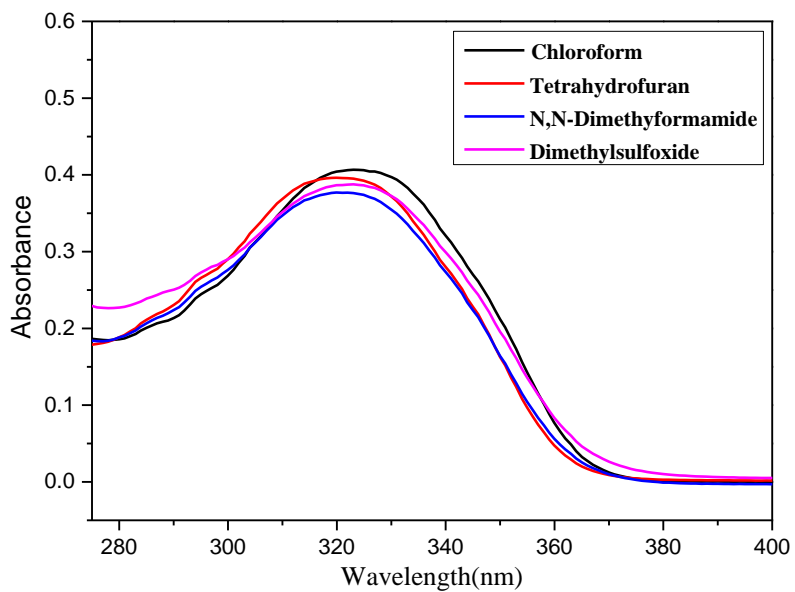
**Figure S4** (1) TOF MS spectra of **1a**.



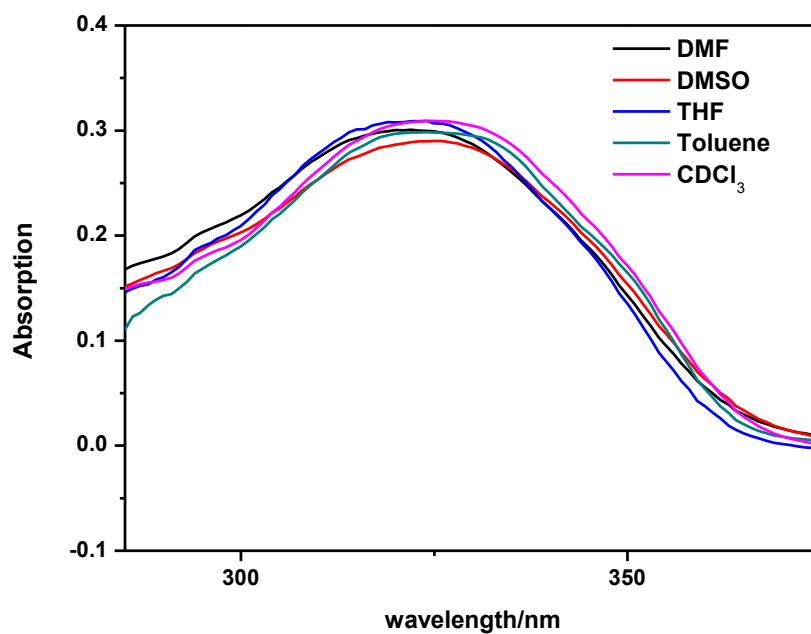
**Figure S4 (2)** TOF MS spectra of **1b**.



**Figure S4 (3)** TOF MS spectra of **1c**.

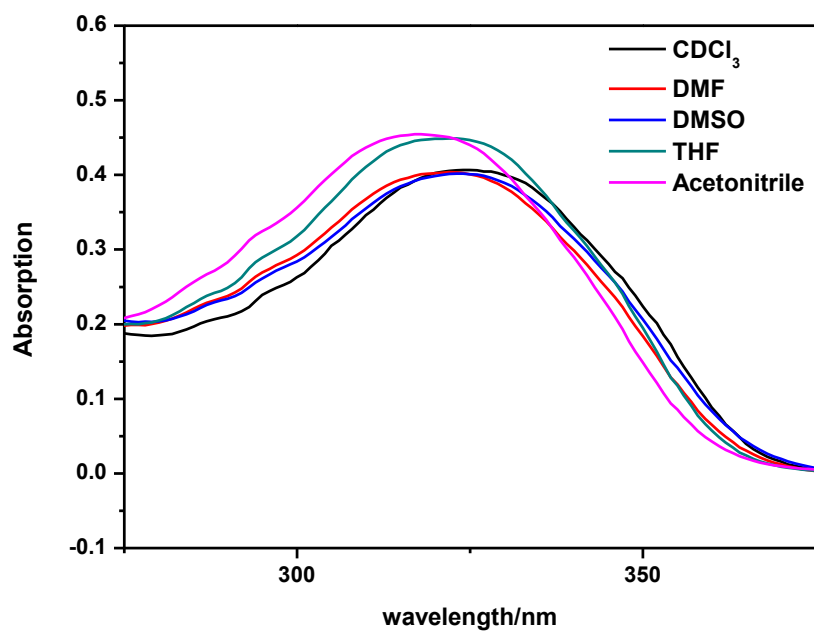


**Figure S5 (1)** Absorption spectra of **1a** in different solutions at the same concentration( $10^{-5}\text{molL}^{-1}$ ).

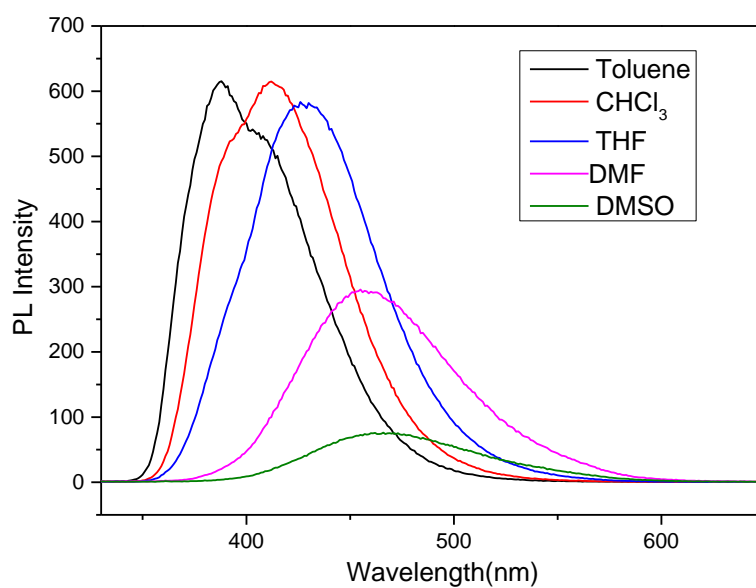


**Figure S5 (2)** Absorption spectra of **1b** in different solutions at the same concentration( $10^{-5}\text{molL}^{-1}$ ).  
DMSO=dimethylsulfoxide.

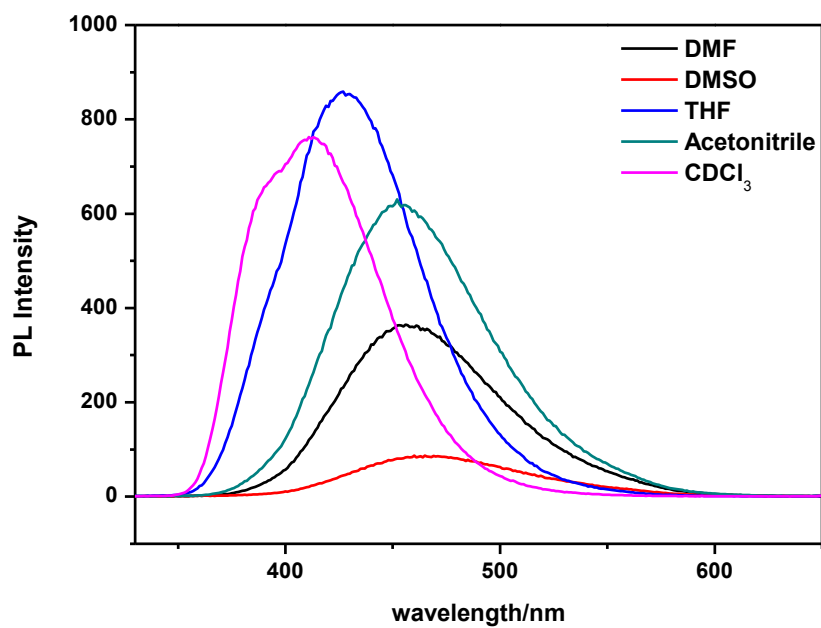




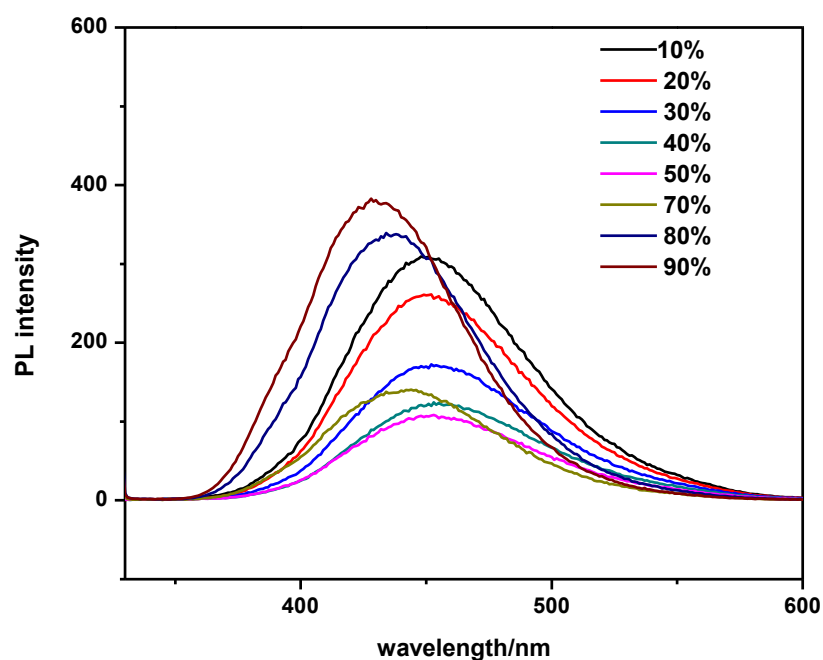
**Figure S5** (4) Absorption spectra of **1c** in different solutions at the same concentration ( $10^{-5}\text{molL}^{-1}$ ). DMSO=dimethylsulfoxide.



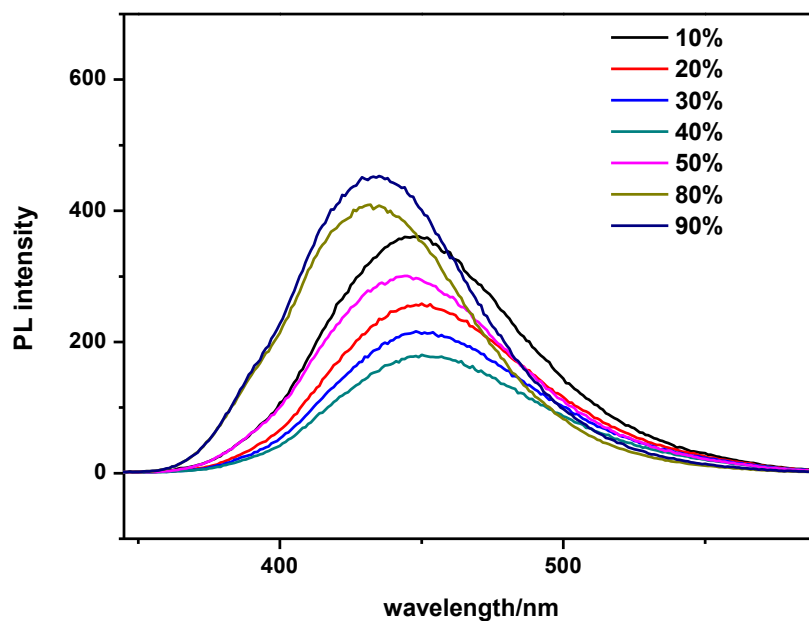
**Figure S6** (1) PL emission spectra of **1b** in different solutions at the same concentration ( $10^{-6}\text{molL}^{-1}$ , excitation wavelength:327nm). DMSO=dimethylsulfoxide.



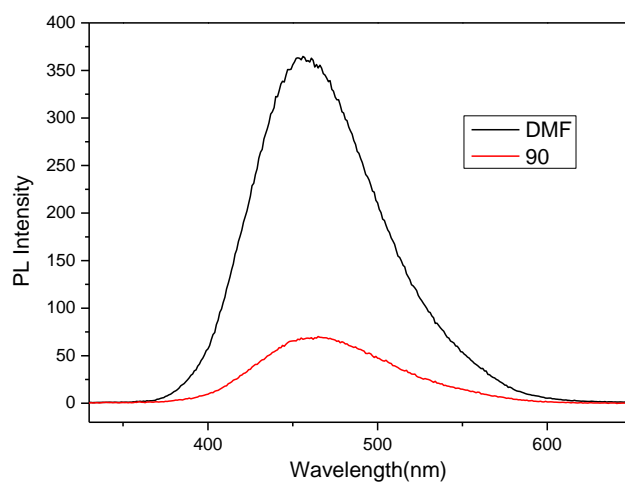
**Figure S6** (1) PL emission spectra of **1b** in different solutions at the same concentration ( $10^{-5}\text{molL}^{-1}$ , excitation wavelength:325nm). DMSO=dimethylsulfoxide.



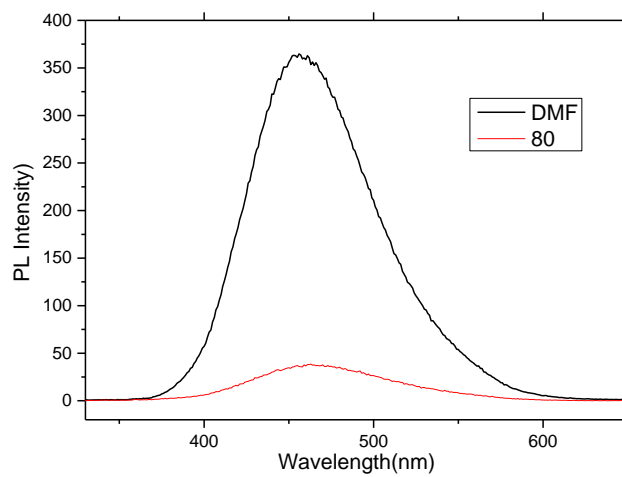
**Figure S7** (1) PL emission spectra of **1b** THF/ $\text{H}_2\text{O}$  mixtures at the same concentration ( $5 \times 10^{-6}\text{molL}^{-1}$ , excitation wavelength:325nm).



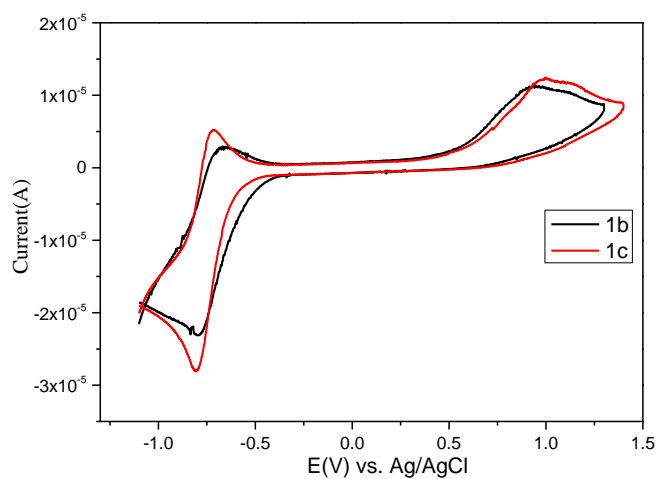
**Figure S7 (2)** PL emission spectra of **1b** THF/H<sub>2</sub>O mixtures at the same concentration ( $10^{-6}\text{molL}^{-1}$ , excitation wavelength:327nm).



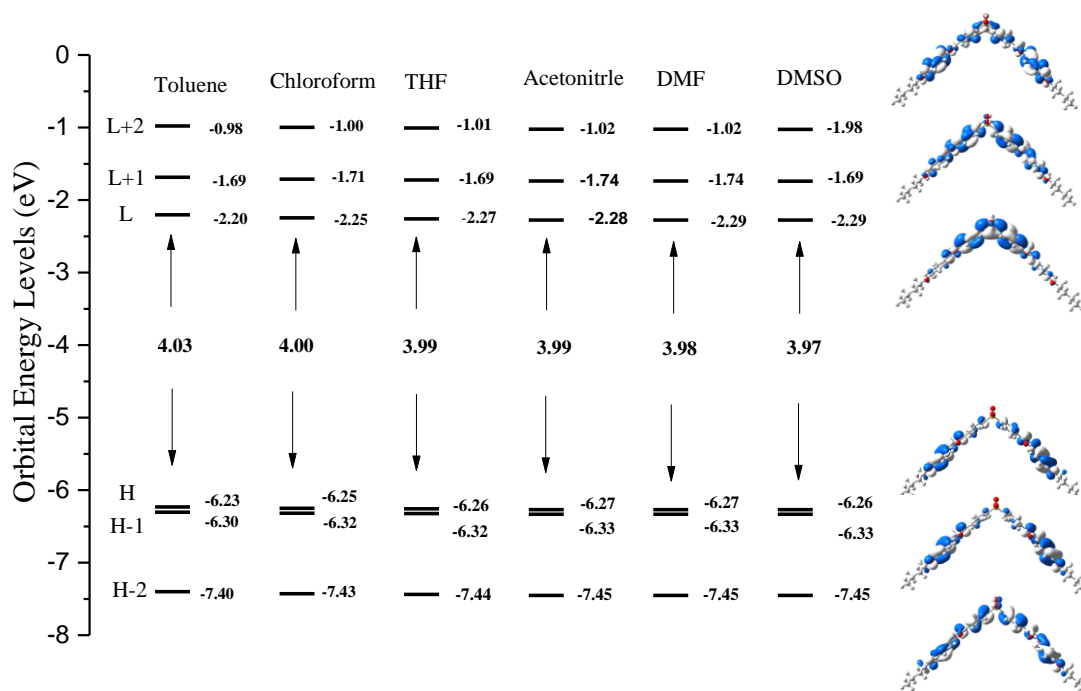
**Figure S7 (3)** PL emission spectra of **1a** DMF/H<sub>2</sub>O mixtures at the same concentration ( $10^{-5}\text{molL}^{-1}$ , excitation wavelength:325nm).



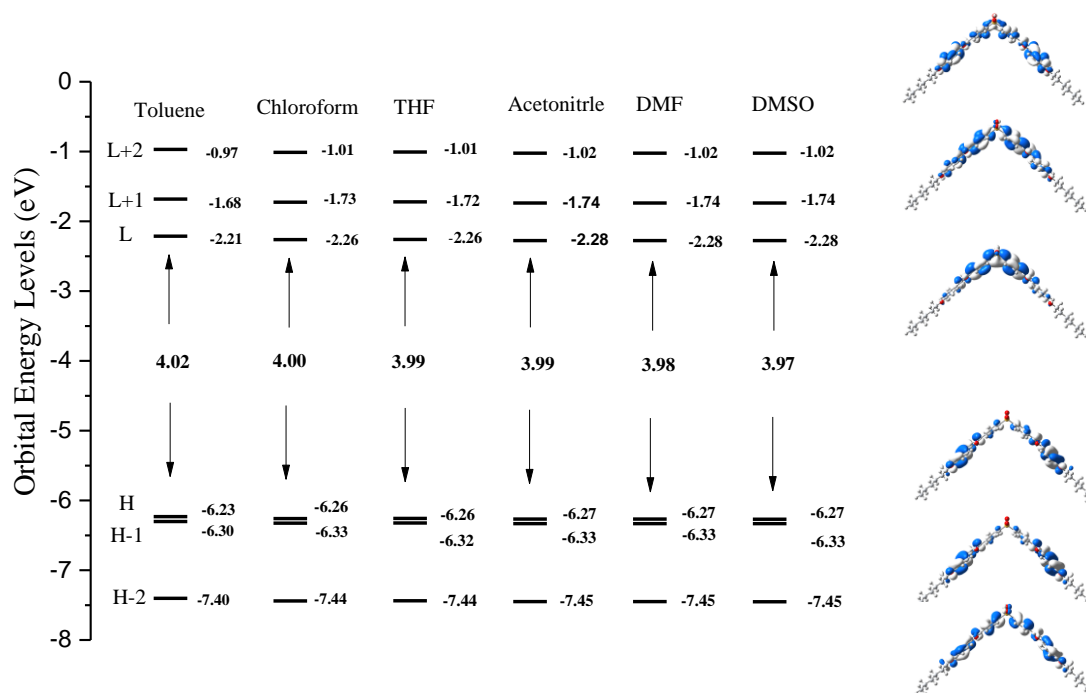
**Figure S7** (4) PL emission spectra of **1b** DMF/H<sub>2</sub>O mixtures at the same concentration ( $10^{-6}\text{molL}^{-1}$ , excitation wavelength:327nm).



**Figure S8** Cyclic voltammograms of **1a** in  $\text{CHCl}_3$  ( $1 \times 10^{-3}$  M).



**Figure S9 (1)** Electron density contours and orbital energies calculated for the HOMOs and LUMOs of **1b** at the B3LYP/DZP level. H and L denote HOMO and LUMO, respectively.



**Figure S9 (2)** Electron density contours and orbital energies calculated for the HOMOs and LUMOs of **1c** at the B3LYP/DZP level. H and L denote HOMO and LUMO, respectively.