

Supporting Information

Optical Properties of two fluorene derived BODIPY molecular rotors as fluorescent ratiometric viscosity probes

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All NMR spectra were acquired in chloroform.

Figure S1. ^1H NMR spectrum of compound **1**, at 500 MHz.

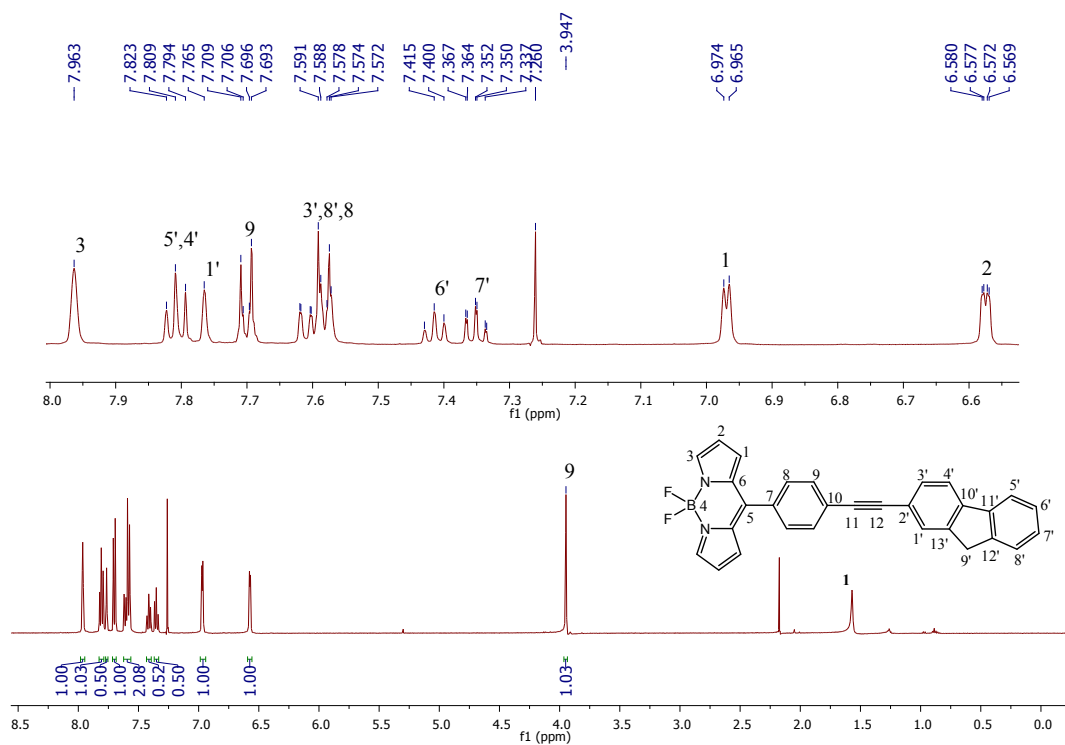


Figure S2. ^{13}C NMR spectrum of compound **1**, at 125 MHz.

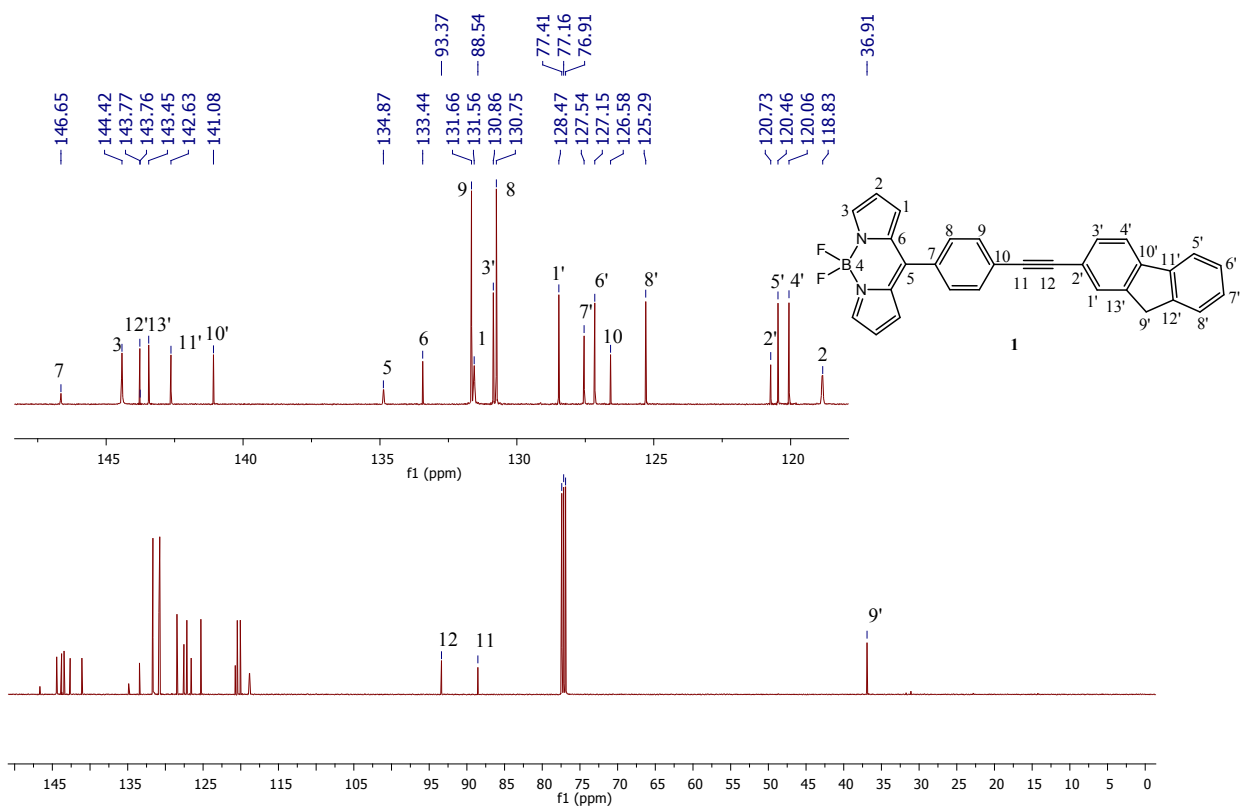


Figure S3. HSQC NMR spectrum of compound **1**, at 500 MHz.

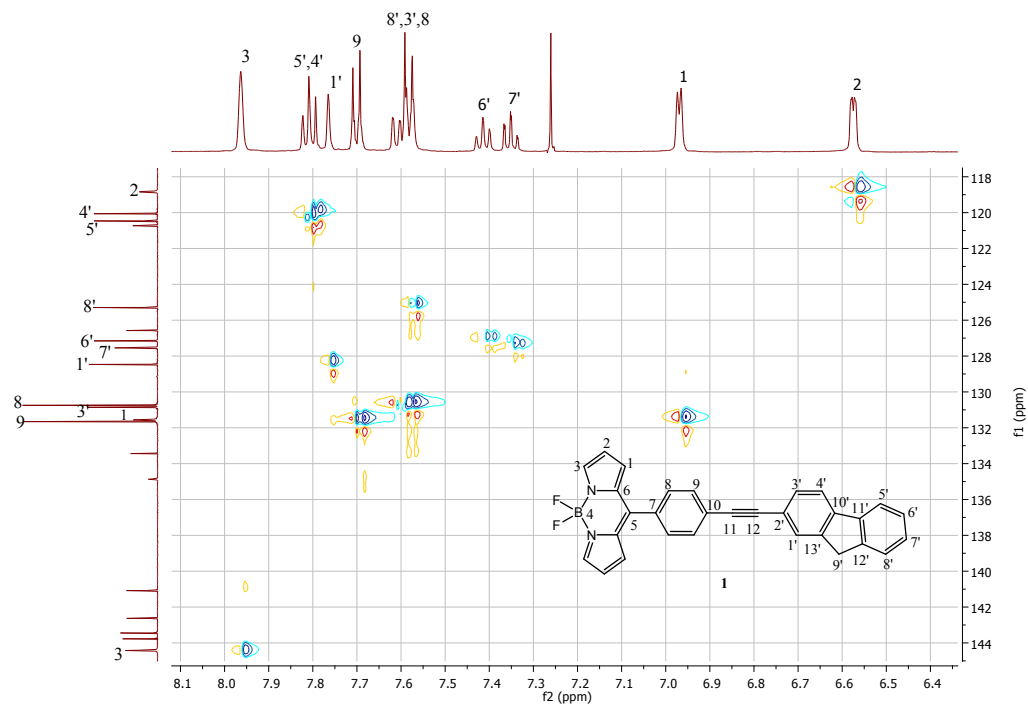


Figure S4. ^{11}B , ^{19}F NMR spectra of compound **1**, at 160 and 470 MHz respectively.

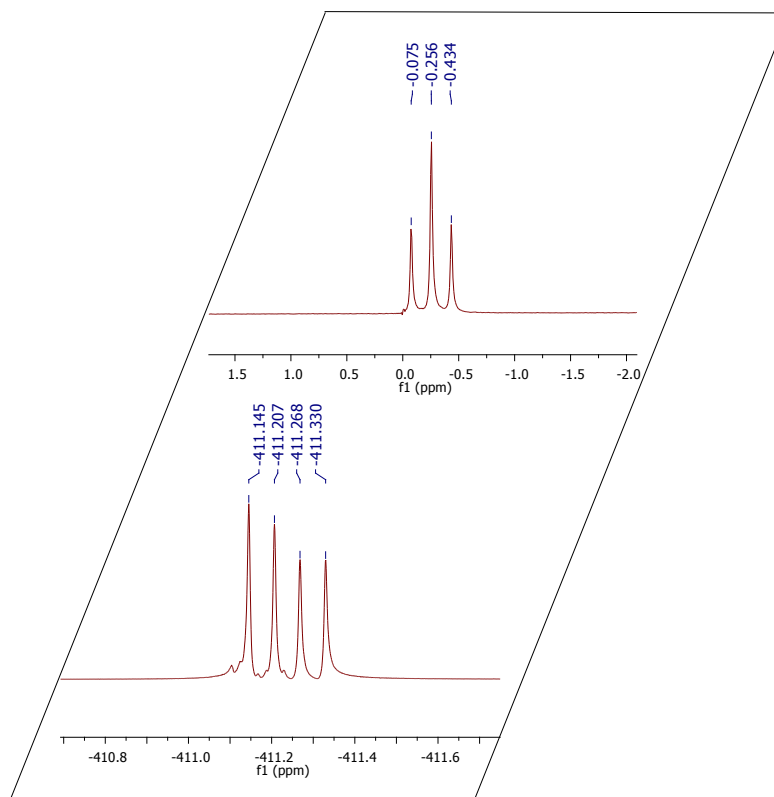


Figure S5. ^1H NMR spectrum of compound **2**, at 500 MHz.

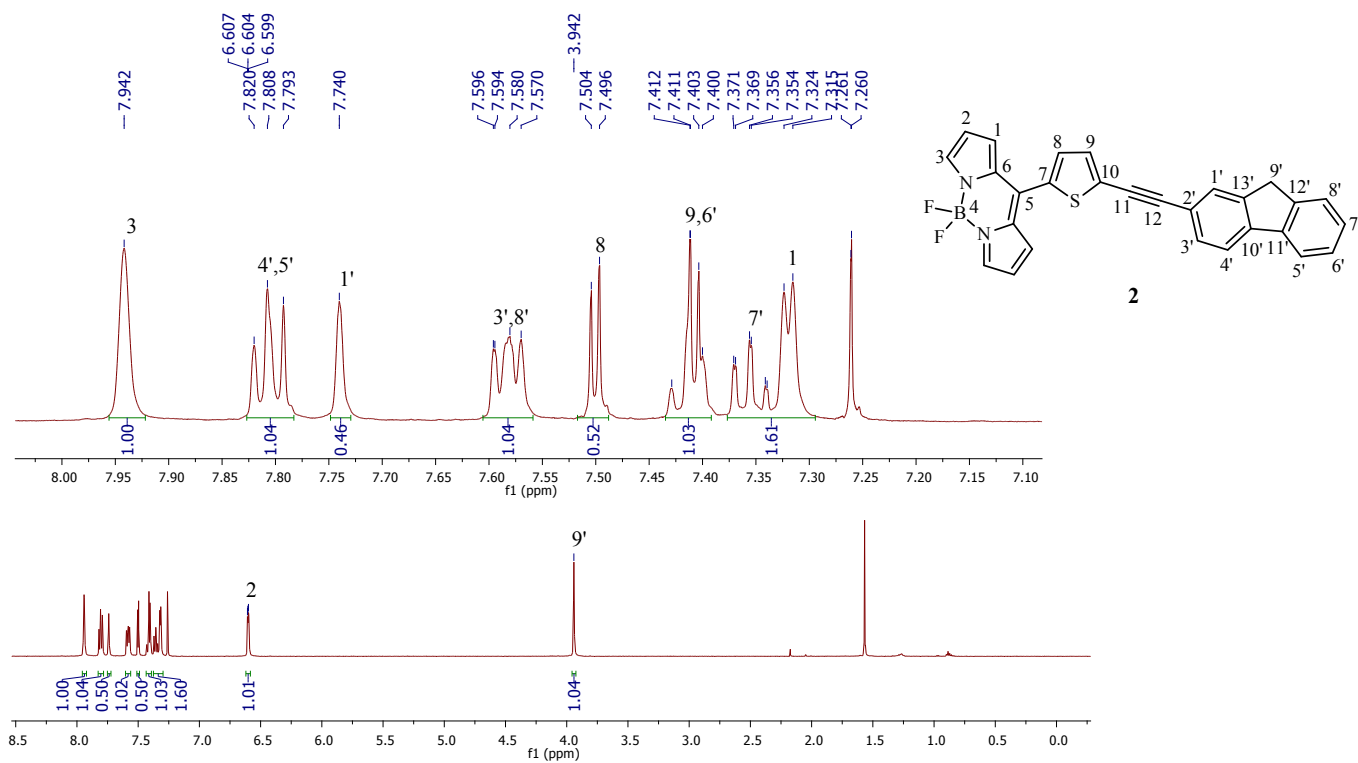


Figure S6. ^{13}C NMR spectrum of compound **2**, at 125 MHz.

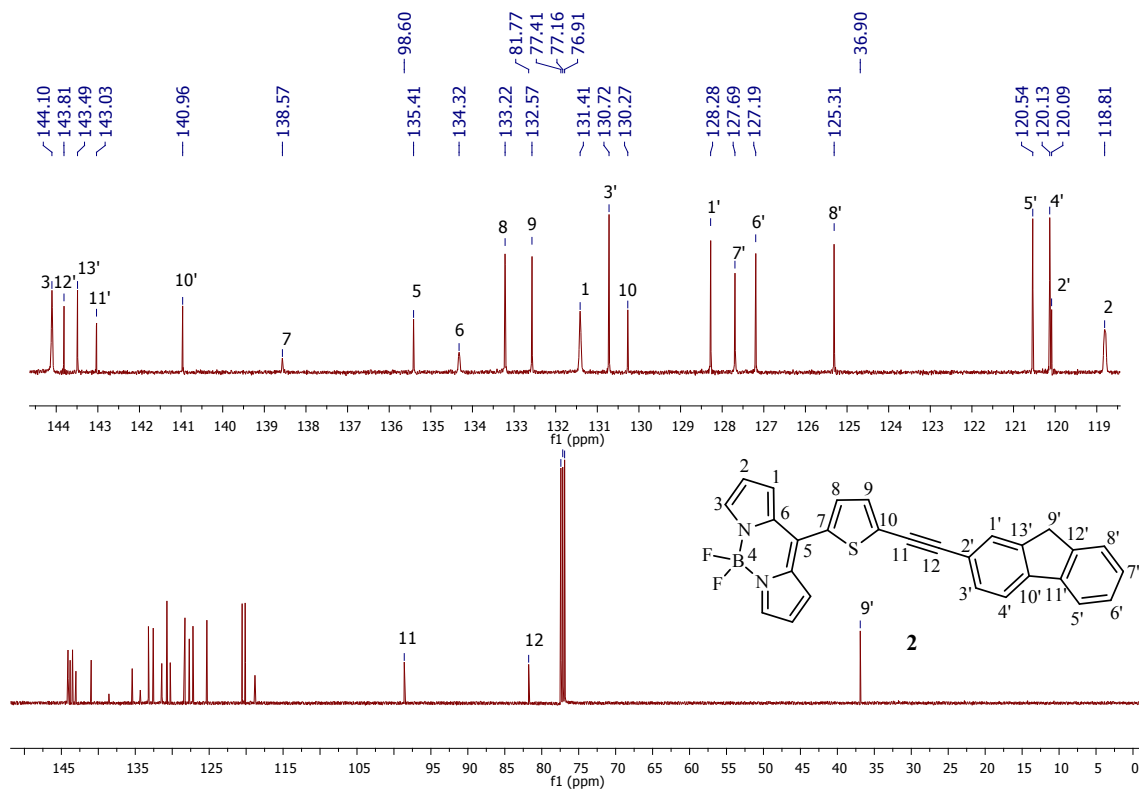


Figure S7. HSQC NMR spectrum of compound **2**, at 500 MHz.

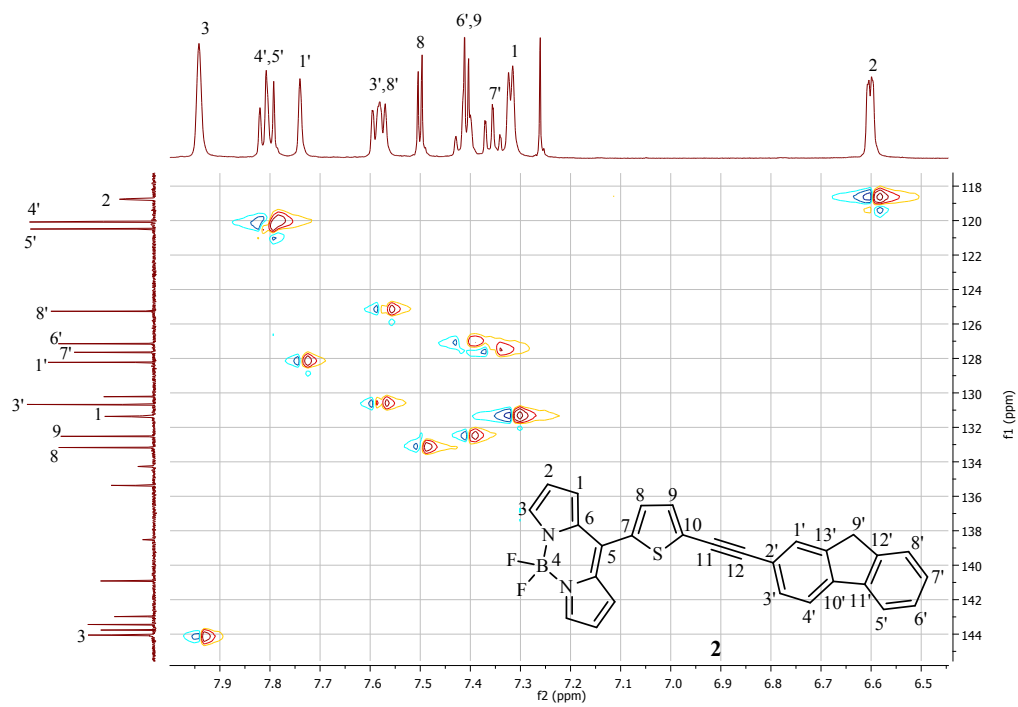


Figure S8. ^{11}B , ^{19}F NMR spectra of compound **2**, at 160 and 470 MHz respectively.

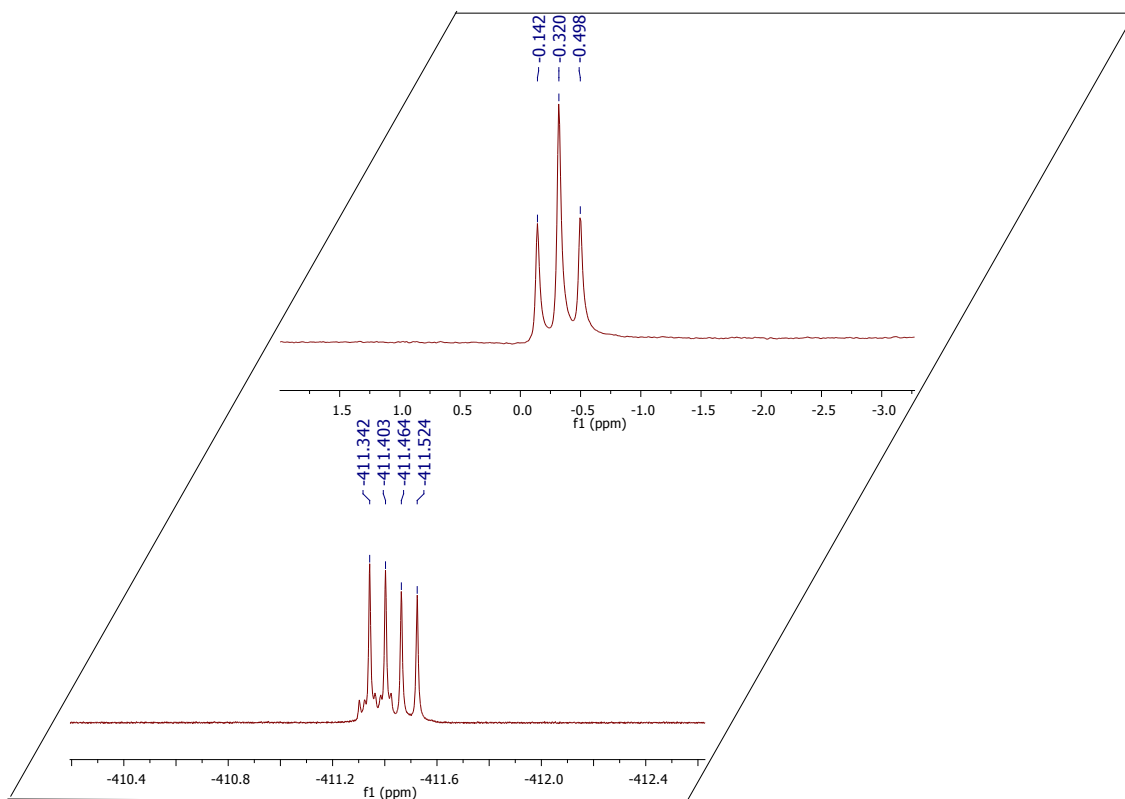
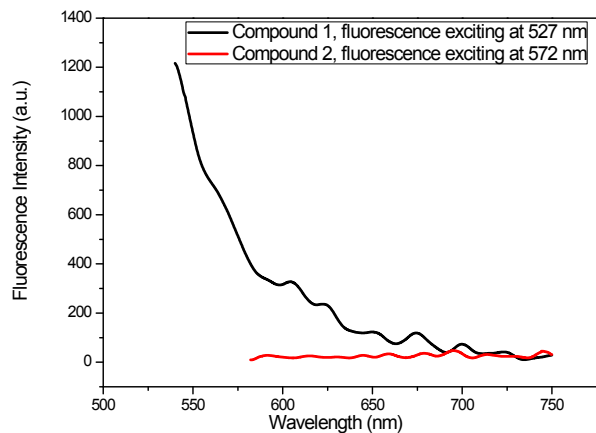
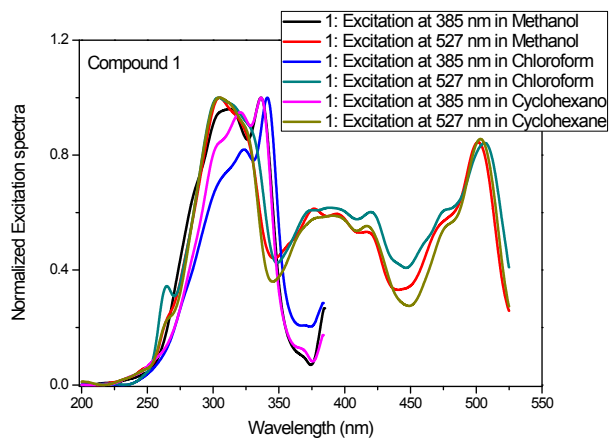


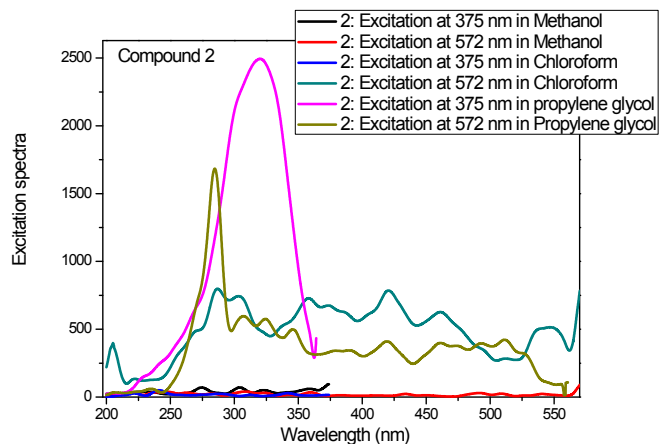
Figure S9. From top to bottom: fluorescence emission spectra for compounds **1** and **2** exciting at the respective long wavelength value (A); excitation spectra for **1** (B) and **2** (C) at the short and long wavelength emission band.



(A)



(B)



(C)

Figure S10. Computed UV-Vis spectra for **1** and **2** at TD-DFT: PBE0/6-31+G(d,p)/PCM-Methanol.

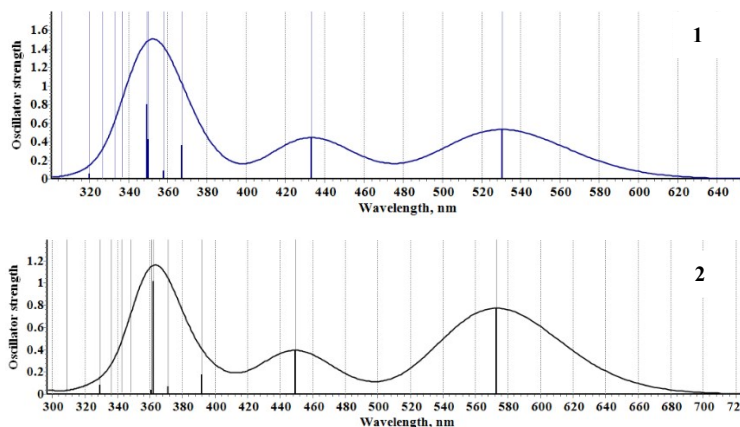


Table S1. Estimated coefficients y_0 , a_{SA} , b_{SB} , c_{SP} and d_{SdP} for $\bar{\nu}_{abs}$, $\bar{\nu}_{em}$, and $\Delta\bar{\nu}$ (cm^{-1}) and multiple correlation coefficient (r) for regression analysis of compound **2** in 16 solvents according to the Catalán solvent parameters {SA, SB, SP, SdP}.

Observable	y_0 (cm^{-1})	a_{SA}	b_{SB}	c_{SP}	d_{SdP}	r
$\bar{\nu}_{abs}$	32278 ± 314	-193 ± 149	-82 ± 143	-612 ± 447	-48 ± 113	0.701
$\bar{\nu}_{em}$	28608 ± 215	-75 ± 102	-125 ± 97	-1256 ± 305	-246 ± 77	0.914
$\Delta\bar{\nu}$	4900 ± 776	670 ± 369	-224 ± 353	-1128 ± 1104	379 ± 280	0.742