Electronic Supporting Information

PET Modulated Fluorescent Sensing from the BF_2 Chelated Azadipyrromethene Platform

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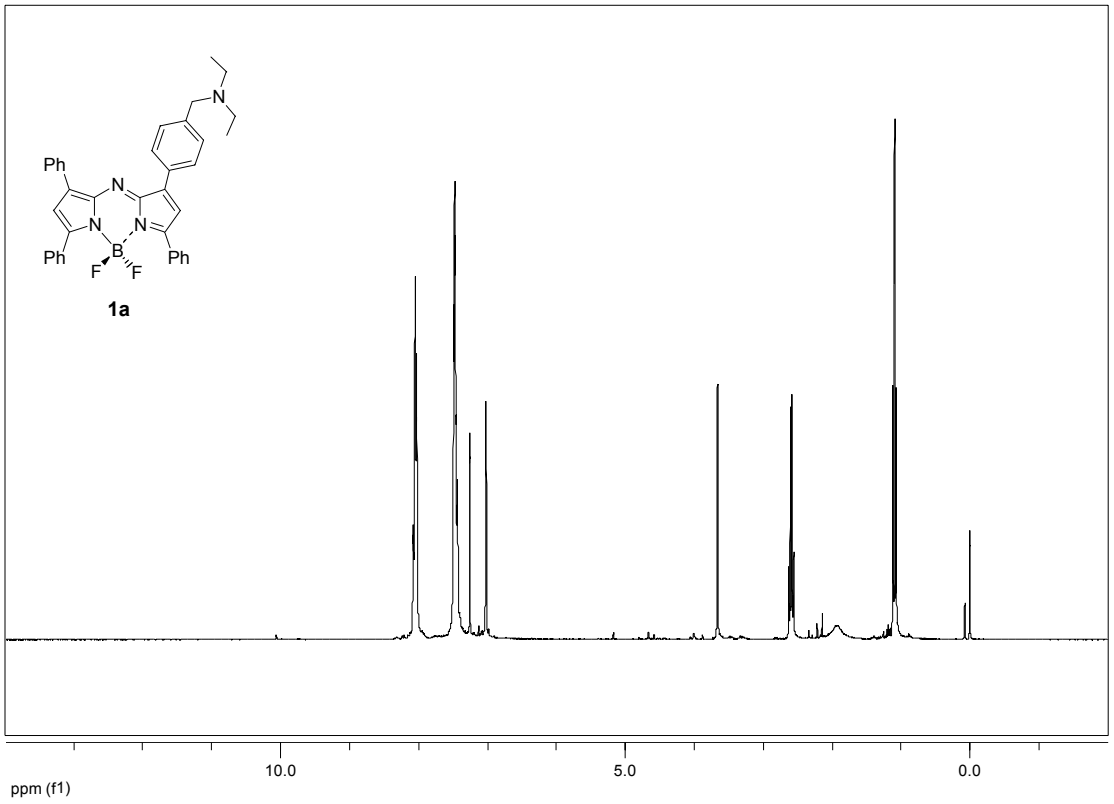
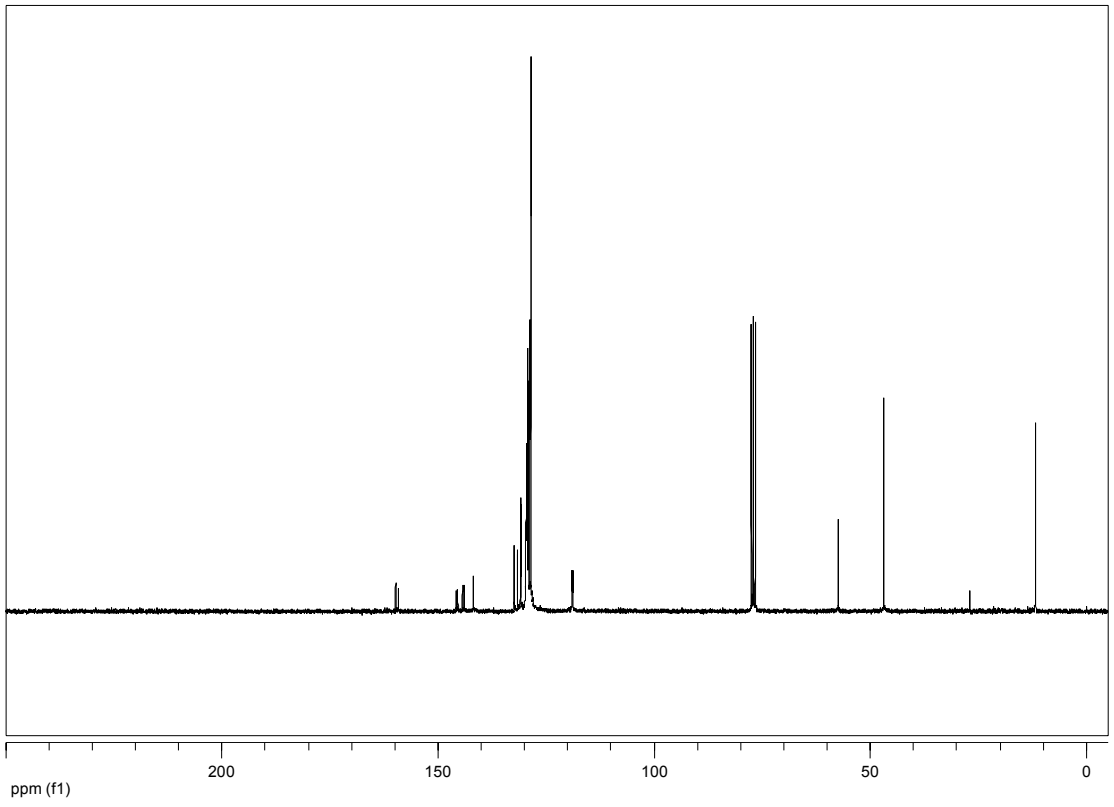
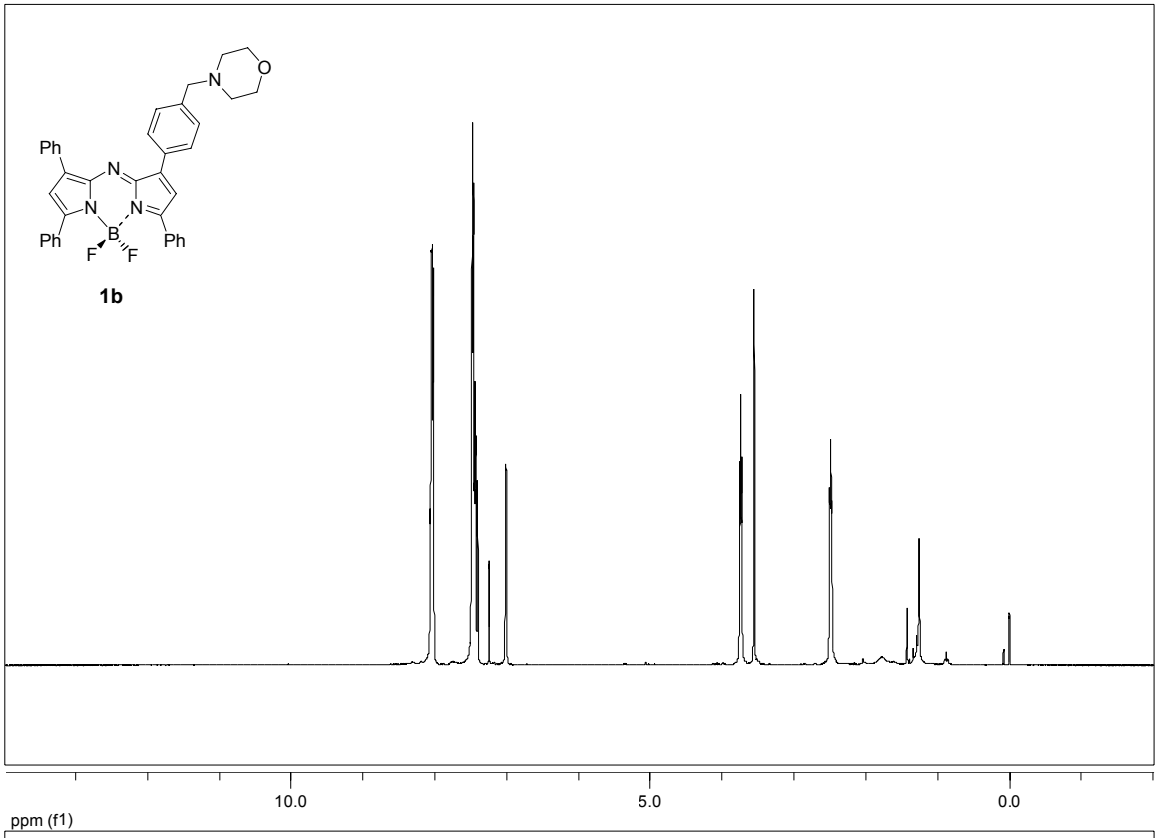
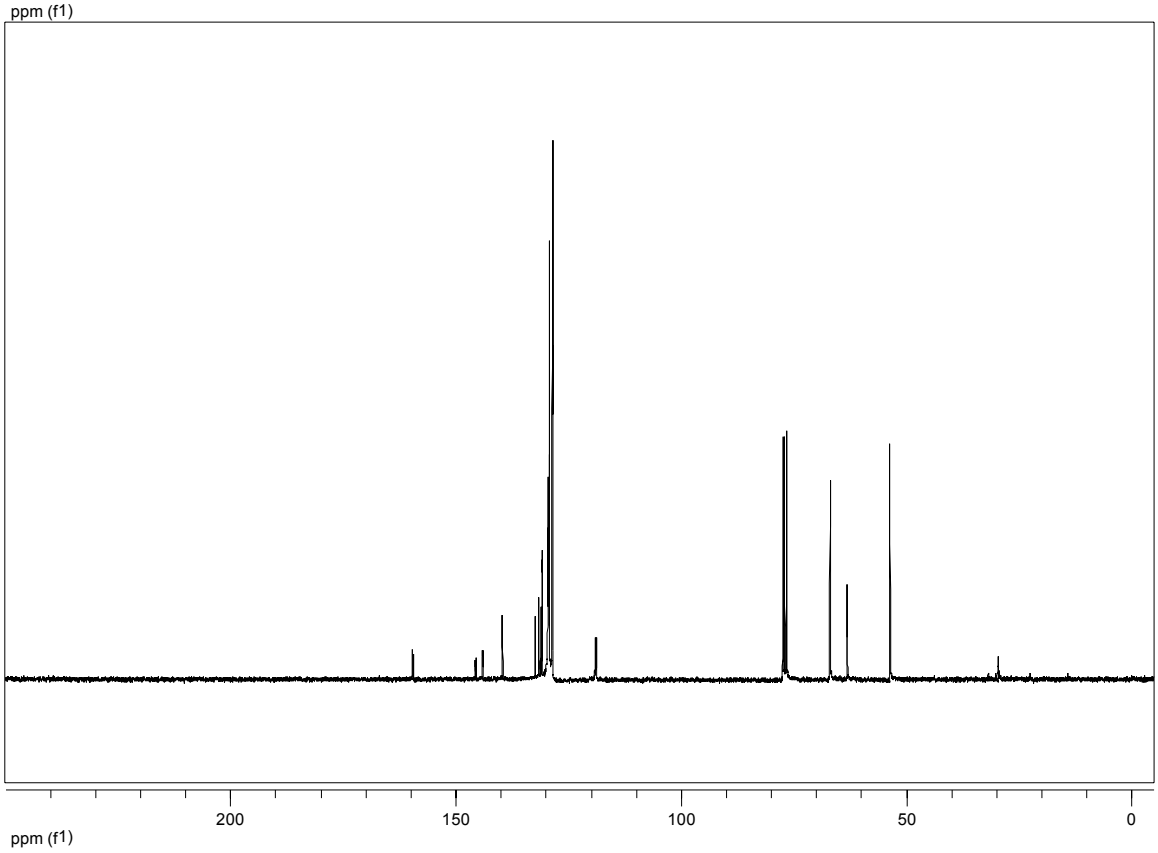


1a

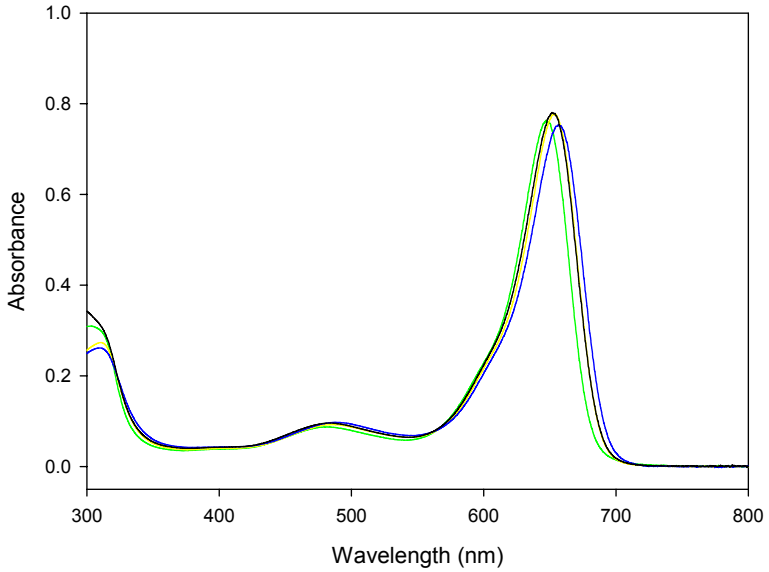




1b

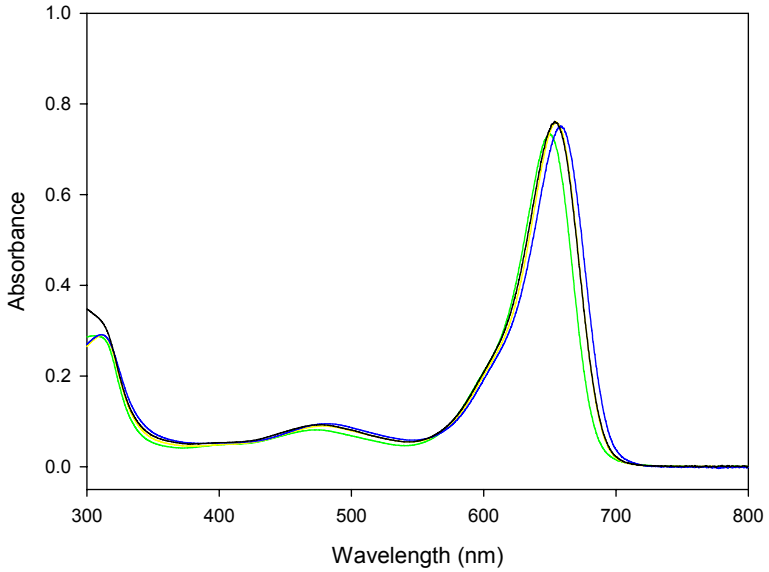


UV/Vis Absorbance 1a ($1x10^{-5}$ M)



DMF (blue), THF (yellow), 1,4-dioxane (black), Cyclohexane (green)

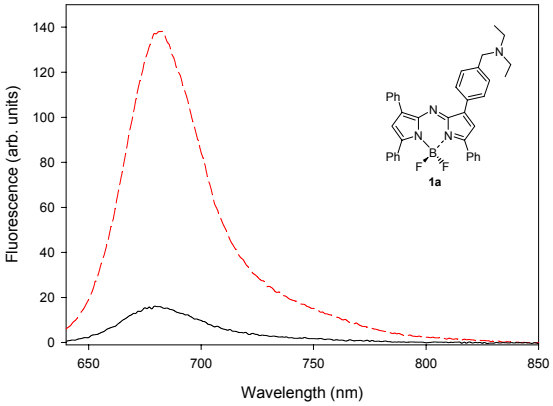
UV/Vis Absorbance 1a plus 5 µL TFA ($1x10^{-5}$ M)



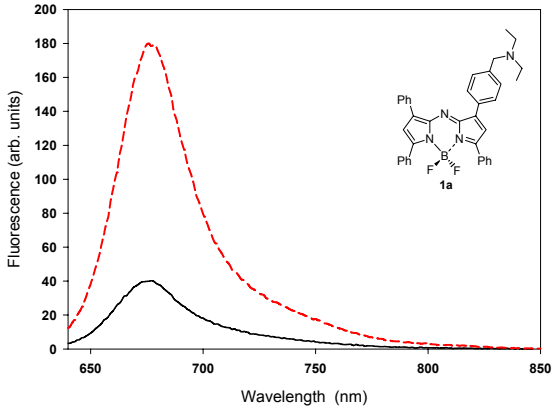
DMF (blue), THF (yellow), 1,4-dioxane (black), Cyclohexane (green)

Fluorescence of 1a plus 5µL TFA

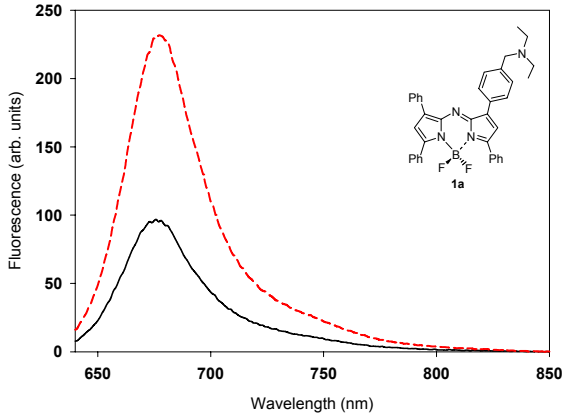
Off / On in DMF



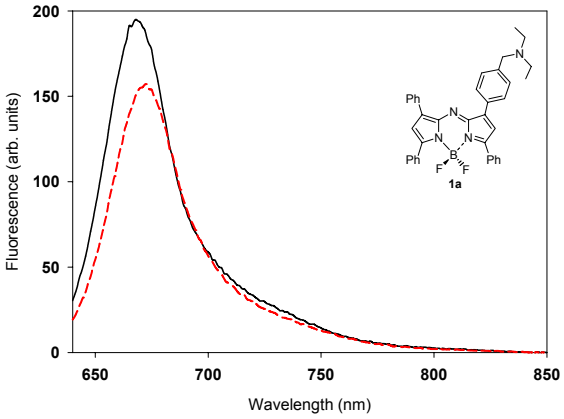
Off / On in THF



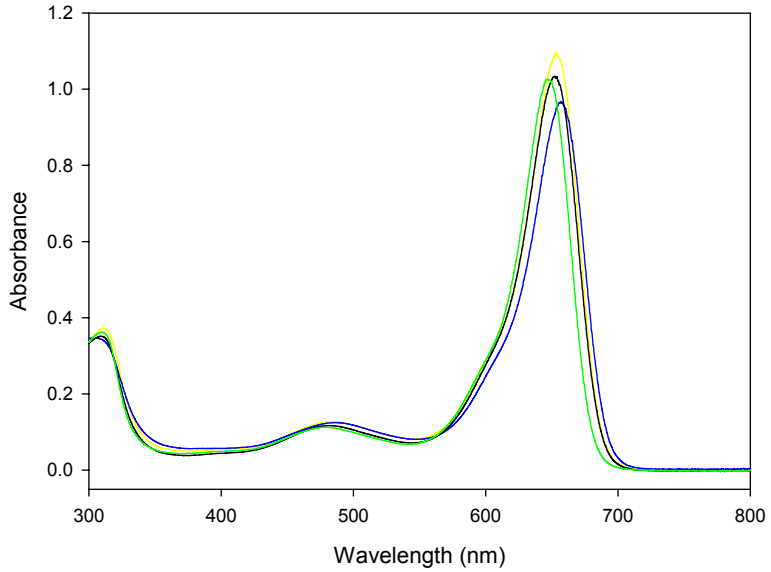
Off / On in dioxane



Off / On in cyclohexane

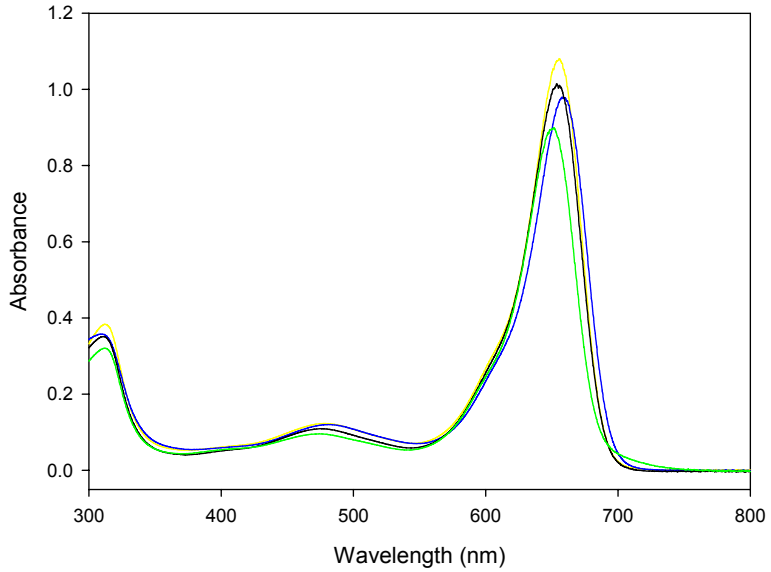


UV/Vis Absorbance 1b ($1x10^{-5}$ M)



DMF (blue), THF (yellow), 1,4-dioxane (black), Cyclohexane (green)

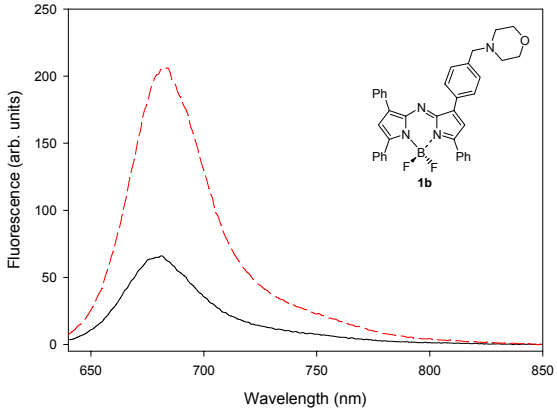
UV/Vis Absorbance 1b plus 5 µL TFA ($1x10^{-5}$ M)



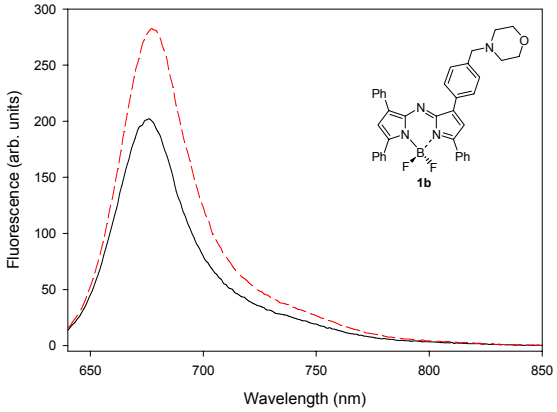
DMF (blue), THF (yellow), 1,4-dioxane (black), Cyclohexane (green)

Fluorescence of 1b plus 5µL TFA

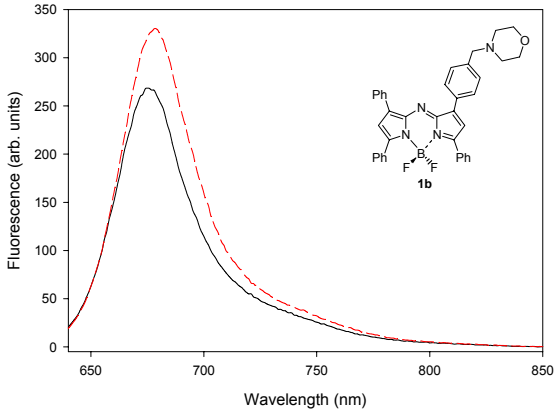
Off / On in DMF



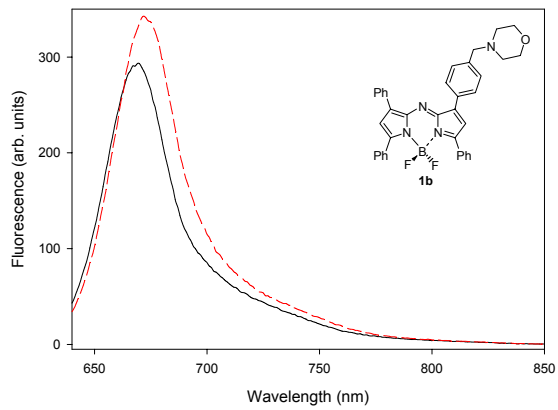
Off / On in THF



Off / On in dioxane



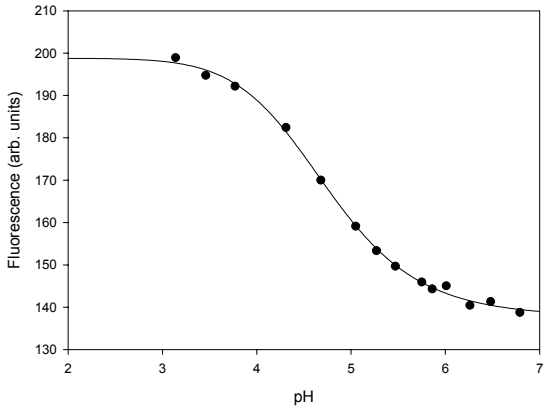
Off / On in cylcohexane



pKa Measurements of 1a and 1b.

1a or **1b** (0.005 mmol) was dissolved THF (1 mL), CrEL (0.1 mL) was added and the sample was placed in a sonic bath for 30 min. The THF was removed under reduced pressure and the oily mixture was slowly dissolved in phosphate buffered saline (PBS) (10 mL) and passed through an Acrodisc 25 mm syringe filter (with 0.2 μm HT Tuffryn membrane). A portion (1 mL) of the first solution was diluted with PBS to 25 mL, and a portion (2.5 mL) of this solution was further diluted with PBS to 25 mL. This sample was stirred in a beaker with a pH probe. The solution was acidified with HCl (37%, 10 μL), the pH was recorded and the fluorescence spectrum was recorded. A portion of NaOH solution (5 M) was added, the pH and fluorescence spectrum recorded. This procedure was repeated until the required end point of the titration was reached. pKa values were an average of three independent runs.

pKa Titration of 1b



pKa **1b** = 4.8