

Supporting Information

Solution-processable BODIPY decorated triazine photodiodes and their comprehensive photophysical evaluation

Burcu Topaloğlu Aksoy¹, Gürkan Keşan², Emrah Özcan^{1,2}, Esra Tanrıverdi Eçik³, Ayşegül Dere⁴, Abdülkerim Karabulut⁴, Fahrettin Yakuphanoglu^{4,5}, Bünyemin Çoşut^{1*}

¹ Department of Chemistry, Gebze Technical University, Gebze, Kocaeli, Turkey

² Institute of Physics, Faculty of Science, University of South Bohemia, Branišovská 1760, 370 05, České Budějovice, Czech Republic

³ Department of Chemistry, Ataturk University, Erzurum, Turkey

⁴ Nanoscience and Nanotechnology Laboratory, Firat University, Elazig, Turkey

⁵ Department of Physics, Faculty of Science, Firat University, Elazig, Turkey

* Author for correspondence:

Dr. Bünyemin Çoşut, Department of Chemistry, Gebze Technical University, Gebze 41400, Kocaeli, Turkey

Tel: 00 90 262 6053015

Fax: 00 90 262 6053105

e-mail : bc@gtu.edu.tr

TABLE OF CONTENTS

| | |
|---|----|
| Figure S1: MALDI MS Spectrum of Compound 1 | 3 |
| Figure S2: ¹ H NMR Spectrum of Compound 1 | 3 |
| Figure S3: ¹³ C NMR Spectrum of Compound 1 | 4 |
| Figure S4: MALDI MS Spectrum of Compound 2 | 4 |
| Figure S5: ¹ H NMR Spectrum of Compound 2 | 5 |
| Figure S6: ¹³ C NMR Spectrum of Compound 2 | 5 |
| Figure S7: ¹¹ B NMR Spectrum of Compound 2 | 6 |
| Figure S8: ¹⁹ F NMR Spectrum of Compound 2 | 6 |
| Figure S9: MALDI MS Spectrum of Compound 3 | 7 |
| Figure S10: ¹ H NMR Spectrum of Compound 3 | 7 |
| Figure S11: ¹³ C NMR Spectrum of Compound 3 | 8 |
| Figure S12: MALDI MS Spectrum of Compound 4 | 8 |
| Figure S13: ¹ H NMR Spectrum of Compound 4 | 9 |
| Figure S14: ¹³ C NMR Spectrum of Compound 4 | 9 |
| Figure S15: ¹¹ B NMR Spectrum of Compound 4 | 10 |
| Figure S16: ¹⁹ F NMR Spectrum of Compound 4 | 10 |
| Figure S17: TGA Thermogram of Compound 2 | 11 |
| Figure S18: TGA Thermogram of Compound 2 | 11 |
| Figure S19: DSC Thermogram of Compound 2 and 4 | 12 |
| Figure S20: Fluorescence Lifetime of Compound 1 | 12 |
| Figure S21: Fluorescence Lifetime of Compound 2 | 13 |
| Figure S22: Fluorescence Lifetime of Compound 3 | 13 |
| Figure S23: Fluorescence Lifetime of Compound 4 | 14 |
| Figure S24: Fluorescence Spectra of Compound 2 Solution and Solid Film | 14 |
| Figure S25: Fluorescence Spectra of Compound 4 Solution and Solid Film | 15 |

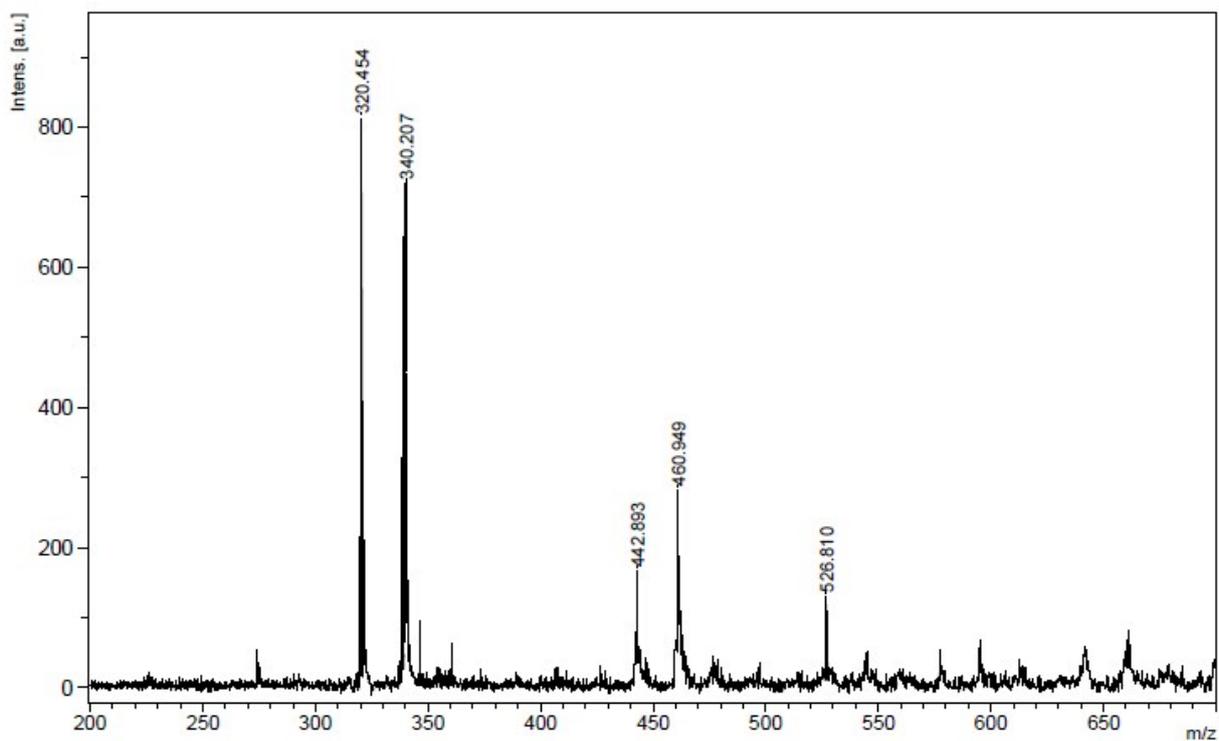


Figure S1: Mass Spectrum of Compound 1

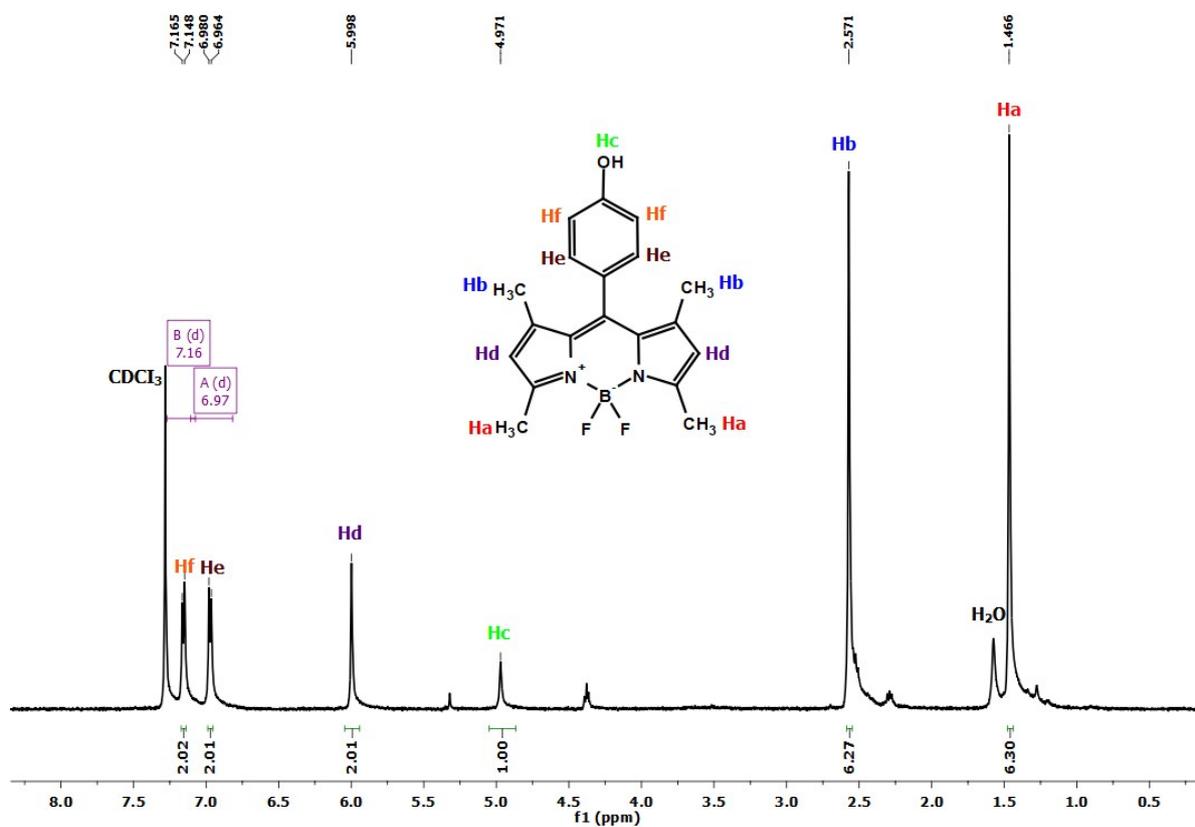


Figure S2: ¹H NMR Spectrum of Compound 1

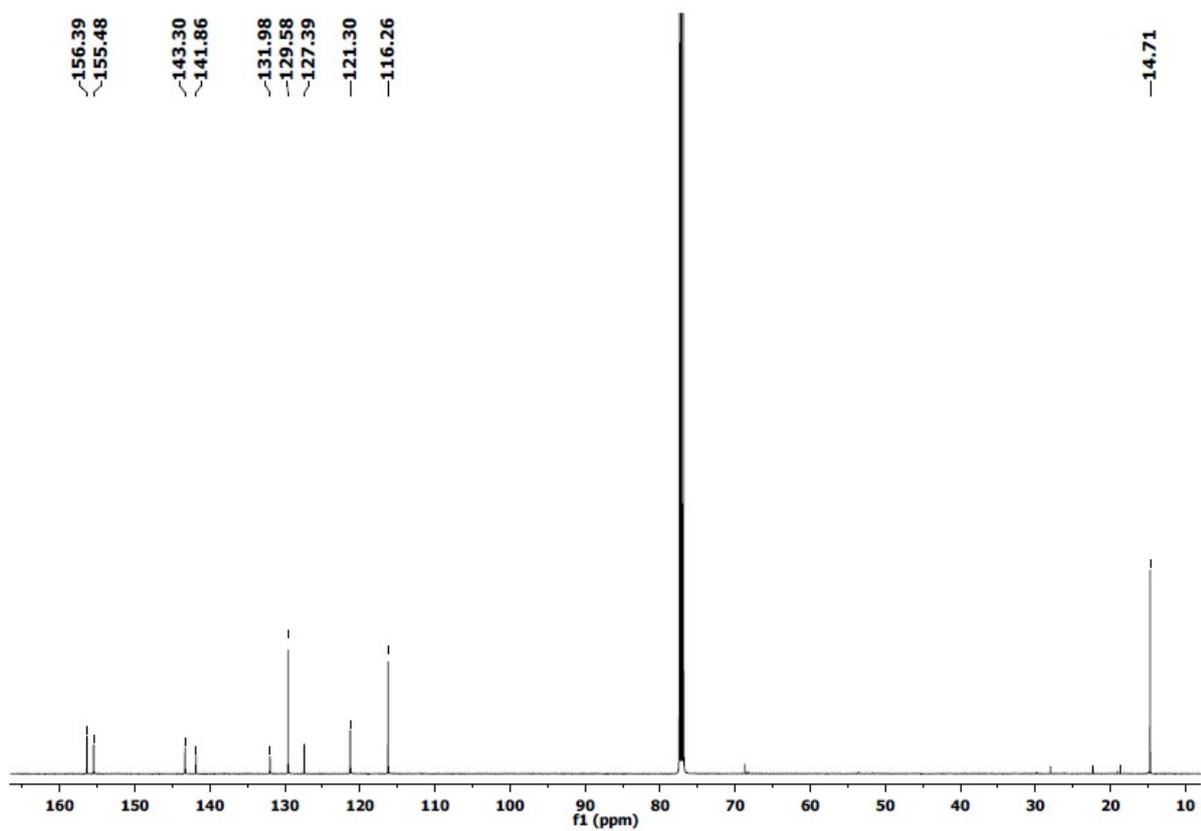


Figure S3: ^{13}C NMR Spectrum of Compound 1

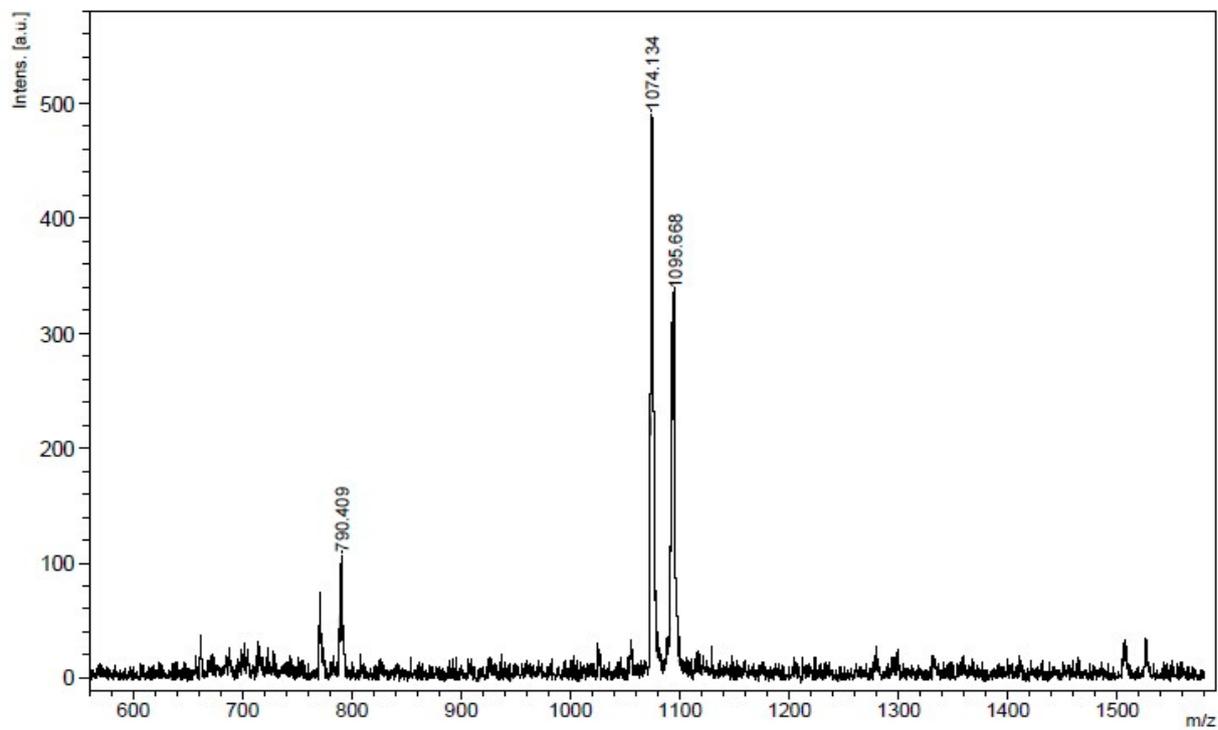


Figure S4: Mass Spectrum of Compound 2

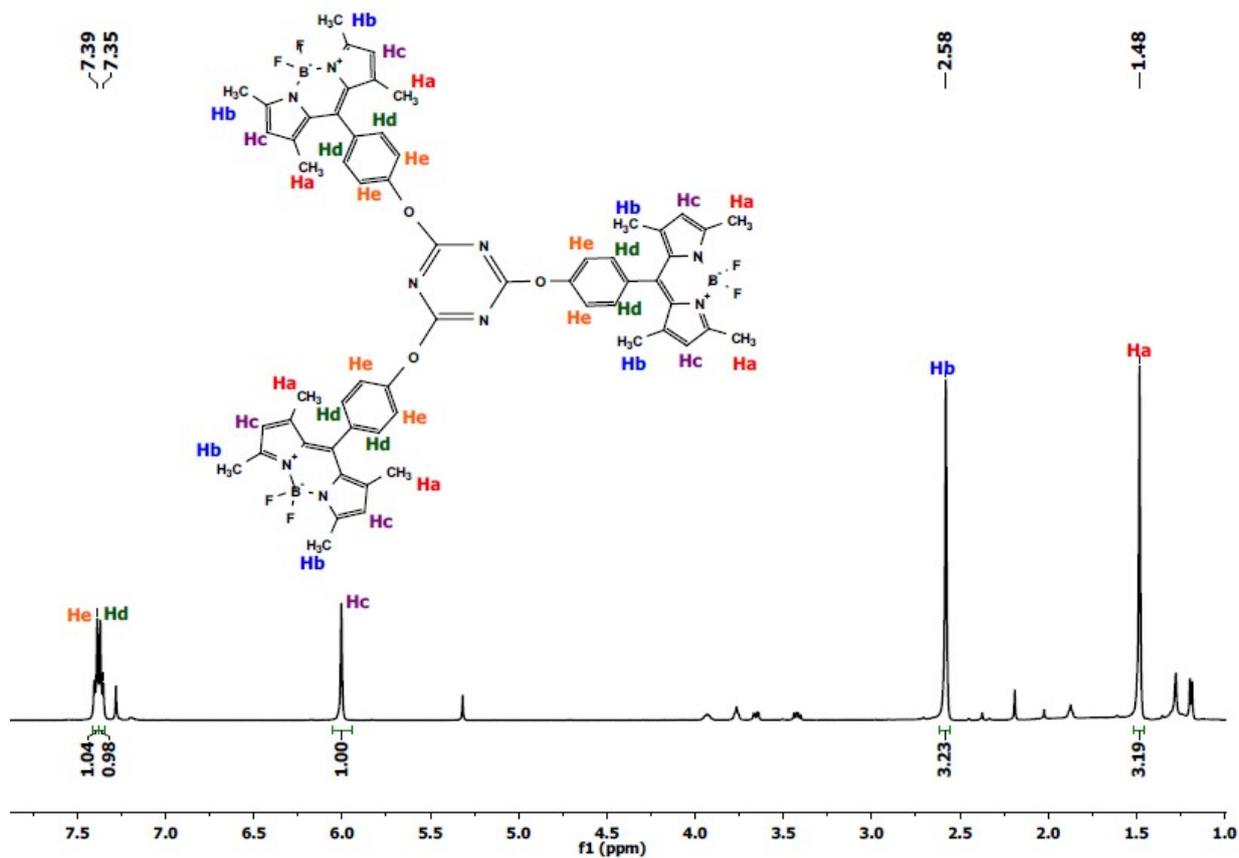


Figure S5: ¹H NMR Spectrum of Compound 2

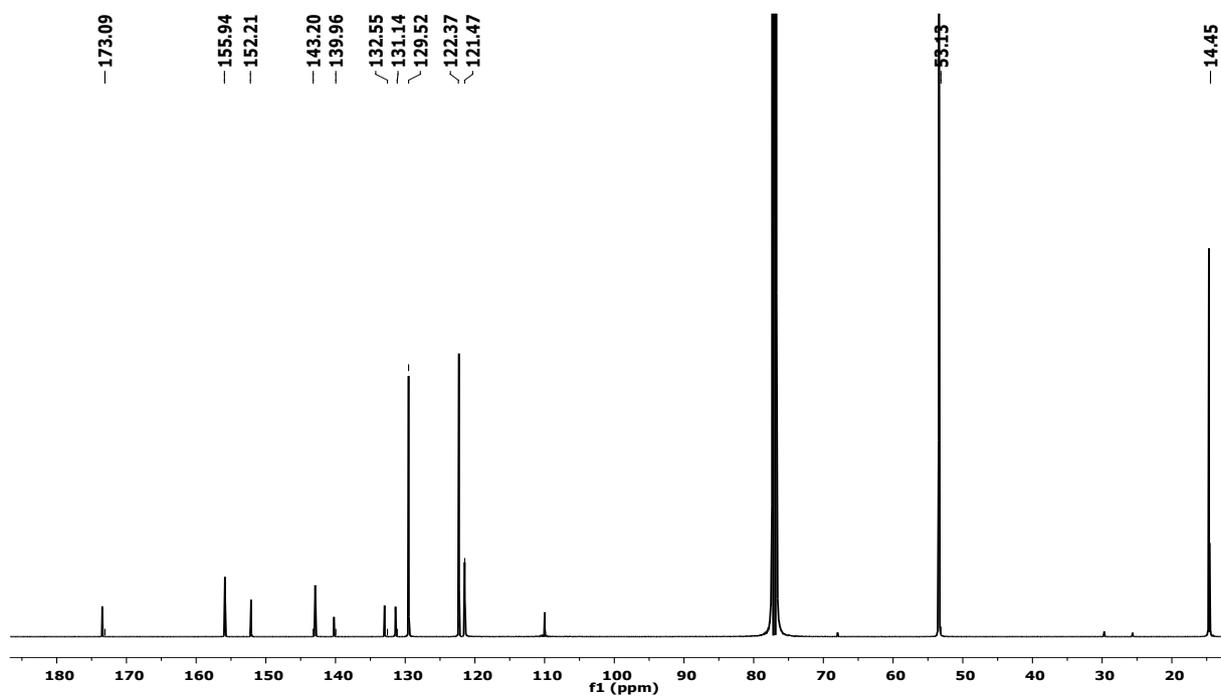


Figure S6: ¹³C NMR Spectrum of Compound 2

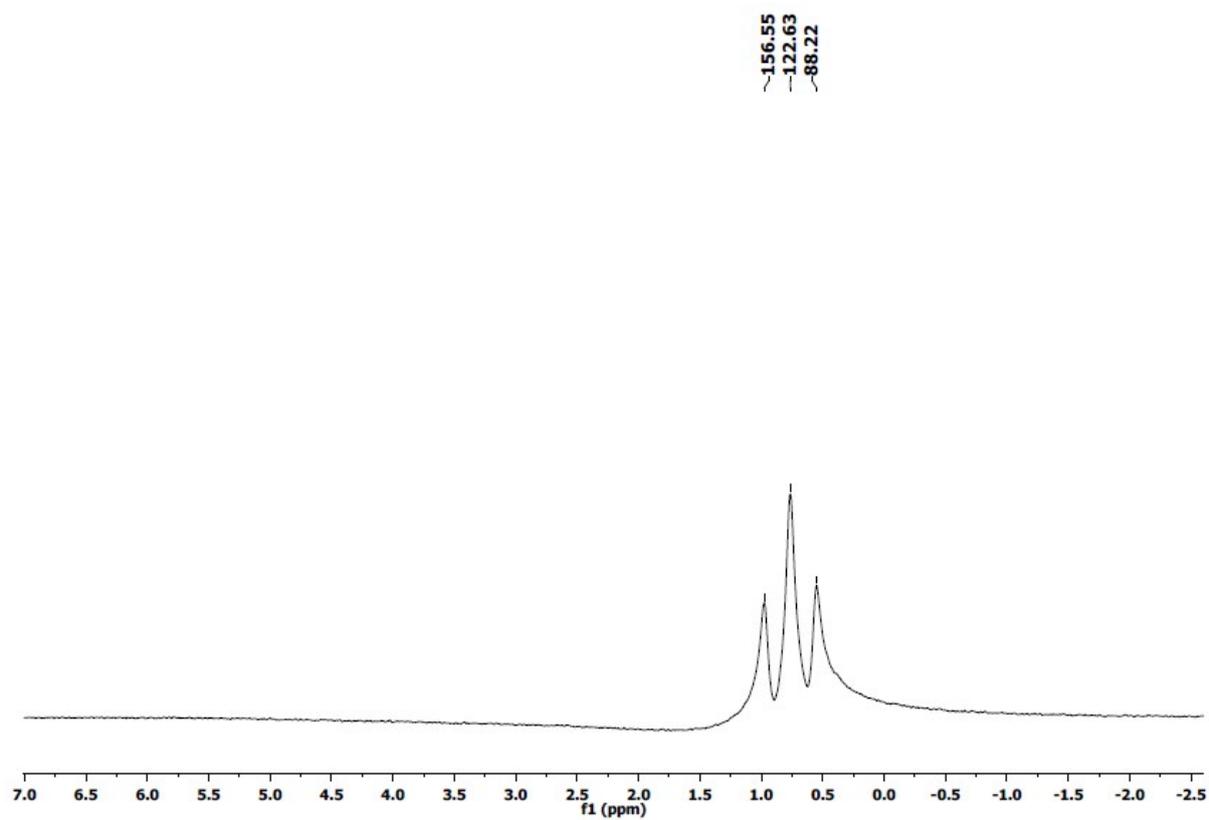


Figure S7: ^{11}B NMR Spectrum of Compound 2

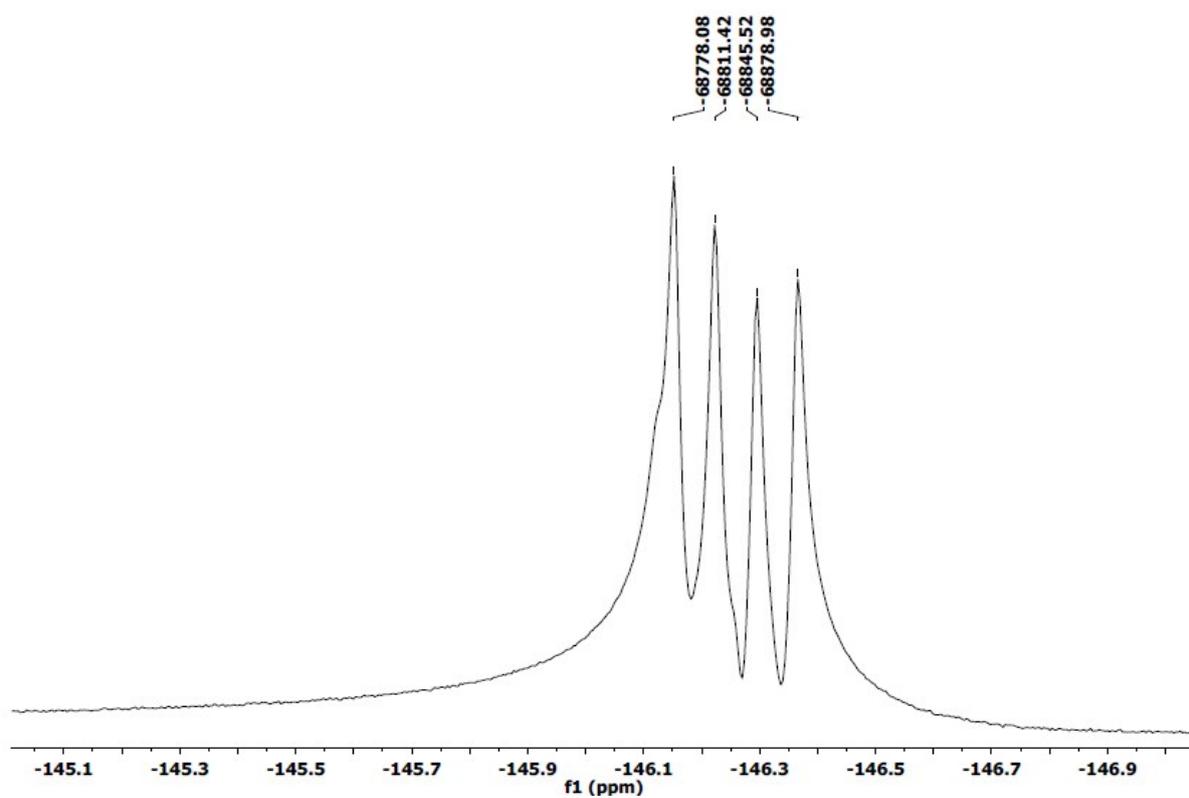


Figure S8: ^{19}F NMR Spectrum of Compound 2

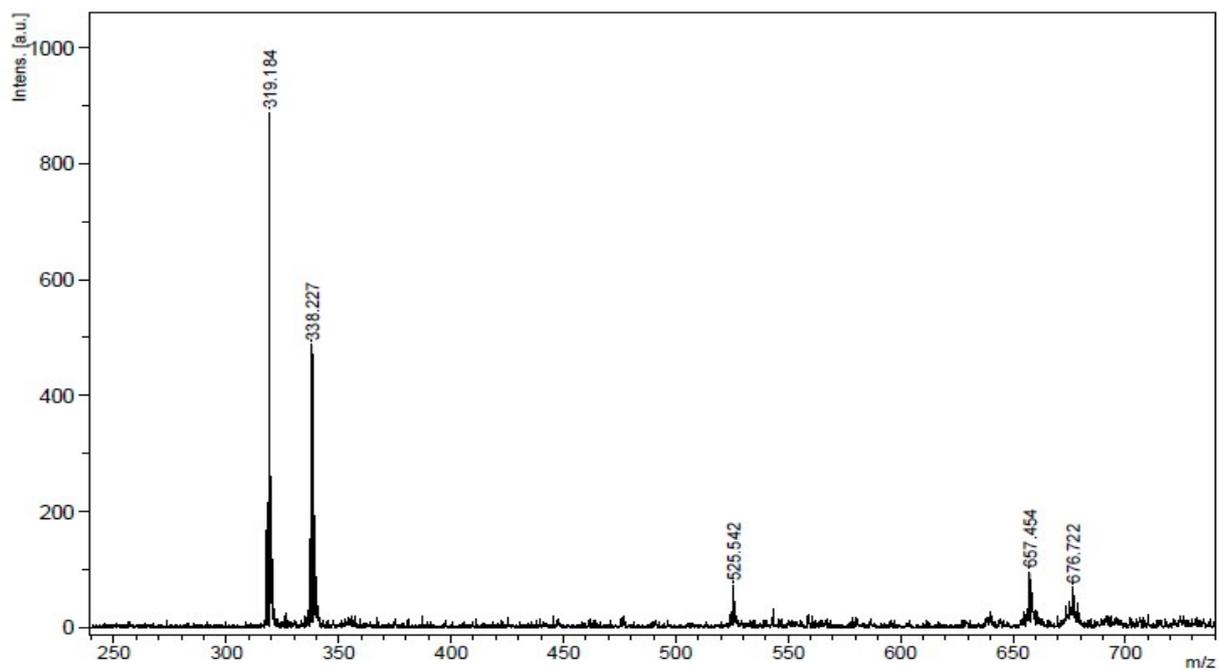


Figure S9: Mass Spectrum of Compound 3

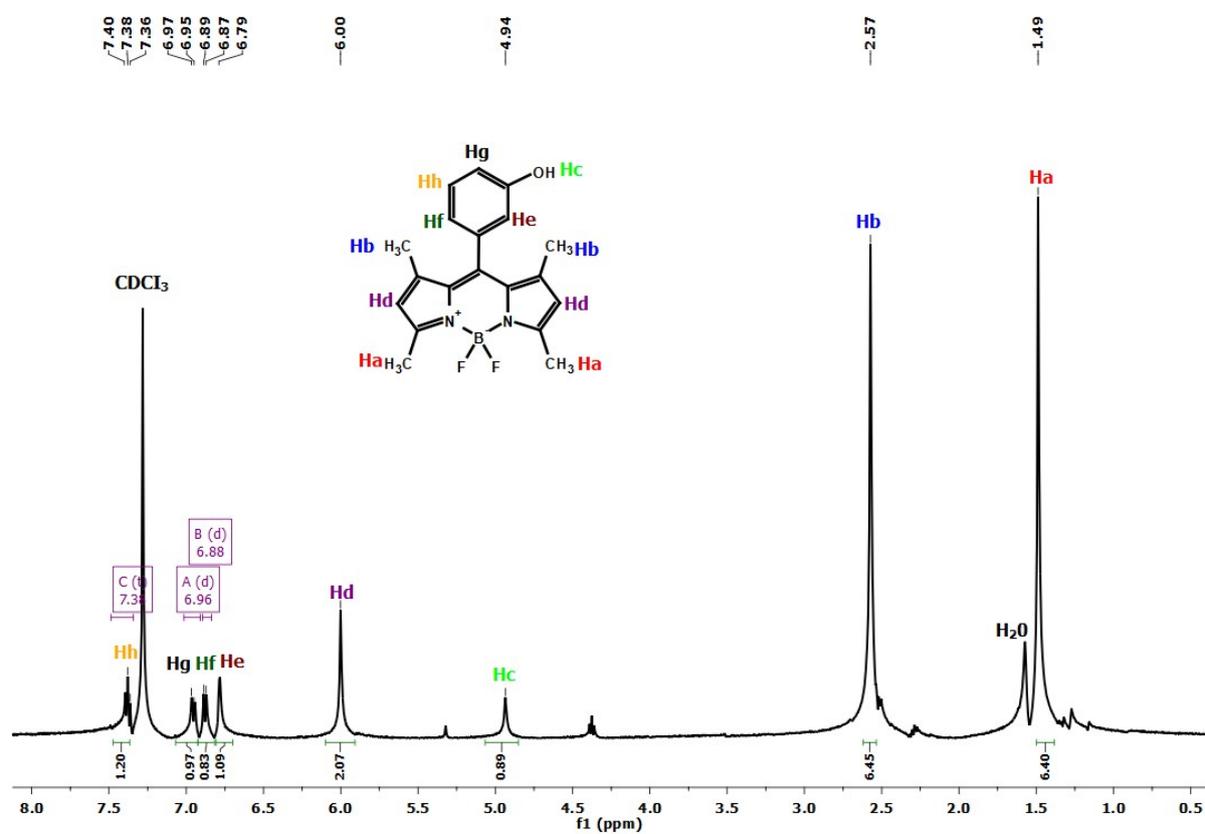


Figure S10: ¹H NMR Spectrum of Compound 3

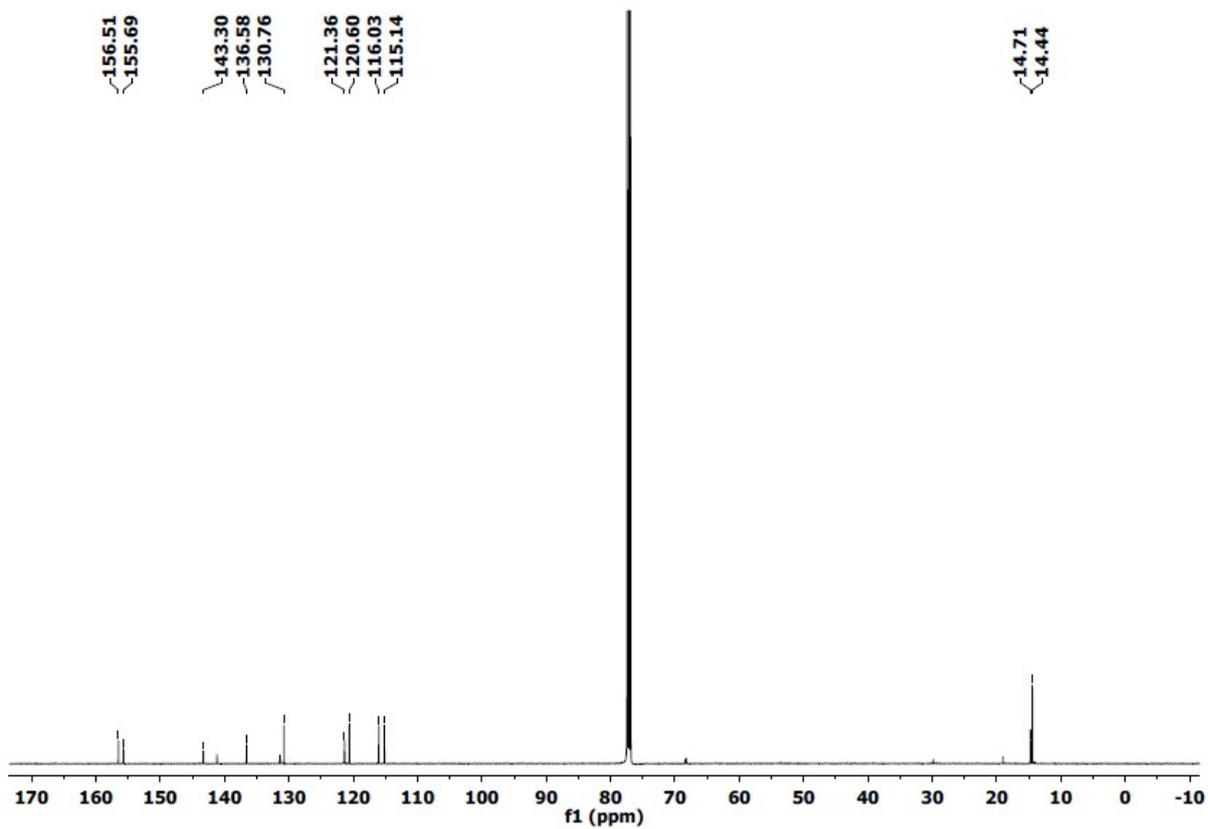


Figure S11: ¹³C NMR Spectrum of Compound 3

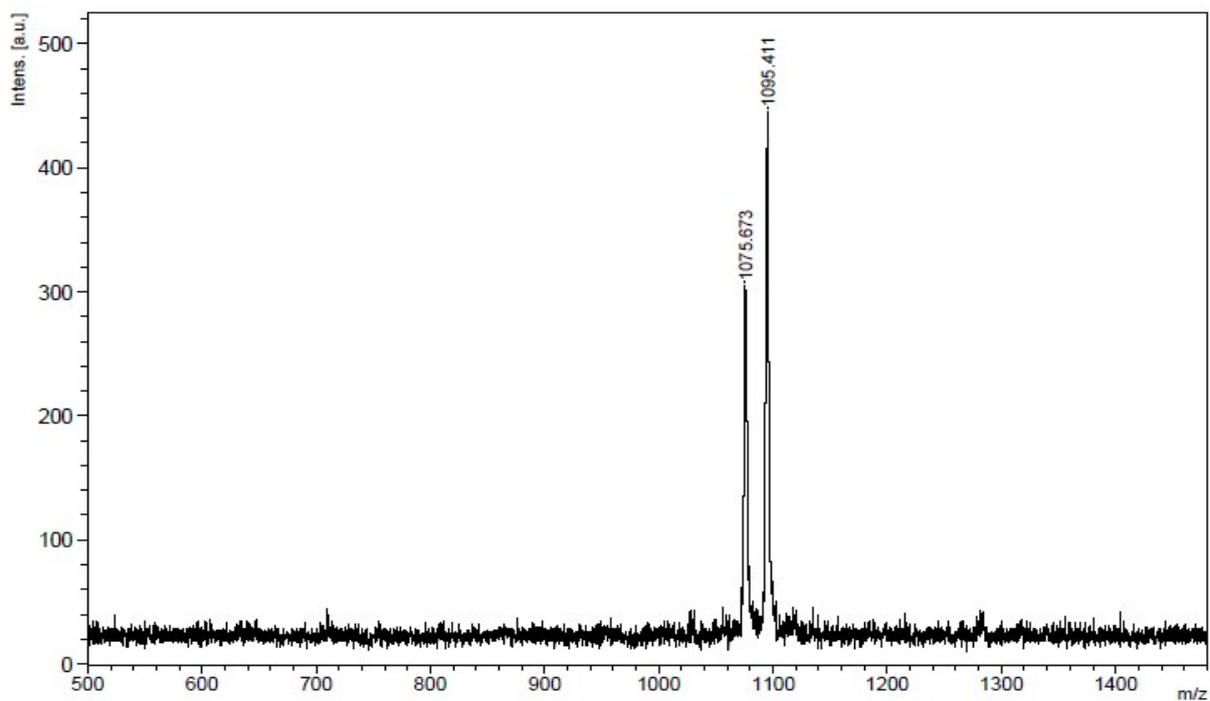


Figure S12: Mass Spectrum of Compound 4

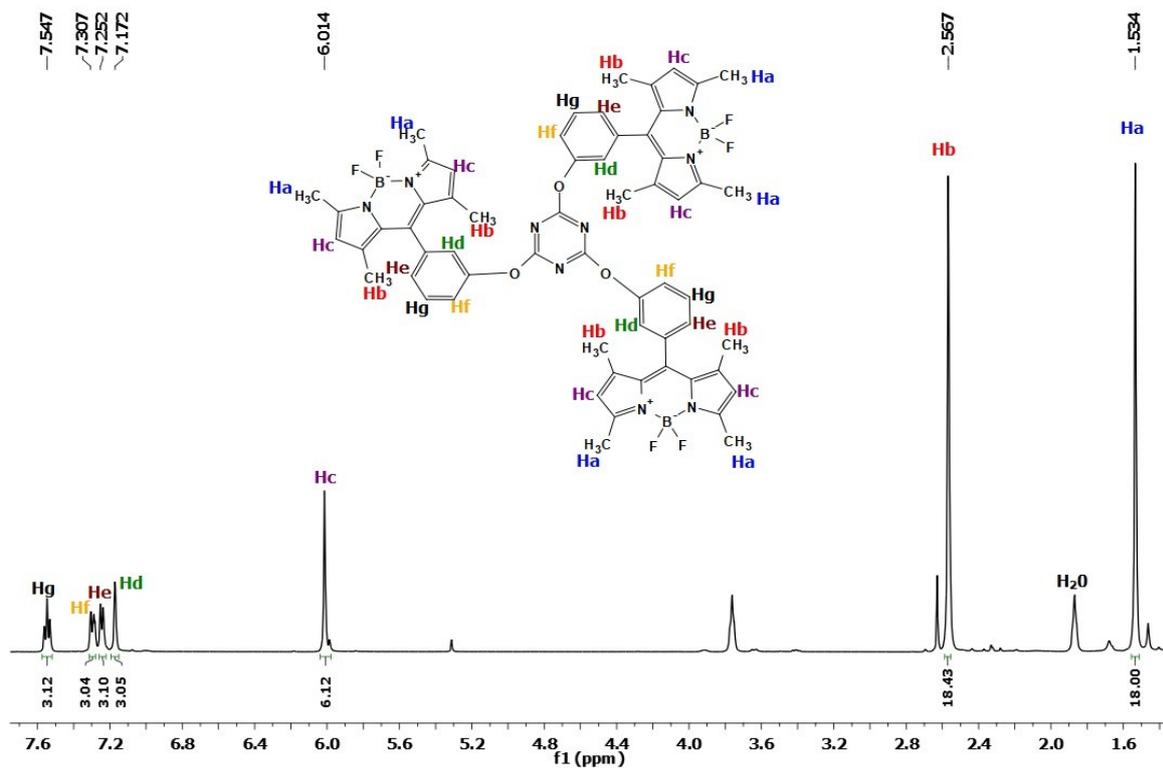


Figure S13: ^1H NMR Spectrum of Compound 4

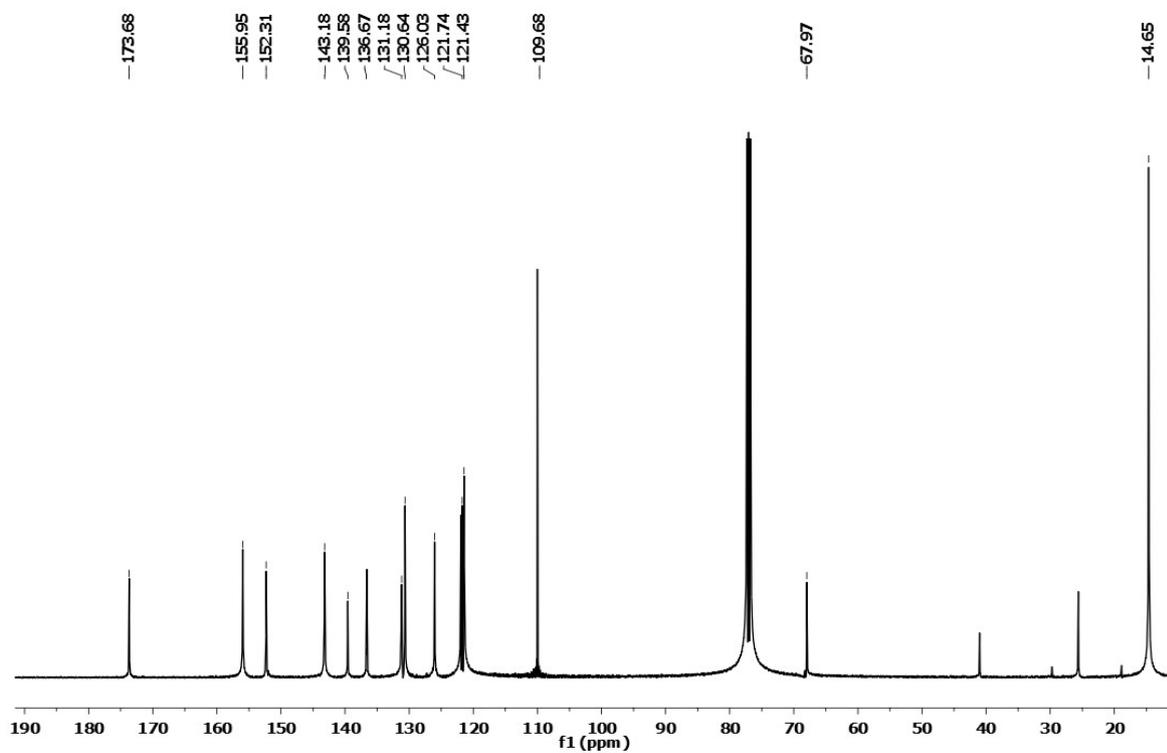


Figure S14: ^{13}C NMR Spectrum of Compound 4

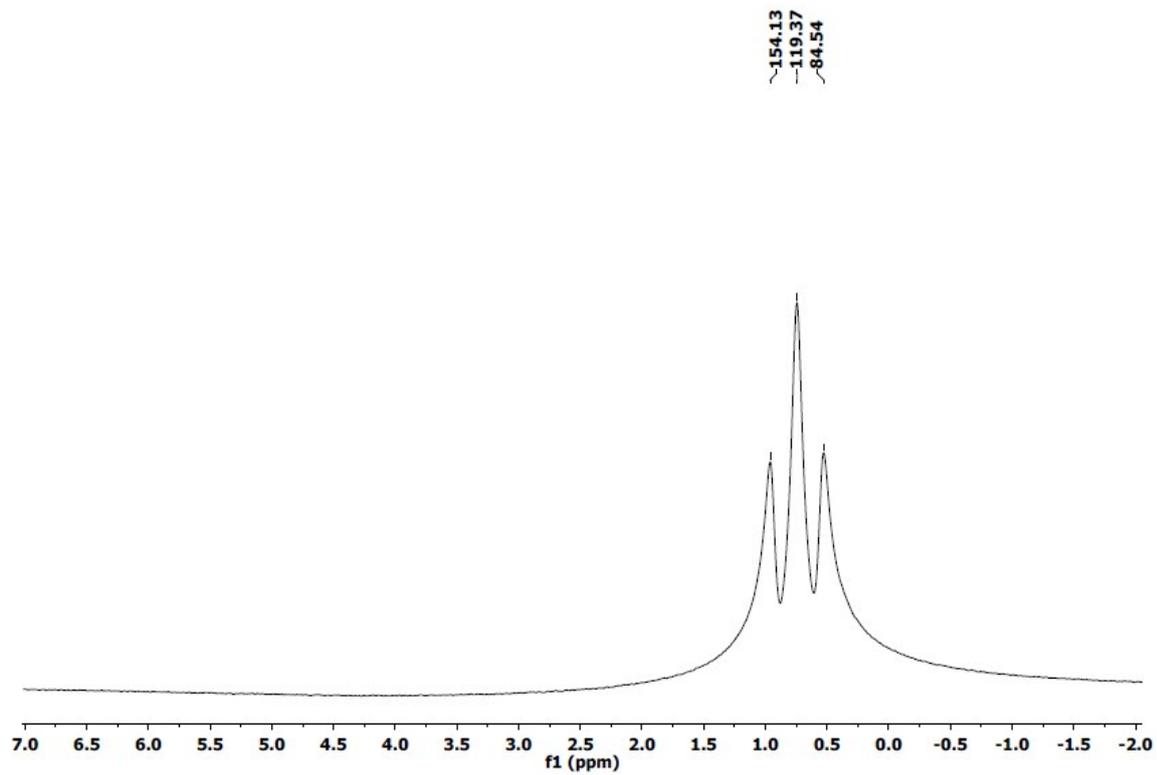


Figure S15: ^{11}B NMR Spectrum of Compound 4

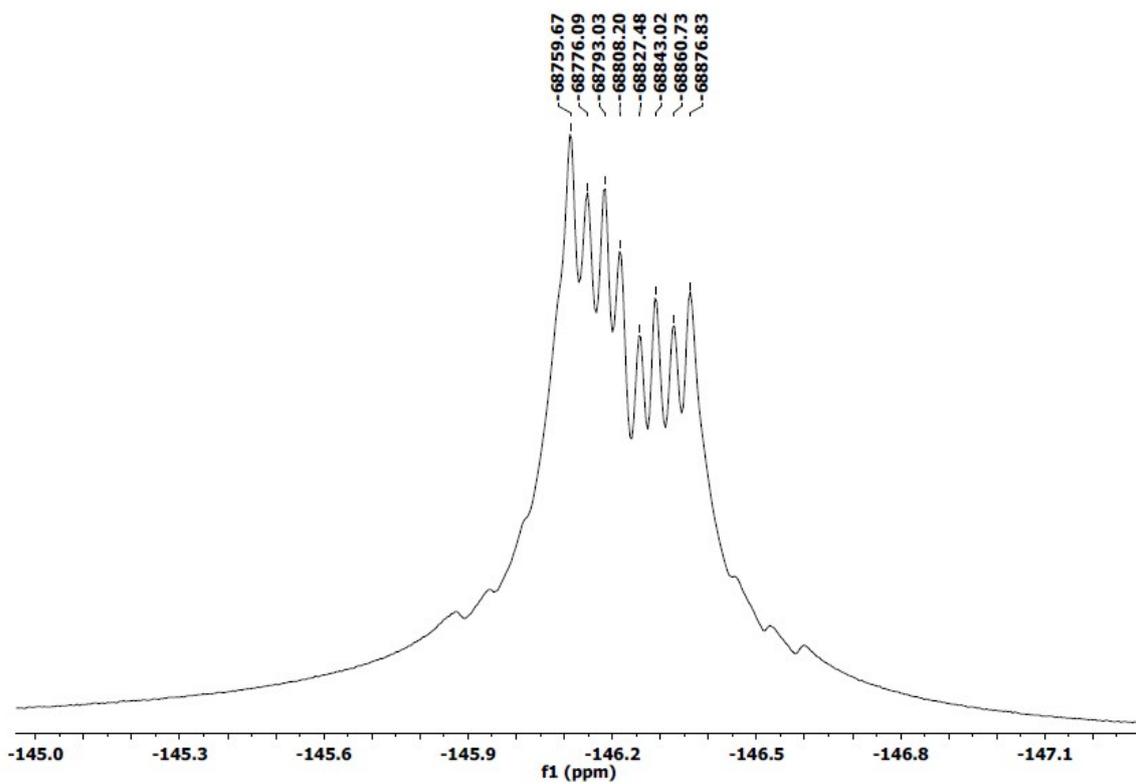


Figure S16: ^{19}F NMR Spectrum of Compound 4

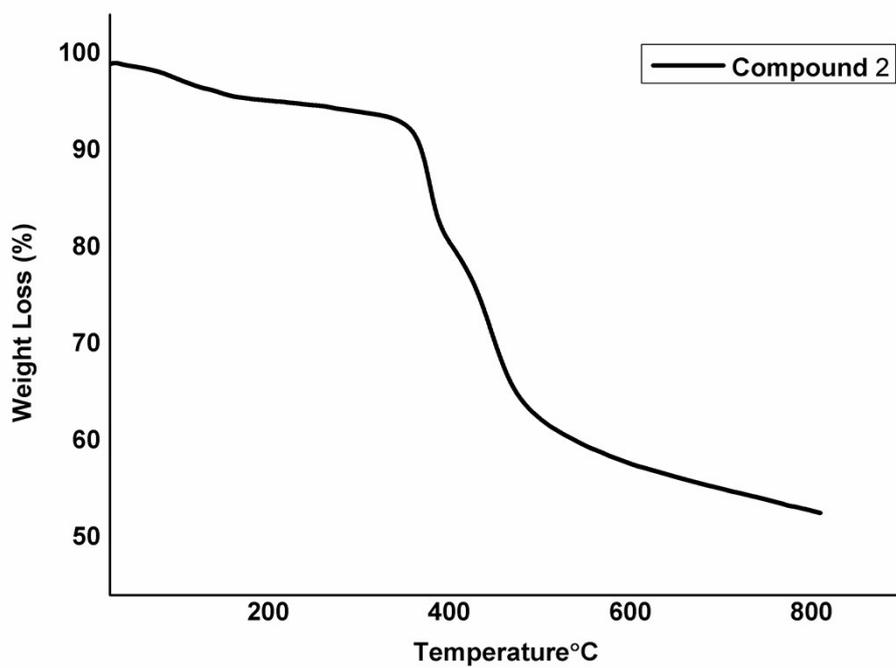


Figure S17: TGA Thermogram of Compound 2

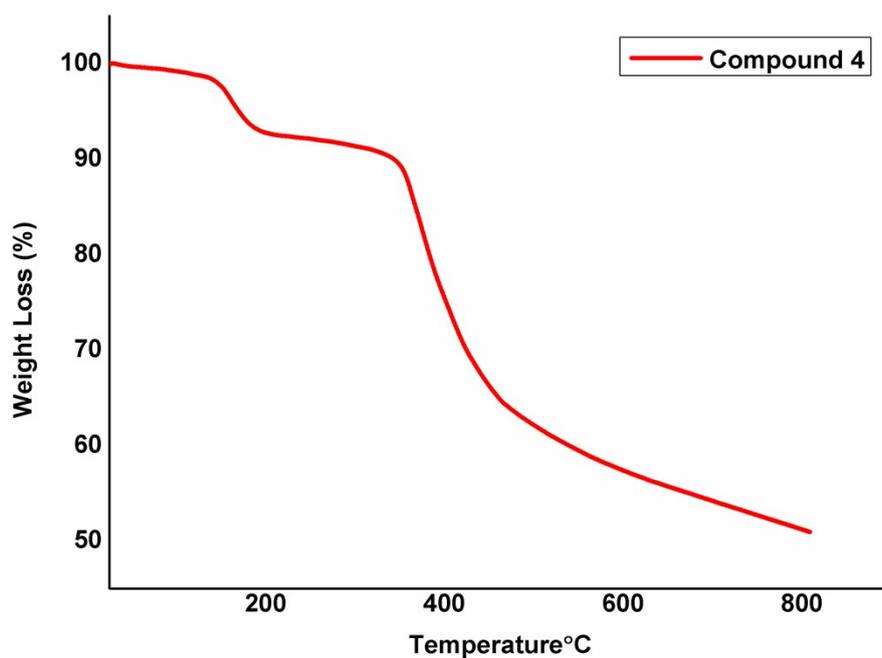


Figure S18: TGA Thermogram of Compound 4

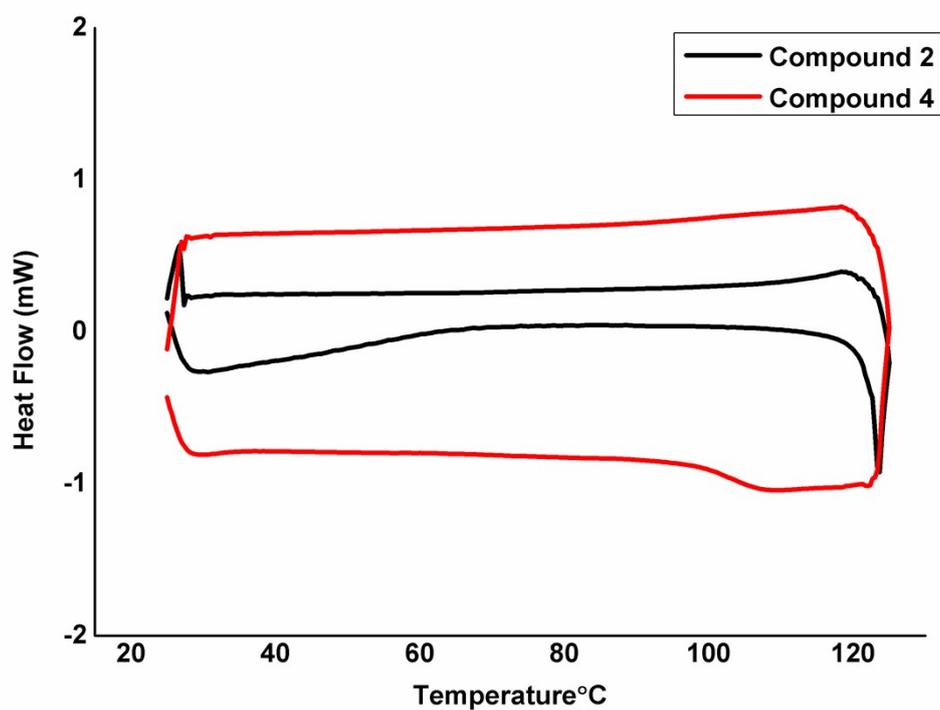


Figure S19: DSC Thermogram of Compound 2 and 4

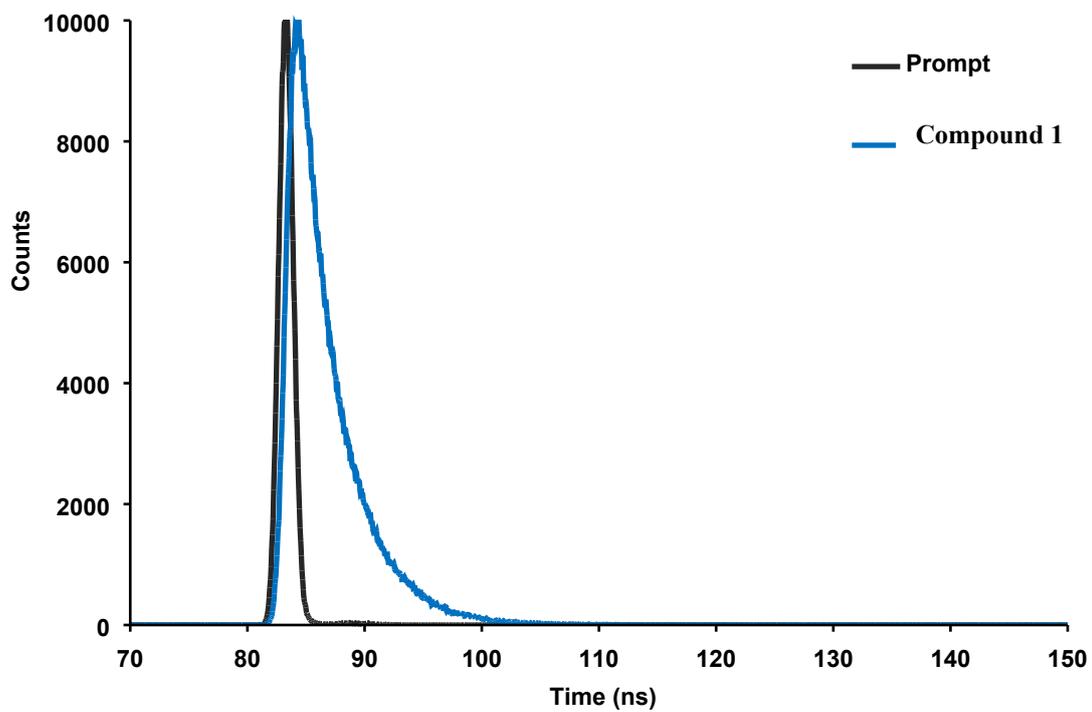


Figure S20: Fluorescence Lifetime of Compound 1

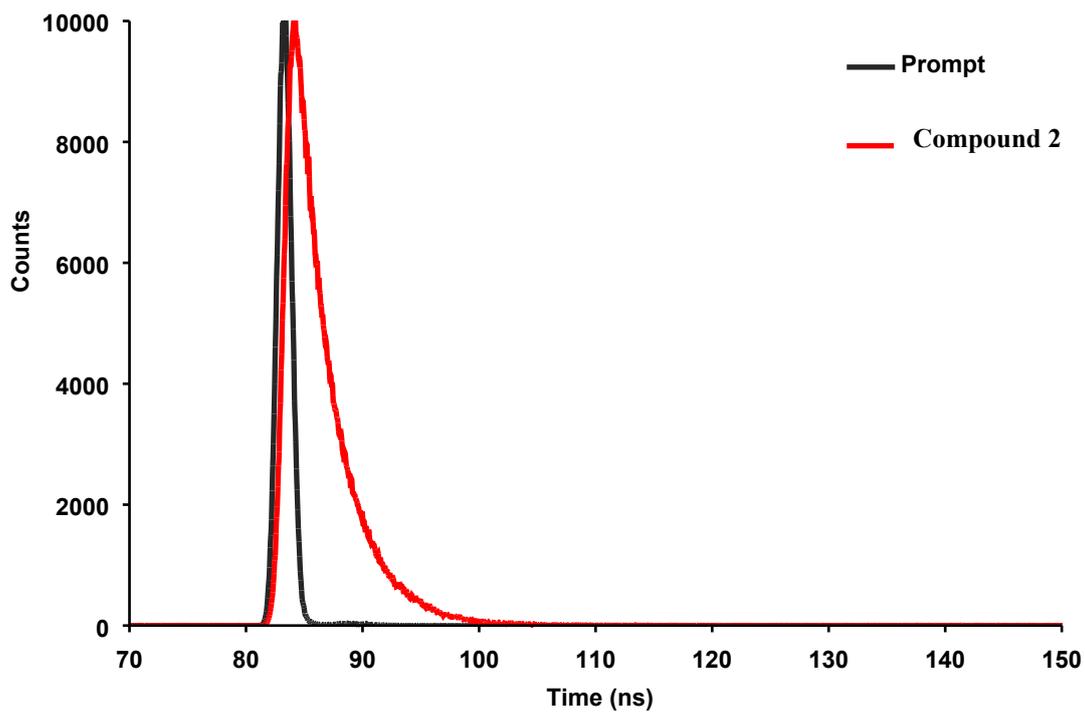


Figure S21: Fluorescence Lifetime of Compound 2

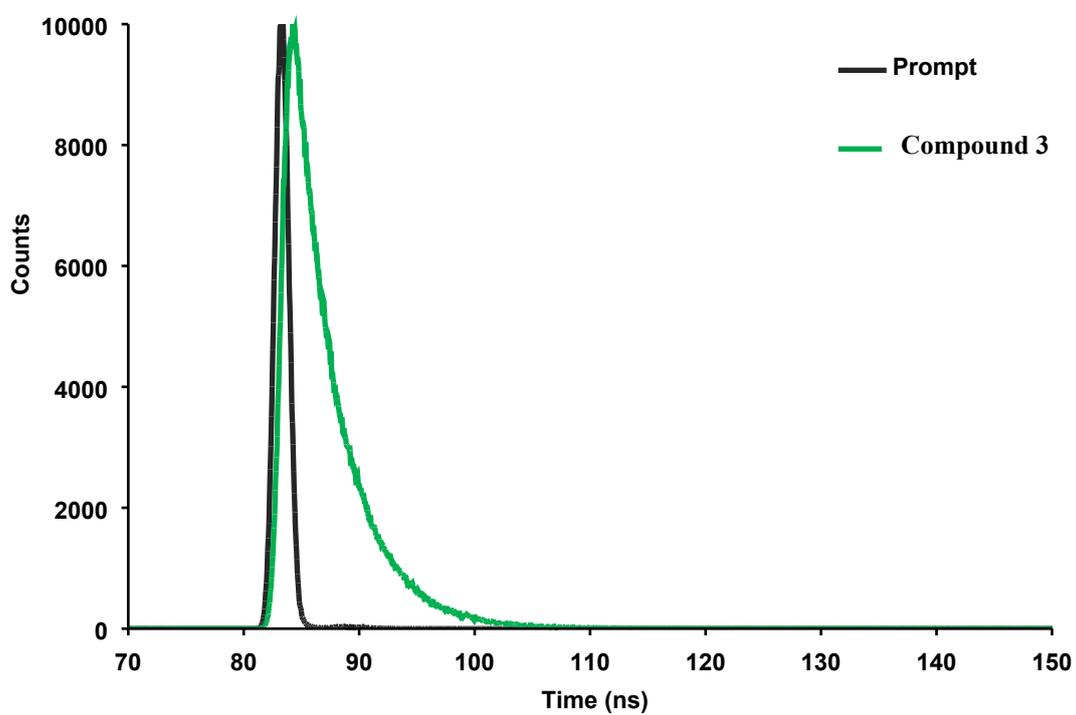


Figure S22: Fluorescence Lifetime of Compound 3

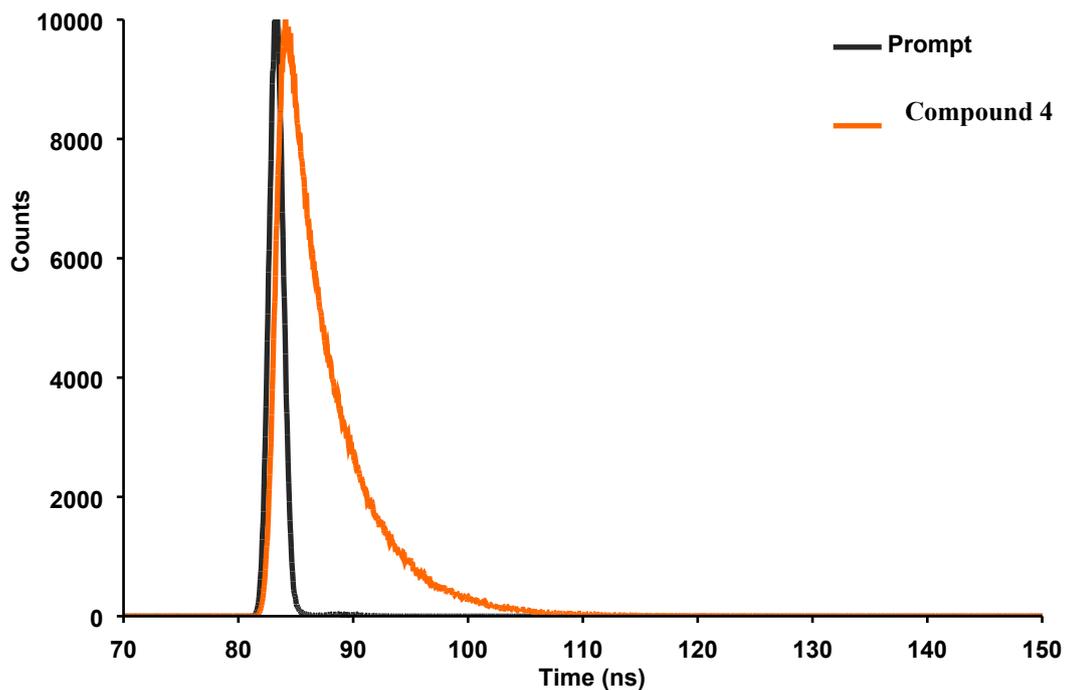


Figure S23: Fluorescence Lifetime of Compound 4

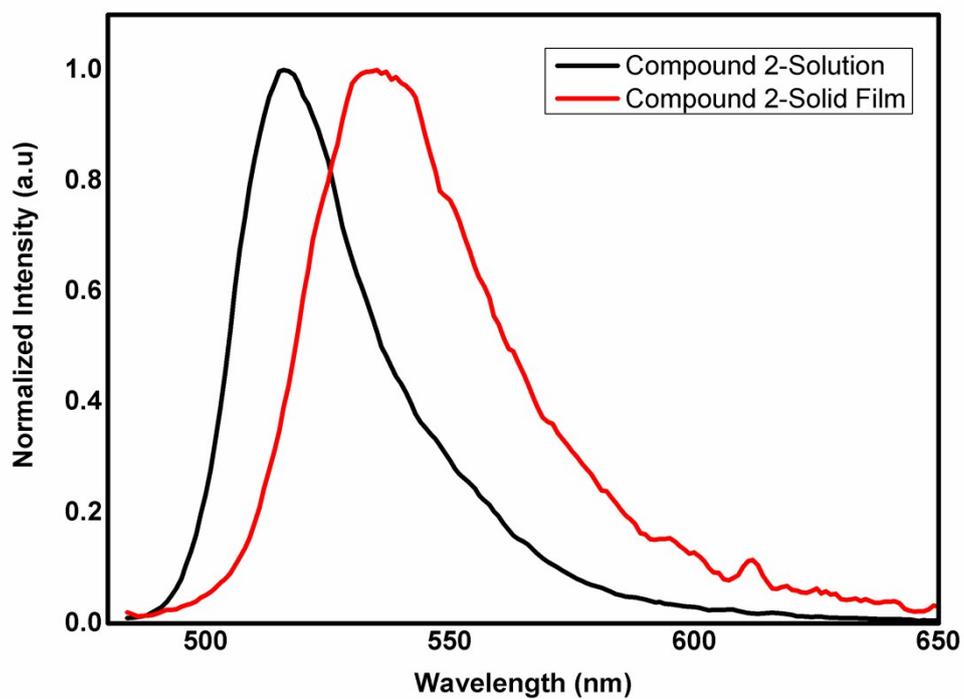


Figure S24: Fluorescence Spectra of Compound 2 Solution and Solid Film

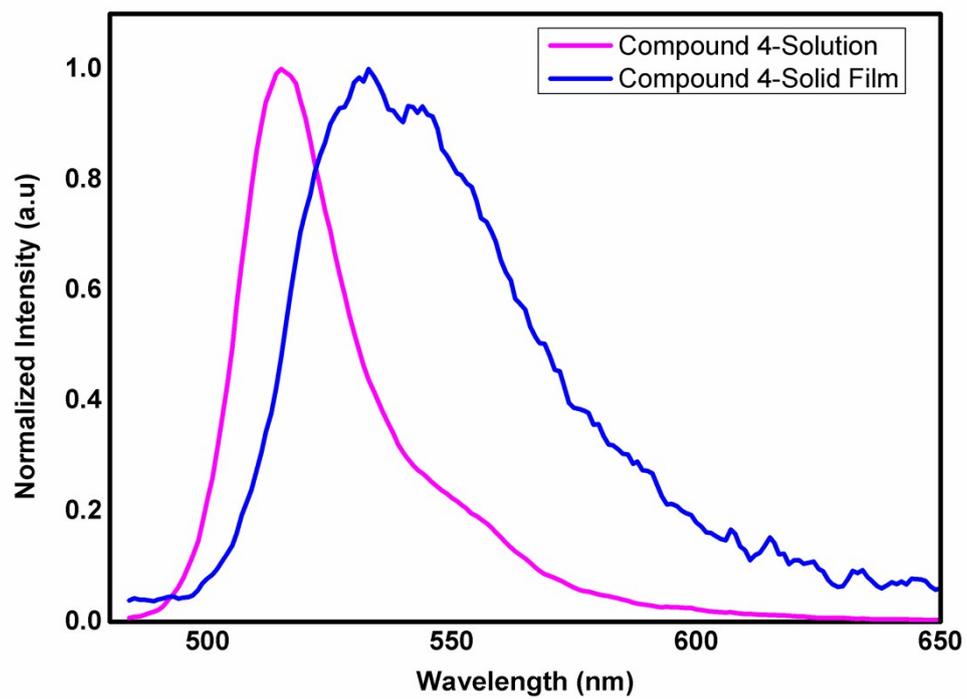


Figure S25: Fluorescence Spectra of Compound 4 Solution and Solid Film