

Supporting Information for

Annulative π -Extension of BODIPYs Made Easy *via* Gold(I)-Catalyzed Cycloisomerization

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1. Instrumentation and materials

Nuclear magnetic resonance spectra (¹H-, ¹³C-, ¹⁹F-NMR) were recorded on a Bruker AV-300 or a Bruker DRX-500 spectrometers either in the Organic Chemistry Department or in the Interdepartmental Investigation Service of UAM. Deuterated solvent employed in each case is indicated in brackets, and its residual peak was used to calibrate the spectra using literature reference δ ppm values.¹ All the experiments were recorded at room temperature.

Mass spectra (MS) and high resolution mass spectra (HRMS) were recorded in the Interdepartmental Investigation Service of UAM, employing Electronic Impact (EI), or Matrix-Assisted Laser Desorption/Ionization Time-Of-Flight (MALDI-TOF), using a VG-AutoSpec spectrometer for EI, and a Bruker-Ultraflex-III spectrometer, with a Nd:YAG laser operating at 355 nm, for MALDI-TOF. The matrixes and internal references employed are indicated for each spectrum. Infrared Spectra were recorder in solid state on a Bruker Vector 22 spectrophotometer.

Ultraviolet and visible (UV-Vis) spectra were recorded using solvents in the spectroscopic grade in the Organic Chemistry Department of UAM employing a JASCO-V660 spectrophotometer. The logarithm of the molar extinction coefficient (ε) is indicated in brackets for each maximum. Likewise, fluorescence measurements were carried out with a JASCO-V8600 spectrofluorometer.

Fluorescence quantum yields (Φ_F) of **2a-2g** were determined in DCM and calculated by using the following equation:²

$$\Phi_F^S = \Phi_F^R \left(\frac{\text{Grad}_S}{\text{Grad}_R} \right) \left(\frac{\eta_S}{\eta_R} \right)^2$$

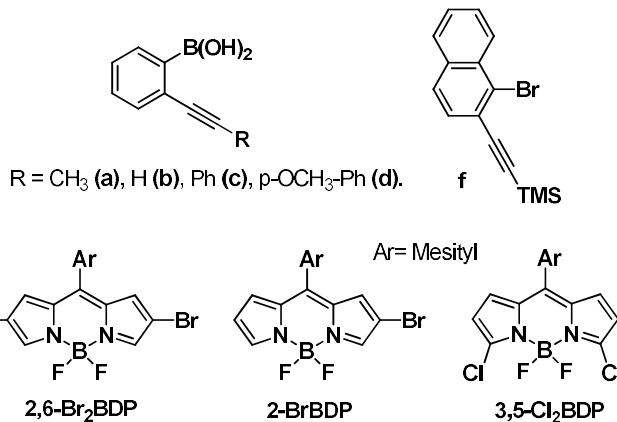
Scripts R and S indicate reference and sample, respectively. Grad is the gradient from the plot of the integrated fluorescence intensity versus the absorption and η is the refractive index of the solvent (the excitation wavelength and the reference compounds are indicated in each case). For **1a-1g**, **2d** and **2e** rhodamine 6G was used as the standard ($\Phi_F = 0.95$ in ethanol).³ For BODIPY **2a-2f** and **2g**, zinc phthalocyanine was used as the standard ($\Phi_F = 0.45$ in PrOH).³

Single-crystal X-ray diffraction data collection for structure determinations were collected in the Interdepartmental Investigation Service ⁴ of UAM at Bruker KAPPA APEX II CCD area-detector X-ray diffractometer operating with graphite monochromated and Mo Kalpha radiation ($\lambda = 0.71073 \text{ \AA}$). The data are absorption corrected with the program SADABS. Intensities are calculated with the SAINT software, which also incorporates polarization and Lorentz effect corrections. The structures were solved and refined using the Bruker SHELXTL Software Package.

The monitoring of the reactions has been carried out by thin layer chromatography (TLC), employing aluminium sheets coated with silica gel type 60 F254 (0.2 mm thick, Merck). The analysis of the TLCs was carried out with an UV lamp of 254 and 365 nm. Purification and separation of the synthesized products was performed by normal-phase column chromatography, using silica gel (230-400 mesh, 0.040-0.063 mm, Merck). Eluents along with the relative ratio in the case of solvent mixtures are indicated for each particular case.

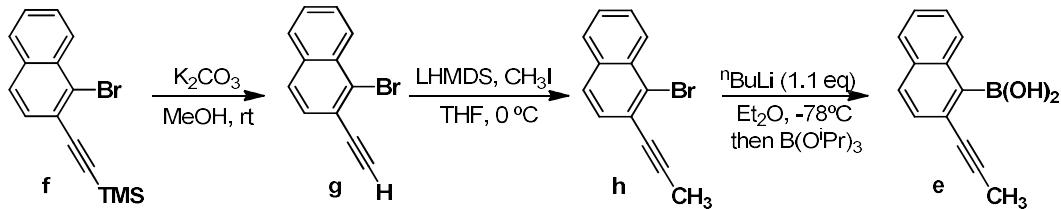
Chemicals were purchased from commercial suppliers and used without further purification. Dry solvents were purchased from commercial suppliers in anhydrous grade or thoroughly dried before use employing standard methods. Solid, hygroscopic reagents were dried in a vacuum oven before use.

The synthesis and characterization of boronic acids **a-d**, **2,6-Br₂BDP**, **2-BrBDP**, **3,5-Cl₂BDP** and 1-bromo-2-[2-(trimethylsilyl)ethynyl]- naphthalene **f** have been previously reported.⁵



2. Synthetic Procedures and Compound Data

Synthesis and characterization of boronic acid e



Desilylation: 1-bromo-2-[2-(trimethylsilyl)ethynyl]- naphthalene **f** (3.6 mmol, 1 eq), K_2CO_3 (3.96 mmol, 1.1 eq) were dissolved in 7 mL of MeOH at room temperature for 1h. The reaction mixture was then filtered, concentrated and purified by a short column chromatography on silica gel using PE as eluent to give **g** in 86% yield. *Methylation:* A solution of LHMDS in THF (4.16 mmol, 1.5 eq) was added to a solution of **x** (2.77 mol, 1 eq) in THF (15 mL) at 0°C. After 1h iodomethane (4.16 mmol, 1.5 eq) was added at the same temperature and stirred overnight. The mixture was quenched with sat. NH_4Cl aq solution (7 mL), extracted with Et_2O (3x 10 mL), dried over $MgSO_4$, filtered and concentrated. The residue was purified by a short column chromatography on silica gel using PE to give **h** in 77% yield. *Borylation:* A 1.6 M solution of $nBuLi$ in hexanes (2.95 mmol, 1.2 eq), was added dropwise to a solution of **h** (2.46 mmol, 1 eq) in THF (40 mL) at $-78^{\circ}C$. After 30 min, $B(O'Pr)_3$ (4.92 mmol, 2 eq) was added and reaction mixture was left to stir at $-78^{\circ}C$ gradually warming up to RT over 16 h. The reaction was quenched with 1M HCl aq solution (30 mL), extracted with Et_2O (3x 20 mL), dried over $MgSO_4$, filtered and concentrated. The residue was purified by column chromatography on silica gel using first PE and then PE/ Et_2O as eluent to give **e** in 71% yield. **1H-NMR** (300 MHz, $CDCl_3$): δ (ppm) = 8.37 (d, $^3J_{H-H}$ = 9 Hz, 1H), 7.80 (d, $^3J_{H-H}$ = 9 Hz, 2H), 7.48 (m, 3H), 5.53 (s, 2H), 2.13 (s, 3H); **13C-NMR** (75.50 MHz, $CDCl_3$): δ (ppm) = 135.64, 132.50, 130.02, 129.05, 128.53, 128.46, 126.97, 126.35, 125.72, 90.09, 81.13, 4.67; **HRLSI-MS (ESI+)**: Calculated for 233.0750 ; Found 233.0743, ppm error = 3.0. ; **FT-IR**: ν (cm^{-1}) = 3300, 3050, 1442, 800. **Mp** = 155 – 158 °C

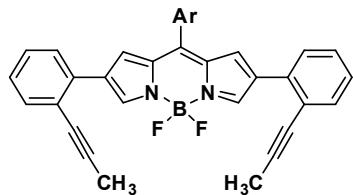
Synthesis and characterization of BODIPYs 1a-g

General method for the Suzuki cross-coupling.^{4b}

In a round-bottom flask **2,6-Br₂BDP** (0.11 mmol, 1 eq), the appropriate boronic acid (0.26 mmol, 2.4 eq), $Pd_2(dbu)_3 \cdot CHCl_3$ (11 μ mol, 0.1 eq), $t-Bu_3P \cdot HBF_4$ (44 μ mol, 0.4 eq) and $CsCO_3$ (0.44 mmol, 4 eq) were dissolved in 6 ml of a previously degassed mixture of THF/water (15:1; v/v) under argon

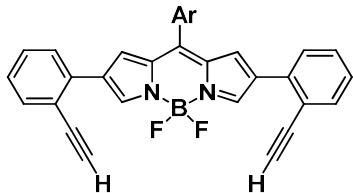
atmosphere. The reaction was stirred at room temperature overnight. After that, the crude of the reaction was extracted with DCM (3x20 mL), dried over MgSO₄, filtered and concentrated. The residue was purified by column chromatography on silica gel using a suitable eluent, as specified in each case.

BODIPY 1a



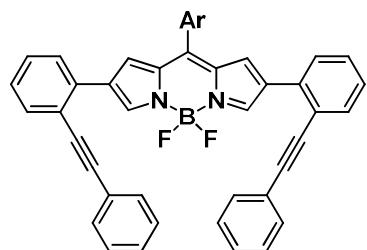
BODIPY **1a** was prepared following the general method described above and purified by column chromatography on silica gel using heptane/AcOEt as eluent (from 50:1 to 5:1; v/v). The product obtained from the column was further purified washing with cold hexane. **1a** was isolated as a purple solid in 93% yield. **1H-NMR** (300 MHz, CDCl₃): δ (ppm) = 8.46 (s, 2H), 7.42 (m, 4H), 7.26 - 7.18 (m, 4H), 7.12 (s, 2H), 6.98 (s, 2H), 2.38 (s, 3H), 2.22 (s, 6H), 1.98 (s, 6H); **13C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 146.87, 144.37, 139.07, 136.69, 135.63, 134.41, 133.59, 133.26, 130.07, 128.25, 128.09, 127.52, 127.52, 127.22, 121.38, 90.76, 79.91, 32.32, 21.30, 20.32; **19F-NMR** (282 MHz, CDCl₃): δ (ppm) = -145.86 (m); **11B-NMR** (128 MHz, CDCl₃): δ (ppm) = 0.35 (t, J_{B-F} = 29 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₃₆H₂₉BF₂N₂: 538.2393; Found: 538.2404, ppm error = 2.0. ; **UV/vis (DCM)**: λ_{max} (nm) (log ε) = 573 (4.29), 328 (4.45). Φ_F (exc. λ = 550 nm) = 0.52. **FT-IR**: ν (cm⁻¹) = 3041, 3027, 2967, 2870, 2841, 1560, 1427, 1392, 1231, 1101, 979, 781. **Mp** > 200 °C.

BODIPY 1b



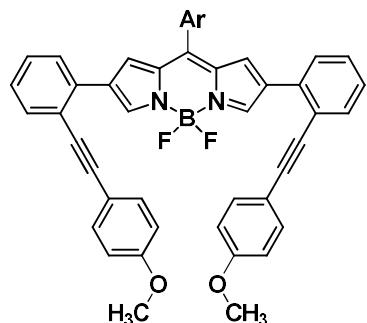
BODIPY **1b** was prepared following the general method described above and purified by column chromatography on silica gel using heptane/AcOEt as eluent (from 50:1 to 5:1; v/v). The product obtained from the column was further purified washing with cold hexane. **1b** was isolated as a purple solid in 62% yield. **1H-NMR** (300 MHz, CDCl₃): δ (ppm) = 8.49 (s, 2H), 7.56 (dd, ³J_{H-H} = 7.5 Hz, ⁴J_{H-H} = 1.5 Hz, 2H), 7.41 (dd, ³J_{H-H} = 7.5 Hz, ⁴J_{H-H} = 1.5 Hz, 2H), 7.33 (td, ³J_{H-H} = 7.5 Hz, ⁴J_{H-H} = 1.5 Hz, 2H), 7.23 (m, 2H), 7.06 (s, 2H), 6.98 (s, 2H), 3.23 (s, 2H), 2.38 (s, 3H), 2.20 (s, 6H); **13C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 13C NMR (75 MHz, CDCl₃) δ 144.29, 139.00, 136.47, 135.55, 135.09, 134.34, 132.67, 132.61, 129.58, 129.18, 128.24, 127.79, 127.63, 127.19, 119.40, 83.32, 81.70, 21.21, 20.16.; **19F-NMR** (282 MHz, CDCl₃): δ (ppm) = -145.84 (m); **11B-NMR** (128 MHz, CDCl₃): δ (ppm) = 0.37 (t, J_{B-F} = 29 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₃₄H₂₅BF₂N₂: 510.2079; Found 510.2088., ppm error = 1.8.; **UV/vis (DCM)**: λ_{max} (nm) (log ε) = 565 (4.1). Φ_F (exc. λ = 550 nm) = 0.54. **FT-IR**: ν (cm⁻¹) = 3252, 3031, 2969, 2869, 1560, 1398, 1222, 1103, 983, 784. **Mp** > 200 °C.

BODIPY 1c



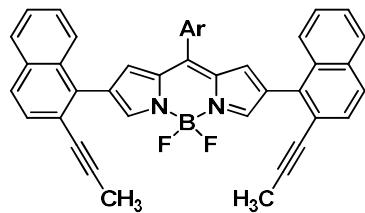
BODIPY **1c** was prepared following the general method described above and purified by column chromatography on silica gel using heptane/AcOEt as eluent (from 50:1 to 15:1; v/v). The product obtained from the column was further purified washing with cold hexane. **1c** was isolated as a purple solid in 91% yield. **1H-NMR** (300 MHz, CDCl₃): δ (ppm) = 8.48 (s, 2H), 7.51 (d, $^3J_{\text{H-H}} = 9$ Hz, 2H), 7.38 (d, $^3J_{\text{H-H}} = 9$ Hz, 2H), 7.29 – 7.12 (m), 6.78 (s, 2H), 2.25 (s, 3H), 2.03 (s, 6H). **13C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 147.36, 144.58, 144.48, 138.78, 136.55, 135.88, 134.43, 134.34, 133.92, 133.17, 131.59, 129.81, 128.52, 128.46, 127.72, 127.34, 123.10, 120.61, 93.85, 89.36, 21.37, 20.34.; **19F-NMR** (282 MHz, CDCl₃): δ (ppm) = -145.64 (m); **11B-NMR** (128 MHz, CDCl₃): δ (ppm) = 0.39 (t, $J_{\text{B-F}} = 29$ Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₄₆H₃₃BF₂N₂ 662.2707; Found 662.2691, ppm error = 2.4.; **UV/vis (DCM)**: λ_{max} (nm) ($\log \epsilon$) = 578 (4.3). Φ_F (exc. $\lambda = 550$ nm) = 0.50. **FT-IR**: ν (cm⁻¹) = 3098, 3030, 2950, 2820, 1562, 1420, 1392, 1227, 1097, 977, 784, 702. **Mp** > 200 °C.

BODIPY 1d



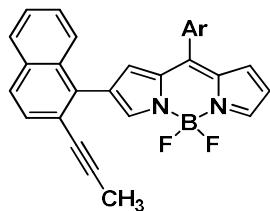
BODIPY **1d** was prepared following the general method described above and purified by column chromatography on silica gel using heptane/AcOEt as eluent (from 50:1 to 5:1; v/v). The product obtained from the column was further purified washing with cold hexane. **1d** was isolated as a purple solid in 83% yield. **1H-NMR** (300 MHz, CDCl₃): δ (ppm) = 8.61 (s, 2H), 7.57 (dd, $^3J_{\text{H-H}} = 6$ Hz, $^4J_{\text{H-H}} = 1.2$ Hz, 2H), 7.46 (dd, $^3J_{\text{H-H}} = 6$ Hz, $^4J_{\text{H-H}} = 1.2$ Hz, 2H), 7.36 - 7.21 (m), 7.18 (s, 2H), 6.90 - 6.86 (m, 6H), 3.85 (s, 6H), 2.37 (s, 3H), 2.15 (s, 6H); **13C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 159.94, 147.12, 144.53, 138.77, 136.63, 135.84, 134.11, 133.68, 133.30, 133.27, 133.10, 129.90, 128.45, 127.70, 127.32, 127.18, 120.98, 115.27, 114.16, 94.05, 88.20, 55.47, 21.40, 20.38; **19F-NMR** (282 MHz, CDCl₃): δ (ppm) = -145.66 (m); **11B-NMR** (128 MHz, CDCl₃): δ (ppm) = 0.39 (t, $J_{\text{B-F}} = 29$ Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₄₈H₃₇BF₂N₂O₂: 722.2919; Found 722.2886, ppm error = 4.6.; **UV/vis (DCM)**: λ_{max} (nm) ($\log \epsilon$) = 583 (4.4). Φ_F (exc. $\lambda = 550$ nm) = 0.44. **FT-IR**: ν (cm⁻¹) = 3073, 3012, 2977, 2860, 1561, 1419, 1396, 1299, 1226, 1097, 1012, 779, 707. **Mp** > 200 °C.

BODIPY 1e



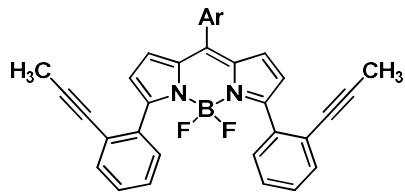
BODIPY **1e** was prepared following the general method described above and purified by column chromatography on silica gel using heptane/AcOEt as eluent (from 50:1 to 10:1; v/v). The product obtained from the column was further purified washing with cold hexane. **1e** was isolated as a purple solid in 75% yield. **1H-NMR** (300 MHz, CDCl₃): δ (ppm) = 8.30 (s, 2H), 7.98 - 7.94 (m, 2H), 7.85 - 7.82 (m, 2H), 7.75 (d, J_{H-H} = 9 Hz, 2H), 7.55 - 7.48 (m, 6H), 7.02 (s, 2H), 6.98 (s, 2H), 2.35 (s, 3H), 2.34 (s, 6H), 2.04 (s, 6H); **13C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 146.38, 139.10, 136.51, 133.38, 133.06, 131.93, 130.89, 130.03, 129.32, 128.42, 128.38, 127.85, 126.99, 126.36, 126.05, 125.29, 121.19, 91.06, 80.23, 21.26, 20.45, 4.68; **19F-NMR** (282 MHz, CDCl₃): δ (ppm) = -145.86 (m); **11B-NMR** (128 MHz, CDCl₃): δ (ppm) = 0.47 (t, J_{B-F} = 28 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₄₄H₃₃BF₂N₂: 638.2707; Found 638.2715, ppm error = 1.3.; **UV/vis (DCM)**: λ_{max} (nm) (log ϵ) = 560 (4.6). Φ_F (exc. λ = 550 nm) = 0.49. **FT-IR**: ν (cm⁻¹) = 3040, 3028, 2967, 2841, 1561, 1422, 1392, 1234, 1098, 960, 781. **Mp** > 200 °C.

BODIPY 1f



In a round-bottom flask **2-BrBDP** (0.11 mmol, 1 eq), boronic acid **e** (0.13 mmol, 1.2 eq), Pd₂(dba)₃.CHCl₃ (11 μ mol, 0.1 eq), *t*-Bu₃P.HBF₄ (44 μ mol, 0.4 eq) and CsCO₃ (0.44 mmol, 4 eq) were dissolved in 6 ml of a previously degassed mixture of THF/water (15:1; v/v) under argon atmosphere. The reaction was stirred at room temperature overnight. After that, the crude of the reaction was extracted with DCM (3x20 mL), dried over MgSO₄, filtered and concentrated. The residue was purified by column chromatography on silica gel using heptane/AcOEt as eluent (from 50:1 to 20:1; v/v). The product obtained from the column was further purified washing with cold hexane. **1f** was isolated as a purple solid in 94 % yield. **1H-NMR** (300 MHz, CDCl₃): δ (ppm) = 8.24 (s, 1H), 7.94 (s, 1H), 7.94 - 7.87 (m, 1H), 7.82 - 7.78 (m, 1H), 7.71 (d, J_{H-H} = 9 Hz, 1H), 7.50 - 7.44 (m, 3H), 6.96 (bs, 3H), 6.96 (d, J_{H-H} = 3 Hz, 1H), 6.50 (dd, J_{H-H} = 3 Hz, J_{H-H} = 1.7 Hz, 1H), 2.34 (s, 3H), 2.21 (s, 6H), 1.98 (s, 3H); **13C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 147.29, 146.91, 143.87, 139.06, 136.50, 135.52, 133.27, 133.04, 131.89, 131.22, 130.85, 129.97, 129.88, 129.26, 128.40, 128.36, 127.88, 126.99, 126.36, 126.00, 121.22, 118.47, 118.43, 91.12, 80.16, 21.26, 20.27, 4.60.; **19F-NMR** (282 MHz, CDCl₃): δ (ppm) = -145.66 (m); **11B-NMR** (128 MHz, CDCl₃): δ (ppm) = 0.43 (t, J_{B-F} = 29 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₃₁H₂₅BF₂N₂: 474.2079; Found 474.2070, ppm error = 4.4.; **UV/vis (DCM)**: λ_{max} (nm) (log ϵ) = 523 (4.59). Φ_F (exc. λ = 550 nm) = 0.54. **FT-IR**: ν (cm⁻¹) = 3063, 3047, 2897, 1536, 1506, 1400, 1139, 1100, 821, 795. **Mp** > 200 °C.

BODIPY 1g



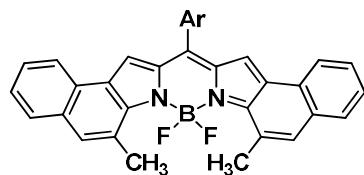
In a round-bottom flask **3,5-Cl₂BDP** (0.11 mmol, 1 eq), boronic acid **a** (0.13 mmol, 1.2 eq), Pd(PPh₃)₄ (11 µmol, 0.1 eq) and CsCO₃ (0.44 mmol, 4 eq) were dissolved in 6 ml of a previously degassed mixture of toluene/water (10:1; v/v) under argon atmosphere. The reaction was stirred and heated to reflux overnight. After that, the crude of the reaction was extracted with toluene (3x20 mL), dried over MgSO₄, filtered and concentrated. The residue was purified by column chromatography on silica gel using heptane/AcOEt as eluent (from 50:1 to 10:1; v/v). The product obtained from the column was further purified washing with cold hexane. BODIPY **X** was isolated as a red solid in 44 % yield. **¹H-NMR** (300 MHz, CDCl₃): δ (ppm) = 7.90 (d, ³J_{H-H} = 9 Hz, 2H), 7.43 (d, ³J_{H-H} = 9 Hz, 2H), 7.34 – 7.26 (m), 6.99 (s, 2H), 6.71 (d, ³J_{H-H} = 6 Hz, 2H), 6.63 (d, ³J_{H-H} = 6 Hz, 2H), 2.39 (s, 3H), 2.24 (s, 6H), 1.91 (s, 6H); **¹³C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 157.41, 144.00, 138.61, 136.96, 136.01, 134.75, 132.59, 130.70, 130.63, 130.56, 128.89, 128.26, 128.16, 127.26, 123.57, 122.50, 122.46, 90.54, 79.23, 21.30, 20.35, 4.65; **¹⁹F-NMR** (282 MHz, CDCl₃): δ (ppm) = -145.56 (m); **¹¹B-NMR** (128 MHz, CDCl₃): δ (ppm) = 1.16 (t, *J*_{B-F} = 31 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₃₆H₂₉BF₂N₂: 538.2393; Found: 538.2414, ppm error = 3.9.; **UV/vis (DCM)**: λ_{max} (nm) (log ε) = 545 (4.3). Φ_F (exc. λ = 550 nm) = 0.87. **FT-IR**: ν (cm⁻¹) = 3063, 2897, 1550, 1413, 1135, 1107, 1092, 798. **Mp** > 200 °C.

Synthesis and characterization of BODIPYs 2a-g

General method for the gold-catalyzed cycloisomerization

In a Schlenk tube the corresponding alkynyl-aryl BODIPY (0.04 mmol, 1 eq), P(C₆F₅)₃AuCl (4 µmol, 0.1 eq), AgSbF₆ (4 µmol, 0.1 eq) were dissolved in DCM (2 mL) under argon atmosphere. The reaction was stirred at room temperature for 15 min. After that, the crude of the reaction was extracted with DCM (3x10 mL), dried over MgSO₄, filtered and concentrated. The residue was purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. The yield of the reaction and other details are specified in each case.

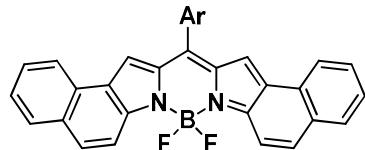
BODIPY 2a



BODIPY **2a** was prepared following the general method described above and purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. **2a** was isolated quantitatively as a blue solid. **¹H-NMR** (300 MHz, CDCl₃): δ (ppm) = 7.97 – 7.94 (m, 2H), 7.69 - 7.66 (m, 2H), 7.58 (s, 2H), 7.43 - 7.38 (m, 6H), 7.09 (s, 2H), 3.01 (d, ⁴J_{H-H} = 3 Hz, 6H), 2.49 (s, 3H), 2.21 (s, 6H); **¹³C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 151.57, 146.63, 138.99, 138.92, 137.26, 136.65, 131.41, 131.06, 130.28, 128.29, 128.26, 127.47, 127.37, 127.17, 126.35, 123.40, 121.43, 21.28, 20.79 (t, *J*_{C-F} = 11 Hz), 20.34; **¹⁹F-NMR**

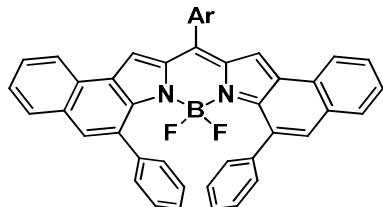
NMR (282 MHz, CDCl₃): δ (ppm) = -123.13 (m); **¹¹B-NMR** (128 MHz, CDCl₃): δ (ppm) = 1.77 (t, J_{B-F} = 34 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₃₆H₂₉BF₂N₂: 538.2393; Found: 538.2409, ppm error = 3.0; **UV/vis (DCM)**: λ_{max} (nm) (log ϵ) = 650 (5.1); Φ_F (exc. λ = 630 nm) = 0.08. **FT-IR**: ν (cm⁻¹) = 3098, 3045, 3030, 2888, 2962, 1542, 1412, 1392, 1387, 1215, 1097, 977, 801. **Mp** > 200 °C.

BODIPY 2b



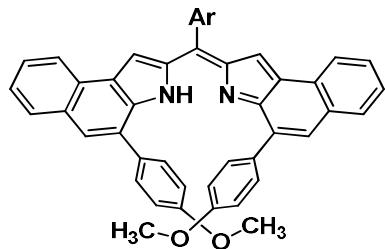
BODIPY **2b** was prepared following the general method described above and purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. **2b** was isolated quantitatively as a blue solid. **¹H-NMR** (300 MHz, CDCl₃): δ (ppm) = 7.99 (d, $^3J_{H-H}$ = 9 Hz, 2H), 7.91 (d, $^3J_{H-H}$ = 9 Hz, 2H), 7.79 (d, $^3J_{H-H}$ = 9 Hz, 4H), 4.47 (m, 4H), 7.33 (s, 2H), 7.10 (s, 2H), 2.48 (s, 3H), 2.22 (s, 6H); **¹³C-NMR** (75.5 MHz, CDCl₃): δ (ppm) = 151.09, 147.57, 139.31, 137.32, 135.75, 130.57, 130.26, 130.04, 129.89, 129.19, 128.71, 128.48, 128.38, 126.53, 124.07, 121.33, 116.63, 21.43, 20.54; **¹⁹F-NMR** (282 MHz, CDCl₃): δ (ppm) = -146.44 (m); **¹¹B-NMR** (128 MHz, CDCl₃): δ (ppm) = 1.82 (t, J_{B-F} = 34 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₃₄H₂₅BF₂N₂: 510.2079; Found: 510.2094, ppm error = 2.9; **UV/vis (DCM)**: λ_{max} (nm) (log ϵ) = 650 (5.3); Φ_F (exc. λ = 630 nm) = 0.09. **FT-IR**: ν (cm⁻¹) = 3086, 2937, 1554, 1389, 1185, 1103, 959, 802. **Mp** > 200 °C.

BODIPY 2c



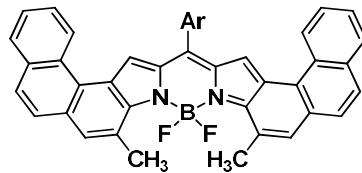
In a Schlenk tube the BODIPY **1c** (0.04 mmol, 1 eq), P(C₆F₅)₃AuCl (8 μmol, 0.2 eq), AgSbF₆ (8 μmol, 0.2 eq) were dissolved in DCM (2 mL) under argon atmosphere. The reaction was stirred at 40°C for 1 h . After that, the crude of the reaction was extracted with DCM (3x10 mL), dried over MgSO₄, filtered and concentrated. The residue was purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. **2c** was isolated in a 78% yield as a purple solid. **¹H-NMR** (500 MHz, CDCl₃): δ (ppm) = 7.99 (d, $^3J_{H-H}$ = 8 Hz, 2H), 7.63 (d, $^3J_{H-H}$ = 8 Hz, 2H), 7.47 - 7.22 (m), 7.10 (s, 2H), 2.49 (s, 3H), 2.21 (s, 6H); **¹³C-NMR** (126MHz, CDCl₃): δ (ppm) = 149.98, 147.50, 139.70, 139.56, 139.18, 138.45, 137.45, 132.52, 131.54, 131.30, 129.69, 129.55, 129.10, 128.42, 127.99, 127.98, 127.75, 127.14, 126.63, 123.57, 121.63, 21.45, 20.45; **¹⁹F-NMR** (470 MHz, CDCl₃): δ (ppm) = -129.38 (m); **¹¹B-NMR** (128 MHz, CDCl₃): δ (ppm) = 1.02 (t, J_{B-F} = 35 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₄₆H₃₃BF₂N₂: 662.2707; Found 662.2717, ppm error = 1.5; **UV/vis (DCM)**: λ_{max} (nm) (log ϵ) = 650 (5.1); Φ_F (exc. λ = 630 nm) = 0.07. **FT-IR**: ν (cm⁻¹) = 3090, 3025, 3015, 2937, 1544, 1399, 1396, 1185, 1097, 977, 801, 715. **Mp** > 200 °C.

Dipyrromethene 2d'



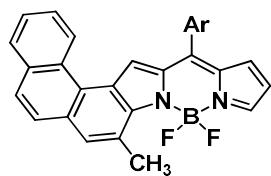
Dipyrromethene **2d'** was prepared following the general method described above and purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. **2d'** was isolated quantitatively as a purple solid. **¹H-NMR** (300 MHz, CDCl₃): δ (ppm) = 12.97 (s, 1H), 7.96 – 7.85 (m, 2H), 7.84 (d, $^3J_{H-H}$ = 9 Hz, 4H), 7.72 – 7.69 (m, 2H), 7.51 (s, 2H), 7.40 (m, 4H), 7.20 (s, 2H), 7.11 (s, 2H), 6.71 (d, $^3J_{H-H}$ = 9 Hz, 4H), 3.85 (s, 6H), 2.85 (s, 3H), 2.26 (s, 6H); **¹³C-NMR** (75.50 MHz, CDCl₃): δ (ppm) = 159.94, 147.12, 144.53, 138.77, 136.63, 135.84, 134.11, 133.68, 133.30, 133.27, 133.10, 129.90, 128.45, 127.70, 127.32, 127.18, 120.98, 115.27, 114.16, 94.05, 88.20, 55.47, 21.40, 20.38; **HRLSI-MS** (MALDI-TOF): Calculated for C₄₈H₃₈N₂O₂: 674.2928; Found 674.2933, ppm error = 0.7; **UV/vis (DCM)**: λ_{max} (nm) ($\log \epsilon$) = 586 (4.6). Φ_F (exc. λ = 550 nm) = 0.01. **FT-IR**: ν (cm⁻¹) = 3497, 3035, 2987, 1421, 1399, 1396, 1185, 1097, 801, 725. **Mp** > 200 °C.

BODIPY 2e



BODIPY **2e** was prepared following the general method described above and purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. **2e** was isolated quantitatively as a blue solid. **¹H-NMR** (500 MHz, CDCl₃): δ (ppm) = 8.59 (d, $^3J_{H-H}$ = 10 Hz, 2H), 7.95 (s, 2H), 7.92 (d, $^3J_{H-H}$ = 10 Hz, 2H), 7.79 (d, $^3J_{H-H}$ = 10 Hz, 2H), 7.72 – 7.69 (m, 4H), 7.62 – 7.54 (m, 4H), 7.17 (s, 2H), 3.10 (s, 6H), 2.55 (s, 3H), 2.28 (s, 6H); **¹³C-NMR** (126 MHz, CDCl₃): δ (ppm) = 153.18, 148.52, 139.82, 139.33, 138.38, 137.40, 133.64, 130.86, 130.82, 130.74, 129.61, 129.38, 128.72, 127.57, 127.46, 127.32, 127.25, 126.11, 125.67, 125.33, 124.04, 21.58, 21.03 (t, J_{C-F} = 11 Hz), 20.73. **¹⁹F-NMR** (470 MHz, CDCl₃): δ (ppm) = -122.22 (m); **¹¹B-NMR** (128 MHz, CDCl₃): δ (ppm) = 1.83 (t, J_{B-F} = 34 Hz); **HRLSI-MS** (MALDI-TOF): Calculated for C₄₄H₃₃BF₂N₂: 638.2707; Found: 638.2718, ppm error = 1.7.; **UV/vis (DCM)**: λ_{max} (nm) ($\log \epsilon$) = 660 (5.0); Φ_F (exc. λ = 630 nm) = 0.00. **FT-IR**: ν (cm⁻¹) = 3063, 3055, 3022, 3015, 2897, 1547, 1414, 1111, 1102, 1092, 801. **Mp** > 200 °C.

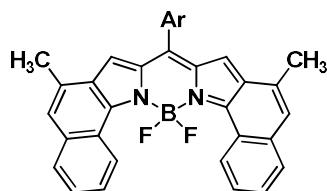
BODIPY 2f



BODIPY **2f** was prepared following the general method described above and purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. **2f** was isolated quantitatively as a purple solid. **¹H-NMR**

(500 MHz, CDCl₃): δ (ppm) = 8.58 (d, ³J_{H-H} = 10 Hz, 1H), 8.14 (s, 1H), 7.92 – 7.90 (m, 2H), 7.77 (s, 1H), 7.76 (d, ³J_{H-H} = 10 Hz, 1H), 7.71 - 7.69 (m, 2H), 7.58 – 7.51 (m, 2H), 7.07 (s, 2H), 6.81 (d, ³J_{H-H} = 4 Hz, 1H), 6.64 (dd, ³J_{H-H} = 5 Hz, ³J_{H-H} = 1.5 Hz, 1H), 3.02 (s, 3H), 2.46 (s, 3H), 2.19 (s, 3H); ¹³C-NMR (75.5 MHz, CDCl₃): δ (ppm) = 151.04, 148.46, 147.55, 139.25, 138.17, 137.79, 136.88, 136.33, 133.43, 130.99, 130.62, 130.20, 129.26, 129.22, 129.19, 128.58, 127.31, 126.94, 126.87, 126.81, 125.92, 125.33, 123.97, 121.34, 121.28, 21.43, 20.63, (t, *J*_{C-F} = 10 Hz), 20.41; ¹⁹F-NMR (282 MHz, CDCl₃): δ (ppm) = - 133.31 (m); ¹¹B-NMR (128 MHz, CDCl₃): δ (ppm) = 1.32 (t, *J*_{B-F} = 35 Hz); HRLSI-MS (MALDI-TOF): Calculated for C₃₁H₂₅BF₂N₂: 474.2079; Found 474.2088, ppm error = 1.9; UV/vis (DCM): λ_{max} (nm) (log ε) = 568 (4.6). Φ_F (exc. λ = 550 nm) = 0.02. FT-IR: ν (cm⁻¹) = 3071, 3018, 3010, 2903, 1546, 1430, 1222, 1092, 801, 630, Mp > 200 °C.

BODIPY 2g



In a Schlenk tube the BODIPY **1g** (0.04 mmol, 1 eq), P(C₆F₅)₃AuCl (8 μmol, 0.2 eq), AgSbF₆ (8 μmol, 0.2 eq) were dissolved in DCM (2 mL) under argon atmosphere. The reaction was stirred at room temperature for 5 min. After that, the crude of the reaction was extracted with DCM (3x10 mL), dried over MgSO₄, filtered and concentrated. The residue was purified by column chromatography on silica gel using toluene as eluent. The product obtained from the column was further purified washing with cold hexane. **2g** was isolated quantitatively as a purple solid. ¹H-NMR (300 MHz, CDCl₃): δ (ppm) = 9.53 (d, ³J_{H-H} = 9 Hz, 2H), 7.69 – 7.57 (m, 6H), 7.07 (bs, 4H), 6.91 (s, 2H), 2.46 (s, 3H), 2.40 (d, ⁴J_{H-H} = 3 Hz, 6H), 2.21 (s, 6H); ¹³C-NMR (75.50 MHz, CDCl₃): δ (ppm) = 150.96, 146.98, 138.93, 138.78, 137.18, 137.05, 133.57, 130.94, 129.62, 129.49, 128.77, 128.62, 128.56, 128.47, 128.25, 126.55, 124.67, 122.84, 122.36, 21.27, 20.35, 18.68; ¹⁹F-NMR (282 MHz, CDCl₃): δ (ppm) = - 141.56 (m); ¹¹B-NMR (128 MHz, CDCl₃): δ (ppm) = 2.77 (t, *J*_{B-F} = 35 Hz); HRLSI-MS (MALDI-TOF): Calculated for C₃₆H₂₉BF₂N₂: 538.2393; Found: 538.2415, ppm error = 4.0.; UV/vis (DCM): λ_{max} (nm) (log ε) = 683 (4.7), 632 (4.5), 548 (4.4); Φ_F (exc. λ = 630 nm) = 0.01. FT-IR: ν (cm⁻¹) = 3075, 3069, 3030, 3019, 2910, 2890, 1517, 1376, 1228, 1096, 972, 799. Mp > 200 °C.

3. X-Ray Crystal Structures and Crystallographic Details

Crystal structures of BODIPYs 1a, 1b, 1c, 1d, 1e and 1g.

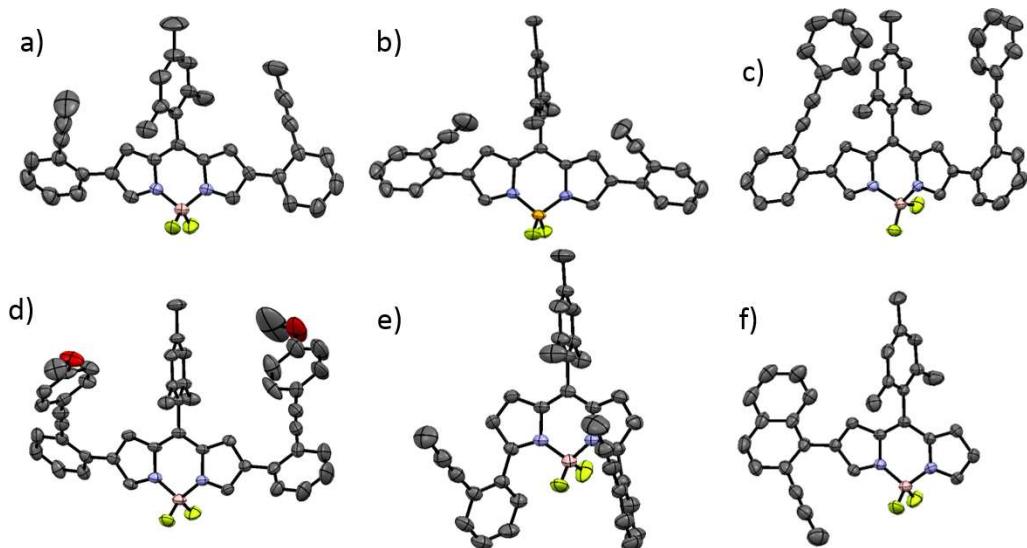


Figure S3.1. X-Ray crystal structures of **1a**, **1b**, **1c**, **1d**, **1e** and **1g**. Thermal ellipsoids are scaled to 50% probability level. Hydrogen atoms are omitted for clarity.

Crystal structures of BODIPYs 2a, 2d, 2e, 2f and 2g.

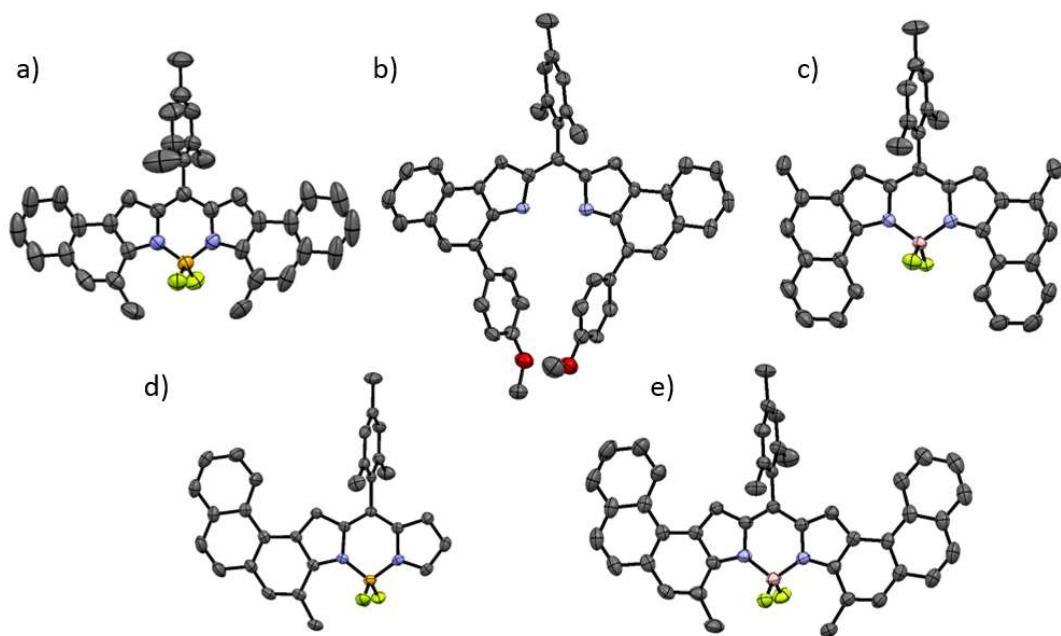


Figure S3.2. X-Ray crystal structures of **2a**, **2d**, **2e**, **2f** and **2g**. Thermal ellipsoids are scaled to 50% probability level. Hydrogen atoms are omitted for clarity.

Crystal packing of BODIPYs **2a**, **2e**, **2f**, and **2g**.

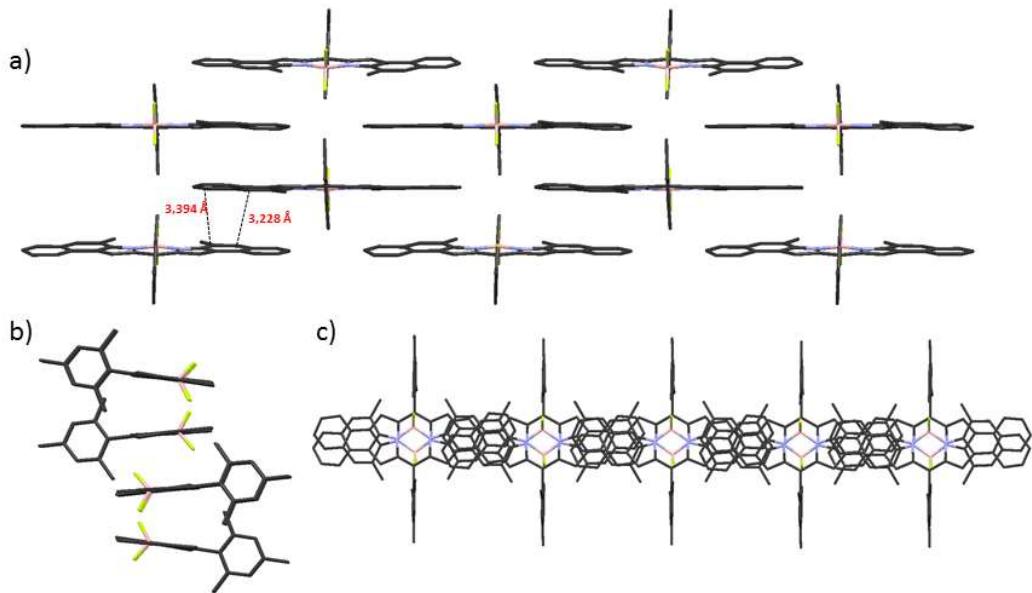


Figure S3.3. Crystal packing of **2a** (a: front view; b: side view; c: top view)

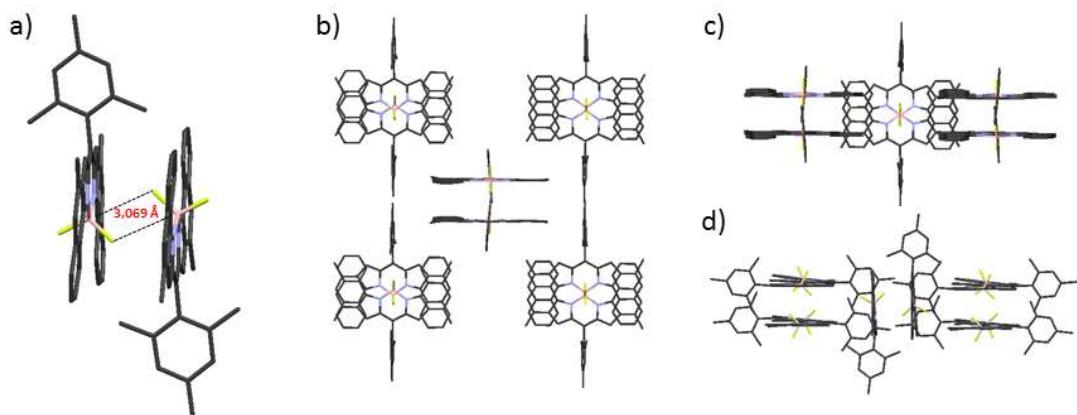


Figure S3.4. Crystal packing of **2g** (a: dimers linked by B-F interactions; b: front view; c: top view; d: side view)

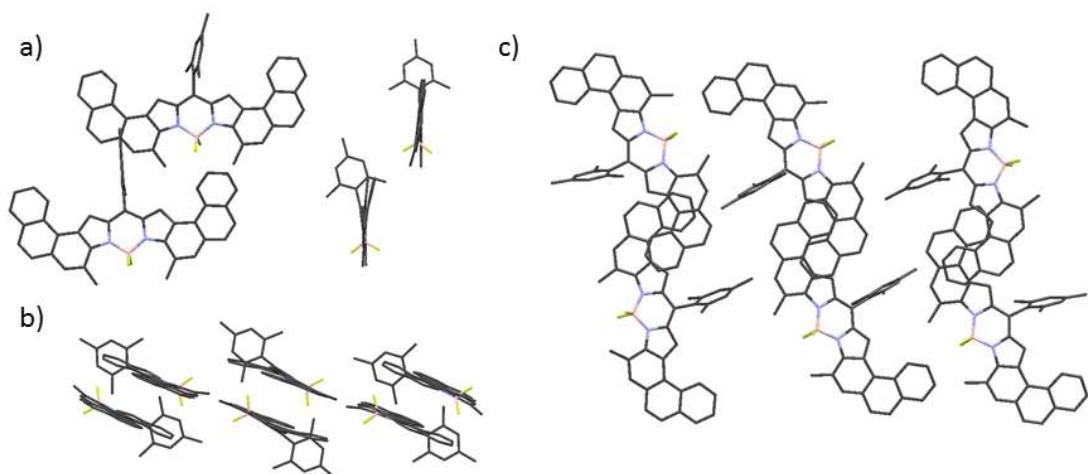


Figure S3.5. Crystal packing of **2e** (a: two unit of the unit cell; b: front view; c: top view)

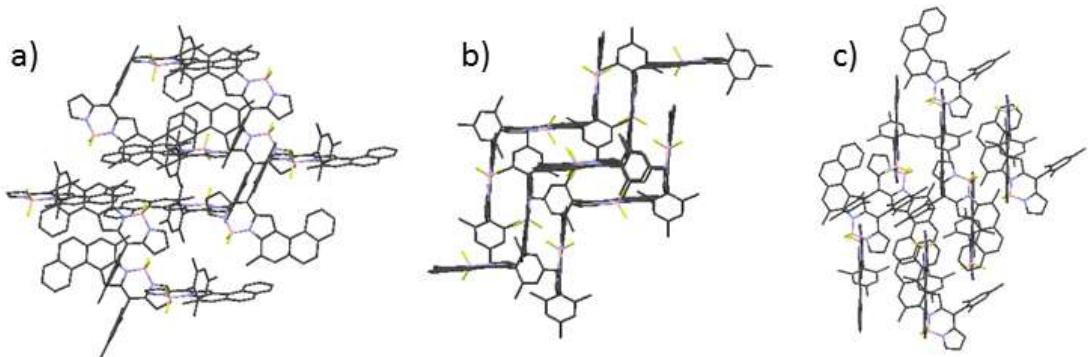


Figure S3.6. Crystal packing of **2f** (a: front view; b: side view; c: top view)

Crystallographic details of BODIPYs **1a**, **1b**, **1c**, **1d**, **1e** and **1g**.

Table S3.1. Selected crystallographic data for **1a**. CCDC number= 1985328

Chemical formula	C₃₆H₂₉BF₂N₂O_{0.50}	
Formula weight	546.42 g/mol	
Temperature	250(2) K	
Wavelength	0.71073 Å	
Crystal size	0.052 x 0.059 x 0.294 mm	
Crystal habit	intense purple needle	
Crystal system	monoclinic	
Space group	C 1 2/c 1	
Unit cell dimensions	a = 24.3250(9) Å	α = 90°
	b = 9.9336(4) Å	β = 104.9532(14)°
	c = 28.2901(12) Å	γ = 90°
Volume	6604.4(5) Å ³	
Z	8	
Density (calculated)	1.099 g/cm ³	
Absorption coefficient	0.072 mm ⁻¹	
F(000)	2288	
Theta range for data collection	1.49 to 25.35°	
Index ranges	-29≤h≤29, -11≤k≤11, -33≤l≤34	
Reflections collected	56003	
Independent reflections	6031 [R(int) = 0.0747]	
Coverage of independent reflections	100.0%	
Absorption correction	multi-scan	
Structure solution technique	direct methods	
Structure solution program	SHELXS-97 (Sheldrick 2008)	
Refinement method	Full-matrix least-squares on F2	
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)	
Function minimized	Σ w(F ₀₀ - F _{c0}) ²	
Data / restraints / parameters	6031 / 0 / 387	
Goodness-of-fit on F₂	1.051	
Final R indices	3439 data; I>2σ(I) R1 = 0.0746, wR2 = 0.2262	

	all data	R1 = 0.1390, wR2 = 0.2774
Weighting scheme	w=1/[$\sigma^2(F_o^2)+(0.1767P)^2$] where P=($F_o^2+2F_c^2$)/3	
Largest diff. peak and hole	1.066 and -0.424 e \AA^{-3}	
R.M.S. deviation from mean	0.190 e \AA^{-1}	

Table S3.2. Selected crystallographic data for **1b**. CCDC number= 1985329

Chemical formula	C₃₄H₂₅BF₂N₂	
Formula weight	510.37 g/mol	
Temperature	250(2) K	
Wavelength	0.71073 Å	
Crystal size	0.019 x 0.101 x 0.539 mm	
Crystal habit	clear intense purple ribbon	
Crystal system	monoclinic	
Space group	P 1 21/c 1	
Unit cell dimensions	a = 11.6062(5) Å	α = 90°
	b = 32.6033(10) Å	β = 108.632(2)°
	c = 7.6374(3) Å	γ = 90°
Volume	2738.53(18) Å ³	
Z	4	
Density (calculated)	1.238 g/cm ³	
Absorption coefficient	0.081 mm ⁻¹	
F(000)	1064	
Theta range for data collection	1.85 to 25.35°	
Index ranges	-13<=h<=13, -39<=k<=39, -9<=l<=9	
Reflections collected	27427	
Independent reflections	5008 [R(int) = 0.0473]	
Coverage of independent reflections	99.9%	
Absorption correction	none	
Max. and min. transmission	0.9980 and 0.9580	
Structure solution technique	direct methods	
Structure solution program	SHELXS-97 (Sheldrick 2008)	
Refinement method	Full-matrix least-squares on F2	
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)	
Function minimized	Σ w(F _o ² - F _c ²) ²	
Data / restraints / parameters	5008 / 0 / 355	
Goodness-of-fit on F²	1.099	
Final R indices	3284 data; I>2σ(I)	R1 = 0.0497, wR2 = 0.1316
	all data	R1 = 0.0910, wR2 = 0.1607
Weighting scheme	w=1/[$\sigma^2(F_o^2)+(0.0859P)^2+0.2109P$] where P=($F_o^2+2F_c^2$)/3	
Largest diff. peak and hole	0.257 and -0.304 e \AA^{-3}	
R.M.S. deviation from mean	0.088 e \AA^{-1}	

Table S3.3. Selected crystallographic data for **1c**. CCDC number= 1985330

Chemical formula	C₄₆H₃₃BF₂N₂	
Formula weight	662.55 g/mol	
Temperature	250(2) K	
Wavelength	0.71073 Å	
Crystal size	0.015 x 0.105 x 0.275 mm	

Crystal habit	intense purple ribbon	
Crystal system	orthorhombic	
Space group	P n m a	
Unit cell dimensions	$a = 21.0905(5) \text{ \AA}$	$\alpha = 90^\circ$
	$b = 18.9830(6) \text{ \AA}$	$\beta = 90^\circ$
	$c = 8.7486(3) \text{ \AA}$	$\gamma = 90^\circ$
Volume	$3502.60(18) \text{ \AA}^3$	
Z	4	
Density (calculated)	1.256 g/cm^3	
Absorption coefficient	0.080 mm^{-1}	
F(000)	1384	
Theta range for data collection	1.93 to 25.35°	
Index ranges	$-25 \leq h \leq 24, -22 \leq k \leq 22, -10 \leq l \leq 10$	
Reflections collected	81484	
Independent reflections	3305 [R(int) = 0.0746]	
Coverage of independent reflections	99.7%	
Absorption correction	multi-scan	
Max. and min. transmission	0.9990 and 0.9780	
Structure solution technique	direct methods	
Structure solution program	SHELXS-97 (Sheldrick 2008)	
Refinement method	Full-matrix least-squares on F^2	
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)	
Function minimized	$\Sigma w(F_o^2 - F_c^2)^2$	
Data / restraints / parameters	3305 / 0 / 265	
Goodness-of-fit on F^2	1.056	
Final R indices	2298 data; $I > 2\sigma(I)$	$R_1 = 0.0421, wR_2 = 0.1233$
	all data	$R_1 = 0.0808, wR_2 = 0.1780$
Weighting scheme	$w = 1/[\sigma^2(F_o^2) + (0.1088P)^2 + 0.7000P]$ where $P = (F_o^2 + 2F_c^2)/3$	
Largest diff. peak and hole	$0.327 \text{ and } -0.237 \text{ e\AA}^{-3}$	
R.M.S. deviation from mean	0.095 e\AA^{-3}	

Table S3.4. Selected crystallographic data for **1d**. CCDC number= 1985331

Chemical formula	$C_{48}H_{37}BF_2N_2O_2$	
Formula weight	722.60 g/mol	
Temperature	200(2) K	
Wavelength	0.71073 Å	
Crystal size	0.033 x 0.097 x 0.229 mm	
Crystal habit	intense purple prismatic	
Crystal system	triclinic	
Space group	P -1	
Unit cell dimensions	$a = 7.4833(5) \text{ \AA}$	$\alpha = 111.599(3)^\circ$
	$b = 14.4445(10) \text{ \AA}$	$\beta = 95.542(3)^\circ$
	$c = 19.1563(10) \text{ \AA}$	$\gamma = 94.737(3)^\circ$
Volume	$1900.6(2) \text{ \AA}^3$	
Z	2	
Density (calculated)	1.263 g/cm^3	
Absorption coefficient	0.083 mm^{-1}	
F(000)	756	
Theta range for data collection	1.15 to 25.35°	
Index ranges	$-9 \leq h \leq 9, -17 \leq k \leq 17, -23 \leq l \leq 23$	
Reflections collected	31803	

Table S3.5. Selected crystallographic data for **1f**. CCDC number= 1985332

Chemical formula	C₃₁H₂₅BF₂N₂		
Formula weight	474.34 g/mol		
Temperature	296(2) K		
Wavelength	0.71073 Å		
Crystal size	0.054 x 0.295 x 0.366 mm		
Crystal habit	dark purple plate		
Crystal system	triclinic		
Space group	P -1		
Unit cell dimensions	a = 7.9160(14) Å	α = 79.032(11)°	
	b = 10.089(2) Å	β = 88.721(10)°	
	c = 15.968(3) Å	γ = 85.253(10)°	
Volume	1247.7(4) Å ³		
Z	2		
Density (calculated)	1.263 g/cm ³		
Absorption coefficient	0.084 mm ⁻¹		
F(000)	496		
Theta range for data collection	1.30 to 25.35°		
Index ranges	-9<=h<=9, -12<=k<=12, -19<=l<=19		
Reflections collected	62317		
Independent reflections	4551 [R(int) = 0.0331]		
Coverage of independent reflections	99.7%		
Absorption correction	multi-scan		
Max. and min. transmission	0.9960 and 0.9700		
Refinement method	Full-matrix least-squares on F ²		
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)		
Function minimized	Σ w(F _o ² - F _c ²) ²		
Data / restraints / parameters	4551 / 0 / 329		
Goodness-of-fit on F²	1.031		
Final R indices	3806 data; I>2σ(I)	R1 = 0.0440, wR2 = 0.1348	
	all data	R1 = 0.0602, wrR2 = 0.1632	
Weighting scheme	w=1/[σ ² (F _o ²)+(0.1024P) ² +0.3569P]		

	where $P = (F_o^2 + 2F_c^2)/3$
Largest diff. peak and hole	0.712 and -0.396 eÅ ⁻³
R.M.S. deviation from mean	0.147 eÅ ⁻³

Table S3.6. Selected crystallographic data for **1g**. CCDC number= 1985333

Chemical formula	C₃₆H₂₉BF₂N₂
Formula weight	538.42 g/mol
Temperature	296(2) K
Wavelength	0.71073 Å
Crystal size	0.071 x 0.149 x 0.215 mm
Crystal habit	purple prismatic
Crystal system	triclinic
Space group	P -1
Unit cell dimensions	a = 10.1937(6) Å $\alpha = 105.446(3)^\circ$ b = 11.0010(6) Å $\beta = 103.611(3)^\circ$ c = 14.2800(7) Å $\gamma = 94.765(3)^\circ$
Volume	1481.92(14) Å ³
Z	2
Density (calculated)	1.207 g/cm ³
Absorption coefficient	0.078 mm ⁻¹
F(000)	564
Theta range for data collection	1.54 to 25.34°
Index ranges	-12<=h<=12, -13<=k<=13, -17<=l<=17
Reflections collected	21050
Independent reflections	5433 [R(int) = 0.0840]
Coverage of independent reflections	100.0%
Absorption correction	multi-scan
Max. and min. transmission	0.9940 and 0.9830
Refinement method	Full-matrix least-squares on F ²
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)
Function minimized	$\Sigma w(F_o^2 - F_c^2)^2$
Data / restraints / parameters	5433 / 0 / 375
Goodness-of-fit on F²	1.031
Final R indices	2660 data; R1 = 0.0561, wR2 = 0.1473 I>2σ(I) all data R1 = 0.1582, wR2 = 0.2279
Weighting scheme	w=1/[σ ² (F _o ²) + (0.1180P) ²] where $P = (F_o^2 + 2F_c^2)/3$
Largest diff. peak and hole	0.384 and -0.487 eÅ ⁻³
R.M.S. deviation from mean	0.145 eÅ ⁻³

Crystallographic details of BODIPYs **2a**, **2e**, **2f**, **2g** and dipyrromethene **2d**.

Table S3.7. Selected crystallographic data for **2a**. CCDC number= 1985334

Chemical formula	C₃₆H₂₉BF₂N₂
Formula weight	538.42 g/mol
Temperature	250(2) K
Wavelength	0.71073 Å
Crystal size	0.137 x 0.144 x 0.980 mm
Crystal habit	dark blue prismatic
Crystal system	monoclinic

Space group	P 1 21/n 1	
Unit cell dimensions	$a = 14.395(4)$ Å	$\alpha = 90^\circ$
	$b = 14.038(3)$ Å	$\beta = 108.639(11)^\circ$
	$c = 18.526(5)$ Å	$\gamma = 90^\circ$
Volume	$3547.3(15)$ Å ³	
Z	4	
Density (calculated)	1.008 g/cm ³	
Absorption coefficient	0.066 mm ⁻¹	
F(000)	1128	
Theta range for data collection	2.14 to 25.35°	
Index ranges	-17≤=h≤=17, -16≤=k≤=16, -22≤=l≤=22	
Reflections collected	93294	
Independent reflections	6466 [R(int) = 0.0928]	
Coverage of independent reflections	99.6%	
Absorption correction	multi-scan	
Max. and min. transmission	0.9910 and 0.9390	
Refinement method	Full-matrix least-squares on F ²	
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)	
Function minimized	$\Sigma w(F_o^2 - F_c^2)^2$	
Data / restraints / parameters	6466 / 0 / 375	
Goodness-of-fit on F²	1.030	
Final R indices	3298 data; I>2σ(I)	R1 = 0.0962, wR2 = 0.2819
	all data	R1 = 0.1716, wR2 = 0.3532
Weighting scheme	$w=1/[\sigma^2(F_o^2)+(0.2000P)^2+1.9700P]$ where P=(F _o ² +2F _c ²)/3	
Largest diff. peak and hole	0.604 and -0.307 eÅ ⁻³	
R.M.S. deviation from mean	0.094 eÅ ⁻³	

Table S3.8. Selected crystallographic data for **2d'**. CCDC number= 1985335

Chemical formula	<chem>C48H38N2O2</chem>	
Formula weight	674.80 g/mol	
Temperature	200(2) K	
Wavelength	0.71073 Å	
Crystal size	0.028 x 0.045 x 0.205 mm	
Crystal habit	dark purple prismatic	
Crystal system	monoclinic	
Space group	C 1 2/c 1	
Unit cell dimensions	$a = 20.361(6)$ Å	$\alpha = 90^\circ$
	$b = 16.095(5)$ Å	$\beta = 114.048(7)^\circ$
	$c = 23.355(7)$ Å	$\gamma = 90^\circ$
Volume	$6989.(4)$ Å ³	
Z	8	
Density (calculated)	1.283 g/cm ³	
Absorption coefficient	0.078 mm ⁻¹	
F(000)	2848	
Theta range for data collection	1.67 to 25.49°	
Index ranges	-24≤=h≤=24, -19≤=k≤=19, -27≤=l≤=28	
Reflections collected	41414	
Independent reflections	6439 [R(int) = 0.3225]	
Coverage of independent	98.7%	

reflections	
Absorption correction	multi-scan
Structure solution technique	direct methods
Structure solution program	SHELXS-97 (Sheldrick 2008)
Refinement method	Full-matrix least-squares on F^2
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)
Function minimized	$\Sigma w(F_o^2 - F_c^2)^2$
Data / restraints / parameters	6439 / 0 / 474
Goodness-of-fit on F^2	1.000
Final R indices	2044 data; $I > 2\sigma(I)$ $R_1 = 0.0794$, $wR_2 = 0.1612$ all data $R_1 = 0.2983$, $wR_2 = 0.2712$
Weighting scheme	$w=1/[\sigma^2(F_o^2)+(0.1010P)^2]$ where $P=(F_o^2+2F_c^2)/3$
Largest diff. peak and hole	0.386 and -0.406 e \AA^{-3}
R.M.S. deviation from mean	0.104 e \AA^{-3}

Table S3.9. Selected crystallographic data for **2e**. CCDC number= 1985336

Chemical formula	$C_{44}H_{33}BF_2N_2$
Formula weight	638.53 g/mol
Temperature	250(2) K
Wavelength	0.71073 Å
Crystal size	0.100 x 0.116 x 0.195 mm
Crystal habit	dark blue-purple prismatic
Crystal system	monoclinic
Space group	P 1 21/c 1
Unit cell dimensions	$a = 12.5426(5)$ Å $\alpha = 90^\circ$ $b = 41.2031(15)$ Å $\beta = 115.8809(10)^\circ$ $c = 13.9741(5)$ Å $\gamma = 90^\circ$
Volume	6497.4(4) Å 3
Z	8
Density (calculated)	1.306 g/cm 3
Absorption coefficient	0.083 mm $^{-1}$
F(000)	2672
Theta range for data collection	0.99 to 25.35°
Index ranges	-14 \leq h \leq 15, -49 \leq k \leq 49, -16 \leq l \leq 16
Reflections collected	131931
Independent reflections	11877 [R(int) = 0.0523]
Coverage of independent reflections	99.9%
Absorption correction	multi-scan
Max. and min. transmission	0.9920 and 0.9840
Refinement method	Full-matrix least-squares on F^2
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)
Function minimized	$\Sigma w(F_o^2 - F_c^2)^2$
Data / restraints / parameters	11877 / 0 / 893
Goodness-of-fit on F^2	1.039
$\Delta/\sigma_{\text{max}}$	0.001
Final R indices	7903 data; $R_1 = 0.0466$, $wR_2 = 0.1442$ $I > 2\sigma(I)$ all data $R_1 = 0.0862$, $wR_2 = 0.1878$
Weighting scheme	$w=1/[\sigma^2(F_o^2)+(0.1251P)^2+0.0648P]$ where $P=(F_o^2+2F_c^2)/3$
Largest diff. peak and hole	0.385 and -0.322 e \AA^{-3}

R.M.S. deviation from mean	0.115 eÅ ⁻³
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Table S3.10. Selected crystallographic data for **2f**. CCDC number= 1985337

Chemical formula	C₃₁H₂₅BF₂N₂		
Formula weight	474.34 g/mol		
Temperature	296(2) K		
Wavelength	0.71073 Å		
Crystal size	0.054 x 0.295 x 0.366 mm		
Crystal habit	dark purple plate		
Crystal system	triclinic		
Space group	P -1		
Unit cell dimensions	a = 7.9160(14) Å	α = 79.032(11)°	
	b = 10.089(2) Å	β = 88.721(10)°	
	c = 15.968(3) Å	γ = 85.253(10)°	
Volume	1247.7(4) Å ³		
Z	2		
Density (calculated)	1.263 g/cm ³		
Absorption coefficient	0.084 mm ⁻¹		
F(000)	496		
Theta range for data collection	1.30 to 25.35°		
Index ranges	-9<=h<=9, -12<=k<=12, -19<=l<=19		
Reflections collected	62317		
Independent reflections	4551 [R(int) = 0.0331]		
Coverage of independent reflections	99.7%		
Absorption correction	multi-scan		
Max. and min. transmission	0.9960 and 0.9700		
Refinement method	Full-matrix least-squares on F ²		
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)		
Function minimized	$\Sigma w(F_o^2 - F_c^2)^2$		
Data / restraints / parameters	4551 / 0 / 329		
Goodness-of-fit on F²	1.031		
Final R indices	3806 data;	R1 = 0.0440, wR2 = 0.1348	
	I>2σ(I)		
	all data	R1 = 0.0602, wR2 = 0.1632	
Weighting scheme	w=1/[σ ² (F _o ²)+(0.1024P) ² +0.3569P] where P=(F _o ² +2F _c ²)/3		
Largest diff. peak and hole	0.712 and -0.396 eÅ ⁻³		
R.M.S. deviation from mean	0.147 eÅ ⁻³		

Table S3.11. Selected crystallographic data for **2g**. CCDC number= 1985338

Chemical formula	C₃₆H₂₉BF₂N₂		
Formula weight	538.42 g/mol		
Temperature	250(2) K		
Wavelength	0.71073 Å		
Crystal size	0.107 x 0.194 x 0.291 mm		
Crystal habit	intense green-purple prismatic		
Crystal system	tetragonal		
Space group	I 41 c d		
Unit cell dimensions	a = 17.6517(4) Å	α = 90°	
	b = 17.6517(4) Å	β = 90°	
	c = 36.5175(10) Å	γ = 90°	

Volume	11378.2(6) Å ³
Z	16
Density (calculated)	1.257 g/cm ³
Absorption coefficient	0.082 mm ⁻¹
F(000)	4512
Theta range for data collection	1.98 to 25.35°
Index ranges	-21<=h<=21, -21<=k<=21, -43<=l<=43
Reflections collected	104985
Independent reflections	5216 [R(int) = 0.0518]
Coverage of independent reflections	99.9%
Absorption correction	multi-scan
Max. and min. transmission	0.9910 and 0.9770
Refinement method	Full-matrix least-squares on F ²
Refinement program	SHELXL-2014/7 (Sheldrick, 2014)
Function minimized	$\Sigma w(F_o^2 - F_c^2)^2$
Data / restraints / parameters	5216 / 1 / 375
Goodness-of-fit on F²	1.010
Final R indices	4230 data; I>2σ(I) R1 = 0.0378, wR2 = 0.0988 all data R1 = 0.0632, wR2 = 0.1486
Weighting scheme	w=1/[σ ² (F _o ²)+(0.0871P) ² +9.7000P] where P=(F _o ² +2F _c ²)/3
Absolute structure parameter	0.4(2)
Largest diff. peak and hole	0.289 and -0.559 eÅ ⁻³
R.M.S. deviation from mean	0.156 eÅ ⁻³

4. UV/Vis Absorption and Emission Spectra

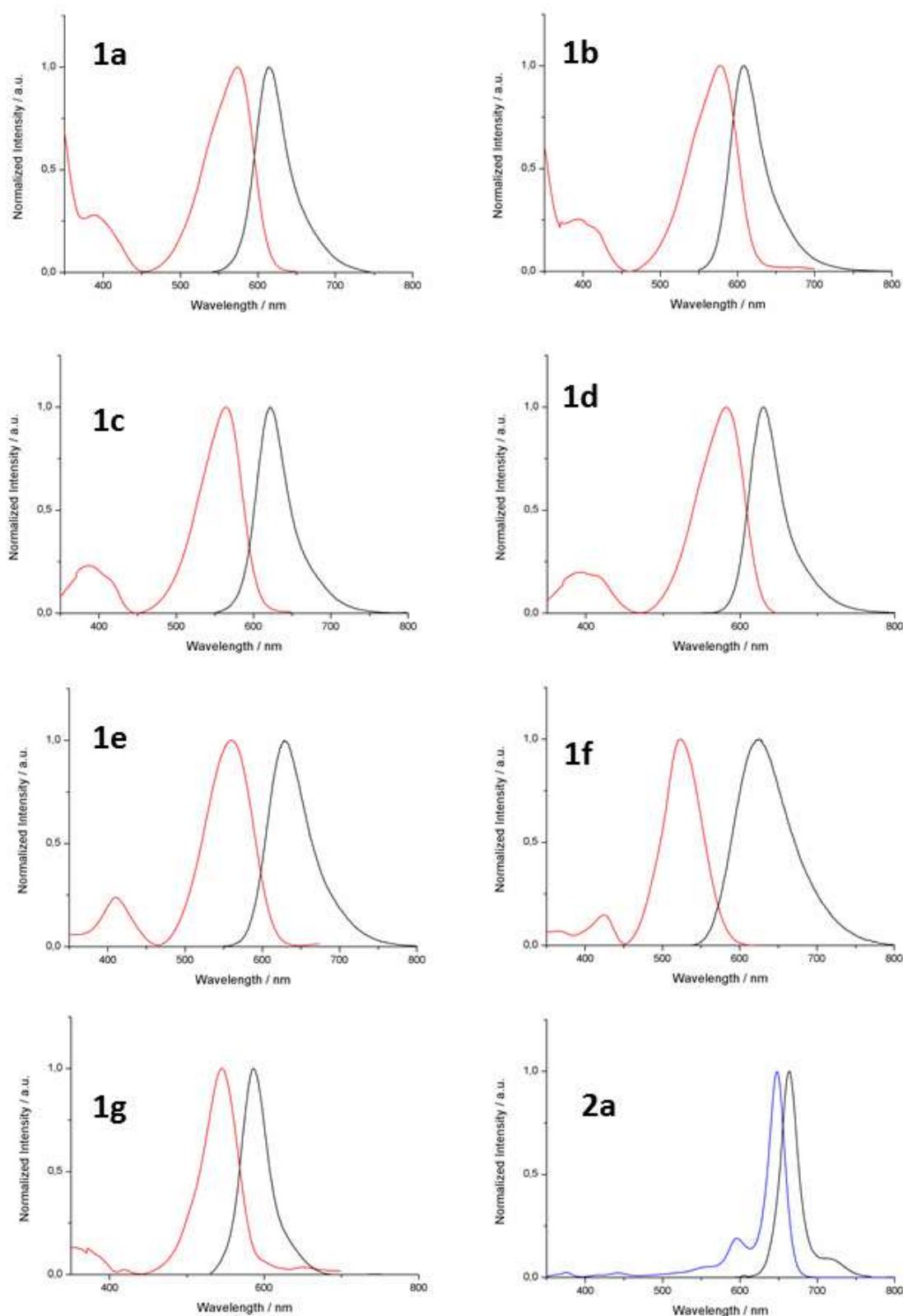


Figure S4.1. UV/Vis Absorption (red/blue) and Emission spectra (black) of **1a-1g** and **2a-2g**

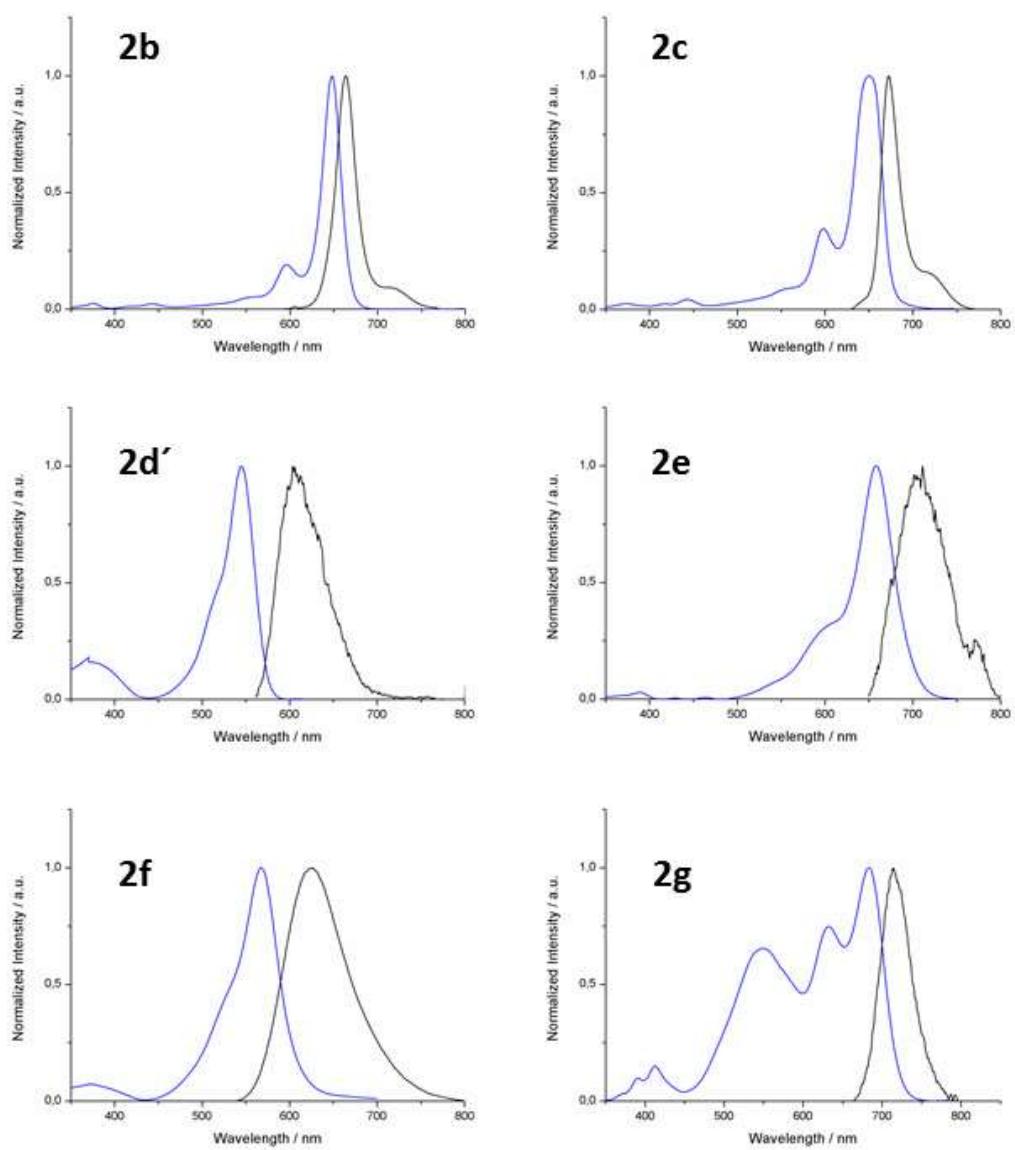


Figure S4.1. Continued

5. NMR spectra

Boronic Acid e

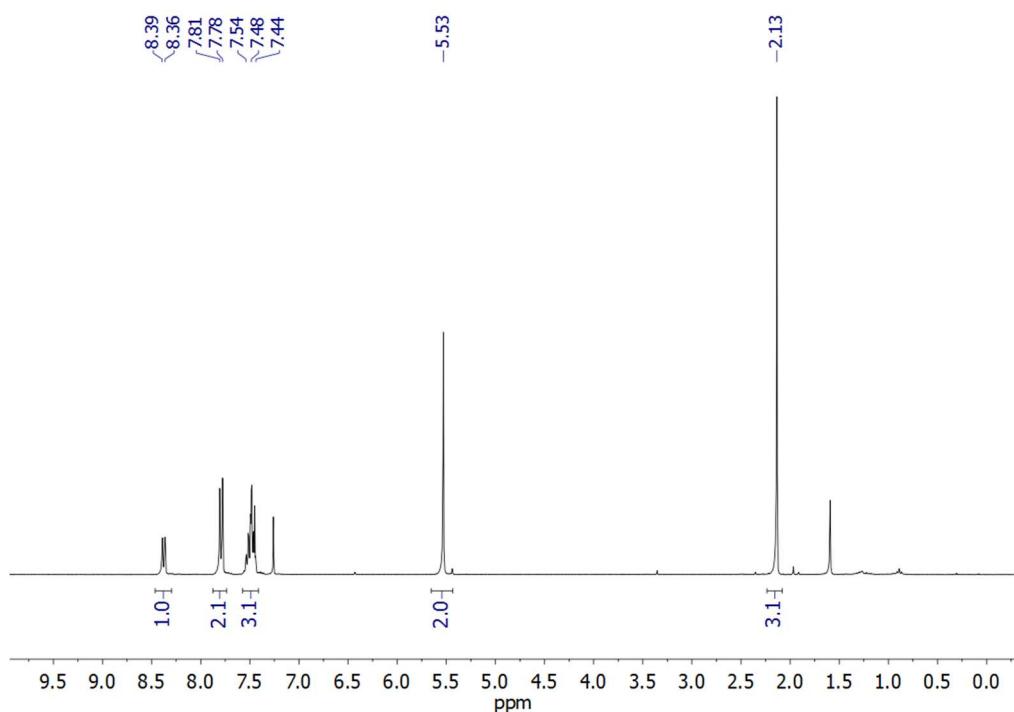


Figure S5.1. ^1H -NMR spectrum (CDCl_3) of **e**

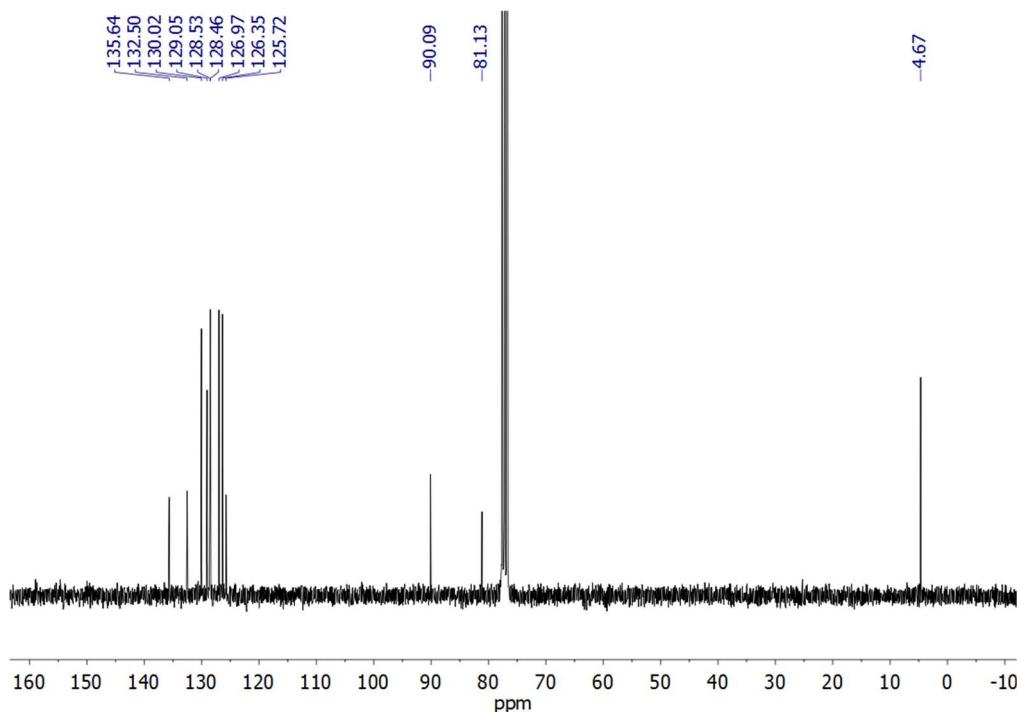


Figure S5.2. ^{13}C -NMR spectrum (CDCl_3) of **e**

BODIPY 1a

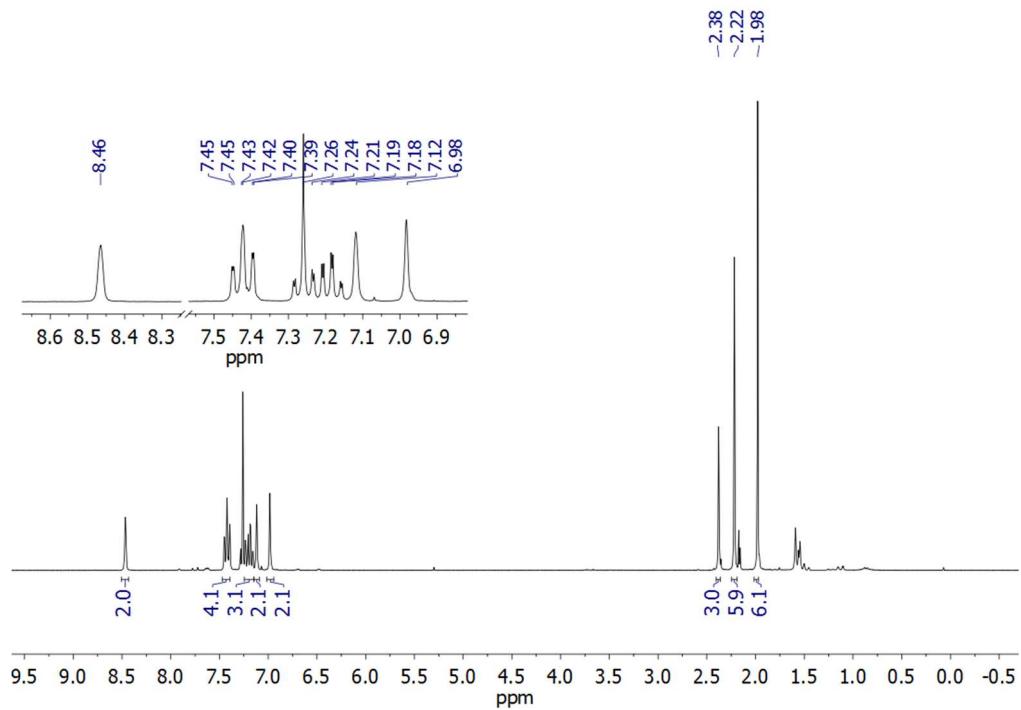


Figure S5.3. ^1H -NMR spectrum (CDCl_3) of **1a**

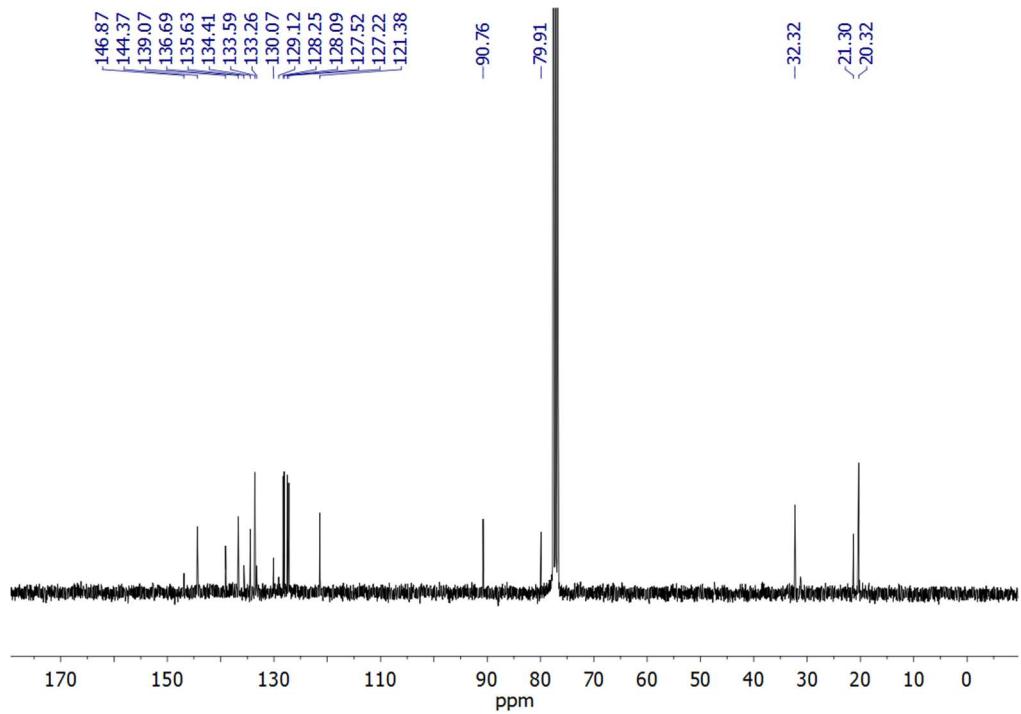


Figure S5.4. ^{13}C -NMR spectrum (CDCl_3) of **1a**

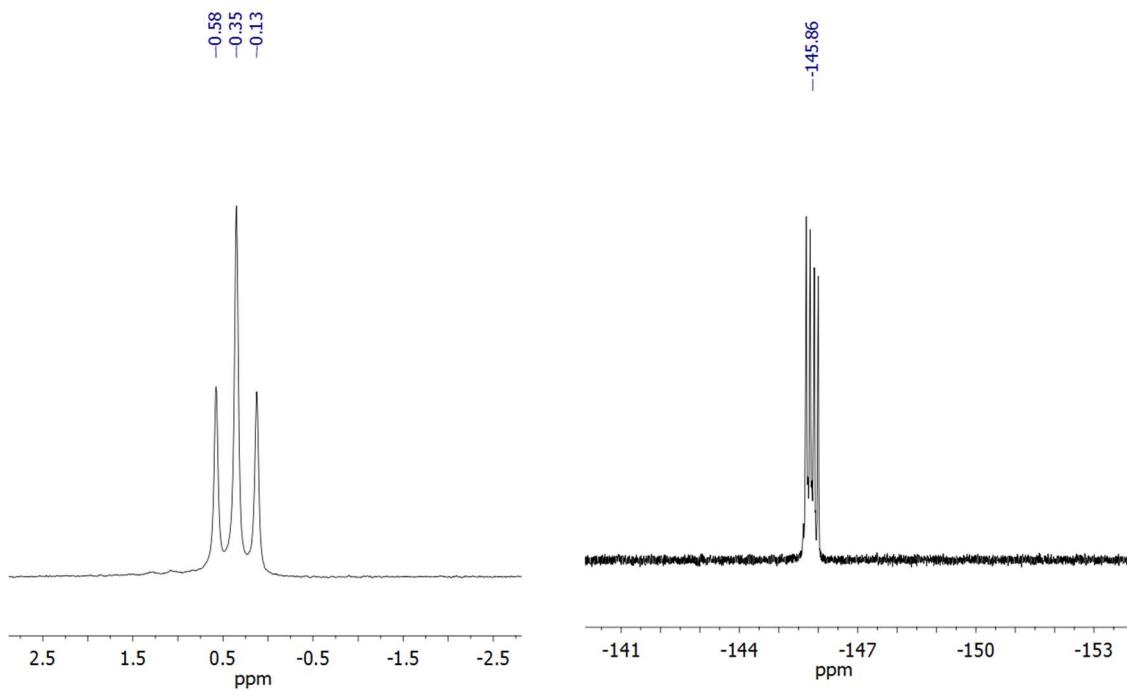


Figure S5.5. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **1a**

BODIPY 1b

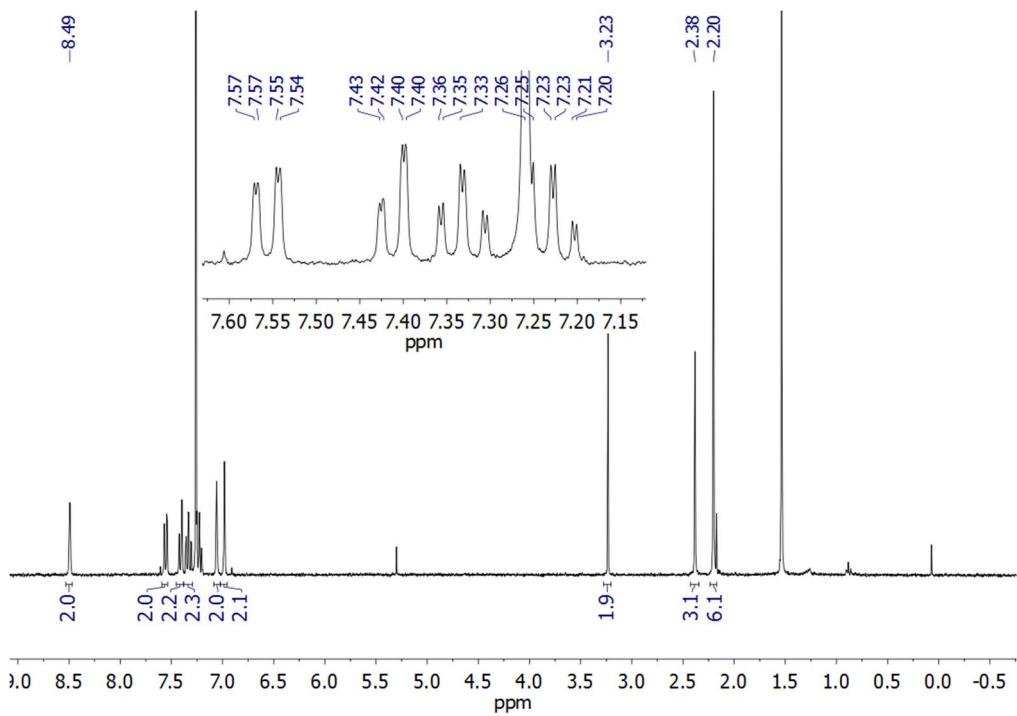


Figure S5.6. ^1H -NMR spectrum (CDCl_3) of **1b**

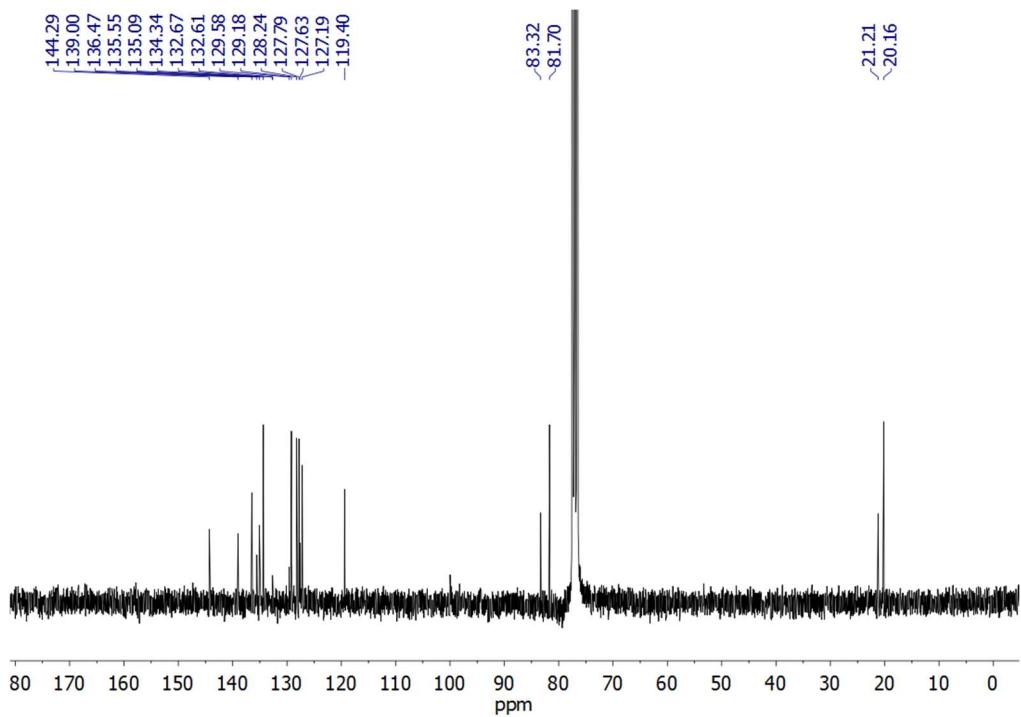


Figure S5.7. ^{13}C -NMR spectrum (CDCl_3) of **1b**

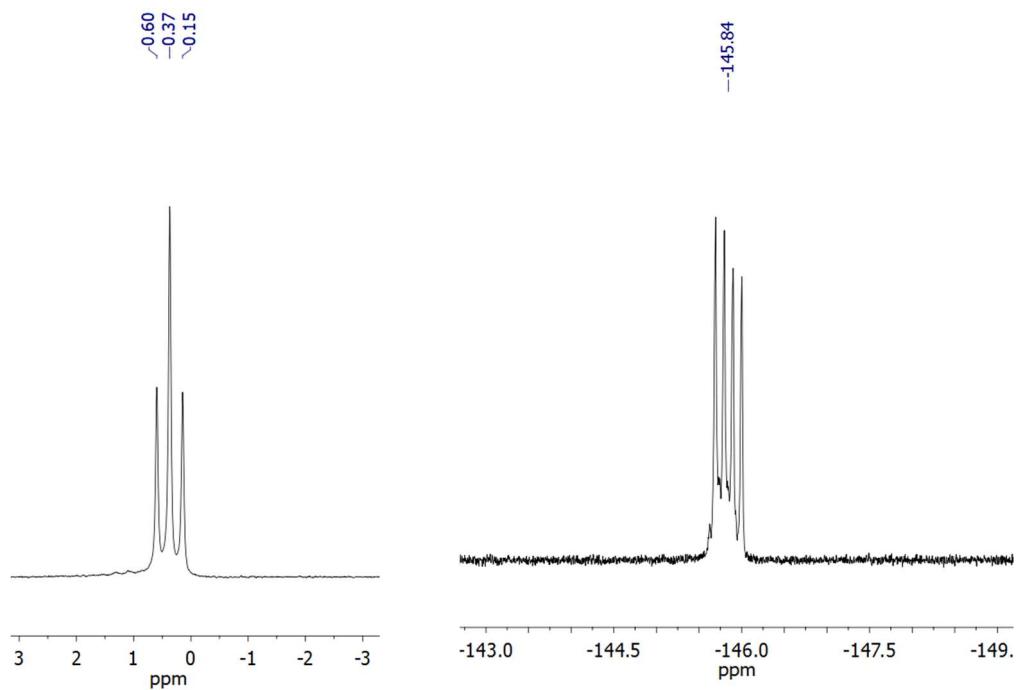


Figure S5.8. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **1b**

BODIPY 1c

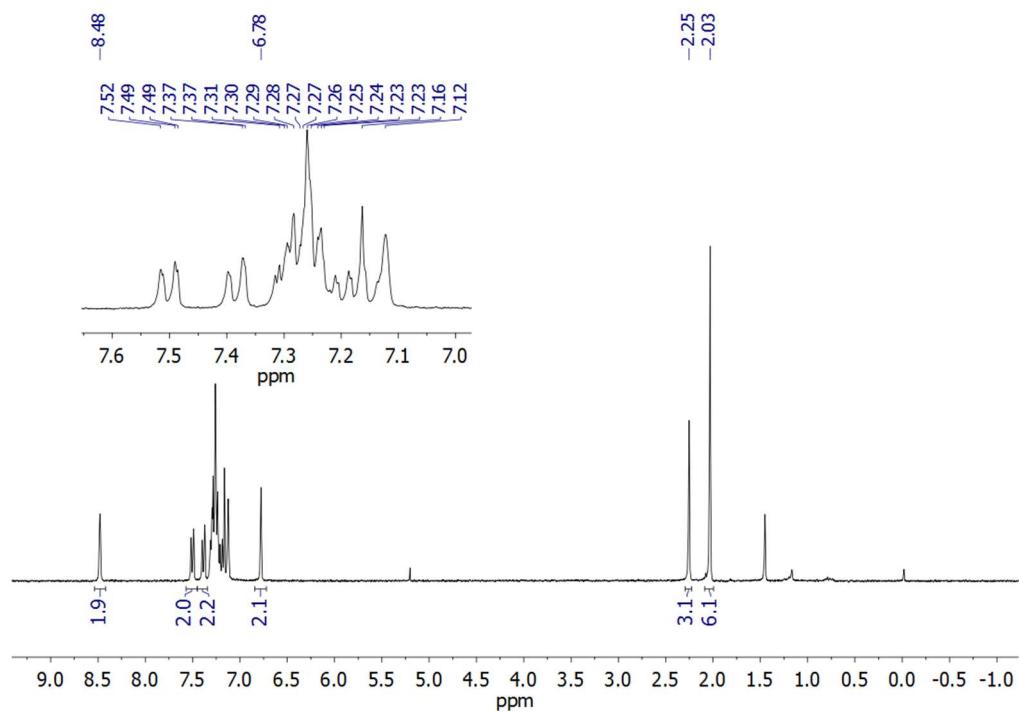


Figure S5.9. ¹H-NMR spectrum (CDCl_3) of **1c**

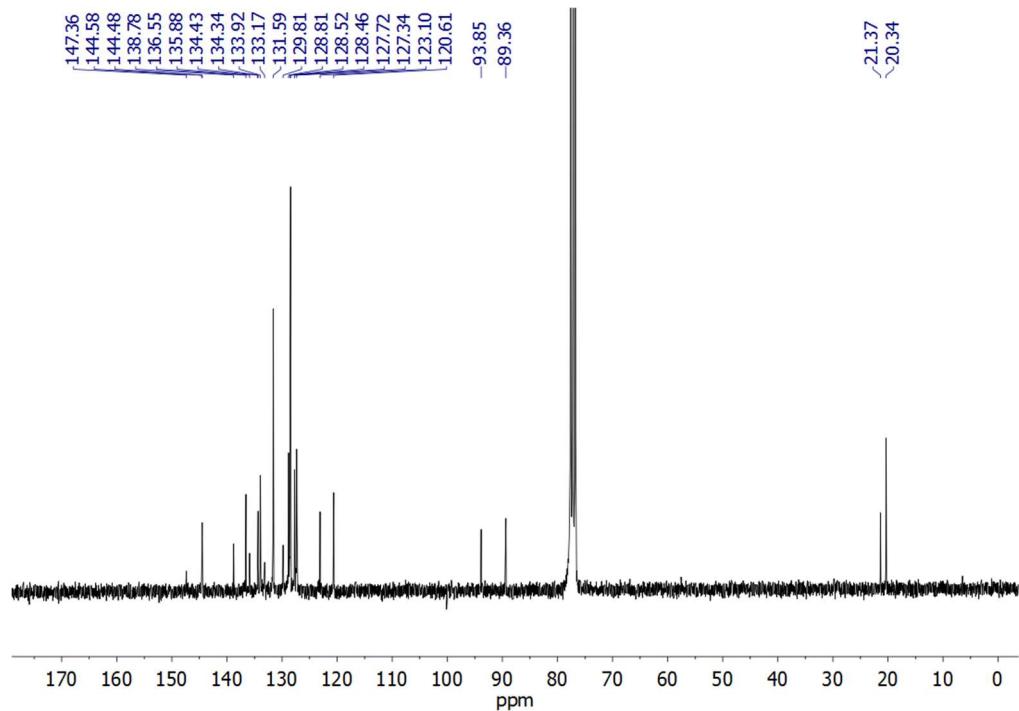


Figure S5.10. ¹³C-NMR spectrum (CDCl_3) of **1c**

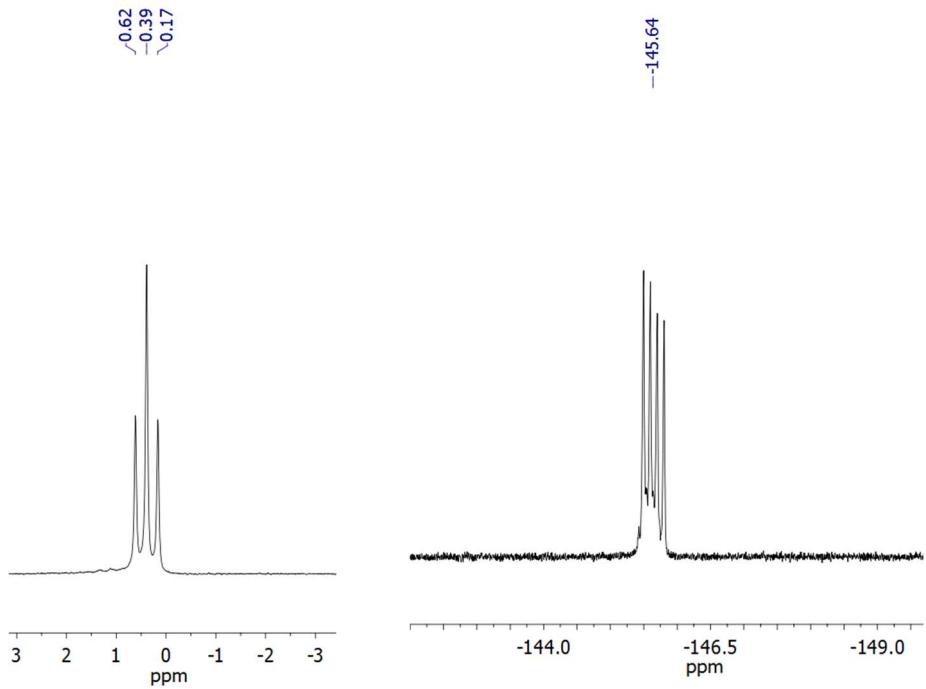


Figure S5.11. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **1c**

BODIPY 1d

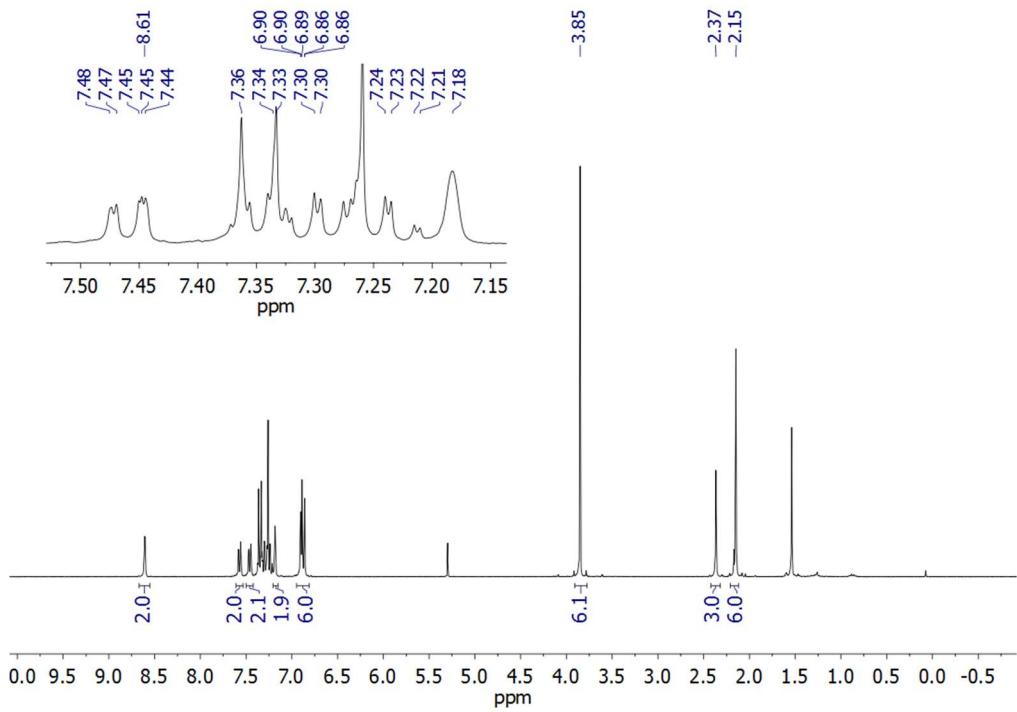


Figure S5.12. ^1H -NMR spectrum (CDCl_3) of **1d**

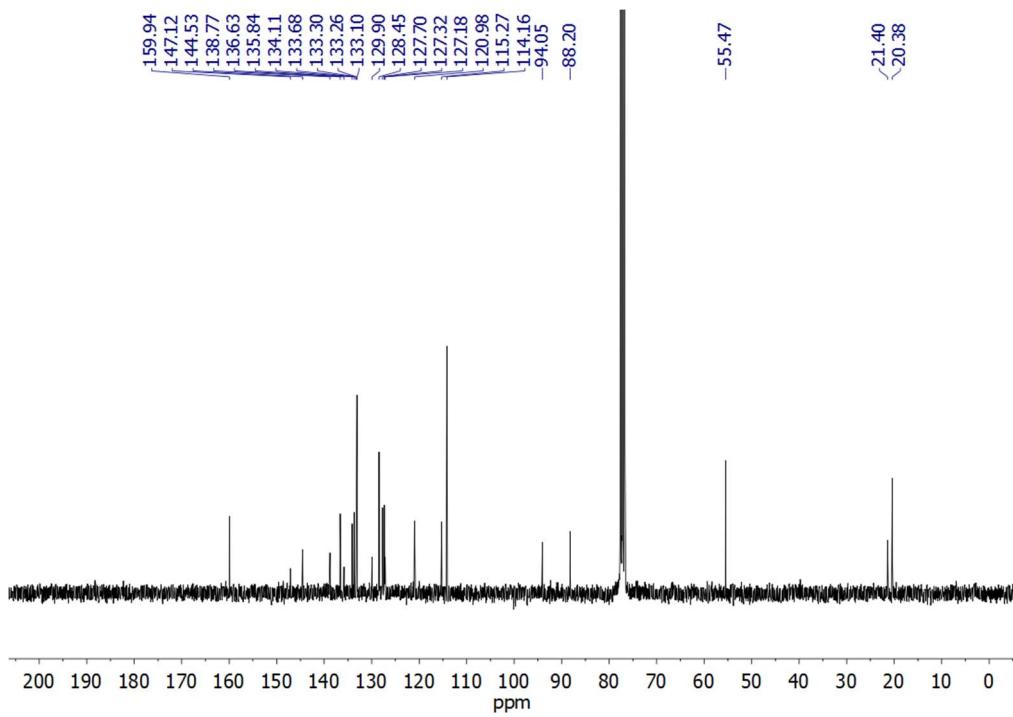


Figure S5.13. ^{13}C -NMR spectrum (CDCl_3) of **1d**

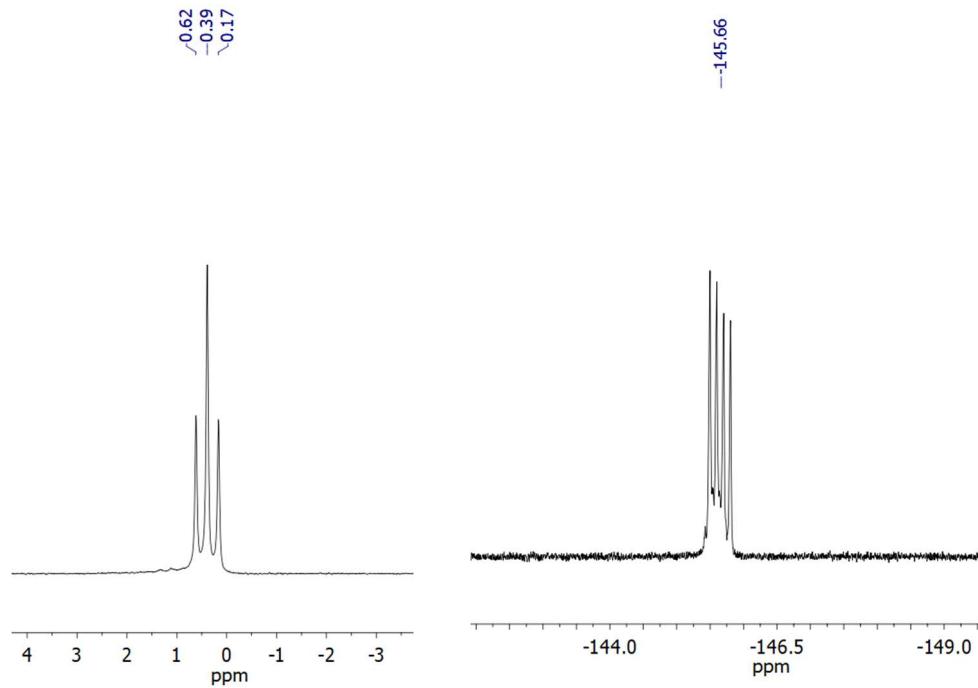


Figure S5.14. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **1d**

BODIPY **1e**

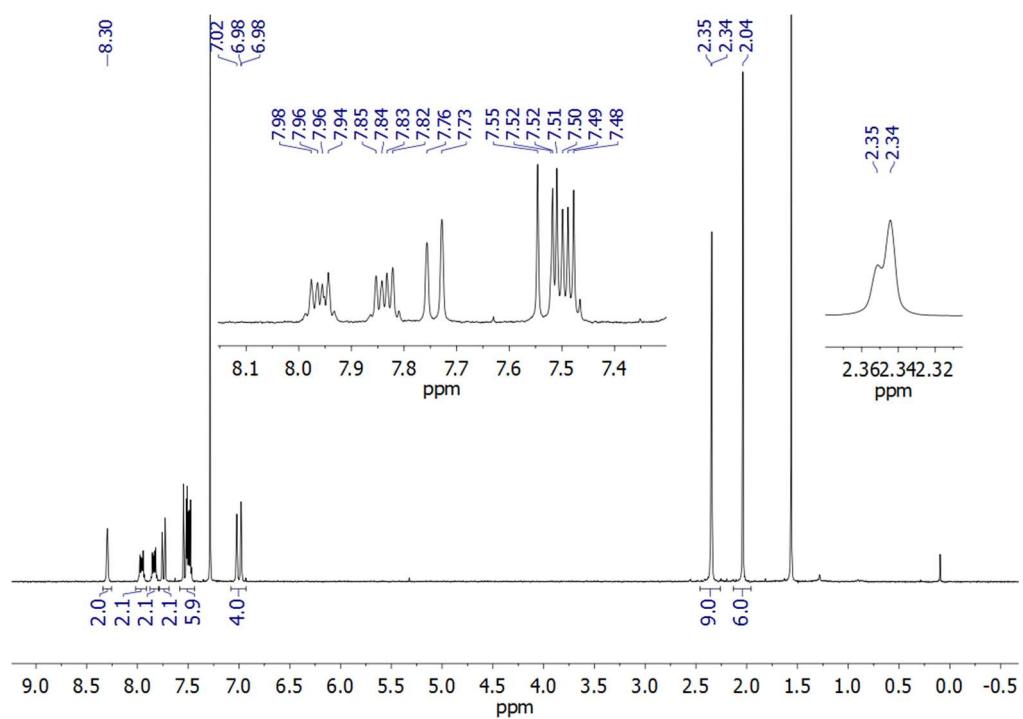


Figure S5.15. ¹H-NMR spectrum (CDCl₃) of **1e**

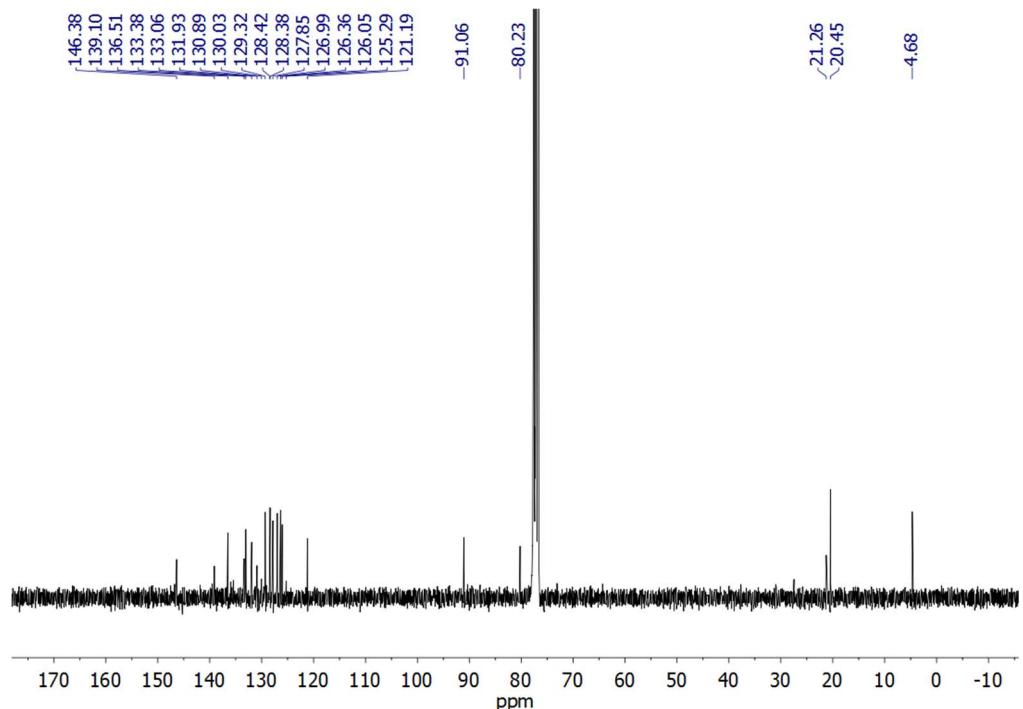


Figure S5.16. ¹³C-NMR spectrum (CDCl₃) of **1e**

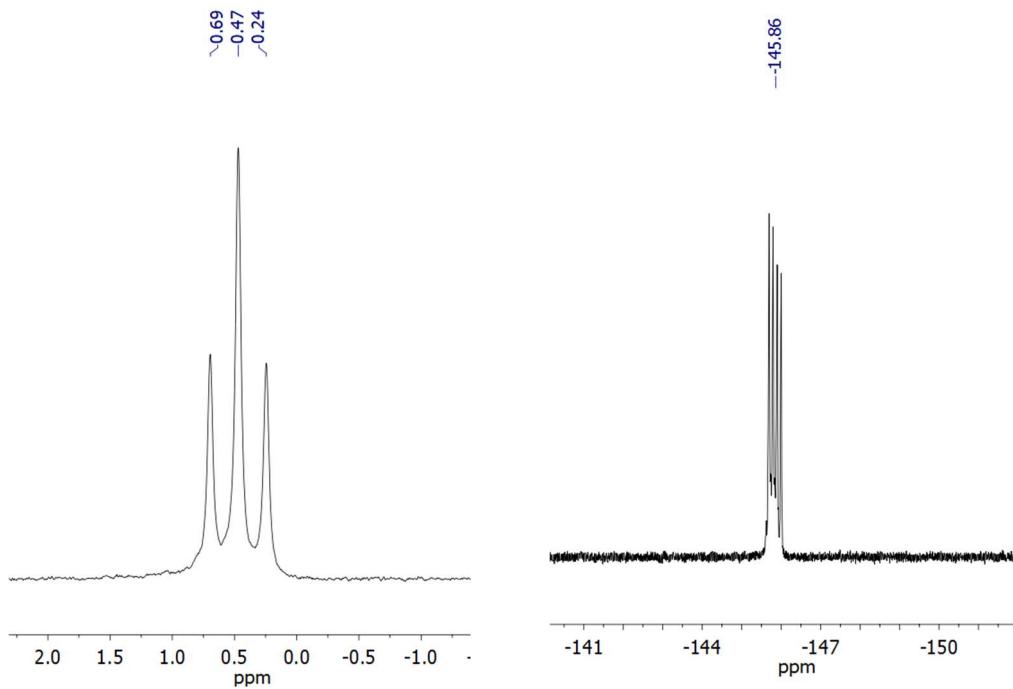


Figure S5.17. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **1e**

BODIPY **1f**

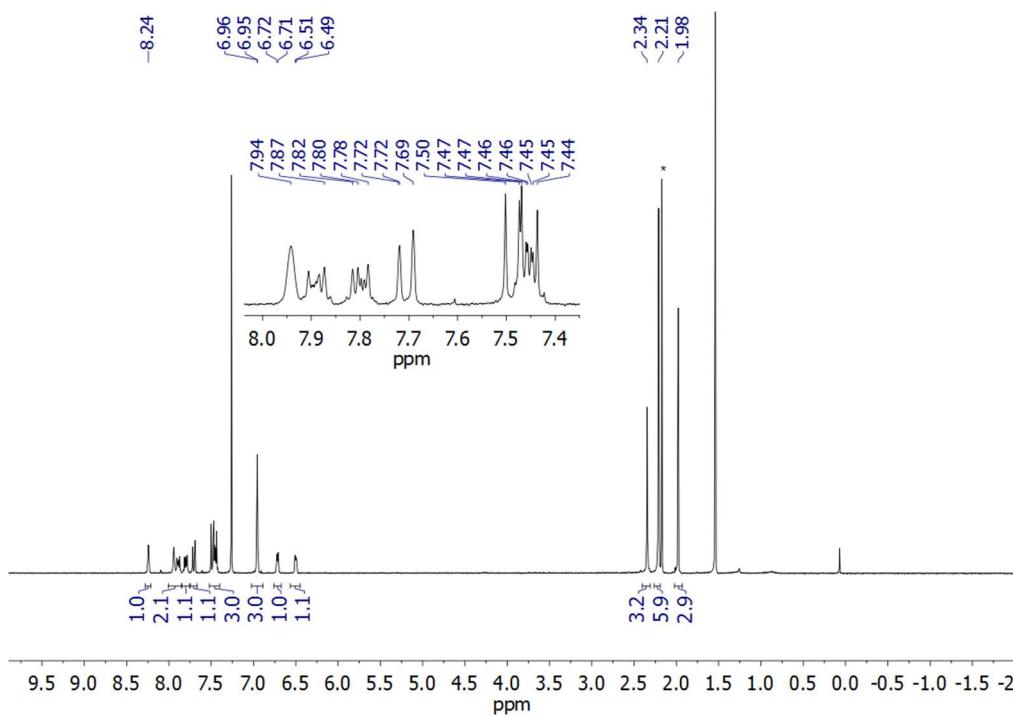


Figure S5.18. ^1H -NMR spectrum (CDCl_3) of **1f**

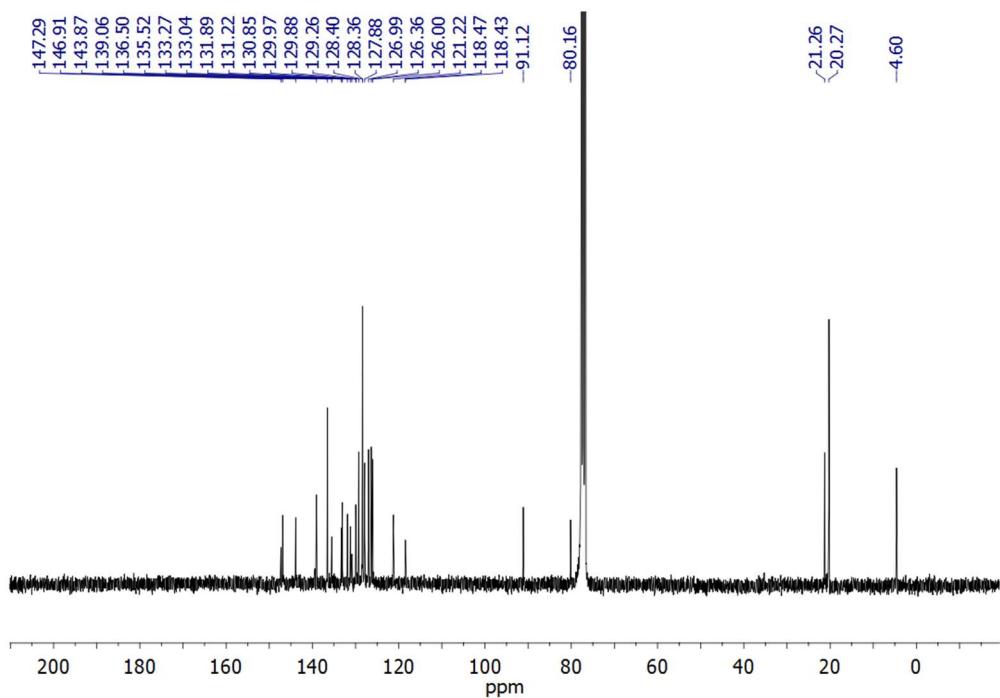


Figure S5.19. ^{13}C -NMR spectrum (CDCl_3) of **1f**

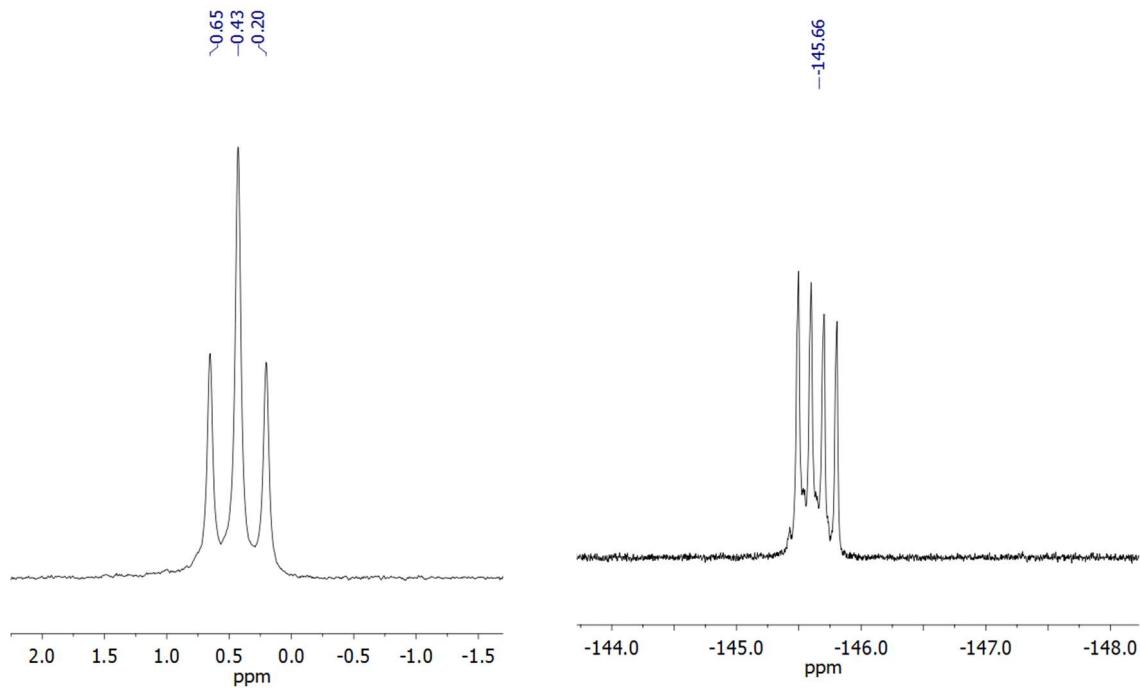


Figure S5.20. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **1f**

BODIPY 1g

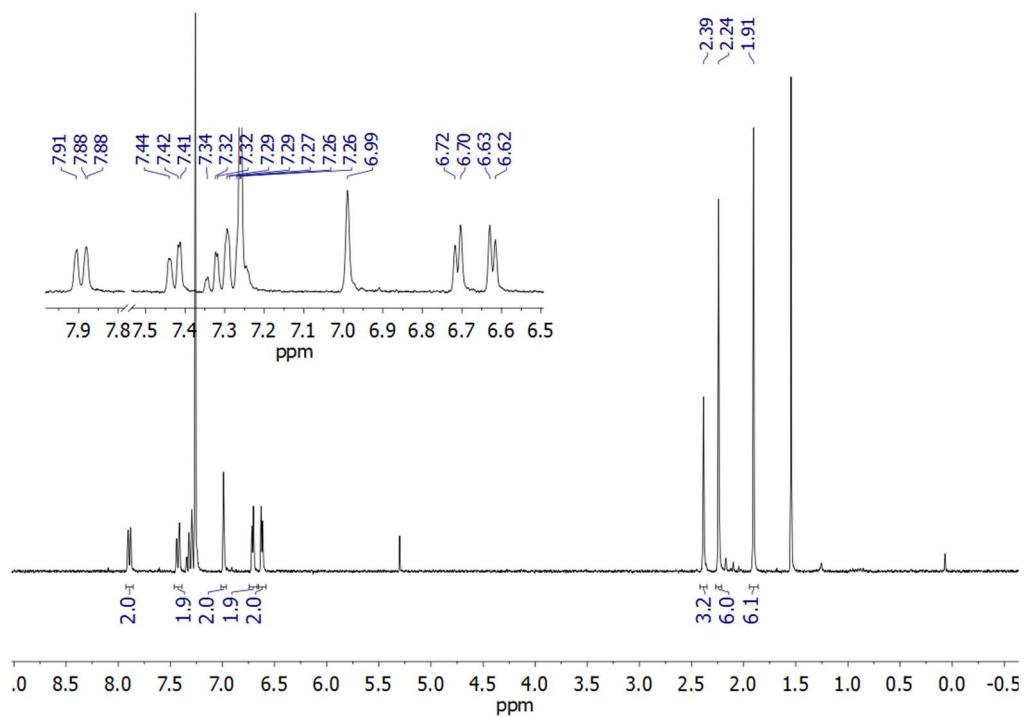


Figure S5.21. ¹H-NMR spectrum (CDCl₃) of **1g**

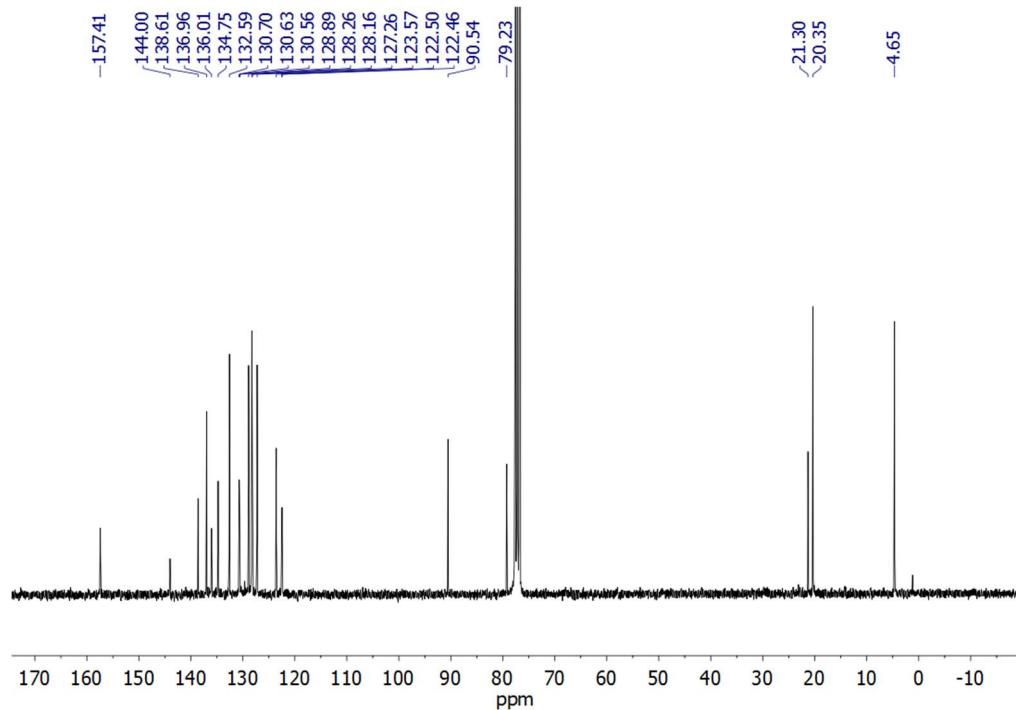


Figure S5.22. ¹³C-NMR spectrum (CDCl₃) of **1g**

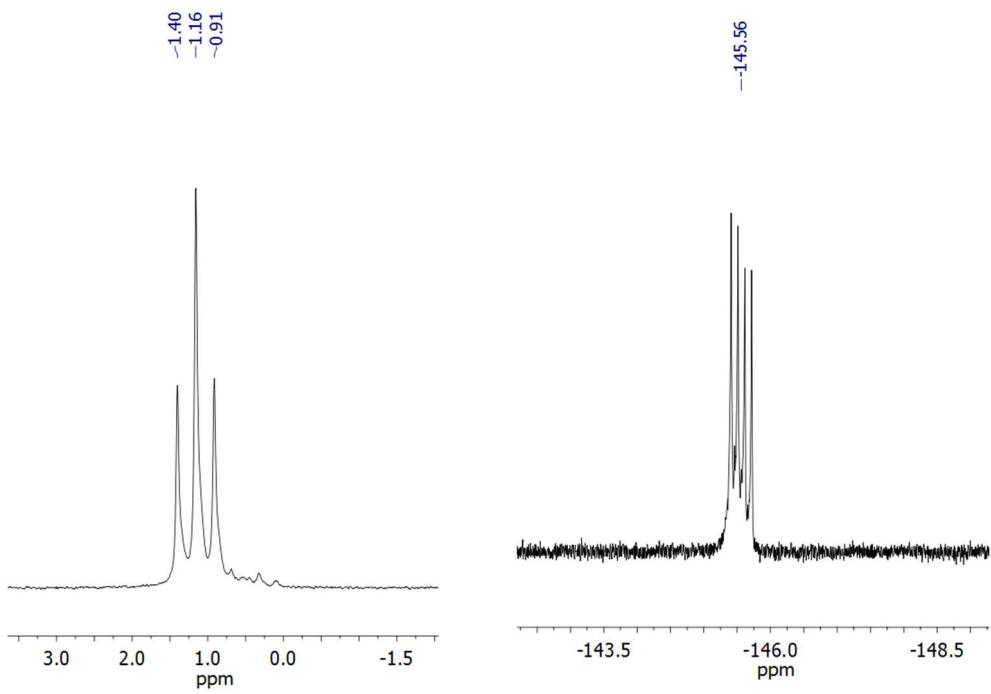


Figure S5.23. ¹¹B-NMR (left) and ¹⁹F-NMR (right) spectra (CDCl_3) of **1g**

BODIPY 2a

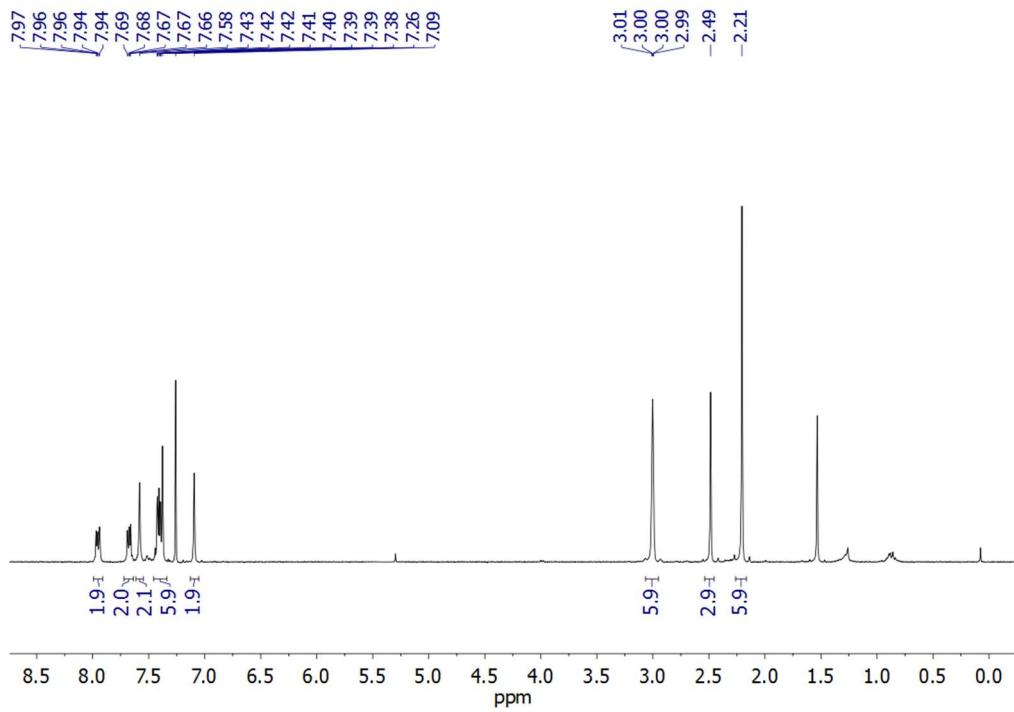


Figure S5.24. ¹H-NMR spectrum (CDCl_3) of **2a**

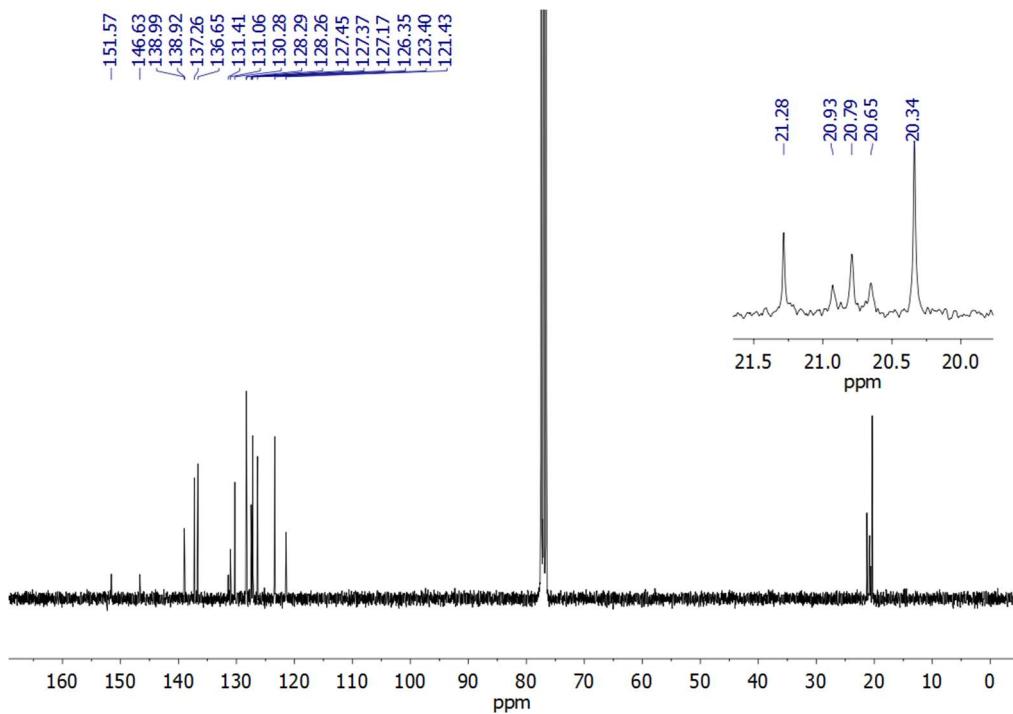


Figure S5.25. ^{13}C -NMR spectrum (CDCl_3) of **2a**

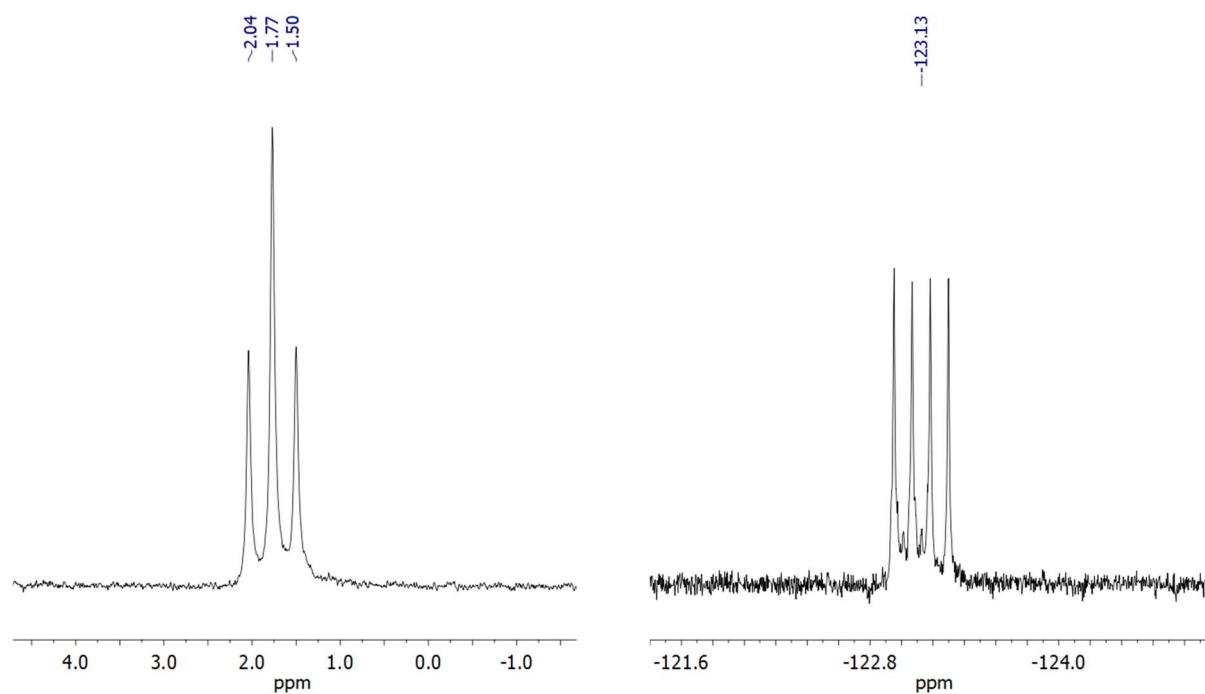


Figure S5.26. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **2a**

BODIPY **2b**

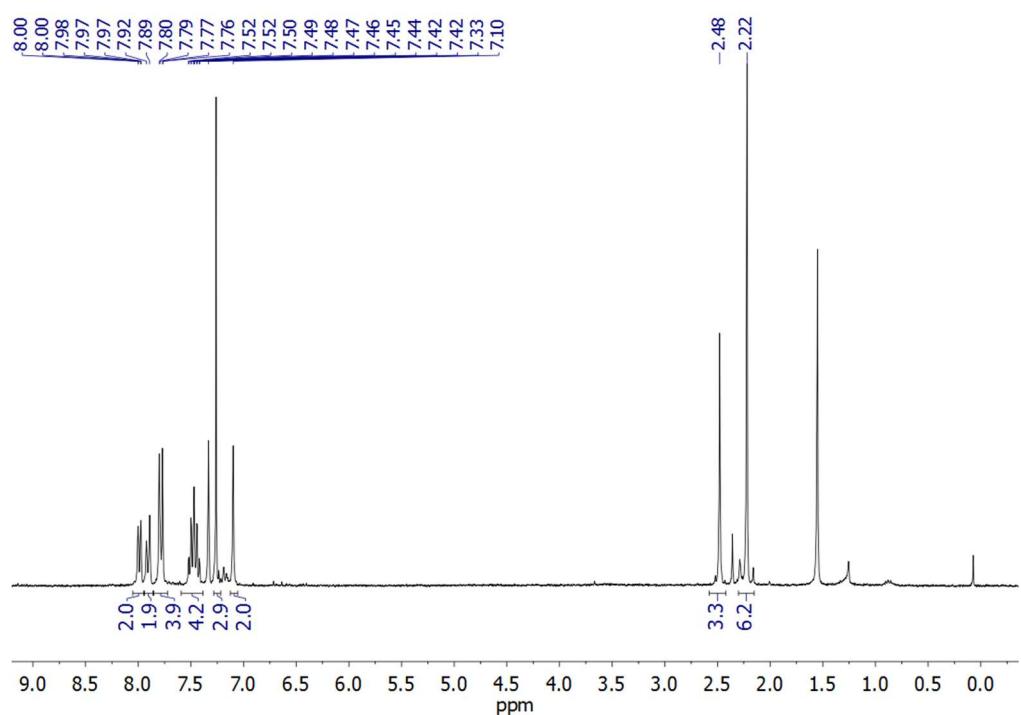


Figure S5.27. ¹H-NMR spectrum (CDCl₃) of **2b**

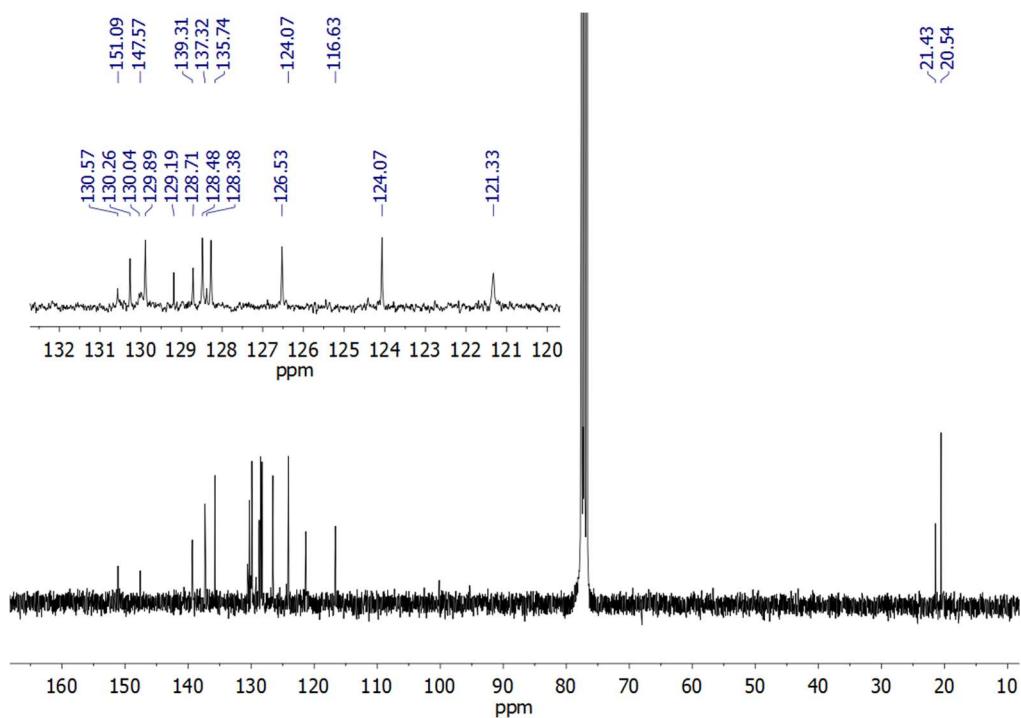


Figure S5.28. ¹³C-NMR spectrum (CDCl₃) of **2b**

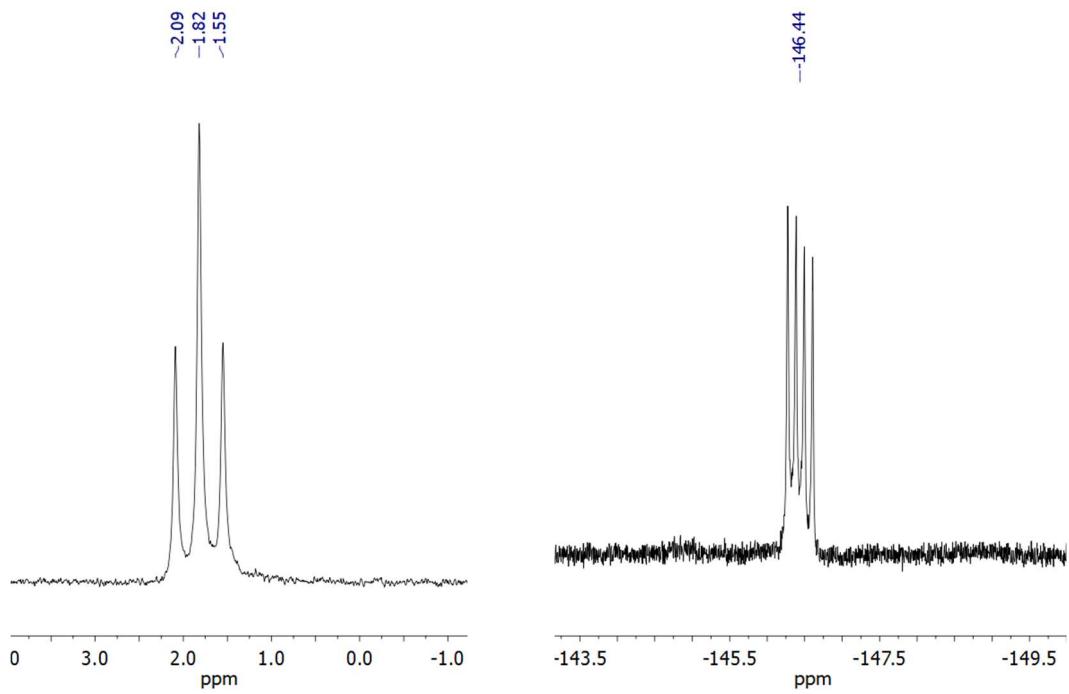


Figure S5.29. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **2b**

BODIPY **2c**

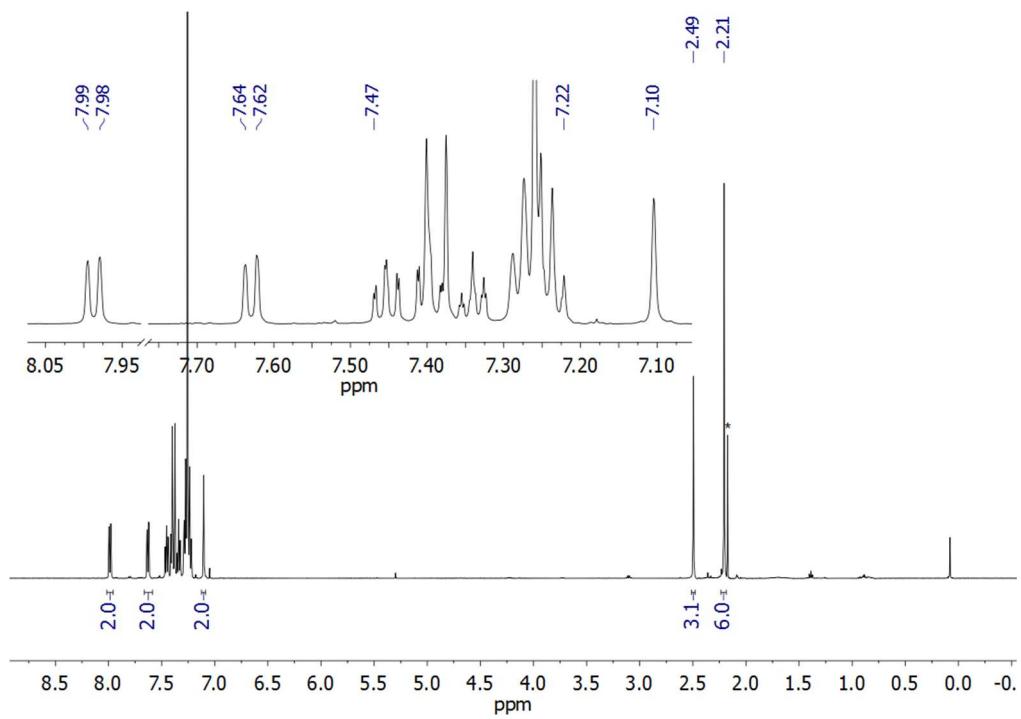


Figure S5.30. ^1H -NMR spectrum (CDCl_3) of **2c**

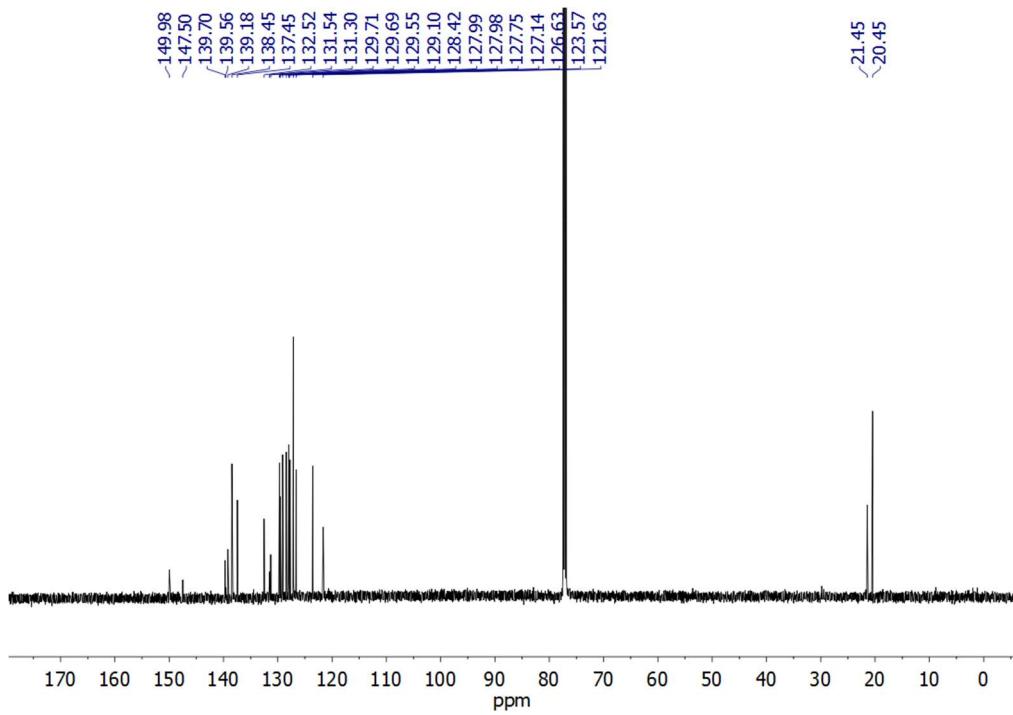


Figure S5.31. ^{13}C -NMR spectrum (CDCl_3) of **2c**

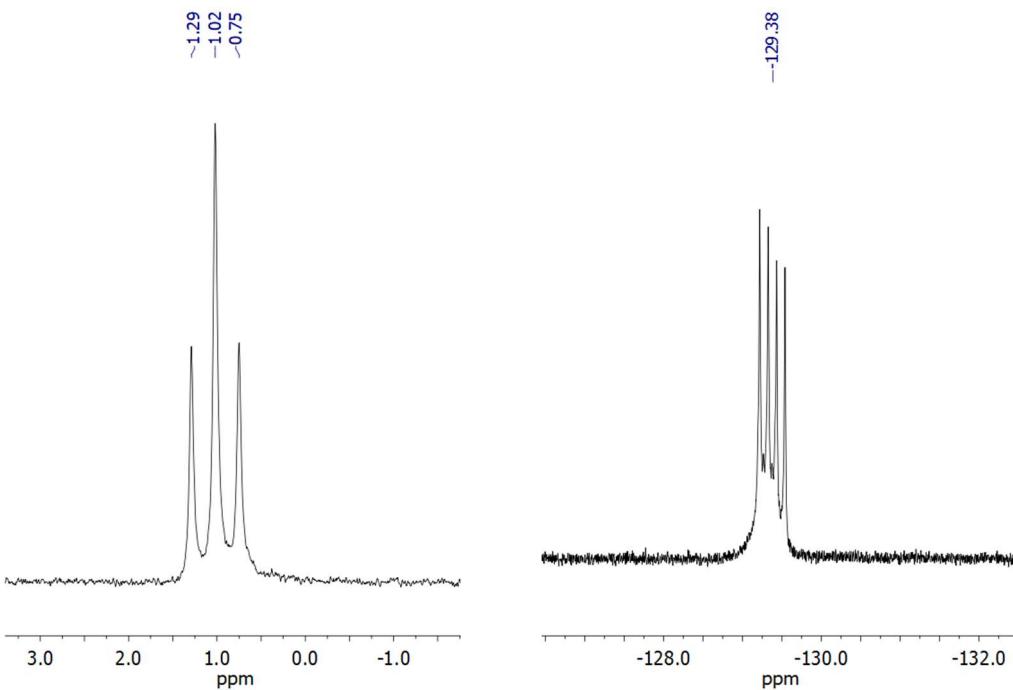


Figure S5.32. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **2c**

Dipyrromethene **2d'**

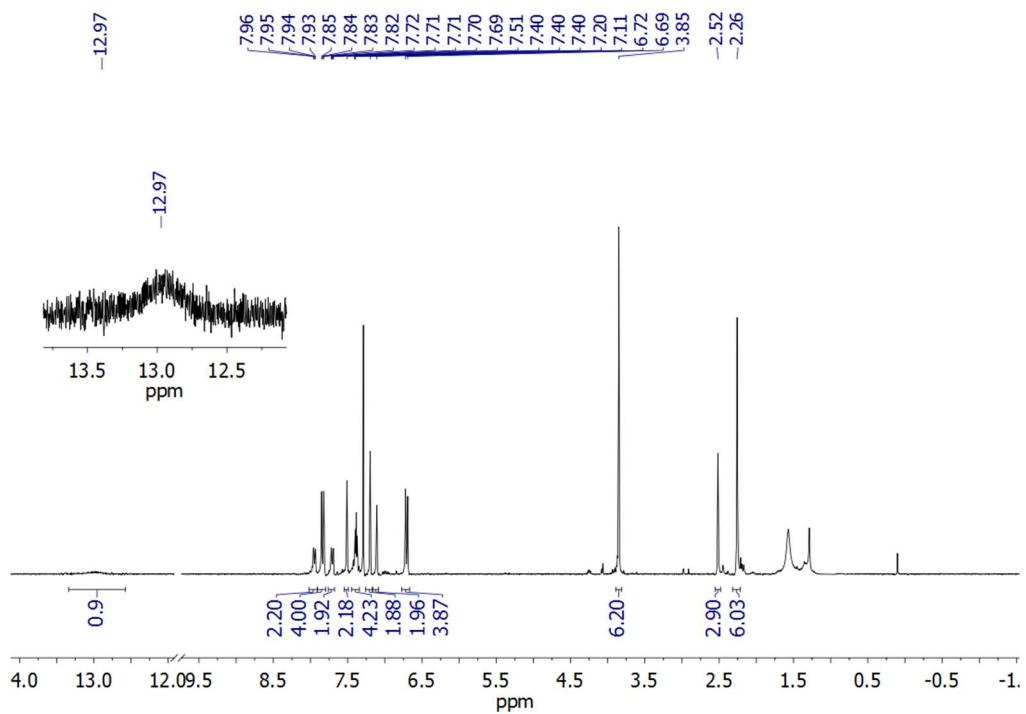


Figure S5.33. ¹H-NMR spectrum (CDCl_3) of **2d'**

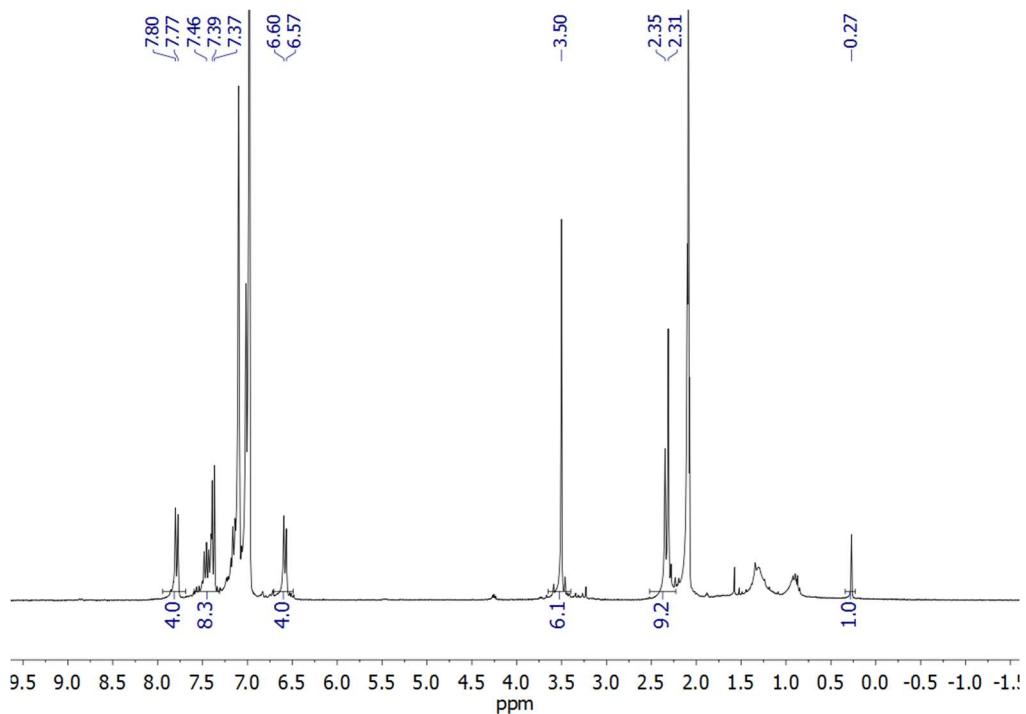


Figure S5.33.2. ¹H-NMR spectrum (Toluene-d_8) of **2d'**

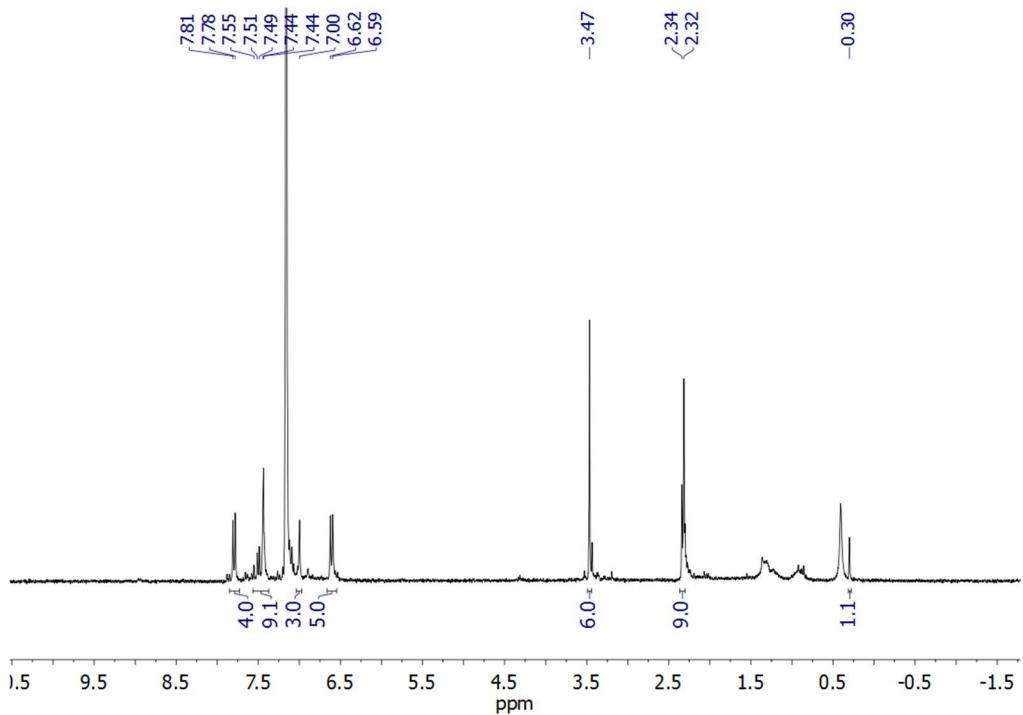


Figure S5.33.3. ^1H -NMR spectrum (C_6D_6) of **2d'**

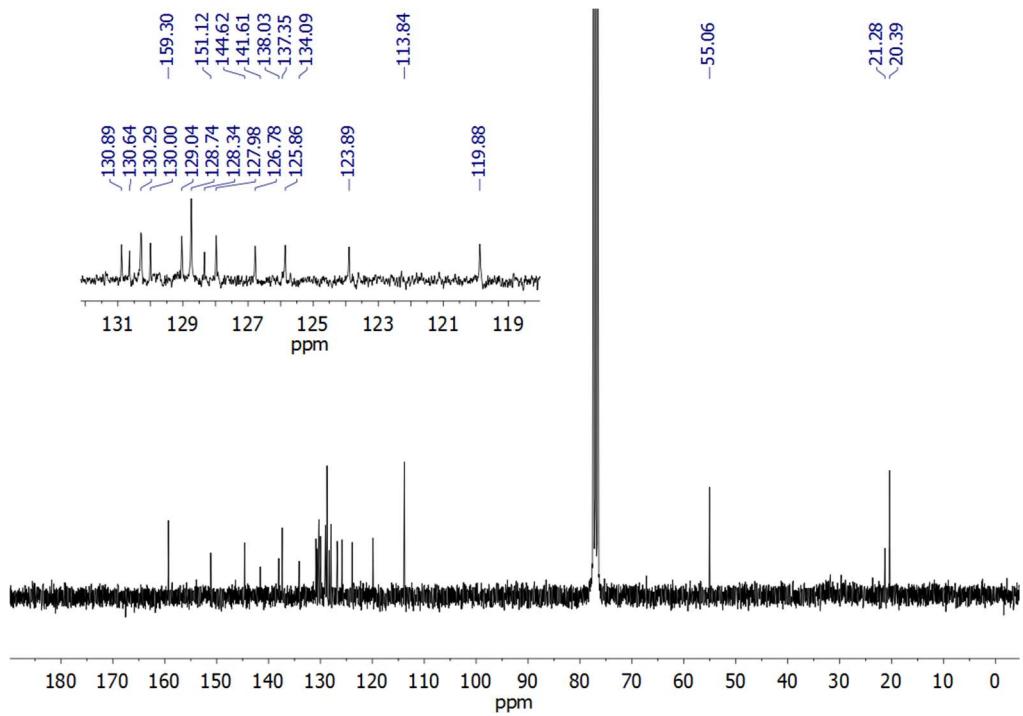


Figure S5.34. ^{13}C -NMR spectrum (CDCl_3) of **2d'**

BODIPY 2e

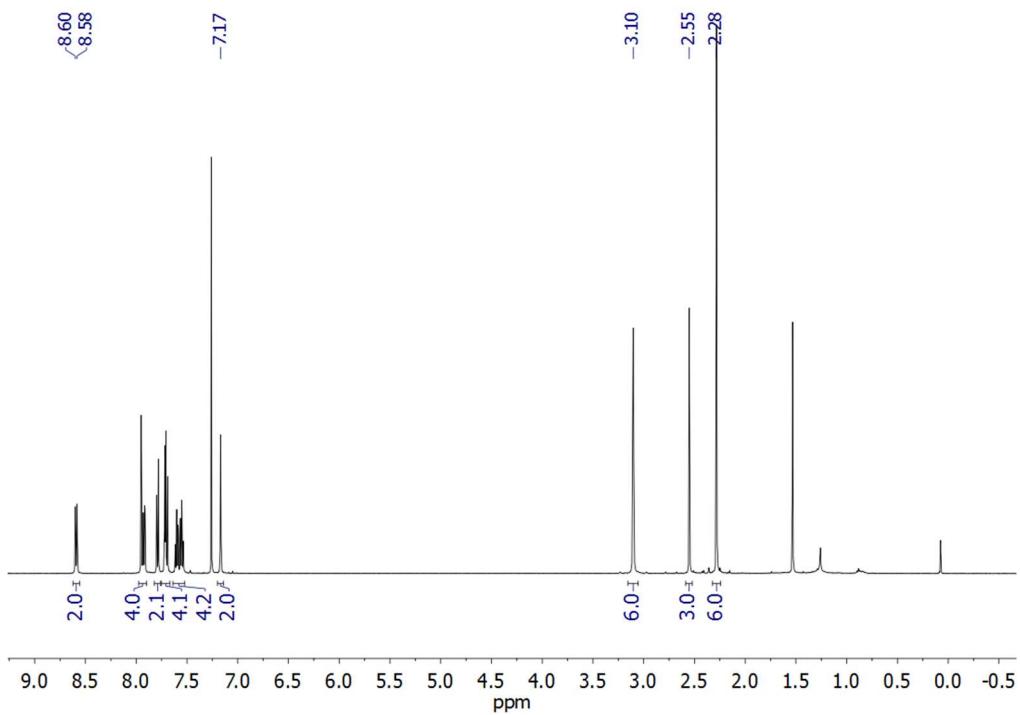


Figure S5.35. ^1H -NMR spectrum (CDCl_3) of **2e**

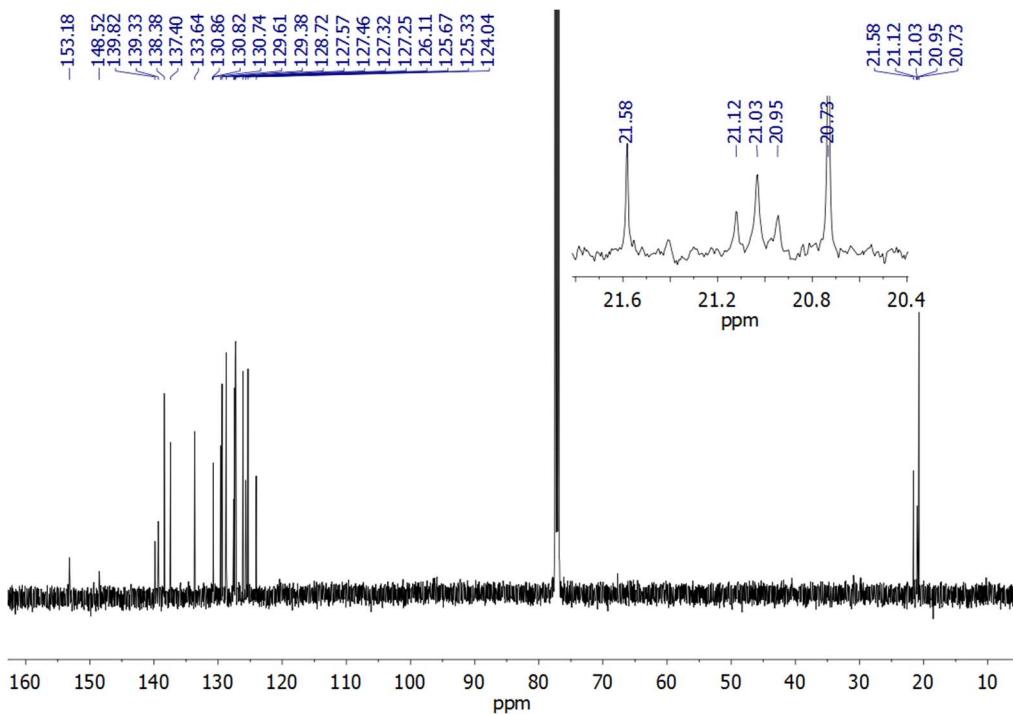


Figure S5.36. ^{13}C -NMR spectrum (CDCl_3) of **2e**

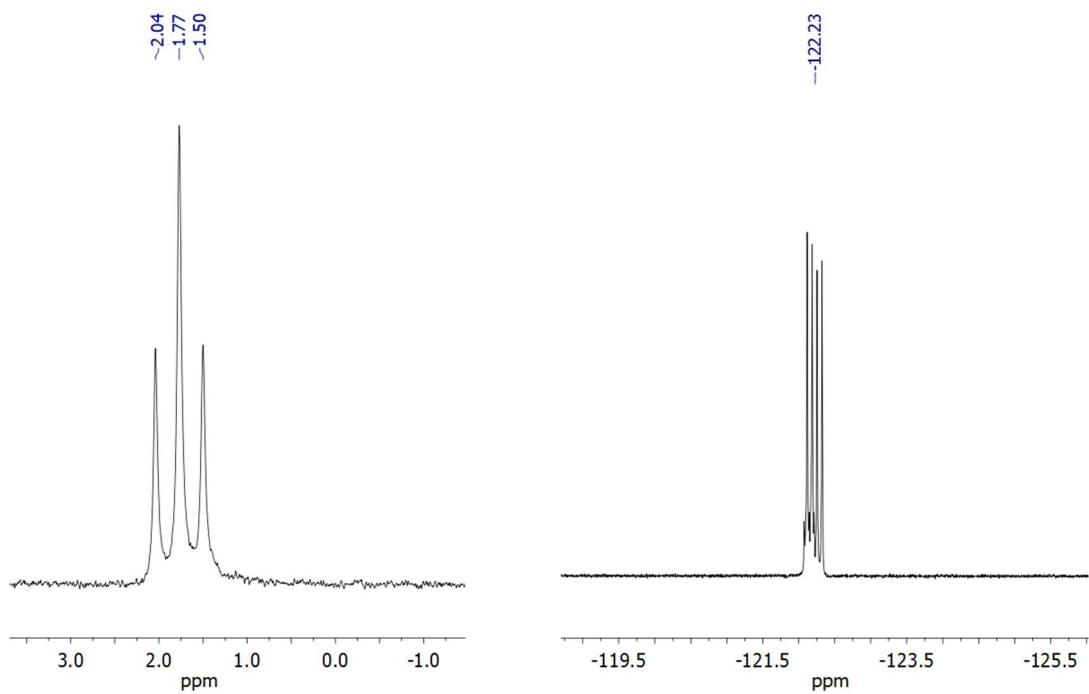


Figure S5.37. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **2e**

BODIPY 2f

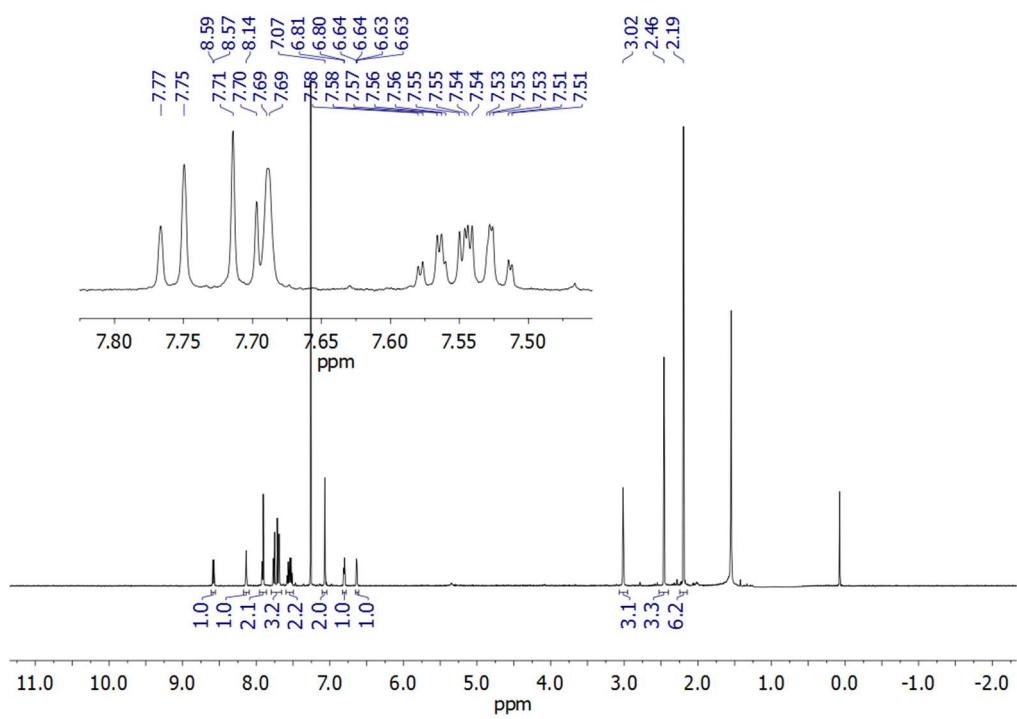


Figure S5.38. ^1H -NMR spectrum (CDCl_3) of **2f**

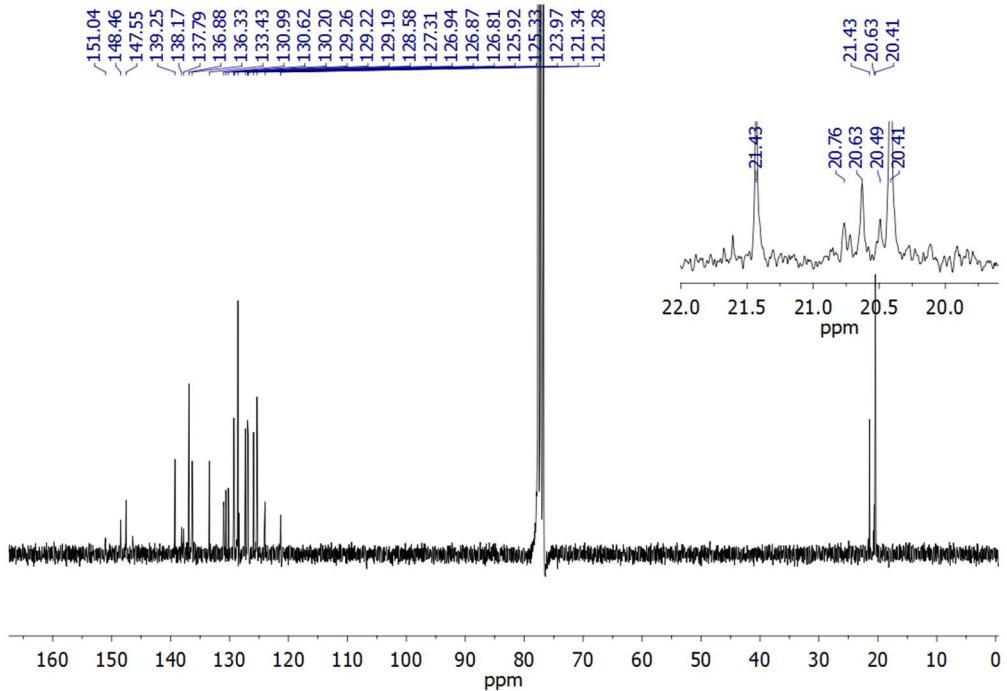


Figure S5.39. ^{13}C -NMR spectrum (CDCl_3) of **2f**

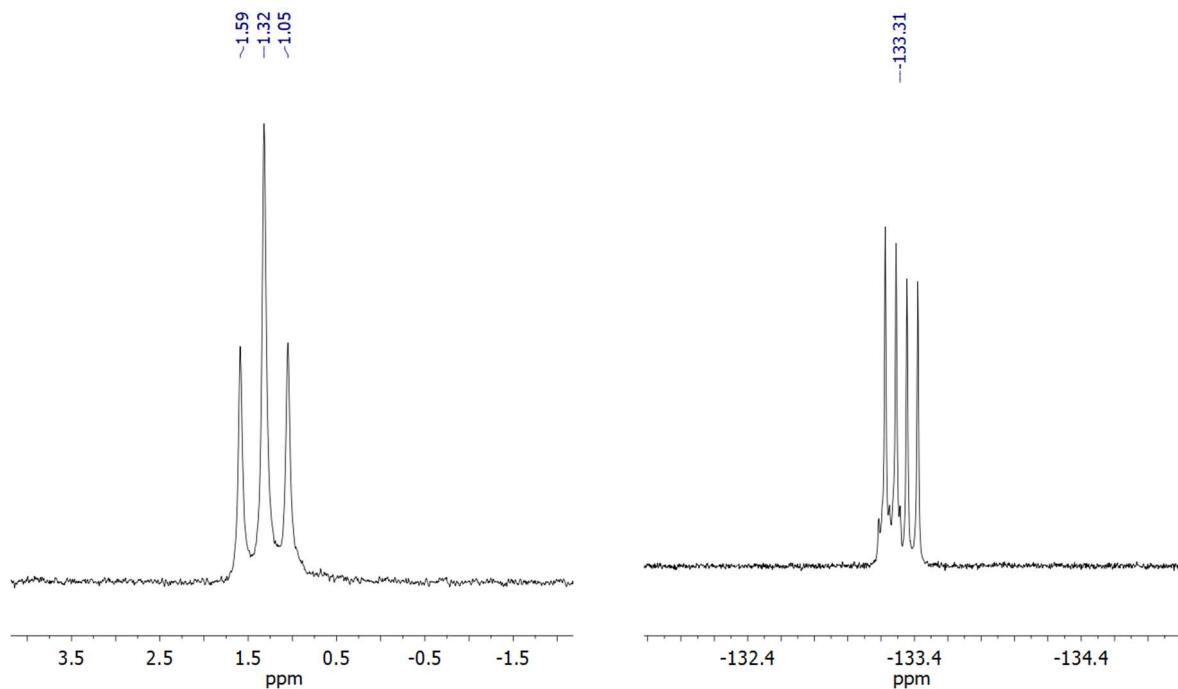


Figure S5.40. ^{11}B -NMR (left) and ^{19}F -NMR (right) spectra (CDCl_3) of **2f**

BODIPY 2g

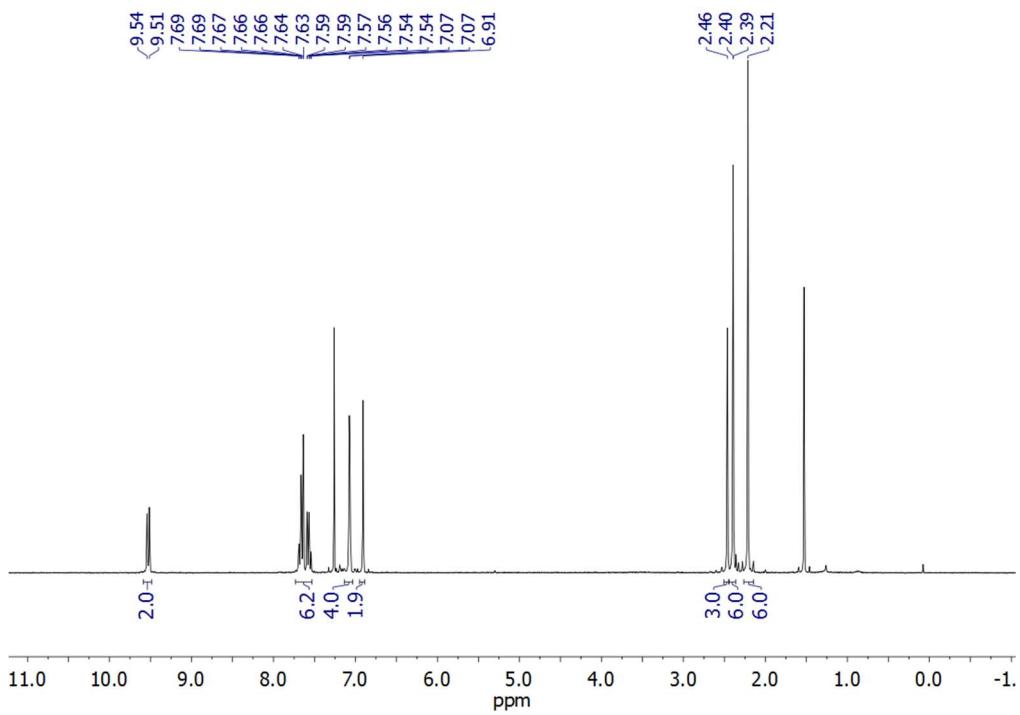


Figure S5.41. ¹H-NMR spectrum (CDCl₃) of **2g**

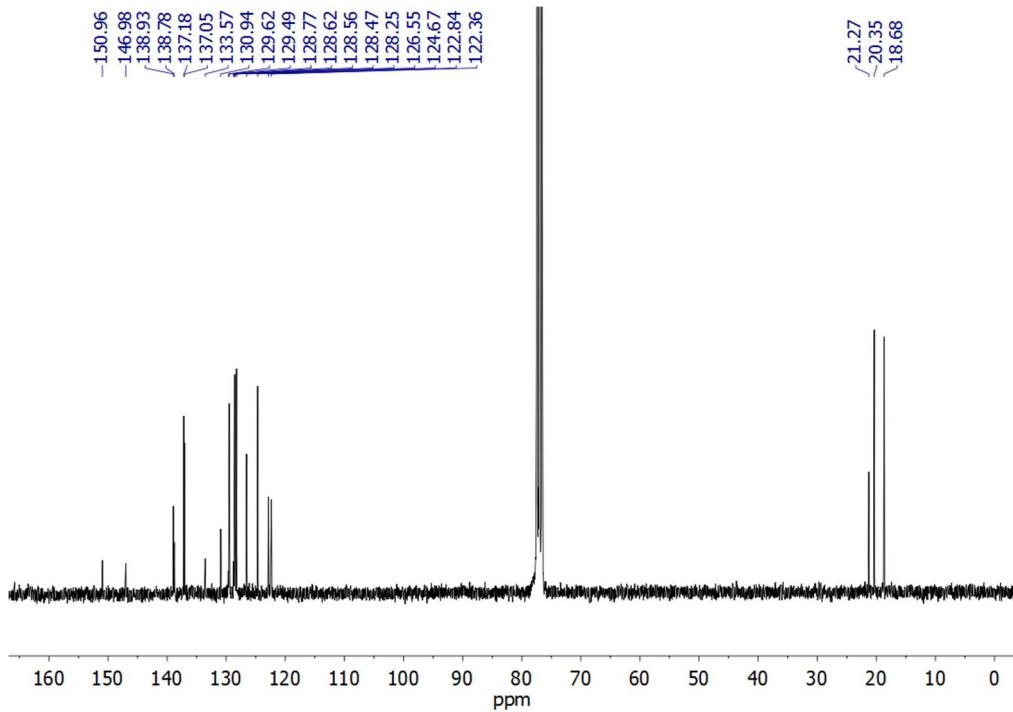


Figure S5.42. ¹³C-NMR spectrum (CDCl₃) of **2g**

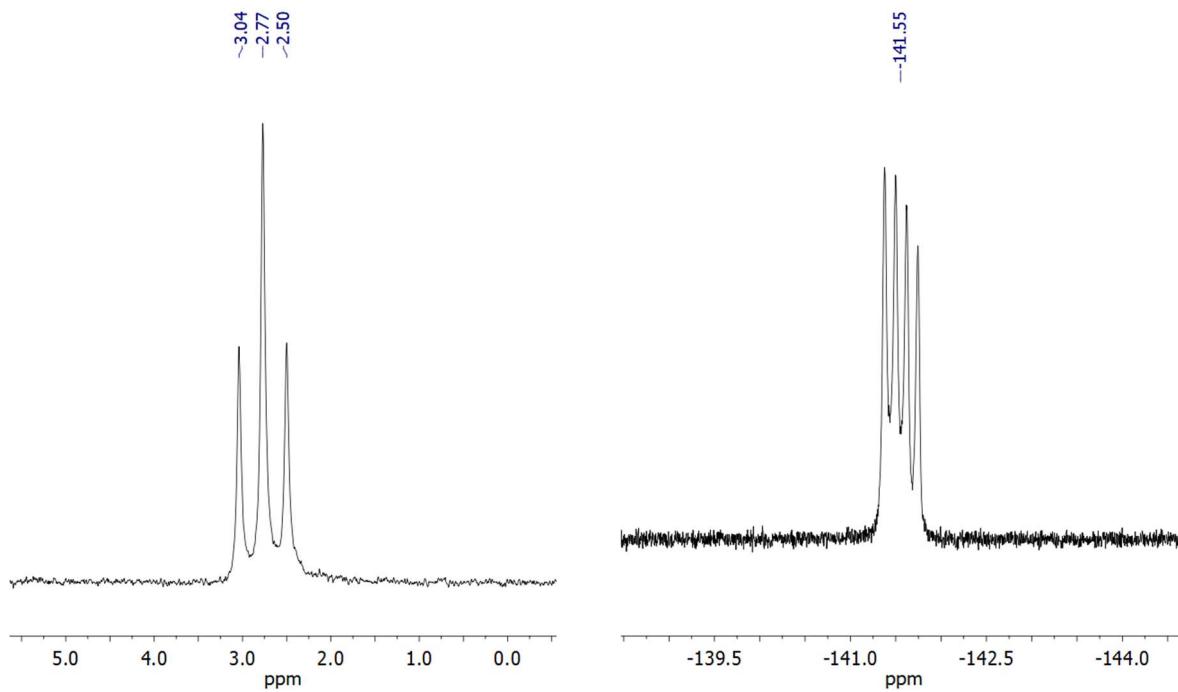


Figure S5.43. ¹¹B-NMR (left) and ¹⁹F-NMR (right) spectra (CDCl_3) of **2g**

6. Computational Studies

All reported structures were optimized at DFT level using the B3LYP⁶ functional and the standard 6-31G(d) basis set for C, N, B, F, P and H and LANL2DZ basis set for Au, which includes the relativistic effective core potential (ECP) of Hay and Wadt and employs a split-valence (double- ζ) basis set.⁷ Analytical harmonic frequencies were computed at the same level of theory to confirm the nature of the stationary points. NICS(0) values were calculated at the GIAO-B3lyp/6-31+G(d,p) level. TD-DFT calculations were carried out at the BMK/6-31+G(d,p) and considering the solvent (DCM) through the implicit Polarizable Continuum Model (PCM). For the mechanistic studies, reported energy values correspond to Gibbs Free (G) energies, and include single point refinement of the previous structures by means of the Truhlar's last generation M06 functional,⁸ and the 6-311+G(d,p) basis set for C, N, B, F, P and H, and SDD basis set for Au. Furthermore, transition state geometries were connected with reactants and products *via* Intrinsic Reaction Coordinate (IRC) calculations. Solvent (DCE) effects were also considered through the Model (PCM). All of the calculations were carried out by the methods implemented in Gaussian 16 package.⁹

Origin of **2d** deborylation

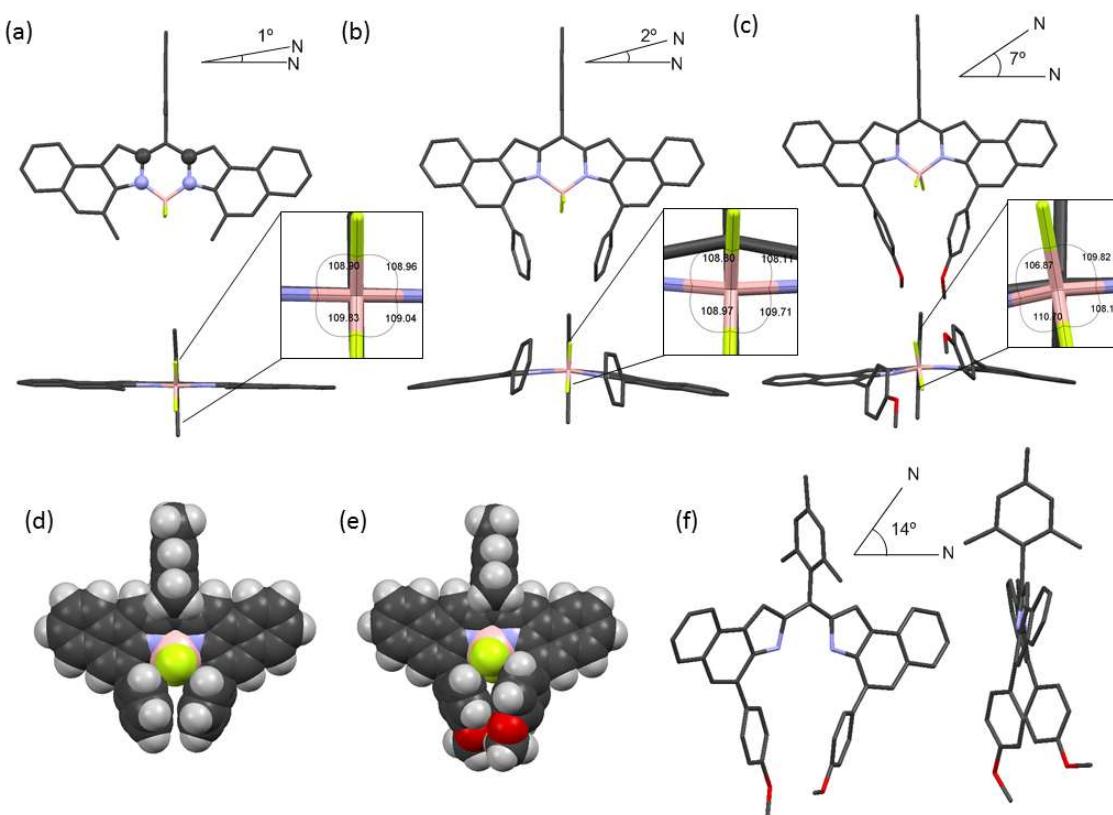


Figure S6.1. (a) X-ray structure of **2a** (a: Front-view; b: bottom-view), (b) calculated structure of **2c** (a: Front-view; b: bottom-view), (c) calculated structure of **2c** (a: Front-view; b: bottom-view), van der Waals representation of (d) **2c** and (e) **2d**, and (f) X-ray structure of **2d'** (a: Front-view; b: side-view).

In order to understand the origin of the deborylation reaction of **2d**, the structural differences between **2a**, **2c** and **2d** were explored (in the last two cases, the structures were simulated by DFT calculations). This analysis is based on two structural aspects: a) the discrepancy in the dihedral angle described by the two C-N moieties of the BODIPY core represented as spheres in Figure S6.1a, and b) the N-B-F angles. Concerning the first aspect, the dihedral angles of **2a**, **2c** and **2d** are 1° , 2° , and 7° , respectively. As a result of the steric demand of the methoxy moieties in **2d** (Figure S6.1e), the resulting bidentate

N-N ligand (dipyrromethene) has not the optimal geometry (ca. 0°) to overlap with the sp^3 orbitals of the BF_2 fragment. Thus, in contrast to its counterparts **2a** and **2c** (angles are nearly 0°), **2d** present a poorer coordinating capability and it is expected to undergo an easier substitution by other nucleophiles. In line with these results and regarding the second aspect, **2a** and **2e** display similar N-B-F angles (**2a**: 108.9°, 109.9°, 109.8°, 109.0°; and **2e**: 108.8°, 109.0°, 109.7°, 108.1°) while those of **2d** are more irregular and oscillates between 106.9° and 110.7°. This result also points out to a more strained coordination around the B atom because of the molecular geometry imposed by the steric congestion. These structural features suggest that the deborylation observed in the compound **2d** arises from the steric hindrance between methoxy groups (see van der Waals models of **2c** and **2d**; Figure S6.1d-e).

NICS(0) calculations

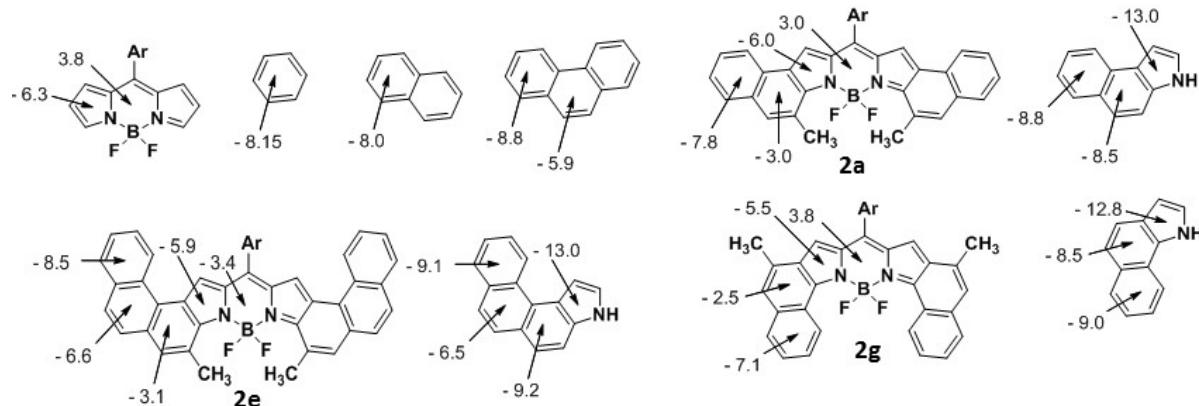


Figure S6.2. NICS(0) values of **2a**, **2e**, **2g** and unsubstituted BODIPY and their corresponding hydrocarbons.

TD-DFT calculations

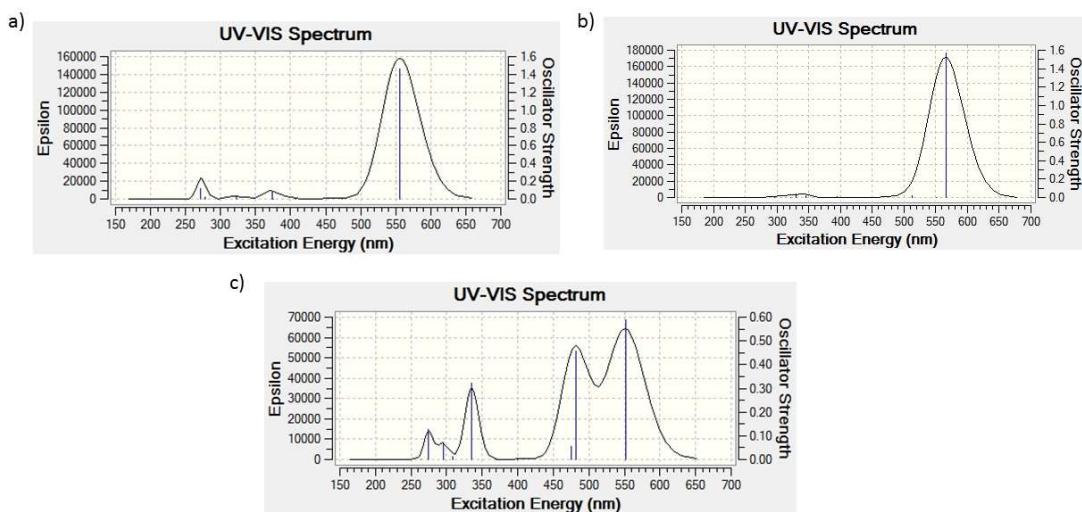


Figure S6.3. Calculated spectra of **2a**, **2e** and **2g**.

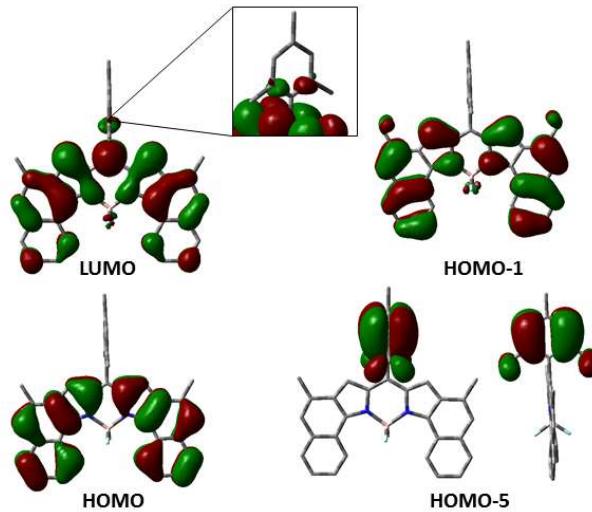


Figure S6.4. Kohn-Sham orbital representations of the orbitals involved in the electronic transitions.

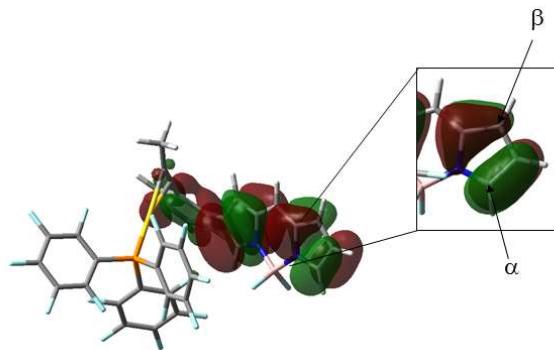


Figure S6.5. Kohn-Sham orbital representations of the HOMO of Reach-cat.

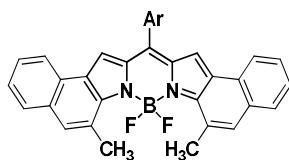
Table S6.1. Energies of the structures involved in the computational study.

	Correction to G^a (B3LYP/6-31G*)	Single Point Energy ^a M06/6-311+G**	Relative G energy ^b (M06+B3LYP correction)	Frequency
Structures in Figure X. R=H				
Reach-cat.	0.330815	-3686.093743	0	
TS1_{α-H}	0.331811	-3686.070129	15.442	-355.3
TS1_{β-H}	0.331983	-3686.065611	18.386	-377.6
IN1_{α-H}	0.339075	-3686.101475	0.331	
IN1_{β-H}	0.335744	-3686.097690	0.616	
TS2_{α-H}	0.332724	-3686.081957	8.594	-1062.9
TS2_{β-H}	0.330786	-3686.080295	8.421	
IN2_{α-H}	0.33585	-3686.127510	-18.029	
IN2_{β-H}	0.338387	-3686.121462	-12.642	
TS3_{α-H}	0.334323	-3686.109308	-7.566	-868.1
TS3_{β-H}	0.338201	-3686.107400	-3.934	-807.1
Prod_{α-H-cat.}	0.335422	-3686.174765	-47.950	
Prod_{β-H-cat.}	0.339117	-3686.170191	-42.762	

Structures in Figure X. R=Mes				
Reac_{Mes}-cat.	0.477654	-4034.351946	0	
TS1_α-Mes	0.484355	-4034.32564	16.506644	-354.8510
TS1_β-Mes	0.481395	-4034.322154	18.694323	-368.9220
IN1_α-Mes	0.485099	-4034.356003	-2.546112	
IN1_β-Mes	0.488303	-4034.341487	6.563091	
TS2_α-Mes	0.484800	-4034.336385	9.764207	-1066.7116
TS2_β-Mes	0.485996	-4034.813099	15.588587	
IN2_α-Mes	0.486016	-4034.380665	-18.021266	-1022.6213
IN2_β-Mes	0.493547	-4034.370362	-11.555964	
TS3_α-Mes	0.482802	-4034.365436	-8.465200	-864.5807
TS3_β-Mes	0.485249	-4034.352442	-0.311089	-818.3965
Prod_α-Mes-cat.	0.488092	-4034.426499	-46.781944	
Prod_β-Mes-cat.	0.492354	-4034.411951	-37.652974	

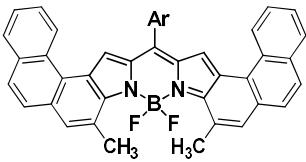
^aEnergy units: Hartrees. ^bEnergy units: kcal/mol

Cartesian coordinates of 2a, 2e and 2g



Standard orientation:

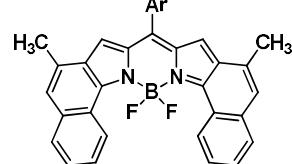
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6	0	-0.000178	0.983188	0.001011
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7	0	1.271728	-1.111365	0.000035
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6	0	3.398999	-0.265001	0.001133
6	0	2.520043	0.813488	0.001622
6	0	-2.598023	-1.464462	-0.000441
6	0	-3.398886	-0.266255	0.000290
6	0	-2.520330	0.812561	0.000823
6	0	-0.000535	2.479975	0.001472
6	0	-0.002657	3.179676	1.225434
6	0	0.003835	3.180868	-1.224909
6	0	-0.000963	4.579603	1.198825
6	0	0.001300	5.298307	0.000989
6	0	0.005435	4.578203	-1.199094
6	0	0.009096	2.451448	-2.550082
6	0	-0.004820	2.452676	2.551960
6	0	-0.012764	6.809170	-0.005605
5	0	0.000388	-2.025570	-0.000781
9	0	0.000696	-2.811719	-1.157586
9	0	0.000398	-2.813417	1.154832
6	0	-4.838420	-0.315365	0.000359
6	0	-5.435760	-1.605950	-0.000456
6	0	-4.597494	-2.771593	-0.001315
6	0	-3.220862	-2.760474	-0.001356
6	0	-5.663650	0.826818	0.001197
6	0	-7.044518	0.697752	0.001230
6	0	-7.639919	-0.578045	0.000415
6	0	-6.845195	-1.712205	-0.000422
6	0	3.221877	-2.759280	-0.000628



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
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6	0	-1.212542	-0.116589	-0.008443
7	0	-1.272869	-1.505878	-0.015965
6	0	-2.601240	-1.853675	-0.031754
6	0	-3.415140	-0.650453	-0.002262
6	0	-2.513947	0.418334	-0.011188
6	0	2.600841	-1.854386	0.031999
6	0	3.415083	-0.651410	0.002119
6	0	2.514208	0.417651	0.011011
6	0	0.000450	2.082757	0.000206
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6	0	-0.025294	2.782733	1.225722
6	0	0.016360	4.181690	-1.198201
6	0	-0.004369	4.900697	0.000599
6	0	-0.027931	4.181125	1.199460
6	0	-0.050919	2.054252	2.551175
6	0	0.041694	2.055141	-2.550769
6	0	0.022115	6.411264	0.002322
5	0	-0.000277	-2.420649	0.000313
9	0	-0.024950	-3.204789	1.157446
9	0	0.024195	-3.205143	-1.156594
6	0	4.859450	-0.714480	0.027712
6	0	5.410779	-2.002045	0.222844
6	0	4.570625	-3.159343	0.240423
6	0	3.200396	-3.150806	0.117850
6	0	5.759579	0.412656	-0.117782
6	0	7.163232	0.211075	0.108332
6	0	7.660652	-1.097752	0.385703
6	0	6.818097	-2.169865	0.402371
6	0	-3.201158	-3.149943	-0.117298
6	0	-4.571376	-3.158114	-0.239993
6	0	-5.411197	-2.000564	-0.222875
6	0	-4.859527	-0.713091	-0.028088
6	0	-5.759357	0.414372	0.116810
6	0	-7.163036	0.213097	-0.109446
6	0	-7.660789	-1.095696	-0.386367
6	0	-6.818537	-2.168053	-0.402531
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1	0	-0.837106	1.411016	-2.671815
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1	0	0.054301	2.765459	-3.382182
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1	0	8.727017	-1.226272	0.552005

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1	0	1.765304	-4.537798	0.949769
1	0	1.846260	-4.561503	-0.798473
6	0	7.613187	2.566553	-0.323619
6	0	6.247987	2.759547	-0.618094
6	0	-6.247183	2.761647	0.615934
6	0	-7.612394	2.568901	0.321351
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1	0	4.327133	1.890983	-0.811183
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Standard orientation:

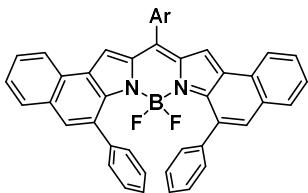
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6	0	0.093872	2.992127	2.549605
6	0	0.056456	7.348578	-0.001798
5	0	-0.006715	-1.480323	-0.000305
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6	0	3.221584	-2.235116	0.081265
6	0	-3.241635	-2.206210	-0.081537
6	0	-4.675047	-2.201448	0.011417

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1	0	0.084611	5.658779	2.141961		16	0	6.956555	0.369791	-0.182016
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1	0	0.782274	2.323544	-2.675242		18	0	4.168174	-0.046465	2.397665
1	0	-0.977828	2.372810	-2.637495		19	0	4.060602	0.488103	-2.672841
1	0	-0.075833	3.701639	-3.382149		20	0	8.466336	0.421883	-0.208446
1	0	0.987219	2.363192	2.639835		21	0	-0.361412	-0.023136	-0.248594
1	0	0.097770	3.702027	3.381525		22	0	-1.317090	0.010010	0.739281
1	0	-0.408714	7.760176	0.899924		23	0	-0.885929	-0.151548	-1.529510
1	0	1.089516	7.719753	-0.032855		24	0	1.647972	-4.758240	-0.066480
1	0	-0.462109	7.760156	-0.873896		25	0	0.409635	-5.439839	0.071114
6	0	2.549360	-3.473895	0.218490		26	0	-0.798689	-4.677380	0.192831
6	0	3.248448	-4.668916	0.231844		27	0	-0.884209	-3.300506	0.169133
6	0	4.648929	-4.677867	0.113634		28	0	2.836727	-5.506512	-0.174304
6	0	5.334440	-3.480824	0.001570		29	0	2.801913	-6.891875	-0.149438
6	0	-2.580596	-3.450786	-0.220595		30	0	1.576307	-7.570551	-0.014524
6	0	-3.290303	-4.639529	-0.234128		31	0	0.398284	-6.852359	0.094713
6	0	-4.690681	-4.636114	-0.114360		32	0	-1.236585	3.180660	-0.062979
6	0	-5.365409	-3.433108	-0.000696		33	0	-1.326120	4.521999	0.245924
6	0	5.622911	1.489293	-0.167850		34	0	-0.216351	5.377649	0.552971
6	0	-5.609437	1.539305	0.171471		35	0	1.102548	4.849674	0.507340
1	0	6.497063	-1.108596	-0.157815		36	0	2.194620	5.703810	0.755771
1	0	-6.506687	-1.050683	0.161507		37	0	1.990199	7.043366	1.047884
1	0	1.478576	-3.491213	0.345398		38	0	0.685773	7.569036	1.097208
1	0	2.706583	-5.604082	0.341043		39	0	-0.399805	6.746506	0.850549
1	0	5.192164	-5.618761	0.121484		40	0	3.390431	2.903199	0.266303
1	0	6.418915	-3.477378	-0.073977		41	0	3.684218	-2.555354	-0.232564
1	0	-1.510170	-3.477416	-0.349018		42	0	6.733072	0.588297	-2.309940
1	0	-2.756920	-5.579393	-0.344757		43	0	6.821518	0.147819	1.952571
1	0	-5.242275	-5.572129	-0.122360		44	0	4.888845	-0.025799	3.220466
1	0	-6.449743	-3.420070	0.075842		45	0	3.627015	-0.998381	2.448348
1	0	5.436240	2.123585	0.708179		46	0	3.431944	0.746213	2.573112
1	0	5.346882	2.078566	-1.051738		47	0	3.411969	1.371544	-2.694564
1	0	6.696424	1.285889	-0.217144		48	0	3.414851	-0.382642	-2.834681
1	0	-5.418090	2.172130	-0.704609		49	0	4.751627	0.557560	-3.518069
1	0	-5.327163	2.125892	1.055169		50	0	8.870378	0.820739	0.727977
1	0	-6.684666	1.345449	0.221923		51	0	8.831805	1.047254	-1.029932
1	0	-0.773409	2.333028	2.672802		52	0	8.895559	-0.579457	-0.347366
1	0	-2.753474	2.416085	0.077289		53	0	-1.724313	-5.233859	0.315913
						54	0	1.556918	-8.656669	0.003647
						55	0	-0.552830	-7.369015	0.199900
						56	0	-2.310252	4.982004	0.205076
						57	0	0.532798	8.619985	1.326352
						58	0	-1.410397	7.147060	0.880532
						59	0	2.841871	7.690383	1.239766
						60	0	3.205198	5.305828	0.721511
						61	0	3.787441	-4.991340	-0.281300
						62	0	3.726155	-7.456788	-0.235802
						63	0	-2.486184	2.504664	-0.515772
						64	0	-2.623506	2.074864	-1.846364
						65	0	-3.608445	2.443028	0.314885
						66	0	-3.838851	1.609569	-2.324873
						67	0	-1.769169	2.113114	-2.513484
						68	0	-4.837136	1.967802	-0.149467
						69	0	-3.522247	2.763972	1.349540
						70	0	-4.955816	1.552461	-1.479573
						71	0	-3.949643	1.285063	-3.354955
						72	0	-5.679581	1.914783	0.530178
						73	0	-6.102297	1.069377	-2.047001
						74	0	-7.275853	1.018707	-1.246276
						75	0	-8.064594	0.641327	-1.900595
						76	0	-7.147946	0.337343	-0.397466
						77	0	-7.555550	2.017316	-0.883753
						78	0	-2.245615	-2.723723	0.394217
						79	0	-3.011355	-2.157225	-0.637173



Atomic Number	Atomic Type	X	Y	Z	Coordinates (Angstroms)
1	0	0.628225	-1.245092	-0.031283	
2	0	2.012423	-1.110273	-0.130914	
3	0	2.647758	0.137633	-0.123021	
4	0	1.888301	1.312992	-0.067096	
5	0	0.497974	1.306011	-0.150120	
6	0	0.080174	2.601520	-0.006399	
7	0	1.230391	3.444447	0.222106	
8	0	2.352013	2.627451	0.148779	
9	0	0.356092	-2.586373	0.006688	
10	0	1.598746	-3.320173	-0.087744	
11	0	2.619365	-2.381988	-0.168798	
12	0	4.142517	0.215599	-0.139600	

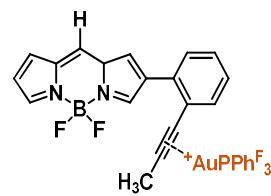
80	0	-2.845413	-2.892069	1.645743	43	0	-0.146302	6.075125	-2.490994
81	0	-4.329670	-1.780530	-0.419905	44	0	-0.063579	4.065247	-3.648911
82	0	-2.565573	-1.996919	-1.612082	45	0	-0.891690	2.700983	-2.880742
83	0	-4.166061	-2.504617	1.884206	46	0	0.865465	2.789371	-2.845467
84	0	-2.270727	-3.332559	2.456102	47	0	0.695741	2.974987	2.453273
85	0	-4.914042	-1.951207	0.842511	48	0	-1.063751	2.947632	2.427300
86	0	-4.922795	-1.343214	-1.216126	49	0	-0.215762	4.344141	3.109652
87	0	-4.590066	-2.643354	2.872187	50	0	0.240088	8.241580	-1.289100
88	0	-6.221647	-1.549492	0.959180	51	0	0.119674	8.309765	0.478326
89	0	-6.864362	-1.730288	2.209527	52	0	-1.340944	8.186169	-0.506224
90	0	-6.372545	-1.155591	3.005832	53	0	-5.027390	-2.785256	0.462409
91	0	-7.885275	-1.364950	2.080131	54	0	-8.688446	0.226159	0.790004
92	0	-6.894173	-2.789273	2.498837	55	0	-7.232435	-1.779851	0.732539



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
1	0	-1.277959	-0.100632	-0.082726
2	0	-1.262550	1.291621	-0.146161
3	0	-0.073983	2.030154	-0.189114
4	0	1.163461	1.376856	-0.137777
5	0	1.276036	-0.011568	-0.123606
6	0	2.605113	-0.305918	0.020523
7	0	3.350199	0.927820	0.130699
8	0	2.436462	1.966060	0.004653
9	0	-2.586574	-0.482603	0.044807
10	0	-3.420076	0.698730	0.075052
11	0	-2.577351	1.793574	-0.061156
12	0	-0.126267	3.525535	-0.241809
13	0	-0.182941	4.274354	0.952565
14	0	-0.112816	4.176757	-1.493493
15	0	-0.226405	5.670095	0.868524
16	0	-0.219402	6.340003	-0.357752
17	0	-0.159149	5.573789	-1.525225
18	0	-0.047301	3.393486	-2.785676
19	0	-0.191935	3.601070	2.307172
20	0	-0.299670	7.847444	-0.421406
21	0	0.029411	-0.982235	-0.267004
22	0	0.017543	-1.509074	-1.553001
23	0	0.089018	-1.935449	0.721816
24	0	-4.846212	0.630793	0.256132
25	0	-5.411156	-0.662160	0.418318
26	0	-4.555242	-1.811051	0.364272
27	0	-3.189976	-1.783318	0.168634
28	0	-5.689534	1.758751	0.288782
29	0	-7.054647	1.612459	0.478878
30	0	-7.617518	0.332752	0.641543
31	0	-6.805229	-0.787308	0.610494
32	0	3.297640	-1.565957	0.080370
33	0	4.651441	-1.509447	0.339879
34	0	5.416767	-0.307783	0.501445
35	0	4.769197	0.949738	0.369794
36	0	5.528230	2.130254	0.491021
37	0	6.890303	2.069664	0.740343
38	0	7.534600	0.825535	0.874217
39	0	6.806293	-0.345163	0.754378
40	0	2.622586	3.029978	0.042030
41	0	-2.838468	2.842216	-0.070725
42	0	-0.265478	6.247594	1.789986

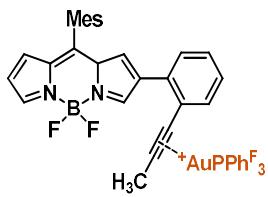
Cartesian coordinates of the mechanistic study



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	6.750723	3.670888	-0.475179
6	0	6.213556	3.007154	0.652414
7	0	5.509090	1.931873	0.271847
6	0	6.343008	2.956177	-1.591218
6	0	5.565325	1.860538	-1.124330
6	0	4.962149	0.810513	-1.802678
6	0	4.310989	-0.222806	-1.121797
7	0	4.247615	-0.217766	0.272794
6	0	3.648692	-1.349791	0.660875

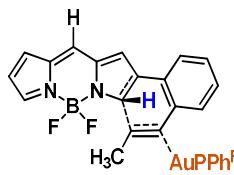
6 0 3.281194 -2.131661 -0.465042
 6 0 3.701228 -1.406780 -1.589259
 5 0 4.650652 0.992892 1.183174
 9 0 3.504529 1.662761 1.599776
 9 0 5.392446 0.553527 2.266665
 6 0 2.628545 -3.446101 -0.390360
 6 0 1.571606 -3.834557 -1.262886
 6 0 3.029402 -4.364527 0.592683
 6 0 2.431986 -5.618661 0.707499
 6 0 1.406657 -5.999164 -0.165023
 6 0 0.975582 -5.108801 -1.139553
 6 0 1.057555 -2.958264 -2.262967
 6 0 0.583851 -2.259312 -3.173502
 6 0 0.403909 -1.767402 -4.556155
 1 0 6.308889 3.265328 1.698924
 1 0 6.570201 3.160133 -2.629117
 1 0 3.458679 -1.548036 1.706974
 1 0 3.632628 -1.704264 -2.626236
 1 0 3.841334 -4.095252 1.261088
 1 0 2.775312 -6.305810 1.475067
 1 0 0.946806 -6.978537 -0.081523
 1 0 0.170741 -5.378055 -1.815911
 1 0 0.787797 -0.747609 -4.655760
 1 0 -0.652699 -1.761469 -4.837623
 1 0 0.949228 -2.419593 -5.246229
 1 0 7.365178 4.559809 -0.447686
 79 0 -0.438325 -1.166636 -1.505400
 15 0 -1.583317 0.202106 0.020364
 6 0 -1.214692 -0.430685 1.699577
 6 0 0.124741 -0.406755 2.109661
 6 0 -2.125979 -1.059801 2.554119
 6 0 0.549182 -0.960791 3.308241
 6 0 -1.723290 -1.618864 3.765419
 6 0 -0.384656 -1.571950 4.143269
 6 0 -3.392676 0.323433 -0.188894
 6 0 -4.155544 1.136863 0.660876
 6 0 -4.069494 -0.317037 -1.234785
 6 0 -5.521220 1.311401 0.491420
 6 0 -5.439427 -0.154934 -1.425356
 6 0 -6.164479 0.659996 -0.561138
 6 0 -1.014487 1.945760 -0.055635
 6 0 -0.751837 2.769564 1.046546
 6 0 -0.817763 2.506879 -1.325439
 6 0 -0.297074 4.076227 0.891337
 6 0 -0.369246 3.809016 -1.503838
 6 0 -0.104304 4.596352 -0.385442
 9 0 -1.081456 1.782888 -2.426260
 9 0 -0.925917 2.331364 2.297137
 9 0 -0.051915 4.831718 1.962535
 9 0 0.323940 5.845356 -0.538162
 9 0 -0.196589 4.304423 -2.730313
 9 0 -3.561250 1.759203 1.686945
 9 0 -6.216959 2.086163 1.323533
 9 0 -7.471682 0.816795 -0.736450
 9 0 -6.055134 -0.775802 -2.432309
 9 0 -3.426264 -1.107151 -2.103251
 9 0 1.041993 0.169525 1.317506
 9 0 -3.421377 -1.169368 2.235830
 9 0 -2.619246 -2.209381 4.557907
 9 0 0.002651 -2.110586 5.295260
 9 0 1.839210 -0.923242 3.654323
 1 0 5.018097 0.776370 -2.885973



Standard orientation:

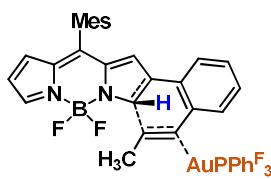
Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	9.042510	-0.512287	2.592023
6	0	8.257946	-1.687427	2.604110
7	0	7.191428	-1.547352	1.802881
6	0	8.410431	0.380470	1.739429
6	0	7.247084	-0.267971	1.238770
6	0	6.292887	0.159143	0.312121
6	0	5.268265	-0.720726	-0.089305
7	0	5.174102	-2.012480	0.429668
6	0	4.168621	-2.638121	-0.197399
6	0	3.556734	-1.774593	-1.141244
6	0	4.258162	-0.563100	-1.061033
5	0	6.021513	-2.565513	1.622566
9	0	5.242535	-2.601701	2.774652
9	0	6.512974	-3.825418	1.318688
6	0	2.465540	-2.146204	-2.050394
6	0	1.422811	-1.246542	-2.413534
6	0	2.443616	-3.430571	-2.620258
6	0	1.449804	-3.816172	-3.516615
6	0	0.445452	-2.915551	-3.890501
6	0	0.436210	-1.638998	-3.344633
6	0	1.323146	0.049473	-1.821388
6	0	1.267819	1.169763	-1.288231
6	0	1.688722	2.547652	-0.958860
1	0	8.422079	-2.606280	3.151545
1	0	8.726359	1.380255	1.475074
1	0	3.902299	-3.655977	0.055994
1	0	4.119367	0.317700	-1.671142
1	0	3.238970	-4.126459	-2.371259
1	0	1.468176	-4.816948	-3.938149
1	0	-0.320997	-3.208575	-4.601005
1	0	-0.341870	-0.929978	-3.610424
1	0	1.601226	2.744343	0.112989
1	0	1.067150	3.275015	-1.490858
1	0	2.733043	2.688867	-1.256785
1	0	9.960257	-0.362009	3.143241
79	0	-0.779731	0.505127	-0.664832
15	0	-2.964410	0.168368	0.118404
6	0	-3.533028	-1.479282	-0.444021
6	0	-2.798559	-2.591059	-0.010121
6	0	-4.566988	-1.721399	-1.355270
6	0	-3.077199	-3.883120	-0.431522
6	0	-4.864154	-3.009733	-1.794618
6	0	-4.122004	-4.091750	-1.331147
6	0	-4.185059	1.426197	-0.392820
6	0	-5.500421	1.377359	0.090946
6	0	-3.849110	2.508617	-1.216250
6	0	-6.440188	2.350431	-0.216470
6	0	-4.776020	3.497155	-1.537964
6	0	-6.071748	3.417477	-1.036291
6	0	-3.048255	0.198136	1.950947
6	0	-3.759282	-0.699211	2.757658
6	0	-2.328483	1.206342	2.607119
6	0	-3.732043	-0.611622	4.147314
6	0	-2.291552	1.316563	3.990926
6	0	-2.996023	0.396320	4.764680

9	0	-1.654970	2.120161	1.888367	6	0	-2.063285	1.244096	-0.368075
9	0	-4.495747	-1.678525	2.223343	6	0	-2.942023	0.297134	-0.198816
9	0	-4.415599	-1.485972	4.886870	6	0	-3.174706	-1.096050	0.227046
9	0	-2.973002	0.487015	6.090578	1	0	-8.181592	-3.408582	-0.994069
9	0	-1.595441	2.292505	4.575806	1	0	-9.531024	-1.489613	2.654892
9	0	-5.883155	0.349255	0.859320	1	0	-4.540590	0.781207	-1.922861
9	0	-7.684138	2.268746	0.255079	1	0	-5.764962	2.661970	1.778282
9	0	-6.960749	4.355583	-1.341497	1	0	-5.024717	4.786191	-0.291748
9	0	-4.424992	4.516334	-2.323243	1	0	-3.258884	6.456321	-0.799566
9	0	-2.619549	2.642620	-1.729397	1	0	-0.917258	5.705589	-1.184670
9	0	-1.783133	-2.409201	0.849987	1	0	-0.339190	3.305630	-1.010075
9	0	-5.304357	-0.724598	-1.859424	1	0	-2.216026	-1.530206	0.531328
9	0	-5.857644	-3.205338	-2.662888	1	0	-3.617847	-1.703320	-0.565362
9	0	-4.406080	-5.322103	-1.747137	1	0	-3.845910	-1.129040	1.093759
9	0	-2.357144	-4.913677	0.013278	1	0	-9.899052	-3.675477	1.100199
6	0	6.357820	1.530263	-0.280836	79	0	-0.098614	0.508236	-0.258640
6	0	7.043026	1.737065	-1.498760	15	0	2.154115	-0.201527	-0.042945
6	0	5.710077	2.599912	0.370734	6	0	3.192618	1.283567	0.243968
6	0	7.061369	3.023357	-2.045725	6	0	2.913047	2.047949	1.384058
6	0	5.756205	3.870013	-0.218497	6	0	4.149104	1.796292	-0.637931
6	0	6.424062	4.103994	-1.424186	6	0	3.557106	3.245536	1.659762
1	0	7.588048	3.184193	-2.984221	6	0	4.807663	2.998096	-0.384812
1	0	5.257869	4.696689	0.283126	6	0	4.513642	3.723012	0.765477
6	0	6.469923	5.483460	-2.040048	6	0	2.884616	-1.162355	-1.417076
1	0	7.491311	5.884667	-2.037251	6	0	4.186220	-1.675078	-1.331333
1	0	6.136930	5.464778	-3.084811	6	0	2.146885	-1.484996	-2.562623
1	0	5.833614	6.186524	-1.493630	6	0	4.736615	-2.470579	-2.325769
6	0	7.749588	0.604231	-2.210197	6	0	2.677877	-2.283084	-3.573261
1	0	8.522806	0.151923	-1.578256	6	0	3.973408	-2.776139	-3.452782
1	0	7.054482	-0.197054	-2.486706	6	0	2.379732	-1.316399	1.404160
1	0	8.229969	0.962131	-3.125106	6	0	3.406468	-1.243827	2.353343
6	0	4.973628	2.400474	1.677422	6	0	1.425136	-2.327102	1.586015
1	0	5.642072	2.035184	2.465207	6	0	3.464281	-2.113306	3.439458
1	0	4.532739	3.340335	2.021075	6	0	1.465432	-3.209365	2.657981
1	0	4.166399	1.664730	1.578581	6	0	2.492075	-3.097418	3.592692



Standard orientation:

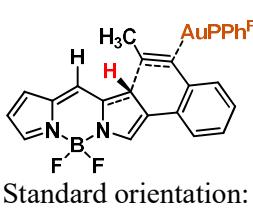
Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	-9.216490	-2.852861	0.941700
6	0	-8.315732	-2.730429	-0.161012
7	0	-7.602589	-1.612591	-0.066015
6	0	-9.030727	-1.743782	1.730286
6	0	-8.005905	-0.951092	1.107573
6	0	-7.411920	0.221718	1.489216
6	0	-6.350525	0.790849	0.728717
7	0	-5.880769	0.162946	-0.398432
6	0	-4.835917	0.904558	-0.888641
6	0	-4.696978	2.086043	-0.085196
6	0	-5.627835	1.981554	0.949241
5	0	-6.588747	-1.034333	-1.120854
9	0	-7.277546	-0.567792	-2.227217
9	0	-5.673360	-2.012069	-1.476146
6	0	-3.683314	3.107064	-0.357087
6	0	-2.347003	2.672628	-0.562915
6	0	-3.998258	4.465020	-0.441055
6	0	-3.004347	5.402600	-0.738027
6	0	-1.692565	4.981009	-0.954270
6	0	-1.366169	3.625573	-0.862301



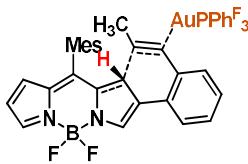
Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	-7.862602	-3.924682	0.480202
6	0	-6.772669	-4.039868	-0.432848
7	0	-6.227127	-2.849494	-0.667443
6	0	-7.972208	-2.592220	0.800020

6	0	-6.937950	-1.897295	0.083850	6	0	-8.502065	1.040024	0.243194
6	0	-6.579833	-0.565807	0.088609	6	0	-6.977484	0.807108	2.154093
6	0	-5.424109	-0.151035	-0.659910	6	0	-9.219346	1.995756	0.966907
7	0	-4.664835	-1.051336	-1.366229	6	0	-7.734125	1.765991	2.837973
6	0	-3.616231	-0.370961	-1.931078	6	0	-8.854645	2.373156	2.265076
6	0	-3.761538	1.023407	-1.630544	1	0	-10.087021	2.458364	0.501544
6	0	-4.879967	1.142474	-0.803846	1	0	-7.435975	2.042685	3.846520
5	0	-5.091859	-2.518961	-1.696375	6	0	-5.780177	0.171432	2.825322
9	0	-5.589862	-2.579739	-2.987900	1	0	-5.895566	-0.915531	2.912294
9	0	-4.032135	-3.397036	-1.528696	1	0	-4.855041	0.352774	2.264904
6	0	-2.814511	2.037426	-2.097085	1	0	-5.642956	0.574031	3.832540
6	0	-1.428615	1.789308	-1.909722	6	0	-8.939971	0.666581	-1.156125
6	0	-3.234609	3.212311	-2.725084	1	0	-8.128856	0.788931	-1.883689
6	0	-2.297414	4.144098	-3.181115	1	0	-9.266542	-0.378575	-1.213429
6	0	-0.934811	3.900976	-3.009515	1	0	-9.775453	1.294065	-1.478113
6	0	-0.505094	2.733524	-2.373878	6	0	-9.656119	3.408005	3.019302
6	0	-1.047922	0.582208	-1.163772	1	0	-9.688015	4.359216	2.474314
6	0	-1.837834	-0.381349	-0.785981	1	0	-10.694715	3.082544	3.155402
6	0	-2.010025	-1.568511	0.071794	1	0	-9.230854	3.599972	4.008874
1	0	-6.388021	-4.931811	-0.910601					
1	0	-8.677525	-2.124636	1.472493					
1	0	-3.100658	-0.806595	-2.777742					
1	0	-5.254178	2.042059	-0.336575					
1	0	-4.295769	3.388693	-2.872848					
1	0	-2.635232	5.054316	-3.667252					
1	0	-0.202835	4.622741	-3.359447					
1	0	0.555640	2.559122	-2.221527					
1	0	-1.095568	-1.709355	0.658439					
1	0	-2.218129	-2.471491	-0.506804					
1	0	-2.837542	-1.420428	0.775741					
1	0	-8.465057	-4.746293	0.840390					
79	0	0.934709	0.231063	-0.558497	6	0	-9.389388	2.989789	-0.722579
15	0	3.189766	-0.070940	0.113998	6	0	-9.279420	2.020959	0.313097
6	0	4.110755	1.478838	-0.226401	7	0	-8.180102	1.280854	0.150206
6	0	3.665012	2.639303	0.418989	6	0	-8.295153	2.819568	-1.544083
6	0	5.133003	1.635950	-1.167890	6	0	-7.527074	1.740625	-1.001769
6	0	4.207535	3.891642	0.169338	6	0	-6.372187	1.134351	-1.445831
6	0	5.692289	2.883488	-1.438325	6	0	-5.825833	0.017153	-0.780945
6	0	5.231517	4.012282	-0.768506	7	0	-6.433584	-0.497206	0.337748
6	0	4.111964	-1.462434	-0.634913	6	0	-5.799919	-1.638222	0.701888
6	0	5.413124	-1.776001	-0.218228	6	0	-4.746087	-1.900687	-0.179949
6	0	3.533366	-2.299224	-1.597296	6	0	-4.713015	-0.817605	-1.113714
6	0	6.109551	-2.866903	-0.718081	5	0	-7.623679	0.183575	1.120420
6	0	4.213041	-3.400203	-2.113144	9	0	-8.592861	-0.758467	1.397268
6	0	5.501538	-3.683811	-1.671219	9	0	-7.132598	0.774289	2.271874
6	0	3.323089	-0.404964	1.918887	6	0	-3.746411	-2.959982	-0.113213
6	0	4.234963	0.182075	2.804493	6	0	-2.374607	-2.596262	-0.218165
6	0	2.413840	-1.320356	2.467406	6	0	-4.097274	-4.302234	0.068902
6	0	4.224886	-0.106632	4.166588	6	0	-3.114969	-5.292954	0.126880
6	0	2.388540	-1.628492	3.821604	6	0	-1.769560	-4.943740	0.008223
6	0	3.299277	-1.012323	4.676658	6	0	-1.405026	-3.605739	-0.155696
9	0	1.535557	-1.953259	1.670318	6	0	-2.028171	-1.171477	-0.302814
9	0	5.158473	1.049626	2.376395	6	0	-2.797681	-0.141870	-0.468958
9	0	5.104977	0.477364	4.982212	6	0	-2.926761	1.327313	-0.541092
9	0	3.290602	-1.296479	5.975954	1	0	-9.948349	1.847968	1.146144
9	0	1.507419	-2.508903	4.300678	1	0	-8.042844	3.369700	-2.440416
9	0	6.028959	-0.992645	0.677458	1	0	-6.107378	-2.191575	1.578094
9	0	7.349115	-3.132519	-0.303174	1	0	-4.294688	-0.864289	-2.112587
9	0	6.156964	-4.731468	-2.160402	1	0	-5.146938	-4.571192	0.139793
9	0	3.633459	-4.180042	-3.027487	1	0	-3.402925	-6.330911	0.263054
9	0	2.298582	-2.076493	-2.063564	1	0	-0.999927	-5.708240	0.054323
9	0	2.674099	2.546968	1.321975	1	0	-0.354751	-3.338683	-0.222919
9	0	5.607797	0.597058	-1.866780	1	0	-3.219313	1.661888	-1.542190
9	0	6.667111	2.996013	-2.342990	1	0	-1.958097	1.776692	-0.296723
9	0	5.764284	5.204391	-1.023757	1	0	-3.661796	1.697871	0.180244
9	0	3.756174	4.969274	0.813779	1	0	-10.192415	3.705472	-0.826511
6	0	-7.371043	0.446857	0.848744	79	0	-0.031384	-0.515941	-0.070307
15	0				15	0	2.232876	0.159016	0.078639



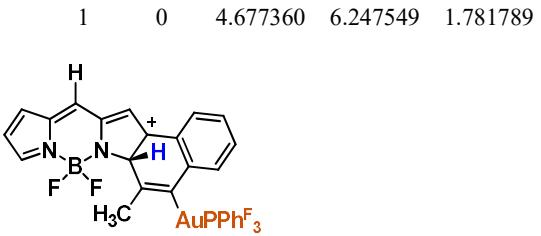
6	0	3.229661	-0.937835	-1.002327	6	0	2.352694	0.495791	-0.854156
6	0	2.925773	-0.936528	-2.369523	1	0	9.095071	-1.543965	-2.821772
6	0	4.175244	-1.872630	-0.568457	1	0	8.253491	2.213088	-0.831315
6	0	3.535885	-1.794008	-3.273663	1	0	4.822715	-3.961493	-0.317975
6	0	4.799177	-2.746972	-1.456350	1	0	3.823155	-0.275351	1.703647
6	0	4.481644	-2.707102	-2.810187	1	0	4.017023	-4.606072	2.464777
6	0	2.998849	0.174382	1.739050	1	0	2.180549	-5.661723	3.757273
6	0	4.297523	0.664215	1.935498	1	0	-0.094492	-4.648808	3.727594
6	0	2.299048	-0.245491	2.877240	1	0	-0.535751	-2.632225	2.368886
6	0	4.876204	0.748684	3.193680	1	0	2.861307	1.352839	-0.402489
6	0	2.859316	-0.169979	4.150156	1	0	1.379455	0.829456	-1.230332
6	0	4.148679	0.329074	4.307207	1	0	2.941414	0.145960	-1.708336
6	0	2.467520	1.882941	-0.521721	1	0	10.067454	0.964557	-2.400080
6	0	3.498668	2.328355	-1.358683	79	0	-0.696626	-0.689832	0.264993
6	0	1.521729	2.840306	-0.126986	15	0	-2.910905	0.026652	-0.183566
6	0	3.573170	3.648524	-1.794547	6	0	-3.883346	-0.082419	1.368635
6	0	1.578663	4.163811	-0.545070	6	0	-3.411742	0.651072	2.465171
6	0	2.611388	4.568514	-1.387435	6	0	-4.983053	-0.916142	1.595642
9	0	0.517305	2.496790	0.698524	6	0	-3.998912	0.584309	3.720430
9	0	4.459740	1.498386	-1.777725	6	0	-5.588344	-1.002823	2.847993
9	0	4.567842	4.034570	-2.595711	6	0	-5.098143	-0.251300	3.911130
9	0	2.681761	5.832010	-1.795889	6	0	-3.824902	-0.849231	-1.503256
9	0	0.657224	5.041200	-0.142806	6	0	-5.080552	-0.403451	-1.939111
9	0	5.027828	1.049143	0.880530	6	0	-3.276430	-1.953402	-2.168149
9	0	6.116290	1.216370	3.342753	6	0	-5.758799	-1.007254	-2.988043
9	0	4.690873	0.401593	5.518280	6	0	-3.938923	-2.575558	-3.223457
9	0	2.165673	-0.575902	5.214900	6	0	-5.180211	-2.099578	-3.634151
9	0	1.058197	-0.739977	2.789706	6	0	-2.950004	1.786637	-0.720379
9	0	2.009421	-0.071262	-2.835666	6	0	-3.847288	2.763605	-0.271070
9	0	4.509319	-1.982441	0.723628	6	0	-1.978008	2.202813	-1.641100
9	0	5.698406	-3.624951	-1.007369	6	0	-3.765591	4.087041	-0.695939
9	0	5.076833	-3.539228	-3.660513	6	0	-1.879282	3.516137	-2.082403
9	0	3.221808	-1.751462	-4.569667	6	0	-2.779001	4.464870	-1.602109
1	0	-5.885364	1.506571	-2.340880	9	0	-1.103820	1.313329	-2.143875



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	9.134509	0.570071	-2.023546
6	0	8.643756	-0.743235	-2.250409
7	0	7.473581	-0.919282	-1.630956
6	0	8.207287	1.207881	-1.225889
6	0	7.150167	0.275161	-0.974050
6	0	6.013048	0.394039	-0.184166
6	0	5.185518	-0.751533	0.024151
7	0	5.516321	-1.964367	-0.525925
6	0	4.728817	-2.933060	0.001050
6	0	3.841378	-2.371947	0.920721
6	0	4.060845	-0.954459	0.894175
5	0	6.557693	-2.178828	-1.687814
9	0	7.285175	-3.327665	-1.454261
9	0	5.881429	-2.229859	-2.895902
6	0	2.785721	-3.024297	1.685639
6	0	1.485424	-2.451829	1.649385
6	0	3.018172	-4.181049	2.437402
6	0	1.986242	-4.766960	3.173749
6	0	0.712354	-4.198210	3.157529
6	0	0.464201	-3.054638	2.395015
6	0	1.257973	-1.305687	0.760140
6	0	2.136361	-0.588921	0.123624

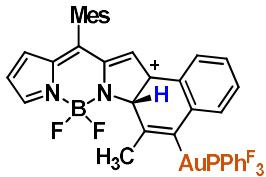
6	0	2.352694	0.495791	-0.854156
1	0	9.095071	-1.543965	-2.821772
1	0	8.253491	2.213088	-0.831315
1	0	4.822715	-3.961493	-0.317975
1	0	3.823155	-0.275351	1.703647
1	0	4.017023	-4.606072	2.464777
1	0	2.180549	-5.661723	3.757273
1	0	-0.094492	-4.648808	3.727594
1	0	-0.535751	-2.632225	2.368886
1	0	2.861307	1.352839	-0.402489
1	0	1.379455	0.829456	-1.230332
1	0	2.941414	0.145960	-1.708336
1	0	10.067454	0.964557	-2.400080
79	0	-0.696626	-0.689832	0.264993
15	0	-2.910905	0.026652	-0.183566
6	0	-3.883346	-0.082419	1.368635
6	0	-3.411742	0.651072	2.465171
6	0	-4.983053	-0.916142	1.595642
6	0	-3.998912	0.584309	3.720430
6	0	-5.588344	-1.002823	2.847993
6	0	-5.098143	-0.251300	3.911130
6	0	-3.824902	-0.849231	-1.503256
6	0	-5.080552	-0.403451	-1.939111
6	0	-3.276430	-1.953402	-2.168149
6	0	-5.758799	-1.007254	-2.988043
6	0	-3.938923	-2.575558	-3.223457
6	0	-5.180211	-2.099578	-3.634151
6	0	-2.950004	1.786637	-0.720379
6	0	-3.847288	2.763605	-0.271070
6	0	-1.978008	2.202813	-1.641100
6	0	-3.765591	4.087041	-0.695939
6	0	-1.879282	3.516137	-2.082403
6	0	-2.779001	4.464870	-1.602109
9	0	-1.103820	1.313329	-2.143875
9	0	-4.825421	2.464121	0.590191
9	0	-4.635197	4.991554	-0.241986
9	0	-2.700325	5.726643	-2.014732
9	0	-0.937898	3.867348	-2.960619
9	0	-5.671847	0.625853	-1.318381
9	0	-6.954594	-0.559417	-3.373411
9	0	-5.819248	-2.689168	-4.639195
9	0	-3.388542	-3.623920	-3.838105
9	0	-2.088563	-2.460037	-1.815636
9	0	-2.352358	1.462371	2.303739
9	0	-5.493803	-1.682543	0.623749
9	0	-6.636539	-1.809032	3.028209
9	0	-5.675453	-0.330201	5.107109
9	0	-3.520561	1.307641	4.734436
6	0	5.702173	1.689599	0.489808
6	0	5.927367	1.823183	1.882571
6	0	5.220419	2.782712	-0.265524
6	0	5.619239	3.039878	2.495220
6	0	4.909996	3.973269	0.403828
6	0	5.092451	4.122377	1.780500
1	0	5.806902	3.148388	3.561077
1	0	4.523140	4.808996	-0.174846
6	0	5.052005	2.730522	-1.770584
1	0	4.274704	3.429377	-2.093929
1	0	5.979798	3.019851	-2.279648
1	0	4.787174	1.735367	-2.136461
6	0	6.552128	0.717243	2.707851
1	0	5.861536	-0.113946	2.890045
1	0	7.436648	0.296944	2.216401
1	0	6.862154	1.101903	3.683306
6	0	4.730126	5.408844	2.483188
1	0	3.750261	5.325681	2.972799
1	0	5.459205	5.656688	3.261580



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	9.732841	-2.369127	0.097391
6	0	8.367464	-2.574828	0.513229
7	0	7.619261	-1.529907	0.211017
6	0	9.786808	-1.139026	-0.490235
6	0	8.450496	-0.581731	-0.420609
6	0	7.951420	0.624114	-0.782603
6	0	6.578368	0.975494	-0.479314
7	0	5.700900	0.087498	0.007515
6	0	4.501614	0.841718	0.416185
6	0	4.764045	2.232011	-0.059946
6	0	6.046403	2.286666	-0.559924
5	0	6.045457	-1.405978	0.336162
9	0	5.666084	-1.713441	1.627997
9	0	5.493230	-2.264657	-0.599153
6	0	3.724380	3.210123	-0.003366
6	0	2.381134	2.726783	0.105430
6	0	3.996516	4.590081	-0.119011
6	0	2.964824	5.512029	-0.096891
6	0	1.640668	5.056887	0.021777
6	0	1.359231	3.699249	0.113724
6	0	2.074914	1.287502	0.150009
6	0	3.064856	0.351976	0.240532
6	0	2.834330	-1.126139	0.372121
1	0	7.946568	-3.443162	1.004861
1	0	10.642612	-0.635135	-0.918033
1	0	4.597664	0.890998	1.522137
1	0	6.570234	3.139733	-0.968119
1	0	5.026925	4.924457	-0.195081
1	0	3.176119	6.574296	-0.166813
1	0	0.824339	5.773368	0.036624
1	0	0.326248	3.374958	0.187094
1	0	3.310023	-1.671852	-0.449449
1	0	1.767321	-1.356392	0.380210
1	0	3.282602	-1.513585	1.294738
1	0	10.537009	-3.075679	0.244644
79	0	0.091277	0.692093	0.050158
15	0	-2.158700	-0.141734	-0.071980
6	0	-2.145428	-1.619612	-1.166786
6	0	-1.316319	-2.683475	-0.788968
6	0	-2.773497	-1.728178	-2.411173
6	0	-1.126255	-3.806739	-1.581018
6	0	-2.597217	-2.844467	-3.227053
6	0	-1.774677	-3.886286	-2.811985
6	0	-3.489808	0.976508	-0.653057
6	0	-4.834793	0.583115	-0.654705
6	0	-3.213701	2.290287	-1.050001
6	0	-5.860218	1.444519	-1.018507
6	0	-4.225398	3.173457	-1.419594
6	0	-5.550214	2.749287	-1.401180
6	0	-2.788258	-0.703986	1.567100
6	0	-3.459616	-1.902554	1.836275
6	0	-2.548070	0.139555	2.660509
6	0	-3.848543	-2.253663	3.126372
6	0	-2.932033	-0.185914	3.955537

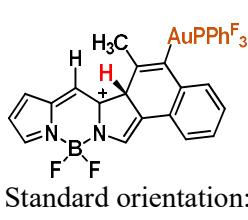
6	0	-3.583328	-1.394552	4.188612
9	0	-1.940426	1.322526	2.472527
9	0	-3.758218	-2.767102	0.859576
9	0	-4.482238	-3.408460	3.345386
9	0	-3.959608	-1.722497	5.422313
9	0	-2.685646	0.649983	4.966960
9	0	-5.160775	-0.671764	-0.316623
9	0	-7.129966	1.034049	-1.012696
9	0	-6.522153	3.585555	-1.753792
9	0	-3.927858	4.420709	-1.790741
9	0	-1.958143	2.754842	-1.094095
9	0	-0.676030	-2.629521	0.392921
9	0	-3.561811	-0.754155	-2.885832
9	0	-3.215130	-2.912264	-4.408896
9	0	-1.605089	-4.954769	-3.587864
9	0	-0.332637	-4.800031	-1.174250
1	0	8.583649	1.367941	-1.253088



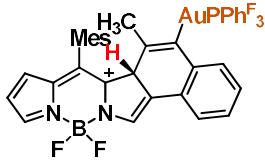
Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	8.088686	-3.959660	0.553238
6	0	6.683459	-4.002217	0.857714
7	0	6.124928	-2.818694	0.672821
6	0	8.367161	-2.684204	0.151869
6	0	7.130544	-1.934619	0.233015
6	0	6.862674	-0.616220	0.007142
6	0	5.506359	-0.125248	0.284372
7	0	4.476449	-0.937036	0.555177
6	0	3.356615	-0.091619	1.009417
6	0	3.847800	1.301634	0.807049
6	0	5.163439	1.246704	0.405779
6	0	7.913104	0.338266	-0.445269
6	0	8.864488	0.833806	0.474147
6	0	7.939400	0.736597	-1.801597
6	0	9.833875	1.727837	0.007691
6	0	9.889988	2.134785	-1.328947
6	0	8.935873	1.623608	-2.215997
6	0	8.849844	0.444075	1.936842
6	0	6.940287	0.200078	-2.802534
6	0	10.933615	3.120584	-1.797284
5	0	4.582627	-2.493333	0.681045
9	0	4.028081	-2.914783	1.874879
9	0	4.021697	-3.126664	-0.416220
6	0	2.949724	2.402163	0.967521
6	0	1.550162	2.115295	0.884505
6	0	3.415788	3.723800	1.130474
6	0	2.520652	4.773462	1.245563
6	0	1.142631	4.509906	1.175928
6	0	0.673128	3.214401	0.993111
6	0	1.050776	0.750787	0.641830
6	0	1.891003	-0.323949	0.637912
6	0	1.453561	-1.752340	0.480911
1	0	6.097630	-4.852301	1.184310
1	0	9.316592	-2.272391	-0.159305
1	0	3.351459	-0.247709	2.108858
1	0	5.830641	2.068473	0.190635
1	0	10.563428	2.118623	0.713137
1	0	8.967058	1.920651	-3.261656

1	0	9.176839	-0.591270	2.089994	6	0	7.169484	-2.141482	-0.088422
1	0	7.849329	0.533659	2.374996	6	0	5.944603	-1.653494	-0.493645
1	0	9.523488	1.087411	2.509171	6	0	5.637286	-0.279508	-0.407291
1	0	6.980023	-0.893767	-2.869161	7	0	6.577396	0.611390	-0.030644
1	0	7.138809	0.602775	-3.799310	6	0	6.091870	1.886839	-0.023814
1	0	5.910345	0.469107	-2.537292	6	0	4.766378	1.892994	-0.421710
1	0	11.828210	3.085199	-1.167661	6	0	4.406169	0.495265	-0.790763
1	0	10.546632	4.147441	-1.759068	5	0	8.106935	0.272744	0.298027
1	0	11.231998	2.925160	-2.832430	9	0	8.878075	0.759061	-0.736500
1	0	4.484273	3.906640	1.196258	9	0	8.427560	0.840093	1.509395
1	0	2.879433	5.787529	1.390612	6	0	3.784291	2.919684	-0.441117
1	0	0.432845	5.327867	1.260569	6	0	2.407846	2.506704	-0.489841
1	0	-0.396188	3.041915	0.925078	6	0	4.130198	4.289129	-0.358292
1	0	1.940780	-2.219882	-0.381131	6	0	3.147984	5.259923	-0.354087
1	0	0.371064	-1.818643	0.356210	6	0	1.795553	4.874145	-0.418729
1	0	1.741306	-2.349478	1.354467	6	0	1.439423	3.534232	-0.478646
1	0	8.766797	-4.796970	0.635209	6	0	2.016547	1.090807	-0.490941
79	0	-0.974308	0.486568	0.283675	6	0	2.956249	0.102593	-0.591403
15	0	-3.292770	0.028454	-0.146013	6	0	2.661971	-1.368112	-0.644398
6	0	-3.369002	-1.275879	-1.439883	1	0	10.125439	-1.582938	1.111960
6	0	-2.745677	-2.496188	-1.150256	1	0	7.091414	-4.369606	-0.245343
6	0	-3.863792	-1.118919	-2.737968	1	0	6.723873	2.701110	0.299781
6	0	-2.630543	-3.520591	-2.078895	1	0	4.500138	0.486656	-1.905304
6	0	-3.759267	-2.131419	-3.690125	1	0	5.177937	4.571994	-0.326050
6	0	-3.144125	-3.334552	-3.361056	1	0	3.415587	6.310618	-0.305941
6	0	-4.390517	1.400550	-0.668291	1	0	1.019283	5.633723	-0.415866
6	0	-5.767353	1.214955	-0.851372	1	0	0.389028	3.265491	-0.515698
6	0	-3.899032	2.700866	-0.833388	1	0	3.019938	-1.816588	-1.581967
6	0	-6.621350	2.260398	-1.173275	1	0	1.591213	-1.565145	-0.565496
6	0	-4.735914	3.766428	-1.156432	1	0	3.167045	-1.895565	0.178204
6	0	-6.099043	3.544725	-1.324351	1	0	9.601456	-4.229466	0.763968
6	0	-4.165573	-0.640791	1.333494	79	0	0.013866	0.599077	-0.284171
6	0	-5.018863	-1.749879	1.368816	15	0	-2.265115	-0.120865	-0.030391
6	0	-3.935766	0.013512	2.551574	6	0	-2.546828	-1.533860	-1.172968
6	0	-5.592212	-2.198364	2.555875	6	0	-1.716153	-2.651297	-1.022295
6	0	-4.501491	-0.410979	3.747482	6	0	-3.420929	-1.547447	-2.264383
6	0	-5.333016	-1.528128	3.747748	6	0	-1.750554	-3.735930	-1.886589
9	0	-3.155969	1.106639	2.586975	6	0	-3.473715	-2.623755	-3.148489
9	0	-5.322117	-2.429937	0.256875	6	0	-2.639440	-3.720316	-2.959783
9	0	-6.397085	-3.263886	2.551895	6	0	-3.615050	1.089417	-0.295456
9	0	-5.884987	-1.948559	4.883485	6	0	-4.951767	0.776880	-0.013562
9	0	-4.257687	0.244871	4.884541	6	0	-3.347019	2.393803	-0.726775
9	0	-6.293572	-0.012111	-0.737337	6	0	-5.972834	1.709460	-0.131616
9	0	-7.927125	2.045751	-1.345975	6	0	-4.354001	3.347501	-0.852711
9	0	-6.905019	4.556056	-1.634316	6	0	-5.668248	3.003852	-0.551829
9	0	-4.235068	4.994909	-1.304815	6	0	-2.597134	-0.740208	1.673153
9	0	-2.596346	2.975960	-0.687710	6	0	-3.261295	-1.924233	2.014583
9	0	-2.237085	-2.698226	0.078779	6	0	-2.112117	0.036148	2.734547
9	0	-4.445740	0.021649	-3.132985	6	0	-3.411242	-2.326941	3.338949
9	0	-4.245373	-1.944701	-4.919802	6	0	-2.255741	-0.340945	4.064049
9	0	-3.042945	-4.304305	-4.267616	6	0	-2.906827	-1.534458	4.365874
9	0	-2.035470	-4.670404	-1.753813	9	0	-1.495396	1.202615	2.483242
9	0				9	0	-3.784286	-2.722666	1.076756
9	0				9	0	-4.045627	-3.466072	3.626517
9	0				9	0	-3.054413	-1.911584	5.633437
9	0				9	0	-1.780196	0.430924	5.043806
9	0				9	0	-5.279775	-0.466390	0.362848
9	0				9	0	-7.235294	1.375774	0.142315
9	0				9	0	-6.636617	3.906884	-0.672274
9	0				9	0	-4.063358	4.583673	-1.263482
9	0				9	0	-2.103842	2.778416	-1.045560
9	0				9	0	-0.847101	-2.690874	0.004377
9	0				9	0	-4.237242	-0.516977	-2.522173
9	0				9	0	-4.322191	-2.600460	-4.178964
9	0				9	0	-2.687264	-4.750451	-3.801396
9	0				9	0	-0.943834	-4.782656	-1.697321
1	0				1	0	5.197602	-2.348146	-0.854430



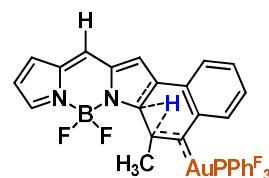
Atomic Number	Atomic Type	Coordinates (Angstroms)		
	X	Y	Z	
6	0	8.930178	-3.413784	0.536918
6	0	9.218272	-2.034084	0.731377
7	0	8.176540	-1.280999	0.362780
6	0	7.654309	-3.485607	0.021316



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	-9.212139	1.402304	0.577601
6	0	-9.131031	0.009036	0.840250
7	0	-7.873305	-0.420372	0.691340
6	0	-7.939593	1.819159	0.252014
6	0	-7.081276	0.670757	0.324249
6	0	-5.725797	0.555601	0.024110
6	0	-5.104229	-0.738175	0.048770
7	0	-5.863717	-1.827798	0.300720
6	0	-5.211763	-2.992790	0.033541
6	0	-3.933181	-2.729834	-0.411808
6	0	-3.763164	-1.245838	-0.459221
6	0	-5.002753	1.805092	-0.362576
6	0	-4.693400	2.062932	-1.714292
6	0	-4.670117	2.746861	0.643521
6	0	-4.001001	3.239579	-2.031098
6	0	-3.611819	4.158130	-1.054409
6	0	-3.972065	3.897227	0.274590
6	0	-5.091257	1.133063	-2.841992
6	0	-5.017416	2.530597	2.101980
6	0	-2.812333	5.389759	-1.407165
5	0	-7.329518	-1.843304	0.935349
9	0	-8.085375	-2.793956	0.287886
9	0	-7.189272	-2.108258	2.282539
6	0	-2.861856	-3.602472	-0.744351
6	0	-1.545295	-3.034654	-0.778137
6	0	-3.067438	-4.978137	-1.003901
6	0	-2.002895	-5.791042	-1.342265
6	0	-0.708288	-5.241824	-1.411179
6	0	-0.487588	-3.901100	-1.126991
6	0	-1.305068	-1.647154	-0.371161
6	0	-2.339154	-0.785849	-0.123911
6	0	-2.152516	0.619571	0.358737
1	0	-9.923144	-0.675599	1.113992
1	0	-7.620428	2.812282	-0.029279
1	0	-5.709480	-3.936677	0.201324
1	0	-3.831277	-1.001111	-1.543563
1	0	-3.765494	3.439394	-3.074142
1	0	-3.694225	4.609026	1.048613
1	0	-5.938594	0.492133	-2.583254
1	0	-4.258071	0.485653	-3.147589
1	0	-5.372917	1.711208	-3.727670
1	0	-6.080551	2.713391	2.297672
1	0	-4.445385	3.214935	2.734376
1	0	-4.805304	1.508533	2.435278
1	0	-2.811467	5.571895	-2.486033
1	0	-1.769014	5.279883	-1.084768
1	0	-3.210650	6.280552	-0.908600
1	0	-4.074247	-5.383290	-0.970845
1	0	-2.163564	-6.842086	-1.559926
1	0	0.131019	-5.876428	-1.680474
1	0	0.523124	-3.507576	-1.164698
1	0	-2.415496	1.358609	-0.405170
1	0	-1.115131	0.791965	0.650786
1	0	-2.792375	0.814014	1.227273
1	0	-10.114775	1.995051	0.613742
79	0	0.647840	-0.980688	-0.163741

15	0	2.816048	0.032708	0.041790
6	0	2.649962	1.739496	-0.624756
6	0	1.703928	2.571876	-0.012976
6	0	3.255625	2.229490	-1.785602
6	0	1.369877	3.822396	-0.511820
6	0	2.939562	3.484044	-2.305270
6	0	1.993521	4.281403	-1.670171
6	0	4.257997	-0.753002	-0.769892
6	0	5.555435	-0.245785	-0.618702
6	0	4.120494	-1.933982	-1.508629
6	0	6.666977	-0.878422	-1.157414
6	0	5.220478	-2.587564	-2.058769
6	0	6.495033	-2.059205	-1.879619
6	0	3.369645	0.190508	1.790832
6	0	3.904127	1.333040	2.397183
6	0	3.216448	-0.940860	2.603571
6	0	4.245623	1.355709	3.746797
6	0	3.556226	-0.944639	3.950744
6	0	4.070260	0.215333	4.525360
9	0	2.740945	-2.081358	2.077198
9	0	4.110437	2.456740	1.700570
9	0	4.747583	2.465458	4.293908
9	0	4.401696	0.230401	5.814069
9	0	3.396879	-2.045524	4.688599
9	0	5.746688	0.899526	0.049724
9	0	7.888267	-0.365489	-0.997137
9	0	7.550539	-2.675884	-2.402701
9	0	5.055456	-3.713928	-2.755584
9	0	2.918363	-2.485758	-1.720199
9	0	1.084893	2.151231	1.104796
9	0	4.153041	1.504492	-2.466259
9	0	3.538862	3.916568	-3.417030
9	0	1.682141	5.477007	-2.165592
9	0	0.454787	4.579607	0.102525



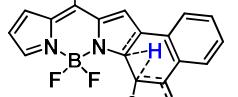
Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	9.593222	-2.535779	0.027481
6	0	8.186391	-2.750628	0.145977
7	0	7.527257	-1.597324	0.072646
6	0	9.777450	-1.182504	-0.126242
6	0	8.475580	-0.577873	-0.097666
6	0	8.070108	0.724359	-0.194319
6	0	6.695805	1.080612	-0.121712
7	0	5.697883	0.134016	0.035384
6	0	4.494641	0.839699	0.084098
6	0	4.778833	2.254321	-0.071731
6	0	6.167427	2.372983	-0.191696
5	0	5.969608	-1.409814	0.135144
9	0	5.515594	-1.906064	1.353244
9	0	5.398593	-2.083560	-0.933076
6	0	3.729271	3.212737	-0.093238
6	0	2.372532	2.734100	-0.049927
6	0	3.992538	4.601208	-0.172344
6	0	2.956441	5.509116	-0.213337
6	0	1.615981	5.059478	-0.177939
6	0	1.335633	3.714174	-0.096869
6	0	2.058002	1.336903	0.026134

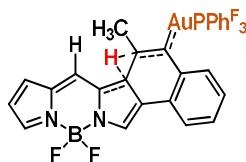
6	0	3.082973	0.358220	0.103765	6	0	-5.603141	0.093814	0.056892
6	0	2.800544	-1.123277	0.162852	7	0	-4.471166	0.888374	0.139401
1	0	7.660871	-3.687582	0.277578	6	0	-3.379649	0.018299	0.168669
1	0	10.707275	-0.643317	-0.244726	6	0	-3.870353	-1.342857	0.068050
1	0	3.872023	0.733412	1.175011	6	0	-5.265660	-1.262002	0.011717
1	0	6.747832	3.275209	-0.323098	5	0	-4.502341	2.454314	0.172065
1	0	5.020881	4.947189	-0.193713	9	0	-3.946836	2.932014	1.356520
1	0	3.168642	6.572295	-0.272276	9	0	-3.862258	2.986011	-0.937406
1	0	0.805365	5.780811	-0.213684	6	0	-2.973675	-2.444675	0.028390
1	0	0.303979	3.379620	-0.071145	6	0	-1.561287	-2.168851	0.011187
1	0	3.033747	-1.580440	-0.803853	6	0	-3.438805	-3.781245	-0.013926
1	0	1.749654	-1.297814	0.395086	6	0	-2.548058	-4.830908	-0.075232
1	0	3.416366	-1.625147	0.909902	6	0	-1.156015	-4.581269	-0.098850
1	0	10.346116	-3.310466	0.056957	6	0	-0.680271	-3.290377	-0.055323
79	0	0.086146	0.712007	-0.015269	6	0	-1.044734	-0.831582	0.049994
15	0	-2.151611	-0.147615	-0.063446	6	0	-1.912098	0.288359	0.132621
6	0	-2.143099	-1.669194	-1.093170	6	0	-1.409262	1.711491	0.147367
6	0	-1.304659	-2.712812	-0.681255	1	0	-5.811396	4.960438	0.212610
6	0	-2.792257	-1.833498	-2.320581	1	0	-9.307833	2.406421	-0.021613
6	0	-1.125344	-3.870260	-1.424861	1	0	-2.710645	0.057055	1.236937
6	0	-2.627258	-2.985470	-3.087655	1	0	-5.974210	-2.073319	-0.061786
6	0	-1.795187	-4.006066	-2.639570	1	0	-4.506393	-3.974654	0.005172
6	0	-3.490247	0.943991	-0.670745	1	0	-2.914787	-5.852397	-0.106435
6	0	-4.835681	0.554722	-0.621377	1	0	-0.460920	-5.413614	-0.151593
6	0	-3.220534	2.235401	-1.139307	1	0	0.389285	-3.109547	-0.077959
6	0	-5.867438	1.401568	-1.001151	1	0	-1.572919	2.168455	-0.833629
6	0	-4.238459	3.103507	-1.525937	1	0	-0.343155	1.731795	0.376334
6	0	-5.563560	2.685359	-1.453727	1	0	-1.939808	2.323300	0.877176
6	0	-2.740854	-0.638783	1.610756	1	0	-8.530055	4.995826	0.100810
6	0	-3.409582	-1.824009	1.940134	79	0	0.997467	-0.510599	-0.030132
6	0	-2.477276	0.247716	2.664121	15	0	3.343180	-0.017640	-0.082251
6	0	-3.774663	-2.121459	3.250414	6	0	3.575031	1.529171	-1.046182
6	0	-2.837023	-0.024465	3.978143	6	0	2.923081	2.676326	-0.576360
6	0	-3.487150	-1.220677	4.271711	6	0	4.230853	1.640402	-2.276091
9	0	-1.869884	1.420057	2.416817	6	0	2.929136	3.879670	-1.266774
9	0	-3.727474	-2.725550	1.004317	6	0	4.249420	2.836862	-2.990731
9	0	-4.406039	-3.264368	3.527849	6	0	3.600657	3.958667	-2.485515
9	0	-3.840266	-1.497334	5.524143	6	0	4.484478	-1.282977	-0.751939
9	0	-2.568805	0.849927	4.950211	6	0	5.874446	-1.106005	-0.723441
9	0	-5.155115	-0.681060	-0.214848	6	0	4.010522	-2.502860	-1.248949
9	0	-7.137219	0.996728	-0.943815	6	0	6.756411	-2.087090	-1.153937
9	0	-6.541507	3.506778	-1.822473	6	0	4.875516	-3.502801	-1.686443
9	0	-3.947075	4.329377	-1.965462	6	0	6.250188	-3.293794	-1.636571
9	0	-1.964530	2.690607	-1.240196	6	0	4.021373	0.294043	1.601657
9	0	-0.644645	-2.602296	0.485870	6	0	4.867936	1.344447	1.975745
9	0	-3.589200	-0.881828	-2.824162	6	0	3.639742	-0.596760	2.614365
9	0	-3.264506	-3.107862	-4.254208	6	0	5.290517	1.513766	3.291651
9	0	-1.636496	-5.107857	-3.368872	6	0	4.053397	-0.452196	3.932692
9	0	-0.322332	-4.842370	-0.987986	6	0	4.882208	0.614401	4.272277
1	0	8.801395	1.513684	-0.327566	9	0	2.857191	-1.648144	2.320154
					9	0	5.308704	2.234532	1.079596
					9	0	6.092829	2.531132	3.612897
					9	0	5.289264	0.768176	5.529498
					9	0	3.666886	-1.325679	4.864957
					9	0	6.387336	0.052482	-0.287758
					9	0	8.074180	-1.882773	-1.116807
					9	0	7.082886	-4.242174	-2.054096
					9	0	4.390892	-4.655659	-2.152210
					9	0	2.697836	-2.759506	-1.327106
					9	0	2.264200	2.623432	0.595600
					9	0	4.857083	0.595254	-2.832759
					9	0	4.886776	2.905475	-4.161643
					9	0	3.617514	5.103154	-3.164401
					9	0	2.300626	4.949387	-0.775397
					6	0	-8.105143	-0.290292	-0.066493
					6	0	-8.691064	-0.780285	1.121138
					6	0	-8.610798	-0.664224	-1.330040

Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
	X	Y	Z	
6	0	-7.906020	4.113551	0.095752
6	0	-6.481176	4.112236	0.155037
7	0	-6.011541	2.867022	0.131234
6	0	-8.302045	2.798309	0.033006
6	0	-7.109649	1.998221	0.055118
6	0	-6.933789	0.633897	0.016771



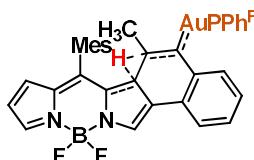
6	0	-9.784676	-1.645374	1.016964	6	0	3.229778	1.585007	-2.355424
6	0	-9.705925	-1.533338	-1.378995	6	0	1.626556	3.780946	-1.778496
6	0	-10.309995	-2.032332	-0.220598	6	0	3.211309	2.678931	-3.218990
1	0	-10.236561	-2.026667	1.929936	6	0	2.411177	3.779345	-2.930398
1	0	-10.094521	-1.827614	-2.351328	6	0	3.598046	-1.081764	-0.449289
6	0	-8.164964	-0.388362	2.484306	6	0	4.954563	-0.760227	-0.305400
1	0	-7.108243	-0.655107	2.604519	6	0	3.294347	-2.388612	-0.848115
1	0	-8.243969	0.692157	2.653504	6	0	5.963800	-1.685837	-0.529858
1	0	-8.728231	-0.891642	3.274817	6	0	4.289048	-3.335414	-1.078783
6	0	-11.511130	-2.944895	-0.301030	6	0	5.625234	-2.982351	-0.917098
1	0	-11.523745	-3.663038	0.525496	6	0	2.755354	0.707725	1.632737
1	0	-12.445002	-2.370008	-0.245803	6	0	3.448083	1.884610	1.940784
1	0	-11.527447	-3.503213	-1.242465	6	0	2.368249	-0.095791	2.714216
6	0	-7.996611	-0.150504	-2.613608	6	0	3.717143	2.255327	3.255654
1	0	-8.070773	0.940719	-2.689729	6	0	2.631734	0.249330	4.033839
1	0	-6.932505	-0.405073	-2.685984	6	0	3.307253	1.437025	4.304327
1	0	-8.502607	-0.580141	-3.482348	9	0	1.732177	-1.257730	2.490312



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	-9.112593	3.347557	0.446766
6	0	-9.431028	1.971548	0.376459
7	0	-8.319316	1.243249	0.185628
6	0	-7.739740	3.449069	0.288249
6	0	-7.239309	2.126616	0.125950
6	0	-5.939404	1.664570	-0.024948
6	0	-5.648965	0.300268	-0.102556
7	0	-6.673347	-0.630726	-0.045028
6	0	-6.185950	-1.877732	-0.072092
6	0	-4.781762	-1.846854	-0.164581
6	0	-4.411276	-0.453913	-0.196213
5	0	-8.228485	-0.291031	-0.040253
9	0	-8.752126	-0.639317	-1.273387
9	0	-8.834366	-0.987197	0.986561
6	0	-3.803190	-2.872729	-0.211345
6	0	-2.414911	-2.477019	-0.234514
6	0	-4.152183	-4.244766	-0.229978
6	0	-3.173646	-5.214001	-0.269055
6	0	-1.807782	-4.847575	-0.292778
6	0	-1.442928	-3.519997	-0.277154
6	0	-2.007076	-1.099302	-0.197018
6	0	-2.973505	-0.064547	-0.184190
6	0	-2.641306	1.405549	-0.080956
1	0	-10.399961	1.496108	0.453323
1	0	-7.134120	4.345188	0.291826
1	0	-6.849052	-2.729460	-0.023086
1	0	-3.760827	-0.275373	-1.264689
1	0	-5.199416	-4.529261	-0.218621
1	0	-3.451217	-6.263514	-0.282638
1	0	-1.044690	-5.618971	-0.323807
1	0	-0.392404	-3.250888	-0.298058
1	0	-3.123416	1.994390	-0.868244
1	0	-1.565024	1.563238	-0.158589
1	0	-2.976148	1.797223	0.887604
1	0	-9.821486	4.148665	0.600906
79	0	-0.002149	-0.597977	-0.125120
15	0	2.282434	0.125898	-0.049214
6	0	2.462850	1.558049	-1.186229
6	0	1.661589	2.679169	-0.936264

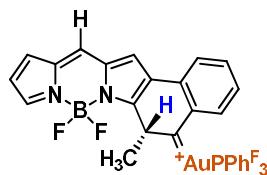
6	0	3.229778	1.585007	-2.355424
6	0	1.626556	3.780946	-1.778496
6	0	3.211309	2.678931	-3.218990
6	0	2.411177	3.779345	-2.930398
6	0	3.598046	-1.081764	-0.449289
6	0	4.954563	-0.760227	-0.305400
6	0	3.294347	-2.388612	-0.848115
6	0	5.963800	-1.685837	-0.529858
6	0	4.289048	-3.335414	-1.078783
6	0	5.625234	-2.982351	-0.917098
6	0	2.755354	0.707725	1.632737
6	0	3.448083	1.884610	1.940784
6	0	2.368249	-0.095791	2.714216
6	0	3.717143	2.255327	3.255654
6	0	2.631734	0.249330	4.033839
6	0	3.307253	1.437025	4.304327
9	0	1.732177	-1.257730	2.490312
9	0	3.883900	2.705747	0.978770
9	0	4.374308	3.388451	3.512109
9	0	3.568218	1.783732	5.561786
9	0	2.247117	-0.546999	5.033289
9	0	5.308684	0.484999	0.039064
9	0	7.245307	-1.344315	-0.388095
9	0	6.581482	-3.878725	-1.137764
9	0	3.965358	-4.573823	-1.455614
9	0	2.026781	-2.782772	-1.030317
9	0	0.891636	2.703822	0.167064
9	0	4.003418	0.550782	-2.709948
9	0	3.957688	2.668352	-4.325361
9	0	2.391116	4.825630	-3.752193
9	0	0.852053	4.830003	-1.494251
1	0	-5.140058	2.392878	-0.057982



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	-9.155622	1.511040	0.642852
6	0	-9.209009	0.122502	0.403387
7	0	-7.982561	-0.344051	0.115000
6	0	-7.830452	1.892238	0.489584
6	0	-7.087236	0.723350	0.154549
6	0	-5.702002	0.573531	-0.044458
6	0	-5.149395	-0.715528	-0.231950
7	0	-6.013683	-1.808408	-0.160217
6	0	-5.351015	-2.958345	-0.082782
6	0	-3.967496	-2.723077	-0.142520
6	0	-3.793535	-1.290774	-0.305821
5	0	-7.590627	-1.764804	-0.318505
9	0	-7.892912	-1.986300	-1.654131
9	0	-8.150721	-2.728763	0.497238
6	0	-2.883082	-3.629995	-0.076947
6	0	-1.550410	-3.087358	-0.121318
6	0	-3.076270	-5.028855	0.050658
6	0	-1.994389	-5.874255	0.150967
6	0	-0.675914	-5.357796	0.120414
6	0	-0.462521	-4.005736	-0.014935
6	0	-1.319531	-1.687127	-0.287125
6	0	-2.391587	-0.770300	-0.440601
6	0	-2.114105	0.681702	-0.750094
1	0	-10.061599	-0.543044	0.430135

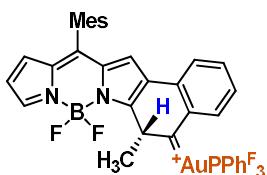
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1	0	-5.884690	-3.893381	0.005713
1	0	-3.216774	-1.216271	-1.424764
1	0	-4.083205	-5.431852	0.074160
1	0	-2.151547	-6.943597	0.253357
1	0	0.168335	-6.035598	0.198735
1	0	0.550247	-3.618627	-0.057667
1	0	-2.906150	1.132453	-1.345626
1	0	-1.177837	0.762609	-1.306157
1	0	-2.018547	1.265500	0.169809
1	0	-9.995273	2.138128	0.907229
79	0	0.610536	-0.941384	-0.217112
15	0	2.795259	0.029464	-0.085280
6	0	2.715663	1.680902	-0.885728
6	0	1.844377	2.621914	-0.322350
6	0	3.340250	2.041585	-2.083483
6	0	1.619552	3.867822	-0.889898
6	0	3.124177	3.283903	-2.677327
6	0	2.264833	4.200022	-2.079586
6	0	4.196141	-0.896441	-0.814165
6	0	5.509940	-0.414581	-0.737446
6	0	4.014350	-2.153682	-1.403007
6	0	6.594278	-1.136262	-1.215779
6	0	5.086862	-2.897198	-1.889415
6	0	6.377809	-2.386771	-1.794556
6	0	3.345003	0.298243	1.651532
6	0	3.953910	1.451217	2.161535
6	0	3.123374	-0.748965	2.556765
6	0	4.301422	1.564440	3.505135
6	0	3.467595	-0.661799	3.899850
6	0	4.057821	0.506436	4.376069
9	0	2.573629	-1.897961	2.129606
9	0	4.227002	2.498621	1.375535
9	0	4.874350	2.681768	3.957783
9	0	4.394794	0.607771	5.658890
9	0	3.241190	-1.684963	4.726215
9	0	5.742862	0.791684	-0.203203
9	0	7.831176	-0.644063	-1.131751
9	0	7.406609	-3.089184	-2.258097
9	0	4.880089	-4.093271	-2.443690
9	0	2.796024	-2.698073	-1.521516
9	0	1.200636	2.319905	0.818217
9	0	4.160914	1.199665	-2.724882
9	0	3.738543	3.593358	-3.821092
9	0	2.058196	5.388466	-2.641099
9	0	0.795523	4.743655	-0.306529
6	0	-4.903622	1.834231	0.062562
6	0	-4.304096	2.171235	1.294825
6	0	-4.841203	2.719084	-1.035708
6	0	-3.607609	3.381244	1.389783
6	0	-4.123716	3.911089	-0.892949
6	0	-3.491153	4.258136	0.305938
1	0	-3.145381	3.643976	2.338684
1	0	-4.059700	4.586863	-1.742834
6	0	-2.686113	5.531044	0.418768
6	0	-5.514073	2.401286	-2.353777
6	0	-4.409545	1.269071	2.504985
1	0	-1.639580	5.354883	0.138914
1	0	-3.074814	6.310694	-0.244446
1	0	-2.689099	5.917253	1.443259
1	0	-5.263717	1.395515	-2.711507
1	0	-6.606226	2.444694	-2.268630
1	0	-5.211376	3.116666	-3.123359
1	0	-3.952027	1.741806	3.378374
1	0	-5.453877	1.045515	2.751702
1	0	-3.905527	0.307771	2.346891



Standard orientation:

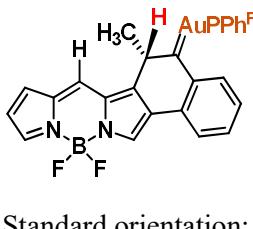
Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	9.031078	-2.873550	0.874087
6	0	7.648490	-2.965411	0.572642
7	0	7.142768	-1.753778	0.315369
6	0	9.370128	-1.535822	0.788467
6	0	8.184170	-0.824767	0.439236
6	0	7.944727	0.525550	0.275550
6	0	6.658586	1.017613	0.001928
7	0	5.575875	0.137609	-0.167898
6	0	4.470183	0.886347	-0.309967
6	0	4.800745	2.262513	-0.235931
6	0	6.193554	2.337960	-0.051710
5	0	5.693683	-1.428733	-0.168257
9	0	4.754230	-1.970907	0.698488
9	0	5.519854	-1.926041	-1.458743
6	0	3.768125	3.256377	-0.282700
6	0	2.380769	2.822797	-0.311535
6	0	4.052550	4.632272	-0.255711
6	0	3.028721	5.566996	-0.244447
6	0	1.672488	5.170724	-0.254175
6	0	1.360872	3.832417	-0.283974
6	0	2.026394	1.461520	-0.366456
6	0	3.079677	0.406386	-0.543660
6	0	2.928459	-0.140646	-2.014908
1	0	7.023692	-3.848135	0.534402
1	0	10.337251	-1.082681	0.960068
1	0	6.808481	3.218895	0.069916
1	0	5.084802	4.965709	-0.241174
1	0	3.275482	6.624559	-0.224460
1	0	0.888306	5.920065	-0.242361
1	0	0.323828	3.514610	-0.303096
1	0	3.073212	0.665094	-2.739835
1	0	1.931673	-0.567310	-2.149589
1	0	3.681760	-0.912305	-2.175619
1	0	9.674164	-3.704987	1.125689
79	0	0.097986	0.789403	-0.230720
15	0	-2.112571	-0.145256	-0.023027
6	0	-2.278307	-1.507982	-1.241035
6	0	-1.352405	-2.554962	-1.149282
6	0	-3.161014	-1.542018	-2.325318
6	0	-1.303938	-3.596349	-2.064847
6	0	-3.130130	-2.574955	-3.260296
6	0	-2.202807	-3.603884	-3.130215
6	0	-3.540040	0.981095	-0.225440
6	0	-4.850905	0.555551	0.029895
6	0	-3.366490	2.325652	-0.574405
6	0	-5.936793	1.417076	-0.038132
6	0	-4.439923	3.209435	-0.649069
6	0	-5.726275	2.753375	-0.377679
6	0	-2.377552	-0.875847	1.644723
6	0	-2.961829	-2.118190	1.919948
6	0	-1.931254	-0.132233	2.745834
6	0	-3.073255	-2.604464	3.219764
6	0	-2.036692	-0.593934	4.051715
6	0	-2.609048	-1.841704	4.287604
9	0	-1.390677	1.083486	2.557894
9	0	-3.439798	-2.892371	0.939717

9	0	-3.631228	-3.795749	3.444627	6	0	-4.629297	-2.459616	-3.096735
9	0	-2.720182	-2.299097	5.531503	6	0	-3.842027	-3.589638	-2.900740
9	0	-1.600268	0.148238	5.071189	6	0	-4.581805	1.289811	-0.274875
9	0	-5.085551	-0.728269	0.330745	6	0	-5.933905	1.052149	0.008168
9	0	-7.171355	0.977196	0.208932	6	0	-4.241957	2.574775	-0.714313
9	0	-6.757159	3.589227	-0.448633	6	0	-6.902318	2.038262	-0.118388
9	0	-4.238832	4.485891	-0.981321	6	0	-5.195483	3.580362	-0.849702
9	0	-2.153323	2.819687	-0.857867	6	0	-6.527016	3.310715	-0.548435
9	0	-0.473639	-2.563173	-0.131879	6	0	-3.655560	-0.580834	1.709297
9	0	-4.065494	-0.574451	-2.523401	6	0	-4.380343	-1.726025	2.060336
9	0	-3.988090	-2.575866	-4.282804	6	0	-3.123804	0.175692	2.762452
9	0	-2.172639	-4.591967	-4.020547	6	0	-4.544766	-2.111255	3.388119
9	0	-0.408706	-4.576844	-1.933773	6	0	-3.280299	-0.184649	4.094808
1	0	2.864923	-0.442595	0.115911	6	0	-3.993240	-1.339805	4.407142
1	0	8.760564	1.231386	0.391255	9	0	-2.446821	1.305783	2.498467



Standard orientation:

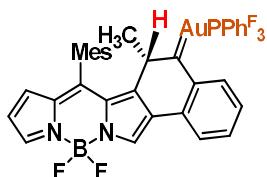
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6	0	7.347854	-4.142943	0.823345	6	0	-3.938773	-4.623566	-3.732531
6	0	5.961059	-4.047030	0.553028	9	0	-2.188196	-4.713776	-1.636798
7	0	5.629917	-2.787605	0.243261	1	0	1.580412	-0.943835	0.030937
6	0	7.874214	-2.873841	0.661018	6	0	8.025297	0.166357	0.151205
6	0	6.795998	-2.013006	0.299070	6	0	8.771860	0.395378	-1.024777
6	0	6.768390	-0.640048	0.076470	6	0	8.451051	0.691244	1.390194
6	0	5.535116	0.000262	-0.194906	6	0	9.944475	1.152383	-0.934830
7	0	4.337364	-0.729450	-0.299765	6	0	9.630574	1.443187	1.426336
6	0	3.338997	0.154305	-0.455783	6	0	10.394038	1.682577	0.279187
6	0	3.852036	1.474016	-0.453462	1	0	10.520464	1.331514	-1.840134
6	0	5.247338	1.367713	-0.302448	1	0	9.958787	1.852916	2.379131
5	0	4.235525	-2.291501	-0.240045	6	0	7.663351	0.463004	2.661856
9	0	3.242365	-2.667953	0.655577	1	0	6.636514	0.838527	2.576102
9	0	3.974260	-2.808210	-1.508823	1	0	7.594649	-0.602704	2.909682
6	0	2.959860	2.594379	-0.522677	1	0	8.136891	0.972765	3.505690
6	0	1.526461	2.349928	-0.496478	6	0	8.331214	-0.159692	-2.361536
6	0	3.424631	3.919944	-0.568117	1	0	8.258685	-1.253820	-2.340247
6	0	2.534567	4.982742	-0.575691	1	0	7.344757	0.220272	-2.652466
6	0	1.137837	4.771679	-0.532052	1	0	9.041312	0.113680	-3.147205
6	0	0.650640	3.487069	-0.490037	6	0	11.680910	2.471082	0.352430
6	0	0.993259	1.047315	-0.481884	1	0	12.539823	1.807459	0.519035
6	0	1.892577	-0.142878	-0.648521	1	0	11.868921	3.016900	-0.578186
6	0	1.643132	-0.689355	-2.107874					
1	0	5.213219	-4.829125	0.569799					
1	0	8.900588	-2.559827	0.790352					
1	0	5.976544	2.162651	-0.237256					
1	0	4.492042	4.112073	-0.594741					
1	0	2.920168	5.997597	-0.612276					
1	0	0.460923	5.619271	-0.536241					
1	0	-0.419620	3.309785	-0.468267					
1	0	1.900266	0.071146	-2.850419					
1	0	0.592107	-0.962591	-2.226946					
1	0	2.270440	-1.568634	-2.257380					
1	0	7.871709	-5.045209	1.105600					
79	0	-1.000425	0.638319	-0.265627					
15	0	-3.307934	0.005790	0.000770					
6	0	-3.647320	-1.395376	-1.135406					
6	0	-2.863269	-2.545302	-0.977110					
6	0	-4.527007	-1.378906	-2.222678					
6	0	-2.949277	-3.635376	-1.831135					



Standard orientation:

Atomic Number	Atomic Type	X	Y	Z	Coordinates (Angstroms)				
6	0	-8.987606	3.431840	-0.485817	6	0	-9.344461	2.063830	-0.402688
6	0	-8.253217	1.302834	-0.244810	7	0	-7.609466	3.492512	-0.371202
6	0	-7.142964	2.155108	-0.220761	6	0			

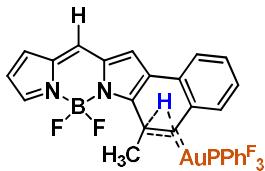
6 0 -5.859562 1.649881 -0.099048
 6 0 -5.609818 0.274345 -0.013379
 7 0 -6.682331 -0.632316 -0.057240
 6 0 -6.197844 -1.873321 -0.043122
 6 0 -4.779977 -1.827811 0.019093
 6 0 -4.413005 -0.472538 0.044901
 5 0 -8.209682 -0.243966 -0.033209
 9 0 -8.874382 -0.897174 -1.056173
 9 0 -8.744302 -0.573301 1.203688
 6 0 -3.804070 -2.875179 0.014596
 6 0 -2.399069 -2.505543 -0.018793
 6 0 -4.154274 -4.235888 0.018087
 6 0 -3.175805 -5.216891 -0.024404
 6 0 -1.803149 -4.884840 -0.073286
 6 0 -1.428473 -3.562231 -0.070583
 6 0 -1.983032 -1.161636 0.007220
 6 0 -2.984904 -0.045670 0.143749
 6 0 -2.712192 0.695621 1.501316
 1 0 -10.329635 1.618234 -0.449301
 1 0 -6.978231 4.371044 -0.393459
 1 0 -6.858685 -2.728090 -0.082671
 1 0 -5.199941 -4.522644 0.052697
 1 0 -3.471824 -6.261946 -0.021504
 1 0 -1.056071 -5.669944 -0.108268
 1 0 -0.377494 -3.293769 -0.099948
 1 0 -3.458989 1.480365 1.643021
 1 0 -1.717109 1.147007 1.497460
 1 0 -2.783427 -0.003492 2.338490
 1 0 -9.677957 4.253155 -0.618032
 79 0 -0.011112 -0.610562 -0.086594
 15 0 2.263373 0.181185 -0.106487
 6 0 2.231975 1.978876 -0.477656
 6 0 1.471336 2.786456 0.377922
 6 0 2.794153 2.603501 -1.595202
 6 0 1.281787 4.142885 0.158241
 6 0 2.617177 3.964207 -1.838990
 6 0 1.862274 4.735743 -0.961637
 6 0 3.441302 -0.634053 -1.242764
 6 0 4.805234 -0.312164 -1.237821
 6 0 3.035890 -1.672371 -2.090625
 6 0 5.728493 -0.984958 -2.024896
 6 0 3.944490 -2.363462 -2.888282
 6 0 5.291933 -2.018989 -2.852818
 6 0 3.068363 -0.012804 1.536912
 6 0 3.841825 0.948639 2.198828
 6 0 2.884338 -1.235929 2.196410
 6 0 4.381836 0.712990 3.460496
 6 0 3.417876 -1.495965 3.451959
 6 0 4.168738 -0.510691 4.088863
 9 0 2.182629 -2.216150 1.602773
 9 0 4.095976 2.138404 1.643027
 9 0 5.110257 1.654244 4.064477
 9 0 4.688185 -0.742108 5.291027
 9 0 3.219257 -2.675821 4.042597
 9 0 5.245950 0.689600 -0.465378
 9 0 7.019269 -0.648618 -1.999816
 9 0 6.165537 -2.672828 -3.612359
 9 0 3.526967 -3.350862 -3.683110
 9 0 1.752667 -2.047663 -2.165870
 9 0 0.899460 2.235386 1.464202
 9 0 3.514464 1.918443 -2.492264
 9 0 3.168915 4.526560 -2.916118
 9 0 1.691887 6.034917 -1.191542
 9 0 0.552684 4.873813 1.003700
 1 0 -2.753805 0.684242 -0.647282
 1 0 -5.027202 2.346098 -0.097249



Standard orientation:

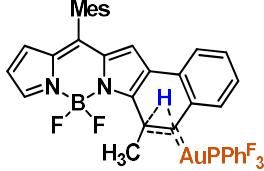
Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	8.834031	1.948040	1.002326
6	0	9.012620	0.553680	0.848290
7	0	7.857871	-0.029009	0.498014
6	0	7.502641	2.211814	0.727075
6	0	6.881281	0.967767	0.408920
6	0	5.544799	0.681011	0.115204
6	0	5.129514	-0.661113	-0.059945
7	0	6.078839	-1.695223	0.053626
6	0	5.460142	-2.870943	-0.013694
6	0	4.069839	-2.663797	-0.182846
6	0	3.859897	-1.272933	-0.226643
5	0	7.637807	-1.517661	0.117043
9	0	8.166720	-2.361121	1.079477
9	0	8.179757	-1.782754	-1.134744
6	0	2.991641	-3.605999	-0.238568
6	0	1.633731	-3.096341	-0.243585
6	0	3.199417	-4.995736	-0.244790
6	0	2.123419	-5.870685	-0.244939
6	0	0.791795	-5.398596	-0.236949
6	0	0.556760	-4.044050	-0.233352
6	0	1.369213	-1.714142	-0.265763
6	0	2.485941	-0.728277	-0.463140
6	0	2.345763	-0.245127	-1.957789
1	0	9.912702	-0.033486	0.974922
1	0	6.999643	3.168131	0.756533
1	0	6.017616	-3.794057	0.064887
1	0	4.209632	-5.390723	-0.248486
1	0	2.310167	-6.940683	-0.250070
1	0	-0.033543	-6.102624	-0.239318
1	0	-0.460252	-3.665910	-0.246388
1	0	3.098687	0.521218	-2.146317
1	0	1.354004	0.180557	-2.127748
1	0	2.501616	-1.079619	-2.646229
1	0	9.601591	2.653317	1.289174
79	0	-0.522124	-0.947660	-0.092686
15	0	-2.700657	0.057738	0.098715
6	0	-2.480846	1.879426	0.122923
6	0	-1.813904	2.446479	-0.970155
6	0	-2.793180	2.735417	1.183547
6	0	-1.486734	3.792531	-1.029454
6	0	-2.465473	4.089788	1.151215
6	0	-1.810240	4.618873	0.044628
6	0	-3.737984	-0.421724	1.525812
6	0	-5.062242	0.021940	1.645925
6	0	-3.272651	-1.308426	2.504054
6	0	-5.892619	-0.394592	2.676529
6	0	-4.087122	-1.740084	3.547926
6	0	-5.398732	-1.282942	3.631835
6	0	-3.763731	-0.346198	-1.346794
6	0	-4.545350	0.555196	-2.078729
6	0	-3.781157	-1.682764	-1.768478
6	0	-5.285052	0.151562	-3.187238
6	0	-4.516547	-2.110575	-2.866155
6	0	-5.270273	-1.183233	-3.582143
9	0	-3.083264	-2.607563	-1.086955
9	0	-4.615370	1.847112	-1.739227

9	0	-6.014405	1.039321	-3.865835	6	0	3.141982	0.355575	0.106037
9	0	-5.981962	-1.574793	-4.635034	6	0	2.830634	-1.124341	0.077177
9	0	-4.507661	-3.394137	-3.230752	1	0	7.651271	-3.690063	0.331500
9	0	-5.552109	0.893845	0.755101	1	0	10.718273	-0.650787	-0.083858
9	0	-7.146600	0.050984	2.764030	1	0	6.751694	3.278846	-0.310163
9	0	-6.181652	-1.688312	4.626101	1	0	5.013692	4.926622	-0.424816
9	0	-3.614186	-2.586532	4.464001	1	0	3.164344	6.556446	-0.456106
9	0	-2.020128	-1.781440	2.474863	1	0	0.806824	5.784127	-0.220800
9	0	-1.474409	1.663304	-2.008534	1	0	0.315694	3.382261	0.027370
9	0	-3.400820	2.288209	2.289040	1	0	3.091598	-1.514338	-0.910470
9	0	-2.771697	4.875793	2.184751	1	0	1.768599	-1.301274	0.252215
9	0	-1.479293	5.907271	0.014474	1	0	3.419817	-1.668479	0.813660
9	0	-0.846796	4.292480	-2.090136	1	0	10.342666	-3.318891	0.200531
1	0	2.295461	0.158166	0.150060	79	0	0.081091	0.698561	0.010255
6	0	4.583655	1.826225	0.048479	15	0	-2.151431	-0.144040	-0.057319
6	0	4.512337	2.605038	-1.129523	6	0	-2.201397	-1.524548	-1.266339
6	0	3.814919	2.165165	1.182369	6	0	-1.349701	-2.610734	-1.028765
6	0	3.642023	3.698467	-1.156899	6	0	-2.918966	-1.539055	-2.466448
6	0	2.964665	3.275769	1.105851	6	0	-1.219362	-3.669994	-1.915032
6	0	2.861712	4.054747	-0.050621	6	0	-2.803437	-2.589916	-3.374623
1	0	3.582219	4.295293	-2.064644	6	0	-1.955609	-3.657611	-3.098583
1	0	2.381040	3.546406	1.982897	6	0	-3.502687	1.021273	-0.461197
6	0	3.902302	1.376034	2.471344	6	0	-4.848039	0.635576	-0.383781
6	0	5.371040	2.301955	-2.339694	6	0	-3.243622	2.356253	-0.793605
6	0	1.953059	5.260404	-0.107200	6	0	-5.888585	1.526605	-0.605535
1	0	3.404544	0.401004	2.391474	6	0	-4.270361	3.268928	-1.020721
1	0	4.941574	1.181704	2.757605	6	0	-5.594525	2.852448	-0.923509
1	0	3.424381	1.922980	3.289610	6	0	-2.661878	-0.832512	1.571507
1	0	4.996104	2.830758	-3.221005	6	0	-3.317904	-2.050854	1.785761
1	0	6.408761	2.619382	-2.178891	6	0	-2.350418	-0.076772	2.710355
1	0	5.399588	1.231915	-2.573512	6	0	-3.624265	-2.503974	3.066110
1	0	1.377163	5.372672	0.816584	6	0	-2.652337	-0.504749	3.997018
1	0	2.530269	6.181828	-0.254485	6	0	-3.290759	-1.730007	4.173920
1	0	1.247632	5.189448	-0.942484	9	0	-1.751248	1.118302	2.577228



Standard orientation:

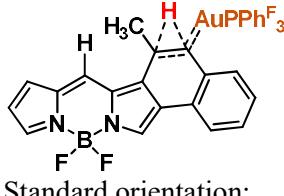
Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	9.591420	-2.543814	0.147232
6	0	8.184638	-2.755267	0.217897
7	0	7.531076	-1.597403	0.123161
6	0	9.783206	-1.187329	0.002403
6	0	8.485388	-0.582715	-0.013052
6	0	8.080027	0.721891	-0.124806
6	0	6.711943	1.083533	-0.104206
7	0	5.694726	0.141531	0.028476
6	0	4.513867	0.839680	0.005753
6	0	4.782672	2.228285	-0.138819
6	0	6.175121	2.370471	-0.205146
5	0	5.974240	-1.406650	0.143187
9	0	5.490497	-1.904036	1.348703
9	0	5.432919	-2.080992	-0.941523
6	0	3.729014	3.206320	-0.180791
6	0	2.382681	2.752265	-0.058700
6	0	3.988980	4.583321	-0.325851
6	0	2.949211	5.498052	-0.342818
6	0	1.618096	5.063053	-0.211211
6	0	1.343971	3.714356	-0.069383
6	0	2.068555	1.330970	0.038623



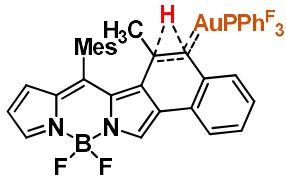
Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	7.876661	-4.114654	0.254941
6	0	6.454920	-4.103434	0.298180
7	0	5.993565	-2.854802	0.217147
6	0	8.281031	-2.802015	0.141495

6	0	7.095600	-1.998455	0.118008	6	0	8.597613	0.633490	-1.346568
6	0	6.921704	-0.632555	0.029747	6	0	8.696993	0.787087	1.101269
6	0	5.602505	-0.082417	0.043254	6	0	9.697760	1.494993	-1.417544
7	0	4.452516	-0.864108	0.135649	6	0	9.793710	1.645440	0.975474
6	0	3.387529	0.001583	0.120189	6	0	10.312351	2.009742	-0.271837
6	0	3.861679	1.337077	0.023754	1	0	10.081351	1.770811	-2.397283
6	0	5.260549	1.271630	-0.024488	1	0	10.253183	2.040157	1.878998
5	0	4.487321	-2.434698	0.209387	6	0	8.177757	0.420666	2.474202
9	0	3.901618	-2.886423	1.388527	1	0	7.117315	0.674018	2.588452
9	0	3.876359	-2.990445	-0.906582	1	0	8.273119	-0.654172	2.668802
6	0	2.968142	2.463783	0.005999	1	0	8.734352	0.950754	3.251783
6	0	1.567091	2.213525	0.095469	6	0	7.969885	0.103480	-2.616897
6	0	3.433781	3.790765	-0.082044	1	0	8.024046	-0.990281	-2.669461
6	0	2.542997	4.851154	-0.076323	1	0	6.910134	0.375348	-2.689647
6	0	1.159485	4.616816	0.022102	1	0	8.479639	0.505668	-3.496571
6	0	0.684140	3.320505	0.109298	6	0	11.516530	2.916236	-0.374714
6	0	1.043253	0.852895	0.136760	1	0	12.448710	2.343569	-0.281308
6	0	1.956986	-0.274877	0.183660	1	0	11.546666	3.434011	-1.338621
6	0	1.425652	-1.688518	0.093710	1	0	11.519025	3.669222	0.420477
1	0	5.778002	-4.943543	0.383176					
1	0	9.290024	-2.418833	0.082153					
1	0	5.965929	2.086074	-0.097261					
1	0	4.499879	3.980696	-0.152418					
1	0	2.916327	5.868621	-0.145328					
1	0	0.465696	5.451561	0.030492					
1	0	-0.384056	3.143628	0.181765					
1	0	1.650645	-2.080167	-0.902043					
1	0	0.344779	-1.707686	0.240456					
1	0	1.906602	-2.340230	0.821315					
1	0	8.497135	-4.998130	0.304445					
79	0	-1.014858	0.527843	0.056639					
15	0	-3.344084	0.029248	-0.069536					
6	0	-3.554409	-1.355100	-1.257265					
6	0	-2.886955	-2.551452	-0.965376					
6	0	-4.210192	-1.286880	-2.490482					
6	0	-2.877441	-3.636323	-1.829925					
6	0	-4.213752	-2.361985	-3.377429					
6	0	-3.549162	-3.538545	-3.047291					
6	0	-4.492557	1.371845	-0.543730					
6	0	-5.880925	1.179717	-0.540177					
6	0	-4.030322	2.654623	-0.861598					
6	0	-6.772222	2.204070	-0.826272					
6	0	-4.904909	3.698815	-1.151044					
6	0	-6.277659	3.471971	-1.131425					
6	0	-4.006877	-0.542806	1.549114					
6	0	-4.856481	-1.637110	1.753752					
6	0	-3.611056	0.168268	2.690677					
6	0	-5.271928	-2.015506	3.027627					
6	0	-4.016610	-0.187460	3.970884					
6	0	-4.850760	-1.290218	4.138442					
9	0	-2.822168	1.248553	2.567545					
9	0	-5.305218	-2.369313	0.728465					
9	0	-6.077847	-3.067500	3.185049					
9	0	-5.250559	-1.644158	5.356525					
9	0	-3.617297	0.519739	5.029679					
9	0	-6.382055	-0.033787	-0.275248					
9	0	-8.087597	1.983960	-0.819112					
9	0	-7.119386	4.462105	-1.409452					
9	0	-4.431554	4.910276	-1.448399					
9	0	-2.720196	2.931482	-0.905531					
9	0	-2.226958	-2.666285	0.201359					
9	0	-4.849241	-0.177494	-2.883696					
9	0	-4.851012	-2.261296	-4.545743					
9	0	-3.551371	-4.566735	-3.891578					
9	0	-2.233768	-4.759017	-1.505582					
1	0	1.459970	0.234730	1.263980	79	0	0.020821	-0.453020	0.194533
6	0	8.099860	0.281594	-0.073970	15	0	-2.267067	0.212929	0.083924



6	0	-2.328099	2.008687	-0.289017	6	0	1.313306	-1.593330	0.172662
6	0	-1.691506	2.430343	-1.463488	6	0	2.458552	-0.715684	0.341244
6	0	-2.845328	3.009244	0.539653	6	0	2.200764	0.761864	0.532906
6	0	-1.579909	3.766700	-1.818623	1	0	10.121331	-0.700693	-0.243368
6	0	-2.743106	4.358825	0.206881	1	0	7.611336	2.829603	-0.213529
6	0	-2.112344	4.738767	-0.973388	1	0	5.800066	-3.922325	-0.139605
6	0	-3.317270	-0.115526	1.544361	1	0	3.985073	-5.367730	-0.423595
6	0	-4.694178	0.146261	1.520589	1	0	2.025003	-6.833543	-0.672755
6	0	-2.803812	-0.719457	2.698491	1	0	-0.277184	-5.892419	-0.534175
6	0	-5.527975	-0.174826	2.581930	1	0	-0.603528	-3.482782	-0.131014
6	0	-3.621276	-1.052539	3.775709	1	0	2.884611	1.200839	1.255609
6	0	-4.984660	-0.780770	3.715004	1	0	1.176327	0.926949	0.873398
6	0	-3.159640	-0.655727	-1.270544	1	0	2.328471	1.284076	-0.418627
6	0	-4.008814	-0.067466	-2.215122	1	0	10.174420	2.014821	-0.462119
6	0	-2.959783	-2.038788	-1.378483	79	0	-0.622986	-0.818137	0.211718
6	0	-4.602978	-0.811992	-3.230877	15	0	-2.818627	0.106730	0.080674
6	0	-3.545105	-2.803329	-2.379164	6	0	-2.672781	1.826007	-0.545500
6	0	-4.369463	-2.181520	-3.314512	6	0	-2.049463	1.995074	-1.788520
9	0	-2.195459	-2.675386	-0.473198	6	0	-3.012787	2.990377	0.150557
9	0	-4.287532	1.240160	-2.179457	6	0	-1.786553	3.243897	-2.332637
9	0	-5.401873	-0.216630	-4.118433	6	0	-2.757283	4.256378	-0.373444
9	0	-4.940631	-2.897240	-4.278816	6	0	-2.145835	4.384416	-1.616360
9	0	-3.329614	-4.118450	-2.442977	6	0	-3.827512	0.130664	1.605487
9	0	-5.235510	0.744404	0.451110	6	0	-5.164442	0.551643	1.585261
9	0	-6.832963	0.094928	2.529517	6	0	-3.326838	-0.340444	2.825107
9	0	-5.770900	-1.093776	4.739596	6	0	-5.973799	0.503205	2.711041
9	0	-3.102514	-1.630692	4.860386	6	0	-4.120061	-0.398385	3.968442
9	0	-1.500989	-1.008558	2.812236	6	0	-5.444999	0.022762	3.909201
9	0	-1.167933	1.508298	-2.289839	6	0	-3.877948	-0.817979	-1.106527
9	0	-3.446957	2.717727	1.699708	6	0	-4.696342	-0.260047	-2.095787
9	0	-3.248168	5.287044	1.021842	6	0	-3.853530	-2.216958	-1.025859
9	0	-2.014868	6.026133	-1.294151	6	0	-5.428556	-1.053478	-2.975285
9	0	-0.969694	4.121496	-2.950809	6	0	-4.578239	-3.029278	-1.888120
1	0	2.537263	-0.550300	1.355334	6	0	-5.368385	-2.440301	-2.872770
1	0	5.224767	2.417615	0.476765	9	0	-3.123733	-2.818645	-0.069490

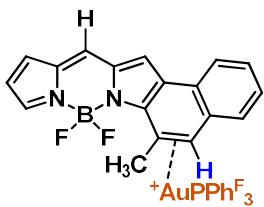


Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
Number	Type	X	Y	Z
6	0	9.300240	1.400153	-0.300529
6	0	9.291471	-0.008023	-0.194444
7	0	8.039257	-0.450182	-0.011457
6	0	7.985512	1.817040	-0.171541
6	0	7.182676	0.649959	0.010447
6	0	5.787773	0.542945	0.130391
6	0	5.162756	-0.736834	0.188525
7	0	6.009681	-1.849178	0.089363
6	0	5.304482	-2.967632	-0.039068
6	0	3.931075	-2.664997	-0.008119
6	0	3.810822	-1.262027	0.170461
5	0	7.574551	-1.887081	0.279013
9	0	7.851222	-2.241562	1.593140
9	0	8.121820	-2.792977	-0.611830
6	0	2.821031	-3.563293	-0.141827
6	0	1.508575	-3.017174	-0.055831
6	0	2.987274	-4.946524	-0.359686
6	0	1.883978	-5.770676	-0.501108
6	0	0.582996	-5.239931	-0.423266
6	0	0.401176	-3.887175	-0.197430

6	0	1.313306	-1.593330	0.172662
6	0	2.458552	-0.715684	0.341244
6	0	2.200764	0.761864	0.532906
1	0	10.121331	-0.700693	-0.243368
1	0	7.611336	2.829603	-0.213529
1	0	5.800066	-3.922325	-0.139605
1	0	3.985073	-5.367730	-0.423595
1	0	2.025003	-6.833543	-0.672755
1	0	-0.277184	-5.892419	-0.534175
1	0	-0.603528	-3.482782	-0.131014
1	0	2.884611	1.200839	1.255609
1	0	1.176327	0.926949	0.873398
1	0	2.328471	1.284076	-0.418627
1	0	10.174420	2.014821	-0.462119
1	0	2.884611	1.200839	1.255609
79	0	-0.622986	-0.818137	0.211718
15	0	-2.818627	0.106730	0.080674
6	0	-2.672781	1.826007	-0.545500
6	0	-2.049463	1.995074	-1.788520
6	0	-3.012787	2.990377	0.150557
6	0	-1.786553	3.243897	-2.332637
6	0	-2.757283	4.256378	-0.373444
6	0	-2.145835	4.384416	-1.616360
6	0	-3.827512	0.130664	1.605487
6	0	-5.164442	0.551643	1.585261
6	0	-3.326838	-0.340444	2.825107
6	0	-5.973799	0.503205	2.711041
6	0	-4.120061	-0.398385	3.968442
6	0	-5.444999	0.022762	3.909201
6	0	-3.877948	-0.817979	-1.106527
6	0	-4.696342	-0.260047	-2.095787
6	0	-3.853530	-2.216958	-1.025859
6	0	-5.428556	-1.053478	-2.975285
6	0	-4.578239	-3.029278	-1.888120
6	0	-5.368385	-2.440301	-2.872770
9	0	-3.123733	-2.818645	-0.069490
9	0	-4.810427	1.065099	-2.236469
9	0	-6.193676	-0.486977	-3.910187
9	0	-6.071052	-3.201637	-3.706438
9	0	-4.526520	-4.357605	-1.773516
9	0	-5.688045	1.039788	0.452891
9	0	-7.240561	0.916759	2.658005
9	0	-6.207811	-0.027689	4.996215
9	0	-3.614444	-0.855008	5.115534
9	0	-2.060607	-0.760332	2.942237
9	0	-1.690734	0.908020	-2.493282
9	0	-3.581470	2.942314	1.361810
9	0	-3.095536	5.346068	0.318840
9	0	-1.901627	5.591552	-2.119416
9	0	-1.196029	3.356870	-3.523745
1	0	1.909477	-1.263376	1.358673
6	0	5.070388	1.856636	0.112022
6	0	4.632317	2.392825	-1.117141
6	0	4.948343	2.597918	1.306928
6	0	4.032364	3.657285	-1.117619
6	0	4.337417	3.855091	1.254323
6	0	3.866253	4.401390	0.055285
1	0	3.694296	4.073775	-2.063812
1	0	4.233833	4.424293	2.175422
6	0	3.188231	5.751150	0.030562
6	0	5.457168	2.062026	2.627826
6	0	4.817823	1.648929	-2.421882
1	0	3.308532	6.241264	-0.940892
1	0	2.110246	5.654229	0.215901
1	0	3.590800	6.414672	0.802860
1	0	6.552133	2.006533	2.642873
1	0	5.144905	2.707788	3.453143
1	0	5.085813	1.050664	2.831354

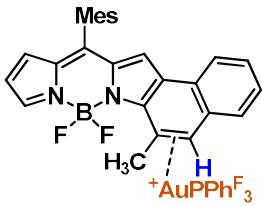
1	0	5.880393	1.506835	-2.652852
1	0	4.362264	0.652477	-2.398342
1	0	4.367937	2.203738	-3.2497



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	6.901706	-3.222820	1.196362
6	0	5.960651	-3.035701	0.146109
7	0	5.485082	-1.788842	0.159109
6	0	6.992058	-2.022073	1.868814
6	0	6.100105	-1.112355	1.218927
6	0	5.781467	0.200034	1.471822
6	0	4.836459	0.898383	0.688128
7	0	4.202618	0.308317	-0.398750
6	0	3.329095	1.240890	-0.901535
6	0	3.412056	2.440065	-0.122016
6	0	4.371364	2.208374	0.870785
5	0	4.458433	-1.171456	-0.853315
9	0	3.273522	-1.904025	-0.797447
9	0	5.013897	-1.212456	-2.124938
6	0	2.605226	3.599046	-0.409481
6	0	1.681831	3.502857	-1.486710
6	0	2.692347	4.806419	0.313709
6	0	1.892392	5.886418	-0.024090
6	0	0.984729	5.794615	-1.097366
6	0	0.880010	4.617296	-1.817948
6	0	1.597573	2.266595	-2.249292
6	0	2.442281	1.150903	-2.031625
6	0	2.498184	0.049981	-3.062780
1	0	5.628574	-3.751848	-0.594214
1	0	7.606705	-1.782106	2.725744
1	0	4.704999	2.882901	1.647205
1	0	3.394777	4.888914	1.137491
1	0	1.969951	6.811637	0.539160
1	0	0.368590	6.649064	-1.360408
1	0	0.181332	4.540476	-2.646904
1	0	3.487120	0.042857	-3.531702
1	0	1.741301	0.215639	-3.833347
1	0	2.349781	-0.933770	-2.616697
1	0	7.430374	-4.141975	1.405536
79	0	0.106789	0.976379	-1.054930
15	0	-1.594035	-0.207733	0.032237
6	0	-2.418057	-1.282187	-1.200055
6	0	-1.609529	-2.202371	-1.881054
6	0	-3.755835	-1.198649	-1.600425
6	0	-2.092462	-3.013478	-2.897583
6	0	-4.263042	-2.001135	-2.620380
6	0	-3.432579	-2.910216	-3.268211
6	0	-2.852539	0.799114	0.887727
6	0	-3.827853	0.196229	1.694915
6	0	-2.847666	2.198653	0.830951
6	0	-4.746553	0.936859	2.424255
6	0	-3.759723	2.962332	1.554673
6	0	-4.707949	2.329698	2.352942
6	0	-0.919769	-1.291224	1.351524
6	0	-1.277358	-2.626680	1.575665
6	0	0.052788	-0.745816	2.201537

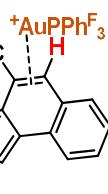
6	0	-0.676791	-3.387394	2.574881
6	0	0.661415	-1.484350	3.207960
6	0	0.295463	-2.816010	3.391179
9	0	0.413067	0.540815	2.067567
9	0	-2.216817	-3.226305	0.836988
9	0	-1.037668	-4.658499	2.757485
9	0	0.866582	-3.536844	4.351054
9	0	1.582350	-0.926595	3.995900
9	0	-3.900935	-1.139617	1.757879
9	0	-5.663835	0.331731	3.178953
9	0	-5.582837	3.051946	3.043794
9	0	-3.727437	4.293634	1.482694
9	0	-1.963007	2.863119	0.077550
9	0	-0.315583	-2.316332	-1.537455
9	0	-4.603970	-0.332561	-1.033208
9	0	-5.544071	-1.895700	-2.977426



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)		
		X	Y	Z
6	0	5.501068	-4.283017	0.346285
6	0	4.359394	-4.133373	-0.486359
7	0	4.098741	-2.841150	-0.696370
6	0	5.945147	-3.011328	0.644259
6	0	5.063085	-2.094318	-0.010426
6	0	5.040766	-0.711783	-0.035345
6	0	4.019542	-0.036036	-0.766923
7	0	3.051561	-0.708834	-1.503510
6	0	2.219602	0.246182	-2.036852
6	0	2.666759	1.543773	-1.630715
6	0	3.803854	1.347585	-0.838296
5	0	2.957070	-2.267796	-1.598376
9	0	1.727379	-2.708457	-1.109490
9	0	3.161970	-2.703685	-2.901610
6	0	1.988341	2.750267	-2.030234
6	0	0.820316	2.609573	-2.828627
6	0	2.427454	4.043355	-1.677845
6	0	1.732760	5.162128	-2.108856
6	0	0.581992	5.023289	-2.909591
6	0	0.131428	3.763065	-3.263398
6	0	0.369926	1.279334	-3.211007
6	0	1.075137	0.091603	-2.894521
6	0	0.706351	-1.196447	-3.589607
1	0	3.740930	-4.904811	-0.926337
1	0	6.791525	-2.727984	1.254045
1	0	4.413838	2.095269	-0.352738
1	0	3.318201	4.159626	-1.067965
1	0	2.081539	6.152801	-1.832667
1	0	0.050071	5.906008	-3.251368
1	0	-0.755373	3.648736	-3.881319
1	0	1.537372	-1.517832	-4.224892
1	0	-0.180292	-1.048886	-4.211221
1	0	0.518547	-2.001650	-2.878604
1	0	5.921219	-5.224784	0.669813

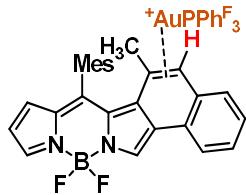
79	0	-0.963210	0.614042	-1.462842
15	0	-2.471518	0.006848	0.221920
6	0	-3.555563	-1.314139	-0.435856
6	0	-2.925822	-2.466064	-0.926457
6	0	-4.944638	-1.241144	-0.585949
6	0	-3.625350	-3.503051	-1.526487
6	0	-5.668209	-2.268900	-1.187265
6	0	-5.009682	-3.401253	-1.656271
6	0	-3.507007	1.346157	0.903123
6	0	-4.312116	1.132181	2.030930
6	0	-3.485740	2.642177	0.371851
6	0	-5.048270	2.150437	2.619128
6	0	-4.216402	3.679512	0.945339
6	0	-4.996021	3.432307	2.071429
6	0	-1.593700	-0.675869	1.682799
6	0	-1.962064	-1.827657	2.389907
6	0	-0.440795	-0.008013	2.119755
6	0	-1.208117	-2.303892	3.458858
6	0	0.322279	-0.461998	3.187559
6	0	-0.061845	-1.621539	3.856908
9	0	-0.048615	1.122797	1.511289
9	0	-3.060342	-2.517551	2.066211
9	0	-1.585786	-3.407055	4.106571
9	0	0.658065	-2.068606	4.880922
9	0	1.412834	0.205688	3.573118
9	0	-4.403266	-0.096038	2.556704
9	0	-5.806611	1.911419	3.689199
9	0	-5.698430	4.416119	2.622005
9	0	-4.173463	4.903498	0.417628
9	0	-2.761899	2.938004	-0.714794
9	0	-1.592629	-2.584001	-0.810185
9	0	-5.638507	-0.173585	-0.173791
9	0	-6.992161	-2.166242	-1.315187
9	0	-5.698387	-4.384032	-2.228550
9	0	-2.986479	-4.584383	-1.974499
1	0	-0.362706	1.222690	-4.015076
6	0	6.068343	0.079558	0.707543
6	0	7.241041	0.495169	0.040566
6	0	5.855047	0.404484	2.064313
6	0	8.189293	1.233613	0.755744
6	0	6.833605	1.147207	2.733622
6	0	8.008474	1.567571	2.101982
1	0	9.093235	1.556278	0.243910
1	0	6.669580	1.403991	3.777830
6	0	4.601004	-0.022065	2.794636
1	0	3.694377	0.348369	2.303506
1	0	4.513885	-1.113946	2.845717
1	0	4.602543	0.359361	3.819452
6	0	7.486831	0.156896	-1.413363
1	0	7.506034	-0.926816	-1.578924
1	0	6.703845	0.565949	-2.062859
1	0	8.445106	0.563426	-1.748115
6	0	9.063666	2.340293	2.858249
1	0	9.798694	1.661694	3.311017
1	0	9.612911	3.019058	2.197609
1	0	8.623733	2.930264	3.668866



Standard orientation:

Atomic Atomic Coordinates (Angstroms)

Number	Type	X	Y	Z
6	0	7.247342	-3.427288	0.057951
6	0	7.352455	-2.257523	0.843940
7	0	6.401208	-1.374578	0.498496
6	0	6.176868	-3.235691	-0.802884
6	0	5.646047	-1.945133	-0.528048
6	0	4.598691	-1.250482	-1.119733
6	0	4.255470	0.047139	-0.730025
7	0	4.968973	0.667923	0.291233
6	0	4.500612	1.907511	0.479643
6	0	3.439328	2.164228	-0.416659
6	0	3.271924	0.981905	-1.190974
5	0	6.128617	0.014683	1.145719
9	0	7.252131	0.820005	1.078898
9	0	5.694307	-0.133283	2.453981
6	0	2.646005	3.343626	-0.616041
6	0	1.646811	3.284870	-1.632662
6	0	2.817980	4.540836	0.113249
6	0	2.032653	5.646822	-0.161855
6	0	1.054330	5.594282	-1.176408
6	0	0.862800	4.429976	-1.899311
6	0	1.460244	2.054717	-2.392153
6	0	2.288552	0.919662	-2.227645
6	0	2.212812	-0.230683	-3.200926
1	0	8.063837	-2.029363	1.626729
1	0	5.799611	-3.915572	-1.555048
1	0	4.934346	2.552149	1.231432
1	0	3.574579	4.593057	0.890559
1	0	2.174884	6.563319	0.403247
1	0	0.451141	6.471228	-1.391230
1	0	0.108367	4.384972	-2.680701
1	0	3.168418	-0.333829	-3.730443
1	0	1.427768	-0.061499	-3.942557
1	0	2.004931	-1.178768	-2.695645
1	0	7.891943	-4.292031	0.129106
79	0	-0.083254	0.928945	-1.131282
15	0	-1.757147	-0.236061	0.014624
6	0	-2.098499	-1.772470	-0.921538
6	0	-1.000949	-2.596414	-1.206748
6	0	-3.331503	-2.154887	-1.462736
6	0	-1.105619	-3.742752	-1.980615
6	0	-3.460143	-3.300199	-2.246206
6	0	-2.348239	-4.095958	-2.504311
6	0	-3.317398	0.669719	0.278409
6	0	-4.321812	0.153347	1.109533
6	0	-3.537364	1.937642	-0.275728
6	0	-5.481140	0.859608	1.395901
6	0	-4.692464	2.664879	-0.001923
6	0	-5.663090	2.125170	0.837412
6	0	-1.213575	-0.721489	1.696821
6	0	-1.394290	-1.982870	2.278472
6	0	-0.544850	0.241278	2.466470
6	0	-0.912560	-2.277238	3.550914
6	0	-0.060626	-0.028517	3.740036
6	0	-0.244260	-1.298872	4.282537
9	0	-0.369492	1.480948	1.981120
9	0	-2.043355	-2.956878	1.631771
9	0	-1.098657	-3.490142	4.073825
9	0	0.209546	-1.573230	5.501453
9	0	0.568147	0.916088	4.440844
9	0	-4.184572	-1.071994	1.631993
9	0	-6.419266	0.336904	2.186058
9	0	-6.768969	2.811578	1.101615
9	0	-4.870541	3.871745	-0.540903
9	0	-2.641682	2.504739	-1.094215
9	0	0.209119	-2.275125	-0.713173
9	0	-4.439706	-1.430352	-1.264680



Standard orientation:

Atomic Number	Atomic Type	Coordinates (Angstroms)						
		X	Y	Z				
6	0	-7.805660	0.685838	1.994347	6	0	1.845167	-2.126180
6	0	-7.440393	-0.655929	2.221858	6	0	2.141313	-1.286858
7	0	-6.315272	-0.949150	1.547940	9	0	1.632167	-2.468785
6	0	-6.845755	1.224158	1.150418	9	0	2.892699	1.803937
6	0	-5.906185	0.192547	0.861394	9	0	2.781146	0.845033
6	0	-4.781978	0.220962	0.015558	9	0	2.098462	-1.752678
6	0	-4.017684	-0.953297	-0.207759	9	0	1.520301	-3.401875
7	0	-4.402130	-2.103287	0.489452	9	0	4.977795	1.008020
6	0	-3.640534	-3.139929	0.146683	9	0	7.424052	0.129663
6	0	-2.683566	-2.739463	-0.802168	9	0	7.672923	-1.646183
6	0	-2.893150	-1.345658	-1.049038	9	0	5.460630	-2.539698
5	0	-5.465285	-2.226309	1.648274	9	0	3.030554	-1.693047
9	0	-6.225998	-3.366414	1.451814	9	0	0.227029	1.900700
9	0	-4.788252	-2.279200	2.861928	9	0	4.109713	2.410559
6	0	-1.692386	-3.548918	-1.449797	9	0	3.681410	5.043596
6	0	-0.841738	-2.899311	-2.383159	9	0	1.528100	6.152539
6	0	-1.536881	-4.934932	-1.225207	9	0	-0.211917	4.566086
6	0	-0.573177	-5.649000	-1.914770	1	0	-0.554953	-1.073166
6	0	0.262996	-5.004856	-2.851584	6	0	-4.486055	1.557951
6	0	0.132006	-3.647937	-3.081629	6	0	-3.596608	2.425335
6	0	-1.020328	-1.477250	-2.614850	6	0	-5.158630	1.975549
6	0	-2.054679	-0.702493	-2.030806	6	0	-3.346756	3.686923
6	0	-2.281965	0.665298	-2.619181	6	0	-4.882521	3.248665
1	0	-7.927524	-1.402769	2.835524	6	0	-3.976857	4.117362
1	0	-6.805948	2.230705	0.757111	6	0	-2.640759	4.345943
1	0	-3.804858	-4.111851	0.588886	1	0	-5.387201	3.567317
1	0	-2.179445	-5.444154	-0.513422	1	0	-6.150733	1.079085
1	0	-0.462858	-6.714034	-1.738463	1	0	-5.719882	0.100921
1	0	1.008797	-5.578510	-3.393737	1	0	-7.032923	0.888865
1	0	0.775447	-3.144243	-3.798203	1	0	-6.491278	1.538211
1	0	-3.256894	0.693824	-3.113850	1	0	-2.932299	2.027560
1	0	-1.517327	0.879759	-3.369958	1	0	-2.214417	2.786222
1	0	-2.272563	1.459926	-1.874854	1	0	-3.671999	1.909587
1	0	-8.675629	1.181535	2.404686	1	0	-2.398219	1.075556
79	0	0.463185	-0.582797	-1.129621	6	0	-3.714404	5.494019
15	0	2.265443	0.230724	0.127941	1	0	-3.741422	5.488940
6	0	2.191999	2.061035	0.086750	1	0	-4.475423	6.209194
					1	0	-2.740620	5.878474
								-1.890351

7. References

- [1] N. R. Babij, E. O. McCusker, G. T. Whiteker, B. Canturk, N. Choy, L. C. Creemer, C. V. D. Amicis, N. M. Hewlett, P. L. Johnson, J. A. Knobelsdorf, F. Li, B. A. Lorsbach, B. M. Nugent, S. J. Ryan, M. R. Smith and Q. Yang, *Org. Process Res. Dev.*, 2016, **20**, 661.
- [2] J. R. Lakowicz, *Principles of fluorescence spectroscopy*, 3rd ed. Springer, New York, 2006.

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- [3] A. M. Brouwer, *Pure Appl. Chem.*, 2011, **83**, 2213.
- [4] The authors thank X-Ray laboratory for the crystallographic support.
- [5] (a) C. Korner, P. Starkov and T. D. Sheppard, *J. Am. Chem. Soc.*, 2010, **132**, 5968. (b) Y. Hayashi, S. Yamaguchi, W. Y. Cha, D. Kim, H. Shinokubo, *Org. Lett.*, 2011, **13**, 2992. (c) T. Sakida, S. Yamaguchi, H. Shinokubo, *Angew. Chem. Int. Ed.*, 2011, **50**, 2280.
- [6] (a) C. Lee, W. Yang, R. G. Parr, *Phys. Rev. B* 1988, **37**, 785–789. (b) A. D. Becke, *J. Chem. Phys.* 1993, **98**, 5648. (c) W. Kohn, A. D. Becke, R. G. Parr, *J. Phys. Chem.* 1996, **100**, 12974–12980.
- [7] (a) P. J. Hay, W. R. Wadt, *J. Chem. Phys.*, 1985, **82**, 270-283. (b) P. J. Hay, W. R. Wadt, *J. Chem. Phys.* 1985, **82**, 284. (c) P. J. Hay, W. R. Wadt, *J. Chem. Phys.*, 1985, **82**, 299-310.
- [8] Y. Zhao, D. G. Truhlar, *Theor. Chem. Acc.*, 2008, **120**, 215.
- [9] Gaussian 16, Revision C.01; Frisch, M. J.; Trucks, G. W.; Schlegel, H. B.; Scuseria, G. E.; Robb, M. A.; Cheeseman, J. R.; Scalmani, G.; Barone, V.; Petersson, G. A.; Nakatsuji, H.; Li, X.; Caricato, M.; Marenich, A. V.; Bloino, J.; Janesko, B. G.; Gomperts, R.; Mennucci, B.; Hratchian, H. P.; Ortiz, J. V.; Izmaylov, A. F.; Sonnenberg, J. L.; Williams-Young, D.; Ding, F.; Lipparini, F.; Egidi, F.; Goings, J.; Peng, B.; Petrone, A.; Henderson, T.; Ranasinghe, D.; Zakrzewski, V. G.; Gao, J.; Rega, N.; Zheng, G.; Liang, W.; Hada, M.; Ehara, M.; Toyota, K.; Fukuda, R.; Hasegawa, J.; Ishida, M.; Nakajima, T.; Honda, Y.; Kitao, O.; Nakai, H.; Vreven, T.; Throssell, K.; Montgomery, J. A., Jr.; Peralta, J. E.; Ogliaro, F.; Bearpark, M. J.; Heyd, J. J.; Brothers, E. N.; Kudin, K. N.; Staroverov, V. N.; Keith, T. A.; Kobayashi, R.; Normand, J.; Raghavachari, K.; Rendell, A. P.; Burant, J. C.; Iyengar, S. S.; Tomasi, J.; Cossi, M.; Millam, J. M.; Klene, M.; Adamo, C.; Cammi, R.; Ochterski, J. W.; Martin, R. L.; Morokuma, K.; Farkas, O.; Foresman, J. B.; Fox, D. J. Gaussian, Inc., Wallingford CT, 2016.