Electronic Supplementary Information for

Detection and disaggregation of amyloid fibrils by luminescent amphiphilic platinum(II) complexes

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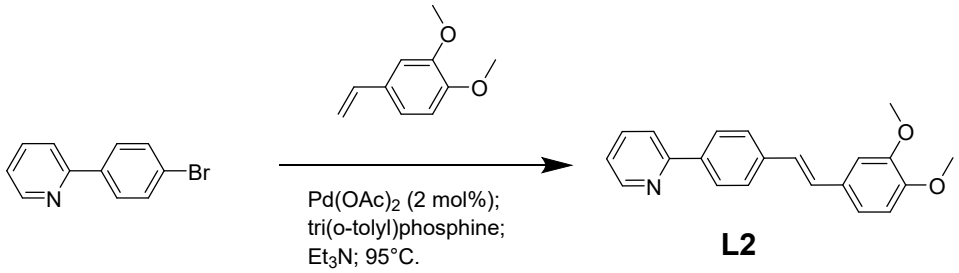
Materials and general methods

All reactions were carried out under Ar unless specifically noted. All commercially available materials, reagents and solvents were used as supplied unless otherwise noted. K_2PtCl_4 was purchased from Strem Chemicals, Inc., hen egg-white lysozyme (HEWL, lyophilized powder) was purchased from Sigma-Aldrich, and beta amyloid 1-42 ($A\beta_{42}$, HFIP-treated) was purchased from rPeptide. SH-SY5Y neuroblastoma cells were obtained from ATCC. Reported chemical yields are isolated yields. Proton (1H) and carbon (13C) NMR were collected on Bruker NMR spectrometers at 600, 500, or 400 MHz for 1H and 150, 125, or 100 MHz for 13C. Chemical shifts (δ) are reported in parts per million (ppm) referenced to undeuerated residual solvent. High resolution mass spectra were collected on a Thermo Q-Exactive (Orbitrap) mass spectrometer. Absorption spectra were obtained using an Agilent Cary 100 UV-Vis spectrophotometer. Emission spectra were obtained using either an Agilent Cary Eclipse fluorescence spectrometer or a FluoroMax Plus fluorimeter (HORIBA Scientific, Ltd.). All luminescence spectrophotometry was performed on samples open to air. Dynamic light scattering (DLS) experiments were performed using a Malvern Zetasizer Nano ZS instrument.

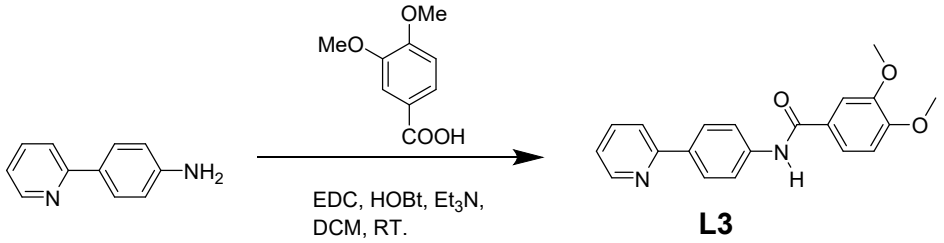
Synthesis of Ligands (**L2**, **L3**, **L4**, **L6-L8**)

*Synthesis of **L2***



3,4-Dimethoxystyrene was prepared according to literature reports.[1] 2-(4-Bromophenyl)pyridine (0.56 g, 2.37 mmol) was dissolved in 3.3 mL Et_3N and the solution was stirred and purged with Ar for 15 mins. 3,4-Dimethoxystyrene (0.43 g, 2.62 mmol), $Pd(OAc)_2$ (0.011 g, 0.047 mmol) and tri(o-tolyl)phosphine (0.043 g, 0.14 mmol) were added. The reaction mixture was stirred at 95 °C for 24 hours. The resulting mixture was allowed to cool to room temperature. Brine was added and the reaction mixture was extracted with DCM. The combined extracts were dried over Na_2SO_4, filtered, and concentrated under vacuum. The crude product was further purified by silica gel column chromatography, eluting with 30% EtOAc/70% hexane, to give **L2** in 88% yield (0.67 g, 2.09 mmol). 1H NMR (500 MHz, $CDCl_3$) δ 8.67 (dt, J = 4.7, 1.3 Hz, 1H), 7.99-7.97 (m, 2H), 7.70-7.65 (m, 2H), 7.58-7.56 (m, 2H), 7.18-7.15 (m, 1H), 7.10 (d, J = 16.3 Hz, 1H), 7.07-7.02 (m, 2H), 6.99 (d, J =16.3 Hz, 1H), 6.82 (d, J = 8.3 Hz, 1H), 3.91 (s, 3H), 3.86 (s, 3H); 13C NMR (125 MHz, $CDCl_3$) δ 157.0, 149.8, 149.3, 149.2, 138.3, 138.2, 136.8, 130.5, 129.2, 127.2, 126.8, 126.4, 122.1, 120.4, 120.2, 111.4, 109.0, 56.0, 56.0; HRMS (ESI) calcd for $C_{21}H_{20}O_2N$ $[M+H]^+$ 318.1489, found 318.1483.

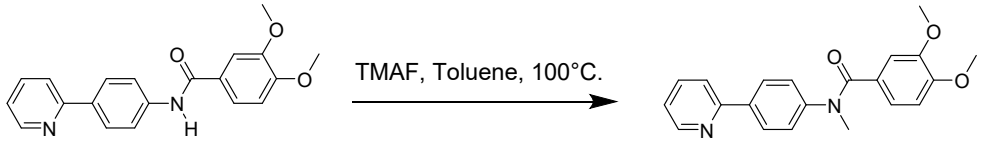
*Synthesis of **L3***



L3

3,4-Dimethoxybenzoic acid (2.01 g, 10.97 mmol) was dissolved in 40 mL DCM. 4-(2-Pyridinyl)benzenamine (2.02 g, 12.07 mmol), EDC (hydrochloride, 3.15 g, 16.46 mmol), HOBt (monohydrate, 2.52 g, 16.46 mmol), and Et_3N (1.66 g, 16.46 mmol) were added. The reaction mixture was stirred at room temperature for 24 h. The solvent was removed under vacuum. Ethanol (200 mL) was added to the crude sample and the resulting mixture was stirred at 78 °C for 10 mins. Insoluble **L3** was collected by vacuum filtration and dried under vacuum. NMR indicated this material was of sufficient purity for use in subsequent reactions. Yield – 1.45 g (4.33 mmol), 40%. 1H NMR (600 MHz, $CDCl_3$) δ 8.61-8.60 (m, 1H), 7.96-7.94 (m, 2H) 7.90 (br s, 1H), 7.70-7.65 (m, 4H), 7.45 (d, J = 2.0 Hz, 1H), 7.35 (dd, J= 8.4, 2.1 Hz, 1H), 7.15-7.13 (m, 1H), 6.84-6.83 (m, 1H), 3.88 (s, 3H), 3.87 (s, 3H); 13C NMR (150 MHz, $CDCl_3$) δ 165.2, 156.7, 152.1, 149.6, 149.2, 138.9, 136.8, 135.2, 127.6, 127.4, 121.9, 120.1, 120.0, 119.4, 110.7, 110.3, 56.0; HRMS (ESI) calcd for $C_{20}H_{19}O_3N_2$ $[M+H]^+$ 335.1390, found 335.1385.

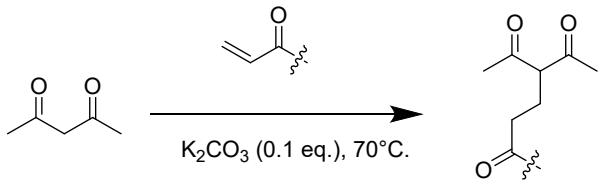
*Synthesis of **L4***



L3 **L4**

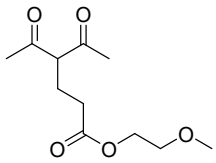
L4 was prepared using a method reported in the literature.[2] **L3** (0.21 g, 0.59 mmol) was dissolved in 6 mL toluene and tetramethylammonium fluoride (TMAF, 0.14 g, 1.43 mmol) was added. The reaction mixture was allowed to stir at 100 °C for 16 hours. The mixture was allowed to cool to room temperature and the solvent was removed under vacuum. The crude product was purified by silica gel column chromatography, eluting with hexane with increasing amount of EtOAc from 50% hexane/50% EtOAc to 30% hexane/70%EtOAc, to give **L4** in 72% yield (0.15 g, 0.43mmol). 1H NMR (400 MHz, $CDCl_3$) δ 8.65 (dt, J = 4.7, 0.8 Hz, 1H), 7.91-7.88 (m, 2H), 7.72 (td, J = 7.6 Hz, 1.7Hz, 1H), 7.65 (d, J = 7.9Hz, 1H), 7.23-7.20 (m, 1H), 7.16-7.14 (m, 2H), 6.96-6.91 (m, 2H), 6.61 (d, J = 8.3 Hz, 1H), 3.78 (s, 3H), 3.67 (s, 3H), 3.53 (s, 3H); 13C NMR (100 MHz, $CDCl_3$) δ 171.0, 170.0, 156.1, 150.2, 149.6, 148.0, 146.1, 137.1, 136.8, 127.7, 127.6, 126.8, 122.7, 122.3, 120.2, 112.3, 109.9, 55.7, 55.6, 38.4, 14.1; HRMS (ESI) calcd for $C_{21}H_{21}O_3N_2$ $[M+H]^+$ 349.1547, found 349.1539.

*Synthesis of **L6-L8***



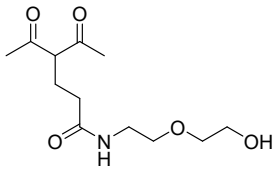
L6-L8

L6-**L8** were prepared using modifications of a previously reported procedure.[3] In general, K_2CO_3 (0.1 equivalent) was added to acetylacetone (acac, neat, 5 equivalents) and stirred at room temperature. The appropriate acrylate (1 equivalent) was then added and the reaction mixture was heated to 70 °C and maintained with stirring for 24 h. Insoluble material from the reaction mixture was removed by vacuum filtration and washed with DCM and MeOH. The filtrate was then concentrated under vacuum to give crude product. The acrylates were prepared using previously reported methods.[4, 5]



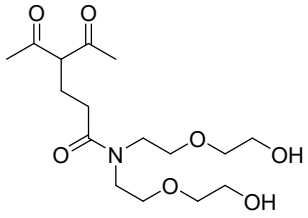
L6

L6 was prepared according to the general procedure from acac and 2-methoxyethyl acrylate (0.78 g, 5.99 mmol). Crude **L6** obtained from the reaction (93%, 1.28 g, 5.55 mmol) was used directly in subsequent reactions. 1H NMR (600 MHz, $CDCl_3$), mixture of tautomers: δ 4.27-4.25 (m, 2H), 3.8 (t, J = 7.0 Hz, 0.6H), 3.63-3.61 (m, 2H), 3.41-3.40 (m, 3H), 2.65-2.62 (m, 0.6H), 2.50-2.47 (m, 0.6H), 2.39-2.38 (t, J = 7.2 Hz, 1.4H), 2.23 (s, 4H), 2.19-2.14 (m, 3H); 13C NMR (150 MHz, $CDCl_3$), mixture of tautomers δ 203.6, 191.2, 172.3, 172.3, 108.5, 70.2, 70.1, 66.6, 63.4, 63.4, 58.7, 58.7, 34.4, 31.3, 29.2, 22.7, 22.7, 22.6; HRMS (ESI) calcd for $C_{11}H_{19}O_5$ $[M+H]^+$ 231.1227, found 231.1225.



L7

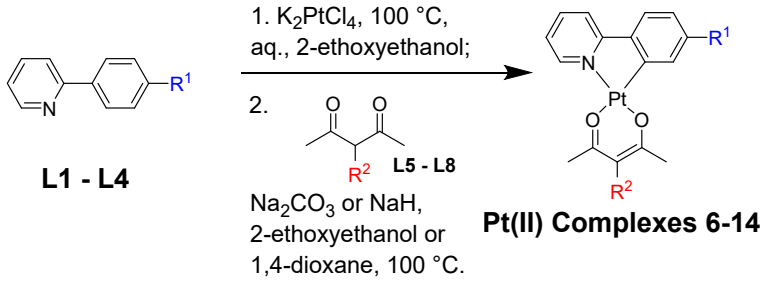
L7 was prepared according to the general procedure from acac and N-(2-(2-hydroxyethyloxy)ethyl)acrylamide (1.75 g, 10.99 mmol). The crude product obtained directly from the reaction mixture was further purified by silica gel column chromatography, eluting with DCM with increasing amount of MeOH from 99% DCM/1% MeOH to 94% DCM/6% MeOH, to give **L7** in 17% yield (0.50 g, 1.94 mmol). 1H NMR (400 MHz, $CDCl_3$), mixture of tautomers: δ 3.79-3.75 (m, 2H), 3.61-3.54 (m, 4H), 3.48-3.43 (m,4H), 2.65-2.61 (m, 0.5H), 2.29-2.25 (m, 0.5H), 2.21 (s, 4H), 2.17-2.15 (m, 4H);13C NMR (100 MHz, $CDCl_3$), mixture of tautomers δ 204.6, 191.6, 172.2, 172.0, 170.8, 146.2, 117.5, 109.1, 72.5, 72.2, 69.7, 69.6, 69.3, 66.8, 61.5, 41.3, 39.3, 39.2, 36.9, 33.3, 31.2, 29.8, 29.4, 23.5, 23.4, 22.9, 22.1, 16.3; HRMS (ESI) calcd for $C_{12}H_{22}O_5N$ $[M+H]^+$ 260.1492, found 260.1491.



L8

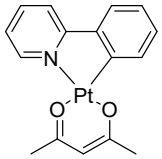
L8 was prepared according to the general procedure from acac and N,N-bis[2-(2-hydroxyethoxy)ethyl]-2-propenamide (0.53 g, 2.16 mmol). The crude product was further purified by silica gel column chromatography, eluting with DCM with increasing amount of MeOH from 95% DCM/5% MeOH to 92% DCM/ 8% MeOH, to give **L8** in 54% yield (0.40 g, 1.16 mmol). 1H NMR (400 MHz, $CDCl_3$), mixture of tautomers: δ 3.81 (t, J = 6.8 Hz, 1H), 3.72-3.53 (m, 21H), 2.62-2.58 (m, 0.5H), 2.50-2.46 (m, 0.5H), 2.43 (t, J = 7.1 Hz, 2H), 2.22 (s, 5H), 2.18-2.11 (m, 3.5H); 13C NMR (100 MHz, $CDCl_3$), mixture of tautomers: δ 205.0, 191.3, 172.7, 172.6, 128.1, 127.8, 109.1, 72.9, 72.8, 72.4, 72.3, 69.2, 69.1, 69.1, 69.0, 66.8, 61.6, 61.5, 61.5, 48.8, 48.7, 46.6, 46.4, 33.6, 30.2, 29.4, 23.0, 23.0, 22.9; HRMS (ESI) calcd for $C_{16}H_{30}O_7N$ $[M+H]^+$ 348.2017, found 348.2020.

Synthesis of Pt(II) Complexes ***6-14***



Complexes **7-14** were prepared via modifications to the two-step method previously reported for the preparation of **6**.[6] In general, K_2PtCl_4 (1 equivalent) was suspended in a mixture of H_2O/2-ethoxyethanol (~1:3 – 1:4, v/v) and the 2-phenylpyridine ligand (ppy, 1.0 – 3.5 equivalents, **L1-L4**) was added. The reaction mixture was heated with stirring to 100 °C for 48 h. The reaction was allowed to cool to room temperature and H_2O added until precipitation of the intermediate chloride-bridged Pt dimer was complete. The precipitate was collected by vacuum filtration, washed with H_2O, and dried under vacuum. These materials were used directly in the next step without further purification.

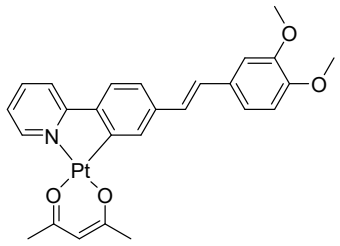
For the second step, the chloride-bridged dimer obtained in the first step (1 equivalent) was suspended in 2-ethoxyethanol or 1,4-dioxane. The acetonylacetone (acac) ligand **L5-L8** (3 equivalents) and base (3 – 10 equivalents of Na_2CO_3 or NaH) were added. The reaction mixture was heated to 100 °C for 24 h. The reaction mixture was then allowed to cool to room temperature and MeOH was added. The solvent was then removed under vacuum to give the crude product. Overall yields were calculated based on amount of K_2PtCl_4 used.



Complex 6

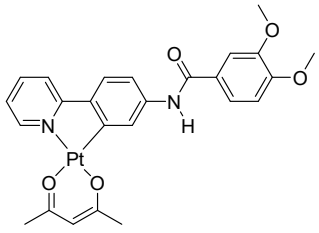
Complex **6** was prepared according to the general procedure using **L1** (0.11 g, 0.96 mmol) and K_2PtCl_4 (0.30 g, 0.96 mmol) in 10 mL H_2O/2-ethoxyethanol (1:4, v/v) for the first step. The chloride-bridged dimer obtained from this reaction (0.22 g, 0.28 mmol) was suspended in 6 mL 1,4-dioxane and combined with **L5** (0.087 g, 0.87 mmol) and Na_2CO_3 (0.30 g, 2.90 mmol). The crude product obtained from the reaction was further purified by silica gel column chromatography, eluting with 20% EtOAc/80% hexane, to give **6** in 37% overall yield (0.12 g, 0.27 mmol). 1H NMR (400 MHz, $CDCl_3$) δ 9.02-8.93 (m, 1H), 7.77 (td, J = 7.8, 1.5 Hz, 1H), 7.62-7.58 (m, 2H), 7.42 (dd, J = 7.8, 1.0 Hz, 1H), 7.19 (td, J = 7.49, 1.3 Hz, 1H), 7.10-7.06 (m, 2H), 5.46 (s, 1H), 1.99 (s, 3H), 1.99(s, 3H); 13C NMR (100 MHz, $CDCl_3$) δ 185.7, 184.1, 168.3,

147.3, 144.6, 138.9, 138.1, 130.5, 129.2, 123.5, 123.0, 121.1, 118.3, 102.5, 28.3, 27.1; HRMS (ESI) calcd for $C_{16}H_{16}O_2NPt$ $[M+H]^+$ 449.0823, found 449.0820.



Complex 7

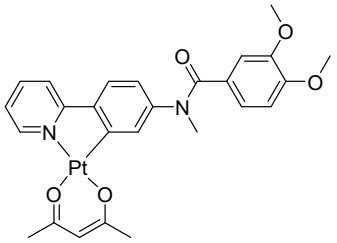
Complex **7** was prepared according to the general procedure except that all operations were performed in the dark (aluminum foil-wrapped glassware) to prevent light-induced isomerization of the stilbene alkene. Ligand **L2** (3.5 equivalents, 0.57 g, 1.81 mmol) and K_2PtCl_4 (0.21 g, 0.51 mmol) were combined in 12 mL H_2O/2-ethoxyethanol (1:3, v/v) for the first step. Platinum dimer obtained from this reaction (0.40 g, 0.36 mmol) was suspended in 3 mL 2-ethoxyethanol. Acetylacetone (**L5**, 0.11 g, 1.12 mmol) and Na_2CO_3 (0.39 g, 3.74 mmol) were added and the reaction performed as described in the general procedure. The crude product was further purified by silica gel column chromatography, eluting with 20% hexane/80% DCM, to give **7** in 51% overall yield (0.12 g, 0.27 mmol). X-ray quality single crystals of **7** were grown from CH_2Cl_2/MeOH solution. 1H NMR (600 MHz, $CDCl_3$) δ 9.03-8.93 (m, 1H), 7.78 (td, J = 7.7, 1.5 Hz, 1H), 7.70 (d, J = 1.6 Hz, 1H), 7.61-7.57 (m, 1H), 7.42 (d, J = 8.0 Hz, 1H), 7.28 (dd, J = 8.0, 1.6 Hz, 1H), 7.15 (d, J = 16.1 Hz, 1H), 7.12-7.06 (m, 3H), 7.04 (d, J = 16.1 Hz, 1H), 6.86 (d, J = 8.2 Hz, 1H), 5.49 (s, 1H), 3.96 (s, 3H), 3.91 (s, 3H), 2.06 (s, 3H), 2.01 (s, 3H);). 13C NMR (150 MHz, $CDCl_3$) δ 185.8, 184.1, 167.8, 149.0, 148.9, 147.3, 143.8, 138.7, 138.2, 138.0, 130.8, 129.0, 128.4, 127.6, 123.2, 121.6, 120.8, 120.1, 118.3, 111.1, 108.8, 102.5, 55.9, 55.9, 28.2, 27.2; HRMS (ESI) calcd for $C_{26}H_{26}O_4NPt$ $[M+H]^+$ 611.1504, found 611.1499.



Complex 8

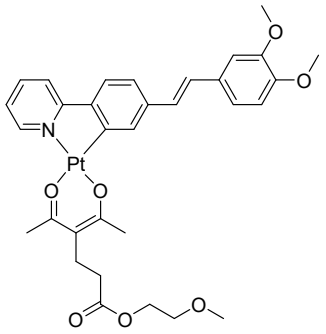
Complex **8** was prepared according to the general procedure using **L3** (0.30 g, 0.91 mmol) and K_2PtCl_4 (0.37 g, 0.91 mmol) in 10 mL H_2O/2-ethoxyethanol (1:4, v/v) for the first step. The resulting chloride-bridged dimer (0.45 g, 0.40 mmol) was suspended into 10 mL 1,4-dioxane, and combined with **L5** (0.12 g, 1.20 mmol) and Na_2CO_3 (0.42 g, 4.01 mmol). The crude product was further purified by silica gel column chromatography, eluting with 4% MeOH/96% DCM, to

give **8** in 26% overall yield (0.15g, 0.24 mmol). X-ray quality single crystals of **8** were grown from CH_2Cl_2/MeOH solution. 1H NMR (500 MHz, $CDCl_3$) δ 9.02-8.88 (m, 1H), 8.02 (dd, J = 8.3, 1.7 Hz, 1H), 7.87 (s, 1H), 7.79-7.76 (m, 1H), 7.57 (d, J = 7.8 Hz, 1H), 7.53-7.501 (m, 1H), 7.48 (d, J = 8.3 Hz, 1H), 7.42 (dd, J = 8.1, 1.8 Hz, 1H), 7.27-7.26 (m, 1H), 7.08-7.06 (m, 1H), 6.92 (d, J = 8.3 Hz, 1H), 5.48 (s, 1H), 3.96 (s, 3H), 3.94 (s, 3H), 2.03 (s, 3H), 2.01 (s, 3H); 13C NMR (125 MHz, $CDCl_3$) δ 186.1, 184.1, 167.9, 165.3, 152.1, 149.3, 147.2, 141.1, 139.5, 138.7, 138.3, 128.2, 124.3, 120.7, 120.4, 119.5, 118.3, 115.4, 111.0, 110.5, 102.8, 56.2, 56.2, 28.3, 27.3; HRMS (ESI) calcd for $C_{25}H_{25}O_5N_2Pt$ $[M+H]^+$ 628.1411, found 628.1408.



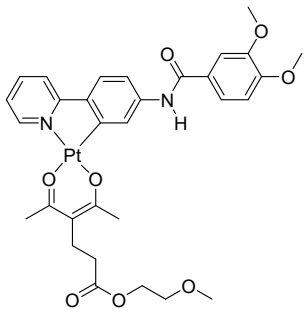
Complex 9

Complex **9** was prepared according to the general procedure using **L4** (0.22 g, 0.64 mmol) and K_2PtCl_4 (0.26 g, 0.64 mmol) in 10 mL H_2O/2-ethoxyethanol (1:4, v/v) for the first step. The resulting chloride-bridged dimer (0.13 g, 0.11 mmol) was suspended in 7 mL 1,4-dioxane and combined with **L5** (0.034 g, 0.34 mmol) and Na2CO3 (0.12 g, 1.13 mmol). The crude sample was further purified by silica gel column chromatography, eluting with hexane with increasing amount of EtOAc from 50% hexane/50% EtOAc to 30% hexane/70% EtOAc, to give **9** in 23% overall yield (0.092 g, 0.14 mmol). X-ray quality single crystals of **9** were grown from CH_2Cl_2/MeOH solution. 1H NMR (400 MHz, $CDCl_3$) δ 9.00-8.92 (m, 1H), 7.80-7.75 (m, 1H), 7.48 (d, J = 8.0 Hz, 1H), 7.43 (d, J = 2.1 Hz, 1H), 7.20 (d, J = 8.2 Hz, 1H), 7.12-7.09 (m, 1H), 7.05-7.00 (m, 2H), 6.62-6.57 (m, 2H), 5.48 (s, 1H), 3.78 (s, 3H), 3.69 (s, 3H), 3.55(s, 3H), 2.01 (s, 6H); 13C NMR (100 MHz, $CDCl_3$) δ 185.9, 184.2, 170.0, 167.1, 150.0, 147.8, 147.3, 145.6, 142.7, 140.2, 138.3, 128.2, 127.5, 123.3, 122.8, 122.7, 121.3, 118.5, 112.5, 109.7, 102.6, 55.7, 55.7, 38.5, 28.2, 21.1; HRMS (ESI) calcd for $C_{26}H_{27}O_5N_2Pt$ $[M+H]^+$ 642.1562, found 642.1559.



Complex 10

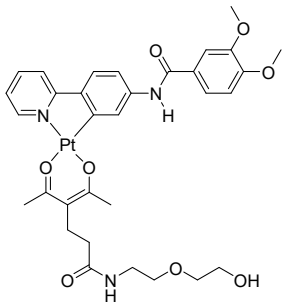
Complex **10** was prepared according to the general procedure except that all operations were performed in the dark (aluminum foil-wrapped glassware) to prevent light-induced isomerization of the stilbene alkene. Two equivalents **L2** (0.88 g, 2.79 mmol) and K_2PtCl_4 (0.56 g, 1.38 mmol) were reacted in 100 mL H_2O/2-ethoxyethanol (1:3, v/v) for the first step. The crude dimer intermediate (0.83 g, 0.76 mmol) was suspended in 50 mL 1,4-dioxane and combined with **L6** (0.53 g, 2.29 mmol) and NaH (60% wt, 0.092 g, 2.29 mmol). The crude product was further purified by silica gel column chromatography, eluting with 60% hexane/40% EtOAc, to give **10** in 29% overall yield (0.29g, 0.34 mmol). 1H NMR (600 MHz, $CDCl_3$) δ 8.95-8.89 (m, 1H), 7.79-7.76 (m, 1H), 7.68 (d, J = 1.6 Hz, 1H), 7.58 (d, J = 8.1 Hz, 1H), 7.41 (d, J = 8.0 Hz, 1H), 7.28-7.26 (m, 1H), 7.15 (d, J = 16.1 Hz, 1H), 7.11-7.06 (m, 3H), 7.03 (d, J = 16.1 Hz, 1H), 6.87 (d, J = 8.2 Hz, 1H), 4.28-4.25 (m, 2H), 3.96 (s, 3H), 3.91 (s, 3H), 3.63-3.61 (m, 2H), 3.40 (s, 3H), 2.77-2.74 (m, 2H), 2.52-2.49 (m, 2H), 2.21 (s, 3H), 2.17 (s, 3H); 13C NMR (150 MHz, $CDCl_3$) δ 184.8, 182.7, 173.0, 168.0, 149.0, 148.9, 147.1, 143.9, 139.4, 138.2, 138.0, 130.7, 129.0, 128.5, 127.6, 123.2, 121.6, 120.8, 120.1, 118.3, 111.1, 110.0, 108.8, 70.4, 63.6, 59.0, 55.9, 55.9, 35.2, 27.8, 27.1, 26.4; HRMS (ESI) calcd for $C_{32}H_{36}O_7NPt$ $[M+H]^+$ 741.2134, found 741.2130.



Complex 11

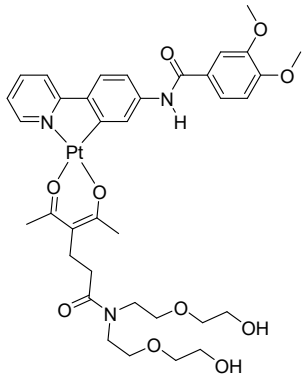
Complex **11** was prepared according to the general procedure using 2 equivalents of **L3** (1.27 g, 3.81 mmol) and K_2PtCl_4 (0.79 g, 1.90 mmol) in 100 mL H_2O/2-ethoxyethanol (1:3, v/v) for the first step. The dimer intermediate (1.05 g, 0.93 mmol) was suspended in 50 mL 1,4-dioxane and combined with **L6** (0.65 g, 2.82 mmol) and NaH (60% wt, 0.11 g, 2.82 mmol). The crude

product was further purified by silica gel column chromatography, eluting with 40% hexane/60% EtOAc, to give **11** in 32% overall yield (0.47 g, 0.62 mmol). 1H NMR (500 MHz, $CDCl_3$) δ 8.87 (d, J = 5.5 Hz, 1H), 7.97-7.93 (m, 2H), 7.79-7.72 (m, 1H), 7.56-7.46 (m, 3H), 7.41 (dd, J = 8.4, 2.0 Hz, 1H), 7.32-7.29 (m, 1H), 7.05 (t, J = 6.6 Hz, 1H), 6.91-6.89 (m, 1H), 4.26-4.24 (m, 2H), 3.95 (s, 3H), 3.93 (s,3H), 3.62-6.60 (m, 2H), 3.39 (s, 3H), 2.75-2.71 (m, 2H), 2.50-2.46 (m, 2H), 2.16 (s, 6H); 13C NMR (125 MHz, $CDCl_3$) δ 185.0, 182.7, 173.1, 167.9, 165.3, 152.0, 149.2, 147.0, 141.1, 140.2, 138.7, 138.2, 128.0, 124.2, 120.6, 120.6, 119.5, 118.3, 115.3, 110.9, 110.4, 110.2, 70.5, 63.7, 59.1, 56.2, 56.1, 35.3, 27.9, 27.1, 26.5; HRMS (ESI) calcd for $C_{31}H_{35}O_8N_2Pt$ $[M+H]^+$ 758.2036, found 758.2036.



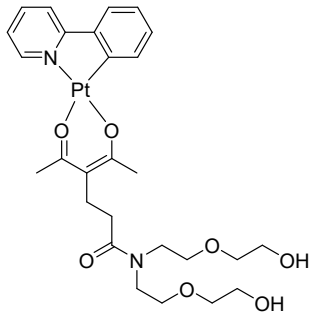
Complex 12

Complex **12** was prepared according to the general procedure using **L3** (0.24 g, 0.72 mmol) and K_2PtCl_4 (0.30 g, 0.72 mmol) in 10 mL H_2O/2-ethoxyethanol (1:4, v/v) for the first step. The resulting chloride-bridged dimer (0.35 g, 0.31 mmol) was suspended in 15 mL 1,4-dioxane and combined with **L7** (0.24 g, 0.93 mmol) and NaH (60% wt, 0.075 g, 1.87 mmol). The crude sample was further purified by silica gel column chromatography, eluting with DCM with increasing amount of MeOH from 98% DCM/2% MeOH to 95% DCM/5% MeOH, to give **12** in 17% overall yield (0.078 g, 0.099 mmol). 1H NMR (400 MHz, $CDCl_3$) δ 7.78 (d, J = 5.5 Hz, 1H), 8.58 (s, 1H), 7.81-7.73 (m, 1H), 7.65 (t, J = 7.6 Hz, 1H), 7.52-7.44 (m, 4H), 7.38 (d, J = 8.5 Hz, 1H), 7.02-6.94 (m, 1H), 6.93-6.88 (m, 1H), 6.79 (d, J = 8.3 Hz, 1H), 3.86 (s, 3H), 3.85 (s, 3H), 3.67-3.59 (m, 2H), 3.51-3.43 (m,4H), 3.38-3.31 (m, 2H), 2.66-2.55(m, 2H), 2.24-2.15 (m, 2H), 2.02 (s, 3H), 1.98 (s, 3H); 13C NMR (100 MHz, $CDCl_3$) δ 184.9, 182.5, 173.0, 167.6, 165.8, 151.9, 148.9, 146.7, 141.0, 140.6, 138.6, 138.1, 127.6, 124.0, 121.3, 120.6, 120.2, 118.3, 115.8, 110.9, 110.5, 110.3, 72.3, 69.8, 61.5, 56.0, 56.0, 39.3, 37.2, 27.9, 27.0, 26.8; HRMS (ESI) calcd for $C_{32}H_{38}O_8N_3Pt$ $[M+H]^+$ 787.2301, found 787.2296.



Complex 13

Complex **13** was prepared according to the general procedure using **L3** (0.15 g, 0.45 mmol) and K_2PtCl_4 (0.18 g, 0.45 mmol) in 5 mL H_2O/2-ethoxyethanol (1:4, v/v) for the first step. The crude dimer intermediate (0.089 g, 0.08 mmol) was suspended in 8 mL 1,4-dioxane and combined with **L8** (0.083 g, 0.24 mmol) and NaH (60% wt, 0.028 g, 0.71 mmol). The crude sample was further purified by silica gel column chromatography, eluting with DCM with increasing amount of MeOH from 99% DCM/1% MeOH to 96% DCM/4% MeOH, to give **13** in 45% overall yield (0.17 g, 0.19 mmol). 1H NMR (400 MHz, $CDCl_3$) δ 8.88-8.86 (m, 1H), 8.03 (s, 1H), 7.94-7.89 (m, 1H), 7.80-7.73 (m, 1H), 7.55 (d, J = 8.1 Hz, 1H), 7.51 (d, J = 1.7 Hz, 1H), 7.48-7.41 (m, 2H), 7.39-7.31 (m, 1H), 7.09-7.02 (m, 1H), 6.90 (d, J = 8.3 Hz, 1H), 3.94 (s, 3H), 3.93 (s, 3H), 3.75-3.49 (m, 16H), 2.79-2.68 (m, 2H), 2.56-2.47 (m, 2H), 2.16 (s, 3H), 2.15(s, 3H); 13C NMR (100 MHz, $CDCl_3$) δ 185.1, 182.7, 173.3, 167.9, 165.4, 152.1, 149.2, 147.0, 141.1, 140.3, 138.7, 138.2, 128.0, 124.2, 120.7, 120.7, 119.6, 118.3, 115.4, 110.9, 110.6, 110.4, 72.9, 72.4, 69.5, 69.2, 61.8, 61.7, 56.2, 56.1, 49.0, 46.9, 34.4, 28.0, 27.2, 26.6; HRMS (ESI) calcd for $C_{36}H_{46}O_{10}N_3Pt$ $[M+H]^+$ 875.2825, found 875.2815.



Complex 14

Complex **14** was prepared according to the general procedure using **L1** (0.11g, 0.72 mmol) and K_2PtCl_4 (0.30 g, 0.72 mmol) in 5 mL H_2O/2-ethoxyethanol (1:4, v/v) for the first step. The dimer intermediate (0.18 g, 0.23 mmol) was suspended in 6 mL 1,4-dioxane and combined with **L8** (0.21 g, 0.61 mmol) and NaH (60% wt, 0.088 g, 2.22 mmol). The crude sample was further purified by silica gel column chromatography, eluting with DCM with increasing amount of MeOH from 98% DCM/2% MeOH to 94% DCM/6% MeOH, to give **14** in 33% overall yield

(0.16 g, 0.23 mmol). 1H NMR (400 MHz, $CDCl_3$) δ 8.99-8.86 (m, 1H), 7.81-7.74 (m, 1H), 7.66-7.54 (m, 2H), 7.43 (dd, J = 7.8, 1.0 Hz, 1H) 7.19 (td, J = 7.4, 1.3 Hz, 1H), 7.12-7.05 (m, 2H), 3.71-3.54 (m, 16H), 2.78-2.72 (m, 2H), 2.54-2.48 (m, 2H), 2.16 (s, 3H), 2.14 (s, 3H); 13C NMR (100 MHz, $CDCl_3$) δ 185.0, 182.8, 173.3, 168.5, 147.2, 144.8, 139.8, 138.2, 130.7, 129.3, 123.6, 123.1, 121.2, 118.4, 110.5, 72.9, 72.4, 69.5, 69.3, 61.8, 61.7, 49.0, 46.9, 34.4, 28.0, 27.1, 26.6 ; HRMS (ESI) calcd for $C_{27}H_{37}O_7N_2Pt$ $[M+H]^+$ 696.2243, found 696.2236.

Absorption and Emission Spectra

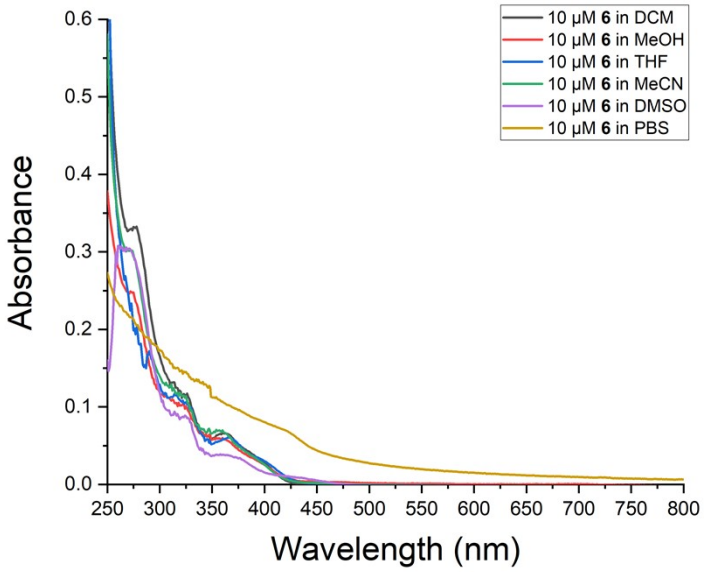


Fig. S1. Absorption spectra of **6** in various solvents. [**6**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

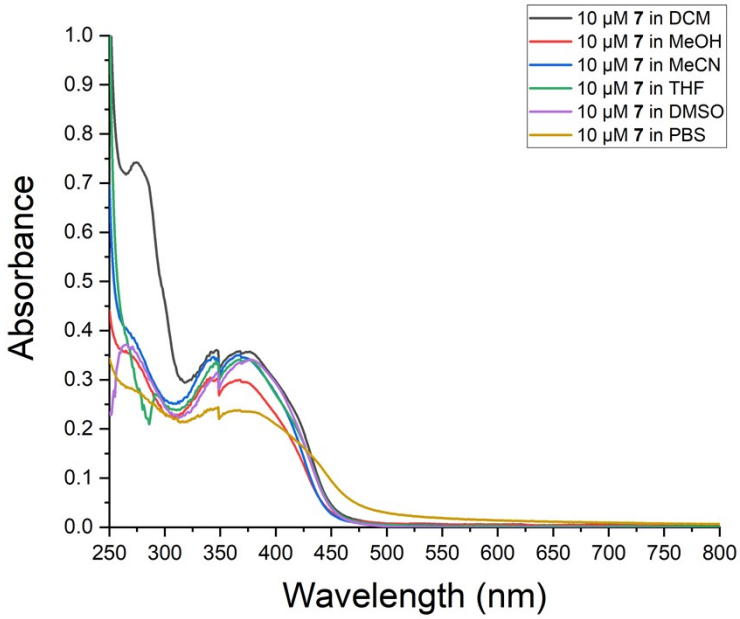


Fig. S2. Absorption spectra of **7** in various solvents. [**7**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

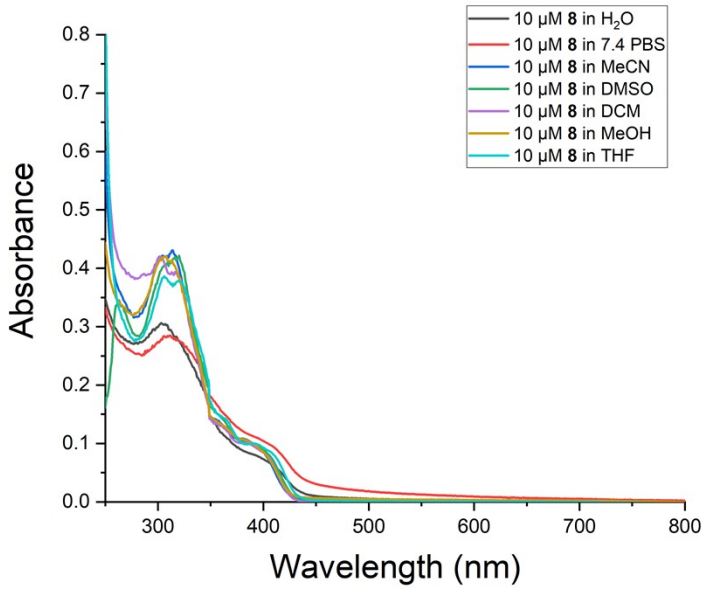


Fig. S3. Absorption spectra of **8** in various solvents. [**8**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

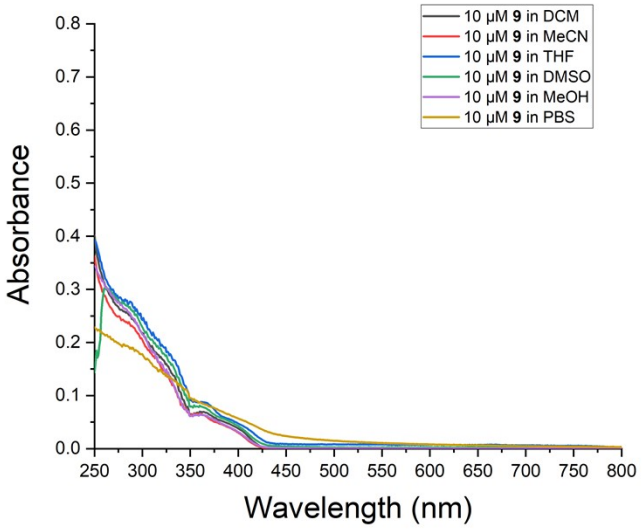


Fig. S4. Absorption spectra of **9** in various solvents. [**9**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

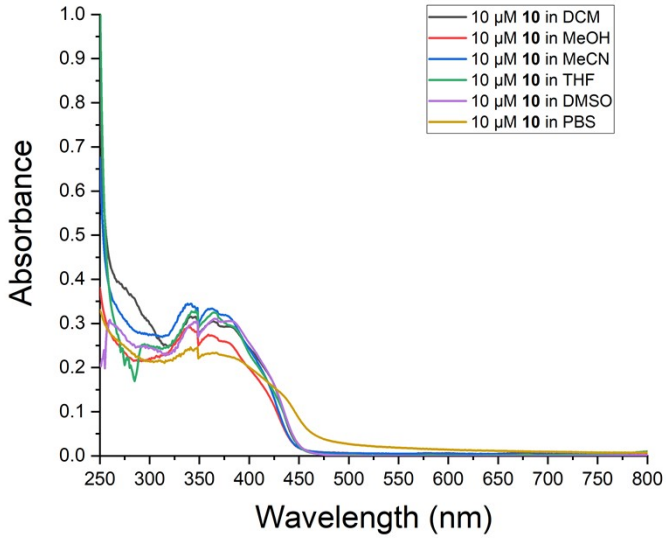


Fig. S5. Absorption spectra of **10** in various solvents. [**10**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

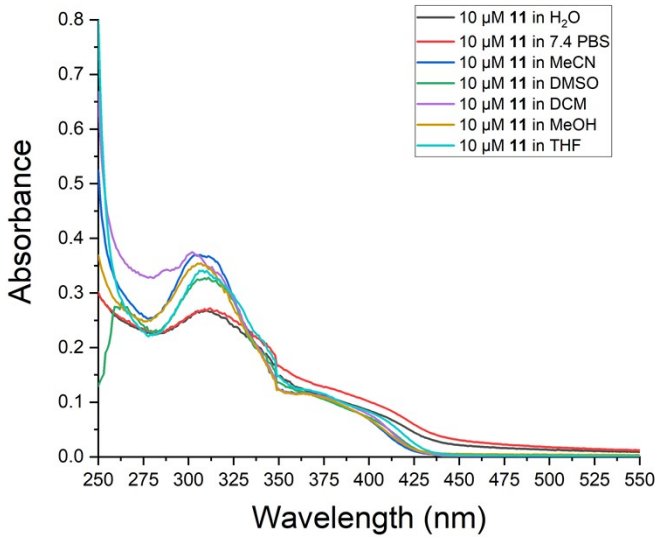


Fig. S6. Absorption spectra of **11** in various solvents. [**11**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

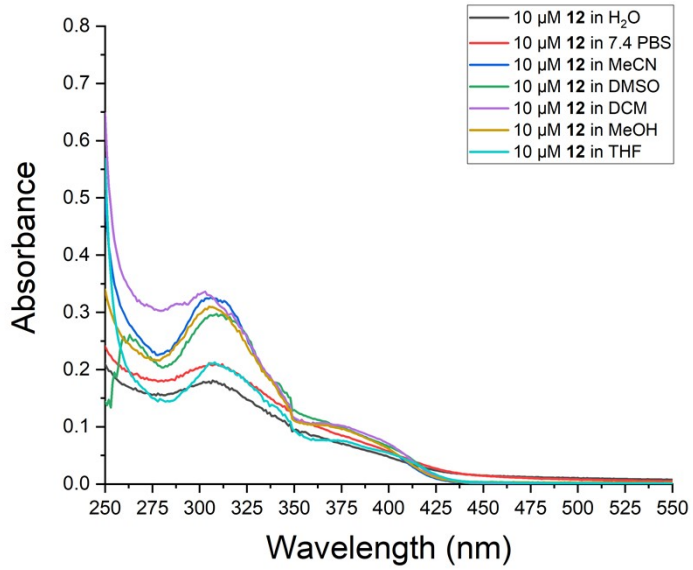


Fig. S7. Absorption spectra of **12** in various solvents. [**12**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

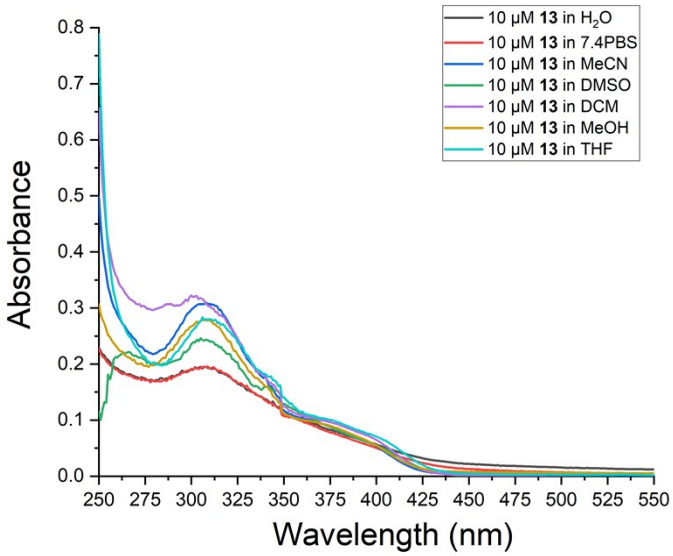


Fig. S8. Absorption spectra of **13** in various solvents. [**13**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

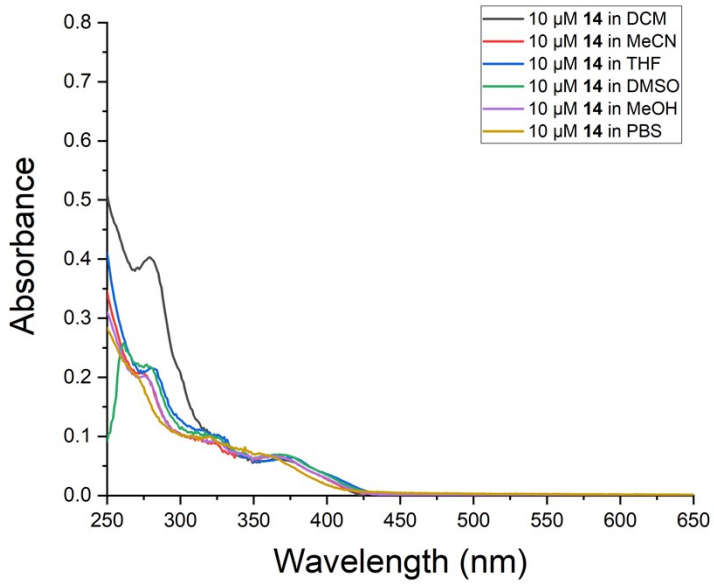


Fig. S9. Absorption spectra of **14** in various solvents. [**14**] = 10 μM with 0.5% (v/v) DMSO in the indicated solvents.

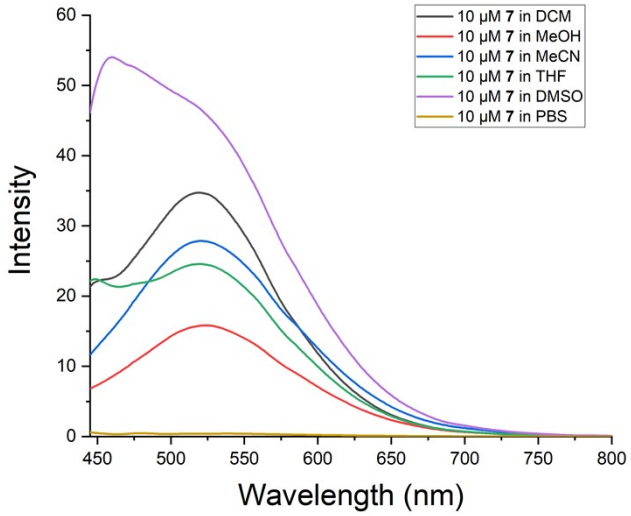


Fig. S10. Emission spectra of **7** in different solvents (containing 0.5% (v/v) DMSO); [**7**] = 10 μM; λ_{ex} = 410 nm.

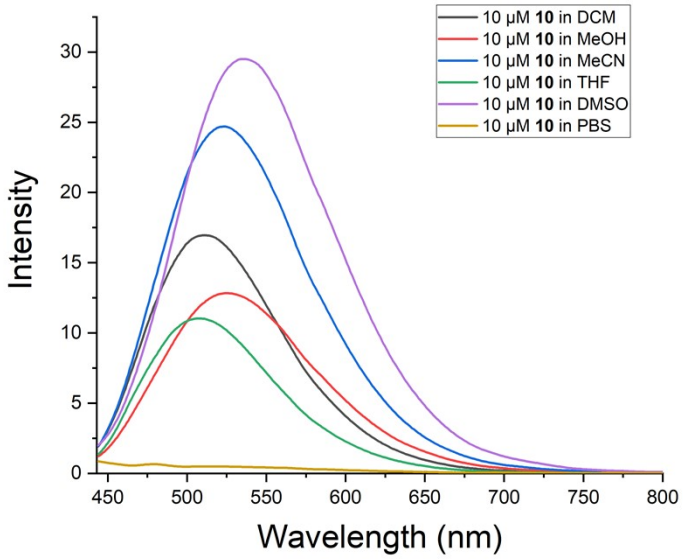


Fig. S11. Emission spectra of **10** in different solvents containing 0.5% (v/v) DMSO; [**10**] = 10 μM; λ_{ex} = 410 nm.

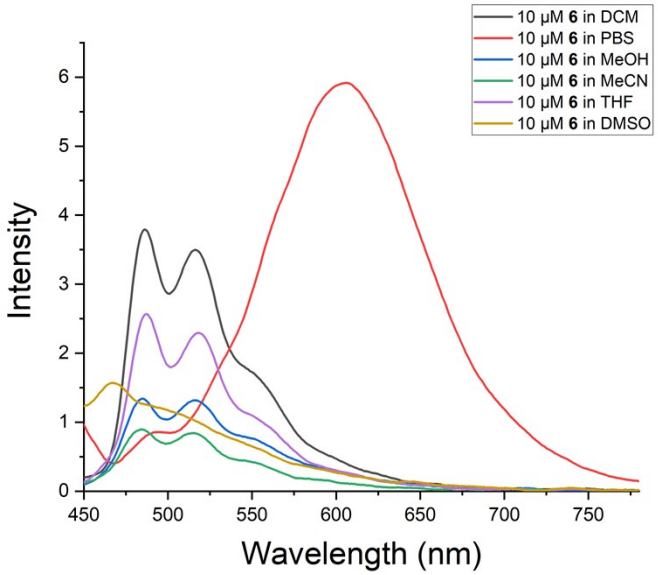


Fig. S12. Emission spectra of **6** in different solvents containing 0.5% (v/v) DMSO; [**6**] = 10 μM; λ_{ex} = 410 nm.

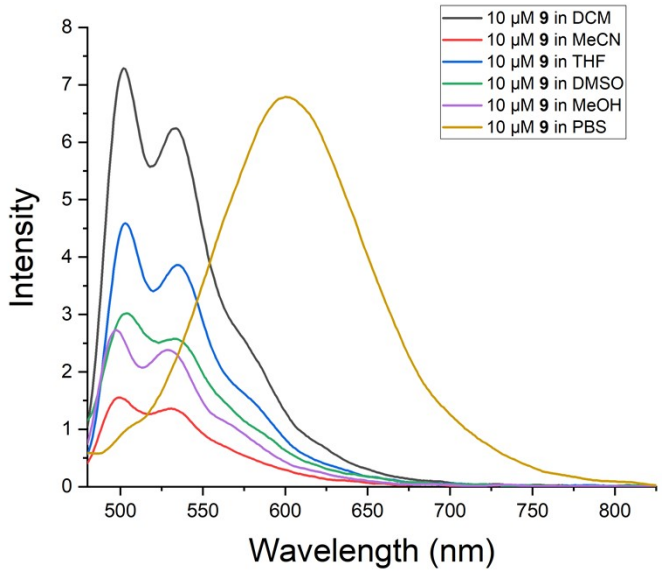


Fig. S13. Emission spectra of **9** in different solvents containing 0.5% (v/v) DMSO; [**9**] = 10 μM; λ_{ex} = 410 nm.

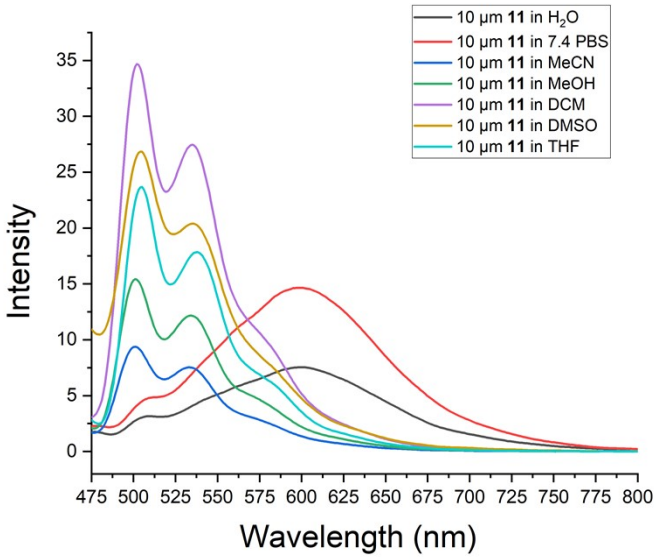


Fig. S14. Emission spectra of **11** in different solvents containing 0.5% (v/v) DMSO; [**11**] = 10 μM; λ_{ex} = 410 nm.

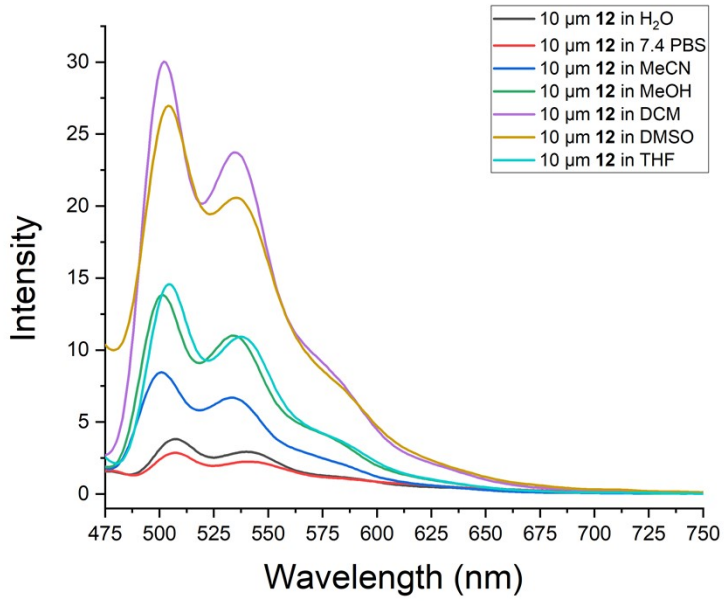


Fig. S15. Emission spectra of **12** in different solvents containing 0.5% (v/v) DMSO; [**12**] = 10 μM; λ_{ex} = 410 nm.

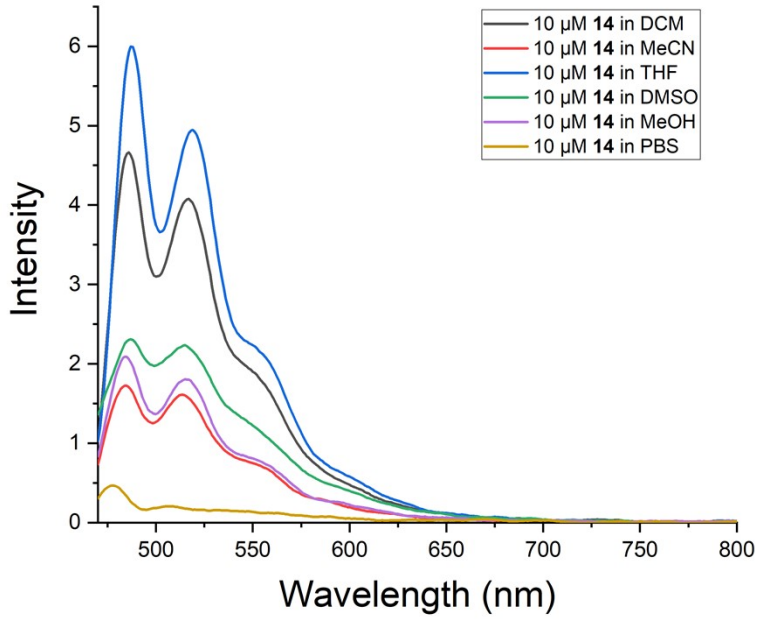


Fig. S16. Emission spectra of **14** in different solvents containing 0.5% (v/v) DMSO; [**14**] = 10 μM; λ_{ex} = 410 nm.

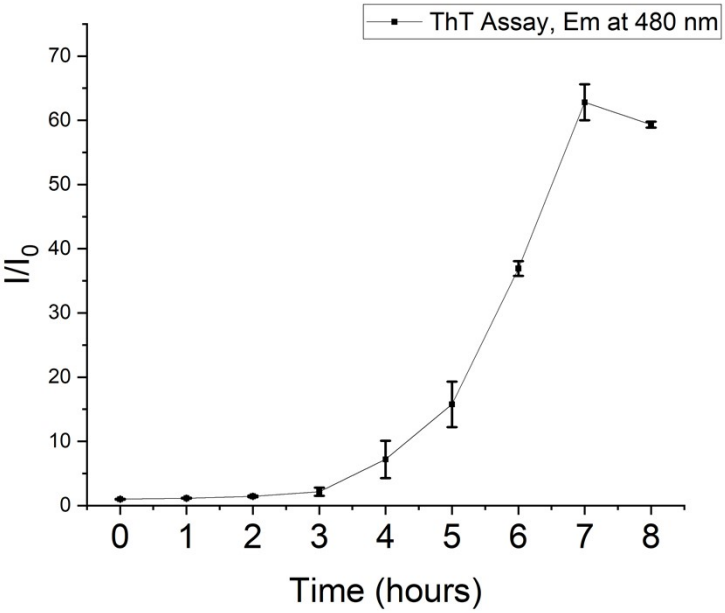


Fig. S17. ThT fluorescence assay of HEWL fibrillization. λ_{ex} = 440 nm, λ_{em} = 480 nm, error bar n = 3, I_o = ThT emission at T = 0.

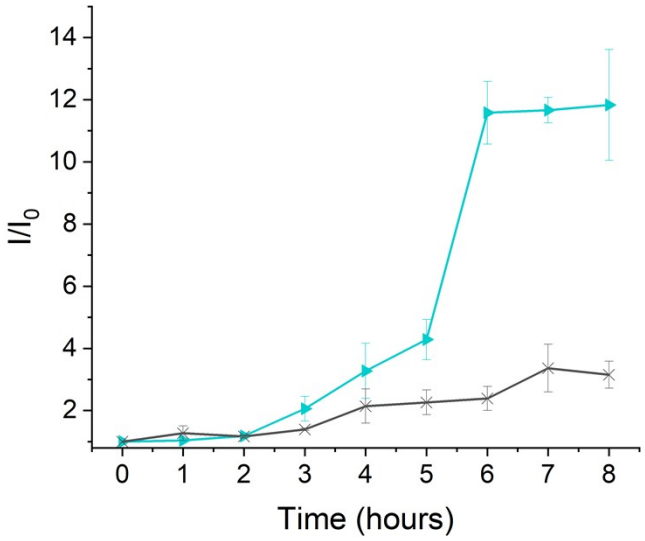
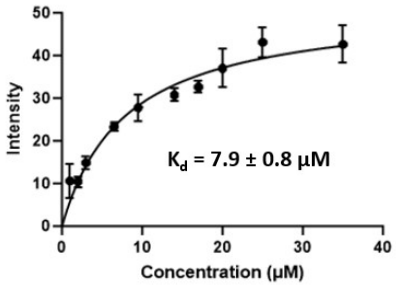
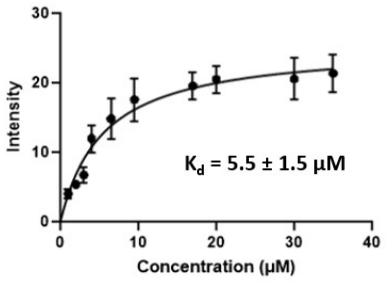


Fig. S18. Plot of emission enhancement (I/I_0) for complex **13** (cyan line) and **14** (black line) as a function of HEWL aggregation. λ_{ex} = 410 nm for both complexes, λ_{em}= 490 nm for **14** and 510 nm for **13**, error bar n = 3.



One site -- Specific binding	
Best-fit values	
Bmax	51.85
Kd	7.908
95% CI (profile likelihood)	
Bmax	46.38 to 58.99
Kd	5.613 to 11.23
Goodness of Fit	
Degrees of Freedom	28
R squared	0.9227
Sum of Squares	328.1
Sy.x	3.423
Number of points	
# of X values	30
# Y values analyzed	30

Fig. S19. Saturation binding isotherm generated by plotting maximum emission of **8** at 510 nm in the presence of 5 µM HEWL fibrils versus [**8**] (0-35 µM). Data analysis performed using GraphPad Prism, error bars reflect results of 3 trials.



One site -- Specific binding	
Best-fit values	
Bmax	25.40
Kd	5.457
95% CI (profile likelihood)	
Bmax	23.03 to 28.17
Kd	3.987 to 7.463
Goodness of Fit	
Degrees of Freedom	28
R squared	0.8981
Sum of Squares	136.3
Sy.x	2.207
Number of points	
# of X values	30
# Y values analyzed	30

Fig. S20. Saturation binding isotherm generated by plotting maximum emission of **13** at 510 nm in the presence of 5 μM HEWL fibrils versus [**13**] (0-35 μM). Data analysis performed using GraphPad Prism, error bars reflect results of 3 trials.

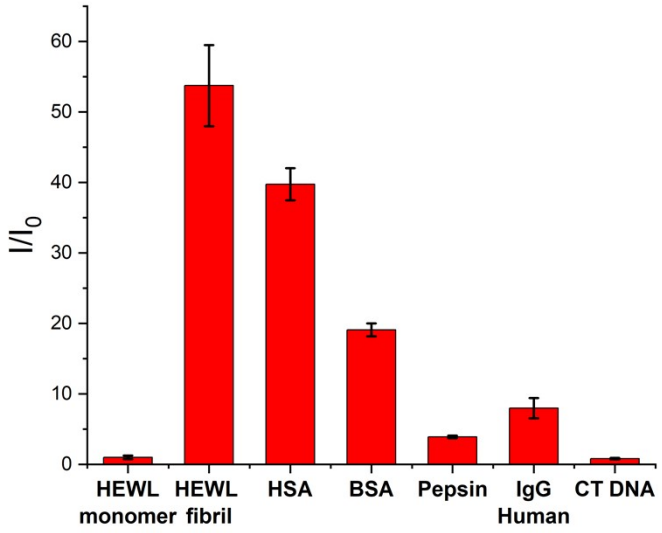


Fig. S21. Relative luminescence response (I/I_o) of **13** (20 μM) at 505 nm in the presence of select biomolecules (10 μM) in PBS (0.5% DMSO); I_o = emission intensity in presence of HEWL monomer; λ_{ex} = 410 nm, error bar n = 3.

Preparation of HEWL oligomers/fibrils

HEWL oligomers/fibrils were prepared according to literature procedures.[7, 8] Specifically, lyophilized HEWL was dissolved at 5 mg/mL (350 μM) in 10 mM pH 3 sodium citrate buffer with 0.1 M NaCl. The solution was sonicated for 1 minute and then incubated in a 70 °C oil bath and magnetically stirred at 80 rpm for 8 hours. During this time aliquots were withdrawn at different time intervals and immediately diluted with pH 7.4 PBS (phosphate buffer saline) to stop further fibrillization. Samples were then refrigerated

until use in spectroscopic experiments. Fibrillization was complete after 8 h of incubation according to ThT fluorescence assay (see Fig. S17) and AFM imaging.

Preparation of $A\beta_{42}$ fibrils

$A\beta_{42}$ fibrils were prepared according to literature methods.[9] Specifically, HFIP-treated $A\beta_{42}$ (0.5 mg) was solubilized in 22 μL dry DMSO (5 mM) and sonicated for 2 minutes. The $A\beta_{42}$ solution was then diluted to 100 μM with 1085 μL 7.4 PBS buffer. The solution was incubated at 37 °C for 21 hours, after which time fibrillization was complete as determined by ThT fluorescence assay and AFM imaging.

General methods for luminescence assays

All luminescence assays involving ThT and Pt(II) complexes **6-14** in the presence of HEWL or $A\beta_{42}$ aggregates were performed in 96-well plates using a SpectraMax® M3 plate reader (Molecular Device). Emission spectra of Pt complexes were obtained using λ_{ex} = 410 nm and monitoring emission wavelength from 440-800 nm. ThT assays were performed using λ_{ex} = 440 nm and monitoring emission at 480 nm.

Luminescence spectra of Pt(II) complexes in the presence of HEWL aggregates and fibrils

A 350 μM HEWL solution in pH 3 sodium citrate buffer was prepared as described above and aliquots were withdrawn and diluted to 10 μM in pH 7.4 PBS at 1 h time intervals throughout the fibrillization reaction (0 to 8 hours). Stock solutions of each Pt(II) complex (2 mM in DMSO) were prepared and aliquots from stock solutions were added to 10 μM HEWL solutions in pH 7.4 PBS to give final Pt(II) complex concentrations of 20 μM. The HEWL-Pt(II) complex solutions were allowed to stand at room temperature for 2 min and then the emission spectra were recorded.

Luminescence measurements of Pt(II) complexes 12 and 13 in the presence of $A\beta_{42}$ fibrils

Aliquots from a 100 μM solution of $A\beta_{42}$ fibrils (prepared as described above) were diluted to 10 μM in pH 7.4 PBS. Aliquots from stock solutions of platinum(II) complexes **12** and **13** (0.4 mM in DMSO) were added to 10 μM $A\beta_{42}$ fibril solutions to give a final Pt complex concentration of 20 μM. The Ab_{42}-Pt(II) complex solutions were allowed to stand at room temperature for 2 min, and then the emission spectra were recorded.

ThT fluorescence assays

ThT fluorescence assays were performed by adding aliquots of a ThT stock solution (2 mM in DMSO for HEWL experiments and 0.4 mM in DMSO for $A\beta_{42}$ experiments) to 10 μM amyloid solutions in pH 7.4 PBS to achieve a final ThT concentration of 20 μM. The respective ThT-amyloid mixtures were allowed to stand at room temperature for 2 min and then emission spectra were recorded.

Determination of K_d for binding of 8 and 13 to HEWL fibrils

Equilibrium dissociation constants (K_d) for binding of Pt complexes **8** and **13** to HEWL fibrils:

$$K_d = [\text{Pt(II) probe}][\text{HEWL fibrils}]/[\text{Pt(II) probe-HEWL complex}]$$

were determined using luminescence titration experiments. Specifically, different concentrations of **8** and **13** (1-35 μM) were titrated against a fixed concentration of HEWL fibrils (5 μM) in 7.4 PBS. Emission spectra of Pt complexes were recorded with excitation at 410 nm and emission at 510 nm after incubation with HEWL fibrils for 2 mins at room temperature.

Changes in emission intensity were plotted versus probe concentration to yield binding isotherms (Figs. S19-S20). Experiments were performed in triplicate and results are given as the mean ± SD. The corresponding isotherms were analyzed by GraphPad Prism (GraphPad Software, Inc., San Diego, CA, USA) by non-linear regression using one-site-binding equation. The K_d values were calculated using following equation:[10]

$$Y = B_{max}*X(K_d + X)$$

where X is concentration of Pt(II) complex, Y is change in emission intensity, B_{max} is the maximum specific binding, which refers to the total number of receptors, and K_d is the equilibrium binding constant. It should be noted that while the presence of multiple binding sites in amyloid fibrils is possible,[11] application of a one-site binding model greatly simplifies data analysis.

AFM imaging experiments – general materials and methods

AFM height imaging was carried at room temperature and ambient pressure using a Molecular Force Probe 3D AFM system (Asylum Research, Santa Barbara, CA). Si_3N_4 AFM probes (MikroMasch, San Jose, CA) were used for all AFM experiments with a nominal spring constant of 0.4 N/m and a typical tip radius of curvature of 8 nm. AFM height images were acquired in intermittent contact mode (AC mode) at a typical scan rate of 1 Hz.

Preparation of Pt(II) complex – HEWL fibril samples for AFM imaging

HEWL fibrils were prepared by incubation of HEWL (350 μM) in pH 3 sodium citrate buffer for 8 hours as described above. Aliquots were removed from the incubation solution and diluted to 10 μM in pH 7.4 PBS. Aliquots from 2 mM DMSO stock solutions of platinum(II) complexes (**8**, **13**, and **14**) were added to diluted fibril solutions to give final Pt(II) complex concentrations of 20 μM. The HEWL fibril/Pt complex mixtures were allowed to stand at room temperature for 24 h. After this time, 70 μL aliquots from each solution were transferred onto freshly cleaved mica and placed in a room temperature dust-free environment for 20 min to allow physisorption to occur. The mica substrates were then washed with 70 μL of HPLC-grade H_2O three times and air-dried in a dust-free environment overnight prior to AFM imaging. A control sample of

HEWL fibrils was prepared as described above by mixing diluted HEWL fibril solutions with an equivalent amount of DMSO instead of Pt(II) complex stock solution.

Preparation of $A\beta_{42}$ fibril samples for AFM imaging

A solution of $A\beta_{42}$ fibrils (100 μM) was prepared as described above. A 10 μL aliquot of this solution was withdrawn and transferred directly onto freshly cleaved mica. The sample was placed in a room temperature dust-free environment for 20 min. for physisorption to occur and then washed with 20 μL HPLC-grade H_2O three times followed by air-drying overnight in a dust-free environment prior to AFM imaging.

MTT assays

SH-SY5Y cells (purchased from ATCC) were treated with Pt(II) complexes **8** and **11**-**13** at concentrations ranging from 1 μM to 100 μM for 24 h. Cells were also treated with the cytotoxic agent Rotenone (1 μM, 5 μM and/or 10 μM) as a negative control. Cell viability was assessed using the colorimetric reagent, 3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyl tetrazolium bromide (MTT) (Sigma Aldrich). Cultures were incubated in HBSS/glucose with 2 mg/mL MTT for 2 h at 37 °C. Following incubation, 0.4 mL DMSO was added to each well to solubilize the formazan product. Reduced MTT was measured on a microplate reader (Molecular Devices Spectra Max 190) at 570 nm with a reference of 650 nm.

X-Ray crystallography

General data collection

Data were collected on a Bruker D8 VENTURE DUO diffractometer equipped with a IμS 3.0 microfocus source operated at 75 W (50kV, 1.5 mA) to generate Mo Kα radiation (λ = 0.71073 Å) and a PHOTON III detector. Crystals were transferred from the vial and placed on a glass slide in type NVH immersion oil by Cargille. A Zeiss Stemi 305 microscope was used to identify a suitable specimen for X-ray diffraction from a representative sample of the material. The crystal and a small amount of the oil were collected on a MiTeGen 100 micron MicroLoop and transferred to the instrument where it was placed under a cold nitrogen stream (Oxford 800 series) maintained at 100K throughout the duration of each experiment. Samples were optically centered with the aid of a video camera to ensure that no translations were observed as crystals were rotated through all positions. A unit cell collection was then carried out. After it was determined that the unit cell was not present in the CCDC database a data collection strategy was calculated by *APEX4*.[12] The crystal was measured for size, morphology, and color.

Refinement details

After data collection, the unit cell was re-determined using a subset of the full data collection. Intensity data were corrected for Lorentz, polarization, and background effects using the *APEX4*.[12] A numerical absorption correction was applied based on a Gaussian

integration over a multifaceted crystal and followed by a semi-empirical correction for adsorption applied using *SADABS*.[12] The program *SHELXT*[13] was used for the initial structure solution and *SHELXL*[14] was used for the refinement of the structure. Both programs were utilized within the OLEX2 software.[15] Hydrogen atoms bound to carbon atoms were located in the difference Fourier map and were geometrically constrained using the appropriate AFIX commands.

Table S1. Crystallographic data for **7**.

CCDC number	2322597
Empirical formula	$C_{26}H_{25}NO_4Pt$
Formula weight	610.56
Temperature/K	150.15
Crystal system	monoclinic
Space group	C/c
a/Å	15.5673(16)
b/Å	21.225(2)
c/Å	6.6731(7)
α/°	90
β/°	95.563(5)
γ/°	90
Volume/Å^3	2194.5(4)
Z	4
ρ_{calc}g/cm^3	1.848
μ/mm^{-1}	6.428
F(000)	1192.0
Crystal size/mm^3	0.220 × 0.220 × 0.145
Radiation	MoKα (λ = 0.71073)
2Θ range for data collection/°	5.258 to 54.010
Index ranges	$-19 \leq h \leq 19$, $-27 \leq k \leq 27$, $-8 \leq l \leq 8$
Reflections collected	12942
Independent reflections	4529 [R_{int} = 0.0199, R_{sigma} = 0.0379]
Data/restraints/parameters	4529/2/293
Goodness-of-fit on F^2	0.609
Final R indexes [I>=2σ (I)]	R_1 = 0.0181, wR_2 = 0.0518
Final R indexes [all data]	R_1 = 0.0212, wR_2 = 0.0715
Largest diff. peak/hole / e Å^{-3}	1.225/-0.519

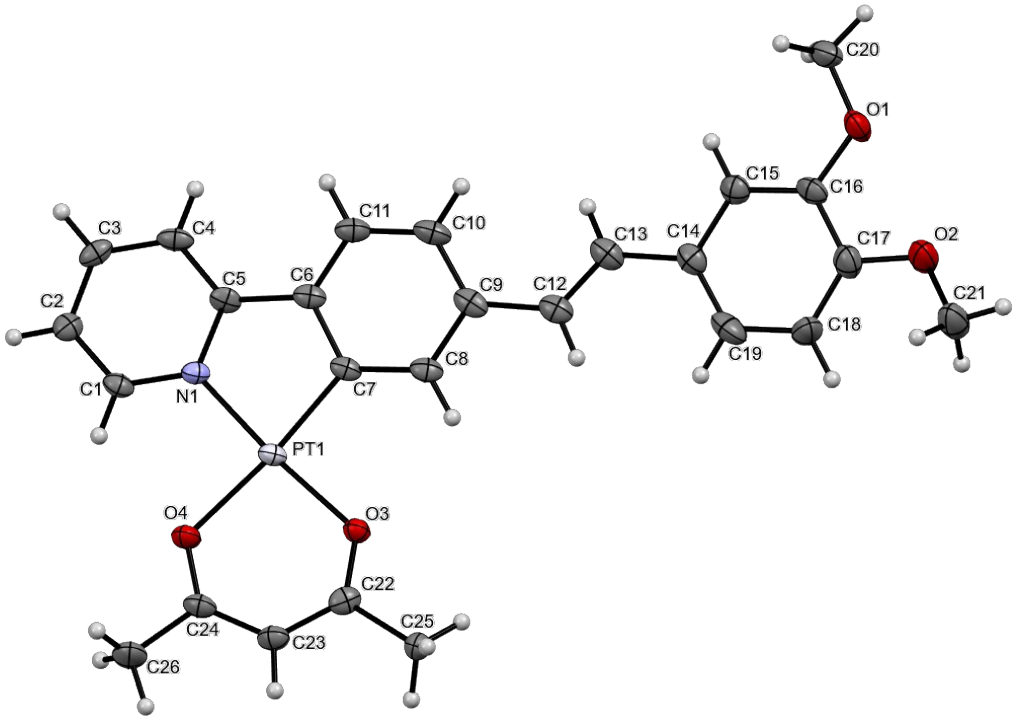


Fig. S22. ORTEP plot of Pt(II) complex **7** with thermal ellipsoids represented at 50% probability. Carbon, nitrogen, oxygen, and platinum atoms are represented by gray, blue, red, and light blue ellipsoids, respectively. Platinum(II) bond distances and angles are typical for a cyclometallated square-planar Pt(II) acac complex. Pt1···N1 1.996 Å; Pt1···C7 1.978 Å; Pt1···O3 2.011 Å; Pt1···O4 2.087 Å; N1-Pt1-C7 81.61°; C7-Pt1-O3 93.58°; O3-Pt1-O4 91.98°; O4-Pt1-N1 92.81°; N1-Pt1-O3 175.19°; C7-Pt1-O4 174.12°. τ_4 = 0.08.[16]

Table S2. Crystallographic data for **8**·CH_3OH.

CCDC number	2322598
Empirical formula	$C_{26}H_{28}N_2O_6Pt$
Formula weight	659.59
Temperature/K	100.00
Crystal system	monoclinic
Space group	$P2_1/c$
a/Å	11.5142(6)
b/Å	12.2748(6)
c/Å	17.2202(10)
α/°	90
β/°	96.978(2)
γ/°	90
Volume/Å^3	2415.8(2)
Z	4
ρ_{calc}g/cm^3	1.814
μ/mm^{-1}	5.853
F(000)	1296.0
Crystal size/mm^3	0.238 × 0.139 × 0.118
Radiation	MoKα (λ = 0.71073)
2Θ range for data collection/°	4.766 to 72.734
Index ranges	$-19 \leq h \leq 18$, $-20 \leq k \leq 17$, $-28 \leq l \leq 28$
Reflections collected	99722
Independent reflections	11747 [R_{int} = 0.0769, R_{sigma} = 0.0463]
Data/restraints/parameters	11747/0/323
Goodness-of-fit on F^2	1.032
Final R indexes [I>=2σ (I)]	R_1 = 0.0340, wR_2 = 0.0668
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Largest diff. peak/hole / e Å^{-3}	2.17/-1.57

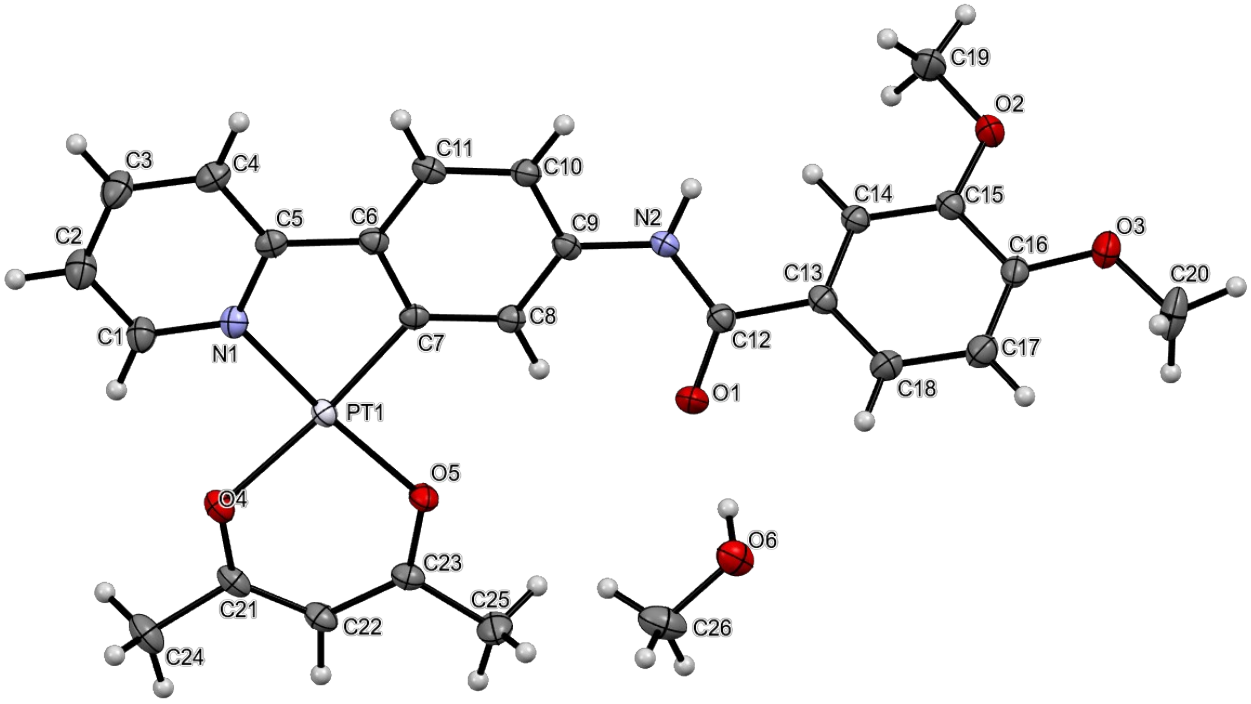

Fig. S23. ORTEP plot of Pt(II) complex **8**·CH_3OH with thermal ellipsoids represented at 50% probability. Carbon, nitrogen, oxygen, and platinum atoms are represented by gray, blue, red, and light blue ellipsoids, respectively. Platinum(II) bond distances and angles are typical for a cyclometallated square-planar Pt(II) acac complex. Pt1···N1 1.991 Å; Pt1···C7 1.971 Å; Pt1···O5 2.003 Å; Pt1···O4 2.081 Å; N1-Pt1-C7 81.66°; C7-Pt1-O5 93.69°; O5-Pt1-O4 91.79°; O4-Pt1-N1 92.85°; N1-Pt1-O5 175.34°; C7-Pt1-O4 174.51°. τ_4 = 0.07.[16]

Table S3. Crystallographic data for **9**.

CCDC number	2322599
Empirical formula	$C_{26}H_{26}N_2O_5Pt$
Formula weight	641.58
Temperature/K	100.00
Crystal system	monoclinic
Space group	$P2_1/c$
a/Å	14.1430(6)
b/Å	12.3571(7)
c/Å	14.0848(8)
α/°	90
β/°	107.375(2)
γ/°	90
Volume/Å^3	2349.2(2)
Z	4
ρ_{calc}g/cm^3	1.814
μ/mm^{-1}	6.013
F(000)	1256.0
Crystal size/mm^3	0.16 × 0.137 × 0.132
Radiation	MoKα (λ = 0.71073)
2Θ range for data collection/°	4.468 to 61.04
Index ranges	$-18 \leq h \leq 20$, $-17 \leq k \leq 17$, $-20 \leq l \leq 20$
Reflections collected	52908
Independent reflections	7167 [R_{int} = 0.0685, R_{sigma} = 0.0431]
Data/restraints/parameters	7167/0/313
Goodness-of-fit on F^2	1.041
Final R indexes [I>=2σ (I)]	R_1 = 0.0278, wR_2 = 0.0530
Final R indexes [all data]	R_1 = 0.0379, wR_2 = 0.0564
Largest diff. peak/hole / e Å^{-3}	1.22/-1.12

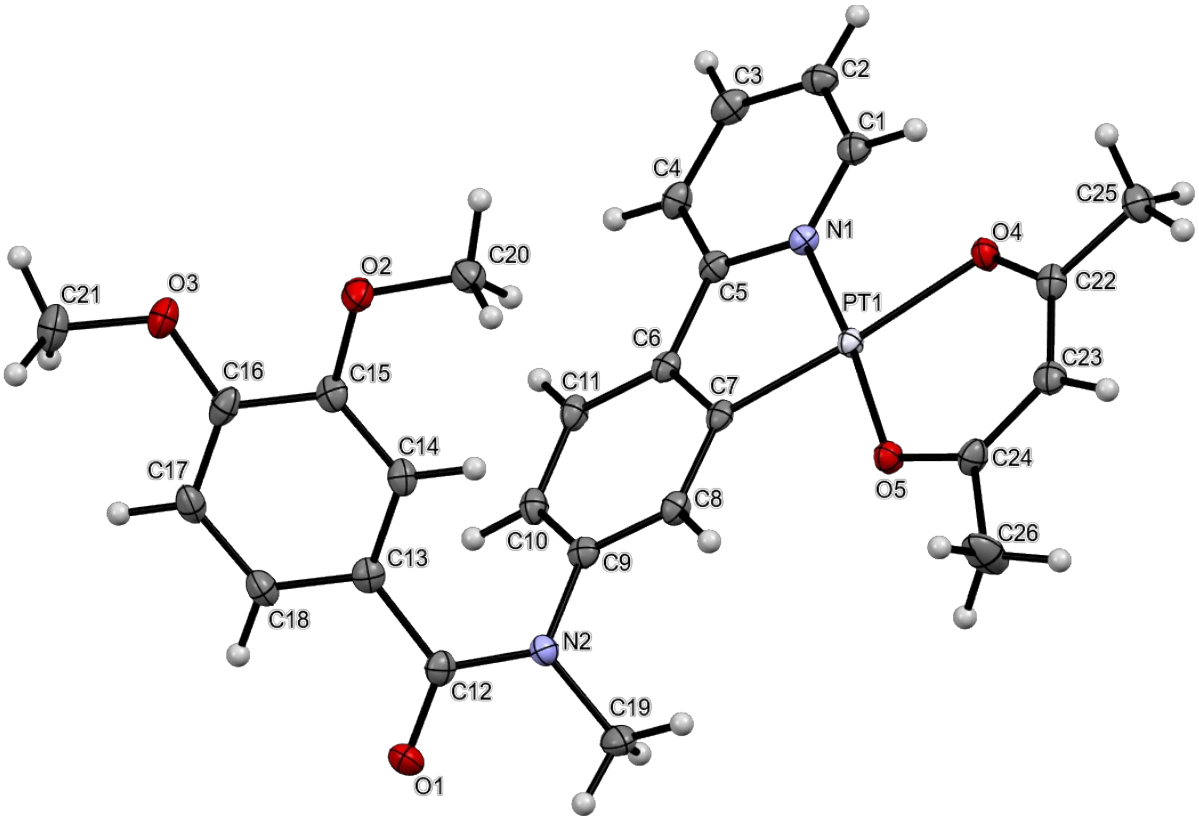

Fig. S24. ORTEP plot of Pt(II) complex **9** with thermal ellipsoids represented at 50% probability. Carbon, nitrogen, oxygen, and platinum atoms are represented by gray, blue, red, and light blue ellipsoids, respectively. Platinum(II) bond distances and angles are typical for a cyclometallated square-planar Pt(II) acac complex. Pt1···N1 1.991 Å; Pt1···C7 1.967 Å; Pt1···O5 2.008 Å; Pt1···O4 2.087 Å; N1-Pt1-C7 81.67°; C7-Pt1-O5 92.81°; O5-Pt1-O4 91.81°; O4-Pt1-N1 93.74°; N1-Pt1-O5 174.10°; C7-Pt1-O4 175.32°. τ_4 = 0.08.[16]

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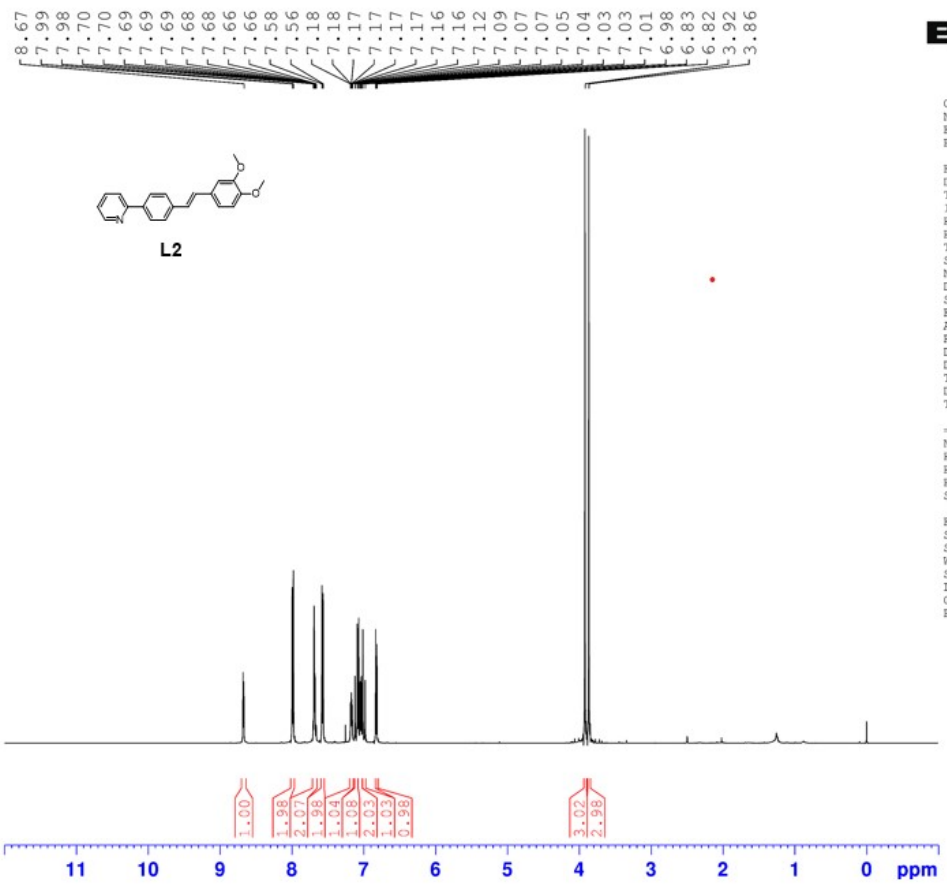

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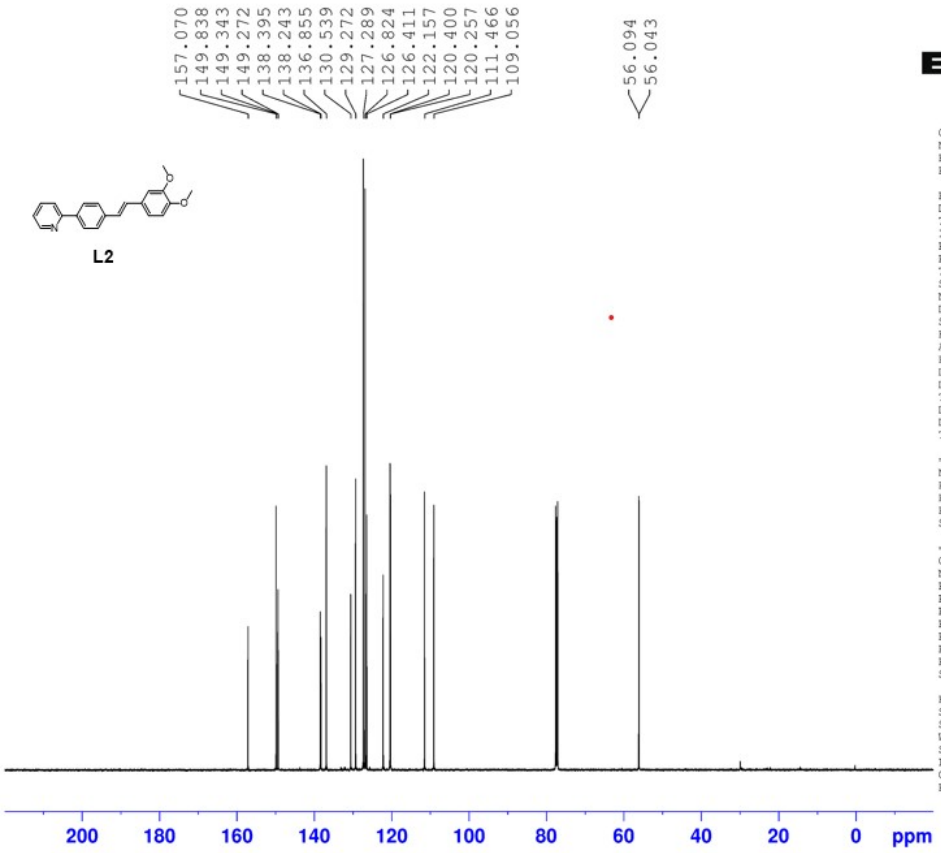

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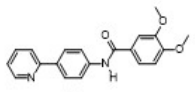

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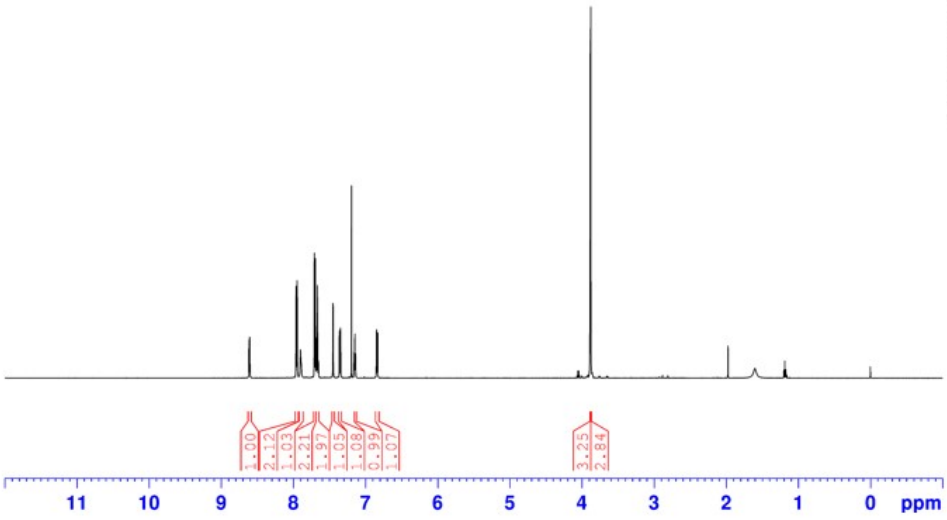

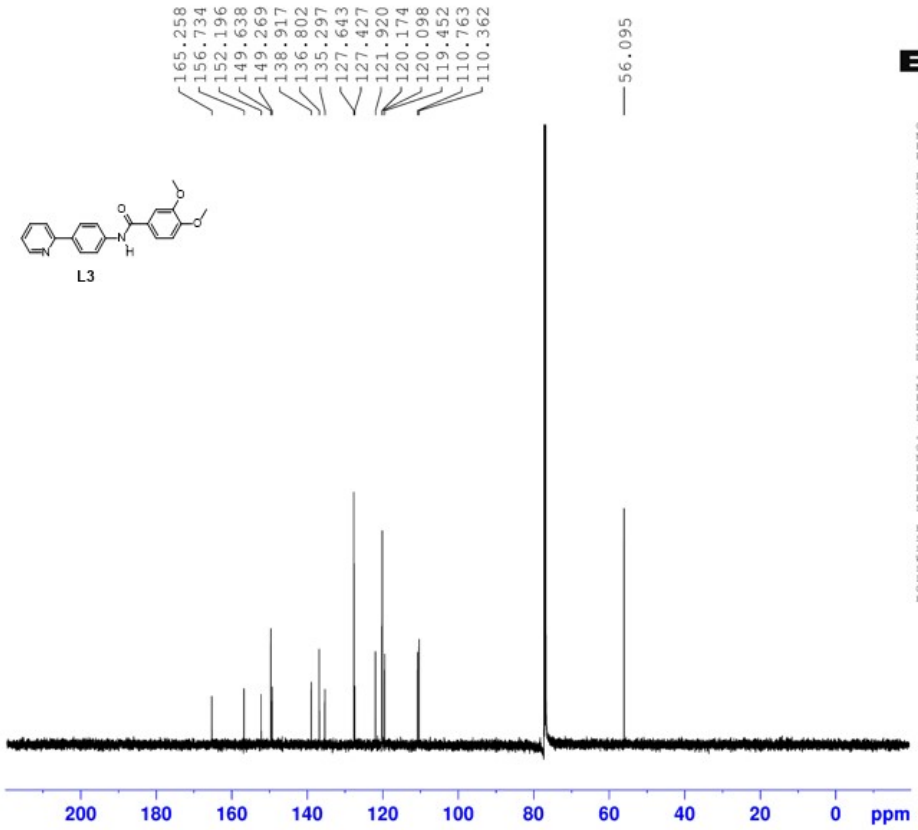


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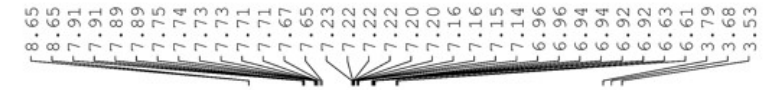

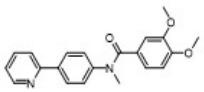

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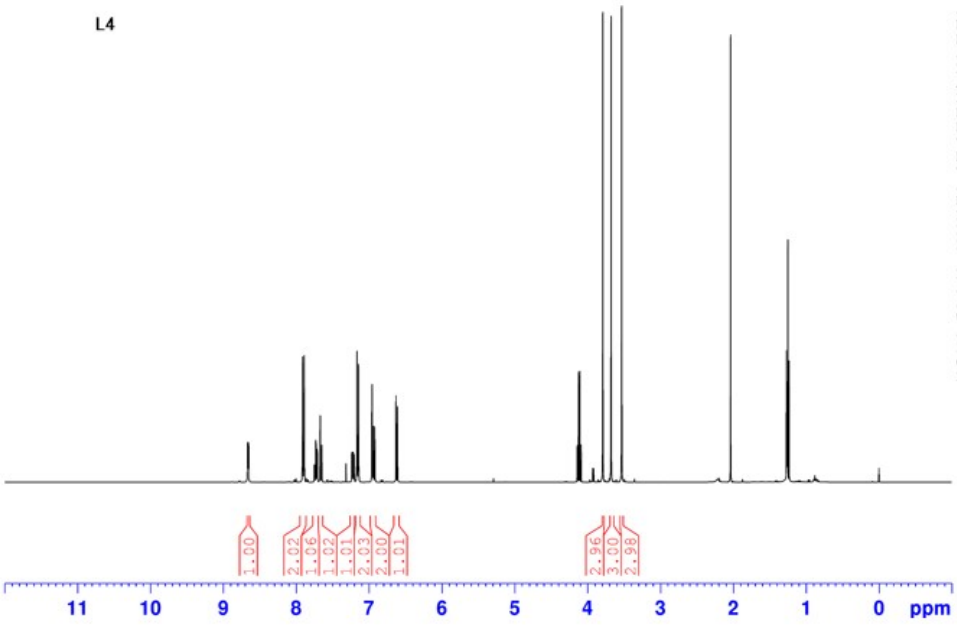


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PC                    1.00
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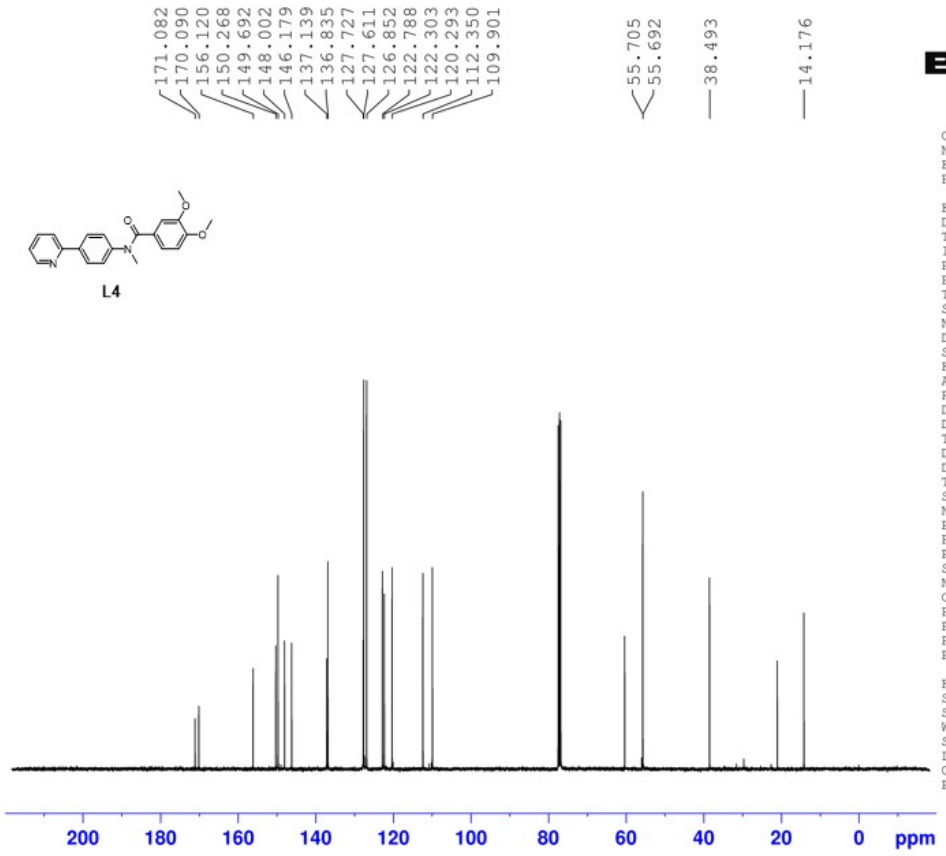
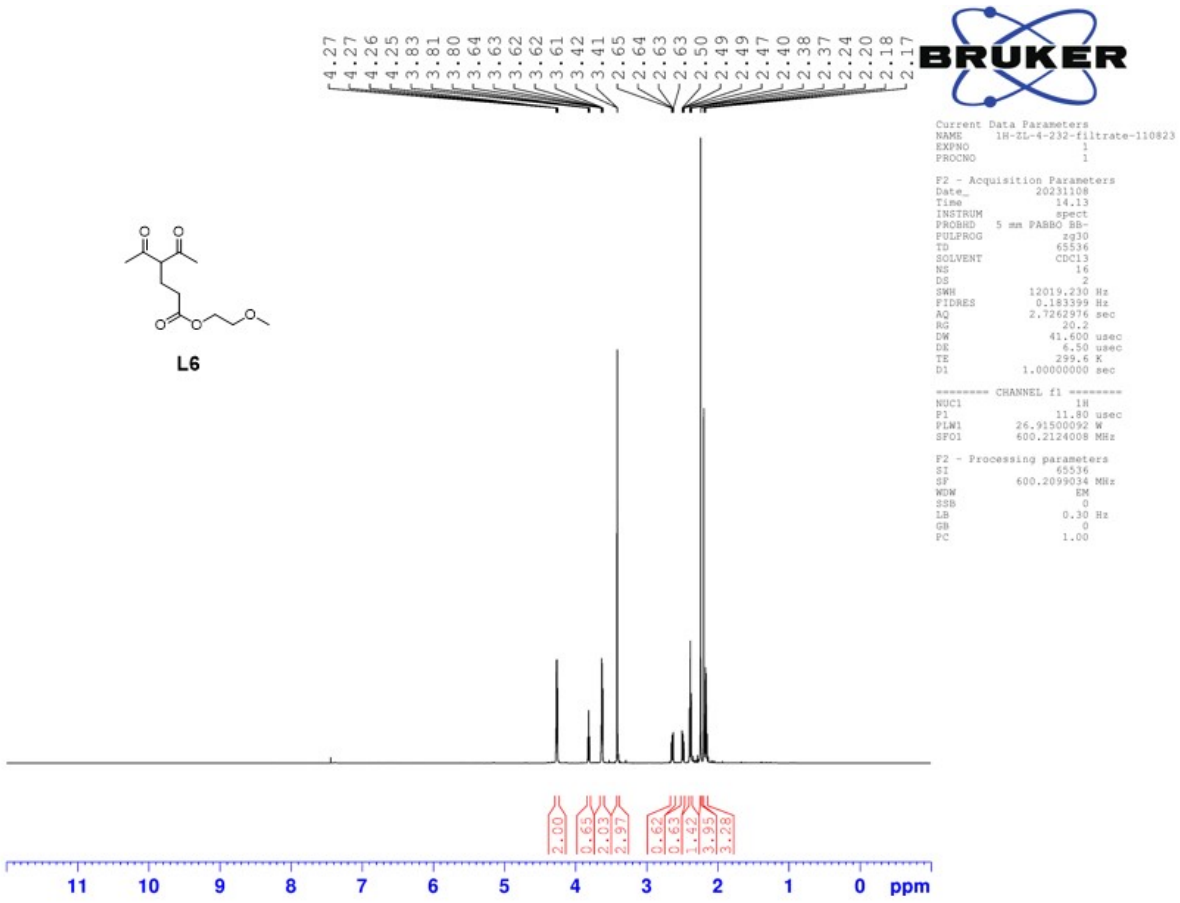
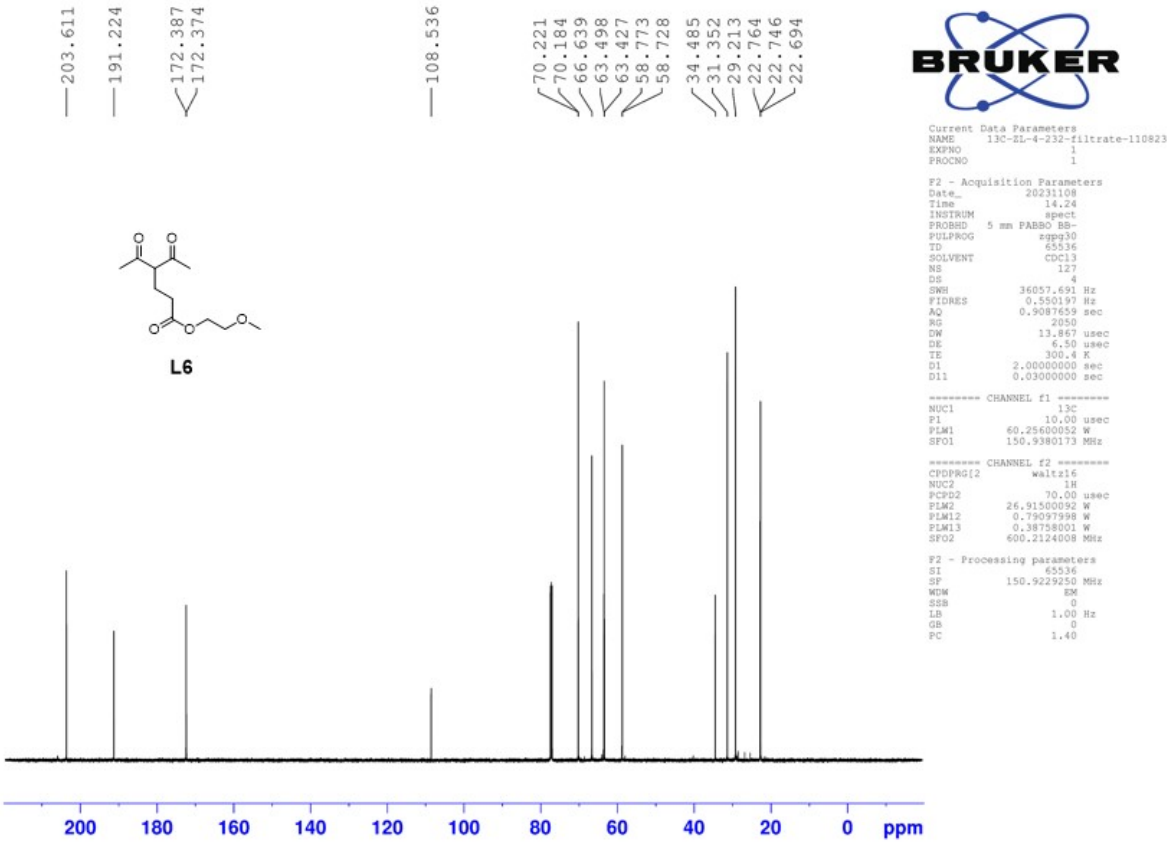


BRUKER

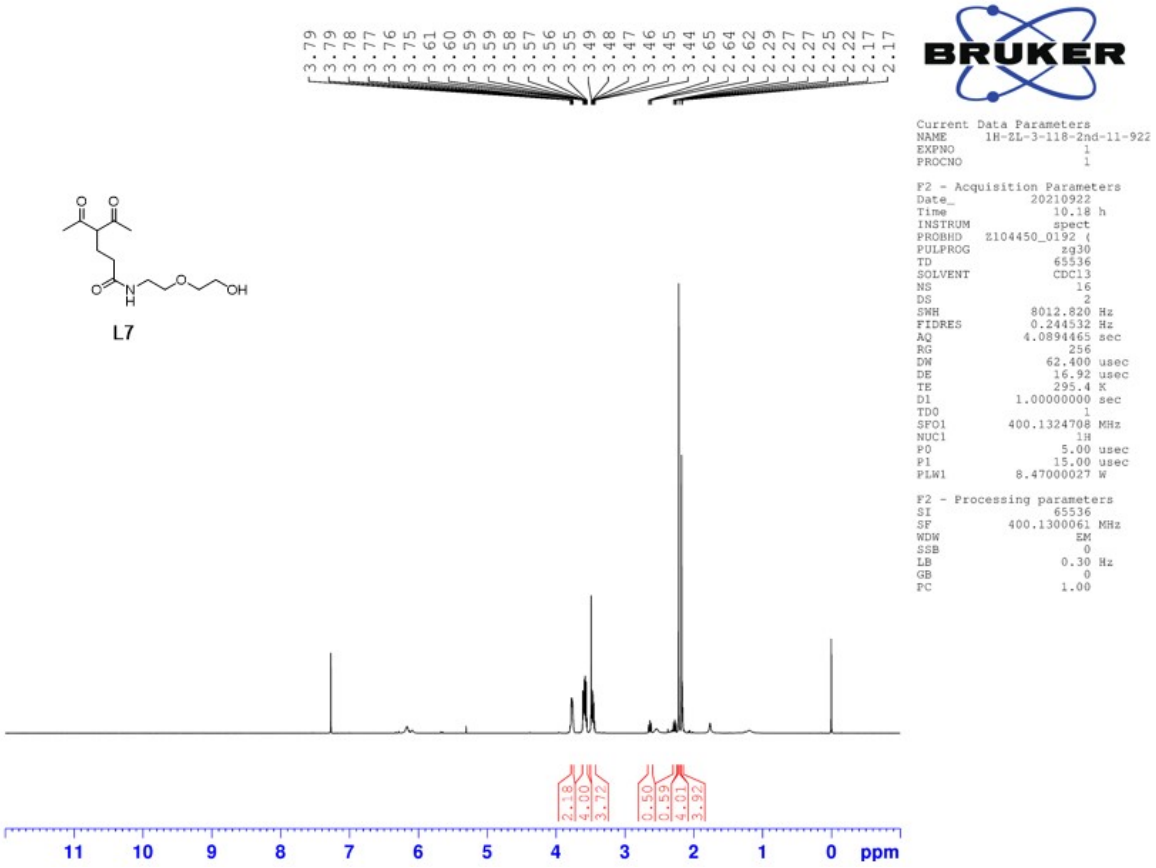
```
Current Data Parameters
NAME      13C-ZL-5-114-17-37
EXPNO                     1
PROCNO                    1

F2 - Acquisition Parameters
Date_              20230103
Time                 15.55 h
INSTRUM              Avance
PROBHD    Z167430_0032 (
PULPROG              zgpg30
TD                    65536
SOLVENT               CDCl3
NS                       77
DS                        4
SWH               23809.523 Hz
FIDRES             0.726609 Hz
AQ                1.3762560 sec
RG                     3.25
DW                   21.000 usec
DE                    19.29 usec
TE                   298.0 K
D1              2.00000000 sec
D11             0.03000000 sec
TD0                       1
SFO1           100.6655806 MHz
NUC1                    13C
P0                     3.33 usec
P1                    10.00 usec
PLW1           39.31399918 W
SFO2           400.3016012 MHz
NUC2                    1H
CPDPRG[2            waltz64
PCPD2                 80.00 usec
PLW2            8.80000019 W
PLW12           0.20176961 W
PLW13           0.10112690 W

F2 - Processing parameters
SI                   131072
SF           100.6555149 MHz
WDW                     EM
SSB                      0
LB                    1.00 Hz
GB                       0
PC                    1.40
```


4.27
4.27
4.26
4.25
3.83
3.81
3.80
3.64
3.63
3.62
3.62
3.61
3.42
3.41
2.65
2.64
2.63
2.63
2.50
2.49
2.49
2.47
2.40
2.38
2.37
2.24
2.20
2.18
2.17
BRUKER
Current Data Parameters
NAME 1H-ZL-4-232-filtrate-110823
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20231108
Time 14.13
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 20.2
DW 41.600 usec
DE 6.50 usec
TE 299.6 K
D1 1.00000000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 11.80 usec
PLW1 26.91500092 W
SFO1 600.2124008 MHz
F2 - Processing parameters
SI 65536
SF 600.2099034 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
2.00
0.65
2.03
2.97
0.62
0.63
1.42
3.65
3.28
11
10
9
8
7
6
5
4
3
2
1
0
ppm

L6

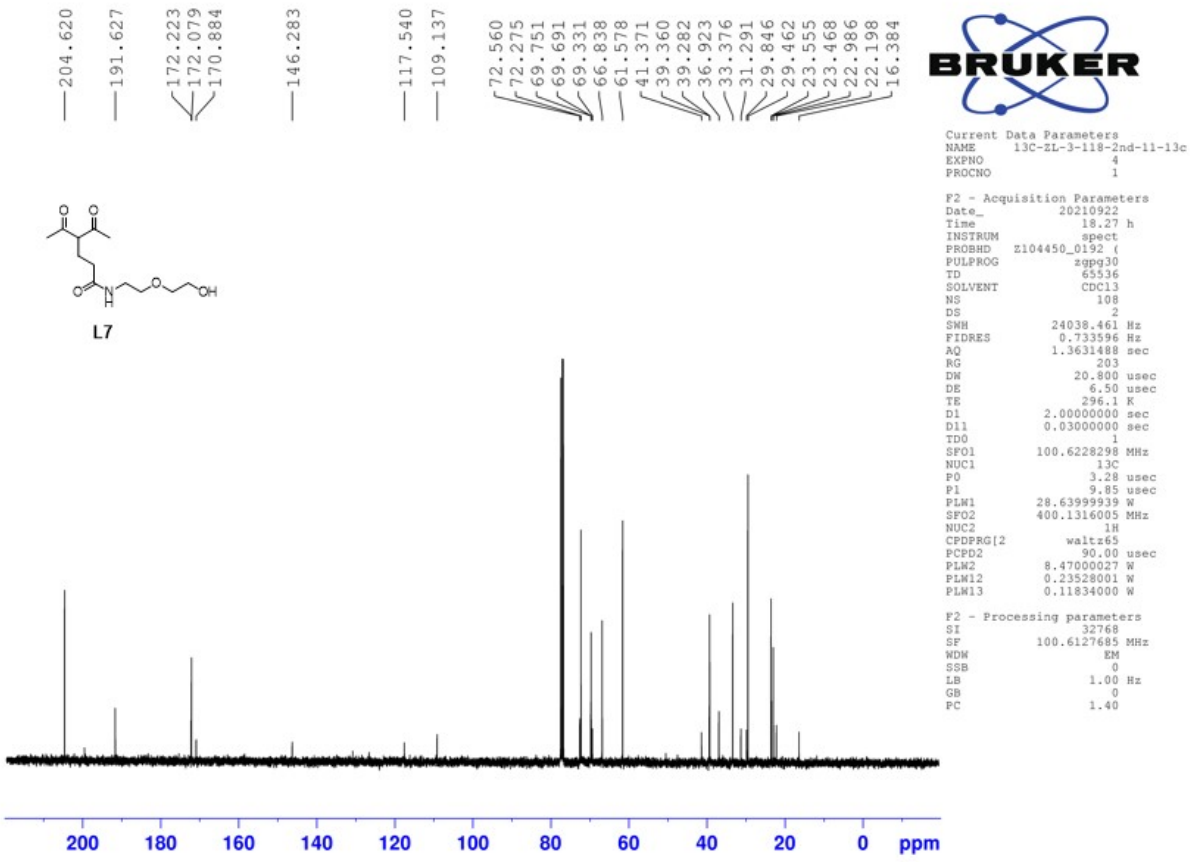


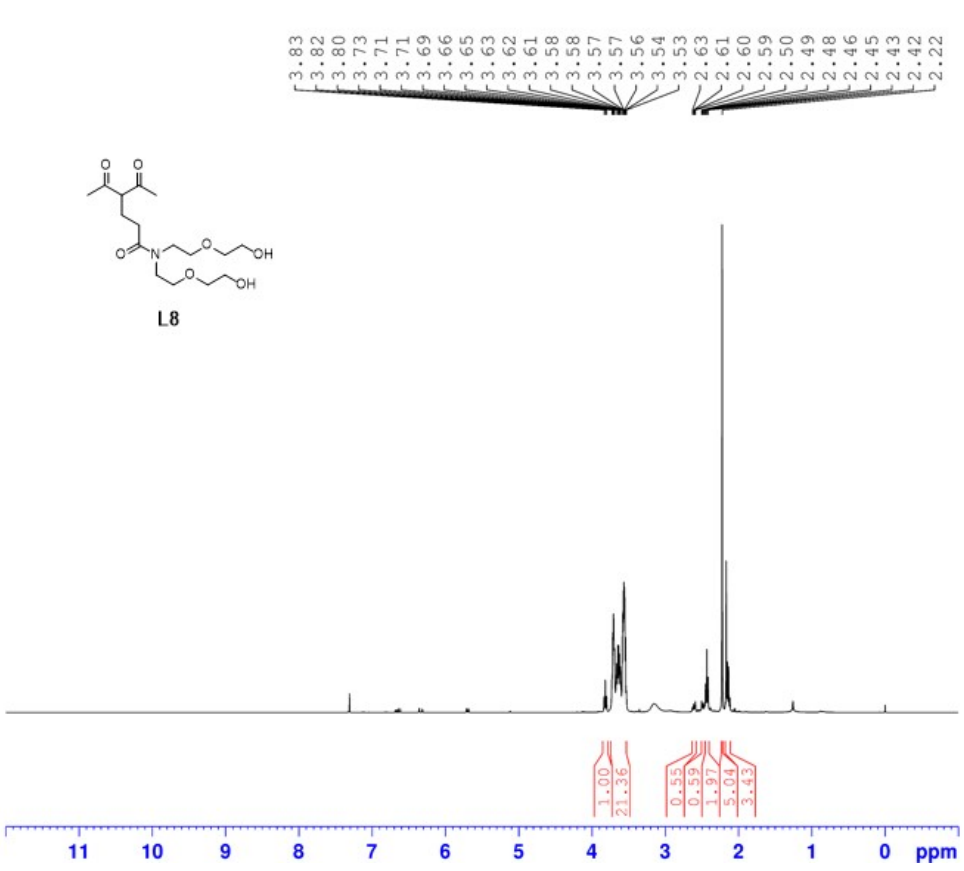

```
Current Data Parameters
NAME      13C-2L-4-232-filtrate-110823
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20231108
Time              14.24
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG         zgpg30
TD               65536
SOLVENT          CDCl3
NS                 127
DS                   4
SWH          36057.691 Hz
FIDRES        0.550197 Hz
AQ            0.9087659 sec
RG                2050
DW              13.867 usec
DE                6.50 usec
TE               300.4 K
D1           2.00000000 sec
D11          0.03000000 sec

======== CHANNEL f1 ========
NUC1               13C
P1               10.00 usec
PLW1        60.25600052 W
SFO1       150.9380173 MHz

======== CHANNEL f2 ========
CPDPRG[2        waltz16
NUC2               1H
PCPD2           70.00 usec
PLW2        26.91500092 W
PLW12        0.79097998 W
PLW13        0.38758001 W
SFO2       600.2124008 MHz

F2 - Processing parameters
SI               65536
SF         150.9229250 MHz
WDW                EM
SSB                 0
LB               1.00 Hz
GB                  0
PC                1.40
```



BRUKER

```
Current Data Parameters
NAME      1H-ZL-3-118-2nd-11-922
EXPNO                          1
PROCNO                         1

F2 - Acquisition Parameters
Date_               20210922
Time                   10.18 h
INSTRUM                spect
PROBHD    Z104450_0192 (
PULPROG                zg30
TD                    65536
SOLVENT               CDCl3
NS                       16
DS                        2
SWH                8012.820 Hz
FIDRES            0.244532 Hz
AQ                4.0894465 sec
RG                      256
DW                   62.400 usec
DE                   16.92 usec
TE                   295.4 K
D1                1.00000000 sec
TD0                       1
SFO1           400.1324708 MHz
NUC1                     1H
P0                    5.00 usec
P1                   15.00 usec
PLW1           8.47000027 W

F2 - Processing parameters
SI                    65536
SF             400.1300061 MHz
WDW                      EM
SSB                       0
LB                     0.30 Hz
GB                        0
PC                     1.00
```

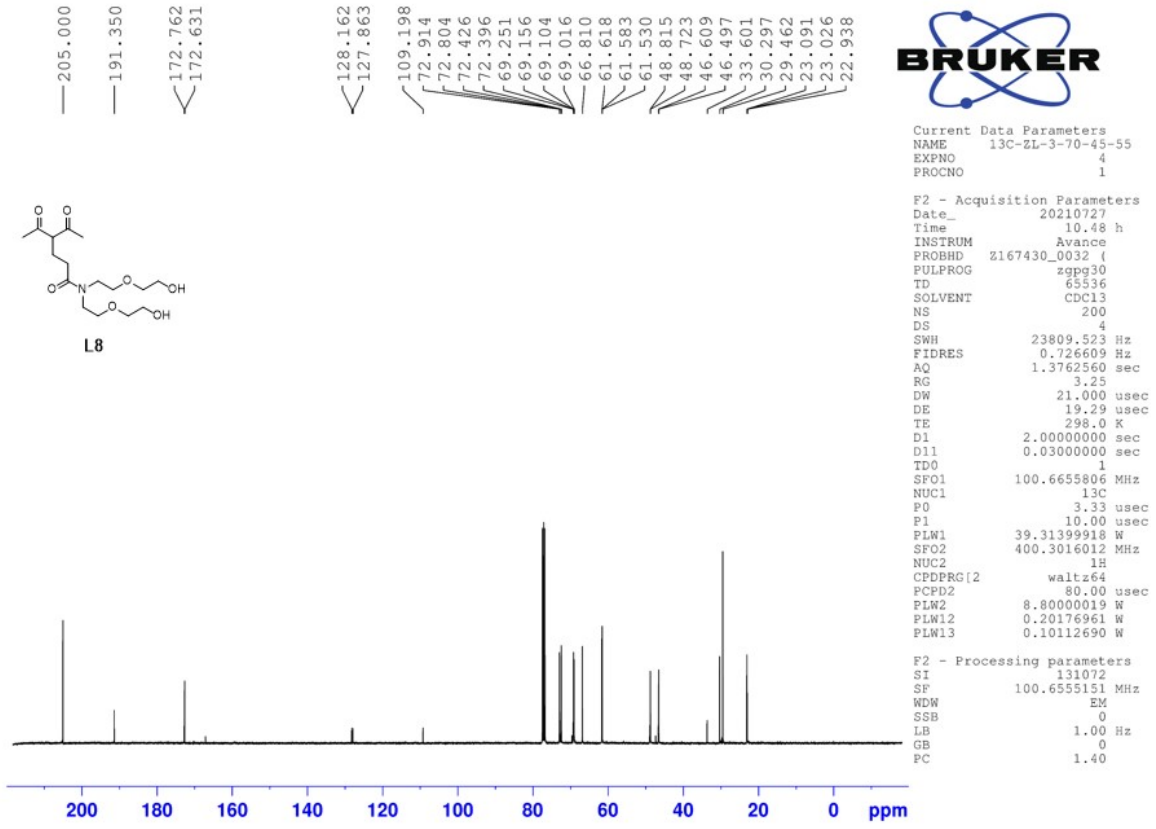

204.620
191.627
172.223
172.079
170.884
146.283
117.540
109.137
72.560
72.275
69.751
69.691
69.331
66.838
61.578
41.371
39.360
39.282
36.923
33.376
31.291
29.846
29.462
23.555
23.468
22.986
22.198
16.384
BRUKER
Current Data Parameters
NAME 13C-ZL-3-118-2nd-11-13c
EXPNO 4
PROCNO 1
F2 - Acquisition Parameters
Date_ 20210922
Time 18.27 h
INSTRUM spect
PROBHD Z104450_0192 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 108
DS 2
SWH 24038.461 Hz
FIDRES 0.733596 Hz
AQ 1.3631488 sec
RG 203
DW 20.800 usec
DE 6.50 usec
TE 296.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 100.6228298 MHz
NUC1 13C
P0 3.28 usec
P1 9.85 usec
PLW1 28.63999939 W
SFO2 400.1316005 MHz
NUC2 1H
CPDPRG[2 waltz65
PCPD2 90.00 usec
PLW2 8.47000027 W
PLW12 0.23528001 W
PLW13 0.11834000 W
F2 - Processing parameters
SI 32768
SF 100.6127685 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
O
O
N
H
O
OH
L7
200
180
160
140
120
100
80
60
40
20
0
ppm

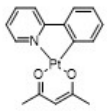


L8

BRUKER

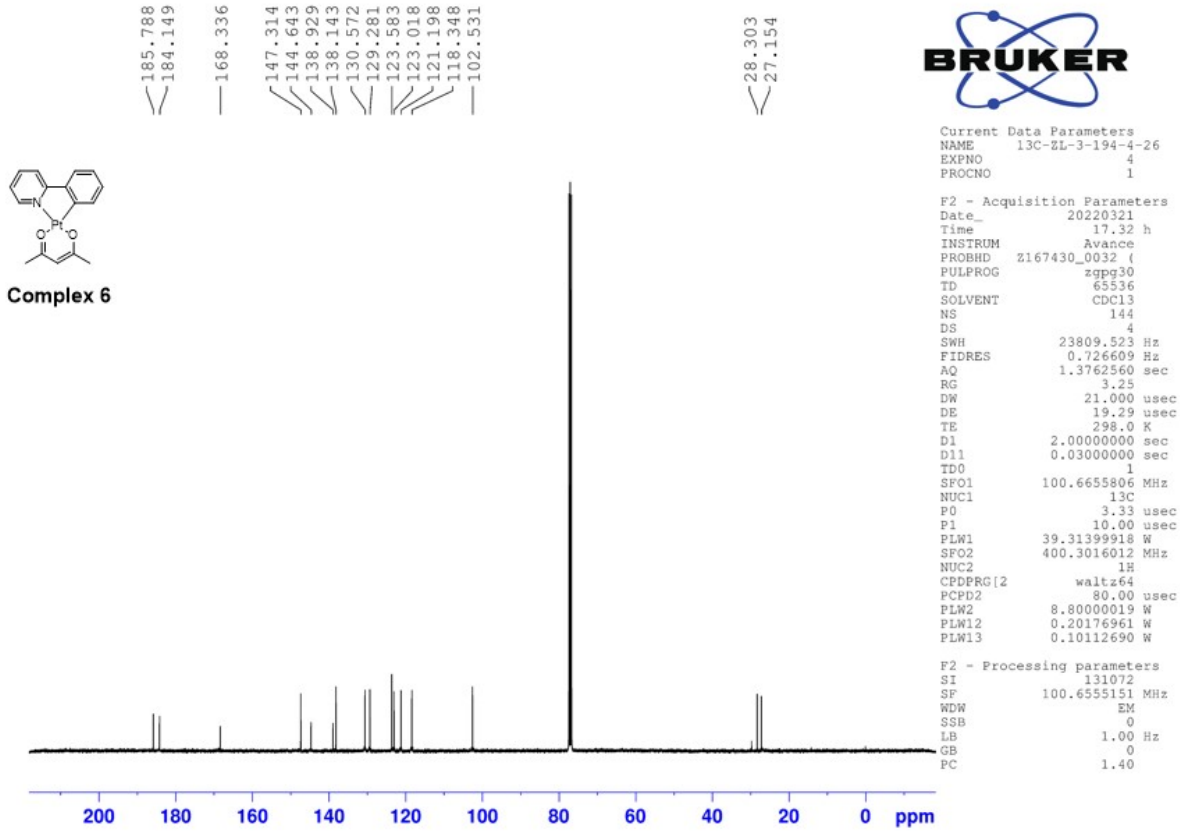
```
Current Data Parameters
NAME      1H-ZL-3-70-45-55
EXPNO                    4
PROCNO                   1

F2 - Acquisition Parameters
Date_              20210727
Time                 10.29 h
INSTRUM              Avance
PROBHD    Z167430_0032 (
PULPROG                zg30
TD                    65536
SOLVENT               CDC13
NS                       16
DS                        2
SWH                8196.722 Hz
FIDRES            0.250144 Hz
AQ                3.9976959 sec
RG                  54.9115
DW                  61.000 usec
DE                  13.20 usec
TE                  298.0 K
D1             1.00000000 sec
TD0                       1
SFO1          400.3024719 MHz
NUC1                    1H
P0                   4.00 usec
P1                  12.00 usec
PLW1           8.80000019 W

F2 - Processing parameters
SI                    65536
SF            400.2999882 MHz
WDW                      no
SSB                       0
LB                        0 Hz
GB                        0
PC                     1.00
```


205.000
191.350
172.762
172.631
128.162
127.863
109.198
72.914
72.804
72.426
72.396
69.251
69.156
69.104
69.016
66.810
61.618
61.583
61.530
48.815
48.723
46.609
46.497
33.601
30.297
29.462
23.091
23.026
22.938
BRUKER
Current Data Parameters
NAME 13C-ZL-3-70-45-55
EXPNO 4
PROCNO 1
F2 - Acquisition Parameters
Date_ 20210727
Time 10.48 h
INSTRUM Avance
PROBHD Z167430_0032 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 200
DS 4
SWH 23809.523 Hz
FIDRES 0.726609 Hz
AQ 1.3762560 sec
RG 3.25
DW 21.000 usec
DE 19.29 usec
TE 298.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 100.6655806 MHz
NUC1 13C
P0 3.33 usec
P1 10.00 usec
PLW1 39.31399918 W
SFO2 400.3016012 MHz
NUC2 1H
CPDPRG[2 waltz64
PCPD2 80.00 usec
PLW2 8.80000019 W
PLW12 0.20176961 W
PLW13 0.10112690 W
F2 - Processing parameters
SI 131072
SF 100.6555151 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
L8
200
180
160
140
120
100
80
60
40
20
0
ppm

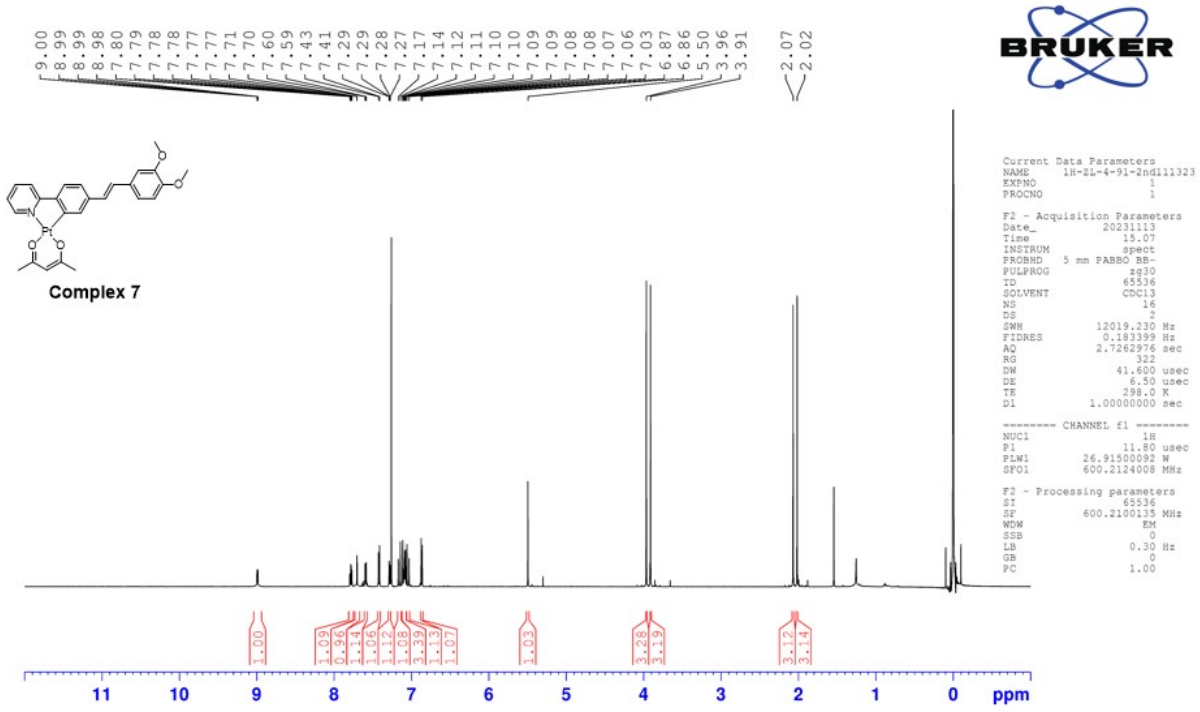


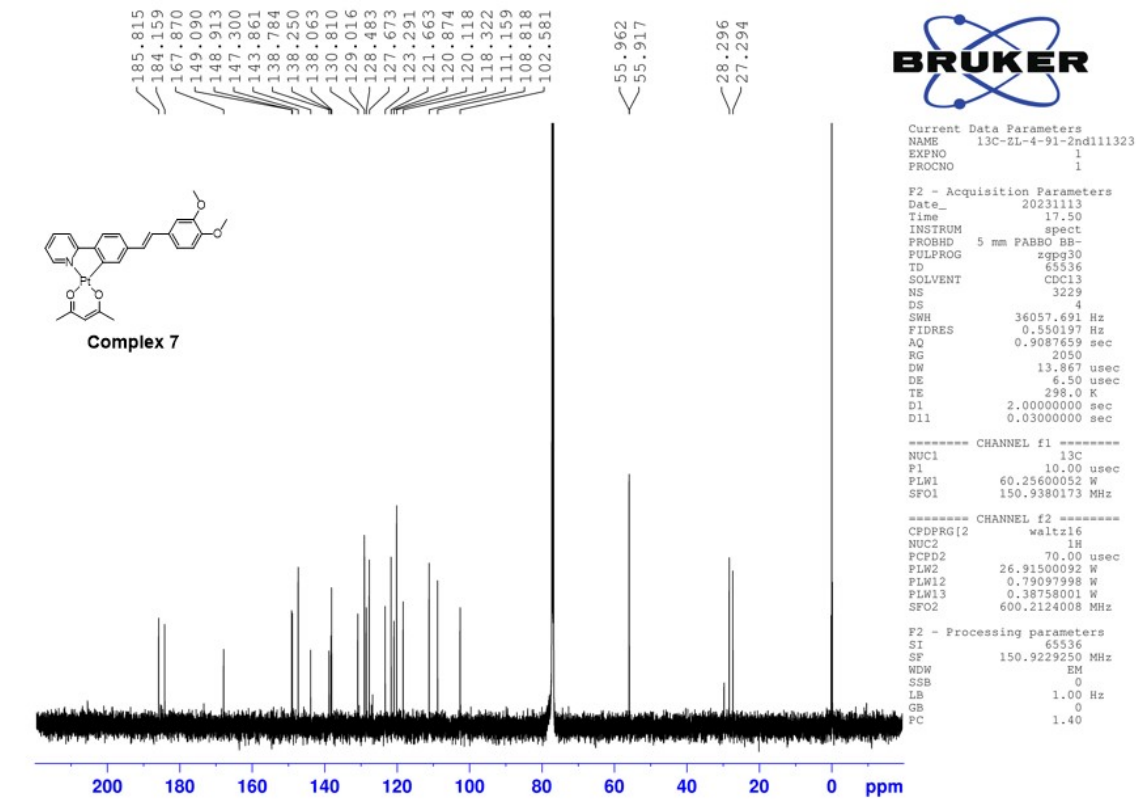
Complex 6

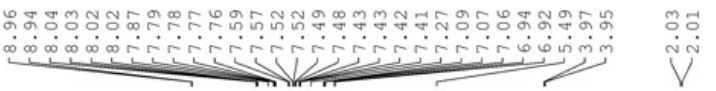

```
Current Data Parameters
NAME      1H-ZL-3-194-4-26
EXPNO                    1
PROCNO                   1

F2 - Acquisition Parameters
Date_           20220321
Time              17.20 h
INSTRUM           Avance
PROBHD    Z167430_0032 (
PULPROG             zg30
TD                 65536
SOLVENT            CDCl3
NS                    16
DS                     2
SWH             8196.722 Hz
FIDRES          0.250144 Hz
AQ              3.9976959 sec
RG                   101
DW                61.000 usec
DE                13.20 usec
TE                298.0 K
D1           1.00000000 sec
TD0                    1
SFO1        400.3024719 MHz
NUC1                  1H
P0                 4.00 usec
P1                12.00 usec
PLW1          8.80000019 W

F2 - Processing parameters
SI                 65536
SF          400.3000107 MHz
WDW                   EM
SSB                    0
LB                  0.30 Hz
GB                     0
PC                  1.00
```

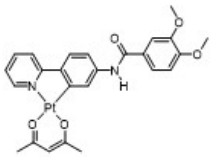



```
Current Data Parameters
NAME      13C-ZL-3-194-4-26
EXPNO                    4
PROCNO                   1

F2 - Acquisition Parameters
Date_             20220321
Time                17.32 h
INSTRUM             Avance
PROBHD    Z167430_0032 (
PULPROG             zgpg30
TD                   65536
SOLVENT              CDCl3
NS                     144
DS                       4
SWH              23809.523 Hz
FIDRES           0.726609 Hz
AQ               1.3762560 sec
RG                    3.25
DW                  21.000 usec
DE                  19.29 usec
TE                  298.0 K
D1               2.00000000 sec
D11              0.03000000 sec
TD0                      1
SFO1           100.6655806 MHz
NUC1                   13C
P0                    3.33 usec
P1                   10.00 usec
PLW1           39.31399918 W
SFO2           400.3016012 MHz
NUC2                   1H
CPDPRG[2           waltz64
PCPD2                80.00 usec
PLW2            8.80000019 W
PLW12           0.20176961 W
PLW13           0.10112690 W

F2 - Processing parameters
SI                   131072
SF             100.6555151 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   1.40
```

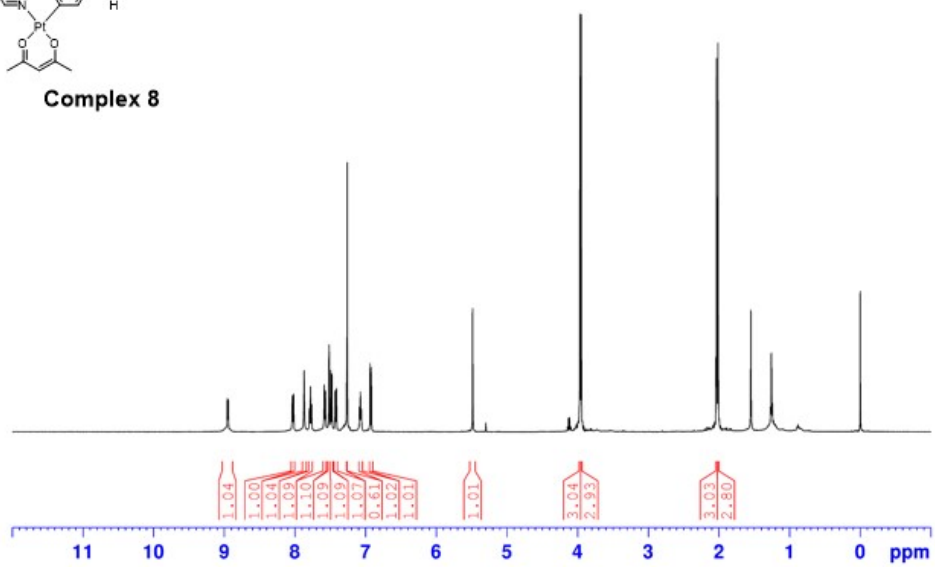

9.00
8.99
8.99
8.98
8.80
7.79
7.78
7.78
7.77
7.77
7.71
7.70
7.60
7.59
7.43
7.41
7.29
7.29
7.28
7.27
7.17
7.14
7.12
7.11
7.10
7.09
7.09
7.08
7.08
7.07
7.06
7.03
6.87
6.86
5.50
3.96
3.91
2.07
2.02
Complex 7
Current Data Parameters
NAME 1H-ZL-4-91-2nd111323
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20231113
Time 15.07
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 322
DW 41.600 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
CHANNEL f1
NUC1 1H
P1 11.80 usec
PLW1 26.91500092 W
SFO1 600.2124008 MHz
F2 - Processing parameters
SI 65536
SF 600.2100135 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
1.00
1.09
0.96
1.14
1.06
1.12
1.08
3.39
1.13
1.07
1.03
3.28
3.19
3.12
3.14
11 10 9 8 7 6 5 4 3 2 1 0 ppm


185.815
184.159
167.870
149.090
148.913
147.300
143.861
138.784
138.250
138.063
130.810
129.016
128.483
127.673
123.291
121.663
120.874
120.118
118.322
111.159
108.818
102.581
55.962
55.917
28.296
27.294
Complex 7
Current Data Parameters
NAME 13C-ZL-4-91-2nd111323
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20231113
Time 17.50
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 3229
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 2050
DW 13.867 usec
DE 6.50 usec
TE 298.0 K
D1 2.00000000 sec
D11 0.03000000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PLW1 60.25600052 W
SFO1 150.9380173 MHz
CHANNEL f2
CPDPRG[2 waltz16
NUC2 1H
PCPD2 70.00 usec
PLW2 26.91500092 W
PLW12 0.79097998 W
PLW13 0.38758001 W
SFO2 600.2124008 MHz
F2 - Processing parameters
SI 65536
SF 150.9229250 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
200 180 160 140 120 100 80 60 40 20 0 ppm



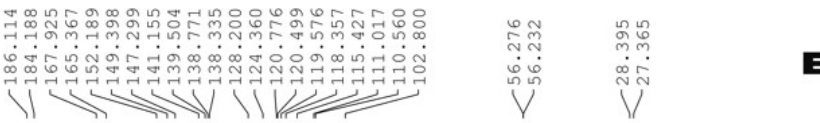


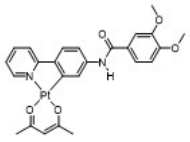
Complex 8



BRUKER

```
Current Data Parameters
NAME      pig_Li-4-118_17_20_1H
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_              20210125
Time                 11.35
INSTRUM              spect
PROBHD   5 mm PABBO BB-
PULPROG              zg30
TD                  65536
SOLVENT             CDCl3
NS                     32
DS                      2
SWH             10000.000 Hz
FIDRES              0.152588 Hz
AQ                3.2767999 sec
RG                    228.1
DW                   50.000 usec
DE                    6.50 usec
TE                   300.2 K
D1                2.00000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                   1H
P1                  12.00 usec
PL1                 -1.10 dB
PL1W           19.41561890 W
SFO1           500.3020014 MHz

F2 - Processing parameters
SI                  65536
SF             500.3000126 MHz
WDW                    EM
SSB                     0
LB                   0.30 Hz
GB                      0
PC                   1.00
```

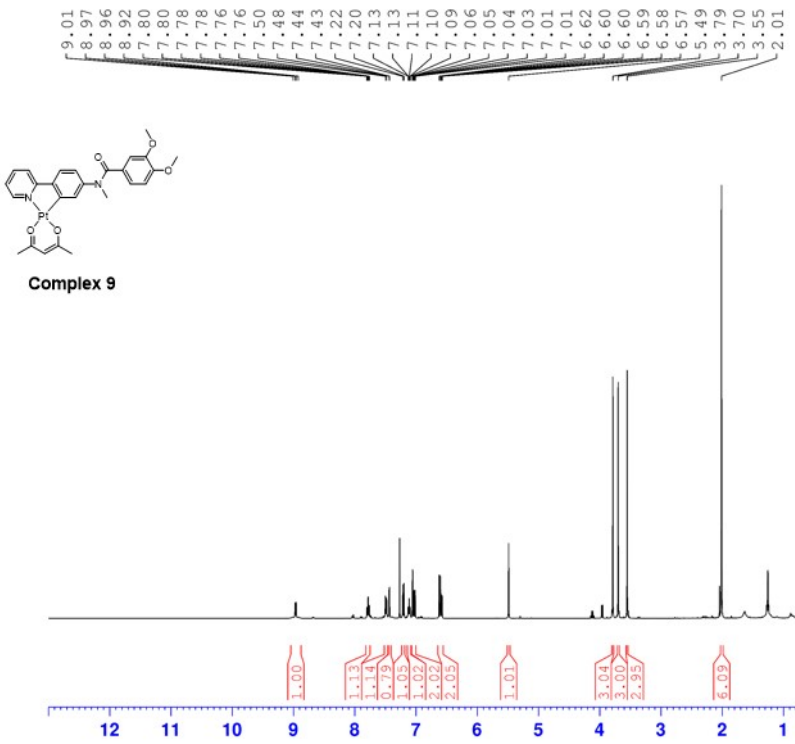




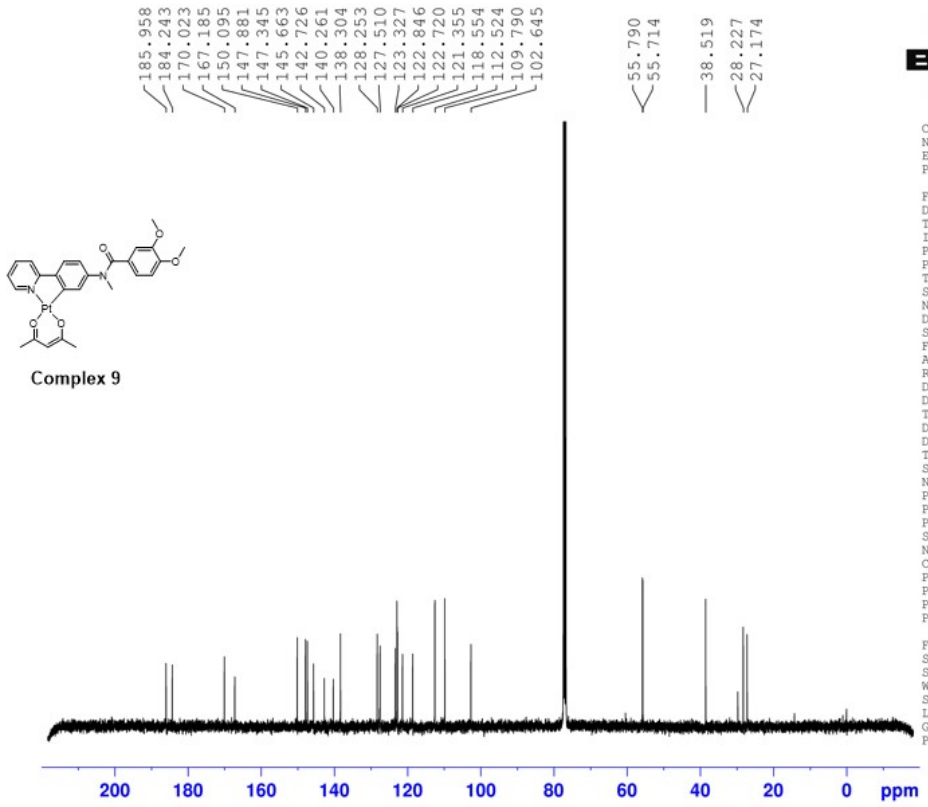
Complex 8

BRUKER

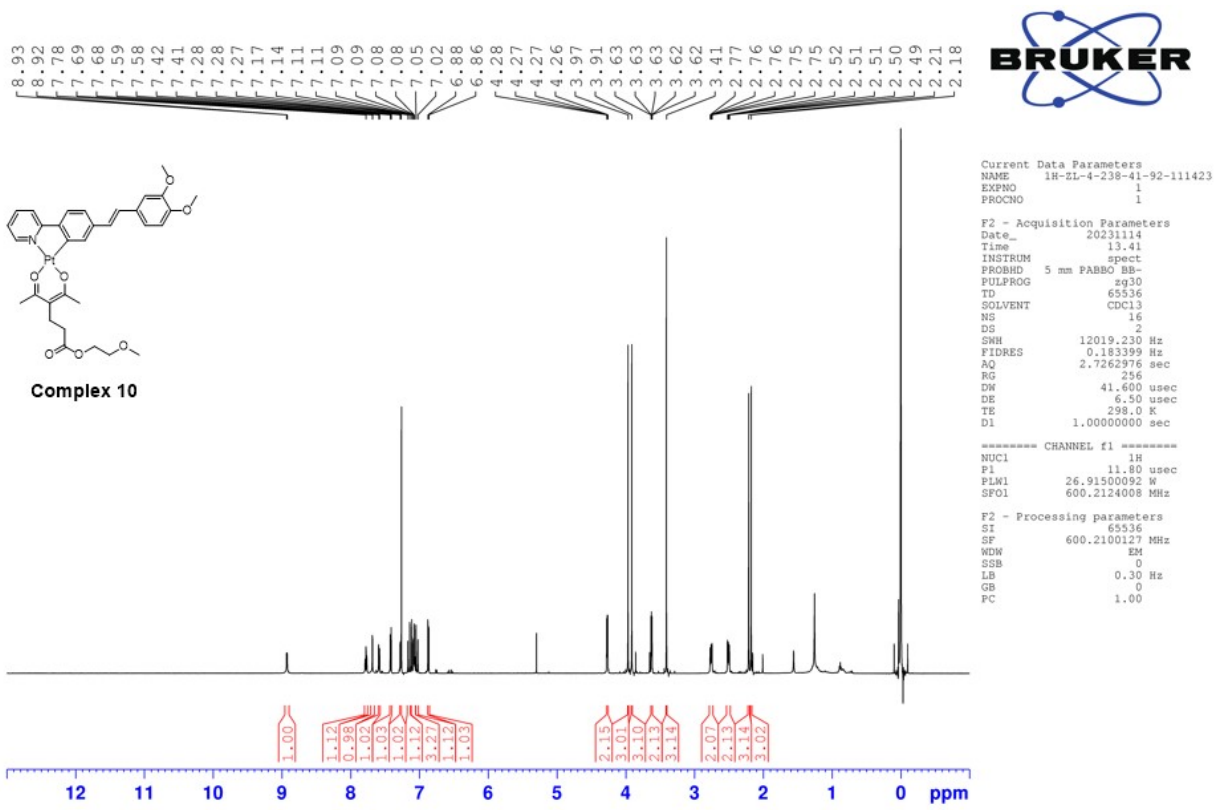
```
Current Data Parameters
NAME      pig_Li-4-118_17_20_13C
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_              20210125
Time                 12.28
INSTRUM              spect
PROBHD   5 mm PABBO BB-
PULPROG             zgpg30
TD                  65536
SOLVENT             CDCl3
NS                   1024
DS                      2
SWH             31446.541 Hz
FIDRES              0.479836 Hz
AQ                1.0420223 sec
RG                  20642.5
DW                   15.900 usec
DE                    6.50 usec
TE                   300.2 K
D1                2.00000000 sec
D11               0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                  10.00 usec
PL1                 -1.70 dB
PL1W          148.61408997 W
SFO1           125.8131150 MHz

======== CHANNEL f2 ========
CPDPRG[2          waltz16
NUC2                   1H
PCPD2               80.00 usec
PL2                 -1.10 dB
PL12                15.40 dB
PL13                17.40 dB
PL2W           19.41561890 W
PL12W           0.43466163 W
PL13W           0.27425295 W
SFO2           500.3020014 MHz

F2 - Processing parameters
SI                  32768
SF             125.8005161 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   1.40
```

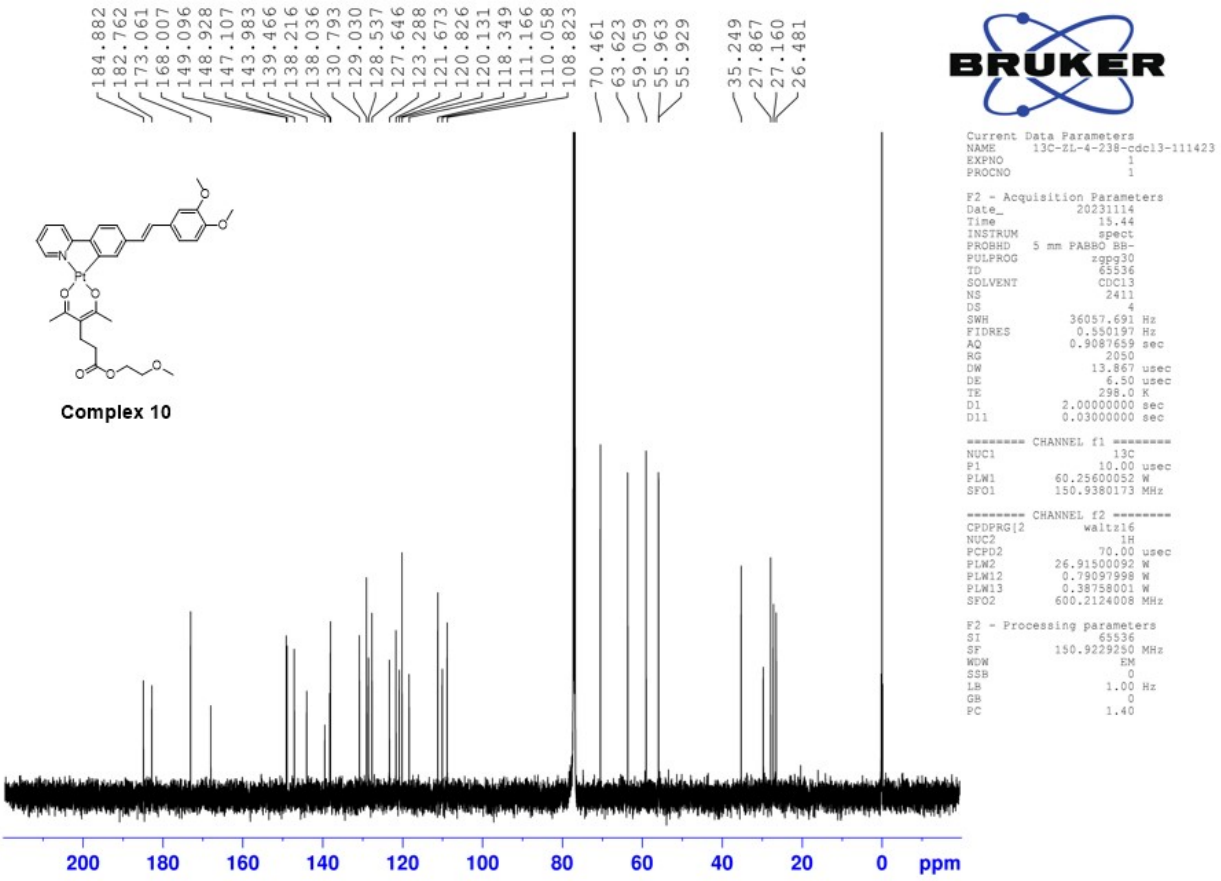



```
Current Data Parameters
NAME      1H-ZL-3-130-33-57
EXPNO                    1
PROCNO                   1

F2 - Acquisition Parameters
Date_           20230109
Time              17.43 h
INSTRUM           Avance
PROBHD    Z167430_0032 (
PULPROG             zg30
TD                 65536
SOLVENT            CDC13
NS                    16
DS                     2
SWH             8196.722 Hz
FIDRES          0.250144 Hz
AQ              3.9976959 sec
RG                   101
DW                61.000 usec
DE                13.20 usec
TE                298.0 K
D1             1.00000000 sec
TD0                    1
SFO1          400.3024719 MHz
NUC1                  1H
P0                  4.00 usec
P1                 12.00 usec
PLW1           8.80000019 W

F2 - Processing parameters
SI                 65536
SF            400.3000073 MHz
WDW                   EM
SSB                    0
LB                  0.30 Hz
GB                     0
PC                  1.00
```



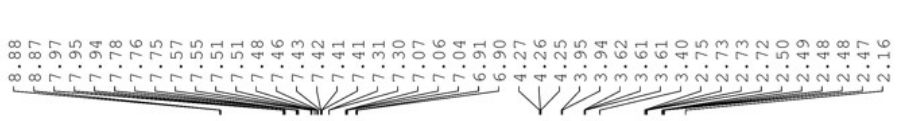

```
Current Data Parameters
NAME     13C-ZL-5-130-33-57
EXPNO                    1
PROCNO                   1

F2 - Acquisition Parameters
Date_           20230109
Time              17.59 h
INSTRUM           Avance
PROBHD    Z167430_0032 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDC13
NS                   203
DS                     4
SWH            23809.523 Hz
FIDRES          0.726609 Hz
AQ              1.3762560 sec
RG                  3.25
DW                21.000 usec
DE                19.29 usec
TE                298.0 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                    1
SFO1          100.6655806 MHz
NUC1                 13C
P0                  3.33 usec
P1                 10.00 usec
PLW1          39.31399918 W
SFO2          400.3016012 MHz
NUC2                  1H
CPDPRG[2         waltz64
PCPD2              80.00 usec
PLW2           8.80000019 W
PLW12          0.20176961 W
PLW13          0.10112690 W

F2 - Processing parameters
SI                131072
SF            100.6555151 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```

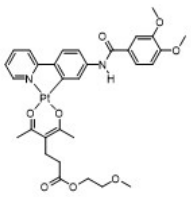

8.93 8.92 7.78 7.69 7.68 7.59 7.58 7.42 7.41 7.28 7.28 7.27 7.17 7.14 7.11 7.11 7.09 7.09 7.08 7.08 7.05 7.02 6.88 6.86 4.28 4.27 4.27 4.26 3.97 3.91 3.63 3.63 3.62 3.62 3.41 2.77 2.76 2.76 2.75 2.75 2.52 2.51 2.50 2.49 2.21 2.18
BRUKER
Complex 10
Current Data Parameters
NAME 1H-ZL-4-238-41-92-111423
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20231114
Time 13.41
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 256
DW 41.600 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 11.80 usec
PLW1 26.91500092 W
SFO1 600.2124008 MHz
F2 - Processing parameters
SI 65536
SF 600.2100127 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
1.00 1.12 0.98 1.02 1.03 1.02 1.12 3.27 1.12 1.03 2.15 3.01 3.10 2.13 3.14 2.07 2.13 3.14 3.02
12 11 10 9 8 7 6 5 4 3 2 1 0 ppm



BRUKER

```
Current Data Parameters
NAME      13C-ZL-4-238-cdcl3-111423
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20231114
Time              15.44
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG         zgpg30
TD               65536
SOLVENT          CDCl3
NS                2411
DS                   4
SWH           36057.691 Hz
FIDRES         0.550197 Hz
AQ             0.9087659 sec
RG                2050
DW               13.867 usec
DE                6.50 usec
TE               298.0 K
D1           2.00000000 sec
D11          0.03000000 sec

======== CHANNEL f1 ========
NUC1               13C
P1               10.00 usec
PLW1        60.25600052 W
SFO1       150.9380173 MHz

======== CHANNEL f2 ========
CPDPRG[2        waltz16
NUC2               1H
PCPD2            70.00 usec
PLW2        26.91500092 W
PLW12        0.79097998 W
PLW13        0.38758001 W
SFO2       600.2124008 MHz

F2 - Processing parameters
SI                65536
SF           150.9229250 MHz
WDW                  EM
SSB                   0
LB                 1.00 Hz
GB                    0
PC                 1.40
```

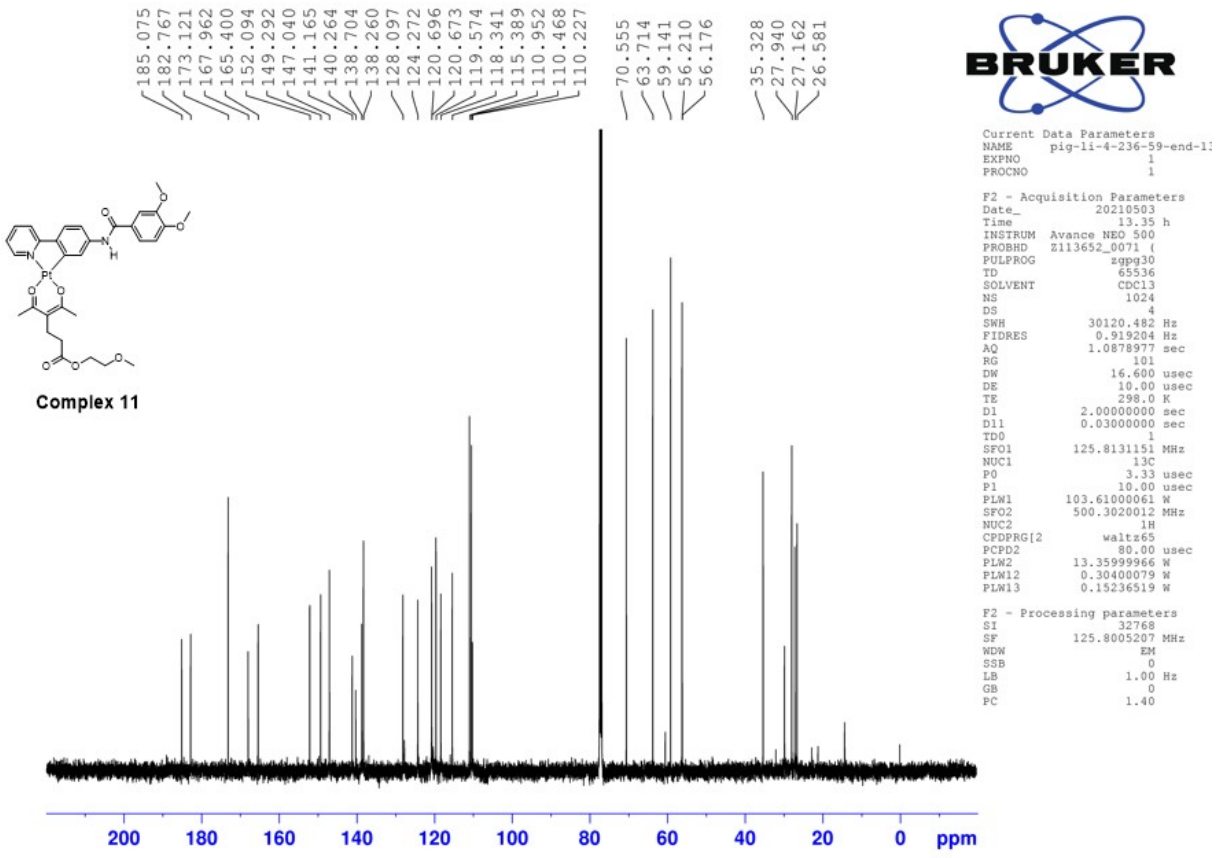




Complex 11

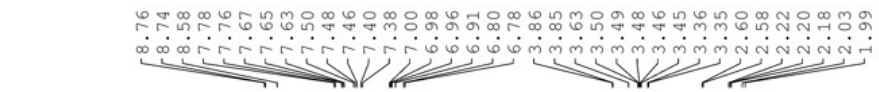
BRUKER

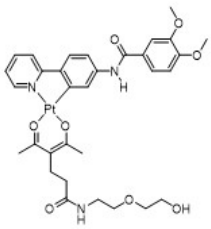
```
Current Data Parameters
NAME      pig-li-4-236-59-end-1H
EXPNO                          1
PROCNO                         1

F2 - Acquisition Parameters
Date_               20210503
Time                   12.25 h
INSTRUM  Avance NEO 500
PROBHD   Z113652_0071 (
PULPROG                 zg30
TD                     65536
SOLVENT                CDCl3
NS                        32
DS                         2
SWH                10000.000 Hz
FIDRES                 0.305176 Hz
AQ                 3.2767999 sec
RG                       101
DW                    50.000 usec
DE                    10.45 usec
TE                    298.0 K
D1                 1.00000000 sec
TD0                        1
SFO1            500.3030894 MHz
NUC1                      1H
P0                    4.00 usec
P1                    12.00 usec
PLW1           13.35999966 W

F2 - Processing parameters
SI                     65536
SF              500.3000074 MHz
WDW                       EM
SSB                        0
LB                    0.30 Hz
GB                         0
PC                    1.00
```



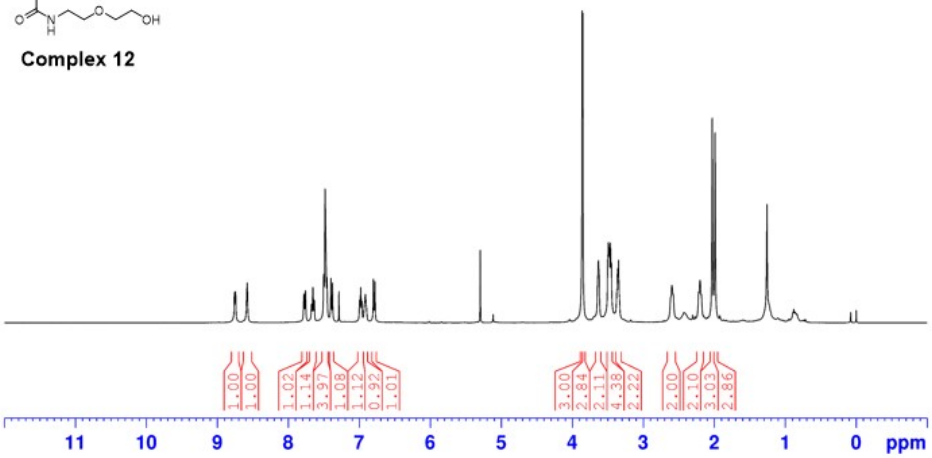
BRUKER

```
Current Data Parameters
NAME      pig-li-4-236-59-end-1
EXPNO                         1
PROCNO                        1

F2 - Acquisition Parameters
Date_              20210503
Time                  13.35 h
INSTRUM   Avance NEO 500
PROBHD    Z113652_0071 (
PULPROG              zgpg30
TD                    65536
SOLVENT               CDCl3
NS                     1024
DS                        4
SWH               30120.482 Hz
FIDRES            0.919204 Hz
AQ                1.0878977 sec
RG                      101
DW                   16.600 usec
DE                   10.00 usec
TE                   298.0 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                       1
SFO1          125.8131151 MHz
NUC1                    13C
P0                    3.33 usec
P1                   10.00 usec
PLW1         103.61000061 W
SFO2          500.3020012 MHz
NUC2                    1H
CPDPRG[2           waltz65
PCPD2                80.00 usec
PLW2          13.35999966 W
PLW12          0.30400079 W
PLW13          0.15236519 W

F2 - Processing parameters
SI                    32768
SF            125.8005207 MHz
WDW                     EM
SSB                      0
LB                    1.00 Hz
GB                       0
PC                    1.40
```

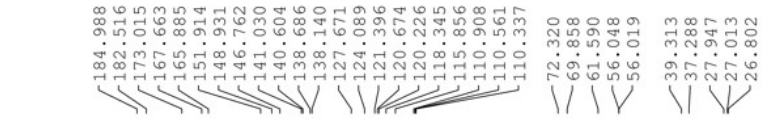


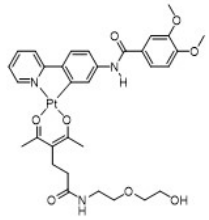


Complex 12

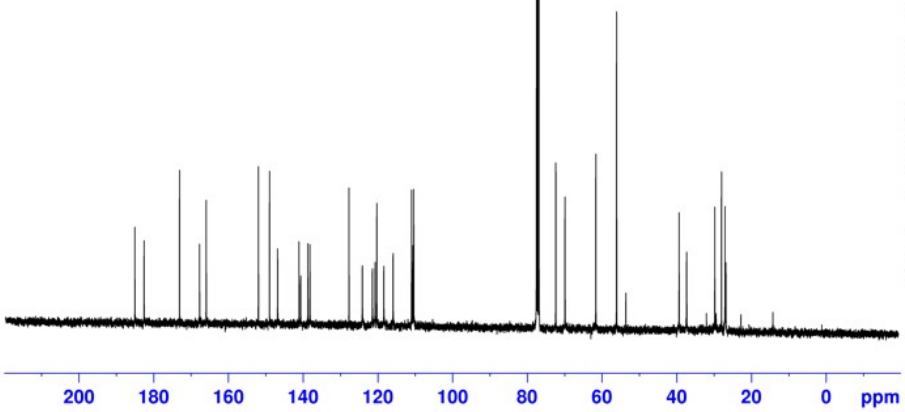



```
Current Data Parameters
NAME      1H-ZL-3-130-38-75
EXPNO                    1
PROCNO                   1

F2 - Acquisition Parameters
Date_             20211012
Time                16.02 h
INSTRUM              spect
PROBHD    Z104450_0192 (
PULPROG              zg30
TD                  65536
SOLVENT             CDCl3
NS                     16
DS                      2
SWH              8012.820 Hz
FIDRES           0.244532 Hz
AQ               4.0894465 sec
RG                     64
DW                 62.400 usec
DE                 16.92 usec
TE                 294.1 K
D1            1.00000000 sec
TD0                     1
SFO1         400.1324708 MHz
NUC1                   1H
P0                  5.00 usec
P1                 15.00 usec
PLW1          8.47000027 W

F2 - Processing parameters
SI                  65536
SF           400.1299987 MHz
WDW                    EM
SSB                     0
LB                   0.30 Hz
GB                      0
PC                   1.00
```



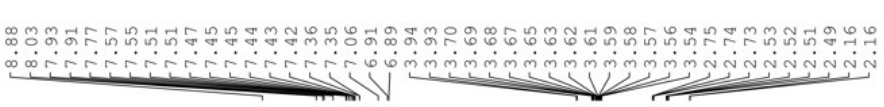


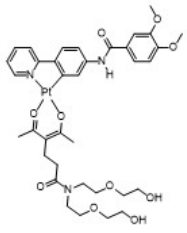
Complex 12



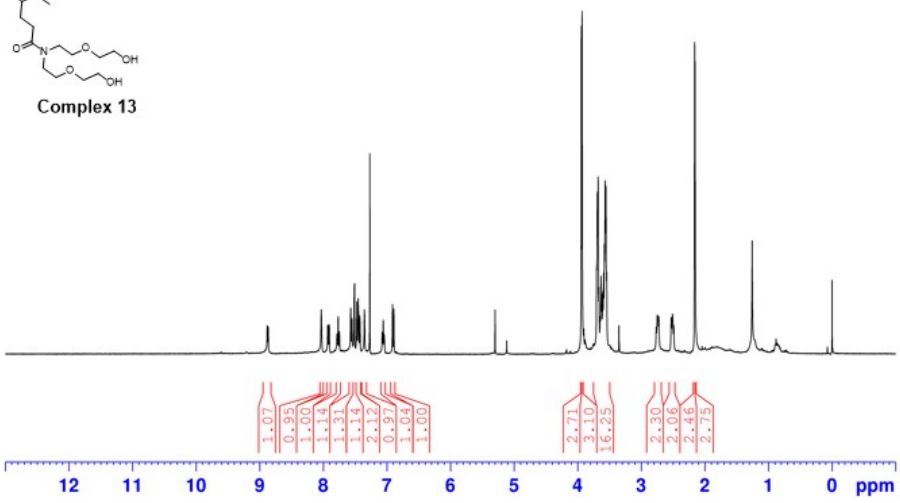
BRUKER

```
Current Data Parameters
NAME      13C-ZL-3-130-38-75-13C
EXPNO                          5
PROCNO                         1

F2 - Acquisition Parameters
Date_               20211012
Time                   17.36 h
INSTRUM                spect
PROBHD    Z104450_0192 (
PULPROG                zgpg30
TD                     65536
SOLVENT                CDCl3
NS                     1521
DS                     2
SWH                24038.461 Hz
FIDRES             0.733596 Hz
AQ                 1.3631488 sec
RG                     287
DW                   20.800 usec
DE                    6.50 usec
TE                   294.9 K
D1                 2.00000000 sec
D11                0.03000000 sec
TD0                    1
SFO1              100.6228298 MHz
NUC1                   13C
P0                    3.28 usec
P1                    9.85 usec
PLW1              28.63999939 W
SFO2              400.1316005 MHz
NUC2                   1H
CPDPRG[2               waltz65
PCPD2                 90.00 usec
PLW2               8.47000027 W
PLW12              0.23528001 W
PLW13              0.11834000 W

F2 - Processing parameters
SI                     32768
SF                100.6127623 MHz
WDW                    EM
SSB                    0
LB                    1.00 Hz
GB                     0
PC                    1.40
```



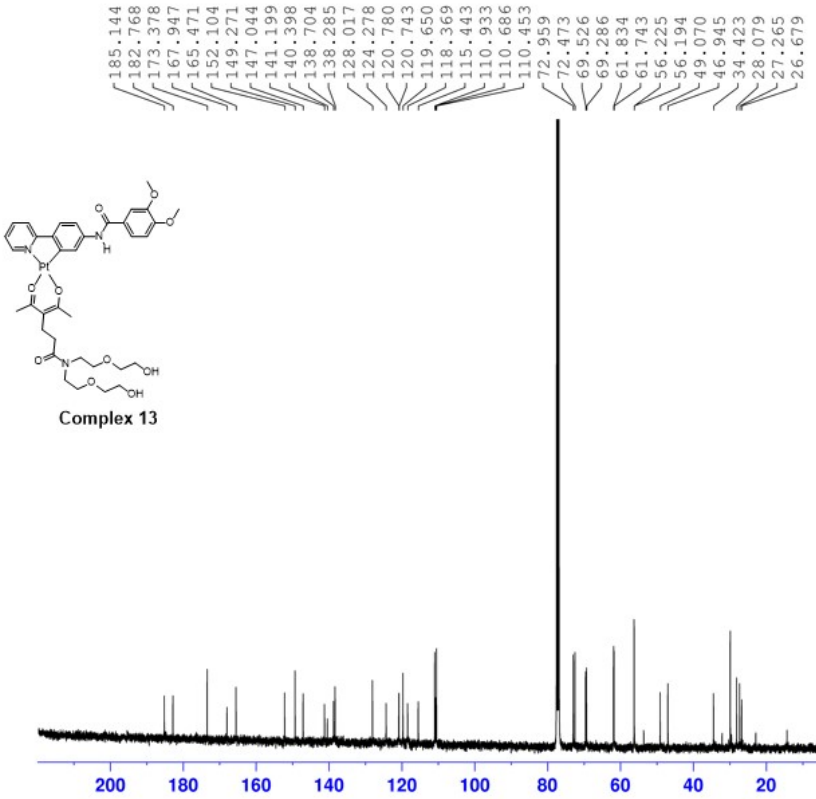


Complex 13



BRUKER

```
Current Data Parameters
NAME      1H-ZL-3-74-12-28
EXPNO                    3
PROCNO                   1

F2 - Acquisition Parameters
Date_               20210802
Time                   17.32 h
INSTRUM                spect
PROBHD    Z104450_0192 (
PULPROG                zg30
TD                     65536
SOLVENT                CDCl3
NS                     16
DS                     2
SWH                8012.820 Hz
FIDRES             0.244532 Hz
AQ                 4.0894465 sec
RG                     2050
DW                   62.400 usec
DE                   16.92 usec
TE                   298.0 K
D1                 1.00000000 sec
TD0                    1
SFO1              400.1324708 MHz
NUC1                   1H
P0                    5.00 usec
P1                   15.00 usec
PLW1               8.47000027 W

F2 - Processing parameters
SI                     65536
SF                400.1300060 MHz
WDW                    EM
SSB                    0
LB                    0.30 Hz
GB                     0
PC                    1.00
```

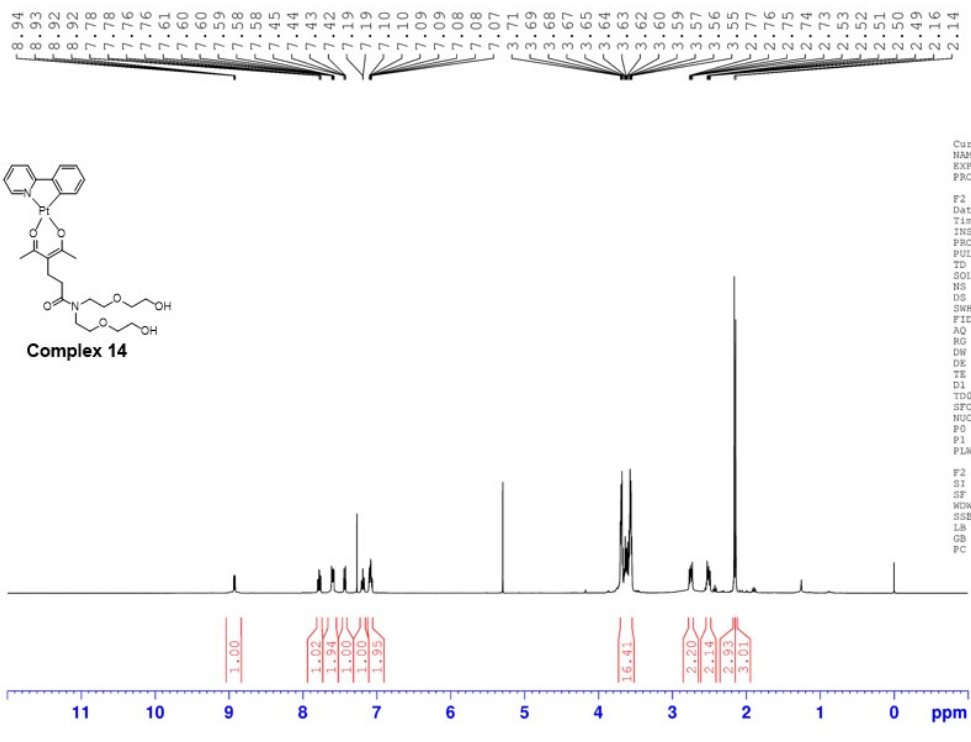


Complex 13

Current Data Parameters
NAME 13C-ZL-3-74-12-28-13c
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters
Date_ 20211012
Time 4.18 h
INSTRUM spect
PROBHD Z104450_0192 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 8012
DS 2
SWH 24038.461 Hz
FIDRES 0.733596 Hz
AQ 1.3631488 sec
RG 203
DW 20.800 usec
DE 6.50 usec
TE 295.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 100.6228298 MHz
NUC1 13C
P0 3.28 usec
P1 9.85 usec
PLW1 28.63999939 W
SFO2 400.1316005 MHz
NUC2 1H
CPDPRG[2 waltz65
PCPD2 90.00 usec
PLW2 8.47000027 W
PLW12 0.23528001 W
PLW13 0.11834000 W

F2 - Processing parameters
SI 32768
SF 100.6127567 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

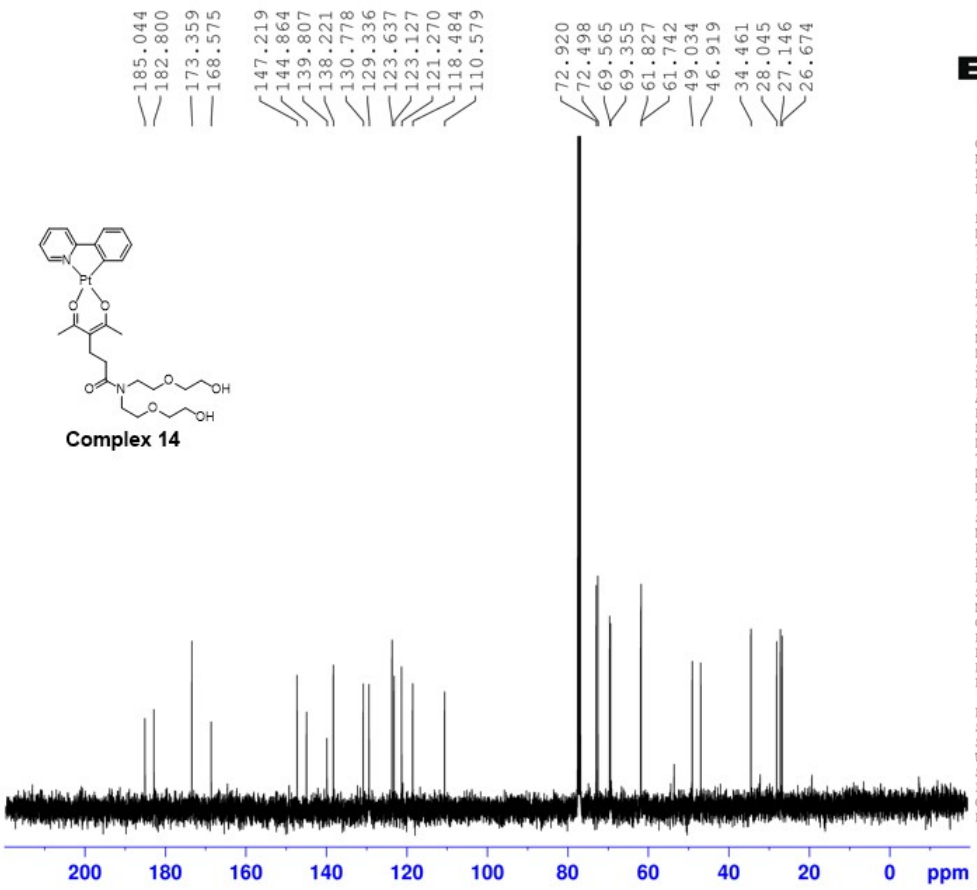


Complex 14

Current Data Parameters
NAME 1H-ZL-5-156-33-43
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20230222
Time 15.59 h
INSTRUM spect
PROBHD Z104450_0192 (
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8012.820 Hz
FIDRES 0.244532 Hz
AQ 4.0894465 sec
RG 128
DW 62.400 usec
DE 16.92 usec
TE 298.1 K
D1 1.00000000 sec
TD0 1
SFO1 400.1324708 MHz
NUC1 1H
P0 5.00 usec
P1 15.00 usec
PLW1 8.47000027 W

F2 - Processing parameters
SI 65536
SF 400.1300056 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



Complex 14

BRUKER

```
Current Data Parameters
NAME      13C-ZL-5-156-33-43
EXPNO                     2
PROCNO                    1

F2 - Acquisition Parameters
Date_              20230222
Time                 16.18 h
INSTRUM              spect
PROBHD    Z104450_0192 (
PULPROG            zgpg30
TD                  65536
SOLVENT             CDCl3
NS                    209
DS                      2
SWH             24038.461 Hz
FIDRES          0.733596 Hz
AQ              1.3631488 sec
RG                    114
DW                 20.800 usec
DE                  6.50 usec
TE                298.8 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                     1
SFO1         100.6228298 MHz
NUC1                  13C
P0                  3.28 usec
P1                  9.85 usec
PLW1         28.63999939 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2          waltz65
PCPD2               90.00 usec
PLW2          8.47000027 W
PLW12         0.23528001 W
PLW13         0.11834000 W

F2 - Processing parameters
SI                  32768
SF           100.6127571 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```