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Supporting Information

$In(OTf)_3$-Catalyzed Chemoselective Alkylation of Tryptamines with 2-oxo-1- pyrrolidine Derivatives

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General Information. Unless otherwise stated, all reagents were purchased from commercial suppliers and used without further purification. All reactions were carried out in air and using undistilled solvent, without any precautions to exclude air and moisture unless otherwise noted. Reactions were monitored by thin-layer chromatography (TLC) on silica gel GF-254 precoated glass plates. Chromatograms were visualized by fluorescence quenching with UV light at 254 nm. Flash column chromatography was performed using silica gel. Melting points were measured on a melting point apparatus and uncorrected. ^{1}H and ^{13}C NMR spectra were recorded in $CDCl_3$ or D_6-DMSO on 300 MHz or 400 MHz spectometers. Tetramethylsilane (TMS) served as internal standard for ^{1}H NMR and $CDCl_3$ or D_6-DMSO was used as internal standard for ^{13}C NMR. IR spectra were recorded on a FT-IR spectrometer. Mass spectra were carried out using Quadrupole LC/MS system with ESI resource. HRMS was recorded on a commercial apparatus (ESI Source).

General procedure for the In-catalyzed alkylation reaction. N-tosyl tryptamine (0.5 mmol, 0.1575 g), 1-(ethoxy(phenyl)methyl)pyrrolidin-2-one (0.75 mmol, 0.1643 g), $In(OTf)_3$ (0.075 mmol, 0.0421 g, 15 mol%), and CH_2Cl_2 (2 ml) were added into a flask. Then the mixture was vigorously stirred at 40 ^{o}C until 1-phenylbutane-1,3-dione or 1-(ethoxy(phenyl)methyl)pyrrolidin-2-one was completely consumed as monitored by TLC analysis. After the completion of reaction, the residue was directly purified by flash column chromatography by using ethyl acetate and petroleum ether as eluents to afford pure product.

Spectral Data for Products

4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4a): White solid (m.p. 70-71 ℃), 14% Yield (34.1 mg); ^{1}H NMR (400 MHz, DMSO-d_6) δ 7.66-7.61 (m, 3H), 7.57 (s, 1H), 7.48-7.40 (m, 4H), 7.35-7.27 (m, 3H), 7.19 (d, *J* = 7.1 Hz, 2H), 7.14 (t, *J* = 7.5 Hz, 1H), 7.07 (t, *J* = 7.4 Hz, 1H), 6.95 (s, 1H), 3.33–3.39 (m, 1H), 3.02–2.94 (m, 2H), 2.80-2.68 (m, 3H), 2.46 – 2.37 (m, 1H), 2.35 (s, 3H), 2.32-2.24 (m, 1H), 2.08-1.97 (m, 1H), 1.90-1.89 (m, 1H); ^{13}C NMR (75 MHz, CDCl3) δ 175.63, 143.38, 137.00, 134.81, 129.65, 129.05, 128.78, 127.78, 126.95, 126.88, 124.72, 122.80, 120.38, 118.79, 111.79, 110.74, 63.72, 43.35, 43.08, 30.77, 25.67, 21.53, 18.00; IR (KBr) ν_{max}: 3174, 2916, 1653, 1597, 1492, 1452, 1428, 1319, 1291, 1152, 1095, 925, 811, 744, 706, 664, 567, 545, 511 cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{29}N_3NaO_3S$: $[M+Na]^+$ 510.1827, found:510.1842 .

4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (3a): White solid (85-86 ℃), 74% Yield (180.2 mg); ^{1}H NMR (400 MHz, DMSO-d_6) δ 10.70 (s, 1H), 7.62 (d, *J* = 8.2 Hz, 3H), 7.40–7.26 (m, 7H), 7.08-7.03 (m, 3H), 6.97 (t, *J* = 7.3 Hz, 1H), 6.56 (s, 1H), 3.46-3.40 (m, 1H), 3.0203.10 (m,1H), 2.90 – 2.73 (m, 4H), 2.43-2.36 (m, 1H), 2.34 (s, 3H), 2.30-2.20 (m, 1H), 2.06-1.97 (s, 1H), 1.94-1.85 (s, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.12, 142.07, 135.98, 135.67, 134.67, 131.59, 128.50, 127.81, 126.74, 126.14, 125.97, 125.72, 121.61, 118.76, 117.69, 110.33, 110.22, 50.89, 45.86, 42.26, 30.21, 23.58, 20.49, 17.25; IR (KBr) ν_{max}: 3356, 3198, 2935, 1645, 1598, 1496, 1458, 1443, 1300, 1145, 1095, 931, 913, 812, 751, 709, 673, 574, 541, 530 cm^{-1} HRMS (ESI): Calcd.

For $C_{28}H_{29}N_3NaO_3S$: $[M+Na]^+$ 510.1827, found:510.1823 .

N-(2-(1-((2-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4b): White solid (m.p. 30-31 ℃), 11% Yield (27.0 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.68 (s, 1H), 7.56 (d, *J* = 7.3 Hz, 2H), 7.44 – 7.35 (m, 2H), 7.30 (d, *J* = 7.8 Hz, 1H), 7.22 – 7.17 (m, 1H), 7.14 (d, *J* = 7.4 Hz, 2H), 7.10-7.03 (m, 2H),7.02- 6.93 (m, 2H), 6.65 (s, 1H), 4.55 (s, 1H), 3.69 (s, 3H), 3.42-3.33 (m, 1H), 3.26-3.11 (m, 2H), 2.90-2.80 (m, 1H), 2.80 – 2.71 (m, 1H), 2.70-2.62 (m, 1H), 2.52-2.41 (m, 2H), 2.37 (s, 3H), 2.11-2.01 (m, 1H), 1.99-1.88 (m, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ 175.63, 157.49, 143.45, 137.03, 136.53, 130.74, 129.81, 127.92, 127.19, 127.11, 124.23, 123.98, 122.70, 120.77, 120.12, 118.96, 111.37, 110.93, 110.62, 61.52, 55.90, 44.92, 43.09, 31.16, 25.66, 21.73, 18.51; IR (KBr) ν_{max}: 3282, 2923, 1673, 1492, 1461, 1287, 1156, 1094, 742, 545, 535, 506cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_4S$: $[M+Na]^+$ 540.1927, found: 540.1915 .

N-(2-(2-((2-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (3b): White solid (m.p. 218-219 ℃), 67% Yield (173.3 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 9.05 (s, 1H), 7.54 (d, *J* = 7.9 Hz, 2H), 7.37 (d, *J* = 7.8 Hz, 1H), 7.33-2.27 (m, 2H), 7.20-7.12 (m, 4H), 7.03 (t, *J* = 7.4 Hz, 1H), 6.91 (t, *J* = 7.0 Hz, 2H), 6.36 (s, 1H), 4.55 (s, 1H), 3.81 (s, 3H), 3.61-3.53 (m, 1H), 3.51-3.43 (m, 1H), 3.15 (s, 2H), 3.01 – 2.85 (m, 2H), 2.41 (t, *J* = 8.0 Hz, 2H), 2.37 (s, 3H), 2.10-1.96 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.85, 156.69, 143.06, 136.61, 135.39, 133.67, 129.51, 129.38, 128.45, 127.31, 126.97, 126.06, 122.17, 120.55, 119.53, 118.42, 111.32, 110.83, 109.01, 55.63, 49.40, 48.55, 43.16, 31.53, 24.41,

21.50, 18.54; IR (KBr) ν_{max}: 3259, 2937, 2855, 1655, 1490, 1460, 1438, 1324, 1244, 1161, 1106, 1020, 872, 816, 748, 551, 497cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_4S$: $[M+Na]^+$ 540.1927, found: 540.1909.

N-(2-(1-((3-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4c): White solid (m.p. 75-76 ℃), 17% Yield (45.8 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.72 (s, 1H), 7.64 (d, *J* = 8.0 Hz, 2H), 7.49 – 7.42 (m, 2H), 7.35 (t, *J* = 8.0 Hz, 1H), 7.22 (d, *J* = 8.0 Hz, 3H), 7.14 (t, *J* = 7.4 Hz, 1H), 6.94 (d, *J* = 8.0 Hz, 1H), 6.80 (d, *J* = 7.6 Hz, 1H), 6.77-6.73 (m, 2H), 4.31 (s, 1H), 3.79 (s, 3H), 3.50-3.42 (m, 1H), 3.30-3.20 (m, 2H), 2.92-2.83 (m, 2H), 2.68-2.59 (m, 1H), 2.57 – 2.47 (m, 1H), 2.45 – 2.34 (m, 4H), 2.13-2.02 (m, 1H), 1.98-1.88 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.62, 160.16, 143.35, 136.96, 136.51, 130.14, 129.65, 127.83, 126.95, 124.71, 122.77, 120.36, 119.11, 118.81, 113.72, 113.09, 111.86, 110.69, 63.65, 55.38, 43.42, 43.12, 30.75, 25.68, 21.52, 17.99; IR (KBr) ν_{max}: 3529, 3147, 2941, 1675, 1595, 1492, 1462, 1329, 1225, 1158, 1094, 816, 745, 658, 550, 428cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_4S$: $[M+Na]^+$ 540.1927, found: 540.1929.

N-(2-(2-((3-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (3c): White solid (m.p. 136-137 ℃), 60% Yield (153.1 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.49 (s, 1H), 7.61 (d, *J* = 7.8 Hz, 2H), 7.47 (d, *J* = 7.8 Hz, 1H), 7.31-7.23 (m, 2H), 7.22-7.16 (m, 3H), 7.09 (t, *J* = 7.4 Hz, 1H), 6.83 (d, *J* = 8.0 Hz, 1H), 6.67 (d, *J* = 7.8 Hz, 1H), 6.65 (s, 1H), 6.44 (s, 1H), 4.76 (s, 1H), 3.75 (s, 3H), 3.67-3.59 (m, 1H), 3.41-3.33(m, 1H), 3.20 (s, 2H), 3.08 – 2.91 (m, 2H), 2.49

(t, *J* = 8.0 Hz, 2H), 2.38 (s, 3H), 2.15 – 2.03 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.02, 158.94, 142.03, 137.78, 135.73, 134.72, 131.27, 128.89, 128.50, 126.23, 125.96, 121.50, 118.66, 118.13, 117.71, 112.20, 111.42, 110.39, 110.26, 54.27, 50.61, 45.47, 42.37, 30.08, 23.60, 20.49, 17.18; IR (KBr) ν_{max}: 3312, 3221, 2920, 1650, 1491, 1462, 1332, 1245, 1162, 1094, 1053, 874, 816, 766, 748, 549, 501cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_4S$: $[M+Na]^+$ 540.1927, found: 540.1932 .

N-(2-(1-((4-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4d): White solid (m.p. 48-49 ℃), 4% Yield (10.3 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.68 (s, 1H), 7.55 (d, *J* = 7.9 Hz, 2H), 7.45 – 7.35 (m, 2H), 7.32 (d, *J* = 8.2 Hz, 1H), 7.23 – 7.18 (m, 1H), 7.16 (d, *J* = 7.9 Hz, 2H), 7.12-7.05 (m, 2H), 7.03-6.95 (m, 2H), 6.63 (s, 1H), 4.21 (s, 1H), 3.71 (s, 3H), 3.45 – 3.36 (m, 1H), 3.29-3.14 (m, 2H), 2.91-2.83 (m, 1H), 2.80-2.72 (m, 1H), 2.70-2.62 (m, 1H), 2.51 – 2.41 (m, 2H), 2.38 (s, 3H), 2.12 – 2.02 (m, 1H), 1.98-1.90 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.36, 157.29, 143.25, 136.79, 136.35, 130.53, 129.59, 127.66, 126.89, 124.05, 123.75, 122.52, 120.55, 119.93, 118.70, 111.18, 110.61, 61.31, 55.68, 44.67, 42.79, 30.93, 25.42, 21.50, 18.29; IR (KBr) ν_{max}: 3150, 2928, 1670, 1598, 1490, 1457, 1411, 1328, 1267, 1159, 1089, 1016, 712, 698, 635, 576, 544cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_4S$: $[M+Na]^+$ 540.1927, found: 540.1922 .

N-(2-(2-((4-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (3d): White solid (m.p. 203-204 ℃), 70% Yield (182.8 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 9.06 (s, 1H), 7.55 (d, *J* = 7.8 Hz, 2H), 7.37 (d, *J* = 7.8 Hz, 1H), 7.34-7.27 (m, 2H), 7.20-7.13 (m, 4H), 7.03 (t, *J* = 7.4 Hz, 1H), 6.91 (t, *J*

= 6.9 Hz, 2H), 6.36 (s, 1H), 4.58 (s, 1H), 3.81 (s, 3H), 3.61-3.53 (m, 1H), 3.51-3.42 (m, 1H), 3.15 (s, 2H), 3.01 – 2.85 (m, 2H), 2.42 (t, *J* = 7.9 Hz, 2H), 2.37 (s, 3H), 2.10-1.96 (m, 2H); ^{13}C NMR (75 MHz, DMSO-d6) δ 174.17, 156.97, 142.94, 138.00, 135.98, 133.43, 130.02, 129.39, 127.99, 126.99, 121.42, 120.79, 119.04, 118.19, 111.86, 111.37, 108.91, 55.86, 47.40, 46.12, 43.60, 30.79, 24.86, 21.37, 18.15; IR (KBr) ν_{max}: 3424, 3215, 2964,2916, 2849, 1669, 1598, 1493, 1461, 1421, 1324, 1160, 1105, 1022, 934, 912, 817, 800, 751, 739, 653, 572, 551, 498cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_4S$: $[M+Na]^+$ 540.1927, found: 540.1932 .

4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(p-tolyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4e): White solid (m.p. 37-38), 14% Yield (21.5 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.72 (s, 1H), 7.64 (d, *J* = 7.9 Hz, 2H), 7.45 (t, *J* = 7.9 Hz, 2H), 7.23 (t, *J* = 8.2 Hz, 5H), 7.16 – 7.11 (m, 1H), 7.09 (d, *J* = 7.8 Hz, 2H), 6.75 (s, 1H), 4.28 (s, 1H), 3.45 (t, *J* = 7.4 Hz, 1H), 3.30-3.19 (m, *J* = 6.3 Hz, 2H), 2.91-2.82 (m, 2H), 2.70-2.61 (m, 1H), 2.58 – 2.48 (m, 1H), 2.46 – 2.34 (m, 7H), 2.15-2.03 (m, 1H), 1.99-1.88 (m, 1H); ^{13}C NMR (100 MHz, $CDCl_3$) δ 175.90, 143.50, 138.83, 137.26, 137.14, 132.01, 129.93, 129.86, 128.13, 127.18, 127.06, 124.88, 122.88, 120.49, 119.05, 112.07, 110.93, 63.90, 43.62, 43.44, 31.05, 25.91, 21.76, 21.39, 18.21; IR (KBr) ν_{max}: 3183, 2923, 1652, 1458, 1327, 1158, 1095, 780, 741, 545, 495cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_3S$: $[M+Na]^+$ 524.1978, found: 524.1970.

4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(p-tolyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (3e): White solid (m.p. 157-158), 63% Yield (95.1 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.55 (s, 1H), 7.60 (d, *J* = 7.9 Hz, 2H), 7.46 (d, *J* = 7.8 Hz, 1H),

7.28 (d, *J* = 8.3 Hz, 1H), 7.18 (d, *J* = 7.5 Hz, 3H), 7.13 (d, *J* = 7.7 Hz, 2H), 7.08 (t, *J* = 7.4 Hz, 1H), 6.97 (d, *J* = 7.7 Hz, 2H), 6.41 (s, 1H), 4.80 (s, 1H), 3.67-3.58 (m, 1H), 3.44-3.35 (m, 1H), 3.19 (s, 2H), 3.07 – 2.92 (m, 2H), 2.49 (t, *J* = 7.9 Hz, 2H), 2.37 (s, 3H), 2.34 (s, 3H), 2.13-2.03 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.07, 142.04, 136.49, 135.71, 134.63, 132.90, 131.81, 128.49, 126.19, 125.97, 125.69, 121.52, 118.71, 117.67, 110.30, 110.02, 50.73, 45.83, 42.28, 30.25, 23.56, 20.49, 20.05, 17.24; IR (KBr) ν_{max}: 3390, 3085, 2919, 1659, 1514, 1493, 1461, 1328, 1295, 1211, 1159, 1073, 913, 823, 747, 655, 573cm^{-1}; HRMS (ESI): Calcd. For $C_{29}H_{31}N_3NaO_3S$: $[M+Na]^+$ 524.1978, found: 524.1974.

4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(o-tolyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4f): White solid (m.p. 47-48 ℃), 26% Yield (65.4 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.62 (d, *J* = 8.1 Hz, 2H), 7.58 (s, 1H), 7.44 (d, *J* = 7.9 Hz, 1H), 7.36 – 7.29 (m, 2H), 7.28-7.27 (m, 1H), 7.25 – 7.20 (m, 3H), 7.20 – 7.15 (m, 2H), 7.13 (t, *J* = 7.5 Hz, 1H), 6.53 (s, 1H), 4.39 (s, 1H), 3.48-3.41 (m, 1H), 3.24-3.16 (m, 2H), 2.81 (t, *J* = 6.9 Hz, 2H), 2.59 – 2.42 (m, 3H), 2.39 (s, 3H), 2.17-2.04 (m, 1H), 1.99-1.90 (m, 4H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.34, 143.35, 137.07, 136.20, 133.68, 131.55, 129.65, 129.07, 127.80, 126.93, 126.32, 125.59, 123.76, 122.92, 120.40, 118.95, 111.76, 110.18, 76.60, 62.98, 44.36, 43.13, 30.84, 25.61, 21.52, 18.86, 18.16; IR (KBr) ν_{max}: 3488, 2923, 2134, 1670, 1459, 1414, 1327, 1287, 1266, 1155, 1094, 818, 745, 686, 661, 552cm^{-1}; HRMS (ESI): calcd. for $C_{29}H_{31}N_3NaO_3S$: $[M+Na]^+$ 524.1984 , found:524.1979.

4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(o-tolyl)methyl)-1H-indol-3-yl)ethyl)ben

zenesulfonamide (3f): White solid (m.p. 169-170 ℃), 54% Yield (134.5 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.05 (s, 1H), 7.64 (d, *J* = 7.6 Hz, 2H), 7.44 (d, *J* = 7.5 Hz, 1H), 7.26-7.19 (m, 5H), 7.18-7.11 (m, 3H), 7.11 – 7.04 (m, 1H), 6.57 (s, 1H), 5.02 (s, 1H), 3.51-3.39 (m, 1H), 3.21 – 3.01 (m, 3H), 2.95-2.83 (m, 2H), 2.51 – 2.42 (m, 2H), 2.39 (s, 3H), 2.06 (s, 3H), 2.04-1.96 (m, 1H), 1.84 (s, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.43, 143.12, 136.79, 136.56, 135.75, 135.38, 132.02, 131.33, 129.56, 128.14, 127.77, 127.07, 126.35, 126.06, 122.40, 119.89, 118.62, 111.25, 110.51, 50.41, 46.66, 43.25, 30.99, 24.63, 21.51, 19.36, 18.20; IR (KBr) ν_{max}: 3428, 3188, 2918, 1653, 1457, 1433, 1307, 1322, 1289, 1158, 1093, 748, 720, 667, 550, 484, 456cm^{-1}; HRMS (ESI): calcd. for $C_{29}H_{31}N_3NaO_3S$: $[M+Na]^+$ 524.1984, found:524.1971 .

N-(2-(1-((4-fluorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4g): White solid (m.p. 144-145 ℃), 16% Yield (40.5 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.72 (s, 1H), 7.65 (d, *J* = 7.8 Hz, 2H), 7.48-7.40 (m, 2H), 7.23 (d, *J* = 7.6 Hz, 3H), 7.21 – 7.16 (m, 2H), 7.16 – 7.07 (m, 3H), 6.74 (s, 1H), 4.32 (s, 1H), 3.47-3.39 (m, 1H), 3.30-3.21 (m, 2H), 2.89 (t, *J* = 6.6 Hz, 2H), 2.73-2.62 (m, 1H), 2.58 – 2.48 (m, 1H), 2.46 – 2.35 (m, 4H), 2.14 – 2.02 (m, 1H), 2.01 – 1.90 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.70, 143.38, 136.99, 130.70, 129.65, 128.81, 128.70, 127.90, 126.94, 124.44, 122.84, 120.44, 118.88, 116.19, 115.90, 112.20, 110.66, 63.37, 43.32, 43.11, 30.72, 25.69, 21.51, 17.98; IR (KBr) ν_{max}: 3405, 2921, 1667, 1508, 1459, 1327, 1232, 1159, 1087, 744, 550, 457, 418cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}FN_3NaO_3S$: $[M+Na]^+$ 528.1728, found: 528.1711.

N-(2-(2-((4-fluorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-me

thylbenzenesulfonamide (3g): White solid (m.p. 167-16), 60% Yield (150.5 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.70 (s, 1H), 7.60 (d, *J* = 7.6 Hz, 2H), 7.46 (d, *J* = 7.7 Hz, 1H), 7.30 (d, *J* = 8.0 Hz, 1H), 7.19 (d, *J* = 7.4 Hz, 3H), 7.13-7.03 (m, 3H), 7.03 – 6.95 (m, 2H), 6.35 (s, 1H), 4.75 (s, 1H), 3.69 – 3.58 (m, 1H), 3.50-3.40 (m, 1H), 3.18 (s, 2H), 3.09-2.92 (m, 2H), 2.54-2.45 (m, 2H), 2.38 (s, 3H), 2.15-2.04 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 176.20, 143.15, 136.69, 135.81, 132.96, 132.31, 129.54, 128.62, 128.51, 126.95, 122.65, 119.76, 118.71, 115.79, 115.50, 111.47, 111.24, 51.56, 46.88, 43.40, 31.20, 24.66, 21.50, 18.24; IR (KBr) ν_{max}: 3371, 3189, 2933, 1644, 1599, 1512, 1459, 1300, 1233, 1146, 1095, 869, 812, 746, 672, 573, 549cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}FN_3NaO_3S$: $[M+Na]^+$ 528.1728, found: 528.1712.

N-(2-(1-((4-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-m ethylbenzenesulfonamide (4h): White solid (m.p. 77-78 ℃), 15% Yield (41.2 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.69 (s, 1H), 7.65 (d, *J* = 7.8 Hz, 2H), 7.56 (d, *J* = 8.1 Hz, 2H), 7.48-7.40 (m, 2H), 7.24 (d, *J* = 7.4 Hz, 3H), 7.15 (t, *J* = 7.1 Hz, 1H), 7.09 (d, *J* = 7.8 Hz, 2H), 6.72 (s, 1H), 4.33 (s, 1H), 3.41 (s, 1H), 3.29-3.21 (m, 2H), 2.92-2.95 (m, 2H), 2.72-2.63 (m, 1H), 2.58-2.48 (m, 1H), 2.46 – 2.35 (m, 4H), 2.15 – 2.02 (m, 1H), 2.01-1.90 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.70, 143.40, 136.97, 136.88, 134.07, 132.21, 129.66, 128.65, 127.86, 126.94, 124.41, 122.92, 120.50, 118.89, 112.29, 110.65, 63.40, 43.31, 43.09, 30.67, 25.68, 21.53, 17.98; IR (KBr) ν_{max}: 3442, 3179, 1663, 1458, 1416, 1328, 1263, 1157, 1088, 813, 801,745, 548, 428, 420cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}{}^{81}BrN_3NaO_3S$: $[M+Na]^+$ 590.0912, found: 590.0917.

N-(2-(2-((4-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-m

ethylbenzenesulfonamide (3h): White solid (m.p. 204-205 ℃), 83% Yield (235.2 mg); ^{1}H NMR (400 MHz, DMSO-d_6) δ 10.70 (s, 1H), 7.63 (d, *J* = 7.9 Hz, 3H), 7.55 (d, *J* = 8.1 Hz, 2H), 7.40 (d, *J* = 7.8 Hz, 1H), 7.33 (d, *J* = 7.8 Hz, 2H), 7.28 (d, *J* = 8.0 Hz, 1H), 7.11 – 6.94 (m, 4H), 6.53 (s, 1H), 3.45-3.38 (m, 1H), 3.05-2.96 (m, 7.9 Hz, 1H), 2.89-2.75 (m, 4H), 2.44 – 2.36 (m, 1H), 2.35 (s, 3H), 2.30 – 2.17 (m, 1H), 2.07-1.95 (m, 1H), 1.95 – 1.82 (m, 1H); ^{13}C NMR (75 MHz, DMSO-d6) δ 173.61, 141.89, 137.00, 136.96, 135.42, 131.22, 130.83, 128.95, 128.52, 126.45, 125.97, 121.00, 119.89, 118.18, 117.74, 110.93, 110.08, 49.07, 43.83, 43.01, 29.63, 23.88, 20.37, 17.05; IR (KBr) ν_{max}: 3351, 3196, 2923, 1648, 1489, 1436, 1309, 1145, 1094, 1010, 929, 913, 812, 748, 670, 542, 521cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}{}^{81}BrN_3NaO_3S$: $[M+Na]^+$ 590.0912, found: 590.0914.

N-(2-(1-((4-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-m ethylbenzenesulfonamide (4i): White solid (m.p. 52-53 ℃), 15% Yield (38.4 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.71 (s, 1H), 7.65 (d, *J* = 7.8 Hz, 2H), 7.49-7.42 (m, 2H), 7.41 (d, *J* = 7.5 Hz, 2H), 7.23 (d, *J* = 7.5 Hz, 3H), 7.15 (d, *J* = 7.4 Hz, 3H), 6.73 (s, 1H), 4.33 (s, 1H), 3.42 (t, *J* = 7.8 Hz, 1H), 3.31-3.19 (m, 2H), 2.89 (t, *J* = 6.4 Hz, 2H), 2.73-2.63 (m, 1H), 2.59-2.48 (m, 1H), 2.45 – 2.35 (m, 4H), 2.15-2.02 (m, 1H), 2.00-1.90 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.71, 143.40, 136.98, 136.88, 134.76, 133.51, 129.65, 129.25, 128.34, 127.88, 126.93, 124.41, 122.89, 120.49, 118.89, 112.29, 110.65, 63.37, 43.33, 43.09, 30.67, 25.68, 21.52, 17.98; IR (KBr) ν_{max}: 3414, 3188, 2925, 1664, 1492, 1459, 1329, 1286, 1158, 1089, 1011, 815, 745, 544cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}ClN_3NaO_3S$: $[M+Na]^+$ 544.1432, found:

544.1431.

N-(2-(2-((4-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (3i): White solid (m.p. 216-217), 70% Yield (182.8 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.71 (s, 1H), 7.60 (d, *J* = 8.0 Hz, 2H), 7.47 (d, *J* = 7.9 Hz, 1H), 7.29 (t, *J* = 8.0 Hz, 3H), 7.20 (t, *J* = 6.9 Hz, 3H), 7.09 (t, *J* = 7.4 Hz, 1H), 7.02 (d, *J* = 8.2 Hz, 2H), 6.32 (s, 1H), 4.70 (s, 1H), 3.70-3.61 (m, 1H), 3.51-3.43(m, 1H), 3.24-3.12 (m, 2H), 3.10 – 2.92 (m, 2H), 2.55 – 2.44 (m, 2H), 2.38 (s, 3H), 2.18 – 2.07 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 176.29, 143.22, 136.64, 135.79, 135.74, 133.65, 132.29, 129.57, 128.95, 128.13, 126.98, 122.84, 119.89, 118.69, 111.44, 111.26, 51.99, 47.50, 43.26, 31.28, 24.73, 21.50, 18.34; IR (KBr) ν_{max}: 3320, 3212, 2922, 1667, 1598, 1490, 1461, 1437, 1334, 1307, 1161, 1090, 1058, 1014, 871, 804, 756, 742, 659, 573, 548, 499cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}ClN_3NaO_3S$: $[M+Na]^+$ 544.1432, found: 544.1434.

N-(2-(1-((3-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4j): White solid (m.p. 57-58 ℃), 22% Yield (58.0 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.71 (s, 1H), 7.65 (d, *J* = 7.7 Hz, 2H), 7.49-7.41 (m, 2H), 7.40 – 7.33 (m, 2H), 7.26 – 7.17 (m, 4H), 7.15 (t, *J* = 7.4 Hz, 1H), 7.09 (d, *J* = 6.5 Hz, 1H), 6.72 (s, 1H), 4.44 (s, 1H), 3.43 (t, *J* = 7.9 Hz, 1H), 3.25 (s, 2H), 2.89 (t, *J* = 6.5 Hz, 2H), 2.72-2.62 (m, 1H), 2.61 – 2.48 (m, 1H), 2.46 – 2.33 (m, 4H), 2.18 – 2.04 (m, 1H), 2.01-1.89 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.78, 143.36, 137.21, 137.00, 136.91, 135.15, 130.40, 129.66, 129.03, 127.88, 126.94, 125.26, 124.38, 122.92, 120.51, 118.93, 112.47, 110.58, 63.27, 43.34, 43.14, 30.64, 25.69, 21.52, 17.97; IR

(KBr) ν_{max}: 3463, 2928, 2880, 1739, 1654, 1599, 1490, 1458, 1384, 1234, 1217, 1155, 1105, 1093, 1020, 743, 667, 582, 548, 470cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}ClN_3NaO_3S$: $[M+Na]^+$ 544.1432, found: 544.1431.

N-(2-(2-((3-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (3j): White solid (m.p. 74-75 ℃), 75% Yield (194.3 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.70 (s, 1H), 7.60 (d, *J* = 7.5 Hz, 2H), 7.47 (d, *J* = 7.8 Hz, 1H), 7.33 – 7.26 (m, 2H), 7.25-7.15 (m, 4H), 7.14 – 7.03 (m, 2H), 6.97 (d, *J* = 6.0 Hz, 1H), 6.35 (s, 1H), 4.77 (s, 1H), 3.69-3.59 (m, 1H), 3.49-3.39 (m, 1H), 3.23-3.13 (m, 2H), 3.10 – 2.90 (m, 2H), 2.49 (t, *J* = 7.8 Hz, 2H), 2.38 (s, 3H), 2.16-2.06(m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 176.21, 143.14, 139.57, 136.75, 135.89, 134.81, 131.78, 130.08, 129.55, 127.93, 127.09, 126.95, 126.83, 125.09, 122.75, 119.80, 118.76, 111.53, 51.71, 46.95, 43.40, 31.10, 24.74, 21.49, 18.24; IR (KBr) ν_{max}: 3344, 2926, 1665, 1596, 1459, 1420, 1325, 1157, 1094, 890, 814, 745, 659, 550cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}ClN_3NaO_3S$: $[M+Na]^+$ 544.1432, found: 544.1433.

N-(2-(1-((2-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4k): White solid (m.p. 44-45 ℃), 10% Yield (28.8 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.66 (d, *J* = 7.8 Hz, 1H), 7.62 (d, *J* = 7.8 Hz, 2H), 7.55 (s, 1H), 7.42 (d, *J* = 7.7 Hz, 1H), 7.36 (t, *J* = 7.6 Hz, 1H), 7.32-7.26 (m, 2H), 7.23-7.17 (m, 3H), 7.13-7.07 (m, 2H), 6.62 (s, 1H), 4.51 (t, *J* = 6.0 Hz, 1H), 3.39 – 3.31 (m, 1H), 3.28-3.15 (m, 2H), 2.93 – 2.75 (m, 3H), 2.57 – 2.44 (m, 2H), 2.38 (s, 3H), 2.16 – 2.07 (m, 1H), 2.05-1.98 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.52, 143.27, 136.95, 136.22, 135.09, 134.05, 130.62, 129.63, 127.90, 127.75, 126.91,

123.64, 123.48, 122.82, 120.29, 118.90, 111.92, 110.26, 65.20, 44.83, 43.00, 30.74, 25.57, 21.52, 18.32; IR (KBr) ν_{max}: 3413, 2919, 1679, 1460, 1411, 1328, 1285, 1156, 1093, 1018, 812, 749, 669, 551, 446cm^{-1}; HRMS (ESI): calcd. for $C_{28}H_{28}BrN_3NaO_3S$: $[M+Na]^+$ 588.0932, found:588.0934.

N-(2-(2-((2-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (3k): White solid (m.p. 165-166), 76% Yield (214.3 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.69 (s, 1H), 7.60 (d, *J* = 7.7 Hz, 2H), 7.56 (d, *J* = 7.9 Hz, 1H), 7.42 (d, *J* = 7.8 Hz, 1H), 7.31-7.25 (m, 2H), 7.20-7.12 (m, 4H), 7.06 (t, *J* = 7.3 Hz, 1H), 6.35 (s, 1H), 4.81 (s, 1H), 3.43 (t, *J* = 6.6 Hz, 2H), 3.18-3.06 (m, 2H), 2.96-2.83 (m, 2H), 2.42 (t, *J* = 7.9 Hz, 2H), 2.38 (s, 3H), 2.09 – 1.99 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.99, 143.19, 137.15, 136.63, 135.60, 133.65, 132.13, 129.71, 129.59, 129.32, 127.70, 127.05, 123.54, 122.63, 119.92, 118.66, 111.39, 110.38, 53.94, 48.26, 43.08, 31.26, 24.67, 21.53, 18.49; IR (KBr) ν_{max}: 3362, 2924, 1668, 1597, 1493, 1461, 1417, 1324, 1289, 1157, 1093, 1020, 814, 746, 661, 550, 435cm^{-1}; HRMS (ESI): calcd. for $C_{28}H_{28}BrN_3NaO_3S$: $[M+Na]^+$ 588.0932, found:588.0925.

N-(2-(1-((4-cyanophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4l): White solid (m.p. 84-85 ℃), 27% Yield (69.6 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.76 (s, 1H), 7.71 (d, *J* = 7.3 Hz, 2H), 7.65 (d, *J* = 7.8 Hz, 2H), 7.47 (d, *J* = 8.0 Hz, 1H), 7.39 (d, *J* = 8.1 Hz, 1H), 7.34 (d, *J* = 7.5 Hz, 2H), 7.25-7.19 (m, 3H), 7.15 (t, *J* = 6.9 Hz, 1H), 6.73 (s, 1H), 4.73 (t, *J* = 5.2 Hz, 1H), 3.40 (t, *J* = 8.7 Hz, 1H), 3.28-3.18 (m, 2H), 2.90 (t, *J* = 6.5 Hz, 2H), 2.78-2.69 (m, 1H),

2.58-2.49 (m, 1H), 2.45 – 2.35 (m, 4H), 2.15-2.03 (m, 1H), 2.03 – 1.90 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.92, 143.43, 140.52, 136.96, 136.85, 132.84, 129.67, 127.80, 126.90, 124.27, 123.03, 120.64, 119.02, 118.23, 112.96, 112.76, 110.49, 63.48, 43.40, 43.05, 30.54, 25.67, 21.52, 17.96; IR (KBr) ν_{max}: 3277, 2925, 2853, 2229, 1677, 1598, 1507, 1460, 1412, 1326, 1158, 1094, 1017, 880, 814, 744, 660, 550, 427cm^{-1}; HRMS (ESI): calcd. for $C_{29}H_{28}N_4NaO_3S$: $[M+Na]^+$ 535.1780, found: 535.1783.

N-(2-(2-((4-cyanophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (3l): White solid (m.p. 245-246 ℃), 68% Yield (176.2 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.94 (s, 1H), 7.63-7.54 (m, 4H), 7.50-7.42 (m, 1H), 7.35 – 7.27 (m, 1H), 7.24 – 7.16 (m, 5H), 7.14 – 7.06 (m, 1H), 6.26 (s, 1H), 4.60 (s, 1H), 3.79 – 3.68 (m, 1H), 3.63-3.52 (m, 1H), 3.25-3.13 (m, 2H), 3.11 – 2.94 (m, 2H), 2.58-2.44 (m, 2H), 2.40 (s, 3H), 2.22 – 2.10 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 176.61, 143.42, 143.06, 136.52, 135.88, 132.53, 131.76, 129.64, 127.44, 126.98, 126.68, 123.13, 120.00, 118.68, 111.61, 111.55, 52.89, 48.38, 43.20, 31.28, 24.92, 21.51, 18.46; IR (KBr) ν_{max}: 3247, 2914, 2231, 1664, 1605, 1493, 1459, 1332, 1268, 1162, 1059, 872, 763, 746, 659, 562, 550cm^{-1}; HRMS (ESI): calcd. for $C_{29}H_{28}N_4NaO_3S$: $[M+Na]^+$ 535.1780, found: 535.1765.

4-methyl-N-(2-(1-((4-nitrophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4m): White solid (m.p. 45-46 ℃), 15% Yield (39.6 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.29 (d, *J* = 8.5 Hz, 2H), 7.81 (s, 1H), 7.66 (d, *J* = 8.0 Hz, 2H), 7.49 (d, *J* = 7.7 Hz, 1H), 7.41 (d, *J* = 8.1 Hz, 3H), 7.26-7.22 (m, 3H), 7.17 (t,

J = 7.4 Hz, 1H), 6.74 (s, 1H), 4.34 (s, 1H), 3.47-3.39 (m, 1H), 3.30-3.21 (m, 2H), 2.92 (t, *J* = 6.5 Hz, 2H), 2.80-2.71 (m, 1H), 2.62 – 2.52 (m, 1H), 2.48 – 2.37 (m, 4H), 2.20-2.08 (m, 1H), 2.05-1.96 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.93, 148.10, 143.47, 142.41, 136.91, 136.84, 129.68, 128.06, 127.93, 126.90, 124.22, 123.10, 120.71, 119.05, 113.06, 110.50, 63.42, 43.43, 43.05, 30.52, 25.68, 21.51, 17.99; IR (KBr) ν_{max}: 3417, 3164, 2925, 1667, 1598, 1519, 1458, 1412, 1349, 1264, 1158, 1084, 1016, 811, 800, 748, 628, 552cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}N_4NaO_5S$: $[M+Na]^+$ 555.1673, found: 555.1670.

4-methyl-N-(2-(2-((4-nitrophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (3m): White solid (m.p. 107-108 ℃), 84% Yield (222.8 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 9.00 (s, 1H), 8.14 (d, *J* = 7.8 Hz, 2H), 7.60 (d, *J* = 7.4 Hz, 2H), 7.48 (d, *J* = 7.5 Hz, 1H), 7.31 (t, *J* = 11.0 Hz, 1H), 7.26 – 7.15 (m, 5H), 7.15 – 7.05 (m, 1H), 6.28 (s, 1H), 4.63 (s, 1H), 3.82-3.69 (m, 1H), 3.68-3.54 (m, 1H), 3.16 (s, 2H), 3.12 – 2.94 (m, 2H), 2.60-2.44 (m, 2H), 2.39 (s, 3H), 2.24-2.08 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 176.65, 147.26, 145.11, 143.46, 136.45, 135.92, 131.69, 129.64, 127.63, 126.97, 126.67, 123.89, 123.15, 120.00, 118.70, 111.65, 111.58, 52.81, 48.40, 43.25, 31.27, 24.93, 21.51, 18.47; IR (KBr) ν_{max}: 3317, 3242, 2915, 1671, 1597, 1517, 1459, 1433 1356, 1162, 1084, 1014, 877, 766, 749, 659, 547cm^{-1}; HRMS (ESI): Calcd. For $C_{28}H_{28}N_4NaO_5S$: $[M+Na]^+$ 555.1673, found: 555.1671.

4-methyl-N-(2-(1-(naphthalen-1-yl(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4n): White solid (m.p. 72-73 ℃), 16% Yield (43.3 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.92-2.87 (m, 3H), 7.87 – 7.82 (m, 1H), 7.69 (s, 1H), 7.62

(d, *J* = 8.0 Hz, 2H), 7.58 – 7.53 (m, 2H), 7.48 (t, *J* = 7.4 Hz, 2H), 7.29-7.22 (m, 2H), 7.15 (t, *J* = 7.4 Hz, 3H), 6.72 (s, 1H), 4.32 (s, 1H), 3.58-3.50 (m, 1H), 3.29-3.22 (m, 2H), 2.86 (t, *J* = 6.5 Hz, 2H), 2.75-2.66 (m, 1H), 2.64 – 2.55 (m, 1H), 2.50 – 2.40 (m, 1H), 2.35 (s, 3H), 2.21-2.12 (m, 1H), 2.03-1.94 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.76, 143.32, 137.02, 136.95, 133.24, 133.09, 132.29, 129.61, 129.07, 128.20, 127.86, 127.75, 126.92, 126.87, 126.77, 125.83, 124.76, 124.56, 122.87, 120.44, 118.87, 111.92, 110.75, 64.00, 43.54, 43.05, 30.83, 25.63, 21.46, 18.08; IR (KBr) ν_{max}: 3277, 2923, 1670, 1459, 1328, 1157, 1093, 821, 746, 661, 554, 476cm^{-1}; HRMS (ESI): Calcd. For $C_{32}H_{31}N_3NaO_3S$: $[M+Na]^+$ 560.1978, found: 560.1975.

4-methyl-N-(2-(2-(naphthalen-1-yl(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (3n): White solid (m.p. 193-194 ℃), 71% Yield (190.2 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.95 (s, 1H), 7.60 (d, *J* = 7.6 Hz, 4H), 7.47 (d, *J* = 7.8 Hz, 1H), 7.32 (d, *J* = 8.0 Hz, 1H), 7.26-7.17(m, 8H), 7.11 (t, *J* = 7.4 Hz, 1H), 6.27 (s, 1H), 4.61 (s, 1H), 3.79-3.71 (m, 1H), 3.62-3.55 (m, 1H), 3.20 (s, 2H), 3.13 – 2.97 (m, 2H), 2.57 – 2.47 (m, 2H), 2.40 (s, 3H), 2.21-2.12 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.56, 142.39, 142.07, 135.47, 134.86, 131.49, 130.70, 128.61, 126.45, 125.95, 125.66, 122.07, 118.95, 117.66, 117.45, 110.59, 110.53, 51.80, 47.29, 42.20, 30.27, 23.87, 20.50, 17.36; IR (KBr) ν_{max}: 3322, 3209, 2923, 1655, 1489, 1464, 1435, 1328, 1151, 1091, 818, 751, 657, 565, 551, 497cm^{-1}; HRMS (ESI): Calcd. For $C_{32}H_{31}N_3NaO_3S$: $[M+Na]^+$ 560.1978, found: 560.1973.

4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(thiophen-2-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4o): White solid (m.p. 99-100 ℃), 12% Yield (29.0 mg); ^{1}H

NMR (400 MHz, $CDCl_3$) δ 7.89 (s, 1H), 7.80-7.75 (m, 1H), 7.64 (t, *J* = 6.7 Hz, 2H), 7.51 – 7.32 (m, 3H), 7.25-7.19(m, 3H), 7.19 – 7.10 (m, 1H), 7.09-7.04 (m, 1H), 6.99 (s, 1H), 4.62 – 4.49 (m, 1H), 3.40 (t, *J* = 7.0 Hz, 1H), 3.30 – 3.22 (m, 2H), 2.95-2.85 (m, 2H), 2.74-2.65 (m, 1H), 2.54-2.43 (m, 1H), 2.39 (s, 3H), 2.37-2.27 (m, 1H), 2.10-1.99 (m, 1H), 1.95-1.84 (m, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 177.61, 145.82, 141.09, 139.42, 139.06, 132.12, 132.08, 129.97, 129.47, 129.43, 128.97, 126.83, 125.36, 123.02, 121.32, 114.48, 113.11, 63.43, 45.59, 45.52, 33.16, 28.14, 24.00, 20.44; IR (KBr) ν_{max}: 3389, 2926, 1673, 1596, 1458, 1318, 1156, 1090, 1078, 815, 742, 640, 545, 504cm^{-1}; HRMS (ESI): Calcd. For $C_{26}H_{27}N_3NaO_3S_2$: $[M+Na]^+$ 516.1386, found: 516.1393.

4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(thiophen-2-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (3o): White solid (m.p. 137-138 ℃), 73% Yield (179.6 mg); ^1H NMR (400 MHz, $CDCl_3$) δ 8.82 (s, 1H), 7.61 (d, *J* = 7.8 Hz, 2H), 7.46 (d, *J* = 7.8 Hz, 1H), 7.33 (d, *J* = 8.0 Hz, 1H), 7.30 – 7.26 (m, 1H), 7.23-7.16 (m, *J* = 9.0 Hz, 3H), 7.09 (t, *J* = 7.3 Hz, 1H), 6.98-6.93 (m, 1H), 6.77 (s, 1H), 6.59 (s, 1H), 4.70 (s, 1H), 3.77-3.69 (m, 1H), 3.47-3.38 (m, 1H), 3.26-3.12 (m, 2H), 3.08 – 2.93 (m, 2H), 2.47 (t, *J* = 7.9 Hz, 2H), 2.38 (s, 3H), 2.13-2.01 (m, 2H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.78, 143.07, 141.23, 136.79, 135.71, 131.88, 129.53, 127.24, 127.17, 126.98, 126.21, 125.46, 122.73, 119.79, 118.83, 111.52, 110.71, 48.65, 46.25, 43.36, 31.14, 24.61, 21.51, 18.21; IR (KBr) ν_{max}: 3354, 3175, 2935, 2868, 1652, 1597, 1490, 1459, 1425, 1301, 1146, 1095, 933, 812, 748, 721, 672, 574, 542cm^{-1}; HRMS (ESI): Calcd. For $C_{26}H_{27}N_3NaO_3S_2$: $[M+Na]^+$ 516.1386, found: 516.1382.

N-(2-(1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)acetamide (4p): White solid (m.p. 102-103 ℃), 23% Yield (42.3 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.78 (s, 1H), 7.61 (d, *J* = 7.6 Hz, 1H), 7.48 (d, *J* = 7.9 Hz, 1H), 7.45-7.38 (m, 3H), 7.24 – 7.19 (m, 3H), 7.18 – 7.10 (m, 1H), 6.79 (s, 1H), 5.49 (s, 1H), 3.59 – 3.44 (m, 3H), 2.96-2.87 (m, 2H), 2.64-2.64 (m, 1H), 2.59-2.49 (m, 1H), 2.47 – 2.33 (m, 1H), 2.15-2.03 (m, 1H), 1.99-1.87 (m, 4H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.59, 170.03, 136.98, 134.95, 128.99, 128.76, 128.19, 126.86, 124.18, 122.71, 120.31, 118.95, 113.09, 110.61, 63.74, 43.35, 39.83, 30.76, 25.28, 23.30, 17.98; IR (KBr) ν_{max}: 3308, 2942, 1696, 1637, 1550, 1459, 1448, 1411, 1278, 1261, 765, 742, 703, 484, 444cm^{-1}; HRMS (ESI): Calcd. For $C_{23}H_{25}N_3NaO_2$: $[M+Na]^+$ 398.1839, found:398.1840 .

N-(2-(2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)acetamide (3p): White solid (m.p. 147-148 ℃), 30% Yield (53.6 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.75 (s, 1H), 7.64 (d, *J* = 7.6 Hz, 1H), 7.37 – 7.27 (m, 4H), 7.23 – 7.18 (m, 1H), 7.17-7.10 (m, 3H), 6.44 (s, 1H), 5.87 (s, 1H), 3.62-3.42(m, 4H), 3.07-2.96 (m, 2H), 2.53-2.41 (m, 2H), 2.15 – 2.06 (m, 2H), 1.76 (s, 3H); ^{13}C NMR (75 MHz, $CDCl_3$) δ175.69, 170.35, 137.34, 135.76, 132.20, 128.85, 127.82, 127.49, 126.90, 122.61, 119.74, 118.98, 112.27, 111.32, 52.26, 47.14, 40.31, 31.30, 24.26, 23.01, 18.38; IR (KBr) ν_{max}: 3276, 3089, 2940, 1652, 1563, 1492, 1459, 1433, 1285, 1270, 794, 743, 731, 703, 501cm^{-1}; HRMS (ESI): Calcd. For $C_{23}H_{25}N_3NaO_2$: $[M+Na]^+$ 398.1839, found:398.1840 .

Tert-butyl (2-(1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)car

bamate (4q): White solid (m.p. 50-51 ℃), 32% Yield (69.8 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.79 (s, 1H), 7.62 (d, *J* = 7.7 Hz, 1H), 7.49 (d, *J* = 8.2 Hz, 1H), 7.44-7.37 (m, 3H), 7.23 (d, *J* = 7.4 Hz, 3H), 7.18 (t, *J* = 7.5 Hz, 1H), 6.79 (s, 1H), 4.63 (s, 1H), 3.50-3.43 (m, 1H), 3.42-3.35 (m, 2H), 2.90 (t, *J* = 6.7 Hz, 2H), 2.72-2.62 (m, 1H), 2.58 – 2.48 (m, 1H), 2.45 – 2.34 (m, 1H), 2.13 – 2.04 (m, 1H), 1.97 – 1.87 (m, 1H), 1.40 (s, 9H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 7.79 (s, 1H), 7.62 (d, *J* = 7.7 Hz, 1H), 7.49 (d, *J* = 8.2 Hz, 1H), 7.44-7.37 (m, 3H), 7.23 (d, *J* = 7.4 Hz, 3H), 7.18 (t, *J* = 7.5 Hz, 1H), 6.79 (s, 1H), 4.63 (s, 1H), 3.50-3.43 (m, 1H), 3.42-3.35 (m, 2H), 2.90 (t, *J* = 6.7 Hz, 2H), 2.72-2.62 (m, 1H), 2.58 – 2.48 (m, 1H), 2.45 – 2.34 (m, 1H), 2.13 – 2.04 (m, 1H), 1.97 – 1.87 (m, 1H), 1.40 (s, 9H); IR (KBr) ν_{max}: 3346, 2925, 1689, 1506, 1460, 1413, 1364, 1265, 1167, 743, 701, 521, 495, 472, 429cm^{-1}; HRMS (ESI): Calcd. For $C_{26}H_{31}N_3NaO_3$: $[M+Na]^+$ 456.2258, found: 456.2244.

Tert-butyl (2-(2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)carbamate (3q): White solid (m.p. 147-148 ℃), 65% Yield (142.6 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.63 (s, 1H), 7.65 (d, *J* = 7.3 Hz, 1H), 7.37 – 7.27 (m, 4H), 7.20 (t, *J* = 7.2 Hz, 1H), 7.16-7.10 (m, 3H), 6.41 (s, 1H), 4.63 (s, 1H), 3.67 – 3.57 (m, 1H), 3.46-3.34 (m, 3H), 3.07 – 2.90 (m, 2H), 2.54-2.43 (m, 2H), 2.16-2.06 (m, 2H), 1.37 (s, 9H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.56, 155.85, 137.31, 135.64, 132.39, 128.81, 127.68, 127.57, 126.63, 122.55, 119.66, 119.15, 112.35, 111.24, 52.46, 47.38, 41.23, 31.29, 28.35, 24.92, 18.35; IR (KBr) ν_{max}: 3428, 3274, 2965, 2930, 1710, 1665, 1585, 1494, 1455, 1434, 1389, 1365, 1310, 1262, 1165, 1015, 958, 927, 861, 801, 748, 701, 660, 499cm^{-1}; HRMS (ESI): Calcd. For $C_{26}H_{31}N_3NaO_3$: $[M+Na]^+$ 456.2258, found:

456.2241.

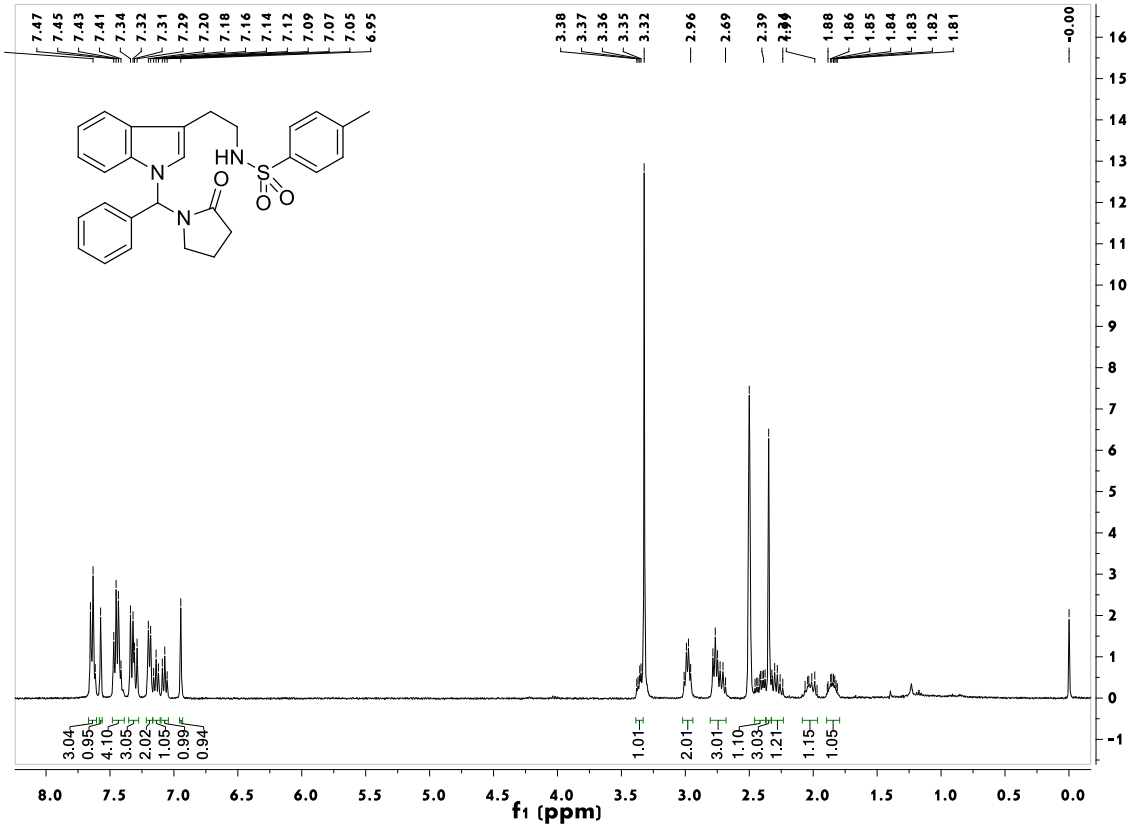
4-methyl-N-(2-((1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)methyl)phenyl)benzenesulfonamide (4r): White solid (m.p. 96-97 ℃), 14% Yield (39.3 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 7.81 (s, 1H), 7.50 (d, *J* = 8.4 Hz, 1H), 7.48-7.38 (m, 3H), 7.35 (d, *J* = 7.9 Hz, 3H), 7.25-7.20 (m, 4H), 7.18 (d, *J* = 7.6 Hz, 1H), 7.14-7.07 (m, 4H), 7.04 (t, *J* = 7.4 Hz, 1H), 6.75 (s, 1H), 6.64 (s, 1H), 3.71 (s, 2H), 3.55-3.47 (m, 1H), 2.81-2.71 (m, 1H), 2.59 – 2.48 (m, 1H), 2.47-2.38 (m, 1H), 2.35 (s, 3H), 2.15-2.03 (m, 1H), 2.02-1.92 (s, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.77, 143.75, 137.52, 136.49, 135.47, 134.61, 131.53, 130.56, 129.57, 129.11, 128.79, 127.76, 126.93, 126.84, 125.62, 124.35, 123.22, 123.18, 120.57, 119.57, 112.60, 110.82, 63.72, 43.38, 30.77, 29.27, 21.54, 18.03; IR (KBr) ν_{max}: 3430, 3059, 2921, 2850, 2364, 1672, 1599, 1492, 1459, 1420, 1333, 1267, 1236, 1159, 1091, 925, 822, 746, 663, 576, 563, 544cm^{-1}; HRMS (ESI): Calcd. For $C_{33}H_31N_3NaO_3S$: $[M+Na]^+$ 572.1978, found: 572.1961 .

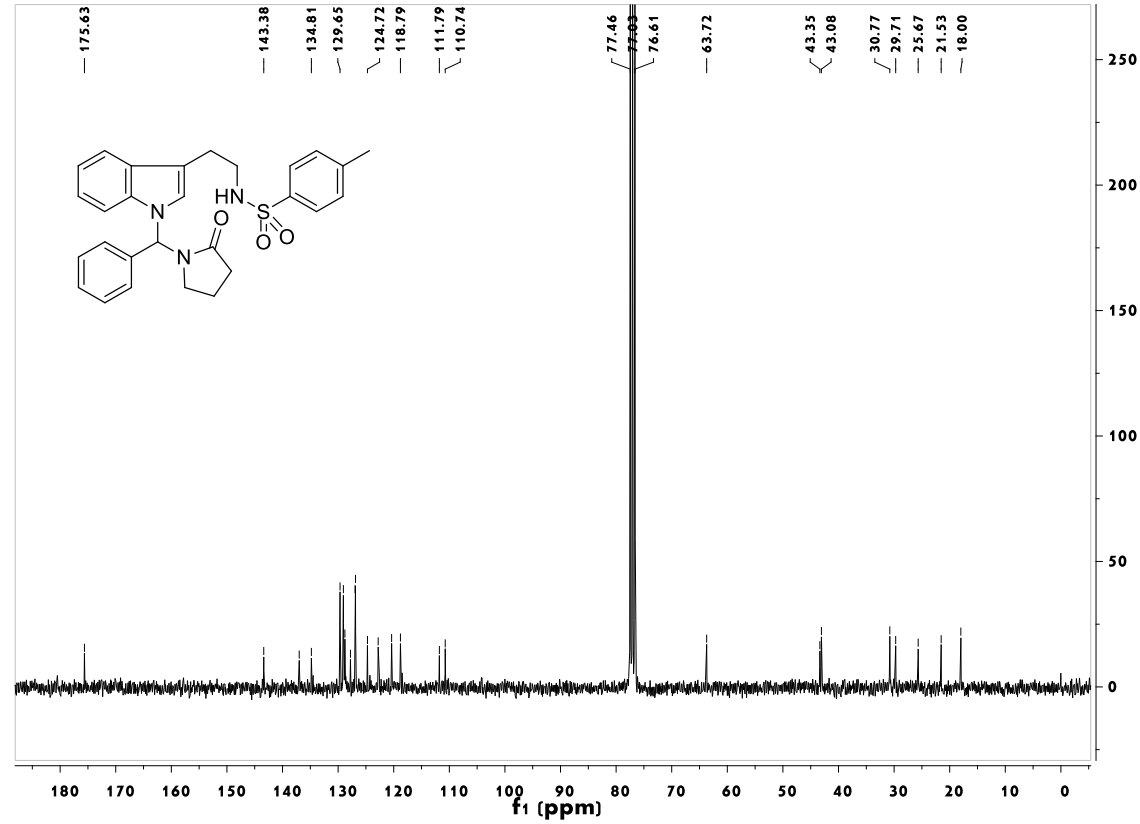
4-methyl-N-(2-((2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)methyl)phenyl)benzenesulfonamide (3r): White solid (m.p. 97-98 ℃), 83% Yield (227.8 mg); ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.35 (s, 1H), 7.45 (d, *J* = 7.5 Hz, 2H), 7.28-7.16 (m, 5H), 7.15-7.05 (m, 5H), 7.04-2.97(m, 4H), 6.96-6.90 (m, 2H), 6.34 (s, 1H), 3.95 (d, *J* = 16.7 Hz, 1H), 3.76 (d, *J* = 16.7 Hz, 1H), 3.29-3.21(m, 1H), 2.88-2.79 (m, 1H), 2.31 (s, 3H), 2.27-2.19 (m, 1H), 1.98 – 1.79 (m, 2H), 1.67-1.56 (s, 1H); ^{13}C NMR (75 MHz, $CDCl_3$) δ 175.67, 143.46, 137.12, 136.60, 136.11, 135.41, 134.20, 132.55, 129.66, 129.55, 128.89, 128.06, 127.81, 127.23, 126.95, 126.65, 126.57, 125.93, 122.66,

120.03, 118.90, 112.51, 111.38, 51.76, 46.23, 30.81, 25.43, 21.58, 17.82; IR (KBr) ν_{max}: 3361, 3060, 2924, 2853, 1664, 1599, 1493, 1458, 1419, 1332, 1287, 1159k 1091, 922, 815, 745, 662, 561, 496cm^{-1}; HRMS (ESI): Calcd. For $C_{33}H_{31}N_3NaO_3S$: $[M+Na]^+$ 572.1978, found: 572.1966 .

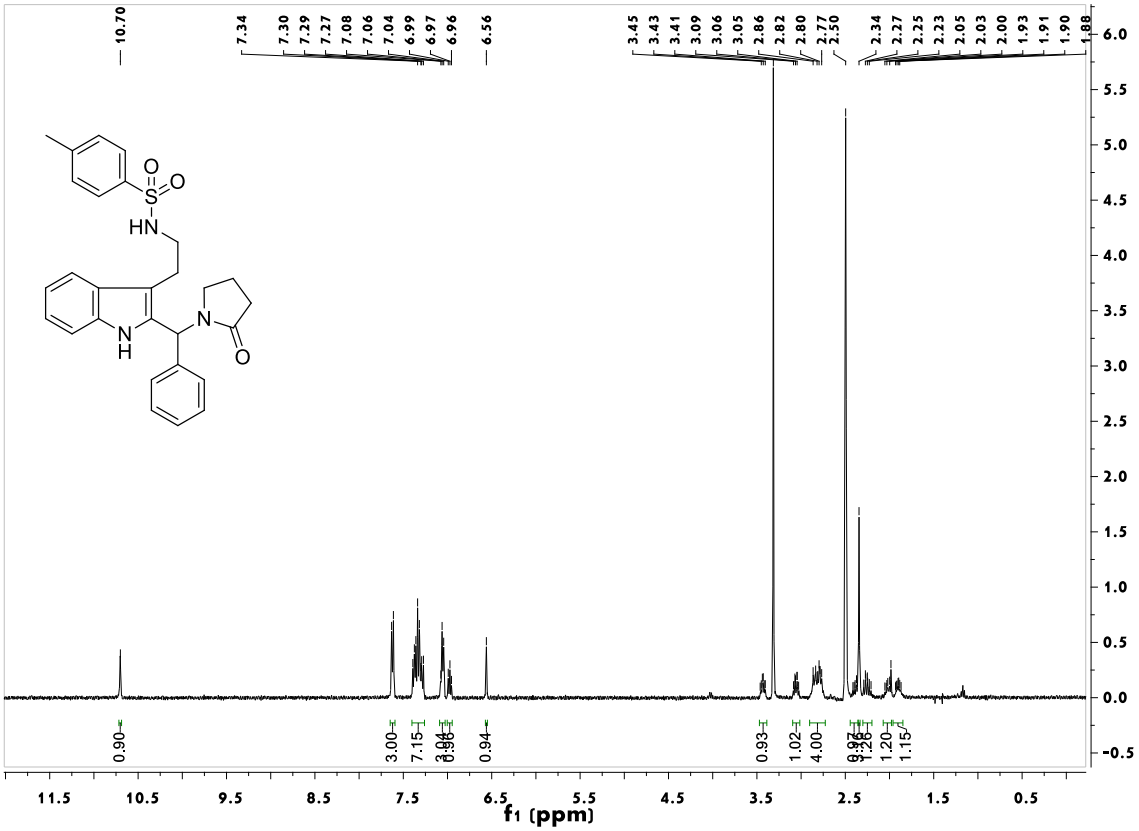
^{1}H NMR and ^{13}C NMR spectra

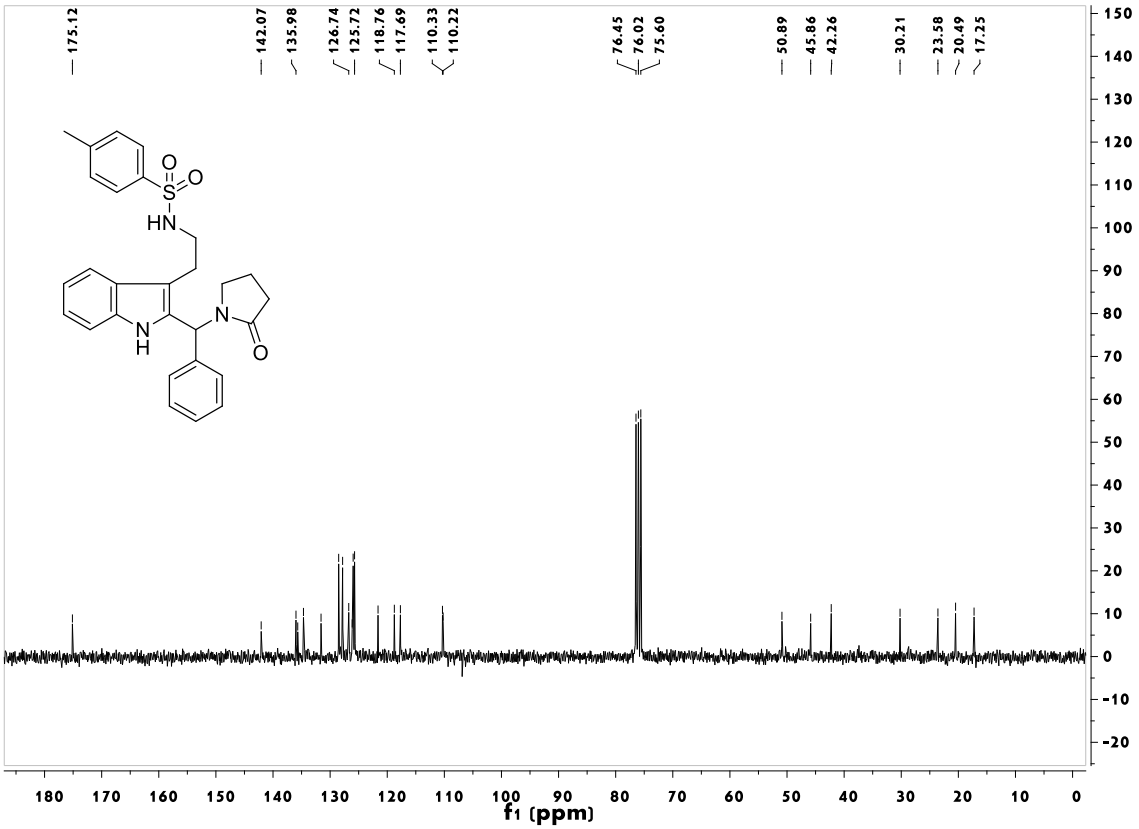
4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (5a)



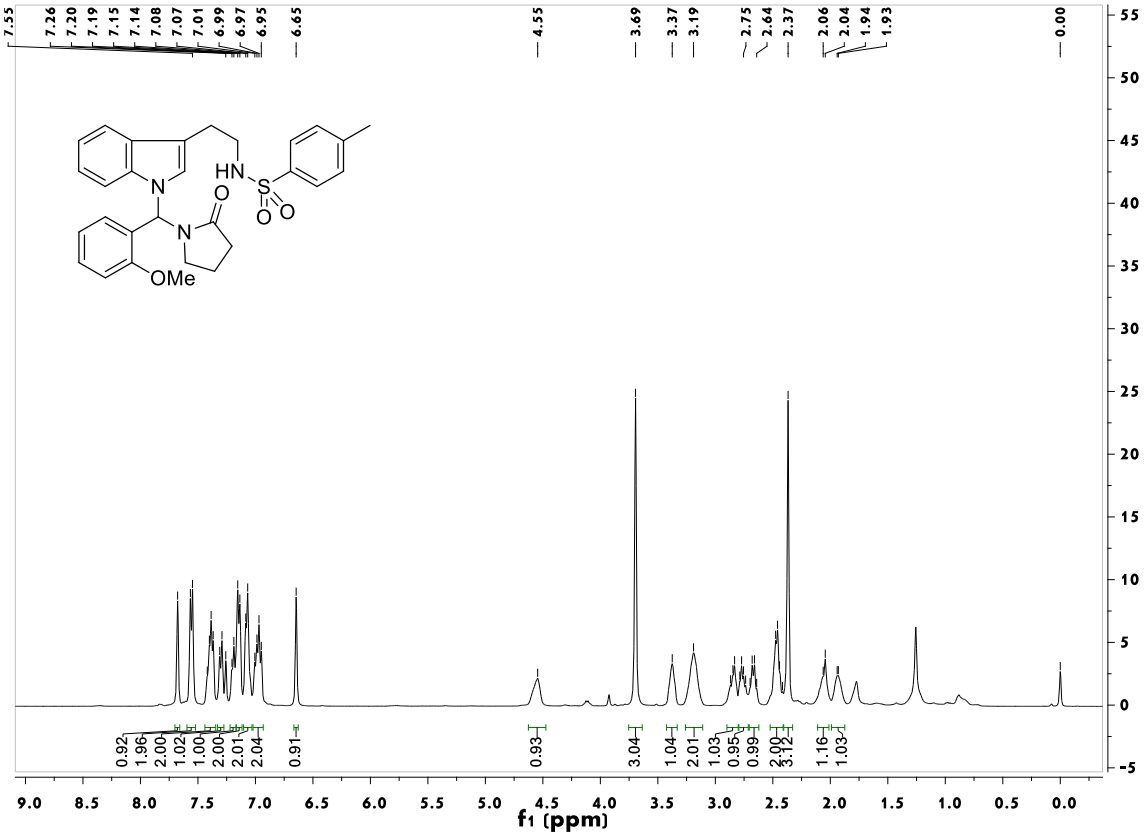


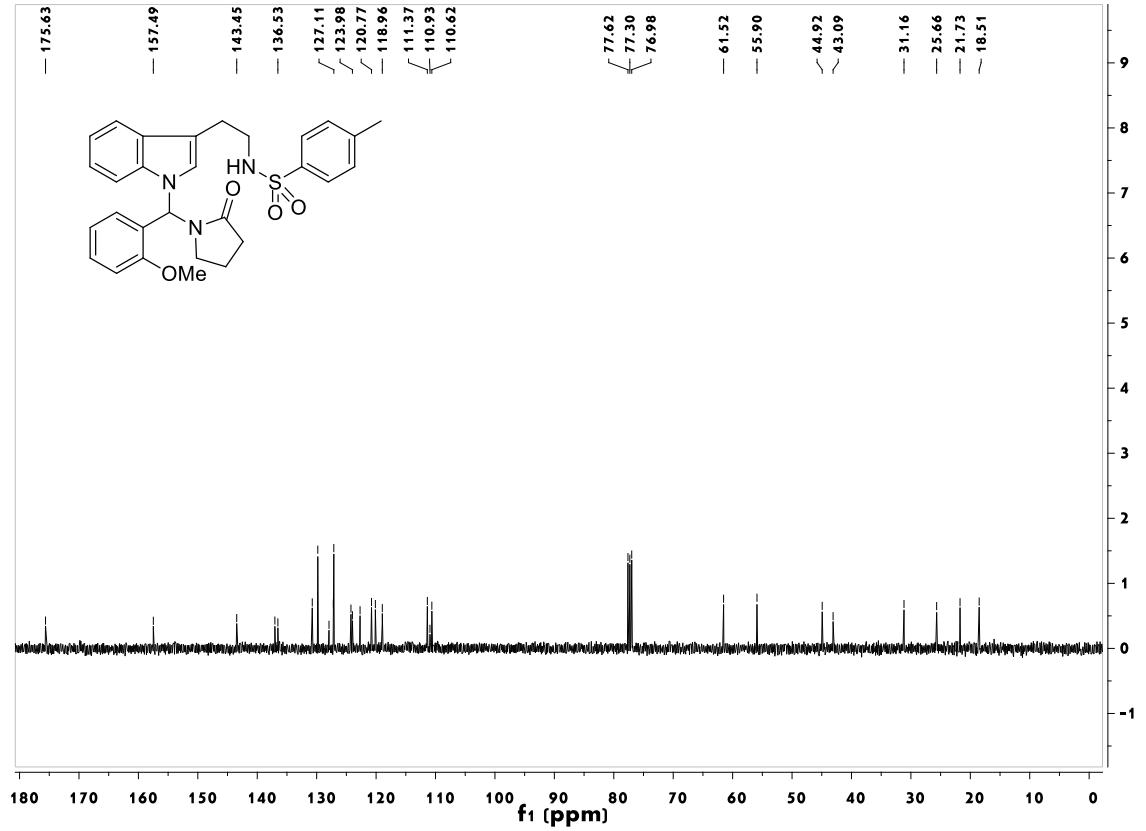
4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4a)



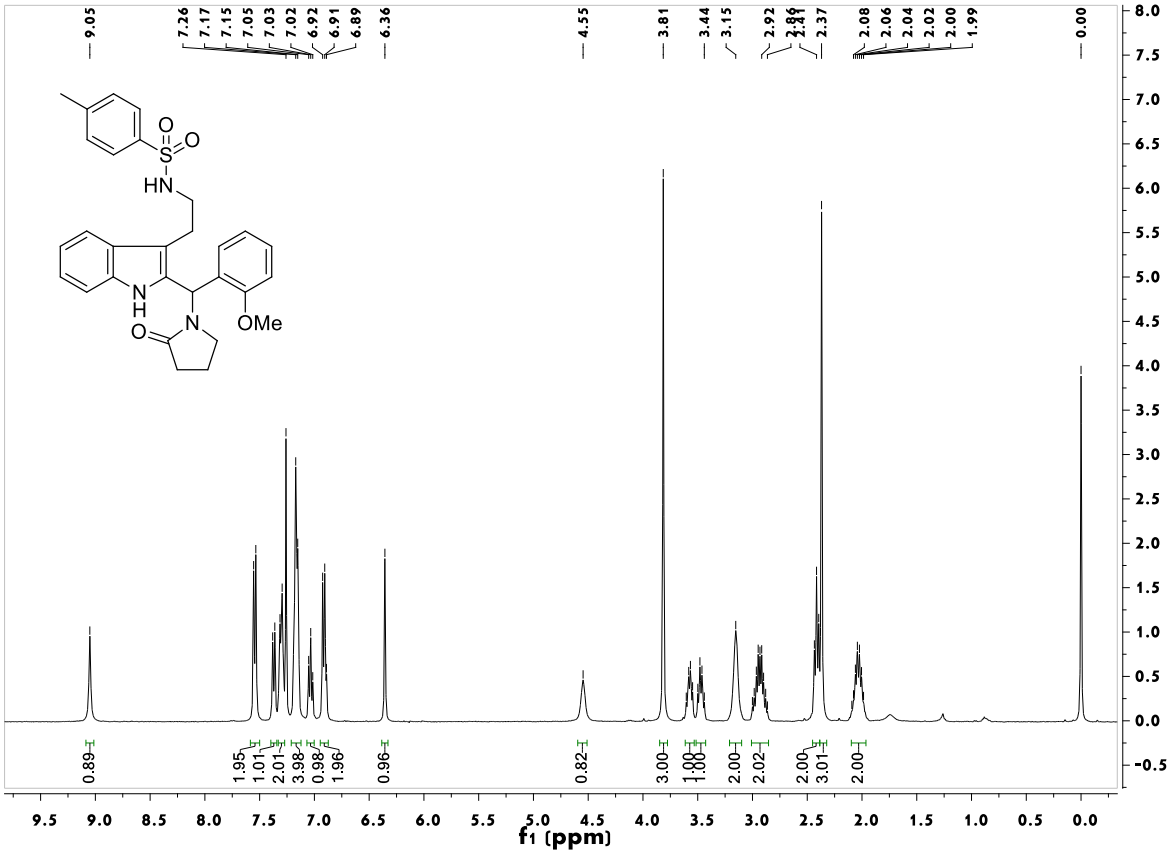


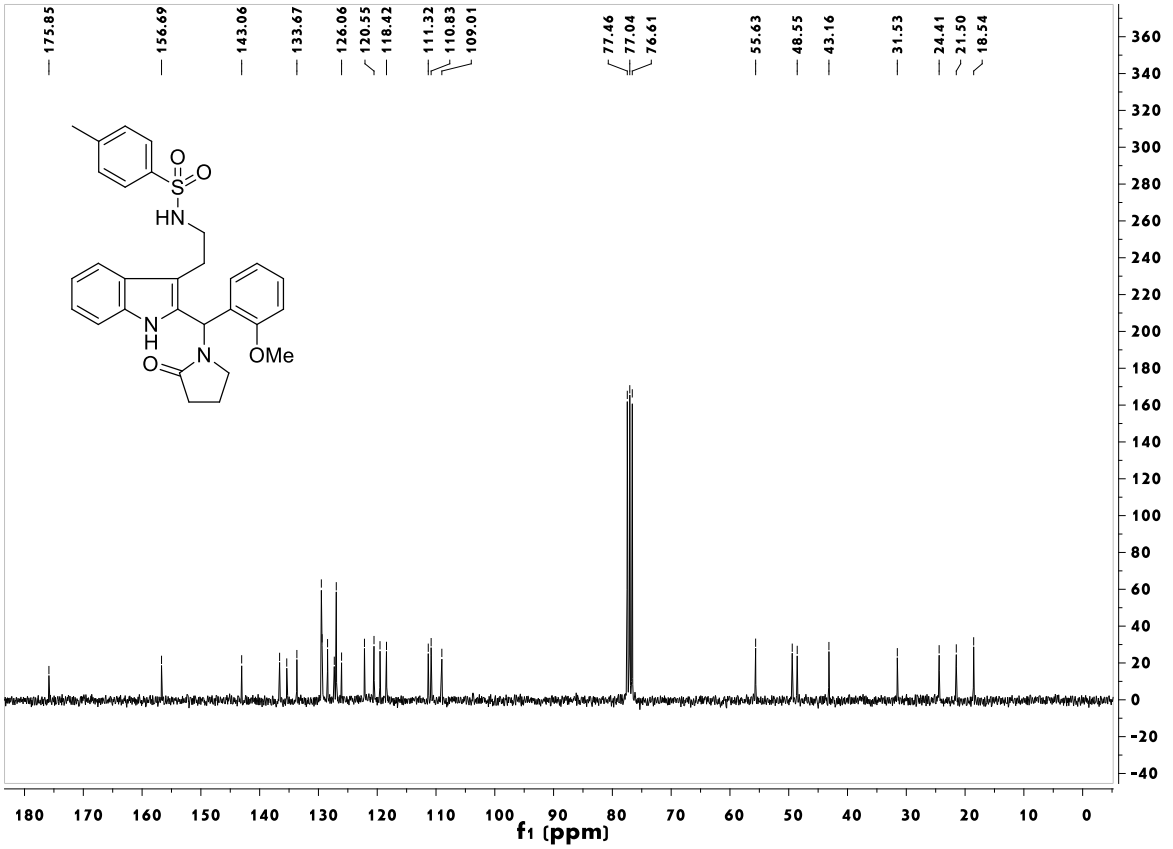
N-(2-(1-((2-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5b)



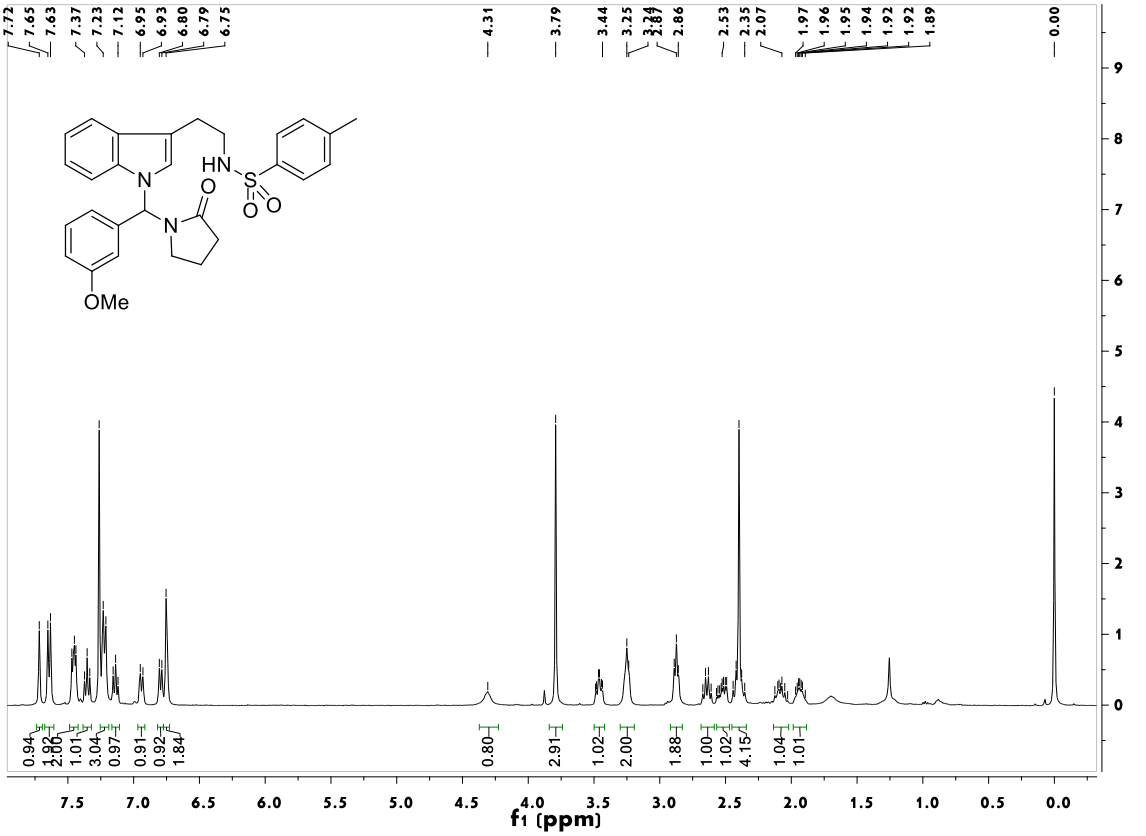


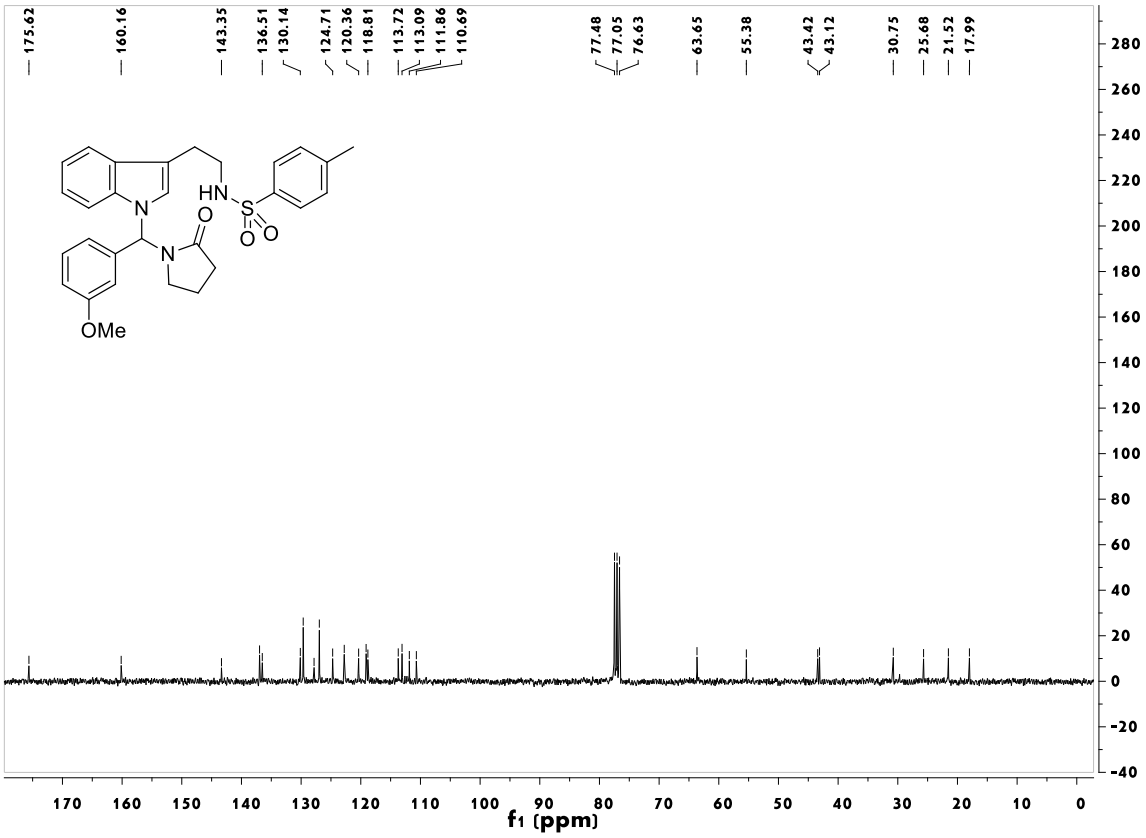
N-(2-(2-((2-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4b)



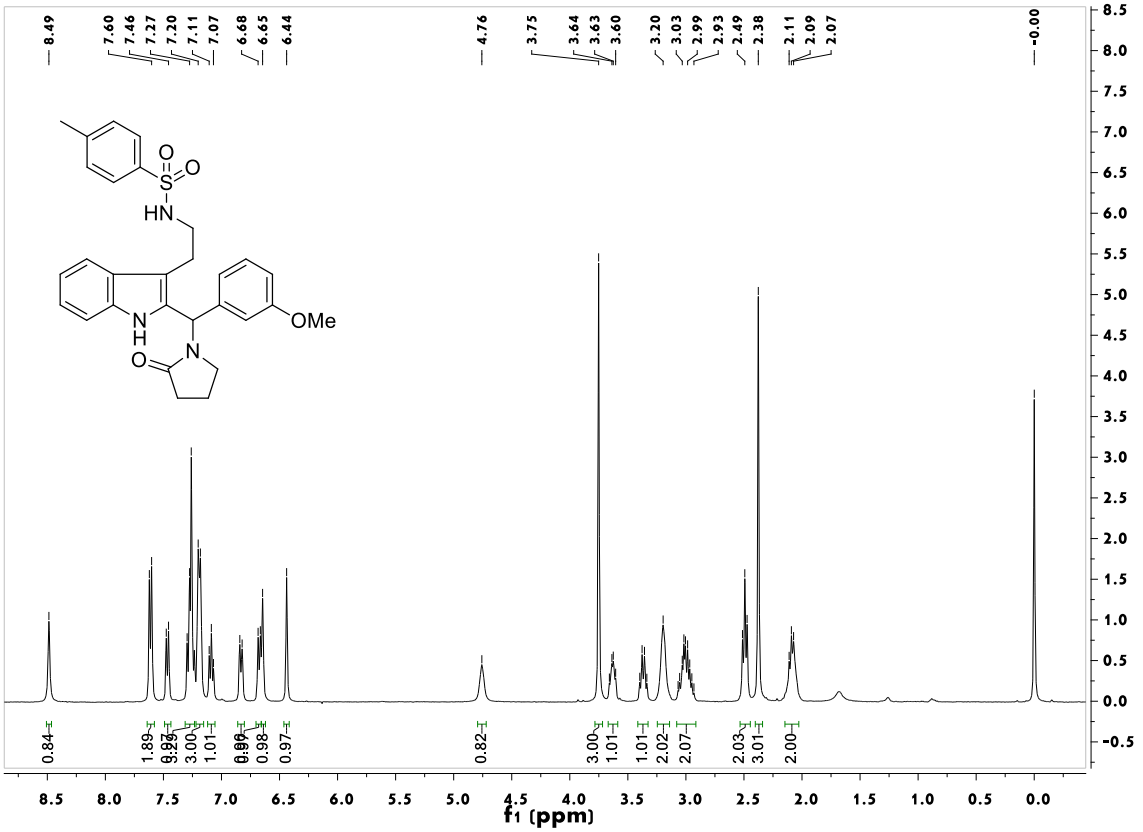


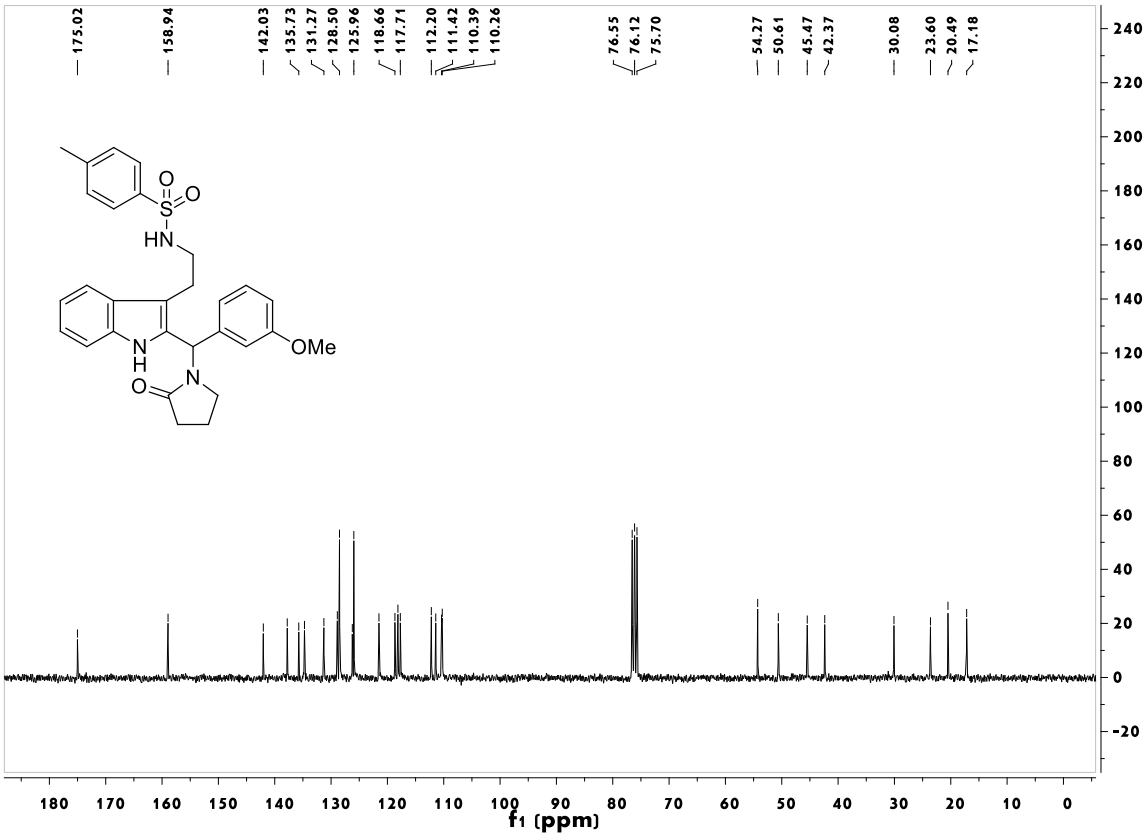
N-(2-(1-((3-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5c)



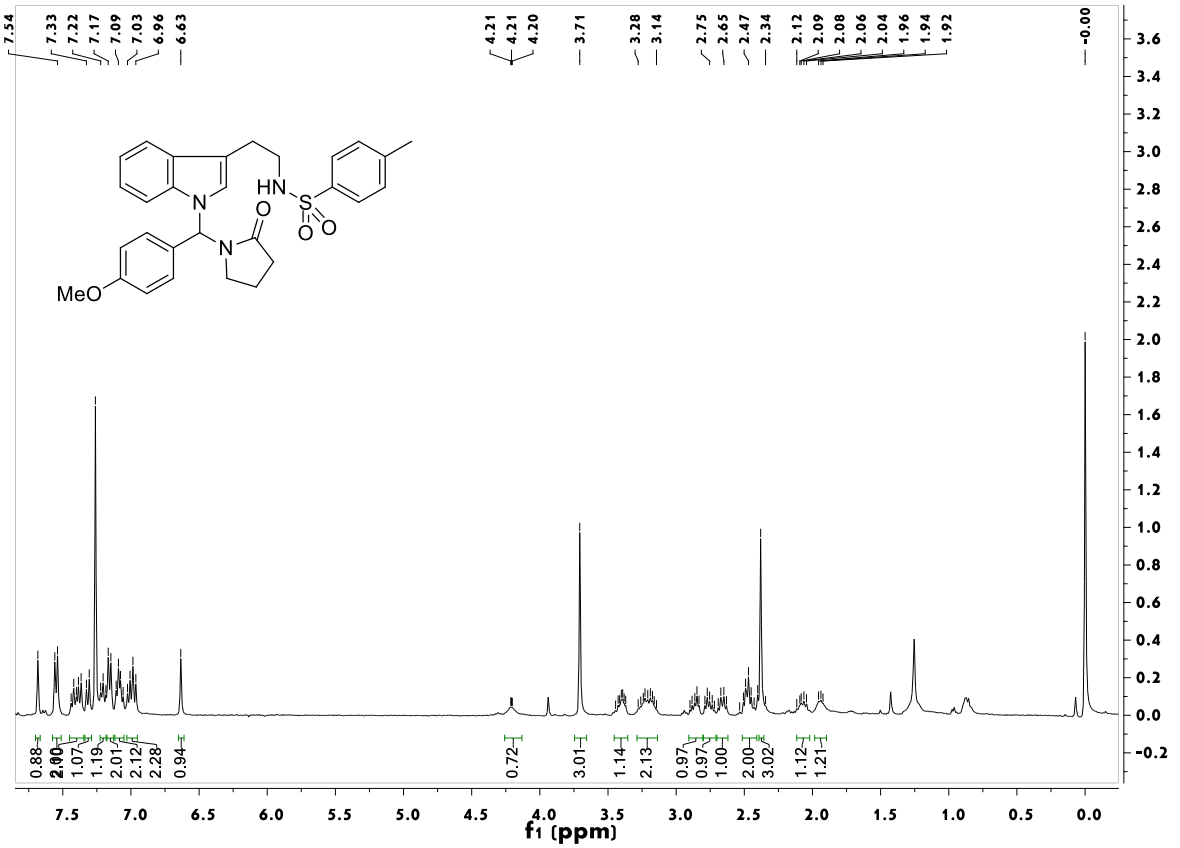


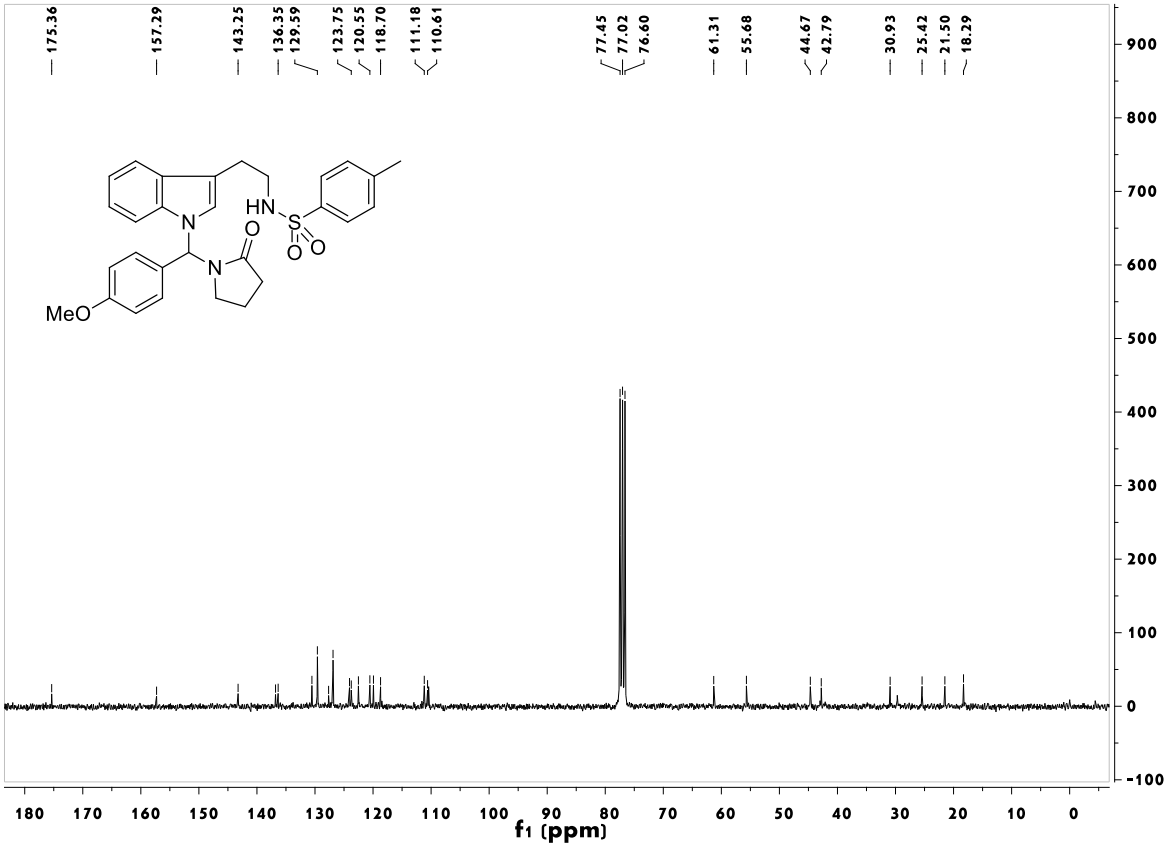
N-(2-(2-((3-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4c)



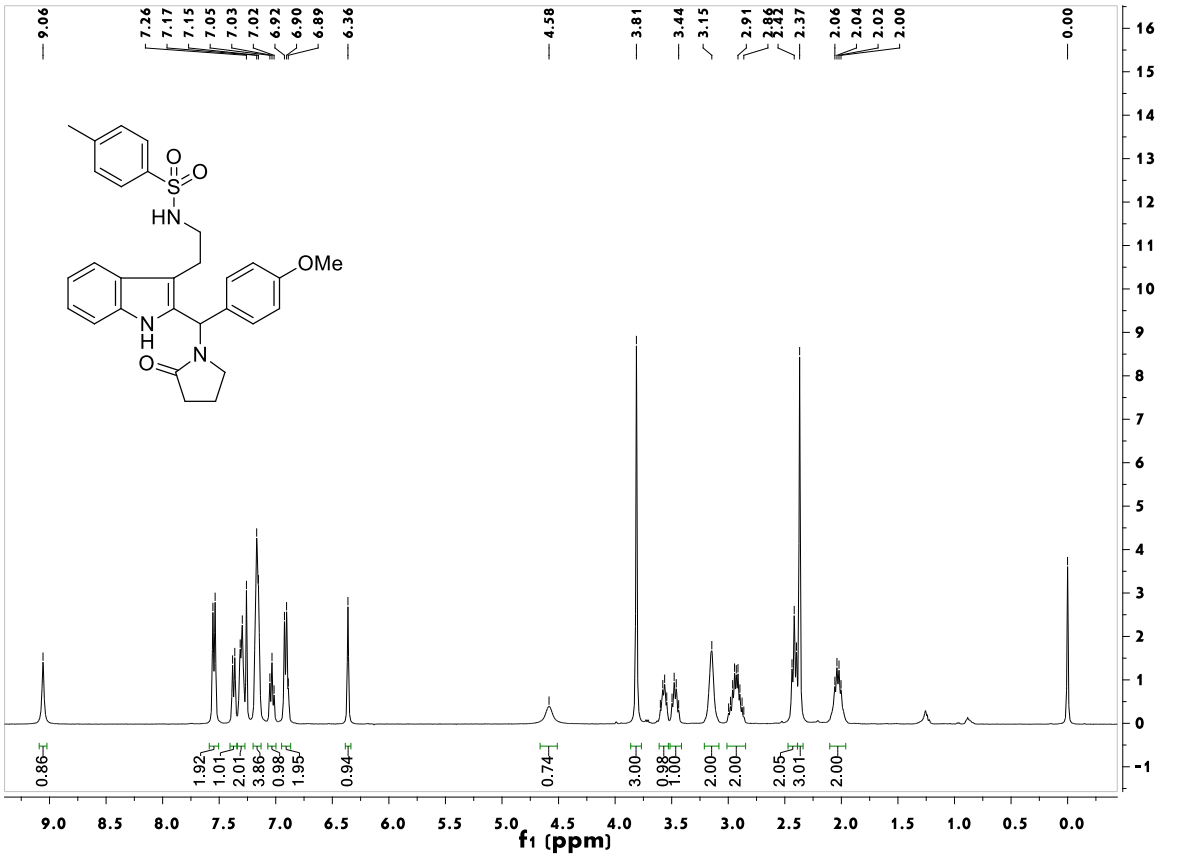


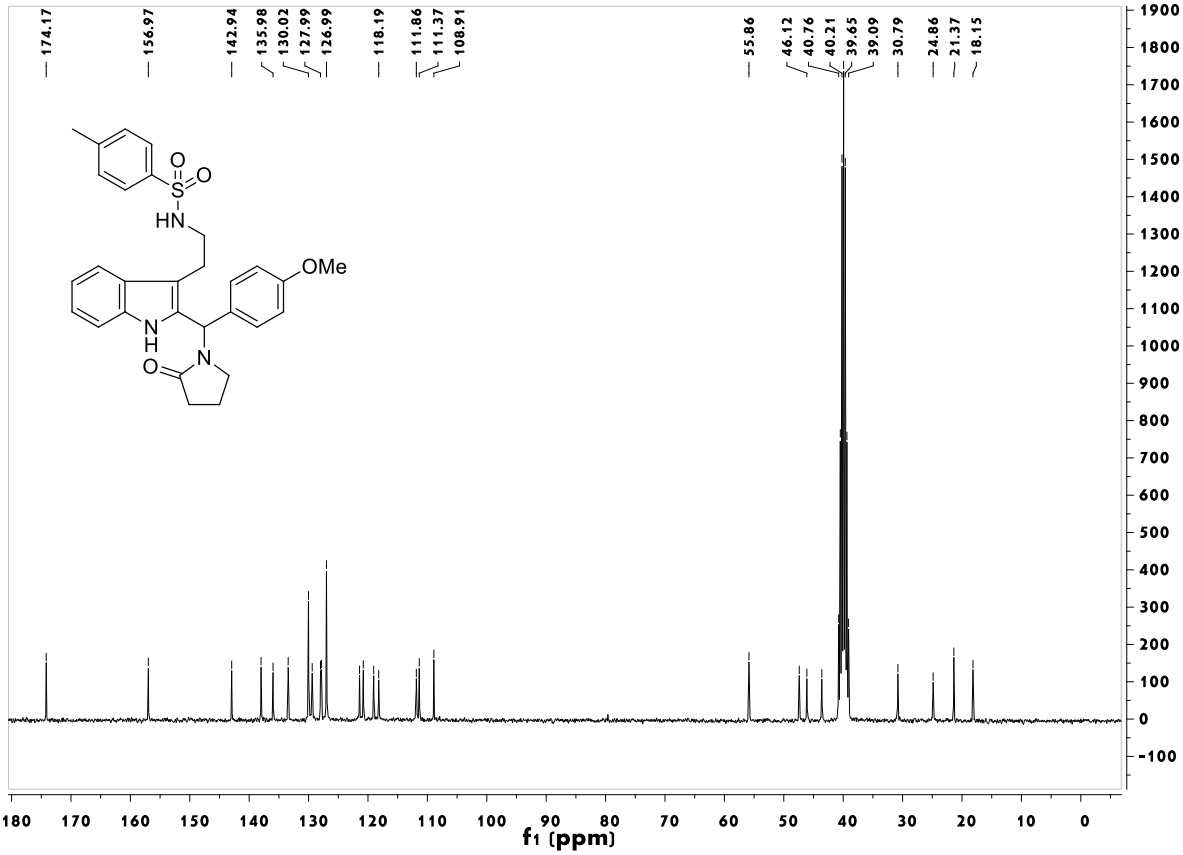
N-(2-(1-((4-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5d)



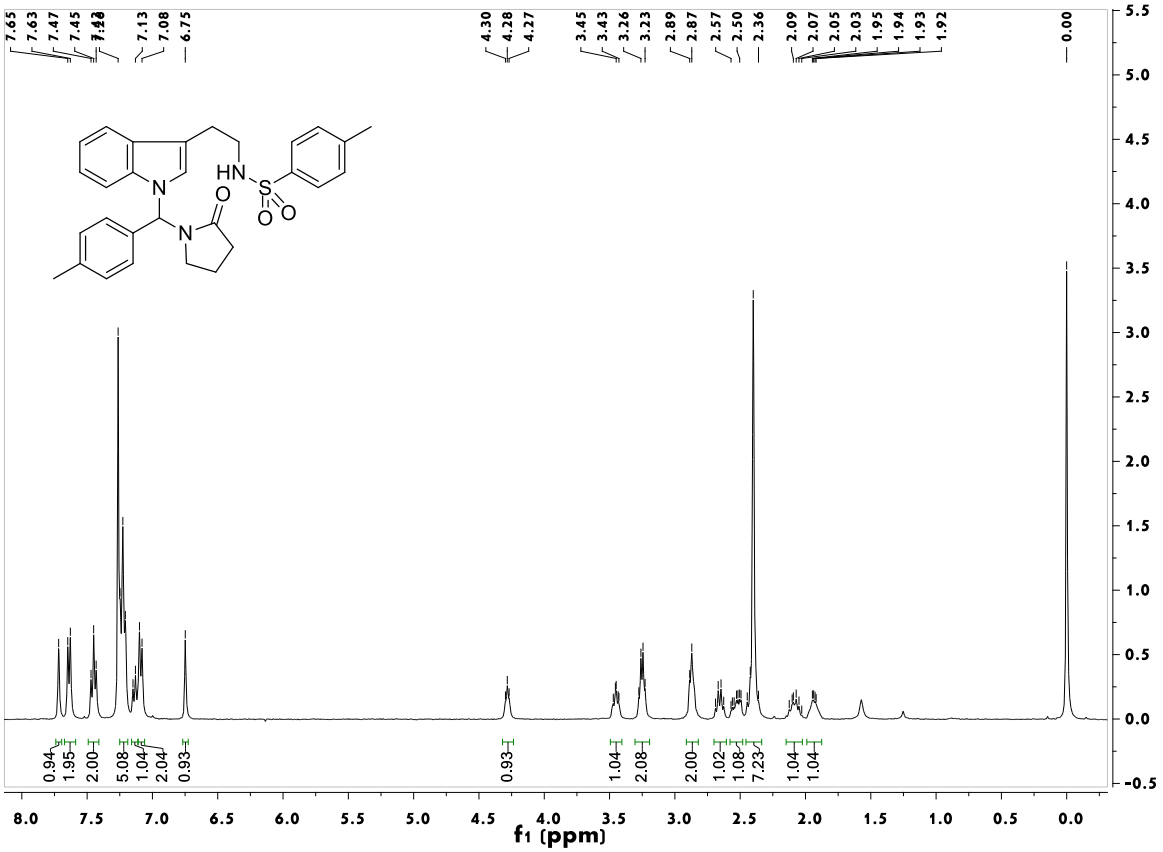


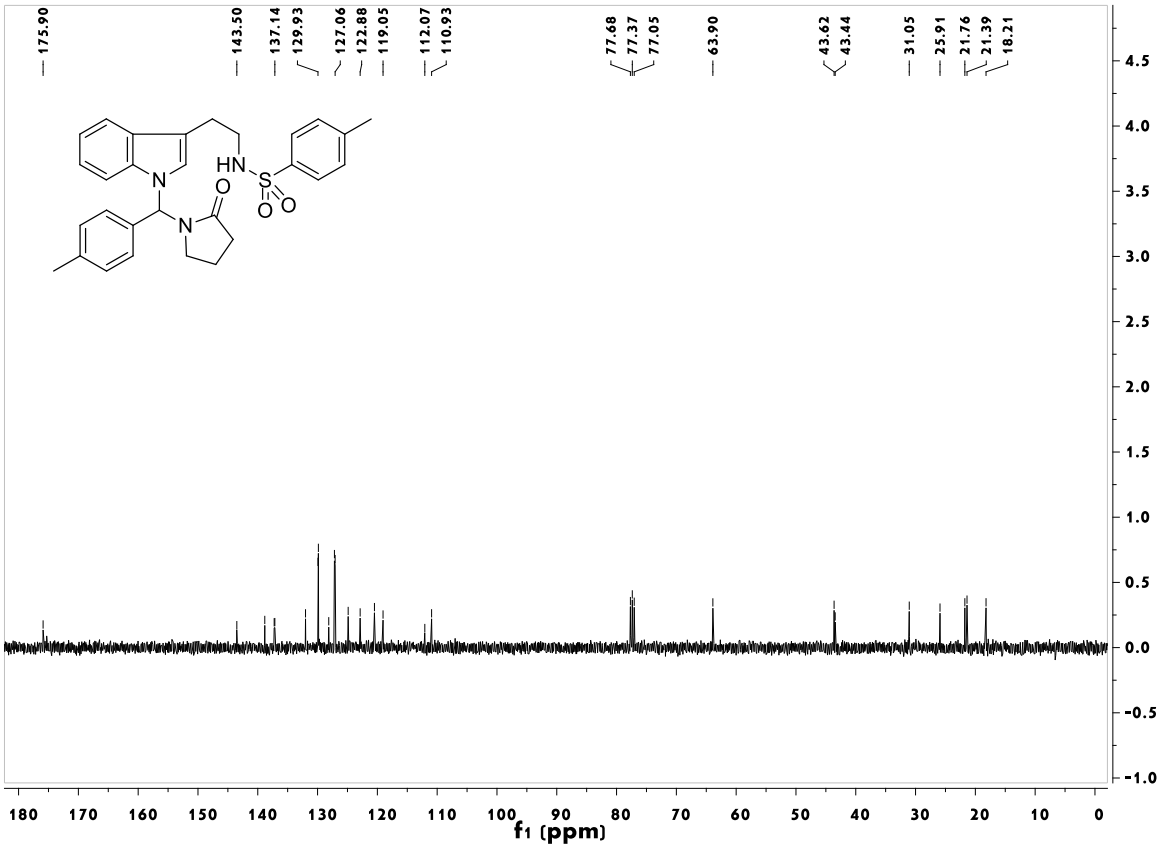
N-(2-(2-((4-methoxyphenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4d)



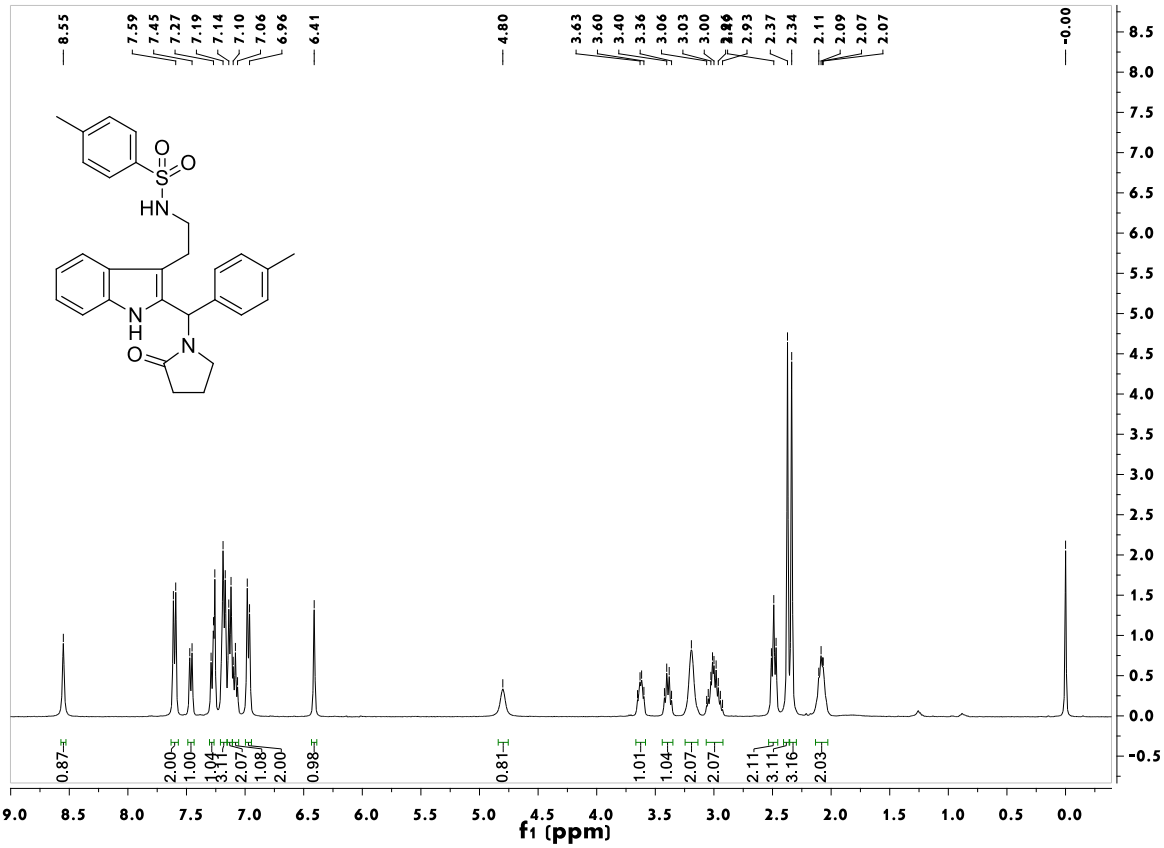


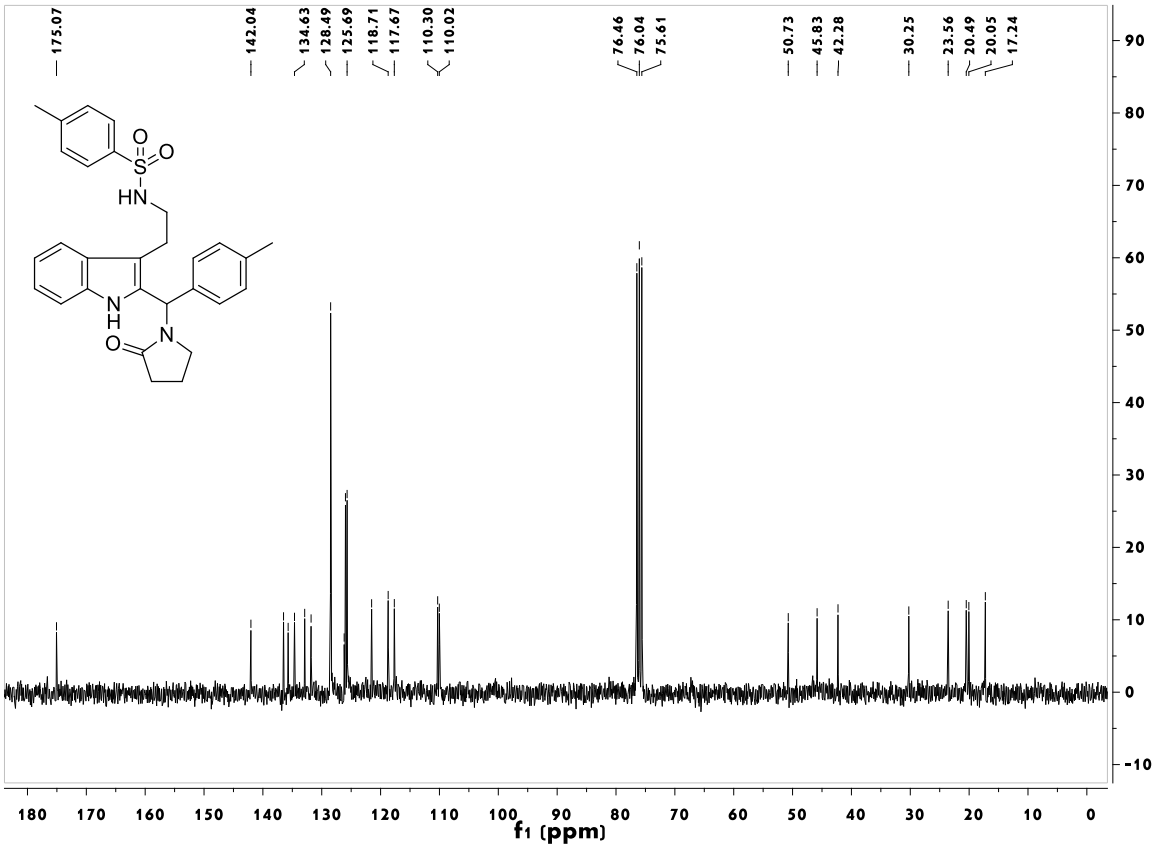
4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(p-tolyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (5e)



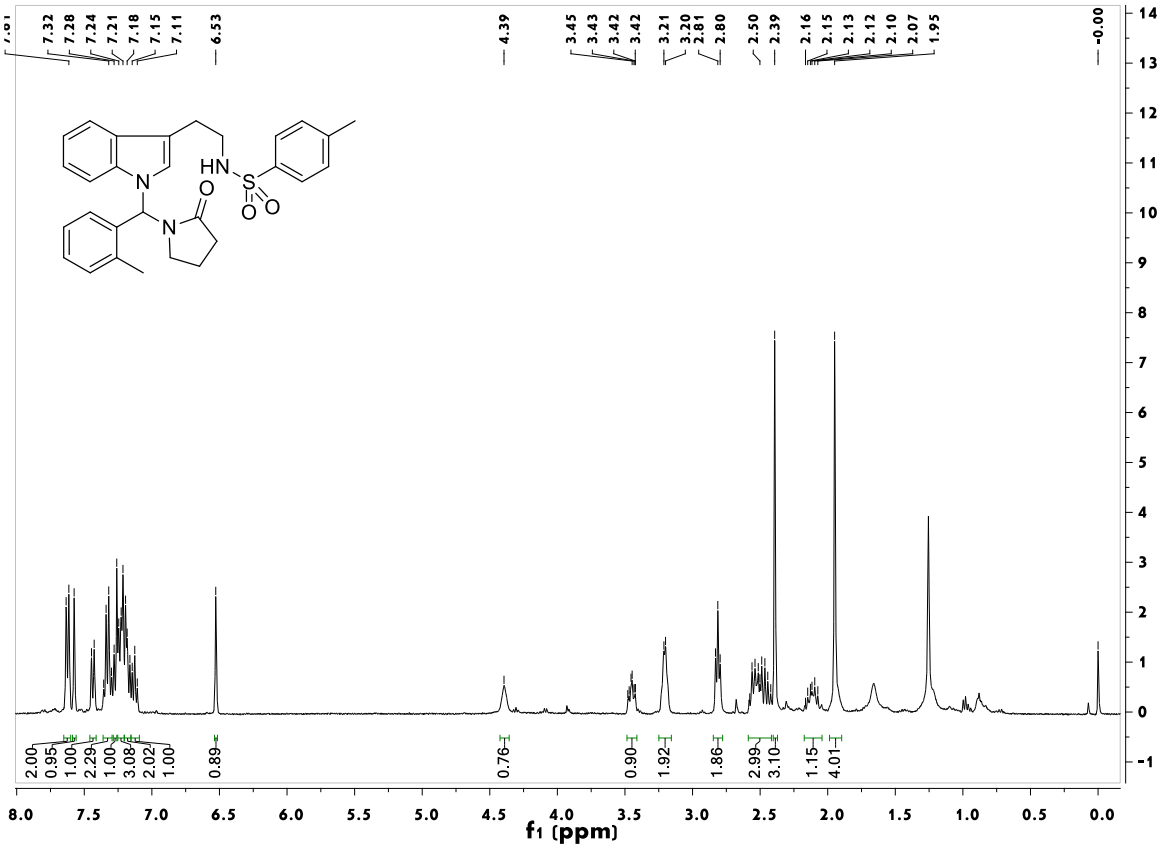


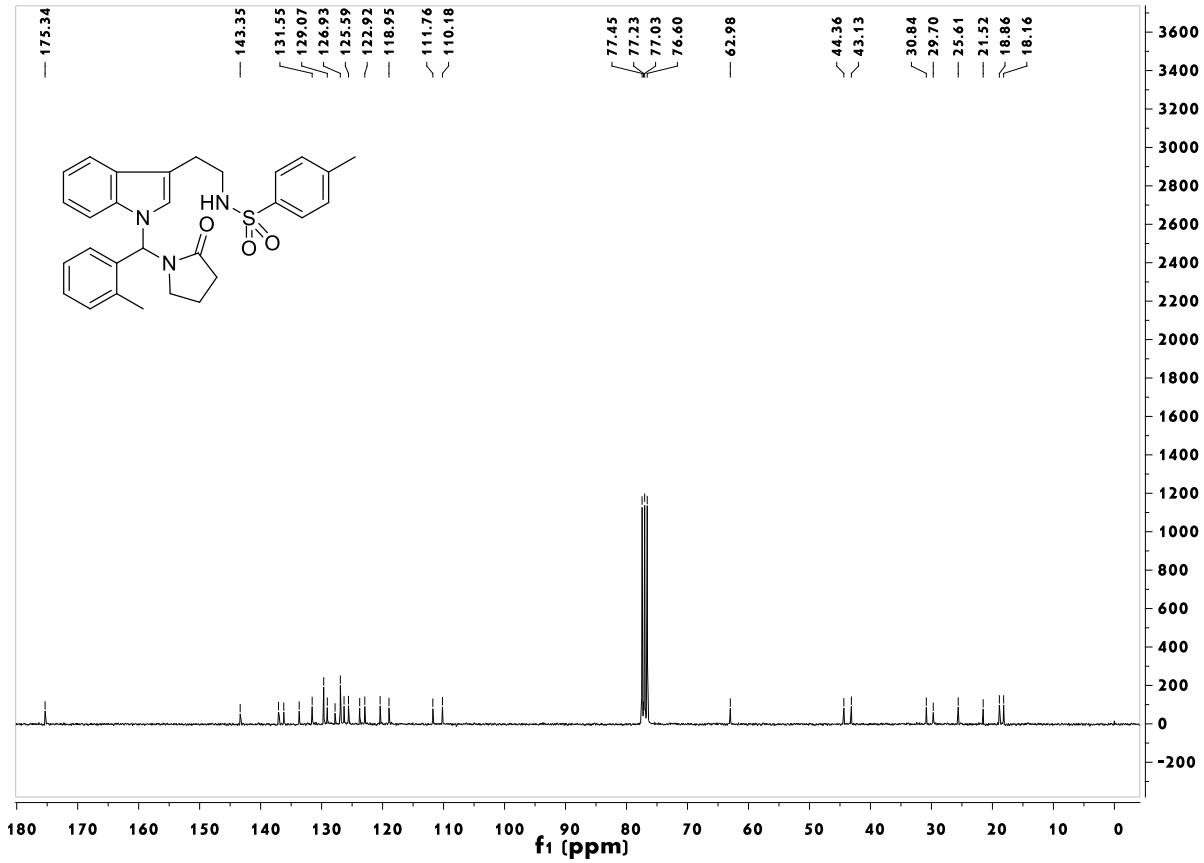
4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(p-tolyl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4e)



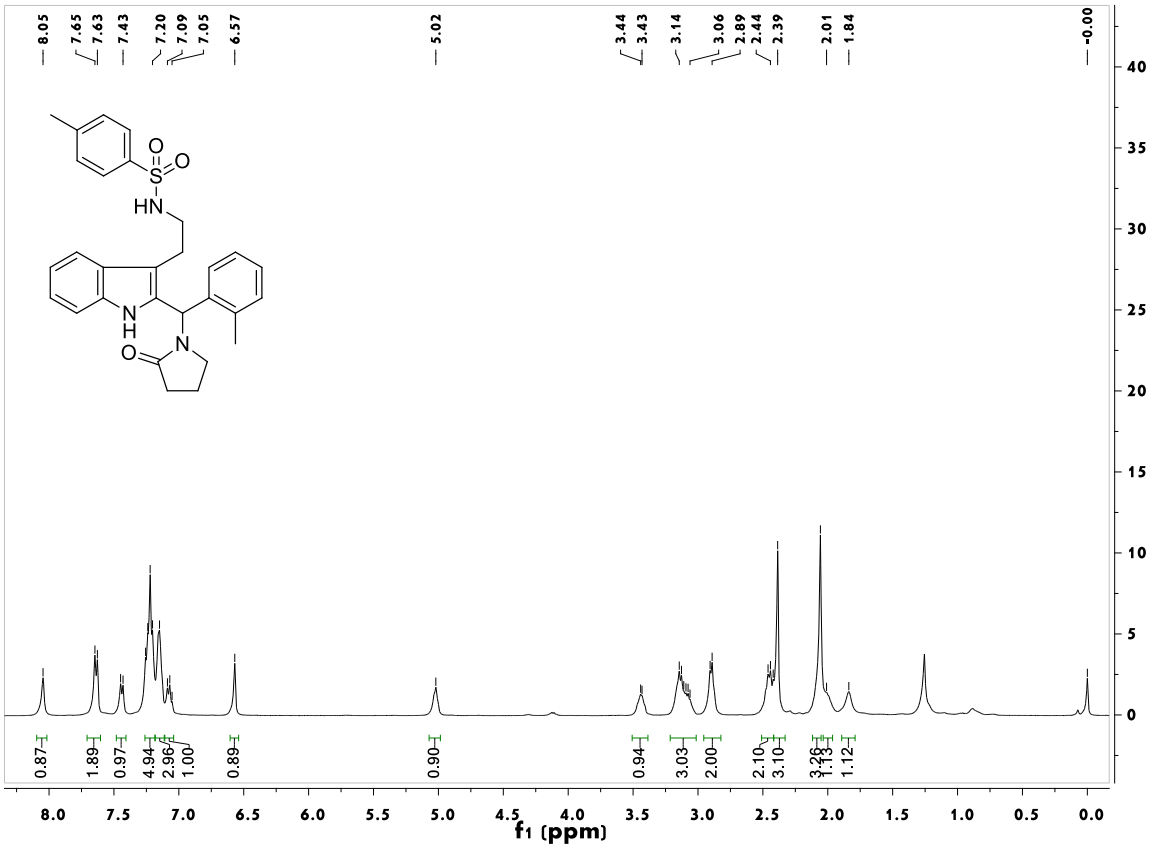


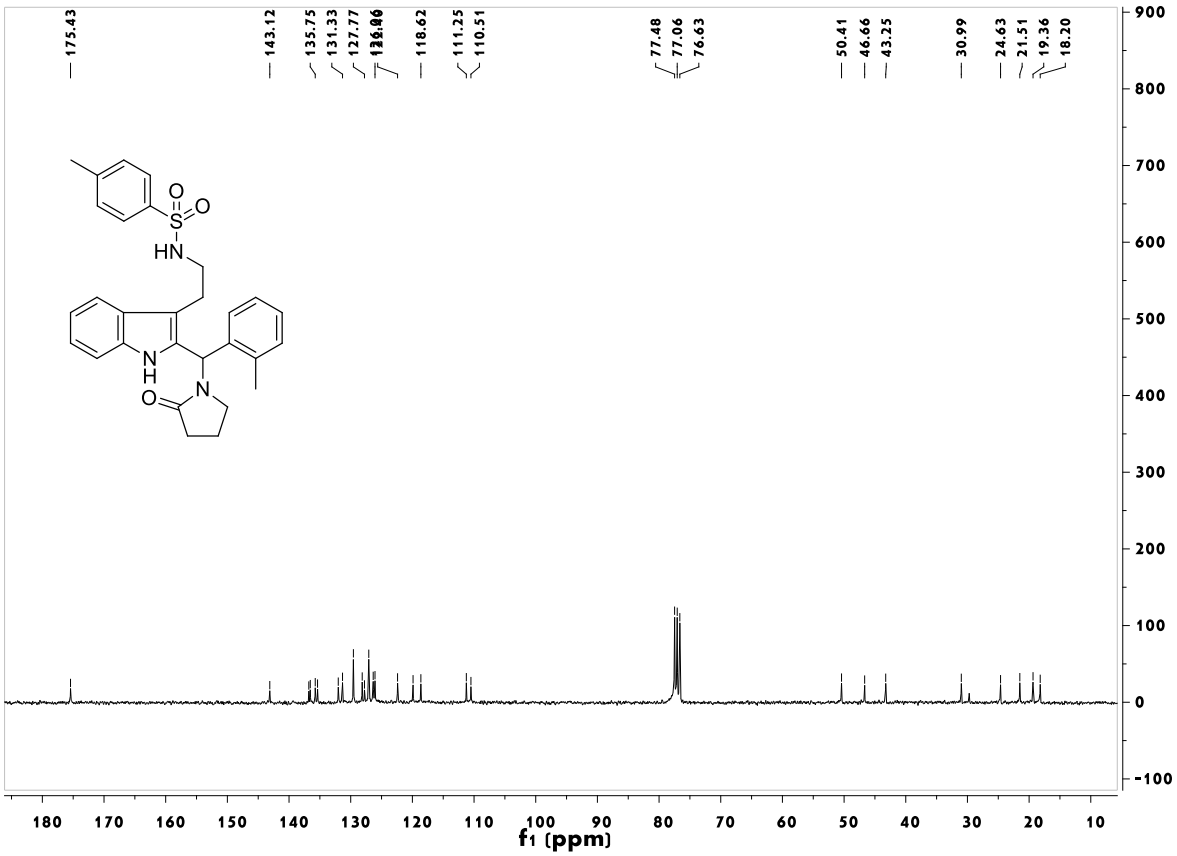
4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(o-tolyl)methyl)-1H-indol-3-yl)ethyl)ben zenesulfonamide (5f)



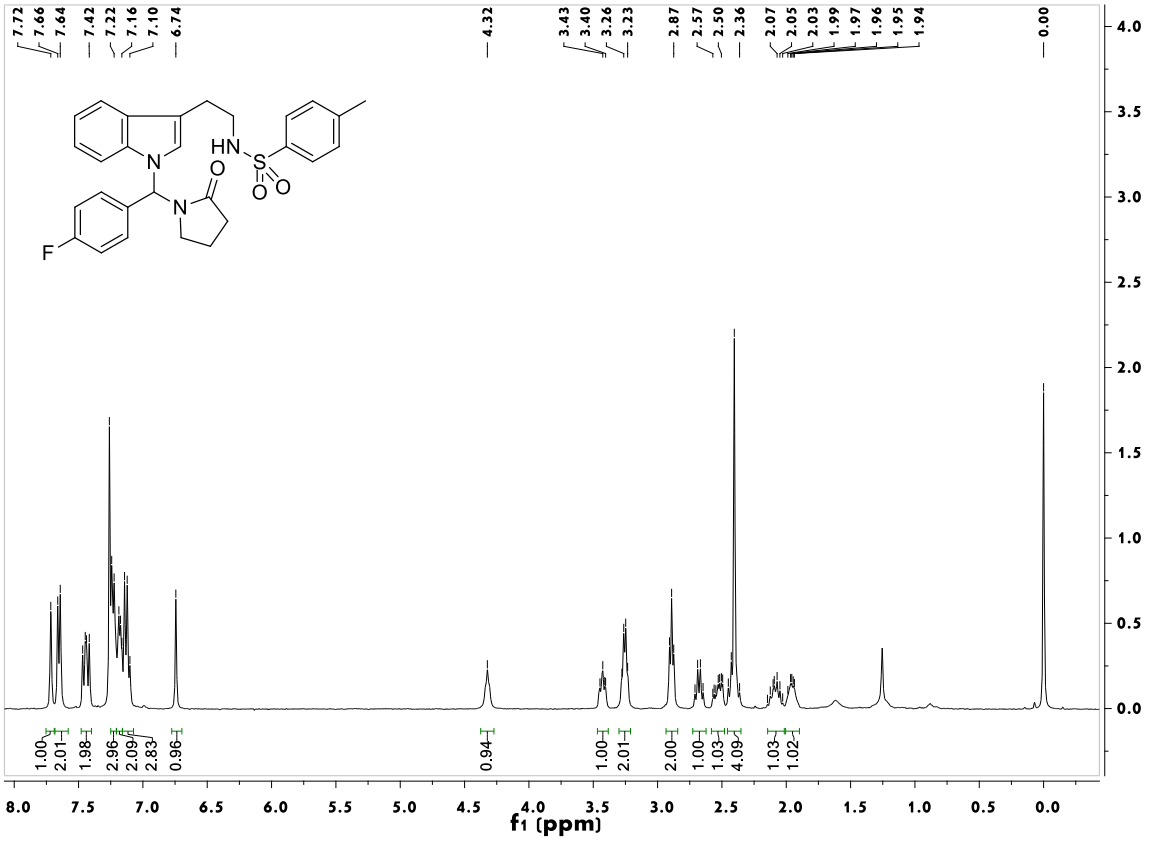


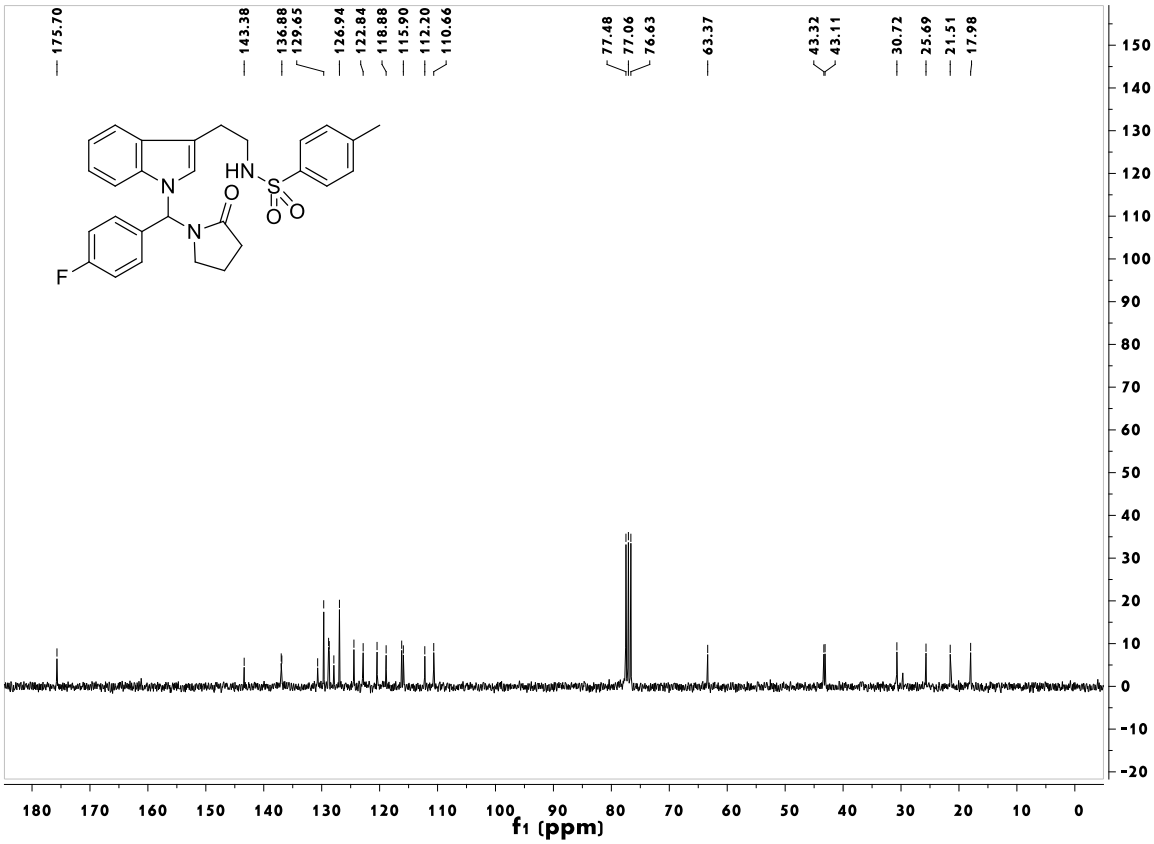
4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(o-tolyl)methyl)-1H-indol-3-yl)ethyl)ben zenesulfonamide (4f)



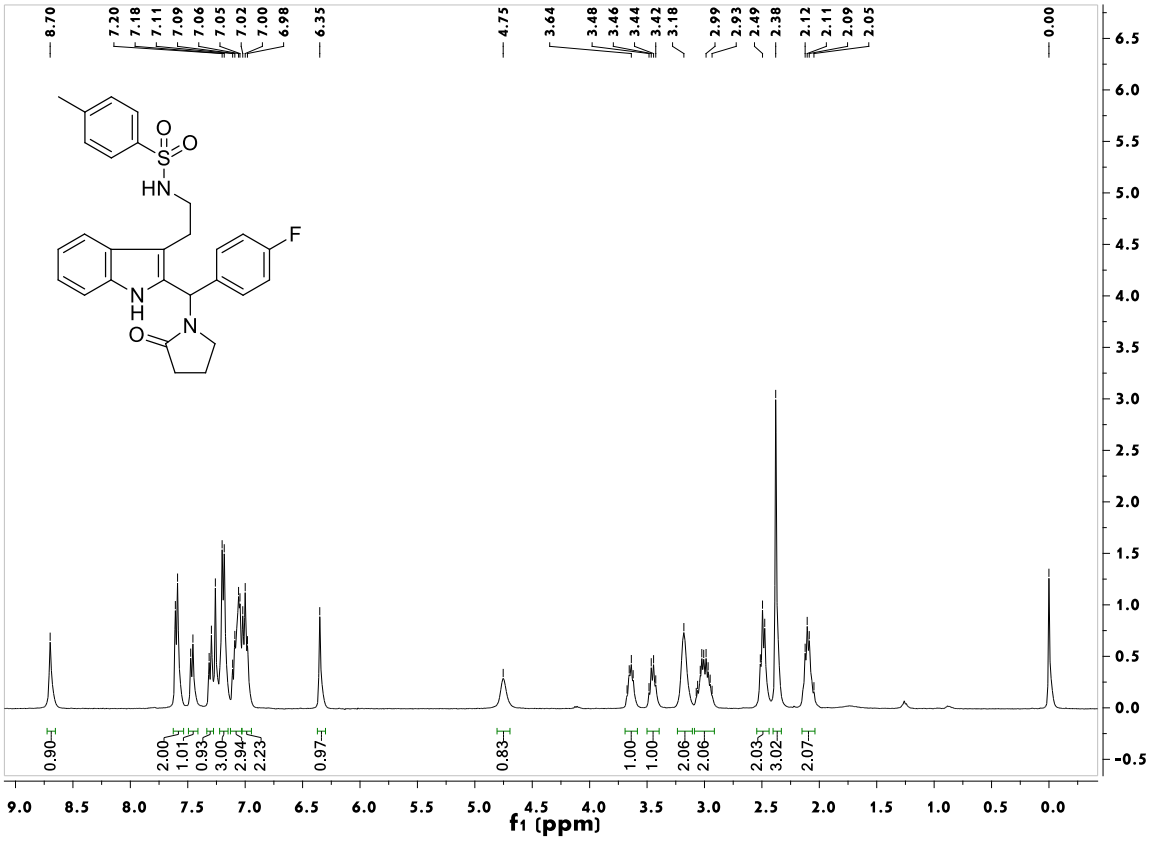


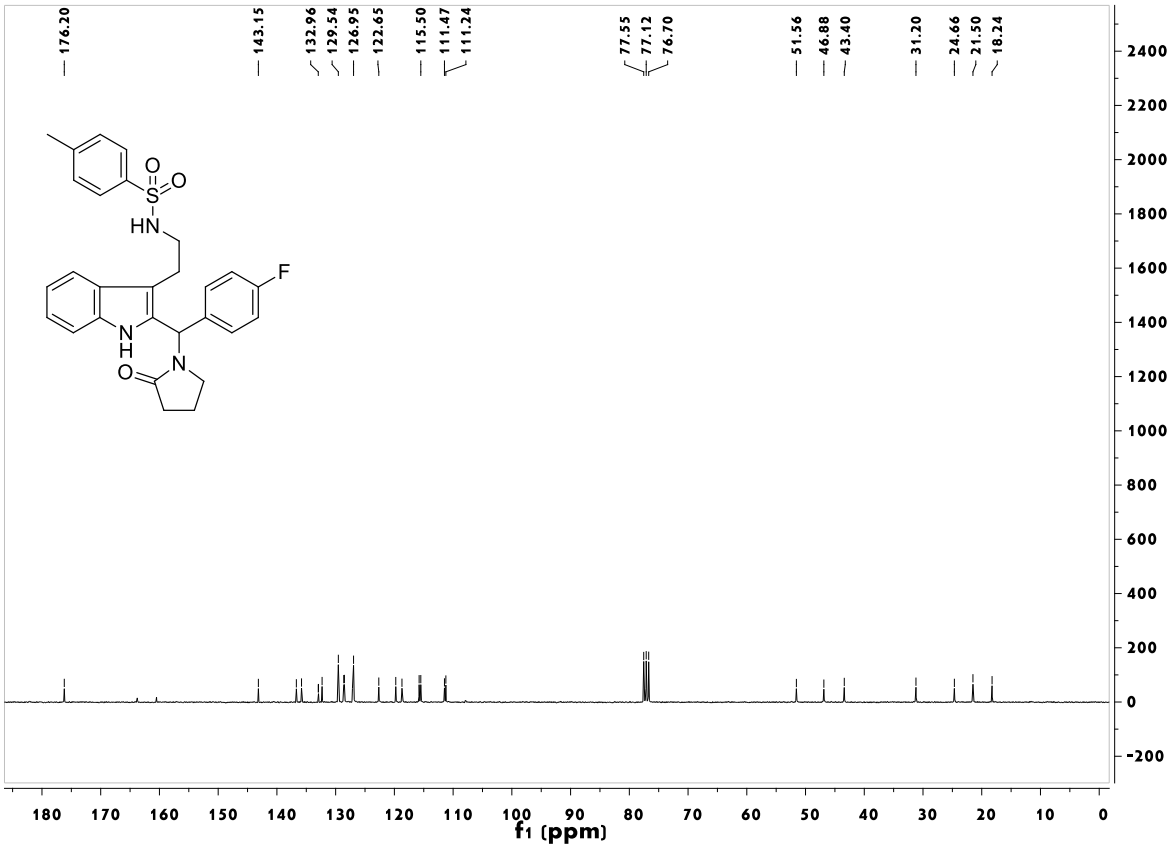
N-(2-(1-((4-fluorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5g)



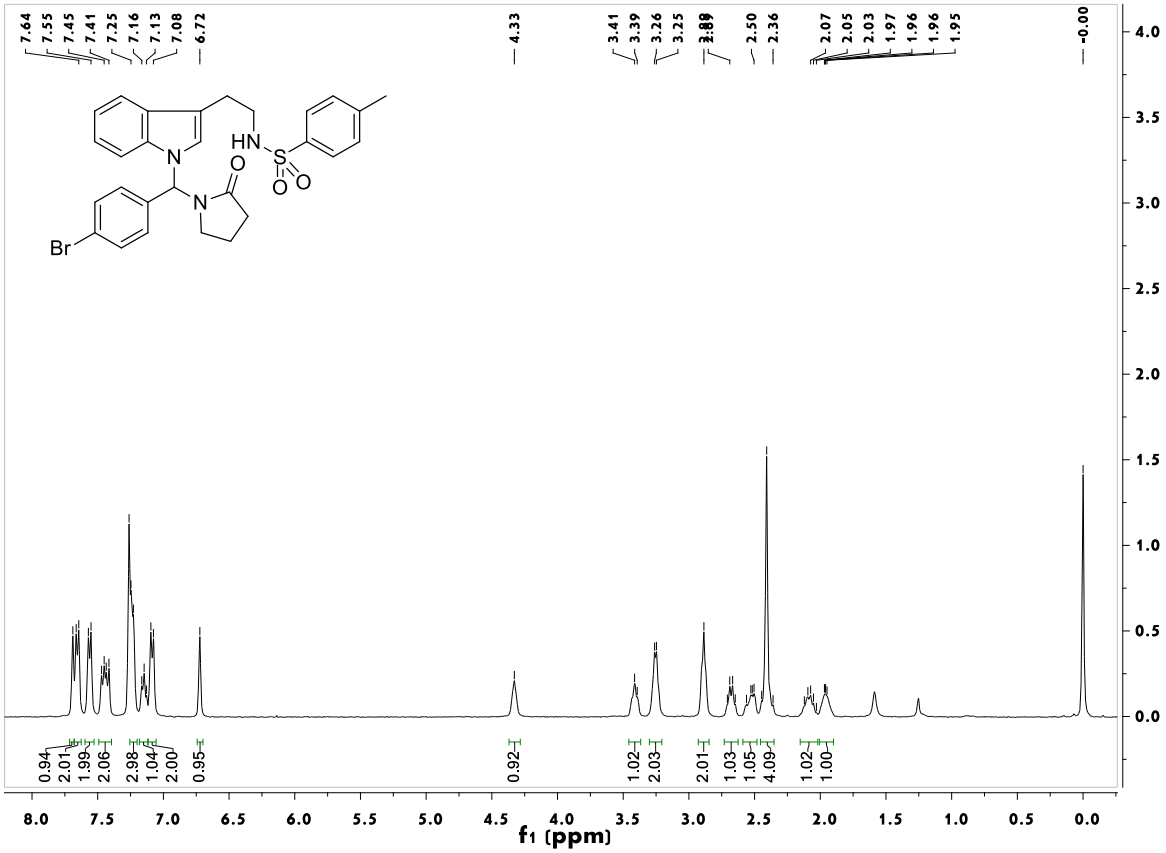


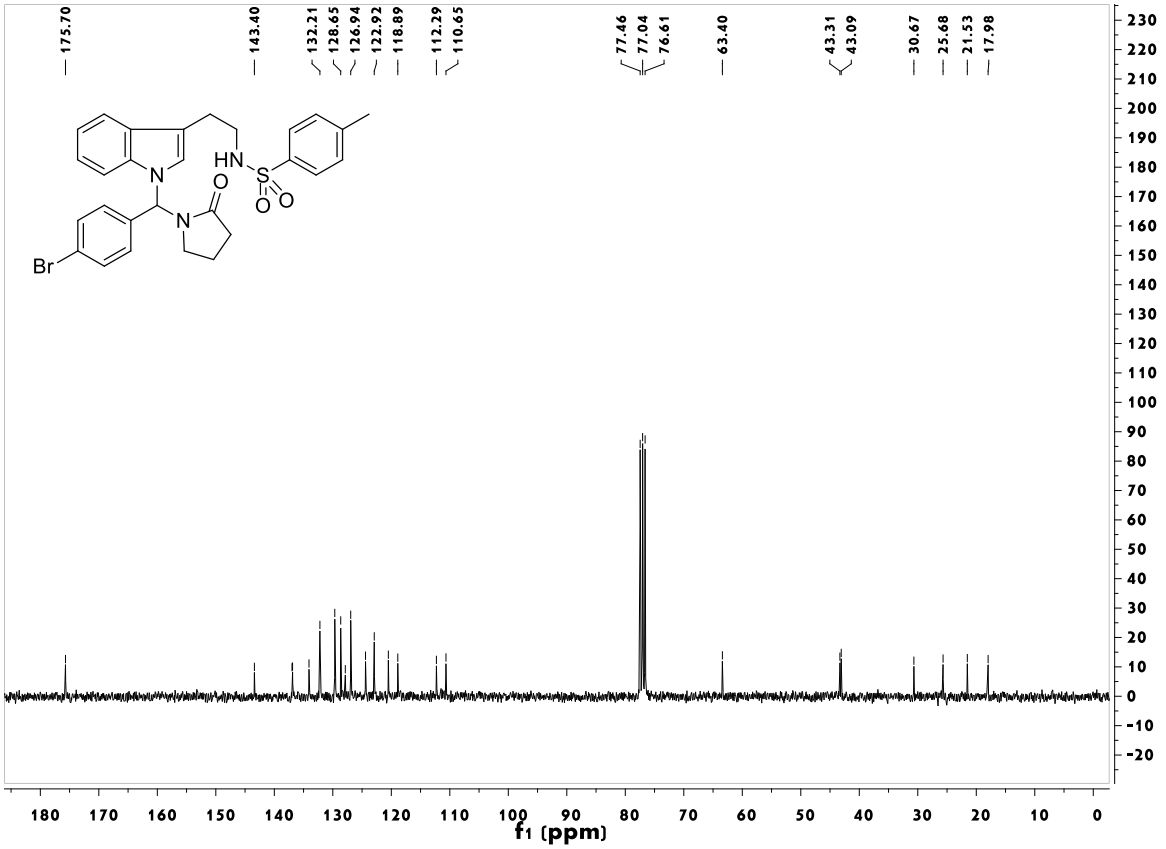
N-(2-(2-((4-fluorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4g)



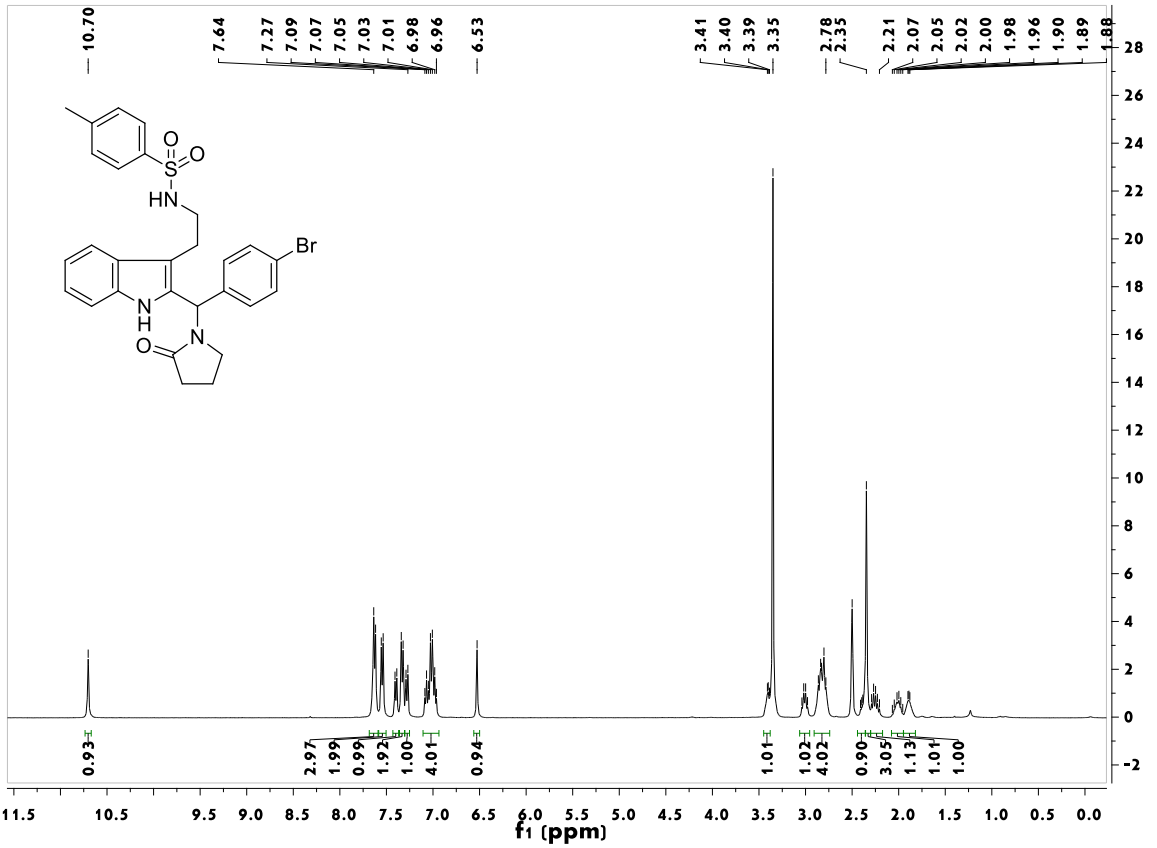


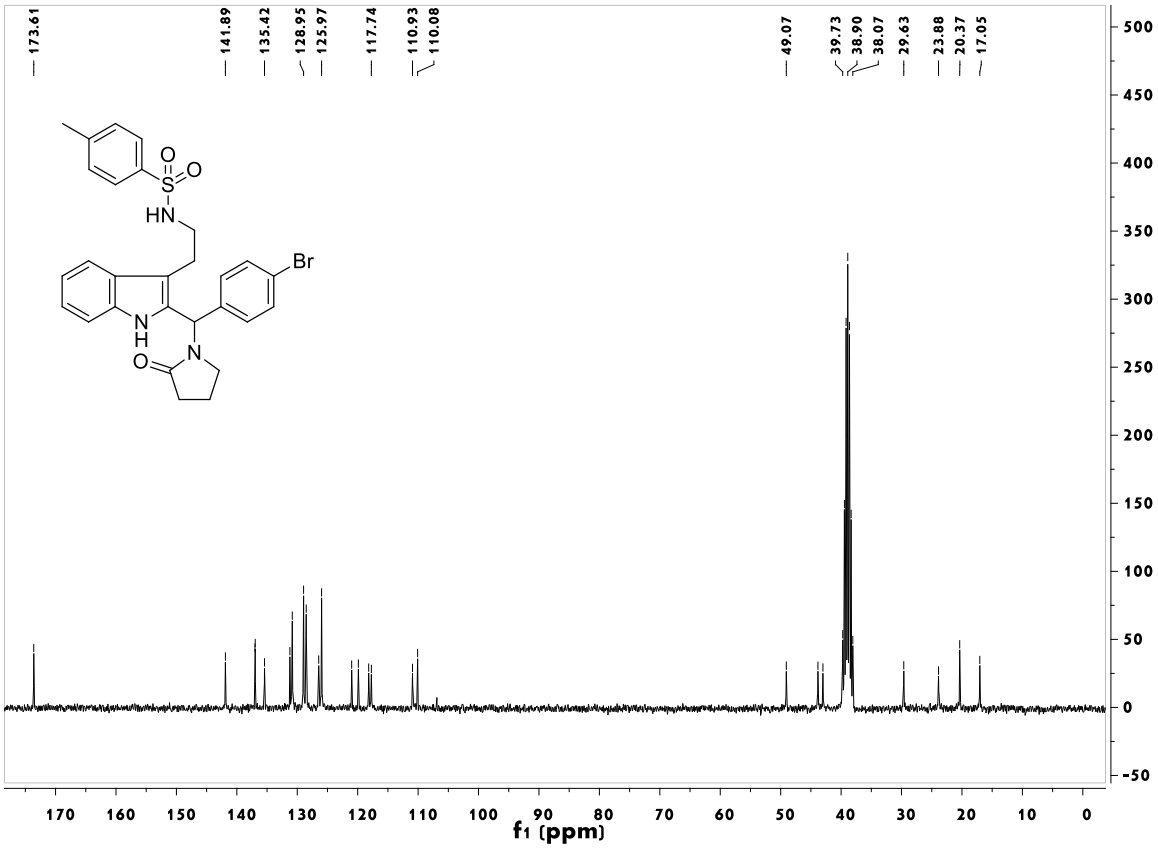
N-(2-(1-((4-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5h)



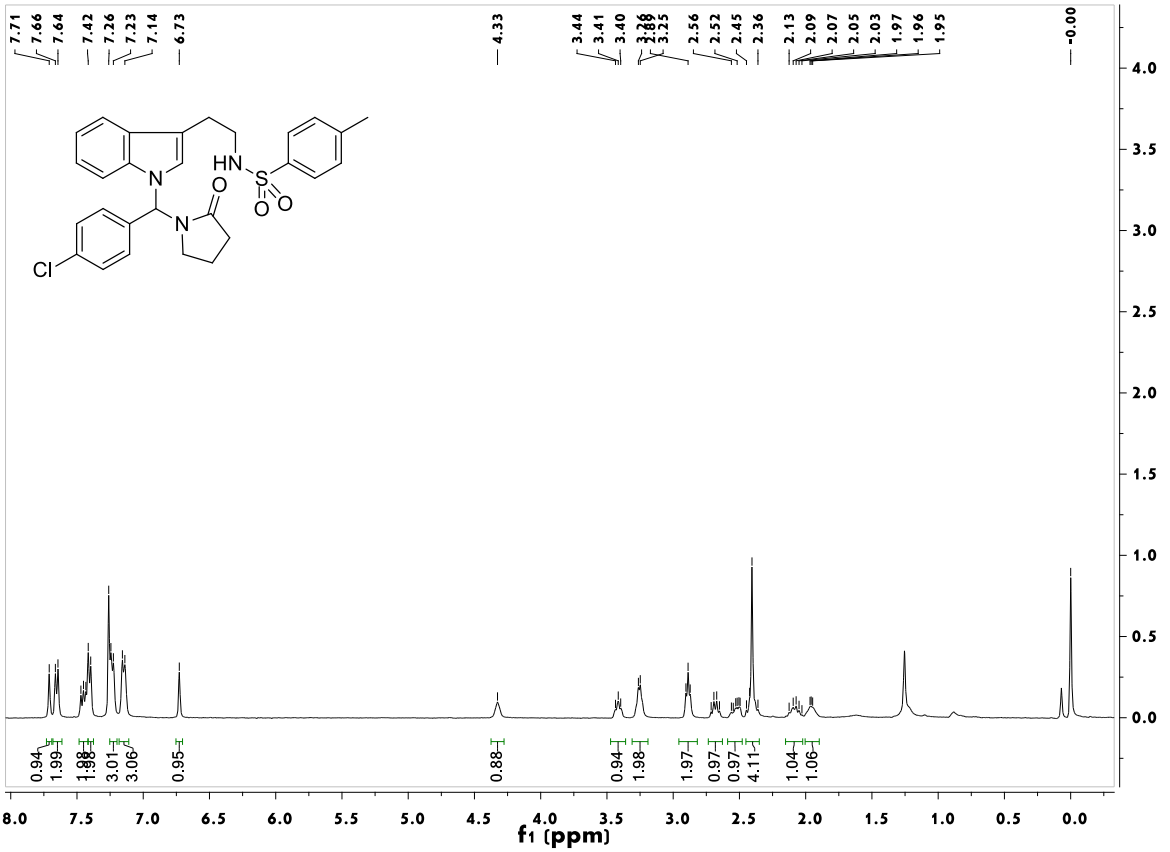


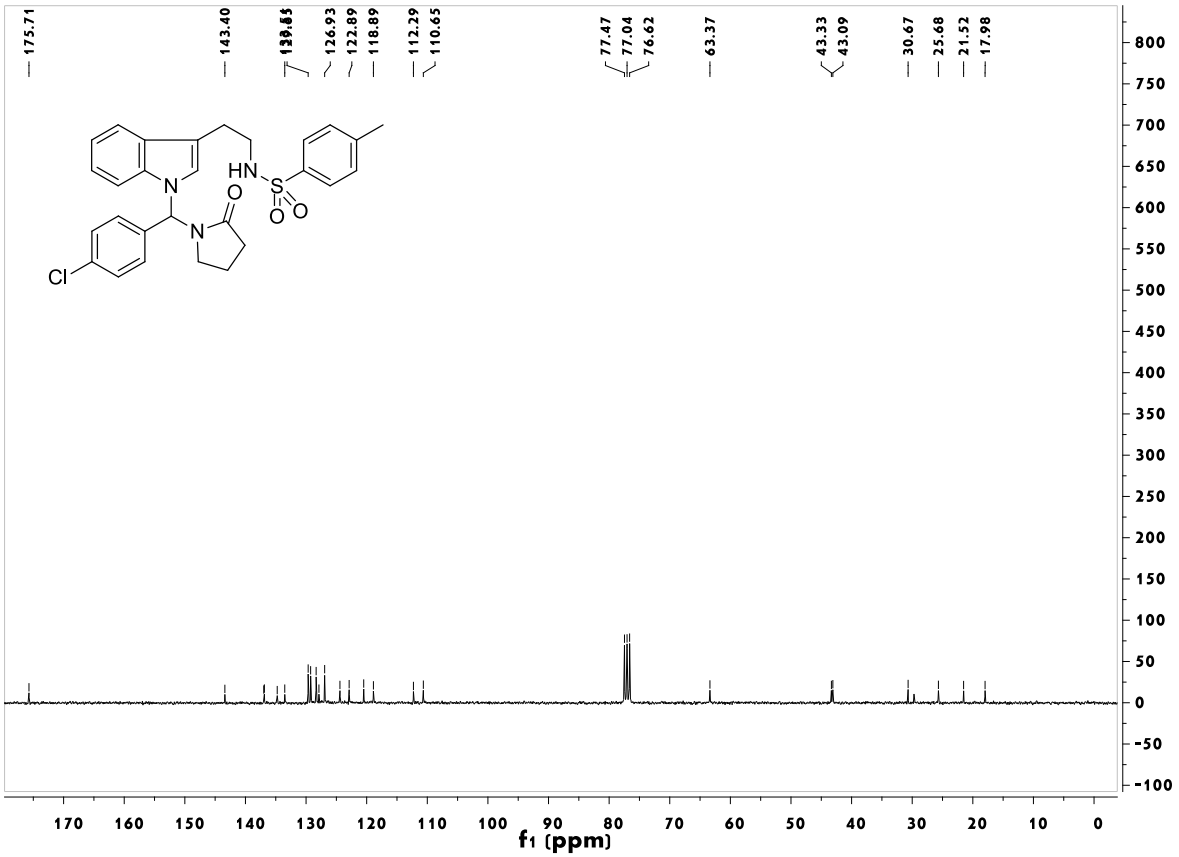
N-(2-(2-((4-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4h)



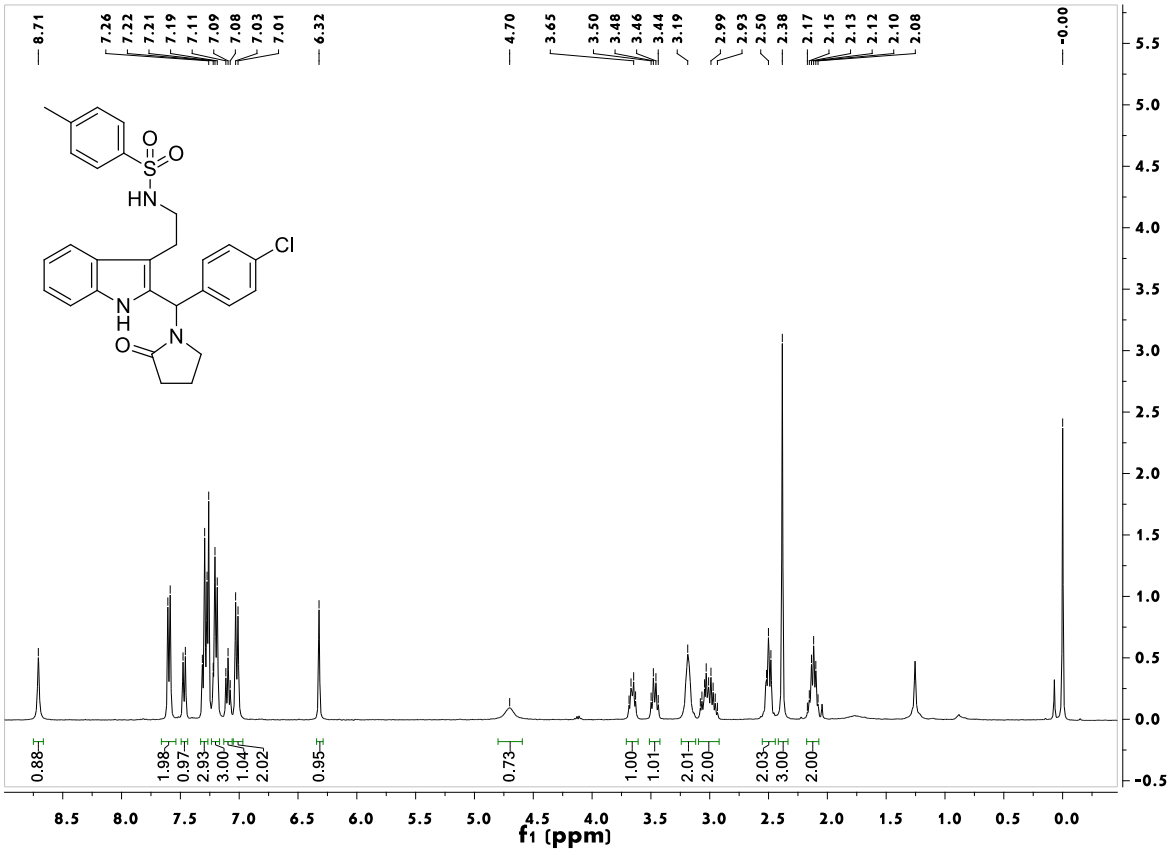


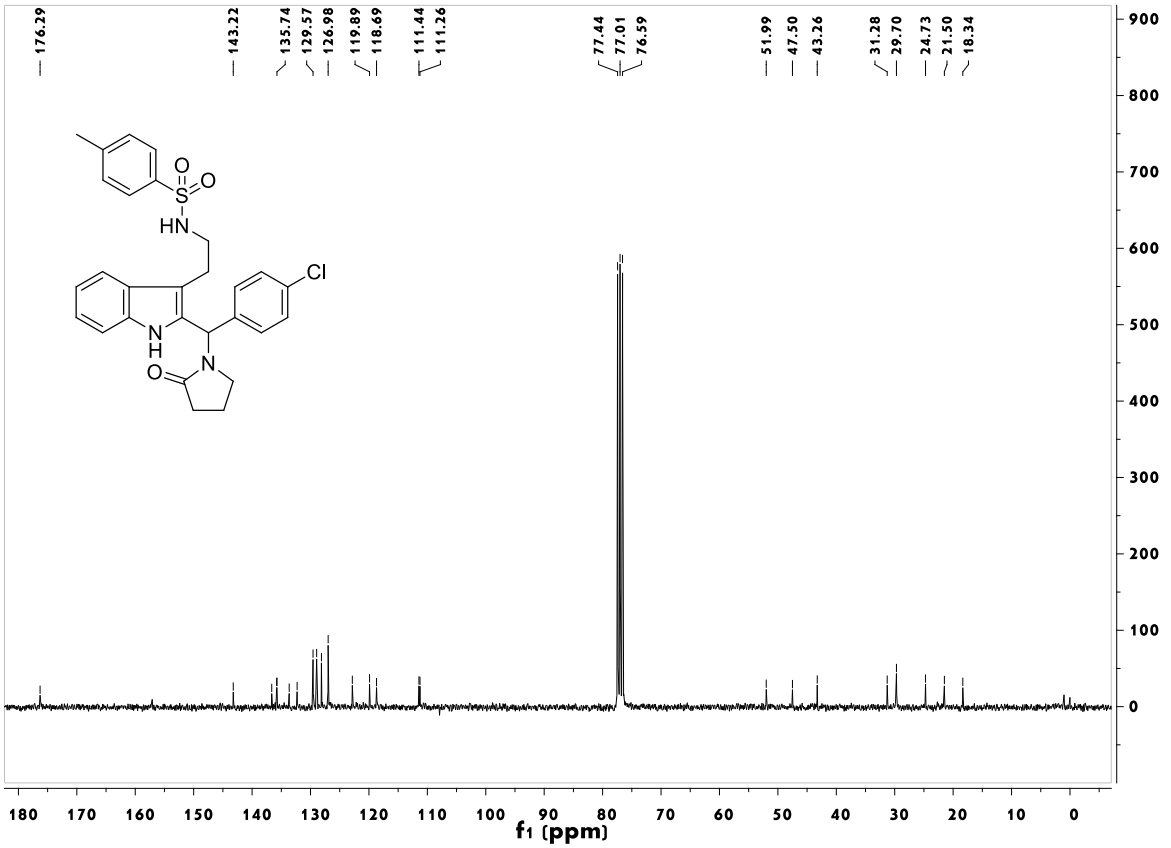
N-(2-(1-((4-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5i)



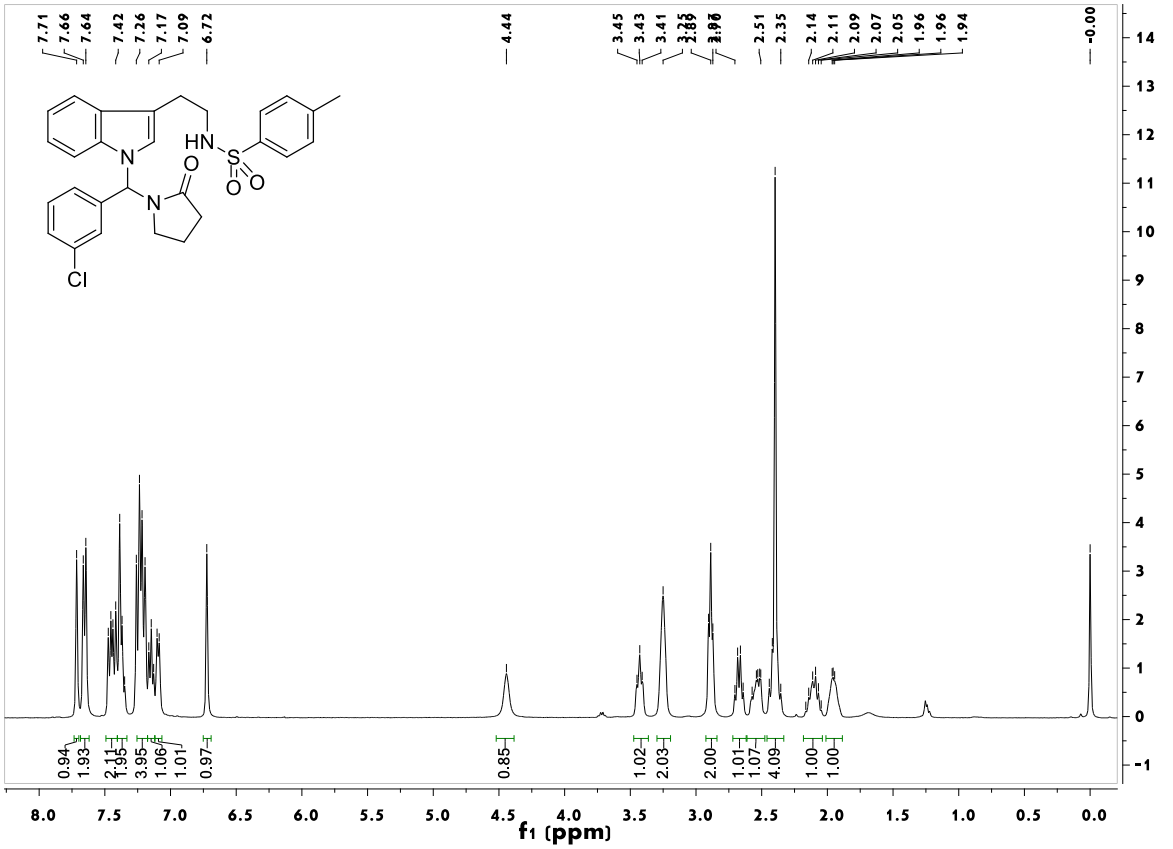


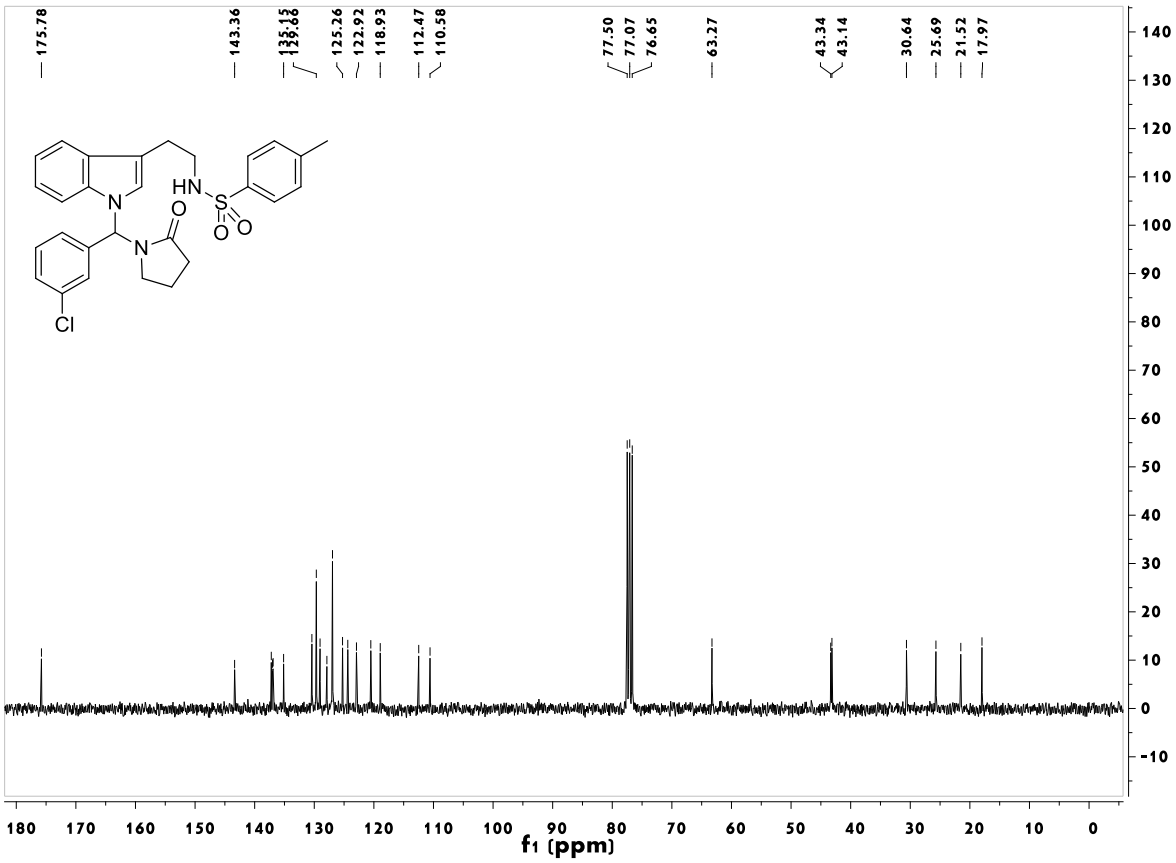
N-(2-(2-((4-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4i)



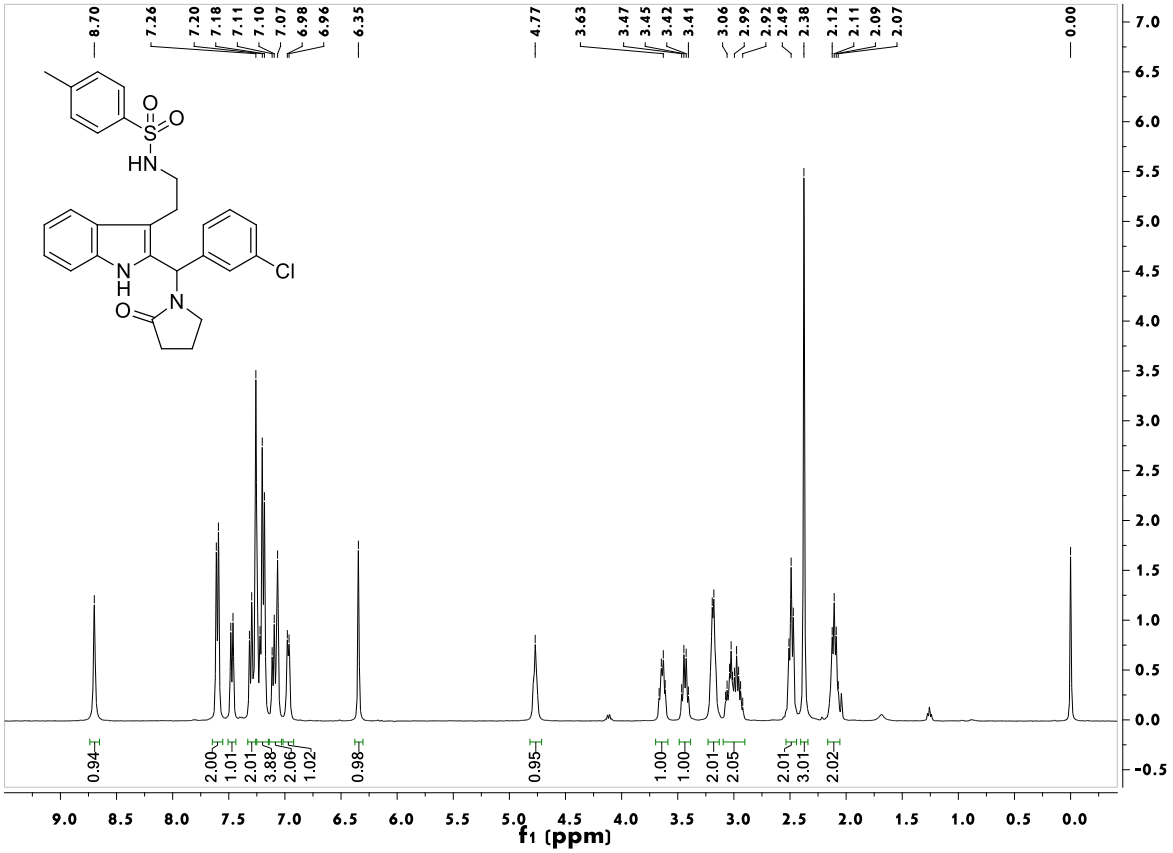


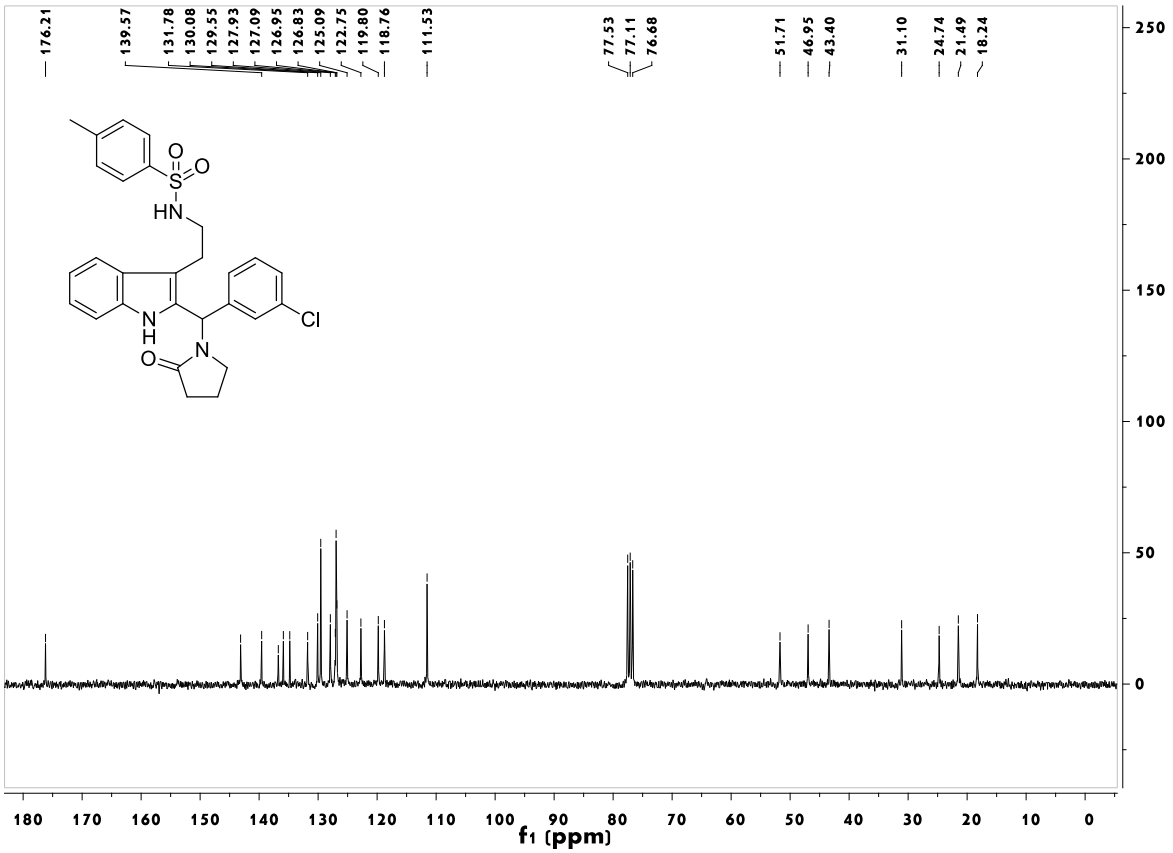
N-(2-(1-((3-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5j)



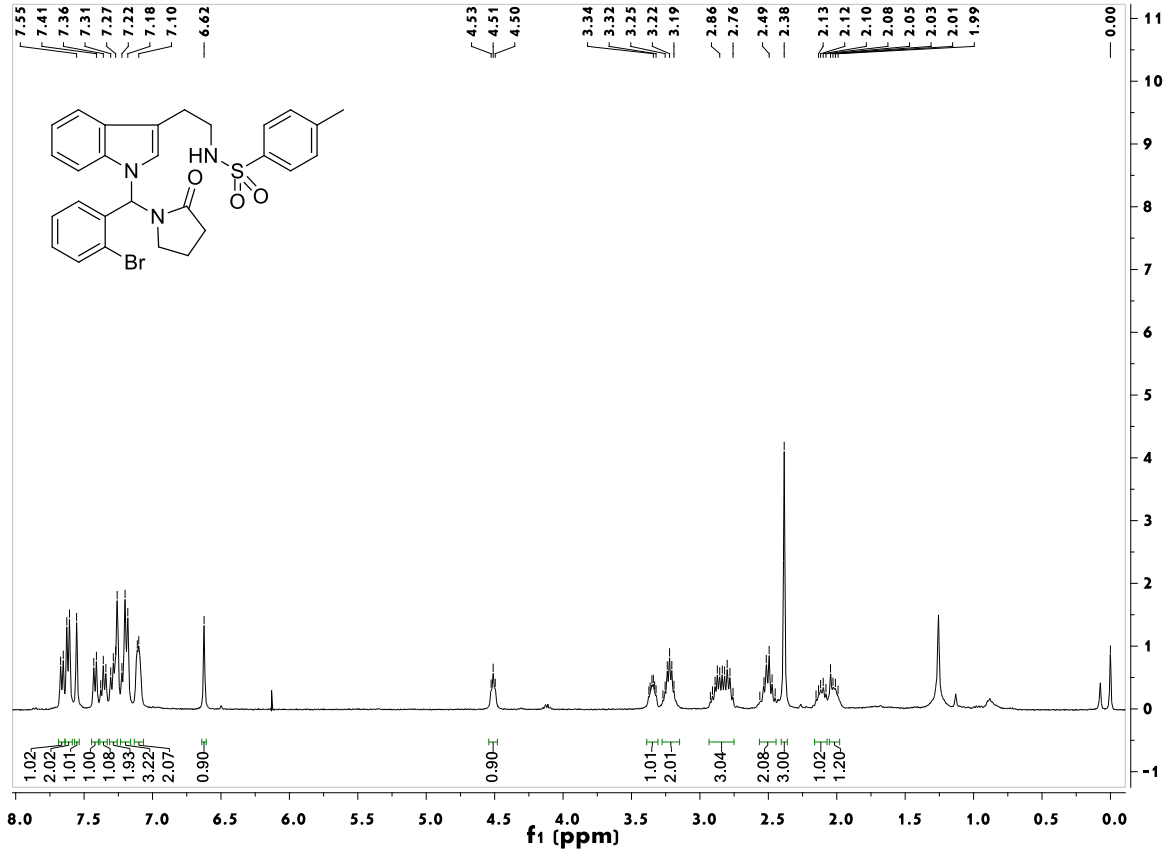


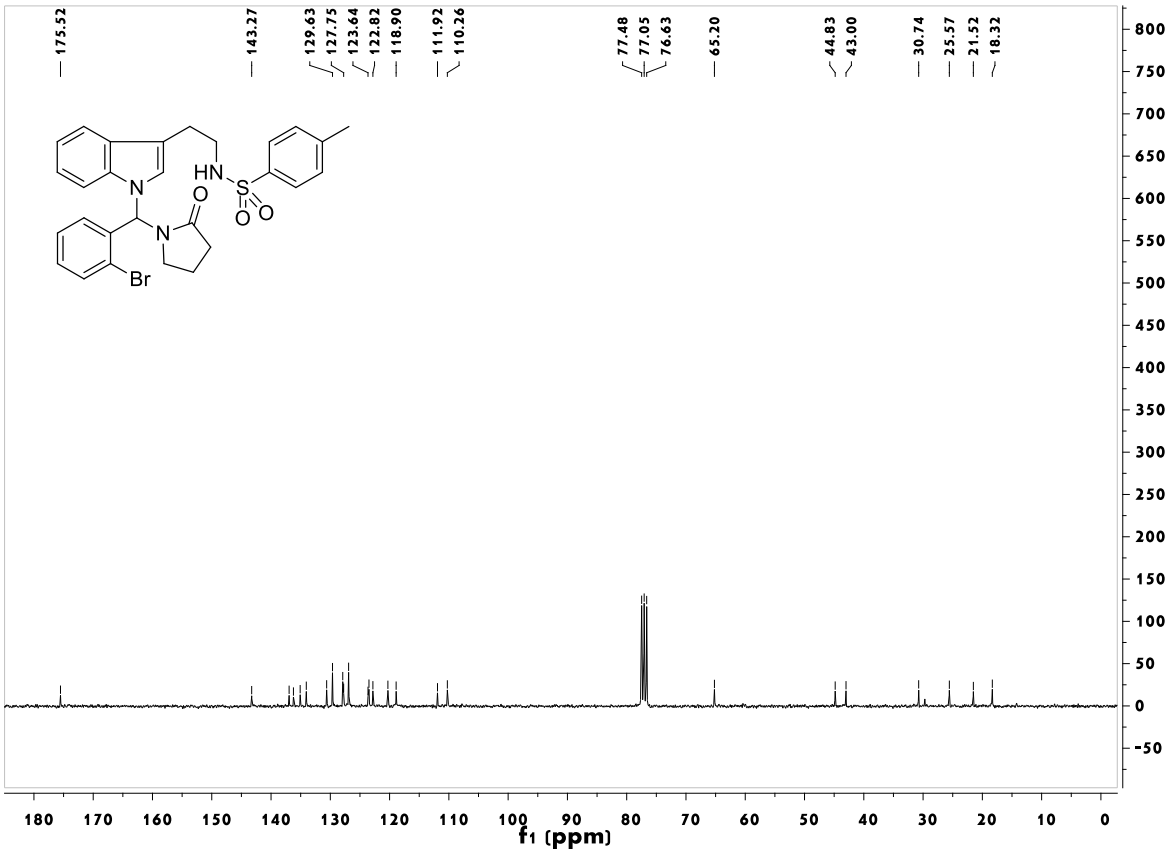
N-(2-(2-((3-chlorophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4j)



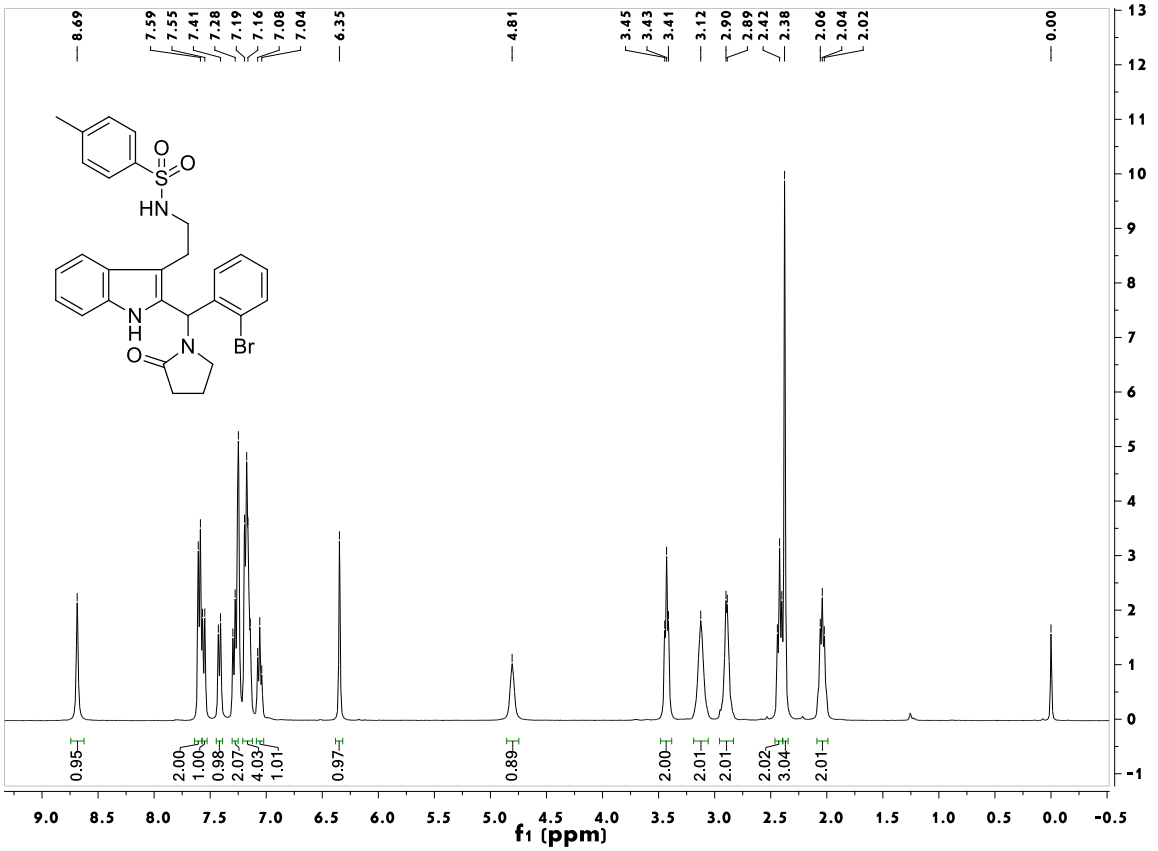


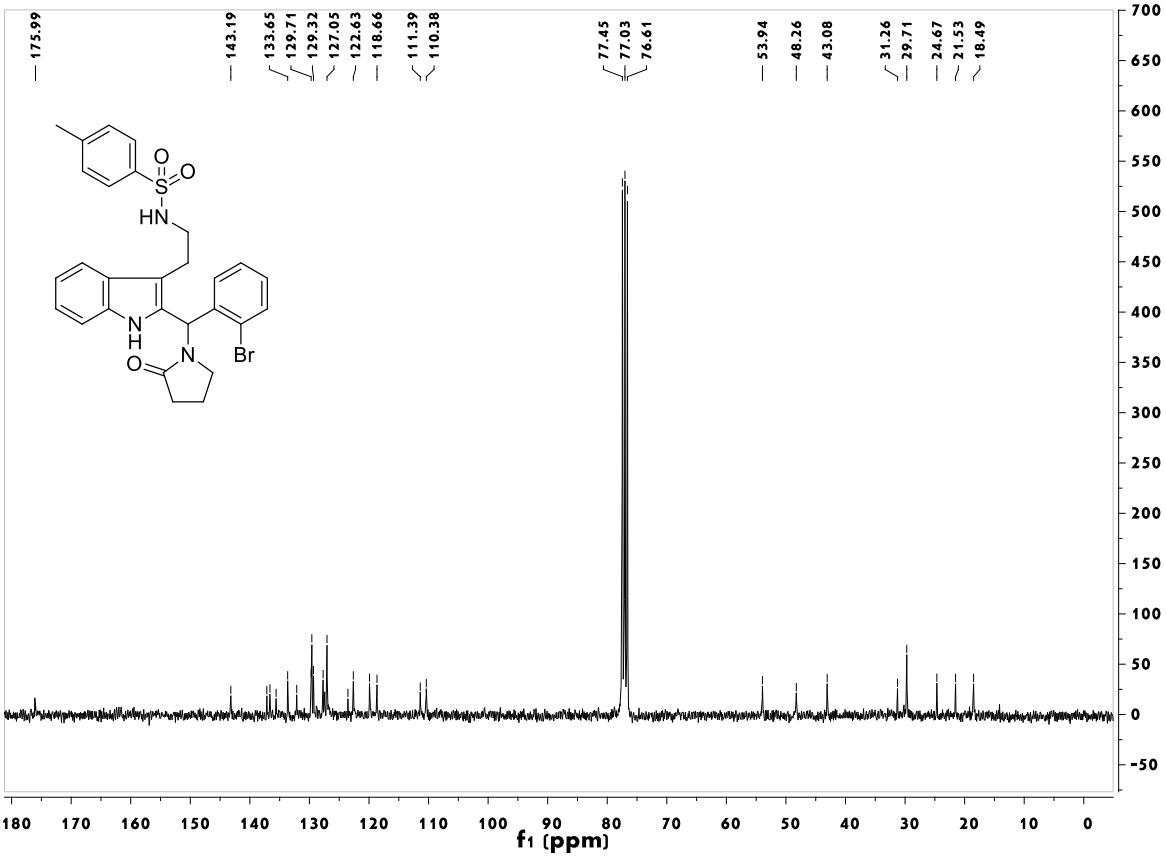
N-(2-(1-((2-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5k)



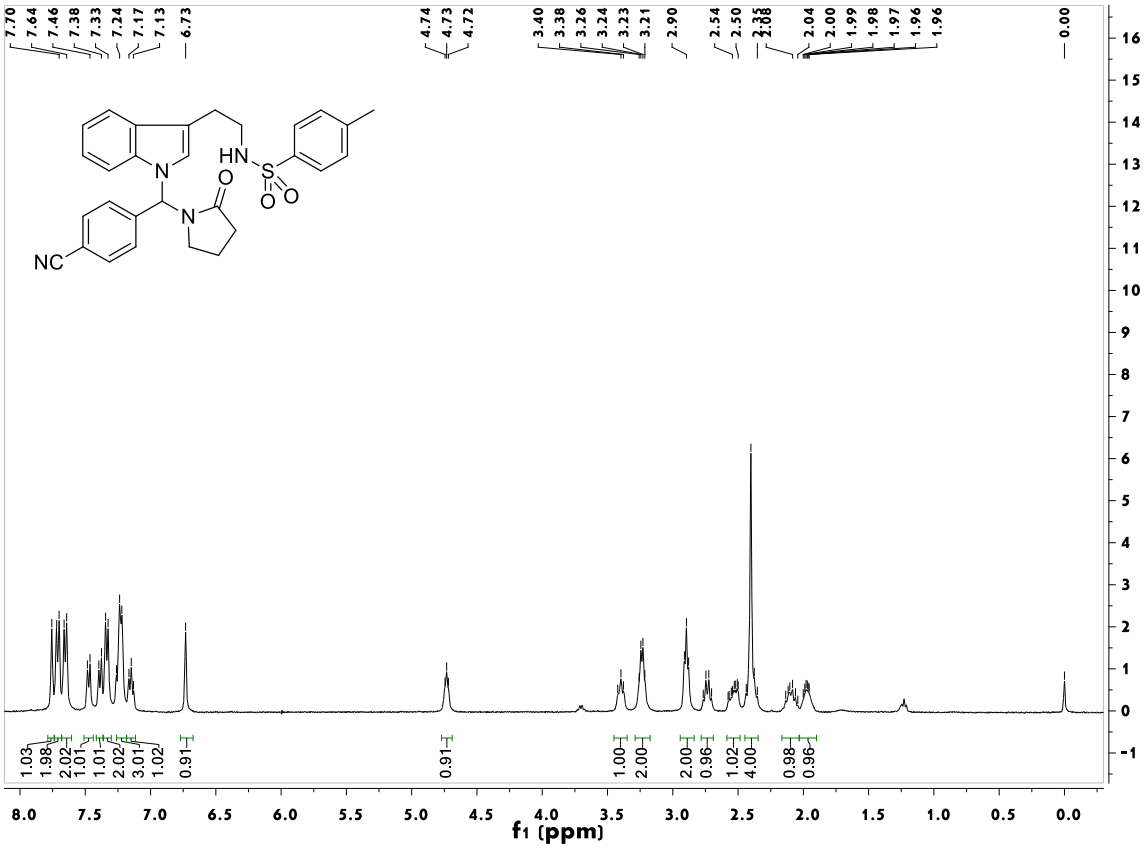


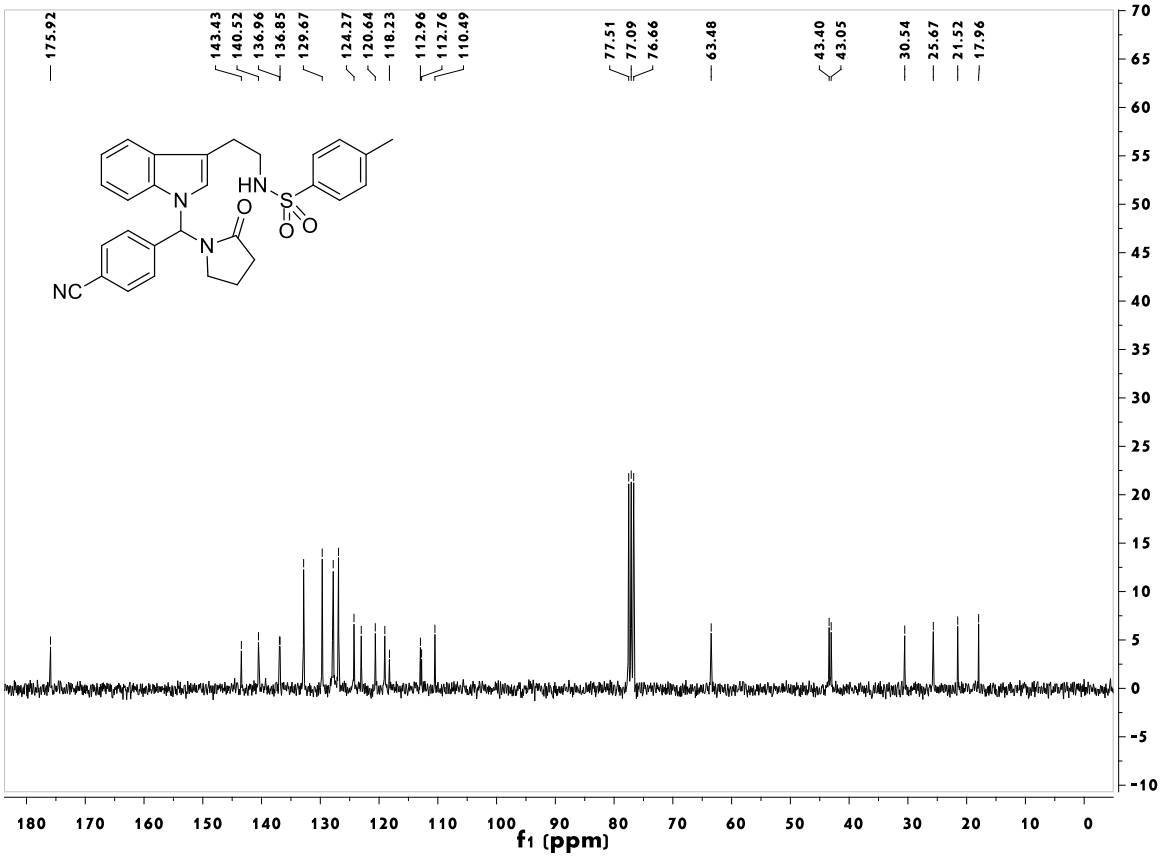
N-(2-(2-((2-bromophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4k)



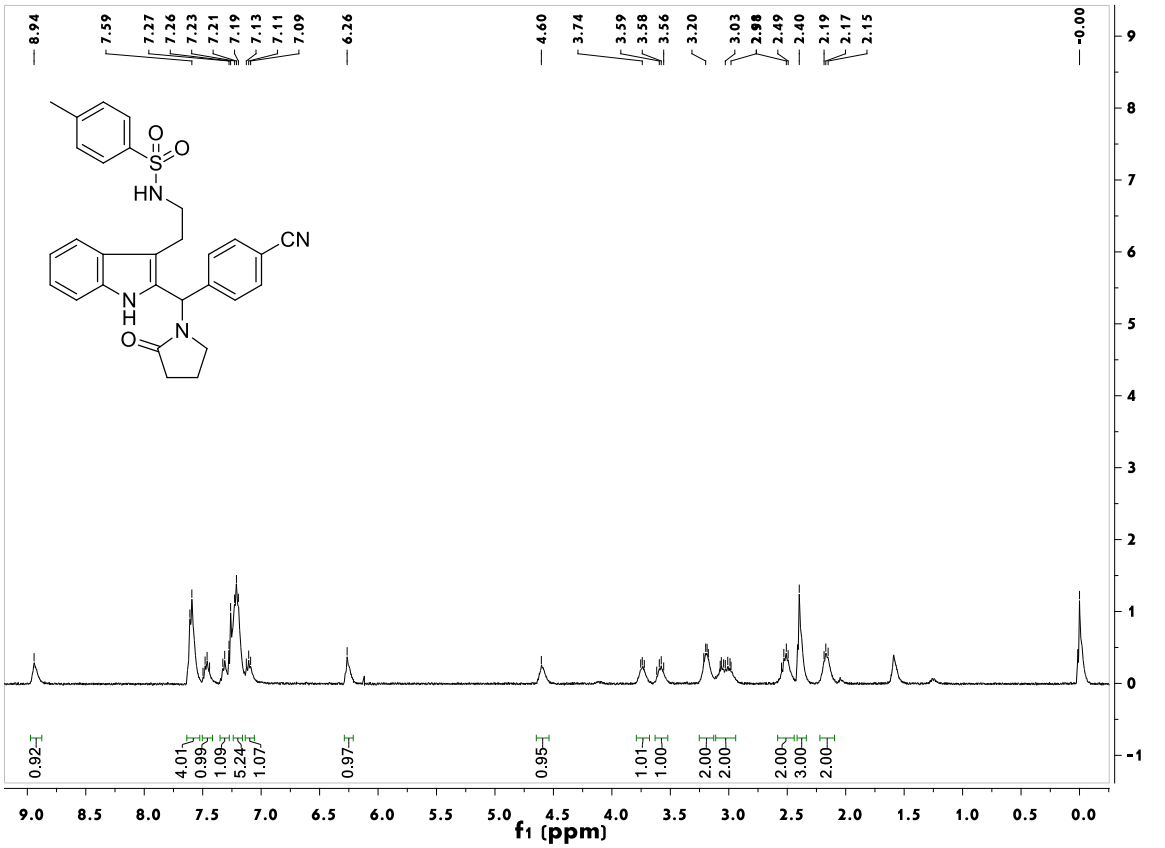


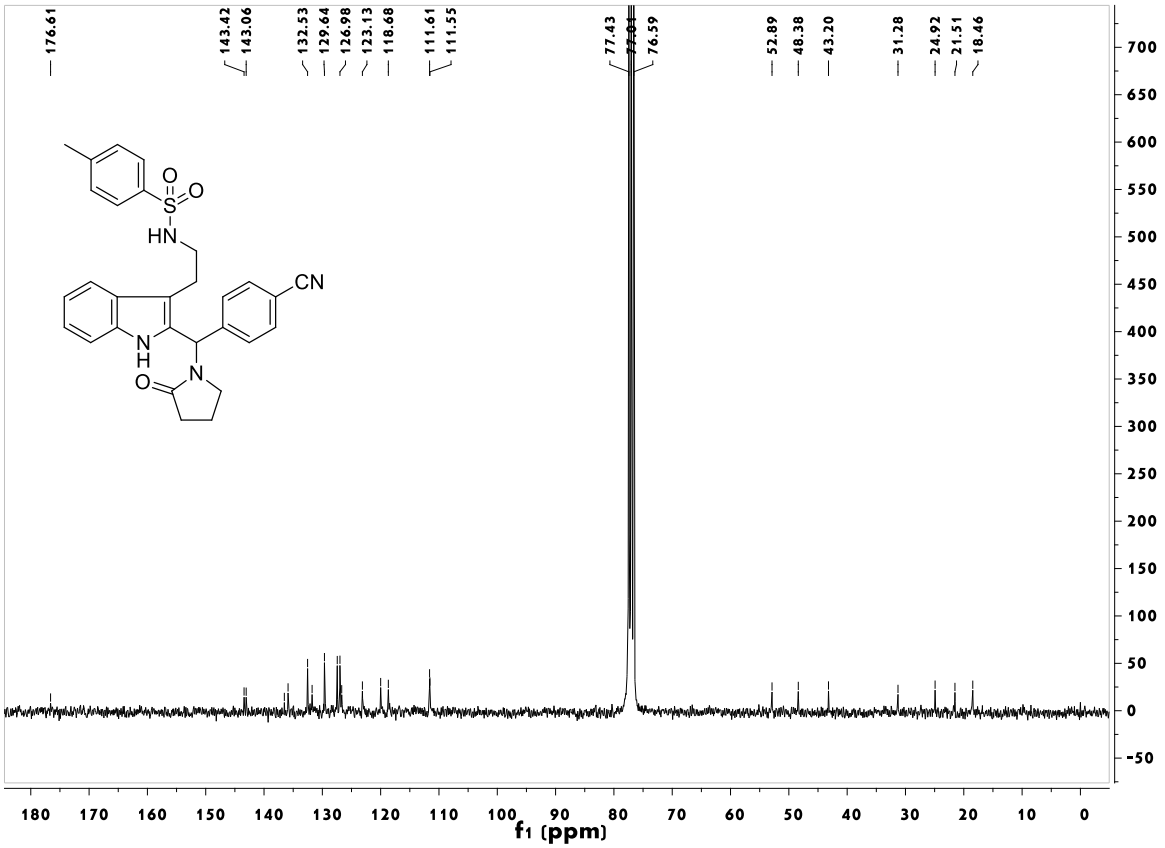
N-(2-(1-((4-cyanophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (5l)



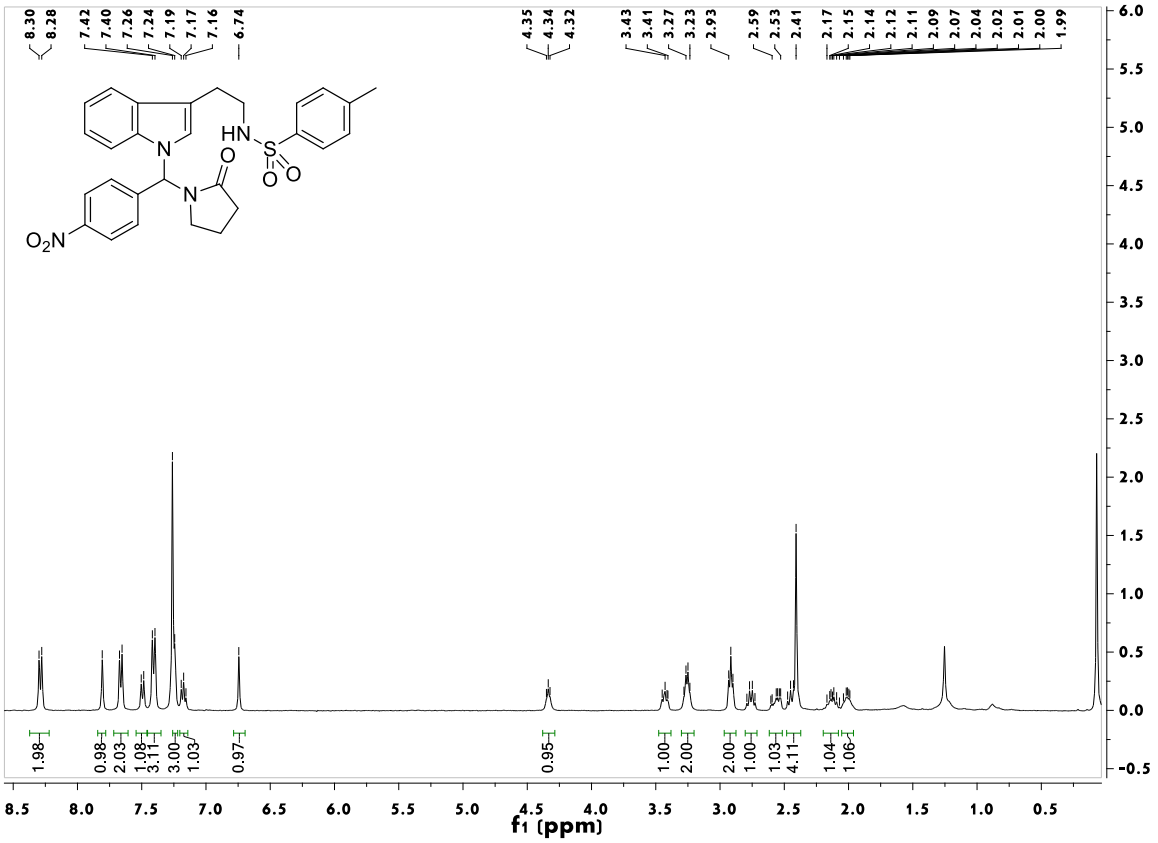


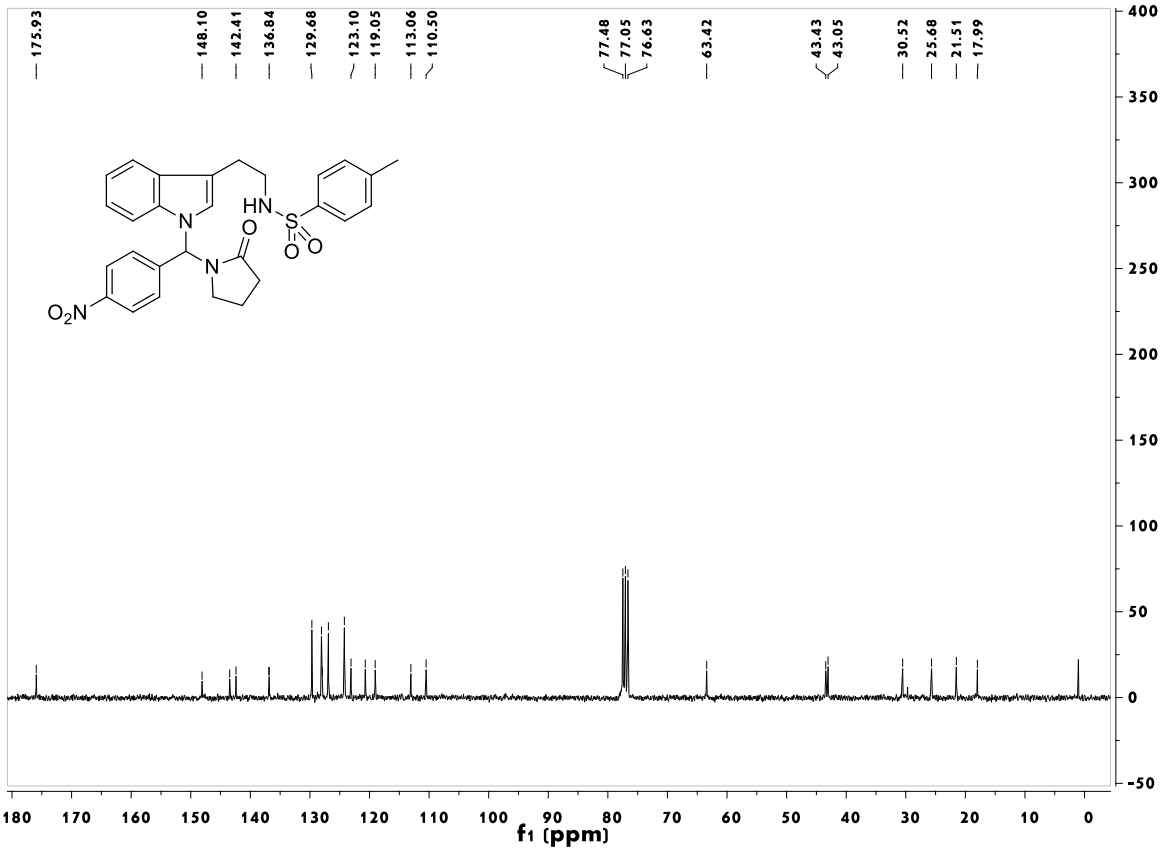
N-(2-(2-((4-cyanophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)-4-methylbenzenesulfonamide (4l)



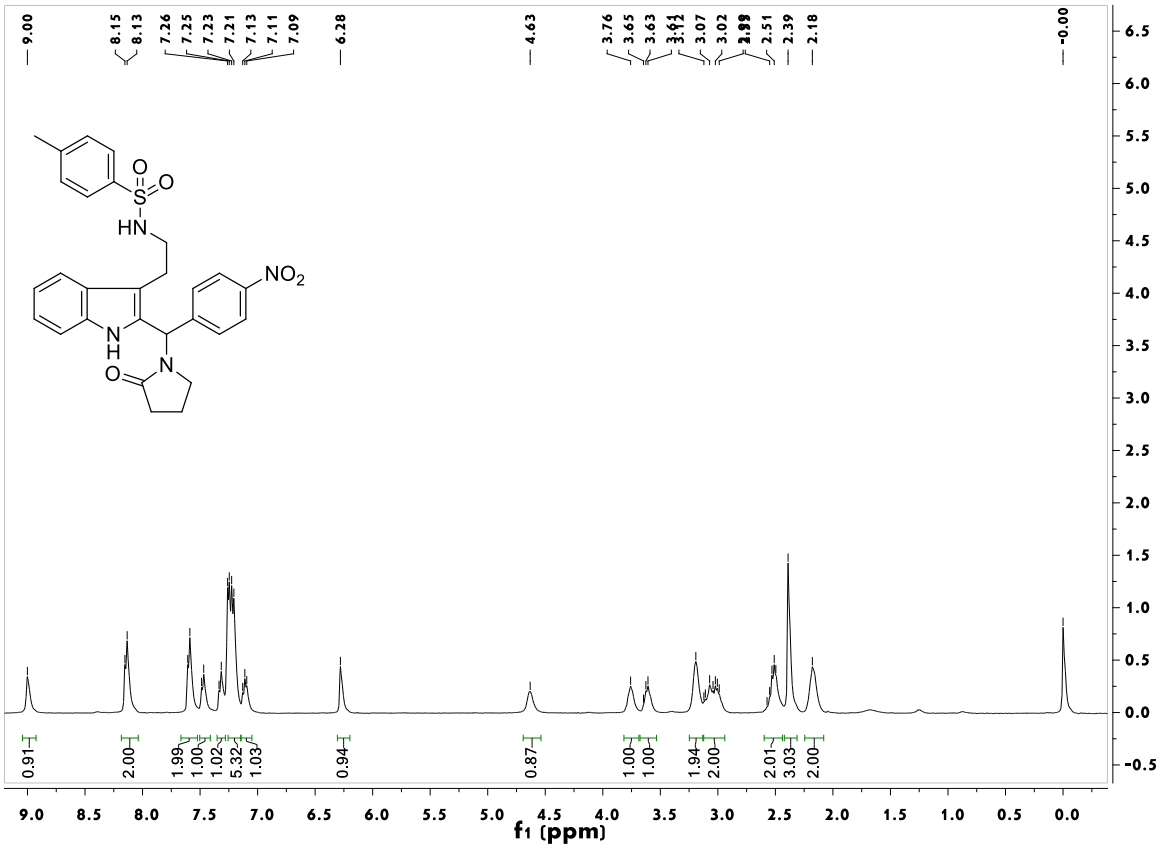


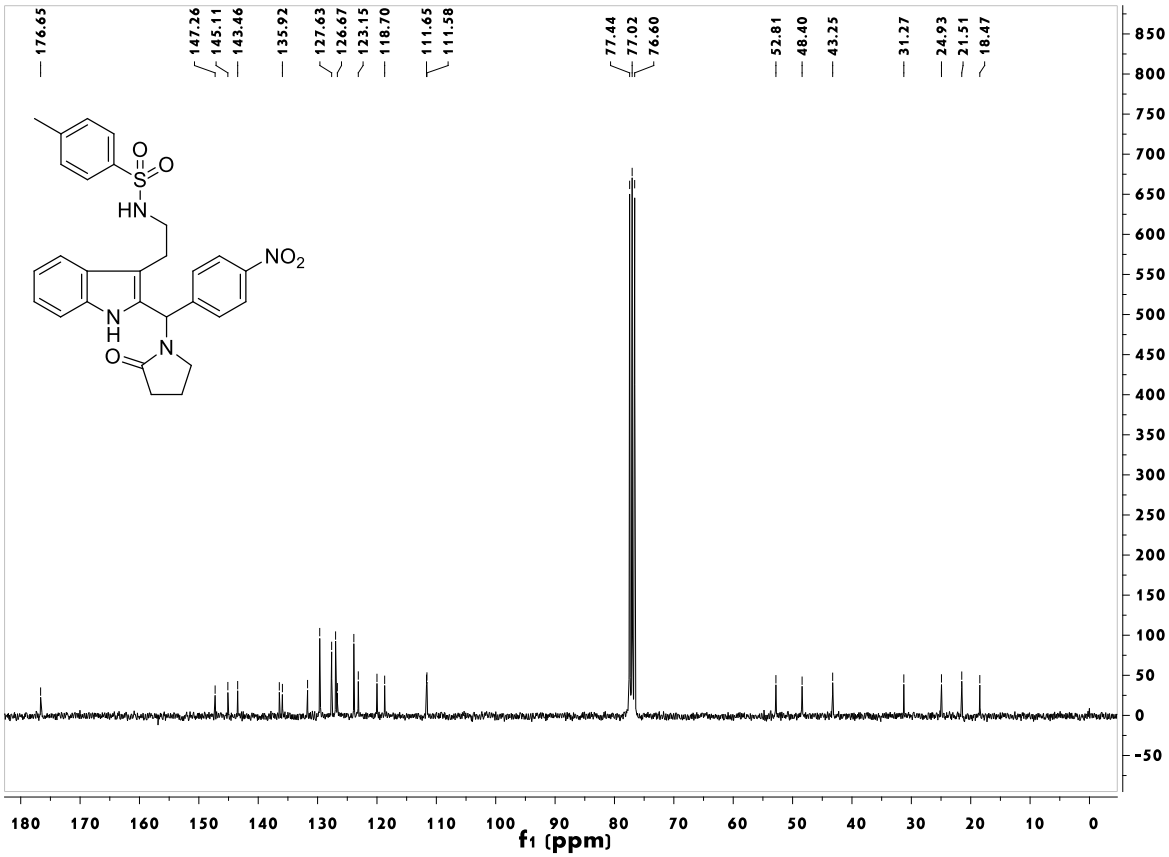
4-methyl-N-(2-(1-((4-nitrophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (5m)



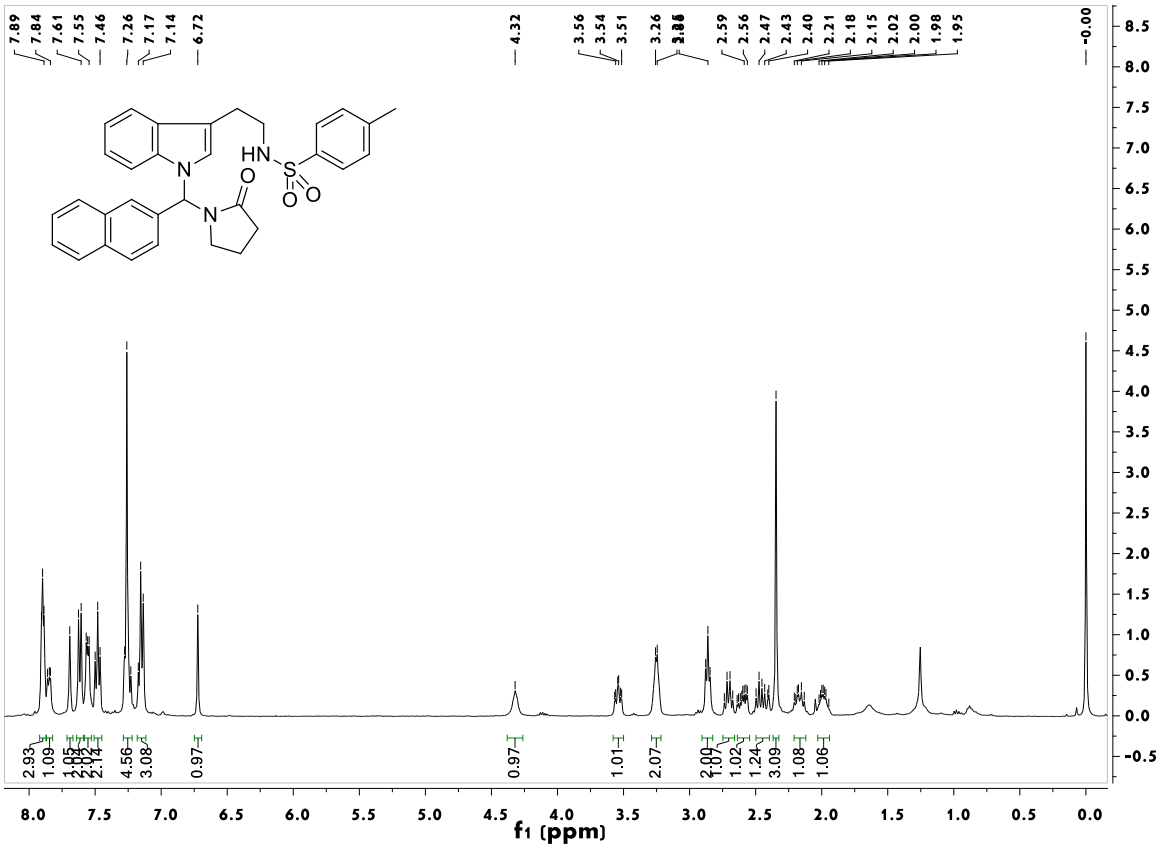


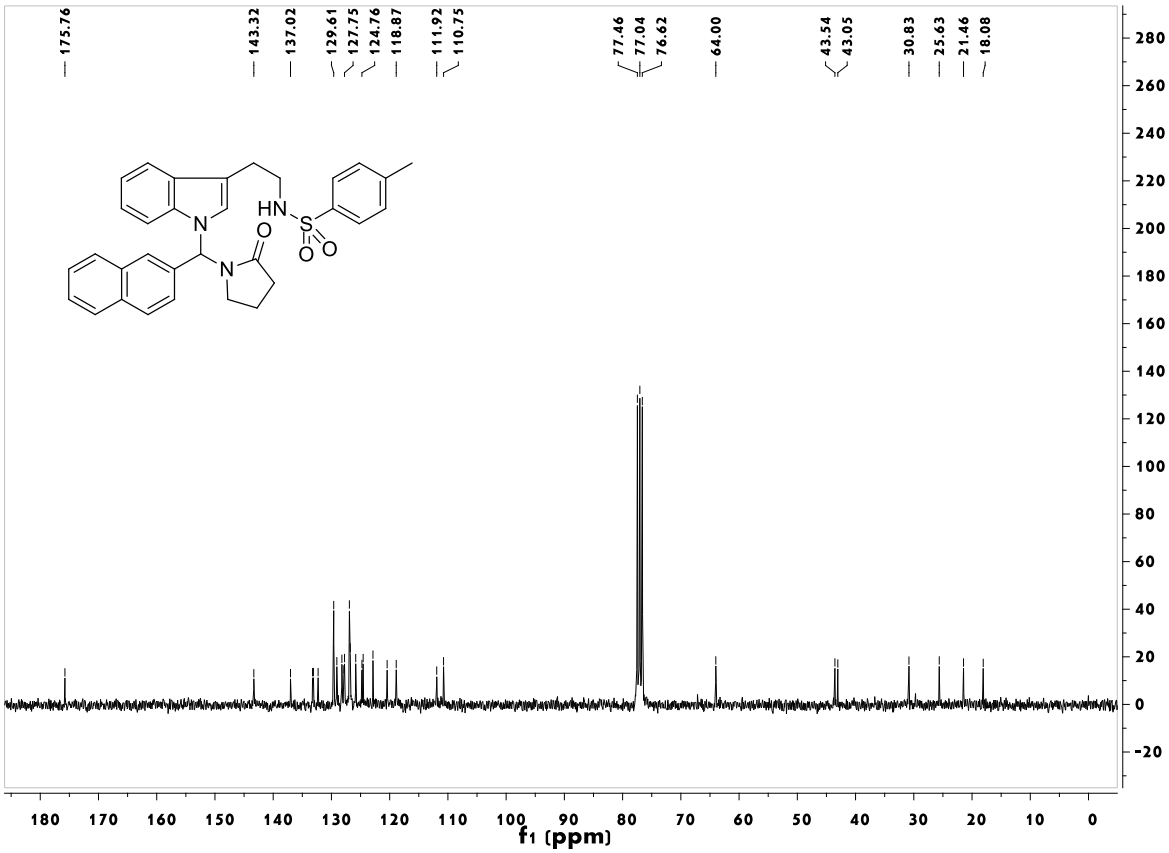
4-methyl-N-(2-(2-((4-nitrophenyl)(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4m)



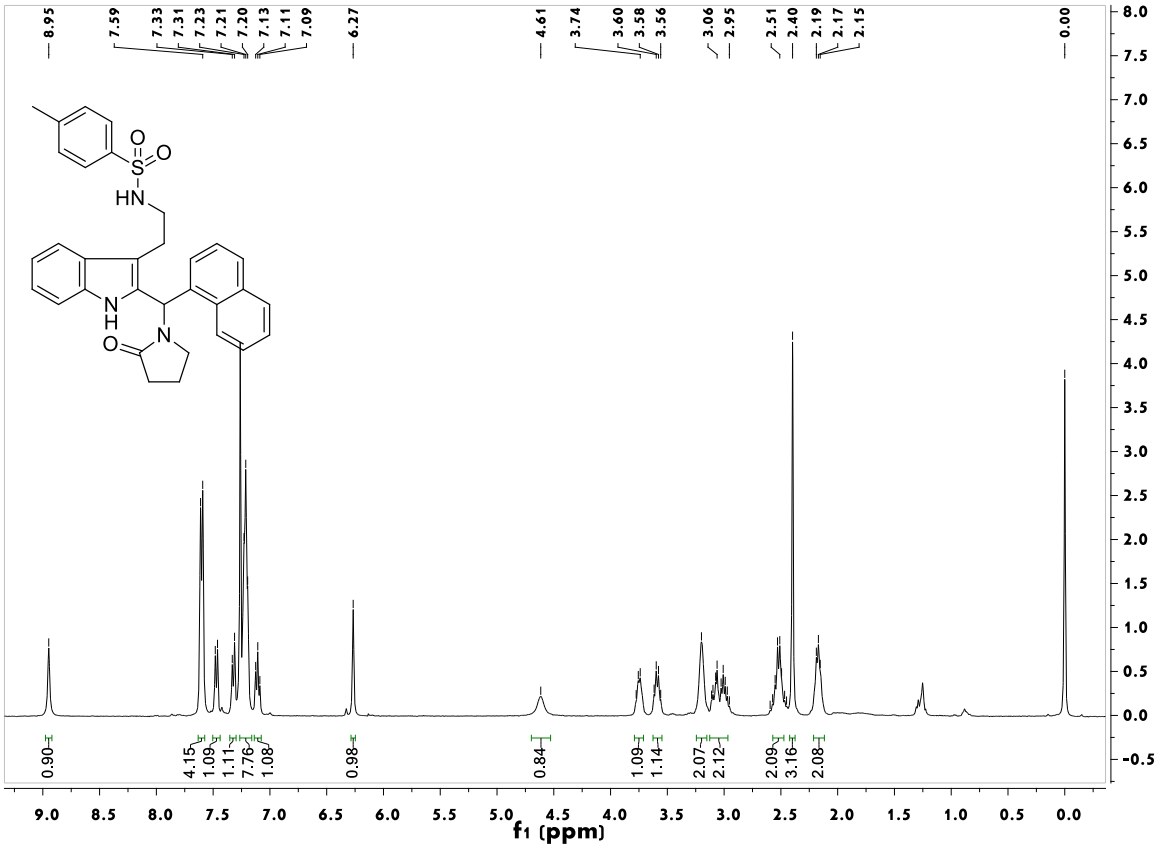


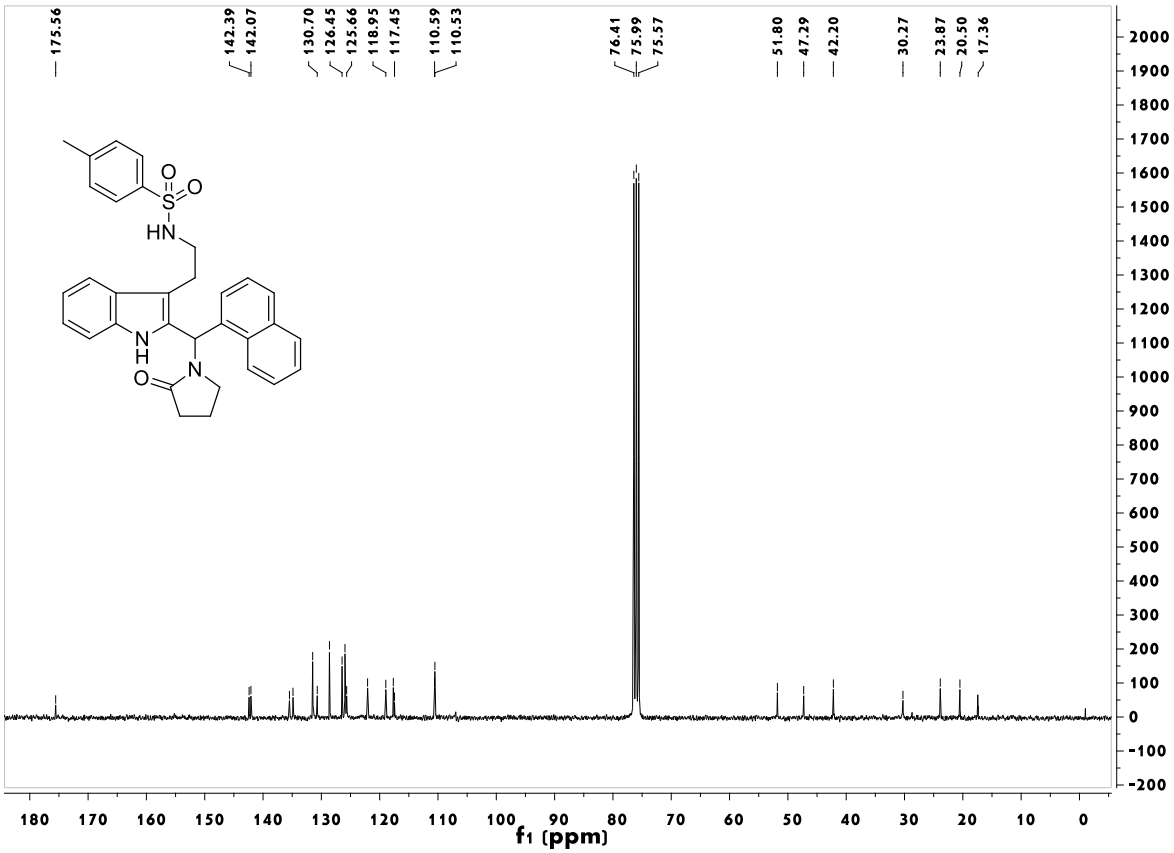
4-methyl-N-(2-(1-(naphthalen-2-yl(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (5n)



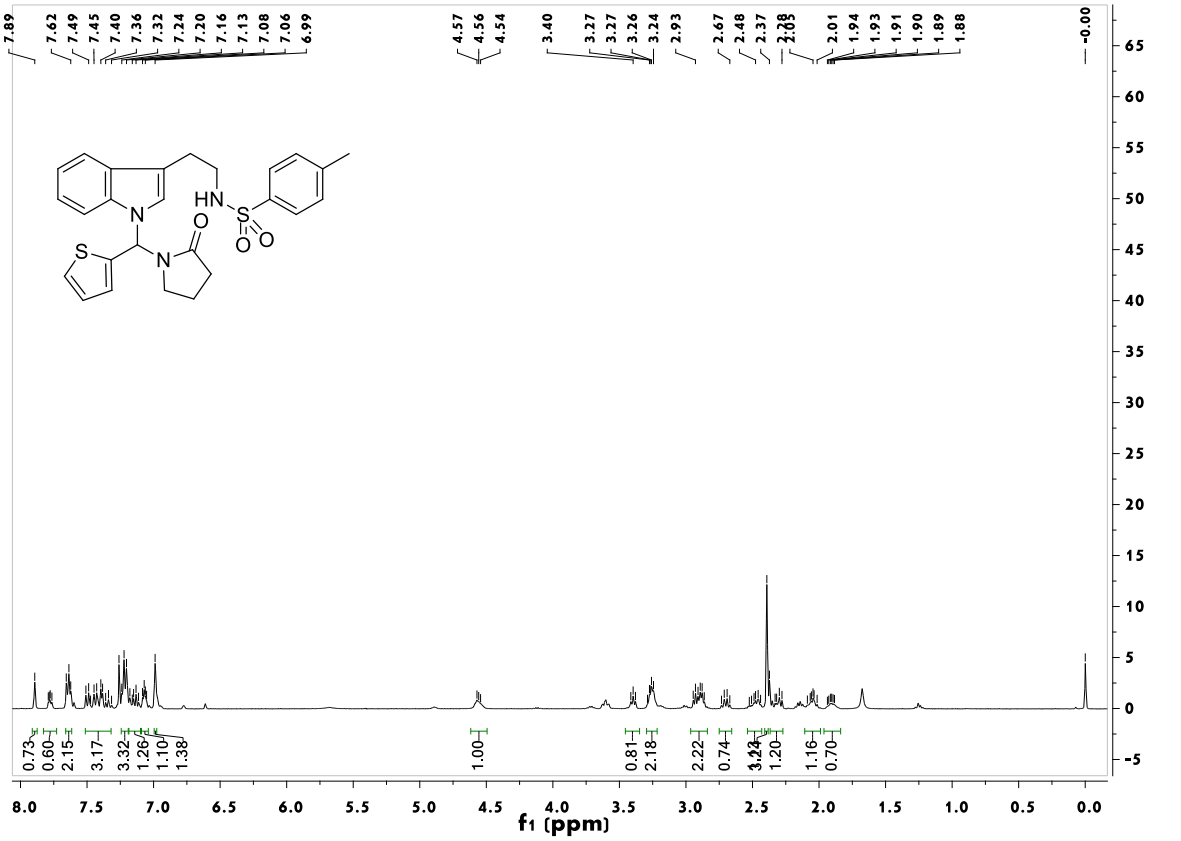


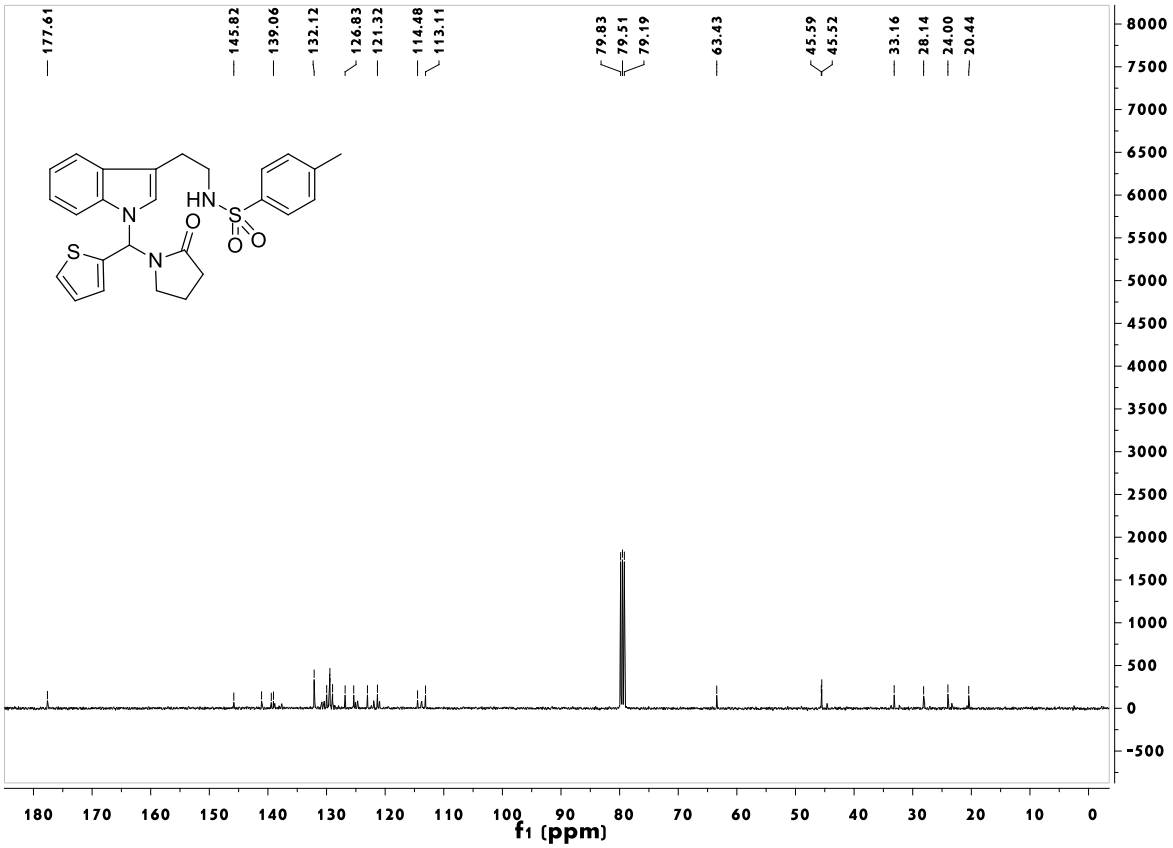
4-methyl-N-(2-(2-(naphthalen-1-yl(2-oxopyrrolidin-1-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4n)



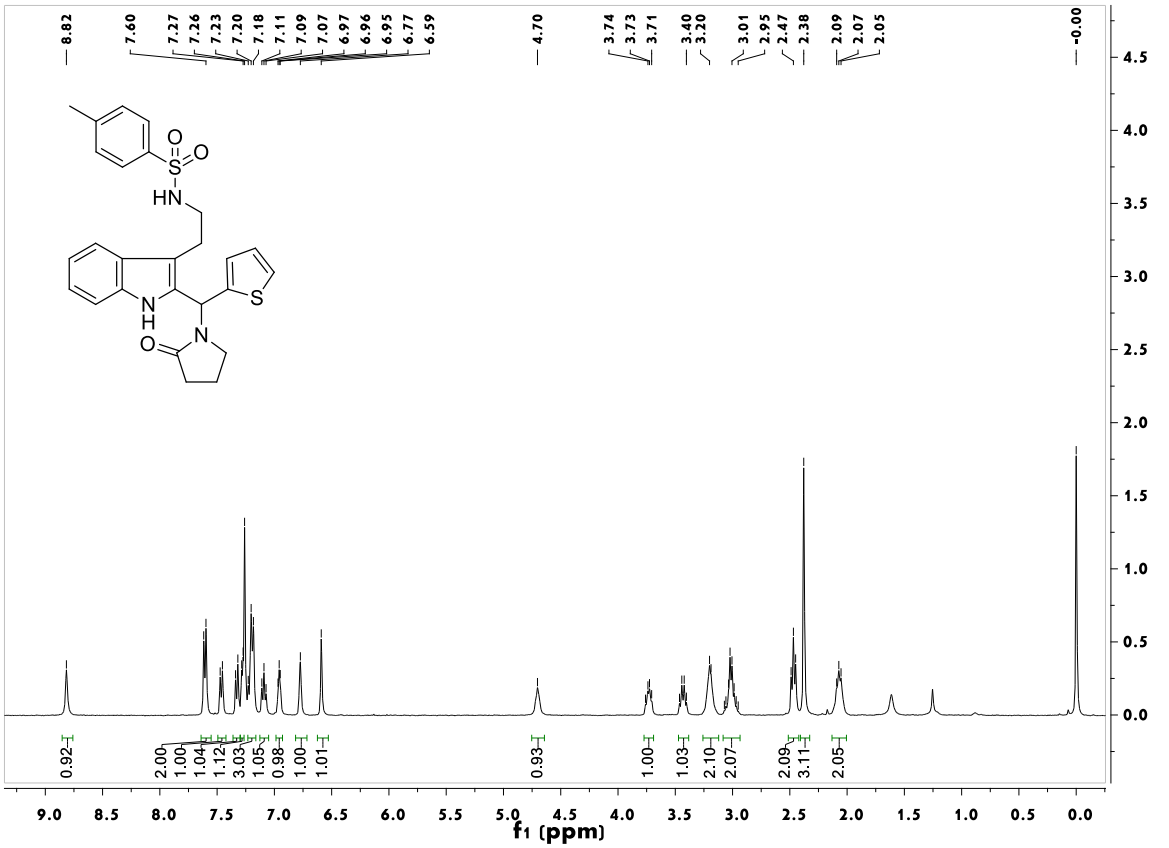


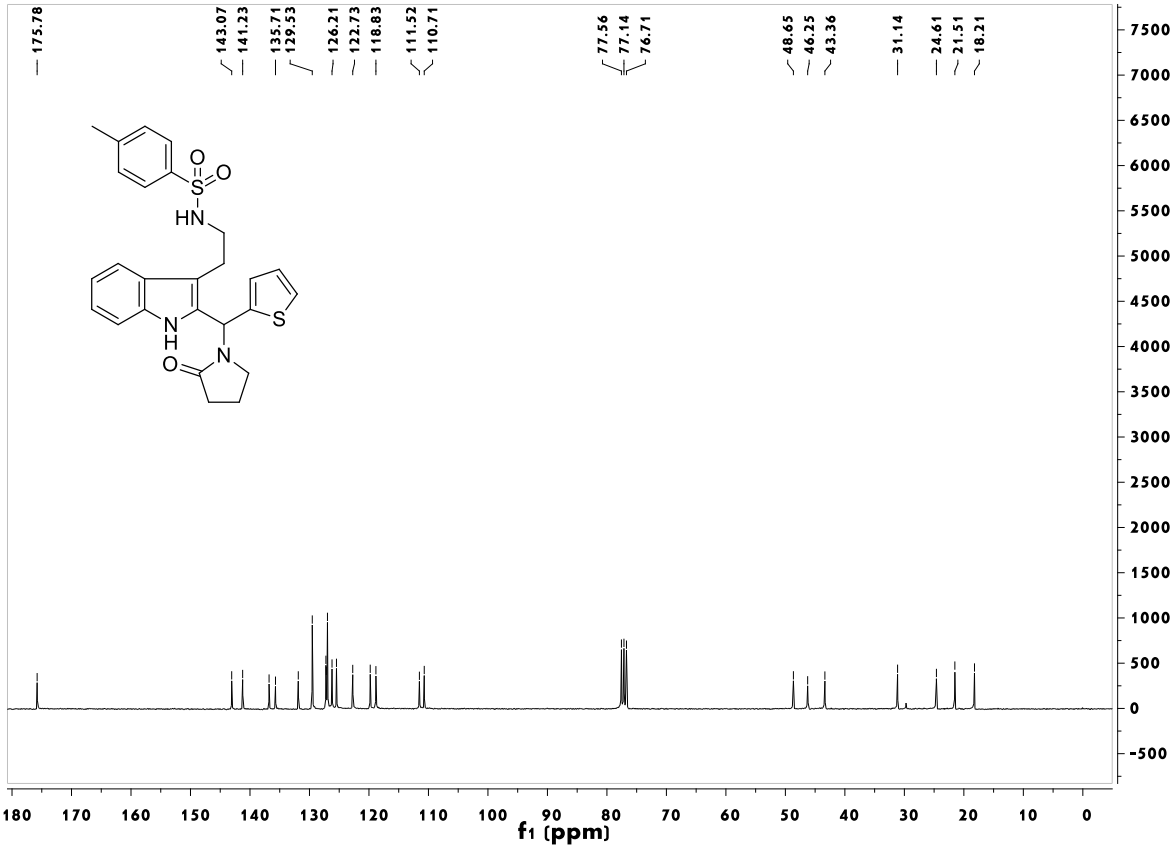
4-methyl-N-(2-(1-((2-oxopyrrolidin-1-yl)(thiophen-2-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (5o)



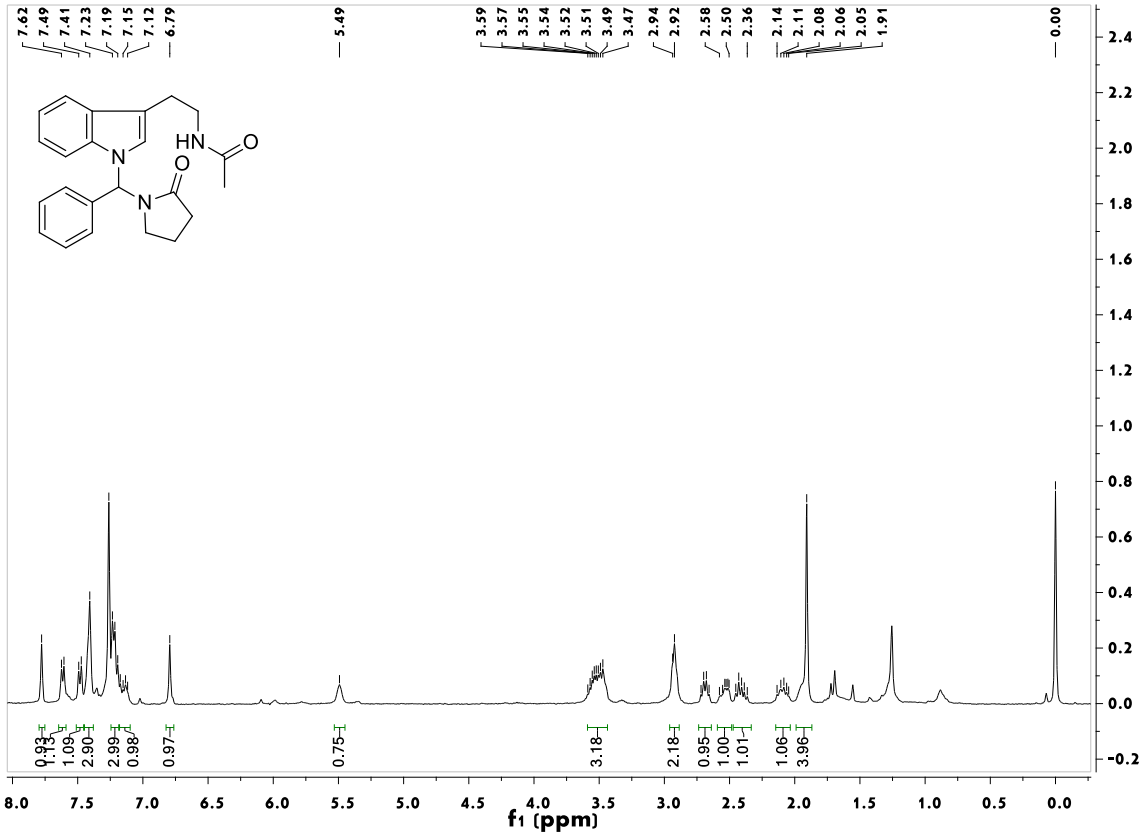


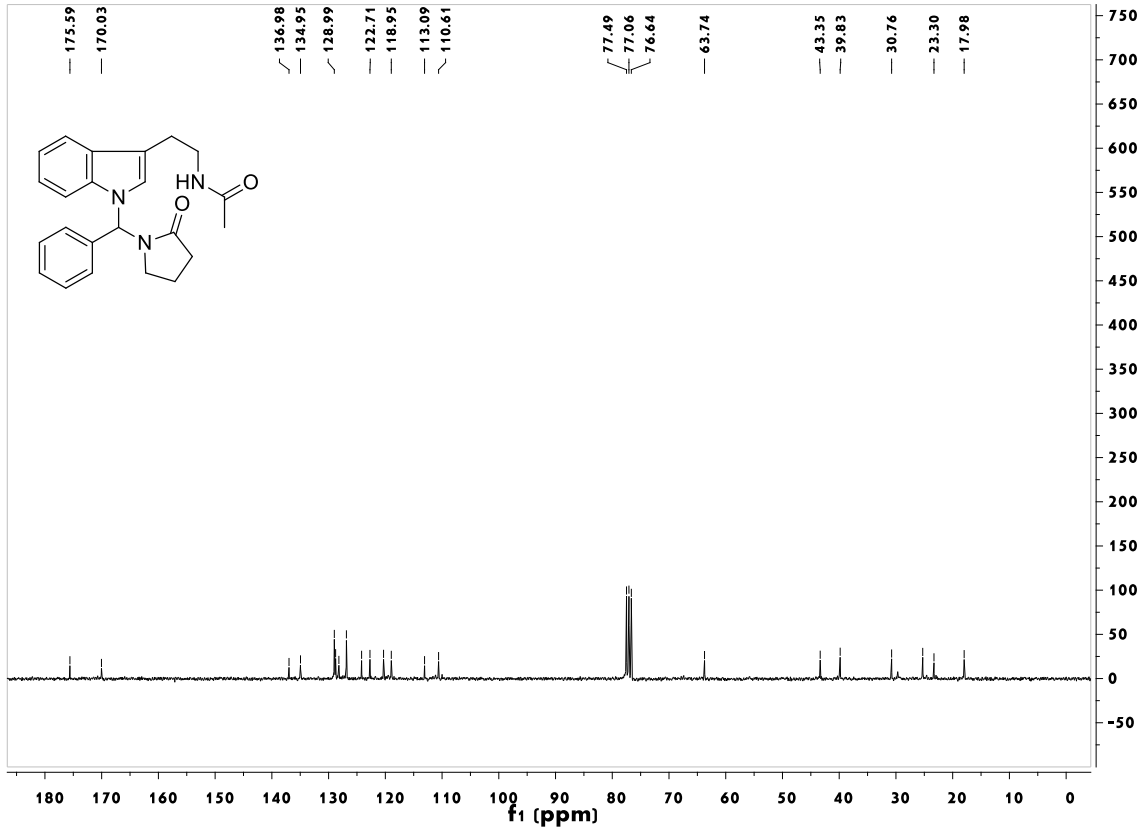
4-methyl-N-(2-(2-((2-oxopyrrolidin-1-yl)(thiophen-2-yl)methyl)-1H-indol-3-yl)ethyl)benzenesulfonamide (4o)



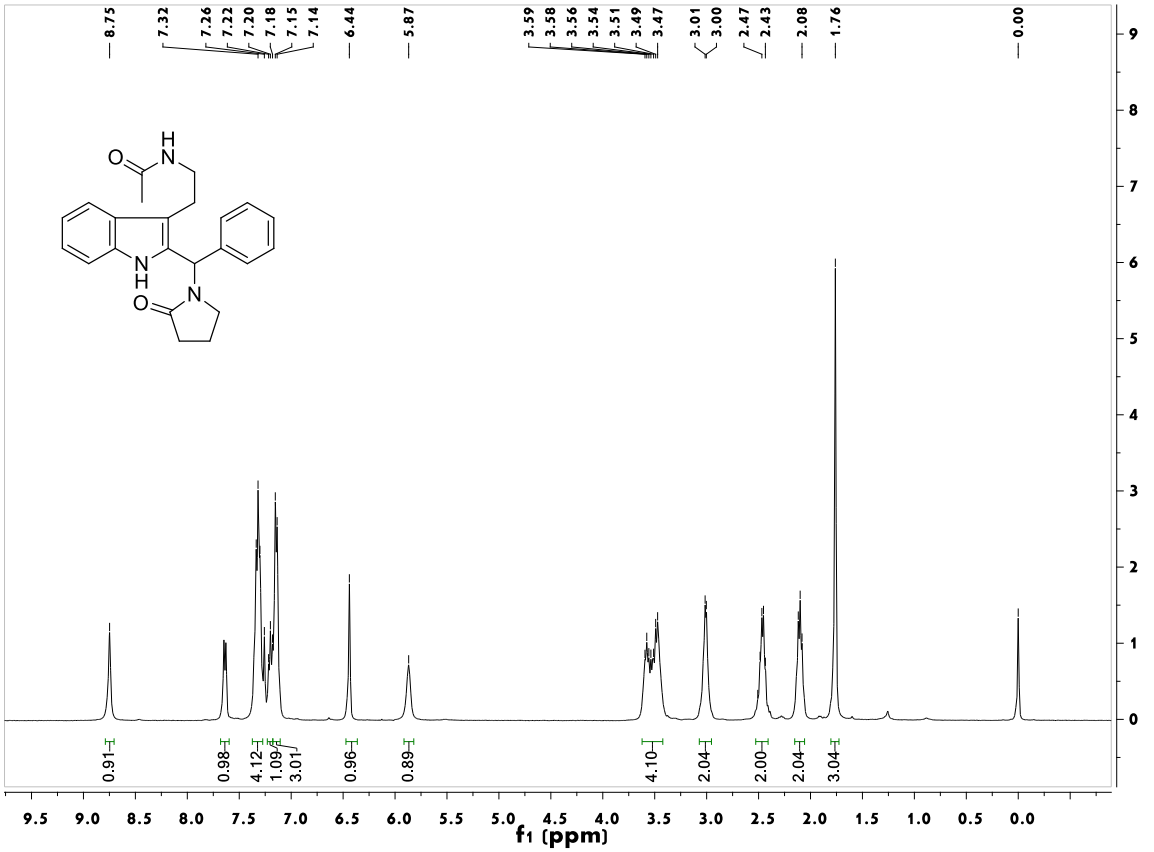


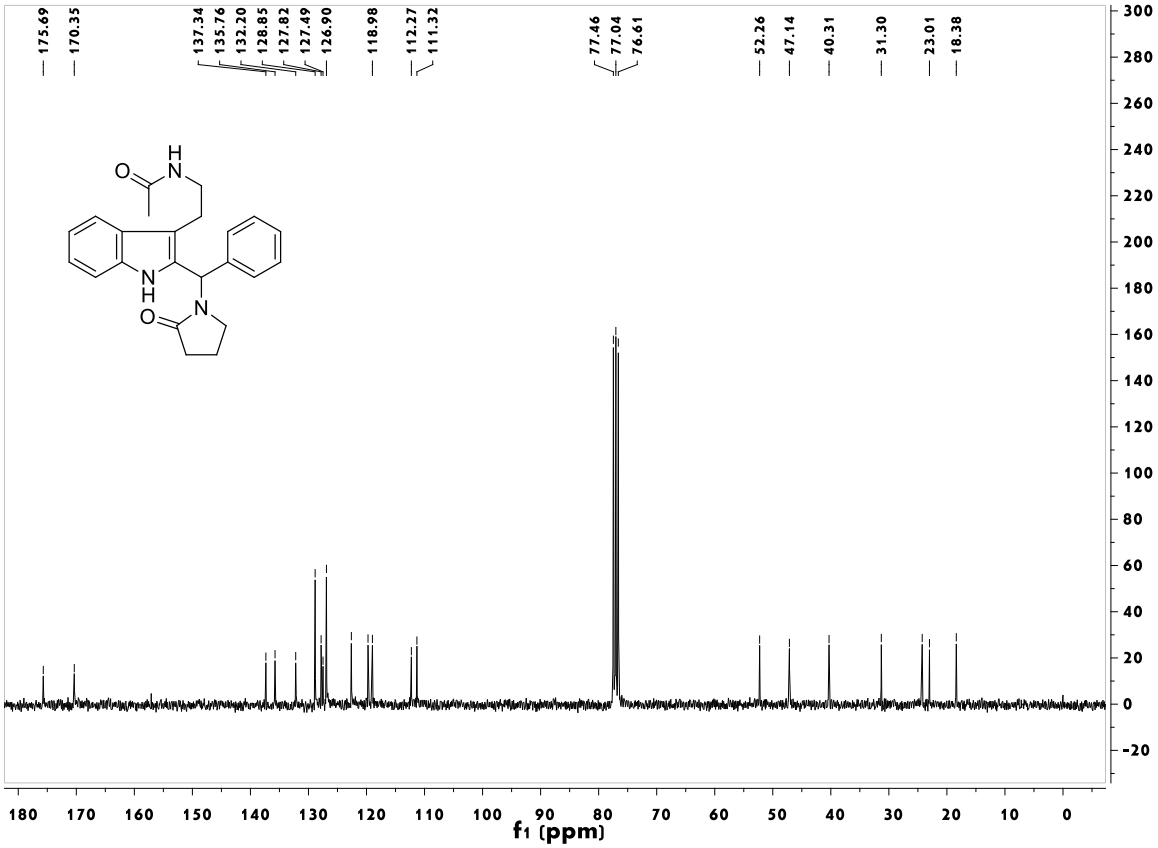
N-(2-(1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)acetamide (5p)



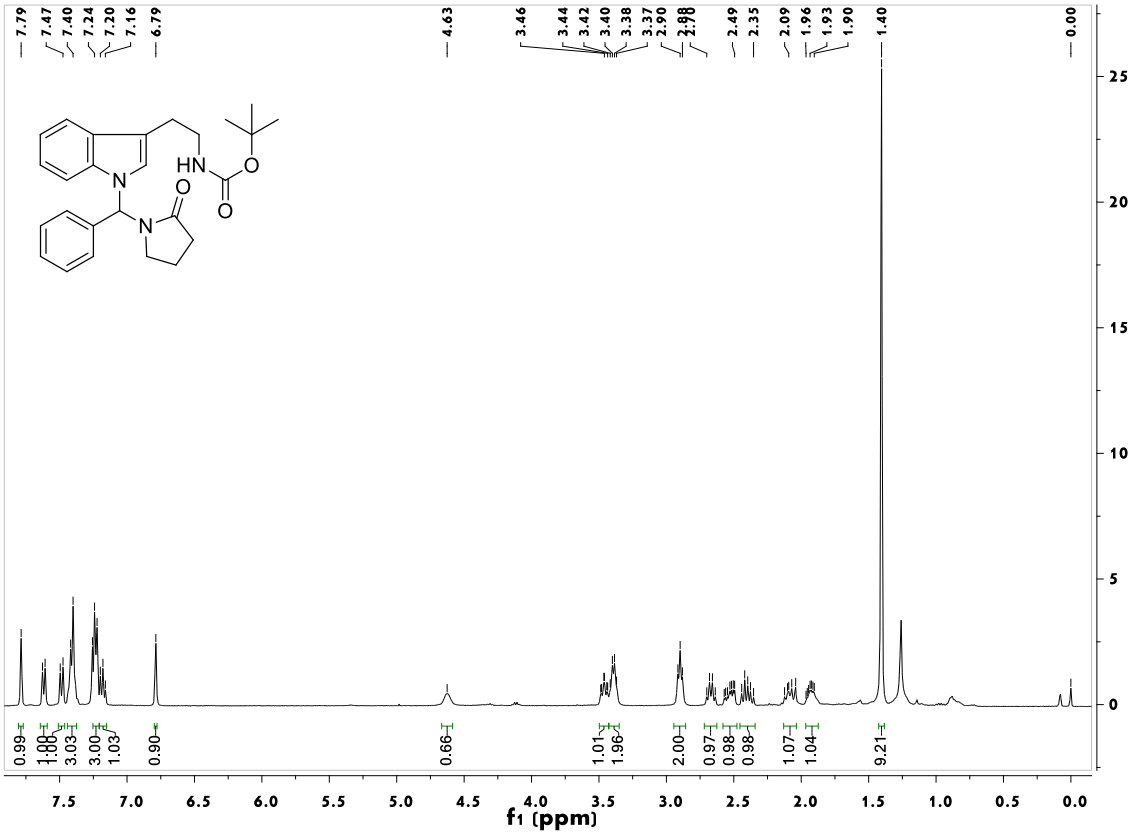


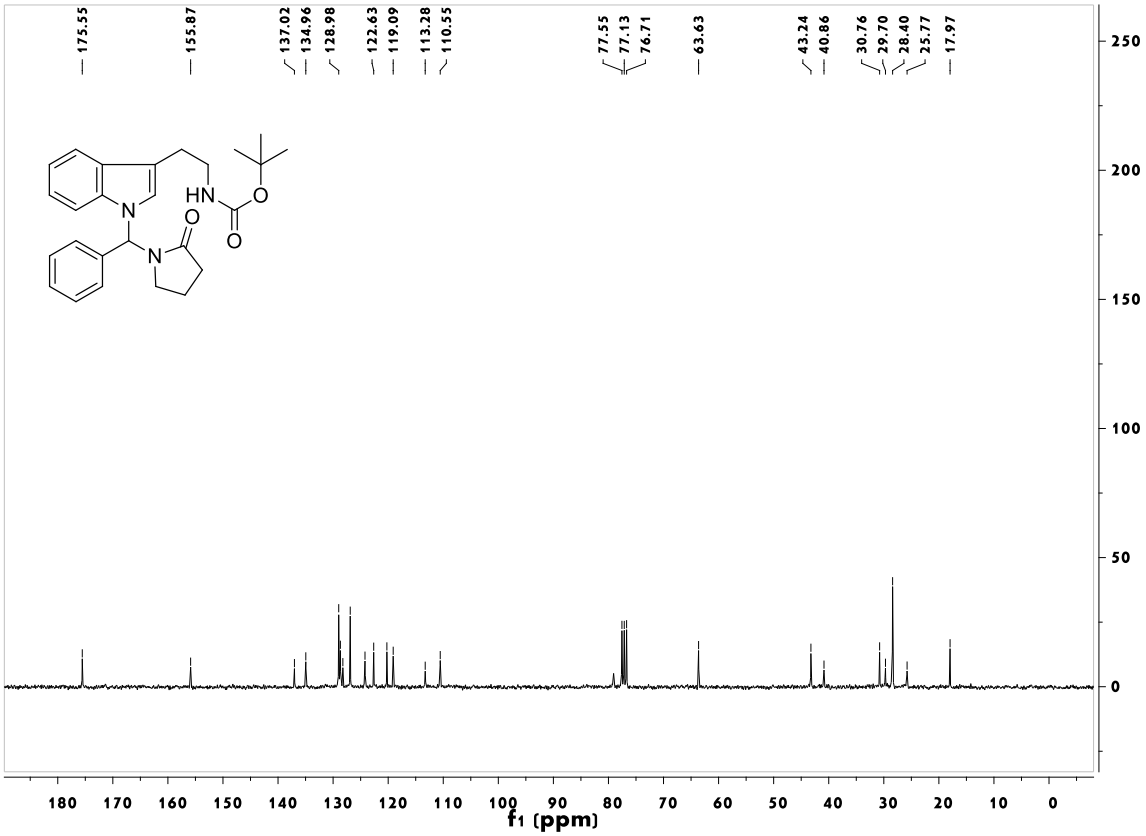
N-(2-(2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)acetamide (4p)



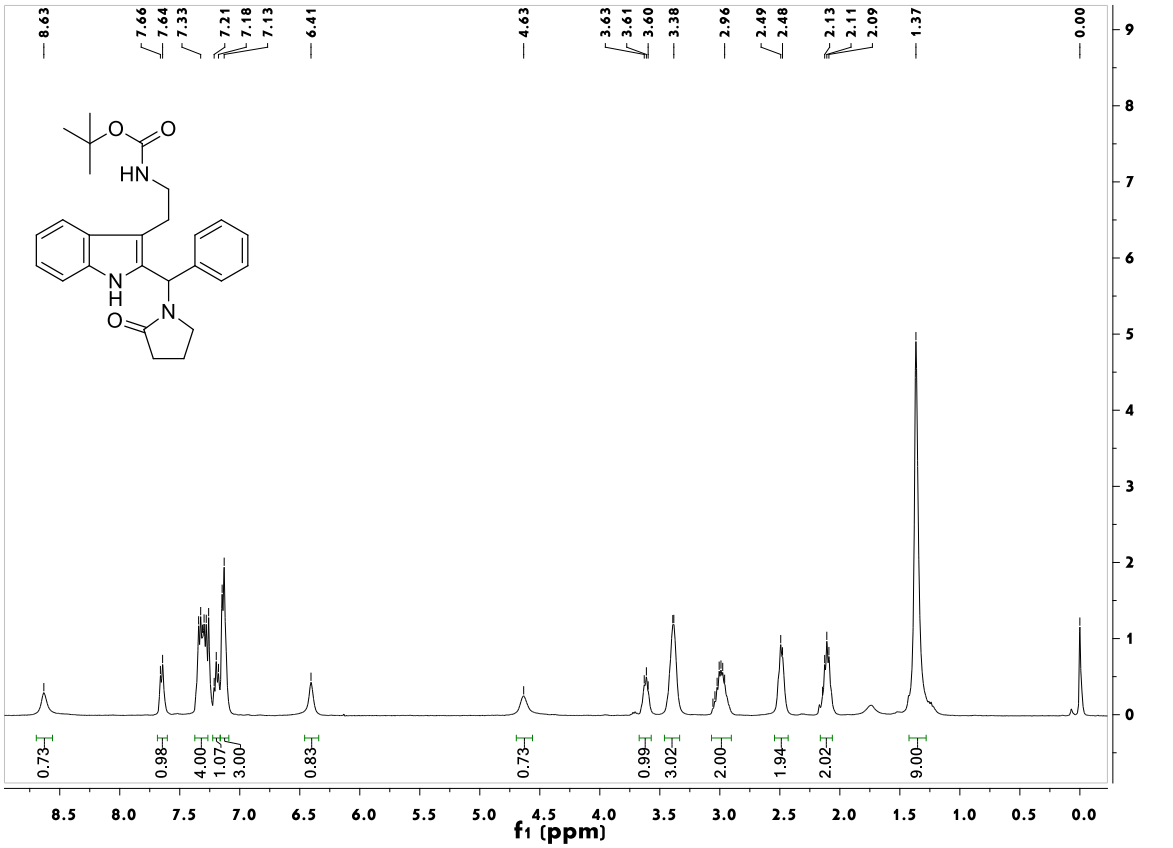


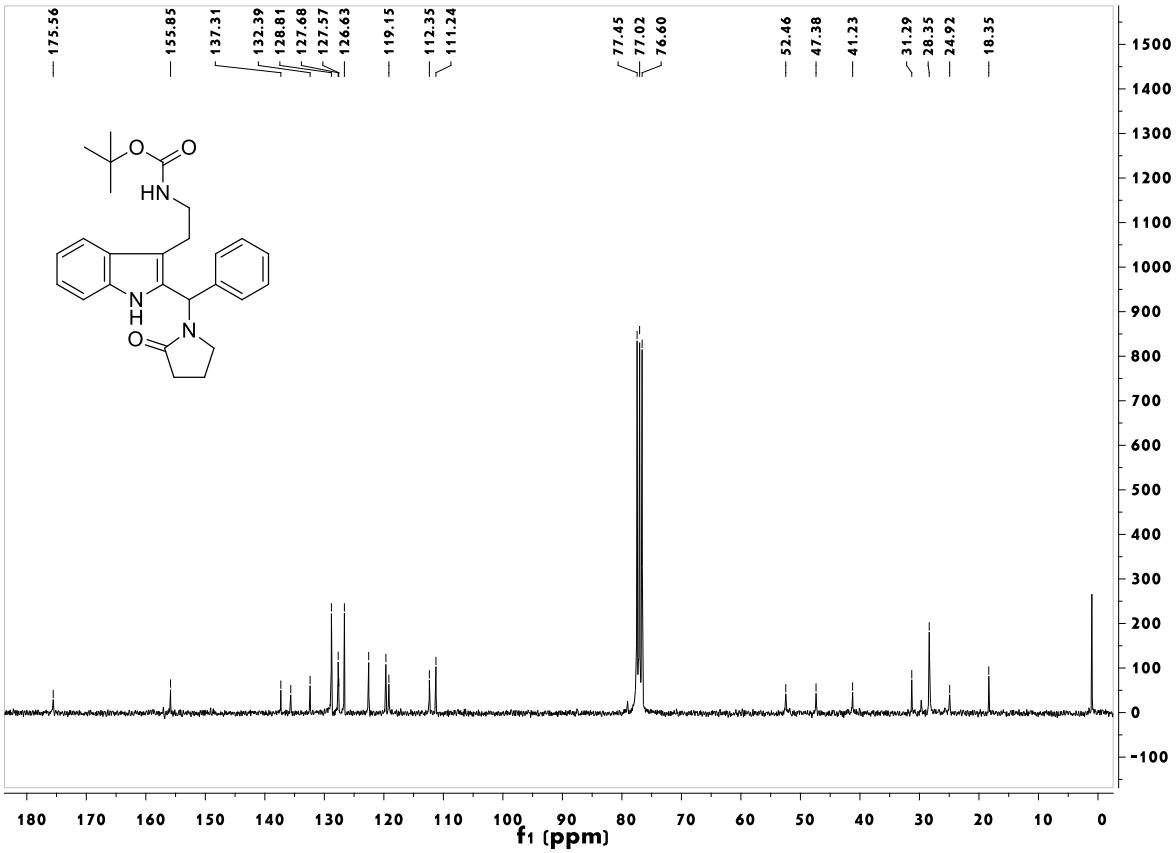
Tert-butyl (2-(1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)carbamate (5q)



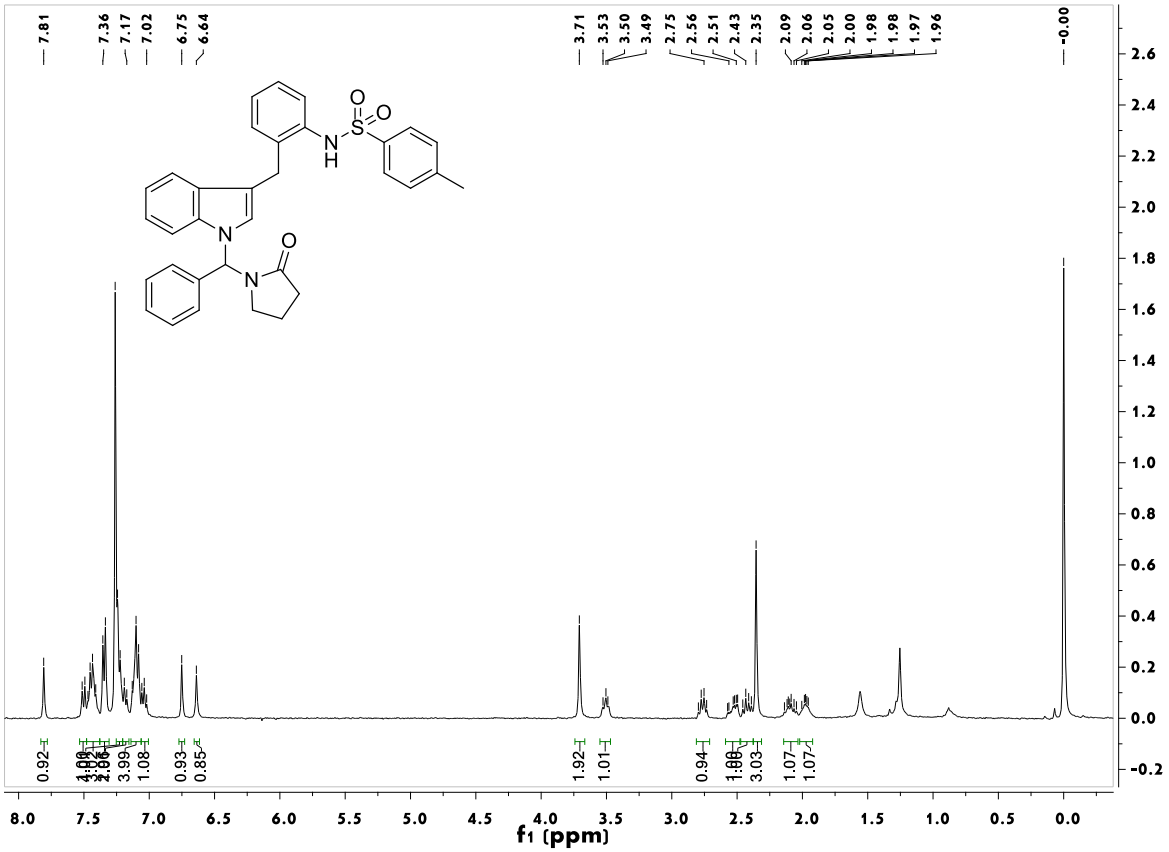


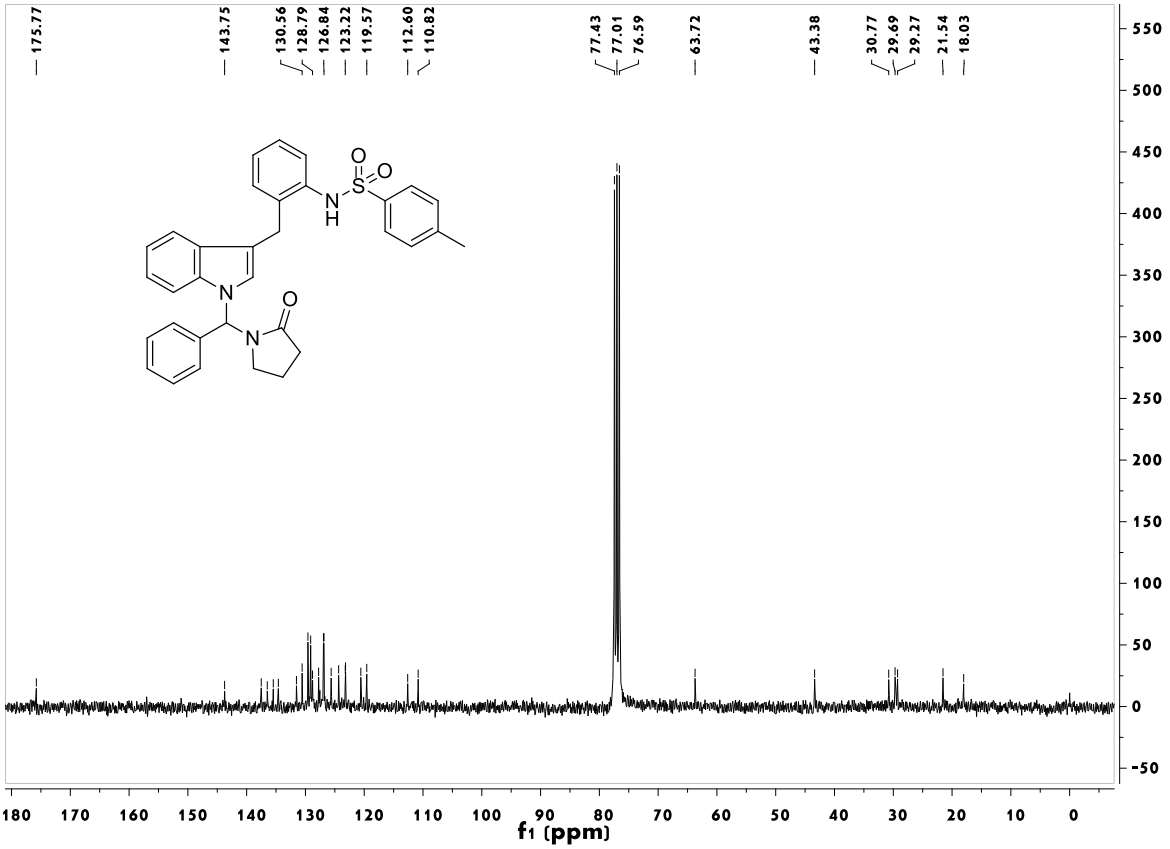
Tert-butyl (2-(2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)ethyl)carbamate (4q)





4-methyl-N-(2-((1-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)methyl)phenyl)benzenesulfonamide (5r)





4-methyl-N-(2-((2-((2-oxopyrrolidin-1-yl)(phenyl)methyl)-1H-indol-3-yl)methyl)phenyl)benzenesulfonamide (4r)