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SUPPLEMENTARY MATERIAL TO

Synthesis of novel pyrazoline-based bis(1,2,3-triazole) scaffolds *via* click chemistry

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ANALYTICAL AND SPECTRAL DATA FOR THE SYNTHESIZED COMPOUNDS

(E)-1,3-Bis(2-hydroxyphenyl)prop-2-en-1-one ***(3)***. Yellow solid; yield: 85 %; m.p. 158–161 °C; IR (KBr, cm^{-1}): 3277 (OH), 1629 (C=O), 1573 (C=C), 1263 (Ar-O); ^{1}H-NMR (400 MHz, $CDCl_3$, δ / ppm): 5.62 (1H, *s*, OH), 6.85 (1H, *d*, *J* = 8.0 Hz, Ar-H), 6.92–6.97 (1H, *m*, Ar-H), 6.99–7.04 (2H, *m*, Ar-H), 7.27––7.32 (1H, *m*, Ar-H), 7.47–7.52 (1H, *m*, Ar-H), 7.61 (1H, *d*, *J* = 7.6 Hz, Ar-H), 7.84 (1H, *d*, *J* = 15.6 Hz, H_α), 7.94 (1H, *d*, *J* = 8.0 Hz, Ar-H), 8.19 (1H, *d*, *J* = 15.6 Hz, H_β), 12.88 (1H, *s*, OH); MS: *m*/*z*, 241.0 $[M+H]^+$ (100 %).

2,2'-(1-Methyl-4,5-dihydro-1H-pyrazole-3,5-diyl)diphenol ***(4)***. Off white solid; yield: 82%; m.p. 120–124 °C; Anal. Calcd. for $C_{16}H_{16}N_2O_2$: C, 71.62; H, 6.01; N, 10.44 %. Found: C, 71.64; H, 6.04; N, 10.47 %. IR (KBr, cm^{-1}): 3054 (OH, H-bonded), 1590 (C=N), 1253 (Ar-O); ^{1}H-NMR (400 MHz, $CDCl_3$, δ / ppm): 2.91 (3H, *s*, NCH_3), 3.23 (1H, *dd*, *J* = 16.6, 14.9 Hz, H_A), 3.54 (1H, *dd*, *J* = 16.6, 9.6 Hz, H_B), 4.11 (1H, *dd*, *J* = 14.9, 9.6 Hz, H_X), 6.85–6.94 (3H, *m*, Ar-H), 7.02 (1H, *d*, *J* = 8.7 Hz, Ar-H), 7.08 (1H, *dd*, *J* = 7.8, 1.7 Hz, Ar-H), 7.15 (1H, *dd*, *J* = 7.8, 1.7 Hz, Ar-H), 7.22–7.25 (1H, *m*, Ar-H), 7.26–7.31 (1H, *m*, Ar-H), 9.17 (1H, *s*, OH), 10.73 (1H, *s*, OH); ^{13}C-NMR (100 MHz, $CDCl_3$, δ / ppm): 41.9, 42.4, 72.5, 115.6, 117, 117.7, 119.4, 119.9, 121.3, 128.2, 129.5, 129.7, 131.6, 156.1, 158, 159.8. MS: *m*/*z*, 269.0 $[M+H]^+$ (100 %).

1-Methyl-3,5-bis{2-[(prop-2-ynyl)oxy]phenyl}-4,5-dihydro-1H-pyrazole ***(5)***. Pale brown solid; yield: 62 %; m.p. 71–73 °C; Anal. Calcd. for $C_{22}H_{20}N_2O_2$: C, 76.72; H, 5.85; N, 8.13 %. Found: C, 76.74; H, 5.87; N, 8.14 %. IR (KBr, cm^{-1}): 3290 (C≡C–H), 1592 (C=N), 1225 (C–O–C); ^{1}H-NMR (400 MHz, $CDCl_3$,

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δ / ppm): 2.47 (1H, *t*, *J* = 2.6 Hz, C≡CH), 2.50 (1H, *t*, *J* = 2.6 Hz, C≡CH), 2.85 (3H, *s*, NCH_3), 2.92 (1H, *dd*, *J* = 16.6 Hz, *J* = 14.9, H_A), 3.79 (1H, *dd*, *J* = 16.6, 9.6 Hz, H_B), 4.51 (1H, *dd*, *J* = 14.9, 9.6 Hz, H_X), 4.70 (2H, *d*, *J* = 2.4 Hz, OCH_2), 4.73 (2H, *d*, *J* = 2.4 Hz, OCH_2), 6.98–7.07 (4H, *m*, Ar-H), 7.24–7.30 (2H, *m*, Ar-H), 7.67 (1H, *dd*, *J* = 7.8, 1.7 Hz, Ar-H), 7.81 (1H, *dd*, *J* = 7.8, 1.7 Hz, Ar-H); ^{13}C-NMR (100 MHz, $CDCl_3$, δ / ppm): 41.9, 44.7, 56.2, 56.3, 67.1, 75.4, 75.6, 78.5, 78.7, 112.1, 113.4, 121.8, 121.9, 123.5, 127.5, 127.9, 129.1, 129.5, 130.2, 149.5, 155.4, 155.6. MS: *m*/*z*, 345.2 $[M+H]^+$ (100 %).

(2E)-1,3-Bis{2-[(prop-2-yn-1-yl)oxy]phenyl}prop-2-en-1-one (***8***). Viscous liquid; yield: 82 %; ^{1}H-NMR (400 MHz, $CDCl_3$, δ / ppm): 2.51 (1H, *d*, *J* = 2.4 Hz, C≡CH), 2.52 (1H, *d*, *J* = 2.4 Hz, C≡CH), 4.77 (2H, *d*, *J* = 2.4 Hz, OCH_2), 4.79 (2H, *d*, *J* = 2.4 Hz, OCH_2), 7.01–7.13 (4H, *m*, Ar-H), 7.34–7.38 (1H, *m*, Ar-H), 7.43–7.49 (2H, *m*, Ar-H and H_α), 7.50–7.65 (2H, *m*, Ar-H), 7.96 (1H, *d*, *J* = 16.4 Hz, H_β); MS: *m*/*z*, 317.1 $[M+H]^+$ (100 %).

(2E)-1,3-Bis{2-[(1-benzyl-1H-1,2,3-triazol-4-yl)methoxy]phenyl}prop-2-en--1-one (***9***). Viscous liquid; yield: 85 %; Anal. Calcd. for $C_{35}H_{30}N_6O_3$: C, 72.15; H, 5.19; N, 14.42 %. Found: C, 72.17; H, 5.20; N, 14.45 %. ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 5.23 (2H, *s*, OCH_2), 5.25 (2H, *s*, OCH_2), 5.49 (2H, *s*, NCH_2), 5.61 (2H, *s*, NCH_2), 6.97 (1H, *t*, *J* = 7.6 Hz, Ar-H), 7.05 (1H, *t*, *J* = 7.2 Hz, Ar-H), 7.15-7.17 (2H, *m*, Ar-H), 7.27–7.30 (6H, *m*, Ar-H), 7.33–7.35 (3H, *m*, Ar-H), 7.37–7.44 (2H, *m*, Ar-H), 7.48–7.55 (3H, *m*, Ar-H and H_α), 7.60 (1H, *d*, *J* = 7.6 Hz, Ar-H), 7.75 (1H, *d*, *J* = 16 Hz, H_β), 8.15 (1H, *s*, triazole-H), 8.26 (1H, *s*, triazole-H); MS: *m*/*z*, 583.2 $[M+H]^+$ (100%).

1-Benzyl-4-{[2-(5-{2-[(1-benzyl-1H-1,2,3-triazol-4-yl)methoxy]phenyl}-1--methyl-4,5-dihydro-1H-pyrazol-3-yl)phenoxy]methyl}-1H-1,2,3-triazole (***7a***). Yellow solid; yield: 90 %; m.p. 104–108 °C; Anal. Calcd. for $C_{36}H_{34}N_8O_2$: C, 70.80; H, 5.61; N, 18.35 %. Found: C, 70.82; H, 5.62; N, 18.37 %. IR (KBr, cm^{-1}): 1598 (C=N), 1229 (C-O-C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.67 (1H, *dd*, *J* = 16.8, 14.8 Hz, H_A), 3.52 (1H, *dd*, *J* = 16.8, 9.6 Hz, H_B), 4.24 (1H, *dd*, *J* = 14.8, 9.6 Hz, H_X), 5.16 (2H, *s*, OCH_2), 5.17 (2H, *s*, OCH_2), 5.54 (2H, *s*, NCH_2), 5.57 (2H, *s*, NCH_2), 6.94–7.01 (2H, *m*, Ar-H), 7.16–7.33 (14H, *m*, Ar-H), 7.44 (1H, *d*, *J* = 7.2 Hz, Ar-H), 7.63 (1H, *dd*, *J* = 8.0, 1.2 Hz, Ar-H), 8.18 (1H, *s*, triazole-H), 8.25 (1H, *s*, triazole-H); ^{13}C-NMR (100 MHz, $CDCl_3$, δ / ppm): 41.5, 43.9, 52.7, 52.8, 61.6, 61.7, 66.6, 112.7, 113.7, 120.9, 121.2, 122.4, 124.4, 124.5, 126.7, 127.6, 127.8, 128, 128.2, 128.3, 128.6, 129.0, 129.8, 135.8, 135.9, 142.9, 143.2, 148.3, 155.6, 155.9. MS: *m*/*z*, 611.4 $[M+H]^+$ (100%).

*1-[(4-Bromophenyl)methyl]-4-[(2-{5-[2-({1-[(4-bromophenyl)methyl]-1*H*--1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}phen-oxy)methyl]-1*H*-1,2,3-triazole* (***7b***). Pale brown solid; yield: 90 %; m.p. 145––147 °C; Anal. Calcd. for $C_{36}H_{32}Br_2N_8O_2$: C, 56.26; H, 4.20; N, 14.58 %. Found:

C, 56.28; H, 4.19; N, 14.60 %. IR (KBr, cm^{-1}): 1588 (C=N), 1232 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.68 (1H, *dd*, J = 16.6, 14.9 Hz, H_A), 3.52 (1H, *dd*, J = 16.6, 9.6 Hz, H_B), 4.24 (1H, *dd*, J = 14.9, 9.6 Hz, H_X), 5.16 (2H, *s*, OCH_2), 5.17 (2H, *s*, OCH_2), 5.53 (2H, *s*, NCH_2), 5.56 (2H, *s*, NCH_2), 6.94–7.01 (2H, *m*, Ar-H), 7.12 (2H, *d*, J = 8.8 Hz, Ar-H), 7.18–7.22 (4H, *m*, Ar-H), 7.23–7.34 (3H, *m*, Ar-H), 7.44–7.48 (4H, *m*, Ar-H), 7.63 (1H, *dd*, J = 7.8 and 1.6 Hz, Ar-H), 8.18 (1H, *s*, triazole-H), 8.25 (1H, *s*, triazole-H); ^{13}C-NMR (100 MHz, $CDCl_3$, δ / ppm): 41.9, 44.3, 53.3, 53.4, 62.4, 62.5, 67.9, 112, 113.3, 121.5, 121.6, 122.8, 122.9, 123, 123.1, 127.7, 128.3, 128.9, 129.4, 129.6, 129.8, 132.1, 132.2, 133.6, 133.7, 144.4, 144.6, 149.3, 155.8, 156.2. MS: *m*/*z*, 767.2 $[M+1]^+$ (40 %), 768.1 $[M+2]^+$ (15 %), 769.2 $[M+3]^+$ (100 %), 771.2 $[M+4]^+$ (50 %).

*1-[(4-*tert*-Butylphenyl)methyl]-4-[(2-{5-[2-({1-[(4-*tert*-butylphenyl)methyl]--1*H*-1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}-phenoxy)methyl]-1H-1,2,3-triazole (7**c**).* Off white solid; yield: 89 %; m.p. 73–76 °C; Anal. Calcd. for $C_{44}H_{50}N_8O_2$: C, 73.10; H, 6.97; N, 15.50 %. Found: C, 73.14; H, 6.99; N, 15.52 %. IR (KBr, cm^{-1}): 1592 (C=N), 1234 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 1.20 (9H, *s*, $(CH_3)_3$), 1.22 (9H, *s*, $(CH_3)_3$), 2.61 (3H, *s*, NCH_3), 2.67 (1H, *dd*, J = 16.6, 14.9 Hz, H_A), 3.57 (1H, *dd*, J = 16.6, 9.6 Hz, H_B), 4.24 (1H, *dd*, J = 14.9, 9.6 Hz, H_X), 5.16 (2H, *s*, OCH_2), 5.17 (2H, *s*, OCH_2), 5.48 (2H, *s*, NCH_2), 5.51 (2H, *s*, NCH_2), 6.93–7.01 (2H, *m*, Ar-H), 7.11 (2H, *d*, J = 7.9 Hz, Ar-H), 7.16–7.31 (10H, *m*, Ar-H), 7.44 (1H, *d*, J = 7.9 Hz, Ar-H), 7.64 (1H, *d*, J = 7.9 Hz, Ar-H), 8.14 (1H, *s*, triazole-H), 8.22 (1H, *s*, triazole-H); ^{13}C-NMR (100 MHz, DMSO-d_6, δ / ppm): 30.9, 34.2, 41.5, 43.9, 52.5, 61.6, 61.8, 66.7, 112.7, 113.7, 120.9, 121.1, 122.3, 124.3, 124.4, 125.4, 126.6, 127.5, 127.6, 128.2, 129.0, 129.8, 132.9, 133.0, 142.9, 143.2, 148.2, 150.5, 155.6, 155.9. MS: *m*/*z*, 723.5 $[M+H]^+$ (100 %).

*1-[(3-Fluorophenyl)methyl]-4-[(2-{5-[2-({1-[(3-fluorophenyl)methyl]-1*H-*-1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}phen-oxy)methyl]-1*H*-1,2,3-triazole (7**d**).* Pale yellow solid; yield: 75 %; m.p. 56–59 °C; Anal. Calcd. for $C_{36}H_{32}F_2N_8O_2$: C, 66.86; H, 4.99; N, 17.33 %. Found: C, 66.89; H, 5.02; N, 17.36 %. IR (KBr, cm^{-1}): 1592 (C=N), 1252 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.68 (1H, *dd*, J = 16.6, 14.03 Hz, H_A), 3.55 (1H, *dd*, J = 16.6, 9.6 Hz, H_B), 4.26 (1H, *dd*, J = 14.03, 9.6 Hz, H_X), 5.17 (2H, *s*, OCH_2), 5.18 (2H, *s*, OCH_2), 5.58 (2H, *s*, NCH_2), 5.60 (2H, *s*, NCH_2), 6.95–7.13 (8H, *m*, Ar-H), 7.18–7.33 (6H, *m*, Ar-H), 7.44 (1H, *d*, J = 7.9 Hz, Ar-H), 7.63 (1H, *dd*, J = 7.9 and 1.7 Hz, Ar-H), 8.21 (1H, *s*, triazole-H), 8.27 (1H, *s*, triazole-H); ^{13}C-NMR (100 MHz, $CDCl_3$, δ / ppm): 41.8, 44.2, 53.3, 62.2, 62.4, 67.6, 111.9, 113.2, 114.7, 114.8, 114.9, 115.0, 115.5, 115.6, 121.4, 121.5, 123.0, 123.1, 123.2, 123.3, 123.33, 123.37, 123.4, 127.5, 128.2,

128.9, 129.5, 129.7, 130.5, 130.6, 130.63, 130.7, 136.8, 136.9, 137.0, 144.3, 144.5, 149.2, 155.7, 156.0, 161.5, 164.0; MS: *m*/*z*, 647.3 $[M+H]^+$ (100 %).

*2-({4-[(2-{5-[2-({1-[(2-Hydroxy-5-nitrophenyl)methyl]-1*H*-1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}phenoxy)methyl]-1*H*-1,2,3-triazol-1-yl}methyl)-4-nitrophenol (**7e**).* A yellow solid; yield: 80 %; m.p. 105–110 °C; Anal. Calcd. for $C_{36}H_{32}N_{10}O_8$: C, 59.01; H, 4.40; N, 19.12 %. Found: C, 59.04; H, 4.42; N, 19.16 %. IR (KBr, cm^{-1}): 3435 (OH), 1594 (C=N), 1340 (N=O), 1289 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.69 (1H, *dd*, *J* = 16.6, 14.03 Hz, H_A), 3.56 (1H, *dd*, *J* = 16.6, 9.6 Hz, H_B), 4.26 (1H, *dd*, *J* = 14.03, 9.6 Hz, H_X), 5.16 (2H, *s*, OCH_2), 5.17 (2H, *s*, OCH_2), 5.54 (2H, *s*, NCH_2), 5.57 (2H, *s*, NCH_2), 6.92–7.00 (4H, *m*, Ar-H), 7.16–7.29 (4H, *m*, Ar-H), 7.42 (1H, *d*, *J* = 7.9 Hz, Ar-H), 7.61 (1H, *dd*, *J* = 7.9, 1.7 Hz, Ar-H), 7.97 (2H, *dd*, *J* = 8.7, 2.6 Hz, Ar-H), 8.05–8.09 (2H, *m*, Ar-H), 8.17 (1H, *s*, triazole-H), 8.21 (1H, *s*, triazole-H), 11.53 (2H, *bs*, OH); ^{13}C-NMR (100 MHz, DMSO-d_6, δ / ppm): 41.4, 43.9, 47.8, 48.5, 61.5, 61.6, 66.4, 112.6, 113.7, 115.7, 120.9, 121, 122.4, 122.9, 123, 124.7, 124.8, 125.9, 126.2, 126, 126.7, 128.2, 128.3, 128.9, 129.7, 139, 142.7, 142.9, 148.2, 155.6, 155.9, 162.1. MS: *m*/*z*, 733.3, $[M+H]^+$ (100 %).

*1-[(3-Chlorophenyl)methyl]-4-[(2-{5-[2-({1-[(3-chlorophenyl)methyl]-1*H*-1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}phenoxy)methyl]-1*H*-1,2,3-triazole (**7f**).* Pale yellow solid; yield: 86 %; m.p. 85–89 °C; Anal. Calcd. for $C_{36}H_{32}Cl_2N_8O_2$: C, 63.62; H, 4.75; N, 16.49 %. Found: C, 63.64; H, 4.76; N, 16.51 %. IR (KBr, cm^{-1}): 1598 (C=N), 1228 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.69 (1H, *dd*, *J* = 16.6, 14.9 Hz, H_A), 3.53 (1H, *dd*, *J* = 16.6, 9.6 Hz, H_B), 4.26 (1H, *dd*, *J* = 14.9, 9.6 Hz, H_X), 5.17 (2H, *s*, OCH_2), 5.18 (2H, *s*, OCH_2), 5.57 (2H, *s*, NCH_2), 5.60 (2H, *s*, NCH_2), 6.93–7.00 (2H, *m*, Ar-H), 7.10 (1H, *d*, *J* = 7.01 Hz, Ar-H), 7.18–7.36 (11H, *m*, Ar-H), 7.45 (1H, *dd*, *J* = 7.01, 1.7 Hz, Ar-H), 7.63 (1H, *dd*, *J* = 7.01, 1.7 Hz, Ar-H), 8.22 (1H, *s*, triazole-H), 8.28 (1H, *s*, triazole-H); ^{13}C-NMR (100 MHz, DMSO-d_6, δ / ppm): 41.5, 43.9, 51.9, 52, 61.5, 61.7, 66.5, 112.7, 113.7, 120.9, 121.2, 122.4, 124.6, 124.7, 126.3, 126.4, 126.5, 126.6, 127.7, 128.0, 128.2, 128.3, 129, 129.7, 130.5, 130.6, 133.2, 138.2, 138.3, 143, 143.3, 148.2, 155.6,155.9. MS: *m*/*z*, 679.3 $[M+1]^+$ (100 %), 680.3 $[M+2]^+$ (45 %), 681.3 $[M+3]^+$ (75 %), 682.2 $[M+4]^+$ (30 %).

*4-[(2-{1-Methyl-5-[2-({1-[(3-methylphenyl)methyl]-1H-1,2,3-triazol-4-yl}-methoxy)phenyl]-4,5-dihydro-1*H*-pyrazol-3-yl}phenoxy)methyl]-1-[(3-methylphenyl)methyl]-1*H*-1,2,3-triazole (**7g**).* Pale yellow solid; yield: 72 %; m.p. 79–82 °C; Anal. Calcd. for $C_{38}H_{38}N_8O_2$: C, 71.45; H, 6.00; N, 17.54 %. Found: C, 71.46; H, 6.02; N, 17.56 %. IR (KBr, cm^{-1}): 2930 (C–C), 1591 (C=N), 1237 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.20 (6H, *s*, Ar CH_3), 2.61 (3H, *s*, NCH_3), 2.68 (1H, *dd*, *J* = 16.6, 14.9 Hz, H_A), 3.53 (1H, *dd*, *J* = 16.6, 9.6

Hz, H_B), 4.25 (1H, *dd*, *J* = 14.9, 9.6 Hz, H_X), 5.15 (2H, *s*, OCH_2), 5.16 (2H, *s*, OCH_2), 5.48 (2H, *s*, NCH_2), 5.52 (2H, *s*, NCH_2), 6.93–7.10 (8H, *m*, Ar-H), 7.12––7.30 (6H, *m*, Ar-H), 7.44 (1H, *d*, *J* = 7.9 Hz, Ar-H), 7.63 (1H, *d*, *J* = 7.9 Hz, Ar-H), 8.15 (1H, *s*, triazole-H), 8.22 (1H, *s*, triazole-H); ^{13}C-NMR (125 MHz, $CDCl_3$, *δ* / ppm): 21.2, 21.3, 41.9, 44.3, 54.0, 62.4, 62.6, 67.5, 112, 113.2, 121.4, 121.5, 122.8, 122.9, 123.1, 124.9, 125.0, 127.5, 128.2, 128.6, 128.7, 128.9, 128.9, 129.0, 129.4, 129.6, 129.7, 134.4, 134.5, 138.8, 144.3, 144.4, 149.4, 155.9, 156.2; MS: *m*/*z*, 639.4 $[M+H]^+$ (100 %).

*1-{[2-Fluoro-5-(trifluoromethyl)phenyl]methyl}-4-{[2-(5-{2-[(1-{[2-fluoro--5-(trifluoromethyl)phenyl]methyl}-1*H*-1,2,3-triazol-4-yl)methoxy]phenyl}-1--methyl-4,5-dihydro-1*H*-pyrazol-3-yl)phenoxy]methyl}-1*H*-1,2,3-triazole (7**h**).* Pale yellow solid; yield: 70 %; m.p. 68–70 °C; Anal. Calcd. for $C_{38}H_{30}F_8N_8O_2$: C, 58.31; H, 3.86; N, 14.32 %. Found: C, 58.34; H, 3.89; N, 14.33 %. IR (KBr, cm^{-1}): 1600 (C=N), 1119 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, *δ* / ppm): 2.60 (3H, *s*, NCH_3), 2.67 (1H, *dd*, *J* = 16.6, 14.03 Hz, H_A), 3.52 (1H, *dd*, *J* = 16.6, 9.6 Hz, H_B), 4.25 (1H, *dd*, *J* = 14.03, 9.6 Hz, H_X), 5.17 (2H, *s*, OCH_2), 5.18 (2H, *s*, OCH_2), 5.70 (2H, *s*, NCH_2), 5.73 (2H, *s*, NCH_2), 6.92–7.00 (2H, *m*, Ar-H), 7.18––7.31 (4H, *m*, Ar-H), 7.38–7.45 (3H, *m*, Ar-H), 7.62 (1H, *d*, *J* = 7.9 Hz, Ar-H), 7.74–7.79 (4H, *m*, Ar-H), 8.25 (1H, *s*, triazole-H), 8.30 (1H, *s*, triazole-H); ^{13}C--NMR (100 MHz, DMSO-d_6, *δ* / ppm): 41.4, 43.9, 46.5, 46.6, 61.4, 61.6, 66.5, 112.6, 113.6, 116.8, 117, 120.9, 121.1, 122.2, 122.4, 124, 124.1, 124.2, 124.3, 124.7, 124.8, 124.9, 126.6, 128.2, 128.9, 129.7, 142.8, 143.2, 148.2, 155.5, 155.8. MS: *m*/*z*, 783.3 $[M+H]^+$ (100 %).

*1-[(3,5-Difluorophenyl)methyl]-4-[(2-{5-[2-({1-[(3,5-difluorophenyl)-methyl]-1*H*-1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}phenoxy)methyl]-1*H*-1,2,3-triazole (7**i**).* Pale green solid; yield: 74 %; m.p. 72–75 °C; Anal. Calcd. for $C_{36}H_{30}F_4N_8O_2$: C, 63.34; H, 4.43; N, 16.41 %. Found: C, 63.36; H, 4.45; N, 16.42 %. IR (KBr, cm^{-1}): 1628 (C=N), 1119 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, *δ* / ppm): 2.60 (3H, *s*, NCH_3), 2.67 (1H, *dd*, *J* = 17.1, 14.4 Hz, H_A), 3.53 (1H, *dd*, *J* = 17.1, 10.09 Hz, H_B), 4.24 (1H, *dd*, *J* = 14.4, 10.09 Hz, H_X), 5.17 (2H, *s*, OCH_2), 5.19 (2H, *s*, OCH_2), 5.59 (2H, *s*, NCH_2), 5.61 (2H, *s*, NCH_2), 6.88–6.95 (4H, *m*, Ar-H), 6.98 (2H, *q*, *J* = 7.4 Hz, Ar-H), 7.08–7.34 (6H, *m*, Ar-H), 7.42 (1H, *dd*, *J* = 7.4, 1.7 Hz, Ar-H), 7.61 (1H, *dd*, *J* = 7.4, 1.7 Hz, Ar-H), 8.23 (1H, *s*, triazole-H), 8.28 (1H, *s*, triazole-H); ^{13}C--NMR (100 MHz, DMSO-d_6, *δ* / ppm): 41.4, 43.9, 51.6, 61.5, 61.7, 66.5, 103.4, 103.6, 103.9, 110.8, 110.9, 111, 111.07, 111.1, 111.2, 112.7, 113.7, 120.9, 121.1, 122.4, 124.7, 124.8, 126.6, 128.2, 128.3, 129, 129.7, 139.9, 140, 140.1, 140.2, 143, 143.3, 148.2, 155.5, 155.8, 161, 161.2, 163.5, 163.6. MS: *m*/*z*, 683.3 $[M+H]^+$ (100 %).

*1-{[2,5-Bis(trifluoromethyl)phenyl]methyl}-4-{[2-(5-{2-[(1-{[2,5-bis(trifluo-romethyl)phenyl]methyl}-1*H*-1,2,3-triazol-4-yl)methoxy]phenyl}-1-methyl-4,5-*

*-dihydro-1*H*-pyrazol-3-yl)phenoxy]methyl}-1*H*-1,2,3-triazole (**7j**)*. Off white solid; yield: 85 %; m.p. 77–80 °C; Anal. Calcd. for $C_{40}H_{30}F_{12}N_8O_2$: C, 54.43; H, 3.43; N, 12.69 %. Found: C, 54.45; H, 3.44; N, 12.71 %. IR (KBr, cm^{-1}): 1595 (C=N), 1127 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.67 (1H, *dd*, J = 16.6, 14.9 Hz, H_A), 3.43 (1H, *dd*, J = 16.6, 9.6 Hz, H_B), 4.24 (1H, *dd*, J = 14.9, 9.6 Hz, H_X), 5.17 (2H, *s*, OCH_2), 5.19 (2H, *s*, OCH_2), 5.83 (2H, *s*, NCH_2), 5.87 (2H, *s*, NCH_2), 6.92–6.98 (2H, *m*, Ar-H), 7.15–7.31 (4H, *m*, Ar-H), 7.43 (1H, *dd*, J = 7.9, 1.7 Hz, Ar-H), 7.50 (2H, *d*, J = 14.0 Hz, Ar-H), 7.62 (1H, *dd*, J = 7.9, 1.7 Hz, Ar-H), 7.91–7.95 (2H, *m*, Ar-H), 7.99–8.01 (2H, *m*, Ar-H), 8.26 (1H, *s*, triazole-H), 8.32 (1H, *s*, triazole-H); ^{13}C-NMR (100 MHz, $CDCl_3$, δ / ppm): 41.8, 44.3, 49.7, 62.2, 62.5, 67.6, 111.8, 113.2, 121.4, 121.5, 121.6, 121.9, 123.2, 123.6, 124.1, 124.6, 125.7, 126.8, 127, 127.1, 127.6, 128.3, 129, 129.6, 129.7, 130.9, 131.2, 134.6, 134.7, 135, 144.8, 144.9, 149.2, 155.8, 156.1. MS: *m*/*z*, 883.2 $[M+H]^+$ (100 %).

*1-[(4-Fluorophenyl)methyl]-4-[(2-{5-[2-({1-[(4-fluorophenyl)methyl]-1*H*-1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}phenoxy)methyl]-1*H*-1,2,3-triazole (**7k**)*. A brown solid; yield: 70 %; m.p. 70–74 °C; Anal. Calcd. for $C_{36}H_{32}F_2N_8O_2$: C, 66.86; H, 4.99; F, 5.88; N, 17.33 %. Found: C, 66.89; H, 4.97; F, 5.90; N, 17.35 %. IR (KBr, cm^{-1}): 1595 (C=N), 1227 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.67 (1H, *dd*, J = 16.6, 14.9 Hz, H_A), 3.51 (1H, *dd*, J = 16.6, 9.6 Hz, H_B), 4.24 (1H, *dd*, J = = 14.9, 9.6 Hz, H_X), 5.16 (2H, *s*, OCH_2), 5.17 (2H, *s*, OCH_2), 5.53 (2H, *s*, NCH_2), 5.56 (2H, *s*, NCH_2), 6.94–7.06 (2H, *m*, Ar-H), 7.07–7.12 (4H, *m*, Ar-H), 7.19––7.33 (8H, *m*, Ar-H), 7.44 (1H, *dd*, J = 7.9, 1.7 Hz, Ar-H), 7.63 (1H, *dd*, J = 7.9, 1.7 Hz, Ar-H), 8.17 (1H, *s*, triazole-H), 8.24 (1H, *s*, triazole-H); ^{13}C-NMR (125 MHz, $CDCl_3$, δ / ppm): 41.8, 44.1, 53.1, 53.2, 62.2, 62.4, 67.6, 111.9, 113.1, 115.8, 115.8, 115.9, 116.0, 121.4, 121.5, 121.6, 121.7, 122.9, 123.0, 127.5, 128.2, 128.8, 129.4, 129.5, 129.6, 129.71, 129.73, 129.77, 129.8, 129.9, 130.37, 130.39, 130.4, 130.5, 144.2, 144.4, 149.2, 155.7, 156.1, 161.63, 161.64, 163.6; MS: *m*/*z*, 647.3 $[M+H]^+$ (100 %).

*1-[(3-Fluoro-4-methoxyphenyl)methyl]-4-[(2-{5-[2-({1-[(3-fluoro-4-methoxyphenyl)methyl]-1*H*-1,2,3-triazol-4-yl}methoxy)phenyl]-1-methyl-4,5-dihydro-1*H*-pyrazol-3-yl}phenoxy)methyl]-1*H*-1,2,3-triazole (**7l**)*. Grey solid; yield: 86 %; m.p. 88–92 °C; Anal. Calcd. for $C_{38}H_{36}F_2N_8O_4$: C, 64.58; H, 5.13; N, 15.85 %. Found: C, 64.60; H, 5.15; N, 15.88 %. IR (KBr, cm^{-1}): 1589 (C=N), 1277 (C–O–C); ^{1}H-NMR (500 MHz, DMSO-d_6, δ / ppm): 2.61 (3H, *s*, NCH_3), 2.68 (1H, *dd*, J = 16.6, 14.1 Hz, H_A), 3.54 (1H, *dd*, J = 16.6, 10.2 Hz, H_B), 3.77 (3H, *s*, OCH_3), 3.78 (3H, *s*, OCH_3), 4.23 (1H, *dd*, J = 14.1, 10.2 Hz, H_x), 5.16 (2H, *s*, OCH_2), 5.17 (2H, *s*, OCH_2), 5.47 (2H, *s*, NCH_2), 5.50 (2H, *s*, NCH_2), 6.93–7.06 (6H, *m*, Ar-H), 7.13–7.30 (6H, *m*, Ar-H), 7.43 (1H, *d*, J = 7.8 Hz, Ar-H), 7.62 (1H, *d*, J = 7.8 Hz, Ar-H), 8.18 (1H, *s*, triazole-H), 8.24 (1H, *s*, triazole-H); ^{13}C-

-NMR (125 MHz, $CDCl_3$, δ / ppm): 41.9, 44.2, 53.2, 56.2, 62.4, 62.6, 67.7, 111.9, 113.2, 113.5, 113.6, 115.8, 115.9, 116, 116.1, 121.4, 121.5, 122.8, 122.9, 123.1, 124.11, 124.14, 124.169, 127.2, 127.3, 127.4, 127.6, 128.2, 128.9, 129.6, 129.8, 144.3, 144.5, 147.9, 148.1, 149.4, 151.3, 153.2, 155.9, 156.2; MS: *m*/*z*, 707.3 $[M+H]^+$ (100 %).

*1-{[4-(1-Methylethyl)phenyl]methyl}-4-{[2-(1-methyl-5-{2-[(1-{[4-(1--methylethyl)phenyl]methyl}-1H-1,2,3-triazol-4-yl)methoxy]phenyl}-4,5-dihydro--1H-pyrazol-3-yl)phenoxy]methyl}-1H-1,2,3-triazole (7**m**)*. Grey solid; yield: 75 %; m.p. 84–88 °C; Anal. Calcd. for $C_{42}H_{46}N_8O_2$: C, 72.60; H, 6.67; N, 16.13 %. Found: C, 72.62; H, 6.66; N, 16.14 %. IR (KBr, cm^{-1}): 1591 (C=N), 1235 (C–O–C); ^{1}H-NMR (400 MHz, DMSO-d_6, δ / ppm): 1.13 (12H, *t*, *J* = 6.4 Hz, $(CH_3)_2$), 2.61 (3H, *s*, NCH_3), 2.67 (1H, *dd*, *J* = 16.6, 14.0 Hz, H_A), 2.78–2.84 (2H, *m*, $CH(CH_3)_2$), 3.53 (1H, *dd*, *J* = 16.6, 9.6 Hz, H_B), 4.23 (1H, *dd*, *J* = 14.0, 9.6 Hz, H_X), 5.16 (2H, *s*, OCH_2), 5.17 (2H, *s*, OCH_2), 5.48 (2H, *s*, NCH_2), 5.51 (2H, *s*, NCH_2), 6.94–7.01 (2H, *m*, Ar-H), 7.10–7.33 (12H, *m*, Ar-H), 7.43 (1H, *dd*, *J* = = 7.9, 1.7 Hz, Ar-H), 7.64 (1H, *dd*, *J* = 7.9, 1.7 Hz, Ar-H), 8.15 (1H, *s*, triazole--H), 8.23 (1H, *s*, triazole-H); ^{13}C-NMR (100 MHz, $CDCl_3$, δ / ppm): 23.8, 33.8, 42.0, 44.3, 53.9, 62.3, 62.6, 67.4, 112.0, 113.3, 121.5, 122.9, 127.1, 127.2, 127.5, 128.1, 128.2, 128.3, 129.0, 129.6, 129.9, 131.7, 131.9, 149.5, 155.9, 156.2; MS: *m*/*z*, 695.4 $[M+H]^+$ (100 %).

IR, NMR AND MASS SPECTRA FOR THE SYNTHESIZED COMPOUNDS

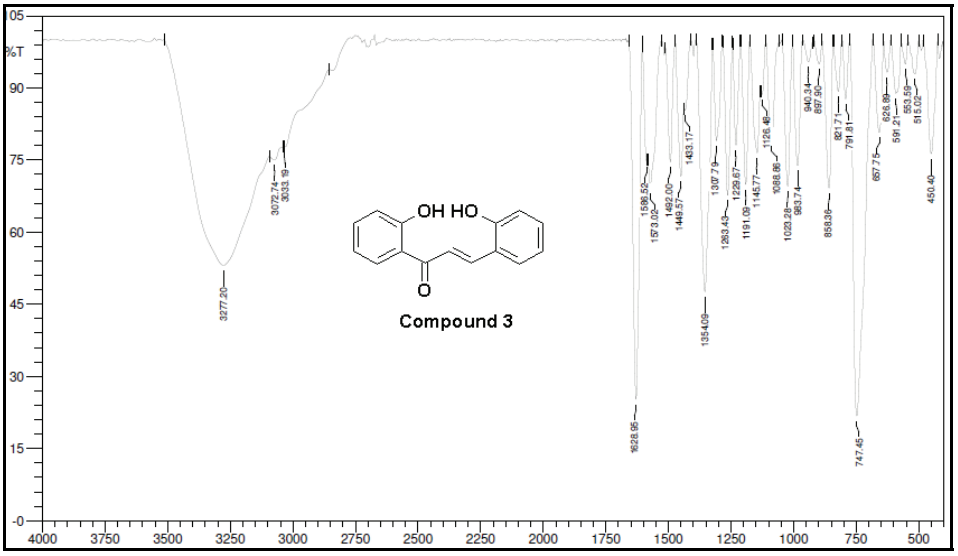

Fig. S-1. IR spectrum of compound **3**.

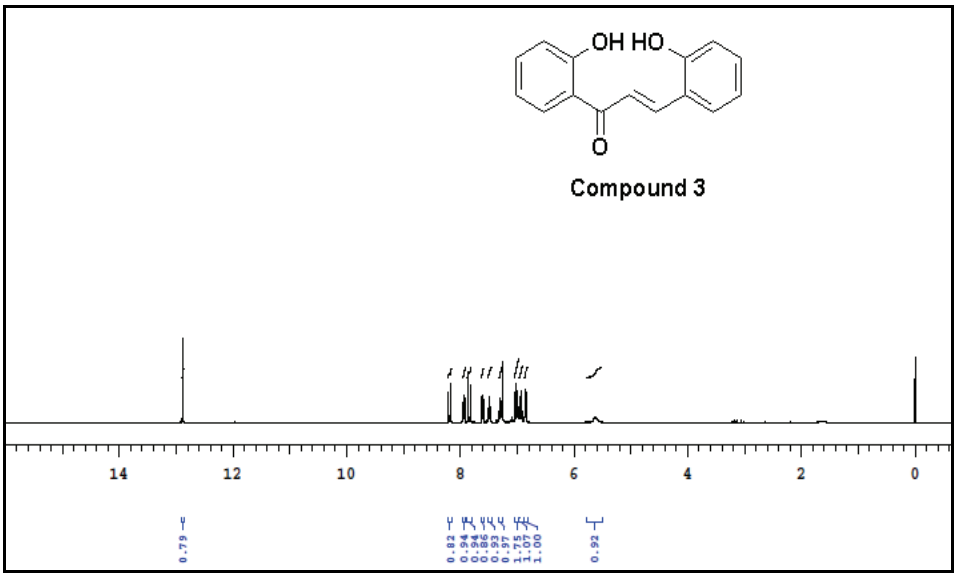

Fig. S-2. ^{1}H-NMR (400 MHz, $CDCl_3$) spectrum of compound **3**.

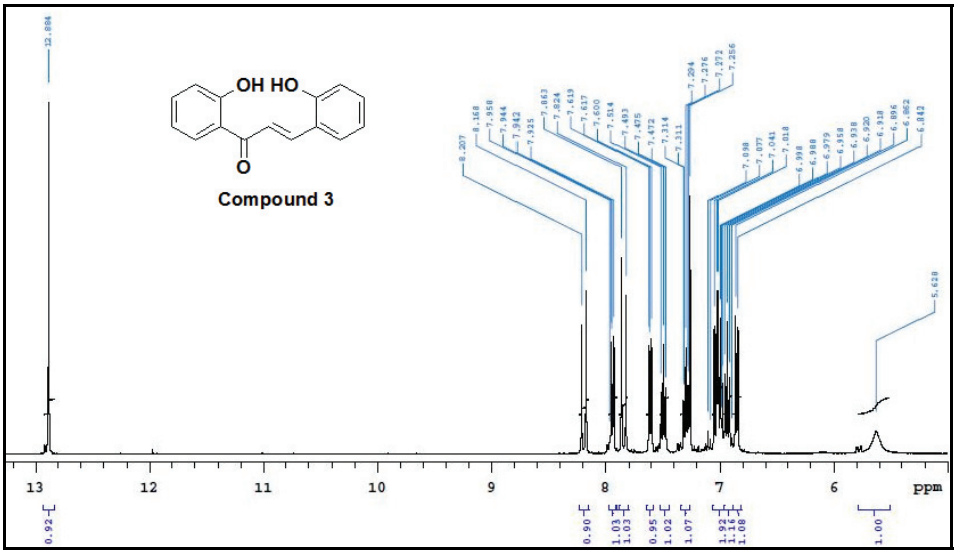

Fig. S-3. ^{1}H-NMR (400 MHz, $CDCl_3$) spectrum of compound **3**.

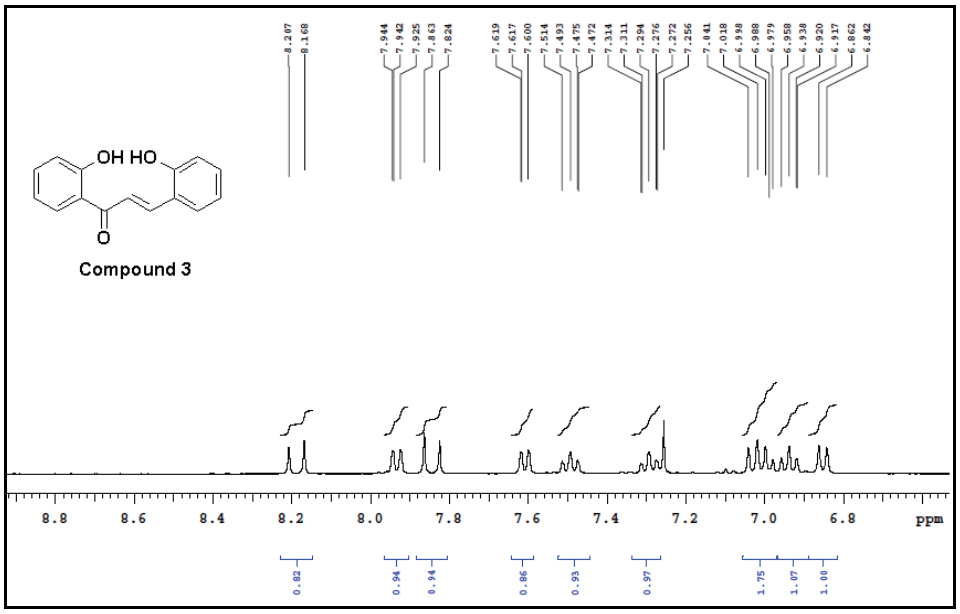

Fig. S-4. ^{1}H-NMR (400 MHz, $CDCl_3$) spectrum of compound **3**.

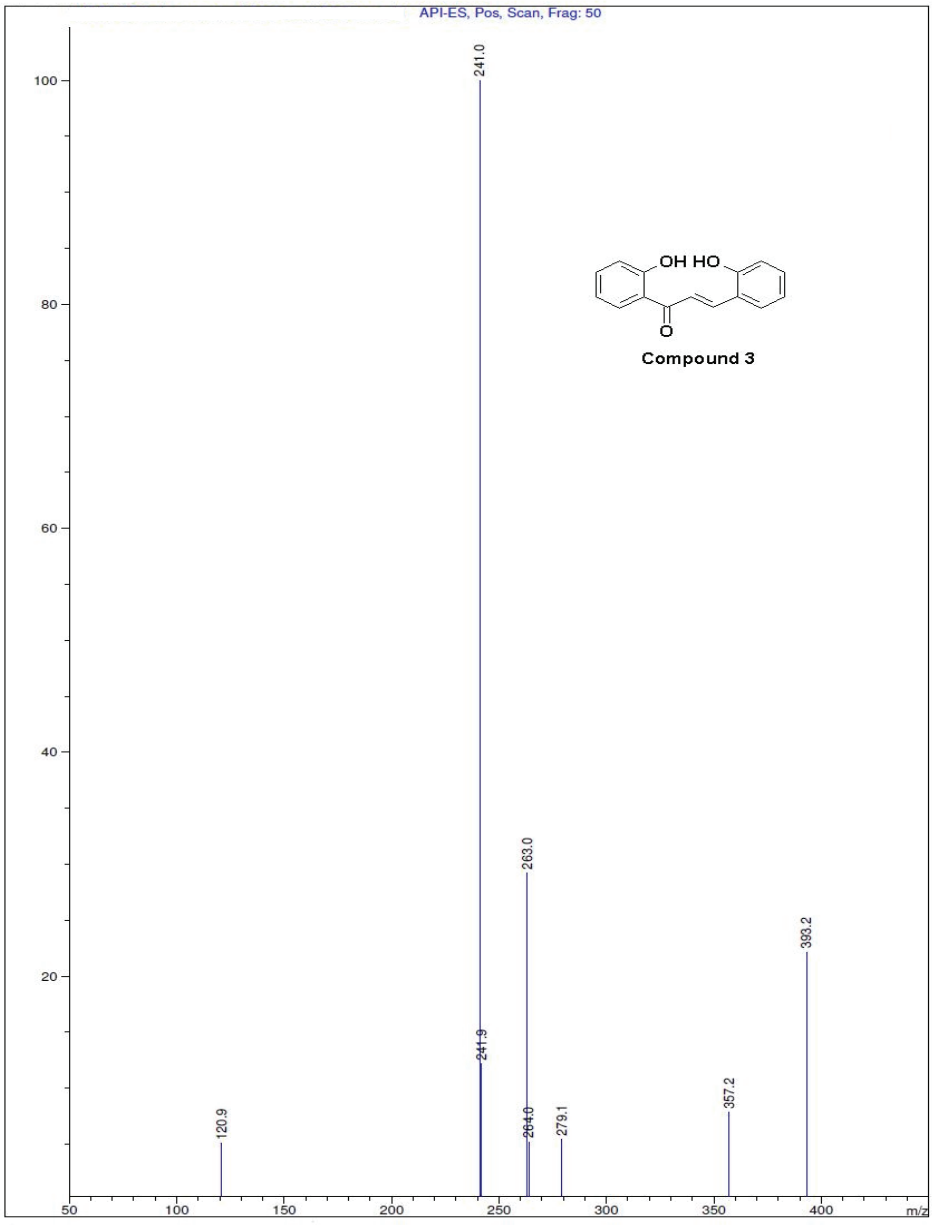

Fig. S-5. Mass spectrum of compound **3**.

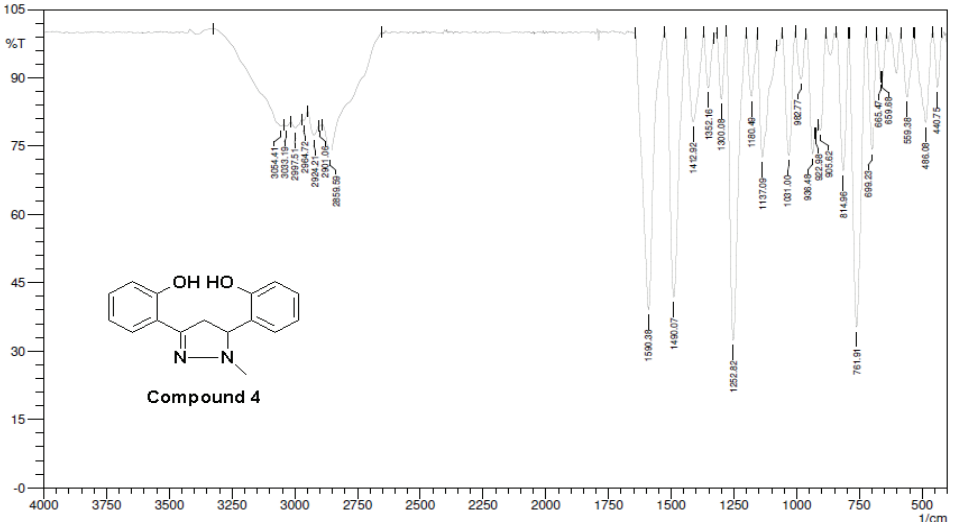

Fig. S-6. IR spectrum of compound **4**.

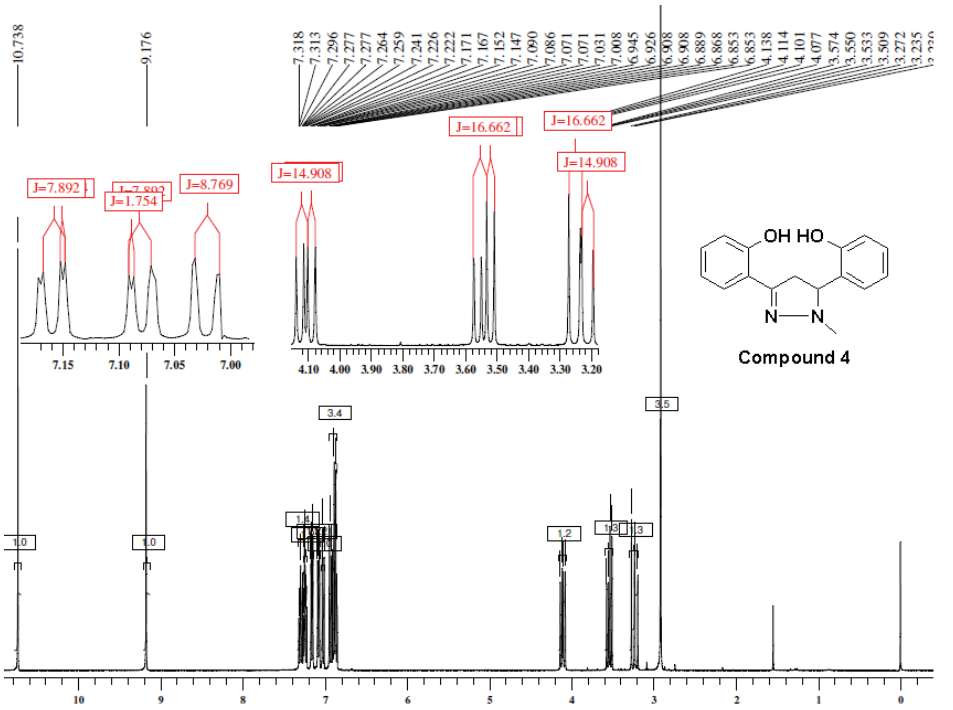

Fig. S-7. ^{1}H-NMR (400 MHz, $CDCl_3$) spectrum of compound **4**.

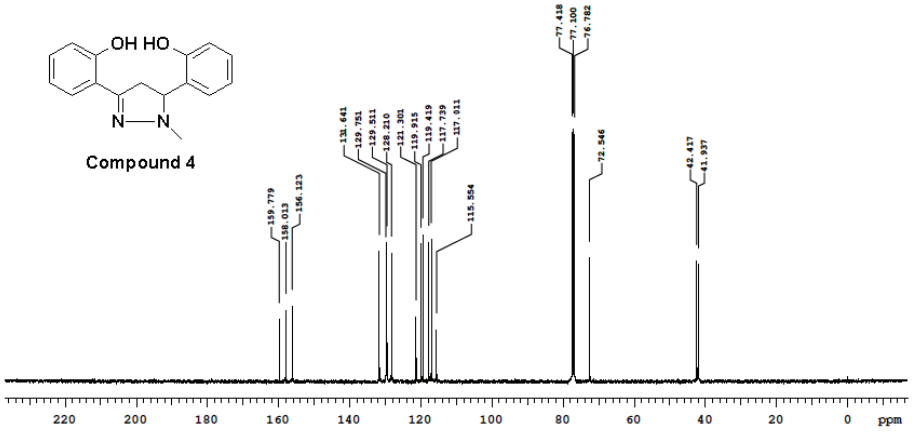

Fig. S-8. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **4**.

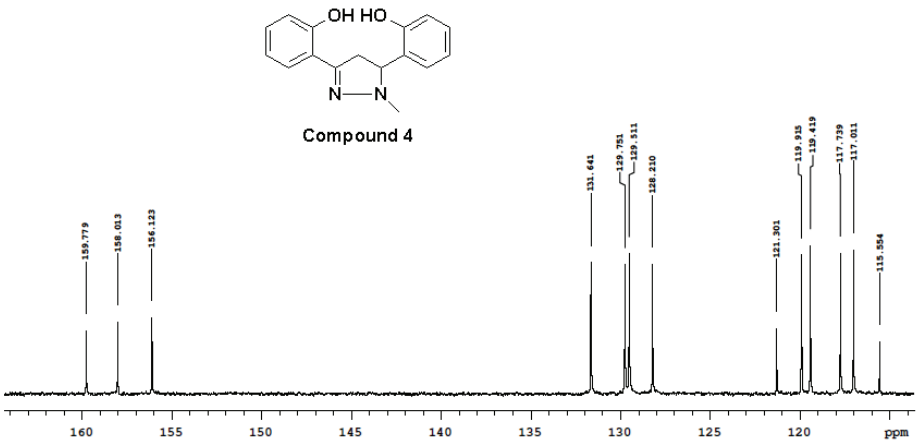

Fig. S-9. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **4**.

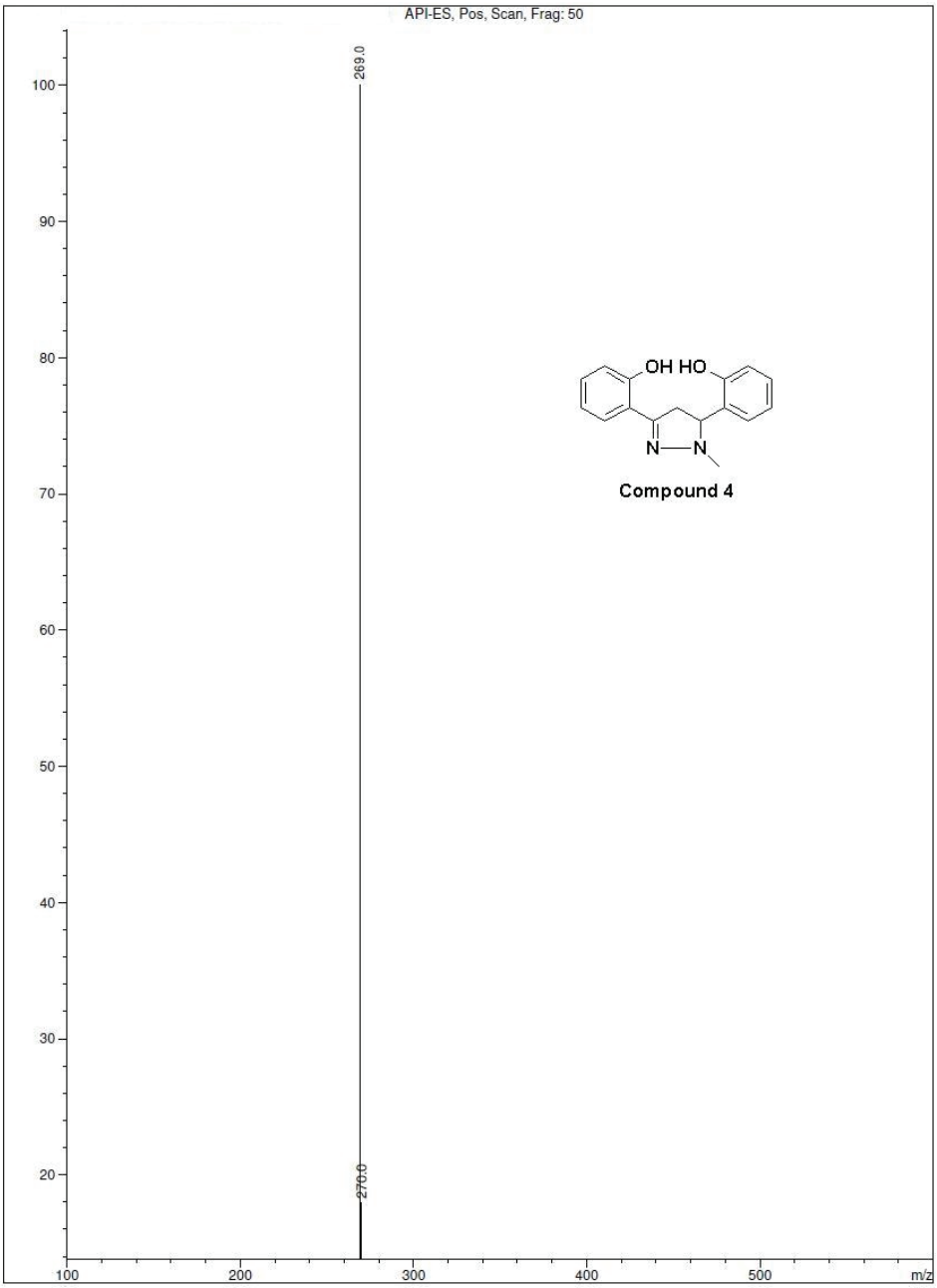

Fig. S-10. Mass spectrum of compound **4**.

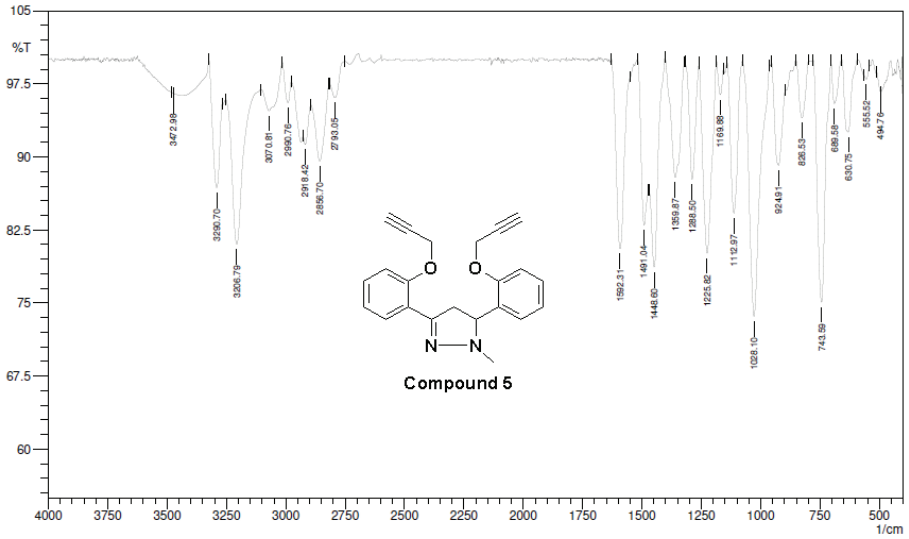

Fig. S-11. IR spectrum of compound **5**.

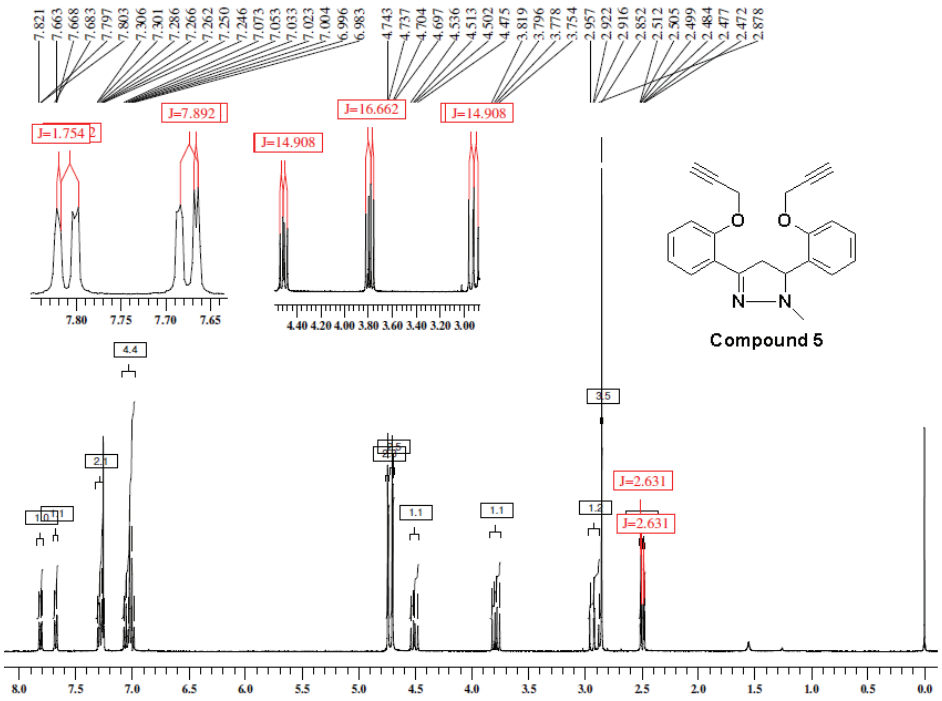

Fig. S-12. ^{1}H-NMR (400 MHz, $CDCl_3$) spectrum of compound **5**.

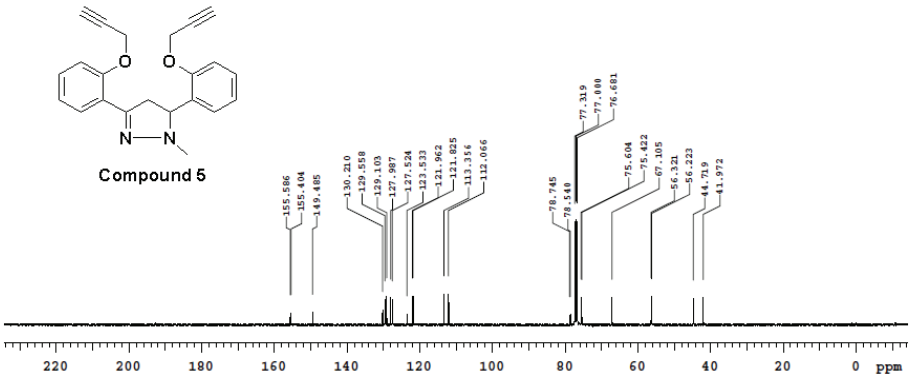

Fig. S-13. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **5**.

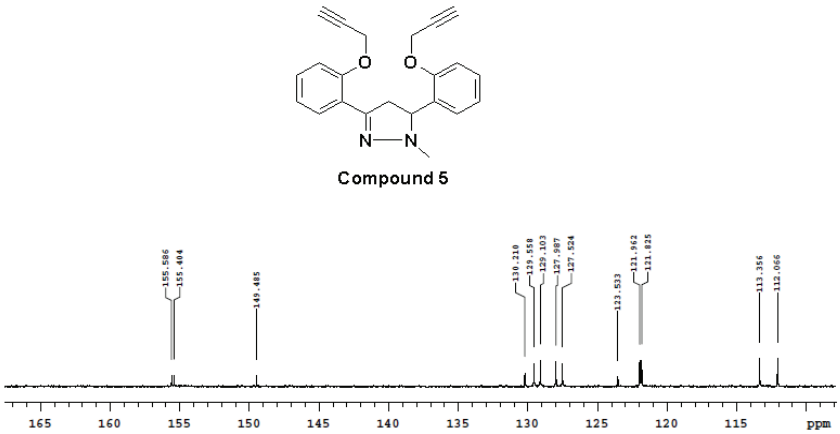

Fig. S-14. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **5**.

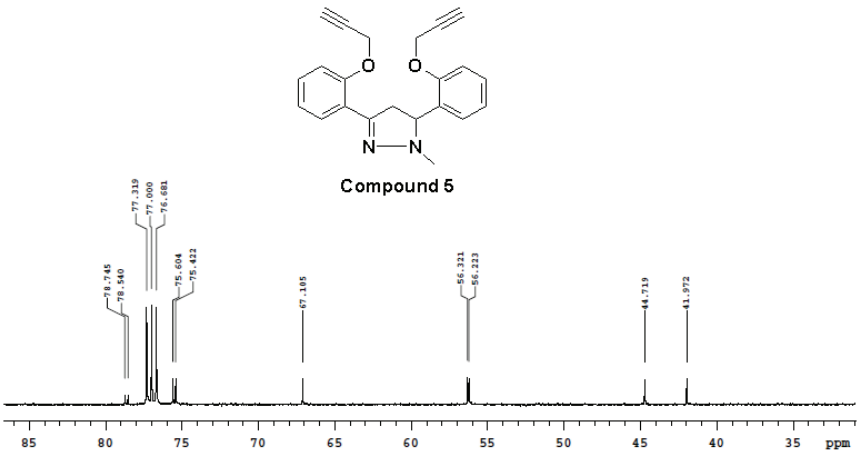

Fig. S-15. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **5**.

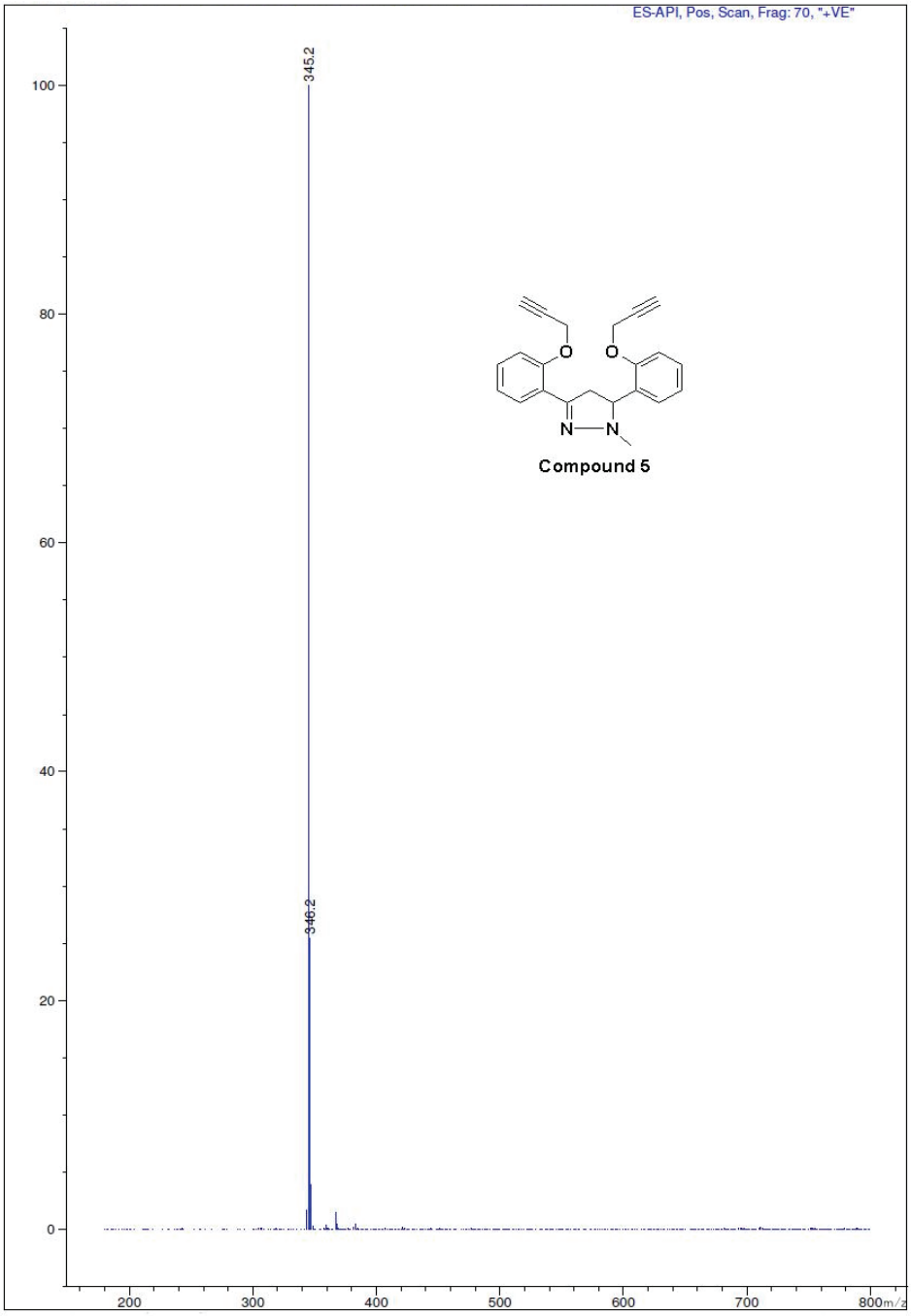

Fig. S-16. Mass spectrum of compound **5**.

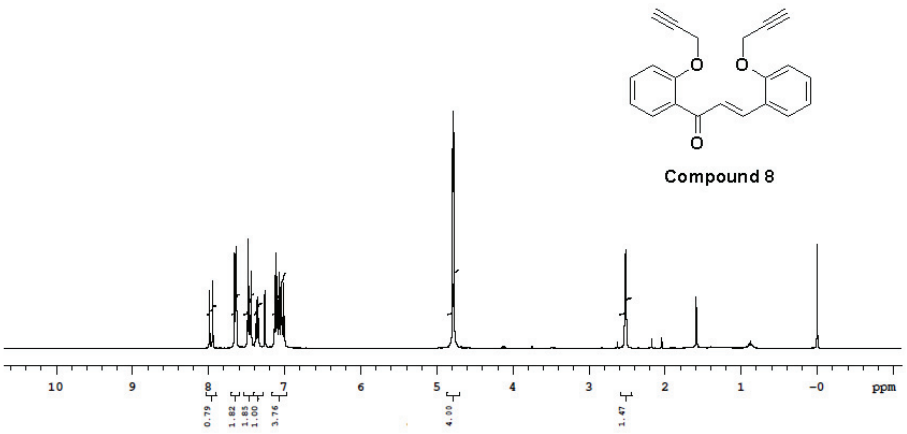

Fig. S-17. ^{1}H-NMR (400 MHz, $CDCl_3$) spectrum of compound **8**.

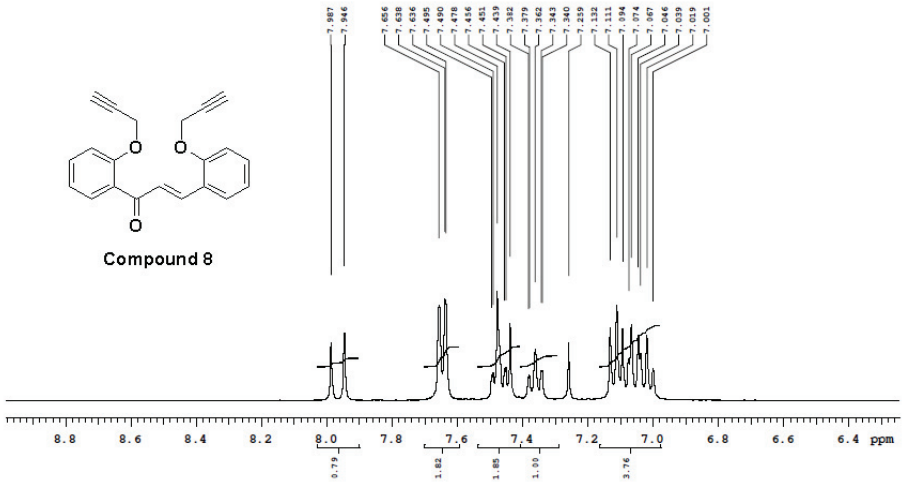

Fig. S-18. ^{1}H-NMR (400 MHz, $CDCl_3$) spectrum of compound **8**.

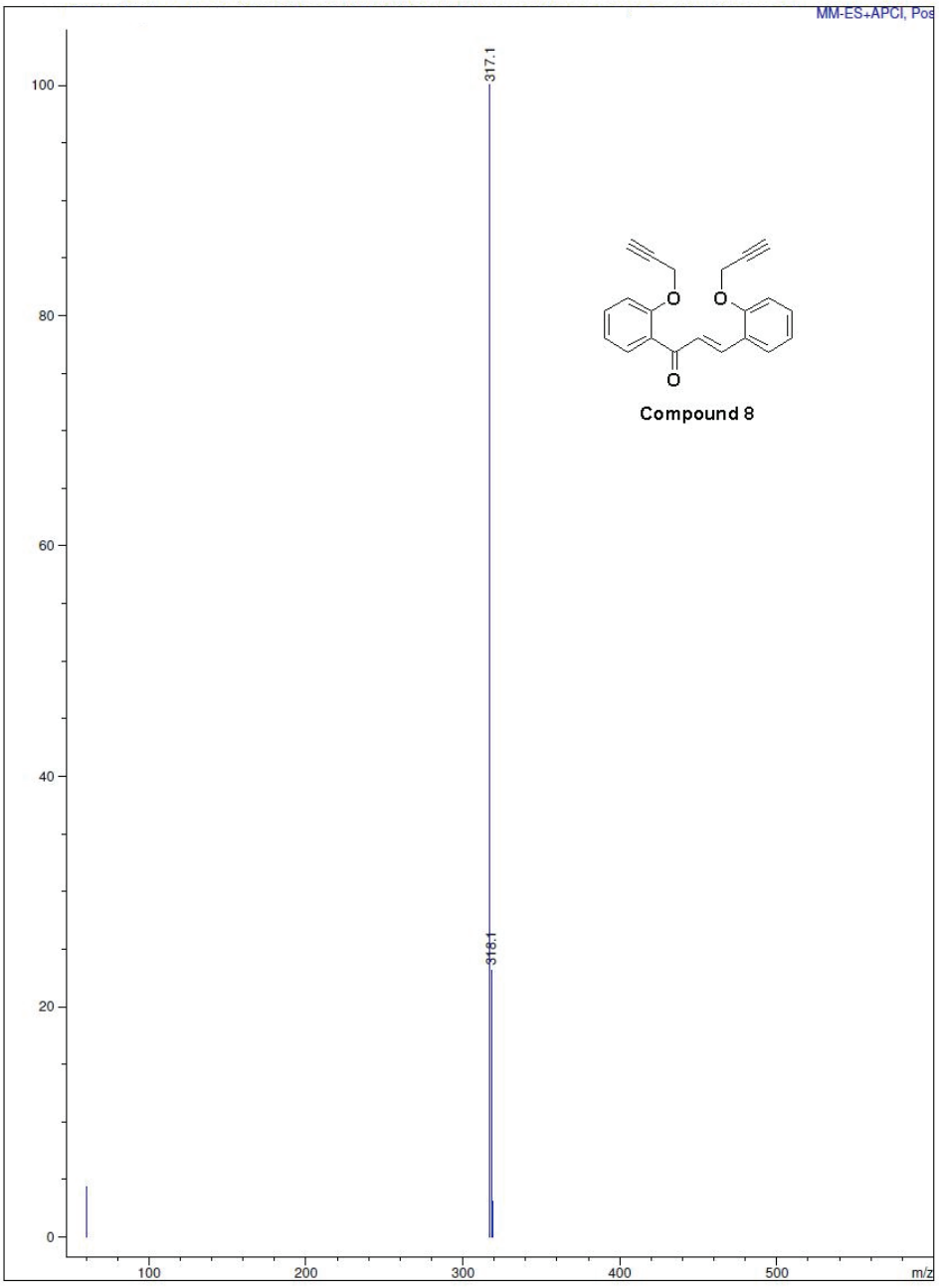

Fig. S-19. Mass spectrum of compound **8**.

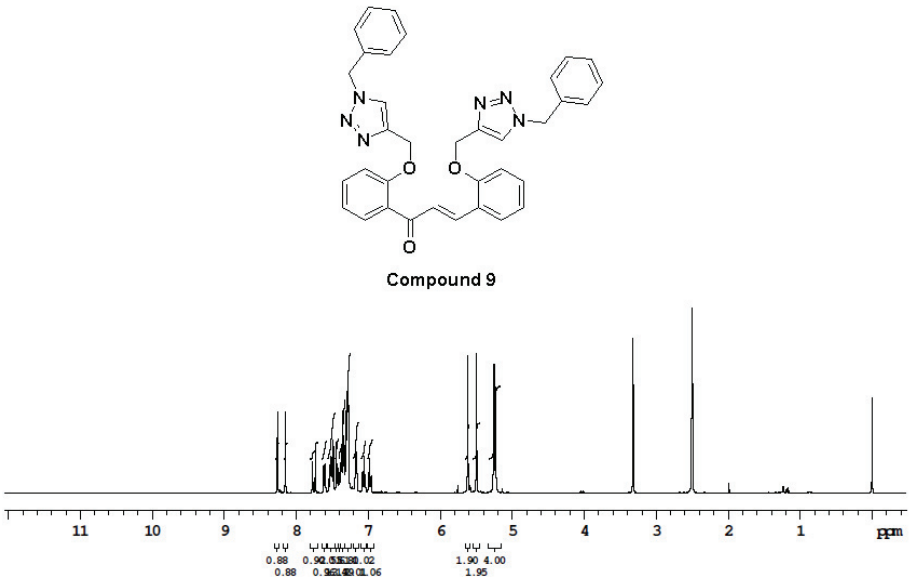

Fig. S-20. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **9**.

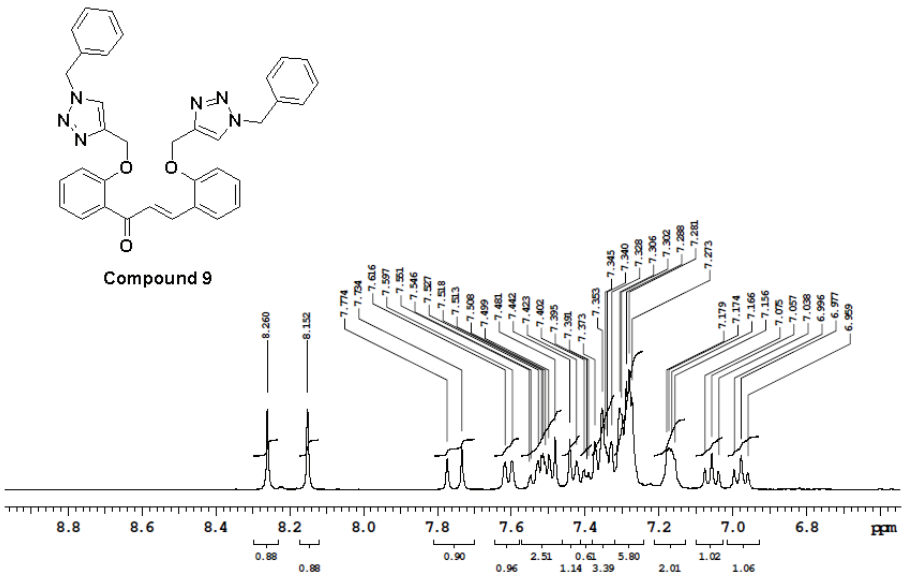

Fig. S-21. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **9**.

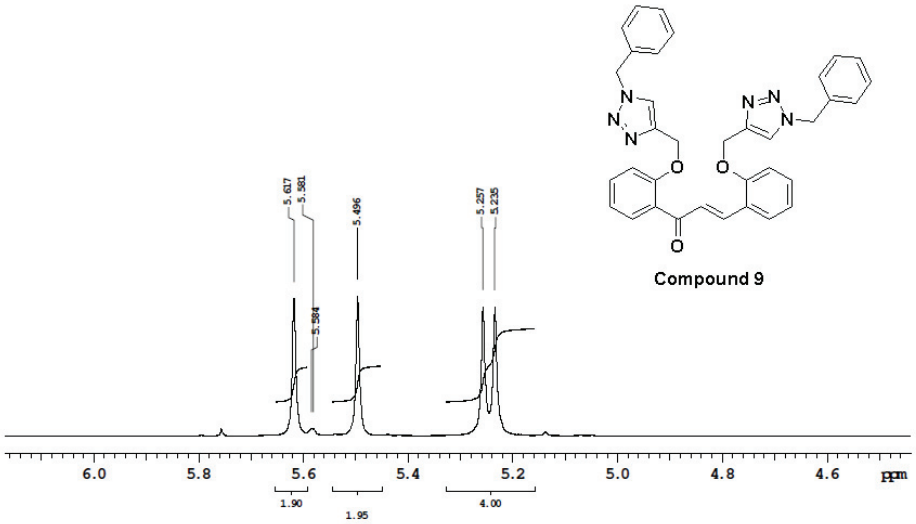

Fig. S-22. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **9**.

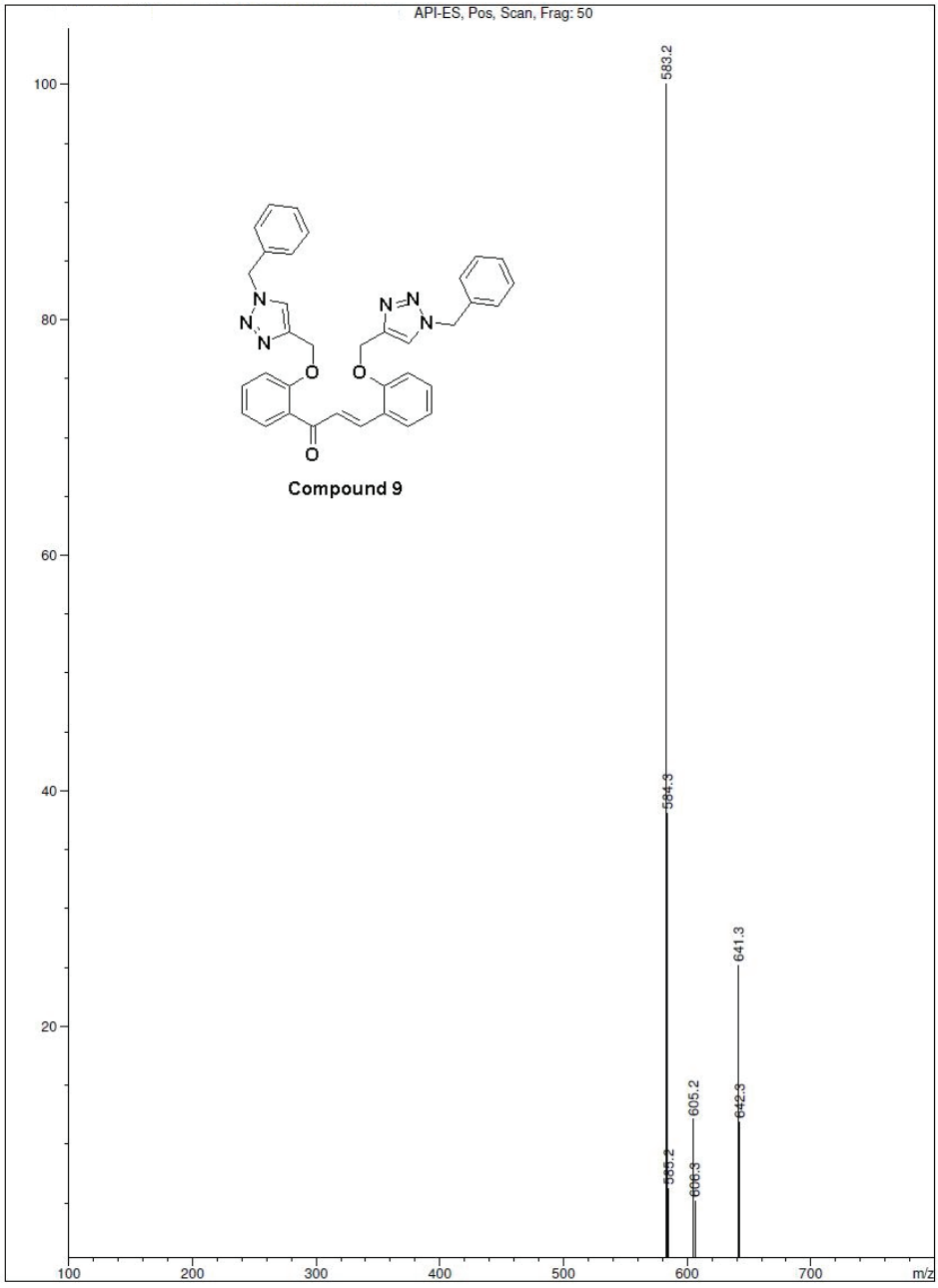

Fig. S-23. Mass spectrum of compound **9**.

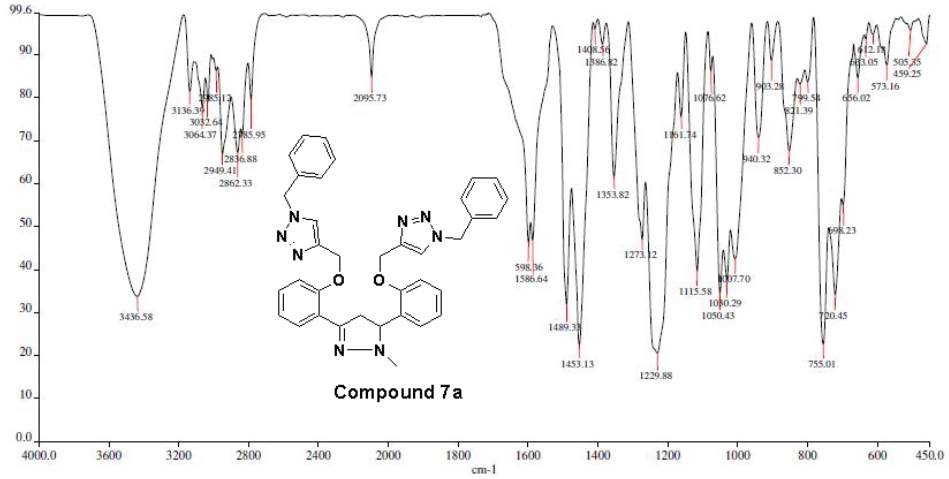

Fig. S-24. IR spectrum of compound **7a**.

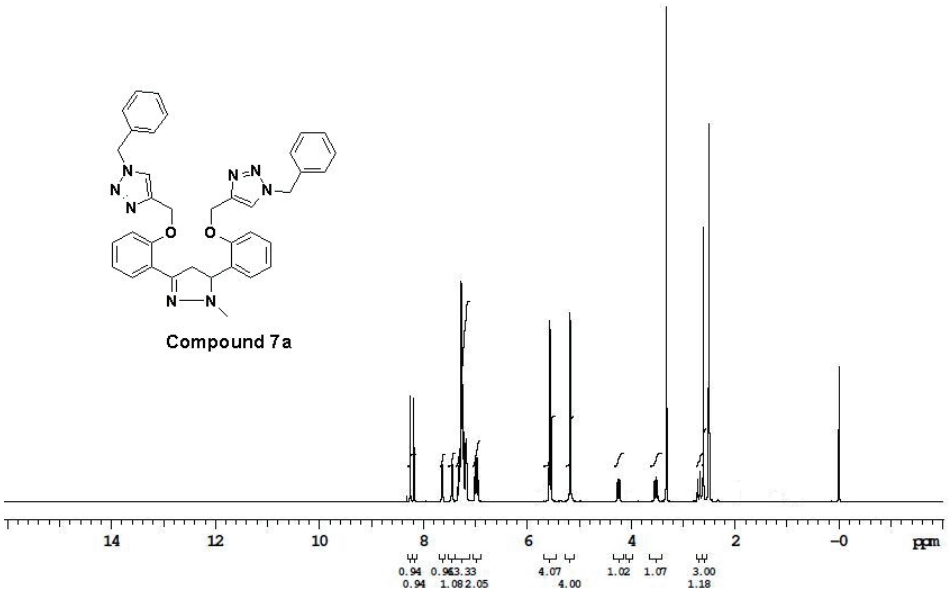

Fig. S-25. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7a**.

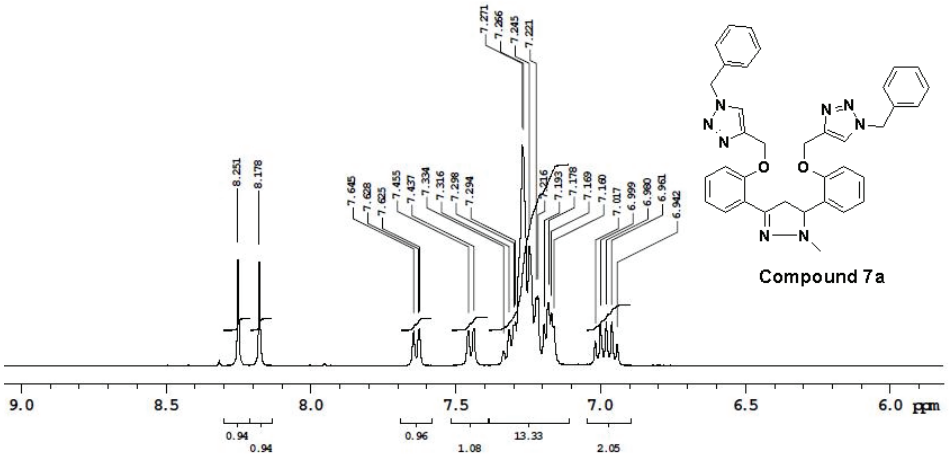

Fig. S-26. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7a**.

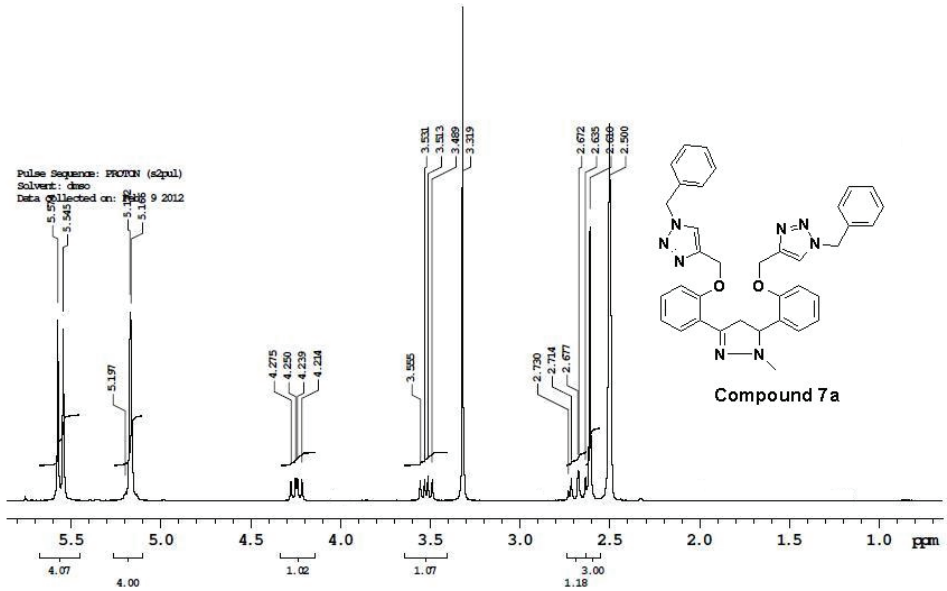

Fig. S-27. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7a**.

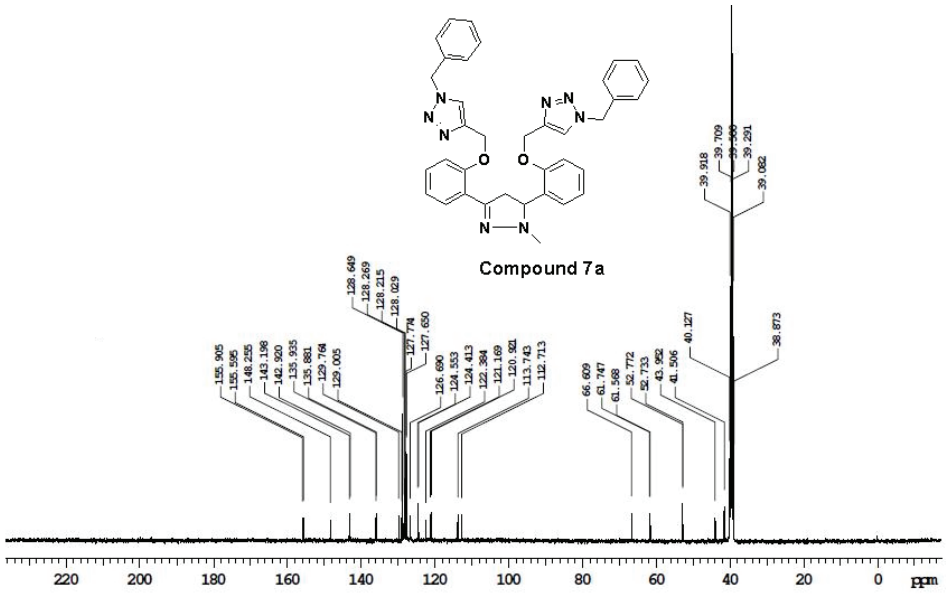

Fig. S-28. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7a**.

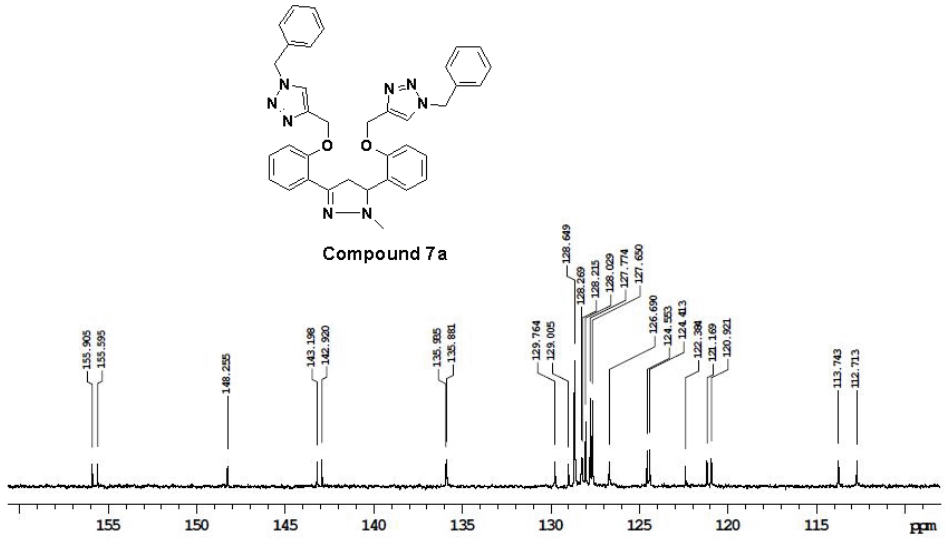

Fig. S-29. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7a**.

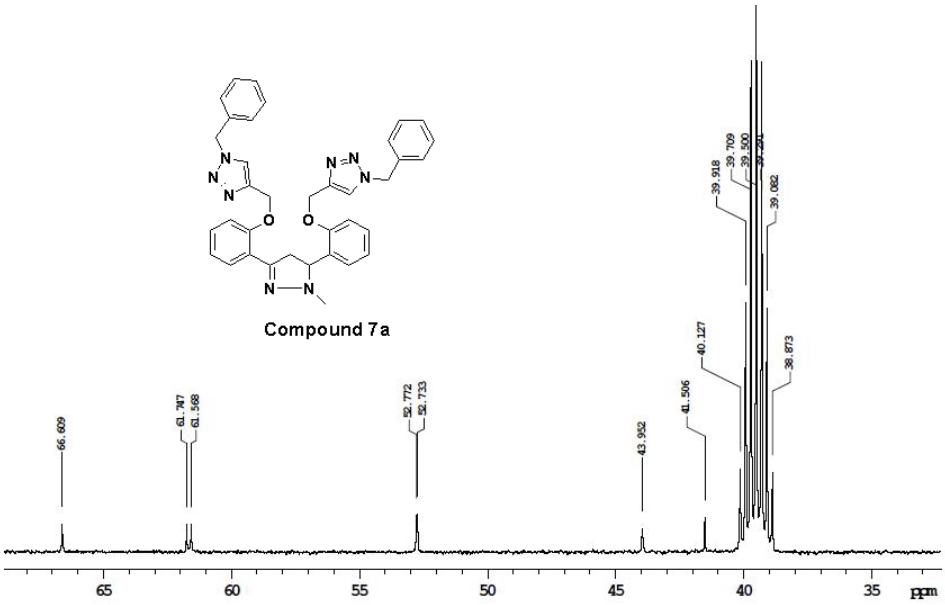

Fig. S-30. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7a**.

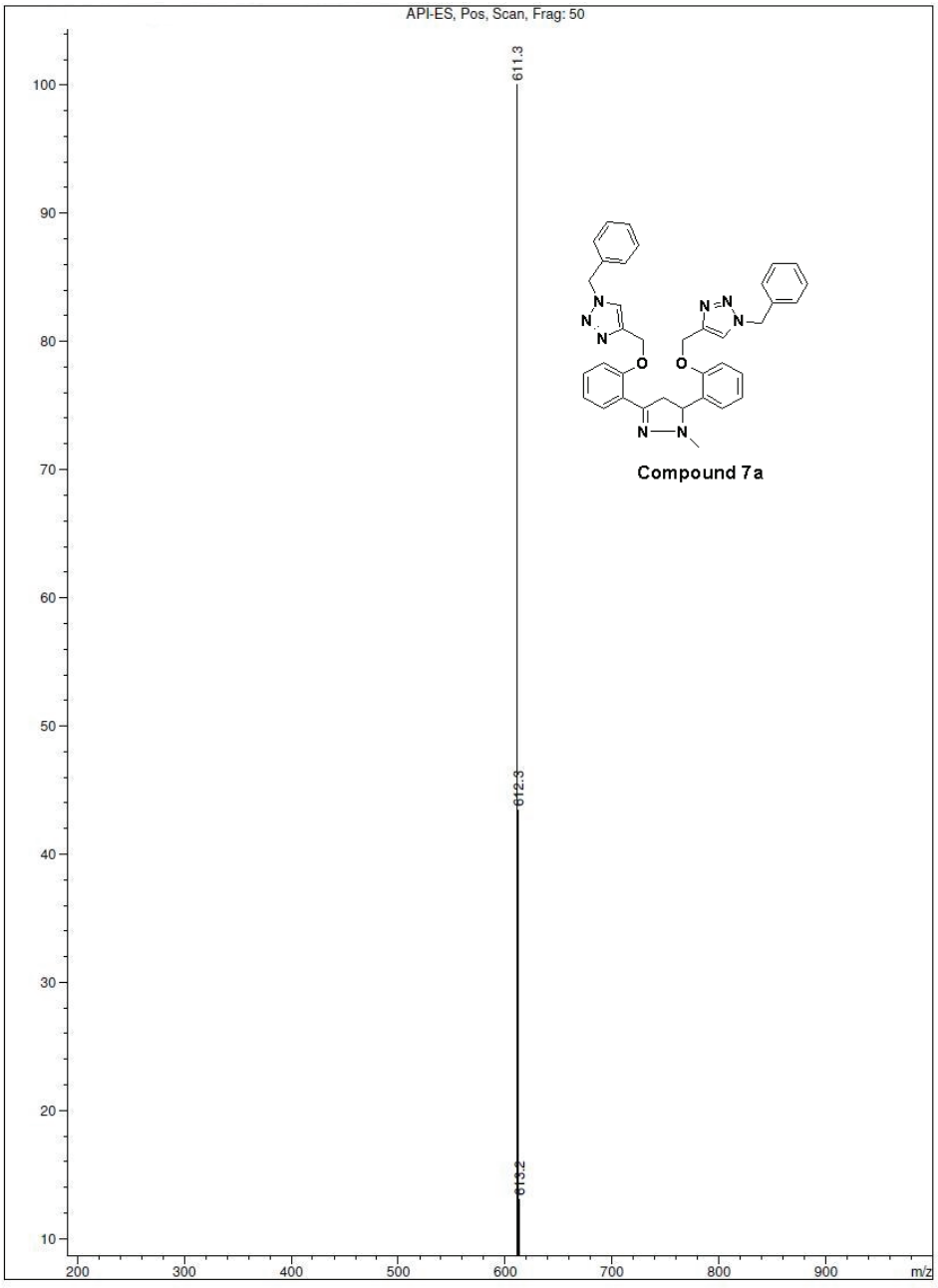

Fig. S-31. Mass spectrum of compound **7a**.

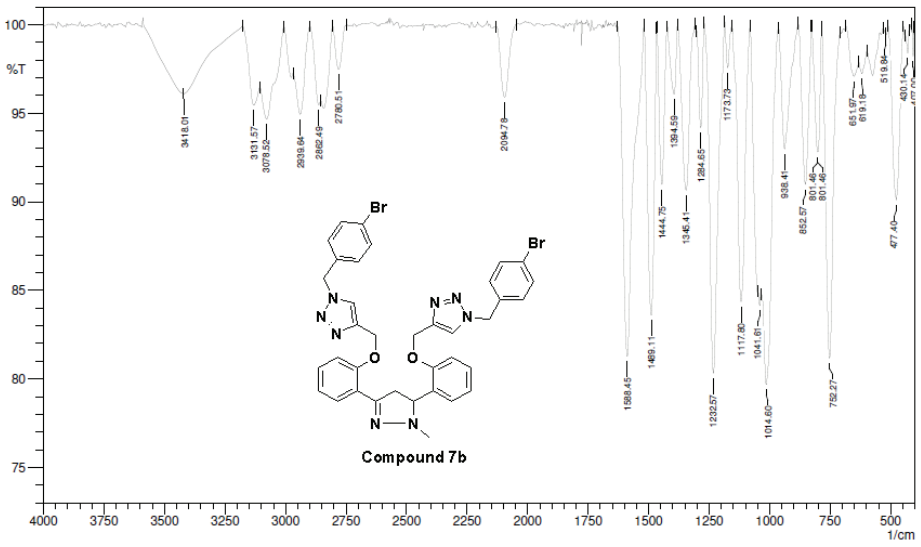

Fig. S-32. IR spectrum of compound **7b**.

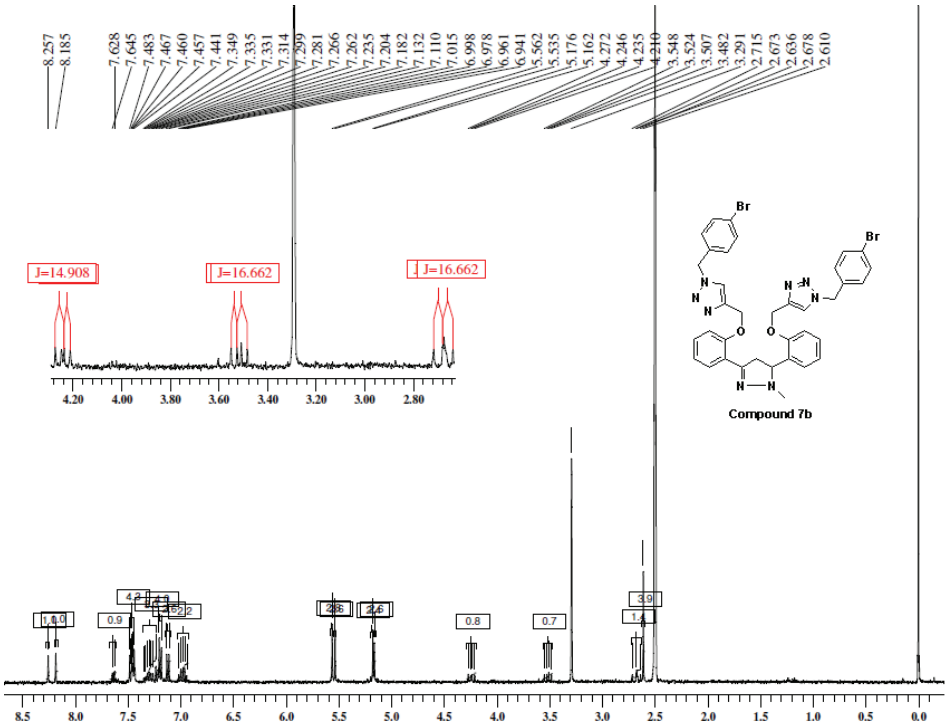

Fig. S-33. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7b**.

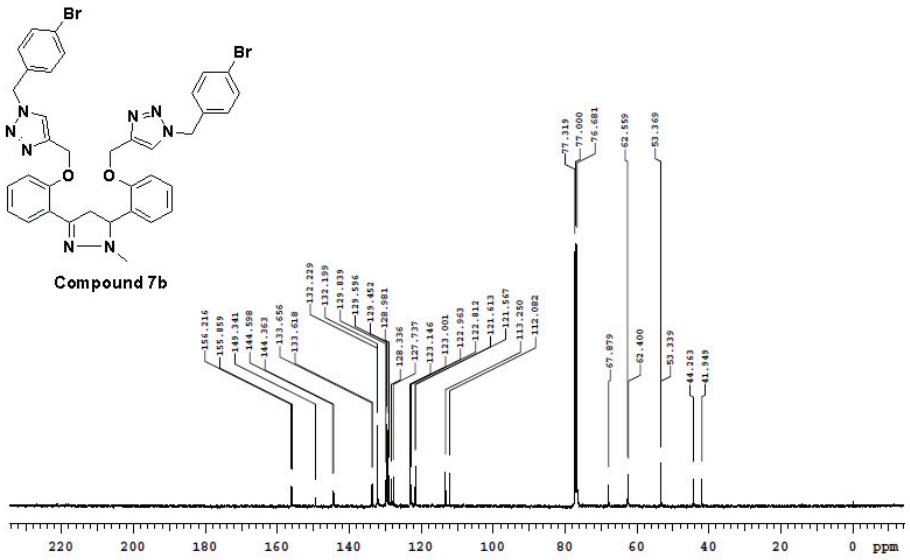

Fig. S-34. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7b**.

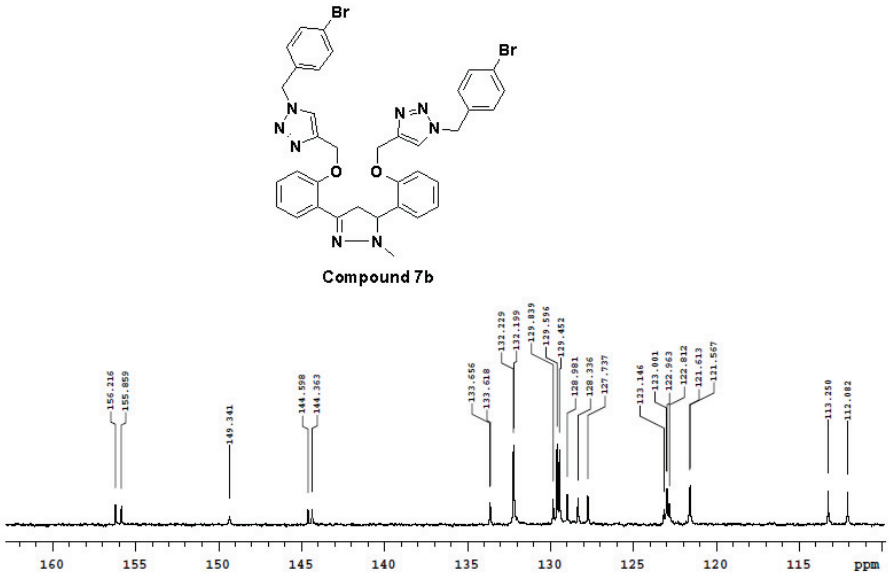

Fig. S-35. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7b**.

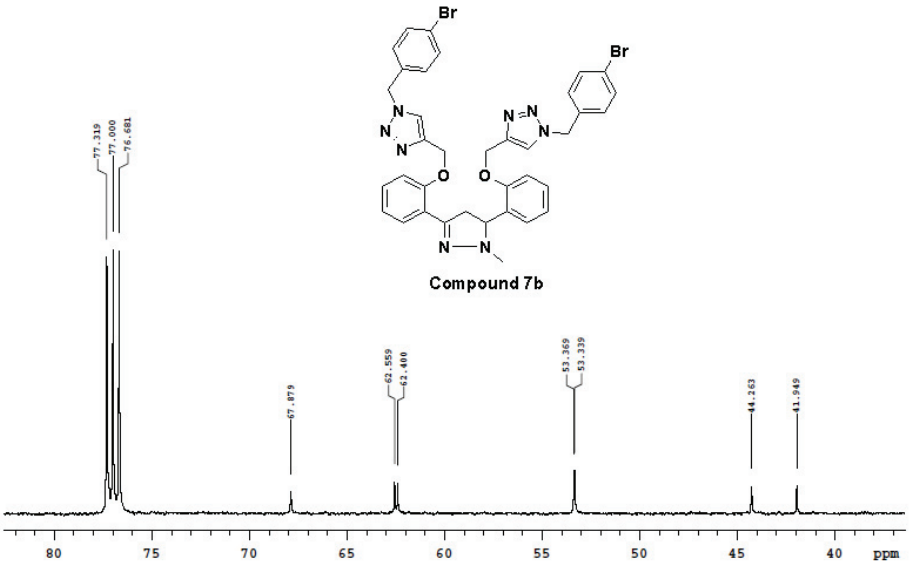

Fig. S-36. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7b**.

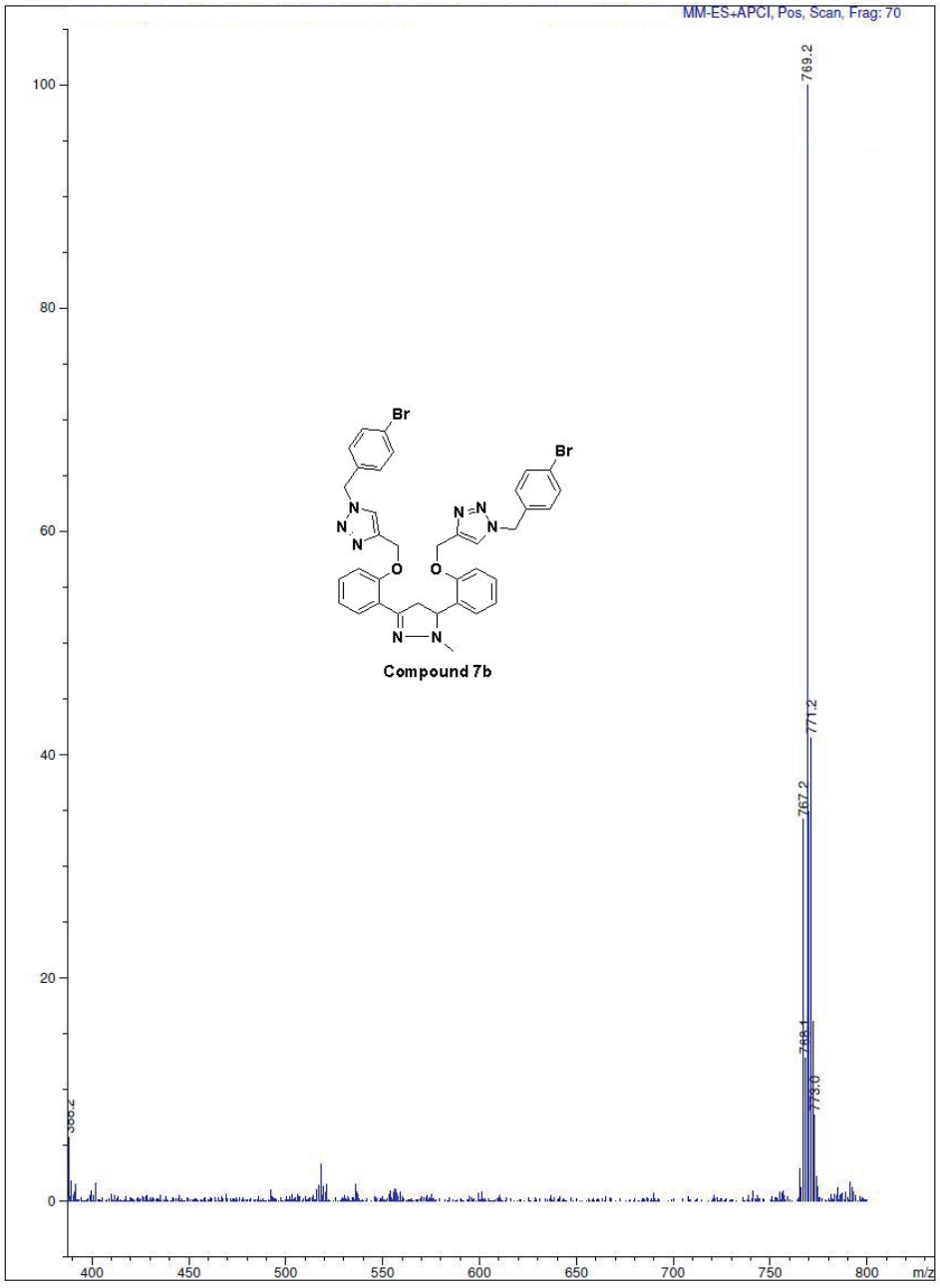

Fig. S-37. Mass spectrum of compound **7b**.

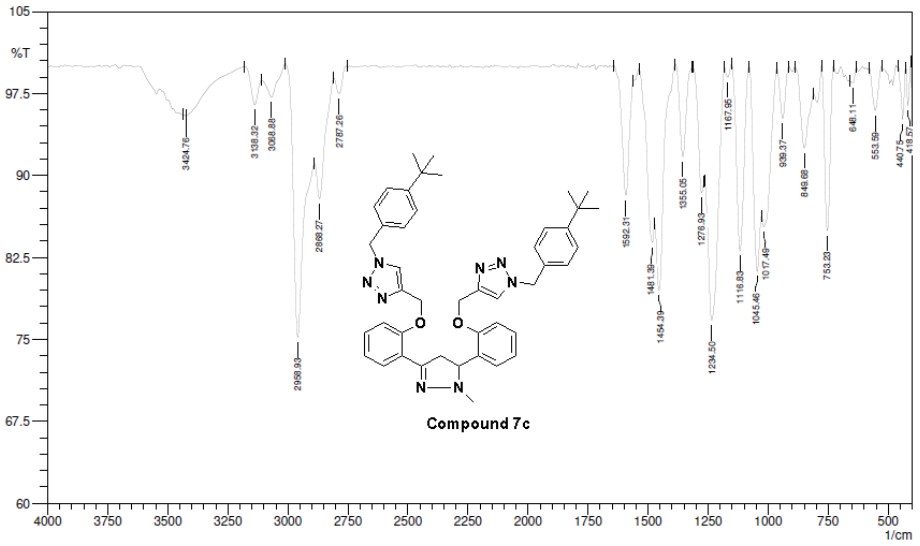

Fig. S-38. IR spectrum of compound **7c**.

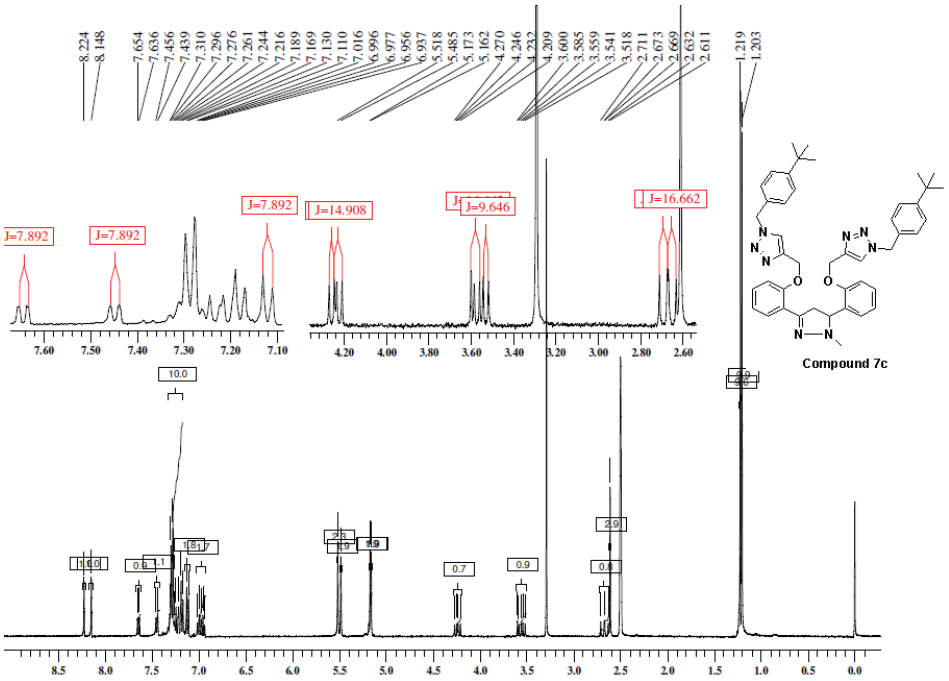

Fig. S-39. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7c**.

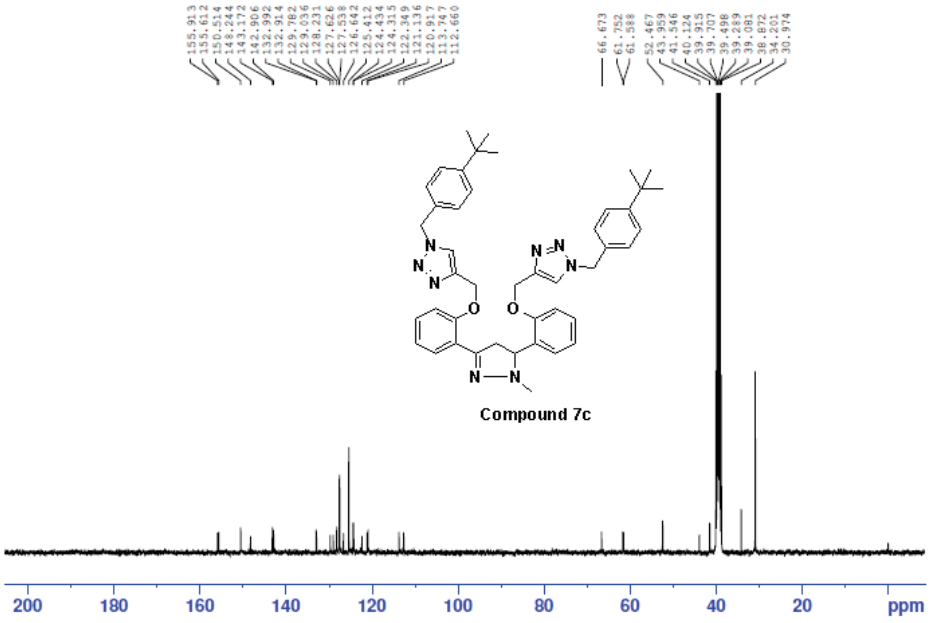

Fig. S-40. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7c**.

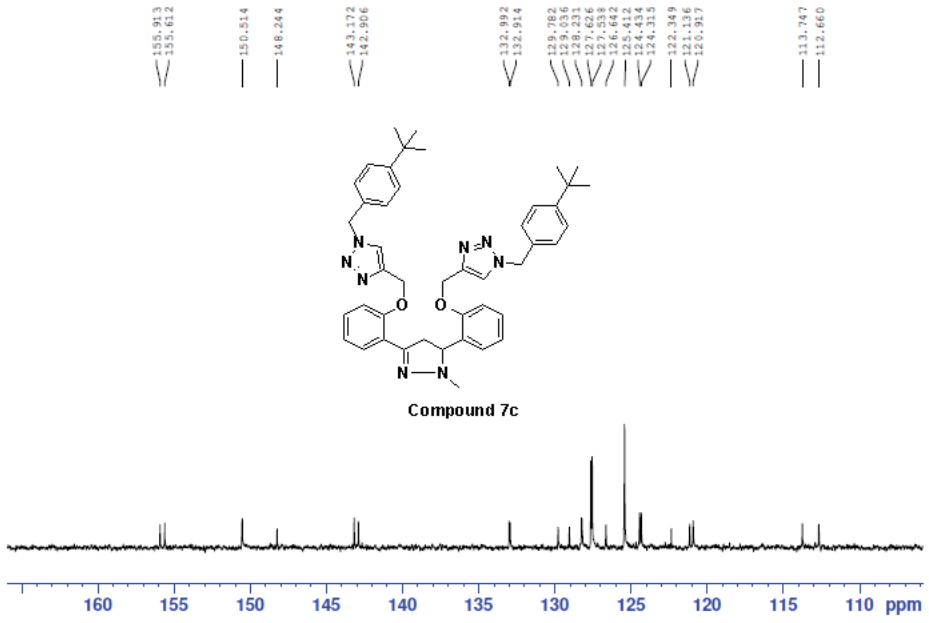

Fig. S-41. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7c**.

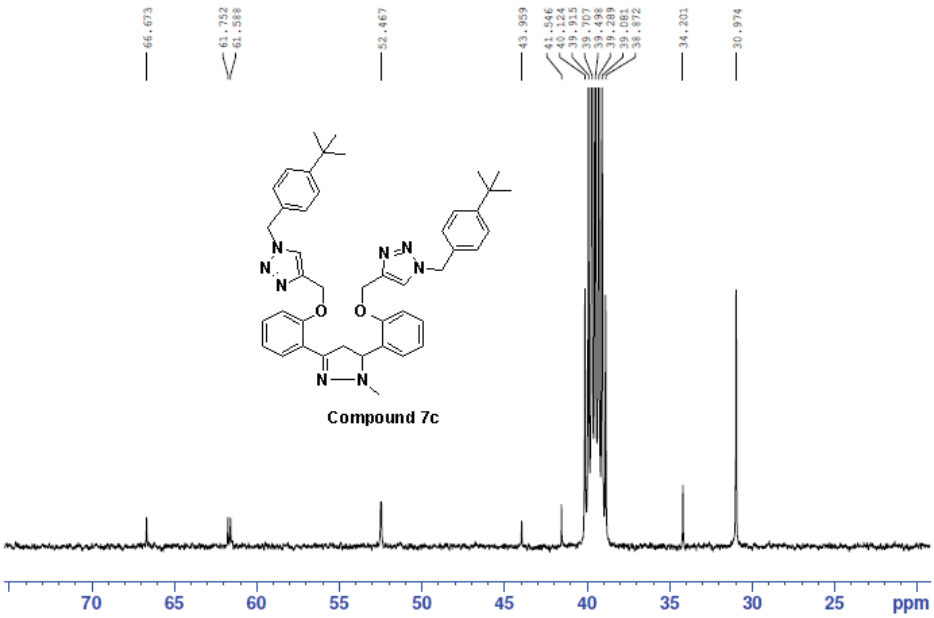

Fig. S-42. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7c**.

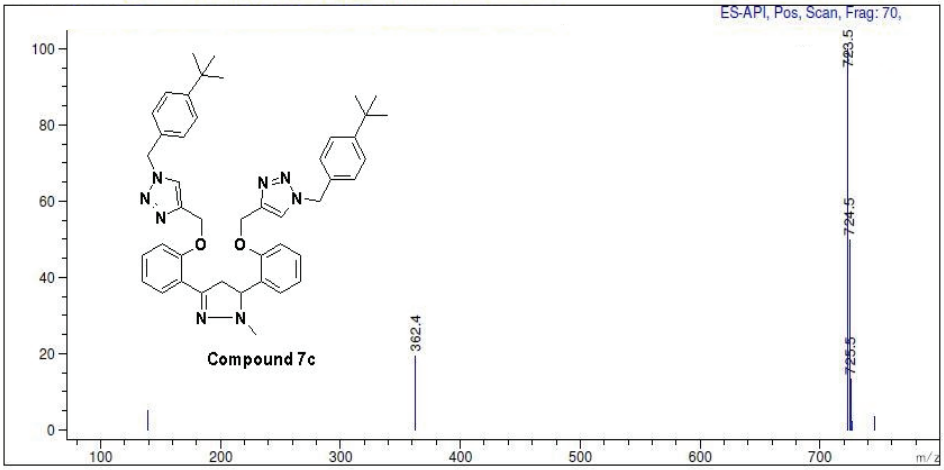

Fig. S-43. Mass spectrum of compound **7c**.

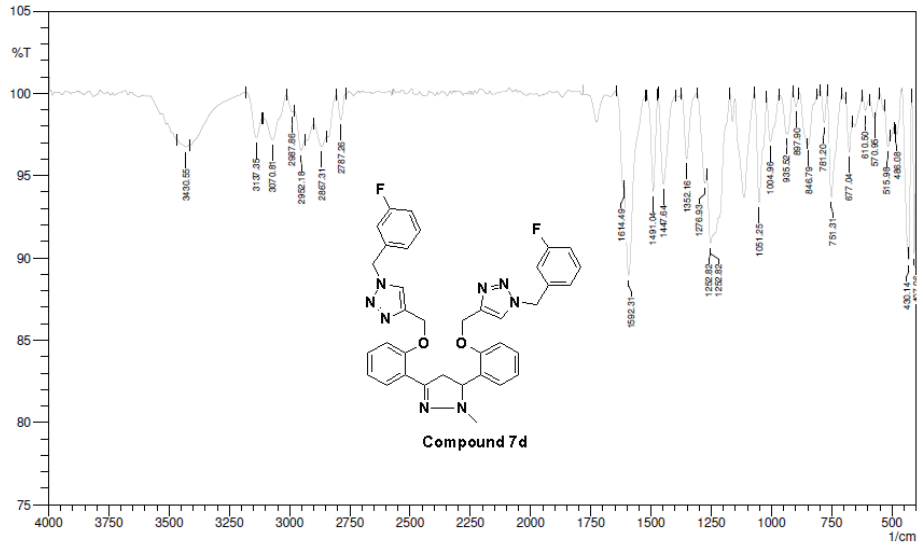

Fig. S-44. IR spectrum of compound **7d**.

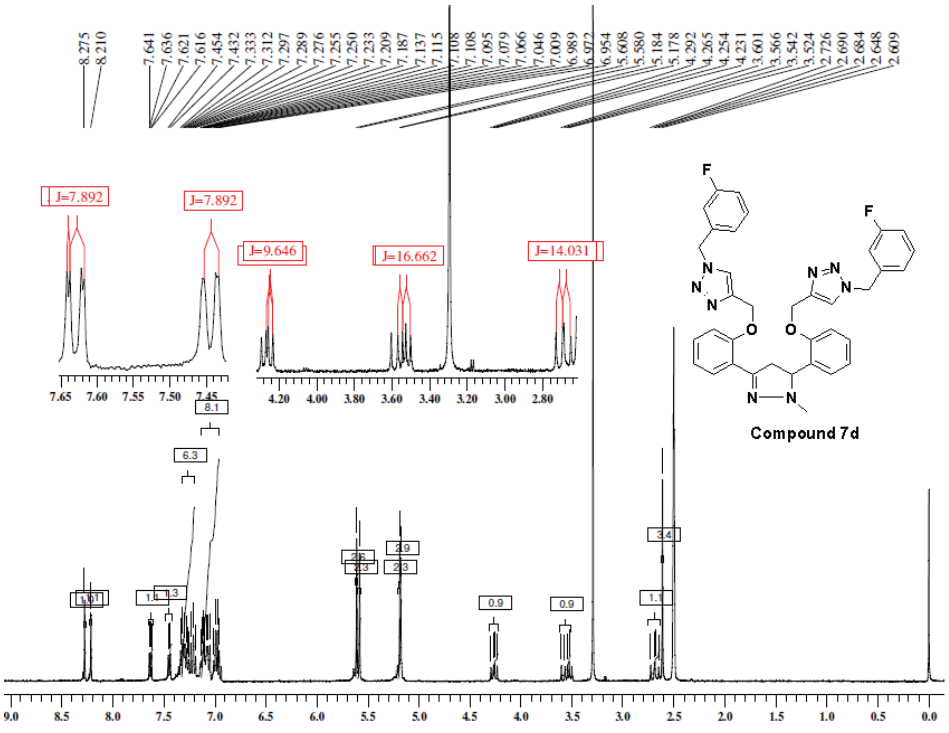

Fig. S-45. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7d**.

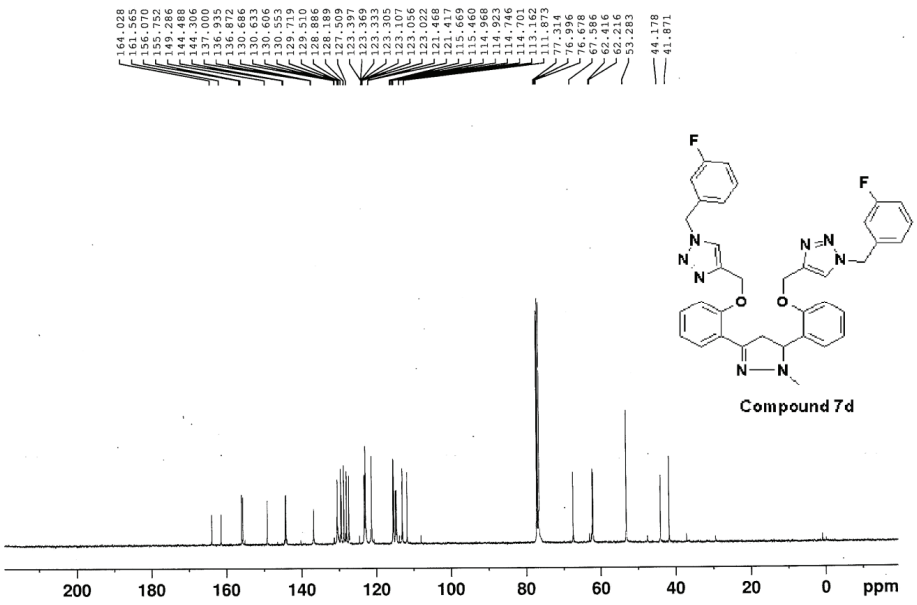

Fig. S-46. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7d**.

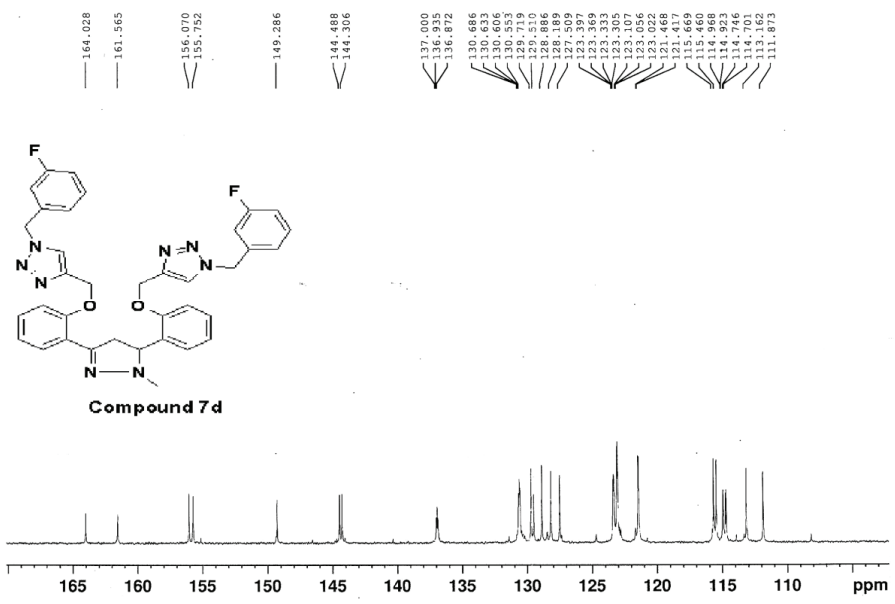

Fig. S-47. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7d**.

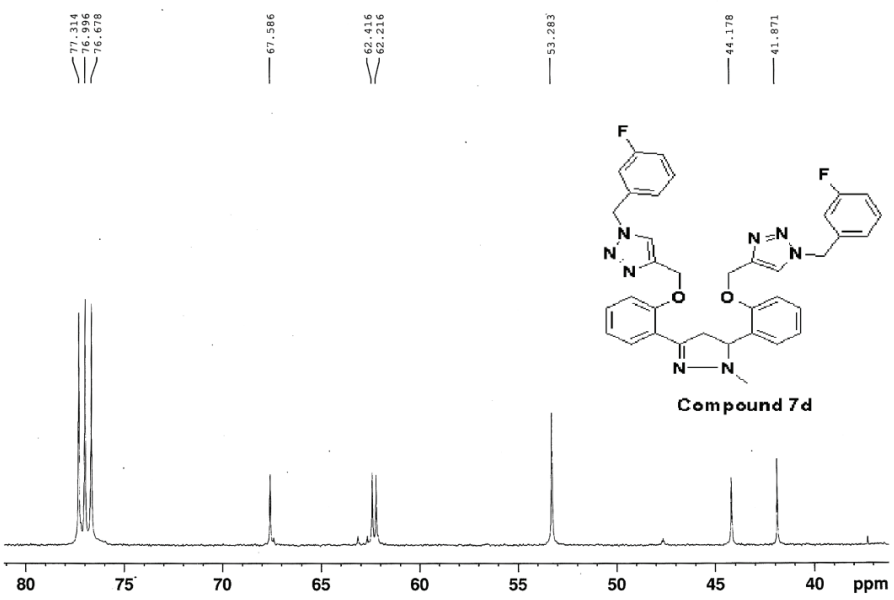

Fig. S-48. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7d**.

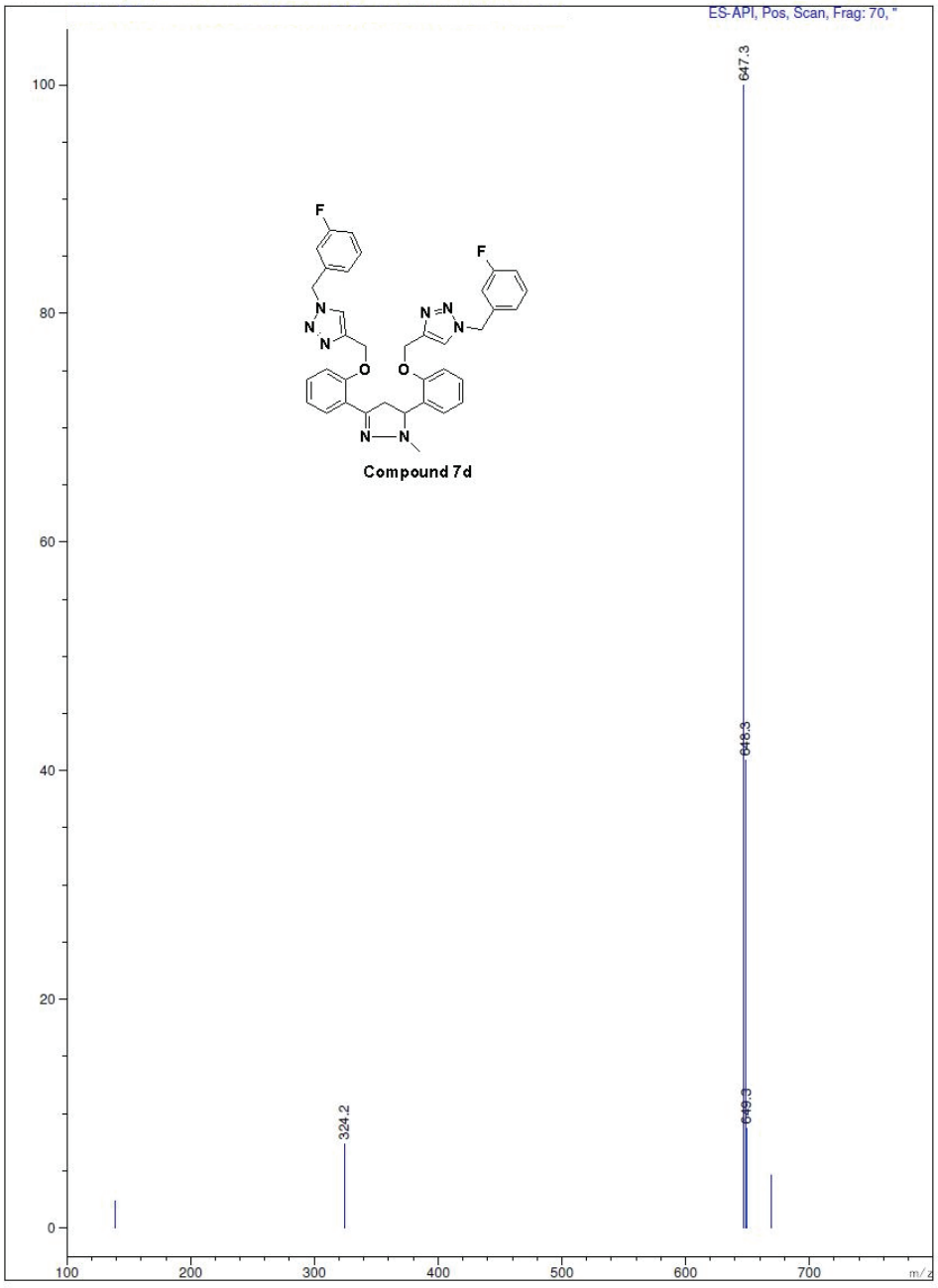

Fig. S-49. Mass spectrum of compound **7d**.

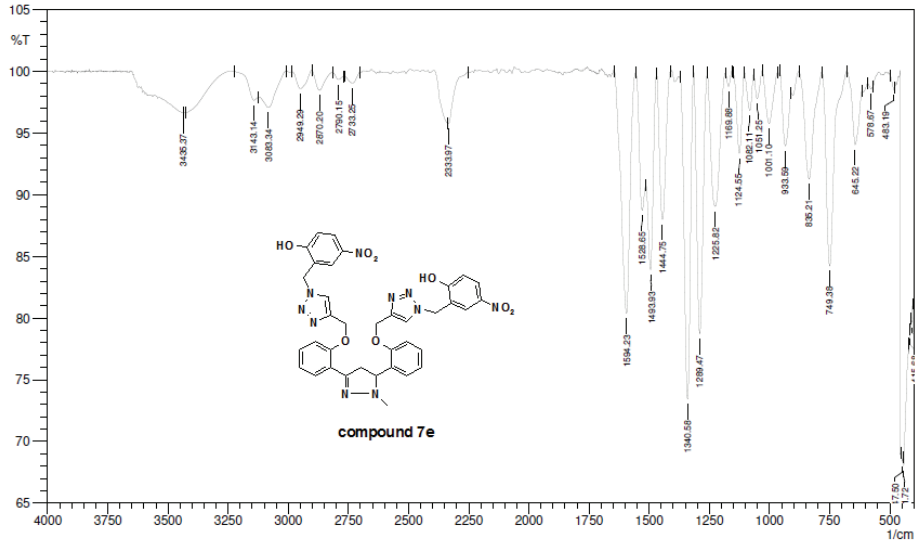

Fig. S-50. IR spectrum of compound **7e**.

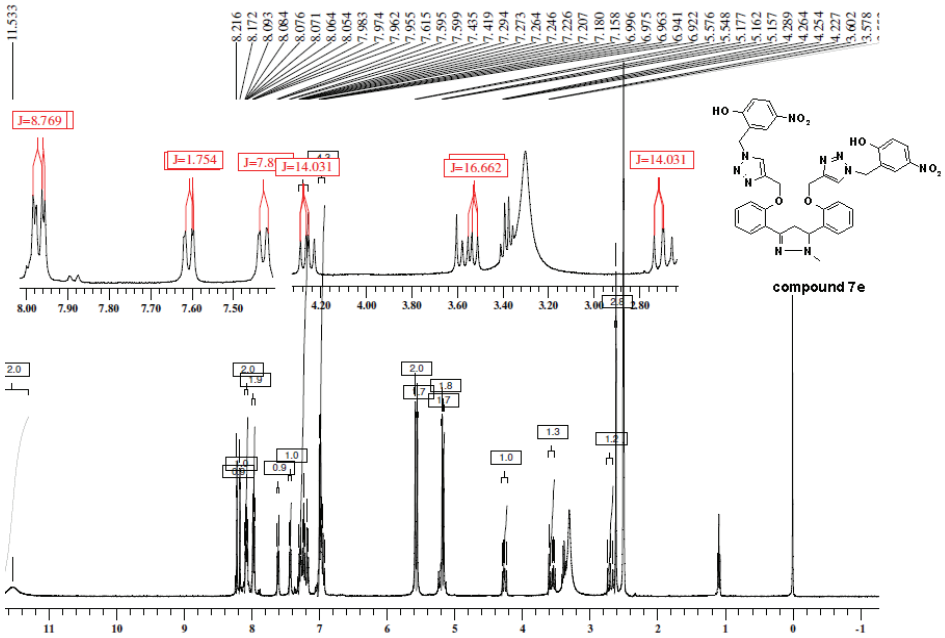

Fig. S-51. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7e**.

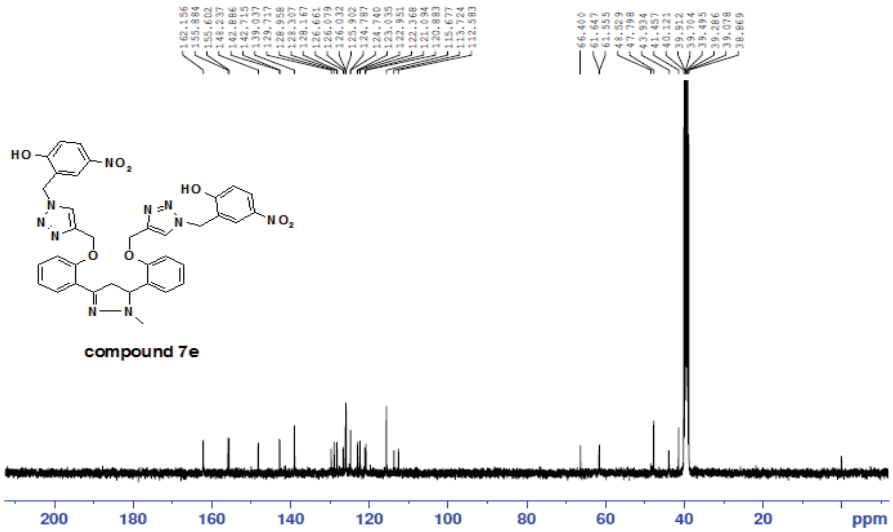

Fig. S-52. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7e**.

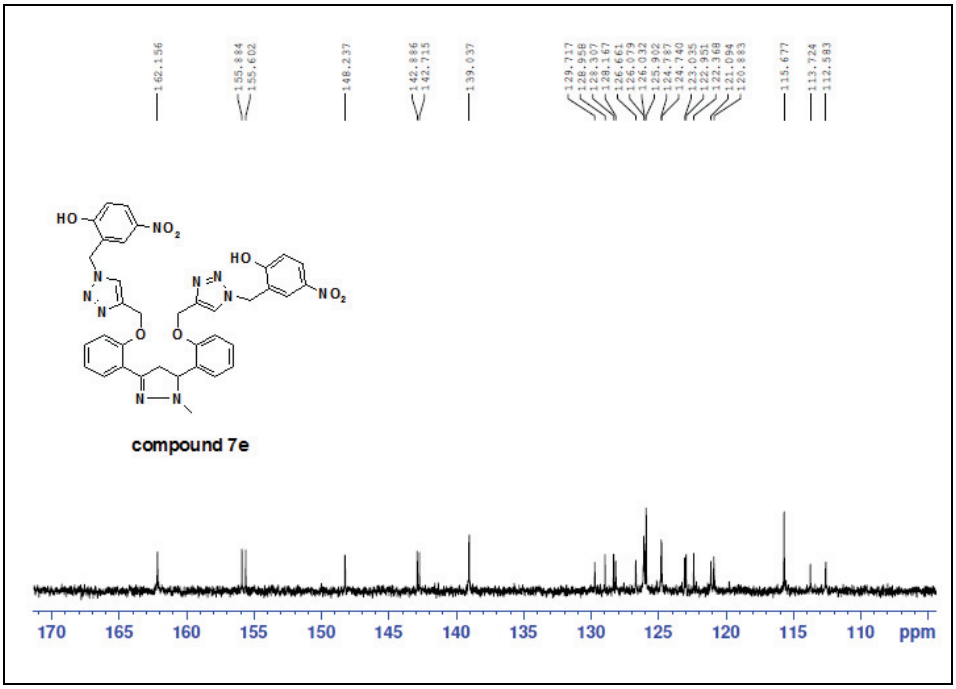

Fig. S-53. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7e**.

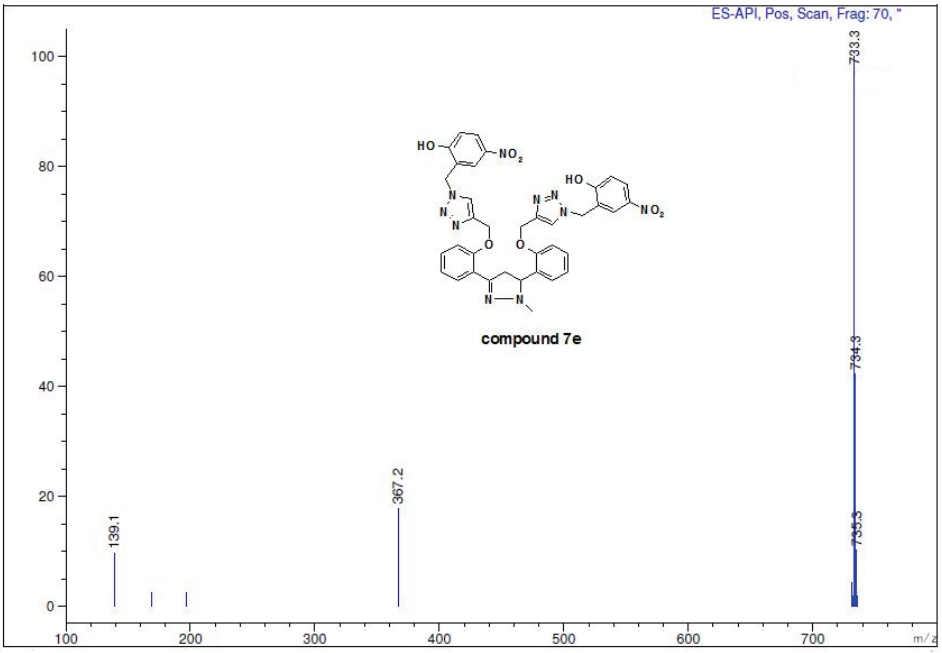

Fig. S-54. Mass spectrum of compound **7e**.

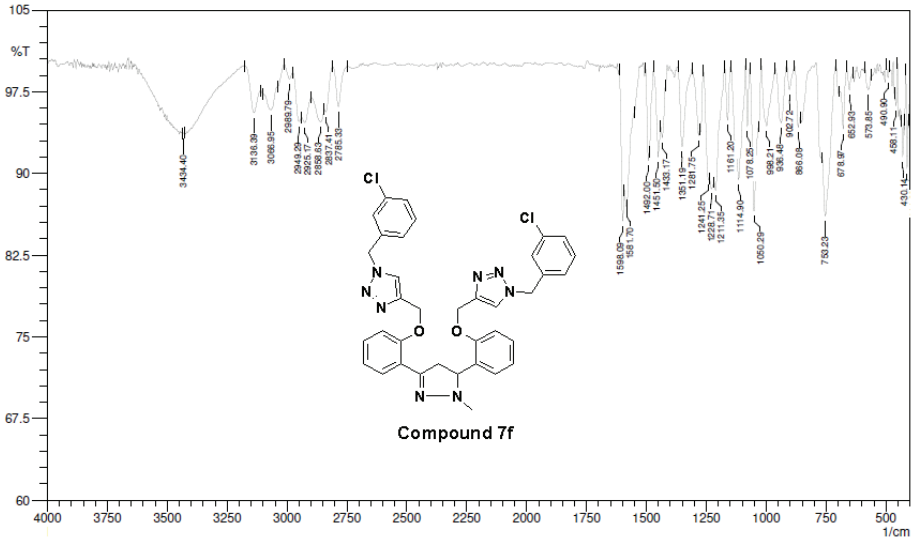

Fig. S-55. IR spectrum of compound **7f**.

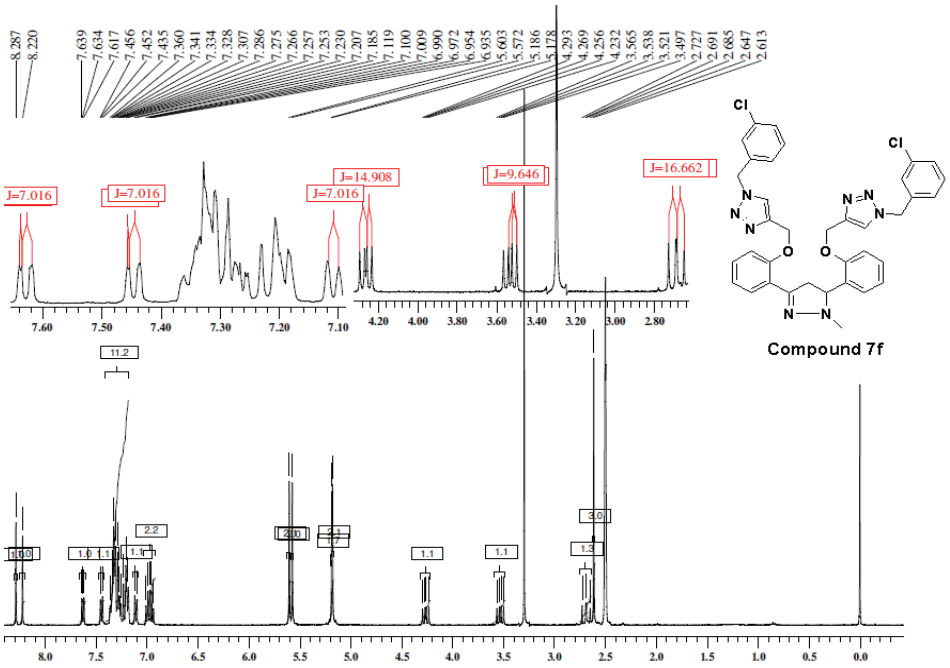

Fig. S-56. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7f**.

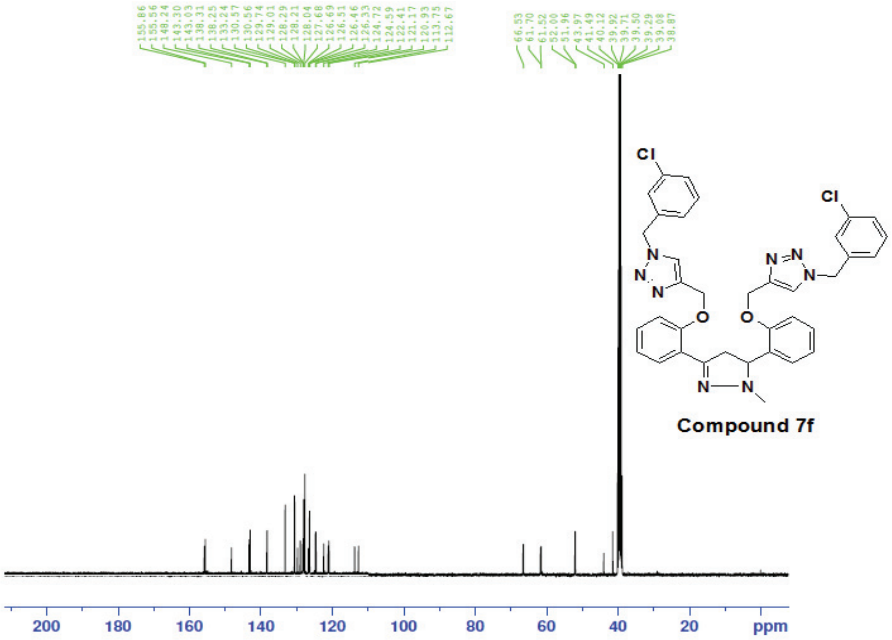

Fig. S-57. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7f**.

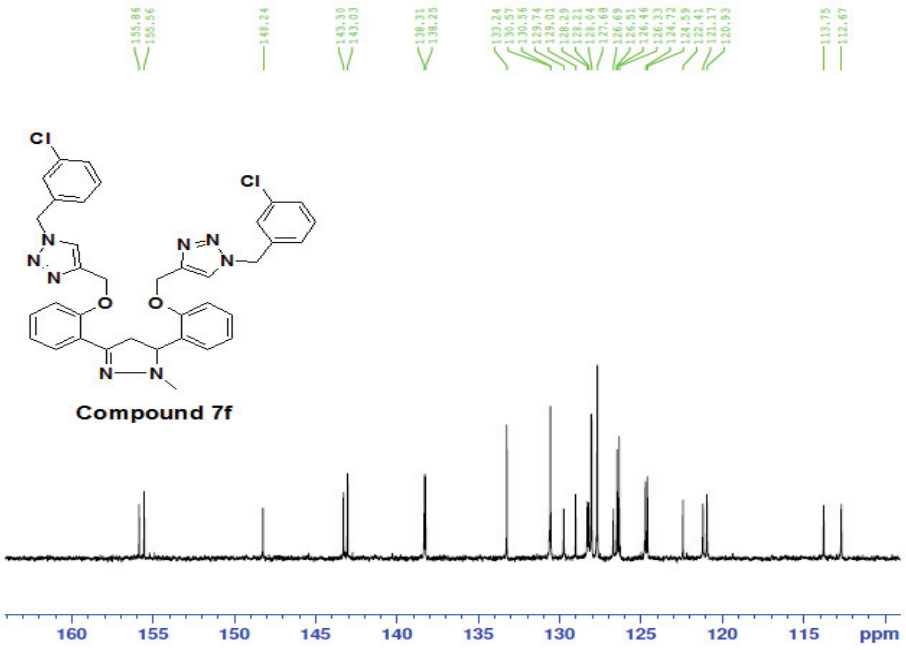

Fig. S-58. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7f**.

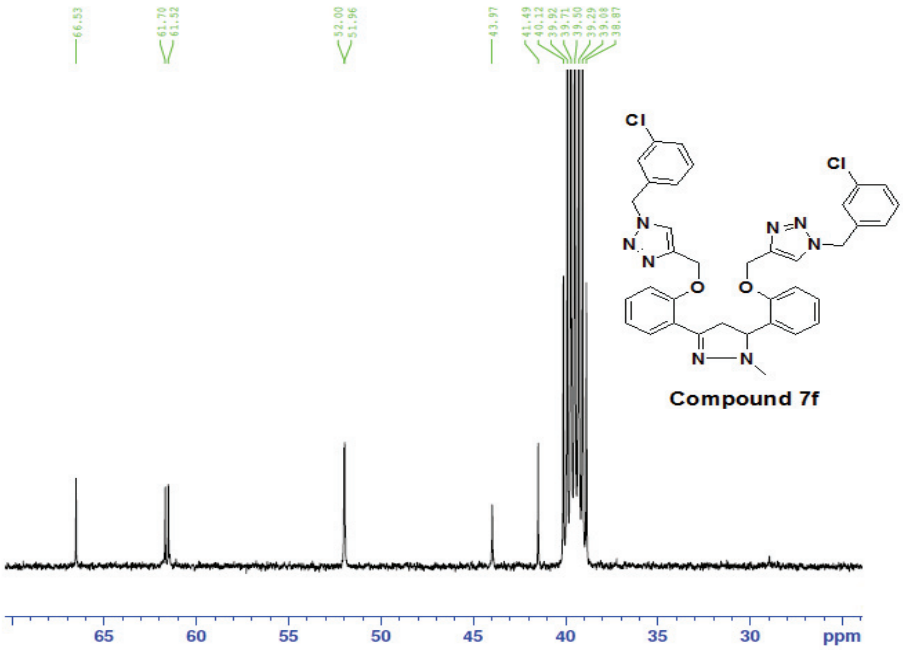

Fig. S-59. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7f**.

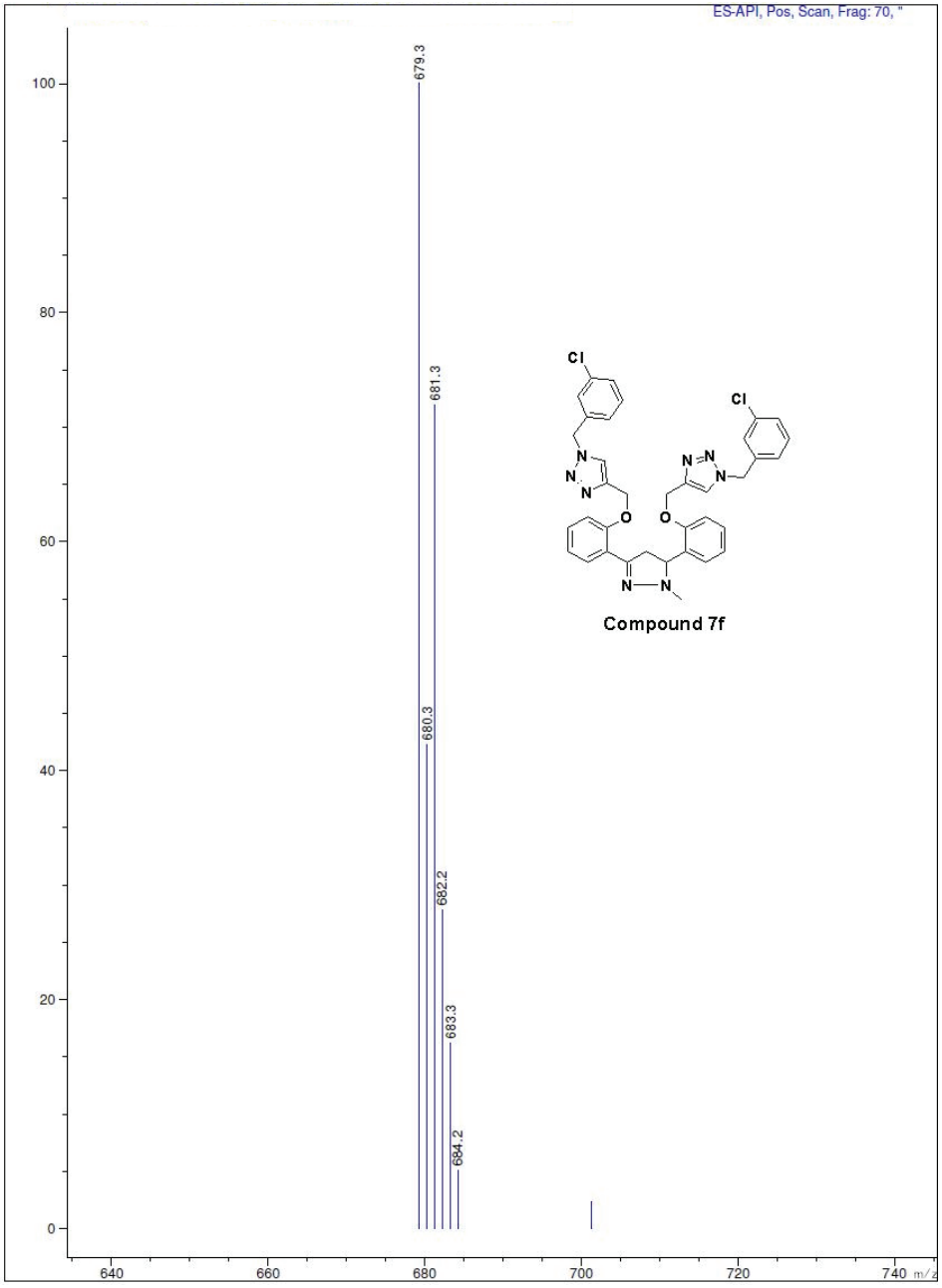

Fig. S-60. Mass spectrum of compound **7f**.

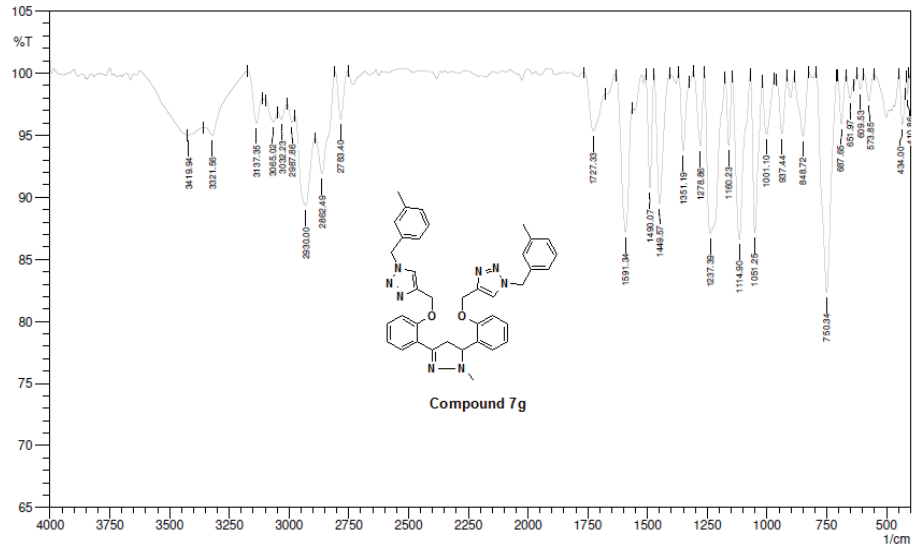

Fig. S-61. IR spectrum of compound **7g**.

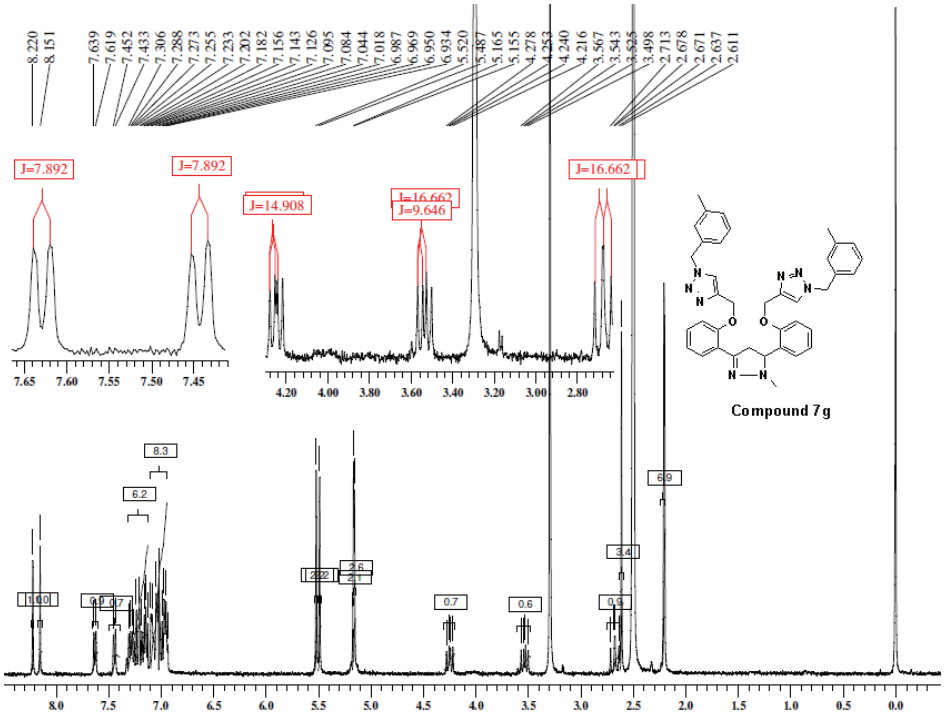

Fig. S-62. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7g**.

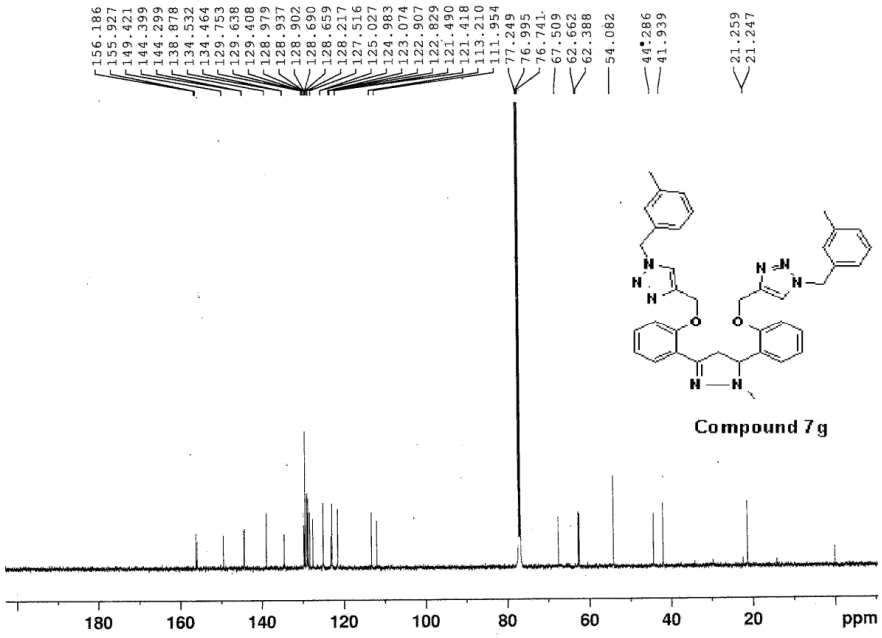

Fig. S-63. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7g**.

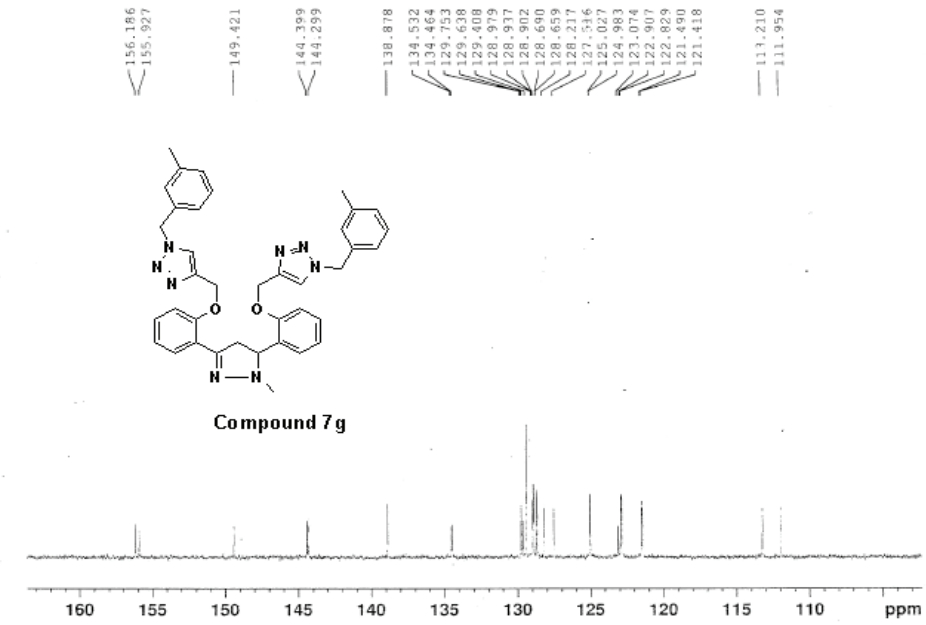

Fig. S-64. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7g**.

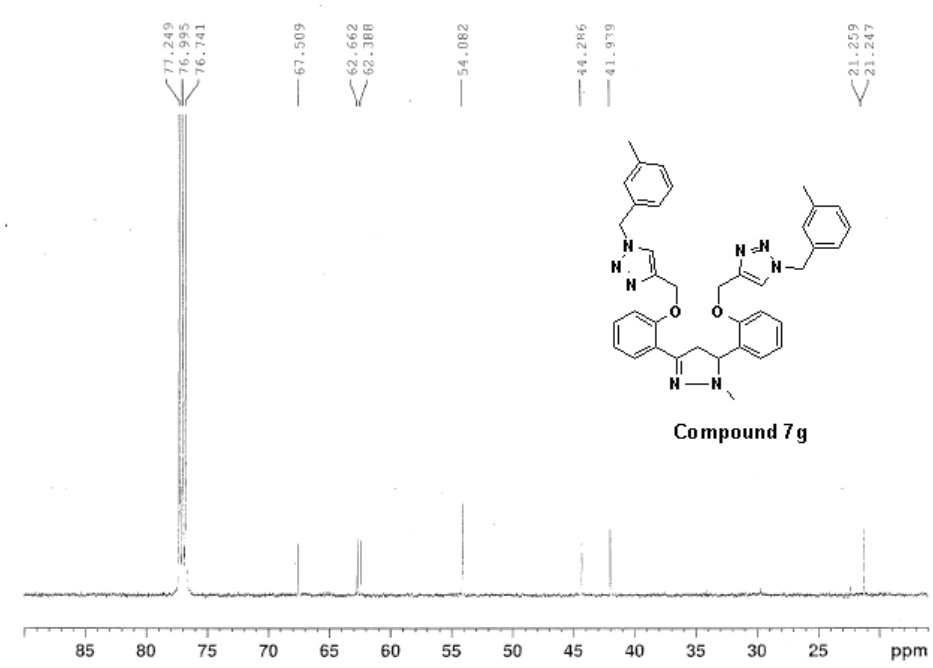

Fig. S-65. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7g**.

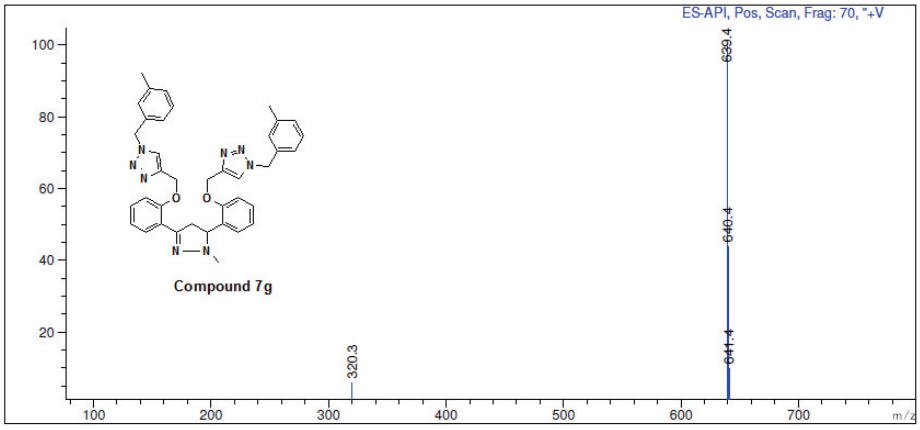

Fig. S-66. Mass spectrum of compound **7g**.

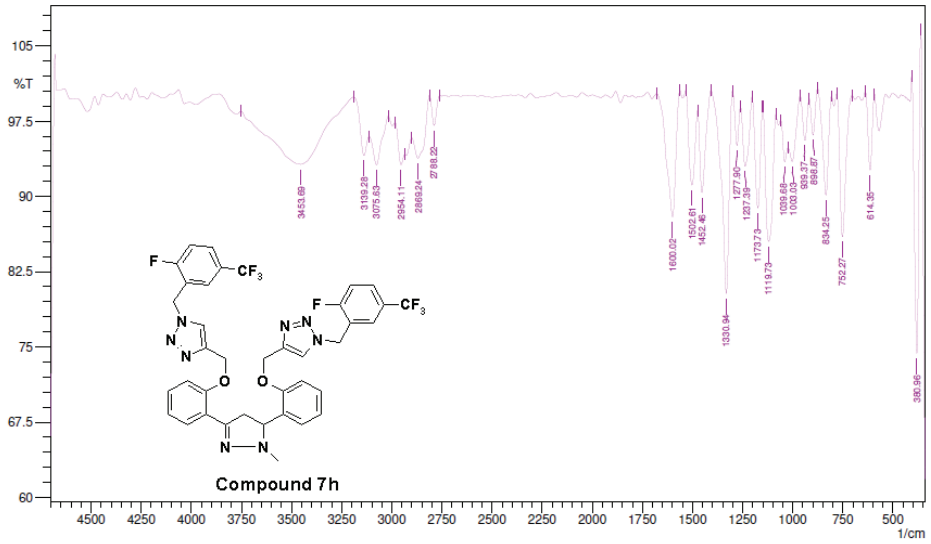

Fig. S-67. IR spectrum of compound **7h**.

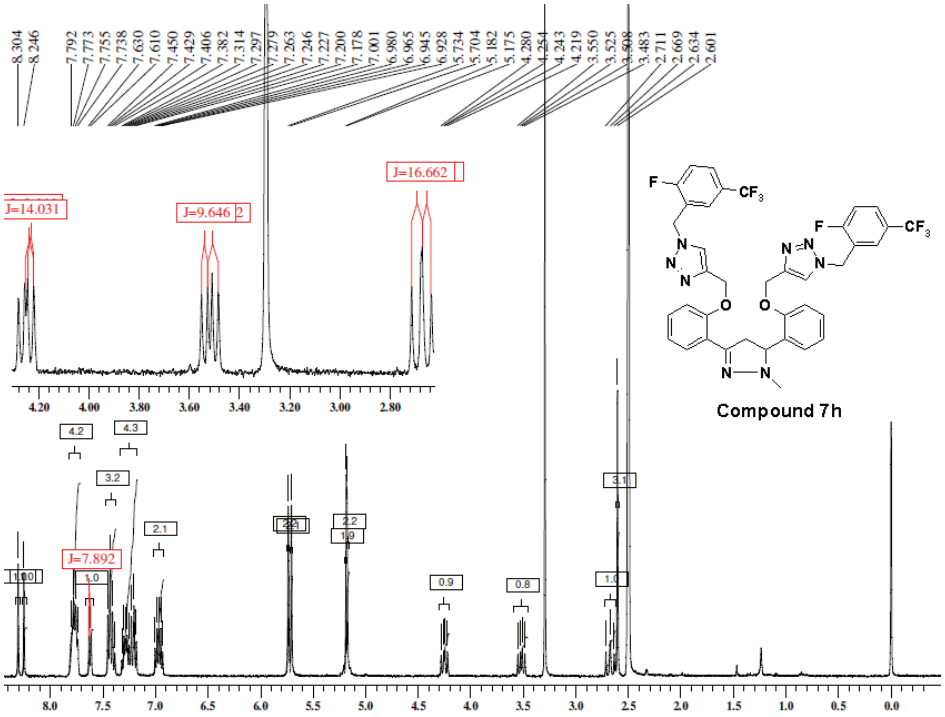

Fig. S-68. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7h**.

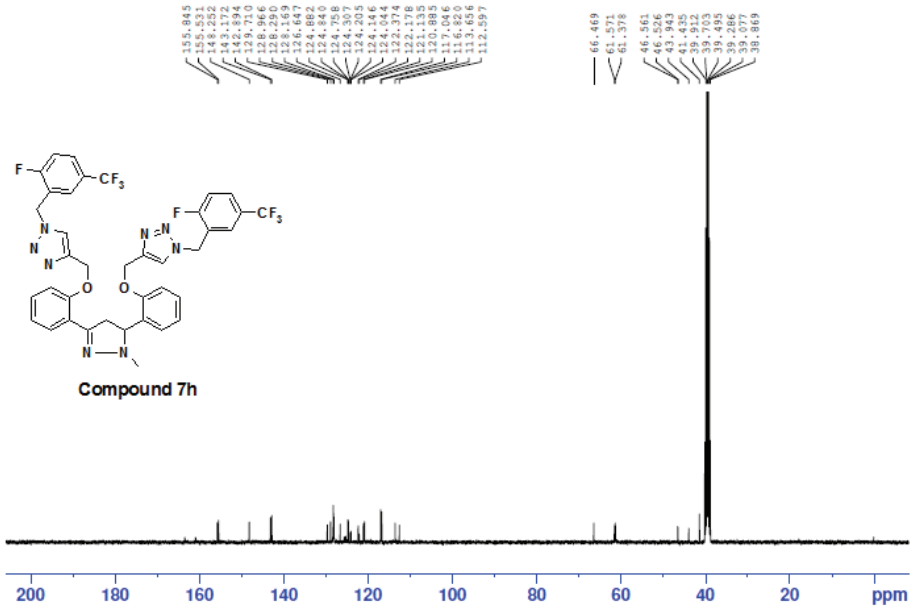

Fig. S-69. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7h**.

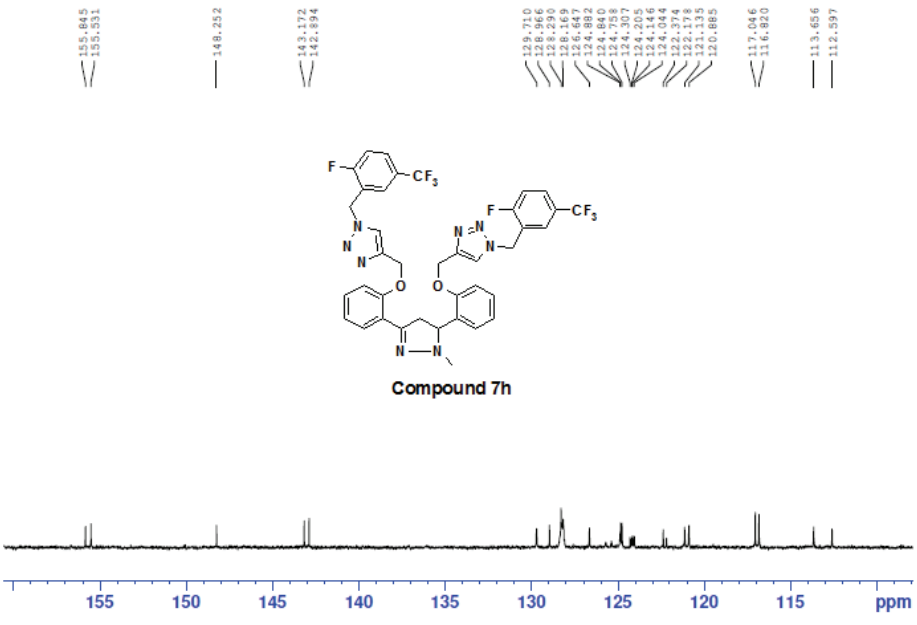

Fig. S-70. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7h**.

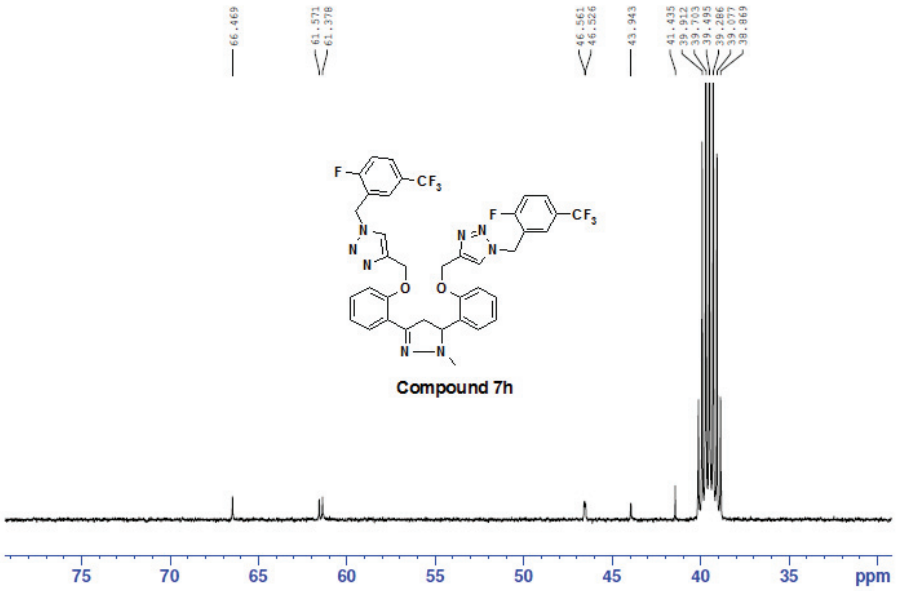

Fig. S-71. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7h**.

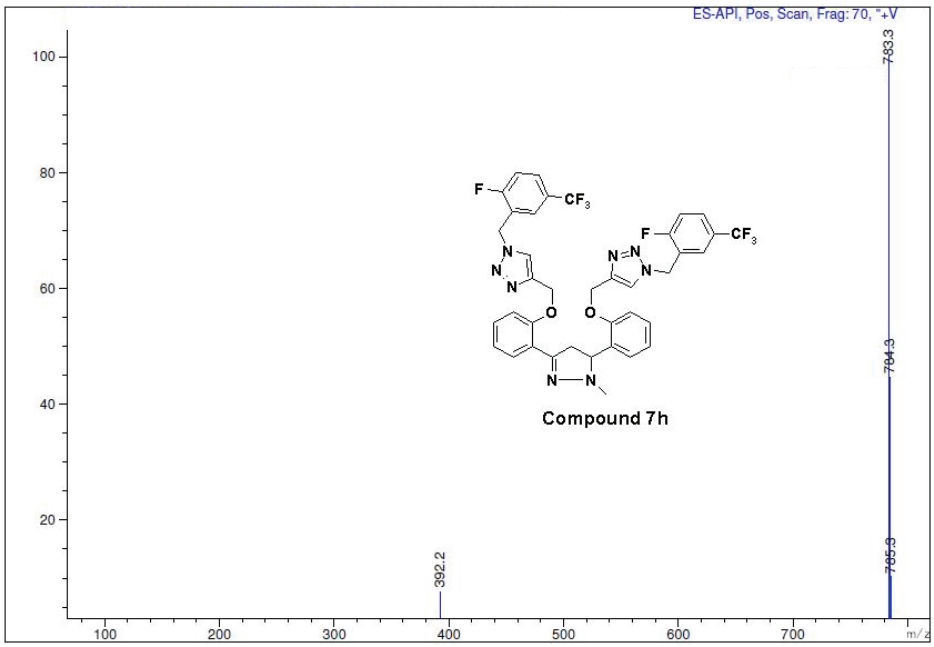

Fig. S-72. Mass spectrum of compound **7h**.

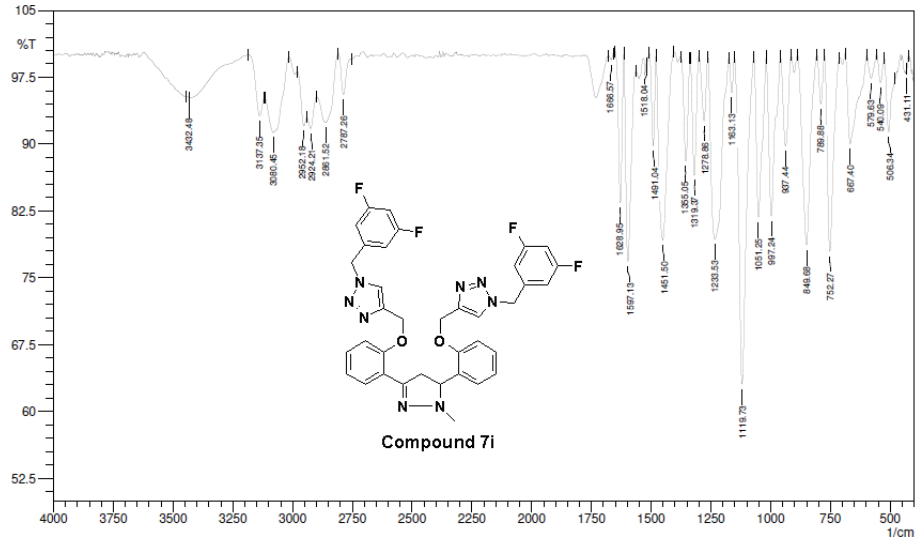

Fig. S-73. IR spectrum of compound **7i**.

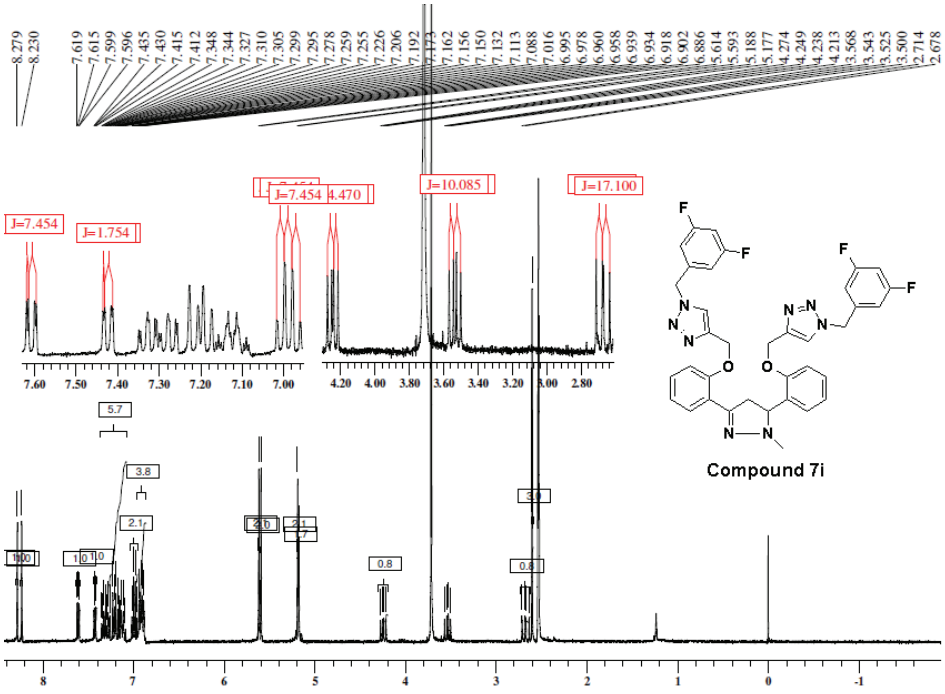

Fig. S-74. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7i**.

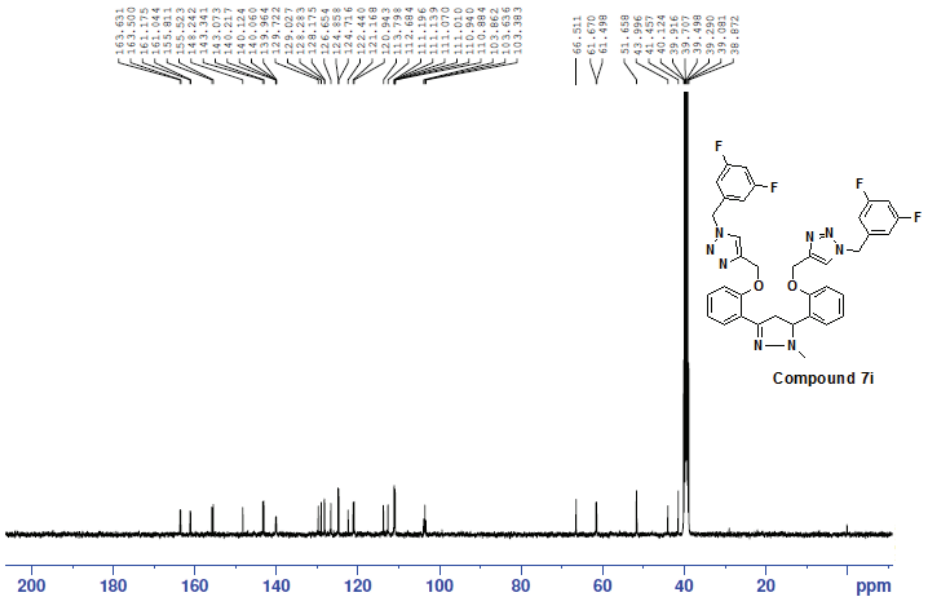

Fig. S-75. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7i**.

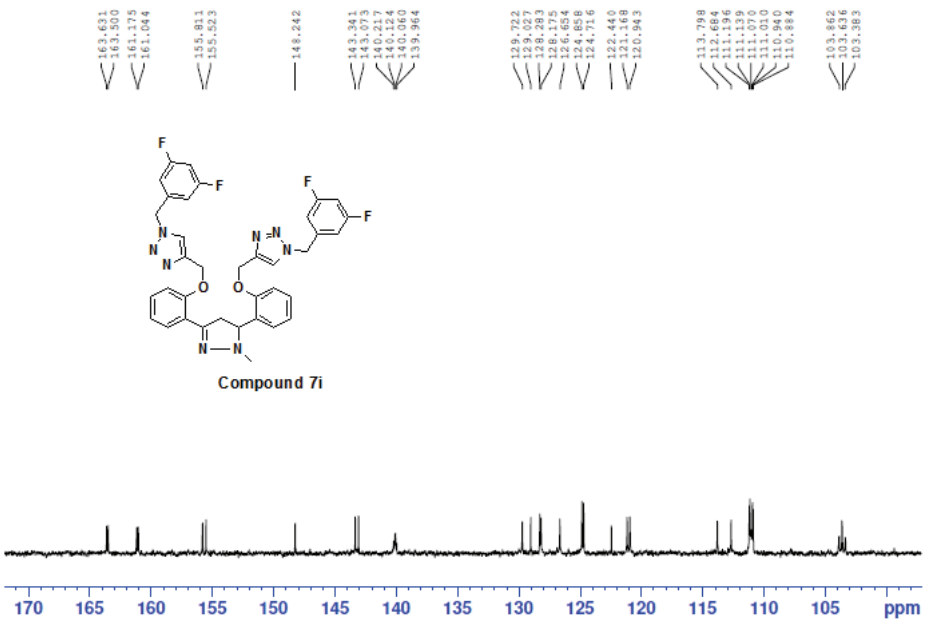

Fig. S-76. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7i**.

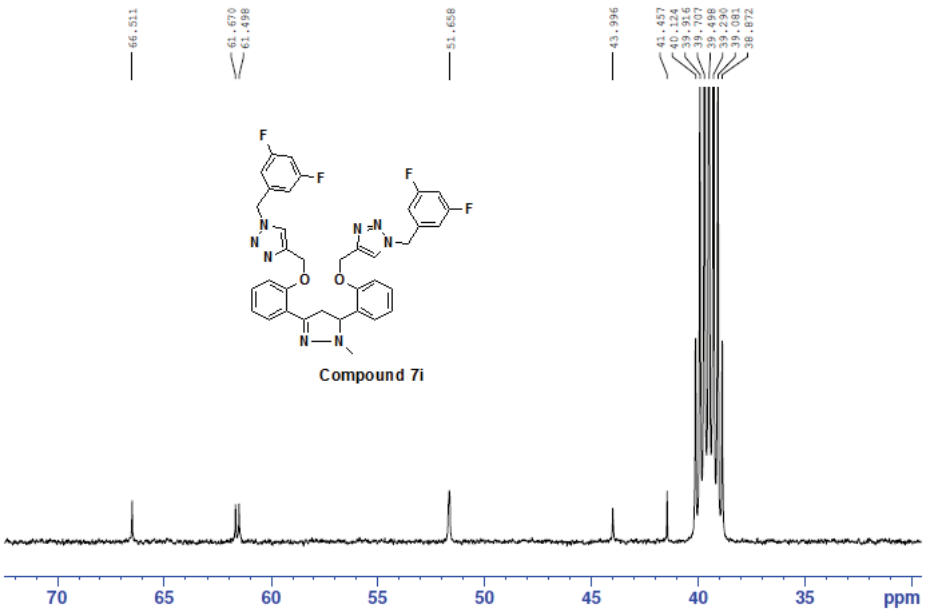

Fig. S-77. ^{13}C-NMR (100 MHz, DMSO-d_6) spectrum of compound **7i**.

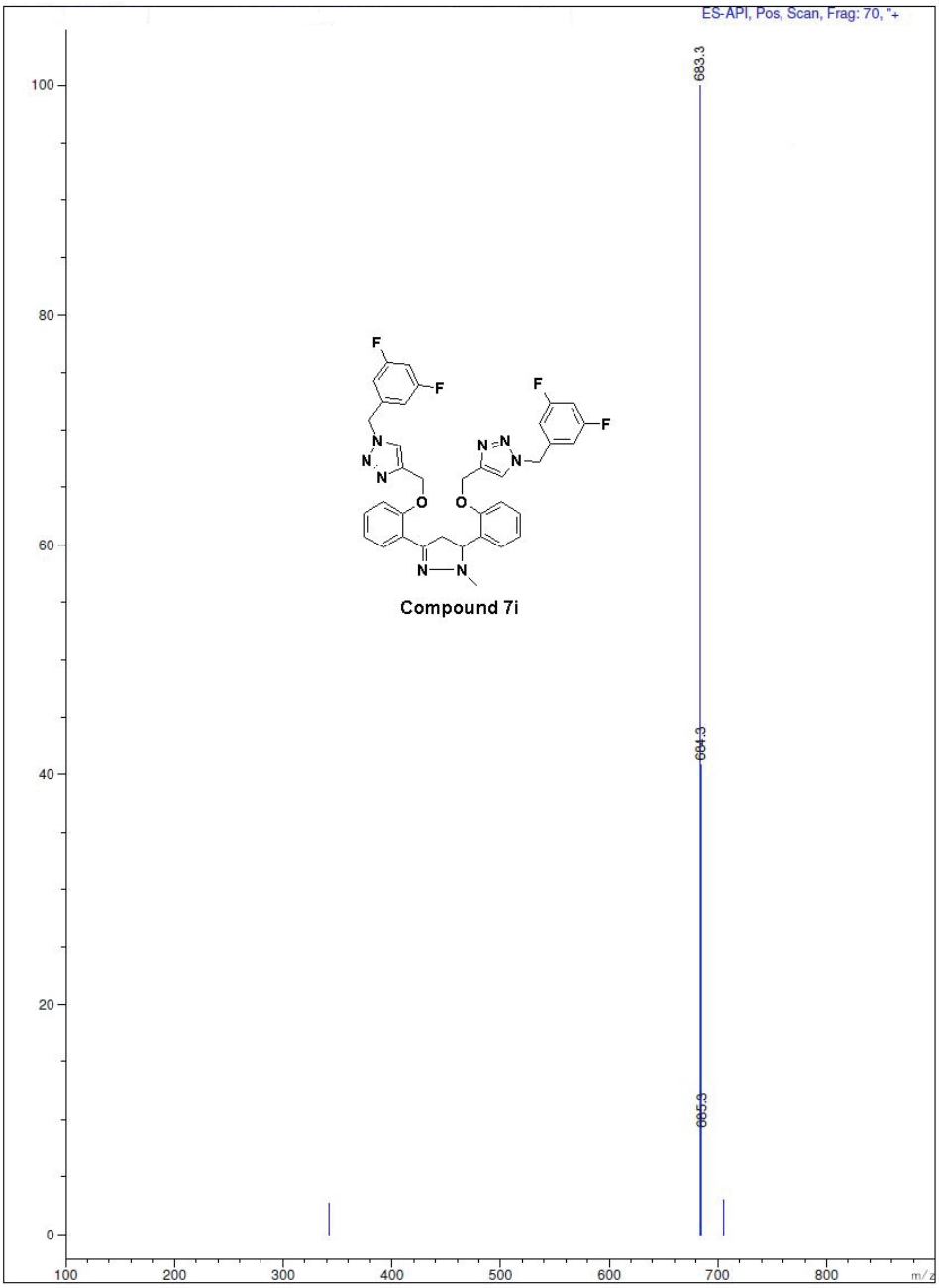

Fig. S-78. Mass spectrum of compound **7i**.

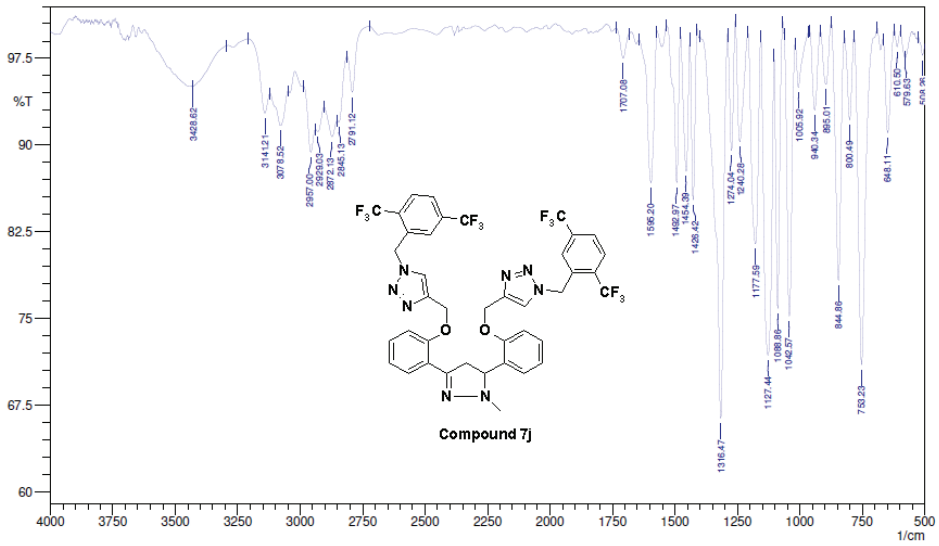

Fig. S-79. IR spectrum of compound **7j**.

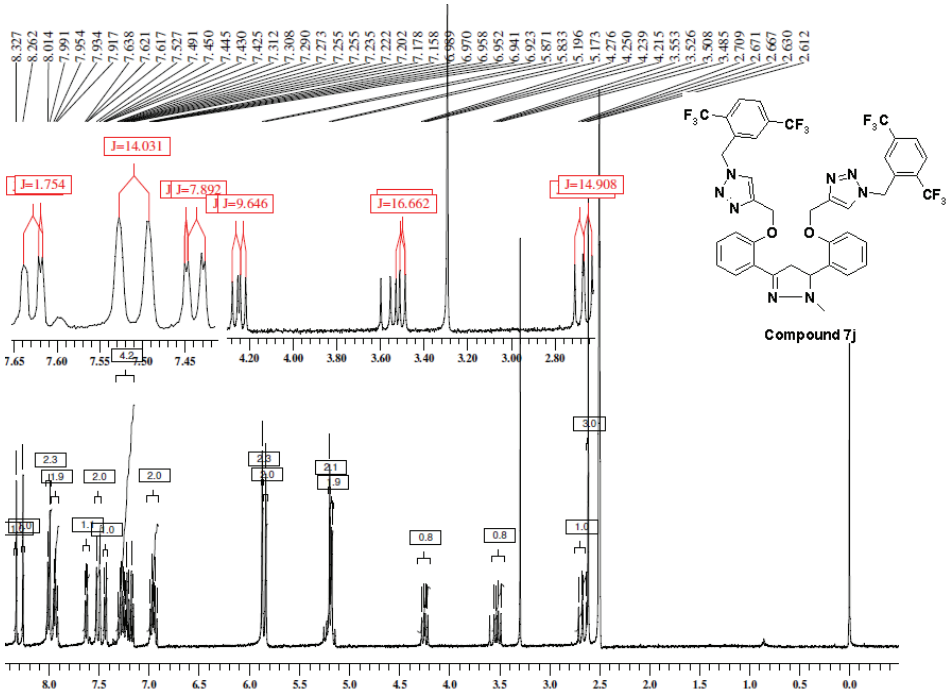

Fig. S-80. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7j**.

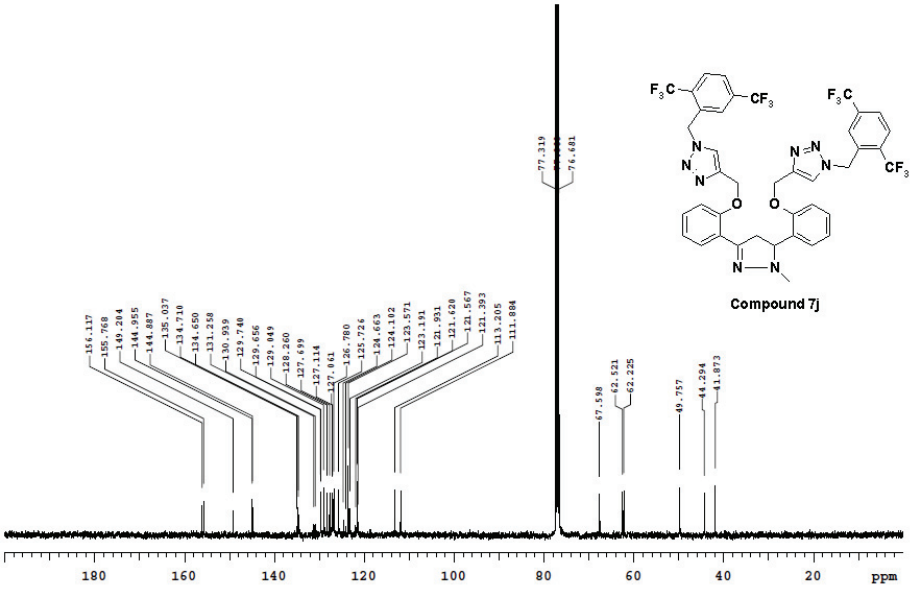

Fig. S-81. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7j**.

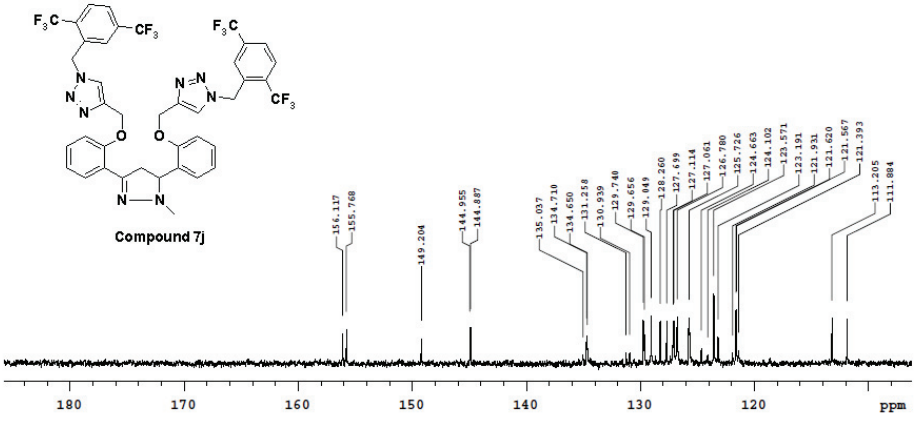

Fig. S-82. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7j**.

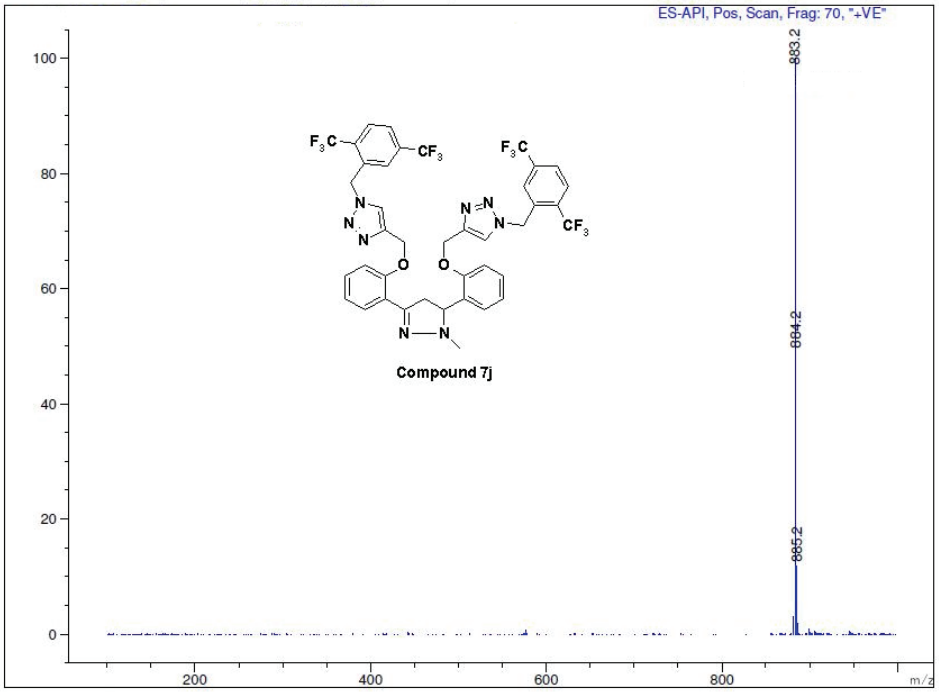

Fig. S-83. Mass spectrum of compound **7j**.

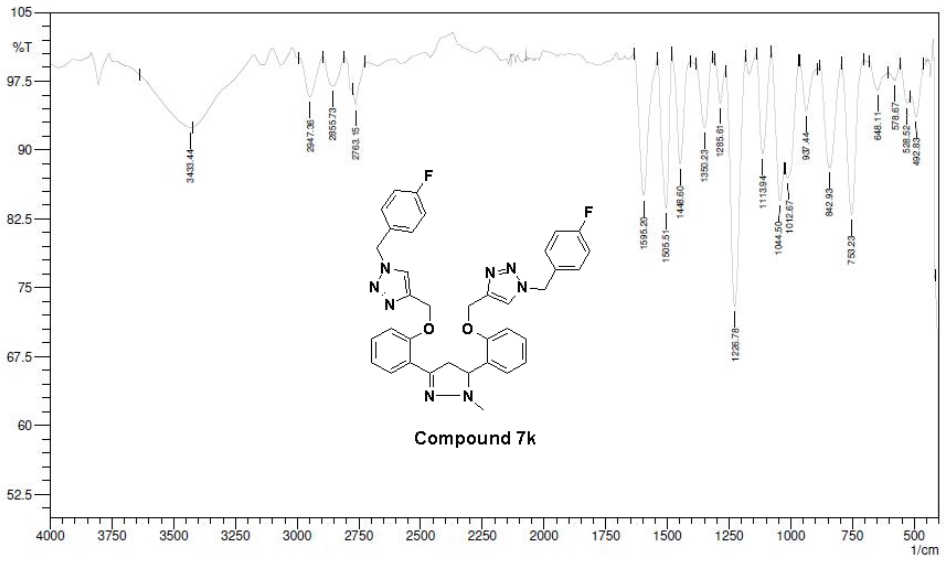

Fig. S-84. IR spectrum of compound **7k**.

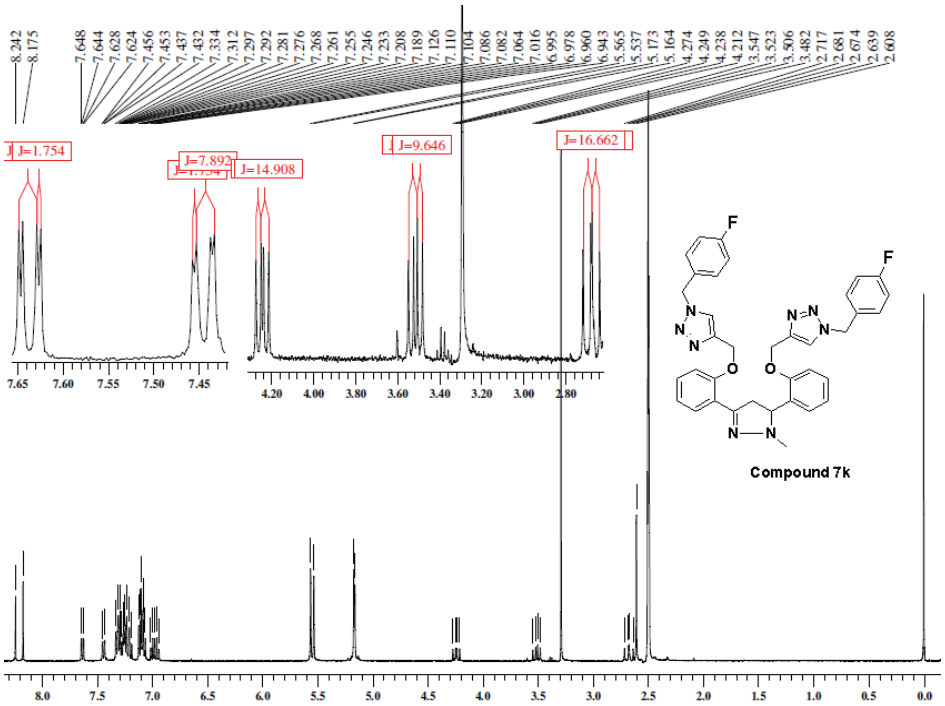

Fig. S-85. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7k**.

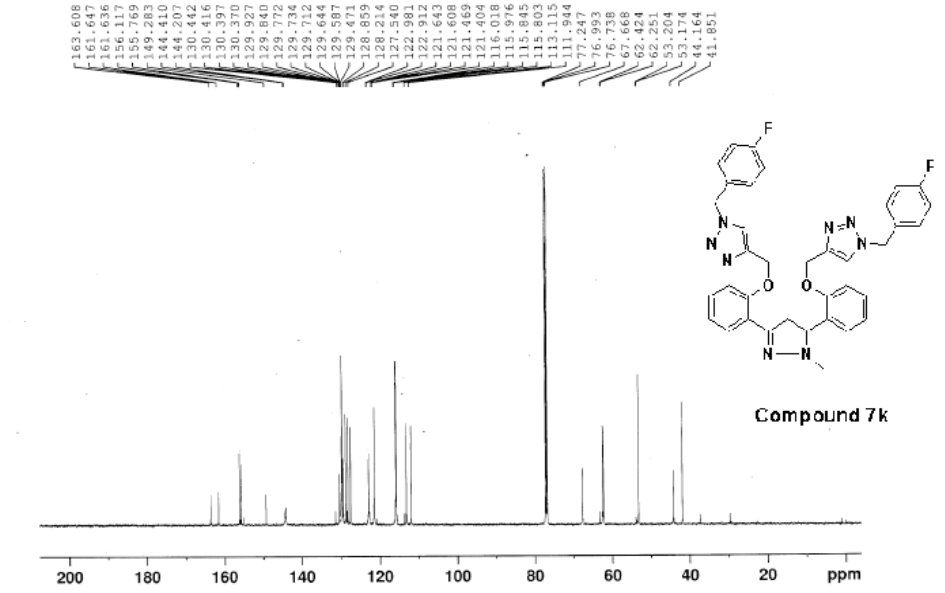

Fig. S-86. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7k**.

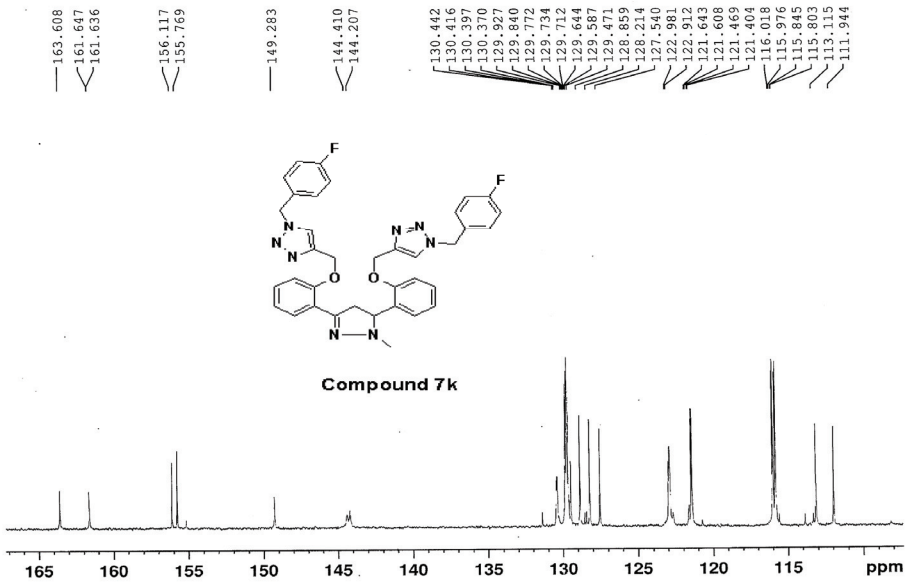

Fig. S-87. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7k**.

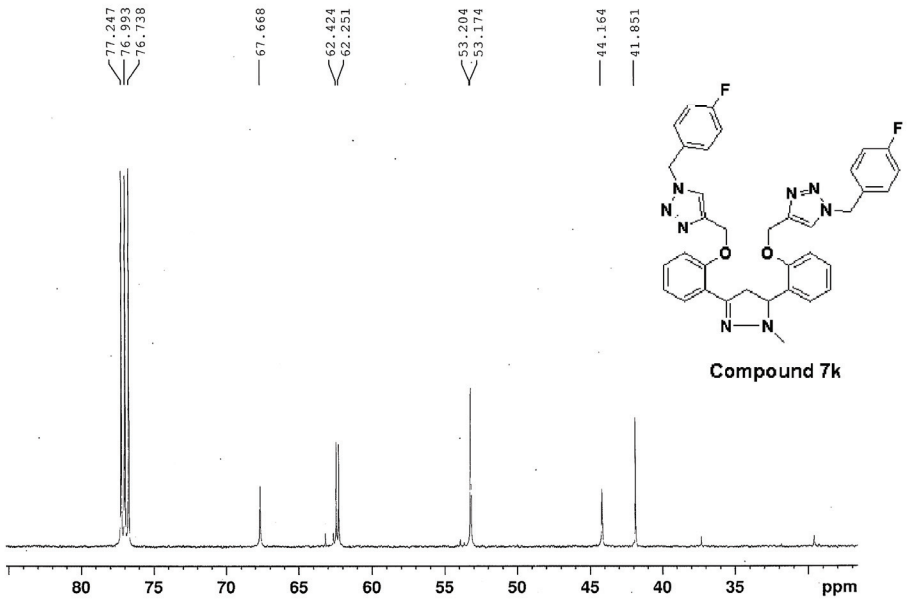

Fig. S-88. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7k**.

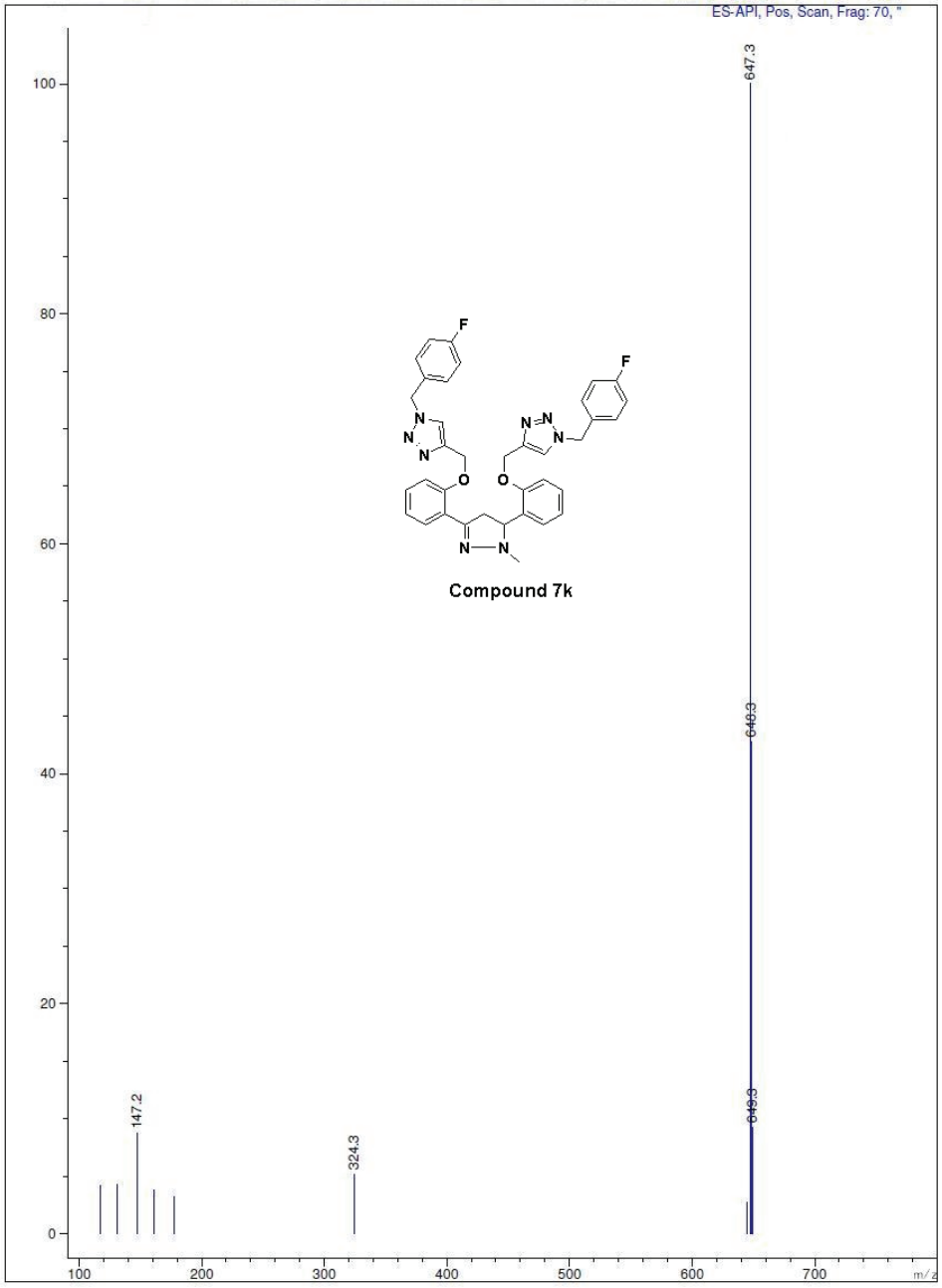

Fig. S-89. Mass spectrum of compound **7k**.

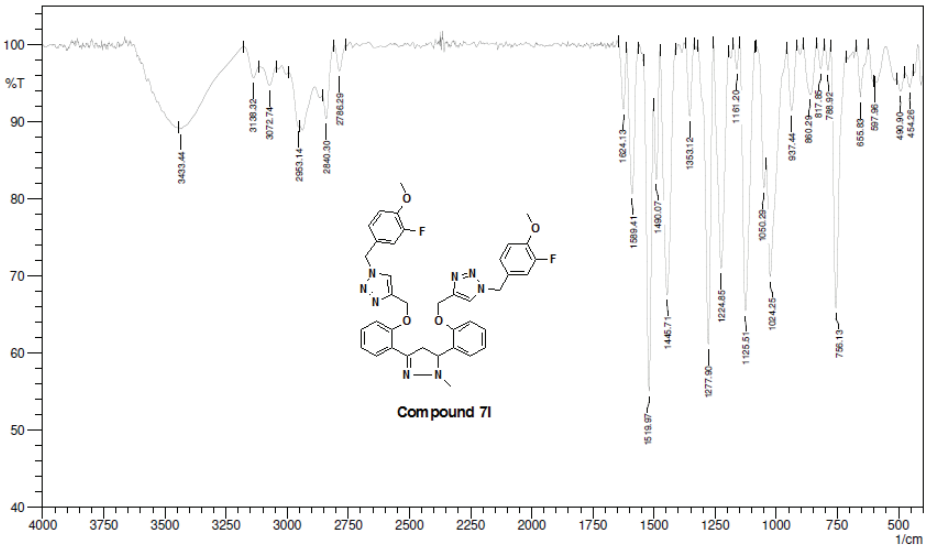

Fig. S-90. IR spectrum of compound **7l**.

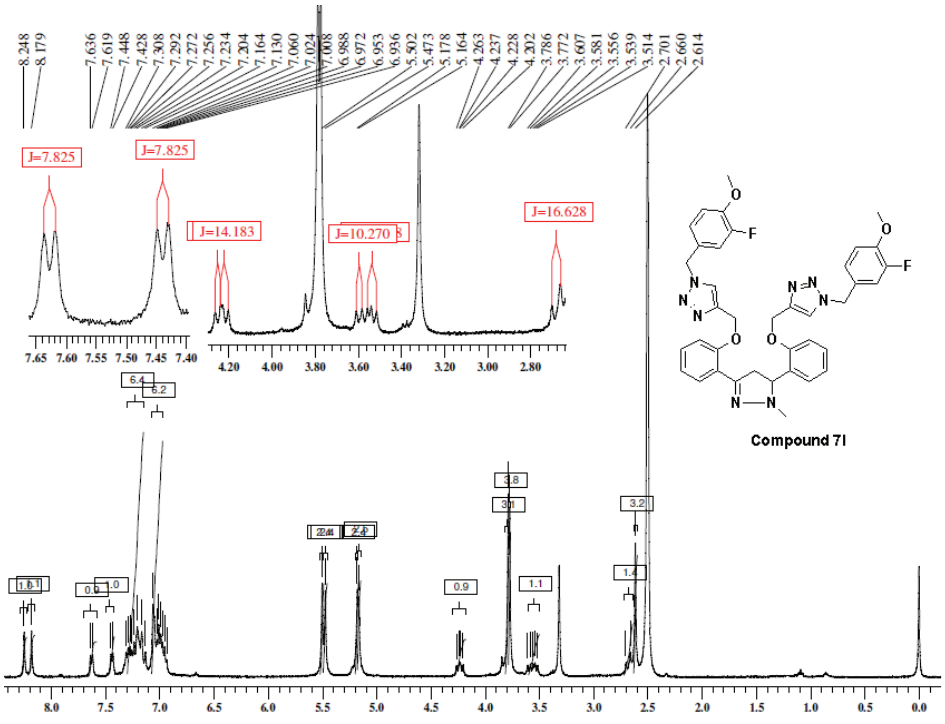

Fig. S-91. ^{1}H-NMR (500 MHz, DMSO-d_6) spectrum of compound **7l**

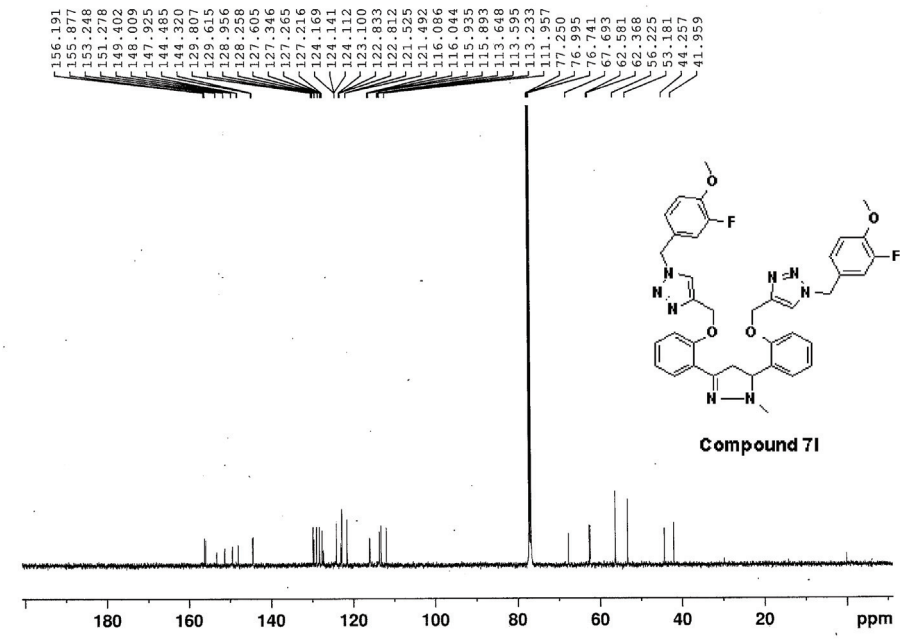

Fig. S-92. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7l**.

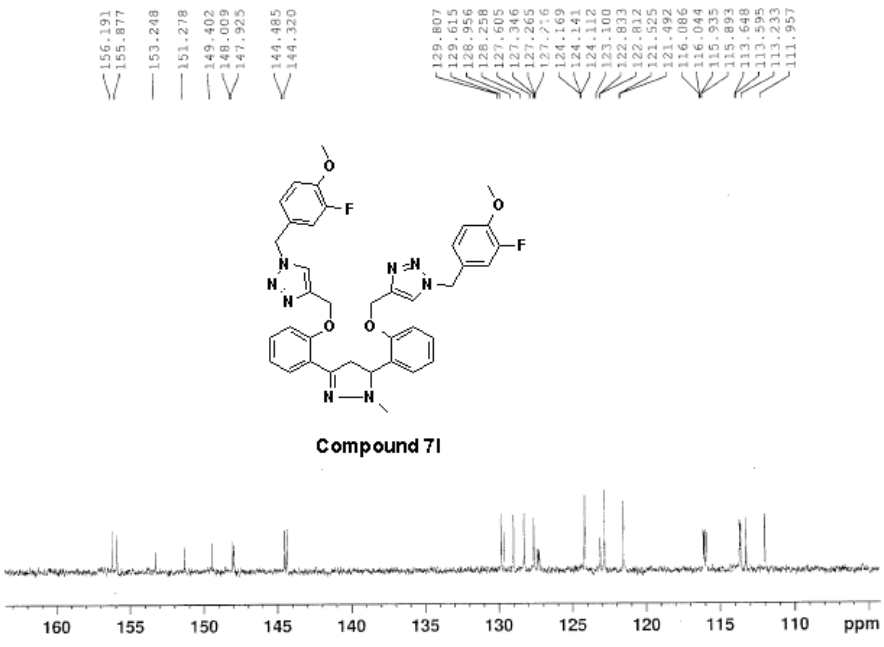

Fig. S-93. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7l**.

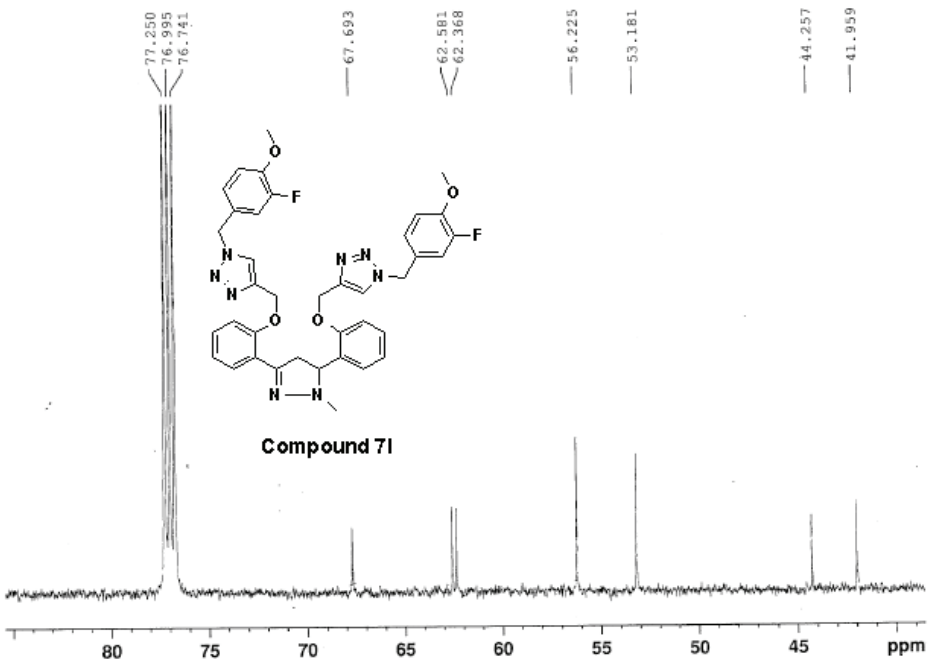

Fig. S-94. ^{13}C-NMR (125 MHz, $CDCl_3$) spectrum of compound **7l**.

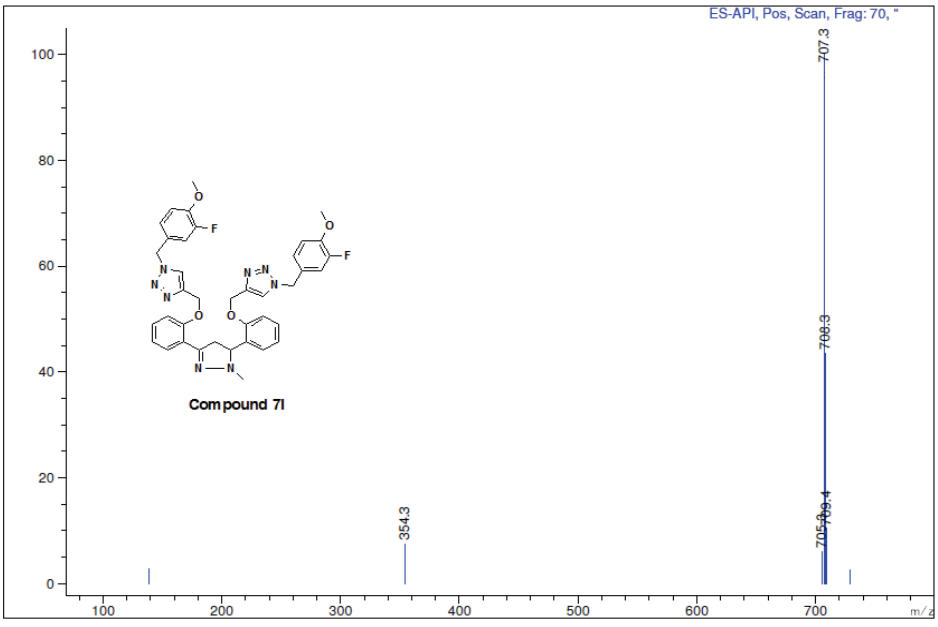

Fig. S-95. Mass spectrum of compound **7l**.

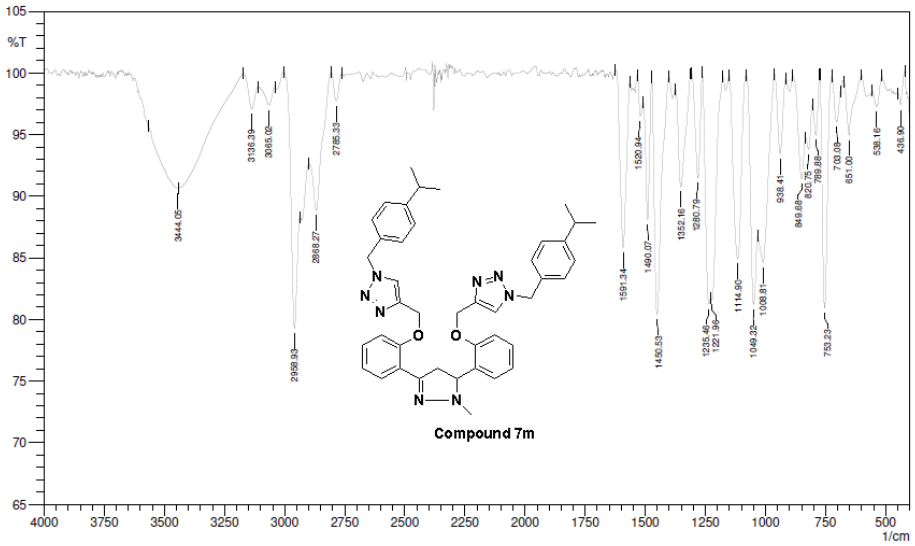

Fig. S-96. IR spectrum of compound **7m**.

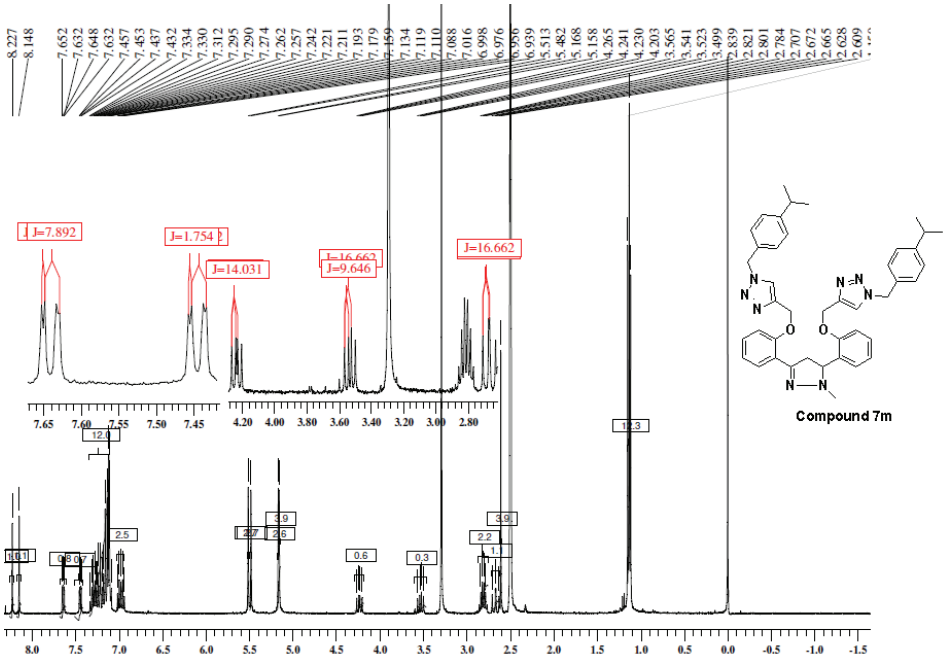

Fig. S-97. ^{1}H-NMR (400 MHz, DMSO-d_6) spectrum of compound **7m**.

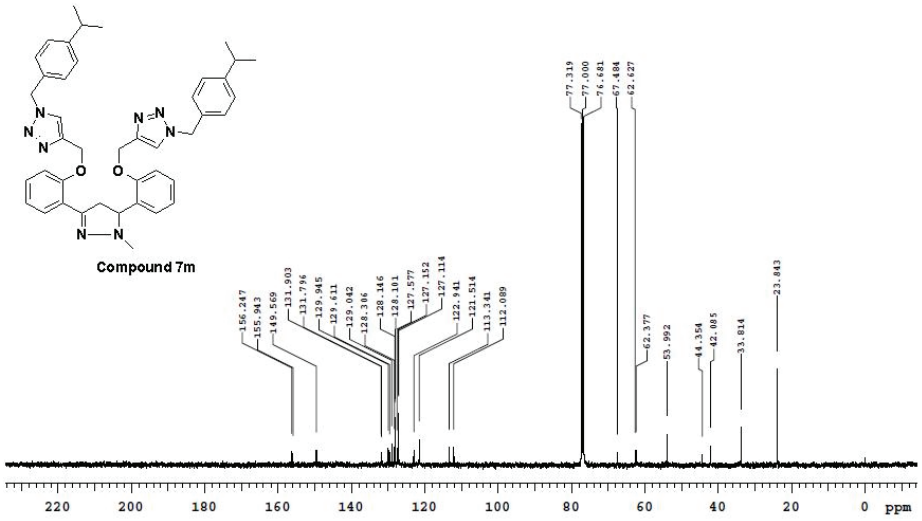

Fig. S-98. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7m**.

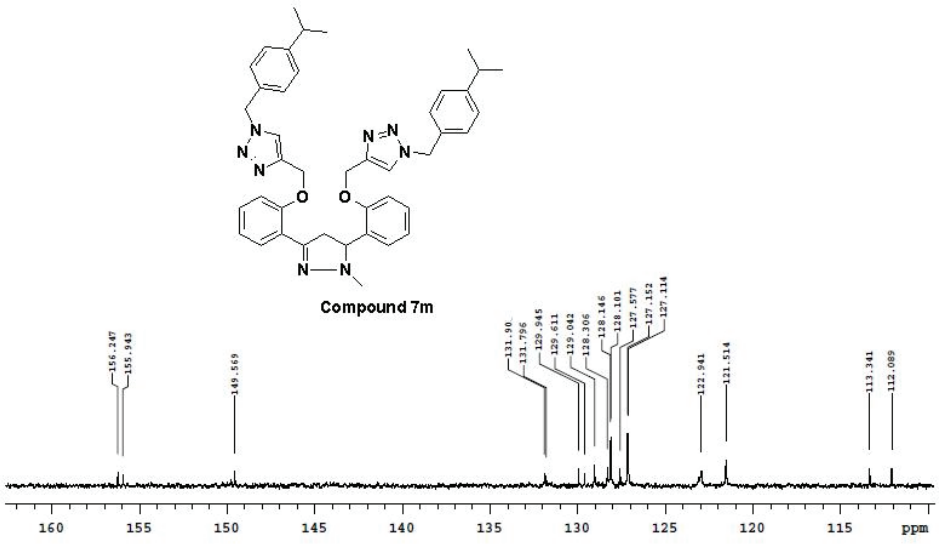

Fig. S-99. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7m**.

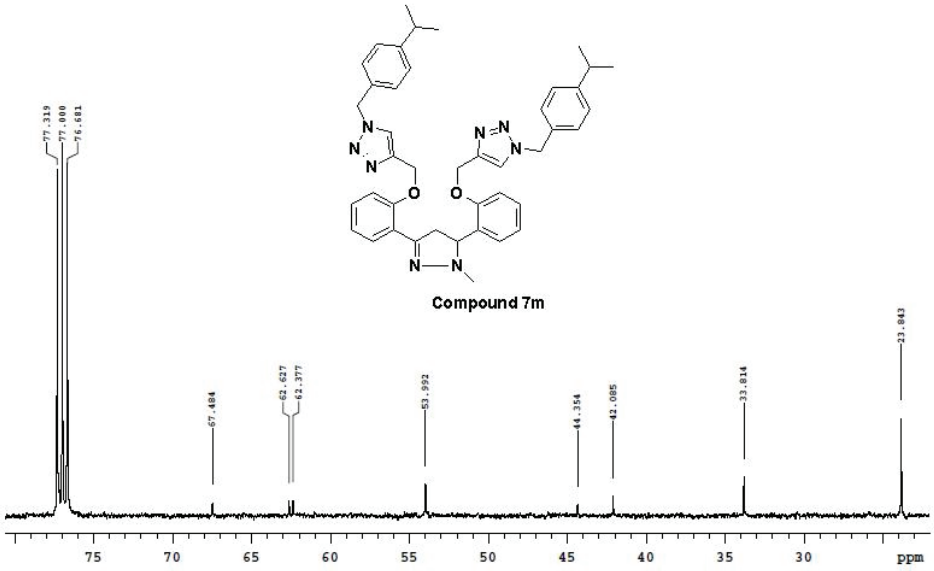

Fig. S-100. ^{13}C-NMR (100 MHz, $CDCl_3$) spectrum of compound **7m**.

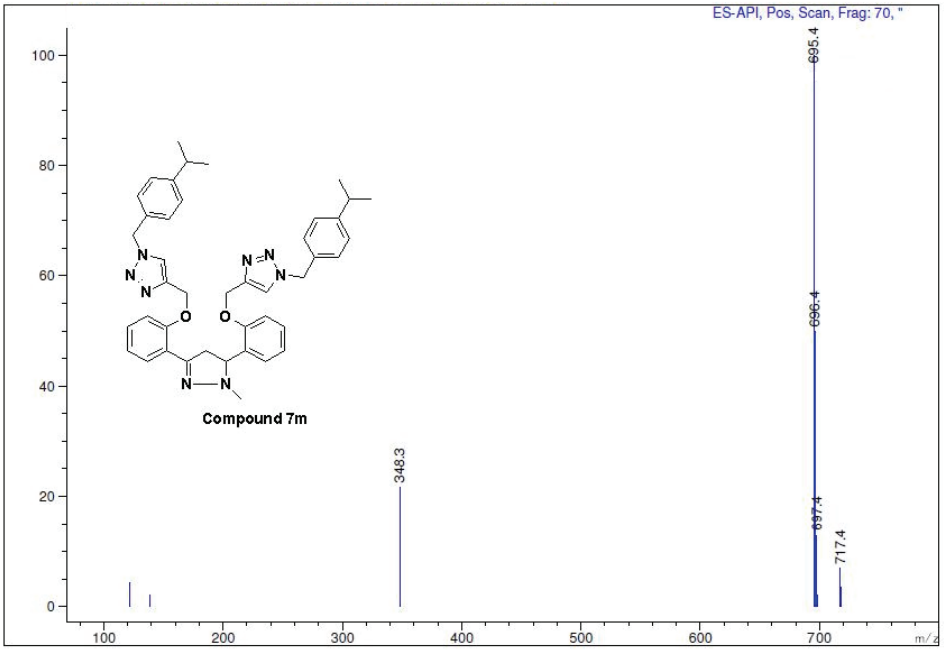

Fig. S-101. Mass spectrum of compound **7m**.