

Supporting Information

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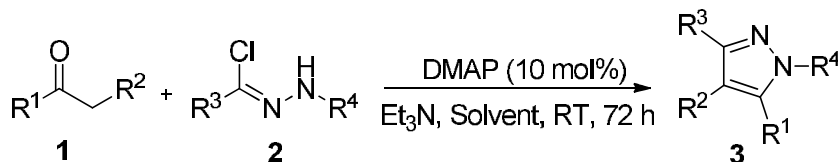
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A: General Information and Starting Materials

General Information. Proton nuclear magnetic resonance (^1H NMR) spectra and carbon nuclear magnetic resonance (^{13}C NMR) spectra were recorded on a Bruker ACF300 spectrometer (500 MHz and 125 MHz). Chemical shifts for protons are reported in parts per million downfield from tetramethylsilane and are referenced to residual protium in the NMR solvent (DMSO-*d*₆: δ 2.50; CDCl_3 : δ 7.26). Chemical shifts for carbon are reported in parts per million downfield from tetramethylsilane and are referenced to the carbon resonances of the solvent (DMSO-*d*₆: δ 39.50; CDCl_3 : δ 77.16). Data are represented as follows: chemical shift, integration, multiplicity (br = broad, s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet), coupling constants in Hertz (Hz). All high resolution mass spectra were obtained on a Finnigan/MAT 95XL-T mass spectrometer. For thin layer chromatography (TLC), Merck pre-coated TLC plates (Merck 60 F254) were used, and compounds were visualized with a UV light at 254 nm. Flash chromatography separations were performed on Merck 60 (0.040-0.063 mm) mesh silica gel.

Starting Materials. All solvents, inorganic reagents and β -functionalized ketones were from commercial sources and used without purification unless otherwise noted. The nitril imines **2** were prepared following the literature procedures.^{1,2}

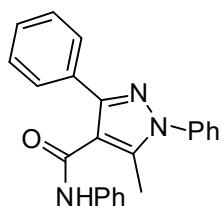
B: General Procedure for Cascade Reactions



To a solution of CH_2Cl_2 (0.3 mL) were added β -functionalized ketones **1** (0.05 mmol), nitril imines **2** (0.10 mmol), Et_3N (0.10 mmol) and DMAP (0.005 mmol). The reaction mixture was stirred at room temperature for 72 h and then the solvent was removed under vacuum. The residue was purified by silica gel chromatography to yield the desired product **3**.

C: Characterization Data

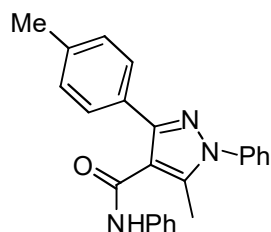
5-Methyl-*N*,1,3-triphenyl-1*H*-pyrazole-4-carboxamide (3aa)



White solid, 87% yield. ^1H NMR (DMSO- d_6 , 500 MHz): δ (ppm) 10.30 (s, 1H), 7.78-7.76 (m, 2H), 7.70-7.68 (m, 2H), 7.64-7.59 (m, 4H), 7.53-7.50 (m, 1H), 7.43-7.40 (m, 2H), 7.37-7.32 (m, 3H), 7.11-7.08 (m, 1H), 2.44 (s, 3H). ^{13}C NMR (DMSO- d_6 , 125 MHz): δ (ppm) 163.4, 149.1, 140.3, 139.6, 139.3, 132.9, 129.9, 129.2, 128.9, 128.7, 128.6, 127.7, 125.4, 124.1, 120.0, 117.5, 11.9.

HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{30}\text{H}_{20}\text{N}_3\text{O}$) requires m/z 354.1601, found m/z 354.1591.

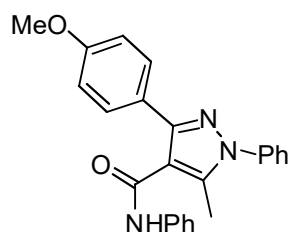
5-Methyl-*N*,1-diphenyl-3-(*p*-tolyl)-1*H*-pyrazole-4-carboxamide (3ab)



White solid, 95% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.60 (d, J = 10.0 Hz, 2H), 7.53-7.50 (m, 4H), 7.46-7.44 (m, 1H), 7.35 (br, 1H), 7.32-7.31 (m, 2H), 7.28-7.27 (m, 4H), 7.07-7.06 (m, 1H), 2.66 (s, 3H), 2.44 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.2, 150.2, 144.2, 139.3, 138.8, 138.0, 129.7, 129.3, 129.2, 128.9, 128.6, 125.7, 124.0, 119.6,

113.9, 21.4, 12.5. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{24}\text{H}_{22}\text{N}_3\text{O}$) requires m/z 368.1757, found m/z 368.1751.

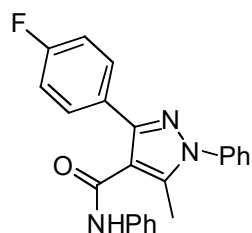
3-(4-Methoxyphenyl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ac)



White solid, 98% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.64 (d, J = 10.0 Hz, 2H), 7.51-7.48 (m, 4H), 7.46-7.44 (m, 1H), 7.39 (br, 1H), 7.31-7.28 (m, 3H), 7.27-7.25 (m, 1H), 7.08-7.05 (m, 1H), 7.03 (d, J = 10.0 Hz, 2H), 3.86 (s, 3H), 2.64 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.2, 160.4, 149.9, 144.2, 138.8, 138.0, 130.8, 129.2, 128.9, 128.6,

125.7, 124.5, 124.0, 119.5, 114.4, 113.8, 55.4, 12.4. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{24}\text{H}_{22}\text{N}_3\text{O}_2$) requires m/z 384.1707, found m/z 384.1698.

3-(4-Fluorophenyl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ad)

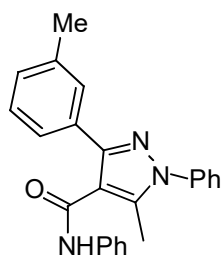


White solid, 92% yield. ^1H NMR (DMSO- d_6 , 500 MHz): δ (ppm) 10.30 (s, 1H), 7.80-7.77 (m, 2H), 7.68-7.67 (m, 2H), 7.63-7.58 (m, 4H), 7.53-7.50 (m, 1H), 7.35-7.32 (m, 2H), 7.27-7.24 (m, 2H), 7.10-7.08 (m, 1H), 2.43 (s, 3H). ^{13}C NMR (DMSO- d_6 , 125 MHz): δ (ppm) 163.3, 162.5 (d, J = 975.0 Hz), 148.2, 140.5, 139.5, 139.2, 129.9, 129.7 (d, J = 30.0 Hz), 129.4 (d, J = 10.0

Hz), 129.2, 128.8, 125.4, 124.1, 120.0, 117.3, 115.8 (d, J = 85.0 Hz), 12.0. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{23}\text{H}_{19}\text{FN}_3\text{O}$) requires m/z 372.1507, found m/z

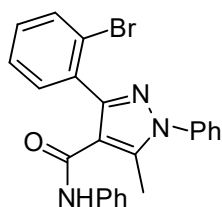
372.1511.

5-Methyl-*N*,1-diphenyl-3-(*m*-tolyl)-1*H*-pyrazole-4-carboxamide (3ae)



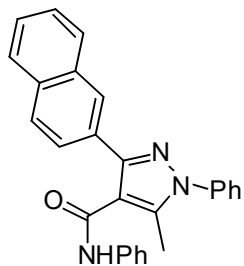
White solid, 90% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.54-7.48 (m, 6H), 7.47-7.44 (m, 1H), 7.42-7.38 (m, 1H), 7.35 (s, 1H), 7.32-7.31 (m, 1H), 7.28-7.26 (m, 4H), 7.07-7.05 (m, 1H), 2.67 (s, 3H), 2.41 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.1, 150.3, 144.3, 138.9, 138.7, 138.0, 132.2, 130.1, 130.0, 129.2, 128.9, 128.8, 128.6, 126.6, 125.7, 124.0, 119.4, 113.9, 21.4, 12.5. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{24}\text{H}_{22}\text{N}_3\text{O}$) requires m/z 368.1757, found m/z 368.1748.

3-(2-Bromophenyl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3af)



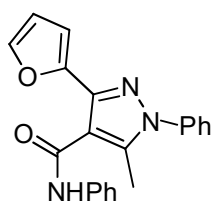
White solid, 83% yield. ^1H NMR ($\text{DMSO}-d_6$, 500 MHz): δ (ppm) 9.65 (s, 1H), 7.69-7.67 (m, 1H), 7.64-7.58 (m, 5H), 7.55-7.51 (m, 3H), 7.49-7.46 (m, 1H), 7.36-7.32 (m, 1H), 7.30-7.27 (m, 2H), 7.06-7.03 (m, 1H), 2.54 (s, 3H). ^{13}C NMR ($\text{DMSO}-d_6$, 125 MHz): δ (ppm) 162.4, 150.2, 140.2, 139.6, 139.1, 134.2, 133.1, 132.9, 130.7, 129.9, 129.1, 128.8, 127.9, 125.5, 123.8, 123.4, 120.1, 118.2, 12.3. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{23}\text{H}_{19}\text{BrN}_3\text{O}$) requires m/z 434.0686, found m/z 434.0674.

5-Methyl-3-(naphthalen-2-yl)-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ag)

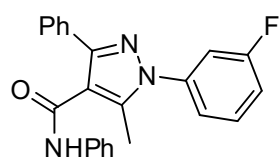


White solid, 90% yield. ^1H NMR ($\text{DMSO}-d_6$, 500 MHz): δ (ppm) 10.35 (s, 1H), 8.31 (s, 1H), 7.94-7.90 (m, 3H), 7.88-7.86 (m, 1H), 7.71-7.67 (m, 4H), 7.64-7.61 (m, 2H), 7.54-7.50 (m, 3H), 7.36-7.33 (m, 2H), 7.11-7.08 (m, 1H), 2.48 (s, 3H). ^{13}C NMR ($\text{DMSO}-d_6$, 125 MHz): δ (ppm) 163.5, 149.0, 140.6, 139.6, 139.3, 133.3, 133.1, 130.4, 129.9, 129.2, 128.8, 128.5, 128.3, 128.0, 126.9, 126.8, 126.5, 125.8, 125.5, 124.1, 120.2, 117.7, 12.0. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{27}\text{H}_{22}\text{N}_3\text{O}$) requires m/z 404.1757, found m/z 404.1749.

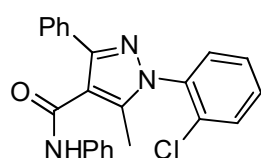
3-(Furan-2-yl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ah)



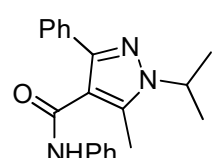
White solid, 67% yield. ^1H NMR ($\text{DMSO}-d_6$, 500 MHz): δ (ppm) 10.30 (s, 1H), 7.74-7.72 (m, 3H), 7.60-7.59 (m, 4H), 7.53-7.51 (m, 1H), 7.37-7.34 (m, 2H), 7.12-7.09 (m, 1H), 6.80-6.79 (m, 1H), 6.57-6.56 (m, 1H), 2.42 (s, 3H). ^{13}C NMR ($\text{DMSO}-d_6$, 125 MHz): δ (ppm) 162.5, 147.3, 143.4, 141.1, 140.3, 139.6, 139.1, 129.9, 129.2, 128.9, 125.5, 124.0, 120.0, 116.6, 111.9, 109.1, 11.9. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{21}\text{H}_{18}\text{N}_3\text{O}_2$) requires m/z 344.1394, found m/z

1-(3-Fluorophenyl)-5-methyl-*N*,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ai)

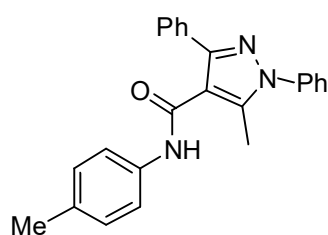
White solid, 72% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.70-7.67 (m, 2H), 7.52-7.49 (m, 4H), 7.33-7.30 (m, 2H), 7.28-7.25 (m, 4H), 7.19-7.15 (m, 1H), 7.08-7.05 (m, 1H), 2.69 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.8 (d, $J = 935.0$ Hz), 161.7, 150.5, 144.3, 140.0 (d, $J = 40.0$ Hz), 137.8, 132.1, 130.5 (d, $J = 35.0$ Hz), 129.5, 129.4, 129.1, 128.9, 124.1, 121.1 (d, $J = 10.0$ Hz), 119.5, 115.7 (d, $J = 85.0$ Hz), 114.5, 113.3 (d, $J = 95.0$ Hz), 12.5. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{23}\text{H}_{19}\text{FN}_3\text{O}$) requires m/z 372.1507, found m/z 372.1498.

1-(2-Chlorophenyl)-5-methyl-*N*,3-diphenyl-1*H*-pyrazole-4-carboxamide (3aj)

White solid, 77% yield. ^1H NMR ($\text{DMSO}-d_6$, 500 MHz): δ (ppm) 10.24 (s, 1H), 7.79-7.77 (m, 1H), 7.74-7.72 (m, 2H), 7.69-7.67 (m, 2H), 7.64-7.60 (m, 3H), 7.42-7.39 (m, 2H), 7.36-7.31 (m, 3H), 7.10-7.07 (m, 1H), 2.24 (s, 3H). ^{13}C NMR ($\text{DMSO}-d_6$, 125 MHz): δ (ppm) 163.2, 149.5, 142.1, 139.6, 136.5, 132.8, 132.0, 131.5, 130.9, 130.5, 129.2, 129.0, 128.9, 128.6, 127.7, 124.0, 120.1, 116.2, 11.0. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{23}\text{H}_{19}\text{ClN}_3\text{O}$) requires m/z 388.1217, found m/z 388.1211.

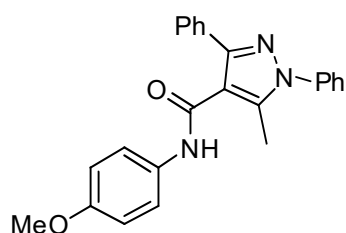
1-Isopropyl-5-methyl-*N*,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ak)

White solid, 56% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.63-7.62 (m, 3H), 7.47-7.45 (m, 2H), 7.19-7.16 (m, 2H), 7.07-7.06 (m, 2H), 6.99-6.96 (m, 1H), 6.77 (s, 1H), 4.20-4.15 (m, 1H), 2.62 (s, 3H), 1.43 (d, $J = 10.0$ Hz, 6H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 161.8, 150.7, 141.2, 138.1, 130.4, 130.1, 129.8, 129.8, 128.8, 123.5, 119.1, 113.3, 50.3, 22.7, 14.2. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{20}\text{H}_{22}\text{N}_3\text{O}$) requires m/z 320.1763, found m/z 320.1757.

5-Methyl-1,3-diphenyl-*N*-(*p*-tolyl)-1*H*-pyrazole-4-carboxamide (3ba)

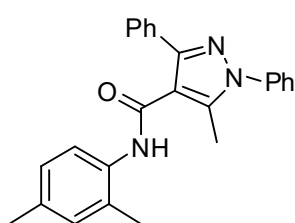
White solid, 80% yield. ^1H NMR ($\text{DMSO}-d_6$, 500 MHz): δ (ppm) 10.20 (s, 1H), 7.77 (d, $J = 10.0$ Hz, 2H), 7.63-7.56 (m, 6H), 7.52-7.49 (m, 1H), 7.42-7.39 (m, 2H), 7.36-7.33 (m, 1H), 7.14 (d, $J = 10.0$ Hz, 2H), 2.43 (s, 3H), 2.27 (s, 3H). ^{13}C NMR ($\text{DMSO}-d_6$, 125 MHz): δ (ppm) 163.2, 149.0, 140.2, 139.3, 137.1, 133.0, 132.9, 129.8, 129.5, 128.9, 128.7, 128.6, 127.6, 125.4, 120.0, 117.6, 20.9, 11.9. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{24}\text{H}_{22}\text{N}_3\text{O}$) requires m/z 368.1757, found m/z 368.1748.

***N*-(4-methoxyphenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ca)**



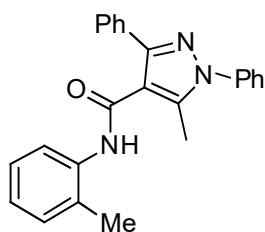
White solid, 74% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.71 (d, $J = 10.0$ Hz, 2H), 7.52-7.49 (m, 6H), 7.47-7.45 (m, 1H), 7.20-7.16 (m, 3H), 6.81 (d, $J = 10.0$ Hz, 2H), 3.77 (s, 3H), 2.65 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.0, 156.2, 150.1, 144.0, 138.8, 132.4, 131.0, 129.4, 129.3, 129.0, 128.6, 125.7, 121.2, 114.1, 55.5, 12.4. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{24}\text{H}_{22}\text{N}_3\text{O}_2$) requires m/z 384.1707, found m/z 384.1698.

***N*-(2,4-dimethylphenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3da)**



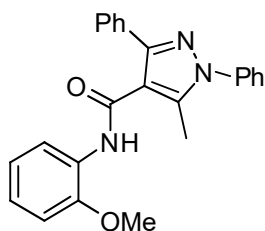
White solid, 78% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.98 (d, $J = 10.0$ Hz, 1H), 7.70 (d, $J = 10.0$ Hz, 2H), 7.52-7.51 (m, 4H), 7.48-7.44 (m, 4H), 7.10 (s, 1H), 7.01 (d, $J = 10.0$ Hz, 1H), 6.87 (s, 1H), 2.66 (s, 3H), 2.26 (s, 3H), 1.60 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.1, 150.2, 144.1, 138.8, 133.9, 133.5, 132.6, 131.0, 129.6, 129.3, 129.2, 129.1, 128.6, 127.6, 127.2, 125.7, 121.6, 114.4, 20.8, 16.7, 12.4. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{25}\text{H}_{24}\text{N}_3\text{O}$) requires m/z 382.1914, found m/z 382.1906.

5-Methyl-1,3-diphenyl-*N*-(*o*-tolyl)-1*H*-pyrazole-4-carboxamide (3ea)



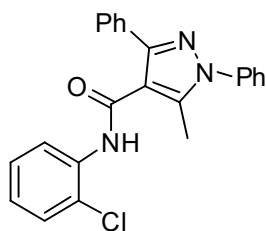
White solid, 86% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 8.17-8.16 (m, 1H), 7.71-7.70 (m, 2H), 7.53-7.52 (s, 4H), 7.49-7.45 (m, 4H), 7.22-7.19 (m, 1H), 7.17 (s, 1H), 7.05-7.04 (m, 1H), 7.01-6.98 (m, 1H), 2.67 (s, 3H), 1.60 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.1, 150.2, 144.3, 138.7, 136.1, 132.5, 130.3, 129.6, 129.3, 129.2, 129.1, 128.7, 127.3, 126.7, 125.7, 124.2, 121.3, 114.3, 16.6, 12.5. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{24}\text{H}_{22}\text{N}_3\text{O}$) requires m/z 368.1757, found m/z 368.1749.

***N*-(2-methoxyphenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3fa)**



White solid, 77% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 8.53-8.52 (m, 1H), 7.99 (s, 1H), 7.70-7.69 (m, 2H), 7.51-7.50 (m, 4H), 7.46-7.45 (m, 4H), 7.00-6.94 (m, 2H), 6.74-6.73 (m, 1H), 3.44 (s, 3H), 2.66 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.1, 150.5, 147.8, 144.0, 138.8, 132.3, 129.6, 129.2, 128.8, 128.7, 128.6, 127.9, 125.7, 123.3, 120.9, 119.4, 114.6, 109.7, 55.3, 12.4. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{24}\text{H}_{22}\text{N}_3\text{O}_2$) requires m/z 384.1707, found m/z 384.1699.

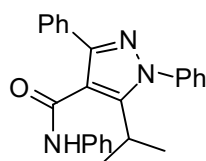
***N*-(2-chlorophenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ga)**



White solid, 74% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 8.58-8.56 (m, 1H), 7.86 (s, 1H), 7.69-7.67 (m, 2H), 7.53-7.52 (m, 4H), 7.47-7.44 (m, 4H), 7.27-7.21 (m, 2H), 6.98-6.95 (m, 1H), 2.67 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.2, 150.6, 144.4, 138.7, 135.0, 132.0, 129.6, 129.3, 129.2, 129.1, 129.0, 128.7, 127.5, 125.7, 124.1, 122.3, 121.0, 114.1, 12.5.

HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{23}\text{H}_{19}\text{ClN}_3\text{O}$) requires m/z 388.1211, found m/z 388.1204.

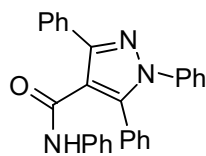
5-Isopropyl-*N*,1,3-triphenyl-1*H*-pyrazole-4-carboxamide (3ha)



White solid, 92% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.73-7.71 (m, 2H), 7.54-7.49 (m, 3H), 7.48-7.46 (m, 2H), 7.44-7.41 (m, 3H), 7.29-7.28 (m, 4H), 7.19 (s, 1H), 7.09-7.08 (m, 1H), 3.33-3.27 (m, 1H), 1.42 (d, $J = 10.0$ Hz, 6H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 162.9, 151.9, 150.0, 139.5, 137.9, 132.2, 129.2,

129.1, 128.9, 128.8, 128.7, 128.6, 126.8, 124.3, 119.8, 113.8, 26.7, 21.1. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{25}\text{H}_{24}\text{N}_3\text{O}$) requires m/z 382.1914, found m/z 382.1907.

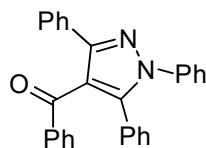
N,1,3,5-tetraphenyl-1*H*-pyrazole-4-carboxamide (3ia)



White solid, 90% yield. ^1H NMR ($\text{DMSO}-d_6$, 500 MHz): δ (ppm) 10.47 (s, 1H), 7.87 (d, $J = 10.0$ Hz, 2H), 7.56-7.55 (d, $J = 10.0$ Hz, 2H), 7.47-7.42 (m, 4H), 7.40-7.33 (m, 9H), 7.29-7.26 (m, 2H), 7.07-7.04 (m, 1H). ^{13}C NMR ($\text{DMSO}-d_6$, 125 MHz): δ (ppm) 163.3,

148.6, 142.5, 139.5, 139.3, 132.6, 129.9, 129.6, 129.5, 129.2, 129.0, 128.9, 128.8, 128.5, 127.3, 125.7, 124.2, 119.9, 118.8. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{28}\text{H}_{22}\text{N}_3\text{O}$) requires m/z 416.1757, found m/z 416.1746.

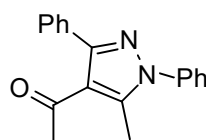
Phenyl(1,3,5-triphenyl-1*H*-pyrazol-4-yl)methanone (3ja)



White solid, 97% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.76 (d, $J = 5.0$ Hz, 2H), 7.63 (d, $J = 5.0$ Hz, 2H), 7.35-7.32 (m, 6H), 7.27-7.26 (m, 3H), 7.21-7.18 (m, 7H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 192.7, 151.9, 144.5, 139.3, 137.8, 132.9, 132.2, 130.1,

129.9, 128.9, 128.8, 128.4, 128.3, 128.2, 128.1, 127.8, 125.4, 119.9. HRMS (ESI): exact mass calculated for M^+ ($\text{C}_{28}\text{H}_{21}\text{N}_2\text{O}$) requires m/z 401.1648, found m/z 401.1642.

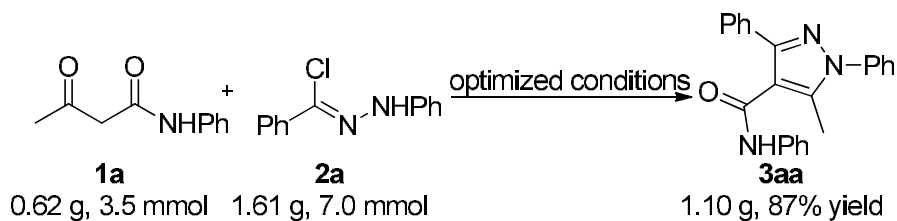
1-(5-Methyl-1,3-diphenyl-1*H*-pyrazol-4-yl)ethanone (3ka)



White solid, 79% yield. ^1H NMR (CDCl_3 , 500 MHz): δ (ppm) 7.56-7.54 (m, 2H), 7.52-7.48 (m, 4H), 7.46-7.43 (m, 4H), 2.56 (s, 3H), 2.13 (s, 3H). ^{13}C NMR (CDCl_3 , 125 MHz): δ (ppm) 195.9,

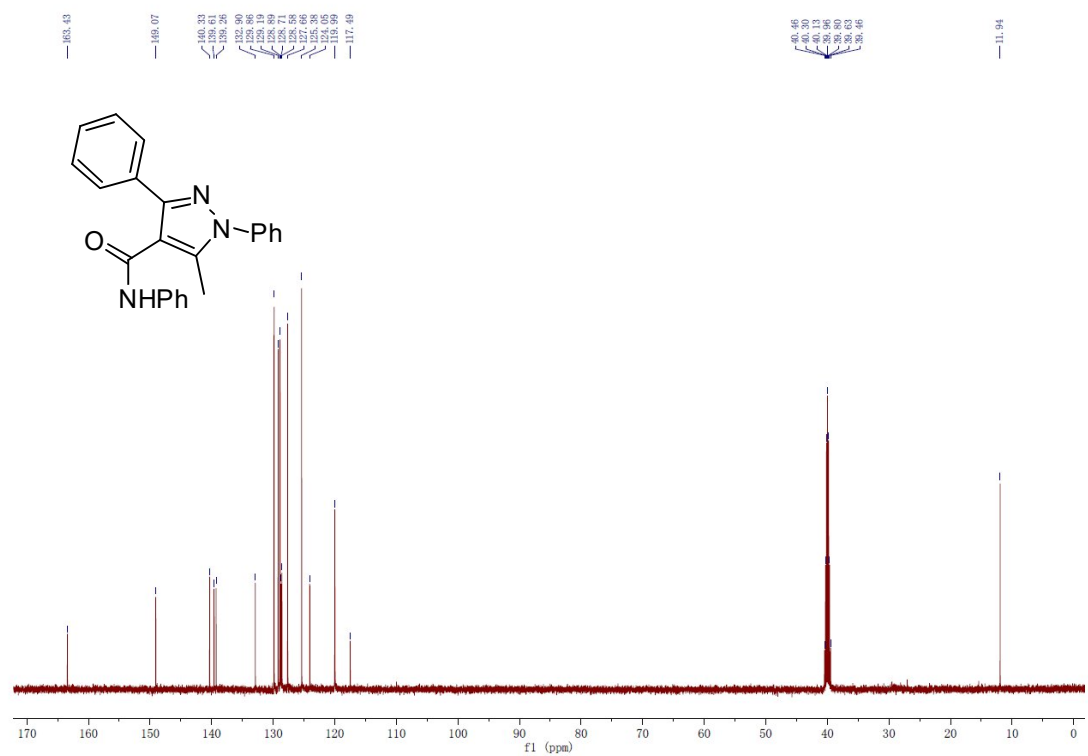
153.3, 143.7, 138.5, 133.7, 129.4, 129.2, 128.7, 128.4, 127.0, 125.7, 120.5, 30.8, 12.8.
HRMS (ESI): exact mass calculated for M^+ ($C_{18}H_{17}N_2O$) requires m/z 277.1335,
found m/z 277.1329.

D: Gram Scale Reaction

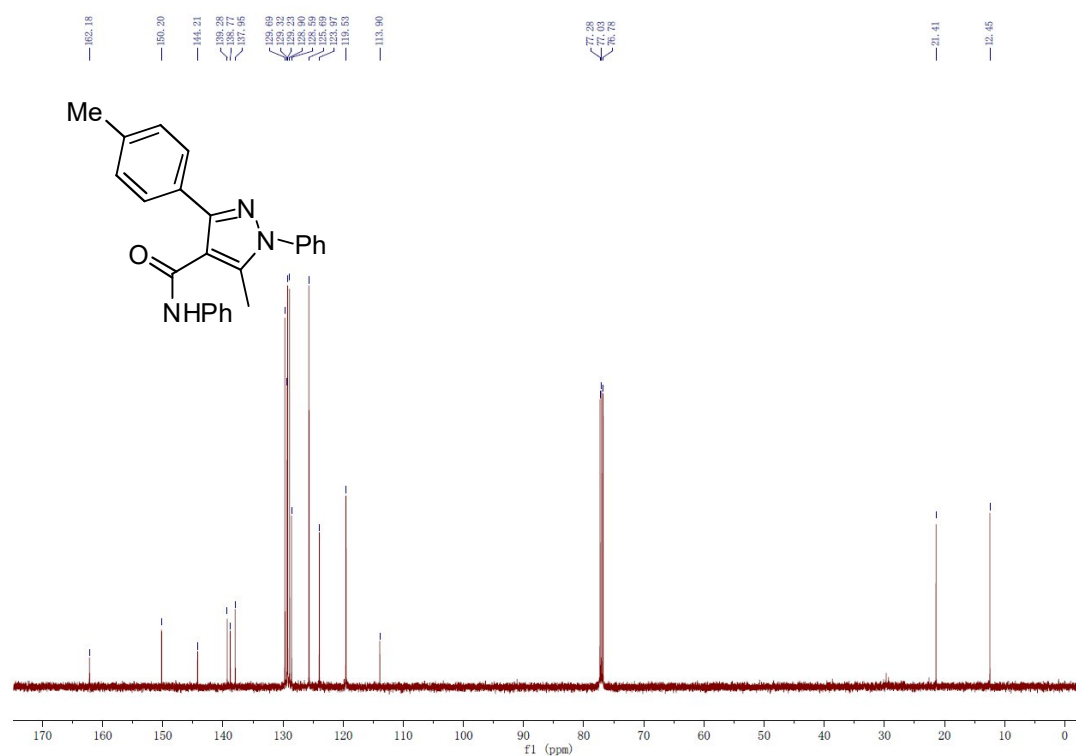
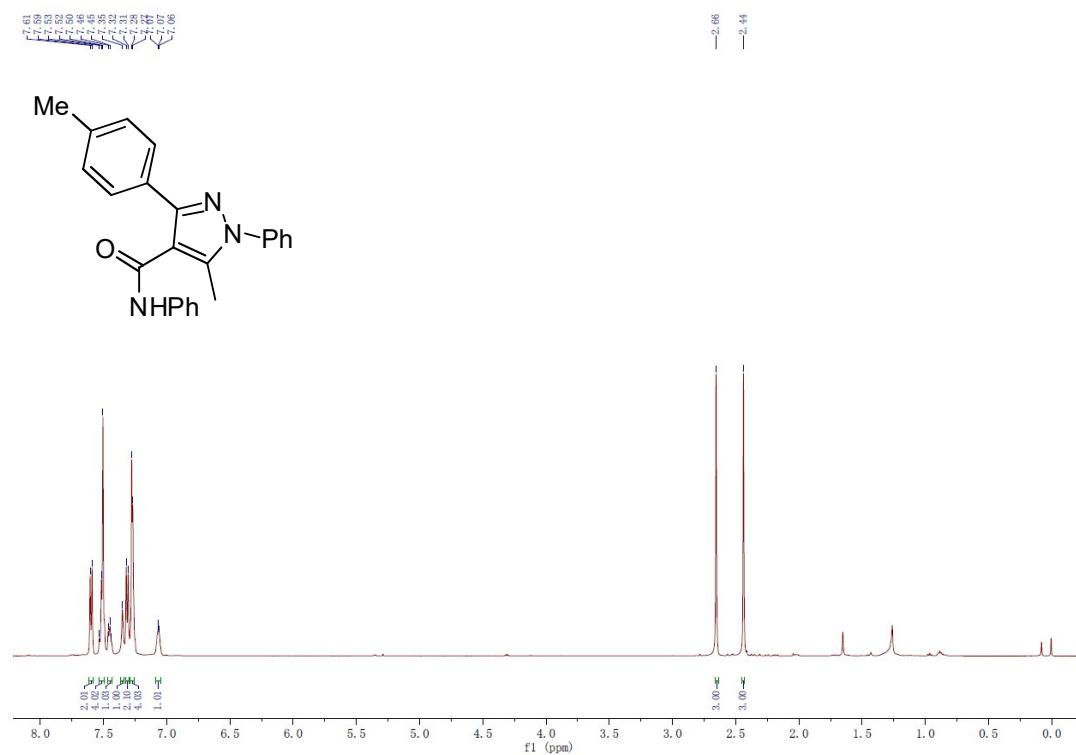


To a solution of CH_2Cl_2 (21.0 mL) were added β -functionalized ketone **1a** (0.62 g, 3.5 mmol), nitril imine **2a** (1.61 g, 7.0 mmol), Et_3N (0.71 g, 7.0 mmol,) and DMAP (0.04 g, 0.35 mmol). The reaction mixture was stirred at room temperature for 72 h. The solvent was evaporated to give the crude product, which was directly purified by silica gel chromatography to provide the desired product **3aa** as a white solid (1.10 g, 87% yield).

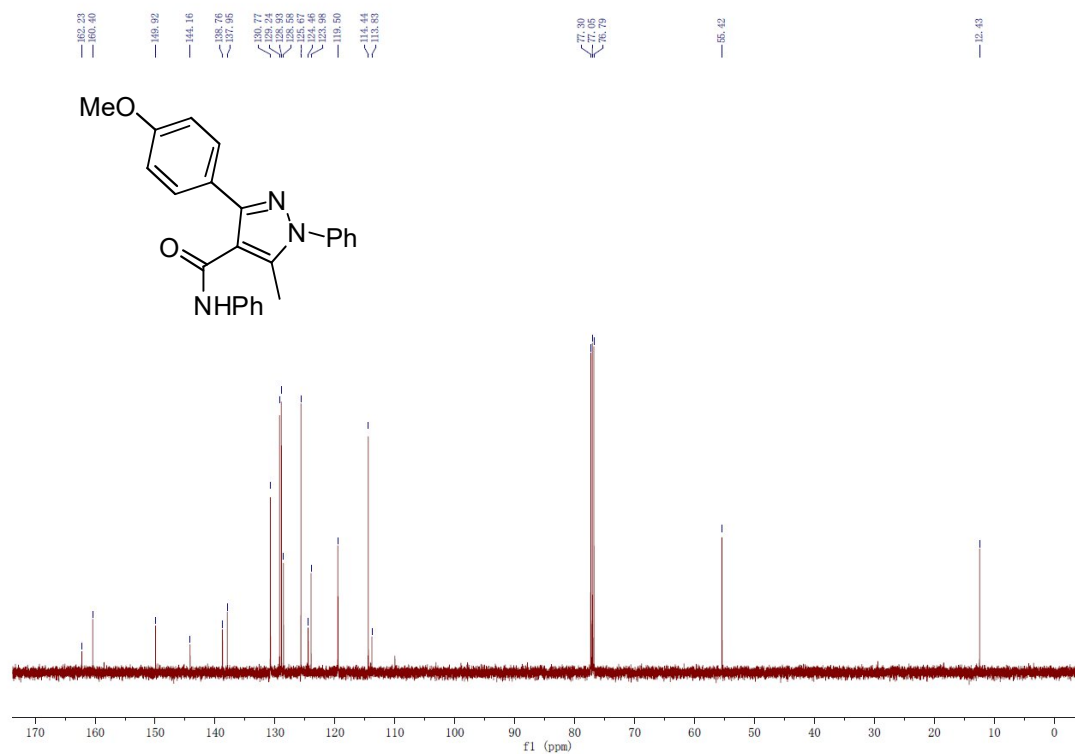
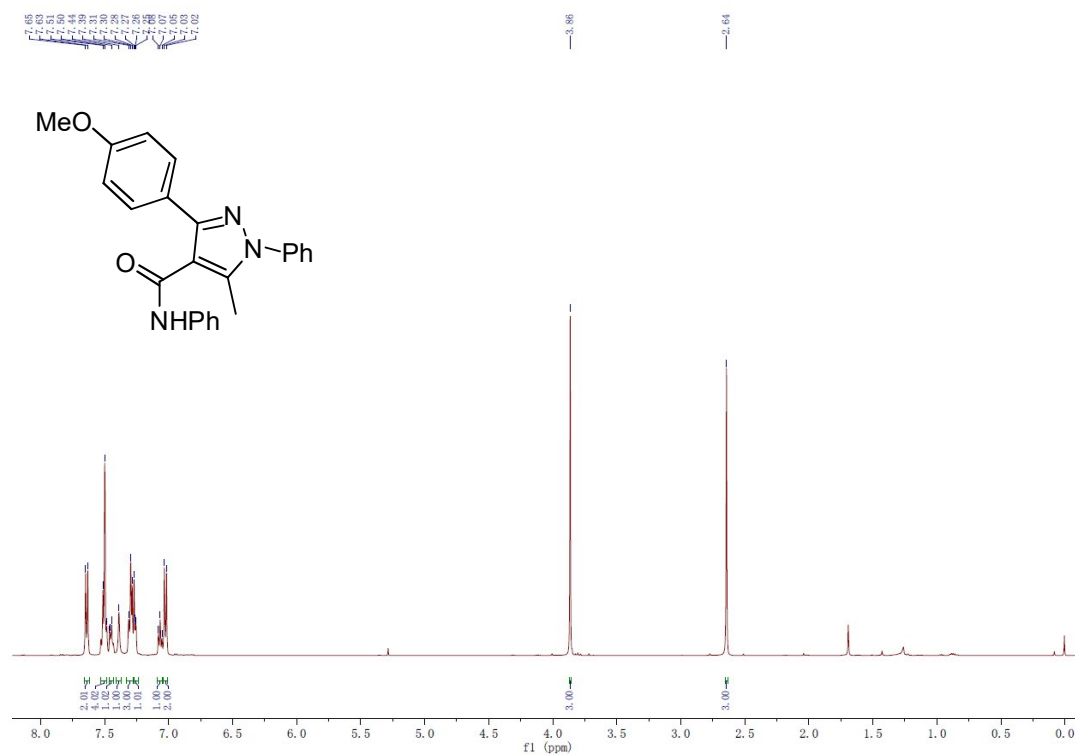
5-Methyl-*N*,1,3-triphenyl-1*H*-pyrazole-4-carboxamide (3aa)



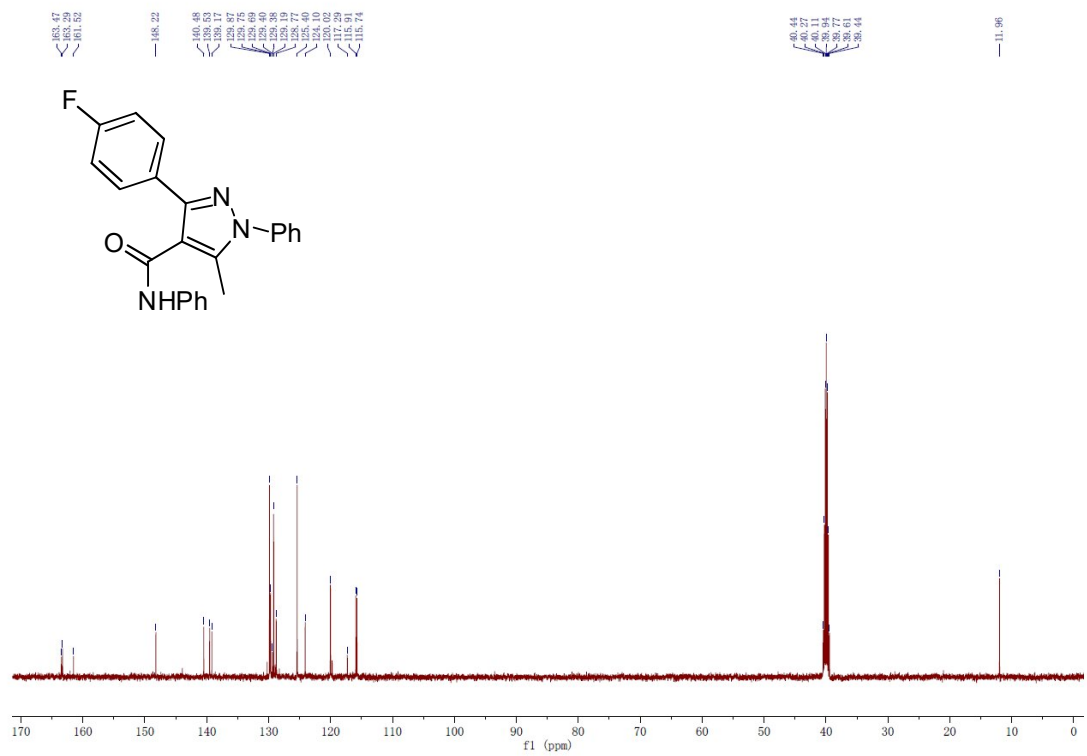
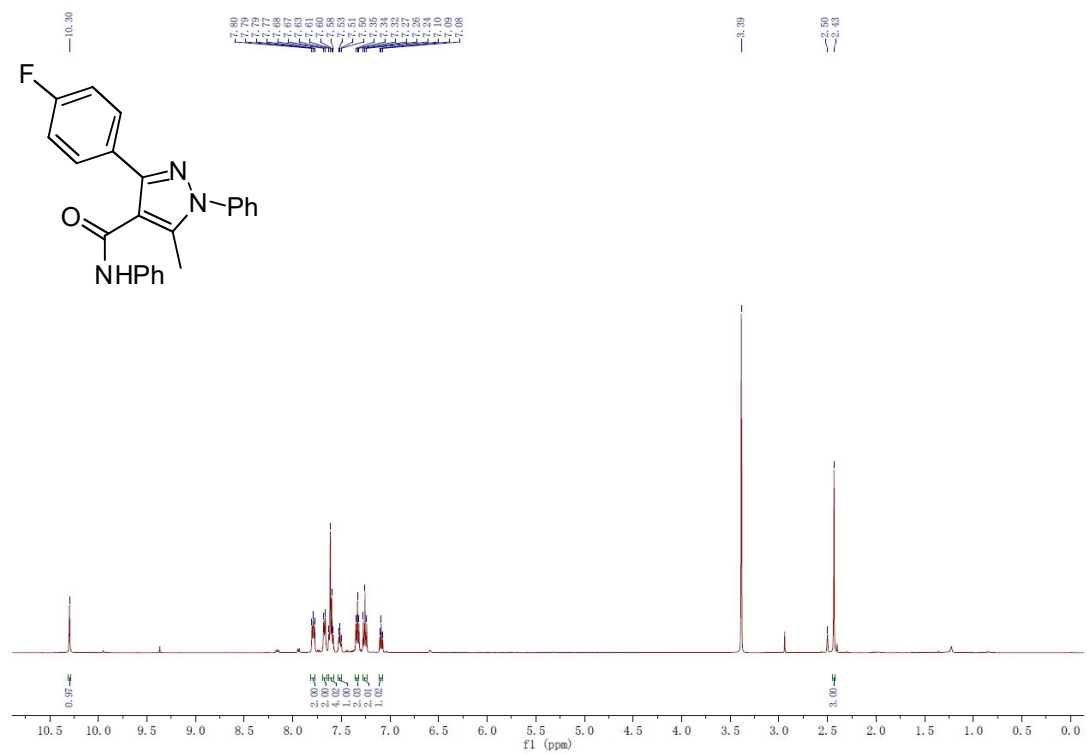
5-Methyl-*N*,1-diphenyl-3-(*p*-tolyl)-1*H*-pyrazole-4-carboxamide (3ab)



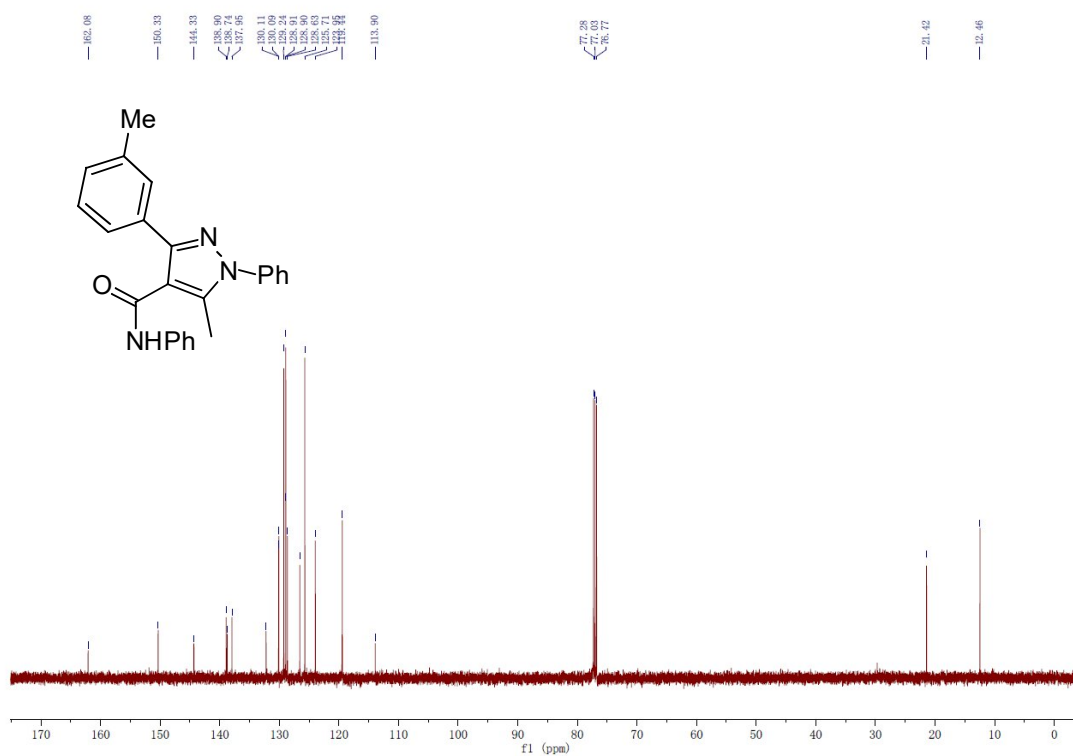
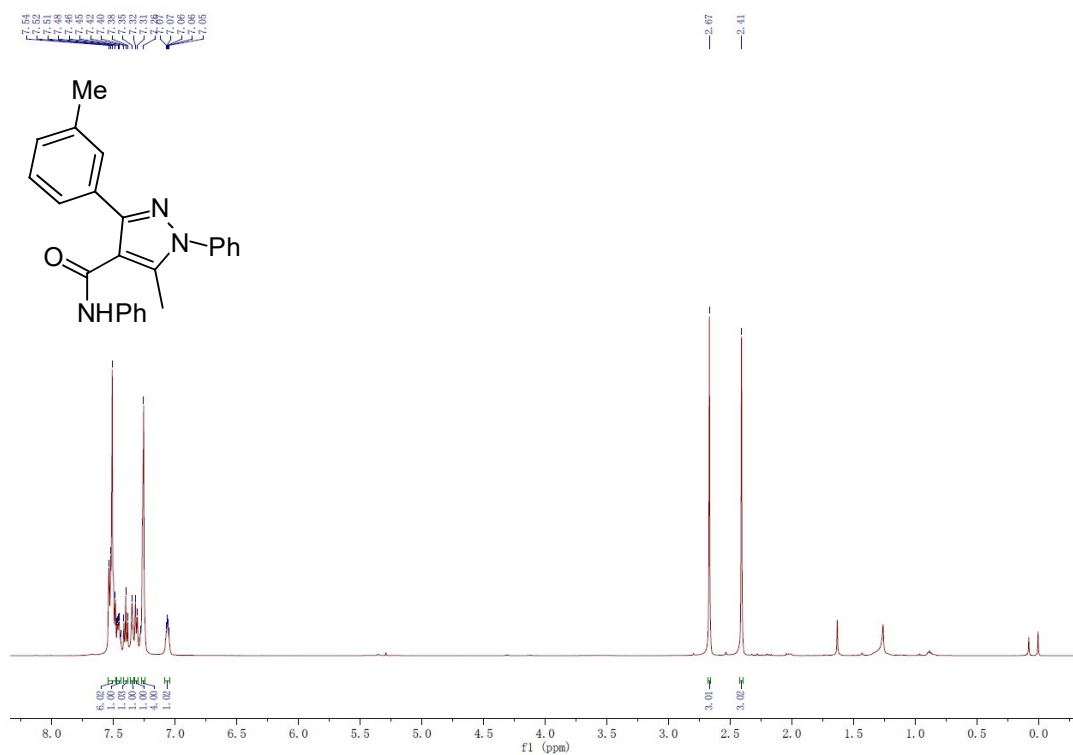
3-(4-Methoxyphenyl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ac)



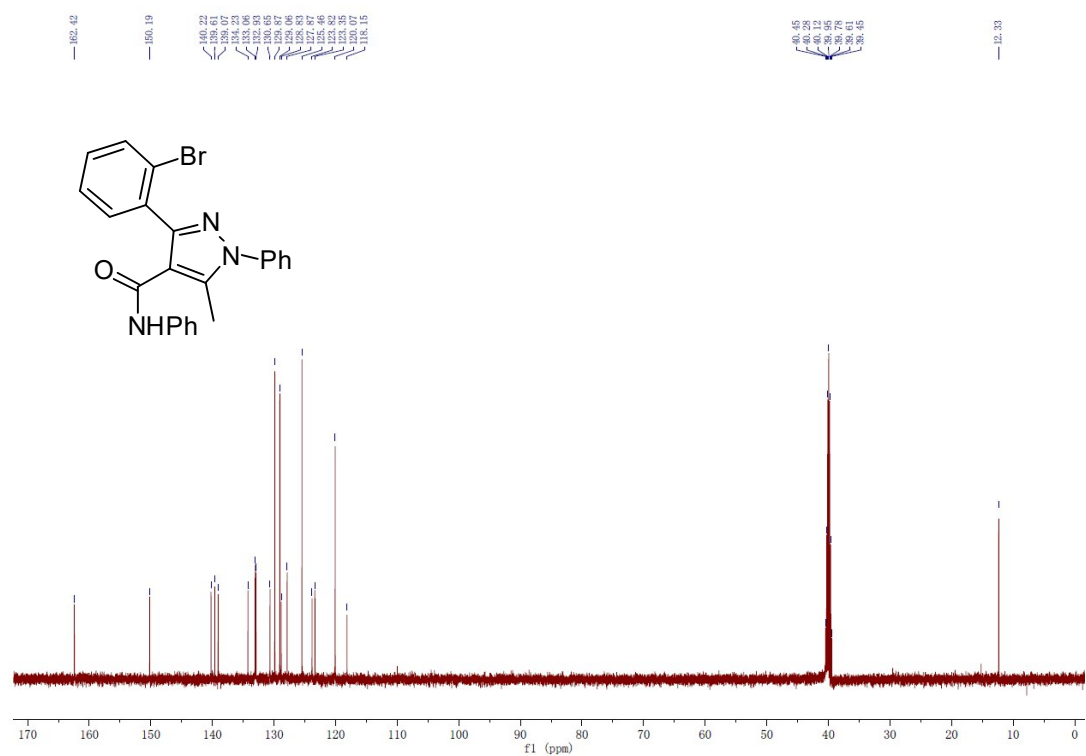
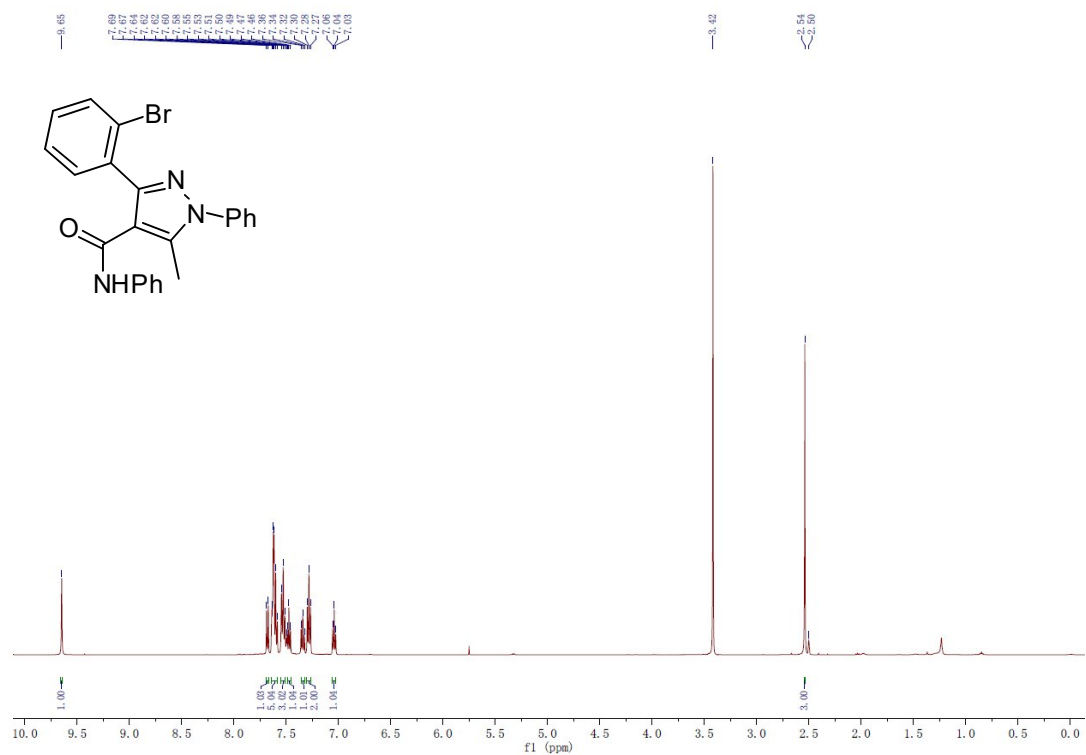
3-(4-Fluorophenyl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ad)



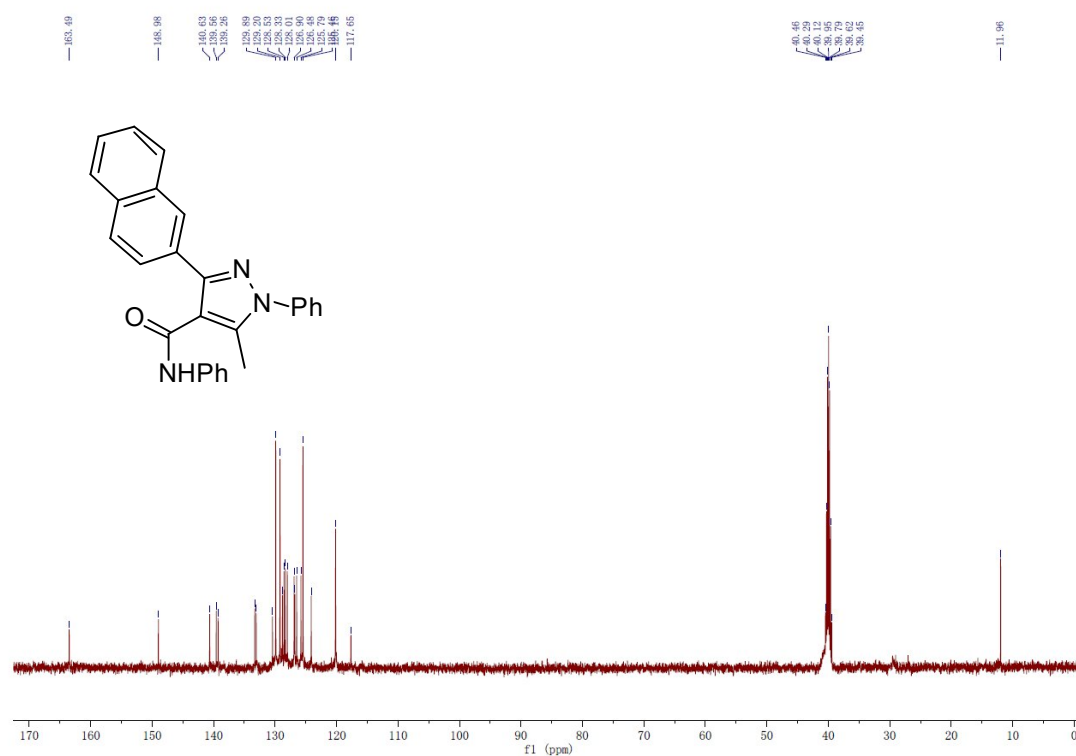
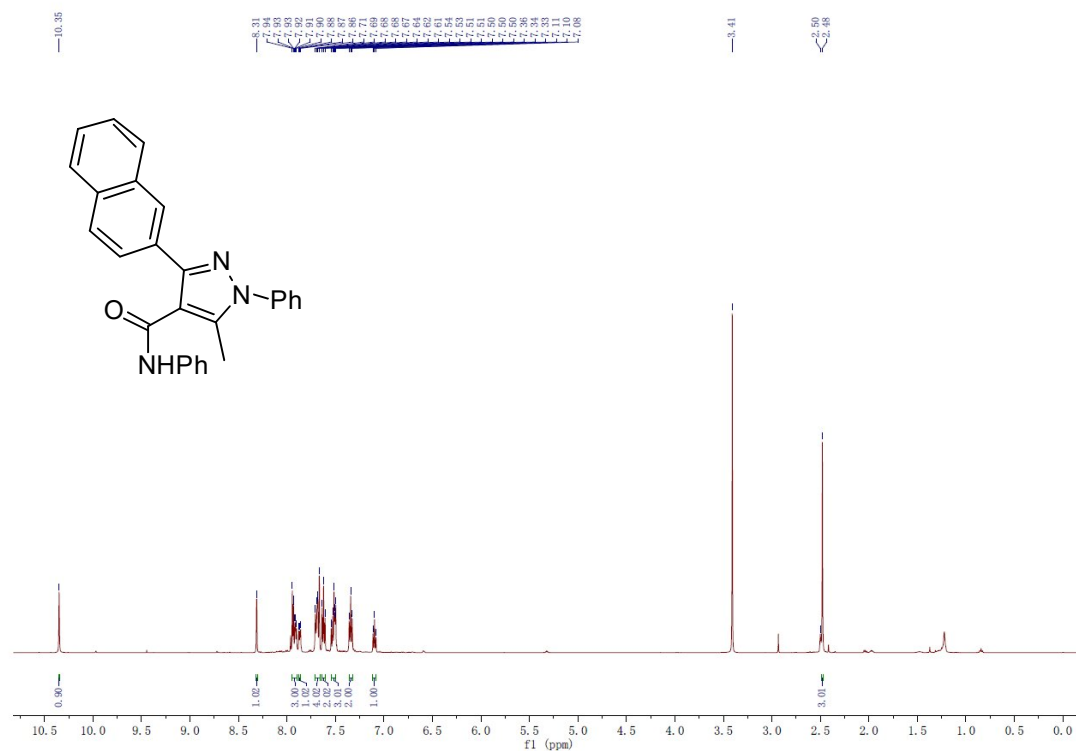
5-Methyl-*N*,1-diphenyl-3-(*m*-tolyl)-1*H*-pyrazole-4-carboxamide (3ae)



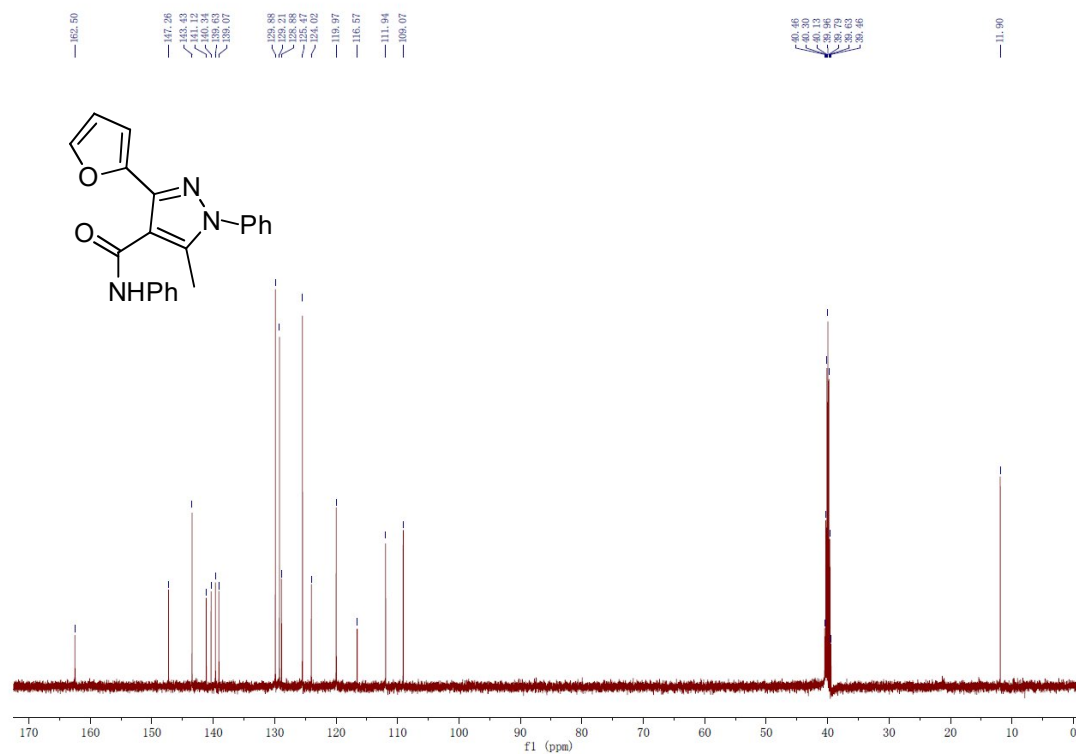
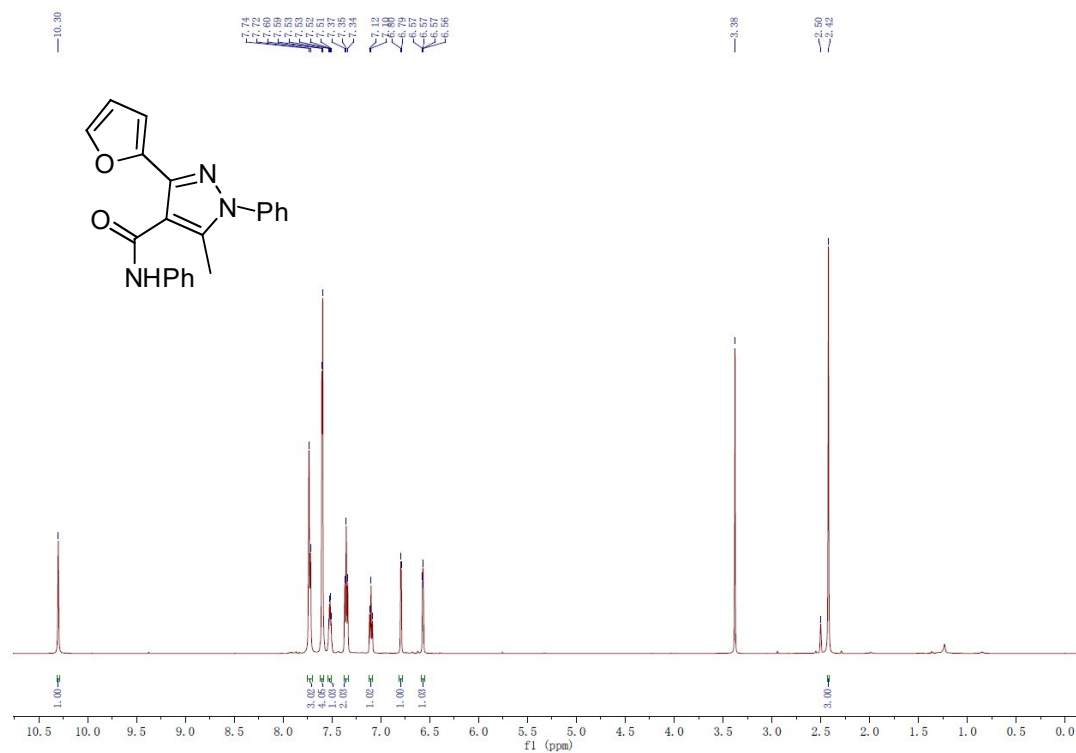
3-(2-Bromophenyl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3af)



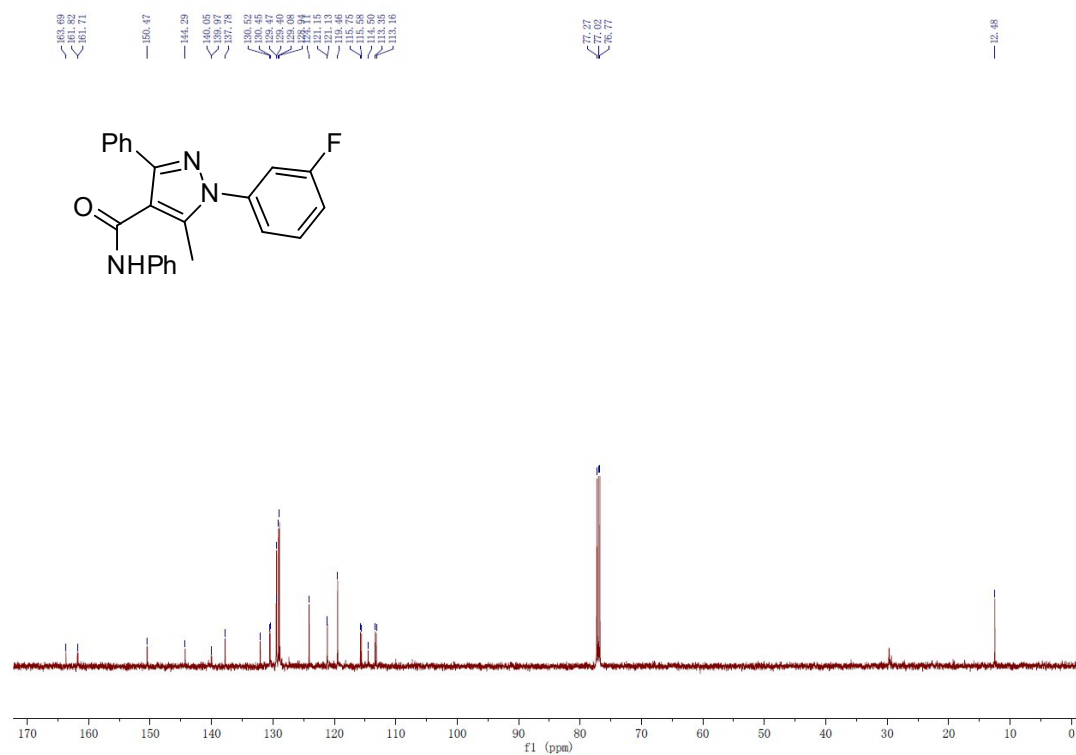
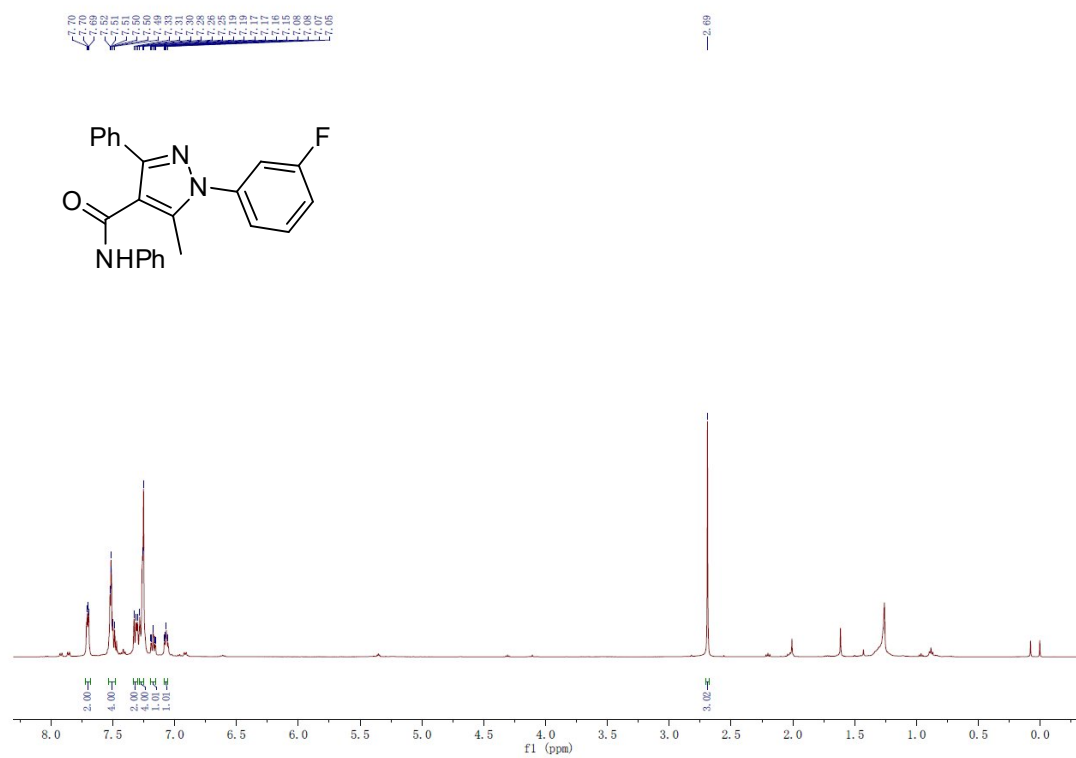
5-Methyl-3-(naphthalen-2-yl)-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ag)



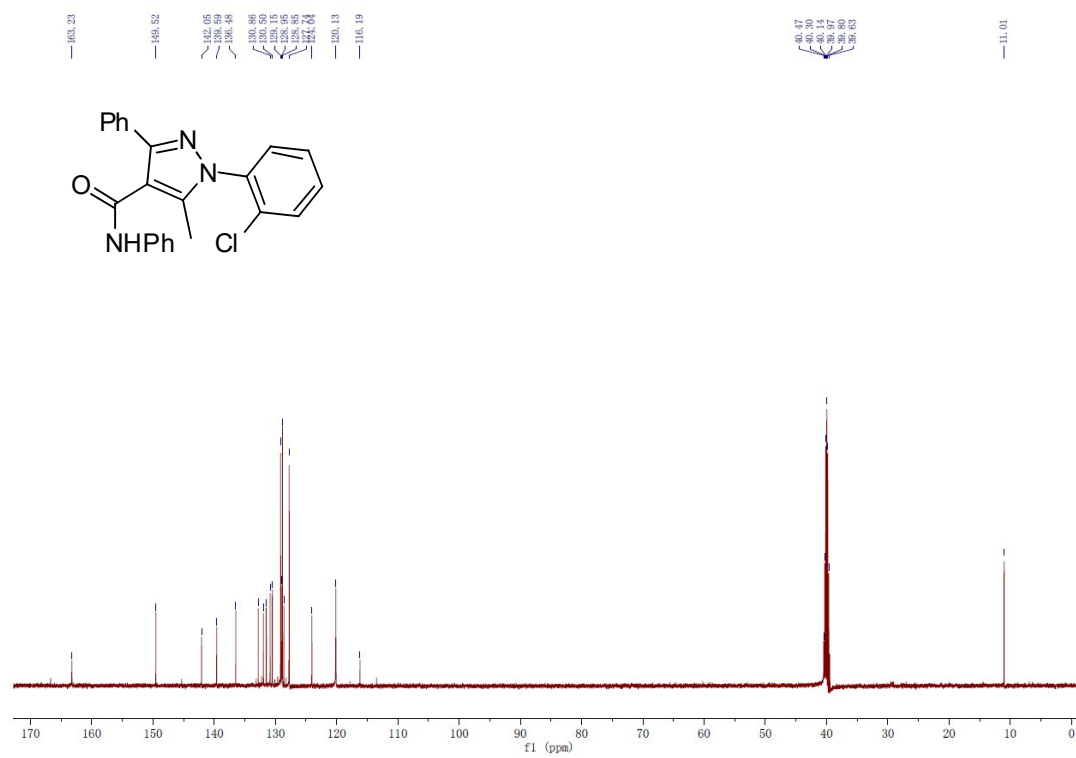
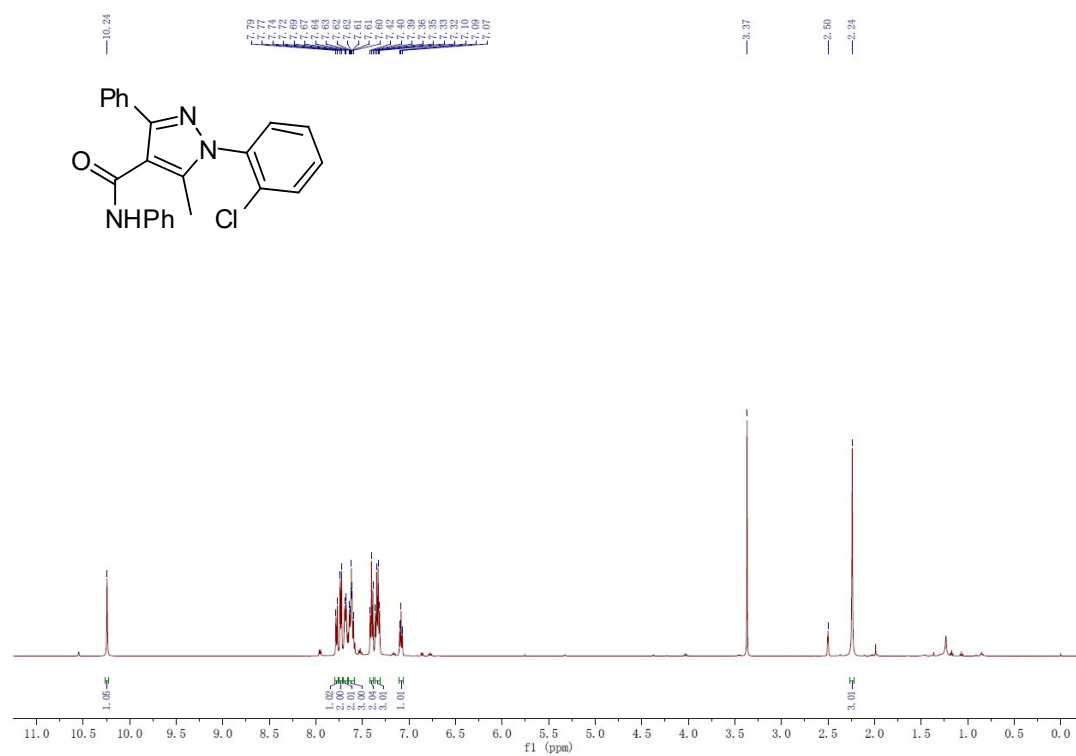
3-(Furan-2-yl)-5-methyl-*N*,1-diphenyl-1*H*-pyrazole-4-carboxamide (3ah)



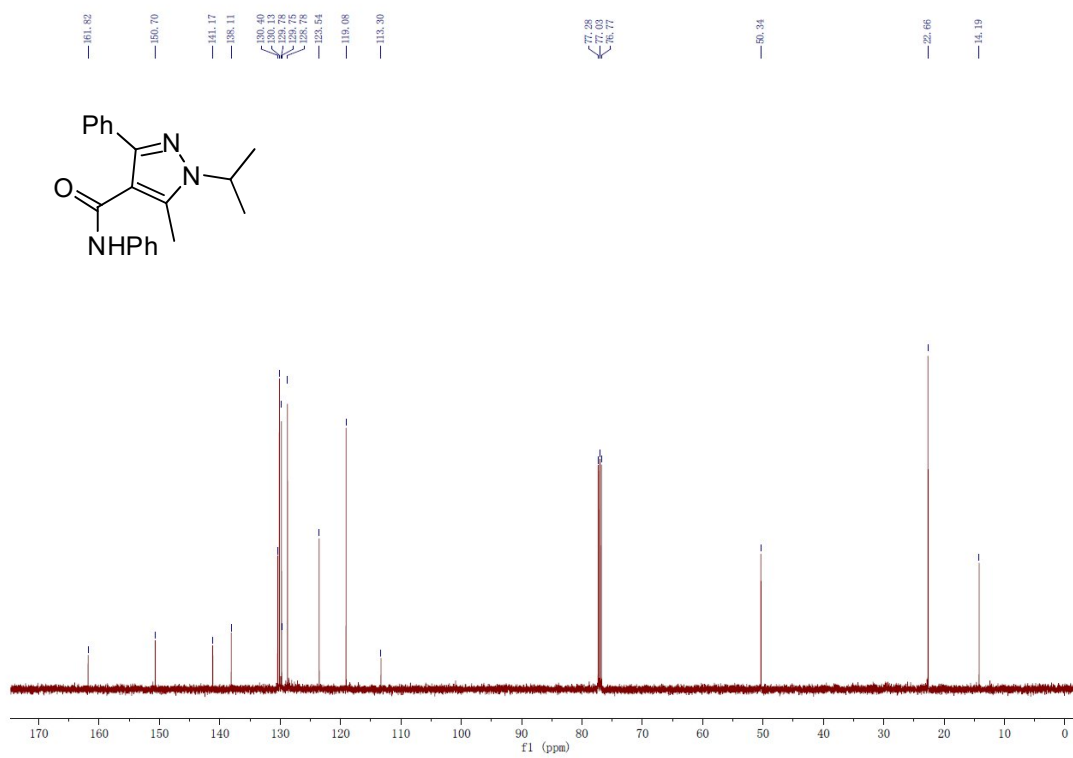
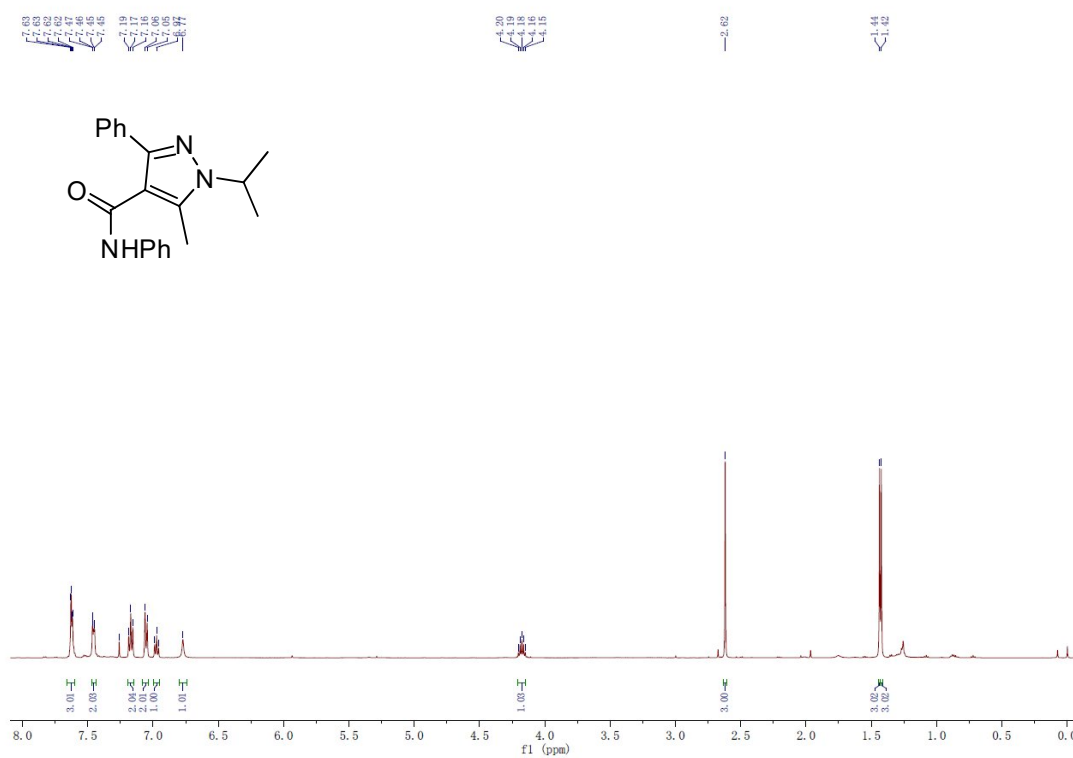
1-(3-Fluorophenyl)-5-methyl-N,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ai)



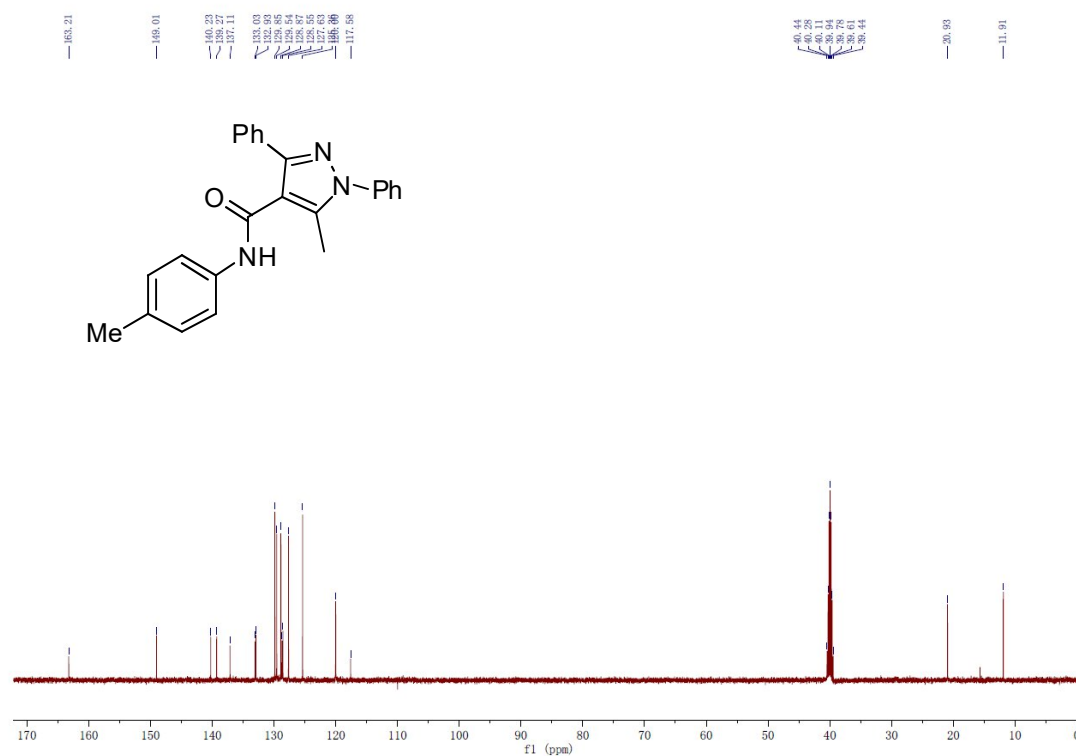
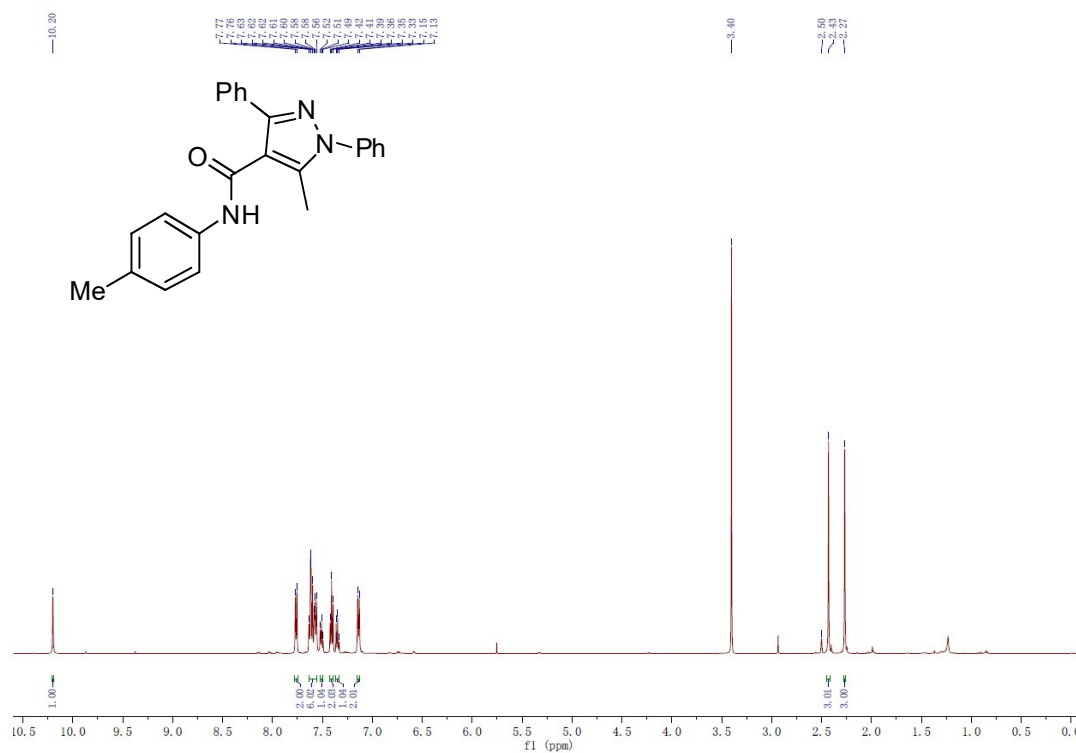
1-(2-Chlorophenyl)-5-methyl-*N*,3-diphenyl-1*H*-pyrazole-4-carboxamide (3aj)



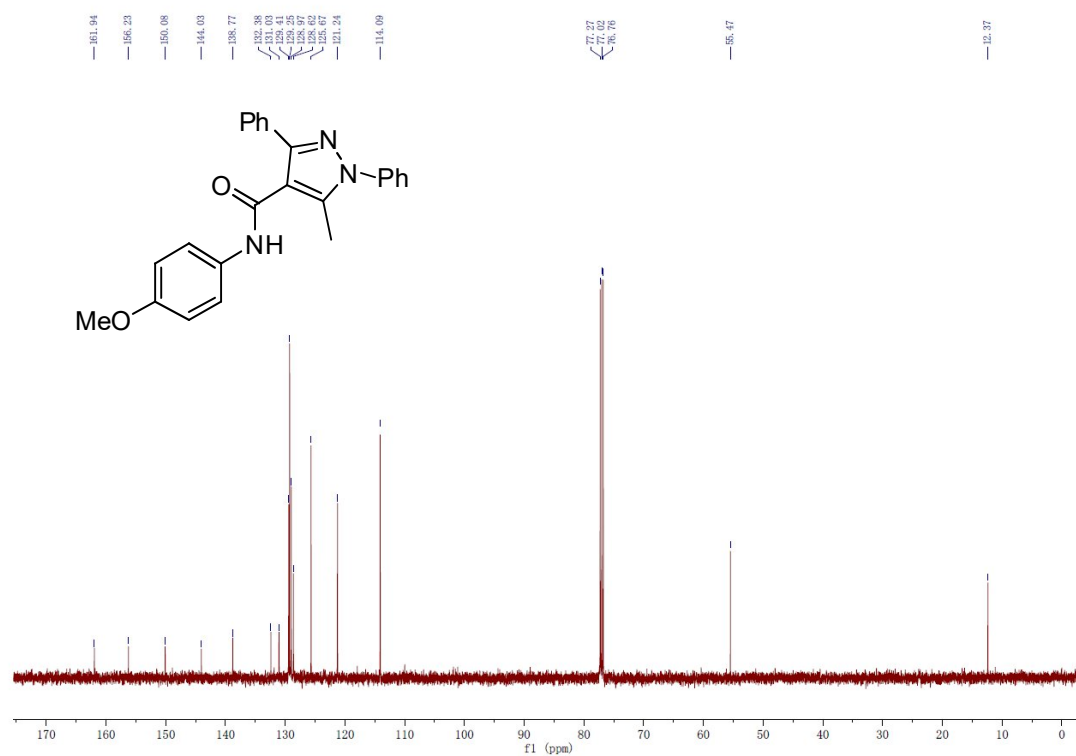
1-Isopropyl-5-methyl-*N*,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ak)



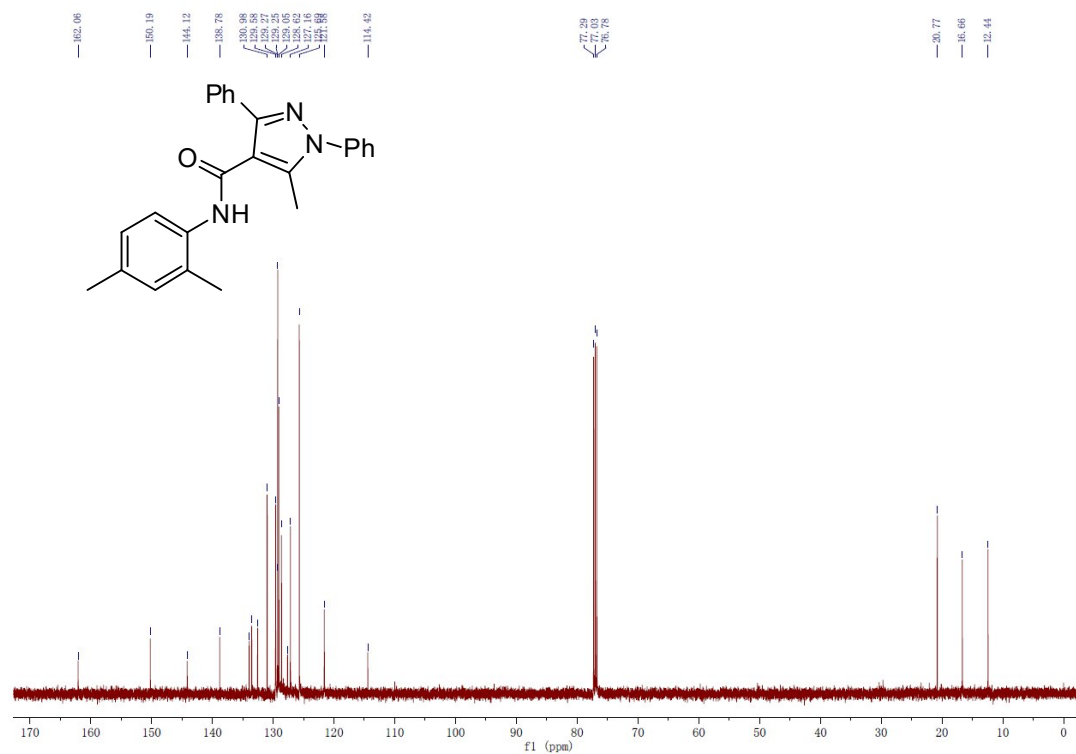
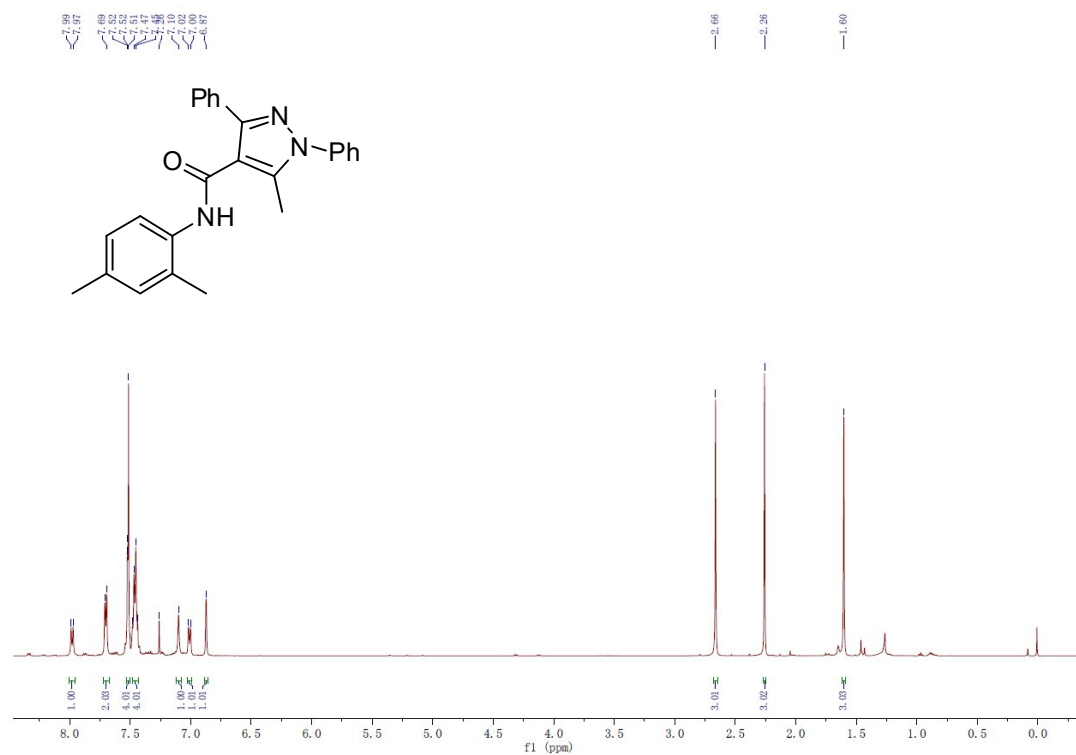
5-Methyl-1,3-diphenyl-*N*-(*p*-tolyl)-1*H*-pyrazole-4-carboxamide (3ba)



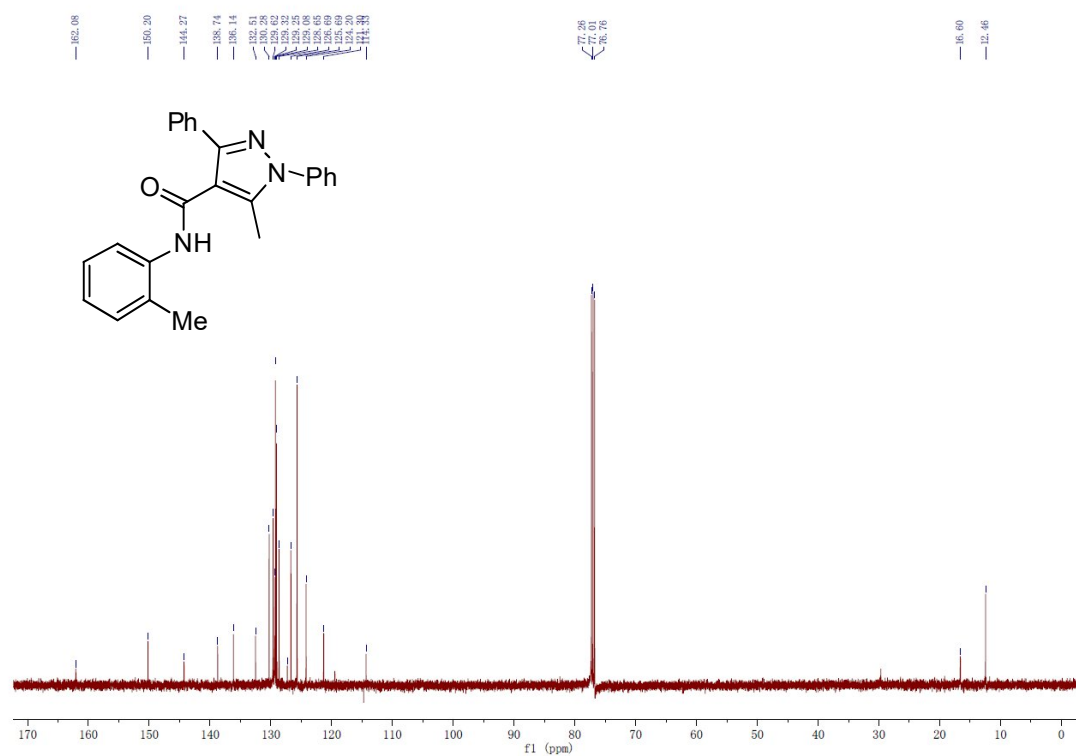
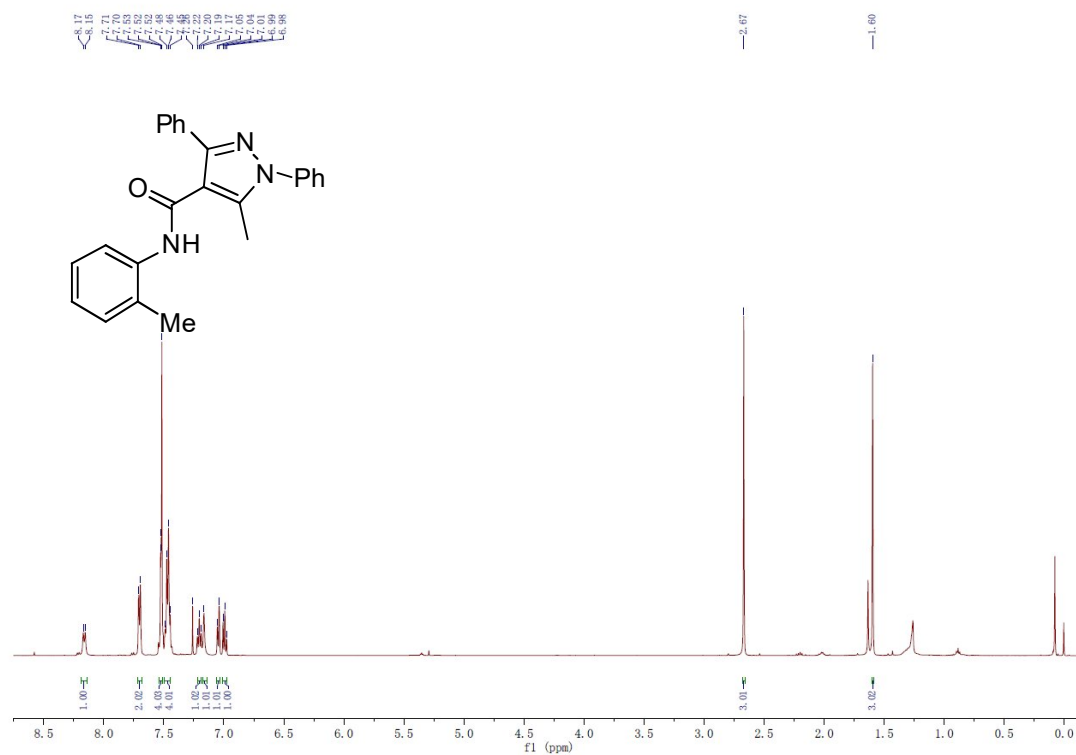
***N*-(4-methoxyphenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ca)**



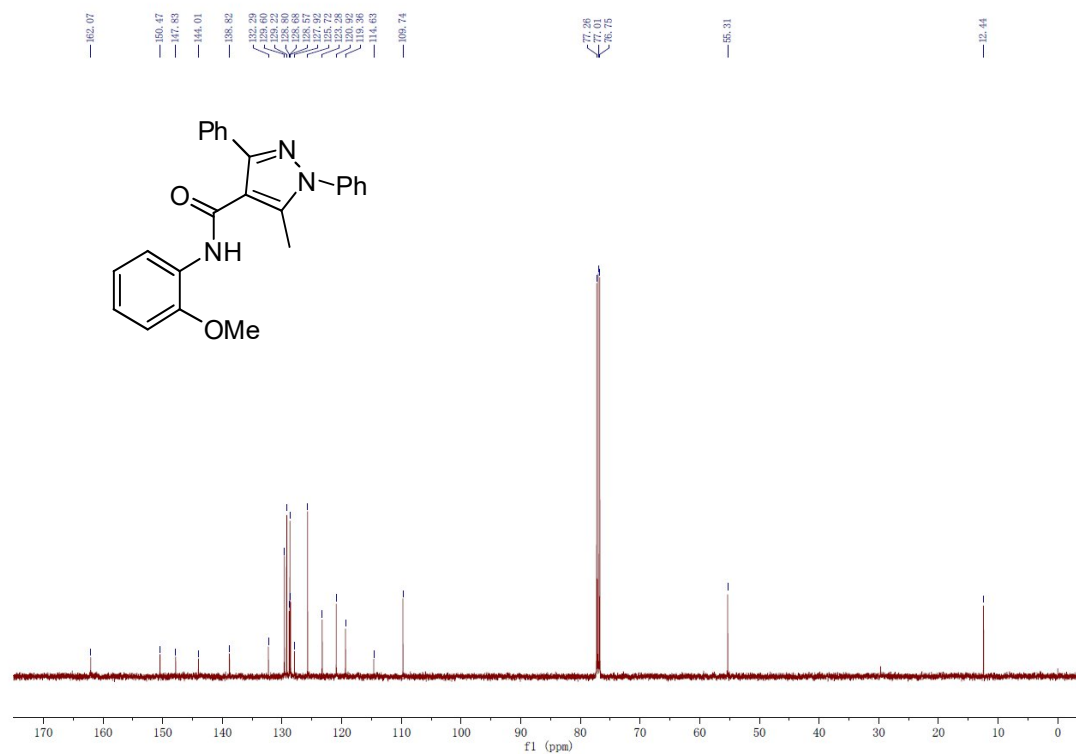
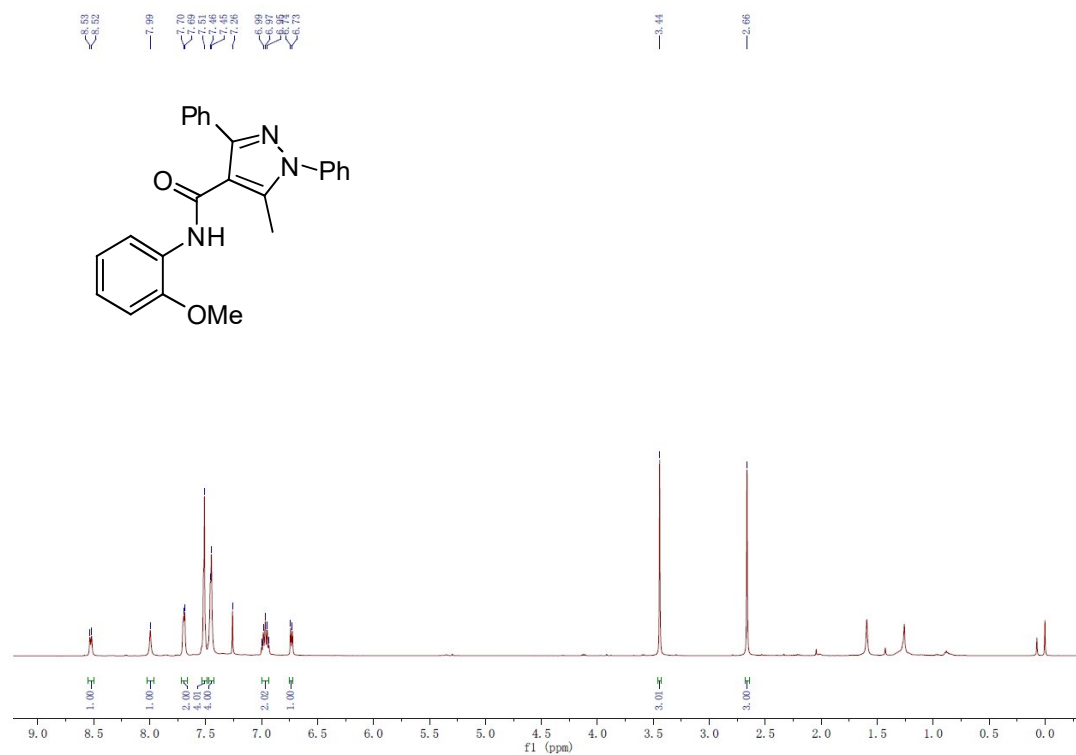
***N*-(2,4-dimethylphenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3da)**



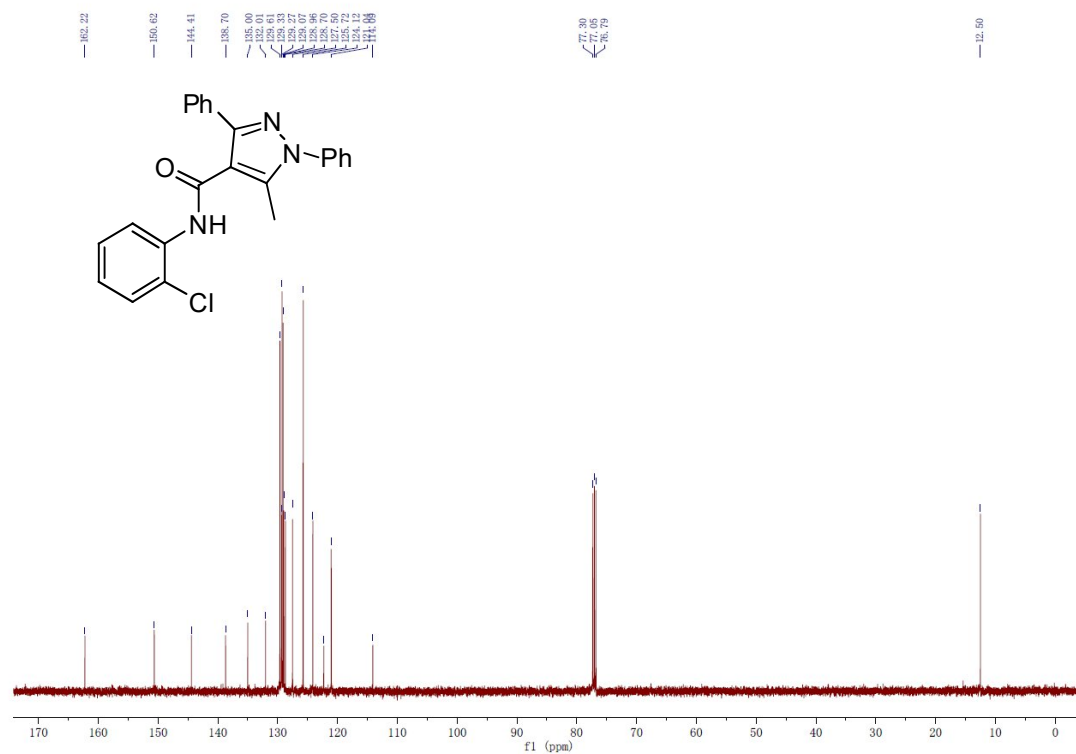
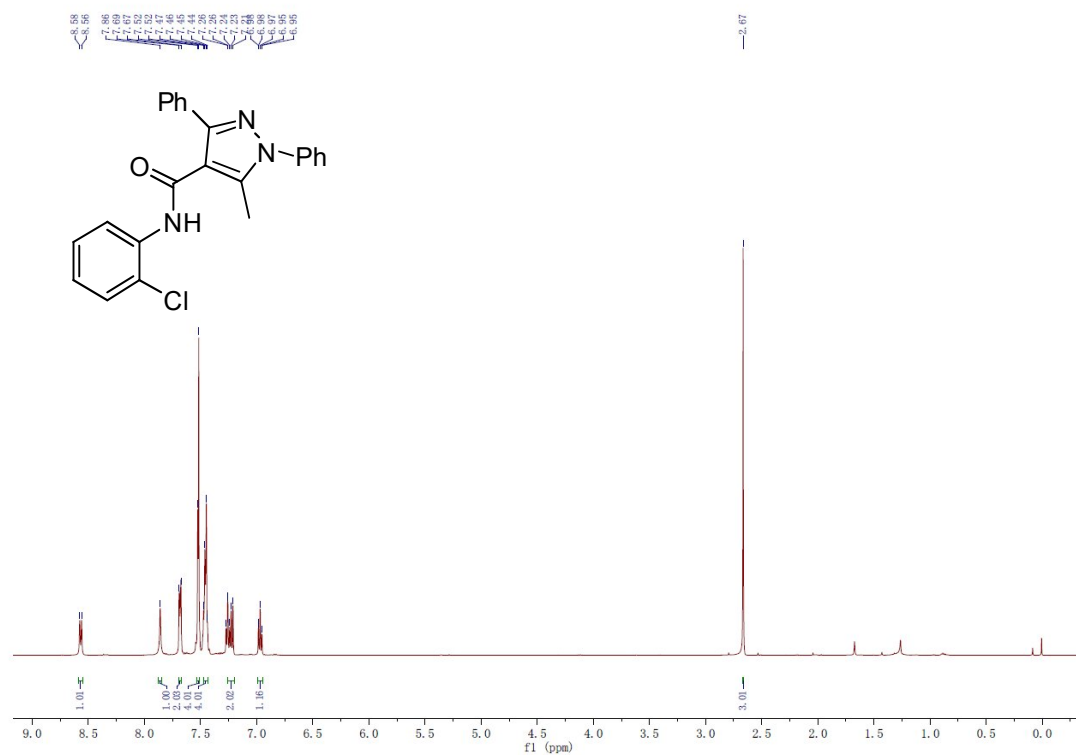
5-Methyl-1,3-diphenyl-*N*-(*o*-tolyl)-1*H*-pyrazole-4-carboxamide (3ea)



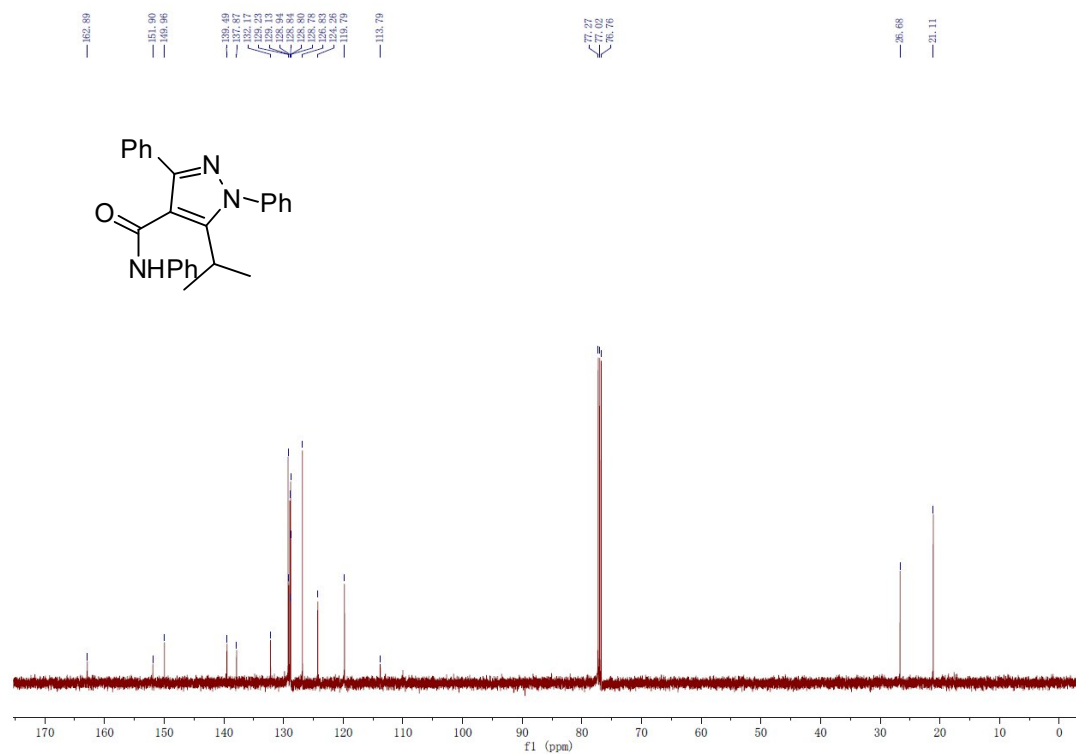
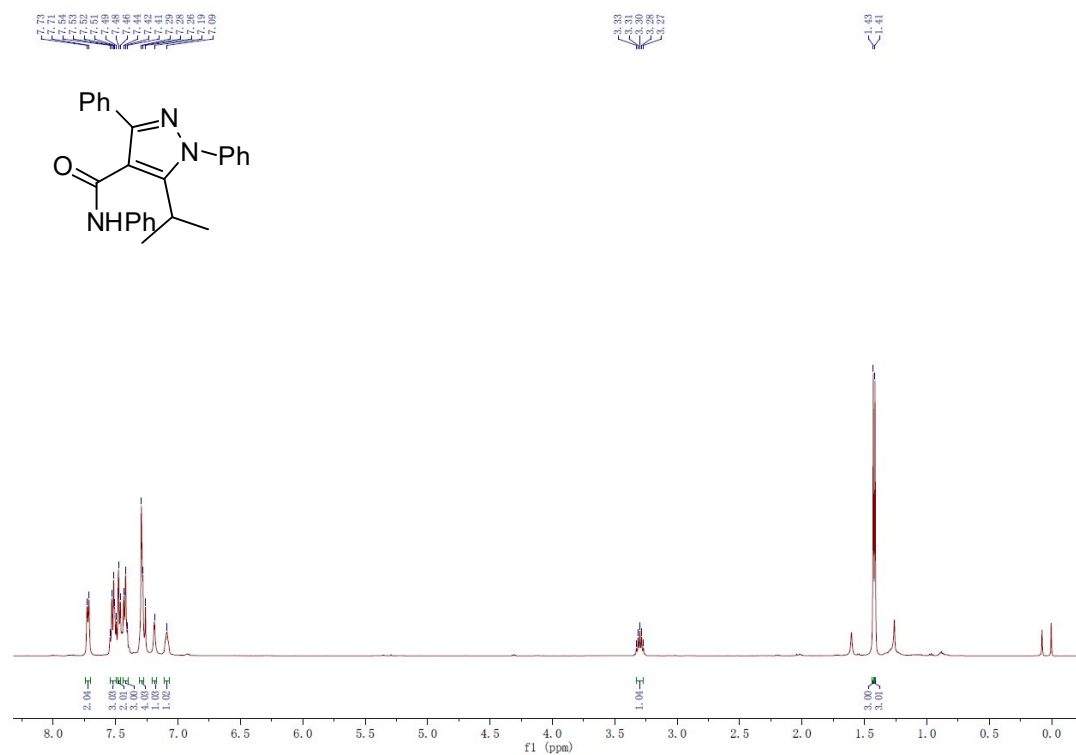
***N*-(2-methoxyphenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3fa)**



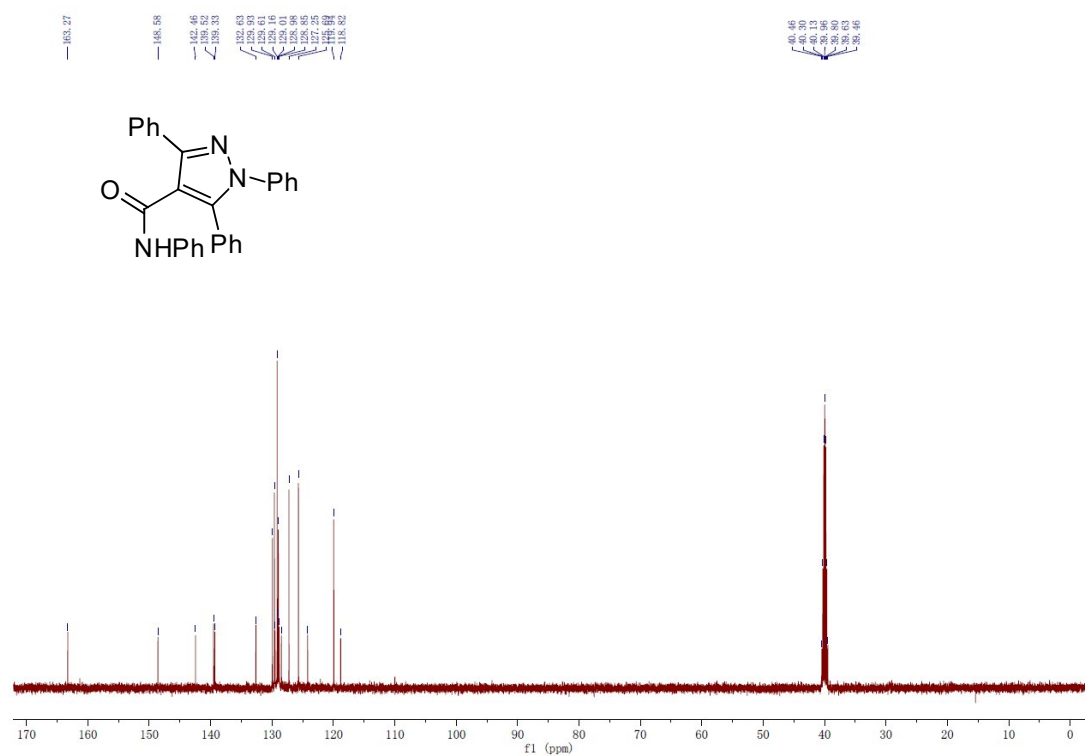
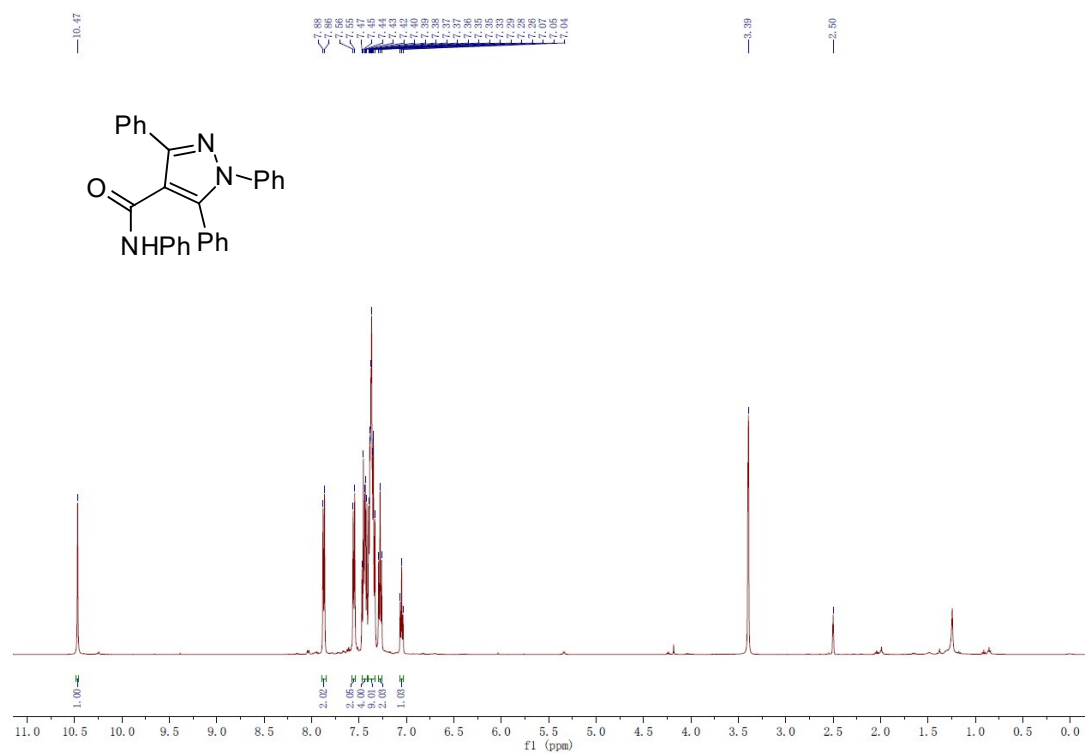
***N*-(2-chlorophenyl)-5-methyl-1,3-diphenyl-1*H*-pyrazole-4-carboxamide (3ga)**



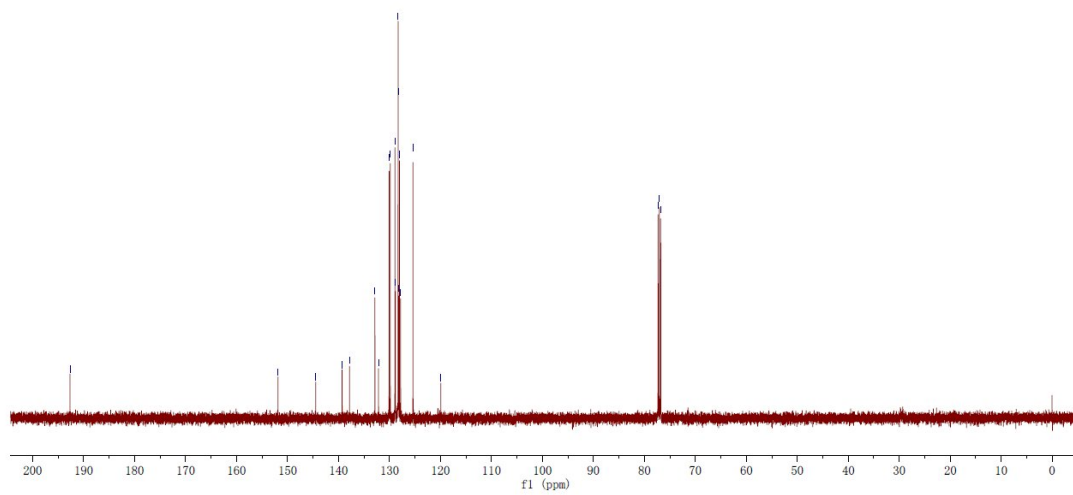
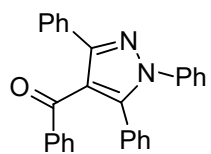
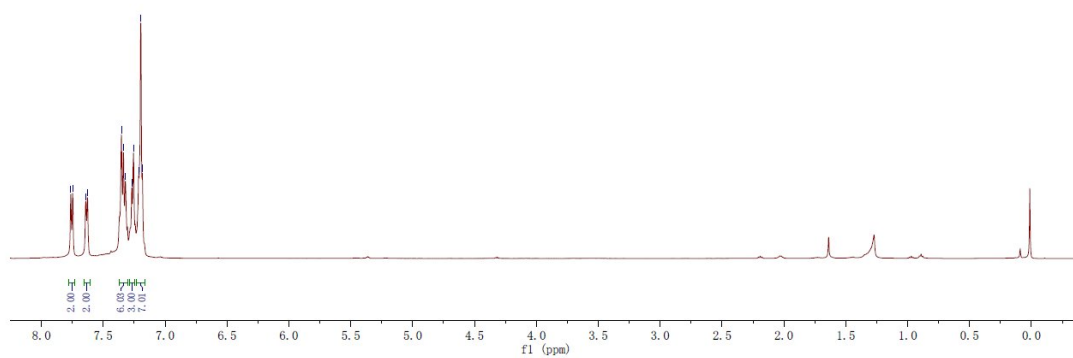
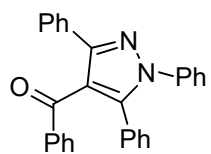
5-Isopropyl-*N*,1,3-triphenyl-1*H*-pyrazole-4-carboxamide (3ha)



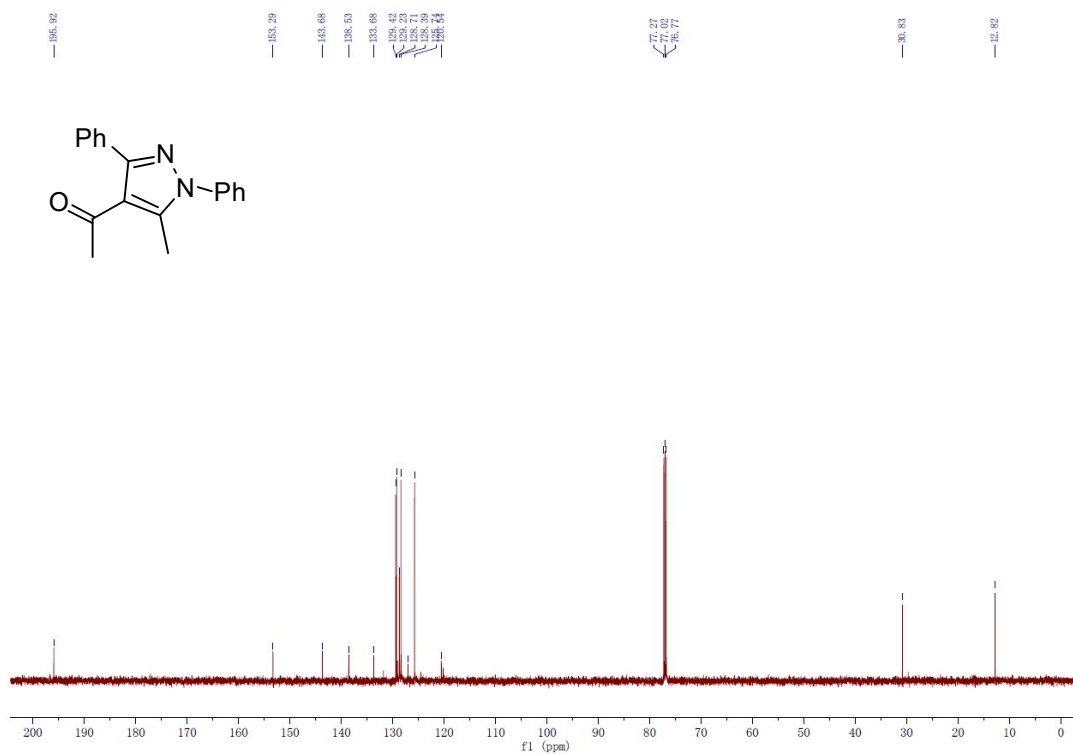
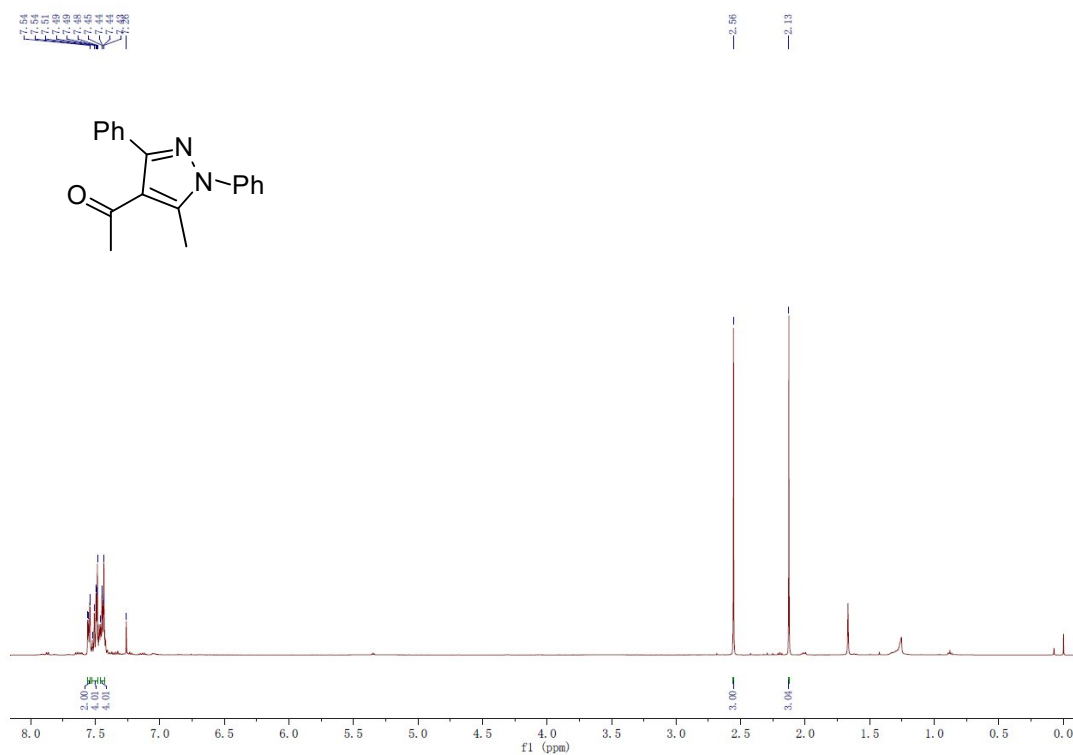
***N*,1,3,5-tetraphenyl-1*H*-pyrazole-4-carboxamide (3ia)**



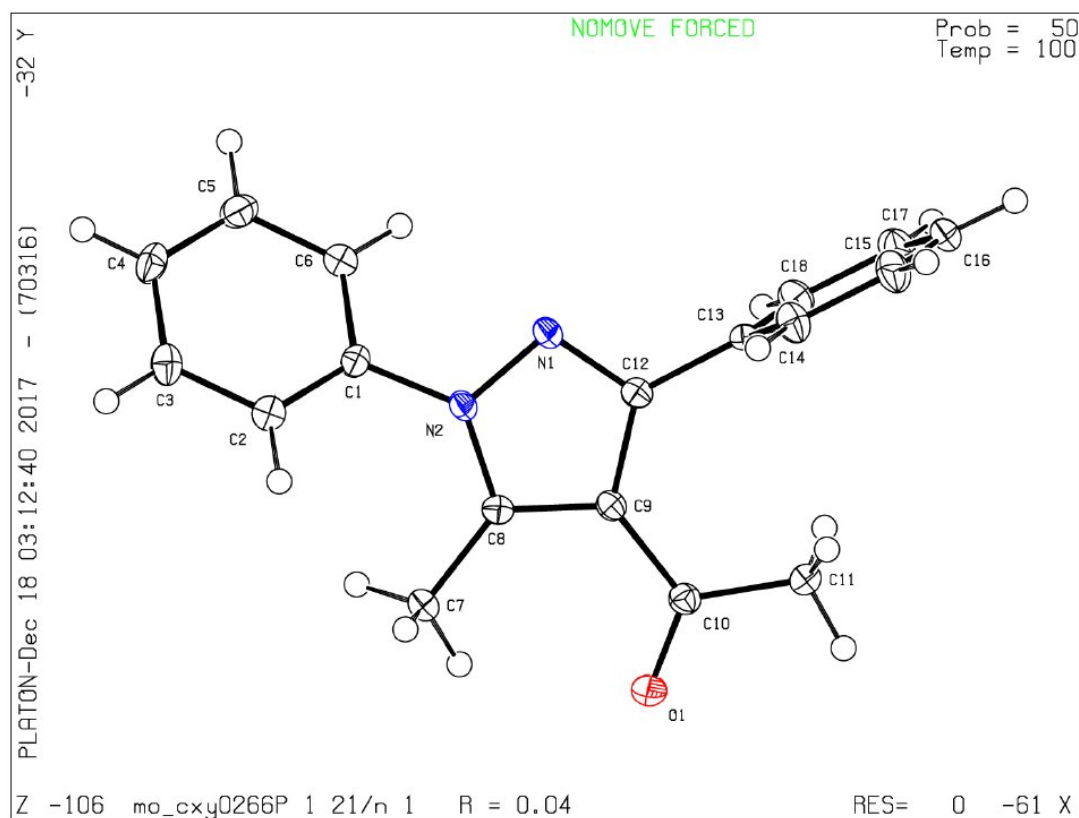
Phenyl(1,3,5-triphenyl-1*H*-pyrazol-4-yl)methanone (3ja)



1-(5-Methyl-1,3-diphenyl-1*H*-pyrazol-4-yl)ethanone (3ka)



F: Absolute Configuration and X-Ray Analysis Data



Crystal data and structure refinement for 3ka.

Table 1 Crystal data and structure refinement for 3ka

Identification code	3ka
Empirical formula	C ₁₈ H ₁₆ N ₂ O
Formula weight	276.33
Temperature/K	100
Crystal system	monoclinic
Space group	P2 ₁ /n
a/Å	14.2864(13)
b/Å	5.3688(5)
c/Å	19.4632(16)
α/°	90
β/°	108.952(3)
γ/°	90
Volume/Å ³	1411.9(2)
Z	4
ρ _{calc} /g/cm ³	1.300
μ/mm ⁻¹	0.082
F(000)	584.0
Crystal size/mm ³	0.42 × 0.4 × 0.36
Radiation	MoKα (λ = 0.71073)
2θ range for data collection/°	6.03 to 55.038
Index ranges	-18 ≤ h ≤ 18, -6 ≤ k ≤ 6, -25 ≤ l ≤ 25
Reflections collected	17531
Independent reflections	3204 [R _{int} = 0.0460, R _{sigma} = 0.0400]
Data/restraints/parameters	3204/0/193
Goodness-of-fit on F ²	1.043
Final R indexes [I ≥ 2σ (I)]	R ₁ = 0.0422, wR ₂ = 0.1004
Final R indexes [all data]	R ₁ = 0.0526, wR ₂ = 0.1067
Largest diff. peak/hole / e Å ⁻³	0.32/-0.22

G: Reference

1. H. Liu, H. Jia, B. Wang, Y. Xiao, H. Guo. *Org. Lett.*, **2017**, *19*, 4714-4717.
2. M. Giustiniano, F. Meneghetti, V. Mercalli, M. Varese, F. Giustiniano, E. Novellino, G. C. Tron. *Org. Lett.* **2014**, *16*, 5332-5335.