Supporting Information for:

Solvent- and catalyst-free, quantitative protection of hydroxyl, thiol, carboxylic acid, amide and heterocyclic amino functional groups

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Tetrahydro-2*H*-pyran-2-yl benzoate. ^{1}H NMR (400 MHz, $CDCl_3$): δ 8.08 (dd, 2H, ^{3}J = 7.0 Hz, ^{3}J = 1.4 Hz, C*H*-phenyl), 7.56 (t, 1H, ^{3}J = 7.3 Hz, C*H*-phenyl), 7.44 (t, 2H, ^{3}J = 8.0 Hz, C*H*-phenyl), 6.25 (m, 1H, C*H*-THP), 3.96−4.02 (m, 1H, CH_2O-THP), 3.73–3.77 (m, 1H, CH_2O-THP), 1.53−1.92 (m, 6H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 165.2, 133.2, 130.4, 129.8, 128.5, 93.2, 63.3, 29.4, 25.1, 18.7 ppm.

Tetrahydro-2*H*-pyran-2-yl stearate. ^{1}H NMR (400 MHz, $CDCl_3$): δ 5.95 (s, 1H, C*H*-THP), 3.85−3.91 (m, 1H, CH_2O-THP), 3.64−3.68 (m, 1H, CH_2O-THP), 2.33 (t, 2H, ^{3}J = 7.6 Hz, C(O)CH_2), 1.75–1.85 (m, 2H, C(O)CH$_2$CH_2), 1.50–1.70 (m, 6H, CH_2-THP), 1.21–1.28 (m, 28H, C(O)CH$_2$CH$_2$(CH_2)$_{14}$CH$_3$), 0.86 (t, 3H, ^{3}J = 7.0 Hz, C(O)CH$_2$CH$_2$(CH$_2$)$_{14}$CH_3) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 172.7, 92.5, 63.4, 34.6, 32.0, 29.7, 29.6, 29.5, 29.4, 29.35, 29.31, 29.21, 25.0, 24.9, 22.7, 18.8, 14.2 ppm. HRMS (ESI-TOF) *m/z*: $[M + Na]^+$ calcd for $C_{23}H_{44}NaO_3$ 391.3182; found 391.3176.

2-(Phenylthio)tetrahydro-2*H*-pyran. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.48 (d, 2H, ^{3}J = 7.2 Hz, C*H*-phenyl), 7.20−7.30 (m, 3H, C*H*-phenyl), 5.21 (t, 1H, ^{3}J = 5.2 Hz, C*H*-THP), 4.16−4.20 (m, 1H, CH_2O-THP), 3.57−3.60 (m, 1H, CH_2O-THP), 2.00−2.05 (m, 1H, CH_2-THP), 1.81−1.86 (m, 2H, CH_2-THP), 1.62 (m, 3H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 135.5, 130.8, 128.8, 126.7, 85.2, 64.5, 31.6, 25.6, 21.7 ppm.

1(2)-(Tetrahydro-2*H*-pyran-2-yl)-1(2)*H*-1,2,3-benzotriazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 8.05 (d, 1H, ^{3}J = 8.4 Hz, C*H*-phenyl), 7.87−7.90 (m, 2H, C*H*-phenyl), 7.73 (d, 1H, ^{3}J = 8.8 Hz, C*H*-phenyl), 7.47 (t, 1H, ^{3}J = 6.8 Hz, C*H*-phenyl), 7.34−7.44 (m, 2H, C*H*-phenyl), 6.02 (dd, 1H, ^{3}J = 8.4 Hz, ^{3}J = 3.2 Hz, C*H*-THP), 3.90−3.95 (m, 1H, CH_2O-THP), 3.74−3.82 (m, 1H, CH_2O-THP), 2.56−2.65 (m, 1H, CH_2-THP), 2.16−2.24 (m, 2H, CH_2-THP), 1.71−1.88 (m, 3H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 146.3, 144.2, 132.5, 127.6, 127.0, 124.4, 119.8, 118.6, 111.2, 90.8, 85.8, 67.6, 67.0, 30.0, 29.4, 24.9, 24.8, 21.7, 21.5 ppm.

1(2)-(Tetrahydro-2*H*-pyran-2-yl)-1(2)*H*-1,2,3-triazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.69 (s, 1H, 4-*H*-triazole), 7.62 (s, 1H, 5-*H*-triazole), 7.58 (s, 2H, 4-*H*-triazole and 5-*H*-triazole), 5.62−5.66 (m, 1H, C*H*-THP), 3.88−3.94 (m, 1H, CH_2O-THP), 3.61−3.67 (m, 1H, CH_2O-THP), 2.28−2.40 (m, 1H, CH_2-THP), 1.92−2.10 (m, 2H, CH_2-THP), 1.53−1.68 (m, 3H, CH_2-THP) ppm.

4-Nitro-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 8.35 (s, 1H, 5-*H*-pz), 8.08 (s, 1H, 3-*H*-pz), 5.39 (dd, 1H, ^{3}J = 9.2 Hz, ^{3}J = 2.6 Hz, C*H*-THP), 4.05−4.09 (m, 1H, CH_2O-THP), 3.69−3.75 (m, 1H, CH_2O-THP), 2.11−2.17 (m, 1H, CH_2-THP), 1.64−2.04 (m, 5H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 135.6, 127.1, 88.5, 67.9, 30.7, 24.8, 21.8 ppm. HRMS (ESI-TOF) *m/z*: $[M + Na]^+$ calcd for $C_8H_{11}N_3NaO_3$ 220.0692; found 220.0711.

2-Phenoxytetrahydro-2*H*-pyran. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.27–7.31 (m, 2H, C*H*-phenyl), 7.06–7.08 (m, 2H, C*H*-phenyl), 5.44 (t, 1H, ^{3}J = 3.3 Hz, C*H*-THP), 3.91–3.94 (m, 1H, CH_2O-THP), 3.60–3.63 (m, 1H, CH_2O-THP), 1.99–2.03 (m, 1H, CH_2-THP), 1.80–1.90 (m, 2H, CH_2-THP), 1.50–1.78 (m, 3H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): 157.1, 129.2, 121.4, 116.4, 96.2, 61.8, 30.4, 25.3, 18.8 ppm.

1(2)-(Tetrahydro-2*H*-pyran-2-yl)-1(2)*H*-1,2,4-triazole. ^{1}H NMR (400 MHz, $CDCl_3$): 8.21 (s, 1H, 5-*H*-triazole), 8.08 (s, 2H, 3-*H*-triazole and 5-*H*-triazole), 7.87 (s, 1H, 3-*H*-triazole), 5.38

(dd, 1H, ^3J = 8.8 Hz, ^3J = 4.4 Hz, C*H*-THP), 3.95−3.99 (m, 1H, CH_2O-THP), 3.58−3.65 (m, 1H, CH_2O-THP), 1.88−2.05 (m, 3H, CH_2-THP), 1.52−1.64 (m, 3H, CH_2-THP) ppm.

2-(Decylthio)tetrahydro-2*H*-pyran. ^{1}H NMR (400 MHz, $CDCl_3$): δ 4.80–4.83 (m, 1H, C*H*-THP), 4.04–4.09 (m, 1H, CH_2O-THP), 3.45–3.51(m, 1H, CH_2O-THP), 2.43–2.7 (m, 2H, SCH_2), 1.52–1.95 (m, 6H, CH_2-THP), 1.20–1.40 (m, 16H, $CH_2(CH_2)_{14}CH_2$), 0.85 (t, 3H, ^3J = 6.6, CH_3) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 94.7, 64.7, 31.9, 31.5, 30.4, 30.0, 29.64, 29.61, 29.40, 29.3, 29, 25.7, 22.7, 21.9, 14.2 ppm.

4-Chloro-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.59 (s, 1H, 5-*H*-pz), 7.46 (s, 1H, 3-*H*-pz), 5.29–5.33(m, 1H, C*H*-THP), 4.01−4.04 (m, 1H, CH_2O-THP), 3.64−3.71 (m, 1H, CH_2O-THP), 2.00−2.09 (m, 3H, CH_2-THP), 1.58−1.69 (m, 3H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 137.9, 125.8, 110.7, 88.0, 67.7, 30.3, 24.7, 22.2 ppm. HRMS (ESI-TOF) *m/z*: $[M + Na]^+$ calcd for $C_8H_{11}ClN_2NaO$ 209.0452; found 209.0454.

4-Bromo-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.61 (s, 1H, 3-*H*-pz), 7.48 (s, 1H, 5-*H*-pz), 5.31−5.33 (m, 1H, C*H*-THP), 3.99−4.02 (m, 1H, CH_2O-THP), 3.64−3.69 (m, 1H, CH_2O-THP), 1.99−2.09 (m, 3H, CH_2-THP), 1.59−1.65 (m, 3H, CH_2-THP) ppm.

1-(Tetrahydro-2*H*-pyran-2-yl)-1*H*-benzimidazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 8.06 (s, 1H, C*H*-imidazole), 7.77−7.79 (m, 1H, C*H*-phenyl), 7.50−7.52 (m, 1H, C*H*-phenyl), 7.26−7.31 (m, 2H, C*H*-phenyl), 5.48 (dd, 1H, ^3J = 9.6 Hz, ^3J = 2.0 Hz, C*H*-THP), 4.10−4.12 (m, 1H, CH_2O-THP), 3.71−3.77 (m, 1H, CH_2O-THP), 2.08−2.21 (m, 3H, CH_2-THP), 1.68−1.81 (m, 3H, CH_2-THP) ppm.

3,5-Diphenyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.88 (d, 2H, ^3J = 8.4 Hz, C*H*-phenyl), 7.58 (d, 2H, ^3J = 8.0 Hz, C*H*-phenyl), 7.27−7.5 (m, 6H, C*H*-phenyl), 6.64 (s, 1H, 4-*H*-pz), 5.22 (dd, 1H, ^3J = 10.2 Hz, ^3J = 2.2 Hz, C*H*-THP), 4.16−4.18 (m, 1H, CH_2O-THP), 3.62 (t, 1H, ^3J = 11.7 Hz, CH_2O-THP), 2.65−2.74 (m, 1H, CH_2-THP), 2.07−2.10 (m, 1H, CH_2-THP), 1.54−1.88 (m, 4H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 151.2, 145.6, 133.5, 130.6, 129.1, 128.8, 127.8, 126.0, 103.9, 84.5, 67.8, 29.8, 24.9, 23.1 ppm. HRMS (ESI-TOF) *m/z*: $[M + Na]^+$ calcd for $C_{20}H_{20}N_2NaO$ 327.1467; found 327.1478.

1(2)-(Tetrahydro-2*H*-pyran-2-yl)-1(2)*H*-indazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 8.15 (s, 1H, 5-*H*-pz), 8.03 (s, 1*H*, 3-*H*-pz), 7.71−7.73 (m, 1H, C*H*-phenyl), 7.58−7.6 (m, 1H, C*H*-phenyl), 7.37−7.41 (m, 1H, C*H*-phenyl), 5.72 (dd, 1H, ^3J = 9.6 Hz, ^3J = 2.4 Hz, C*H*-THP), 4.01−4.05 (m, 1H, CH_2O-THP), 3.72−3.78 (m, 1H, CH_2O-THP), 2.54−2.63 (m, 1H, *CH*$_2$-THP), 2.06−2.18 (m, 2H, CH_2-THP), 1.50−1.82 (m, 3H, CH_2-THP) ppm.

1-(Tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): 7.57 (d, 1H, ^3J = 2.4 Hz, 5-*H*-pz), 7.52 (d, 1*H*, ^3J = 1.6 Hz, 3-*H*-pz), 6.26 (t, 1H, ^3J = 2 Hz, 4-*H*-pz), 5.36 (dd, 1H, ^3J = 9.6 Hz, ^3J = 2.4 Hz, C*H*-THP), 4.00−4.04 (m, 1H, CH_2O-THP), 3.63−3.69 (m, 1H, CH_2O-THP), 1.97−2.13 (m, 3H, CH_2-THP), 1.48−1.69 (m, 3H, CH_2-THP) ppm.

1-(Tetrahydro-2H-pyran-2-yl)-1*H*-imidazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.58 (s, 1H, 2-*H*-imidazole), 6.96−7.00 (m, 2H, 4-*H*-imidazole, 5-*H*-imidazole), 5.12 (dd, 1H, ^3J = 2.4 Hz, ^3J = 9.6 Hz, C*H*-THP), 3.94−3.97 (m, 1H, CH_2O-THP), 3.54−3.60 (m, 1H, CH_2O-THP), 1.75−1.93

(m, 3H, CH_2-THP), 1.48−1.66 (m, 3H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 135.6, 129.1, 117.0, 100.8, 67.9, 31.5, 24.8, 22.5 ppm.

3(5)-Methyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.45 (d, 1H, ^3J = 2.2 Hz, 5-*H*-pz), 7.42 (s, 1H, 3-*H*-pz), 6.05 (d, 1H, ^3J = 2.2 Hz, 4-*H*-pz), 6.02 (d, 1H, ^3J = 0.8 Hz, 4-*H*-pz), 5.25 (td, 1H, ^3J = 7.7 Hz, ^3J = 2.2 Hz, C*H*-THP) 4.00–4.07 (m, 1H, CH_2O-THP), 3.63–3.69 (m, 1H, CH_2O-THP), 2.41–2.50 (m, 1H, CH_2-THP), 2.32 (s, 3H, CH_3), 2.27 (s, 3H, CH_3), 2.05–2.12 (m, 1H, CH_2-THP), 1.92–2.03 (m, 2H, CH_2-THP), 1.51–1.71 (m, 3H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 149.2, 139.1, 139.0, 128.4, 106.2, 105.8, 87.5, 84.4, 68.1, 67.8, 30.5, 29.4, 25.1, 25.0, 22.88, 22.82, 13.7, 10.98 ppm.

4-Octyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.36 (s, 2H, 3-*H*-pz and 5-*H*-pz), 5.30 (dd, 1H, ^3J = 10.0 Hz, ^3J = 2.4 Hz, C*H*-THP), 4.02−4.06 (m, 1H, CH_2O-THP), 3.63−3.70 (m, 1H, CH_2O-THP), 2.42 (t, 2H, ^3J = 11.6 Hz, CH_2(CH_2)$_6$$CH_3$), 2.00−2.12 (m, 3H, C$H_2$-THP), 1.49−1.72 (m, 5H, CH_2-THP, CH_2CH_2(CH_2)$_5$$CH_3$), 1.24−1.30 (m, 10H, CH_2CH_2(CH_2)$_5$$CH_3$), 0.86 (t, 3H, ^3J = 6.8 Hz, (CH_2)$_7$CH_3) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 139.5, 125.6, 122.6, 87.6, 67.9, 32.0, 30.9, 30.5, 29.4, 25.1, 24.3, 22.8, 14.2 ppm. HRMS (ESI-TOF) *m/z*: $[M + Na]^+$ calcd for $C_{16}H_{28}N_2NaO$ 287.2093; found 287.2083.

3,5-Dimethyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole. ^{1}H NMR (400 MHz, $CDCl_3$): δ 5.79 (s, 1H, 4-*H*-pz), 5.11 (dd, 1H, ^3J = 10.0 Hz, ^3J = 2.0 Hz, CH_2-THP), 3.99−4.04 (m, 1H, CH_2O-THP), 3.56−3.62 (td, 1H, ^3J = 11.6 Hz, ^3J = 2.8 Hz, CH_2O-THP), 2.36−2.46 (m, 1H, CH_2-THP), 2.24 (s, 3H, CH_3), 2.18 (s, 3H, CH_3), 2.01−2.05 (m, 1H, CH_2-THP), 1.84−1.89 (m, 1H, CH_2-THP), 1.49−1.72 (m. 3H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 148.4, 139.9, 106.3, 84.4, 68.1, 29.7, 25.1, 23.2, 13.7, 10.9 ppm. HRMS (ESI-TOF) *m/z*: $[M + Na]^+$ calcd for $C_{10}H_{16}N_2NaO$ 203.1154; found 203.1178.

N-(Tetrahydro-2*H*-pyran-2-yl)benzamide. ^{1}H NMR (400 MHz, $CDCl_3$): δ 7.76–7.81 (m, 2H, C*H*-phenyl), 7.41–7.53 (m, 3H, C*H*-phenyl), 6.60 (br, 1H, ^3J = 7.3 Hz, N*H*), 5.30 (t, 1H, ^3J = 8.4 Hz, C*H*-THP), 4.01 (d, 1H, ^3J = 11.0 Hz, CH_2O-THP), 3.63–3.69 (m, 1H, CH_2O-THP), 1.41−1.95 (m, 6H, CH_2-THP) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 166.8, 131.8, 129.2, 127.2, 127, 78.4, 66.2, 29.9, 22.0 ppm.

2-Butoxytetrahydro-2*H*-pyran. ^{1}H NMR (400 MHz, $CDCl_3$): δ 4.52 (m, 1H, C*H*-THP), 3.80−3.83 (m, 1H, CH_2O-THP), 3.65–3.75 (m, 1H, OCH_2), 3.45–3.51(m, 1H, CH_2O-THP), 3.33–3.40 (m, 1H, OCH_2), 1.48–1.90 (m, 8H, CH_2-THP, OCH_2CH_2), 1.30–1.40 (m, 2H, CH_2C$H_2$$CH_3$), 0.88 (t, 3H, ^3J = 7.7 Hz, CH_3) ppm. ^{13}C NMR (100 MHz, $CDCl_3$): δ 98.9, 67.4, 62.3, 31.9, 30.8, 25.6, 19.7, 19.5, 14.0 ppm.

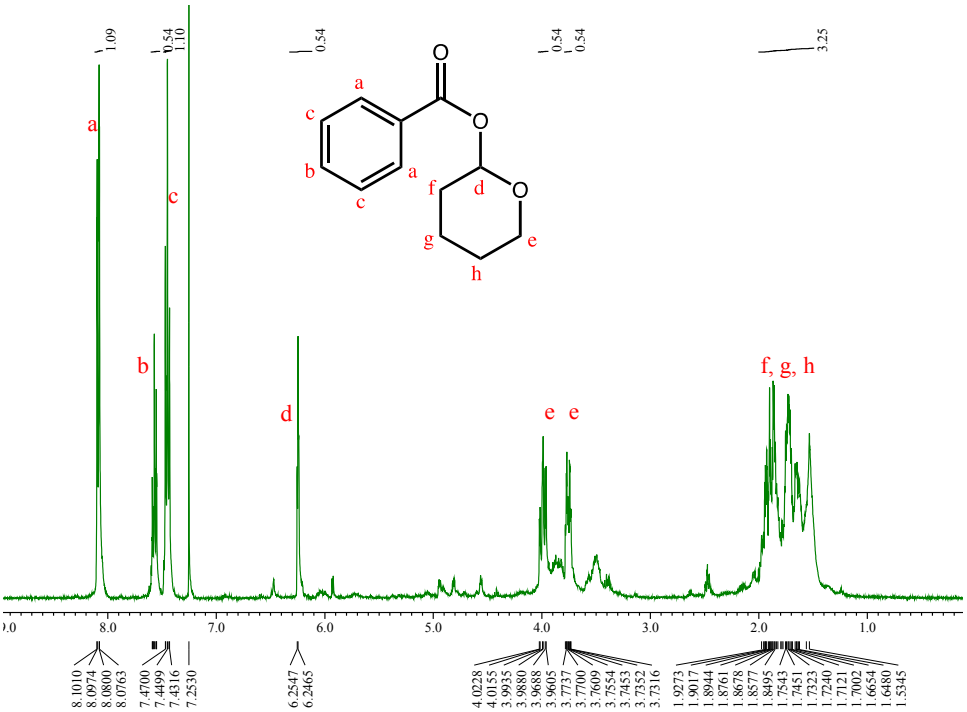

Figure S1. [1]H NMR spectrum of tetrahydro-2*H*-pyran-2-yl benzoate.

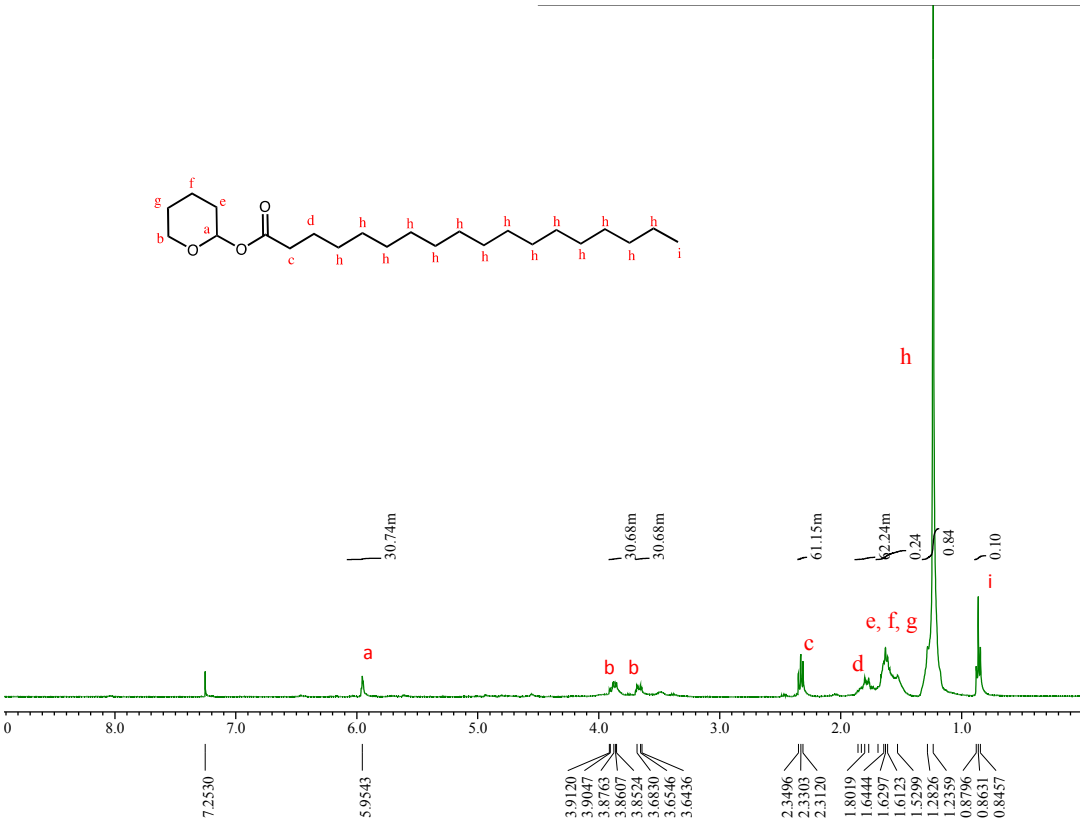

Figure S2. [1]H NMR spectrum of tetrahydro-2*H*-pyran-2-yl stearate.

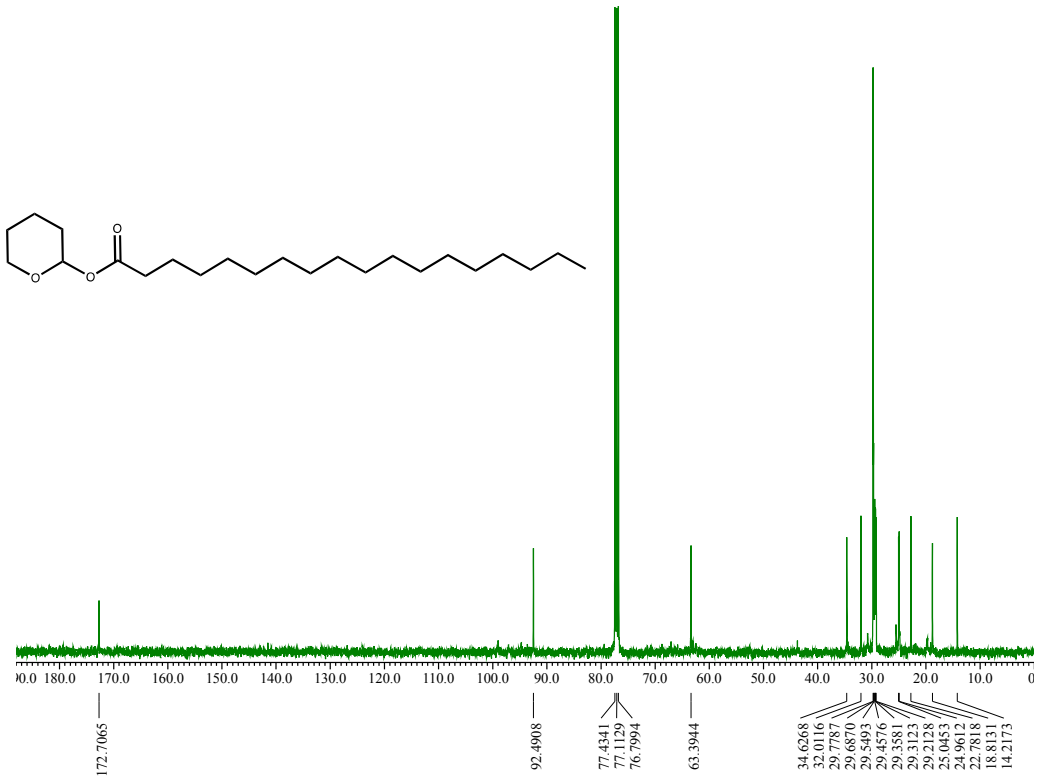

Figure S3. ^{13}C NMR spectrum of tetrahydro-2*H*-pyran-2-yl stearate.

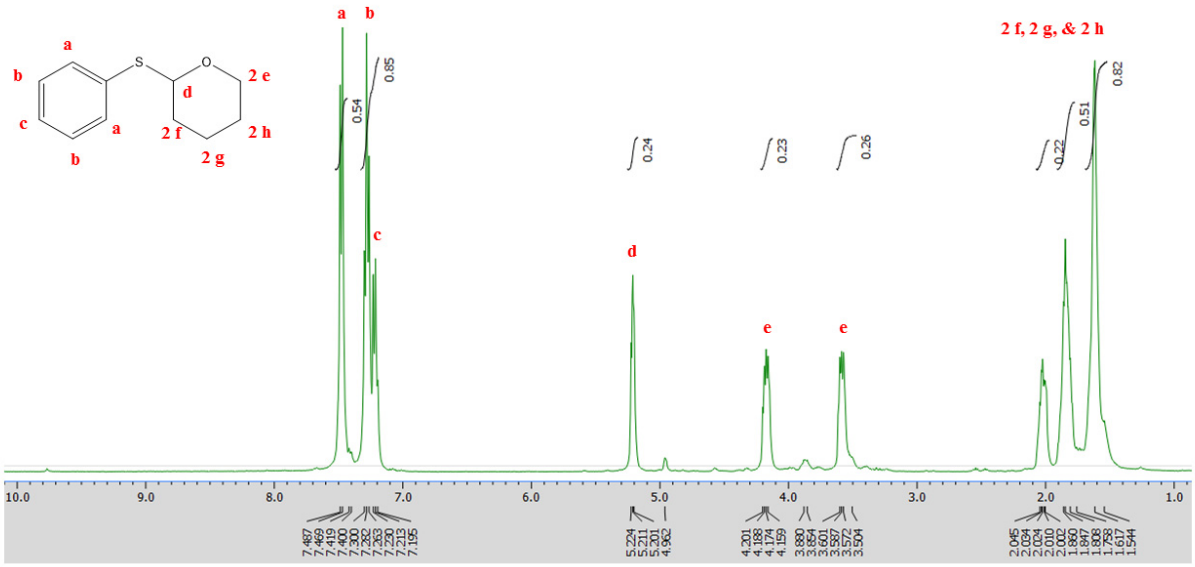

Figure S4. ^{1}H NMR spectrum of 2-(phenylthio)tetrahydro-2*H*-pyran.

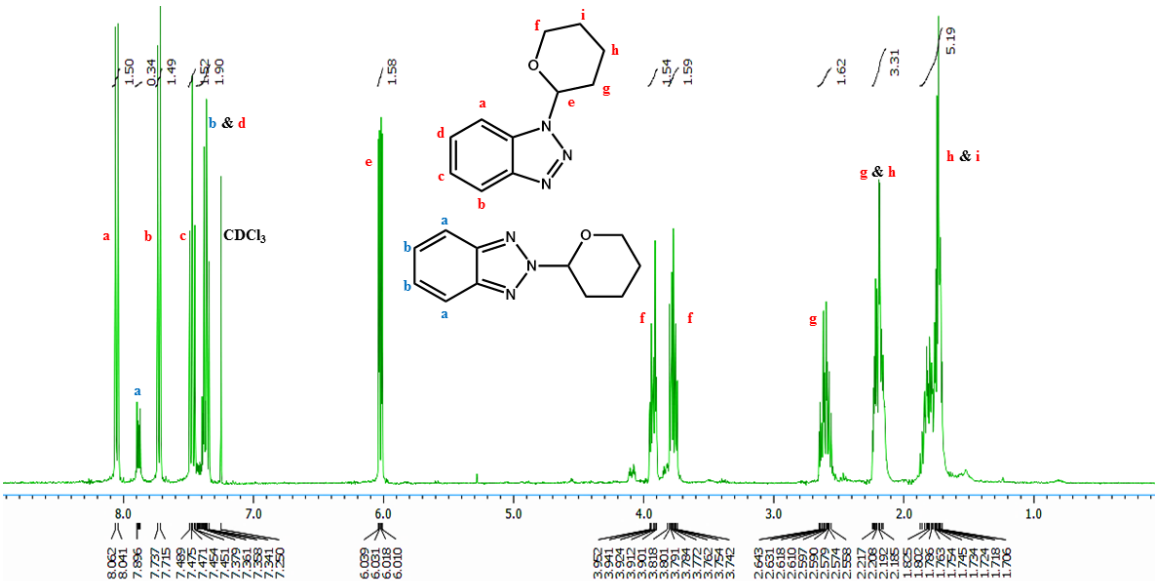

Figure S5. ^{1}H NMR spectrum of 1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-1,2,3-benzotriazole (82%) and 2-(tetrahydro-2*H*-pyran-2-yl)-2*H*-1,2,3-benzotriazole (18%).

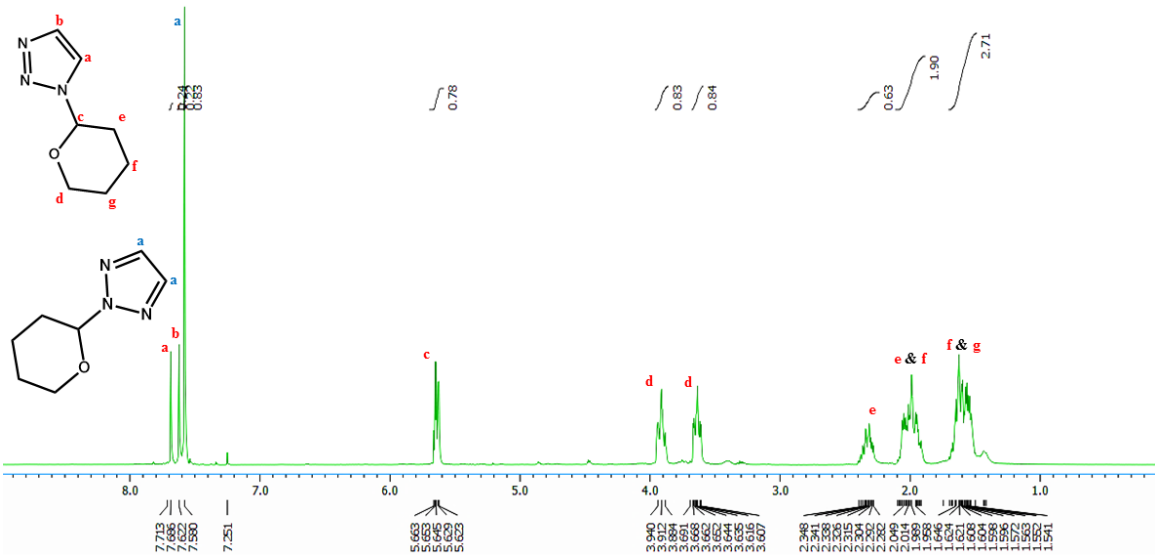

Figure S6. ^{1}H NMR spectrum of 1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-1,2,3-triazole (22%) and 2-(tetrahydro-2*H*-pyran-2-yl)-2*H*-1,2,3-triazole (78%).

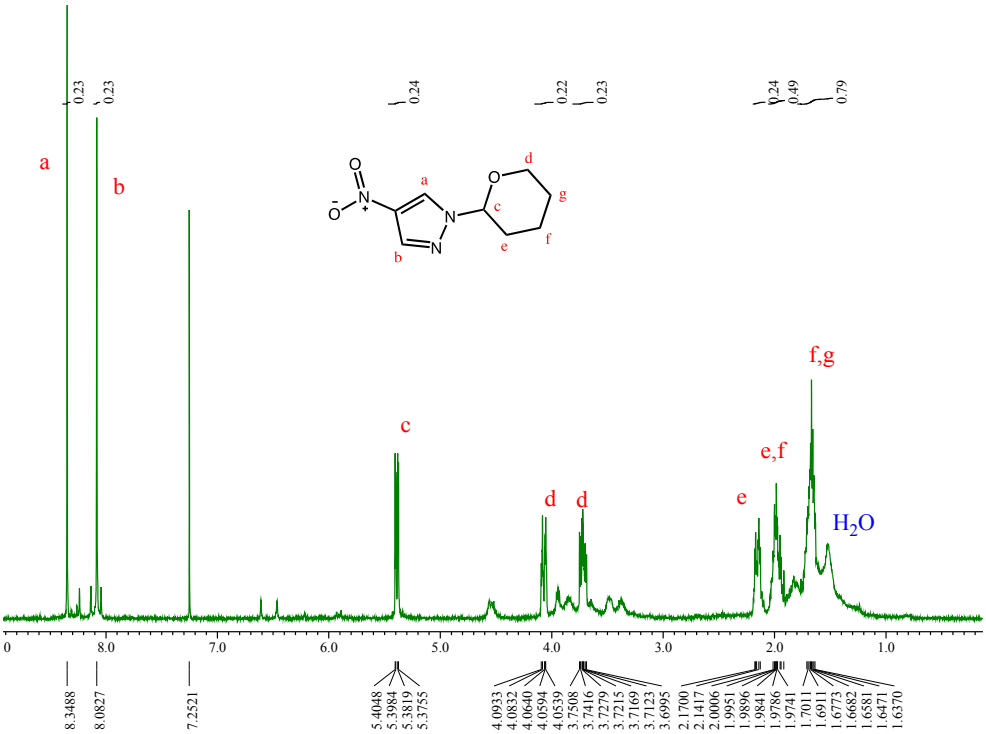

Figure S7. ^{1}H NMR spectrum of 4-nitro-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

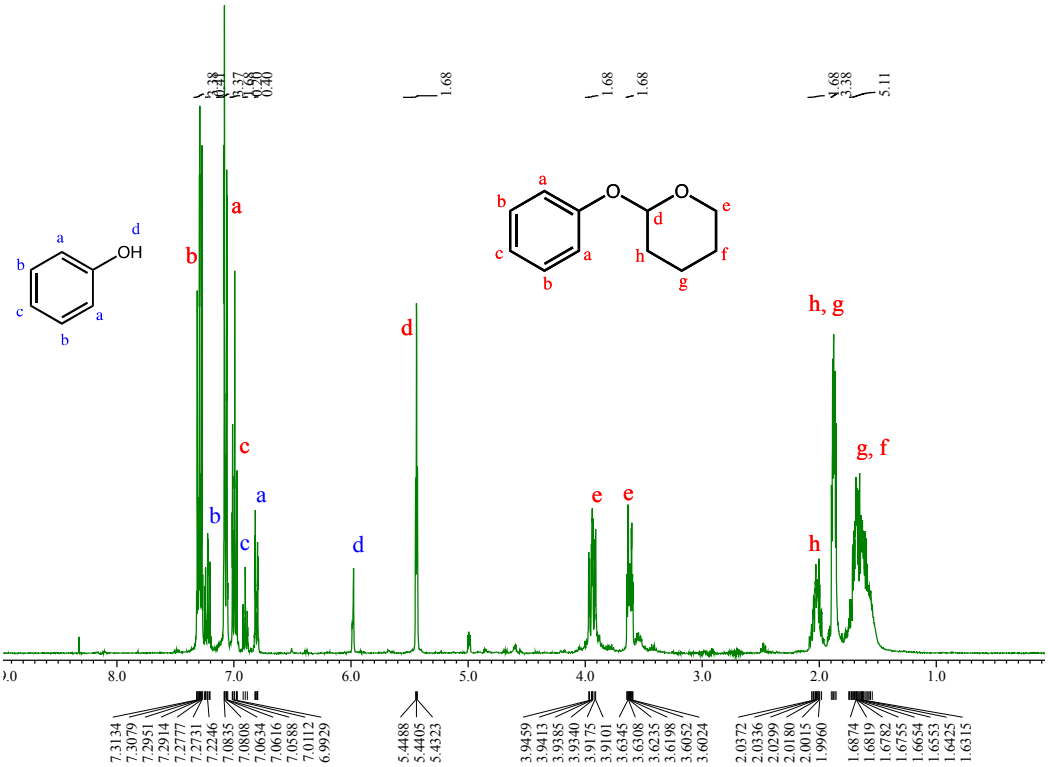

Figure S8. ^{1}H NMR spectrum of 2-phenoxytetrahydro-2*H*-pyran.

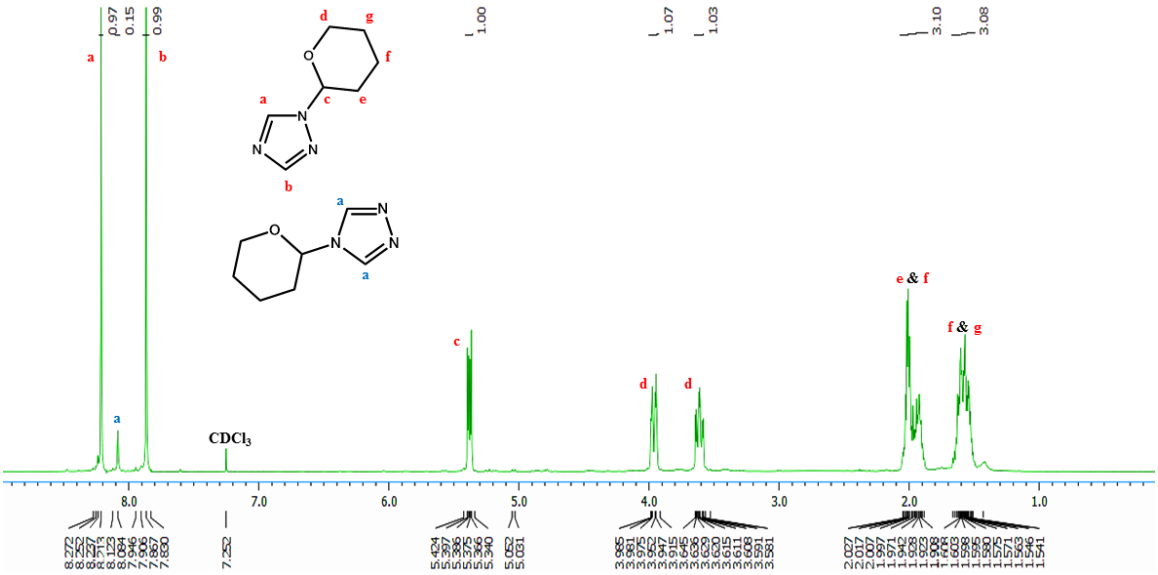

Figure S9. [1]H NMR spectrum of 1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-1,2,4-triazole (87%) and 4-(tetrahydro-2*H*-pyran-2-yl)-4*H*-1,2,4-triazole (13%).

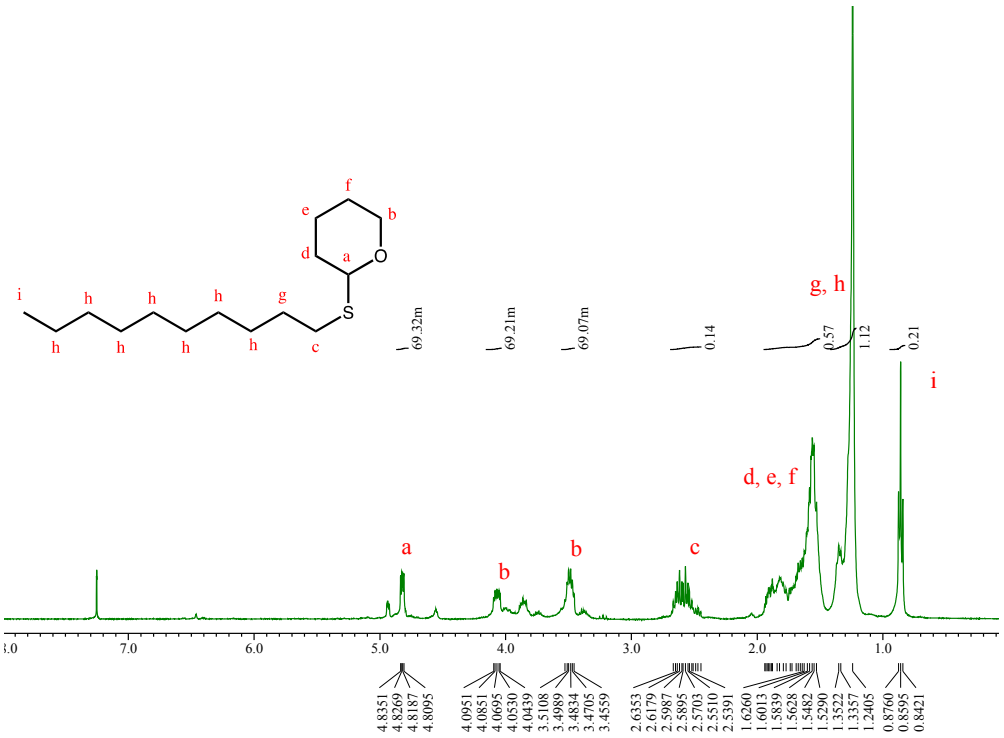

Figure S10. [1]H NMR spectrum of 2-(decylthio)tetrahydro-2*H*-pyran.

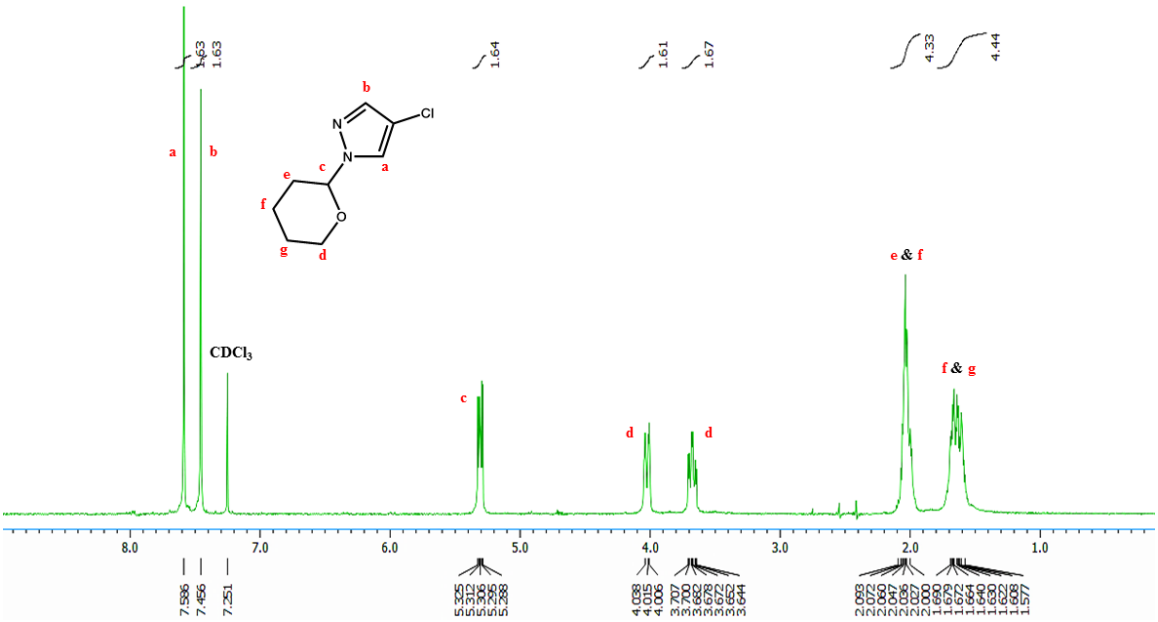

Figure S11. [1]HNMR spectrum of 4-chloro-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole (100%).

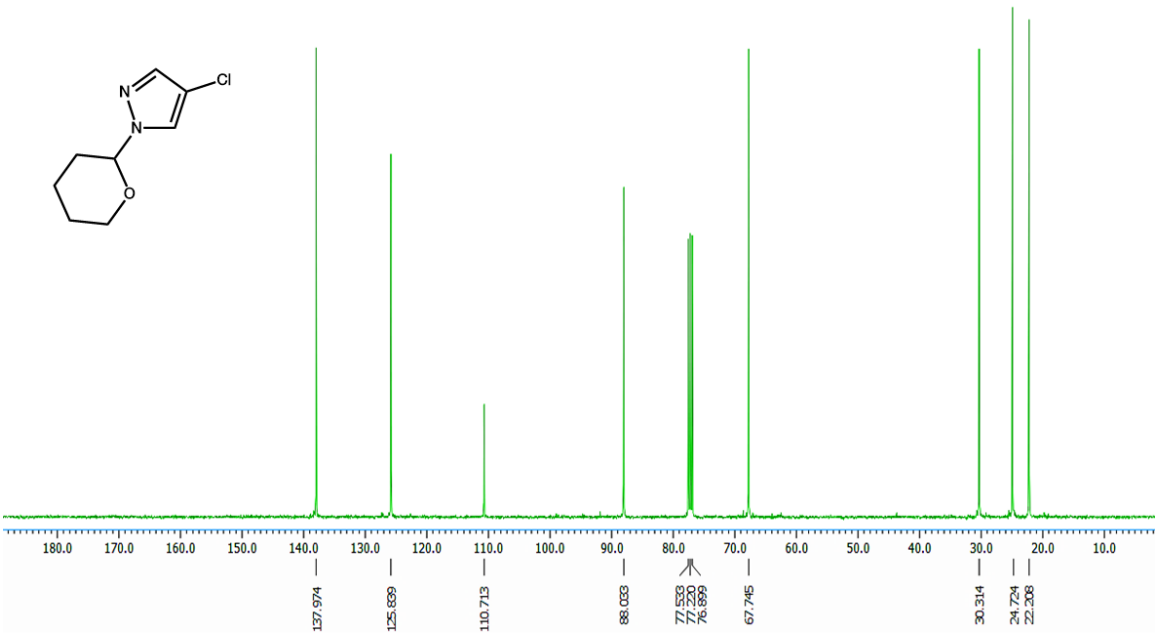

Figure S12. [13]C NMR spectrum of 4-chloro-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

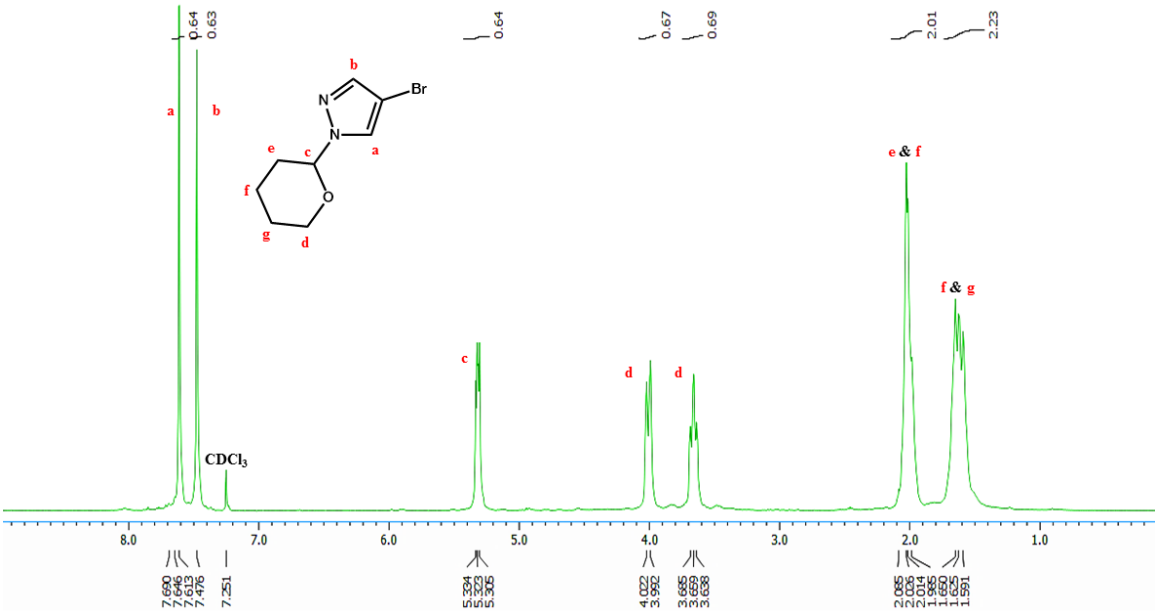

Figure S13. ^{1}H NMR spectrum of 4-bromo-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

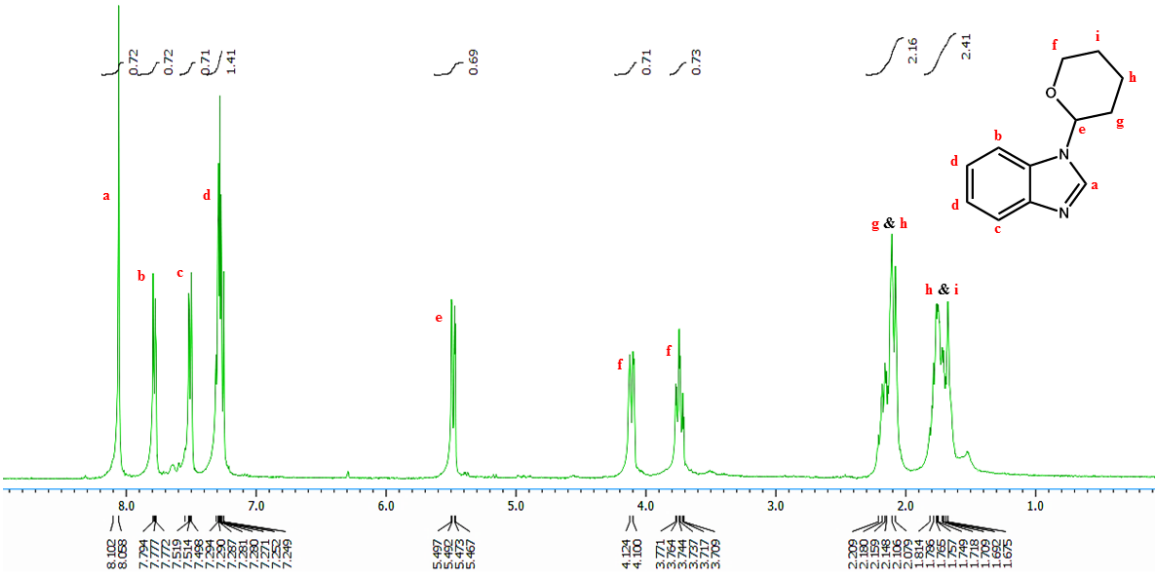

Figure S14. ^{1}H NMR spectrum of 1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-benzimidazole.

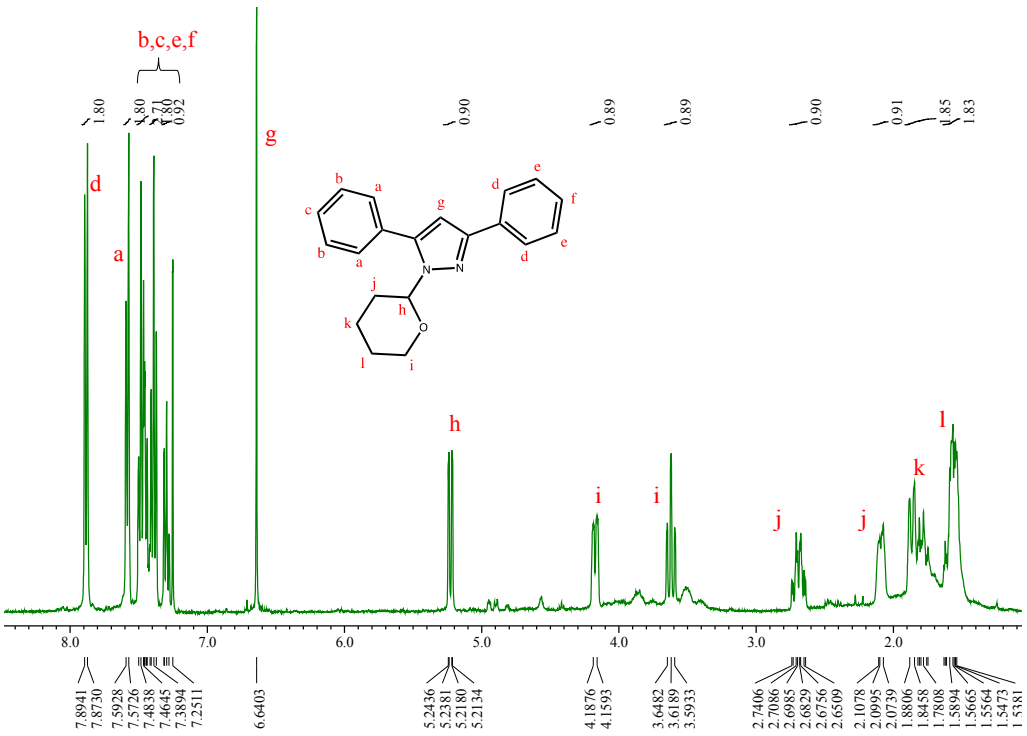

Figure S15. [1]HNMR spectrum of 3,5-diphenyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

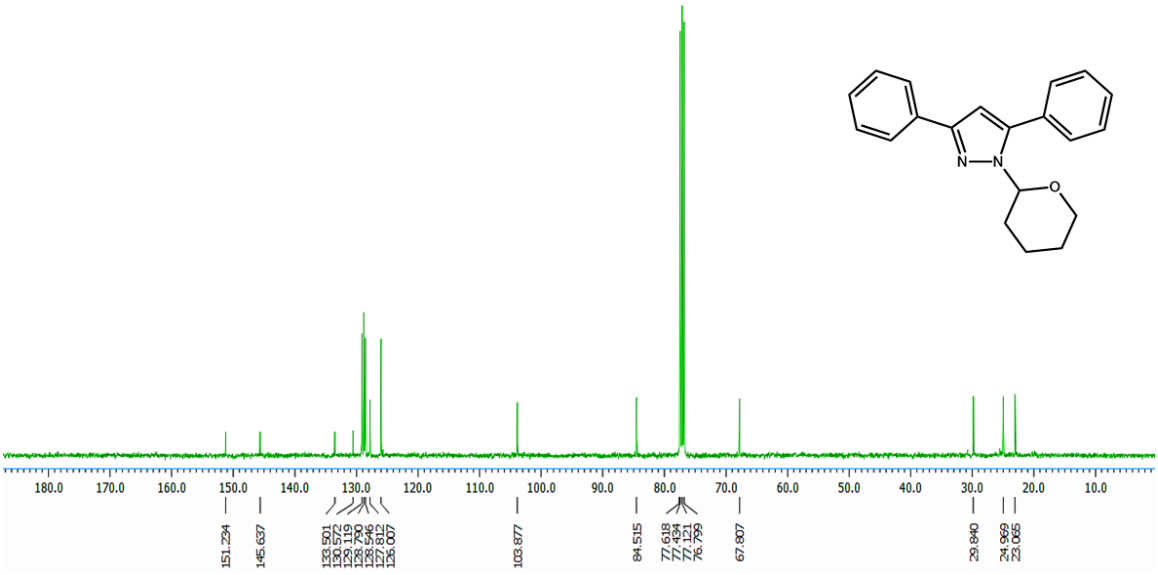

Figure S16. [13]C NMR spectrum of 3,5-diphenyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

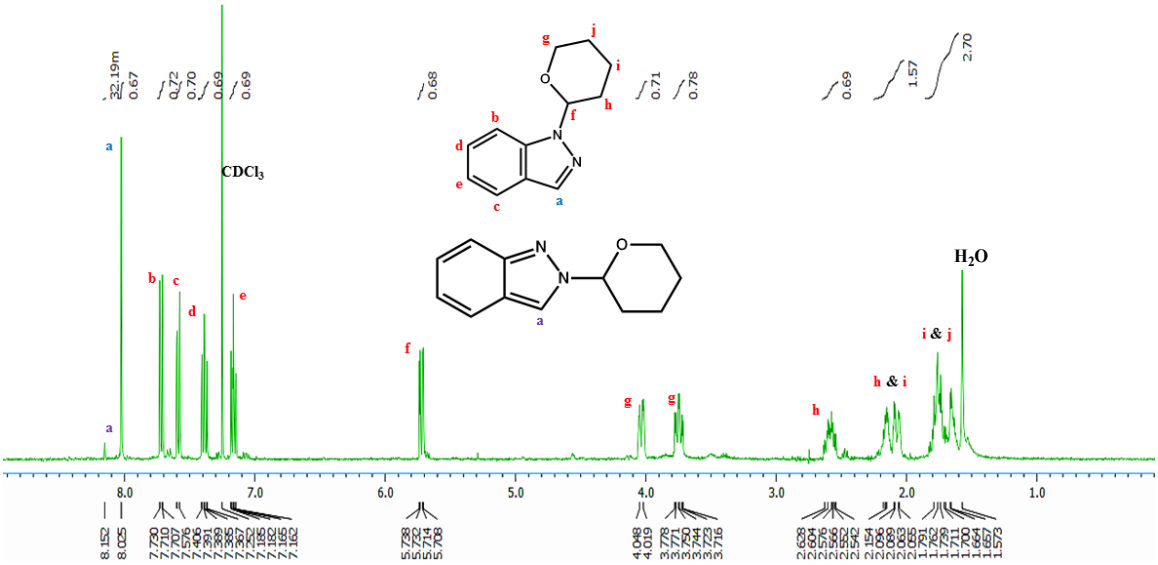

Figure S17. [1]H NMR spectrum of 1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-indazole (5%) and 2-(tetrahydro-2*H*-pyran-2-yl)-2*H*-indazole (95%).

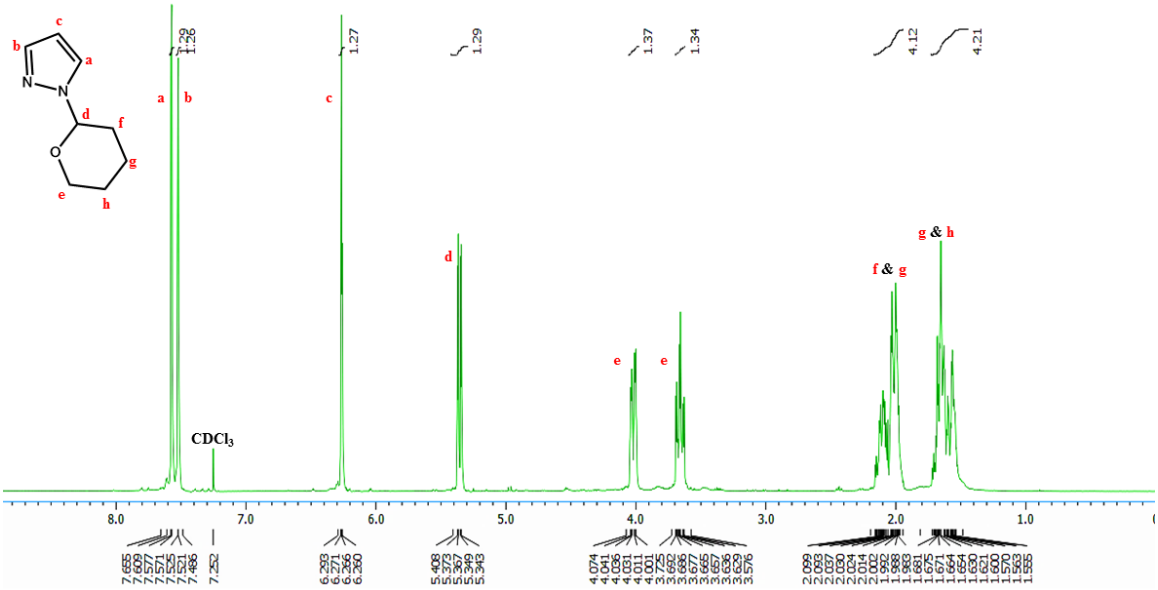

Figure S18. [1]H NMR spectrum of 1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

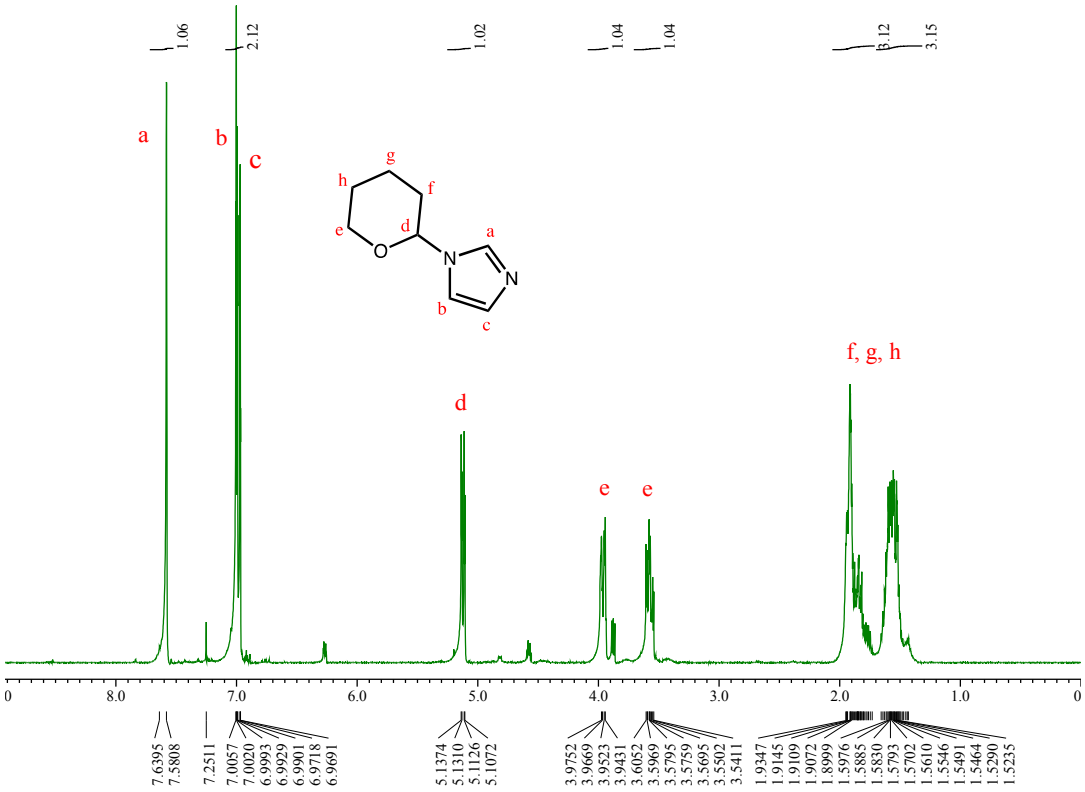

Figure S19. ^{1}H NMR spectrum of 1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-imidazole.

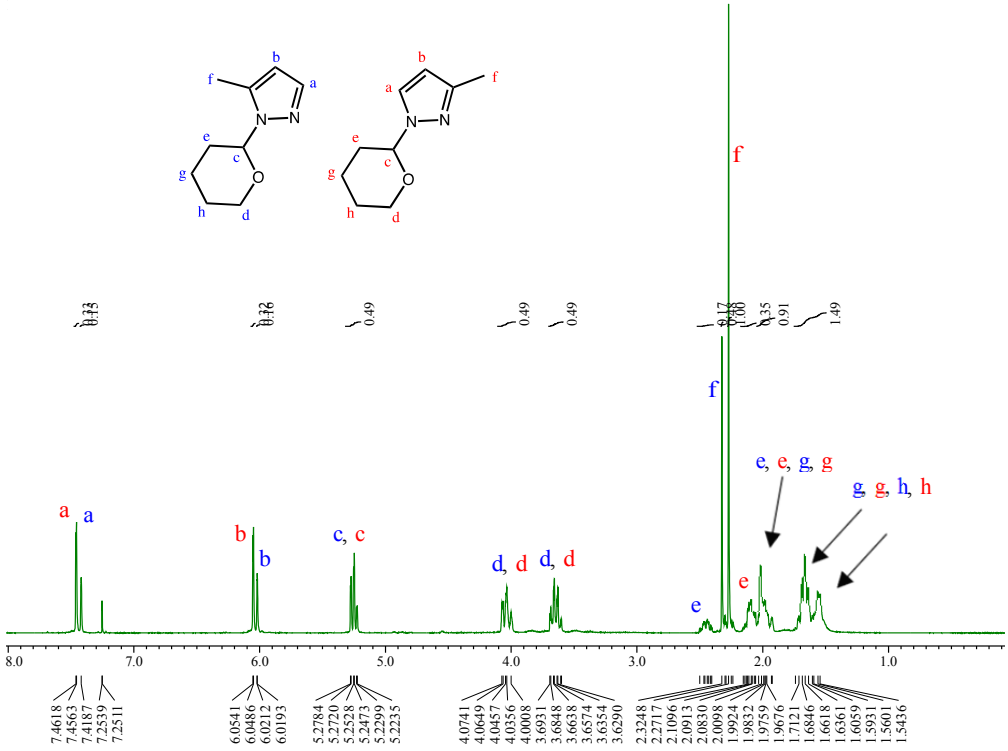

Figure S20. ^{1}H NMR spectrum of 3(5)-methyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

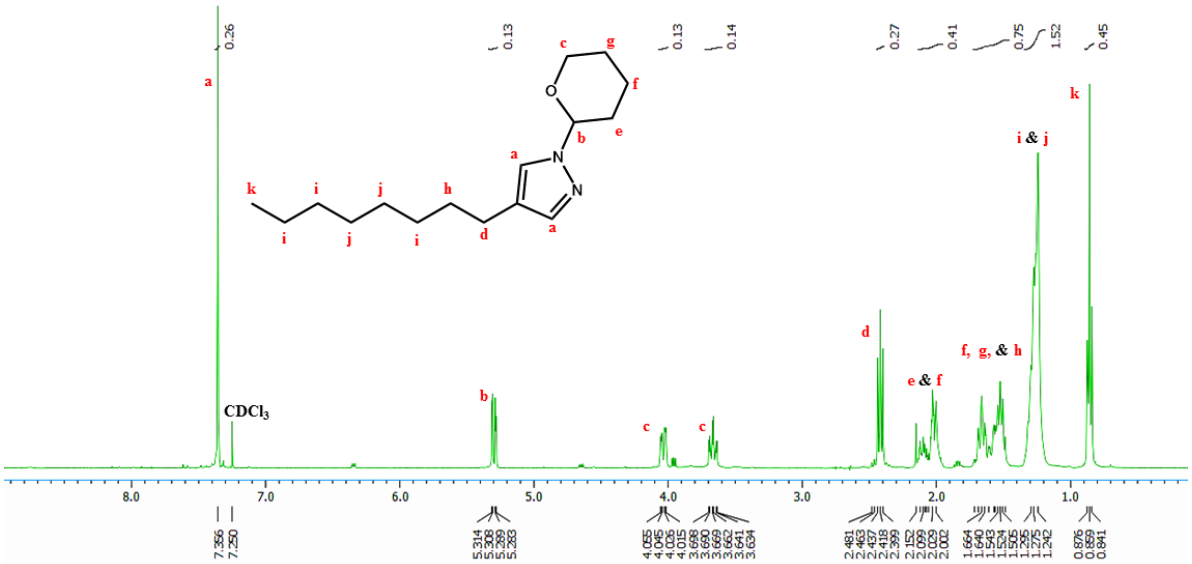

Figure S21. ^{1}H NMR spectrum of 4-octyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

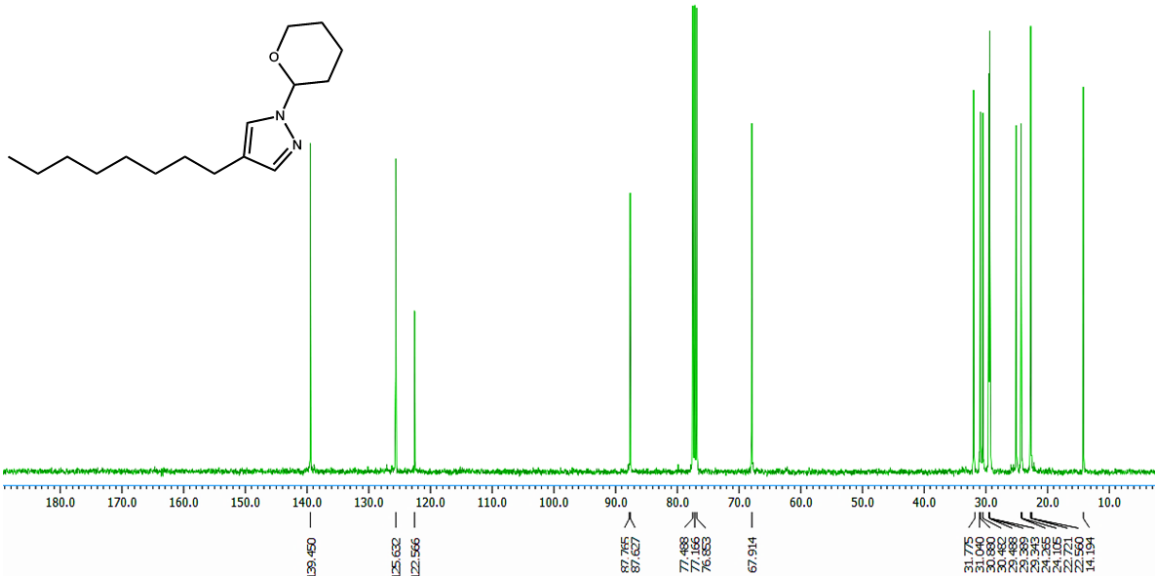

Figure S22. ^{13}C NMR spectrum of 4-octyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

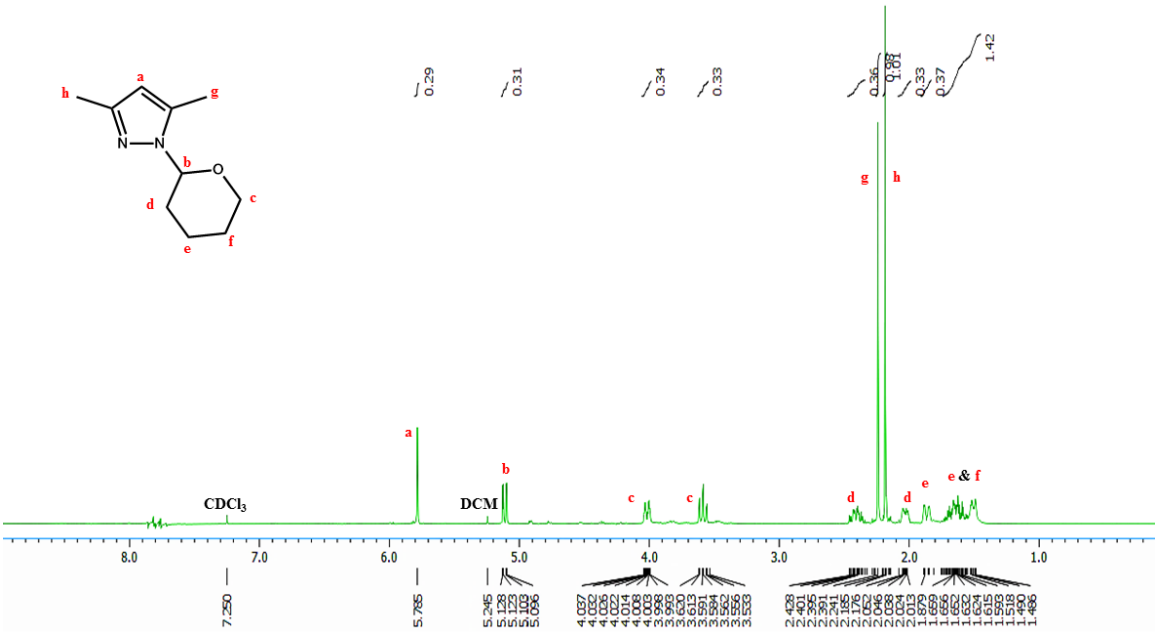

Figure S23. ^{1}H NMR spectrum of 3,5-dimethyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

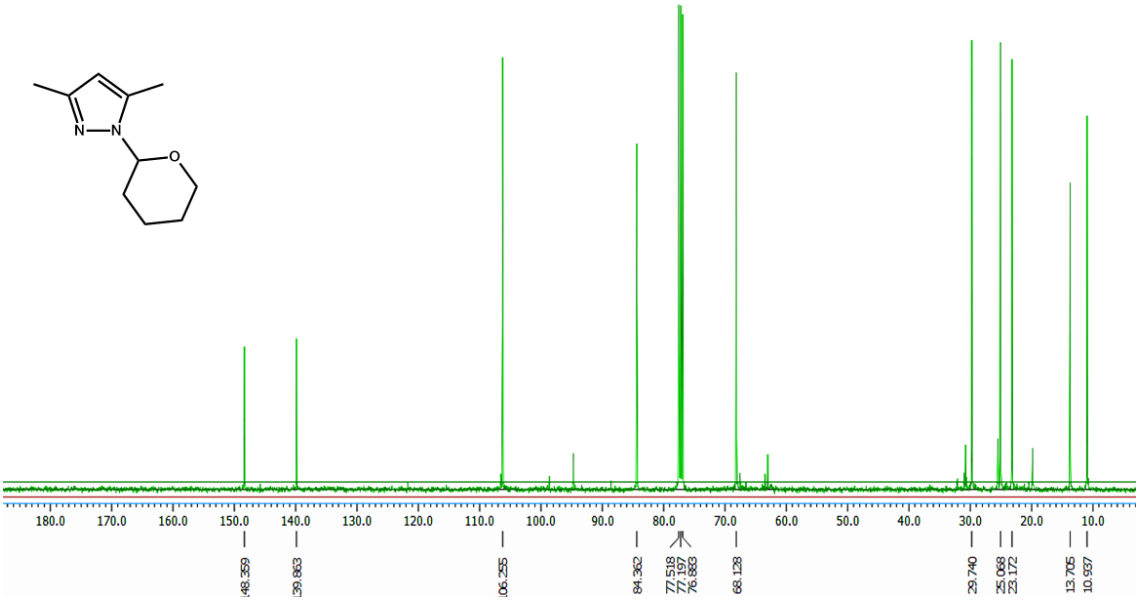

Figure S24. ^{13}C NMR spectrum of 3,5-dimethyl-1-(tetrahydro-2*H*-pyran-2-yl)-1*H*-pyrazole.

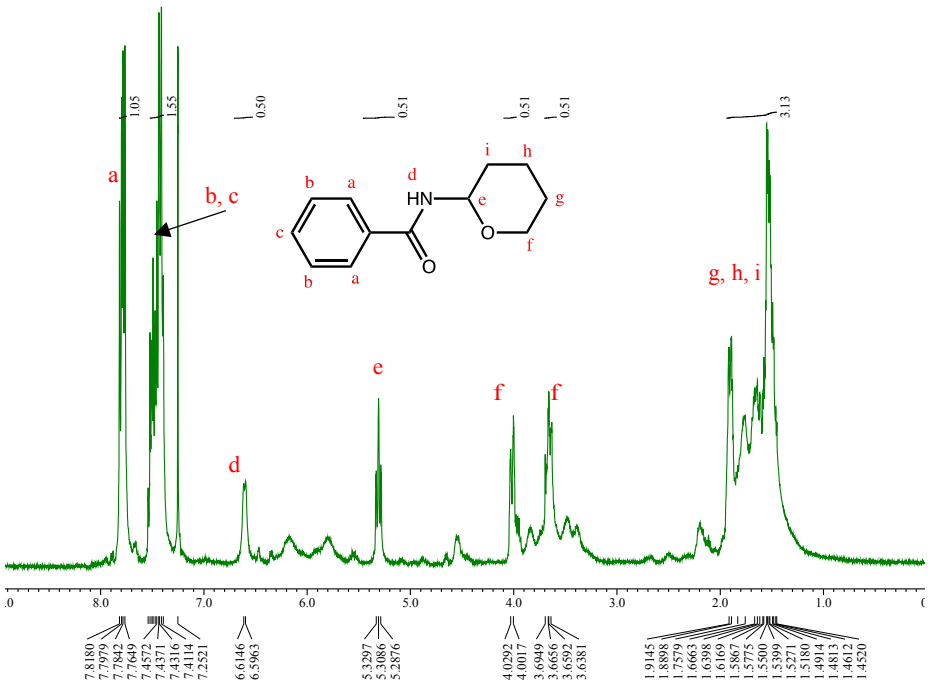

Figure S25. ^{1}H NMR spectrum of N-(tetrahydro-2*H*-pyran-2-yl)benzamide.