Electronic Supplementary Information (ESI)

Chemoselective synthesis of aryl(pyridinyl)methanol derivatives through Ni-NIXANTPHOS catalyzed α-arylation and tandem arylation/rearrangement of pyridylmethyl ethers

Zhengfen Liu,[a] Minyan Li,[b] Bijun Wang,[a] Guogang Deng,[a] Wen Chen,[a] Byeong-Seon Kim,[b] Hongbin Zhang,[a] Xiaodong Yang,*[a] and Patrick J. Walsh*[b]

[a] *Key Laboratory of Medicinal Chemistry for Natural Resources, Ministry of Education & Yunnan Province, School of Chemical Science and Technology, Yunnan University, Kunming, 650091, P. R. China.*
E-mail: xdyang@ynu.edu.cn

[b] *Department of Chemistry, Roy and Diana Vagelos Laboratories, Penn/Merck Laboratory for High-Throughput Experimentation, University of Pennsylvania, Philadelphia, PA 19104-6323, USA.*
E-mail: pwalsh@sas.upenn.edu

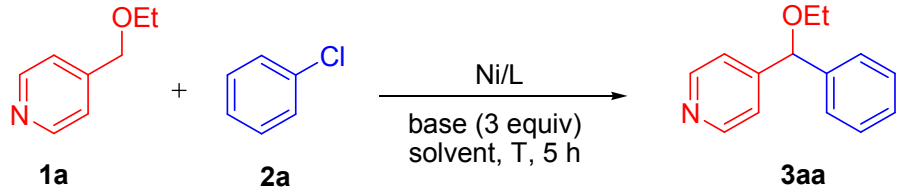
TABLE OF CONTENT

1. General Information

All air- and moisture-sensitive solutions and chemicals were handled under nitrogen or in a nitrogen filled glovebox and solutions were transferred via syringe. Anhydrous CPME (cyclopentyl methyl ether), DME (Dimethoxyethane), toluene, and tetrahydrofuran (THF) were purchased from Sigma-Aldrich and used without further purification. Unless otherwise stated, all reagents were commercially available and used as received without further purification. Chemicals were obtained from Sigma-Aldrich, Acros, TCI and Alfa-Aesar. TLC was performed with Merck TLC Silica gel60 F_{254} plates with detection under UV light at 254 nm. Silica gel (200-300 mesh, Qingdao) was used for flash chromatography. Proton nuclear magnetic resonance (^{1}H-NMR) spectra were recorded on Bruker DRX 400 spectrometer at 400 MHz. Carbon-13 nuclear magnetic resonance (^{13}C-NMR) was recorded on Bruker DRX 400 spectrometer at 100 MHz. Chemical shifts are reported as δ values in parts per million (ppm) relative to tetramethylsilane (TMS) for all recorded NMR spectra. The infrared (IR) spectra were measured on a Nicolet iS10 FTIR spectrometer with 4 cm^{-1} resolution and 32 scans between wavenumber of 4000 cm^{-1} and 400 cm^{-1}. High Resolution Mass spectra were taken on AB QSTAR Pulsar mass spectrometer. Melting points were obtained on a XT-4 melting-point apparatus and were uncorrected.

2. Ni-catalyzed direct arylation of pyridylmethyl ethers: ***Lab scale reaction optimization of ligands, Ni sources, solvents, temperature and ratio of Ni/ligand***

Table S1. Optimization of arylation of 4-pyridylmethyl ethyl ether **1a** with chlorobenzene **2a**



1a + **2a** → **3aa**

	Ni source	L	Ni/L (mol %)	Base	Solvent	Temp. (°C)	Assay Yield (%)
1		**L1**					70
2		**L2**					14
3		**L3**					0
4		**L4**					0
5		**L5**					0
6	$Ni(COD)_2$	**L6**	10/15	$NaN(SiMe_3)_2$	DME	65	0
7		**L7**					0
8		**L8**					0
9		**L9**					0
10		**L10**					0
11		**L11**					0
13	$Ni(acac)_2$						20
14	$NiCl_2 \cdot gly$	**L1**	10/15	$NaN(SiMe_3)_2$	DME	65	19
15	$Ni(OAc)_2$						41
16	$NiBr_2$						23
17				$LiN(SiMe_3)_2$			76
18				$KN(SiMe_3)_2$		65	7
19	$Ni(COD)_2$	**L1**	10/15	LiO*t*Bu	DME		7
20				NaO*t*Bu			0
21				KO*t*Bu			0
22					CPME		37
23	$Ni(COD)_2$	**L1**	10/15	$LiN(SiMe_3)_2$	Toluene	65	75
24					THF		8
25	$Ni(COD)_2$	**L1**	10/15	$LiN(SiMe_3)_2$	DME	40	73
26						25	**81**
27			5/7.5				71
28	$Ni(COD)_2$	**L1**	2.5/3.75	$LiN(SiMe_3)_2$	DME	25	60
29			10/10				76

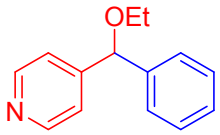
[a] Reactions conducted on a 0.1 mmol scale using 1 equiv of **1a**, and 1.5 equiv of **2a**. [b] Assay yield determined by ^{1}HNMR spectroscopy of the crude reaction mixture.

Ligands: L1 = NIXANTPHOS, L2 = XantPhos, L3 = DavePhos, L4 = DPE-Phos, L5 = Pxy_3, L6 = DCE-Phos, L7 = SPhos, L8 = XPhos, L9 = RuPhos, L10 = DPPE, L11 = P(*o*-tol)$_3$

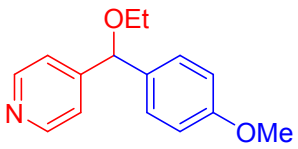
3. General Procedure and characterization of Ni-catalyzed arylation of pyridylmethyl ethers (Table 2 and 3)

General Procedure A for the Ni-catalyzed chemoselective C(sp^3)–H arylation of pyridylmethyl ethers:

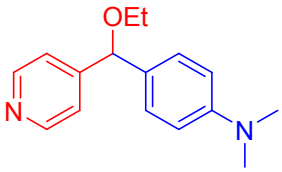
An oven-dried 8 mL reaction vial equipped with a stir bar was charged with pyridylmethyl ether **1a** (0.2 mmol, 1.0 equiv), chlorobenzene **2a** (0.3 mmol, 1.5 equiv) in a glove box under a nitrogen atmosphere at room temperature. A solution (from a stock solution) of $Ni(COD)_2$ (5.5 mg, 0.02 mmol, 10 mol %) and NIXANTPHOS (16.6 mg, 0.03 mmol, 15 mol %) in 1 mL of dry DME was taken up by syringe and added to the reaction vial. A solution of $LiN(SiMe_3)_2$ (100.4 mg, 0.6 mmol, 3.0 equiv) in 1 mL of dry DME was added by syringe to the reaction mixture. Total volume of the reaction is 2 mL. The vial was capped, removed from the glove box, and stirred for 5 h in total at 25 °C. The reaction mixture was quenched with 3 drops of H_2O, diluted with 2 mL of ethyl acetate, and filtered over a pad of $MgSO_4$ and silica. The pad was rinsed with an additional 6 mL of ethyl acetate (3 x 2 mL) and the solution was concentrated in vacuo. The crude material was loaded onto a silica gel column and purified by flash chromatography.



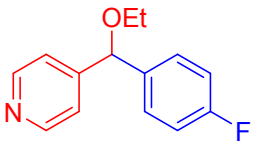
4-(Ethoxy(phenyl)methyl)pyridine (3aa): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude product was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3aa** (X = Cl, 33.7 mg, 79% yield; X = Br, 36.3 mg, 85% yield) as a yellow oil. R_f = 0.47 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.52–8.42 (m, 2H), 7.30–7.25 (m, 4H), 7.24–7.17 (m, 3H), 5.24 (s, 1H), 3.50–3.40 (m, 2H), 1.21 (t, *J* = 7.0 Hz, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 151.5, 149.9, 141.1, 128.8, 128.2, 127.2, 121.7, 82.4, 64.9, 15.4 ppm; IR (thin film): 3061, 2974, 2870, 1668, 1597, 1561, 1494, 1412, 1308, 1279, 1261, 1188, 1101, 1027, 792, 700 cm^{-1}; HRMS calc'd for $C_{14}H_{16}NO^+$ 214.1226, found 214.1226 $[M+H]^+$.



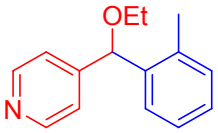
4-(Ethoxy(4-methoxyphenyl)methyl)pyridine (3ab): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2b** or **2b'** (**2b**, X = Cl, 36.5 μL, 0.3 mmol; **2b'**, X = Br, 37.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3ab** (X = Cl, 39.4 mg, 81% yield; X = Br, 43.8 mg, 90% yield) as a yellow solid. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data.[1]



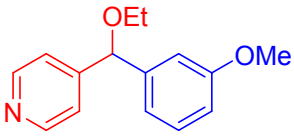
4-(Ethoxy(pyridin-4-yl)methyl)-N,N-dimethylaniline (3ac): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2c'** (X = Br, 60.0 mg, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3ac** (X = Br, 49.2 mg, 96% yield) as a yellow oil. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data.[1]



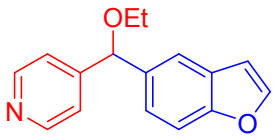
4-(Ethoxy(4-fluorophenyl)methyl)pyridine (3ad): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2d** or **2d'** (**2d**, X = Cl, 32.0 μL, 0.3 mmol; **2d'**, X = Br, 33.0 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3ad** (X = Cl, 36.1 mg, 78% yield; X = Br, 29.1 mg, 63% yield) as a yellow oil. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data[1]. ^{19}F NMR (376 MHz, Chloroform-*d*) δ -114 ppm.



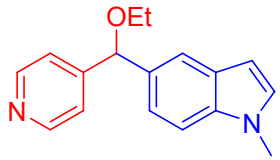
4-(Ethoxy(o-tolyl)methyl)pyridine (3ae): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2e** or **2e'** (**2e**, X = Cl, 35.0 μL, 0.3 mmol; **2e'**, X = Br, 36.0 μL, 0.3 mmol). The crude material was purified by Flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3ae** (X = Cl, 32.7 mg, 72% yield; X = Br, 43.2 mg, 95% yield) as a yellow oil. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data.[1]



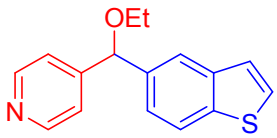
4-(Ethoxy(3-methoxyphenyl)methyl)pyridine (3af): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2f** (X = Br, 37.5 μL, 0.30 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3af** (X = Br, 34.6 mg, 71% yield) as a yellow oil. R_f = 0.43 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.46 (d, *J* = 5.2 Hz, 2H), 7.24–7.15 (m, 3H), 6.88–6.78 (m, 2H), 6.75 (dd, *J* = 8.4, 1.2 Hz, 1H), 5.21 (s, 1H), 3.71 (s, 3H), 3.53–3.39 (m, 2H), 1.20 (t, *J* = 7.0 Hz, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 160.0, 151.4, 149.9, 142.7, 129.8, 121.7, 119.6, 113.3, 112.9, 82.2, 64.9, 55.4, 15.4 ppm; IR (thin film): 3028, 2974, 2929, 1597, 1488, 1454, 1412, 1314, 1260, 1150, 1103, 1082, 1049, 877, 786, 767, 700 cm^{-1}; HRMS calc'd for $C_{15}H_{18}NO_2^+$ 244.1332, found 244.1333 $[M+H]^+$.



4-(Benzofuran-5-yl(ethoxy)methyl)pyridine (3ag): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2g'** (X = Br, 37.5 μL, 0.30 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:6) to give the product **3ag** (X = Br, 36.0 mg, 71% yield) as a yellow oil. R_f = 0.52 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.50–8.42 (m, 2H), 7.54 (d, *J* = 5.2 Hz, 1H), 7.49 (d, *J* = 4.4 Hz, 1H), 7.39 (d, *J* = 9.2 Hz, 1H), 7.28–7.20 (m, 2H), 7.19–7.15 (m, 1H), 6.66 (dd, *J* = 5.2, 1.2 Hz, 1H), 5.34 (s, 1H), 3.51–3.40 (m, 2H), 1.20 (t, *J* = 7.0 Hz, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 154.7, 151.9, 149.9, 145.8, 135.8, 127.7, 123.7, 121.7, 120.1, 111.7, 106.8, 82.4, 64.8, 15.4 ppm; IR (thin film): 3028, 2975, 2928, 2871, 1599, 1468, 1444, 1411, 1331, 1264, 1192, 1098, 1032, 886, 810, 770, 742 cm^{-1}; HRMS calc'd for $C_{16}H_{16}NO_2^+$ 254.1176, found 254.1176 [M+H]$^+$.

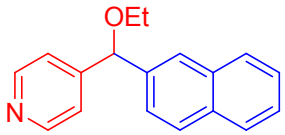


5-(Ethoxy(pyridin-4-yl)methyl)-1-methyl-1H-indole (3ah): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2h'** (X = Br, 63.0 mg, 0.30 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3ah** (X = Br, 44.8 mg, 84% yield) as a yellow oil. R_f = 0.47 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.57–8.44 (m, 2H), 7.66–7.56 (m, 1H), 7.37–7.27 (m, 3H), 7.15 (dd, *J* = 8.0, 5.2 Hz, 1H), 7.06 (d, *J* = 1.6 Hz, 1H), 6.53–6.42 (m, 1H), 5.43 (s, 1H), 3.77 (s, 3H), 3.61–3.46 (m, 2H), 1.28 (t, *J* = 7.0 Hz, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 152.6, 149.8, 136.5, 132.0, 129.6, 128.4, 121.7, 121.0, 120.2, 109.7, 101.2, 82.9, 64.5, 33.0, 15.4 ppm; IR (thin film): 3025, 2972, 2926, 1578, 1513, 1493, 1447, 1411, 1344, 1307, 1245, 1099, 1023, 993, 892, 799, 723 cm^{-1}; HRMS calc'd for $C_{17}H_{19}N_2O^+$ 267.1492, found 267.1492 [M+H]$^+$.

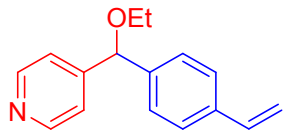


4-(Benzo[b]thiophen-5-yl(ethoxy)methyl)pyridine (3ai): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2i** or **2i'** (**2i**, X = Cl, 50.6 mg, 0.3 mmol; **2i'**, X = Br, 63.9 mg, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:6) to give the product **3ai** (X = Cl, 39.9 mg, 74% yield; X = Br, 40.4 mg, 75% yield) as a yellow oil. R_f = 0.50 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.53–8.38 (m, 2H), 7.75 (d, *J* = 8.0 Hz, 1H), 7.71 (d, *J* = 4.0 Hz, 1H), 7.37 (d, *J* = 8.4 Hz, 1H), 7.26–7.16 (m, 4H), 5.35 (s, 1H), 3.51–3.41 (m, 2H), 1.20 (t, *J* = 7.0 Hz, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 151.7, 149.9, 139.8, 139.5,

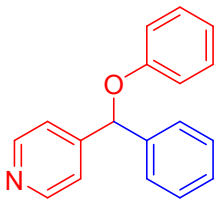
137.3, 127.3, 123.9, 123.5, 122.9, 122.4, 121.7, 82.4, 64.9, 15.4 ppm; IR (thin film): 3028, 2974, 2927, 2870, 1597, 1561, 1410, 1325, 1307, 1257, 1192, 1099, 1026, 993, 805, 777, 704 cm^{-1}; HRMS calc'd for $C_{16}H_{16}NOS^+$ 270.0947, found 270.0947 $[M+H]^+$.



4-(Ethoxy(naphthalen-2-yl)methyl)pyridine (3aj): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2j** or **2j'** (**2j**, X = Cl, 48.8 mg, 0.3 mmol; **2j'**, X = Br, 62.1 mg, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:6) to give the product **3aj** (X = Cl, 43.7 mg, 83% yield; X = Br, 32.7 mg, 62% yield) as a yellow oil. R_f = 0.52 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.54 (d, *J* = 4.4 Hz, 2H), 7.87–7.78 (m, 4H), 7.49 (td, *J* = 8.4, 1.6 Hz, 2H), 7.39 (dd, *J* = 8.0, 1.6 Hz, 1H), 7.37–7.30 (m, 2H), 5.48 (s, 1H), 3.60–3.53 (m, 2H), 1.30 (t, *J* = 7.0 Hz, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 151.4, 150.0, 138.4, 133.3, 128.9, 128.1, 127.9, 126.5, 126.4, 124.9, 121.8, 82.5, 64.9, 15.4 ppm; IR (thin film): 3056, 2974, 2926, 2854, 1722, 1682, 1597, 1561, 1411, 1370, 1280, 1166, 1099, 992, 851, 747 cm^{-1}; HRMS calc'd for $C_{18}H_{18}NO^+$ 264.1383, found 264.1382$[M+H]^+$.

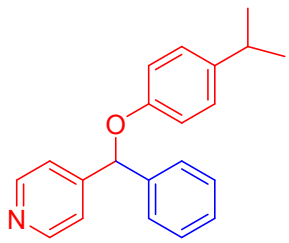


4-(Ethoxy(4-vinylphenyl)methyl)pyridine (3ak): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1a** (27.4 mg, 0.20 mmol) and aryl halides **2k** or **2k'** (**2k**, X = Cl, 36.0 μL, 0.3 mmol; **2k'**, X = Br, 39.0 μL, 0.3 mmol). The crude material was purified by Flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product (X = Cl, 36.4 mg, 76% yield; X = Br, 39.3 mg, 82% yield) as a yellow oil. R_f = 0.48 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.52–8.42 (m, 2H), 7.35–7.27 (m, 2H), 7.23–7.18 (m, 4H), 6.62 (dd, *J* = 20.4, 8.8 Hz, 1H), 5.67 (dd, *J* = 20.8, 1.2 Hz, 1H), 5.23 (s, 1H), 5.17 (dd, *J* = 12.4, 1.8 Hz, 1H), 3.48–3.41 (m, 2H), 1.20 (t, *J* = 7.0 Hz, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 150.0, 140.6, 136.4, 127.5, 126.6, 121.7, 114.4, 82.1, 64.9, 15.4 ppm; IR (thin film): 3025, 2965, 2926, 2854, 1629, 1598, 1509, 1411, 1306, 1261, 1098, 1017, 992, 909, 800, 764 cm^{-1}; HRMS calc'd for $C_{16}H_{18}NO^+$ 240.1383, found 240.1380 $[M+H]^+$.

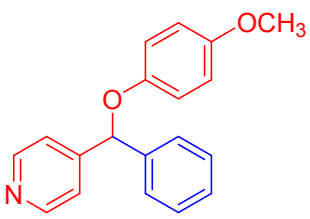


4-(Phenoxy(phenyl)methyl)pyridine (3ba): The reaction was performed following the General Procedure A with **1b** (37.1 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product 3**ba** (X = Cl, 45.0 mg, 86% yield; X = Br, 43.4 mg, 83% yield) as a yellow oil. R_f = 0.37 (EtOAc :

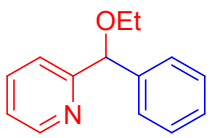
hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.58 (d, *J* = 8.4 Hz, 2H), 7.50–7.28 (m, 7H), 7.26–7.20 (m, 2H), 7.00–6.85 (m, 3H), 6.16 (s, 1H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 157.5, 150.6, 149.7, 139.7, 129.5, 128.9, 128.5, 127.0, 121.6, 116.1, 105.0, 80.4 ppm; IR (thin film): 3030, 2958, 2920, 2851, 1597, 1493, 1454, 1412, 1232, 1167, 1092, 1092, 1038, 820, 792, 753 cm^{-1}; HRMS calc'd for $C_{18}H_{16}NO^+$ 262.1226, found 262..1225 $[M+H]^+$.



4-((4-Isopropylphenoxy)(phenyl)methyl)pyridine (3ca): The reaction was performed following the General Procedure A with **1c** (45.5 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:6) to give the product **3ca** (X = Cl, 39.4 mg, 65% yield; X = Br, 44.3 mg, 73% yield) as a yellow oil. R_f = 0.52 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.57–8.37 (m, 2H), 7.35–7.16 (m, 7H), 7.03–6.92 (m, 2H), 6.84–6.70 (m, 2H), 6.02 (s, 1H), 2.78–2.67 (m, 2H), 1.09 (d, *J* = 6.8 Hz, 6H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 155.8, 150.5, 150.1, 142.0, 140.1, 128.9, 128.4, 127.4, 127.1, 121.6, 115.9, 80.6, 33.3, 24.2 ppm; IR (thin film): 2958, 2919, 2850, 1632, 1578, 1540, 1509, 1466, 1261, 1231, 1166, 1094, 800, 739 cm^{-1}; HRMS calc'd for $C_{21}H_{22}NO^+$ 304.1696, found 304.1699 $[M+H]^+$.

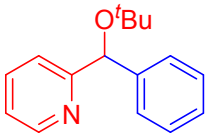


4-((4-Methoxyphenoxy)(phenyl)methyl)pyridine (3da): The reaction was performed following the General Procedure A with **1d** (43.1 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:5) to give the product **3da** (X = Cl, 41.4 mg, 71% yield; X = Br, 52.4 mg, 90% yield) as a yellow oil. R_f = 0.40 (EtOAc : hexanes = 1:1); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.64–8.49 (m, 2H), 7.42–7.27 (m, 7H), 6.90–6.82 (m, 2H), 6.80–6.73 (m, 2H), 6.05 (s, 1H), 3.73 (s, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 154.5, 151.8, 150.5, 150.1, 140.1, 129.0, 128.5, 127.2, 121.6, 117.5, 114.7, 81.6, 55.7 ppm; IR (thin film): 2920, 2851, 1596, 1506, 1454, 1412, 1261, 1224, 1181, 1106, 1038, 825, 797, 761, 738 cm^{-1}; HRMS calc'd for $C_{19}H_{18}NO_2^+$ 292.1332, found 292.1334 $[M+H]^+$.

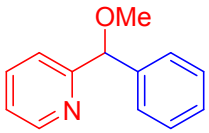


2-(Ethoxy(phenyl)methyl)pyridine (3ea): The reaction was performed following the General Procedure A with 4-pyridylmethyl ethyl ether **1e** (27.4 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give

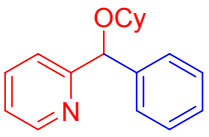
the product **3ea** (X = Cl, 30.7 mg, 72% yield; X = Br, 40.1 mg, 94% yield) as a yellow oil. The ^{1}H and $^{13}C\{^{1}H\}$ NMR data for this compound match the literature data.[1]



2-(*tert*-Butoxy(phenyl)methyl)pyridine (3fa): The reaction was performed following the General Procedure A with **1f** (33.1 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3fa** (X = Cl, 45.4 mg, 94% yield; X = Br, 41.0 mg, 85% yield) as a yellow oil. R_f = 0.38 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.41 (ddd, *J* = 5.2, 1.6, 1.2 Hz, 1H), 7.63–7.47 (m, 2H), 7.42–7.32 (m, 2H), 7.23–7.18 (m, 2H), 7.14–7.08 (m, 1H), 7.03 (ddd, *J* = 7.2, 4.8, 1.6 Hz, 1H), 5.65 (s, 1H), 1.15 (s, 9H) ppm; $^{13}C\{^{1}H\}$ NMR (100 MHz, Chloroform-*d*) δ 164.8, 148.6, 144.0, 136.7, 128.3, 127.0, 126.7, 122.0, 121.3, 77.3, 75.4, 28.8 ppm; IR (thin film): 2974, 2924, 2851, 1589, 1571, 1470, 1434, 1391, 1367, 1261, 1192, 1097, 1081, 1065, 1024, 905, 800, 744 cm^{-1}; HRMS calc'd for $C_{16}H_{20}NO^{+}$ 242.1539, found 242.1539 $[M+H]^{+}$.

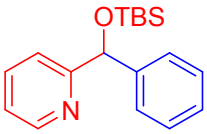


2-(Methoxy(phenyl)methyl)pyridine (3ga): The reaction was performed following the General Procedure A with **1g** (24.6 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:8) to give the product **3ga** (X = Cl, 25.1 mg, 63% yield; X = Br, 27.1 mg, 68% yield) as a yellow oil. R_f = 0.20 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.47 (ddd, *J* = 4.8, 1.6, 1.2 Hz, 1H), 7.61 (td, *J* = 8.4, 2.4 Hz, 1H), 7.42 (dt, *J* = 8.0, 1.6 Hz, 1H), 7.38–7.34 (m, 2H), 7.29–7.23 (m, 2H), 7.20–7.15 (m, 1H), 7.08 (ddd, *J* = 8.8, 5.2, 1.6 Hz, 1H), 5.31 (s, 1H), 3.36 (s, 3H) ppm; $^{13}C\{^{1}H\}$ NMR (100 MHz, Chloroform-*d*) δ 161.6, 149.2, 140.9, 137.0, 128.6, 127.9, 127.1, 122.5, 120.7, 86.6, 57.3 ppm; IR (thin film): 2959, 2919, 2850, 1588, 1572, 1541, 1470, 1453, 1436, 1261, 1194, 1166, 1102, 977, 800, 745 cm^{-1}; HRMS calc'd for $C_{13}H_{14}NO^{+}$ 200.1070, found 200.1070 $[M+H]^{+}$.

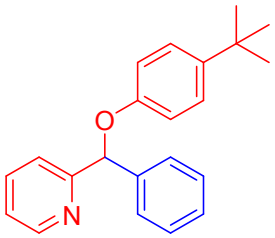


2-((Cyclohexyloxy)(phenyl)methyl)pyridine (3ha): The reaction was performed following the General Procedure A with **1h** (38.3 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3ha** (X = Cl, 52.4 mg, 98% yield; X = Br, 52.4 mg, 98% yield) as a colorless oil. R_f = 0.52 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.38 (d, *J* = 4.8 Hz, 1H), 7.53–7.46 (m, 2H), 7.34 (d, *J* = 8.0 Hz, 2H), 7.18 (t, *J* = 8.8 Hz, 2H), 7.09 (t, *J* = 9.2 Hz, 1H), 6.97 (t, *J* = 6.0 Hz, 1H), 5.58 (s, 1H), 3.30 (tt, *J* = 9.2, 5.2 Hz, 1H), 1.87–1.79 (m, 2H), 1.65–1.59 (m, 2H), 1.41–1.26 (m, 3H), 1.14–1.05 (m, 2H) ppm; $^{13}C\{^{1}H\}$ NMR (100 MHz,

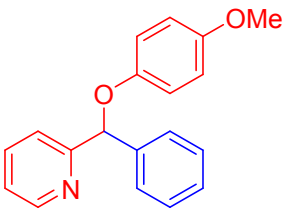
Chloroform-*d*) δ 162.91, 148.68, 142.13, 136.67, 128.26, 127.30, 126.87, 122.10, 120.75, 81.40, 75.51, 32.40, 32.38, 25.80, 24.02 ppm; IR (thin film): 3061, 3029, 2931, 2856, 1588, 1570, 1469, 1450, 1433, 1356, 1259, 1189, 1132, 1099, 1070, 1028, 958, 744, 699, 637 cm^{-1}; HRMS calc'd for $C_{18}H_{21}NONa^+$ 290.1515, found 290.1504 $[M+Na]^+$.



2-(((*tert*-Butyldimethylsilyl)oxy)(phenyl)methyl)pyridine (3ia): The reaction was performed following the General Procedure A with **1i** (44.7 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3ia** (X = Cl, 53.3 mg, 89% yield; X = Br, 57.5 mg, 96% yield) as a colorless oil. The ^1H and $^{13}C\{^1H\}$ NMR data for this compound match the literature data.[3]

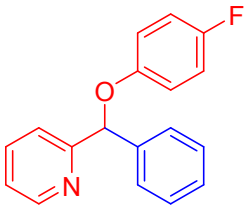


2-((4-(*tert*-Butyl)phenoxy)(phenyl)methyl)pyridine (3ja): The reaction was performed following the General Procedure A with **1j** (48.3 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3ja** (X = Cl, 58.4 mg, 92% yield; X = Br, 59.7 mg, 94% yield) as a white solid. m.p. = 88 – 89 °C. R_f = 0.38 (EtOAc : hexanes = 1:5); ^1H NMR (400 MHz, Chloroform-*d*) δ 8.58–8.42 (m, 1H), 7.58 (td, *J* = 8.4, 2.4 Hz, 1H), 7.51 (dt, *J* = 8.8, 1.2 Hz, 1H), 7.48–7.42 (m, 2H), 7.29–7.23 (m, 2H), 7.20–7.14 (m, 4H), 7.08 (ddd, *J* = 9.2, 4.8, 1.6 Hz, 1H), 6.86–6.79 (m, 2H), 6.23 (s, 1H), 1.18 (s, 9H) ppm; $^{13}C\{^1H\}$ NMR (100 MHz, Chloroform-*d*) δ 161.2, 155.7, 149.3, 143.9, 140.6, 137.2, 128.7, 128.0, 126.9, 126.3, 122.7, 120.9, 115.4, 82.7, 34.2, 31.6 ppm; IR (thin film): 2962, 2921, 2852, 1607, 1589, 1511, 1470, 1434, 1364, 1236, 1183, 1095, 1027, 827, 804, 744 cm^{-1}; HRMS calc'd for $C_{22}H_{24}NO^+$ 318.1852, found 318.1852 $[M+H]^+$.

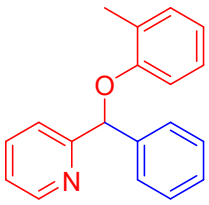


2-((4-Methoxyphenoxy)(phenyl)methyl)pyridine (3ka): The reaction was performed following the General Procedure A with **1k** (43.1 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:8) to give the product **3ka** (X = Cl, 40.8 mg, 70% yield; X = Br, 49.5 mg, 85% yield) as a yellow oil. R_f = 0.20 (EtOAc : hexanes = 1:5); ^1H NMR (400 MHz, Chloroform-*d*) δ 8.49 (ddd, *J* = 5.2, 2.0, 1.2 Hz, 1H), 7.58 (td, *J* = 7.2, 1.6 Hz, 1H), 7.50 (dt, *J* = 8.0, 1.2 Hz, 1H), 7.47–7.40 (m, 2H), 7.32–7.22 (m, 2H), 7.20–7.16 (m, 1H), 7.08 (ddd, *J* = 7.2, 4.8, 1.2 Hz, 1H), 6.87–6.78 (m, 2H), 6.73–6.62 (m, 2H), 6.18 (s,

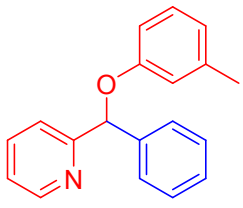
1H), 3.64 (s, 3H) ppm; $^{13}C\{^{1}H\}$ NMR (100 MHz, Chloroform-*d*) δ 161.1, 154.2, 151.9, 149.3, 140.5, 137.2, 128.7, 128.0, 126.9, 122.7, 120.9, 117.1, 114.7, 83.4, 55.7 ppm; IR (thin film): 2957, 2919, 2850, 1588, 1541, 1506, 1467, 1434, 1224, 1166, 1096, 1040, 823, 800, 742 cm^{-1}; HRMS calc'd for $C_{19}H_{18}NO_2^+$ 292.1332, found 292.1331 $[M+H]^+$.



2-((4-Fluorophenoxy)(phenyl)methyl)pyridine (3la): The reaction was performed following the General Procedure A with **1l** (40.6 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by Flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3la** (X = Cl, 50.8 mg, 91% yield; X = Br, 49.7 mg, 89% yield) as a yellow oil. R_f = 0.30 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.59–8.48 (m, 1H), 7.64 (td, *J* = 7.2, 1.6 Hz, 1H), 7.55–7.47 (m, 3H), 7.32 (t, *J* = 7.2 Hz, 2H), 7.23 (d, *J* = 6.0 Hz, 2H), 7.15 (ddd, *J* = 7.2, 4.8, 1.2 Hz, 1H), 6.88 (d, *J* = 7.2 Hz, 3H), 6.24 (s, 1H) ppm; $^{13}C\{^{1}H\}$ NMR (101 MHz, Chloroform-*d*) δ 160.7, 157.6 (d, $^{1}J_{C\text{-}F}$ = 238.0 Hz), 153.92 (d, $^{4}J_{C\text{-}F}$ = 2.0 Hz), 149.4, 140.1, 137.2, 128.8, 128.1 (d, $^{3}J_{C\text{-}F}$ = 8.0 Hz), 126.9, 122.8, 120.9, 117.2, 117.1, 116.1 (d, $^{2}J_{C\text{-}F}$ = 23.0 Hz), 83.4 ppm; IR (thin film): 2959, 2920, 2851, 1588, 1572, 1542, 1504, 1467, 1435, 1202, 1166, 1096, 826, 797, 781, 742 cm^{-1}; HRMS calc'd for $C_{18}H_{15}FNO^+$ 280.1132, found 280.1137 $[M+H]^+$. ^{19}F NMR (376 MHz, Chloroform-*d*) δ −123 ppm.

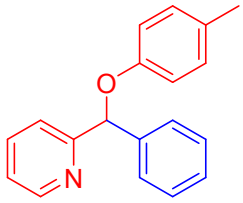


2-(Phenyl(o-tolyloxy)methyl)pyridine (3ma): The reaction was performed following the General Procedure A with **1m** (39.9 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3ma** (X = Cl, 44.6 mg, 81% yield; X = Br, 45.2 mg, 82% yield) as a yellow oil. R_f = 0.37 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.48 (ddd, *J* = 5.2, 2.4, 1.6 Hz, 1H), 7.57 (td, *J* = 7.2, 1.6 Hz, 1H), 7.53–7.42 (m, 3H), 7.30–7.21 (m, 2H), 7.20–7.14 (m, 1H), 7.07 (ddd, *J* = 7.2, 4.8, 1.2 Hz, 2H), 6.92 (ddd, *J* = 8.8, 7.2, 1.6 Hz, 1H), 6.80–6.62 (m, 2H), 6.29 (s, 1H), 2.33 (s, 3H) ppm; $^{13}C\{^{1}H\}$ NMR (100 MHz, Chloroform-*d*) δ 161.3, 155.8, 149.1, 140.7, 137.3, 130.9, 128.7, 127.9, 127.3, 126.8, 126.6, 122.7, 120.9, 120.6, 113.1, 82.2, 16.9 ppm; IR (thin film): 3063, 2960, 2919, 2851, 1588, 1541, 1493, 1465, 1434, 1235, 1185, 1165, 1120, 1095, 1049, 1027, 883, 800, 745 cm^{-1}; HRMS calc'd for $C_{19}H_{18}NO^+$ 276.1383, found 276.1382 $[M+H]^+$.



2-(Phenyl(*m*-tolyloxy)methyl)pyridine (3na): The reaction was performed following the General Procedure A with **1n** (39.9 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was

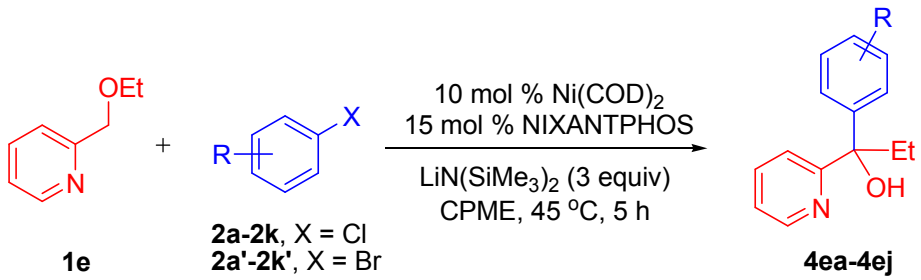
purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3na** (X = Cl, 50.1 mg, 91% yield; X = Br, 45.2 mg, 82% yield) as a yellow oil. R_f = 0.37 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.47 (ddd, *J* = 4.8, 1.6, 1.2 Hz, 1H), 7.55 (td, *J* = 7.2, 1.6 Hz, 1H), 7.50–7.40 (m, 3H), 7.29–7.21 (m, 2H), 7.20–7.13 (m, 1H), 7.05 (ddd, *J* = 7.2, 4.8, 1.2 Hz, 1H), 7.00 (t, *J* = 8.0 Hz, 1H), 6.75 (t, *J* = 2.0 Hz, 1H), 6.71–6.60 (m, 2H), 6.26 (s, 1H), 2.18 (s, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 161.0, 157.8, 149.2, 140.4, 139.6, 137.2, 129.2, 128.7, 128.0, 126.9, 122.7, 122.1, 120.9, 117.0, 112.8, 82.4, 21.6 ppm; IR (thin film): 2957, 2919, 2850, 1579, 1540, 1489, 1467, 1434, 1289, 1257, 1166, 1095, 1047, 770, 742 cm^{-1}; HRMS calc'd for $C_{19}H_{18}NO^+$ 276.1383, found 276.1382 $[M+H]^+$.



2-(Phenyl(*p*-tolyloxy)methyl)pyridine (3oa): The reaction was performed following the General Procedure A with **1o** (39.9 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:10) to give the product **3oa** (X = Cl, 45.7 mg, 83% yield; X = Br, 47.9 mg, 87% yield) as a yellow oil. R_f = 0.33 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.49 (ddd, *J* = 4.8, 1.6, 1.2 Hz, 1H), 7.57 (td, *J* = 7.2, 1.6 Hz, 1H), 7.49 (dt, *J* = 8.0, 1.2 Hz, 1H), 7.47–7.42 (m, 2H), 7.29–7.23 (m, 2H), 7.20–7.16 (m, 1H), 7.07 (ddd, *J* = 7.2, 4.8, 1.2 Hz, 1H), 6.97–6.91 (m, 2H), 6.82–6.76 (m, 2H), 6.23 (s, 1H), 2.16 (s, 3H) ppm; ^{13}C{^{1}H} NMR (100 MHz, Chloroform-*d*) δ 161.1, 155.7, 149.3, 140.5, 137.2, 130.5, 130.0, 128.7, 128.0, 126.9, 122.7, 120.9, 115.9, 82.7, 20.6 ppm; IR (thin film): 3030, 2960, 2920, 2851, 1612, 1586, 1509, 1470, 1452, 1434, 1228, 1174, 1095, 1027, 922, 807, 742 cm^{-1}; HRMS calc'd for $C_{19}H_{18}NO^+$ 276.1383, found 276.1383 $[M+H]^+$.

4. Tandem arylation/[1,2]-Wittig rearrangement of 2-pyridylmethyl ethyl ether: *Lab scale reaction optimization of Ni source, solvents and temperature*

Table S2. Optimization of tandem arylation/[1,2]-Wittig rearrangement of 2-pyridylmethyl ethyl ether **1e** with aryl halides.



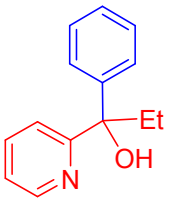
1e **2a-2k**, X = Cl **2a'-2k'**, X = Br **4ea-4ej**

	Ni source	Base	Solvent	Temp. (°C)	Assay Yield (%)
1	$Ni(COD)_2$				56
2	$Ni(acac)_2$				4
3	$NiCl_2$•gly	$NaN(SiMe_3)_2$	CPME	65	3
4	$Ni(OAc)_2$				10
5	$NiBr_2$				2
6		$LiN(SiMe_3)_2$			71
7		$KN(SiMe_3)_2$			23
8	$Ni(COD)_2$	LiO^{t}Bu	CPME	65	0
9		NaO^{t}Bu			0
10		KO^{t}Bu			0
11			DME		21
12	$Ni(COD)_2$	$LiN(SiMe_3)_2$	Toluene	65	60
13			THF		65
14	$Ni(COD)_2$	$LiN(SiMe_3)_2$	CPME	45	**72**
15				25	68

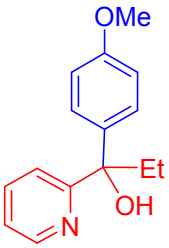
[a] Reactions conducted on a 0.1 mmol scale using 1 equiv of **1e**, and 1.5 equiv of **2a**. [b] Assay yield determined by ^{1}HNMR spectroscopy of the crude reaction mixture.

5. Procedure and characterization of Ni-catalyzed chemoselective tandem arylation/[1,2]-Wittig rearrangement reaction of 2-pyridylmethyl ethers (Table 5).

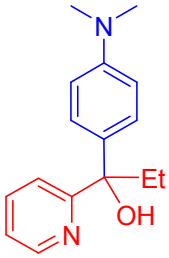
General Procedure B: An oven-dried 8 mL reaction vial equipped with a stir bar was charged with 2-pyridylmethyl ethyl ether **1e** (0.20 mmol, 1.0 equiv) and chlorobenzene **2a** (0.3 mmol, 1.5 equiv) in a glove box under a nitrogen atmosphere at room temperature. A solution (from a stock solution) of $Ni(COD)_2$ (5.5 mg, 0.02 mmol, 10 mol %) and NIXANTPHOS (16.6 mg, 0.03 mmol, 15 mol %) in 1 mL of dry CPME was taken up by syringe and added to the reaction vial. A solution of $LiN(SiMe_3)_2$ (100.4 mg, 0.6 mmol, 3.0 equiv) in 1 mL of dry CPME was added by syringe to the reaction mixture. Total volume of the reaction is 2 mL. The vial was capped, removed from the glove box, and stirred for 5 h in total at 45 °C. The reaction mixture was quenched with 3 drops of H_2O, diluted with 2 mL of ethyl acetate, and filtered over a pad of $MgSO_4$ and silica. The pad was rinsed with an additional 6 mL of ethyl acetate (3 x 2 mL) and the solution was concentrated in vacuo. The crude material was loaded onto a deactivated silica gel column and purified by flash chromatography.



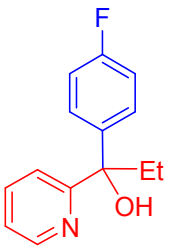
1-Phenyl-1-(pyridin-2-yl)propan-1-ol (4ea): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2a** or **2a'** (**2a**, X = Cl, 30.5 μL, 0.3 mmol; **2a'**, X = Br, 31.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:8) to give the product **4ea** (X = Cl, 29.9 mg, 70% yield; X = Br, 26.9 mg, 63% yield) as a white solid. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data.[2]



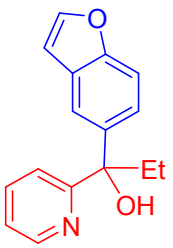
1-(4-Methoxyphenyl)-1-(pyridin-2-yl)propan-1-ol (4eb): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2b** or **2b'** (**2b**, X = Cl, 36.5 μL, 0.3 mmol; **2b'**, X = Br, 37.5 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:8) to give the product **4eb** (X = Cl, 33.6 mg, 69% yield; X = Br, 27.3 mg, 56% yield) as a yellow solid. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data.[1]



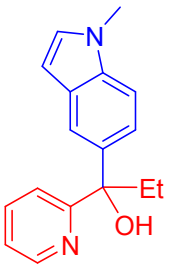
1-(4-(Dimethylamino)phenyl)-1-(pyridin-2-yl)propan-1-ol (4ec): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2c** (X = Br, 60.0 mg, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:4) to give the product **4ec** (X = Br, 28.2 mg, 55% yield) as a yellow solid. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data.[1]



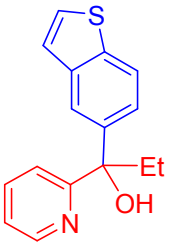
1-(4-Fluorophenyl)-1-(pyridin-2-yl)propan-1-ol (4ed): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2d** or **2d'** (**2d**, X = Cl, 32.0 μL, 0.3 mmol; **2d'**, X = Br, 33.0 μL, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:8) to give the product **4ed** (X = Cl, 31.0 mg, 67% yield; X = Br, 26.4 mg, 57% yield) as a yellow oil. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data[1]. ^{19}F NMR (376 MHz, Chloroform-*d*) δ −116 ppm.



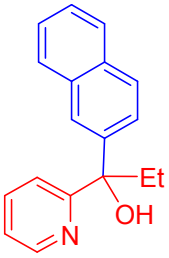
1-(Benzofuran-5-yl)-1-(pyridin-2-yl)propan-1-ol (4eg): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2g** (X = Br, 37.5 μL, 0.30 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:6) to give the product **4eg** (X = Br, 30.4 mg, 60% yield) as a white solid. The ^{1}H and ^{13}C{^{1}H} NMR data for this compound match the literature data.[1]



1-(1-Methyl-1H-indol-5-yl)-1-(pyridin-2-yl)propan-1-ol (4eh): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2h** (X = Br, 63.0 mg, 0.30 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:6) to give the product **4eh** (X = Br, 22.9 mg, 43% yield) as a white solid. The ^{1}H and $^{13}C\{^{1}H\}$ NMR data for this compound match the literature data.[1]

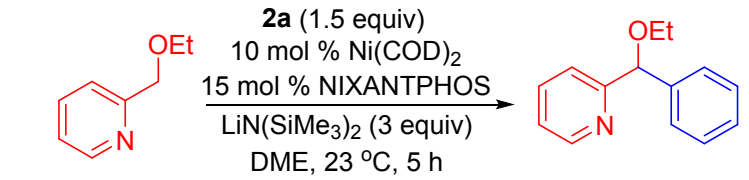


1-(Benzo[b]thiophen-5-yl)-1-(pyridin-2-yl)propan-1-ol (4ei): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2i** or **2i'** (**2i**, X = Cl, 50.6 mg, 0.3 mmol; **2i'**, X = Br, 63.9 mg, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:8) to give the product **4ei** (X = Cl, 37.7 mg, 70% yield; X = Br, 36.6 mg, 68% yield) as a yellow oil. R_f = 0.33 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.56–8.48 (m, 1H), 8.04 (d, *J* = 1.6 Hz, 1H), 7.80 (d, *J* = 8.4 Hz, 1H), 7.64 (td, *J* = 7.2, 1.6 Hz, 1H), 7.49 (dd, *J* = 8.4, 1.6 Hz, 1H), 7.41 (d, *J* = 5.2 Hz, 1H), 7.36 (d, *J* = 8.0 Hz, 1H), 7.31 (d, *J* = 5.2 Hz, 1H), 7.17 (ddd, *J* = 7.2, 4.8, 1.2 Hz, 1H), 6.02 (s, 1H), 2.49–2.29 (m, 2H), 0.90 (t, *J* = 7.2 Hz, 3H) ppm; $^{13}C\{^{1}H\}$ NMR (100 MHz, Chloroform-*d*) δ 163.8, 147.3, 142.9, 139.8, 138.4, 137.2, 126.7, 124.3, 123.1, 122.3, 122.1, 121.0, 120.7, 77.6, 34.1, 8.2 ppm; IR (thin film): 3072, 2965, 2925, 2876, 1591, 1570, 1467, 1433, 1393, 1261, 1215, 1152, 1089, 1066, 1048, 988, 813, 776, 704 cm^{-1}; HRMS calc'd for $C_{16}H_{16}NOS^{+}$ 270.0947, found 270.0949 $[M+H]^{+}$.



1-(Naphthalen-2-yl)-1-(pyridin-2-yl)propan-1-ol (4ej): The reaction was performed following the General Procedure B with **1e** (27.4 mg, 0.20 mmol) and aryl halides **2j** or **2j'** (**2j**, X = Cl, 48.8 mg, 0.3 mmol; **2j'**, X = Br, 62.1 mg, 0.3 mmol). The crude material was purified by flash chromatography on silica gel (eluted with EtOAc : hexanes = 1:8) to give the product **4ej** (X = Cl, 38.5 mg, 73% yield; X = Br, 35.3 mg, 67% yield) as a white oil. R_f = 0.35 (EtOAc : hexanes = 1:5); ^{1}H NMR (400 MHz, Chloroform-*d*) δ 8.54 (d, *J* = 4.8 Hz, 1H), 8.05 (s, 1H), 7.88–7.81 (m, 1H), 7.77 (dd, *J* = 8.4, 4.8 Hz, 2H), 7.65 (t, *J* = 7.2 Hz, 1H), 7.58 (dd, *J* = 8.8, 1.6 Hz, 1H), 7.45 (ddd, *J* = 6.4, 4.0, 1.6 Hz, 2H), 7.37 (d, *J* = 8.0 Hz, 1H), 7.18 (dd, *J* = 7.2, 4.8 Hz, 1H), 6.05 (s, 1H), 2.53–2.33 (m, 2H), 0.92 (t, *J* = 7.2 Hz, 3H) ppm; $^{13}C\{^{1}H\}$ NMR (100 MHz, Chloroform-*d*) δ 163.6, 147.3, 143.8, 137.3, 133.3, 132.5, 128.4, 128.1, 127.6, 126.1, 126.0, 124.9, 124.6, 122.2, 120.9, 77.7, 33.9, 8.2 ppm; IR (thin film): 2959, 2920, 2851, 1661, 1590, 1541, 1466, 1431, 1374, 1166, 1127, 988, 818, 778, 746 cm^{-1}; HRMS calc'd for $C_{18}H_{18}NO^{+}$ 264.1383, found 264.1383 $[M+H]^{+}$.

6. Gram scale synthesis of 3ea

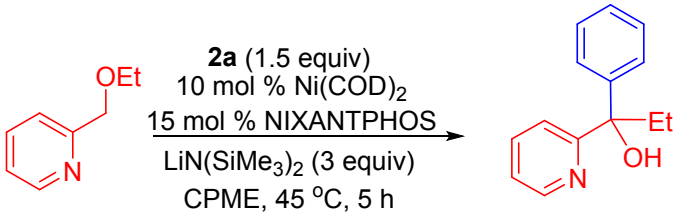


1e
8.75 mmol, 1.20 g

3ea
1.31 g, 70% y.

An oven-dried 250 mL round bottom flask equipped with a stir bar was charged with 2-pyridylmethyl ethyl ether **1e** (1.20 g, 8.75 mmol, 1.0 equiv) , $Ni(COD)_2$ (240.7 mg, 0.875 mmol, 10 mol %), NIXANTPHOS (724 mg, 1.31 mmol, 15 mol %) and chlorobenzene **2a** (1.33 ml, 13.12 mmol, 1.5 equiv) in a glove box under a nitrogen atmosphere at room temperature. 44 mL of dry DME was taken up by syringe and added to the reaction vial under nitrogen. Then, a solution of $LiN(SiMe_3)_2$ (4.39 g, 26.24 mmol, 3.0 equiv) in 44 mL of dry DME was added to the reaction mixture. The flask was capped with a rubber septum, removed from the glove box, and stirred for 5 h in total at 25 °C, opened to air, and quenched with 10 mL of H_2O. The layers were separated and the aqueous layer was extracted with DCM (3X5 mL). The combined organic layers were concentrated in *vacuo*. The crude material was loaded onto a silica gel column and purified by flash chromatography using 10:1 hexanes/ethyl acetate as eluent to afford desired product **3ea** (1.31 g, 70% yield) as a yellow oil. The ^1H and $^{13}C\{^1H\}$ NMR data for this compound match the literature data.[1]

7. Gram scale synthesis of 4ea



1e
8.75 mmol, 1.20 g

4ea
1.27 g, 68% y.

An oven-dried 250 mL round bottom flask equipped with a stir bar was charged with 2-pyridylmethyl ethyl ether **1e** (1.20 g, 8.75 mmol, 1.0 equiv), $Ni(COD)_2$ (240.7 mg, 0.875 mmol, 10 mol %), NIXANTPHOS (724 mg, 1.31 mmol, 15 mol %) and chlorobenzene **2a** (1.33 ml, 13.12 mmol, 1.5 equiv) in a glove box under a nitrogen atmosphere at room temperature. 44 mL of dry CPME was taken up by syringe and added to the reaction vial under nitrogen. Then, a solution of $LiN(SiMe_3)_2$ (4.39 g, 26.24 mmol, 3.0 equiv) in 44 mL of dry CPME was added to the reaction mixture. The flask was capped with a rubber septum, removed from the glove box, and

stirred for 5 h in total at 45 °C, opened to air, and quenched with 10 mL of H_2O. The layers were separated and the aqueous layer was extracted with DCM (3X5 mL). The combined organic layers were concentrated in *vacuo*. The crude material was loaded onto a deactivated silica gel column and purified by flash chromatography using 8 :1 hexanes/ethyl acetate as eluent to afford desired product **4ea** (1.27 g, 48% yield) as a white solid. The ^{1}H and $^{13}C\{^{1}H\}$ NMR data for this compound match the literature data.[2]

8. X-ray crystal structures of compound 4ea

CCDC 1569085 contains the supplementary crystallographic data for compound **4ea**. The data can be obtained free of charge from The Cambridge Crystallographic Data Center via www.ccdc.cam.ac.uk/data_request/cif.

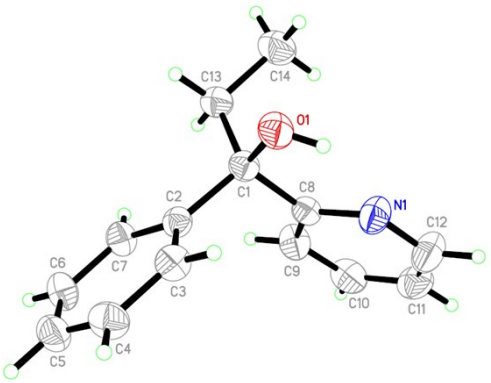


Figure 1 X-ray crystal structures of compound **4ea**

data_1

_audit_creation_method SHELXL-2014
_chemical_name_systematic
;
?
;
_chemical_name_common ?
_chemical_melting_point ?
_chemical_formula_moiety ?
_chemical_formula_sum
'C14 H15 N O'
_chemical_formula_weight 213.27

loop_
_atom_type_symbol
_atom_type_description
_atom_type_scat_dispersion_real
_atom_type_scat_dispersion_imag
_atom_type_scat_source
'C' 'C' 0.0033 0.0016
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
'H' 'H' 0.0000 0.0000
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
'N' 'N' 0.0061 0.0033
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'
'O' 'O' 0.0106 0.0060
'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

```
_space_group_crystal_system       monoclinic
_space_group_IT_number            14
_space_group_name_H-M_alt         'P 21/n'
_space_group_name_Hall            '-P 2yn'

_shelx_space_group_comment
;
The symmetry employed for this shelxl refinement is uniquely defined
by the following loop, which should always be used as a source of
symmetry information in preference to the above space-group names.
They are only intended as comments.
;

loop_
 _space_group_symop_operation_xyz
 'x, y, z'
 '-x+1/2, y+1/2, -z+1/2'
 '-x, -y, -z'
 'x-1/2, -y-1/2, z-1/2'

_cell_length_a                    9.1390(16)
_cell_length_b                    8.2606(15)
_cell_length_c                    16.224(3)
_cell_angle_alpha                 90
_cell_angle_beta                  103.140(2)
_cell_angle_gamma                 90
_cell_volume                      1192.7(4)
_cell_formula_units_Z             4
_cell_measurement_temperature     293(2)
_cell_measurement_reflns_used     1386
_cell_measurement_theta_min       2.5784
_cell_measurement_theta_max       20.7097

_exptl_crystal_description        BLOCK
_exptl_crystal_colour             PINK
_exptl_crystal_density_meas       ?
_exptl_crystal_density_method     ?
_exptl_crystal_density_diffrn     1.188
_exptl_crystal_F_000              456
_exptl_transmission_factor_min    ?
_exptl_transmission_factor_max    ?
_exptl_crystal_size_max           0.320
_exptl_crystal_size_mid           0.260
_exptl_crystal_size_min           0.200
_exptl_absorpt_coefficient_mu     0.075
_shelx_estimated_absorpt_T_min    0.977
_shelx_estimated_absorpt_T_max    0.985
_exptl_absorpt_correction_type    multi-scan
_exptl_absorpt_correction_T_min   0.977
_exptl_absorpt_correction_T_max   0.985
_exptl_absorpt_process_details    sadabs

_exptl_special_details
;
 ?
;

_diffrn_ambient_temperature       293(2)
_diffrn_radiation_wavelength      0.71073
```

```
_diffrn_radiation_type           MoK\a
_diffrn_source                   'sealed tube'
_diffrn_measurement_device_type  'CCD area detector'
_diffrn_measurement_method       'phi and omega scans'
_diffrn_detector_area_resol_mean  ?
_diffrn_reflns_number            6363
_diffrn_reflns_av_unetI/netI     0.0341
_diffrn_reflns_av_R_equivalents  0.0299
_diffrn_reflns_limit_h_min       -10
_diffrn_reflns_limit_h_max       10
_diffrn_reflns_limit_k_min       -8
_diffrn_reflns_limit_k_max       9
_diffrn_reflns_limit_l_min       -19
_diffrn_reflns_limit_l_max       18
_diffrn_reflns_theta_min         2.357
_diffrn_reflns_theta_max         24.998
_diffrn_reflns_theta_full        25.242
_diffrn_measured_fraction_theta_max   0.994
_diffrn_measured_fraction_theta_full  0.968
_diffrn_reflns_Laue_measured_fraction_max    0.994
_diffrn_reflns_Laue_measured_fraction_full   0.968
_diffrn_reflns_point_group_measured_fraction_max   0.994
_diffrn_reflns_point_group_measured_fraction_full  0.968
_reflns_number_total             2084
_reflns_number_gt                1374
_reflns_threshold_expression     'I > 2\s(I)'
_reflns_Friedel_coverage         0.000
_reflns_Friedel_fraction_max     .
_reflns_Friedel_fraction_full    .

_reflns_special_details
;
 Reflections were merged by SHELXL according to the crystal
 class for the calculation of statistics and refinement.

 _reflns_Friedel_fraction is defined as the number of unique
 Friedel pairs measured divided by the number that would be
 possible theoretically, ignoring centric projections and
 systematic absences.
;

_computing_data_collection       'Bruker SMART'
_computing_cell_refinement       'Bruker SMART'
_computing_data_reduction        'Bruker SAINT'
_computing_structure_solution    'SHELXL-2014 (Sheldrick, 2014)'
_computing_structure_refinement  'SHELXL-2014 (Sheldrick, 2014)'
_computing_molecular_graphics    'SHELXL-2014 (Sheldrick, 2014)'
_computing_publication_material  'SHELXL-2014 (Sheldrick, 2014)'

_refine_special_details
;
 ?
;
_refine_ls_structure_factor_coef  Fsqd
_refine_ls_matrix_type           full
_refine_ls_weighting_scheme      calc
_refine_ls_weighting_details
'w=1/[\s^2^(Fo^2^)+(0.0654P)^2^] where P=(Fo^2^+2Fc^2^)/3'
_atom_sites_solution_primary     ?
_atom_sites_solution_secondary   ?
```

```
_atom_sites_solution_hydrogens    geom
_refine_ls_hydrogen_treatment     constr
_refine_ls_extinction_method      none
_refine_ls_extinction_coef        .
_refine_ls_number_reflns          2084
_refine_ls_number_parameters      147
_refine_ls_number_restraints      0
_refine_ls_R_factor_all           0.0724
_refine_ls_R_factor_gt            0.0441
_refine_ls_wR_factor_ref          0.1280
_refine_ls_wR_factor_gt           0.1163
_refine_ls_goodness_of_fit_ref    1.084
_refine_ls_restrained_S_all       1.084
_refine_ls_shift/su_max           0.000
_refine_ls_shift/su_mean          0.000

loop_
 _atom_site_label
 _atom_site_type_symbol
 _atom_site_fract_x
 _atom_site_fract_y
 _atom_site_fract_z
 _atom_site_U_iso_or_equiv
 _atom_site_adp_type
 _atom_site_occupancy
 _atom_site_site_symmetry_order
 _atom_site_calc_flag
 _atom_site_refinement_flags_posn
 _atom_site_refinement_flags_adp
 _atom_site_refinement_flags_occupancy
 _atom_site_disorder_assembly
 _atom_site_disorder_group
O1 O -0.04777(13) 0.47484(14) 0.15027(8) 0.0620(4) Uani 1 1 d . . . . .
H1 H -0.1186 0.4579 0.1100 0.093 Uiso 1 1 calc R U . . .
N1 N -0.17310(17) 0.2321(2) 0.06221(10) 0.0652(5) Uani 1 1 d . . . . .
C1 C 0.03056(18) 0.3273(2) 0.17497(11) 0.0483(5) Uani 1 1 d . . . . .
C2 C 0.18822(18) 0.3405(2) 0.15773(10) 0.0463(4) Uani 1 1 d . . . . .
C3 C 0.2138(2) 0.4427(2) 0.09464(11) 0.0570(5) Uani 1 1 d . . . . .
H3 H 0.1353 0.5050 0.0640 0.068 Uiso 1 1 calc R U . . .
C4 C 0.3552(2) 0.4534(2) 0.07662(13) 0.0656(6) Uani 1 1 d . . . . .
H4 H 0.3705 0.5228 0.0342 0.079 Uiso 1 1 calc R U . . .
C5 C 0.4720(2) 0.3623(3) 0.12089(13) 0.0662(6) Uani 1 1 d . . . . .
H5 H 0.5664 0.3696 0.1086 0.079 Uiso 1 1 calc R U . . .
C6 C 0.4494(2) 0.2600(2) 0.18347(13) 0.0637(5) Uani 1 1 d . . . . .
H6 H 0.5283 0.1975 0.2135 0.076 Uiso 1 1 calc R U . . .
C7 C 0.30917(19) 0.2498(2) 0.20188(11) 0.0556(5) Uani 1 1 d . . . . .
H7 H 0.2954 0.1807 0.2448 0.067 Uiso 1 1 calc R U . . .
C8 C -0.05374(18) 0.1882(2) 0.12158(10) 0.0478(5) Uani 1 1 d . . . . .
C9 C -0.0109(2) 0.0281(2) 0.13372(13) 0.0640(5) Uani 1 1 d . . . . .
H9 H 0.0736 0.0001 0.1751 0.077 Uiso 1 1 calc R U . . .
C10 C -0.0940(2) -0.0896(3) 0.08416(15) 0.0739(6) Uani 1 1 d . . . . .
H10 H -0.0674 -0.1981 0.0923 0.089 Uiso 1 1 calc R U . . .
C11 C -0.2160(3) -0.0452(3) 0.02295(14) 0.0773(7) Uani 1 1 d . . . . .
H11 H -0.2737 -0.1221 -0.0119 0.093 Uiso 1 1 calc R U . . .
C12 C -0.2507(3) 0.1153(3) 0.01434(14) 0.0834(7) Uani 1 1 d . . . . .
H12 H -0.3337 0.1455 -0.0275 0.100 Uiso 1 1 calc R U . . .
C13 C 0.0360(2) 0.2998(3) 0.26940(11) 0.0608(5) Uani 1 1 d . . . . .
H13A H 0.0898 0.2000 0.2872 0.073 Uiso 1 1 calc R U . . .
H13B H 0.0921 0.3875 0.3017 0.073 Uiso 1 1 calc R U . . .
C14 C -0.1186(2) 0.2902(3) 0.29014(14) 0.0834(7) Uani 1 1 d . . . . .
```

```
H14A H -0.1733 0.2003 0.2606 0.125 Uiso 1 1 calc R U . . .
H14B H -0.1728 0.3886 0.2728 0.125 Uiso 1 1 calc R U . . .
H14C H -0.1069 0.2757 0.3500 0.125 Uiso 1 1 calc R U . . .

loop_
 _atom_site_aniso_label
 _atom_site_aniso_U_11
 _atom_site_aniso_U_22
 _atom_site_aniso_U_33
 _atom_site_aniso_U_23
 _atom_site_aniso_U_13
 _atom_site_aniso_U_12
O1 0.0582(8) 0.0484(8) 0.0760(9) -0.0030(6) 0.0082(6) 0.0116(6)
N1 0.0656(10) 0.0624(11) 0.0593(9) -0.0021(8) -0.0034(8) 0.0030(9)
C1 0.0476(10) 0.0434(10) 0.0530(10) 0.0019(8) 0.0094(8) 0.0070(8)
C2 0.0473(10) 0.0416(10) 0.0487(10) -0.0032(8) 0.0082(8) -0.0013(8)
C3 0.0597(11) 0.0539(12) 0.0569(11) 0.0061(9) 0.0121(9) 0.0028(9)
C4 0.0738(14) 0.0608(13) 0.0680(12) 0.0077(10) 0.0281(11) -0.0052(11)
C5 0.0545(12) 0.0672(13) 0.0808(14) -0.0076(11) 0.0235(10) -0.0094(10)
C6 0.0466(11) 0.0653(13) 0.0768(13) 0.0064(11) 0.0093(9) 0.0037(9)
C7 0.0498(10) 0.0565(12) 0.0594(11) 0.0089(9) 0.0100(8) -0.0004(9)
C8 0.0454(10) 0.0502(11) 0.0498(10) 0.0015(8) 0.0152(8) 0.0005(8)
C9 0.0586(11) 0.0482(12) 0.0828(14) 0.0035(11) 0.0111(10) 0.0012(9)
C10 0.0737(14) 0.0495(13) 0.1045(17) -0.0064(12) 0.0330(13) -0.0055(11)
C11 0.0828(16) 0.0743(17) 0.0771(15) -0.0228(13) 0.0230(12) -0.0216(13)
C12 0.0835(15) 0.0845(18) 0.0698(14) -0.0120(13) -0.0083(12) -0.0047(13)
C13 0.0583(11) 0.0694(14) 0.0562(11) -0.0023(10) 0.0164(9) 0.0027(9)
C14 0.0732(14) 0.1080(19) 0.0765(14) 0.0002(13) 0.0324(11) 0.0041(13)

_geom_special_details
;
 All esds (except the esd in the dihedral angle between two l.s. planes)
 are estimated using the full covariance matrix.  The cell esds are taken
 into account individually in the estimation of esds in distances, angles
 and torsion angles; correlations between esds in cell parameters are only
 used when they are defined by crystal symmetry.  An approximate (isotropic)
 treatment of cell esds is used for estimating esds involving l.s. planes.
;

loop_
 _geom_bond_atom_site_label_1
 _geom_bond_atom_site_label_2
 _geom_bond_distance
 _geom_bond_site_symmetry_2
 _geom_bond_publ_flag
O1 C1 1.4243(19) . ?
O1 H1 0.8200 . ?
N1 C8 1.331(2) . ?
N1 C12 1.337(3) . ?
C1 C2 1.533(2) . ?
C1 C8 1.537(2) . ?
C1 C13 1.538(2) . ?
C2 C3 1.387(2) . ?
C2 C7 1.391(2) . ?
C3 C4 1.391(3) . ?
C3 H3 0.9300 . ?
C4 C5 1.369(3) . ?
C4 H4 0.9300 . ?
C5 C6 1.372(3) . ?
C5 H5 0.9300 . ?
```

```
C6 C7 1.383(2) . ?
C6 H6 0.9300 . ?
C7 H7 0.9300 . ?
C8 C9 1.380(2) . ?
C9 C10 1.375(3) . ?
C9 H9 0.9300 . ?
C10 C11 1.364(3) . ?
C10 H10 0.9300 . ?
C11 C12 1.363(3) . ?
C11 H11 0.9300 . ?
C12 H12 0.9300 . ?
C13 C14 1.527(3) . ?
C13 H13A 0.9700 . ?
C13 H13B 0.9700 . ?
C14 H14A 0.9600 . ?
C14 H14B 0.9600 . ?
C14 H14C 0.9600 . ?

loop_
 _geom_angle_atom_site_label_1
 _geom_angle_atom_site_label_2
 _geom_angle_atom_site_label_3
 _geom_angle
 _geom_angle_site_symmetry_1
 _geom_angle_site_symmetry_3
 _geom_angle_publ_flag
C1 O1 H1 109.5 . . ?
C8 N1 C12 117.55(17) . . ?
O1 C1 C2 108.72(13) . . ?
O1 C1 C8 109.02(13) . . ?
C2 C1 C8 108.78(13) . . ?
O1 C1 C13 107.86(14) . . ?
C2 C1 C13 111.94(14) . . ?
C8 C1 C13 110.46(14) . . ?
C3 C2 C7 117.40(16) . . ?
C3 C2 C1 120.07(15) . . ?
C7 C2 C1 122.51(15) . . ?
C2 C3 C4 120.94(17) . . ?
C2 C3 H3 119.5 . . ?
C4 C3 H3 119.5 . . ?
C5 C4 C3 120.39(18) . . ?
C5 C4 H4 119.8 . . ?
C3 C4 H4 119.8 . . ?
C4 C5 C6 119.73(18) . . ?
C4 C5 H5 120.1 . . ?
C6 C5 H5 120.1 . . ?
C5 C6 C7 120.03(18) . . ?
C5 C6 H6 120.0 . . ?
C7 C6 H6 120.0 . . ?
C6 C7 C2 121.52(18) . . ?
C6 C7 H7 119.2 . . ?
C2 C7 H7 119.2 . . ?
N1 C8 C9 121.60(17) . . ?
N1 C8 C1 115.30(15) . . ?
C9 C8 C1 123.11(16) . . ?
C10 C9 C8 119.51(19) . . ?
C10 C9 H9 120.2 . . ?
C8 C9 H9 120.2 . . ?
C11 C10 C9 119.2(2) . . ?
C11 C10 H10 120.4 . . ?
```

C9 C10 H10 120.4 . . ?
C12 C11 C10 118.0(2) . . ?
C12 C11 H11 121.0 . . ?
C10 C11 H11 121.0 . . ?
N1 C12 C11 124.2(2) . . ?
N1 C12 H12 117.9 . . ?
C11 C12 H12 117.9 . . ?
C14 C13 C1 113.91(16) . . ?
C14 C13 H13A 108.8 . . ?
C1 C13 H13A 108.8 . . ?
C14 C13 H13B 108.8 . . ?
C1 C13 H13B 108.8 . . ?
H13A C13 H13B 107.7 . . ?
C13 C14 H14A 109.5 . . ?
C13 C14 H14B 109.5 . . ?
H14A C14 H14B 109.5 . . ?
C13 C14 H14C 109.5 . . ?
H14A C14 H14C 109.5 . . ?
H14B C14 H14C 109.5 . . ?

loop_
 _geom_torsion_atom_site_label_1
 _geom_torsion_atom_site_label_2
 _geom_torsion_atom_site_label_3
 _geom_torsion_atom_site_label_4
 _geom_torsion
 _geom_torsion_site_symmetry_1
 _geom_torsion_site_symmetry_2
 _geom_torsion_site_symmetry_3
 _geom_torsion_site_symmetry_4
 _geom_torsion_publ_flag
O1 C1 C2 C3 -26.8(2) . . . . ?
C8 C1 C2 C3 91.76(18) . . . . ?
C13 C1 C2 C3 -145.89(16) . . . . ?
O1 C1 C2 C7 154.81(15) . . . . ?
C8 C1 C2 C7 -86.58(18) . . . . ?
C13 C1 C2 C7 35.8(2) . . . . ?
C7 C2 C3 C4 0.0(3) . . . . ?
C1 C2 C3 C4 -178.40(16) . . . . ?
C2 C3 C4 C5 0.2(3) . . . . ?
C3 C4 C5 C6 -0.1(3) . . . . ?
C4 C5 C6 C7 -0.3(3) . . . . ?
C5 C6 C7 C2 0.6(3) . . . . ?
C3 C2 C7 C6 -0.4(3) . . . . ?
C1 C2 C7 C6 177.97(17) . . . . ?
C12 N1 C8 C9 0.0(3) . . . . ?
C12 N1 C8 C1 -179.68(17) . . . . ?
O1 C1 C8 N1 3.5(2) . . . . ?
C2 C1 C8 N1 -114.92(16) . . . . ?
C13 C1 C8 N1 121.84(16) . . . . ?
O1 C1 C8 C9 -176.15(15) . . . . ?
C2 C1 C8 C9 65.4(2) . . . . ?
C13 C1 C8 C9 -57.8(2) . . . . ?
N1 C8 C9 C10 -0.8(3) . . . . ?
C1 C8 C9 C10 178.86(16) . . . . ?
C8 C9 C10 C11 1.1(3) . . . . ?
C9 C10 C11 C12 -0.6(3) . . . . ?
C8 N1 C12 C11 0.5(3) . . . . ?
C10 C11 C12 N1 -0.2(4) . . . . ?
O1 C1 C13 C14 58.9(2) . . . . ?

```
C2 C1 C13 C14 178.50(16) . . . . ?
C8 C1 C13 C14 -60.1(2) . . . . ?

loop_
 _geom_hbond_atom_site_label_D
 _geom_hbond_atom_site_label_H
 _geom_hbond_atom_site_label_A
 _geom_hbond_distance_DH
 _geom_hbond_distance_HA
 _geom_hbond_distance_DA
 _geom_hbond_angle_DHA
 _geom_hbond_site_symmetry_A
O1 H1 N1  0.82 2.04 2.575(2) 122.6 .

_refine_diff_density_max    0.117
_refine_diff_density_min   -0.134
_refine_diff_density_rms    0.031

_shelxl_version_number 2014-3

_shelx_res_file
;
TITL 1 in P2(1)/n
CELL 0.71073 9.139 8.2606 16.2236 90 103.14 90
ZERR 4 0.0016 0.0015 0.0029 0 0.002 0
LATT 1
SYMM 0.5-X,0.5+Y,0.5-Z
SFAC C  H  N  O
UNIT 56  60  4  4
OMIT 1 0 5
OMIT 4 1 0
OMIT -2 2 7
OMIT 1 4 4
OMIT -1 3 2
OMIT 0 3 2
OMIT 0 0 2
OMIT -1 4 4
OMIT 3 3 1
OMIT -2 0 12
OMIT 0 50
L.S. 20
ACTA
BOND $H
FMAP 2
PLAN 2
HTAB O1 N1
HTAB
CONF
SIZE  0.32          0.26          0.20
TEMP 20
WGHT    0.065400
FVAR      0.71185
O1    4   -0.047769    0.474841    0.150273    11.00000    0.05820    0.04840 =
       0.07600   -0.00300    0.00823    0.01161
AFIX 147
H1    2   -0.118580    0.457926    0.110035    11.00000   -1.50000
AFIX   0
N1    3   -0.173102    0.232126    0.062212    11.00000    0.06558    0.06241 =
       0.05925   -0.00212   -0.00344    0.00301
C1    1    0.030565    0.327268    0.174968    11.00000    0.04761    0.04341 =
```

```
      0.05299   0.00194   0.00943   0.00700
C2    1   0.188216   0.340460   0.157725   11.00000   0.04730   0.04156 =
      0.04870  -0.00318   0.00818  -0.00131
C3    1   0.213805   0.442720   0.094644   11.00000   0.05972   0.05389 =
      0.05693   0.00614   0.01208   0.00280
AFIX  43
H3    2   0.135309   0.505027   0.063967   11.00000  -1.20000
AFIX   0
C4    1   0.355249   0.453391   0.076618   11.00000   0.07377   0.06080 =
      0.06805   0.00771   0.02813  -0.00523
AFIX  43
H4    2   0.370512   0.522847   0.034242   11.00000  -1.20000
AFIX   0
C5    1   0.472047   0.362267   0.120889   11.00000   0.05452   0.06723 =
      0.08082  -0.00757   0.02349  -0.00943
AFIX  43
H5    2   0.566395   0.369646   0.108615   11.00000  -1.20000
AFIX   0
C6    1   0.449370   0.259958   0.183468   11.00000   0.04655   0.06532 =
      0.07680   0.00640   0.00925   0.00370
AFIX  43
H6    2   0.528329   0.197452   0.213504   11.00000  -1.20000
AFIX   0
C7    1   0.309171   0.249781   0.201876   11.00000   0.04982   0.05647 =
      0.05944   0.00890   0.01000  -0.00041
AFIX  43
H7    2   0.295400   0.180736   0.244756   11.00000  -1.20000
AFIX   0
C8    1  -0.053740   0.188165   0.121576   11.00000   0.04544   0.05025 =
      0.04982   0.00149   0.01516   0.00055
C9    1  -0.010886   0.028123   0.133725   11.00000   0.05860   0.04825 =
      0.08281   0.00345   0.01106   0.00119
AFIX  43
H9    2   0.073583   0.000086   0.175121   11.00000  -1.20000
AFIX   0
C10   1  -0.094028  -0.089595   0.084156   11.00000   0.07375   0.04947 =
      0.10447  -0.00642   0.03299  -0.00550
AFIX  43
H10   2  -0.067415  -0.198070   0.092284   11.00000  -1.20000
AFIX   0
C11   1  -0.215965  -0.045219   0.022949   11.00000   0.08277   0.07431 =
      0.07707  -0.02284   0.02298  -0.02163
AFIX  43
H11   2  -0.273678  -0.122098  -0.011853   11.00000  -1.20000
AFIX   0
C12   1  -0.250673   0.115299   0.014339   11.00000   0.08348   0.08451 =
      0.06978  -0.01198  -0.00825  -0.00473
AFIX  43
H12   2  -0.333675   0.145476  -0.027543   11.00000  -1.20000
AFIX   0
C13   1   0.035961   0.299803   0.269396   11.00000   0.05829   0.06939 =
      0.05624  -0.00230   0.01636   0.00266
AFIX  23
H13A  2   0.089761   0.199971   0.287235   11.00000  -1.20000
H13B  2   0.092128   0.387478   0.301740   11.00000  -1.20000
AFIX   0
C14   1  -0.118639   0.290224   0.290139   11.00000   0.07317   0.10804 =
      0.07648   0.00018   0.03236   0.00413
AFIX 137
H14A  2  -0.173340   0.200320   0.260649   11.00000  -1.50000
```

```
H14B  2   -0.172849    0.388603    0.272809    11.00000   -1.50000
H14C  2   -0.106918    0.275726    0.349997    11.00000   -1.50000
AFIX   0
HKLF 4

REM  1 in P2(1)/n
REM R1 =  0.0441 for    1374 Fo > 4sig(Fo)  and  0.0724 for all    2084 data
REM    147 parameters refined using      0 restraints

END

WGHT      0.0654      0.0000

REM Instructions for potential hydrogen bonds
HTAB O1 N1

REM Highest difference peak  0.117,  deepest hole -0.134,  1-sigma level  0.031
Q1    1  -0.5060  0.0777  0.0134  11.00000  0.05    0.12
Q2    1   0.0775  0.0187  0.2368  11.00000  0.05    0.11
;
_shelx_res_checksum   85945

_shelx_hkl_file
;
  -1   0   0   -0.67    0.15
  -1   0   0   -0.21    0.19
  -2   0   0  640.88   14.78
  -2   0   0  642.60   15.42
  -3   0   0    0.52    0.41
  -3   0   0    1.27    0.52
  -4   0   0  480.93   12.11
  -4   0   0  494.08   12.83
  -5   0   0    0.51    0.62
  -5   0   0   -0.12    0.58
  -6   0   0   35.80    2.58
  -6   0   0   38.14    2.37
  -7   0   0    0.10    1.08
  -7   0   0   -0.55    0.67
  -8   0   0   63.41    4.06
  -8   0   0   59.96    3.62
  -9   0   0   -0.49    1.07
  -9   0   0    0.64    1.52
 -10   0   0    2.65    1.56
  10   0   0    5.15    2.01
 -10   0   0    3.56    2.12
  11   0   0    0.40    1.60
   0   1   0    0.59    0.24
   0   1   0    0.36    0.24
   1   1   0  120.67    3.36
   1  -1   0  128.27    3.11
  -1   1   0  129.85    3.41
  -2   1   0  794.93   18.70
  -2   1   0  792.54   17.96
   2   1   0  756.89   18.57
  -3  -1   0    1.10    0.55
  -3   1   0    1.99    0.64
  -3  -1   0    2.57    0.62
   3  -1   0    2.14    0.35
  -3   1   0    2.06    0.64
  -4  -1   0   13.28    1.26
```

-4	1	0	13.46	1.23
4	-1	0	15.18	0.77
-4	-1	0	14.51	1.38
-4	1	0	13.59	1.35
-5	-1	0	16.10	1.56
5	-1	0	15.93	0.92
-5	1	0	14.87	1.59
-5	1	0	14.14	1.42
-5	-1	0	15.50	1.62
-6	-1	0	0.58	0.73
-6	1	0	0.28	0.64
-6	1	0	0.37	0.65
-6	-1	0	-0.33	0.89
-7	-1	0	34.29	2.82
-7	1	0	31.78	2.42
-7	-1	0	31.21	2.47
7	1	0	30.82	2.77
8	1	0	9.57	1.97
-8	1	0	7.44	1.81
-8	-1	0	10.48	1.84
-8	1	0	7.00	1.57
9	1	0	7.33	1.99
-9	1	0	5.39	1.99
-9	1	0	4.62	1.53
-10	1	0	3.96	2.22
10	1	0	3.39	1.87
-10	1	0	6.28	1.91
-11	1	0	0.47	2.14
11	1	0	1.11	1.85
0	2	0	348.07	8.45
0	2	0	337.98	8.53
-1	2	0	540.08	12.89
1	2	0	541.38	13.07
-1	2	0	544.55	13.12
1	2	0	535.56	12.81
2	2	0	35.70	1.63
-2	2	0	30.00	1.72
-2	2	0	29.77	1.63
-3	2	0	40.33	2.03
-3	2	0	42.83	2.08
3	-2	0	37.29	1.32
3	2	0	38.10	1.97
-4	2	0	26.51	1.87
4	2	0	26.84	1.80
4	-2	0	25.68	0.98
-4	2	0	24.58	1.78
5	2	0	114.64	4.58
-5	2	0	118.27	4.72
-5	2	0	121.64	4.39
-6	2	0	30.61	2.51
-6	2	0	31.27	2.28
6	2	0	29.56	2.48
-7	2	0	120.77	4.89
-7	2	0	112.50	5.34
7	2	0	120.86	5.37
-8	2	0	46.77	3.50
8	2	0	47.29	3.55
-8	2	0	46.25	3.07
-9	2	0	17.26	2.26
9	2	0	12.02	2.39

-9	2	0	17.67	2.69
-10	2	0	-0.11	1.41
10	2	0	1.63	1.70
-10	2	0	-0.93	1.59
-11	2	0	3.90	2.55
11	2	0	2.65	2.13
0	3	0	0.77	0.58
0	3	0	0.16	0.56
-1	3	0	16.96	1.27
-1	3	0	20.48	1.55
1	3	0	13.86	1.22
1	3	0	17.23	1.35
-2	3	0	616.75	15.13
2	3	0	613.26	15.26
2	3	0	619.24	15.08
-2	3	0	607.09	15.34
3	3	0	116.50	4.14
-3	3	0	113.47	4.20
-3	3	0	122.42	4.29
-4	3	0	184.22	6.22
-4	3	0	185.96	5.94
4	3	0	195.38	6.18
-5	3	0	53.77	3.06
5	3	0	56.63	3.12
-5	3	0	58.76	3.04
-6	3	0	28.20	2.54
-6	3	0	20.05	2.00
6	3	0	22.51	2.21
-7	3	0	28.05	2.82
-7	3	0	28.29	2.46
7	3	0	29.90	2.78
-8	3	0	33.08	2.78
8	3	0	29.11	2.96
-8	3	0	34.98	3.27
9	3	0	17.27	2.66
-9	3	0	12.93	2.20
-9	3	0	9.49	2.28
10	3	0	4.91	2.11
-10	3	0	1.93	1.77
11	3	0	2.43	2.40
0	4	0	498.77	12.75
0	4	0	501.38	12.85
-1	4	0	74.24	3.07
1	4	0	78.39	3.25
1	4	0	74.67	3.07
-1	4	0	78.30	3.33
-2	4	0	43.35	2.33
2	4	0	43.30	2.41
-2	4	0	45.52	2.65
2	4	0	41.51	2.30
-3	4	0	211.26	6.73
3	4	0	213.47	6.83
-3	4	0	212.87	6.89
3	4	0	207.42	6.61
-4	4	0	1.43	0.89
-4	4	0	1.91	1.21
4	4	0	1.05	0.98
-5	4	0	155.21	5.77
-5	4	0	157.95	6.09
5	4	0	163.94	6.02

6	4	0	22.60	2.38
-6	4	0	22.69	2.28
-6	4	0	25.53	2.54
-7	4	0	87.07	4.81
-7	4	0	95.93	4.52
7	4	0	92.22	4.82
-8	4	0	9.01	2.14
8	4	0	9.79	2.16
-8	4	0	9.59	1.92
9	4	0	-0.54	1.47
-9	4	0	-1.42	1.24
-10	4	0	2.30	1.91
10	4	0	-2.12	1.78
0	5	0	0.66	0.86
0	5	0	0.50	0.82
-1	5	0	86.01	3.89
1	5	0	85.49	3.58
-1	5	0	80.19	3.47
1	5	0	79.11	3.71
2	5	0	244.88	7.75
-2	5	0	246.52	7.55
2	5	0	236.01	7.48
-2	5	0	248.31	7.92
3	5	0	22.40	2.18
3	5	0	19.59	2.04
-3	5	0	23.41	2.02
-3	5	0	18.27	2.21
-4	5	0	-0.98	0.77
-4	5	0	2.98	1.45
4	5	0	0.91	1.08
4	5	0	-0.03	0.95
5	5	0	4.07	1.50
-5	5	0	4.24	1.40
-5	5	0	5.42	1.62
-6	5	0	10.31	1.96
-6	5	0	9.64	1.80
6	5	0	10.38	2.03
-7	5	0	4.22	1.68
-7	5	0	-0.56	1.05
7	5	0	0.53	1.33
-8	5	0	29.35	3.25
8	5	0	23.48	3.00
9	5	0	-0.07	1.92
-9	5	0	-1.25	1.38
-10	5	0	3.02	2.34
10	5	0	-0.58	2.37
0	6	0	3.46	1.17
0	6	0	4.94	1.46
1	6	0	0.48	1.09
1	6	0	0.81	1.08
-1	6	0	0.54	1.22
-1	6	0	-0.82	0.88
2	6	0	140.52	5.76
-2	6	0	141.25	5.93
2	6	0	138.32	5.32
-2	6	0	135.38	5.30
3	6	0	3.83	1.51
3	6	0	3.86	1.43
-3	6	0	3.16	1.24
-3	6	0	3.07	1.84

-4	6	0	47.22	3.22
-4	6	0	48.16	3.82
4	6	0	51.98	3.58
4	6	0	49.67	3.34
5	6	0	4.21	1.65
-5	6	0	0.98	1.19
5	6	0	3.96	1.64
-5	6	0	2.58	1.71
-6	6	0	4.46	1.67
6	6	0	4.13	1.77
-6	6	0	5.09	1.83
6	6	0	4.67	1.91
-7	6	0	10.04	2.27
7	6	0	10.13	2.52
-8	6	0	1.36	1.71
-9	6	0	-0.63	1.66
0	7	0	0.71	1.12
0	7	0	-1.65	1.33
1	7	0	8.81	1.93
-1	7	0	10.89	1.74
-1	7	0	7.55	2.10
-2	7	0	1.03	1.17
2	7	0	3.48	1.50
-2	7	0	-0.13	1.58
3	7	0	17.61	2.55
-3	7	0	21.83	2.35
-3	7	0	20.61	3.04
-4	7	0	55.02	3.62
4	7	0	51.74	3.92
-4	7	0	46.41	4.09
-5	7	0	4.66	2.10
5	7	0	1.73	1.67
-5	7	0	0.14	1.35
-6	7	0	18.73	2.71
6	7	0	18.71	3.06
-7	7	0	3.33	1.84
7	7	0	3.37	2.24
-8	7	0	1.19	1.93
8	7	0	-0.04	1.79
-9	7	0	4.13	2.67
0	8	0	5.53	1.95
1	8	0	0.75	1.42
-1	8	0	0.02	1.80
2	8	0	-1.08	1.48
-2	8	0	-0.56	1.85
3	8	0	-0.23	1.60
-3	8	0	3.35	2.41
4	8	0	-0.53	1.47
-4	8	0	0.39	2.16
5	8	0	7.81	2.51
6	8	0	2.95	2.11
7	8	0	1.09	2.05
0	9	0	0.81	1.90
-1	9	0	1.98	2.23
1	9	0	-0.76	1.71
-2	9	0	13.06	3.25
2	9	0	13.44	2.91
-3	9	0	0.44	2.49
3	9	0	1.91	2.21
4	9	0	3.62	2.36

5	9	0	5.95	2.65
0	10	0	6.09	2.72
-1	10	0	1.98	2.86
1	10	0	3.71	2.73
-2	10	0	8.90	3.28
2	10	0	12.75	3.31
3	10	0	2.07	2.40
4	10	0	1.85	2.71
0	11	0	-2.20	2.86
-11	0	1	17.31	3.32
11	0	-1	18.88	3.26
-10	0	1	-0.27	1.13
-10	0	1	1.28	1.97
-9	0	1	1.68	1.52
-9	0	1	-0.29	1.07
-8	0	1	0.47	1.02
-8	0	1	0.59	1.29
-7	0	1	7.03	1.39
-7	0	1	7.53	1.64
-6	0	1	0.54	0.67
-6	0	1	0.28	0.75
-5	0	1	277.33	7.78
-5	0	1	281.73	8.43
-4	0	1	1.32	0.64
-4	0	1	0.01	0.41
-3	0	1	431.95	10.55
-3	0	1	441.68	11.18
-2	0	1	0.19	0.37
-2	0	1	-0.29	0.46
-1	0	1	2662.02	61.37
-1	0	1	2672.70	59.72
-1	0	-1	202.01	5.11
-2	0	-1	0.50	0.47
-2	0	-1	-0.48	0.31
-3	0	-1	109.35	3.53
-4	0	-1	-0.25	0.38
-4	0	-1	-0.40	0.48
-5	0	-1	61.58	3.07
-5	0	-1	54.42	2.70
-6	0	-1	-0.14	0.82
-6	0	-1	0.05	0.69
-7	0	-1	289.07	9.02
-8	0	-1	0.15	1.29
-8	0	-1	-1.39	0.90
9	0	1	1.09	1.43
-9	0	-1	0.09	1.20
10	0	1	-0.64	1.20
-10	0	-1	1.30	1.44
11	0	1	0.48	1.86
-11	0	-1	3.25	1.88
11	1	-1	8.58	2.69
-11	1	1	8.02	2.86
-10	1	1	1.17	1.55
-10	1	1	2.34	1.84
10	1	-1	-0.33	1.42
-9	1	1	0.41	1.40
-9	-1	1	-1.78	1.21
-9	1	1	0.83	1.10
9	1	-1	1.49	1.35
-8	1	1	24.88	2.71

-8	-1	1	26.01	2.87
-8	1	1	29.38	2.47
-7	1	1	1.12	0.91
-7	1	1	0.57	1.03
-7	-1	1	4.01	1.44
-6	1	1	90.86	3.73
-6	1	1	93.42	4.24
-6	-1	1	96.94	4.25
-5	-1	1	2.01	0.73
-5	1	1	1.70	0.71
5	-1	-1	1.65	0.54
-5	1	1	0.99	0.63
-5	-1	1	1.03	0.72
-4	1	1	276.45	7.36
4	-1	-1	270.46	6.78
-4	-1	1	281.56	7.90
-3	1	1	59.56	2.22
3	-1	-1	63.28	1.95
-3	-1	1	59.77	2.41
-2	1	1	81.91	2.88
-2	1	1	90.73	2.63
-2	-1	1	90.93	2.72
2	-1	-1	86.73	2.46
-1	1	1	532.71	12.28
1	1	-1	546.89	12.65
1	1	-1	527.17	12.39
1	-1	-1	538.02	12.40
-1	1	1	549.66	12.90
0	1	1	-1.75	0.35
0	-1	-1	-2.70	0.30
-1	1	-1	861.32	20.05
-1	1	-1	876.85	19.62
1	1	1	838.46	20.16
-2	1	-1	79.42	2.79
-2	1	-1	84.82	2.79
2	1	1	76.18	2.75
-3	-1	-1	15.37	1.18
-3	1	-1	16.85	1.28
-3	1	-1	15.49	1.26
3	1	1	16.39	1.27
-4	1	-1	1.94	0.68
-4	1	-1	1.59	0.69
-4	-1	-1	1.28	0.65
4	1	1	1.15	0.66
5	1	1	4.60	1.18
-5	-1	-1	3.02	0.90
-5	1	-1	2.02	0.87
-5	1	-1	2.80	0.97
-6	-1	-1	4.04	1.13
-6	1	-1	4.39	1.27
-6	1	-1	4.26	1.18
6	1	1	4.37	1.29
-7	1	-1	8.25	1.78
-7	1	-1	6.89	1.49
-7	-1	-1	6.35	1.48
7	1	1	7.49	1.63
-8	1	-1	0.56	1.15
8	1	1	-2.10	1.03
-8	1	-1	0.00	1.23
-8	-1	-1	1.23	1.08

-9	-1	-1	1.11	1.32
-9	1	-1	0.08	1.40
9	1	1	-0.24	1.27
-9	1	-1	-0.31	1.07
-10	1	-1	3.07	1.66
-10	1	-1	-0.76	1.32
10	1	1	1.40	1.50
11	1	1	1.49	1.89
-11	1	-1	2.31	2.01
11	-1	1	4.36	2.33
-11	2	1	-0.05	1.84
11	2	-1	5.11	2.27
-10	2	1	-1.04	1.31
10	2	-1	-2.26	1.33
9	2	-1	3.64	1.69
-9	2	1	6.88	1.94
-9	2	1	3.81	1.52
-8	2	1	1.21	1.12
-8	2	1	1.04	1.24
8	2	-1	1.30	1.17
7	2	-1	255.26	8.73
-7	2	1	261.39	8.01
-7	2	1	252.03	8.85
6	2	-1	3.75	1.16
-6	2	1	4.54	1.04
-6	2	1	2.24	1.07
5	-2	-1	194.04	4.98
5	2	-1	194.10	6.38
-5	2	1	192.61	5.93
-5	2	1	186.32	6.50
4	2	-1	69.19	2.98
-4	2	1	69.78	3.14
4	-2	-1	69.03	2.27
-4	2	1	69.96	2.83
3	-2	-1	21.41	1.16
-3	2	1	19.09	1.38
-3	2	1	18.84	1.43
3	2	-1	19.32	1.32
2	2	-1	263.23	6.73
2	-2	-1	258.18	6.46
-2	2	1	255.58	6.71
-2	2	1	251.13	7.01
-1	2	1	86.28	2.97
1	-2	-1	87.97	2.79
1	2	-1	89.74	2.65
-1	2	1	88.57	2.79
0	2	-1	2444.93	54.78
0	2	-1	2507.08	56.46
0	2	1	2500.26	54.60
0	-2	-1	2462.35	55.13
0	2	1	2409.89	56.66
-1	2	-1	370.09	9.07
1	2	1	371.40	9.32
-1	2	-1	352.91	9.19
-2	2	-1	29.27	1.88
-2	2	-1	28.89	1.54
2	2	1	31.49	1.69
-3	2	-1	439.53	11.35
-3	2	-1	420.20	10.98
3	2	1	431.32	11.34

4	2	1	18.27	1.64
-4	2	-1	21.20	1.66
-4	2	-1	20.85	1.73
-5	2	-1	334.21	9.54
5	2	1	349.58	10.15
-5	2	-1	338.11	10.10
-6	2	-1	28.35	2.50
6	2	1	28.62	2.46
-6	2	-1	30.40	2.33
7	2	1	38.59	3.06
-7	2	-1	30.05	2.81
-7	2	-1	38.54	2.76
-8	2	-1	4.02	1.46
-8	2	-1	2.10	1.45
8	2	1	1.65	1.32
-9	2	-1	18.58	2.49
9	2	1	22.54	2.97
-9	2	-1	20.36	2.85
-10	2	-1	1.96	1.82
-10	2	-1	0.18	1.49
10	2	1	1.18	1.72
11	2	1	0.44	2.14
-11	2	-1	-0.45	1.99
-11	3	1	-0.05	1.82
11	3	-1	-0.18	2.09
10	3	-1	3.24	2.09
-10	3	1	2.36	1.82
-9	3	1	3.65	1.66
9	3	-1	-1.28	1.23
-8	3	1	38.16	2.86
8	3	-1	42.21	3.40
-8	3	1	31.09	3.13
7	3	-1	42.45	3.21
-7	3	1	43.35	3.26
-7	3	1	46.84	2.96
6	3	-1	216.49	7.41
-6	3	1	216.28	6.84
-6	3	1	207.85	7.57
5	3	-1	185.40	6.31
-5	3	1	189.58	6.65
-5	3	1	188.54	6.05
-4	3	1	224.43	7.08
4	-3	-1	215.78	5.71
4	3	-1	219.53	6.70
-4	3	1	216.44	6.49
3	-3	-1	2.47	0.64
-3	3	1	2.60	0.97
-3	3	1	0.97	0.72
3	3	-1	2.23	0.72
2	3	-1	452.42	11.18
2	-3	-1	442.48	10.88
-2	3	1	441.86	11.57
-2	3	1	432.03	11.18
1	3	-1	396.39	10.33
-1	3	1	402.57	10.50
-1	3	1	408.98	10.23
1	3	-1	410.76	10.15
0	3	1	160.00	4.76
0	3	-1	159.93	4.51
0	3	-1	161.35	4.94

0	3	1	160.90	4.92
-1	3	-1	265.85	7.45
-1	3	-1	264.64	7.02
1	3	1	260.66	7.33
1	3	1	260.74	7.13
-2	3	-1	109.00	4.07
2	3	1	114.18	3.93
-2	3	-1	107.81	3.74
-3	3	-1	0.82	0.62
3	3	1	-0.13	0.60
-3	3	-1	-0.19	0.81
4	3	1	3.41	0.97
-4	3	-1	0.63	0.73
-4	3	-1	3.62	1.13
5	3	1	1.86	1.00
-5	3	-1	-0.11	0.92
-5	3	-1	1.07	0.83
-6	3	-1	25.22	2.40
6	3	1	28.02	2.53
-6	3	-1	26.05	2.31
7	3	1	7.50	1.81
-7	3	-1	5.08	1.40
-7	3	-1	4.26	1.54
-8	3	-1	3.81	1.48
-8	3	-1	6.41	1.90
8	3	1	8.43	2.06
9	3	1	5.83	2.14
-9	3	-1	5.25	1.86
-9	3	-1	6.81	2.12
10	3	1	8.91	2.44
-10	3	-1	9.10	2.45
11	4	-1	-0.79	2.35
-10	4	1	1.60	1.80
10	4	-1	3.12	2.28
-9	4	1	2.86	1.69
9	4	-1	0.64	1.67
8	4	-1	1.12	1.54
-8	4	1	0.91	1.36
-7	4	1	1.88	1.14
7	4	-1	0.80	1.34
-7	4	1	2.55	1.35
-6	4	1	15.76	1.93
6	4	-1	15.72	2.00
-6	4	1	20.61	2.32
5	4	-1	16.49	1.89
-5	4	1	20.43	2.04
-5	4	1	16.03	1.99
4	4	-1	14.14	1.54
-4	4	1	13.13	1.66
-4	4	1	13.15	1.70
-3	4	1	1.33	1.05
-3	4	1	2.39	0.92
3	4	-1	0.86	0.64
3	4	-1	3.01	0.91
2	4	-1	67.09	3.11
2	4	-1	65.04	2.79
-2	4	1	70.40	3.17
-2	4	1	67.60	3.07
-1	4	1	65.64	2.99
-1	4	1	70.98	2.99

1	4	-1	65.26	3.04
1	4	-1	65.36	2.67
0	4	-1	6.88	0.93
0	4	1	9.05	1.19
0	4	1	6.74	1.10
0	4	-1	8.16	1.28
1	4	1	66.22	2.99
-1	4	-1	71.72	2.80
-1	4	-1	67.78	3.24
1	4	1	67.23	2.94
2	4	1	695.85	17.72
-2	4	-1	685.60	17.39
-2	4	-1	682.42	17.60
2	4	1	717.04	17.37
3	4	1	67.48	3.27
-3	4	-1	75.01	3.64
-3	4	-1	60.79	3.00
-4	4	-1	59.21	3.28
-4	4	-1	52.05	2.91
4	4	1	55.02	3.17
-5	4	-1	46.98	3.02
5	4	1	48.75	3.10
-5	4	-1	46.00	3.08
-6	4	-1	40.77	3.02
6	4	1	41.96	3.25
-6	4	-1	43.15	3.09
7	4	1	8.45	2.01
-7	4	-1	7.99	1.75
-7	4	-1	9.76	1.99
8	4	1	13.79	2.50
-8	4	-1	11.29	2.32
-8	4	-1	10.77	2.05
9	4	1	6.41	2.16
-9	4	-1	7.13	2.00
-9	4	-1	4.57	1.89
-10	4	-1	3.21	1.97
10	4	1	0.93	2.02
-10	5	1	1.91	1.85
-9	5	1	8.43	2.37
9	5	-1	8.09	2.45
8	5	-1	14.39	2.51
-8	5	1	10.80	2.33
7	5	-1	44.16	3.40
-7	5	1	44.26	3.62
-6	5	1	5.81	1.58
-6	5	1	6.64	1.66
6	5	-1	7.09	1.75
5	5	-1	2.88	1.33
-5	5	1	1.81	1.41
5	5	-1	3.90	1.40
-5	5	1	1.80	1.15
-4	5	1	1.26	0.96
4	5	-1	4.34	1.34
4	5	-1	1.88	1.06
-4	5	1	3.84	1.55
3	5	-1	149.90	5.36
3	5	-1	151.41	5.78
-3	5	1	154.44	5.82
-3	5	1	151.30	5.63
2	5	-1	9.68	1.55

2	5	-1	8.66	1.29
-2	5	1	8.80	1.38
-2	5	1	10.44	1.64
1	5	-1	58.38	3.13
1	5	-1	57.91	2.75
-1	5	1	59.31	2.99
-1	5	1	62.91	3.21
0	5	-1	2.15	1.06
0	5	-1	3.79	0.94
0	5	1	3.81	1.09
0	5	1	5.51	1.15
-1	5	-1	38.36	2.14
1	5	1	37.31	2.43
1	5	1	35.28	2.33
-1	5	-1	34.82	2.66
-2	5	-1	1.36	1.35
-2	5	-1	1.24	0.80
2	5	1	0.49	0.81
2	5	1	-0.11	0.96
-3	5	-1	2.87	1.64
3	5	1	1.34	1.17
-3	5	-1	2.67	0.99
3	5	1	2.59	1.06
-4	5	-1	0.15	1.41
4	5	1	1.02	1.16
-4	5	-1	-0.49	0.72
-5	5	-1	2.11	1.10
-5	5	-1	2.39	1.42
5	5	1	1.44	1.34
-6	5	-1	46.17	3.30
6	5	1	47.70	3.48
-6	5	-1	39.52	3.07
-7	5	-1	3.23	1.55
7	5	1	1.63	1.66
-7	5	-1	5.05	1.66
8	5	1	5.21	2.06
-8	5	-1	5.65	1.87
-8	5	-1	2.45	1.66
9	5	1	3.20	2.15
-9	5	-1	1.08	1.87
-10	5	-1	2.04	1.98
10	5	1	-0.37	2.20
9	6	-1	1.25	2.26
-9	6	1	0.18	1.72
8	6	-1	0.71	1.61
-8	6	1	1.31	1.74
-7	6	1	0.03	1.34
7	6	-1	1.38	1.51
-6	6	1	13.64	2.26
6	6	-1	12.75	2.47
-5	6	1	1.45	1.33
-5	6	1	1.54	1.58
5	6	-1	0.80	1.25
-4	6	1	1.15	1.15
-4	6	1	3.80	1.85
4	6	-1	3.45	1.49
3	6	-1	24.51	2.28
-3	6	1	30.27	2.84
-3	6	1	26.76	2.36
3	6	-1	22.63	2.57

2	6	-1	-0.12	1.06
2	6	-1	-0.42	0.99
-2	6	1	2.03	1.08
-2	6	1	0.23	1.28
1	6	-1	15.61	1.69
-1	6	1	18.05	2.16
-1	6	1	18.36	1.93
1	6	-1	19.65	2.28
0	6	-1	24.04	2.42
0	6	1	22.73	2.08
0	6	-1	24.33	1.95
0	6	1	21.15	2.17
-1	6	-1	9.66	1.42
-1	6	-1	6.93	1.73
1	6	1	8.26	1.63
1	6	1	9.78	1.66
-2	6	-1	0.25	1.50
2	6	1	0.45	1.10
2	6	1	-0.92	1.12
-2	6	-1	0.26	0.88
3	6	1	32.28	2.74
3	6	1	25.96	2.60
-3	6	-1	29.49	3.12
-3	6	-1	28.79	2.38
4	6	1	0.24	1.07
-4	6	-1	-0.30	0.98
-4	6	-1	1.91	1.78
4	6	1	0.99	1.46
5	6	1	15.13	2.32
-5	6	-1	18.98	2.29
5	6	1	15.14	2.43
-5	6	-1	14.19	2.48
6	6	1	1.06	1.64
-6	6	-1	1.76	1.67
6	6	1	1.15	1.31
-6	6	-1	0.63	1.26
-7	6	-1	-0.49	1.33
7	6	1	-1.66	1.45
-7	6	-1	-0.64	1.44
8	6	1	-0.21	1.89
-8	6	-1	0.38	1.76
-9	6	-1	3.14	2.32
-9	7	1	5.26	2.69
8	7	-1	3.02	2.45
-8	7	1	7.13	2.45
-7	7	1	-1.26	1.56
7	7	-1	8.97	2.61
-6	7	1	1.18	1.46
6	7	-1	2.00	1.87
5	7	-1	55.30	4.27
-5	7	1	57.57	4.00
4	7	-1	10.05	2.28
-4	7	1	10.50	1.98
-4	7	1	9.85	2.40
-3	7	1	146.00	6.12
3	7	-1	152.89	6.65
-3	7	1	151.10	6.79
-2	7	1	5.27	1.62
-2	7	1	6.70	2.05
2	7	-1	4.97	1.79

-1	7	1	62.28	4.06
1	7	-1	70.93	4.17
-1	7	1	65.30	3.70
0	7	1	31.02	2.97
0	7	-1	29.75	3.05
0	7	1	29.39	2.57
1	7	1	309.43	9.72
-1	7	-1	303.53	10.47
1	7	1	310.26	10.11
-2	7	-1	9.65	2.39
2	7	1	12.72	2.12
2	7	1	8.62	1.91
-3	7	-1	7.99	2.46
3	7	1	6.59	1.88
-3	7	-1	6.50	1.60
3	7	1	4.47	1.84
-4	7	-1	-0.50	1.64
4	7	1	1.69	1.57
-4	7	-1	0.05	1.16
-5	7	-1	0.48	1.73
5	7	1	1.88	1.73
-5	7	-1	2.00	1.36
-6	7	-1	10.04	2.17
-6	7	-1	12.21	2.50
6	7	1	13.05	2.82
7	7	1	8.54	2.49
-7	7	-1	10.17	2.51
-8	7	-1	-0.01	1.86
8	7	1	0.43	2.16
-9	7	-1	1.66	2.27
-8	8	1	4.53	2.50
-7	8	1	6.50	2.53
7	8	-1	6.07	2.80
6	8	-1	0.33	1.82
-6	8	1	1.66	1.81
-5	8	1	2.66	1.85
5	8	-1	0.93	1.89
-4	8	1	2.02	1.66
4	8	-1	-0.24	1.72
-3	8	1	1.23	2.19
3	8	-1	0.37	1.49
2	8	-1	-1.33	1.47
-2	8	1	1.91	1.96
1	8	-1	5.49	1.99
-1	8	1	5.26	2.07
0	8	1	10.74	2.32
0	8	-1	14.87	2.60
-1	8	-1	10.57	2.65
1	8	1	6.22	2.03
-2	8	-1	5.40	2.28
2	8	1	2.22	1.68
3	8	1	2.83	1.81
-3	8	-1	1.19	2.25
-4	8	-1	1.50	2.35
4	8	1	2.16	1.77
-5	8	-1	5.26	2.62
5	8	1	1.82	2.07
6	8	1	0.31	2.07
7	8	1	9.77	3.15
6	9	-1	8.75	3.11

5	9	-1	-0.36	1.96
4	9	-1	-2.20	1.95
3	9	-1	1.67	2.14
-2	9	1	1.09	2.28
2	9	-1	0.66	2.00
1	9	-1	0.98	1.88
-1	9	1	-0.51	2.17
0	9	-1	17.89	3.13
0	9	1	20.60	3.28
1	9	1	-0.29	1.79
-1	9	-1	1.81	2.42
-2	9	-1	12.65	3.27
2	9	1	10.72	2.63
-3	9	-1	-2.93	2.31
3	9	1	-0.11	1.82
4	9	1	-1.13	1.89
-4	9	-1	-1.26	2.46
5	9	1	-0.25	2.10
4	10	-1	0.05	2.40
3	10	-1	2.23	2.60
2	10	-1	-0.80	2.04
1	10	-1	1.78	2.49
-1	10	1	-1.38	2.58
0	10	-1	0.56	2.43
0	10	1	1.67	2.59
-1	10	-1	17.33	3.78
1	10	1	9.59	3.02
2	10	1	1.90	2.39
-2	10	-1	-4.10	2.61
3	10	1	3.41	2.69
4	10	1	4.00	3.06
-11	0	2	-0.77	2.12
-10	0	2	3.54	2.04
-9	0	2	0.25	1.42
-9	0	2	1.07	1.17
-8	0	2	15.13	2.27
-8	0	2	12.87	1.79
-7	0	2	0.69	0.79
-7	0	2	0.21	0.92
-6	0	2	265.90	7.72
-6	0	2	257.67	8.30
-5	0	2	-0.45	0.47
-5	0	2	-0.37	0.50
-4	0	2	997.78	24.60
-4	0	2	1030.56	23.44
-3	0	2	1.69	0.59
-3	0	2	3.08	0.54
-2	0	2	9409.62	221.60
2	0	-2	9999.92	215.40
1	0	-2	-4.40	0.46
-1	0	2	-4.28	0.44
0	0	-2	195.27	4.71
0	0	-2	194.96	4.82
0	0	2	192.85	4.90
1	0	2	-0.13	0.25
-1	0	-2	-0.03	0.31
-1	0	-2	0.72	0.33
-2	0	-2	121.09	3.18
2	0	2	120.45	3.77
-3	0	-2	-0.47	0.38

-3	0	-2	-0.36	0.41
-4	0	-2	522.64	12.96
-4	0	-2	495.92	13.44
-5	0	-2	-0.90	0.50
-5	0	-2	-0.67	0.62
-7	0	-2	0.78	1.00
7	0	2	0.64	1.04
-7	0	-2	0.22	0.94
8	0	2	117.57	5.80
-8	0	-2	124.91	5.51
-9	0	-2	-0.47	1.26
9	0	2	-0.36	1.09
10	0	2	0.24	1.41
-10	0	-2	-0.90	1.48
-11	0	-2	0.22	1.75
11	0	2	-1.83	1.63
-11	1	2	7.11	2.70
11	1	-2	7.52	2.40
10	1	-2	1.51	1.63
-10	-1	2	3.98	2.16
-10	1	2	3.31	2.03
-9	1	2	0.92	1.40
-9	-1	2	2.16	1.74
-9	1	2	0.27	1.15
-8	1	2	9.46	1.97
-8	-1	2	3.92	1.56
-8	1	2	8.67	1.57
-7	1	2	5.50	1.24
-7	1	2	5.27	1.42
-7	-1	2	5.83	1.54
-6	-1	2	143.31	5.51
6	-1	-2	147.22	4.39
-6	1	2	144.59	4.92
-6	1	2	150.25	5.66
-5	1	2	9.54	1.39
5	-1	-2	12.82	1.07
-5	1	2	12.04	1.18
-5	-1	2	15.05	1.52
-4	-1	2	516.51	13.09
-4	1	2	509.26	13.30
4	-1	-2	510.52	12.14
-4	1	2	493.64	12.22
3	-1	-2	9.96	0.83
-3	-1	2	11.88	0.99
-3	1	2	9.03	1.01
-3	1	2	7.55	0.73
-2	-1	2	2.78	0.48
-2	1	2	2.47	0.43
2	-1	-2	3.97	0.62
-2	1	2	1.31	0.47
1	-1	-2	129.15	3.57
1	1	-2	130.70	3.51
0	1	-2	4536.54	100.04
1	1	2	3539.22	84.71
-1	1	-2	3664.56	84.53
-1	-1	-2	3755.38	81.63
-1	-1	-2	3874.93	82.37
-2	-1	-2	211.67	5.75
-2	1	-2	214.34	5.93
-2	1	-2	224.57	5.95

2	1	2	206.82	6.01
3	1	2	73.41	2.96
-3	1	-2	69.63	2.86
-3	1	-2	70.00	2.85
-4	-1	-2	142.37	4.77
-4	1	-2	148.06	4.89
4	1	2	139.50	5.03
-4	1	-2	145.45	5.03
-5	-1	-2	1.18	0.68
-5	1	-2	-0.12	0.62
-5	1	-2	1.24	0.85
5	1	2	0.25	0.69
6	1	2	29.08	2.53
-6	-1	-2	27.94	2.22
-6	1	-2	26.97	2.40
-6	1	-2	27.27	2.30
7	1	2	0.16	1.05
-7	1	-2	1.18	1.03
-7	-1	-2	0.76	0.99
-7	1	-2	-0.56	0.95
-8	1	-2	136.64	5.75
8	1	2	129.85	6.14
-8	-1	-2	125.61	5.78
-8	1	-2	145.71	6.46
9	1	2	-0.84	1.15
-9	1	-2	2.09	1.44
-9	-1	-2	0.26	1.13
-9	1	-2	-0.26	1.47
10	1	2	1.75	1.62
10	-1	2	2.56	1.80
-10	1	-2	2.27	1.81
11	1	2	1.86	2.06
-11	1	-2	2.08	1.81
-11	2	2	8.57	2.69
11	2	-2	6.34	2.49
10	2	-2	3.25	1.93
-10	2	2	5.62	2.32
-9	2	2	-0.62	1.16
9	2	-2	0.65	1.43
-8	2	2	5.15	1.36
-8	2	2	-0.09	0.81
8	2	-2	2.67	1.35
-7	2	2	0.12	0.80
7	2	-2	1.95	1.17
-7	2	2	0.55	0.81
6	2	-2	16.89	1.85
-6	2	2	19.09	1.67
-6	-2	2	19.63	1.89
-6	2	2	17.10	2.02
-5	-2	2	40.40	2.36
5	-2	-2	43.07	1.89
5	2	-2	41.73	2.45
-5	2	2	37.69	2.08
-5	2	2	36.74	2.48
-4	-2	2	43.21	2.19
4	2	-2	41.48	2.19
-4	2	2	40.94	2.36
4	-2	-2	46.41	1.93
-4	2	2	46.66	2.11
3	-2	-2	12.47	1.03

-3	2	2	11.31	1.19
3	2	-2	12.76	1.04
-3	2	2	12.35	1.04
-2	2	2	61.97	2.23
2	2	-2	62.34	2.42
2	-2	-2	57.57	2.24
2	2	-2	62.95	2.09
-2	2	2	64.38	2.61
1	2	-2	166.83	4.15
1	2	-2	162.33	4.67
-1	2	2	163.51	4.31
-1	2	2	163.61	4.83
1	-2	-2	160.61	4.59
0	2	-2	2603.14	59.27
0	2	2	2579.47	57.17
0	-2	-2	2596.83	57.91
0	2	2	2565.64	59.59
-1	2	-2	2.03	0.89
1	2	2	2.91	0.79
-1	2	-2	3.53	0.52
-1	-2	-2	1.92	0.67
-2	2	-2	0.14	0.42
2	2	2	0.38	0.50
-2	2	-2	0.90	0.79
-3	2	-2	451.70	11.72
-3	2	-2	464.41	11.62
3	2	2	423.65	11.78
-4	2	-2	130.75	4.81
-4	2	-2	134.75	4.84
4	2	2	140.28	5.04
5	2	2	0.81	0.83
-5	2	-2	1.30	0.95
-5	2	-2	1.36	0.83
6	2	2	23.95	2.37
-6	2	-2	22.96	2.26
-6	2	-2	23.64	2.18
7	2	2	87.77	4.78
-7	2	-2	90.21	4.38
-7	2	-2	91.46	4.76
8	2	2	0.46	1.26
-8	2	-2	1.42	1.30
-8	2	-2	1.45	1.45
-9	2	-2	2.52	1.54
-9	2	-2	3.29	1.75
9	2	2	1.72	1.79
-10	2	-2	2.80	1.82
10	2	2	4.08	2.05
-10	2	-2	3.12	2.04
-11	2	-2	-1.43	1.71
-11	3	2	-0.05	1.89
11	3	-2	-2.25	2.22
10	3	-2	0.10	1.86
-10	3	2	-1.14	1.56
9	3	-2	1.71	1.63
-9	3	2	0.75	1.36
-8	3	2	31.93	3.17
8	3	-2	26.59	2.82
-7	3	2	74.32	3.53
7	3	-2	68.62	3.92
-7	3	2	67.61	4.05

6	3	-2	4.52	1.24
-6	3	2	4.22	1.13
-6	3	2	6.03	1.49
-5	3	2	114.93	4.79
-5	3	2	119.89	4.24
5	-3	-2	115.33	3.67
5	3	-2	110.31	4.42
4	3	-2	37.13	2.06
4	-3	-2	39.09	1.92
-4	3	2	37.73	2.38
-4	3	2	34.12	2.02
3	3	-2	208.57	5.85
3	3	-2	207.57	6.28
-3	3	2	197.15	5.88
3	-3	-2	202.07	5.69
-3	3	2	202.14	6.40
2	3	-2	10.26	0.89
-2	3	2	9.08	1.05
-2	3	2	7.12	1.08
2	3	-2	10.90	1.17
2	-3	-2	8.54	0.99
-1	3	2	3.19	0.86
1	-3	-2	4.84	0.87
1	3	-2	3.27	0.60
-1	3	2	4.29	0.75
0	-3	-2	14.02	1.26
0	3	2	12.24	1.05
0	3	-2	12.47	1.31
0	3	2	12.77	1.31
0	3	-2	13.69	0.92
-1	3	-2	555.35	14.17
-1	3	-2	565.11	13.75
1	3	2	570.37	14.40
-2	3	-2	14.29	1.63
2	3	2	11.69	1.34
-2	3	-2	11.08	1.06
-3	3	-2	443.01	11.94
3	3	2	438.45	12.12
-3	3	-2	448.55	11.82
-4	3	-2	27.71	2.23
4	3	2	24.56	2.03
-4	3	-2	23.28	1.83
-5	3	-2	187.52	6.49
-5	3	-2	186.57	6.63
5	3	2	189.38	6.72
-6	3	-2	15.61	1.97
6	3	2	9.97	1.87
-6	3	-2	9.96	1.74
-7	3	-2	76.44	4.40
-7	3	-2	81.13	4.24
7	3	2	82.58	4.56
-8	3	-2	8.02	2.07
8	3	2	8.31	2.11
-8	3	-2	7.41	1.81
9	3	2	-0.59	1.41
-9	3	-2	-0.20	1.47
-9	3	-2	2.32	1.43
10	3	2	0.33	1.80
-10	3	-2	0.36	1.77
-10	3	-2	0.69	1.58

11	4	-2	2.42	2.70
-10	4	2	-0.23	1.70
10	4	-2	5.46	2.28
9	4	-2	13.13	2.55
-9	4	2	14.29	2.63
8	4	-2	12.65	2.21
-8	4	2	8.12	1.97
-7	4	2	153.04	6.67
7	4	-2	159.21	6.38
-6	4	2	18.57	2.28
-6	4	2	23.10	2.09
6	4	-2	20.06	2.12
-5	4	2	94.08	4.46
5	4	-2	94.49	4.02
-5	4	2	90.62	3.87
4	-4	-2	1.64	0.81
-4	4	2	1.75	1.03
4	4	-2	2.57	1.07
-4	4	2	2.77	1.16
4	4	-2	3.02	0.92
3	4	-2	4.99	1.12
-3	4	2	6.29	1.21
-3	4	2	4.41	1.19
3	4	-2	6.38	1.02
3	-4	-2	7.55	1.08
2	4	-2	267.65	7.36
2	-4	-2	269.23	7.59
-2	4	2	274.33	8.15
-2	4	2	274.63	7.78
1	4	-2	109.07	3.39
-1	4	2	101.68	3.77
-1	4	2	104.69	3.98
1	4	-2	101.07	4.02
0	4	2	137.42	4.85
0	4	-2	138.94	4.13
0	4	2	138.40	4.57
0	4	-2	131.11	4.91
-1	4	-2	62.04	2.52
1	4	2	66.81	2.91
-1	4	-2	69.99	3.39
1	4	2	62.84	3.10
-2	4	-2	47.15	3.01
2	4	2	41.33	2.62
-2	4	-2	46.58	2.30
-3	4	-2	9.72	1.78
3	4	2	11.07	1.58
-3	4	-2	6.63	1.09
-4	4	-2	45.90	2.70
-4	4	-2	47.50	3.10
4	4	2	44.14	2.91
-5	4	-2	0.25	0.95
5	4	2	3.14	1.38
-5	4	-2	2.65	1.32
-6	4	-2	110.23	5.06
-6	4	-2	115.74	5.25
6	4	2	115.13	5.41
-7	4	-2	4.55	1.58
7	4	2	4.94	1.80
-7	4	-2	6.51	1.82
-8	4	-2	12.19	2.41

8	4	2	10.86	2.48
-8	4	-2	9.97	2.07
-9	4	-2	0.39	1.64
9	4	2	0.93	1.80
-9	4	-2	1.21	1.60
10	4	2	1.13	1.98
-10	4	-2	-0.06	1.65
-10	5	2	1.87	2.03
-9	5	2	2.69	1.80
-8	5	2	-0.12	1.21
-7	5	2	5.66	1.83
7	5	-2	3.03	1.60
6	5	-2	44.58	3.08
-6	5	2	50.88	3.58
6	5	-2	46.39	3.53
-5	5	2	27.10	2.65
5	5	-2	27.54	2.69
-5	5	2	24.70	2.37
5	5	-2	33.14	2.59
-4	5	2	5.07	1.35
4	5	-2	3.13	1.22
-4	5	2	3.84	1.53
4	5	-2	2.16	1.12
-3	5	2	3.48	1.40
3	5	-2	1.02	0.96
-3	5	2	2.43	1.07
3	5	-2	0.94	0.91
2	5	-2	63.95	3.37
2	5	-2	64.70	2.80
-2	5	2	62.53	3.31
-2	5	2	59.29	3.18
-1	5	2	26.77	2.17
1	5	-2	28.73	1.74
-1	5	2	26.07	2.09
1	5	-2	28.54	2.27
0	5	-2	80.96	3.92
0	5	-2	85.37	3.17
0	5	2	85.77	3.78
0	5	2	80.11	3.57
1	5	2	76.62	3.55
1	5	2	80.09	3.76
-1	5	-2	75.61	3.98
-1	5	-2	81.64	3.15
2	5	2	12.61	1.65
-2	5	-2	20.20	2.47
-2	5	-2	17.55	1.59
2	5	2	14.43	1.84
3	5	2	2.34	1.04
3	5	2	1.07	1.18
-3	5	-2	0.55	0.76
-3	5	-2	0.85	1.39
-4	5	-2	-0.43	1.44
-4	5	-2	1.20	0.88
4	5	2	-1.18	1.12
-5	5	-2	5.45	1.85
-5	5	-2	6.72	1.52
5	5	2	5.39	1.70
-6	5	-2	51.69	3.57
6	5	2	45.62	3.77
-6	5	-2	48.06	3.52

7	5	2	5.56	1.99
-7	5	-2	6.00	1.84
-7	5	-2	3.61	1.67
8	5	2	0.48	1.76
-8	5	-2	1.60	1.64
-8	5	-2	2.66	1.49
-9	5	-2	-0.21	1.72
9	5	2	0.55	2.04
10	5	2	-0.05	2.20
9	6	-2	7.60	2.79
-9	6	2	3.21	2.28
8	6	-2	0.34	1.69
-8	6	2	-1.68	1.24
-7	6	2	3.47	1.71
7	6	-2	9.96	2.55
-6	6	2	0.78	1.32
6	6	-2	1.63	1.46
-5	6	2	36.92	3.20
5	6	-2	34.50	3.34
-4	6	2	29.15	2.70
4	6	-2	18.38	2.51
-4	6	2	23.91	2.71
-3	6	2	-0.56	1.03
3	6	-2	0.30	1.10
-3	6	2	1.08	1.54
-2	6	2	27.66	2.43
2	6	-2	28.55	2.65
-2	6	2	29.42	2.68
1	6	-2	2.64	1.35
-1	6	2	3.98	1.32
-1	6	2	5.05	1.39
0	6	-2	41.38	3.14
0	6	-2	42.59	2.36
0	6	2	42.96	2.82
0	6	2	45.70	2.95
1	6	2	1.25	1.04
-1	6	-2	1.03	1.62
1	6	2	0.02	1.20
-1	6	-2	2.20	0.91
2	6	2	49.74	3.25
-2	6	-2	54.71	2.91
2	6	2	44.51	3.19
-2	6	-2	45.84	3.76
-3	6	-2	34.23	3.44
3	6	2	35.51	2.93
3	6	2	26.16	2.65
-3	6	-2	30.33	2.36
-4	6	-2	11.94	2.51
-4	6	-2	13.96	1.88
4	6	2	12.13	2.22
4	6	2	10.75	2.06
5	6	2	21.24	2.71
-5	6	-2	17.09	2.66
5	6	2	16.09	2.47
-5	6	-2	15.48	2.15
6	6	2	2.55	1.74
-6	6	-2	0.59	1.55
-6	6	-2	-1.25	1.19
-7	6	-2	4.72	1.84
7	6	2	7.11	2.34

-7	6	-2	7.38	2.12
-8	6	-2	0.49	1.76
8	6	2	0.12	1.96
-8	6	-2	0.48	1.47
-9	6	-2	-0.83	1.92
9	6	2	0.06	2.39
-9	7	2	1.76	2.14
8	7	-2	0.44	1.96
-8	7	2	0.10	1.94
-7	7	2	4.28	1.89
7	7	-2	-1.08	1.59
6	7	-2	2.87	1.86
-6	7	2	2.28	1.61
5	7	-2	2.07	1.81
-5	7	2	4.34	1.81
-4	7	2	16.84	2.37
4	7	-2	11.79	2.35
3	7	-2	12.43	2.34
-3	7	2	13.40	2.12
-3	7	2	17.19	2.73
2	7	-2	91.72	4.91
-2	7	2	88.11	4.53
-2	7	2	79.11	4.68
-1	7	2	1.86	1.55
-1	7	2	0.12	1.25
1	7	-2	2.91	1.70
0	7	2	113.60	5.29
0	7	-2	117.02	5.68
0	7	2	119.56	5.17
-1	7	-2	36.83	3.53
1	7	2	34.66	2.91
1	7	2	31.84	2.96
-2	7	-2	17.13	2.82
2	7	2	13.75	2.18
2	7	2	14.90	2.32
-3	7	-2	0.52	1.73
3	7	2	-0.27	1.29
3	7	2	0.29	1.50
4	7	2	0.73	1.72
4	7	2	0.32	1.34
-4	7	-2	0.00	2.02
5	7	2	0.90	1.65
-5	7	-2	0.18	1.85
5	7	2	0.73	1.79
-6	7	-2	-1.62	1.39
-6	7	-2	0.25	1.52
6	7	2	0.73	1.63
-7	7	-2	1.19	1.69
7	7	2	1.09	2.01
-7	7	-2	0.78	1.74
-8	7	-2	0.32	2.03
8	7	2	7.25	2.51
-8	8	2	0.67	2.20
-7	8	2	3.35	2.02
7	8	-2	10.11	3.10
-6	8	2	10.54	2.56
6	8	-2	11.02	2.93
5	8	-2	0.09	1.63
-5	8	2	0.99	1.65
-4	8	2	4.64	1.87

4	8	-2	6.93	2.19
-3	8	2	20.30	2.63
3	8	-2	18.99	2.98
2	8	-2	-0.21	1.56
-2	8	2	0.01	1.20
-2	8	2	1.77	1.89
-1	8	2	9.33	1.98
1	8	-2	11.85	2.57
-1	8	2	3.88	1.87
0	8	-2	-0.16	1.68
0	8	2	-0.09	1.35
-1	8	-2	0.82	1.99
1	8	2	0.74	1.62
-2	8	-2	3.40	2.21
2	8	2	7.99	2.09
-3	8	-2	2.25	2.36
3	8	2	1.20	1.58
-4	8	-2	-1.80	1.97
4	8	2	-0.40	1.52
-5	8	-2	5.72	2.47
5	8	2	0.81	1.76
-6	8	-2	4.11	2.53
6	8	2	6.47	2.55
7	8	2	7.73	3.06
6	9	-2	-0.85	1.96
5	9	-2	0.06	2.03
4	9	-2	-0.98	2.08
3	9	-2	1.83	2.13
2	9	-2	2.89	2.15
1	9	-2	0.27	1.85
-1	9	2	2.36	2.19
0	9	2	40.01	3.94
0	9	-2	46.69	4.54
1	9	2	13.20	2.71
-1	9	-2	8.54	2.81
2	9	2	8.96	2.72
-2	9	-2	2.78	2.80
-3	9	-2	-0.65	2.34
3	9	2	1.15	1.75
4	9	2	3.28	2.41
-4	9	-2	3.44	2.85
5	9	2	-0.73	2.24
3	10	-2	0.59	2.20
2	10	-2	-1.16	2.36
1	10	-2	12.14	3.19
0	10	2	1.72	2.45
0	10	-2	-0.51	2.57
1	10	2	-3.74	2.02
-1	10	-2	-3.74	2.35
-2	10	-2	-0.56	2.99
2	10	2	-0.30	2.15
3	10	2	-0.60	2.59
-3	10	-2	-2.08	2.86
-11	0	3	-0.13	1.93
-10	0	3	-0.24	1.45
-9	0	3	15.17	2.49
-8	0	3	0.23	1.22
-7	0	3	67.33	3.73
-7	0	3	70.43	3.33
-6	0	3	-0.13	0.72

6	0	-3	0.12	0.64
-6	0	3	0.43	0.65
-5	0	3	567.86	13.98
-5	0	3	567.76	14.95
5	0	-3	573.35	14.07
4	0	-3	0.85	0.54
-4	0	3	0.26	0.49
-4	0	3	0.24	0.58
3	0	-3	1686.67	38.18
-3	0	3	1684.00	39.31
2	0	-3	0.70	0.64
-2	0	3	2.17	0.71
1	0	-3	663.96	14.26
-1	0	3	667.27	14.91
1	0	-3	554.76	14.60
0	0	-3	0.23	0.34
0	0	-3	-0.12	0.33
0	0	3	0.60	0.34
1	0	3	0.62	0.40
-1	0	-3	1.03	0.55
-1	0	-3	0.75	0.53
-2	0	-3	-0.19	0.47
-2	0	-3	-0.38	0.41
2	0	3	0.40	0.44
3	0	3	12.91	1.25
4	0	3	-0.16	0.59
-4	0	-3	0.82	0.69
5	0	3	79.00	3.74
-5	0	-3	74.92	3.51
-6	0	-3	0.23	0.80
6	0	3	-0.95	0.73
7	0	3	18.07	2.19
-8	0	-3	0.84	1.22
8	0	3	0.19	0.96
9	0	3	0.03	1.35
-9	0	-3	-0.14	1.01
-10	0	-3	0.40	1.48
10	0	3	1.83	1.73
-11	0	-3	1.64	2.07
11	1	-3	12.76	3.07
-11	1	3	15.22	3.10
-10	-1	3	1.57	1.81
-10	1	3	-0.22	1.48
-9	-1	3	10.00	2.23
-9	1	3	9.16	2.19
-8	1	3	7.66	1.82
-8	-1	3	7.64	1.76
-8	1	3	7.40	1.48
-7	-1	3	2.28	1.26
-7	1	3	2.90	1.02
-7	1	3	4.21	1.38
6	-1	-3	45.78	2.23
-6	1	3	45.70	2.35
-6	1	3	42.62	2.79
-6	-1	3	47.49	2.82
5	-1	-3	116.64	3.75
-5	-1	3	114.99	4.31
-5	1	3	110.72	4.42
-5	1	3	111.99	3.77
4	-1	-3	375.34	9.47

-4	-1	3	377.13	10.01
-4	1	3	374.47	9.21
-4	1	3	372.28	10.25
-3	-1	3	315.52	8.27
-3	1	3	311.65	8.59
-3	1	3	319.33	7.61
3	-1	-3	324.86	8.12
-2	-1	3	456.40	10.65
2	-1	-3	431.83	10.70
2	1	-3	438.33	10.47
-2	1	3	443.67	10.01
-2	1	3	427.38	11.09
-1	1	3	673.27	16.25
1	-1	-3	670.63	15.82
1	1	-3	678.01	15.54
0	1	3	1491.82	34.94
0	-1	-3	1515.28	33.98
0	-1	3	1537.72	34.60
0	-1	-3	1480.23	33.30
0	1	-3	1478.05	33.71
-1	-1	-3	2064.93	45.95
-1	1	-3	2071.67	45.70
1	-1	3	2046.80	47.04
-1	-1	-3	2009.54	45.47
-1	1	-3	2041.96	45.86
-2	-1	-3	58.57	2.26
-2	-1	-3	55.88	2.13
-2	1	-3	47.76	2.11
-2	1	-3	50.31	1.61
-3	1	-3	141.75	4.67
-3	-1	-3	143.54	4.59
-3	1	-3	139.02	3.47
-3	1	-3	144.70	4.73
4	1	3	60.03	3.04
-4	1	-3	59.17	2.97
-4	1	-3	69.94	3.11
5	1	3	77.76	3.78
-5	1	-3	72.28	3.49
-5	-1	-3	77.50	3.51
-5	1	-3	76.30	3.70
-6	-1	-3	1.32	0.93
6	1	3	-0.14	0.82
-6	1	-3	0.82	1.08
-6	1	-3	0.10	0.87
-7	1	-3	76.44	4.47
-7	1	-3	79.64	4.08
-7	-1	-3	71.24	3.99
7	1	3	82.94	4.51
8	1	3	49.49	3.80
8	-1	3	73.86	4.45
-8	1	-3	55.10	4.09
-8	1	-3	64.75	3.86
-8	-1	-3	57.88	3.87
-9	1	-3	9.39	2.13
-9	-1	-3	8.63	2.00
9	1	3	10.37	2.32
9	-1	3	10.43	2.37
10	-1	3	4.10	1.86
-10	-1	-3	2.40	1.69
-10	1	-3	3.99	1.74

10	1	3	2.41	1.86
-11	1	-3	-0.57	1.75
-11	2	3	-1.81	1.69
11	2	-3	-0.59	2.02
-10	2	3	2.91	1.94
10	2	-3	5.06	2.18
9	2	-3	4.64	1.85
-9	2	3	-0.47	1.10
-8	-2	3	2.69	1.52
-8	2	3	1.38	1.37
8	2	-3	2.02	1.41
-7	2	3	57.76	2.94
-7	2	3	58.28	3.61
-7	-2	3	55.26	3.46
-6	2	3	7.33	1.12
-6	-2	3	5.86	1.27
-6	2	3	5.08	1.35
-5	-2	3	10.34	1.28
5	-2	-3	11.44	1.20
-5	2	3	11.26	1.12
-4	2	3	141.14	4.13
-4	-2	3	136.45	4.45
4	-2	-3	138.82	4.30
-3	2	3	71.32	3.09
-3	-2	3	77.54	2.61
3	-2	-3	73.38	2.75
3	2	-3	71.83	2.84
-3	2	3	76.07	2.46
2	2	-3	33.75	1.70
2	2	-3	28.83	1.21
2	-2	-3	32.95	1.74
-2	2	3	32.87	1.41
-2	2	3	31.08	1.84
-1	2	3	135.01	3.53
1	2	-3	129.86	4.10
-1	2	3	134.65	4.32
1	-2	-3	129.10	4.10
0	2	-3	241.24	6.75
0	2	3	249.45	6.93
0	2	-3	244.93	5.92
1	2	3	3166.50	74.06
-1	2	-3	3214.95	73.39
-1	-2	-3	3256.00	71.88
-2	2	-3	249.84	6.96
2	2	3	260.69	7.47
-2	-2	-3	263.96	7.06
-2	2	-3	248.63	7.31
3	2	3	12.76	1.39
-3	2	-3	10.22	1.18
-3	-2	-3	10.09	1.20
-3	2	-3	10.79	1.42
4	2	3	21.40	1.92
-4	2	-3	15.24	1.68
-4	-2	-3	17.00	1.61
-4	2	-3	18.83	1.67
-5	-2	-3	0.07	0.47
-5	2	-3	-0.23	0.74
-5	2	-3	-0.08	0.82
5	2	3	0.84	1.00
-6	2	-3	14.08	1.86

-6	2	-3	11.55	1.85
6	2	3	15.52	2.05
-6	-2	-3	17.52	1.96
7	2	3	52.15	3.64
-7	2	-3	45.16	3.16
-7	2	-3	50.36	3.59
-7	-2	-3	54.28	3.44
8	2	3	0.30	1.28
-8	2	-3	1.63	1.23
-8	2	-3	1.11	1.34
-9	2	-3	6.64	1.90
-9	2	-3	4.89	1.94
9	2	3	6.34	2.01
10	2	3	4.41	2.09
-10	2	-3	2.07	1.63
10	-2	3	2.57	1.89
-11	2	-3	1.46	2.02
-11	3	3	0.98	1.94
11	3	-3	2.29	2.53
-10	3	3	24.41	3.31
10	3	-3	27.57	3.50
-9	3	3	12.25	2.55
9	3	-3	14.33	2.52
8	3	-3	2.81	1.54
-8	3	3	5.10	1.73
7	3	-3	15.64	2.05
-7	3	3	10.09	1.92
-6	3	3	167.51	6.54
6	3	-3	171.29	6.12
-6	3	3	174.94	5.61
-5	3	3	1.38	0.80
-5	3	3	1.67	1.02
5	3	-3	0.02	0.63
5	-3	-3	1.52	0.85
-4	3	3	28.83	2.12
4	3	-3	28.87	2.02
4	-3	-3	25.13	1.79
-4	3	3	29.67	1.80
4	3	-3	29.24	1.80
3	-3	-3	14.17	1.27
-3	3	3	11.39	1.43
3	3	-3	13.41	1.38
-3	3	3	11.58	1.22
3	3	-3	11.89	1.01
2	-3	-3	195.86	5.76
2	3	-3	197.80	5.16
-2	3	3	197.31	5.45
-2	3	3	189.94	6.10
2	3	-3	194.30	5.92
1	3	-3	629.23	15.72
1	-3	-3	633.97	15.61
-1	3	3	651.42	15.11
1	3	-3	650.31	15.01
-1	3	3	633.24	16.17
0	3	-3	96.35	2.72
0	3	3	96.91	3.17
0	-3	-3	95.80	3.51
0	3	3	92.63	3.63
-1	3	-3	3.34	1.04
1	3	3	-0.21	0.74

-1	-3	-3	1.07	0.70
-1	3	-3	1.05	0.45
2	3	3	43.74	2.52
-2	3	-3	50.45	2.20
-2	3	-3	49.32	2.82
3	3	3	365.99	10.55
-3	3	-3	362.89	10.00
-3	3	-3	367.10	10.37
-4	3	-3	30.62	2.39
-4	3	-3	32.04	2.18
4	3	3	28.58	2.26
-5	3	-3	0.74	0.85
5	3	3	0.13	0.98
-5	3	-3	-0.49	1.01
6	3	3	10.99	1.95
-6	3	-3	9.81	1.76
-6	3	-3	11.15	1.82
-7	3	-3	20.44	2.34
-7	3	-3	19.26	2.47
7	3	3	19.16	2.50
-8	3	-3	1.36	1.33
-8	3	-3	3.27	1.66
8	3	3	0.68	1.39
-9	3	-3	1.86	1.56
-9	3	-3	0.51	1.40
9	3	3	2.14	1.76
-10	3	-3	0.63	1.57
10	3	3	1.33	1.92
-10	3	-3	-1.29	1.71
-10	4	3	0.94	1.85
9	4	-3	3.98	1.94
-9	4	3	1.10	1.76
8	4	-3	16.09	2.42
-8	4	3	17.10	2.61
-7	4	3	128.25	6.05
7	4	-3	135.33	5.69
-6	4	3	27.47	2.63
6	4	-3	24.23	2.18
-5	4	3	-0.65	0.89
5	4	-3	-0.55	0.75
5	-4	-3	0.94	0.94
5	4	-3	0.54	0.88
-5	4	3	1.23	0.93
-4	4	3	122.69	4.98
4	4	-3	114.55	4.16
4	4	-3	115.06	4.73
-4	4	3	119.77	4.35
4	-4	-3	111.78	4.08
-3	4	3	219.72	6.57
-3	4	3	224.83	7.27
3	-4	-3	219.23	6.54
3	4	-3	223.32	7.08
3	4	-3	218.79	6.27
2	4	-3	79.41	3.53
2	4	-3	77.28	2.71
2	-4	-3	77.48	3.29
-2	4	3	82.22	3.24
-2	4	3	77.02	3.54
-1	4	3	44.92	2.54
1	-4	-3	43.88	2.42

-1	4	3	41.39	2.17
1	4	-3	46.70	1.76
0	4	-3	813.17	19.12
0	4	3	809.38	20.42
0	-4	-3	807.15	19.80
0	4	-3	791.21	20.01
0	4	3	817.35	19.34
1	4	3	11.17	1.24
1	4	3	13.40	1.60
-1	4	-3	11.93	1.05
-1	4	-3	13.40	1.84
2	4	3	64.58	3.36
-2	4	-3	69.27	2.82
-2	4	-3	73.28	3.74
-3	4	-3	206.91	6.50
-3	4	-3	208.54	7.25
3	4	3	206.55	7.07
4	4	3	13.59	1.88
-4	4	-3	13.34	1.99
-4	4	-3	12.51	1.56
5	4	3	21.81	2.45
-5	4	-3	18.35	2.32
-5	4	-3	25.05	2.31
-6	4	-3	0.66	1.22
-6	4	-3	1.41	1.19
6	4	3	1.13	1.21
-7	4	-3	17.00	2.35
7	4	3	18.88	2.72
-7	4	-3	13.47	2.23
-8	4	-3	0.16	1.25
-8	4	-3	-1.06	1.27
8	4	3	0.35	1.40
-9	4	-3	0.08	1.61
9	4	3	2.04	2.02
-9	4	-3	2.08	1.71
-10	4	-3	4.33	2.00
-10	4	-3	4.76	2.41
10	4	3	2.53	2.36
-10	5	3	-1.61	1.64
-9	5	3	7.66	2.38
9	5	-3	4.64	2.27
-8	5	3	5.27	1.87
8	5	-3	6.92	2.20
7	5	-3	20.36	2.82
-7	5	3	17.36	2.56
6	5	-3	2.10	1.37
-6	5	3	5.14	1.71
5	5	-3	10.17	1.89
-5	5	3	6.83	1.66
4	-5	-3	1.78	0.99
-4	5	3	1.59	1.16
-4	5	3	1.95	1.40
4	5	-3	1.91	1.13
-3	5	3	8.37	1.61
3	5	-3	6.32	1.18
-3	5	3	7.24	1.49
3	5	-3	5.73	1.40
3	-5	-3	6.28	1.24
2	-5	-3	3.78	1.13
2	5	-3	0.44	0.75

-2	5	3	3.11	1.16
-2	5	3	0.97	0.98
2	5	-3	0.72	0.79
1	5	-3	2.60	0.74
-1	5	3	1.74	1.01
1	5	-3	1.87	1.04
-1	5	3	1.82	0.94
0	5	3	-0.13	0.77
0	5	-3	1.15	1.22
0	5	3	0.46	1.03
0	5	-3	1.45	0.65
-1	5	-3	109.69	3.81
-1	5	-3	110.67	4.99
1	5	3	109.03	4.72
1	5	3	111.49	4.36
-2	5	-3	5.69	0.99
2	5	3	7.04	1.57
-2	5	-3	6.28	1.97
2	5	3	2.74	0.96
3	5	3	3.44	1.43
-3	5	-3	6.91	1.18
-3	5	-3	5.70	1.90
4	5	3	0.18	1.33
-4	5	-3	1.39	0.92
-4	5	-3	1.10	1.47
-5	5	-3	111.15	5.28
-5	5	-3	106.86	4.90
5	5	3	106.30	5.32
6	5	3	2.10	1.61
-6	5	-3	1.13	1.28
-6	5	-3	3.26	1.58
7	5	3	0.37	1.53
-7	5	-3	-0.30	1.32
-7	5	-3	-0.64	1.30
8	5	3	0.25	1.73
-8	5	-3	-0.48	1.47
-8	5	-3	1.76	1.45
-9	5	-3	2.32	1.79
-9	5	-3	1.52	1.95
9	5	3	3.59	2.50
9	6	-3	-1.21	1.84
-9	6	3	4.11	2.14
8	6	-3	-1.05	1.50
-8	6	3	-1.33	1.46
-7	6	3	6.38	2.05
7	6	-3	2.43	1.70
-6	6	3	4.43	1.84
6	6	-3	4.23	1.87
-5	6	3	97.02	5.02
5	6	-3	80.69	4.74
-4	6	3	11.85	2.01
4	6	-3	8.45	1.90
-3	6	3	-0.43	1.05
-3	6	3	0.50	1.46
3	6	-3	-1.16	0.78
2	6	-3	84.03	4.42
-2	6	3	81.77	4.10
-2	6	3	87.42	4.27
-1	6	3	79.71	4.03
-1	6	3	83.52	3.95

1	6	-3	83.60	4.35
0	6	3	11.58	1.75
0	6	3	9.48	1.73
0	6	-3	10.58	2.02
-1	6	-3	257.68	9.26
1	6	3	267.29	8.91
1	6	3	280.21	8.61
2	6	3	71.24	3.91
2	6	3	71.74	4.08
-2	6	-3	75.08	4.66
-3	6	-3	2.36	1.85
3	6	3	0.02	1.04
3	6	3	-0.50	1.41
-3	6	-3	0.41	0.84
-4	6	-3	-1.11	1.50
4	6	3	0.27	1.52
4	6	3	1.05	1.12
-4	6	-3	0.31	0.94
-5	6	-3	2.08	1.33
-5	6	-3	2.98	1.83
5	6	3	-0.01	1.54
-6	6	-3	2.49	1.72
-6	6	-3	1.36	1.39
6	6	3	0.52	1.58
-7	6	-3	4.92	1.87
-7	6	-3	6.01	2.09
7	6	3	4.65	2.20
8	6	3	1.48	2.18
-8	6	-3	0.48	1.90
-8	6	-3	1.12	1.61
9	6	3	10.83	3.22
-9	6	-3	10.52	2.74
-9	7	3	3.48	2.37
-8	7	3	2.68	1.93
8	7	-3	-1.92	1.71
7	7	-3	12.75	2.86
-7	7	3	14.38	2.70
6	7	-3	8.02	2.43
-6	7	3	5.92	2.11
-5	7	3	40.25	3.56
5	7	-3	39.53	3.76
4	7	-3	0.45	1.42
-4	7	3	4.27	1.69
-3	7	3	1.53	1.35
3	7	-3	2.50	1.61
2	7	-3	42.61	3.61
-2	7	3	38.28	3.30
-2	7	3	40.31	3.21
-1	7	3	7.30	1.91
-1	7	3	8.40	1.87
1	7	-3	9.34	2.18
0	7	-3	23.78	2.95
0	7	3	24.83	2.56
0	7	3	22.89	2.49
1	7	3	38.56	3.02
-1	7	-3	42.30	3.80
1	7	3	40.60	3.26
-2	7	-3	7.75	2.49
2	7	3	4.25	1.67
2	7	3	6.26	1.92

-3	7	-3	34.62	3.84
3	7	3	32.79	3.08
3	7	3	33.91	3.20
-4	7	-3	1.00	2.08
4	7	3	3.17	1.66
4	7	3	2.55	1.89
5	7	3	8.56	2.17
-5	7	-3	12.54	2.76
5	7	3	7.65	2.39
6	7	3	1.80	1.82
6	7	3	3.20	2.36
-6	7	-3	1.30	1.97
7	7	3	4.53	2.22
-7	7	-3	1.25	1.90
7	7	3	0.42	2.36
-8	8	3	1.53	2.27
-7	8	3	0.04	1.91
7	8	-3	1.64	2.01
6	8	-3	12.62	3.00
-6	8	3	6.79	2.38
-5	8	3	18.03	2.78
5	8	-3	12.94	2.95
4	8	-3	6.03	2.24
-4	8	3	10.10	2.26
-3	8	3	7.02	2.04
3	8	-3	11.46	2.54
-2	8	3	0.08	1.40
2	8	-3	2.82	1.80
-1	8	3	0.06	1.38
1	8	-3	-2.46	1.47
-1	8	3	-1.34	1.49
0	8	3	11.48	2.18
0	8	3	16.71	2.44
0	8	-3	4.47	2.38
1	8	3	44.30	3.55
1	8	3	39.70	3.60
-1	8	-3	39.35	4.02
2	8	3	13.71	2.49
2	8	3	6.28	2.05
-2	8	-3	8.14	2.91
3	8	3	5.77	2.08
-3	8	-3	6.14	2.73
-4	8	-3	11.90	3.19
4	8	3	6.83	2.37
5	8	3	4.29	2.30
-5	8	-3	0.37	2.07
6	8	3	-1.77	1.68
-6	8	-3	1.04	2.08
-7	9	3	4.57	2.64
6	9	-3	-1.04	1.97
-6	9	3	0.97	2.23
5	9	-3	-3.67	1.72
4	9	-3	-0.33	1.97
3	9	-3	2.07	2.05
2	9	-3	1.03	2.03
1	9	-3	11.99	3.03
0	9	3	1.92	2.20
0	9	-3	4.65	2.65
1	9	3	-1.34	1.76
-1	9	-3	-0.17	2.13

2	9	3	-0.70	1.82
-2	9	-3	2.63	2.62
3	9	3	0.66	1.76
-3	9	-3	-0.69	2.35
-4	9	-3	-1.38	2.44
4	9	3	-3.56	1.87
-5	9	-3	3.04	2.97
5	9	3	2.01	2.51
3	10	-3	1.50	2.43
2	10	-3	1.29	2.67
1	10	-3	1.96	2.59
0	10	-3	1.08	2.62
-1	10	-3	-2.24	2.38
1	10	3	-0.94	2.09
-2	10	-3	12.62	3.95
2	10	3	9.34	3.11
-3	10	-3	-0.99	3.07
3	10	3	2.22	2.71
-4	10	-3	4.88	3.77
-11	0	4	1.03	1.94
-10	0	4	1.52	1.65
-9	0	4	-1.66	1.16
-8	0	4	14.29	2.18
7	0	-4	-0.97	0.78
-7	0	4	0.50	0.93
-6	0	4	65.04	3.33
6	0	-4	61.43	2.86
5	0	-4	1.05	0.64
-5	0	4	-0.15	0.55
-4	0	4	46.16	2.28
4	0	-4	47.17	2.21
3	0	-4	2.97	0.72
-3	0	4	3.85	0.75
-2	0	4	6177.06	141.34
2	0	-4	6209.91	137.00
2	0	-4	6261.74	137.72
-1	0	4	1.31	0.58
1	0	-4	1.85	0.52
0	0	4	1133.84	26.48
0	0	-4	1132.23	25.46
0	0	-4	1124.31	25.85
-1	0	-4	0.39	0.58
1	0	4	0.53	0.46
-1	0	-4	0.51	0.57
2	0	4	328.44	8.62
-2	0	-4	305.48	8.32
-2	0	-4	320.84	7.88
3	0	4	0.23	0.52
-3	0	-4	0.42	0.51
-3	0	-4	-0.34	0.49
4	0	4	254.14	7.85
-5	0	-4	0.03	0.65
5	0	4	0.48	0.79
-6	0	-4	140.64	5.53
6	0	4	140.22	5.83
7	0	4	0.49	1.17
-7	0	-4	-0.05	0.99
-8	0	-4	26.24	2.76
8	0	4	24.78	2.88
-9	0	-4	0.35	1.28

9	0	4	1.42	1.59
10	0	4	-1.56	1.29
-10	0	-4	0.68	1.64
-11	1	4	0.29	2.07
-11	-1	4	-2.28	2.09
-10	1	4	3.94	1.93
-10	-1	4	8.92	2.39
-9	1	4	-0.18	1.24
-9	-1	4	3.23	1.77
-8	1	4	-0.36	1.05
-8	-1	4	-2.23	0.92
-7	-1	4	34.82	2.69
-7	1	4	30.85	2.66
-7	1	4	34.42	2.21
-6	1	4	55.36	3.15
-6	1	4	58.20	2.65
6	-1	-4	57.33	2.67
-6	-1	4	55.22	3.04
-5	1	4	1.06	0.56
5	-1	-4	-0.11	0.59
-5	-1	4	0.53	0.65
-5	1	4	1.15	0.72
-4	1	4	1286.15	30.89
-4	-1	4	1281.00	30.47
4	-1	-4	1262.05	29.64
-4	1	4	1296.27	28.84
-3	1	4	485.63	10.88
3	-1	-4	472.05	11.76
3	1	-4	456.09	11.40
-3	-1	4	478.42	11.78
-3	1	4	473.70	12.23
-2	1	4	145.50	4.58
2	1	-4	147.93	4.13
2	-1	-4	144.37	4.45
-2	-1	4	151.25	4.03
-1	-1	4	1740.56	39.87
-1	1	4	1745.07	40.40
1	1	-4	1710.83	38.79
1	-1	-4	1743.83	39.37
0	-1	4	57.87	1.84
0	-1	-4	53.91	1.78
0	-1	-4	52.09	2.27
0	1	-4	53.99	2.34
0	1	-4	53.79	2.04
0	1	4	50.52	2.30
1	-1	4	157.93	4.48
-1	1	-4	160.38	4.34
-1	1	-4	152.95	4.80
-1	-1	-4	160.33	4.43
-1	-1	-4	162.22	4.67
1	1	4	165.02	4.94
2	-1	4	133.65	4.20
-2	1	-4	131.05	4.34
-2	1	-4	132.38	3.61
2	1	4	133.61	4.47
-2	-1	-4	128.60	4.01
-2	-1	-4	132.85	4.12
-3	-1	-4	62.86	2.75
-3	-1	-4	62.48	2.46
3	1	4	60.43	2.86

3	-1	4	61.61	2.75
-3	1	-4	59.26	1.93
-4	1	-4	52.02	2.78
-4	1	-4	51.52	2.71
4	-1	4	49.72	2.70
-4	-1	-4	44.44	2.52
5	-1	4	28.77	2.29
-5	1	-4	30.15	2.42
-5	1	-4	37.75	2.53
6	-1	4	26.85	2.56
-6	-1	-4	25.63	2.33
6	1	4	28.93	2.64
-6	1	-4	26.49	2.38
7	-1	4	43.87	3.26
-7	1	-4	37.18	2.96
-7	-1	-4	43.67	3.15
7	1	4	36.76	3.26
8	-1	4	60.38	4.06
8	1	4	59.02	4.28
-8	1	-4	57.02	3.82
-8	-1	-4	58.49	3.87
9	-1	4	0.22	1.55
-9	-1	-4	-0.36	1.27
9	1	4	-0.92	1.56
-9	1	-4	-0.79	1.17
10	-1	4	1.20	1.87
-10	1	-4	0.30	1.62
-10	-1	-4	1.59	1.57
10	1	4	2.88	1.93
11	2	-4	5.03	2.69
-11	2	4	7.12	2.66
10	2	-4	3.00	1.99
-10	2	4	-2.03	1.53
-9	-2	4	13.96	2.49
-9	2	4	13.30	2.39
-8	2	4	1.01	1.38
-8	-2	4	0.73	1.21
-7	-2	4	19.04	2.06
-7	2	4	19.61	2.26
6	-2	-4	13.17	1.48
-6	2	4	13.16	1.31
-6	2	4	9.06	1.61
-6	-2	4	12.13	1.52
5	-2	-4	48.21	2.39
-5	2	4	46.72	2.85
-5	-2	4	46.75	2.47
-5	2	4	45.64	2.08
-4	-2	4	15.09	1.23
-4	2	4	12.76	1.46
-4	2	4	14.52	1.03
4	-2	-4	14.81	1.39
-3	-2	4	5.10	0.66
3	-2	-4	5.73	0.96
-3	2	4	4.76	0.94
3	2	-4	5.55	0.88
-3	2	4	5.98	0.62
-2	2	4	125.36	3.39
-2	-2	4	133.39	3.43
2	2	-4	132.06	4.16
2	-2	-4	133.07	4.28

-1	2	4	35.54	1.29
1	2	-4	36.01	1.93
1	-2	-4	32.33	1.90
0	2	-4	608.01	14.80
0	2	4	587.21	15.25
0	-2	4	615.31	14.15
-1	-2	-4	126.35	3.99
1	2	4	114.53	4.19
-1	2	-4	109.47	3.37
-1	2	-4	113.53	4.19
2	2	4	237.35	7.11
-2	-2	-4	241.01	6.57
-2	2	-4	220.59	6.44
-2	2	-4	230.05	5.87
-2	-2	-4	234.88	6.59
-3	2	-4	1.09	0.43
-3	-2	-4	0.42	0.60
-3	2	-4	1.91	0.76
-3	2	-4	1.50	1.01
3	2	4	1.11	0.75
4	2	4	-0.42	0.66
-4	2	-4	-0.38	0.75
-4	2	-4	-0.32	0.55
-4	-2	-4	0.10	0.62
5	2	4	19.82	2.16
-5	-2	-4	19.53	1.99
-5	2	-4	21.72	2.15
-5	2	-4	15.39	1.85
-6	2	-4	11.35	1.81
6	2	4	12.02	1.94
-6	2	-4	9.89	1.80
-7	-2	-4	53.92	3.52
-7	2	-4	51.59	3.52
-7	2	-4	55.95	3.79
7	2	4	58.81	4.01
-8	2	-4	8.10	2.03
-8	2	-4	2.60	1.34
8	2	4	3.09	1.59
8	-2	4	3.94	1.69
-9	2	-4	8.14	2.11
9	2	4	6.38	2.09
9	-2	4	6.26	2.20
-10	2	-4	2.56	1.71
10	-2	4	1.02	1.76
10	2	4	0.77	1.83
11	3	-4	27.74	4.02
-11	3	4	29.44	4.06
10	3	-4	2.57	2.04
-10	3	4	3.03	1.97
9	3	-4	14.50	2.54
-9	3	4	2.49	1.39
8	3	-4	8.87	1.91
-8	3	4	1.47	1.20
-7	3	4	77.22	4.46
7	3	-4	79.15	4.08
-6	3	4	2.53	1.29
6	3	-4	2.75	1.09
5	3	-4	11.89	1.35
5	3	-4	10.16	1.54
-5	3	4	11.95	1.23

-5	3	4	9.64	1.61
5	-3	-4	9.76	1.33
4	3	-4	93.38	3.94
4	3	-4	96.48	3.45
-4	3	4	102.44	4.25
4	-3	-4	101.06	3.73
-4	3	4	99.78	3.28
3	-3	-4	4.42	1.02
-3	3	4	3.87	1.05
3	3	-4	3.90	0.64
3	3	-4	3.48	0.94
-3	3	4	4.81	0.88
2	3	-4	52.94	1.71
-2	3	4	51.49	2.09
2	-3	-4	53.81	2.53
-2	3	4	53.26	2.74
2	3	-4	52.22	2.53
1	3	-4	14.08	1.42
1	-3	-4	11.21	1.34
-1	3	4	10.71	1.32
-1	3	4	12.61	0.99
0	3	4	0.61	0.46
0	-3	-4	-0.52	0.65
0	3	-4	1.40	0.33
0	3	-4	1.34	0.92
0	3	4	1.74	0.87
-1	-3	-4	1138.84	26.80
1	3	4	1108.96	27.72
-1	3	-4	1155.30	26.59
2	3	4	1.78	1.05
-2	3	-4	2.50	1.21
-2	-3	-4	3.55	0.98
-2	3	-4	3.82	0.74
3	3	4	173.81	6.22
-3	3	-4	179.40	4.68
-3	3	-4	174.06	5.68
-3	3	-4	179.25	6.23
-4	3	-4	16.69	1.98
-4	3	-4	20.67	1.85
4	3	4	18.00	2.01
-5	3	-4	2.76	1.17
-5	3	-4	1.46	1.31
5	3	4	6.24	1.63
-6	3	-4	0.16	1.02
6	3	4	0.42	1.26
-6	3	-4	-0.73	0.90
-7	3	-4	2.42	1.39
7	3	4	-0.27	1.29
-7	3	-4	2.48	1.42
-8	3	-4	1.22	1.25
8	3	4	-0.62	1.26
-8	3	-4	-2.39	1.15
-9	3	-4	-0.84	1.55
9	3	4	-0.11	1.67
-9	3	-4	-0.46	1.29
10	-3	4	2.93	2.17
-10	3	-4	2.06	1.72
10	3	4	-0.78	1.87
-10	4	4	3.40	2.12
-9	4	4	6.82	2.11

8	4	-4	-0.21	1.27
-8	4	4	2.01	1.46
7	4	-4	22.27	2.30
7	4	-4	27.72	2.92
-7	4	4	19.48	2.57
6	4	-4	114.02	4.72
-6	4	4	116.37	5.50
6	4	-4	116.74	5.34
-5	4	4	23.88	2.42
5	4	-4	29.93	2.57
5	-4	-4	23.49	1.97
5	4	-4	26.00	1.95
4	4	-4	11.54	1.60
4	4	-4	10.75	1.22
4	-4	-4	10.28	1.45
-4	4	4	9.39	1.61
-4	4	4	9.80	1.35
-3	4	4	210.37	6.13
3	-4	-4	205.60	6.41
3	4	-4	207.89	5.77
-3	4	4	207.80	7.06
3	4	-4	204.50	6.78
2	4	-4	16.98	1.07
2	4	-4	16.28	1.72
2	-4	-4	15.79	1.63
-2	4	4	16.63	1.43
-2	4	4	16.29	1.71
-1	4	4	12.80	1.23
-1	4	4	11.86	1.51
1	-4	-4	14.10	1.54
1	4	-4	13.25	0.74
1	4	-4	14.52	1.72
0	4	-4	0.21	0.58
0	-4	-4	3.08	1.05
0	4	-4	2.96	0.51
0	4	4	1.72	0.71
0	4	4	2.71	1.09
1	4	4	15.95	1.78
-1	4	-4	20.12	2.18
-1	4	-4	16.65	1.18
2	4	4	42.83	2.76
-2	4	-4	33.22	1.90
-2	4	-4	38.80	2.92
-3	4	-4	31.93	2.03
3	4	4	30.22	2.48
-3	4	-4	28.22	2.66
-4	4	-4	93.10	4.01
-4	4	-4	86.41	4.41
4	4	4	85.94	4.47
-5	4	-4	88.02	4.46
-5	4	-4	82.80	4.16
5	4	4	83.91	4.59
6	4	4	31.53	3.12
-6	4	-4	27.71	2.67
-6	4	-4	34.34	3.08
7	4	4	1.78	1.46
-7	4	-4	-0.01	1.35
-7	4	-4	0.24	1.26
-8	4	-4	6.72	2.01
-8	4	-4	6.20	1.83

8	4	4	3.35	1.79
-9	4	-4	-0.06	1.51
-9	4	-4	-1.59	1.60
9	4	4	0.67	1.75
-10	4	-4	-0.20	2.05
-10	4	-4	2.27	1.94
10	5	-4	6.90	3.03
-10	5	4	0.73	2.03
9	5	-4	1.47	1.95
-9	5	4	0.02	1.64
8	5	-4	0.68	1.53
-8	5	4	1.61	1.40
-7	5	4	10.81	2.22
7	5	-4	12.15	2.34
6	5	-4	20.87	2.64
-6	5	4	14.79	2.32
-5	5	4	1.02	1.15
5	5	-4	-0.60	0.93
4	5	-4	11.23	1.91
4	-5	-4	9.97	1.57
-4	5	4	16.28	2.10
3	5	-4	0.28	0.88
-3	5	4	-1.12	0.92
3	-5	-4	-0.54	0.89
-3	5	4	0.12	1.09
2	-5	-4	92.74	3.96
2	5	-4	80.04	4.07
-2	5	4	94.13	3.81
-2	5	4	89.00	4.16
1	5	-4	-0.36	0.68
-1	5	4	0.45	0.83
-1	5	4	-0.59	0.99
1	-5	-4	0.02	0.97
0	5	4	7.91	1.25
0	5	-4	7.36	1.72
0	5	4	9.41	1.62
1	5	4	18.73	1.77
1	5	4	22.88	2.28
-1	5	-4	21.08	1.43
-1	5	-4	24.82	2.61
-2	5	-4	10.16	2.12
-2	5	-4	8.76	1.17
2	5	4	8.73	1.70
2	5	4	7.04	1.38
3	5	4	16.18	2.23
-3	5	-4	16.23	1.63
-3	5	-4	12.28	2.38
-4	5	-4	6.68	1.34
4	5	4	6.99	1.93
-4	5	-4	6.20	1.98
-5	5	-4	5.58	1.50
-5	5	-4	4.23	1.65
5	5	4	2.71	1.74
6	5	4	19.13	2.75
-6	5	-4	19.44	2.63
-6	5	-4	19.23	2.44
-7	5	-4	0.06	1.31
7	5	4	-0.27	1.37
-7	5	-4	1.27	1.51
-8	5	-4	4.34	2.03

-8	5	-4	4.21	1.75
8	5	4	1.07	1.86
-9	5	-4	0.63	1.59
-9	5	-4	1.08	2.06
9	5	4	-0.97	2.13
9	6	-4	1.04	2.26
-9	6	4	2.26	1.92
8	6	-4	1.77	1.86
-8	6	4	0.77	1.46
-7	6	4	24.44	3.05
7	6	-4	14.93	2.79
6	6	-4	82.50	5.01
-6	6	4	80.29	4.91
-5	6	4	0.61	1.25
5	6	-4	0.69	1.36
4	6	-4	8.31	1.91
4	-6	-4	9.53	1.63
-4	6	4	6.28	1.77
3	6	-4	10.70	1.99
-3	6	4	12.09	2.00
-2	6	4	22.95	2.40
-2	6	4	21.07	2.15
1	6	-4	15.38	2.29
-1	6	4	18.10	2.20
-1	6	4	15.90	1.89
0	6	-4	64.53	4.14
0	6	4	69.53	3.86
0	6	4	69.90	3.52
1	6	4	46.85	3.00
-1	6	-4	48.04	3.89
1	6	4	42.89	3.35
-2	6	-4	8.56	2.32
2	6	4	9.37	1.71
2	6	4	10.29	1.99
3	6	4	34.09	3.08
-3	6	-4	37.23	3.78
3	6	4	30.80	2.80
-4	6	-4	12.68	2.55
4	6	4	14.53	2.50
5	6	4	0.01	1.63
-5	6	-4	0.83	1.19
-5	6	-4	-0.36	1.65
-6	6	-4	6.13	2.01
6	6	4	3.38	1.93
-6	6	-4	3.55	1.71
-7	6	-4	5.05	2.04
7	6	4	-0.40	1.73
-7	6	-4	3.80	1.87
-8	6	-4	5.33	2.18
8	6	4	2.04	2.47
-8	6	-4	4.61	2.28
-9	6	-4	3.33	2.34
9	6	4	1.50	2.65
-9	6	-4	0.11	1.89
-8	7	4	3.12	1.98
8	7	-4	2.33	2.39
-7	7	4	1.64	1.81
7	7	-4	-0.88	1.75
6	7	-4	15.86	2.99
-6	7	4	13.61	2.59

-5	7	4	11.89	2.38
5	7	-4	10.84	2.44
-4	7	4	59.31	4.13
4	7	-4	68.82	4.55
3	7	-4	1.61	1.42
-3	7	4	2.20	1.46
-2	7	4	30.30	2.94
2	7	-4	32.16	3.20
1	7	-4	57.43	4.07
-1	7	4	56.40	3.76
-1	7	4	49.52	3.39
0	7	4	0.97	1.38
0	7	-4	0.50	1.63
0	7	4	0.69	1.43
1	7	4	12.57	2.23
1	7	4	14.13	2.21
-1	7	-4	11.24	2.62
2	7	4	5.74	1.74
2	7	4	7.26	2.12
-2	7	-4	6.95	2.49
3	7	4	2.98	1.57
3	7	4	1.26	1.77
-3	7	-4	0.86	2.02
-4	7	-4	0.76	1.88
4	7	4	2.58	1.96
4	7	4	1.55	1.55
5	7	4	0.34	1.97
-5	7	-4	1.55	1.93
5	7	4	0.08	1.43
6	7	4	-1.44	2.06
6	7	4	4.64	1.98
-6	7	-4	1.72	1.92
7	7	4	5.40	2.79
-7	7	-4	6.97	2.48
8	7	4	0.40	2.55
-8	7	-4	-0.14	1.99
-8	8	4	0.89	2.01
-7	8	4	1.87	2.06
7	8	-4	0.90	2.06
-6	8	4	-0.40	1.62
6	8	-4	1.33	1.97
5	8	-4	5.18	2.30
-5	8	4	4.67	2.01
-4	8	4	3.18	1.72
4	8	-4	1.40	1.81
3	8	-4	1.68	1.66
-3	8	4	2.41	1.67
2	8	-4	-1.68	1.37
-2	8	4	0.34	1.48
1	8	-4	0.06	1.72
-1	8	4	2.46	1.70
0	8	4	0.83	1.60
0	8	-4	0.60	1.89
0	8	4	3.02	1.74
1	8	4	65.45	4.37
-1	8	-4	61.43	4.98
1	8	4	60.66	4.23
-2	8	-4	36.15	4.13
2	8	4	28.76	3.37
2	8	4	32.48	3.41

-3	8	-4	-0.30	2.25
3	8	4	-0.47	1.48
3	8	4	-1.14	1.72
4	8	4	0.23	2.08
4	8	4	0.12	1.77
-4	8	-4	2.95	2.47
5	8	4	-0.31	1.81
-5	8	-4	0.21	2.11
-6	8	-4	9.66	2.92
6	8	4	8.07	2.73
-7	8	-4	2.47	2.36
-7	9	4	0.90	2.36
-6	9	4	-0.19	1.85
-5	9	4	3.12	2.18
5	9	-4	5.15	2.72
-4	9	4	11.38	2.69
4	9	-4	3.51	2.50
3	9	-4	-1.67	1.83
-3	9	4	1.53	1.90
-2	9	4	1.67	1.87
2	9	-4	1.52	2.32
1	9	-4	-0.02	2.08
0	9	-4	3.53	2.59
1	9	4	-1.05	1.82
-1	9	-4	0.62	2.59
-2	9	-4	-1.01	2.48
2	9	4	-1.42	1.79
-3	9	-4	6.12	3.00
3	9	4	4.46	2.38
-4	9	-4	4.95	3.26
4	9	4	0.47	2.16
5	9	4	0.20	2.48
-5	9	-4	0.41	2.83
3	10	-4	-1.86	2.33
2	10	-4	-0.34	2.43
1	10	-4	-0.48	2.65
0	10	-4	1.78	2.81
-1	10	-4	-2.24	2.72
-2	10	-4	1.21	3.25
2	10	4	-1.10	2.44
-3	10	-4	-0.55	2.95
3	10	4	0.38	2.52
-11	0	5	0.66	2.13
-10	0	5	-1.95	1.37
-9	0	5	19.62	2.65
-8	0	5	1.97	1.34
7	0	-5	67.49	3.25
-7	0	5	61.80	3.53
6	0	-5	0.13	0.76
-6	0	5	0.28	0.77
5	0	-5	105.01	3.96
-5	0	5	108.94	4.21
-4	0	5	-0.76	0.58
4	0	-5	-0.26	0.61
3	0	-5	875.11	21.09
3	0	-5	898.96	20.06
-3	0	5	883.17	21.35
-2	0	5	3.56	0.72
2	0	-5	3.82	0.53
2	0	-5	3.33	0.77

-1	0	5	2840.85	64.49
1	0	-5	2829.81	62.04
1	0	-5	2751.12	62.98
0	0	-5	1.71	0.63
0	0	-5	1.06	0.67
0	0	5	1.31	0.65
-1	0	-5	177.25	4.97
1	0	5	171.29	5.16
-1	0	-5	168.57	4.99
-2	0	-5	0.84	0.64
-2	0	-5	0.08	0.59
2	0	5	1.50	0.59
3	0	5	57.99	2.74
-3	0	-5	51.41	2.65
-3	0	-5	53.97	2.20
-4	0	-5	0.36	0.62
-4	0	-5	-0.23	0.66
4	0	5	-0.03	0.70
5	0	5	32.18	2.47
6	0	5	1.94	1.18
-6	0	-5	-0.44	0.96
-7	0	-5	27.29	2.68
7	0	5	30.91	3.05
-8	0	-5	1.86	1.35
8	0	5	-1.35	1.19
9	0	5	1.03	1.61
-9	0	-5	-0.18	1.29
10	0	5	1.51	1.89
-10	0	-5	0.60	1.69
-12	-1	5	-2.92	2.52
-11	-1	5	0.34	2.12
-11	1	5	1.58	2.15
-10	1	5	1.94	1.82
-10	-1	5	-0.30	1.54
-9	1	5	0.76	1.32
-9	-1	5	2.05	1.57
-8	-1	5	6.37	1.69
-8	1	5	9.51	1.95
8	1	-5	8.14	1.48
-7	-1	5	13.54	1.85
-7	1	5	11.41	1.85
7	-1	-5	14.17	1.68
-6	-1	5	47.65	2.81
6	-1	-5	54.18	2.76
-6	1	5	53.30	3.09
-6	1	5	55.14	2.44
5	-1	-5	3.17	0.96
-5	-1	5	3.96	0.96
-5	1	5	6.13	0.80
-5	1	5	4.67	1.11
4	-1	-5	26.28	1.82
-4	-1	5	26.99	1.67
-4	1	5	30.74	1.98
-3	1	5	56.61	2.65
3	-1	-5	61.76	2.64
3	1	-5	59.00	2.22
-3	-1	5	57.63	2.25
-2	1	5	878.67	21.19
2	-1	-5	899.96	20.82
2	1	-5	765.65	20.69

-2	-1	5	905.32	20.54
2	1	-5	916.63	20.16
1	1	-5	185.36	5.23
1	1	-5	195.62	5.45
1	-1	-5	184.18	4.49
-1	-1	5	184.88	4.89
-1	1	5	189.63	5.64
0	1	-5	586.36	14.33
0	1	5	589.77	14.88
0	-1	5	581.86	14.19
0	1	-5	605.68	14.28
0	-1	-5	601.21	14.52
0	-1	-5	592.71	13.70
-1	1	-5	187.92	5.13
-1	-1	-5	182.74	5.37
-1	1	-5	183.40	5.52
1	1	5	185.80	5.67
1	-1	5	184.91	5.20
-1	-1	-5	183.40	5.12
-2	1	-5	256.71	7.41
-2	-1	-5	256.55	7.07
-2	1	-5	265.50	6.71
2	1	5	269.06	7.68
2	-1	5	261.78	7.34
-2	-1	-5	257.77	7.16
-3	1	-5	21.99	1.86
-3	-1	-5	22.02	1.63
-3	-1	-5	23.83	1.69
3	1	5	22.73	1.80
3	-1	5	27.59	1.84
-3	1	-5	25.15	1.36
4	-1	5	122.98	4.80
4	1	5	126.24	4.99
-4	-1	-5	126.40	4.70
-5	1	-5	1.64	0.99
5	1	5	1.48	1.07
5	-1	5	2.76	1.04
-5	-1	-5	2.50	1.02
-6	-1	-5	1.38	0.86
6	-1	5	6.65	1.63
6	1	5	6.27	1.61
-6	1	-5	9.75	1.72
-7	-1	-5	57.19	3.70
-7	1	-5	56.95	3.69
7	-1	5	59.23	3.84
8	1	5	0.34	1.17
-8	-1	-5	-0.40	1.14
8	-1	5	0.00	1.42
-8	1	-5	2.72	1.48
-9	1	-5	6.52	1.98
9	1	5	2.10	1.96
-9	-1	-5	6.21	2.05
9	-1	5	6.97	2.23
-10	-1	-5	1.67	1.73
10	-1	5	-0.96	1.62
-10	1	-5	1.05	1.73
10	1	5	-2.34	1.73
11	2	-5	4.69	2.62
-11	2	5	3.50	2.16
10	2	-5	7.04	2.38

-10	-2	5	3.63	2.13
-10	2	5	5.84	2.17
-9	2	5	4.23	1.88
-9	-2	5	3.63	1.76
-8	2	5	-0.54	1.20
-8	-2	5	1.67	1.31
-7	-2	5	18.89	2.07
-7	2	5	24.03	2.57
6	-2	-5	3.96	1.19
-6	2	5	5.45	1.53
-6	-2	5	7.25	1.28
5	-2	-5	5.57	1.13
-5	2	5	4.73	1.27
-5	2	5	6.94	0.82
-5	-2	5	6.64	1.06
-4	-2	5	117.65	3.92
-4	2	5	123.38	4.63
4	2	-5	116.53	4.15
4	-2	-5	115.05	4.22
-4	2	5	122.17	3.32
-3	2	5	1.28	0.77
3	2	-5	0.59	0.60
-3	2	5	0.58	0.28
-3	-2	5	1.75	0.48
3	-2	-5	1.88	0.87
-2	2	5	28.84	1.90
-2	-2	5	28.17	1.08
-2	2	5	29.89	1.04
2	2	-5	28.89	1.75
2	-2	-5	27.69	1.91
1	-2	-5	1161.83	27.60
1	2	-5	1164.34	27.28
-1	2	5	1204.57	28.42
0	-2	5	50.33	1.61
0	2	5	38.14	2.25
0	-2	-5	46.70	2.34
0	2	-5	50.97	2.53
-1	2	-5	9.45	1.35
-1	2	-5	5.73	0.77
1	-2	5	6.46	0.71
-1	-2	-5	5.33	1.00
-1	-2	-5	4.61	0.74
-2	-2	-5	65.65	2.91
-2	2	-5	77.99	2.55
2	-2	5	72.94	2.81
-2	2	-5	72.21	3.34
-2	-2	-5	68.51	2.89
-3	-2	-5	273.04	7.95
-3	2	-5	270.17	6.82
-3	2	-5	266.65	7.96
3	2	5	287.23	8.62
-3	-2	-5	283.66	7.85
-4	2	-5	0.79	0.85
-4	-2	-5	1.60	0.89
4	2	5	2.23	1.04
-4	2	-5	2.38	1.22
5	2	5	0.73	1.07
-5	2	-5	1.41	1.06
-5	-2	-5	1.64	0.94
-5	2	-5	2.23	1.10

-6	2	-5	24.00	2.44
-6	2	-5	22.73	2.41
6	-2	5	21.75	2.37
6	2	5	23.75	2.58
-6	-2	-5	24.13	2.45
-7	2	-5	61.62	3.80
7	-2	5	63.22	4.00
7	2	5	54.48	3.95
-8	-2	-5	8.64	1.97
-8	2	-5	6.34	1.80
8	-2	5	4.00	1.65
8	2	5	5.61	1.94
-9	2	-5	14.00	2.49
9	-2	5	14.59	2.71
9	2	5	14.95	2.82
10	2	5	-0.81	1.49
-10	2	-5	-0.44	1.56
10	-2	5	0.99	2.08
-11	3	5	-0.54	2.04
10	3	-5	0.34	1.89
-10	3	5	-1.02	1.78
-9	3	5	-0.27	1.49
9	3	-5	0.41	1.48
8	3	-5	12.69	2.10
-8	3	5	13.53	2.39
-7	3	5	1.77	1.30
7	3	-5	3.43	1.41
6	-3	-5	60.23	3.09
6	3	-5	56.09	3.13
6	3	-5	59.93	3.44
5	3	-5	1.31	0.89
5	3	-5	0.48	0.72
5	-3	-5	-0.06	1.02
-5	3	5	-0.09	0.50
4	-3	-5	22.04	1.85
4	3	-5	24.58	1.51
4	3	-5	23.74	1.83
-4	3	5	19.08	1.96
-4	3	5	20.50	1.32
-3	3	5	136.81	3.86
-3	3	5	130.13	5.03
3	-3	-5	135.11	4.74
3	3	-5	133.55	3.79
3	3	-5	128.10	4.69
2	3	-5	153.87	5.14
-2	3	5	144.70	5.26
-2	3	5	153.66	4.19
2	-3	-5	148.19	5.02
-1	3	5	53.30	1.99
1	3	-5	48.93	2.66
1	-3	-5	47.06	2.56
-1	3	5	59.35	2.89
0	3	-5	56.22	3.00
0	3	5	59.29	3.04
0	-3	5	58.47	1.75
-1	-3	-5	1570.36	36.18
-1	3	-5	1502.43	36.36
1	3	5	1553.56	37.47
-1	3	-5	1584.38	36.08
-2	-3	-5	12.39	1.46

2	3	5	14.88	1.75
-2	3	-5	15.36	1.27
-3	3	-5	3.51	1.33
3	3	5	2.64	1.09
-3	3	-5	2.19	0.83
-4	3	-5	2.75	1.01
4	3	5	2.11	1.31
-4	3	-5	0.95	1.16
5	3	5	20.80	2.39
-5	3	-5	25.72	2.60
-5	3	-5	23.35	2.28
6	3	5	22.37	2.68
-6	3	-5	22.38	2.50
-6	3	-5	24.52	2.54
-7	3	-5	0.94	1.40
-7	3	-5	1.47	1.28
7	3	5	2.84	1.70
8	3	5	11.51	2.57
-8	3	-5	9.73	2.03
-8	3	-5	14.00	2.55
8	-3	5	11.85	2.36
9	3	5	4.70	2.26
9	-3	5	4.81	2.12
-9	3	-5	5.07	1.99
10	-3	5	3.98	2.31
-10	3	-5	2.13	2.00
-10	4	5	27.33	3.69
-9	4	5	9.52	2.41
9	4	-5	10.50	2.63
8	4	-5	2.27	1.59
-8	4	5	-0.70	1.29
7	4	-5	7.73	1.91
-7	4	5	14.64	2.28
6	4	-5	88.61	4.54
-6	4	5	79.44	4.51
5	-4	-5	-0.31	1.05
-5	4	5	0.08	1.08
5	4	-5	-0.83	0.79
-4	4	5	39.16	2.79
4	4	-5	37.66	2.60
4	-4	-5	38.43	2.52
-3	4	5	9.08	1.24
-3	4	5	6.87	1.44
3	4	-5	9.16	1.50
3	-4	-5	9.90	1.42
-2	4	5	133.03	5.23
-2	4	5	135.45	4.29
2	4	-5	130.98	5.09
2	-4	-5	136.17	4.99
1	-4	-5	81.79	3.63
-1	4	5	83.49	3.85
-1	4	5	86.22	3.10
1	4	-5	81.35	3.91
0	4	5	99.95	4.32
0	-4	-5	96.08	4.08
0	4	-5	96.86	2.74
0	4	-5	86.86	4.26
0	4	5	96.52	3.50
-1	4	-5	219.29	6.07
1	4	5	224.00	7.52

-1	-4	-5	225.58	7.12
-2	4	-5	28.98	1.82
2	4	5	29.39	2.51
-2	-4	-5	30.21	2.39
-2	4	-5	31.91	2.85
3	4	5	42.08	3.07
-3	4	-5	44.71	3.40
-3	4	-5	39.20	2.32
-4	4	-5	25.70	2.70
-4	4	-5	28.35	2.19
4	4	5	25.87	2.66
-5	4	-5	101.40	5.06
-5	4	-5	104.94	4.82
5	4	5	113.30	5.53
-6	4	-5	8.36	1.77
-6	4	-5	9.58	2.07
6	4	5	8.41	2.12
-7	4	-5	3.75	1.55
7	4	5	2.43	1.72
-7	4	-5	3.86	1.68
8	4	5	10.30	2.49
-8	4	-5	6.91	2.00
-8	4	-5	3.37	1.88
9	4	5	-0.07	1.62
-9	4	-5	0.32	1.67
9	-4	5	1.62	1.82
-9	4	-5	-0.31	1.66
-10	5	5	4.75	2.27
10	5	-5	0.43	2.25
-9	5	5	0.13	1.72
9	5	-5	3.41	2.30
-8	5	5	3.26	1.77
8	5	-5	-0.04	1.59
7	5	-5	11.44	2.43
-7	5	5	19.98	2.80
6	5	-5	7.96	1.95
-6	5	5	6.92	1.88
-5	5	5	-0.51	0.99
5	5	-5	-1.38	0.98
5	-5	-5	-0.09	1.16
-4	5	5	49.99	3.45
4	-5	-5	46.29	2.87
4	5	-5	46.23	3.27
3	5	-5	26.81	2.46
-3	5	5	24.57	2.43
3	-5	-5	27.06	2.34
-2	5	5	0.81	1.09
-2	5	5	0.42	0.87
2	5	-5	-0.85	0.93
2	-5	-5	1.58	1.06
1	5	-5	32.09	2.74
-1	5	5	27.69	2.43
-1	5	5	34.84	2.14
1	-5	-5	31.30	2.48
0	5	5	29.98	2.05
0	-5	-5	27.25	2.41
0	5	5	27.74	2.52
1	5	5	0.89	0.80
-1	5	-5	3.42	1.74
1	5	5	2.77	1.48

-2	5	-5	0.74	0.69
2	5	5	1.34	1.38
-2	5	-5	0.54	1.59
3	5	5	47.10	3.58
-3	5	-5	40.43	2.48
-3	5	-5	39.80	3.64
-4	5	-5	26.67	2.28
-4	5	-5	27.40	3.00
4	5	5	24.36	2.88
-5	5	-5	6.61	1.57
5	5	5	4.44	1.78
-5	5	-5	3.76	1.78
-6	5	-5	0.88	1.40
6	5	5	0.50	1.57
-6	5	-5	-0.09	1.20
-7	5	-5	0.27	1.30
7	5	5	0.27	1.72
-7	5	-5	0.44	1.43
-8	5	-5	2.76	1.84
-8	5	-5	1.28	1.63
8	5	5	1.18	2.16
9	5	5	1.59	2.36
-9	5	-5	1.47	2.19
-9	5	-5	5.74	2.31
-9	6	5	0.85	1.76
9	6	-5	-1.02	2.22
-8	6	5	4.63	2.06
8	6	-5	5.47	2.40
7	6	-5	2.15	1.62
-7	6	5	3.15	1.75
6	6	-5	80.56	5.07
-6	6	5	83.02	5.08
-5	6	5	32.14	3.17
5	6	-5	30.47	3.16
-4	6	5	18.50	2.41
4	6	-5	16.14	2.37
4	-6	-5	22.78	2.26
-3	6	5	1.22	1.37
3	6	-5	2.77	1.44
3	-6	-5	2.61	1.30
-2	6	5	3.92	1.34
2	-6	-5	1.38	1.20
-2	6	5	2.42	1.43
2	6	-5	0.79	1.34
-1	6	5	55.07	3.55
-1	6	5	55.17	3.09
1	-6	-5	56.91	3.37
0	6	5	23.90	2.64
0	6	5	28.47	2.36
0	6	-5	25.48	3.00
1	6	5	17.79	2.49
-1	6	-5	23.56	3.04
1	6	5	20.53	2.12
2	6	5	2.32	1.70
2	6	5	3.73	1.46
-2	6	-5	3.20	2.03
3	6	5	39.73	3.54
3	6	5	47.46	3.29
-3	6	-5	37.26	3.86
4	6	5	5.47	2.11

-4	6	-5	2.79	1.94
5	6	5	1.28	1.78
-5	6	-5	-0.89	1.67
-6	6	-5	17.98	2.85
6	6	5	15.44	3.00
7	6	5	-0.67	2.01
-7	6	-5	0.48	1.68
-8	6	-5	3.18	2.09
8	6	5	3.05	2.49
-8	7	5	1.52	1.82
8	7	-5	0.54	2.22
-7	7	5	2.27	1.83
7	7	-5	3.45	2.20
-6	7	5	0.39	1.58
6	7	-5	-0.29	1.58
5	7	-5	59.21	4.36
-5	7	5	61.83	4.31
-4	7	5	10.35	2.20
4	7	-5	8.03	2.21
-3	7	5	13.01	2.30
3	7	-5	8.71	2.15
2	7	-5	9.41	2.12
-2	7	5	23.63	2.66
-1	7	5	64.39	3.76
1	7	-5	64.78	4.43
-1	7	5	67.57	4.19
0	7	5	-1.31	1.20
0	7	-5	2.08	2.06
0	7	5	0.18	1.47
1	7	5	89.58	4.59
-1	7	-5	82.59	5.49
1	7	5	88.63	5.07
2	7	5	0.57	1.20
2	7	5	-0.24	1.69
-2	7	-5	-2.39	1.83
3	7	5	0.18	1.36
-3	7	-5	1.00	2.17
3	7	5	-0.15	1.70
4	7	5	9.50	2.62
-4	7	-5	11.85	2.88
4	7	5	9.85	2.22
5	7	5	2.79	1.65
-5	7	-5	-1.45	1.64
5	7	5	-0.01	2.01
-6	7	-5	3.59	2.08
6	7	5	6.90	2.73
7	7	5	4.03	2.82
-7	7	-5	0.62	1.86
8	7	5	-6.41	2.36
-8	7	-5	0.90	2.25
-7	8	5	2.76	2.20
7	8	-5	3.27	2.42
-6	8	5	0.66	1.86
6	8	-5	-1.88	1.52
5	8	-5	5.81	2.52
-5	8	5	2.05	1.79
4	8	-5	-0.88	1.54
-4	8	5	0.82	1.63
3	8	-5	-1.54	1.45
-3	8	5	-0.84	1.44

2	8	-5	5.24	2.16
-2	8	5	3.16	1.75
-1	8	5	1.18	1.57
1	8	-5	-2.31	1.55
0	8	-5	10.97	2.83
0	8	5	5.56	2.00
1	8	5	0.28	1.61
1	8	5	2.59	1.88
-1	8	-5	0.44	2.00
2	8	5	5.74	2.27
2	8	5	3.02	1.74
-2	8	-5	4.92	2.54
-3	8	-5	5.71	2.72
3	8	5	7.80	2.46
3	8	5	3.41	2.03
4	8	5	-2.05	1.78
-4	8	-5	1.12	2.37
4	8	5	1.16	1.90
-5	8	-5	0.86	2.39
5	8	5	0.92	2.10
5	8	5	0.26	2.39
-6	8	-5	2.88	2.45
6	8	5	2.50	2.40
6	8	5	-0.61	2.67
-7	8	-5	0.40	2.42
-6	9	5	1.31	2.08
5	9	-5	1.87	2.19
-5	9	5	1.52	1.85
4	9	-5	2.79	2.36
-4	9	5	0.52	1.88
-3	9	5	-1.45	1.59
3	9	-5	-1.30	1.93
-2	9	5	1.39	1.74
2	9	-5	1.82	2.02
1	9	-5	9.18	2.94
-1	9	5	6.33	2.20
0	9	-5	0.27	2.13
0	9	5	1.25	1.87
-1	9	-5	-0.60	2.21
-2	9	-5	15.21	3.62
2	9	5	17.40	3.05
3	9	5	0.88	2.08
-3	9	-5	2.34	2.69
4	9	5	1.48	2.39
-4	9	-5	1.77	2.75
-5	9	-5	1.18	2.76
5	9	5	1.47	2.44
3	10	-5	1.22	2.63
2	10	-5	-0.45	2.56
1	10	-5	1.67	2.91
0	10	-5	0.08	2.72
-1	10	-5	1.77	3.02
-2	10	-5	-0.16	2.85
-12	0	6	1.96	2.45
-11	0	6	-0.20	2.05
-10	0	6	5.73	2.00
-9	0	6	-0.55	1.26
-8	0	6	3.18	1.43
-7	0	6	-1.15	0.95
7	0	-6	0.28	0.85

6	0	-6	15.27	1.67
-6	0	6	16.46	1.75
5	0	-6	3.38	0.96
-5	0	6	3.52	1.02
-4	0	6	2521.93	59.14
4	0	-6	2559.83	56.36
4	0	-6	2546.70	57.90
3	0	-6	1.10	0.42
-3	0	6	0.06	0.57
3	0	-6	1.15	0.68
2	0	-6	11.66	0.89
-2	0	6	11.69	1.09
2	0	-6	12.35	1.22
1	0	-6	1.66	0.65
-1	0	6	2.35	0.75
1	0	-6	-0.16	0.55
0	0	-6	76.33	3.05
0	0	-6	83.05	2.80
0	0	6	80.81	3.00
1	0	6	1.09	0.61
-1	0	-6	-0.18	0.54
-1	0	-6	1.16	0.70
-2	0	-6	141.13	4.61
2	0	6	129.95	4.64
-2	0	-6	135.93	4.30
3	0	6	0.21	0.68
-3	0	-6	-1.08	0.51
-3	0	-6	-0.42	0.64
4	0	6	51.38	2.97
-4	0	-6	48.49	2.25
-4	0	-6	54.55	2.94
-5	0	-6	-0.53	0.84
5	0	6	0.12	0.87
6	0	6	0.04	1.19
-6	0	-6	0.20	0.70
7	0	6	1.90	1.43
-7	0	-6	0.38	1.02
8	0	6	12.60	2.50
-8	0	-6	18.30	2.65
-9	0	-6	-0.37	1.34
9	0	6	-1.05	1.56
10	0	6	11.17	2.88
-10	0	-6	8.95	2.62
-12	-1	6	-0.37	2.49
-11	1	6	4.00	2.16
-11	-1	6	0.38	2.24
-10	-1	6	2.55	1.87
-10	1	6	0.81	1.72
-9	-1	6	10.71	2.18
-9	1	6	11.91	2.34
8	1	-6	19.50	2.05
-8	-1	6	15.12	2.12
-8	1	6	15.20	2.24
7	-1	-6	3.42	1.25
-7	-1	6	1.86	1.09
7	1	-6	2.04	1.12
-7	1	6	4.11	1.45
6	1	-6	21.23	2.01
-6	1	6	19.01	2.02
6	-1	-6	30.85	2.17

-6	-1	6	18.16	1.80
-5	1	6	78.83	3.66
5	1	-6	84.78	3.71
-5	-1	6	82.62	3.43
5	-1	-6	81.26	3.52
-4	1	6	275.83	8.13
-4	-1	6	282.68	7.70
4	1	-6	276.39	8.17
4	1	-6	277.68	7.34
4	-1	-6	265.13	7.89
-3	-1	6	0.07	0.44
-3	1	6	0.78	0.68
3	1	-6	-0.09	0.57
3	-1	-6	-0.82	0.63
3	1	-6	-0.24	0.45
2	1	-6	586.87	13.92
2	-1	-6	579.63	14.61
-2	1	6	574.75	14.73
-2	-1	6	589.09	14.05
-1	-1	6	737.93	17.32
-1	1	6	726.36	18.06
1	-1	-6	723.45	16.41
1	1	-6	720.47	17.22
1	1	-6	727.24	17.57
0	-1	-6	108.16	3.30
0	-1	-6	112.07	3.99
0	-1	6	116.63	3.56
0	1	-6	111.46	3.90
0	1	-6	113.66	3.80
0	1	6	117.17	4.11
-1	-1	-6	84.43	3.37
1	-1	6	86.82	3.12
1	1	6	89.04	3.54
-1	1	-6	92.57	3.17
-1	-1	-6	89.22	3.07
-1	1	-6	90.73	3.48
-2	1	-6	165.36	4.67
2	-1	6	161.52	5.07
-2	-1	-6	149.75	4.90
-2	1	-6	152.85	5.20
2	1	6	153.44	5.39
-2	-1	-6	157.98	4.98
-3	-1	-6	3.68	0.98
-3	-1	-6	6.95	1.08
3	1	6	3.29	1.02
-3	1	-6	6.86	0.93
3	-1	6	5.72	1.10
-3	1	-6	3.29	1.08
4	1	6	142.87	5.48
-4	-1	-6	132.57	4.49
4	-1	6	137.43	5.22
-4	1	-6	133.20	5.19
-4	-1	-6	141.24	5.15
5	1	6	10.18	1.76
-5	-1	-6	8.09	1.53
5	-1	6	8.63	1.61
6	-1	6	3.81	1.50
-6	-1	-6	3.18	1.32
6	1	6	3.18	1.39
-6	1	-6	4.67	1.42

-7	1	-6	8.05	1.90
7	-1	6	12.01	2.16
7	1	6	13.20	2.31
-8	-1	-6	1.86	1.47
8	-1	6	-1.37	1.17
-8	1	-6	0.25	1.22
8	1	6	-0.81	1.17
-9	-1	-6	10.66	2.35
-9	1	-6	4.37	1.87
9	1	6	0.56	1.37
9	-1	6	5.48	2.32
10	1	6	0.40	1.68
-10	1	-6	-0.58	1.68
10	-1	6	-1.30	1.86
-10	-1	-6	0.92	1.90
11	2	-6	4.67	2.61
-11	2	6	0.03	1.79
-10	-2	6	9.57	2.49
-10	2	6	7.88	2.31
-9	-2	6	1.56	1.59
-9	2	6	-0.88	1.54
-8	-2	6	7.36	1.76
-8	2	6	9.63	1.99
-7	-2	6	1.39	1.01
-7	2	6	1.06	1.24
-6	2	6	52.84	3.33
-6	-2	6	52.86	2.85
6	-2	-6	55.56	3.04
6	2	-6	53.49	2.95
5	2	-6	5.75	1.10
-5	2	6	4.04	1.21
5	-2	-6	5.47	1.26
-5	-2	6	4.32	0.94
4	-2	-6	30.65	2.16
-4	2	6	31.61	2.25
-4	-2	6	33.06	1.76
4	2	-6	29.23	1.89
-4	2	6	30.81	1.15
-3	2	6	135.47	4.98
3	-2	-6	136.25	4.87
3	2	-6	137.05	4.50
-3	-2	6	142.14	3.99
2	2	-6	161.77	5.08
-2	2	6	159.36	5.41
-2	-2	6	163.67	4.18
2	-2	-6	161.00	5.36
-1	2	6	3.70	1.04
1	2	-6	2.82	1.03
-1	-2	6	4.64	0.45
1	-2	-6	3.74	1.03
0	2	6	1.87	0.96
0	2	-6	0.80	0.57
0	-2	6	1.26	0.47
0	-2	-6	1.14	0.88
0	2	-6	0.86	0.94
-1	-2	-6	116.23	4.22
-1	2	-6	119.34	4.51
-1	-2	-6	118.58	3.86
1	-2	6	117.81	3.69
-1	2	-6	121.74	3.86

1	2	6	118.32	4.58
-2	-2	-6	1.15	0.66
-2	-2	-6	2.04	0.97
-2	2	-6	0.81	0.59
2	2	6	2.46	1.04
2	-2	6	1.79	0.69
-2	2	-6	1.20	0.97
-3	-2	-6	94.21	3.70
-3	-2	-6	91.45	3.74
-3	2	-6	87.71	2.93
-3	2	-6	89.22	3.98
3	-2	6	93.66	3.73
-4	-2	-6	27.27	2.25
4	-2	6	26.89	2.12
-5	-2	-6	13.10	1.84
5	-2	6	19.65	2.14
-5	2	-6	16.09	2.06
5	2	6	14.82	2.17
-6	2	-6	24.82	2.56
6	2	6	23.46	2.74
-6	-2	-6	23.78	2.49
6	-2	6	21.05	2.43
-7	-2	-6	1.02	1.26
7	2	6	-1.05	1.12
-7	2	-6	0.36	1.14
7	-2	6	0.30	1.15
-8	2	-6	5.72	1.75
8	2	6	3.93	1.88
-8	-2	-6	2.42	1.32
8	-2	6	5.61	2.01
9	2	6	-1.71	1.57
9	-2	6	1.30	1.66
-9	2	-6	0.35	1.52
-10	2	-6	1.35	1.82
10	-2	6	-0.02	1.96
-11	3	6	5.76	2.57
-10	3	6	8.30	2.44
-9	3	6	-0.24	1.41
8	3	-6	1.47	1.47
-8	3	6	1.29	1.46
8	3	-6	1.95	1.48
-7	3	6	71.13	4.30
7	3	-6	58.28	3.66
6	-3	-6	26.73	2.37
-6	-3	6	26.36	2.04
-6	3	6	31.05	2.78
6	3	-6	25.98	2.35
-5	-3	6	-0.64	0.61
-5	3	6	-0.82	0.82
5	-3	-6	1.35	1.17
5	3	-6	0.23	0.80
-4	3	6	38.04	2.65
4	-3	-6	42.61	2.65
4	3	-6	42.17	2.51
-4	-3	6	40.16	1.89
-3	3	6	165.92	4.31
3	-3	-6	160.66	5.61
3	3	-6	164.44	4.36
3	3	-6	162.14	5.49
2	3	-6	27.18	2.06

2	-3	-6	23.53	1.94
-2	3	6	24.45	1.23
-1	3	6	-0.31	0.80
-1	3	6	0.21	0.41
1	3	-6	0.07	0.93
1	-3	-6	1.05	0.92
0	-3	6	315.30	7.59
0	3	6	299.01	9.25
0	3	-6	314.32	9.25
-1	-3	-6	41.40	2.48
-1	3	-6	34.35	2.65
1	3	6	42.15	2.74
1	-3	6	40.12	1.78
-2	3	-6	0.20	1.20
2	3	6	0.20	0.87
2	-3	6	2.46	0.80
-2	3	-6	-0.59	0.51
-2	-3	-6	0.57	0.84
-3	3	-6	0.07	0.47
3	3	6	1.28	1.09
-3	-3	-6	-0.31	0.86
-3	3	-6	0.01	0.68
-4	3	-6	1.31	0.99
-4	3	-6	2.24	1.36
4	3	6	2.12	1.28
-5	3	-6	105.52	4.79
5	3	6	103.66	5.27
-5	3	-6	100.43	4.91
6	-3	6	17.52	2.36
-6	3	-6	22.49	2.62
-6	3	-6	18.61	2.38
6	3	6	24.14	2.78
7	3	6	4.90	1.90
-7	3	-6	5.37	1.77
7	-3	6	9.11	2.13
-8	3	-6	26.19	3.01
8	3	6	23.82	3.36
8	-3	6	22.06	2.93
9	-3	6	2.14	2.01
-9	3	-6	0.31	1.66
9	3	6	3.15	2.10
10	4	-6	3.72	2.48
-9	4	6	1.10	1.38
9	4	-6	14.75	2.89
8	4	-6	5.69	2.00
-8	4	6	1.69	1.68
7	4	-6	39.11	3.29
-7	4	6	32.53	3.32
-6	4	6	84.82	4.64
6	4	-6	82.34	4.35
5	-4	-6	11.11	1.78
5	4	-6	10.84	1.73
-5	4	6	9.13	1.83
-4	4	6	32.21	2.72
4	-4	-6	30.08	2.44
4	4	-6	28.06	2.42
3	4	-6	69.05	3.51
3	-4	-6	69.52	3.50
-3	4	6	67.16	3.67
-2	4	6	79.07	2.88

-2	4	6	74.74	3.80
2	4	-6	74.32	3.70
2	-4	-6	80.02	3.74
-1	4	6	66.47	2.69
1	4	-6	70.66	3.73
1	-4	-6	70.77	3.48
-1	4	6	69.36	3.67
0	4	-6	2.35	1.41
0	-4	-6	-0.35	0.88
0	4	6	0.49	0.60
0	4	6	0.99	1.17
-1	4	-6	111.46	5.05
-1	-4	-6	108.79	4.56
-1	4	-6	109.84	3.53
1	4	6	110.06	4.90
2	4	6	227.12	7.92
-2	4	-6	226.97	6.60
-2	-4	-6	219.04	7.32
-3	4	-6	3.05	1.66
-3	4	-6	2.03	0.95
3	4	6	4.88	1.66
4	4	6	8.10	1.91
-4	4	-6	5.16	1.74
-4	4	-6	8.73	1.48
5	4	6	-0.15	1.38
-5	4	-6	1.63	1.43
-5	4	-6	-0.63	1.00
6	4	6	-0.05	1.33
-6	4	-6	-0.12	1.05
-6	4	-6	0.73	1.32
-7	4	-6	-0.79	1.37
7	4	6	-2.90	1.24
-7	4	-6	0.70	1.37
8	4	6	1.06	1.83
-8	4	-6	1.39	1.57
8	-4	6	1.15	1.78
9	4	6	-2.20	1.88
9	-4	6	3.71	2.12
-9	4	-6	2.69	2.05
-10	5	6	0.67	2.12
10	5	-6	-0.61	2.64
9	5	-6	1.91	2.19
-9	5	6	0.90	1.71
-8	5	6	9.01	2.29
8	5	-6	12.26	2.73
-7	5	6	0.71	1.41
7	5	-6	0.28	1.40
6	5	-6	139.26	6.33
-6	5	6	143.55	6.60
5	5	-6	1.52	1.21
-5	5	6	0.25	1.29
5	-5	-6	1.55	1.32
4	-5	-6	6.26	1.52
-4	5	6	4.14	1.51
4	5	-6	4.40	1.52
3	5	-6	1.19	1.15
3	-5	-6	1.34	1.20
-3	5	6	-0.81	0.96
2	5	-6	15.53	2.06
2	-5	-6	13.28	1.84

-2	5	6	8.18	1.70
-1	5	6	2.34	0.93
1	5	-6	0.83	1.27
-1	5	6	2.73	1.38
1	-5	-6	0.71	1.08
0	5	6	7.06	1.21
0	5	6	10.04	1.91
0	5	-6	11.95	2.13
0	-5	-6	8.64	1.63
1	5	6	-0.05	0.75
-1	5	-6	-0.19	0.95
1	5	6	-0.16	1.23
-1	-5	-6	0.75	0.80
2	5	6	26.26	2.78
-2	5	-6	26.67	3.09
-3	5	-6	5.26	1.99
3	5	6	7.00	1.98
-4	5	-6	37.55	2.67
4	5	6	35.63	3.46
-4	5	-6	39.92	3.57
5	5	6	21.37	2.90
-5	5	-6	26.51	2.98
-5	5	-6	25.03	2.56
6	5	6	8.66	2.46
-6	5	-6	7.89	2.21
-6	5	-6	12.13	2.16
-7	5	-6	-1.36	1.34
7	5	6	-1.23	1.65
-7	5	-6	-0.74	1.41
-8	5	-6	9.95	2.49
8	5	6	9.21	2.81
-8	5	-6	10.40	2.72
-9	5	-6	1.74	1.95
10	6	-6	5.78	3.14
-9	6	6	2.48	2.07
9	6	-6	-1.21	1.91
-8	6	6	0.61	1.48
8	6	-6	4.63	2.26
7	6	-6	0.68	1.47
-7	6	6	0.45	1.62
6	6	-6	52.03	3.98
-6	6	6	52.46	4.18
5	6	-6	1.93	1.51
5	-6	-6	6.16	1.66
-5	6	6	6.07	1.84
4	-6	-6	1.62	1.31
4	6	-6	3.54	1.61
-4	6	6	0.95	1.26
-3	6	6	0.11	1.20
3	-6	-6	0.65	1.16
3	6	-6	-0.25	1.23
2	6	-6	38.78	3.32
-2	6	6	40.28	3.16
2	-6	-6	39.28	2.91
1	6	-6	49.45	3.73
1	-6	-6	57.77	3.59
-1	6	6	54.28	3.75
-1	6	6	55.06	3.06
0	6	6	96.46	4.20
0	6	6	97.25	5.05

0	-6	-6	90.45	4.53
-1	6	-6	144.45	6.89
1	6	6	150.23	6.50
1	6	6	141.17	5.55
2	6	6	37.03	3.30
-2	6	-6	35.41	3.65
2	6	6	36.52	2.83
3	6	6	3.30	1.80
-3	6	-6	3.42	2.14
4	6	6	1.68	1.71
-4	6	-6	0.55	1.71
-5	6	-6	2.15	1.82
5	6	6	1.73	1.72
6	6	6	7.53	2.49
-6	6	-6	5.83	2.25
-7	6	-6	1.52	1.81
7	6	6	0.31	1.98
-8	6	-6	6.73	2.45
8	6	6	3.61	2.68
8	7	-6	2.73	2.42
-8	7	6	2.70	2.09
7	7	-6	-2.10	1.60
-7	7	6	3.92	2.15
6	7	-6	2.20	1.80
-6	7	6	0.58	1.58
5	7	-6	33.91	3.60
-5	7	6	35.80	3.49
4	7	-6	3.16	1.72
4	-7	-6	5.20	1.67
-4	7	6	3.60	1.71
3	7	-6	1.05	1.57
3	-7	-6	1.79	1.32
-3	7	6	4.28	1.67
2	7	-6	17.74	2.75
-2	7	6	20.65	2.63
-1	7	6	-2.25	1.23
1	7	-6	-0.15	1.35
0	7	6	129.57	5.43
0	7	-6	125.83	6.55
0	7	6	123.70	6.03
-1	7	-6	16.40	3.12
1	7	6	17.62	2.74
1	7	6	17.18	2.33
-2	7	-6	5.86	2.62
2	7	6	7.33	1.93
2	7	6	4.73	2.00
-3	7	-6	1.85	2.14
3	7	6	0.27	1.35
3	7	6	0.80	1.81
4	7	6	9.77	2.62
-4	7	-6	5.61	2.55
4	7	6	8.50	2.07
5	7	6	3.72	1.85
-5	7	-6	-0.87	1.98
5	7	6	1.39	1.98
-6	7	-6	2.89	2.21
6	7	6	2.96	2.50
-7	7	-6	3.35	2.40
7	7	6	-1.38	2.43
7	8	-6	-4.07	1.53

-7	8	6	1.31	1.99
6	8	-6	0.65	1.93
-6	8	6	3.61	2.04
-5	8	6	6.39	2.24
5	8	-6	5.91	2.33
-4	8	6	0.94	1.53
4	8	-6	-2.95	1.50
3	8	-6	12.26	2.65
-3	8	6	13.22	2.49
2	8	-6	0.98	1.78
-2	8	6	3.82	1.85
1	8	-6	5.83	2.43
-1	8	6	9.41	2.33
0	8	-6	13.74	3.12
0	8	6	11.71	2.38
-1	8	-6	0.45	2.29
1	8	6	6.46	2.28
2	8	6	0.32	1.65
-2	8	-6	-0.36	2.13
2	8	6	-0.82	1.89
-3	8	-6	-0.13	2.29
3	8	6	-2.06	1.44
3	8	6	-2.01	1.57
4	8	6	-0.71	2.08
4	8	6	1.85	2.00
-4	8	-6	1.55	2.43
-5	8	-6	-1.71	2.16
5	8	6	2.72	2.16
5	8	6	1.58	2.42
-6	8	-6	4.20	2.74
6	8	6	2.46	2.37
6	8	6	-1.15	2.73
-6	9	6	1.97	2.29
5	9	-6	-1.26	2.08
-5	9	6	1.08	1.98
4	9	-6	1.02	2.02
-4	9	6	0.86	1.80
3	9	-6	-0.24	2.01
-3	9	6	1.50	1.92
2	9	-6	5.36	2.69
-2	9	6	5.00	2.24
-1	9	6	-1.38	1.58
1	9	-6	0.28	2.42
0	9	-6	0.48	2.29
0	9	6	-1.86	1.66
1	9	6	4.25	2.31
-1	9	-6	8.11	3.14
-2	9	-6	-0.09	2.71
2	9	6	1.37	2.28
3	9	6	-3.45	1.92
-3	9	-6	0.55	2.65
4	9	6	16.87	3.45
-4	9	-6	16.68	4.01
5	9	6	-3.04	2.03
2	10	-6	-2.29	2.66
1	10	-6	3.77	3.18
0	10	-6	-2.79	2.70
-1	10	-6	3.31	3.50
-12	0	7	1.25	2.62
-11	0	7	7.21	2.61

-10	0	7	1.99	1.86
-9	0	7	18.56	2.52
-8	0	7	-0.70	1.10
8	0	-7	0.15	1.06
-7	0	7	18.97	2.17
7	0	-7	22.28	2.22
6	0	-7	-0.82	0.72
-6	0	7	-1.16	0.65
-5	0	7	59.54	3.02
5	0	-7	61.06	3.18
5	0	-7	61.63	2.39
4	0	-7	3.19	1.00
-4	0	7	2.99	0.90
4	0	-7	2.90	0.61
-3	0	7	579.66	14.54
3	0	-7	576.00	13.32
3	0	-7	565.84	14.66
-2	0	7	-0.10	0.57
2	0	-7	0.22	0.59
2	0	-7	0.33	0.59
-1	0	7	796.82	19.43
1	0	-7	785.11	19.31
1	0	-7	801.78	18.41
0	0	-7	1.01	0.71
0	0	-7	0.63	0.73
0	0	7	0.58	0.73
1	0	7	1026.84	25.20
-1	0	-7	1052.52	24.37
-1	0	-7	1036.91	24.54
-2	0	-7	-0.26	0.81
2	0	7	-0.01	0.65
-2	0	-7	-0.24	0.65
-3	0	-7	70.46	2.92
3	0	7	66.20	3.28
-3	0	-7	70.55	3.36
4	0	7	-0.02	0.82
-4	0	-7	-0.10	0.83
5	0	7	9.42	1.84
-5	0	-7	8.17	1.64
-6	0	-7	0.85	1.07
6	0	7	-0.08	1.14
7	0	7	16.78	2.74
-8	0	-7	-0.30	1.22
8	0	7	-0.74	1.48
9	0	7	-0.26	1.77
-9	0	-7	0.28	1.50
-11	1	7	4.87	2.32
-11	-1	7	3.79	2.33
-10	1	7	1.76	1.81
-10	-1	7	-0.50	1.67
-9	1	7	2.23	1.57
-9	-1	7	2.88	1.51
-8	1	7	9.13	1.95
8	1	-7	6.62	1.64
-8	-1	7	6.79	1.69
-7	-1	7	0.87	1.03
7	1	-7	1.15	0.96
7	-1	-7	1.42	1.19
-7	1	7	-0.15	1.14
6	-1	-7	12.65	1.72

-6	1	7	12.84	1.75
6	1	-7	10.87	1.59
-6	-1	7	12.52	1.55
6	1	-7	11.72	1.39
-5	-1	7	0.20	0.64
5	1	-7	0.17	0.62
5	1	-7	0.57	0.83
-5	1	7	-0.33	0.82
5	-1	-7	0.24	0.86
4	-1	-7	99.44	4.10
4	-1	-7	103.05	2.70
-4	1	7	101.75	4.14
4	1	-7	106.46	3.53
4	1	-7	105.31	4.20
-4	-1	7	106.17	3.74
3	1	-7	0.54	0.66
-3	1	7	-0.57	0.60
-3	-1	7	0.72	0.55
3	-1	-7	2.40	0.95
3	1	-7	0.43	0.62
2	-1	-7	209.15	6.48
2	1	-7	203.92	5.85
-2	-1	7	210.71	5.68
2	1	-7	209.29	6.38
-2	1	7	202.01	6.32
1	1	-7	27.77	1.87
1	-1	-7	29.65	2.06
1	-1	-7	29.65	1.25
-1	1	7	32.67	2.06
1	1	-7	28.12	1.83
-1	-1	7	27.52	1.56
0	1	-7	0.64	0.86
0	-1	-7	1.77	0.88
0	-1	-7	1.55	0.57
0	-1	7	1.39	0.68
0	1	-7	0.16	0.62
0	1	7	2.73	0.95
1	-1	7	16.17	1.35
-1	-1	-7	12.03	1.18
-1	-1	-7	15.36	1.53
-1	1	-7	15.19	1.35
-1	1	-7	13.56	1.49
1	1	7	13.43	1.54
-2	1	-7	200.45	5.73
2	1	7	193.53	6.50
2	-1	7	193.72	6.08
-2	-1	-7	193.51	6.01
-2	1	-7	199.17	6.34
-2	-1	-7	197.86	6.01
-3	-1	-7	24.65	1.88
3	-1	7	21.68	1.79
-3	1	-7	25.54	2.18
-3	1	-7	22.23	1.62
3	1	7	24.07	2.10
-3	-1	-7	20.90	1.87
-4	1	-7	-1.02	0.92
4	-1	7	2.28	1.02
-4	-1	-7	0.59	0.77
-4	-1	-7	1.39	0.99
4	1	7	1.26	1.05

5	1	7	3.24	1.41
-5	-1	-7	2.21	1.13
5	-1	7	4.64	1.38
-5	1	-7	4.15	1.40
6	-1	7	0.67	1.23
-6	-1	-7	-0.70	0.92
6	1	7	-0.62	1.08
-6	1	-7	1.23	0.79
7	-1	7	55.90	3.97
-7	1	-7	45.09	3.46
7	1	7	59.12	4.23
-7	-1	-7	59.45	3.86
8	1	7	16.82	2.90
-8	1	-7	16.29	2.62
8	-1	7	14.51	2.71
9	-1	7	3.06	2.09
-9	1	-7	1.63	1.60
-9	-1	-7	0.64	1.45
9	1	7	0.47	1.65
-11	2	7	-0.49	1.80
-10	2	7	4.39	2.08
-9	2	7	-0.80	1.46
9	2	-7	0.52	1.19
8	2	-7	15.24	2.16
-8	-2	7	12.76	2.04
-8	2	7	15.39	2.38
7	2	-7	-1.19	0.87
-7	2	7	0.43	1.21
-7	-2	7	0.52	0.91
7	-2	-7	0.89	1.31
6	2	-7	5.88	1.25
-6	2	7	3.50	1.43
-6	-2	7	3.87	1.09
6	-2	-7	4.53	1.42
-5	2	7	33.48	2.57
-5	-2	7	35.17	2.05
5	2	-7	35.50	2.16
5	-2	-7	32.89	2.45
4	2	-7	4.08	0.97
4	-2	-7	4.53	1.21
-4	-2	7	4.74	0.79
-4	2	7	6.18	1.29
-3	-2	7	31.91	1.49
3	-2	-7	31.51	2.30
-3	2	7	29.30	2.15
3	2	-7	29.16	1.94
2	-2	-7	16.81	1.73
-2	-2	7	17.06	0.94
-2	2	7	20.82	1.84
2	2	-7	14.89	1.54
-1	2	7	105.49	4.29
1	2	-7	106.97	4.06
1	2	-7	107.54	4.03
-1	-2	7	102.35	3.01
0	2	7	0.15	0.87
0	2	-7	1.44	1.03
0	2	-7	-0.08	0.59
0	-2	7	0.66	0.55
0	-2	-7	0.98	0.92
0	-2	-7	0.32	0.46

-1	2	-7	220.73	6.41
-1	-2	-7	221.11	6.25
-1	-2	-7	224.29	6.87
1	2	7	225.39	7.30
1	-2	7	210.67	6.17
-1	2	-7	218.13	7.04
2	-2	7	58.09	2.72
-2	-2	-7	68.39	3.22
-2	-2	-7	56.54	2.73
2	2	7	64.74	3.38
-2	2	-7	67.74	2.68
-2	2	-7	66.34	3.33
3	-2	7	2.04	0.90
-3	-2	-7	2.27	0.90
3	2	7	2.90	1.24
-3	2	-7	1.68	1.11
-3	-2	-7	2.03	1.06
-4	2	-7	-1.00	1.03
-4	-2	-7	-0.14	0.91
4	-2	7	1.61	0.98
-4	-2	-7	0.76	0.79
4	2	7	1.50	1.25
5	2	7	60.72	3.90
-5	-2	-7	79.23	4.04
5	-2	7	72.12	3.90
6	-2	7	5.54	1.75
-6	2	-7	7.74	1.79
-6	-2	-7	4.14	1.46
-7	2	-7	34.82	3.19
7	-2	7	32.70	3.22
-7	-2	-7	37.25	3.41
8	2	7	1.37	1.73
-8	-2	-7	2.68	1.68
8	-2	7	0.26	1.62
-8	2	-7	0.44	1.37
-9	2	-7	0.92	1.64
9	2	7	2.26	2.12
9	-2	7	-0.99	1.64
-9	-2	-7	0.32	1.41
-11	3	7	1.44	2.22
-10	3	7	15.92	3.16
-9	3	7	10.24	2.48
9	3	-7	11.53	2.54
-8	3	7	22.71	2.88
8	3	-7	27.34	2.88
7	3	-7	0.93	1.19
-7	3	7	1.39	1.45
6	3	-7	124.04	5.12
6	-3	-7	125.83	5.09
-6	3	7	119.16	5.53
5	3	-7	12.06	1.61
5	-3	-7	9.60	1.72
-5	3	7	11.40	1.92
-4	3	7	10.10	1.68
4	3	-7	12.33	1.54
4	-3	-7	11.08	1.75
3	3	-7	134.15	4.94
3	-3	-7	140.43	5.29
-3	3	7	136.86	5.32
-2	3	7	2.74	1.10

-2	3	7	2.39	0.56
2	3	-7	4.15	1.18
2	-3	-7	5.09	1.23
1	3	-7	327.29	9.48
-1	3	7	279.24	9.42
-1	3	7	335.41	8.00
1	-3	-7	335.65	9.39
0	-3	-7	177.73	5.90
0	3	-7	164.97	6.07
0	-3	7	166.14	4.51
1	-3	7	2.82	0.67
-1	3	-7	1.64	0.79
1	3	7	1.17	0.93
-1	-3	-7	1.82	1.12
-1	3	-7	2.87	1.38
2	-3	7	20.54	1.54
-2	3	-7	18.38	2.21
-2	-3	-7	20.19	1.93
2	3	7	17.36	2.13
-2	3	-7	19.64	1.54
3	-3	7	21.69	1.79
-3	-3	-7	23.01	2.13
3	3	7	21.22	2.35
-3	3	-7	21.65	2.42
4	3	7	2.94	1.49
-4	3	-7	0.77	0.65
4	-3	7	2.85	1.08
5	-3	7	15.87	2.06
-5	3	-7	15.33	2.28
5	3	7	11.89	2.34
-6	3	-7	6.35	1.79
6	3	7	9.52	2.36
6	-3	7	6.82	1.80
7	3	7	-0.20	1.43
7	-3	7	2.60	1.60
-7	3	-7	1.81	1.44
-8	3	-7	-0.04	1.39
8	3	7	0.13	1.58
8	-3	7	2.19	1.82
-9	3	-7	10.53	2.57
9	-3	7	10.73	2.73
9	3	7	11.18	2.91
-10	4	7	-1.10	1.79
10	4	-7	0.26	2.16
-9	4	7	0.63	1.82
9	4	-7	4.56	2.15
-8	4	7	2.80	1.87
8	4	-7	4.90	1.92
7	4	-7	0.34	1.18
-7	4	7	-0.21	1.13
6	4	-7	146.50	6.12
6	-4	-7	152.00	5.82
5	-4	-7	19.05	2.16
-5	4	7	13.78	2.09
5	4	-7	16.57	2.09
-4	4	7	8.35	1.81
4	-4	-7	8.83	1.72
4	4	-7	10.85	1.74
3	4	-7	63.11	3.40
3	-4	-7	59.68	3.38

-3	4	7	60.06	3.52
2	4	-7	2.13	1.29
2	-4	-7	1.30	1.20
-2	4	7	2.56	1.15
1	-4	-7	120.53	4.94
-1	4	7	121.56	3.89
-1	4	7	120.35	5.13
1	4	-7	116.87	5.16
0	4	-7	86.14	4.45
0	4	7	83.80	4.35
1	4	7	157.44	6.31
-1	-4	-7	154.91	5.81
-1	4	-7	159.59	6.51
-2	-4	-7	2.82	1.25
-2	4	-7	0.66	1.57
2	4	7	5.02	1.71
-2	4	-7	2.29	0.96
-3	-4	-7	42.07	2.94
3	4	7	37.48	3.26
4	-4	7	4.89	1.41
-4	4	-7	7.34	1.90
4	4	7	6.71	1.93
-4	4	-7	5.84	1.41
5	-4	7	2.47	1.43
5	4	7	1.94	1.55
-5	4	-7	0.92	1.44
6	-4	7	27.60	2.76
6	4	7	30.38	3.39
-6	4	-7	30.82	3.16
7	4	7	0.02	1.60
-7	4	-7	0.49	1.36
7	-4	7	1.24	1.59
-8	4	-7	2.01	1.80
8	4	7	0.07	1.93
8	-4	7	2.74	1.95
9	-4	7	0.43	2.11
-9	4	-7	0.24	1.70
-10	5	7	-0.22	2.19
10	5	-7	-0.29	2.65
-9	5	7	2.70	1.99
9	5	-7	-0.01	2.05
-8	5	7	5.07	2.02
8	5	-7	2.27	1.86
-7	5	7	46.17	4.03
7	5	-7	45.13	3.86
6	5	-7	2.52	1.47
-6	5	7	1.26	1.46
5	-5	-7	47.89	3.36
5	5	-7	55.56	3.60
-5	5	7	48.97	3.76
4	-5	-7	11.81	1.97
4	5	-7	14.48	2.19
-4	5	7	13.15	2.10
3	-5	-7	15.99	2.05
-3	5	7	14.26	2.12
3	5	-7	15.99	2.18
2	-5	-7	10.65	1.82
2	5	-7	9.29	1.94
-2	5	7	11.12	1.88
1	-5	-7	0.17	1.03

1	5	-7	1.78	1.47
-1	5	7	-1.07	1.18
0	5	7	20.09	1.75
0	5	-7	17.05	2.52
0	5	7	20.48	2.57
0	-5	-7	20.52	2.26
1	5	7	158.90	6.64
-1	-5	-7	145.59	5.97
-1	5	-7	150.17	6.75
-2	5	-7	0.27	0.98
2	5	7	0.58	1.71
-2	-5	-7	1.40	1.24
3	5	7	16.00	2.53
-3	5	-7	17.48	2.75
-4	5	-7	24.80	3.04
4	5	7	25.05	3.03
-5	5	-7	45.94	3.94
5	5	7	42.02	3.94
6	5	7	4.60	2.00
-6	5	-7	6.07	2.15
7	5	7	2.24	2.15
-7	5	-7	3.19	1.89
-8	5	-7	0.76	1.78
8	5	7	-0.12	1.94
10	6	-7	3.20	3.06
9	6	-7	-2.01	2.16
-9	6	7	0.78	1.95
8	6	-7	6.30	2.53
-8	6	7	9.12	2.64
7	6	-7	-1.50	1.42
-7	6	7	0.64	1.55
-6	6	7	0.11	1.52
6	6	-7	1.18	1.53
5	-6	-7	2.27	1.42
-5	6	7	3.48	1.73
5	6	-7	1.26	1.52
4	6	-7	0.27	1.25
-4	6	7	-0.57	1.28
4	-6	-7	-0.78	1.15
3	-6	-7	0.40	1.21
-3	6	7	-0.06	1.21
3	6	-7	0.03	1.26
2	-6	-7	37.30	3.06
2	6	-7	28.90	3.07
-2	6	7	33.43	3.11
-1	6	7	77.54	4.46
1	6	-7	66.20	4.52
1	-6	-7	85.68	4.44
0	-6	-7	16.59	2.24
0	6	-7	17.26	2.81
0	6	7	19.37	2.70
0	6	7	17.91	2.04
1	6	7	11.56	1.76
1	6	7	10.20	2.19
-2	6	-7	3.61	2.17
2	6	7	5.75	2.03
2	6	7	2.50	1.36
-3	6	-7	1.64	1.93
3	6	7	1.07	1.71
4	6	7	21.31	3.16

-4	6	-7	13.40	2.85
5	6	7	-0.51	1.75
-5	6	-7	3.00	2.04
6	6	7	-2.00	1.79
-6	6	-7	4.82	2.18
-7	6	-7	4.95	2.23
7	6	7	4.97	2.69
-8	7	7	2.54	2.02
8	7	-7	0.65	2.22
-7	7	7	5.77	2.35
7	7	-7	2.92	2.25
-6	7	7	12.79	2.71
6	7	-7	10.61	2.76
5	7	-7	1.49	1.69
-5	7	7	0.03	1.38
-4	7	7	13.41	2.51
4	-7	-7	11.71	2.17
4	7	-7	12.60	2.65
3	-7	-7	12.04	2.10
3	7	-7	14.49	2.64
-3	7	7	15.33	2.45
2	7	-7	4.20	1.93
-2	7	7	5.64	1.85
2	-7	-7	3.73	1.60
1	7	-7	2.30	1.79
-1	7	7	1.70	1.60
0	7	-7	-0.78	1.36
0	7	7	2.91	1.82
1	7	7	4.44	2.16
1	7	7	3.38	1.62
-1	7	-7	7.18	2.57
2	7	7	1.88	1.42
-2	7	-7	1.15	2.22
2	7	7	1.54	1.86
3	7	7	6.16	2.28
-3	7	-7	9.94	2.99
3	7	7	10.94	2.19
4	7	7	1.36	1.93
4	7	7	4.14	1.78
-4	7	-7	-0.52	2.00
-5	7	-7	3.19	2.16
5	7	7	-1.17	2.06
-6	7	-7	2.75	2.12
6	7	7	2.69	2.67
-7	7	-7	0.80	2.03
7	7	7	-1.16	2.71
7	8	-7	3.05	2.43
-7	8	7	0.15	1.90
-6	8	7	1.76	1.86
6	8	-7	2.65	2.44
5	8	-7	-0.07	1.69
-5	8	7	0.83	1.65
-4	8	7	26.99	3.27
4	8	-7	27.40	3.56
3	8	-7	4.28	2.20
-3	8	7	2.79	1.80
2	8	-7	0.57	1.86
-2	8	7	0.02	1.59
-1	8	7	-0.22	1.66
1	8	-7	0.63	1.83

0	8	7	18.60	2.88
0	8	-7	12.43	3.10
1	8	7	5.81	2.24
-1	8	-7	1.36	2.39
2	8	7	0.44	1.94
-2	8	-7	-2.79	2.21
3	8	7	3.88	2.09
-3	8	-7	3.39	2.61
3	8	7	1.54	2.14
4	8	7	4.37	2.43
4	8	7	2.83	2.20
-4	8	-7	10.44	3.36
5	8	7	2.77	2.10
5	8	7	0.79	2.62
-5	8	-7	-1.11	2.34
6	8	7	-3.80	1.92
6	8	7	-3.22	2.72
-6	9	7	-0.40	2.09
-5	9	7	2.46	2.30
5	9	-7	-1.72	2.06
-4	9	7	5.28	2.25
4	9	-7	-1.95	2.08
-3	9	7	2.41	2.10
3	9	-7	0.46	2.22
2	9	-7	-2.11	2.09
-2	9	7	1.50	2.13
1	9	-7	0.55	2.32
-1	9	7	1.60	1.97
0	9	-7	0.95	2.75
0	9	7	4.93	2.36
-1	9	-7	4.18	2.71
1	9	7	-1.09	2.01
2	9	7	-1.44	2.23
-2	9	-7	0.32	2.58
-3	9	-7	-0.46	2.90
3	9	7	-0.34	2.60
-4	9	-7	-1.33	2.64
4	9	7	-2.59	2.53
4	9	7	1.23	2.55
-4	10	7	-0.34	2.35
-3	10	7	0.47	2.17
-2	10	7	4.15	2.61
-12	0	8	0.78	2.60
-11	0	8	1.82	1.99
-10	0	8	10.45	2.46
-9	0	8	-0.56	1.41
8	0	-8	23.87	2.50
-8	0	8	26.89	2.71
7	0	-8	-0.84	1.00
-7	0	8	0.52	1.17
6	0	-8	17.34	2.00
-6	0	8	13.10	1.72
5	0	-8	0.49	0.98
-5	0	8	-0.36	0.76
5	0	-8	-0.10	0.59
4	0	-8	382.91	9.28
4	0	-8	382.59	10.83
-4	0	8	384.91	10.52
3	0	-8	0.20	0.63
3	0	-8	-0.02	0.76

-3	0	8	0.54	0.70
2	0	-8	256.46	6.53
-2	0	8	243.99	7.15
1	0	-8	0.62	0.67
-1	0	8	1.18	0.83
1	0	-8	1.12	0.78
0	0	8	4.26	1.07
0	0	-8	4.44	1.13
0	0	-8	2.80	0.86
-1	0	-8	1.00	0.91
-1	0	-8	-1.19	0.61
1	0	8	-0.71	0.69
-2	0	-8	28.14	2.02
2	0	8	27.83	2.15
-2	0	-8	24.77	1.99
-3	0	-8	-0.10	0.77
3	0	8	-0.78	0.78
-3	0	-8	0.17	0.91
-4	0	-8	182.47	6.52
4	0	8	185.78	6.80
5	0	8	0.61	1.07
-5	0	-8	-0.43	0.92
-6	0	-8	15.23	2.22
6	0	8	13.75	2.32
-7	0	-8	0.60	1.14
7	0	8	-0.14	1.35
-8	0	-8	0.06	1.11
8	0	8	-0.31	1.51
-9	0	-8	-0.49	1.38
9	0	8	-0.09	1.76
-11	1	8	1.06	2.09
-10	-1	8	1.12	1.83
-10	1	8	-0.29	1.58
-9	1	8	0.36	1.64
-9	-1	8	3.80	1.83
8	1	-8	5.86	1.58
-8	-1	8	4.02	1.57
-8	1	8	4.11	1.61
7	-1	-8	0.95	1.30
-7	1	8	0.36	1.11
7	1	-8	0.05	0.90
-7	-1	8	-0.65	0.87
6	1	-8	0.19	0.93
6	1	-8	0.30	0.73
6	-1	-8	2.96	1.29
-6	1	8	1.18	1.07
-6	-1	8	1.05	0.91
5	1	-8	49.67	2.39
5	-1	-8	51.88	3.03
-5	1	8	46.62	2.83
5	1	-8	42.39	2.79
-5	-1	8	47.87	2.59
4	1	-8	113.54	3.81
4	1	-8	111.01	4.55
-4	-1	8	116.05	4.02
4	-1	-8	114.61	4.60
-4	1	8	110.83	4.46
-3	1	8	497.21	13.02
3	-1	-8	478.67	13.03
-3	-1	8	489.45	12.28

3	1	-8	494.89	12.05
3	1	-8	465.02	12.93
2	-1	-8	7.56	0.59
2	1	-8	5.09	1.09
2	-1	-8	7.07	1.34
-2	1	8	6.81	1.19
2	1	-8	5.32	1.09
-2	-1	8	6.32	0.90
1	1	-8	71.84	3.26
-1	-1	8	78.39	2.91
1	1	-8	75.14	3.15
1	-1	-8	76.24	2.43
-1	1	8	77.51	3.48
1	-1	-8	70.45	3.36
0	-1	-8	232.26	6.34
0	-1	-8	242.00	7.34
0	-1	8	236.75	6.81
0	1	8	235.46	7.40
0	1	-8	242.92	7.10
0	1	-8	236.47	7.01
-1	-1	-8	5.56	1.20
-1	1	-8	6.95	1.33
1	-1	8	6.09	1.06
-1	1	-8	7.65	1.18
1	1	8	9.92	1.51
-1	-1	-8	7.74	1.04
-2	-1	-8	174.89	5.71
2	1	8	179.76	6.20
-2	1	-8	174.70	6.01
-2	-1	-8	179.17	5.69
2	-1	8	173.94	5.80
-2	1	-8	168.19	5.43
-3	1	-8	2.40	1.02
-3	-1	-8	1.33	1.02
3	1	8	-0.35	0.99
-3	1	-8	1.60	1.06
-3	-1	-8	1.25	0.84
3	-1	8	1.56	0.90
-4	-1	-8	59.38	3.28
4	1	8	56.69	3.49
4	-1	8	50.17	3.12
-4	-1	-8	52.21	2.86
-4	1	-8	46.41	3.14
5	1	8	5.34	1.66
5	-1	8	3.51	1.53
-5	1	-8	4.93	1.43
-5	-1	-8	6.88	1.53
-6	-1	-8	-0.15	0.97
6	-1	8	0.80	1.42
6	1	8	1.86	1.46
-6	1	-8	1.58	1.20
-7	-1	-8	-0.52	1.06
7	1	8	1.27	1.57
-7	1	-8	1.18	1.02
7	-1	8	0.00	1.39
-8	1	-8	1.06	1.59
8	1	8	0.63	1.53
8	-1	8	-0.64	1.70
-8	-1	-8	-0.69	1.29
9	1	8	1.87	2.02

9	-1	8	-2.99	1.63
-9	-1	-8	0.01	1.39
-9	1	-8	3.77	1.84
-11	2	8	-3.18	1.70
-10	2	8	0.88	2.00
-9	2	8	7.68	2.19
9	2	-8	9.50	1.96
-8	2	8	4.35	1.70
8	2	-8	4.99	1.47
7	2	-8	-0.24	0.93
7	-2	-8	-1.58	1.18
7	2	-8	1.24	1.11
-7	2	8	0.60	1.34
-6	-2	8	139.17	5.06
6	2	-8	135.63	5.77
6	-2	-8	139.17	5.52
-6	2	8	137.59	5.77
6	2	-8	138.01	5.04
5	2	-8	2.86	0.97
5	-2	-8	2.65	1.27
-5	-2	8	3.63	0.92
-5	2	8	-0.06	0.95
-4	-2	8	35.49	1.88
4	2	-8	36.23	2.22
4	2	-8	38.28	2.66
4	-2	-8	39.48	2.63
-4	2	8	38.89	2.72
3	2	-8	18.68	1.69
3	-2	-8	16.55	1.88
-3	-2	8	19.50	1.22
-3	2	8	18.89	1.88
2	2	-8	67.54	3.19
2	2	-8	62.82	3.13
-2	2	8	68.22	3.31
2	-2	-8	62.11	3.29
-2	-2	8	65.08	2.20
1	2	-8	69.34	3.34
-1	-2	8	67.17	2.41
-1	2	8	68.40	3.44
1	2	-8	69.80	3.17
0	2	-8	238.56	7.24
0	-2	-8	251.67	6.59
0	-2	-8	243.21	7.63
0	-2	8	243.23	6.71
0	2	8	251.30	7.96
0	2	-8	239.63	7.57
-1	2	-8	103.43	3.81
1	2	8	103.72	4.53
1	-2	8	97.06	3.58
-1	-2	-8	99.71	3.60
-1	-2	-8	101.62	4.16
-1	2	-8	92.92	4.19
2	2	8	16.24	1.95
-2	2	-8	14.04	1.41
-2	-2	-8	14.80	1.53
-2	-2	-8	16.90	1.82
2	-2	8	18.61	1.55
-2	2	-8	14.20	1.87
3	2	8	0.96	1.12
-3	-2	-8	1.29	1.05

-3	2	-8	1.60	1.24
-3	-2	-8	1.06	0.82
3	-2	8	0.12	0.80
-4	-2	-8	8.07	1.51
4	-2	8	7.94	1.54
-4	-2	-8	5.72	1.41
4	2	8	9.39	1.92
-4	2	-8	6.51	1.72
5	-2	8	53.60	3.54
5	2	8	54.71	3.84
-5	2	-8	51.79	3.47
-5	-2	-8	52.99	3.40
-6	-2	-8	159.12	6.61
6	-2	8	155.11	6.70
6	2	8	154.38	7.03
-7	-2	-8	1.44	1.44
7	-2	8	1.28	1.55
7	2	8	3.33	1.99
-7	2	-8	1.66	1.44
8	2	8	-1.49	1.32
8	-2	8	1.72	1.92
-8	2	-8	1.26	1.54
-8	-2	-8	-0.44	1.44
9	2	8	-1.20	1.57
9	-2	8	0.52	2.13
-9	-2	-8	1.31	1.74
-9	2	-8	2.24	1.84
-11	3	8	7.11	2.92
-10	3	8	-2.86	1.73
-9	3	8	6.96	2.21
8	3	-8	0.61	1.33
-8	3	8	0.78	1.59
7	3	-8	52.67	3.35
-7	3	8	48.31	3.68
6	3	-8	11.56	1.81
-6	3	8	10.95	2.06
6	-3	-8	8.95	1.85
5	-3	-8	44.01	3.06
-5	3	8	41.81	3.11
5	3	-8	36.95	2.61
-4	3	8	1.06	1.21
4	-3	-8	2.12	1.36
4	3	-8	1.67	1.05
3	-3	-8	8.94	1.65
3	3	-8	8.97	1.52
-3	3	8	12.61	1.74
2	-3	-8	151.76	5.74
-2	3	8	156.39	5.84
2	3	-8	153.21	5.68
1	-3	-8	2.88	1.17
1	3	-8	3.51	1.45
-1	3	8	4.31	1.40
0	3	-8	3.75	1.08
0	3	8	4.05	1.52
0	-3	-8	3.13	1.26
0	3	-8	5.94	1.68
-1	-3	-8	190.96	6.44
1	-3	8	178.92	5.36
-1	3	-8	175.15	6.66
1	3	8	181.29	6.79

-1	3	-8	182.61	5.83
-2	3	-8	43.93	2.34
2	-3	8	39.10	2.23
-2	-3	-8	42.00	2.83
-2	3	-8	35.50	2.97
3	-3	8	20.07	1.88
-3	3	-8	19.19	2.31
-3	-3	-8	20.88	2.11
-4	-3	-8	-0.24	1.08
-4	3	-8	-0.22	1.20
4	-3	8	-0.18	0.84
4	3	8	-0.51	1.19
5	3	8	3.59	1.73
5	-3	8	5.31	1.57
-5	3	-8	0.89	0.79
-6	3	-8	19.37	2.58
6	3	8	17.94	2.84
6	-3	8	16.80	2.39
7	3	8	12.87	2.75
7	-3	8	16.19	2.61
-7	3	-8	13.54	2.45
-8	3	-8	5.56	2.03
8	-3	8	4.11	2.23
8	3	8	2.65	2.17
9	-3	8	-2.29	1.94
-9	3	-8	-0.74	1.47
-10	4	8	-1.34	1.79
9	4	-8	-1.68	1.74
-9	4	8	2.01	2.01
8	4	-8	2.41	1.76
-8	4	8	4.04	1.96
-7	4	8	2.52	1.67
7	4	-8	3.11	1.64
-6	4	8	19.92	2.64
6	-4	-8	28.85	2.73
6	4	-8	26.48	2.66
-5	4	8	3.04	1.45
5	-4	-8	2.87	1.56
5	4	-8	3.01	1.43
4	-4	-8	11.20	1.96
4	4	-8	15.67	1.96
-4	4	8	5.27	1.32
3	-4	-8	12.52	2.02
3	4	-8	14.26	1.99
2	4	-8	0.02	1.24
2	-4	-8	0.70	1.25
-2	4	8	-1.93	0.96
1	4	-8	19.65	2.36
1	-4	-8	17.93	2.12
-1	4	8	17.06	2.20
0	4	-8	90.49	4.60
0	4	8	84.35	4.38
0	-4	-8	59.60	3.52
1	4	8	39.38	3.21
-1	4	-8	35.47	3.23
-1	-4	-8	34.55	2.81
-2	4	-8	84.76	4.83
2	4	8	81.01	4.70
-2	-4	-8	81.34	4.05
-3	-4	-8	8.26	1.77

-3	4	-8	2.96	1.78
3	4	8	8.28	2.08
4	4	8	21.63	2.80
5	4	8	8.04	2.25
-5	4	-8	15.51	2.46
6	4	8	1.12	1.60
-6	4	-8	2.19	1.53
-7	4	-8	2.77	1.74
7	4	8	0.79	1.80
-8	4	-8	3.88	2.02
8	4	8	0.59	2.05
-10	5	8	1.75	2.09
9	5	-8	2.97	2.29
-9	5	8	2.91	2.18
8	5	-8	1.89	1.96
-8	5	8	2.83	1.93
7	5	-8	0.79	1.44
-7	5	8	1.29	1.56
6	5	-8	46.01	3.51
6	-5	-8	45.09	3.46
-6	5	8	49.27	3.82
-5	5	8	2.70	1.51
5	-5	-8	2.32	1.52
5	5	-8	3.64	1.58
4	-5	-8	-0.86	1.27
-4	5	8	-0.11	1.16
4	5	-8	1.25	1.22
3	5	-8	4.58	1.62
3	-5	-8	1.72	1.42
-3	5	8	-1.10	1.09
-2	5	8	12.29	2.10
2	-5	-8	10.06	1.89
2	5	-8	8.23	1.96
1	-5	-8	13.59	2.01
1	5	-8	5.42	2.04
-1	5	8	9.77	1.99
0	5	8	46.52	3.62
0	5	8	51.24	2.74
0	-5	-8	57.31	3.53
0	5	-8	53.61	4.01
-1	-5	-8	3.12	1.43
1	5	8	3.93	1.82
-1	5	-8	0.92	1.83
-2	5	-8	296.02	10.65
-2	-5	-8	291.58	9.61
2	5	8	303.63	10.51
-3	5	-8	0.71	0.99
3	5	8	6.15	2.05
-4	5	-8	5.20	1.95
4	5	8	3.69	2.01
5	5	8	-0.85	1.64
-5	5	-8	-2.12	1.31
-6	5	-8	5.46	2.14
6	5	8	-0.58	1.73
7	5	8	0.85	1.95
-7	5	-8	1.43	1.71
-8	5	-8	13.77	3.01
8	5	8	5.89	2.92
9	6	-8	-0.11	2.34
-9	6	8	1.31	2.24

8	6	-8	-1.60	1.93
-8	6	8	3.50	2.19
7	6	-8	1.77	1.62
-7	6	8	-0.84	1.37
6	6	-8	10.95	2.47
-6	6	8	5.43	2.07
5	6	-8	13.25	2.57
5	-6	-8	12.57	2.14
-5	6	8	12.18	2.40
4	-6	-8	6.06	1.76
4	6	-8	5.04	1.91
-4	6	8	4.98	1.85
3	6	-8	0.98	1.49
3	-6	-8	-0.04	1.20
-3	6	8	-0.07	1.14
-2	6	8	2.03	1.48
2	6	-8	4.76	1.89
2	-6	-8	4.21	1.50
1	6	-8	57.76	4.34
-1	6	8	64.77	4.23
1	-6	-8	68.08	3.99
0	6	8	74.82	4.82
0	6	-8	76.43	5.07
0	-6	-8	83.50	4.56
1	6	8	0.09	1.15
-1	-6	-8	1.20	1.07
1	6	8	2.66	1.79
-1	6	-8	-1.70	1.83
2	6	8	1.37	1.14
2	6	8	-0.93	1.41
-2	6	-8	0.19	1.22
-3	6	-8	0.66	1.83
3	6	8	7.28	2.39
-4	6	-8	7.42	2.41
4	6	8	8.75	2.62
5	6	8	1.82	2.18
-5	6	-8	2.64	1.93
6	6	8	1.76	2.38
-6	6	-8	0.86	1.89
-7	6	-8	1.55	2.09
7	6	8	-1.51	2.30
-8	7	8	0.23	1.88
8	7	-8	0.60	2.29
-7	7	8	6.66	2.36
7	7	-8	6.45	2.64
6	7	-8	50.95	4.56
-6	7	8	40.83	4.12
-5	7	8	10.41	2.40
5	7	-8	10.59	2.50
4	7	-8	16.08	2.86
4	-7	-8	15.33	2.37
-4	7	8	15.60	2.67
3	7	-8	2.45	1.73
3	-7	-8	0.25	1.31
-3	7	8	2.83	1.73
2	7	-8	46.63	4.18
2	-7	-8	45.52	3.50
-2	7	8	48.64	3.84
-1	7	8	-0.11	1.48
1	7	-8	0.38	1.77

1	-7	-8	-0.50	1.10
0	7	-8	4.89	2.33
0	7	8	1.97	1.73
1	7	8	33.82	3.58
2	7	8	0.44	1.90
-2	7	-8	0.51	2.16
3	7	8	0.63	1.93
3	7	8	-1.18	1.31
-3	7	-8	1.39	2.07
4	7	8	1.66	2.07
4	7	8	1.89	1.53
-4	7	-8	1.47	2.08
-5	7	-8	2.12	2.03
5	7	8	-1.82	1.98
6	7	8	1.45	2.73
-6	7	-8	-0.13	2.00
-7	8	8	3.74	2.23
7	8	-8	-1.78	2.38
-6	8	8	1.41	1.85
6	8	-8	1.98	2.23
-5	8	8	0.98	2.03
5	8	-8	-0.30	2.10
-4	8	8	5.32	2.22
4	8	-8	5.68	2.54
-3	8	8	0.79	1.60
3	8	-8	0.49	1.75
-2	8	8	2.77	1.86
2	8	-8	-1.07	1.65
-1	8	8	16.29	2.82
1	8	-8	13.20	3.07
0	8	8	-0.72	1.43
0	8	-8	-2.37	1.65
1	8	8	1.03	2.02
-1	8	-8	-4.62	2.00
-2	8	-8	-0.30	2.25
2	8	8	-1.10	2.01
3	8	8	4.06	2.41
-3	8	-8	3.16	2.83
4	8	8	12.89	2.90
4	8	8	12.61	3.30
-4	8	-8	14.29	3.50
5	8	8	-1.05	2.53
5	8	8	1.68	2.16
-5	8	-8	-0.33	2.38
5	9	-8	-0.24	2.34
-5	9	8	2.22	2.15
4	9	-8	2.27	2.52
-4	9	8	1.10	2.10
3	9	-8	0.36	2.23
-3	9	8	1.15	2.01
-2	9	8	0.50	1.92
2	9	-8	0.65	2.29
1	9	-8	-0.21	2.16
-1	9	8	2.04	2.07
0	9	8	1.15	2.07
0	9	-8	-1.24	2.39
1	9	8	4.11	2.50
-1	9	-8	2.23	2.77
2	9	8	8.59	2.96
-2	9	-8	9.63	3.50

-3	9	-8	5.69	3.22
3	9	8	2.06	2.84
4	9	8	3.64	3.01
-3	10	8	2.64	2.48
-2	10	8	1.65	2.52
-1	10	8	4.96	2.64
0	10	8	3.02	2.62
1	10	8	2.02	2.60
-11	0	9	3.15	2.36
-10	0	9	1.23	1.80
-9	0	9	2.26	1.52
-8	0	9	-0.21	1.22
8	0	-9	0.38	1.16
-7	0	9	75.65	4.07
7	0	-9	73.47	4.03
6	0	-9	1.95	1.15
-6	0	9	-0.44	0.84
-5	0	9	293.49	8.93
5	0	-9	308.44	9.37
-4	0	9	0.40	0.78
4	0	-9	0.48	0.92
3	0	-9	23.22	1.50
-3	0	9	22.64	1.78
3	0	-9	24.09	2.12
2	0	-9	-0.03	0.67
-2	0	9	0.19	0.81
2	0	-9	1.48	0.75
-1	0	9	1112.65	26.77
1	0	-9	1126.63	25.39
1	0	-9	1057.54	26.51
0	0	-9	-0.16	0.87
0	0	9	1.70	0.94
0	0	-9	0.32	0.73
-1	0	-9	7.53	1.24
1	0	9	2.81	1.17
-1	0	-9	9.00	1.44
-2	0	-9	-1.52	0.90
2	0	9	-0.24	0.90
-2	0	-9	0.05	0.75
3	0	9	0.26	0.84
-3	0	-9	0.25	1.05
-3	0	-9	0.83	0.95
-4	0	-9	-1.07	0.94
4	0	9	2.43	1.27
5	0	9	4.92	1.70
-5	0	-9	5.31	1.53
6	0	9	0.17	1.35
-6	0	-9	-0.09	1.00
-7	0	-9	1.64	1.42
7	0	9	1.70	1.50
8	0	9	-1.45	1.67
-8	0	-9	0.47	1.37
-9	0	-9	0.57	1.51
9	0	9	6.61	2.57
-11	1	9	2.19	2.21
-10	1	9	4.33	2.10
-9	-1	9	5.44	1.86
-9	1	9	4.23	1.83
9	1	-9	4.16	1.72
-8	1	9	5.11	1.85

-8	-1	9	4.99	1.62
8	-1	-9	6.46	1.80
8	1	-9	3.26	1.48
-7	-1	9	1.35	1.08
7	1	-9	1.77	1.25
-7	1	9	0.35	1.13
7	-1	-9	-0.15	1.21
-6	1	9	10.41	1.81
6	-1	-9	9.43	1.80
-6	-1	9	8.72	1.51
6	1	-9	9.75	1.77
5	-1	-9	158.42	6.00
5	1	-9	151.86	4.94
5	1	-9	157.47	6.04
-5	1	9	156.76	5.78
-5	-1	9	164.98	5.47
4	-1	-9	94.20	4.22
-4	-1	9	90.43	3.50
4	1	-9	84.80	4.06
-4	1	9	87.68	3.91
4	1	-9	91.69	3.40
3	-1	-9	45.19	2.85
3	1	-9	47.00	2.45
-3	-1	9	47.97	2.27
-3	1	9	45.47	2.68
-2	-1	9	17.74	1.39
2	1	-9	17.57	1.64
2	1	-9	19.05	1.85
2	-1	-9	18.97	0.98
-2	1	9	19.22	1.81
1	1	-9	51.28	2.75
-1	-1	9	48.15	2.41
-1	1	9	46.61	2.77
1	1	-9	49.58	2.69
1	-1	-9	52.92	3.01
1	-1	-9	48.36	1.96
0	-1	9	191.19	5.91
0	1	-9	191.54	6.22
0	1	9	192.22	6.51
0	-1	-9	189.49	6.43
0	-1	-9	189.86	5.45
0	1	-9	186.38	6.04
1	1	9	55.17	3.22
-1	-1	-9	56.43	3.08
-1	1	-9	56.91	2.94
-1	1	-9	61.97	2.97
1	-1	9	55.91	2.79
-1	-1	-9	55.88	2.64
-2	-1	-9	5.02	1.29
-2	1	-9	8.13	1.40
-2	1	-9	9.95	1.65
2	1	9	6.63	1.54
2	-1	9	7.85	1.39
-2	-1	-9	6.61	1.23
-3	-1	-9	7.77	1.48
-3	1	-9	9.31	1.69
3	-1	9	9.14	1.53
3	1	9	10.15	1.81
-3	-1	-9	12.61	1.71
4	-1	9	5.30	1.46

-4	-1	-9	5.56	1.37
4	1	9	6.84	1.77
-4	1	-9	4.87	1.48
5	1	9	50.75	3.60
5	-1	9	44.88	3.27
-5	-1	-9	52.37	3.38
-5	1	-9	43.87	3.24
-6	-1	-9	0.33	1.20
-6	1	-9	5.24	1.64
6	1	9	2.56	1.67
6	-1	9	2.33	1.62
7	1	9	12.45	2.68
-7	1	-9	19.66	2.78
-7	-1	-9	14.67	2.43
7	-1	9	13.45	2.56
-8	-1	-9	-2.72	1.22
8	-1	9	-0.77	1.51
8	1	9	-1.35	1.64
-8	1	-9	0.10	1.12
9	-1	9	12.07	2.88
9	1	9	6.20	2.77
-9	1	-9	15.55	2.85
-11	2	9	0.78	2.38
-10	2	9	-0.28	1.90
-9	2	9	0.47	1.51
9	2	-9	0.22	1.32
-8	2	9	0.58	1.48
8	2	-9	1.40	1.33
7	2	-9	10.03	1.85
-7	2	9	6.43	1.87
7	-2	-9	5.76	1.75
6	2	-9	75.92	4.06
6	-2	-9	76.35	4.11
-6	2	9	73.60	4.13
6	2	-9	77.47	3.58
5	-2	-9	60.62	3.59
-5	2	9	56.49	3.55
5	2	-9	59.95	3.50
5	2	-9	68.59	3.19
4	2	-9	3.85	1.18
4	2	-9	3.00	1.09
4	-2	-9	3.13	1.39
-4	2	9	4.56	1.37
3	2	-9	78.15	3.50
3	-2	-9	80.69	3.97
3	2	-9	79.09	3.80
-3	2	9	82.63	3.91
-2	-2	9	0.95	0.58
2	-2	-9	0.14	1.10
-2	2	9	1.98	1.09
2	2	-9	2.84	1.20
2	2	-9	2.76	0.98
1	2	-9	8.26	1.58
1	-2	-9	6.11	1.48
-1	-2	9	5.62	0.92
1	2	-9	8.19	1.38
-1	2	9	9.85	1.69
0	2	-9	75.00	3.73
0	-2	9	71.54	2.91
0	-2	-9	67.32	2.71

0	-2	-9	71.25	3.66
0	2	9	77.08	3.87
0	2	-9	73.81	3.42
-1	2	-9	152.69	5.81
-1	-2	-9	165.39	5.84
1	-2	9	151.37	5.08
1	2	9	159.02	6.13
-1	-2	-9	159.25	5.07
-1	2	-9	154.57	5.31
-2	2	-9	1.96	1.19
-2	-2	-9	2.37	0.91
-2	2	-9	0.97	1.02
-2	-2	-9	3.88	1.34
2	-2	9	2.26	1.02
2	2	9	4.32	1.54
-3	-2	-9	82.40	3.84
-3	-2	-9	82.67	3.89
3	2	9	85.59	4.54
-3	2	-9	84.47	4.33
3	-2	9	84.42	3.84
-4	2	-9	0.59	1.29
4	-2	9	0.31	1.05
-4	-2	-9	0.33	1.11
4	2	9	1.69	1.42
-4	-2	-9	-0.52	0.91
-5	-2	-9	31.31	2.80
5	2	9	39.77	3.60
5	-2	9	26.49	2.70
-5	2	-9	33.55	3.00
-6	-2	-9	1.26	1.25
-6	2	-9	2.14	1.45
6	2	9	0.84	1.54
6	-2	9	0.53	1.52
7	-2	9	1.70	1.69
-7	-2	-9	0.48	1.34
7	2	9	0.64	1.76
-7	2	-9	1.02	0.95
-8	-2	-9	8.99	2.34
8	2	9	3.34	2.09
8	-2	9	7.50	2.57
-8	2	-9	11.50	2.39
9	-2	9	-3.30	1.95
-11	3	9	-3.34	2.18
-10	3	9	3.90	2.28
9	3	-9	1.75	1.50
-9	3	9	1.30	1.82
8	3	-9	1.76	1.35
-8	3	9	4.08	1.93
7	-3	-9	7.83	1.92
7	3	-9	4.56	1.50
-7	3	9	9.37	2.17
6	3	-9	15.85	2.00
6	-3	-9	17.58	2.26
-6	3	9	16.42	2.43
5	-3	-9	297.68	9.57
5	3	-9	295.28	9.07
-5	3	9	308.14	10.04
-4	3	9	0.32	1.11
4	-3	-9	-1.07	1.13
4	3	-9	0.48	1.07

3	3	-9	26.14	2.33
3	-3	-9	20.70	2.34
-3	3	9	28.80	2.52
2	3	-9	11.30	1.78
2	3	-9	7.12	1.50
2	-3	-9	8.30	1.73
-2	3	9	7.25	1.61
1	3	-9	37.80	3.00
-1	3	9	41.49	3.01
1	3	-9	38.97	2.60
0	-3	-9	65.75	3.77
0	3	9	81.26	4.22
0	3	-9	78.26	3.56
0	3	-9	72.66	4.11
-1	3	-9	7.56	1.85
1	3	9	7.61	1.92
-1	3	-9	8.77	1.38
-1	-3	-9	7.96	1.64
-2	3	-9	5.09	1.74
-2	3	-9	6.43	1.29
-2	-3	-9	3.74	1.46
2	3	9	6.10	1.78
-3	-3	-9	28.90	2.54
3	3	9	18.06	2.53
-3	-3	-9	23.26	2.13
-3	3	-9	17.78	2.50
3	-3	9	19.29	1.91
-4	-3	-9	12.06	1.82
4	3	9	16.63	2.50
4	-3	9	14.08	1.88
-4	3	-9	12.78	2.26
-4	-3	-9	15.90	2.06
5	-3	9	3.42	1.54
-5	3	-9	4.75	1.81
-5	-3	-9	-0.25	1.12
5	3	9	-0.46	1.11
6	-3	9	1.03	1.65
-6	3	-9	0.01	0.87
6	3	9	-0.90	1.21
7	3	9	17.67	3.31
7	-3	9	19.71	2.91
-7	3	-9	17.11	2.73
-8	3	-9	3.33	1.91
8	-3	9	3.69	2.29
8	3	9	5.40	2.61
9	-3	9	-1.13	2.19
-10	4	9	6.87	2.86
10	4	-9	5.95	2.24
-9	4	9	1.49	2.01
8	4	-9	17.32	2.67
-8	4	9	18.84	2.99
7	4	-9	26.02	2.84
-7	4	9	34.91	3.49
-6	4	9	72.21	4.45
6	4	-9	69.70	4.04
6	-4	-9	69.15	4.09
5	4	-9	2.49	1.45
-5	4	9	1.84	1.52
5	-4	-9	2.72	1.55
-4	4	9	15.29	2.24

4	-4	-9	16.30	2.26
4	4	-9	11.41	1.92
3	4	-9	0.57	1.25
-3	4	9	0.33	1.18
3	-4	-9	0.84	1.40
2	-4	-9	3.17	1.42
-2	4	9	-1.18	1.04
2	4	-9	0.61	1.50
1	4	-9	19.40	2.50
1	-4	-9	20.26	2.39
0	4	-9	12.79	1.80
0	-4	-9	13.57	2.13
0	4	-9	12.93	2.30
-1	4	-9	27.43	3.04
-1	-4	-9	26.71	2.56
1	4	9	28.36	2.96
-1	4	-9	30.23	2.28
2	4	9	52.08	3.87
-2	-4	-9	46.49	3.22
-2	4	-9	49.66	3.81
-3	4	-9	39.29	3.50
3	4	9	39.81	3.56
-3	-4	-9	34.79	2.87
-4	4	-9	4.15	1.74
4	4	9	1.49	1.49
5	4	9	9.79	2.44
-5	4	-9	0.43	0.85
6	4	9	0.50	1.87
-6	4	-9	4.51	1.73
-7	4	-9	12.22	2.51
7	4	9	4.38	2.30
8	4	9	-0.81	2.17
-8	4	-9	1.34	1.93
-9	5	9	2.59	2.19
9	5	-9	-0.68	2.01
8	5	-9	-0.74	1.72
-8	5	9	-0.40	1.30
7	5	-9	0.89	1.61
-7	5	9	0.26	1.22
-6	5	9	-0.75	1.15
6	5	-9	0.87	1.43
6	-5	-9	1.08	1.48
5	5	-9	1.38	1.54
-5	5	9	0.99	1.41
5	-5	-9	1.49	1.50
4	-5	-9	0.85	1.43
4	5	-9	1.31	1.35
-4	5	9	-1.06	1.27
3	5	-9	55.99	3.85
3	-5	-9	50.39	3.59
-3	5	9	49.50	3.62
-2	5	9	25.00	2.72
2	5	-9	30.06	3.20
2	-5	-9	24.23	2.73
1	5	-9	0.45	1.77
-1	5	9	-1.85	1.33
1	-5	-9	-0.05	1.30
0	5	9	76.70	4.77
0	5	-9	70.00	4.77
-1	5	-9	182.15	8.05

-1	-5	-9	196.17	7.35
1	5	9	196.83	8.07
2	5	9	102.47	5.68
-2	5	-9	98.85	5.61
-2	-5	-9	89.34	4.70
-3	-5	-9	6.84	1.75
3	5	9	7.17	2.23
-3	5	-9	7.15	2.24
4	5	9	9.86	2.64
5	5	9	-0.15	1.94
-5	5	-9	-0.77	1.36
-6	5	-9	-0.42	1.56
6	5	9	0.68	2.07
7	5	9	10.20	3.05
-7	5	-9	10.50	2.63
-9	6	9	0.71	1.83
9	6	-9	1.99	2.46
-8	6	9	2.28	1.98
8	6	-9	1.78	2.20
-7	6	9	0.68	1.56
7	6	-9	3.00	2.02
-6	6	9	13.83	2.59
6	6	-9	16.96	2.93
-5	6	9	8.00	2.12
5	6	-9	6.04	2.12
5	-6	-9	10.41	2.14
4	-6	-9	1.60	1.46
4	6	-9	0.56	1.45
-4	6	9	2.15	1.52
3	-6	-9	54.07	3.64
3	6	-9	45.63	3.83
-3	6	9	45.54	3.65
2	-6	-9	19.70	2.45
-2	6	9	16.58	2.56
2	6	-9	20.12	3.03
-1	6	9	1.64	1.60
1	-6	-9	1.26	1.35
1	6	-9	0.40	1.61
0	6	9	1.70	1.69
0	-6	-9	2.12	1.49
0	6	-9	2.07	1.96
-1	-6	-9	27.45	2.98
-1	6	-9	34.85	3.94
1	6	9	29.38	3.30
-2	-6	-9	0.07	1.29
-2	6	-9	2.72	2.01
2	6	9	-2.09	1.58
-3	6	-9	-0.01	1.18
3	6	9	4.01	2.08
-4	6	-9	2.22	1.95
4	6	9	3.30	2.28
5	6	9	0.11	2.05
-5	6	-9	0.98	1.77
-6	6	-9	0.64	1.80
6	6	9	-0.13	2.38
8	7	-9	1.57	2.56
-8	7	9	0.40	2.03
-7	7	9	33.28	4.03
7	7	-9	29.49	4.04
-6	7	9	0.80	1.52

6	7	-9	0.92	1.89
-5	7	9	-0.51	1.51
5	7	-9	-3.13	1.54
5	-7	-9	1.38	1.75
4	7	-9	8.73	2.49
4	-7	-9	11.04	2.36
-4	7	9	5.89	2.07
3	-7	-9	16.63	2.57
-3	7	9	17.43	2.70
3	7	-9	15.34	2.98
-2	7	9	11.31	2.49
2	7	-9	4.11	2.21
2	-7	-9	9.10	2.11
1	7	-9	13.32	2.92
-1	7	9	10.02	2.37
1	-7	-9	13.72	2.40
0	7	-9	6.46	2.62
0	7	9	4.22	2.02
0	-7	-9	0.42	1.31
-1	7	-9	-1.56	1.94
1	7	9	-1.54	1.78
2	7	9	15.89	2.92
-2	7	-9	-0.63	1.58
-3	7	-9	4.56	2.43
3	7	9	0.25	1.87
4	7	9	3.96	2.51
-4	7	-9	6.93	2.75
5	7	9	-1.02	2.20
-5	7	-9	1.26	2.29
6	7	9	0.47	2.72
7	8	-9	-2.18	1.92
-6	8	9	2.97	2.20
6	8	-9	0.07	2.43
5	8	-9	-1.47	1.90
-5	8	9	2.53	2.15
4	-8	-9	-0.04	1.62
4	8	-9	1.59	2.10
-4	8	9	3.01	2.13
3	-8	-9	4.60	2.04
3	8	-9	0.22	1.80
-3	8	9	1.94	1.94
2	-8	-9	0.49	1.38
-2	8	9	-1.97	1.49
2	8	-9	-2.29	1.78
-1	8	9	0.08	1.78
1	8	-9	0.41	2.15
0	8	9	-0.51	1.75
0	8	-9	2.09	2.48
-1	8	-9	-0.29	1.82
1	8	9	0.98	1.95
-2	8	-9	-3.23	2.07
2	8	9	1.27	2.27
3	8	9	1.29	2.52
-3	8	-9	4.56	2.79
4	8	9	-2.83	2.28
-4	8	-9	-1.47	2.22
5	8	9	-2.22	2.05
-5	9	9	0.03	2.09
-4	9	9	3.44	2.27
4	9	-9	0.48	2.54

3	9	-9	-3.11	2.26
-3	9	9	4.62	2.41
-2	9	9	1.77	2.17
2	9	-9	-0.61	2.13
1	9	-9	1.76	2.56
-1	9	9	-1.26	2.02
0	9	-9	-3.62	2.10
0	9	9	4.29	2.51
1	9	9	6.99	2.71
-1	9	-9	7.73	3.53
2	9	9	2.66	2.62
-2	9	-9	1.03	2.94
3	9	9	-0.38	2.76
-10	0	10	-2.27	1.57
-9	0	10	-4.01	1.23
8	0	-10	1.87	1.44
-8	0	10	2.89	1.52
-7	0	10	0.85	1.28
7	0	-10	2.00	1.34
-6	0	10	488.91	13.70
6	0	-10	483.22	13.95
5	0	-10	0.21	0.94
-5	0	10	-0.03	0.93
4	0	-10	61.58	3.48
-4	0	10	59.56	3.01
-3	0	10	1.40	0.89
3	0	-10	-1.24	0.71
3	0	-10	0.43	0.78
-2	0	10	42.00	2.47
2	0	-10	43.19	2.76
2	0	-10	44.35	2.11
1	0	-10	0.18	0.75
1	0	-10	0.21	0.97
-1	0	10	0.45	0.95
0	0	10	13.84	1.72
0	0	-10	13.39	1.75
0	0	-10	11.89	1.40
-1	0	-10	-0.58	0.79
-1	0	-10	0.84	1.12
1	0	10	-0.01	1.10
-2	0	-10	32.63	2.52
-2	0	-10	40.07	2.61
2	0	10	39.56	2.77
-3	0	-10	1.05	0.92
-3	0	-10	0.09	1.17
3	0	10	-1.07	1.00
-4	0	-10	17.95	2.20
4	0	10	17.41	2.28
-5	0	-10	0.45	1.06
5	0	10	1.12	1.44
-6	0	-10	16.90	2.54
6	0	10	10.01	2.32
7	0	10	0.57	1.67
-7	0	-10	-1.13	1.06
-8	0	-10	13.06	2.66
8	0	10	4.16	2.32
-11	1	10	-2.52	2.00
-10	1	10	-1.02	1.86
-9	1	10	16.37	2.57
9	1	-10	11.92	2.42

8	-1	-10	4.51	1.81
8	1	-10	2.10	1.50
-8	1	10	2.44	1.62
7	-1	-10	-0.20	1.12
7	1	-10	1.54	1.35
-7	1	10	2.86	1.54
-7	-1	10	1.68	1.21
-6	-1	10	3.79	1.28
6	1	-10	3.56	1.36
6	-1	-10	5.61	1.69
-6	1	10	1.91	1.35
5	1	-10	58.24	3.56
-5	-1	10	57.31	2.94
-5	1	10	54.84	3.21
5	-1	-10	55.11	3.54
4	1	-10	0.50	0.99
4	1	-10	0.74	1.03
-4	1	10	0.82	1.03
4	-1	-10	0.02	1.06
-4	-1	10	1.41	0.85
3	1	-10	63.23	2.97
3	-1	-10	58.92	3.52
-3	1	10	59.89	3.20
-3	-1	10	62.46	2.74
2	-1	-10	11.47	1.63
2	1	-10	22.31	1.89
-2	1	10	19.03	1.94
2	1	-10	22.50	2.12
-2	-1	10	20.09	1.61
1	1	-10	55.44	2.85
1	1	-10	48.88	2.89
1	-1	-10	51.06	3.09
-1	1	10	52.69	3.15
-1	-1	10	51.34	2.65
1	-1	-10	50.29	2.14
0	-1	10	100.96	4.11
0	-1	-10	109.16	3.73
0	-1	-10	103.97	4.59
0	1	-10	109.42	4.41
0	1	10	109.03	4.61
0	1	-10	99.38	4.15
1	-1	10	24.89	2.04
-1	1	-10	20.25	1.97
-1	-1	-10	22.13	2.26
1	1	10	17.25	2.07
-1	1	-10	21.84	2.03
-1	-1	-10	23.20	1.79
-2	1	-10	12.25	1.65
-2	-1	-10	9.89	1.73
2	1	10	10.98	1.86
-2	-1	-10	11.41	1.53
2	-1	10	15.64	1.80
-2	1	-10	10.12	1.72
-3	1	-10	0.87	1.15
-3	-1	-10	0.71	0.98
-3	-1	-10	-0.42	1.16
3	1	10	-0.69	1.07
3	-1	10	1.79	1.18
-4	1	-10	1.07	1.11
-4	-1	-10	3.37	1.22

4	-1	10	0.68	1.27
4	1	10	0.08	1.40
5	-1	10	5.82	1.83
5	1	10	5.26	1.90
-5	1	-10	3.48	1.45
-5	-1	-10	5.09	1.55
6	-1	10	25.73	3.02
6	1	10	26.44	3.18
-6	1	-10	27.01	2.97
-6	-1	-10	31.50	3.10
7	1	10	-1.52	1.69
-7	1	-10	4.58	1.88
7	-1	10	3.20	1.83
-7	-1	-10	4.76	1.73
8	1	10	-0.10	2.02
-8	-1	-10	2.97	1.80
-8	1	-10	-0.42	1.54
8	-1	10	-0.82	1.68
-11	2	10	1.60	2.17
-10	2	10	2.52	1.95
9	2	-10	0.98	1.46
-9	2	10	0.13	1.51
-8	2	10	10.88	2.31
8	2	-10	14.12	2.27
7	2	-10	2.84	1.38
7	-2	-10	-0.77	1.36
-7	2	10	1.29	1.38
6	2	-10	1.84	1.26
6	-2	-10	0.51	1.40
-6	2	10	1.82	1.51
-5	2	10	43.32	3.08
5	2	-10	45.46	2.73
5	-2	-10	43.02	3.25
5	2	-10	41.81	3.09
4	2	-10	20.57	2.22
4	2	-10	25.99	2.13
4	-2	-10	26.42	2.63
-4	2	10	26.11	2.47
-3	2	10	41.99	2.98
3	2	-10	52.14	3.16
3	-2	-10	47.41	3.18
3	2	-10	49.62	2.91
-2	2	10	108.61	4.76
2	2	-10	103.63	4.56
2	2	-10	106.41	4.47
2	-2	-10	112.83	4.92
1	-2	-10	184.26	6.78
1	2	-10	178.16	6.34
1	-2	-10	184.28	5.03
-1	2	10	177.50	6.69
1	2	-10	185.21	6.45
0	-2	-10	22.07	2.28
0	2	-10	18.75	1.86
0	-2	-10	18.01	1.44
0	-2	10	20.38	1.73
0	2	10	28.97	2.55
0	2	-10	22.33	2.26
-1	-2	-10	123.15	5.08
-1	2	-10	123.57	4.77
-1	2	-10	115.34	5.00

1	2	10	132.66	5.63
1	-2	10	125.47	4.54
-1	-2	-10	123.82	4.37
2	-2	10	70.25	3.49
-2	-2	-10	70.51	3.32
-2	2	-10	70.62	3.81
2	2	10	71.57	4.25
-2	2	-10	70.66	3.35
-2	-2	-10	71.48	3.69
-3	2	-10	61.68	3.88
3	2	10	64.21	4.16
-3	-2	-10	68.66	3.49
-3	-2	-10	68.68	3.71
3	-2	10	63.53	3.56
4	-2	10	18.85	2.19
-4	-2	-10	16.76	2.11
-4	-2	-10	17.32	2.15
-4	2	-10	17.81	2.35
4	2	10	14.09	2.37
5	2	10	5.02	1.94
-5	2	-10	1.63	1.36
5	-2	10	1.83	1.47
-5	-2	-10	0.64	1.20
6	-2	10	0.72	1.48
6	2	10	1.35	1.90
-6	2	-10	-0.34	1.20
-6	-2	-10	0.64	1.30
7	2	10	-0.33	1.99
-7	2	-10	1.62	1.55
7	-2	10	0.77	1.57
-7	-2	-10	0.49	1.51
-8	2	-10	0.91	1.33
-8	-2	-10	1.43	1.69
8	-2	10	0.48	2.02
8	2	10	-0.60	2.12
10	3	-10	2.25	1.86
-10	3	10	3.62	2.23
9	3	-10	0.30	1.38
-9	3	10	1.86	1.93
8	3	-10	4.13	1.65
-8	3	10	6.29	2.24
7	-3	-10	4.71	1.82
7	3	-10	2.09	1.31
-7	3	10	0.61	1.56
6	3	-10	23.79	2.74
6	-3	-10	24.12	2.68
-6	3	10	22.64	2.69
6	3	-10	20.92	2.30
-5	3	10	42.08	3.38
5	3	-10	43.91	3.29
5	3	-10	48.72	3.06
5	-3	-10	43.38	3.40
4	3	-10	0.65	1.27
-4	3	10	0.25	1.17
4	-3	-10	1.85	1.43
4	3	-10	1.79	0.78
3	3	-10	8.43	1.74
-3	3	10	12.61	2.05
3	3	-10	10.32	1.90
3	-3	-10	11.22	2.01

2	3	-10	1.17	1.37
-2	3	10	1.89	1.42
2	-3	-10	0.64	1.34
2	3	-10	0.28	0.89
-1	3	10	1.06	1.59
1	3	-10	1.95	1.59
1	3	-10	-0.10	0.86
1	-3	-10	-1.12	0.82
0	3	-10	49.46	2.98
0	3	-10	58.23	3.78
0	-3	-10	54.42	3.52
0	3	10	49.76	3.58
-1	3	-10	-0.90	1.40
1	3	10	2.00	1.63
-1	-3	-10	-0.36	1.23
-1	3	-10	0.53	1.07
-2	3	-10	74.67	4.28
2	3	10	84.50	4.79
-2	-3	-10	71.81	4.06
-3	3	-10	-1.03	1.23
-3	-3	-10	-0.63	1.26
3	3	10	0.12	1.65
-3	-3	-10	-0.44	0.93
4	3	10	12.59	2.40
-4	-3	-10	13.96	1.97
-4	-3	-10	10.03	1.89
-4	3	-10	13.88	2.36
5	3	10	4.23	1.94
-5	-3	-10	1.76	1.33
-5	3	-10	1.21	1.36
6	3	10	8.86	2.48
-6	3	-10	9.86	2.32
7	3	10	0.92	1.89
-7	3	-10	2.97	1.35
-8	3	-10	2.95	1.88
8	3	10	-0.69	1.73
10	4	-10	2.48	1.91
-10	4	10	2.01	2.33
9	4	-10	1.81	1.68
-9	4	10	2.01	2.08
-8	4	10	3.49	2.04
7	-4	-10	1.08	1.77
-7	4	10	2.07	1.69
7	4	-10	2.33	1.63
6	4	-10	7.57	1.89
6	-4	-10	9.55	2.13
-6	4	10	12.48	2.35
5	-4	-10	9.38	2.07
5	4	-10	3.35	1.63
-5	4	10	3.70	1.76
4	4	-10	4.77	1.67
4	-4	-10	6.16	1.96
-4	4	10	3.98	1.67
3	-4	-10	1.49	1.40
-3	4	10	2.78	1.57
3	4	-10	2.28	1.67
-2	4	10	3.12	1.57
2	4	-10	4.12	1.74
2	-4	-10	4.20	1.70
1	4	-10	3.42	1.82

1	-4	-10	3.42	1.52
-1	4	10	2.78	1.65
1	4	-10	4.28	1.34
0	4	10	7.88	2.18
0	4	-10	6.99	2.13
0	4	-10	4.13	1.31
0	-4	-10	4.37	1.61
-1	4	-10	175.15	7.35
1	4	10	137.11	6.77
-1	4	-10	185.99	6.26
-1	-4	-10	178.28	6.74
-2	-4	-10	58.63	3.69
-2	4	-10	66.70	4.36
-3	4	-10	0.01	1.29
3	4	10	-1.64	1.22
-3	-4	-10	-0.36	1.33
-4	-4	-10	-0.09	1.20
4	4	10	-0.68	1.73
-4	4	-10	3.56	1.68
5	4	10	1.56	1.87
-5	4	-10	3.71	1.79
6	4	10	0.73	1.81
-6	4	-10	0.39	1.03
7	4	10	0.15	2.21
-7	4	-10	2.88	1.88
-9	5	10	0.10	2.04
8	5	-10	-2.48	1.62
-8	5	10	-2.19	1.60
-7	5	10	4.63	2.09
7	5	-10	3.99	2.05
6	5	-10	6.54	2.05
-6	5	10	5.14	1.96
6	-5	-10	7.86	2.10
5	5	-10	5.00	1.87
-5	5	10	1.71	1.22
5	-5	-10	8.53	2.06
-4	5	10	1.57	1.14
4	5	-10	3.00	1.72
4	-5	-10	2.18	1.48
3	-5	-10	-0.02	1.36
-3	5	10	-0.42	1.30
3	5	-10	0.49	1.55
2	5	-10	-2.03	1.33
-2	5	10	-0.21	1.39
2	-5	-10	0.42	1.43
1	-5	-10	4.60	1.83
1	5	-10	5.37	2.28
-1	5	10	4.89	1.96
0	5	10	35.60	3.55
0	-5	-10	24.12	2.70
0	5	-10	34.97	3.58
-1	-5	-10	-0.25	1.37
1	5	10	2.21	1.93
-1	5	-10	-2.44	1.58
-2	5	-10	22.22	3.13
-2	-5	-10	19.53	2.51
2	5	10	24.06	3.11
3	5	10	10.57	2.55
-3	-5	-10	7.54	1.89
-3	5	-10	6.05	2.13

-4	5	-10	1.80	1.82
4	5	10	0.81	1.78
-5	5	-10	0.92	1.13
5	5	10	-0.74	1.87
6	5	10	6.20	2.77
-6	5	-10	4.88	2.02
7	5	10	7.17	2.93
-7	5	-10	7.00	2.45
8	6	-10	4.84	2.41
-8	6	10	-0.23	2.13
-7	6	10	0.26	1.66
7	6	-10	-1.64	1.86
-6	6	10	11.46	2.56
6	6	-10	15.38	2.83
6	-6	-10	18.49	2.75
5	6	-10	3.22	1.77
5	-6	-10	2.99	1.91
-5	6	10	2.89	1.68
4	6	-10	33.05	3.55
-4	6	10	39.68	3.77
4	-6	-10	34.84	3.34
-3	6	10	22.76	2.88
3	-6	-10	23.62	2.81
3	6	-10	27.47	3.24
2	6	-10	31.65	3.62
2	-6	-10	27.15	2.91
-2	6	10	25.43	2.97
-1	6	10	4.50	1.85
1	6	-10	2.09	1.93
1	-6	-10	1.11	1.40
0	-6	-10	31.34	3.10
0	6	-10	26.13	3.56
0	6	10	31.53	3.57
1	6	10	-0.79	1.66
-1	-6	-10	0.86	1.56
-1	6	-10	0.50	1.95
2	6	10	23.26	3.26
-2	6	-10	18.04	3.25
-2	-6	-10	22.38	2.74
3	6	10	7.38	2.51
-3	6	-10	7.20	2.52
-4	6	-10	1.31	1.28
4	6	10	0.10	2.02
5	6	10	0.65	2.07
-5	6	-10	0.05	1.64
-6	6	-10	4.66	2.45
6	6	10	2.09	2.49
8	7	-10	-0.48	2.54
-7	7	10	3.31	2.17
7	7	-10	-1.34	1.83
-6	7	10	11.03	2.63
6	7	-10	4.46	2.57
5	-7	-10	2.97	2.01
5	7	-10	4.68	2.24
-5	7	10	6.11	2.19
4	-7	-10	0.60	1.57
4	7	-10	-1.42	1.77
-4	7	10	-0.69	1.26
-3	7	10	14.11	2.67
3	7	-10	8.51	2.65

3	-7	-10	11.54	2.51
2	-7	-10	3.85	1.90
2	7	-10	5.96	2.31
-2	7	10	3.20	1.85
1	-7	-10	1.89	1.56
-1	7	10	-0.05	1.69
1	7	-10	0.10	1.81
0	7	-10	6.31	2.63
0	-7	-10	2.47	1.71
0	7	10	5.37	2.13
1	7	10	8.34	2.59
-1	7	-10	7.80	2.76
-1	-7	-10	2.87	1.47
2	7	10	6.27	2.51
-2	7	-10	10.22	3.17
-3	7	-10	2.59	1.70
3	7	10	1.30	2.01
-4	7	-10	-2.33	1.80
4	7	10	-1.35	2.03
-5	7	-10	3.06	2.56
5	7	10	0.91	2.67
-6	8	10	10.42	2.83
6	8	-10	14.02	3.43
5	8	-10	7.48	2.77
-5	8	10	13.10	3.01
-4	8	10	4.65	2.19
4	8	-10	2.72	2.26
4	-8	-10	4.26	2.18
-3	8	10	14.47	2.87
3	-8	-10	21.65	3.04
3	8	-10	17.55	3.61
2	-8	-10	-1.67	1.46
-2	8	10	-0.16	1.71
2	8	-10	0.32	2.19
1	8	-10	1.68	2.55
1	-8	-10	2.83	1.62
-1	8	10	2.36	1.87
0	8	-10	0.69	2.22
0	8	10	-1.25	1.64
-1	8	-10	-0.49	2.41
1	8	10	0.40	2.05
2	8	10	3.76	2.71
-2	8	-10	1.89	2.09
-3	8	-10	1.92	2.65
3	8	10	1.20	2.27
4	8	10	-2.32	2.35
-4	9	10	0.90	2.11
-3	9	10	2.66	2.40
3	9	-10	0.70	2.88
-2	9	10	2.83	2.32
2	9	-10	-0.35	2.30
1	9	-10	-1.93	2.35
-1	9	10	0.43	2.02
0	9	10	2.58	2.35
0	9	-10	1.04	2.86
1	9	10	-0.83	2.19
2	9	10	5.79	2.95
-9	0	11	-1.44	1.50
9	0	-11	0.61	1.66
-8	0	11	-1.11	1.32

8	0	-11	-1.20	1.36
7	0	-11	7.60	1.94
-7	0	11	4.69	1.65
-6	0	11	0.47	1.14
6	0	-11	0.69	1.26
-5	0	11	2.76	1.16
5	0	-11	-0.01	1.25
4	0	-11	0.29	0.98
-4	0	11	-1.36	0.79
-3	0	11	5.56	1.25
3	0	-11	1.13	0.97
-2	0	11	-1.24	0.82
2	0	-11	-1.29	0.99
2	0	-11	0.80	0.83
1	0	-11	28.23	2.44
1	0	-11	23.27	1.80
-1	0	11	20.89	2.06
0	0	-11	-0.63	0.81
0	0	-11	-0.76	0.99
0	0	11	-0.02	1.20
-1	0	-11	10.59	1.52
1	0	11	15.07	2.00
-1	0	-11	15.65	2.00
-2	0	-11	0.86	1.29
-2	0	-11	-0.37	0.98
2	0	11	0.21	1.01
3	0	11	3.32	1.59
-3	0	-11	0.10	0.96
4	0	11	1.93	1.53
-4	0	-11	1.83	1.27
5	0	11	4.52	1.92
-5	0	-11	3.60	1.49
6	0	11	1.60	1.59
-6	0	-11	-0.23	1.22
7	0	11	5.77	2.24
-7	0	-11	3.64	1.85
-8	0	-11	-0.46	1.60
8	0	11	0.80	2.26
-11	1	11	6.31	2.63
-10	1	11	-2.91	1.72
-9	1	11	0.65	1.72
9	1	-11	-0.07	1.51
-8	1	11	2.69	1.72
8	1	-11	1.13	1.52
8	-1	-11	1.01	1.53
7	1	-11	22.31	2.72
7	-1	-11	29.89	3.05
-7	1	11	24.53	2.64
6	-1	-11	33.33	3.01
6	1	-11	32.88	3.01
-6	1	11	32.12	2.75
5	1	-11	346.37	11.35
5	-1	-11	372.15	11.43
-5	1	11	380.60	11.12
4	-1	-11	11.35	1.97
-4	1	11	10.85	1.73
-4	-1	11	13.29	1.47
4	1	-11	12.70	1.92
3	-1	-11	15.55	2.09
-3	1	11	13.42	1.80

-3	-1	11	13.95	1.51
3	1	-11	15.54	1.96
3	1	-11	15.95	1.79
2	1	-11	7.67	1.60
2	-1	-11	2.44	1.30
-2	-1	11	5.47	1.10
2	1	-11	6.55	1.42
-2	1	11	8.17	1.55
-1	1	11	75.22	3.80
1	-1	-11	75.20	3.94
1	1	-11	75.00	3.44
1	1	-11	63.75	3.54
-1	-1	11	65.06	3.24
1	-1	-11	73.43	2.75
0	1	11	21.24	2.34
0	1	-11	20.55	2.03
0	-1	-11	21.90	2.35
0	1	-11	20.22	2.10
0	-1	-11	19.81	1.63
0	-1	11	18.67	1.94
1	-1	11	0.54	1.17
-1	1	-11	1.25	1.17
-1	-1	-11	0.75	0.81
-1	1	-11	0.38	1.08
-1	-1	-11	-0.04	1.22
1	1	11	0.00	1.18
-2	-1	-11	3.83	1.20
-2	1	-11	3.34	1.42
-2	-1	-11	1.72	1.26
2	-1	11	2.23	1.27
2	1	11	3.65	1.63
-2	1	-11	1.51	1.29
-3	1	-11	93.09	4.57
3	1	11	99.88	5.07
-3	-1	-11	101.92	4.56
3	-1	11	93.10	4.67
-3	-1	-11	94.73	4.40
-4	1	-11	0.23	1.08
-4	-1	-11	0.05	0.94
4	-1	11	0.82	1.31
4	1	11	0.12	1.45
-5	1	-11	5.82	1.70
5	-1	11	7.51	2.07
5	1	11	11.29	2.55
-5	-1	-11	11.01	2.12
6	-1	11	-0.07	1.72
6	1	11	2.26	2.09
-6	1	-11	0.14	1.32
-6	-1	-11	-0.20	1.33
7	1	11	20.08	3.46
-7	1	-11	18.90	3.02
7	-1	11	20.28	3.29
-7	-1	-11	22.24	3.07
8	1	11	0.64	2.39
-8	1	-11	4.69	2.06
-8	-1	-11	-2.90	1.43
8	-1	11	-1.20	1.80
-11	2	11	-2.16	2.05
-10	2	11	0.49	2.09
10	2	-11	0.84	1.92

9	2	-11	-0.78	1.43
-9	2	11	-0.50	1.73
-8	2	11	1.22	1.68
8	2	-11	0.78	1.29
8	-2	-11	0.26	1.61
7	-2	-11	25.27	2.93
7	2	-11	24.03	2.72
-7	2	11	30.29	3.05
-6	2	11	28.54	2.81
6	-2	-11	28.90	2.94
6	2	-11	23.73	2.69
5	-2	-11	33.08	2.96
5	2	-11	28.33	2.74
-5	2	11	28.68	2.78
4	2	-11	-1.66	1.23
4	2	-11	1.03	0.98
4	-2	-11	-0.22	1.32
-4	2	11	0.72	1.28
-3	2	11	2.44	1.30
3	2	-11	3.58	1.38
3	-2	-11	0.60	1.23
3	2	-11	2.42	1.40
2	2	-11	3.48	1.31
2	-2	-11	1.72	1.12
-2	2	11	3.14	1.41
2	2	-11	5.05	1.49
1	-2	-11	101.90	4.89
1	2	-11	102.10	4.60
1	2	-11	101.11	4.63
-1	2	11	105.18	4.96
0	2	-11	35.96	2.86
0	2	-11	31.33	2.52
0	2	11	35.44	3.04
0	-2	-11	35.15	2.95
0	-2	-11	34.83	1.99
-1	-2	-11	0.58	1.25
1	2	11	0.55	1.44
-1	2	-11	1.40	1.34
-1	2	-11	1.99	1.17
-1	-2	-11	1.75	0.98
2	-2	11	-0.11	1.07
-2	-2	-11	0.98	1.42
-2	2	-11	-0.43	1.17
-2	2	-11	-0.23	1.10
-2	-2	-11	-1.12	0.81
2	2	11	2.49	1.82
-3	-2	-11	119.92	5.05
-3	-2	-11	124.09	5.28
-3	2	-11	117.45	5.49
3	-2	11	126.05	5.26
3	2	11	117.39	5.83
4	-2	11	0.71	1.28
-4	2	-11	0.45	1.20
-4	-2	-11	0.34	1.03
4	2	11	0.99	1.59
-5	-2	-11	23.08	2.68
5	2	11	19.38	2.97
5	-2	11	22.00	2.63
-5	2	-11	22.56	2.75
6	-2	11	11.31	2.42

6	2	11	7.97	2.55
-6	-2	-11	8.53	2.12
-6	2	-11	13.23	2.40
-7	-2	-11	2.15	1.69
7	-2	11	2.11	1.82
7	2	11	6.10	2.68
-7	2	-11	2.80	1.78
-8	-2	-11	1.47	1.92
8	-2	11	2.25	2.20
8	2	11	2.83	2.51
10	3	-11	22.53	3.22
-10	3	11	13.56	3.11
-9	3	11	1.10	1.81
9	3	-11	0.08	1.39
8	3	-11	14.49	2.42
-8	3	11	13.70	2.65
7	-3	-11	26.71	2.97
7	3	-11	24.94	2.82
-7	3	11	30.00	3.17
6	3	-11	29.08	2.89
6	-3	-11	26.47	2.84
-6	3	11	26.13	2.86
5	-3	-11	23.44	2.75
-5	3	11	21.23	2.66
5	3	-11	25.80	2.47
5	3	-11	23.52	2.61
4	3	-11	10.15	1.85
4	-3	-11	9.40	2.05
-4	3	11	12.65	2.09
4	3	-11	13.96	2.05
3	3	-11	30.75	2.71
3	-3	-11	36.17	3.17
-3	3	11	34.24	3.02
3	3	-11	35.71	2.93
2	3	-11	2.94	1.63
2	3	-11	1.19	1.05
-2	3	11	0.75	1.34
2	-3	-11	-0.11	1.25
1	3	-11	-1.05	1.35
1	3	-11	-0.15	1.06
-1	3	11	0.79	1.62
1	-3	-11	-0.22	1.28
0	3	11	10.46	2.30
0	-3	-11	9.45	2.10
0	3	-11	10.90	1.81
0	3	-11	11.90	2.14
-1	3	-11	-0.12	1.02
1	3	11	1.93	1.73
-1	3	-11	-0.57	1.52
-1	-3	-11	-0.32	1.44
-2	3	-11	140.31	6.02
-2	-3	-11	132.10	5.79
2	3	11	136.15	6.43
-2	-3	-11	124.58	5.00
-3	-3	-11	29.70	2.54
3	3	11	32.56	3.50
-3	3	-11	31.35	3.00
-3	-3	-11	29.14	2.76
-4	-3	-11	3.34	1.62
4	3	11	5.01	2.15

-4	-3	-11	1.57	1.24
-4	3	-11	0.86	1.45
5	3	11	-1.41	1.56
-5	3	-11	-0.24	1.16
-5	-3	-11	0.89	1.19
6	3	11	8.07	2.75
-6	3	-11	11.90	2.46
-6	-3	-11	2.65	1.62
7	3	11	-0.68	2.22
-7	3	-11	1.39	1.74
10	4	-11	5.22	2.22
-10	4	11	2.38	2.65
-9	4	11	3.08	2.40
9	4	-11	1.69	1.68
8	4	-11	2.35	1.51
-8	4	11	-0.92	1.70
-7	4	11	11.30	2.61
7	-4	-11	6.47	2.18
7	4	-11	9.69	2.23
6	-4	-11	-0.38	1.45
6	4	-11	0.14	1.42
-6	4	11	0.13	1.36
5	-4	-11	2.55	1.60
5	4	-11	0.27	1.35
-5	4	11	1.44	1.63
4	4	-11	57.58	3.83
4	-4	-11	63.44	4.15
-4	4	11	63.91	4.25
-3	4	11	35.58	3.28
3	4	-11	36.29	3.18
3	4	-11	36.05	3.28
3	-4	-11	37.84	3.25
-2	4	11	3.36	1.69
2	-4	-11	-0.38	1.47
2	4	-11	-1.15	1.59
2	4	-11	-0.01	0.93
1	4	-11	0.76	1.78
1	4	-11	4.86	1.40
-1	4	11	1.65	1.66
1	-4	-11	0.60	0.98
0	4	11	-0.30	1.76
0	4	-11	-1.24	1.49
0	-4	-11	1.06	1.43
0	4	-11	0.92	1.18
1	4	11	137.51	6.54
-1	4	-11	130.18	6.35
-1	-4	-11	133.41	6.01
-1	4	-11	152.23	5.78
-2	4	-11	2.52	1.92
-2	-4	-11	1.42	1.51
2	4	11	-1.15	1.52
3	4	11	0.35	1.65
-3	-4	-11	-0.17	1.22
-3	4	-11	-1.50	1.26
-4	4	-11	1.06	1.43
-4	-4	-11	0.31	1.36
4	4	11	-0.27	1.39
5	4	11	-1.19	1.23
-5	4	-11	2.57	1.78
6	4	11	1.21	2.01

-6	4	-11	0.85	1.48
-7	4	-11	1.69	1.55
7	4	11	4.42	2.77
-9	5	11	2.40	2.40
-8	5	11	2.74	2.23
-7	5	11	2.00	2.16
7	5	-11	3.43	2.04
-6	5	11	3.30	1.85
6	5	-11	5.54	2.09
6	-5	-11	4.69	2.06
-5	5	11	1.04	1.62
5	-5	-11	2.60	1.67
5	5	-11	0.88	1.49
4	5	-11	22.15	2.91
-4	5	11	26.03	3.01
4	-5	-11	22.70	2.85
-3	5	11	1.34	1.47
3	5	-11	-1.30	1.55
3	-5	-11	0.62	1.50
2	5	-11	16.71	2.77
2	-5	-11	23.40	2.83
1	5	-11	18.22	2.88
1	5	-11	15.94	2.31
1	-5	-11	18.34	2.71
0	5	11	37.05	3.63
0	-5	-11	34.24	3.21
0	5	-11	38.71	2.96
0	5	-11	32.42	3.57
-1	-5	-11	23.86	2.75
-1	5	-11	24.94	3.33
1	5	11	19.02	2.94
2	5	11	18.81	3.04
-2	-5	-11	17.95	2.58
-2	5	-11	15.39	2.88
-3	5	-11	0.89	1.59
3	5	11	-0.43	1.86
-3	-5	-11	0.69	1.49
4	5	11	1.63	2.07
-4	5	-11	0.99	1.69
5	5	11	-3.25	1.87
-5	5	-11	2.46	1.96
6	5	11	4.66	2.59
-6	5	-11	2.08	1.44
-8	6	11	0.91	2.02
-7	6	11	4.70	2.22
7	6	-11	6.17	2.37
6	-6	-11	10.79	2.48
6	6	-11	7.57	2.33
-6	6	11	7.26	2.34
5	6	-11	0.49	1.90
5	-6	-11	1.89	1.86
-5	6	11	2.68	1.96
4	-6	-11	0.05	1.54
4	6	-11	1.77	1.85
-4	6	11	-0.80	1.35
3	-6	-11	0.86	1.53
-3	6	11	-0.77	1.39
3	6	-11	-2.37	1.57
2	6	-11	32.28	3.62
2	-6	-11	36.57	3.39

-2	6	11	33.99	3.41
1	-6	-11	11.63	2.36
-1	6	11	7.25	2.14
1	6	-11	11.61	2.91
0	6	11	-1.67	1.70
0	-6	-11	1.62	1.16
0	6	-11	-2.06	1.74
-1	6	-11	16.14	3.16
-1	-6	-11	18.31	2.68
1	6	11	18.94	3.19
2	6	11	26.41	3.53
-2	-6	-11	28.47	3.17
-2	6	-11	24.84	3.62
3	6	11	1.13	2.15
-3	6	-11	1.20	2.07
-4	6	-11	2.35	1.92
4	6	11	2.56	2.22
5	6	11	-0.09	2.21
-5	6	-11	1.99	1.42
8	7	-11	-1.10	2.48
7	7	-11	-1.26	2.32
-7	7	11	3.21	2.36
-6	7	11	2.55	2.00
6	7	-11	3.58	2.27
-5	7	11	6.42	2.21
5	-7	-11	7.45	2.28
5	7	-11	-1.52	1.88
4	7	-11	-0.74	1.63
-4	7	11	-1.94	1.44
4	-7	-11	-0.80	1.52
3	-7	-11	6.07	2.23
-3	7	11	4.41	1.99
3	7	-11	3.25	2.27
2	7	-11	-2.02	1.71
2	-7	-11	1.00	1.58
-2	7	11	-1.74	1.55
1	-7	-11	0.42	1.46
1	7	-11	2.07	2.39
-1	7	11	0.56	1.67
0	7	-11	12.40	3.13
0	7	11	9.78	2.65
0	-7	-11	12.62	2.59
-1	7	-11	2.47	2.39
-1	-7	-11	4.65	1.88
1	7	11	4.14	2.28
-2	7	-11	0.05	2.11
2	7	11	3.39	2.31
-3	7	-11	4.08	2.67
3	7	11	-2.29	1.70
4	7	11	2.62	2.52
-4	7	-11	1.63	1.73
6	8	-11	3.34	2.77
5	8	-11	-0.02	2.18
-5	8	11	2.62	2.14
5	-8	-11	2.06	2.11
4	-8	-11	1.94	2.04
-4	8	11	-0.05	1.81
4	8	-11	-0.14	2.29
-3	8	11	-0.47	1.81
3	8	-11	-0.69	2.08

3	-8	-11	-0.59	1.67
2	-8	-11	0.58	1.79
-2	8	11	1.18	1.79
2	8	-11	0.13	2.15
-1	8	11	1.63	1.87
1	-8	-11	0.25	1.73
1	8	-11	-2.31	2.28
0	8	-11	6.52	3.12
0	8	11	4.19	2.45
1	8	11	10.41	2.94
-1	8	-11	16.91	3.75
-2	8	-11	0.95	2.45
2	8	11	0.44	2.37
3	8	11	0.52	2.27
-2	9	11	-2.03	1.69
-1	9	11	8.04	2.93
0	9	11	2.61	2.26
9	0	-12	-1.21	1.57
8	0	-12	4.90	1.95
-7	0	12	0.76	1.34
7	0	-12	0.04	1.43
-6	0	12	2.30	1.37
6	0	-12	1.09	1.37
5	0	-12	-0.47	1.24
-5	0	12	0.53	1.04
-4	0	12	10.21	1.58
4	0	-12	9.94	1.90
-3	0	12	-0.17	0.96
3	0	-12	0.65	0.91
2	0	-12	12.46	2.13
-2	0	12	11.08	1.69
1	0	-12	2.15	1.23
-1	0	12	-0.33	1.14
1	0	-12	-1.11	0.87
0	0	-12	3.69	1.48
0	0	12	6.25	1.69
0	0	-12	3.74	1.17
1	0	12	2.07	1.46
-1	0	-12	0.23	0.96
-1	0	-12	1.80	1.49
-2	0	-12	48.30	3.02
2	0	12	48.49	3.54
-2	0	-12	46.37	3.29
3	0	12	-0.52	1.45
-3	0	-12	0.23	1.13
-4	0	-12	3.66	1.41
4	0	12	1.94	1.67
5	0	12	-1.03	1.56
-5	0	-12	-0.02	1.25
6	0	12	4.61	2.17
-6	0	-12	3.67	1.71
-7	0	-12	-1.43	1.35
7	0	12	-0.93	1.95
8	0	12	1.28	2.59
-10	1	12	9.05	2.63
9	1	-12	0.09	1.57
-9	1	12	0.19	1.68
-8	1	12	2.27	1.73
8	-1	-12	2.23	1.83
8	1	-12	0.05	1.36

7	1	-12	-1.19	1.07
7	-1	-12	0.77	1.61
-7	1	12	0.21	1.43
6	-1	-12	55.55	3.86
-6	1	12	57.68	3.69
6	1	-12	58.77	3.91
5	-1	-12	259.05	9.10
-5	1	12	248.48	8.49
5	1	-12	257.48	9.08
4	-1	-12	13.41	2.16
4	1	-12	13.97	2.08
-4	1	12	16.71	2.07
3	-1	-12	14.87	2.24
3	1	-12	18.00	2.26
-3	1	12	20.80	2.17
-2	1	12	2.88	1.40
2	-1	-12	1.91	1.45
2	1	-12	2.69	1.28
2	1	-12	1.94	1.18
1	1	-12	89.48	3.86
-1	1	12	88.86	4.34
1	-1	-12	83.29	4.38
-1	-1	12	80.96	3.73
1	1	-12	79.74	4.13
0	1	12	25.40	2.62
0	-1	-12	22.15	2.46
0	1	-12	24.49	2.21
0	-1	-12	24.03	1.92
0	-1	12	22.97	2.27
0	1	-12	22.79	2.38
1	1	12	0.74	1.38
-1	-1	-12	1.93	1.48
1	-1	12	0.02	1.21
-1	1	-12	-0.16	1.10
-1	-1	-12	0.05	0.79
-1	1	-12	1.01	1.27
-2	-1	-12	150.65	5.64
-2	1	-12	138.76	5.79
-2	-1	-12	150.17	6.01
-2	1	-12	143.74	5.71
2	-1	12	152.34	5.97
2	1	12	153.04	6.54
-3	-1	-12	18.13	2.24
-3	1	-12	13.14	2.11
-3	-1	-12	15.57	2.10
3	1	12	15.99	2.42
3	-1	12	13.98	2.19
-4	-1	-12	20.81	2.45
4	-1	12	25.24	2.77
-4	1	-12	18.03	2.39
4	1	12	12.81	2.42
-5	1	-12	1.09	1.47
5	1	12	-0.80	1.59
-5	-1	-12	1.45	1.40
5	-1	12	2.17	1.84
6	-1	12	3.28	1.86
-6	-1	-12	1.23	1.43
-6	1	-12	3.49	1.62
6	1	12	-1.23	1.75
7	-1	12	0.52	1.97

-7	1	-12	1.86	1.60
-7	-1	-12	2.32	1.79
7	1	12	1.38	2.40
8	-1	12	2.28	2.73
-11	2	12	0.67	2.45
10	2	-12	-0.10	1.98
-10	2	12	2.79	2.35
-9	2	12	3.78	2.18
9	2	-12	2.03	1.76
8	2	-12	0.27	1.52
8	-2	-12	-1.79	1.58
-8	2	12	0.79	1.75
7	-2	-12	1.09	1.47
7	2	-12	1.50	1.51
-7	2	12	1.75	1.47
-6	2	12	-0.82	1.33
6	-2	-12	0.44	1.34
6	2	-12	-0.50	1.08
-5	2	12	25.60	2.72
5	2	-12	27.23	2.85
5	-2	-12	38.53	3.39
-4	2	12	2.74	1.41
4	2	-12	1.01	0.97
4	-2	-12	3.70	1.76
-3	2	12	19.05	2.36
3	2	-12	24.99	2.43
3	-2	-12	20.85	2.60
3	2	-12	26.77	2.64
2	-2	-12	0.83	1.26
2	2	-12	1.28	1.25
-2	2	12	-1.66	1.26
2	2	-12	0.90	1.43
-1	2	12	8.46	2.06
1	-2	-12	10.06	2.12
1	2	-12	6.32	1.55
1	2	-12	5.26	1.69
0	-2	-12	39.48	3.25
0	2	12	46.30	3.47
0	2	-12	42.64	2.96
0	2	-12	49.00	3.29
-1	2	-12	35.58	2.74
1	2	12	31.27	3.08
-1	-2	-12	31.84	3.00
-1	-2	-12	33.82	2.25
-1	2	-12	33.11	2.82
-2	-2	-12	15.29	1.86
2	2	12	12.59	2.46
-2	-2	-12	16.47	2.37
-2	2	-12	11.67	2.06
3	2	12	15.89	2.71
-3	-2	-12	16.48	2.29
-3	2	-12	11.67	2.12
-3	-2	-12	15.35	1.99
-4	-2	-12	18.40	2.38
-4	2	-12	21.89	2.66
4	2	12	19.70	2.95
5	2	12	-1.73	1.68
-5	2	-12	-0.72	1.15
-5	-2	-12	0.06	1.24
-6	2	-12	1.44	1.45

-6	-2	-12	5.20	1.92
6	2	12	0.08	1.99
7	2	12	0.13	2.37
-7	2	-12	2.82	1.70
-7	-2	-12	-0.71	1.51
10	3	-12	1.01	2.06
-10	3	12	4.06	2.52
9	3	-12	3.58	1.84
-9	3	12	-0.04	1.79
-8	3	12	6.46	2.31
8	3	-12	9.04	2.25
7	-3	-12	-2.31	1.49
7	3	-12	-0.78	1.20
-7	3	12	1.84	1.61
6	-3	-12	0.04	1.56
-6	3	12	0.84	1.44
6	3	-12	1.08	1.17
-5	3	12	25.27	2.92
5	-3	-12	30.44	3.16
5	3	-12	28.20	2.94
4	3	-12	4.20	1.46
4	3	-12	6.97	1.90
-4	3	12	6.08	1.92
4	-3	-12	5.20	1.87
-3	3	12	17.71	2.37
3	3	-12	14.99	2.34
3	-3	-12	13.11	2.39
3	3	-12	19.74	2.41
2	3	-12	10.06	2.12
2	-3	-12	10.58	2.15
-2	3	12	6.10	1.91
2	3	-12	11.16	1.92
1	-3	-12	2.96	1.64
-1	3	12	0.22	1.53
1	3	-12	1.90	1.26
1	3	-12	2.20	1.73
0	3	-12	7.59	2.07
0	3	-12	8.48	1.79
0	-3	-12	10.30	2.12
0	3	12	8.32	2.23
1	3	12	46.97	3.93
-1	3	-12	47.86	3.54
-1	-3	-12	45.81	3.60
-1	3	-12	47.27	3.22
-2	-3	-12	48.98	3.00
-2	-3	-12	56.08	3.76
2	3	12	57.74	4.20
-2	3	-12	45.92	3.65
3	3	12	8.34	2.34
-3	-3	-12	3.16	1.61
-3	-3	-12	3.85	1.36
-3	3	-12	2.45	1.66
4	3	12	0.95	2.02
-4	-3	-12	0.92	1.47
-4	-3	-12	0.23	1.08
-4	3	-12	-0.50	1.35
-5	3	-12	0.86	1.36
5	3	12	0.65	2.14
-5	-3	-12	1.46	1.33
6	3	12	-0.53	2.02

-6	-3	-12	0.15	1.52
-6	3	-12	-0.20	1.35
7	3	12	1.40	2.60
-7	3	-12	0.55	1.63
10	4	-12	4.42	2.38
-9	4	12	2.31	2.20
9	4	-12	2.27	1.81
8	4	-12	2.20	1.52
-8	4	12	4.70	2.14
-7	4	12	4.61	2.16
7	-4	-12	3.15	2.03
7	4	-12	1.41	1.34
-6	4	12	1.06	1.48
6	-4	-12	0.80	1.76
6	4	-12	0.97	1.24
-5	4	12	-0.44	1.39
5	4	-12	0.94	1.52
5	4	-12	1.51	1.00
5	-4	-12	0.38	1.69
-4	4	12	-1.08	1.41
4	4	-12	-1.66	1.40
4	-4	-12	1.77	1.66
4	4	-12	1.11	1.16
3	4	-12	6.88	2.07
3	-4	-12	8.31	2.11
3	4	-12	8.46	1.81
-3	4	12	2.51	1.63
-2	4	12	21.78	2.78
2	4	-12	22.98	2.53
2	-4	-12	27.21	3.04
2	4	-12	23.53	2.95
-1	4	12	7.31	2.24
1	4	-12	2.46	1.32
1	-4	-12	2.85	1.60
1	4	-12	1.88	1.88
0	4	-12	14.49	2.16
0	4	-12	12.65	2.55
0	4	12	15.54	2.79
0	-4	-12	15.91	2.48
1	4	12	0.18	1.71
-1	4	-12	1.82	1.85
-1	-4	-12	-0.32	1.45
-2	4	-12	0.68	1.55
-2	-4	-12	0.60	1.46
2	4	12	-1.89	1.65
-3	4	-12	13.84	2.53
3	4	12	15.49	2.90
-3	-4	-12	15.23	2.31
4	4	12	-1.10	1.95
-4	-4	-12	0.68	1.41
-4	4	-12	2.54	1.81
-5	4	-12	3.07	1.74
5	4	12	1.68	2.44
6	4	12	2.59	2.34
-6	4	-12	2.64	1.81
-9	5	12	0.83	2.28
9	5	-12	1.12	1.68
-8	5	12	1.61	2.15
8	5	-12	2.74	1.90
-7	5	12	1.76	1.96

6	5	-12	-1.96	1.56
-6	5	12	0.83	1.72
6	-5	-12	0.08	1.73
5	5	-12	11.46	2.48
-5	5	12	12.90	2.69
5	-5	-12	18.67	2.86
4	-5	-12	4.18	1.86
4	5	-12	5.61	2.08
-4	5	12	4.02	2.05
3	5	-12	49.98	3.88
3	-5	-12	43.31	3.69
3	5	-12	44.30	3.83
-3	5	12	38.66	3.75
2	5	-12	0.10	1.15
-2	5	12	-0.78	1.51
2	-5	-12	-0.11	1.39
2	5	-12	-0.83	1.60
-1	5	12	6.71	2.13
1	-5	-12	5.93	2.09
1	5	-12	5.95	1.72
1	5	-12	7.83	2.31
0	5	12	7.17	2.27
0	5	-12	3.79	2.03
0	5	-12	7.42	1.87
0	-5	-12	8.62	2.26
-1	-5	-12	20.44	2.75
-1	5	-12	22.96	3.36
2	5	12	3.12	1.90
-2	5	-12	8.86	2.49
-2	-5	-12	16.35	2.53
3	5	12	-0.21	1.80
-3	-5	-12	1.01	1.60
-3	5	-12	1.44	1.83
4	5	12	8.27	2.79
-4	5	-12	9.56	2.39
5	5	12	6.41	2.80
-5	5	-12	6.68	2.30
-8	6	12	0.92	2.15
7	6	-12	-1.41	2.02
-7	6	12	2.52	2.24
6	6	-12	20.08	3.24
-6	6	12	11.62	2.74
6	-6	-12	22.77	3.17
5	6	-12	26.03	3.47
5	-6	-12	32.16	3.53
-4	6	12	7.65	2.42
4	-6	-12	21.24	3.09
4	6	-12	17.38	3.08
3	6	-12	4.26	2.20
-3	6	12	3.37	2.05
3	-6	-12	9.07	2.31
2	6	-12	6.13	2.54
-2	6	12	4.36	1.94
2	-6	-12	9.71	2.24
1	-6	-12	-0.77	1.36
-1	6	12	1.42	1.82
1	6	-12	3.20	1.69
1	6	-12	1.60	2.16
0	6	12	0.43	1.93
0	6	-12	1.97	2.32

0	-6	-12	2.06	1.59
-1	6	-12	5.46	2.45
-1	-6	-12	6.64	2.04
1	6	12	3.41	2.34
2	6	12	4.01	2.24
-2	6	-12	4.27	2.30
-2	-6	-12	1.95	1.62
3	6	12	3.75	2.64
-3	6	-12	4.11	2.33
-4	6	-12	7.63	2.42
4	6	12	3.82	2.79
-5	6	-12	1.87	2.04
5	6	12	-0.23	2.62
7	7	-12	4.01	2.73
-6	7	12	4.92	2.43
6	7	-12	-0.46	2.40
-5	7	12	1.54	1.88
5	7	-12	-0.15	1.99
5	-7	-12	3.90	2.20
4	-7	-12	2.73	2.07
-4	7	12	7.74	2.51
4	7	-12	4.34	2.56
-3	7	12	1.41	1.92
3	-7	-12	2.81	1.89
3	7	-12	-0.25	2.09
2	-7	-12	0.42	1.80
2	7	-12	0.35	2.09
-2	7	12	0.60	1.62
-1	7	12	0.87	1.99
1	-7	-12	1.70	1.76
1	7	-12	-1.32	1.94
0	7	12	4.01	2.31
0	7	-12	7.15	3.01
0	-7	-12	3.18	1.86
1	7	12	4.22	2.55
-1	7	-12	1.19	2.24
-1	-7	-12	1.47	1.70
2	7	12	0.77	2.19
-2	7	-12	-1.54	1.93
-3	7	-12	-1.65	2.13
3	7	12	-1.59	2.04
5	8	-12	-0.33	2.39
-5	8	12	-1.54	1.66
5	-8	-12	0.35	2.17
4	-8	-12	0.28	1.77
4	8	-12	0.15	2.71
-4	8	12	0.58	1.89
3	8	-12	2.26	2.40
3	-8	-12	0.65	2.01
-3	8	12	0.91	1.84
2	-8	-12	-0.73	1.81
2	8	-12	1.92	2.63
-2	8	12	0.09	1.77
-1	8	12	5.47	2.50
1	-8	-12	4.58	2.05
1	8	-12	-0.74	2.41
0	8	-12	1.17	2.90
0	-8	-12	3.41	2.13
0	8	12	1.60	2.32
1	8	12	1.90	2.54

-1	8	-12	0.79	2.73
2	8	12	1.76	2.54
9	0	-13	4.01	2.16
8	0	-13	-0.79	1.58
7	0	-13	-0.51	1.25
6	0	-13	-0.72	1.28
-5	0	13	16.25	1.98
5	0	-13	17.17	2.52
4	0	-13	-0.25	1.18
-4	0	13	-0.51	0.99
3	0	-13	15.53	2.28
-3	0	13	13.62	1.78
2	0	-13	2.18	1.37
-2	0	13	0.37	1.20
1	0	-13	35.03	3.03
-1	0	13	34.63	2.86
0	0	-13	-0.04	0.99
0	0	-13	-0.01	1.30
0	0	13	-2.50	1.33
1	0	13	-0.16	1.52
-1	0	-13	-1.81	1.30
-1	0	-13	-0.79	0.98
-2	0	-13	0.31	1.11
-2	0	-13	-0.77	1.42
2	0	13	-1.18	1.52
3	0	13	56.20	4.00
-3	0	-13	53.90	3.69
4	0	13	-2.42	1.49
-4	0	-13	-0.18	1.11
5	0	13	0.38	1.73
-5	0	-13	2.56	1.55
6	0	13	-3.07	1.72
-6	0	-13	1.40	1.51
7	0	13	36.08	4.46
-7	0	-13	21.77	3.29
10	1	-13	0.63	1.92
9	1	-13	6.60	2.24
9	-1	-13	8.39	2.68
-9	1	13	6.78	2.34
-8	1	13	9.45	2.37
8	1	-13	10.68	2.45
8	-1	-13	8.26	2.41
7	1	-13	8.92	2.18
7	-1	-13	12.96	2.50
-7	1	13	12.55	2.26
6	1	-13	21.15	2.68
6	-1	-13	17.27	2.59
-6	1	13	21.83	2.45
5	1	-13	67.24	4.35
-5	1	13	68.54	3.98
5	-1	-13	77.93	4.60
-4	1	13	8.30	1.76
4	-1	-13	11.00	2.28
3	1	-13	5.93	1.69
3	-1	-13	0.28	1.13
-3	1	13	4.76	1.58
-2	1	13	7.56	1.74
2	-1	-13	4.72	1.73
2	1	-13	8.59	1.83
-1	1	13	3.30	1.73

1	-1	-13	4.98	1.76
1	1	-13	4.81	1.41
1	1	-13	4.87	1.57
0	-1	-13	19.01	2.51
0	1	-13	18.76	2.14
0	1	-13	12.63	2.11
0	1	13	18.31	2.42
-1	1	-13	5.27	1.74
1	-1	13	7.72	1.90
-1	-1	-13	9.01	1.54
-1	-1	-13	7.85	2.01
-1	1	-13	8.11	1.74
1	1	13	3.64	1.92
-2	-1	-13	9.73	2.08
-2	1	-13	9.06	1.86
2	-1	13	10.92	2.16
-2	-1	-13	9.69	1.72
2	1	13	9.92	2.33
-3	-1	-13	1.70	1.24
-3	1	-13	2.43	1.45
3	-1	13	0.66	1.70
3	1	13	-0.27	1.52
-4	1	-13	0.93	1.21
-4	-1	-13	-1.56	0.99
4	1	13	-1.55	1.67
4	-1	13	-1.44	1.46
-5	-1	-13	-0.49	1.28
-5	1	-13	-1.71	1.28
5	1	13	-1.68	1.82
5	-1	13	2.39	2.00
6	1	13	2.04	2.35
6	-1	13	1.34	2.28
-6	1	-13	-0.99	1.46
-6	-1	-13	-0.11	1.39
-7	1	-13	-0.49	1.67
7	-1	13	-2.70	2.18
-7	-1	-13	-0.95	1.60
7	1	13	-1.37	2.30
10	2	-13	-0.77	2.00
-10	2	13	-2.73	1.88
9	2	-13	5.93	2.37
-9	2	13	6.19	2.53
8	2	-13	-0.59	1.59
8	-2	-13	0.92	1.91
-8	2	13	3.33	2.02
7	2	-13	1.51	1.63
-7	2	13	2.06	1.58
7	-2	-13	3.59	1.88
-6	2	13	-1.14	1.40
6	2	-13	1.34	1.52
6	-2	-13	1.02	1.56
5	2	-13	4.13	1.68
-5	2	13	4.86	1.85
5	-2	-13	3.50	1.71
4	-2	-13	50.78	3.95
-4	2	13	57.79	3.69
4	2	-13	55.94	3.87
3	2	-13	21.08	2.53
-3	2	13	25.67	2.67
3	-2	-13	21.38	2.79

2	2	-13	10.93	2.00
2	2	-13	7.18	1.78
2	-2	-13	11.25	2.20
-2	2	13	12.08	2.20
1	2	-13	1.50	1.40
1	-2	-13	1.41	1.67
1	2	-13	2.21	1.54
-1	2	13	-1.73	1.50
0	2	-13	18.23	2.31
0	2	13	10.53	2.31
0	-2	-13	17.28	2.58
0	2	-13	18.06	2.27
-1	2	-13	23.30	2.54
-1	2	-13	18.47	2.34
-1	-2	-13	30.11	3.00
-1	-2	-13	22.72	2.03
1	2	13	22.75	2.94
-2	2	-13	0.23	1.23
2	2	13	1.36	1.86
-2	-2	-13	-0.79	1.49
-2	-2	-13	-0.46	1.03
-3	-2	-13	61.27	3.67
-3	-2	-13	61.06	3.99
-3	2	-13	49.13	3.64
3	2	13	55.68	4.29
4	2	13	9.39	2.66
-4	2	-13	6.43	1.82
-4	-2	-13	8.92	2.03
5	2	13	2.19	2.25
-5	-2	-13	2.33	1.66
-5	2	-13	-0.22	1.24
6	2	13	1.83	2.33
-6	-2	-13	1.43	1.65
-6	2	-13	2.65	1.73
7	2	13	-3.15	2.42
-7	-2	-13	-0.39	1.78
-10	3	13	9.34	3.17
10	3	-13	7.41	2.57
9	3	-13	-0.13	1.74
-9	3	13	3.27	2.22
-8	3	13	-0.44	1.65
8	3	-13	-0.75	1.42
8	-3	-13	0.22	1.86
7	-3	-13	-0.94	1.70
7	3	-13	-0.60	1.30
-7	3	13	-2.36	1.29
-6	3	13	2.19	1.69
6	-3	-13	4.46	1.93
6	3	-13	3.06	1.51
5	-3	-13	2.80	1.76
5	3	-13	2.14	1.48
-5	3	13	5.85	2.06
4	3	-13	1.13	1.39
-4	3	13	-0.23	1.34
4	-3	-13	-0.64	1.48
3	3	-13	9.48	2.01
3	3	-13	12.50	2.17
-3	3	13	8.91	2.04
3	-3	-13	8.63	2.27
-2	3	13	6.28	2.09

2	3	-13	7.92	1.93
2	3	-13	8.71	2.10
2	-3	-13	2.37	1.22
1	3	-13	3.53	1.53
1	-3	-13	4.40	1.92
-1	3	13	1.49	1.73
1	3	-13	5.54	1.99
0	3	-13	12.03	2.32
0	3	-13	12.77	2.01
0	-3	-13	11.55	2.34
0	3	13	8.54	2.30
1	3	13	15.06	2.73
-1	-3	-13	20.78	2.66
-1	3	-13	14.78	2.40
-2	-3	-13	13.85	1.90
2	3	13	15.07	2.72
-2	3	-13	17.59	2.50
-2	-3	-13	12.11	2.29
-3	-3	-13	0.72	1.17
-3	3	-13	0.63	1.42
-3	-3	-13	3.26	1.79
3	3	13	0.93	1.85
-4	3	-13	13.14	2.48
-4	-3	-13	10.48	2.08
4	3	13	4.23	2.42
-5	3	-13	0.21	1.43
5	3	13	-1.97	1.95
-5	-3	-13	1.39	1.57
6	3	13	3.29	2.69
-6	3	-13	1.05	1.53
-9	4	13	2.93	2.46
9	4	-13	1.17	1.84
-8	4	13	0.50	2.01
8	4	-13	1.61	1.58
7	4	-13	5.36	1.98
-7	4	13	2.10	1.89
7	-4	-13	2.55	2.00
-6	4	13	11.14	2.46
6	4	-13	12.39	2.39
6	-4	-13	9.75	2.46
-5	4	13	1.32	1.70
5	-4	-13	1.35	1.75
5	4	-13	0.22	1.32
4	4	-13	9.64	2.14
-4	4	13	9.27	2.22
4	4	-13	9.08	2.27
4	-4	-13	12.72	2.51
-3	4	13	8.43	2.23
3	4	-13	2.53	1.93
3	4	-13	2.49	1.41
3	-4	-13	7.41	2.25
2	4	-13	3.23	1.91
-2	4	13	3.51	1.81
2	4	-13	2.83	1.60
2	-4	-13	4.22	1.87
1	4	-13	7.14	2.65
-1	4	13	1.93	1.76
1	-4	-13	2.15	1.61
1	4	-13	3.94	1.68
0	-4	-13	0.57	1.60

0	4	13	1.67	1.87
0	4	-13	0.01	1.35
0	4	-13	0.83	1.79
1	4	13	2.08	2.04
-1	4	-13	1.57	1.90
-1	-4	-13	0.43	1.63
2	4	13	12.04	2.86
-2	-4	-13	13.99	2.47
-2	4	-13	15.42	2.71
3	4	13	-3.07	1.81
-3	-4	-13	0.45	1.62
-3	4	-13	1.11	1.55
-4	4	-13	3.11	1.84
-4	-4	-13	5.18	2.00
4	4	13	0.32	2.04
-5	4	-13	0.92	1.54
5	4	13	1.20	2.55
6	4	13	-1.40	2.44
-6	4	-13	-0.64	1.57
-8	5	13	0.98	2.15
8	5	-13	-0.87	1.53
-7	5	13	-0.53	1.95
7	5	-13	2.44	1.71
7	-5	-13	0.41	2.06
6	5	-13	-0.32	1.34
-6	5	13	2.27	1.96
6	-5	-13	3.34	2.13
-5	5	13	1.03	1.71
5	-5	-13	-0.09	1.81
5	5	-13	1.79	1.47
5	5	-13	-1.46	1.77
-4	5	13	-0.44	1.53
4	5	-13	-0.04	1.34
4	5	-13	-0.80	1.66
4	-5	-13	0.80	1.75
-3	5	13	5.04	2.13
3	5	-13	8.61	2.49
3	-5	-13	7.08	2.13
3	5	-13	6.53	1.93
2	5	-13	0.04	1.83
2	5	-13	0.84	1.46
2	-5	-13	-0.61	1.62
-2	5	13	1.70	1.88
1	5	-13	1.61	2.08
-1	5	13	0.53	1.86
1	5	-13	1.39	1.58
1	-5	-13	-0.37	1.08
0	-5	-13	0.70	1.60
0	5	13	7.77	2.47
0	5	-13	6.49	2.53
1	5	13	35.65	3.91
-1	5	-13	30.28	3.71
-1	-5	-13	35.16	3.54
-2	-5	-13	1.67	1.62
2	5	13	0.34	1.89
-2	5	-13	3.53	2.12
-3	5	-13	0.89	1.70
-3	-5	-13	2.67	1.85
3	5	13	3.90	2.17
4	5	13	-0.27	1.66

-4	-5	-13	1.92	1.79
-4	5	-13	-1.05	1.45
-5	5	-13	0.58	1.80
5	5	13	-0.65	2.32
-7	6	13	2.08	2.15
-6	6	13	10.37	2.90
6	-6	-13	9.36	2.71
6	6	-13	4.85	2.47
5	6	-13	4.39	2.48
5	-6	-13	9.59	2.65
-5	6	13	6.93	2.59
4	-6	-13	31.31	3.56
4	6	-13	31.24	3.88
-4	6	13	28.12	3.54
-3	6	13	1.14	1.47
3	6	-13	2.00	1.62
3	6	-13	2.98	2.20
3	-6	-13	-2.62	1.60
2	-6	-13	0.71	1.78
-2	6	13	1.32	1.45
2	6	-13	5.78	2.52
2	6	-13	2.19	1.59
1	-6	-13	0.72	1.67
1	6	-13	-1.89	1.98
1	6	-13	2.32	1.56
-1	6	13	0.16	1.69
0	6	13	14.23	3.07
0	-6	-13	16.42	2.82
0	6	-13	11.72	3.00
-1	6	-13	7.23	2.59
1	6	13	0.11	2.25
-1	-6	-13	2.32	1.65
-2	6	-13	10.27	2.86
-2	-6	-13	12.77	2.72
2	6	13	11.31	3.11
-3	-6	-13	3.08	2.09
-3	6	-13	1.75	2.07
3	6	13	1.60	2.39
4	6	13	4.65	2.83
-4	6	-13	-1.14	1.84
6	-7	-13	2.11	2.34
6	7	-13	-3.39	2.25
-6	7	13	2.79	2.40
5	7	-13	-1.45	2.37
5	-7	-13	0.67	2.10
-5	7	13	2.16	2.28
4	-7	-13	1.63	1.98
-4	7	13	0.90	1.84
4	7	-13	-1.01	2.13
-3	7	13	-0.07	1.90
3	7	-13	1.38	2.40
3	-7	-13	-0.26	1.61
2	7	-13	2.24	1.85
2	-7	-13	-1.32	1.68
-2	7	13	-1.04	1.67
2	7	-13	2.89	2.61
1	-7	-13	3.06	1.84
-1	7	13	2.37	2.21
1	7	-13	4.04	2.61
0	-7	-13	1.59	1.46

0	7	-13	3.61	2.69
0	7	13	0.25	1.94
-1	7	-13	7.29	3.12
1	7	13	6.50	2.84
-1	-7	-13	6.58	2.41
2	7	13	0.90	2.28
-2	-7	-13	0.17	1.64
-2	7	-13	1.32	2.49
5	8	-13	3.54	2.94
5	-8	-13	0.60	2.29
4	-8	-13	4.83	2.59
4	8	-13	5.61	3.22
3	-8	-13	3.09	2.16
-3	8	13	2.37	2.18
3	8	-13	1.36	2.83
-2	8	13	0.52	2.14
2	-8	-13	2.10	2.15
2	8	-13	3.54	2.88
-1	8	13	1.51	2.29
1	-8	-13	3.08	2.12
1	8	-13	2.07	2.85
0	8	-13	1.17	2.80
0	8	13	1.16	2.28
0	-8	-13	2.53	2.08
9	0	-14	-1.95	1.78
8	0	-14	6.76	2.23
7	0	-14	-0.38	1.58
6	0	-14	64.25	4.52
5	0	-14	-0.27	1.39
4	0	-14	93.78	5.15
3	0	-14	-0.62	1.25
-2	0	14	-0.27	1.22
2	0	-14	0.08	1.39
-1	0	14	-1.30	1.31
1	0	-14	-1.50	1.28
0	0	-14	15.38	2.36
0	0	14	19.32	2.53
-1	0	-14	-0.29	1.45
-1	0	-14	0.51	1.14
1	0	14	-0.67	1.56
-2	0	-14	35.83	3.13
-2	0	-14	42.22	3.28
2	0	14	32.04	3.32
-3	0	-14	0.89	1.30
3	0	14	-1.35	1.78
-4	0	-14	2.59	1.53
4	0	14	2.27	2.10
-5	0	-14	-2.36	1.26
5	0	14	-2.94	1.60
-6	0	-14	3.86	1.93
6	0	14	1.71	2.40
7	0	14	-0.48	2.63
10	1	-14	5.74	2.77
9	1	-14	9.49	2.65
9	-1	-14	9.43	2.81
8	1	-14	6.46	2.29
8	-1	-14	2.98	2.21
7	1	-14	21.29	2.95
7	-1	-14	21.70	3.12
-7	1	14	22.26	2.79

-6	1	14	4.93	1.75
6	1	-14	5.95	2.01
6	-1	-14	3.48	1.98
5	1	-14	10.41	2.21
-5	1	14	5.64	1.71
5	-1	-14	6.46	2.04
4	1	-14	16.78	2.41
-4	1	14	26.71	2.64
4	-1	-14	20.72	2.84
-3	1	14	16.50	2.26
3	1	-14	13.75	2.26
3	-1	-14	14.48	2.38
2	-1	-14	5.05	1.95
-2	1	14	5.77	1.85
2	1	-14	2.74	1.50
1	-1	-14	26.08	2.98
-1	1	14	29.41	3.04
1	1	-14	33.53	3.11
0	1	-14	27.09	2.49
0	-1	-14	25.58	2.90
0	1	14	24.27	2.83
0	1	-14	24.74	2.65
1	1	14	28.04	3.13
-1	1	-14	23.77	2.47
-1	-1	-14	15.96	2.46
-1	-1	-14	22.52	2.18
-1	1	-14	23.29	2.64
-2	-1	-14	40.08	2.97
-2	-1	-14	41.45	3.42
2	1	14	39.06	3.65
-2	1	-14	33.61	2.93
3	1	14	29.78	3.51
-3	-1	-14	34.44	3.02
-3	1	-14	31.62	3.05
-4	1	-14	3.06	1.58
4	1	14	5.21	2.40
-4	-1	-14	3.85	1.67
-5	-1	-14	0.50	1.52
5	1	14	-1.67	1.79
-5	1	-14	0.68	1.49
-6	1	-14	1.46	1.84
6	1	14	-0.33	2.43
-6	-1	-14	3.69	1.92
10	2	-14	0.11	2.21
-10	2	14	2.33	2.62
-9	2	14	0.50	2.03
9	2	-14	3.17	1.95
8	-2	-14	-0.49	1.90
8	2	-14	1.65	1.71
-8	2	14	1.22	1.95
-7	2	14	3.57	1.97
7	-2	-14	3.92	2.18
7	2	-14	2.23	1.77
6	-2	-14	6.76	2.30
6	2	-14	3.84	1.85
-6	2	14	6.67	2.02
-5	2	14	30.33	3.07
5	2	-14	31.88	3.29
5	-2	-14	33.39	3.43
4	-2	-14	14.18	2.60

-4	2	14	12.61	2.26
4	2	-14	11.39	2.26
3	-2	-14	5.46	1.99
-3	2	14	5.74	1.78
3	2	-14	3.09	1.61
-2	2	14	-0.22	1.58
2	2	-14	2.15	1.58
2	-2	-14	2.95	1.89
1	2	-14	21.38	2.54
1	-2	-14	19.68	2.73
-1	2	14	17.11	2.74
1	2	-14	20.69	2.43
0	2	-14	0.11	1.39
0	2	14	3.53	2.23
0	2	-14	4.16	1.64
0	-2	-14	1.91	1.74
-1	2	-14	29.07	2.85
-1	-2	-14	29.52	3.04
1	2	14	32.25	3.47
-1	2	-14	26.39	2.79
2	2	14	92.66	5.59
-2	2	-14	92.86	4.91
-2	-2	-14	102.75	5.28
-2	-2	-14	85.94	4.32
-3	2	-14	11.69	2.25
-3	-2	-14	9.96	2.01
3	2	14	11.29	2.74
-3	-2	-14	8.19	2.24
-4	-2	-14	-0.67	1.34
4	2	14	-0.56	1.98
-4	2	-14	-0.37	1.23
5	2	14	-1.00	2.03
-5	2	-14	1.35	1.54
-5	-2	-14	3.37	1.85
6	2	14	1.24	2.46
-6	-2	-14	1.75	1.74
-6	2	-14	1.22	1.91
-10	3	14	0.49	2.41
10	3	-14	-1.40	2.07
9	3	-14	1.32	2.09
-9	3	14	1.40	2.34
8	-3	-14	-0.75	1.94
8	3	-14	2.78	2.00
-8	3	14	4.48	2.24
-7	3	14	1.01	1.70
7	3	-14	-1.54	1.40
7	-3	-14	0.60	1.87
6	-3	-14	7.13	2.16
-6	3	14	10.29	2.39
6	3	-14	10.27	2.41
5	3	-14	1.85	1.41
-5	3	14	7.77	2.15
5	-3	-14	8.65	2.27
4	3	-14	7.20	2.06
4	-3	-14	11.11	2.58
-4	3	14	9.94	2.18
-3	3	14	15.15	2.49
3	3	-14	25.47	3.01
3	-3	-14	13.73	2.58
-2	3	14	3.59	2.00

2	-3	-14	3.97	1.72
2	3	-14	6.17	1.90
2	3	-14	5.91	2.08
1	-3	-14	1.11	1.75
1	3	-14	1.97	1.70
1	3	-14	-1.32	1.30
-1	3	14	1.22	1.92
0	3	-14	41.15	3.36
0	-3	-14	34.11	3.48
0	3	-14	42.34	3.52
0	3	14	37.99	3.67
-1	-3	-14	1.11	1.66
1	3	14	0.53	1.81
-1	3	-14	0.16	1.53
2	3	14	7.40	2.59
-2	-3	-14	3.32	1.92
-2	3	-14	3.44	1.82
3	3	14	0.60	1.99
-3	3	-14	1.75	1.40
-3	-3	-14	-0.34	1.57
4	3	14	2.40	2.45
-4	-3	-14	-0.15	1.31
-4	3	-14	0.15	1.31
-5	3	-14	-0.06	1.55
-5	-3	-14	-0.54	1.39
5	3	14	-2.89	2.05
6	3	14	-3.57	2.27
-9	4	14	3.35	2.45
9	4	-14	0.99	1.95
-8	4	14	0.63	2.07
8	4	-14	2.16	1.95
-7	4	14	2.02	2.00
7	4	-14	0.57	1.57
7	-4	-14	0.71	1.88
-6	4	14	1.51	1.81
6	4	-14	1.52	1.53
6	-4	-14	0.70	1.82
5	-4	-14	-2.21	1.41
5	4	-14	0.84	1.53
-5	4	14	0.05	1.78
4	4	-14	0.12	1.32
-4	4	14	2.81	1.83
4	-4	-14	2.84	1.80
3	4	-14	5.06	1.89
-3	4	14	4.02	1.93
3	-4	-14	4.88	2.16
3	4	-14	2.99	2.02
2	4	-14	6.17	2.25
-2	4	14	3.92	2.01
2	4	-14	2.88	1.67
2	-4	-14	2.05	1.78
1	-4	-14	2.80	1.84
1	4	-14	-0.57	1.63
1	4	-14	0.09	1.49
-1	4	14	1.71	1.90
0	-4	-14	12.89	2.50
0	4	14	12.79	2.84
0	4	-14	12.14	2.57
0	4	-14	10.04	2.15
1	4	14	1.30	2.09

-1	-4	-14	-0.66	1.58
-1	4	-14	0.22	1.58
2	4	14	-2.21	1.82
-2	-4	-14	0.13	1.59
-2	4	-14	0.31	1.57
3	4	14	2.99	2.55
-3	-4	-14	4.62	2.00
-3	4	-14	4.78	1.94
4	4	14	3.49	2.65
-4	4	-14	2.79	1.85
5	4	14	3.29	2.63
-5	4	-14	0.61	1.82
-8	5	14	1.79	2.46
8	5	-14	1.61	2.12
-7	5	14	-1.68	1.92
7	-5	-14	2.01	2.17
7	5	-14	1.32	1.70
6	5	-14	1.24	1.33
6	-5	-14	0.60	2.03
-6	5	14	3.69	2.30
-5	5	14	29.49	3.57
5	5	-14	25.71	3.31
5	-5	-14	33.57	3.75
-4	5	14	14.46	2.78
4	5	-14	13.28	2.87
4	-5	-14	9.67	2.67
4	5	-14	10.16	2.39
3	-5	-14	8.87	2.40
-3	5	14	7.21	2.34
3	5	-14	14.26	2.94
3	5	-14	7.66	2.17
2	5	-14	28.91	3.54
-2	5	14	27.41	3.51
2	-5	-14	31.29	3.49
2	5	-14	33.28	3.34
1	5	-14	4.92	1.96
-1	5	14	3.01	2.16
1	-5	-14	1.90	1.86
1	5	-14	5.09	2.51
0	-5	-14	6.87	2.22
0	5	14	5.18	2.46
0	5	-14	6.33	2.51
1	5	14	3.53	2.36
-1	-5	-14	2.88	1.98
-1	5	-14	2.50	2.04
2	5	14	-0.95	2.16
-2	5	-14	0.18	1.72
-2	-5	-14	2.27	1.85
3	5	14	4.98	2.83
-3	5	-14	4.87	2.17
-3	-5	-14	3.48	2.01
-4	-5	-14	5.13	2.28
-4	5	-14	2.82	2.11
4	5	14	2.37	2.56
-7	6	14	-0.26	2.38
7	6	-14	4.64	2.22
-6	6	14	2.94	2.26
6	6	-14	2.28	1.96
6	-6	-14	1.50	2.11
5	6	-14	7.32	2.38

5	6	-14	6.20	2.81
5	-6	-14	6.03	2.51
-5	6	14	7.12	2.59
4	-6	-14	8.33	2.44
4	6	-14	3.26	1.90
-4	6	14	1.76	2.21
4	6	-14	4.19	2.65
3	6	-14	2.92	1.89
3	-6	-14	3.55	1.97
3	6	-14	-3.22	2.08
-3	6	14	-1.12	1.70
2	-6	-14	-1.21	1.73
2	6	-14	-0.14	2.09
-2	6	14	-0.59	1.85
2	6	-14	-1.57	1.47
1	-6	-14	0.78	1.94
1	6	-14	-0.37	1.68
-1	6	14	-1.80	1.62
1	6	-14	0.24	2.18
0	-6	-14	2.25	1.87
0	6	14	1.66	1.76
0	6	-14	0.20	2.21
1	6	14	1.99	1.97
-1	6	-14	-0.60	1.91
-1	-6	-14	4.30	2.02
2	6	14	1.47	2.76
-2	-6	-14	0.09	1.79
-2	6	-14	2.37	2.23
-3	6	-14	3.28	2.42
3	6	14	-1.70	2.31
-3	-6	-14	1.96	2.14
6	-7	-14	3.11	2.49
5	7	-14	-4.40	2.42
5	7	-14	1.96	2.21
5	-7	-14	2.66	2.27
-5	7	14	1.37	2.23
-4	7	14	4.95	2.50
4	-7	-14	-2.04	1.87
4	7	-14	0.46	2.51
4	7	-14	2.42	1.96
3	7	-14	-4.46	2.03
3	-7	-14	-0.01	1.86
3	7	-14	2.41	1.96
-3	7	14	-0.01	2.01
2	-7	-14	2.41	2.26
2	7	-14	0.65	1.82
2	7	-14	-0.60	2.29
-2	7	14	-1.51	1.76
1	7	-14	0.59	2.62
-1	7	14	-1.68	1.89
1	-7	-14	-1.79	1.51
0	-7	-14	4.66	2.16
0	7	-14	3.47	2.69
0	7	14	1.34	2.19
1	7	14	2.33	2.58
-1	7	-14	-1.54	2.43
-1	-7	-14	-1.22	1.73
-2	7	-14	3.51	2.71
-2	-7	-14	2.48	2.23
3	8	-14	2.45	2.60

3	8	-14	-0.75	3.05
2	8	-14	-3.06	2.62
9	0	-15	26.28	3.78
8	0	-15	-0.88	1.79
7	0	-15	4.17	2.12
6	0	-15	-2.15	1.45
5	0	-15	59.80	4.43
4	0	-15	-0.41	1.04
3	0	-15	6.13	2.08
2	0	-15	0.88	1.59
1	0	-15	-0.26	1.31
0	0	-15	-0.17	1.63
1	0	15	-2.75	1.75
-1	0	-15	-0.91	1.53
2	0	15	2.29	2.07
-2	0	-15	-0.08	1.29
-3	0	-15	25.05	2.83
3	0	15	16.18	3.04
-4	0	-15	-0.29	1.40
4	0	15	1.50	2.33
-5	0	-15	5.16	2.07
5	0	15	2.63	2.55
-6	0	-15	-0.16	1.65
6	0	15	-4.61	2.40
10	1	-15	0.96	2.36
9	1	-15	-0.22	2.04
9	-1	-15	-2.11	2.06
8	-1	-15	4.92	2.51
8	1	-15	6.36	2.35
7	-1	-15	2.91	2.15
7	1	-15	-1.49	1.36
6	1	-15	1.68	1.68
6	-1	-15	-1.08	1.52
5	1	-15	1.49	1.52
5	-1	-15	1.44	1.66
-5	1	15	2.67	1.66
4	-1	-15	22.21	3.06
-4	1	15	22.83	2.60
4	1	-15	19.94	2.78
3	-1	-15	4.41	1.81
-3	1	15	3.02	1.67
3	1	-15	3.33	1.75
-2	1	15	1.38	1.60
2	1	-15	1.85	1.59
2	-1	-15	1.89	1.77
1	-1	-15	4.54	1.93
1	1	-15	3.68	1.74
-1	1	15	3.65	2.09
0	-1	-15	11.18	2.37
0	1	15	8.57	2.31
0	1	-15	7.60	1.99
-1	-1	-15	1.72	1.79
-1	1	-15	0.84	1.23
1	1	15	0.20	1.85
-1	1	-15	3.76	1.87
-2	-1	-15	-1.43	1.61
-2	1	-15	0.69	1.34
2	1	15	2.15	2.15
-3	-1	-15	1.68	1.37
3	1	15	0.27	1.99

-3	1	-15	0.73	1.42
-4	-1	-15	-0.27	1.40
-4	1	-15	0.68	1.67
4	1	15	1.69	2.44
-5	-1	-15	-0.69	1.67
5	1	15	3.27	2.48
-5	1	-15	2.04	1.71
6	1	15	-0.83	2.49
-6	1	-15	-1.02	1.69
-6	-1	-15	2.95	1.88
10	2	-15	-0.49	2.23
9	2	-15	5.47	2.35
9	-2	-15	7.79	2.98
-9	2	15	6.53	2.67
8	2	-15	4.50	2.20
-8	2	15	6.72	2.47
8	-2	-15	2.05	2.36
-7	2	15	-0.85	1.65
7	2	-15	-0.46	1.41
7	-2	-15	-2.06	1.89
6	-2	-15	-0.18	1.67
-6	2	15	1.21	1.71
6	2	-15	-1.59	1.31
5	2	-15	-0.41	1.35
-5	2	15	5.63	2.08
5	-2	-15	3.78	1.98
-4	2	15	28.30	2.98
4	-2	-15	24.24	3.21
4	2	-15	22.86	2.92
3	-2	-15	-0.83	0.98
3	2	-15	0.66	1.45
-3	2	15	3.04	1.73
-2	2	15	1.11	1.61
2	2	-15	0.02	1.34
2	-2	-15	0.51	1.66
1	2	-15	3.46	1.74
-1	2	15	3.68	2.01
1	-2	-15	0.57	1.58
0	2	-15	5.11	1.91
0	2	15	3.44	2.18
0	-2	-15	7.30	2.20
0	2	-15	8.87	1.96
1	2	15	2.53	2.05
-1	2	-15	1.85	1.49
-1	-2	-15	3.21	1.83
-2	2	-15	3.18	1.64
2	2	15	-0.38	2.01
-2	-2	-15	1.33	1.83
-3	2	-15	0.74	1.41
3	2	15	-1.88	2.08
-4	-2	-15	1.48	1.63
4	2	15	1.21	2.46
-4	2	-15	1.42	1.55
-5	2	-15	1.96	1.84
5	2	15	1.62	2.60
-5	-2	-15	2.58	1.78
-6	-2	-15	-0.16	1.91
-9	3	15	1.40	2.37
9	3	-15	3.83	2.41
-8	3	15	2.96	2.29

8	-3	-15	1.67	2.39
8	3	-15	3.69	2.22
7	-3	-15	-2.52	1.87
7	3	-15	-2.04	1.42
-7	3	15	0.85	1.74
6	-3	-15	-0.65	1.71
-6	3	15	3.48	2.07
6	3	-15	1.54	1.61
-5	3	15	17.92	2.87
5	-3	-15	17.61	3.09
5	3	-15	15.76	2.83
4	-3	-15	0.73	1.84
4	3	-15	-1.35	1.29
-4	3	15	2.70	1.91
3	3	-15	1.05	1.65
3	-3	-15	0.44	1.66
-3	3	15	2.33	1.86
2	-3	-15	6.22	2.09
-2	3	15	3.93	2.12
2	3	-15	1.44	1.54
-1	3	15	-0.70	1.87
1	3	-15	2.53	1.85
1	3	-15	2.90	1.83
1	-3	-15	1.68	1.83
0	-3	-15	4.06	1.99
0	3	15	2.89	2.09
0	3	-15	3.61	1.88
0	3	-15	2.64	1.73
1	3	15	4.48	2.36
-1	-3	-15	3.27	1.88
-1	3	-15	2.87	1.80
-2	-3	-15	0.84	1.85
-2	3	-15	0.46	1.58
2	3	15	-1.51	1.80
-3	3	-15	-1.24	1.47
-3	-3	-15	0.41	1.79
3	3	15	1.31	2.33
-4	3	-15	1.29	1.73
4	3	15	1.74	2.59
-5	-3	-15	0.54	1.86
-5	3	-15	-1.23	1.58
5	3	15	-2.18	2.64
-9	4	15	1.29	2.48
8	-4	-15	0.66	2.42
-8	4	15	0.10	2.24
8	4	-15	3.56	2.19
-7	4	15	-1.95	1.88
7	-4	-15	-0.57	2.06
7	4	-15	0.15	1.77
6	4	-15	0.44	1.63
-6	4	15	0.59	2.09
6	-4	-15	-0.86	1.93
5	-4	-15	0.51	1.99
5	4	-15	0.11	1.72
-5	4	15	1.12	1.97
4	-4	-15	0.05	1.82
4	4	-15	-0.26	1.41
-4	4	15	-0.18	1.66
3	4	-15	1.50	1.67
3	-4	-15	-0.72	1.62

-3	4	15	0.67	1.68
2	4	-15	3.26	1.87
-2	4	15	5.73	2.29
2	4	-15	3.22	2.14
2	-4	-15	-0.24	1.03
1	4	-15	1.35	2.09
1	-4	-15	7.51	2.27
-1	4	15	3.54	2.17
1	4	-15	4.74	2.03
0	4	-15	3.45	1.98
0	4	15	4.88	2.52
0	-4	-15	1.11	1.70
-1	-4	-15	3.09	1.93
1	4	15	-1.48	2.06
-1	4	-15	3.25	1.86
-2	4	-15	4.65	2.07
-2	-4	-15	0.97	1.74
2	4	15	-0.54	2.01
-3	-4	-15	2.41	2.05
3	4	15	4.05	2.63
-3	4	-15	2.69	1.94
4	4	15	-1.28	2.18
-4	4	-15	4.07	1.96
-7	5	15	1.63	2.29
7	-5	-15	5.93	2.72
7	5	-15	4.97	2.21
-6	5	15	2.49	2.25
6	5	-15	1.05	1.93
6	-5	-15	0.03	2.10
5	5	-15	1.41	1.87
5	-5	-15	0.03	1.99
-5	5	15	0.23	1.96
4	5	-15	5.78	2.23
-4	5	15	2.26	2.16
4	-5	-15	1.56	1.97
3	5	-15	2.48	1.89
3	5	-15	2.44	2.34
3	-5	-15	2.40	1.88
-3	5	15	5.83	2.40
-2	5	15	2.92	2.17
2	5	-15	8.53	2.33
2	-5	-15	10.59	2.72
2	5	-15	9.71	2.80
1	5	-15	0.23	1.73
1	5	-15	0.47	2.01
-1	5	15	0.43	2.15
1	-5	-15	0.22	1.62
0	-5	-15	2.60	2.00
0	5	-15	2.60	2.09
0	5	15	3.46	2.71
1	5	15	2.30	2.42
-1	5	-15	3.02	2.21
-1	-5	-15	1.02	1.78
-2	5	-15	5.06	2.49
2	5	15	5.11	2.79
-2	-5	-15	6.46	2.23
-3	-5	-15	12.79	2.86
3	5	15	5.35	3.15
-3	5	-15	14.52	2.96
7	-6	-15	-0.39	2.45

6	6	-15	1.62	2.12
6	-6	-15	0.74	2.33
-6	6	15	-0.18	2.41
5	6	-15	0.99	1.68
5	-6	-15	-0.61	2.09
-5	6	15	0.53	2.08
4	6	-15	2.51	2.01
4	-6	-15	0.34	1.93
4	6	-15	-0.98	2.46
-4	6	15	-0.35	2.14
3	6	-15	-1.70	2.24
-3	6	15	-0.31	1.97
3	6	-15	0.21	1.84
3	-6	-15	2.02	2.11
-2	6	15	0.04	2.12
2	6	-15	0.48	2.24
2	-6	-15	2.86	2.14
2	6	-15	0.79	1.90
-1	6	15	-2.81	1.81
1	-6	-15	-0.66	1.31
1	6	-15	-2.13	2.25
0	6	15	21.17	3.69
0	-6	-15	19.15	3.29
0	6	-15	17.93	3.61
-1	-6	-15	-2.14	1.48
-1	6	-15	-2.34	2.07
1	6	15	1.20	2.43
-2	-6	-15	0.42	1.99
2	6	15	-0.06	2.31
-2	6	-15	0.55	2.20
-3	-6	-15	-1.09	1.99
5	-7	-15	2.56	2.49
4	7	-15	2.03	2.08
4	7	-15	-2.98	2.38
4	-7	-15	1.34	2.21
-3	7	15	1.64	2.00
3	-7	-15	6.88	2.60
3	7	-15	6.73	3.12
3	7	-15	3.50	2.29
2	7	-15	1.16	2.10
-2	7	15	1.06	2.15
2	7	-15	-1.29	2.47
2	-7	-15	0.51	1.78
1	-7	-15	-0.60	2.10
1	7	-15	1.49	2.63
-1	7	15	-1.80	2.11
0	7	-15	0.55	2.59
0	7	15	-0.09	2.37
0	-7	-15	3.03	2.10
10	0	-16	1.24	2.86
9	0	-16	0.17	2.30
8	0	-16	-2.29	1.86
7	0	-16	-0.34	1.66
6	0	-16	0.40	1.69
5	0	-16	1.43	1.68
4	0	-16	7.91	2.25
3	0	-16	-0.88	1.52
2	0	-16	1.51	1.66
1	0	-16	0.93	1.68
0	0	-16	-0.85	1.64

-1	0	-16	-1.48	1.74
-3	0	-16	0.72	1.49
-4	0	-16	4.88	2.05
-5	0	-16	1.42	1.68
9	1	-16	2.16	2.49
9	-1	-16	-0.27	2.44
8	1	-16	-0.98	1.93
8	-1	-16	-1.98	1.86
7	-1	-16	0.74	1.98
7	1	-16	0.71	1.91
6	1	-16	35.74	3.79
6	-1	-16	43.84	4.21
5	-1	-16	18.51	2.99
5	1	-16	17.36	2.98
4	1	-16	-1.87	1.46
4	-1	-16	0.27	1.76
3	-1	-16	3.70	1.86
3	1	-16	3.26	1.79
2	-1	-16	6.45	2.21
-2	1	16	5.30	2.05
2	1	-16	3.20	1.83
-1	1	16	2.11	1.98
1	-1	-16	1.74	1.81
1	1	-16	-0.45	1.47
0	1	16	0.31	1.98
0	-1	-16	2.92	2.03
0	1	-16	-1.52	1.38
-1	-1	-16	31.03	3.38
-1	1	-16	29.15	3.27
1	1	16	32.08	3.69
2	1	16	31.29	3.77
-2	1	-16	44.25	3.48
-3	1	-16	2.00	1.62
3	1	16	-0.99	2.04
-4	1	-16	0.79	1.79
4	1	16	1.92	2.76
-4	-1	-16	1.80	1.80
-5	-1	-16	3.23	1.99
-5	1	-16	0.23	1.80
5	1	16	0.04	2.93
9	-2	-16	2.28	2.69
9	2	-16	2.65	2.45
8	2	-16	1.38	1.85
8	-2	-16	0.77	2.35
-7	2	16	-0.07	1.87
7	2	-16	1.02	1.82
7	-2	-16	3.99	2.48
6	-2	-16	1.35	1.91
6	2	-16	2.46	1.93
-6	2	16	0.24	1.68
-5	2	16	5.76	2.19
5	-2	-16	10.00	2.61
5	2	-16	4.13	1.93
-4	2	16	24.34	3.01
4	2	-16	16.60	2.91
4	-2	-16	22.16	3.26
3	2	-16	0.52	1.71
-3	2	16	5.49	2.08
3	-2	-16	4.27	1.95
2	-2	-16	7.82	2.42

-2	2	16	10.56	2.49
2	2	-16	5.45	1.98
1	2	-16	0.81	1.63
1	-2	-16	1.81	1.74
-1	2	16	-0.22	1.84
0	2	16	12.57	2.70
0	-2	-16	18.04	2.80
0	2	-16	15.90	2.75
-1	-2	-16	-1.17	1.58
-1	2	-16	0.13	1.47
1	2	16	0.84	2.18
2	2	16	3.01	2.50
-2	-2	-16	-0.39	1.86
-2	2	-16	3.22	1.70
-3	2	-16	5.45	2.03
3	2	16	2.52	2.38
4	2	16	1.11	2.46
-4	2	-16	1.15	1.65
-5	2	-16	-0.37	1.82
-5	-2	-16	0.43	1.97
5	2	16	-3.67	2.79
-9	3	16	0.70	2.39
8	3	-16	-0.04	1.75
8	-3	-16	1.13	2.43
-8	3	16	1.84	2.18
7	3	-16	-1.25	1.69
-7	3	16	2.07	2.18
7	-3	-16	-2.70	1.73
6	3	-16	-0.23	1.56
6	-3	-16	-0.71	1.91
-6	3	16	-0.34	1.90
5	3	-16	-0.11	1.60
-5	3	16	0.79	1.88
5	-3	-16	-1.48	1.74
4	-3	-16	7.34	2.36
4	3	-16	6.83	2.29
-4	3	16	10.16	2.48
-3	3	16	0.38	1.73
3	-3	-16	0.85	2.06
3	3	-16	-0.14	1.63
2	-3	-16	-1.59	1.50
-2	3	16	2.35	2.07
2	3	-16	1.59	1.70
1	-3	-16	5.71	2.20
-1	3	16	6.38	2.53
1	3	-16	4.04	2.03
0	3	16	0.84	2.27
0	3	-16	-2.52	1.53
0	3	-16	2.18	1.89
0	-3	-16	-1.41	1.58
-1	3	-16	1.37	1.78
1	3	16	3.99	2.40
-1	-3	-16	2.23	2.00
-2	-3	-16	-0.16	1.84
2	3	16	-0.17	2.37
-2	3	-16	0.47	1.73
3	3	16	0.73	2.60
-3	3	-16	-0.05	1.70
4	3	16	3.20	2.88
-4	3	-16	1.78	1.92

-8	4	16	1.01	2.31
8	-4	-16	2.52	2.64
7	-4	-16	-0.72	2.24
-7	4	16	3.18	2.30
7	4	-16	-0.58	1.67
6	-4	-16	0.59	2.03
-6	4	16	-4.21	1.87
6	4	-16	0.07	1.47
5	-4	-16	1.26	1.95
5	4	-16	5.01	2.27
-5	4	16	0.34	2.04
4	4	-16	-0.33	1.67
4	-4	-16	0.64	1.75
-4	4	16	0.73	1.87
3	-4	-16	-1.48	1.80
3	4	-16	0.36	1.74
-3	4	16	1.02	1.87
2	-4	-16	2.38	2.15
-2	4	16	4.39	2.27
2	4	-16	2.25	1.96
1	4	-16	1.84	2.08
1	-4	-16	-1.28	1.90
1	4	-16	-0.09	1.63
-1	4	16	0.29	2.20
0	-4	-16	-0.19	1.88
0	4	16	1.99	2.47
0	4	-16	3.19	2.02
-1	4	-16	-0.14	1.85
1	4	16	1.86	2.51
-1	-4	-16	1.24	1.94
-2	-4	-16	0.56	1.93
-2	4	-16	1.08	1.86
2	4	16	-2.04	2.29
3	4	16	0.37	2.37
-3	4	-16	1.06	1.84
-3	-4	-16	-0.91	1.92
-4	4	-16	3.94	2.32
7	-5	-16	0.09	2.37
-7	5	16	1.03	2.47
-6	5	16	2.29	2.29
6	-5	-16	5.06	2.67
6	5	-16	8.29	2.67
5	5	-16	1.69	2.00
5	-5	-16	1.79	2.14
-5	5	16	0.32	2.09
4	-5	-16	-1.84	1.74
4	5	-16	-0.04	1.90
-4	5	16	0.69	2.10
3	5	-16	-0.01	1.74
-3	5	16	0.58	2.07
3	-5	-16	-0.37	1.72
2	5	-16	2.82	2.25
2	5	-16	0.29	2.34
-2	5	16	4.40	2.44
2	-5	-16	1.44	2.04
-1	5	16	6.57	2.74
1	-5	-16	10.86	2.81
1	5	-16	10.86	2.99
0	-5	-16	7.67	2.67
0	5	-16	3.59	2.49

0	5	16	5.27	2.94
-1	-5	-16	5.29	2.50
1	5	16	2.75	2.57
-1	5	-16	5.47	2.34
-2	-5	-16	0.04	2.09
-2	5	-16	1.52	2.07
2	5	16	2.37	2.96
-3	-5	-16	1.93	2.31
-3	5	-16	0.58	1.99
6	-6	-16	2.81	2.63
5	-6	-16	4.24	2.61
5	6	-16	0.53	1.96
-5	6	16	2.04	2.59
4	6	-16	-0.25	1.90
-4	6	16	-1.63	1.99
4	-6	-16	-0.92	2.06
3	-6	-16	0.99	2.08
3	6	-16	-0.62	1.96
3	6	-16	0.70	2.58
-3	6	16	-0.22	2.17
2	6	-16	3.11	2.75
-2	6	16	0.87	2.43
2	6	-16	1.23	2.19
2	-6	-16	-0.24	1.92
-1	6	16	-1.95	2.14
1	6	-16	3.23	2.83
1	-6	-16	-0.56	1.78
0	6	16	-0.62	2.71
0	6	-16	3.71	2.81
0	-6	-16	1.56	2.06
1	6	16	-2.36	2.61
-1	-6	-16	1.53	2.35
-1	6	-16	0.12	2.34
-2	-6	-16	1.46	2.30
3	7	-16	3.09	2.44
3	7	-16	-0.27	2.87
2	7	-16	0.98	2.84
1	7	-16	0.55	2.98
9	0	-17	-0.29	2.47
8	0	-17	-0.02	2.06
7	0	-17	-2.04	1.94
6	0	-17	-0.44	1.87
5	0	-17	21.47	3.36
4	0	-17	-1.07	1.72
3	0	-17	1.32	1.74
2	0	-17	-0.19	1.76
1	0	-17	9.32	2.47
0	0	-17	-1.76	1.80
-1	0	-17	5.74	2.41
-4	0	-17	2.88	2.02
-5	0	-17	0.34	2.01
9	1	-17	0.16	2.15
9	-1	-17	-0.13	2.68
8	1	-17	0.53	2.14
8	-1	-17	0.13	2.35
7	-1	-17	-0.41	1.83
7	1	-17	0.34	1.99
6	1	-17	0.01	1.78
6	-1	-17	-0.50	1.90
5	-1	-17	8.90	2.49

5	1	-17	1.10	1.60
4	-1	-17	-1.22	1.38
4	1	-17	4.06	1.96
3	1	-17	-0.17	1.72
3	-1	-17	3.66	1.94
2	1	-17	-0.03	1.60
2	-1	-17	-0.05	1.63
1	1	-17	2.85	2.10
1	-1	-17	2.91	1.95
0	1	-17	1.13	1.86
0	-1	-17	1.94	1.89
-1	-1	-17	30.98	3.57
1	1	17	28.47	3.67
2	1	17	0.39	2.44
-3	1	-17	0.29	1.81
3	1	17	3.56	2.80
4	1	17	0.98	2.87
-4	1	-17	6.56	2.31
5	1	17	-1.22	3.15
-5	-1	-17	3.20	2.27
9	-2	-17	-0.49	2.69
8	-2	-17	-0.49	2.45
8	2	-17	1.94	2.33
7	-2	-17	7.19	2.88
7	2	-17	7.51	2.65
6	2	-17	0.72	1.84
6	-2	-17	-1.01	1.84
5	-2	-17	6.94	2.57
-5	2	17	6.07	2.28
5	2	-17	4.35	2.19
4	2	-17	10.71	2.68
-4	2	17	12.93	2.61
4	-2	-17	14.41	2.95
3	-2	-17	13.28	2.90
3	2	-17	10.24	2.61
-3	2	17	13.32	2.62
2	2	-17	-0.33	1.72
-2	2	17	-1.03	1.86
2	-2	-17	0.25	1.77
1	2	-17	9.14	2.53
-1	2	17	6.59	2.63
1	-2	-17	8.66	2.53
0	-2	-17	6.89	2.42
0	2	-17	7.16	2.28
0	2	17	10.39	2.86
1	2	17	6.22	2.66
-1	-2	-17	6.58	2.54
-2	2	-17	3.19	1.94
2	2	17	-1.22	2.43
-2	-2	-17	0.72	2.12
-3	2	-17	1.94	1.85
3	2	17	-2.28	2.44
4	2	17	3.26	3.17
-4	2	-17	1.37	1.90
8	-3	-17	0.18	2.53
-8	3	17	1.39	2.46
-7	3	17	-1.68	2.07
7	-3	-17	-0.10	2.39
7	3	-17	0.35	2.06
-6	3	17	3.51	2.45

6	-3	-17	0.42	2.17
6	3	-17	0.89	1.80
5	-3	-17	-0.17	1.77
5	3	-17	-2.64	1.49
-5	3	17	0.96	2.11
-4	3	17	-0.49	1.90
4	3	-17	-0.81	1.66
4	-3	-17	1.74	2.12
3	3	-17	-0.47	1.62
3	-3	-17	-0.53	1.19
-3	3	17	2.36	2.14
-2	3	17	3.28	2.32
2	3	-17	-0.12	1.83
2	-3	-17	1.38	1.81
1	-3	-17	-0.57	1.99
-1	3	17	-0.58	2.21
1	3	-17	0.71	1.90
0	3	17	-0.68	2.12
0	-3	-17	-0.24	1.87
-1	-3	-17	2.16	1.96
-1	3	-17	1.90	1.90
1	3	17	-0.76	2.45
2	3	17	1.75	2.72
-2	-3	-17	0.02	2.20
-2	3	-17	1.55	1.87
-3	3	-17	9.49	2.55
3	3	17	2.73	2.99
4	3	17	-1.07	2.84
-4	3	-17	1.18	1.81
8	-4	-17	-0.28	2.71
-7	4	17	-0.91	2.05
7	-4	-17	1.84	2.68
6	4	-17	4.68	2.54
6	-4	-17	6.97	2.80
-6	4	17	0.73	2.29
5	-4	-17	0.03	2.01
5	4	-17	-0.76	1.78
-5	4	17	-2.62	2.07
4	-4	-17	-1.26	1.77
4	4	-17	3.33	2.33
-4	4	17	2.49	2.22
3	-4	-17	9.75	2.71
3	4	-17	12.22	2.87
-3	4	17	8.78	2.79
2	4	-17	1.57	2.17
-2	4	17	0.61	2.26
2	-4	-17	0.54	1.85
1	4	-17	0.40	2.06
-1	4	17	7.02	2.72
1	-4	-17	2.64	2.10
0	-4	-17	1.42	2.02
0	4	17	5.84	2.69
0	4	-17	8.12	2.57
-1	-4	-17	0.98	2.26
1	4	17	6.07	2.94
-1	4	-17	1.88	2.06
-2	-4	-17	0.81	1.97
-2	4	-17	1.69	2.03
2	4	17	0.85	2.55
3	4	17	8.46	3.55

-3	4	-17	8.78	2.56
-6	5	17	-1.60	2.37
6	-5	-17	-1.15	2.26
5	5	-17	0.25	2.13
-5	5	17	-1.74	2.31
5	-5	-17	1.54	2.26
4	-5	-17	2.10	2.37
-4	5	17	-0.90	2.13
4	5	-17	0.79	2.22
3	5	-17	-1.38	1.89
3	-5	-17	1.39	2.24
-3	5	17	3.06	2.61
2	5	-17	-0.07	2.03
2	-5	-17	0.88	1.46
-2	5	17	4.76	2.63
1	5	-17	1.28	2.39
1	-5	-17	6.59	2.66
-1	5	17	-1.65	2.13
0	5	17	3.81	2.75
0	-5	-17	4.20	2.59
0	5	-17	10.25	3.01
1	5	17	6.88	3.39
-1	-5	-17	4.40	2.51
-1	5	-17	5.89	2.48
-2	-5	-17	1.55	2.35
-2	5	-17	4.35	2.38
4	6	-17	-0.55	2.15
-3	6	17	-0.88	2.38
3	6	-17	1.38	2.48
-2	6	17	4.25	2.67
2	-6	-17	2.20	2.32
2	6	-17	3.65	3.09
1	6	-17	1.66	2.83
0	6	-17	-0.24	2.43
8	0	-18	-0.71	2.34
7	0	-18	-1.61	1.86
6	0	-18	0.99	2.00
5	0	-18	0.67	2.05
4	0	-18	2.23	2.00
3	0	-18	-2.27	1.84
2	0	-18	3.25	2.29
1	0	-18	-1.16	1.90
0	0	-18	0.37	2.06
8	1	-18	-0.17	2.01
8	-1	-18	2.84	2.62
7	1	-18	1.05	2.26
7	-1	-18	1.97	2.15
6	-1	-18	4.29	2.52
6	1	-18	1.63	2.21
5	1	-18	4.64	2.16
5	-1	-18	2.46	2.19
4	-1	-18	-0.42	1.93
4	1	-18	0.01	1.98
3	1	-18	0.51	1.98
3	-1	-18	0.22	1.85
2	-1	-18	3.08	2.27
2	1	-18	5.77	2.36
1	1	-18	-0.27	1.98
1	-1	-18	3.38	2.30
0	-1	-18	5.04	2.45

0	1	-18	2.94	2.31
-1	-1	-18	-1.14	1.97
-4	1	-18	-0.58	1.98
8	-2	-18	0.41	2.72
7	2	-18	0.79	2.04
7	-2	-18	-0.45	2.21
6	2	-18	-1.25	1.77
6	-2	-18	0.89	2.27
5	-2	-18	16.12	3.24
5	2	-18	10.44	2.76
4	-2	-18	8.53	2.76
4	2	-18	4.73	2.15
3	2	-18	-0.81	1.89
3	-2	-18	-1.09	1.77
-2	2	18	-2.87	1.92
2	2	-18	-0.49	1.94
2	-2	-18	-0.43	1.87
1	-2	-18	9.84	2.84
1	2	-18	10.01	2.74
-1	2	18	10.90	2.99
0	2	18	10.89	3.06
0	-2	-18	16.42	3.29
1	2	18	0.24	2.79
-1	-2	-18	-0.51	2.00
2	2	18	1.50	2.88
-3	2	-18	2.49	2.06
3	2	18	1.40	3.12
7	-3	-18	-0.36	2.37
-6	3	18	3.28	2.53
6	3	-18	3.97	2.29
6	-3	-18	4.30	2.74
5	-3	-18	1.66	2.34
5	3	-18	5.73	2.41
-5	3	18	3.91	2.48
4	3	-18	-0.03	1.90
4	-3	-18	-1.76	2.08
-4	3	18	2.30	2.28
3	3	-18	1.68	2.13
-3	3	18	-1.43	2.04
3	-3	-18	-3.40	1.88
-2	3	18	-2.23	2.00
2	3	-18	0.09	2.02
2	-3	-18	1.79	2.07
1	3	-18	-2.40	1.88
-1	3	18	1.73	2.48
1	-3	-18	0.55	2.09
0	3	18	-1.42	2.50
0	-3	-18	0.09	2.10
-1	-3	-18	1.21	2.37
1	3	18	5.15	2.88
-2	3	-18	0.24	1.78
-2	-3	-18	0.02	2.44
2	3	18	4.81	3.18
3	3	18	0.35	2.91
-3	3	-18	1.23	2.11
-7	4	18	-0.21	2.56
6	-4	-18	0.70	2.39
-6	4	18	-4.35	2.14
5	4	-18	3.24	2.42
-5	4	18	5.64	2.81

5	-4	-18	8.40	2.80
4	4	-18	0.38	2.12
4	-4	-18	0.64	2.14
-4	4	18	0.77	2.43
3	4	-18	0.55	1.97
-3	4	18	3.09	2.64
3	-4	-18	-1.78	2.08
2	4	-18	2.32	2.47
-2	4	18	-0.59	2.16
2	-4	-18	0.17	1.95
-1	4	18	1.09	2.50
1	-4	-18	2.50	2.17
0	-4	-18	2.09	2.44
0	4	18	0.83	2.71
-1	4	-18	2.01	2.19
-1	-4	-18	-3.96	1.90
1	4	18	-0.54	2.64
-2	4	-18	-1.84	1.80
-2	-4	-18	1.42	2.42
2	4	18	0.17	2.93
-5	5	18	5.49	2.97
4	-5	-18	11.00	3.09
-4	5	18	8.55	3.17
4	5	-18	13.81	3.43
-3	5	18	3.06	2.80
3	5	-18	2.44	2.57
3	-5	-18	-0.13	2.08
2	-5	-18	0.66	2.35
2	5	-18	-1.63	2.23
-2	5	18	-0.49	2.44
1	-5	-18	-2.23	2.16
-1	5	18	-2.93	2.46
0	5	-18	3.28	2.56
0	-5	-18	2.34	2.43
0	5	18	1.97	2.98
-1	5	-18	3.11	2.50
3	6	-18	-0.85	2.63
6	0	-19	1.62	2.22
5	0	-19	-1.79	1.53
4	0	-19	-2.44	1.75
3	0	-19	5.69	2.65
2	0	-19	1.34	2.08
1	0	-19	0.95	2.30
0	0	-19	-1.15	2.15
7	-1	-19	0.50	2.35
6	1	-19	0.88	2.10
6	-1	-19	-1.73	2.19
5	-1	-19	4.49	2.49
5	1	-19	-0.36	2.01
4	-1	-19	15.46	3.41
4	1	-19	9.68	3.06
3	-1	-19	-0.93	1.89
3	1	-19	-0.74	1.89
2	1	-19	-1.30	2.01
2	-1	-19	-1.37	2.14
1	1	-19	-0.14	2.22
1	-1	-19	3.65	2.58
0	-1	-19	-0.77	2.00
6	-2	-19	3.91	2.64
6	2	-19	-1.91	1.82

5	2	-19	2.77	2.43
5	-2	-19	3.82	2.67
4	-2	-19	-0.37	1.52
4	2	-19	1.19	1.96
3	2	-19	-1.93	2.00
3	-2	-19	-1.90	1.90
2	-2	-19	2.15	2.41
2	2	-19	-2.56	1.90
1	-2	-19	-0.50	2.00
1	2	-19	-1.61	2.11
0	-2	-19	-2.83	2.21
-1	-2	-19	-0.73	2.40
5	-3	-19	5.04	2.77
5	3	-19	5.34	2.80
4	3	-19	-1.11	2.13
4	-3	-19	-1.72	2.04
-4	3	19	-0.02	2.33
-3	3	19	2.35	2.54
3	-3	-19	0.75	2.41
3	3	-19	-4.09	1.98
2	-3	-19	-0.52	2.30
-2	3	19	-0.37	2.24
2	3	-19	-1.64	1.99
-1	3	19	-2.36	2.42
1	-3	-19	2.04	2.46
0	-3	-19	-2.74	2.46
0	3	19	-0.79	2.90
-1	-3	-19	7.97	2.95
1	3	19	5.77	3.37
2	3	19	0.99	3.14
-6	4	19	-0.46	2.63
-5	4	19	0.00	2.59
-4	4	19	3.86	2.63
4	4	-19	1.06	2.47
3	-4	-19	0.27	1.87
-3	4	19	2.59	2.82
3	4	-19	-0.83	2.33
2	-4	-19	2.34	2.66
-2	4	19	2.48	2.66
2	4	-19	-0.08	2.19
-1	4	19	1.51	2.87
1	-4	-19	-0.50	2.16
0	-4	-19	-0.59	2.42
0	4	19	4.51	3.39
3	5	-19	-0.90	2.43
5	0	-20	-0.45	2.16
4	0	-20	-0.64	2.40
3	0	-20	2.52	2.44
2	0	-20	9.28	3.17
1	0	-20	-0.85	2.42
0	0	-20	1.67	2.51
5	-1	-20	-1.85	2.17
5	1	-20	-1.75	2.39
4	1	-20	2.04	2.60
4	-1	-20	0.14	2.51
3	1	-20	1.67	2.32
3	-1	-20	0.69	2.28
2	-1	-20	-1.94	2.33
2	1	-20	1.46	2.52
1	1	-20	3.41	2.83

```
  1  -1 -20    4.86    2.71
  0  -1 -20    5.17    2.92
  4  -2 -20   -3.05    2.25
  4   2 -20    0.05    2.48
  3   2 -20    5.21    2.87
  3  -2 -20    3.37    2.82
  2  -2 -20    3.52    2.72
  2   2 -20    5.08    2.84
  1   2 -20    1.77    2.60
  1  -2 -20   -1.35    2.27
  0  -2 -20    1.50    2.86
  4   3 -20   -2.86    2.28
  3   3 -20   -2.98    2.39
  2   3 -20   -0.01    2.63
  1  -3 -20   -2.68    2.38
  0   3  20   -0.90    3.18
 -4   4  20    4.36    2.76
 -3   4  20   -0.92    2.56
  2   4 -20   -3.14    2.56
 -2   4  20   -0.81    2.84
  2   0 -21   -5.35    2.15
  1   0 -21   -3.67    2.56
  2   1 -21   -1.12    2.55
  1  -1 -21    2.29    2.66
  1   1 -21   -1.36    2.69
  2   2 -21    2.61    2.94
  0   0   0    0.00    0.00
;
_shelx_hkl_checksum   90812
```

9. References.

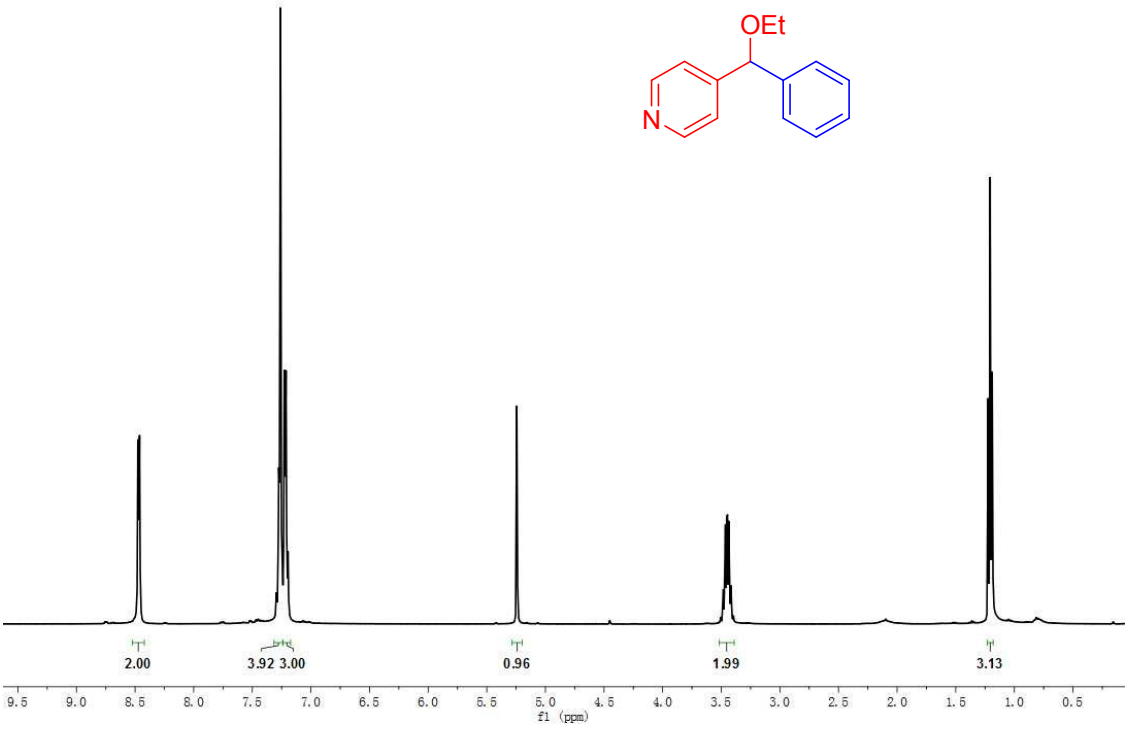
1. F. Gao, B.-S. Kim, P. J. Walsh, *Chem. Sci.*, **2016**, *7*, 976-983.

2. J. Yang , G. B. Dudley, *J. Org. Chem*., **2009**, *74*, 7998.

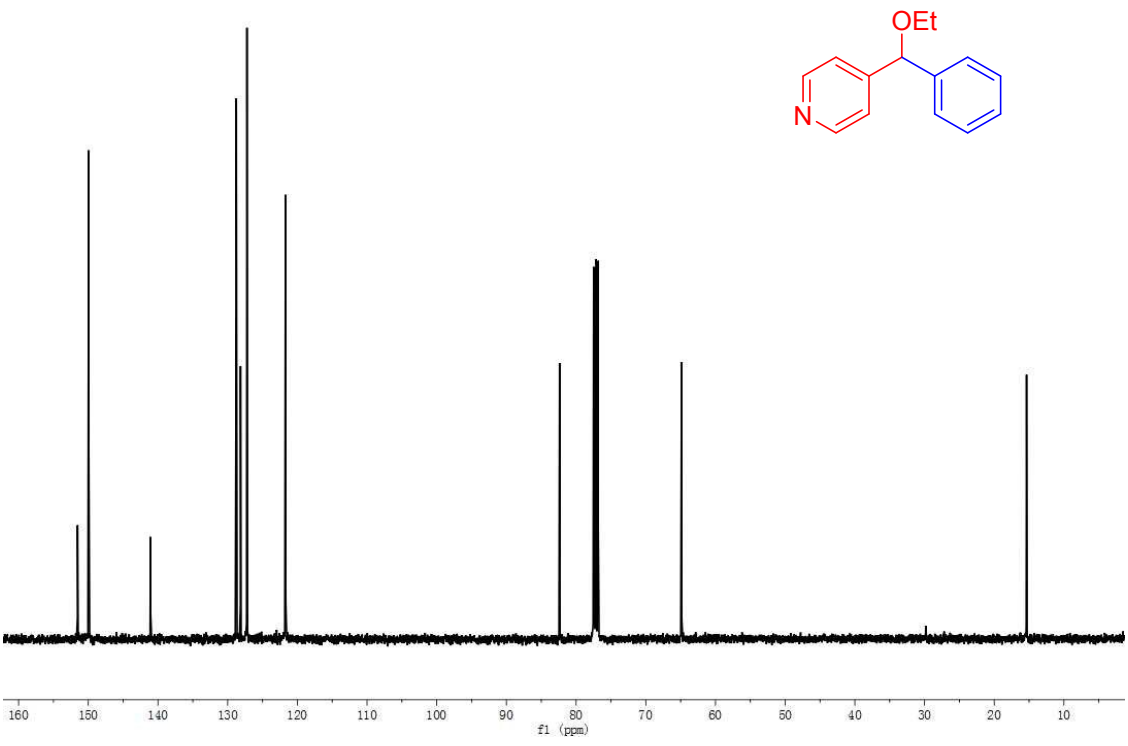
3. A. R. Rivero, B.-S. Kim, P. J. Walsh, *Org. Lett.*, **2016**, *18*, 1590-1593.

10. NMR Spectra.

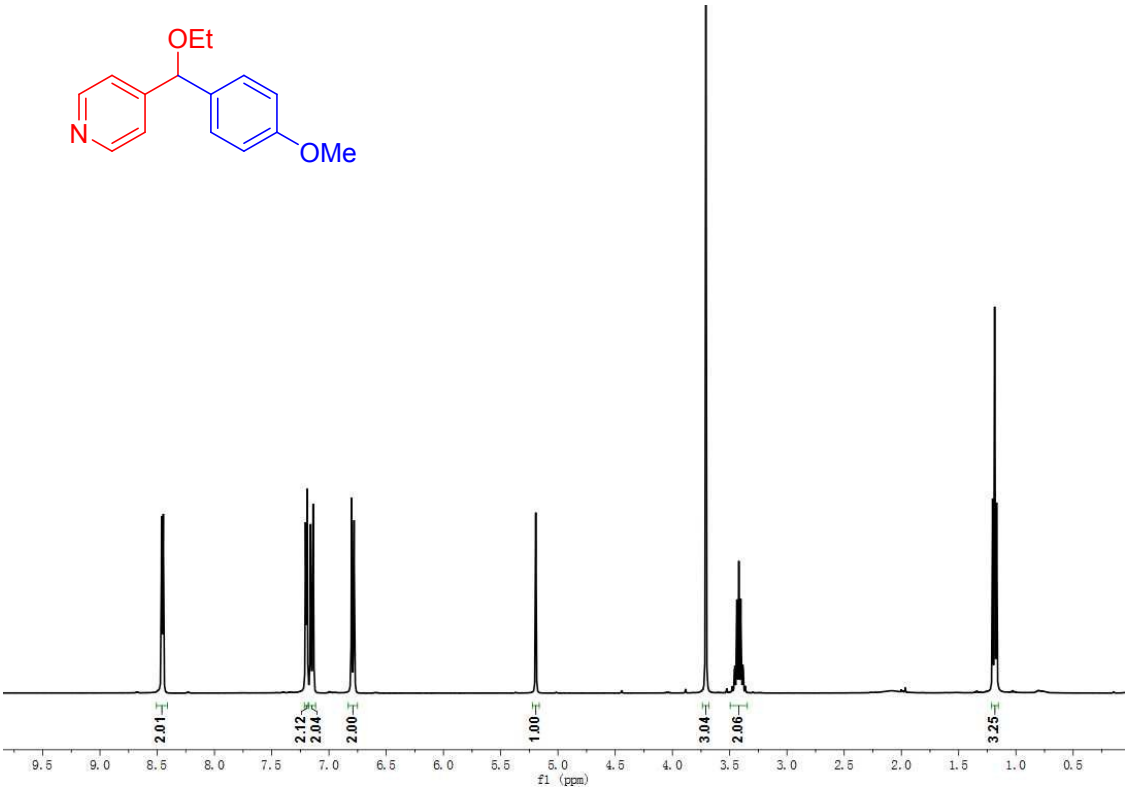
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(phenyl)methyl)pyridine (3aa)



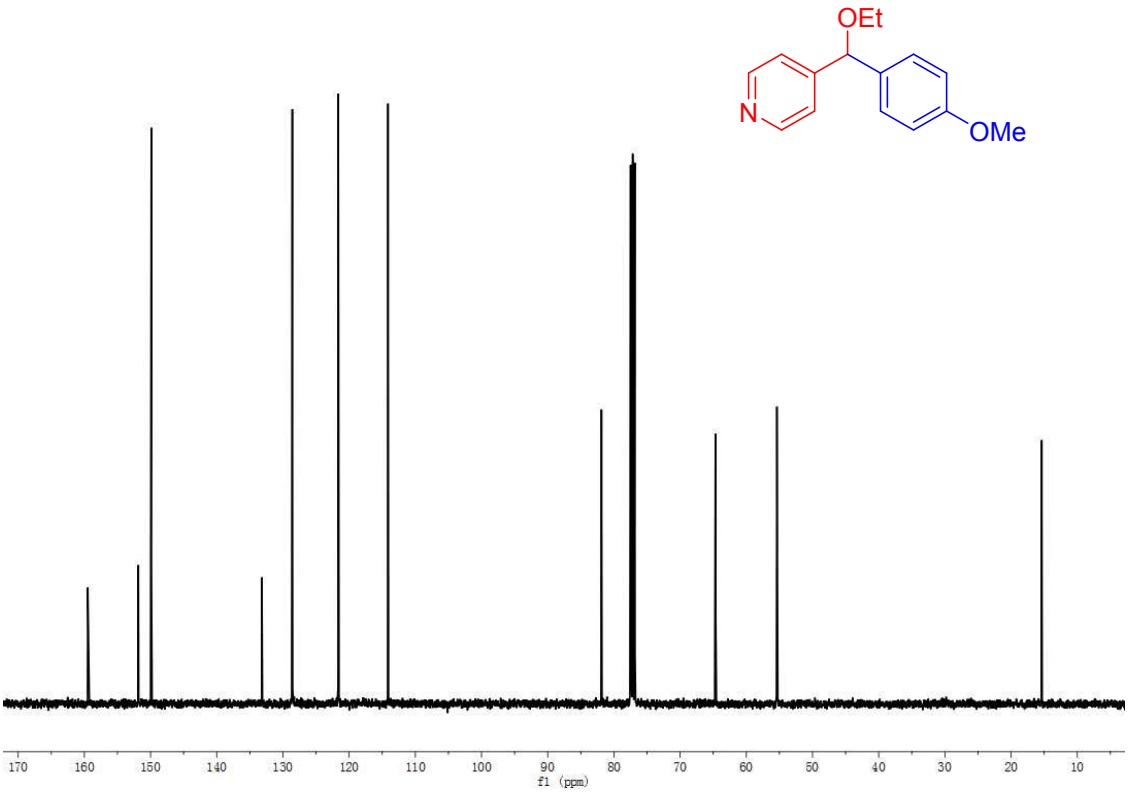
^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(phenyl)methyl)pyridine (3aa)



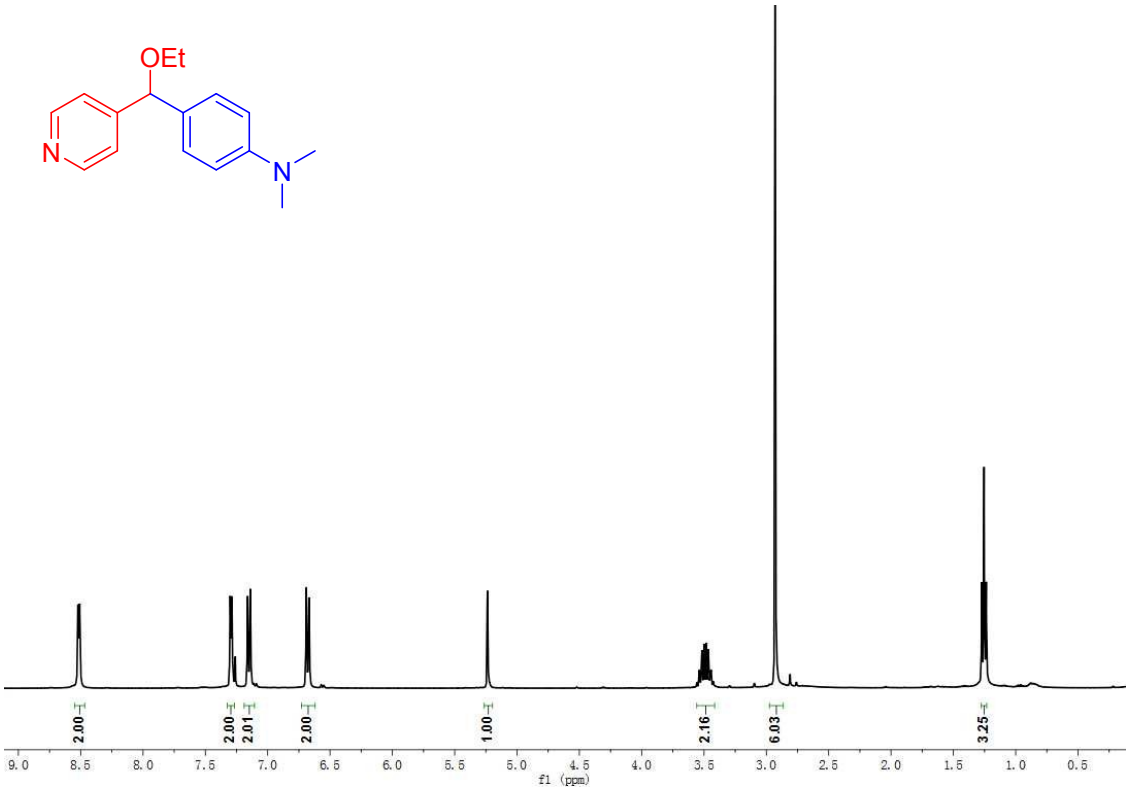
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(4-methoxyphenyl)methyl)pyridine (3ab)



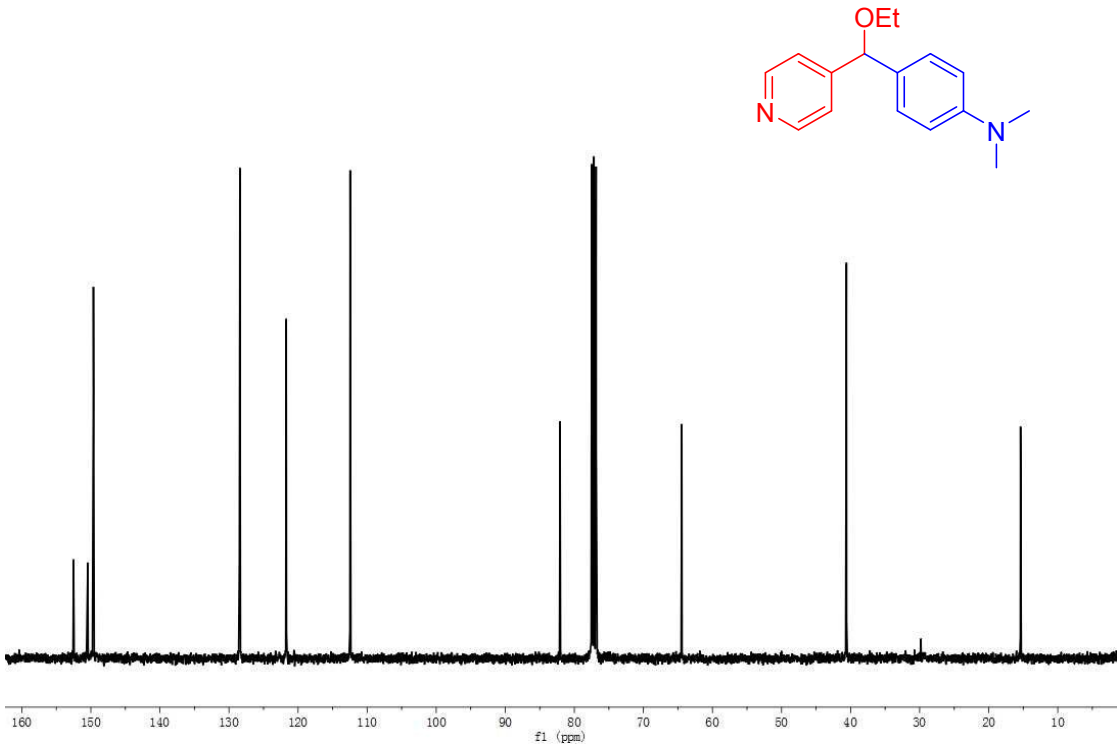
^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(4-methoxyphenyl)methyl)pyridine (3ab)



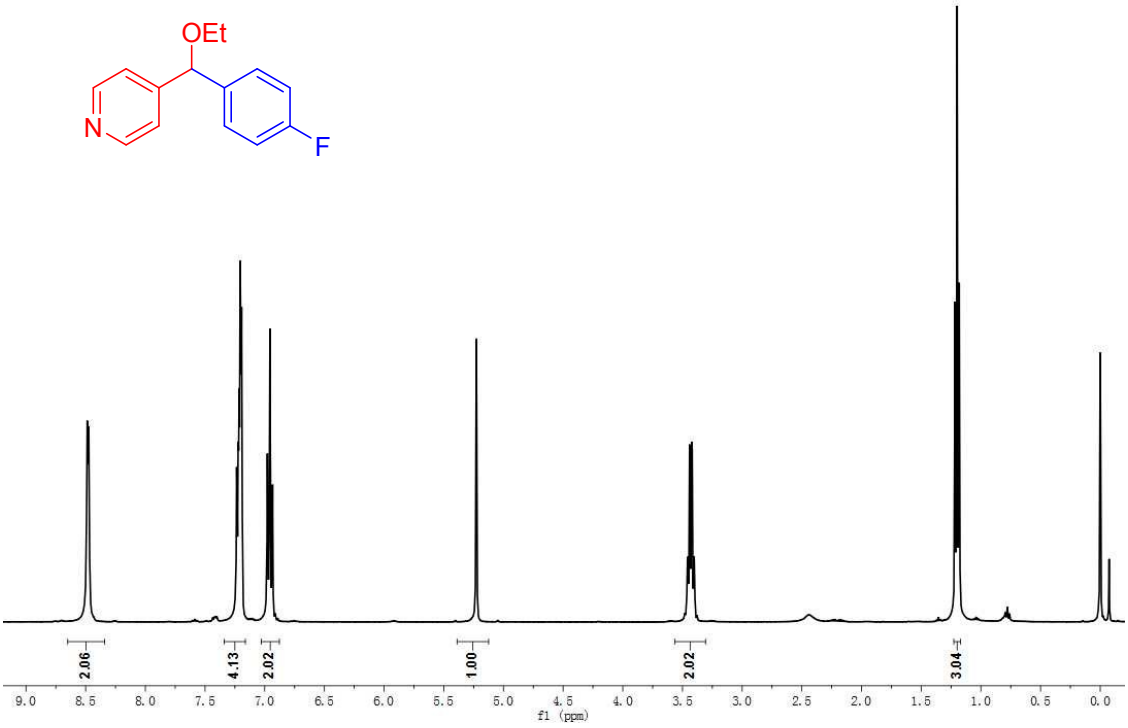
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(pyridin-4-yl)methyl)-N,N-dimethylaniline (3ac)



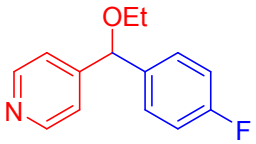
^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(pyridin-4-yl)methyl)-N,N-dimethylaniline (3ac)

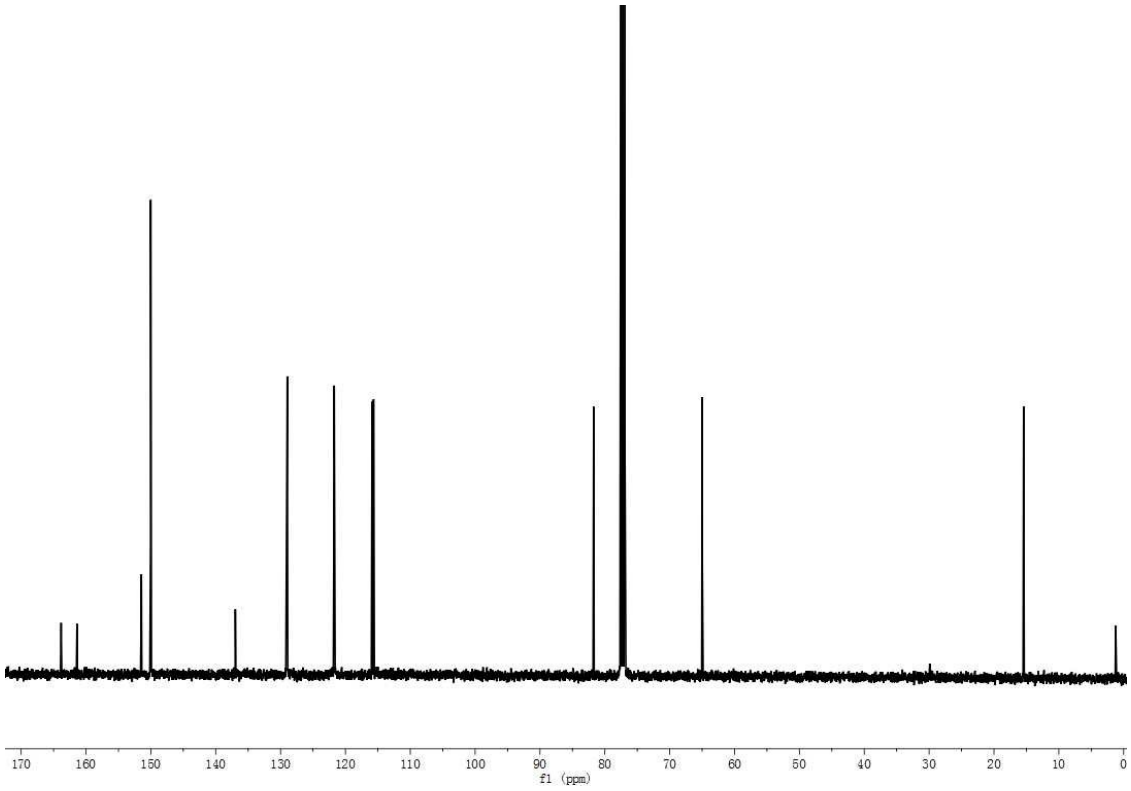


^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(4-fluorophenyl)methyl)pyridine (3ad)

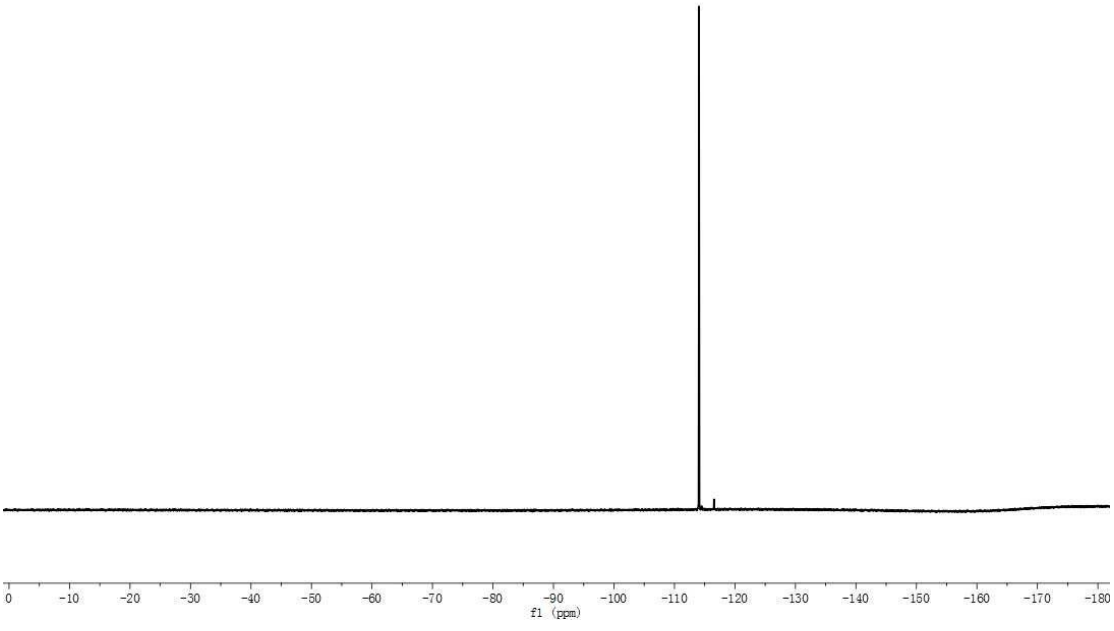


^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(4-fluorophenyl)methyl)pyridine (3ad)

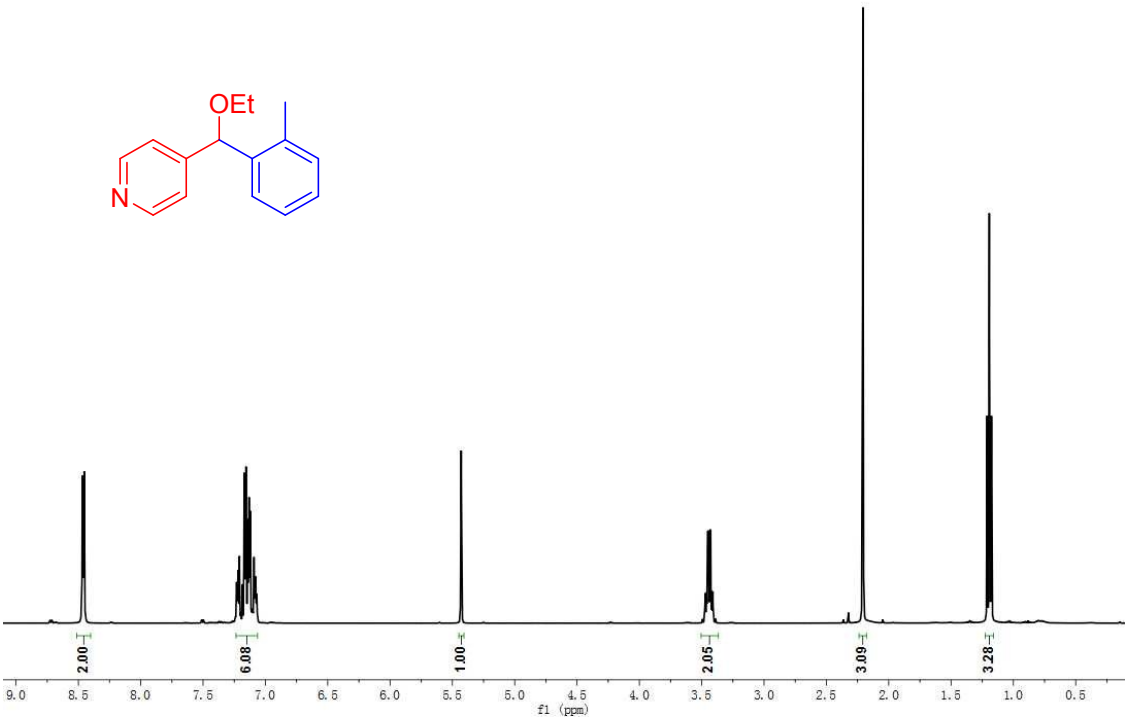




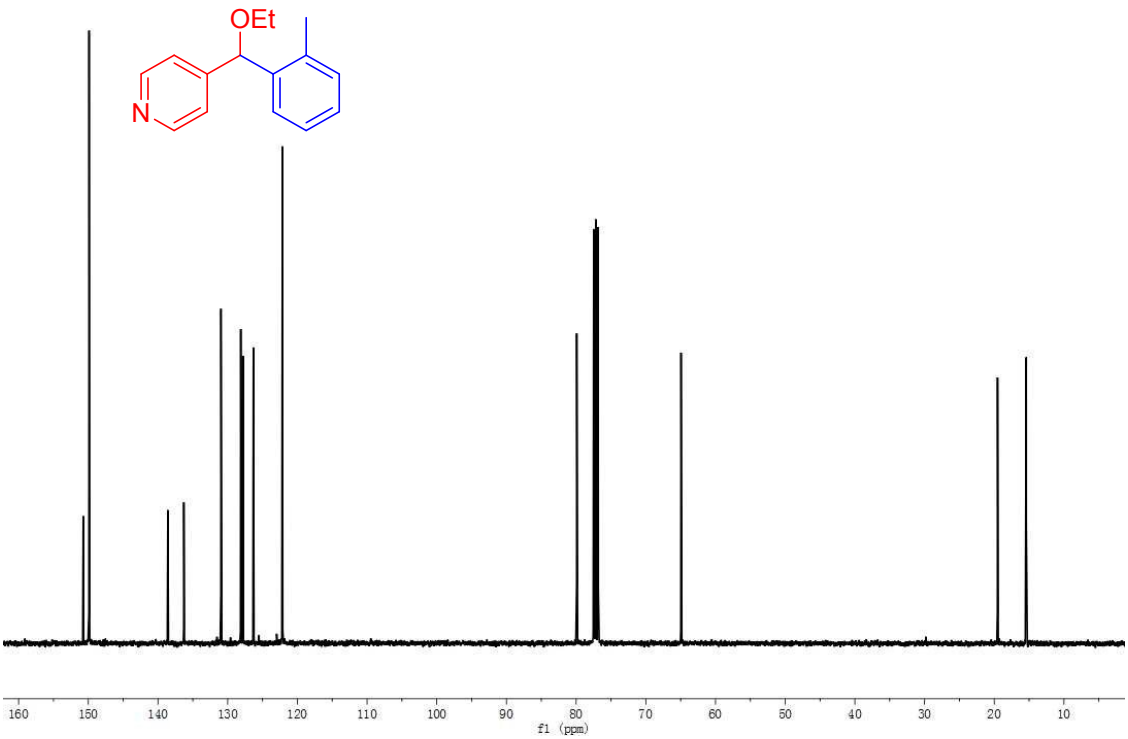
^{19}F NMR spectra (376 MHz, Chloroform-*d*) of 4-(Ethoxy(4-fluorophenyl)methyl)pyridine (3ad)



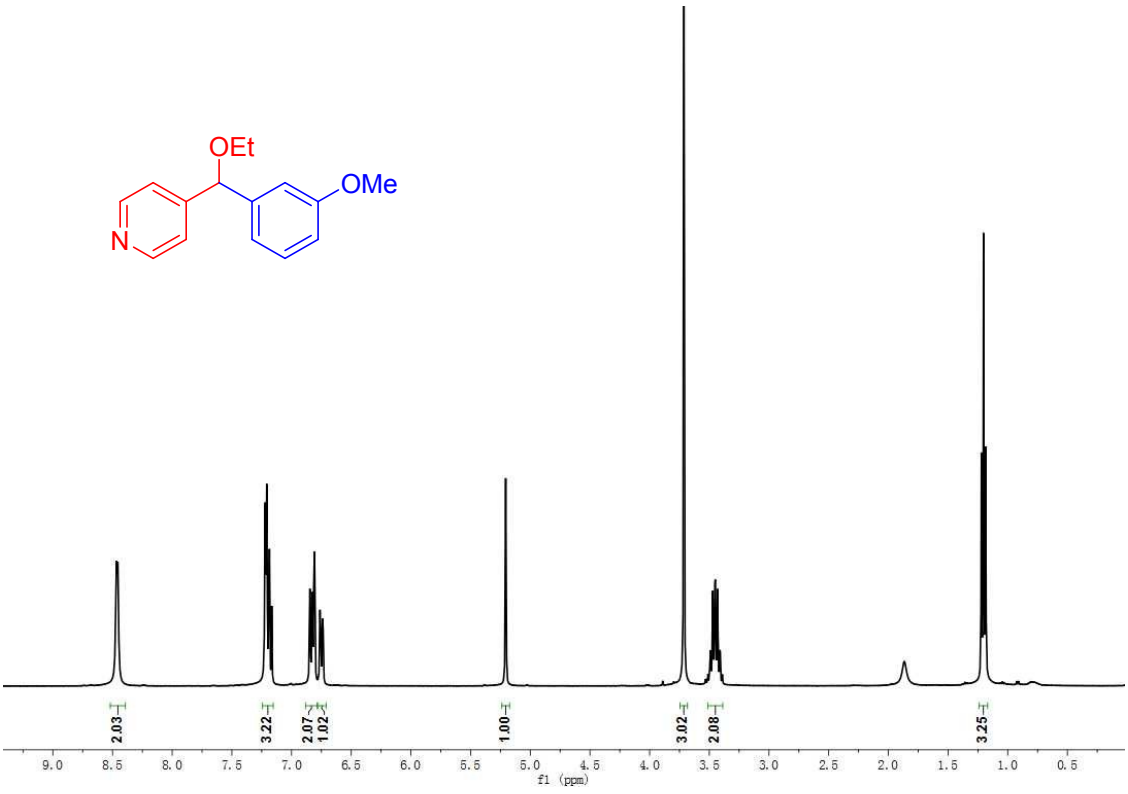
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(o-tolyl)methyl)pyridine (3ae)



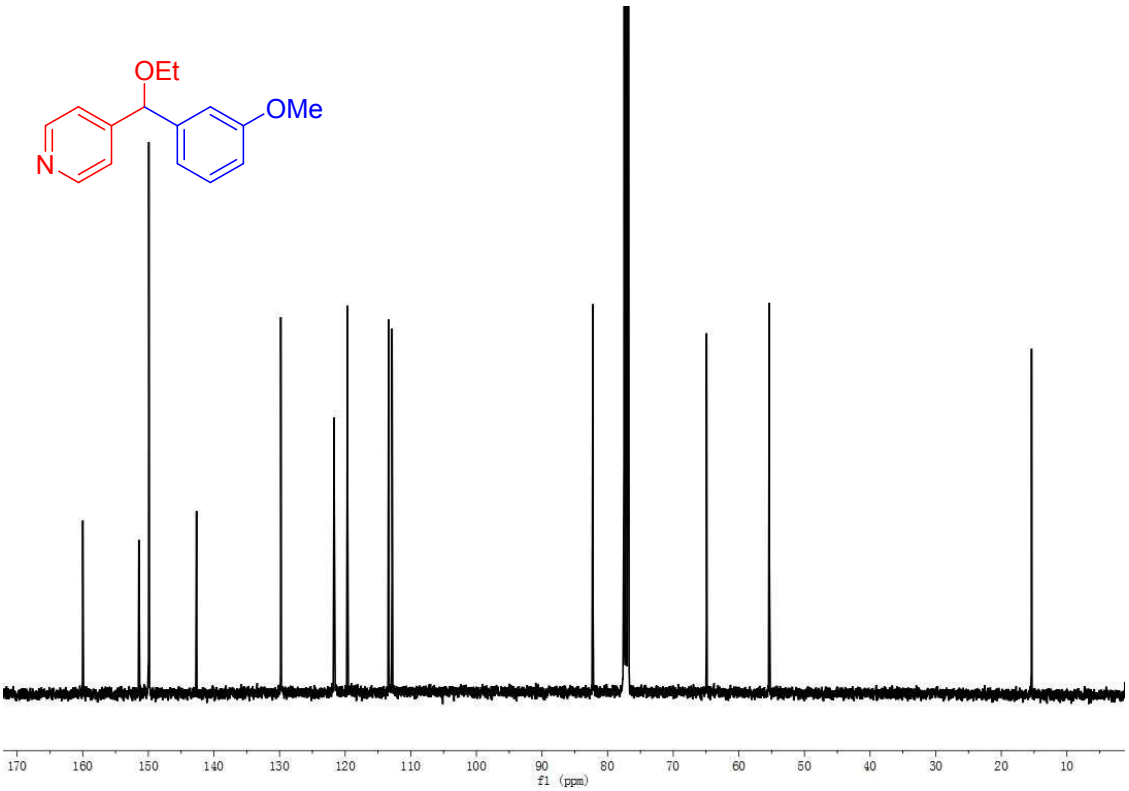
^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(o-tolyl)methyl)pyridine (3ae)



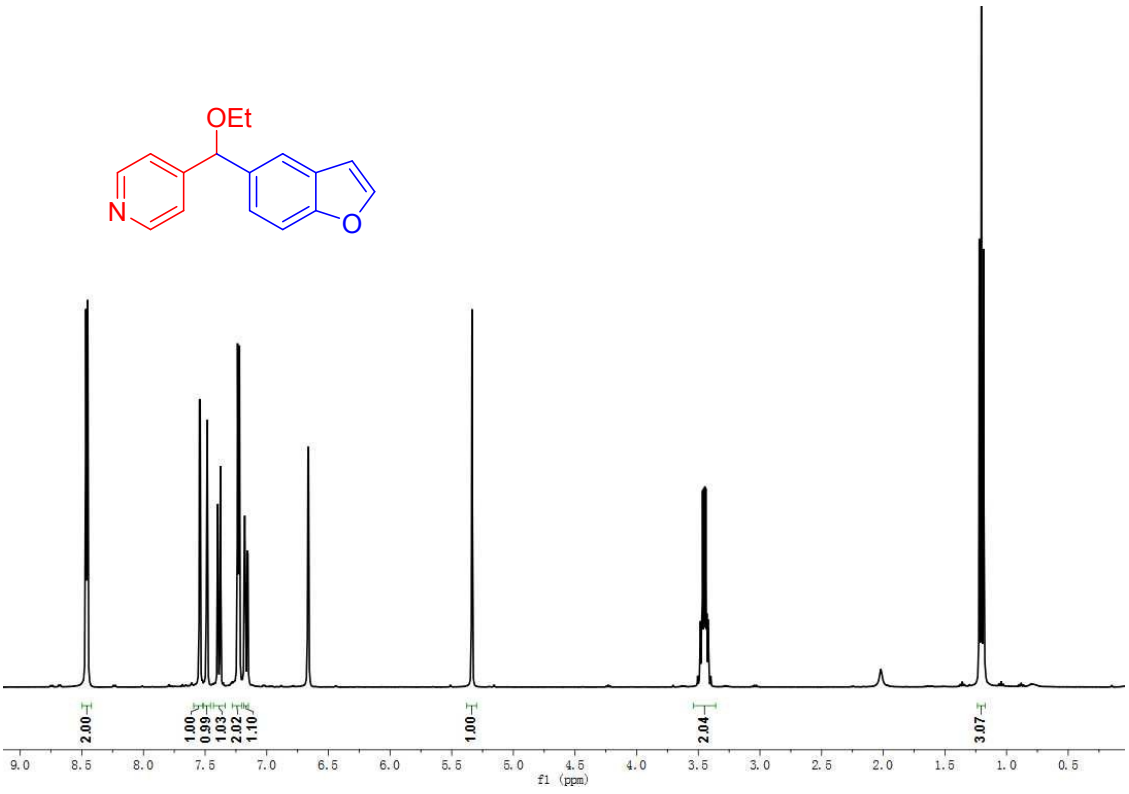
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(3-methoxyphenyl)methyl)pyridine (3af)



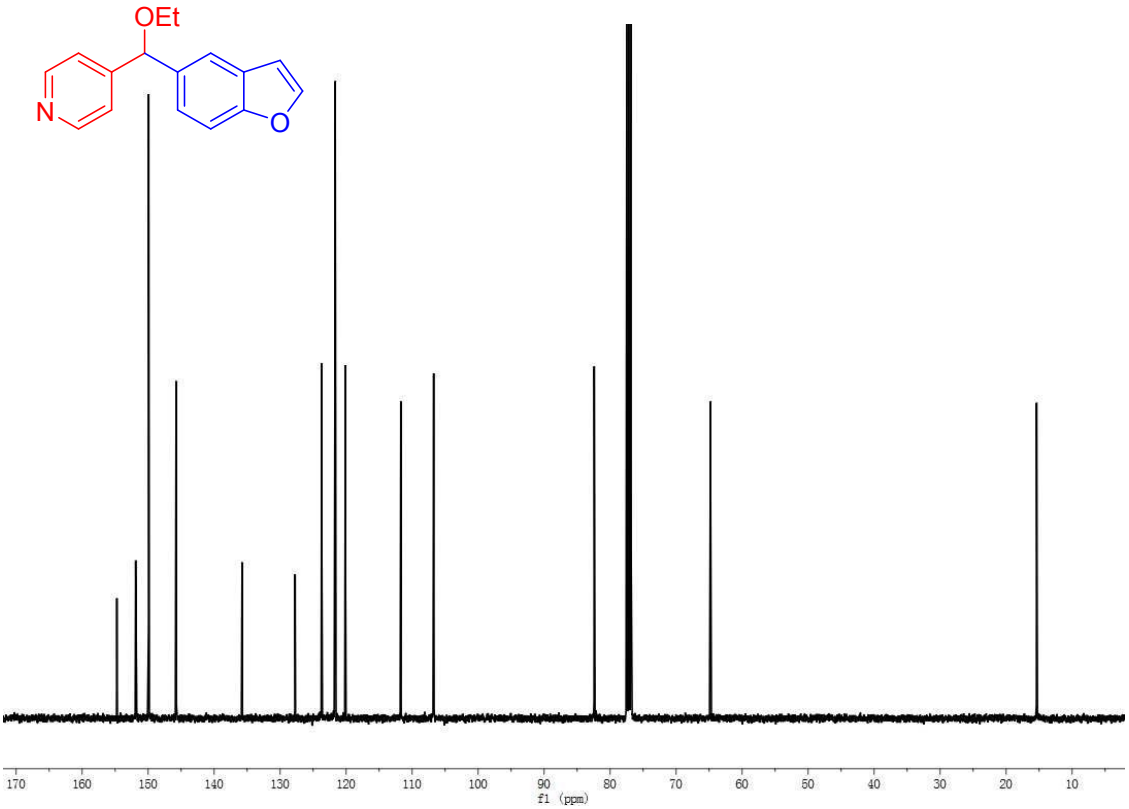
^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(3-methoxyphenyl)methyl)pyridine (3af)



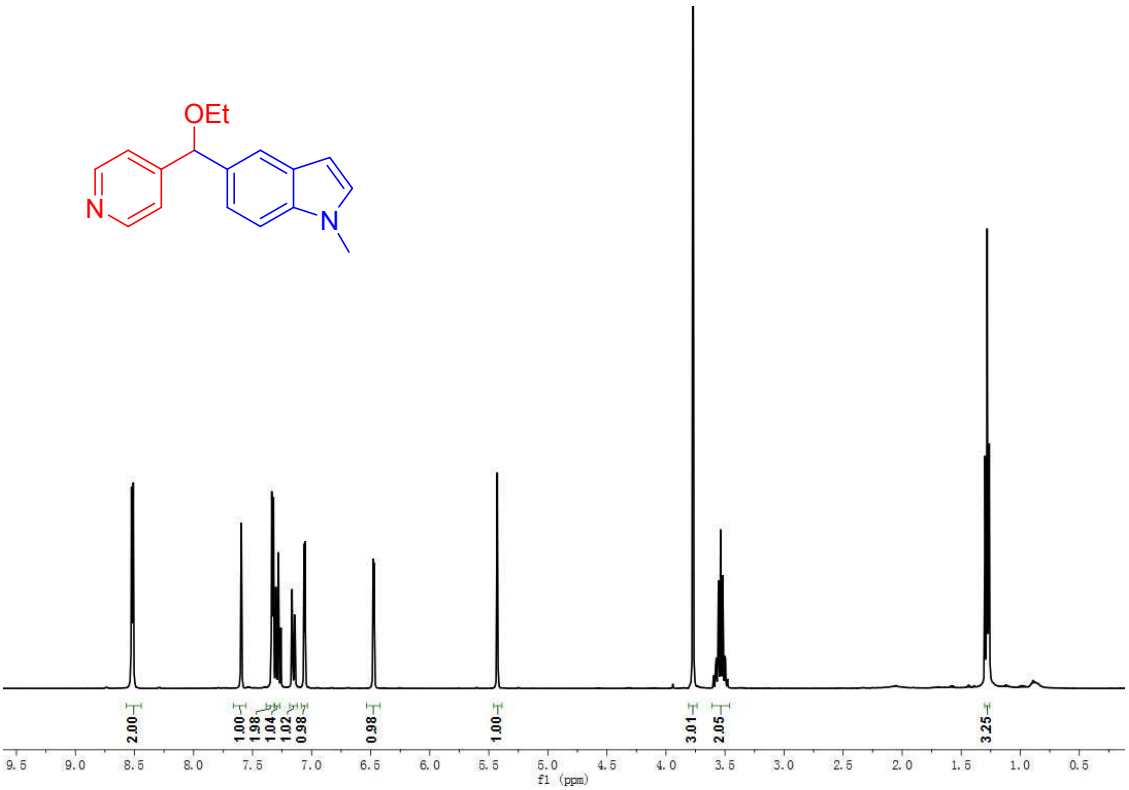
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Benzofuran-5-yl(ethoxy)methyl)pyridine (3ag)



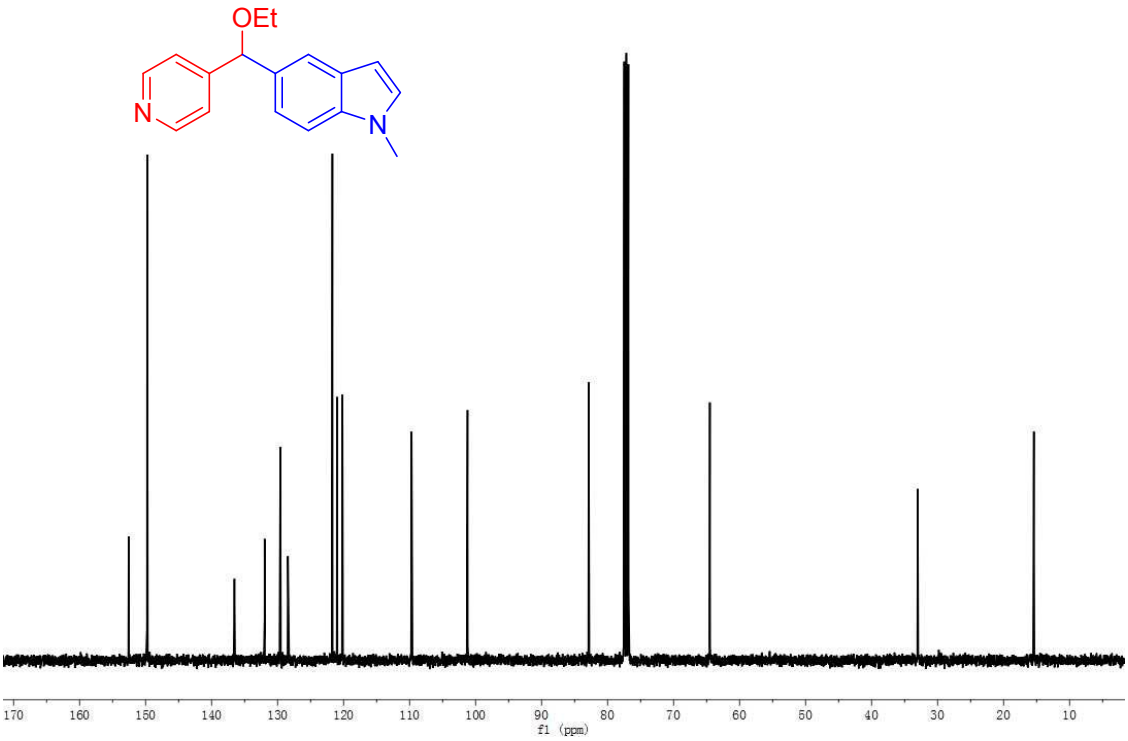
^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 4-(Benzofuran-5-yl(ethoxy)methyl)pyridine (3ag)



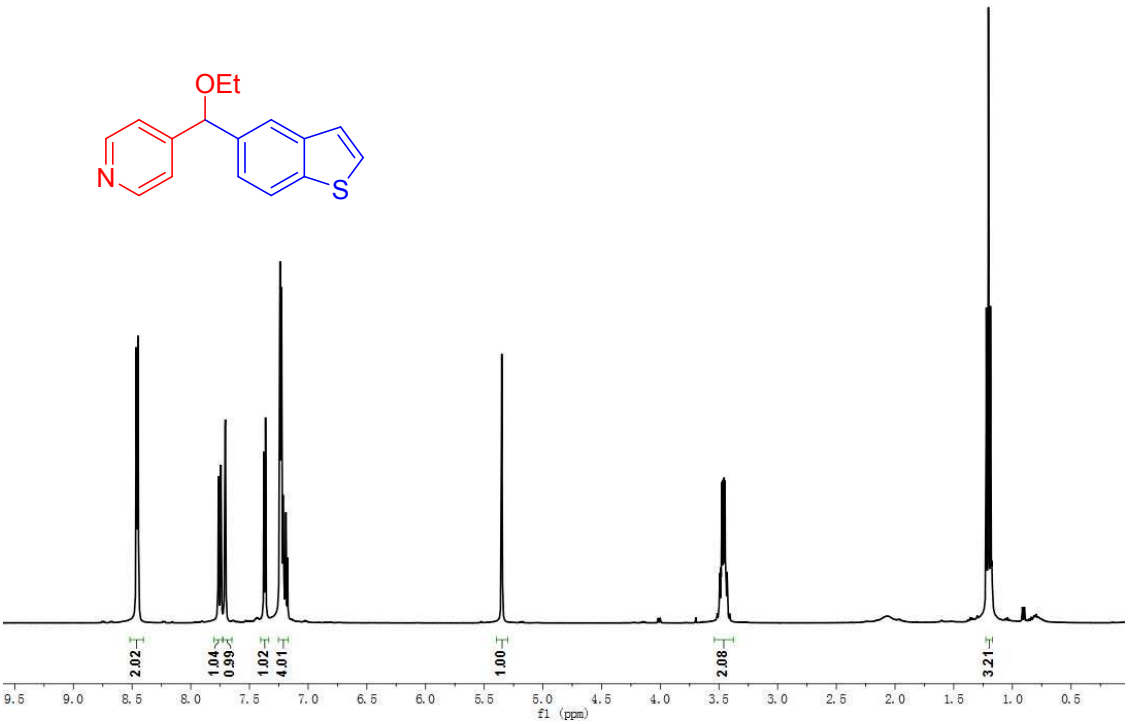
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 5-(Ethoxy(pyridin-4-yl)methyl)-1-methyl-1H-indole (3ah)



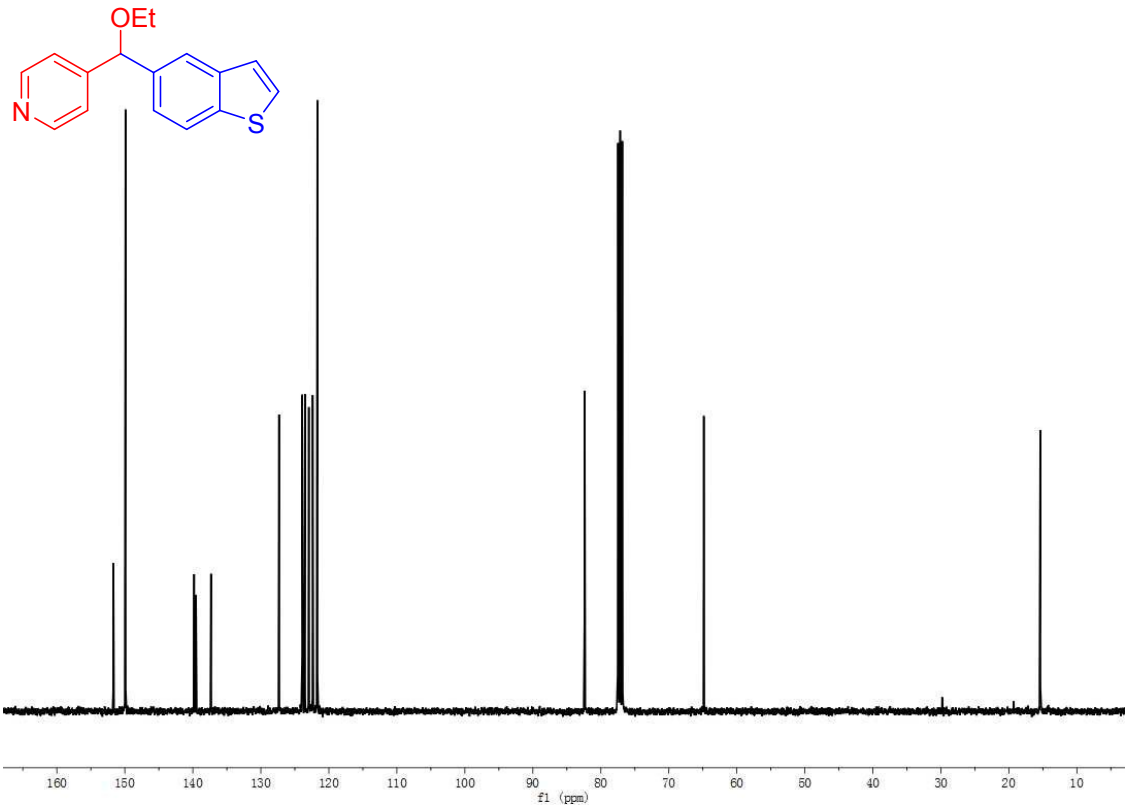
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 5-(Ethoxy(pyridin-4-yl)methyl)-1-methyl-1H-indole (3ah)



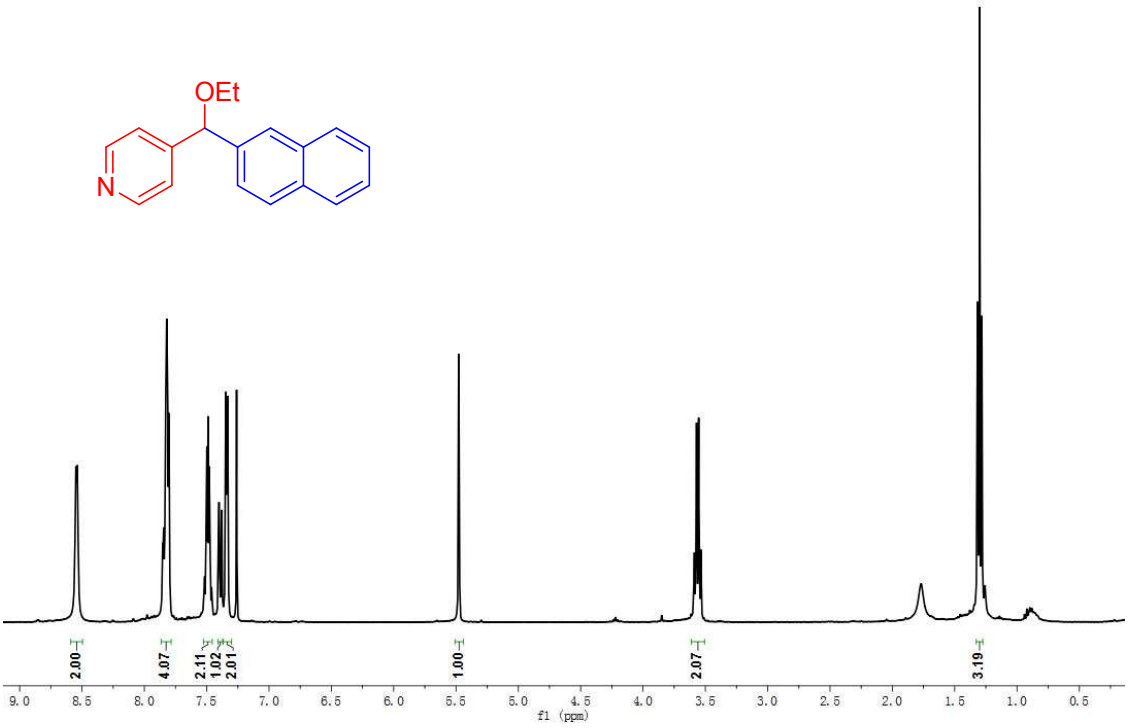
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Benzo[b]thiophen-5-yl(ethoxy)methyl)pyridine (3ai)



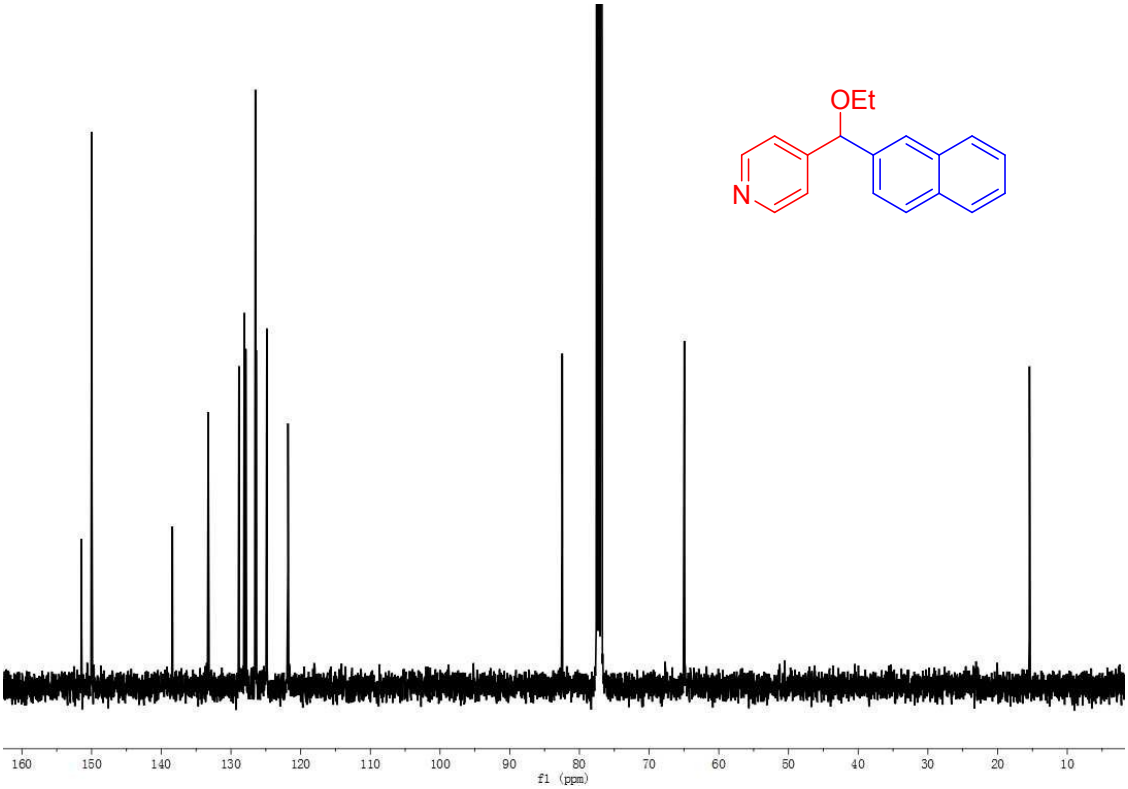
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 4-(Benzo[b]thiophen-5-yl(ethoxy)methyl)pyridine (3ai)



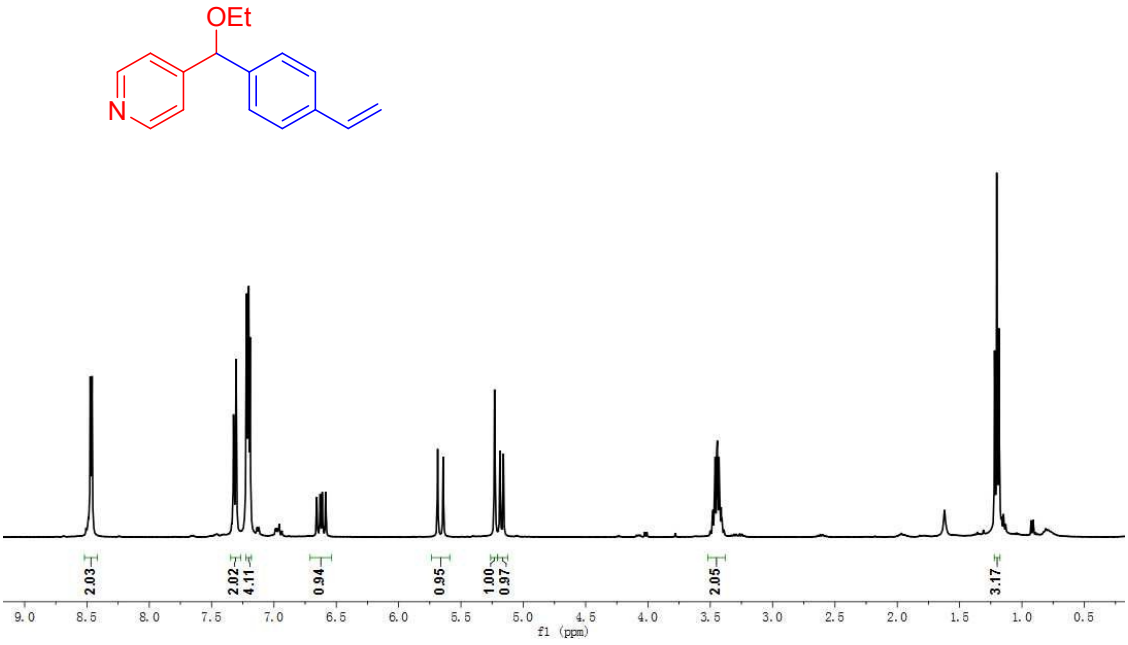
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(naphthalen-2-yl)methyl)pyridine (3aj)



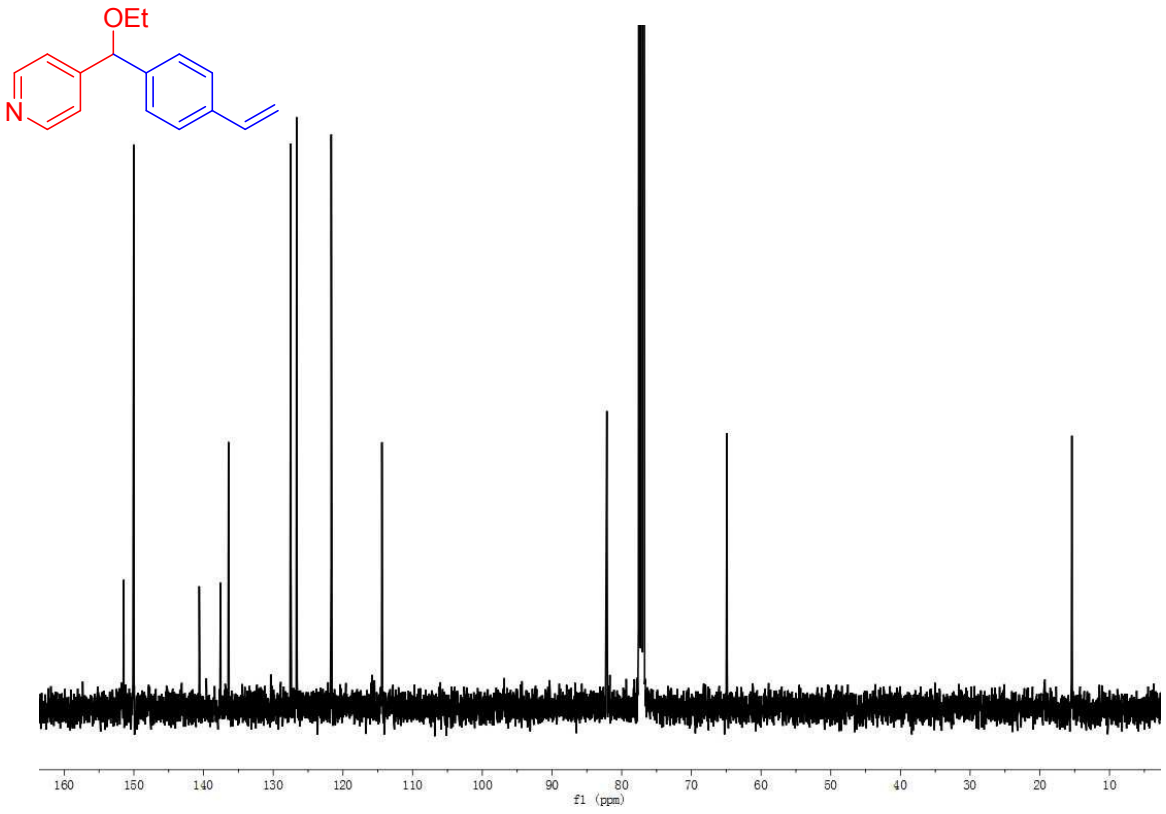
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(naphthalen-2-yl)methyl)pyridine (3aj)



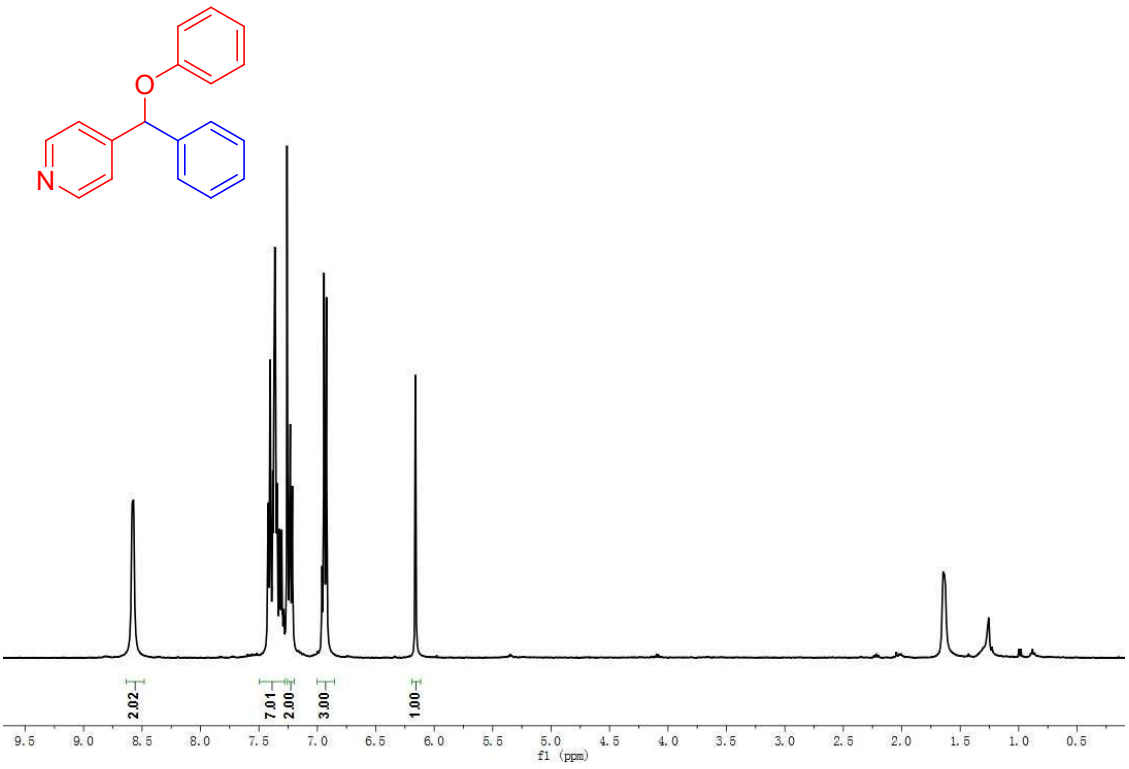
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Ethoxy(4-vinylphenyl)methyl)pyridine (3ak)



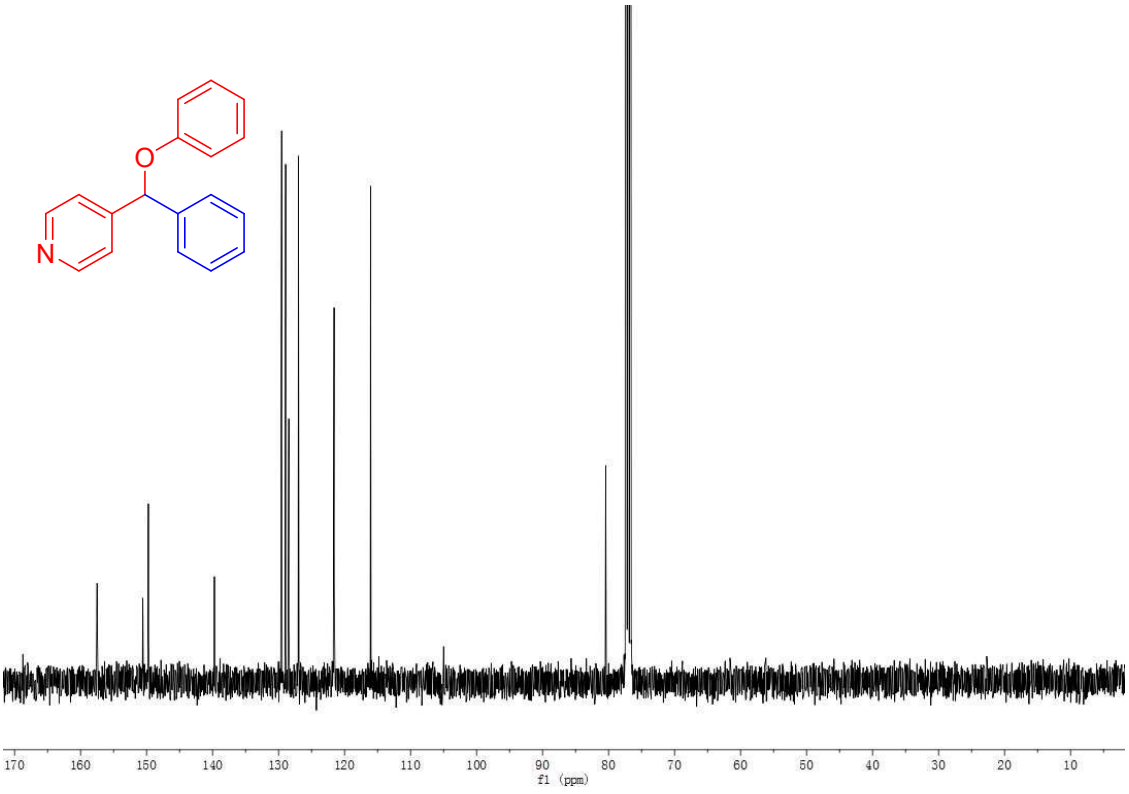
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 4-(Ethoxy(4-vinylphenyl)methyl)pyridine (3ak)



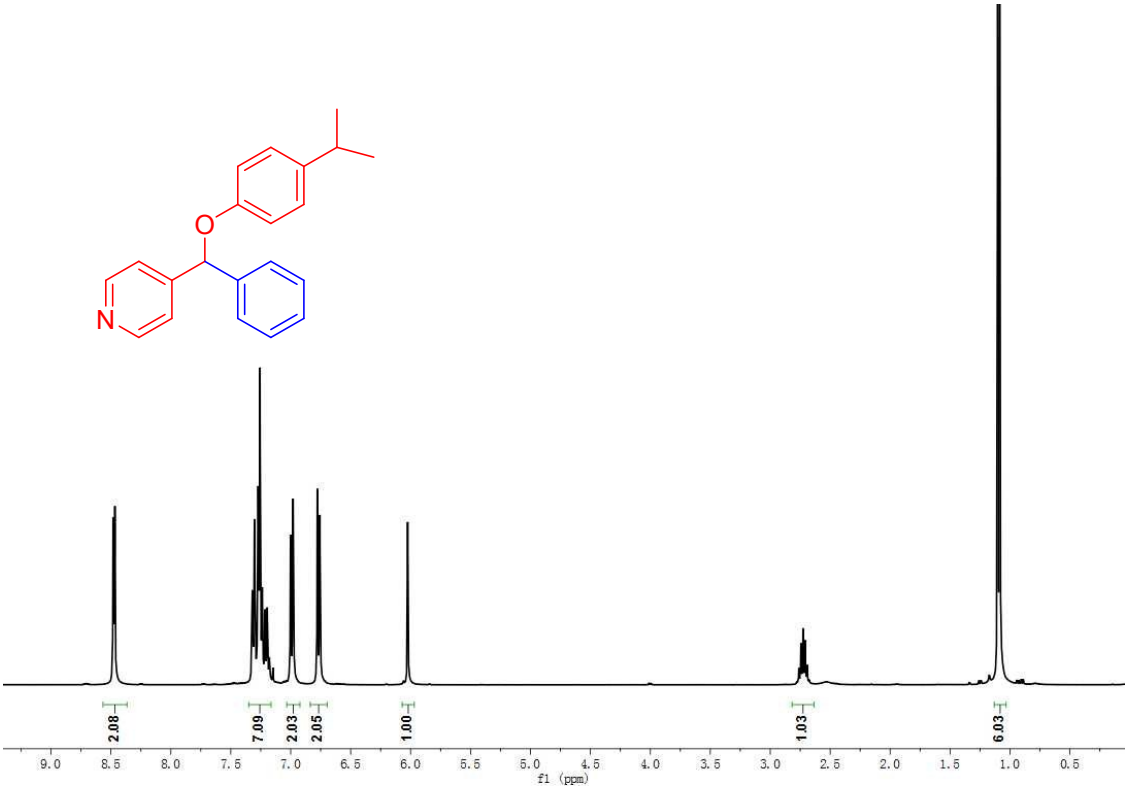
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-(Phenoxy(phenyl)methyl)pyridine (3ba)



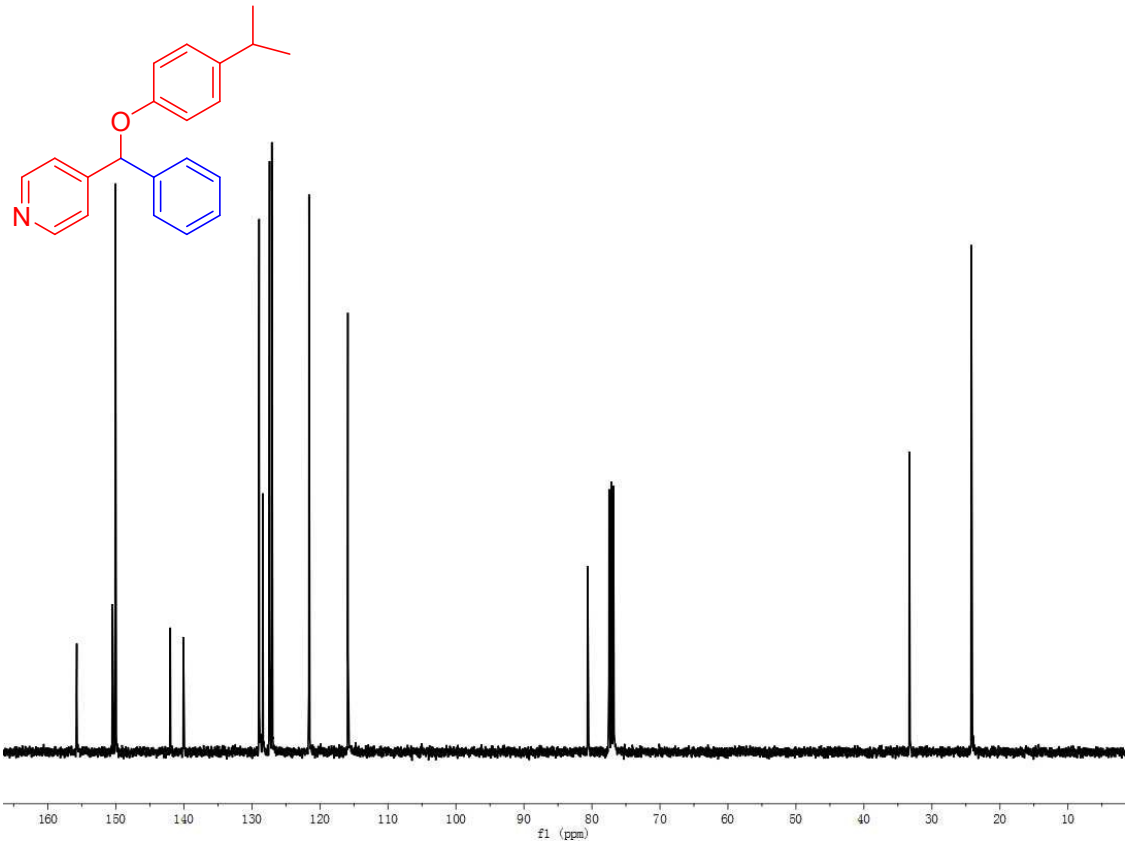
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 4-(Phenoxy(phenyl)methyl)pyridine (3ba)



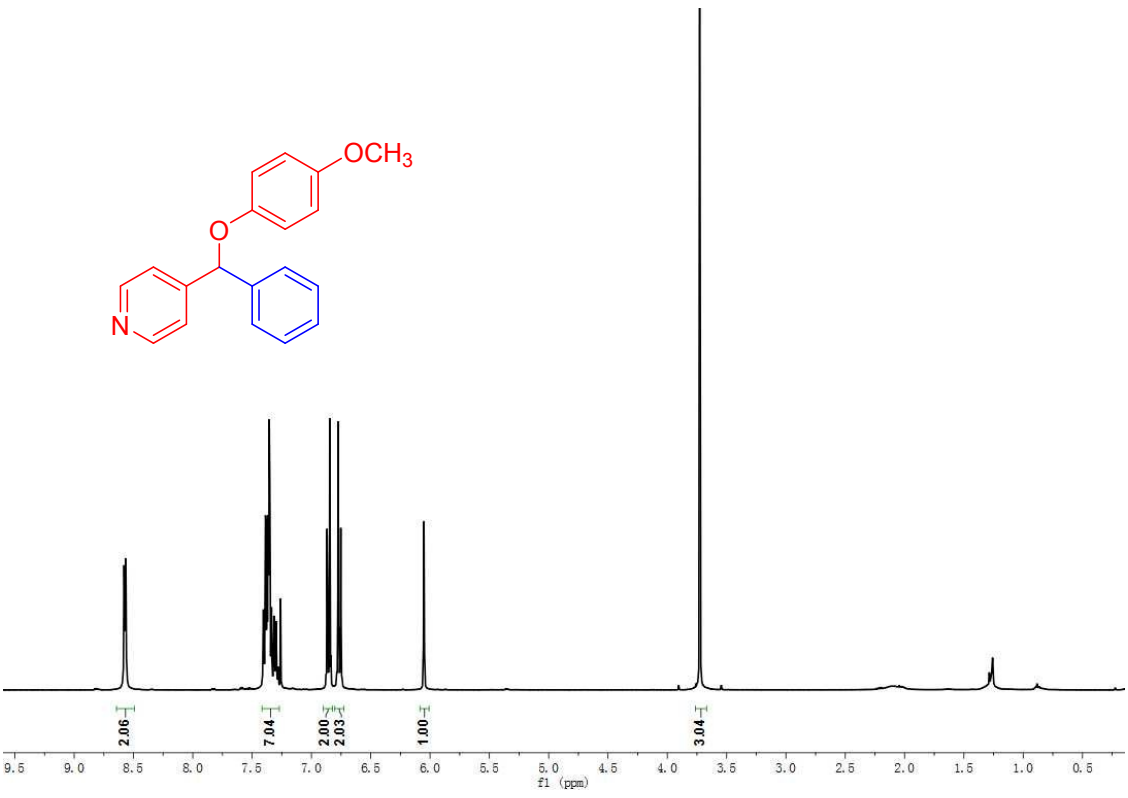
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-((4-Isopropylphenoxy)(phenyl)methyl)pyridine (3ca)



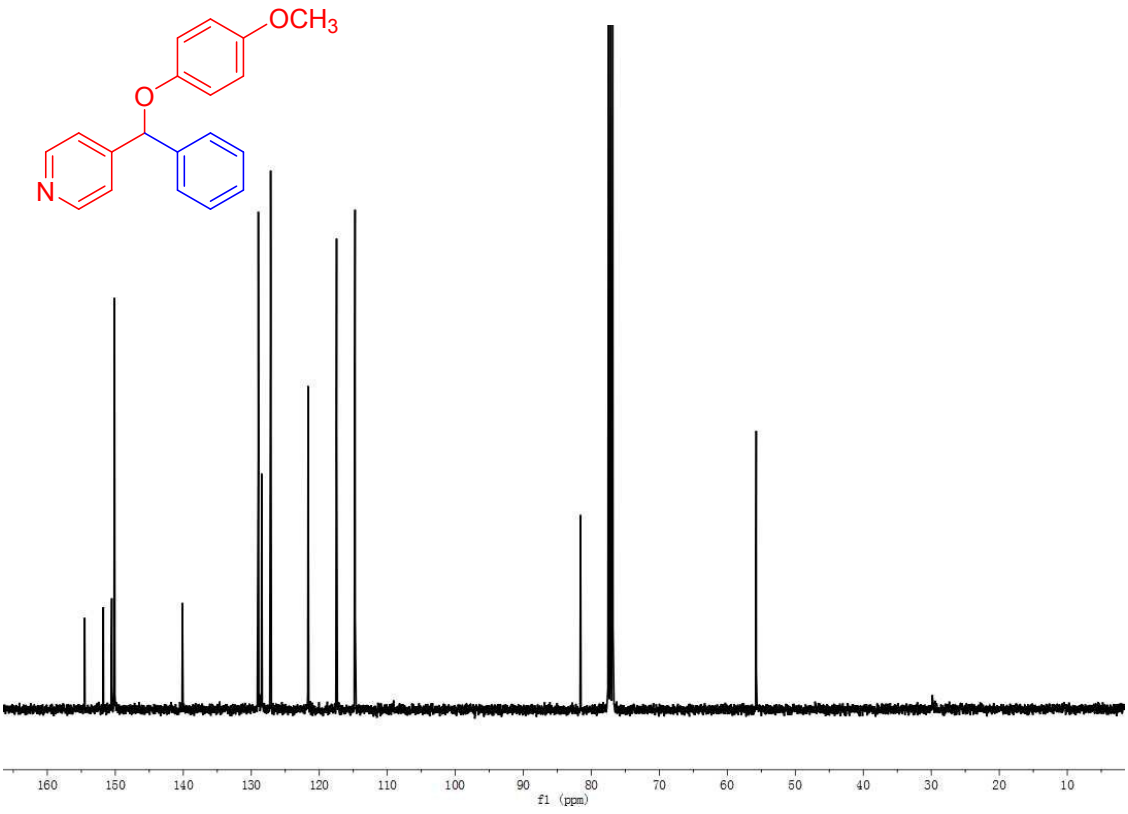
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 4-((4-Isopropylphenoxy)(phenyl)methyl)pyridine (3ca)



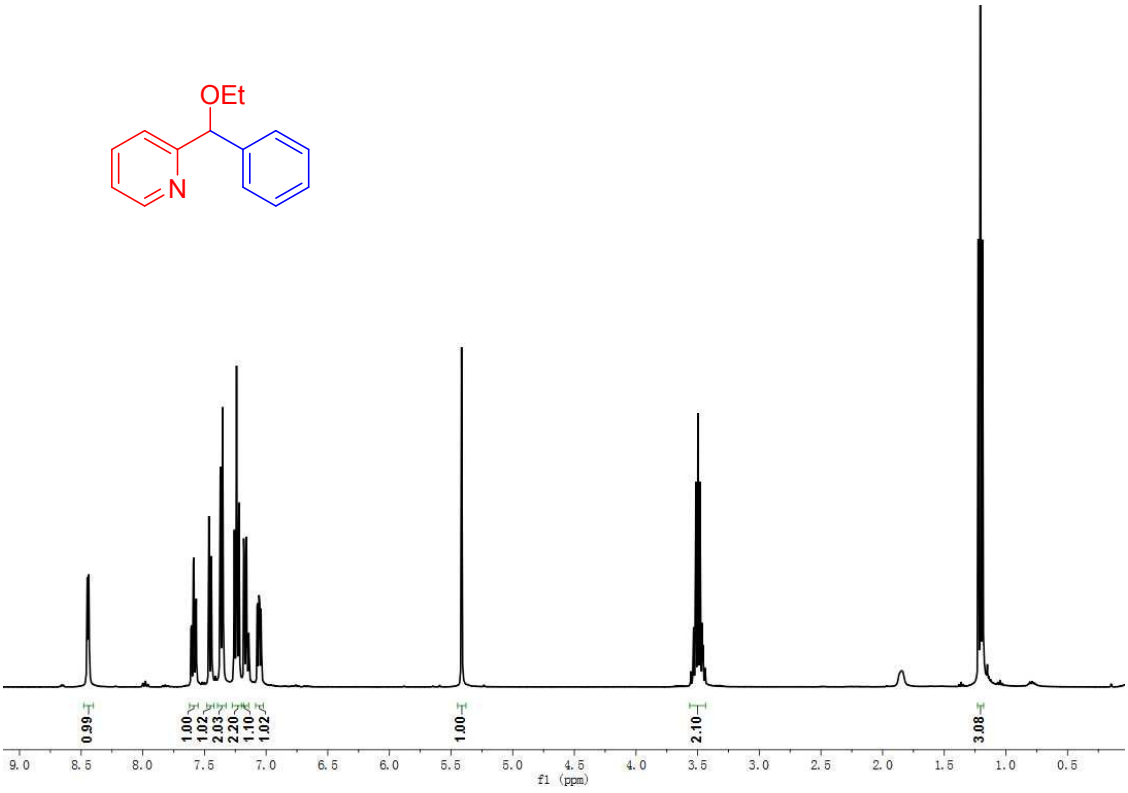
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 4-((4-Methoxyphenoxy)(phenyl)methyl)pyridine (3da)



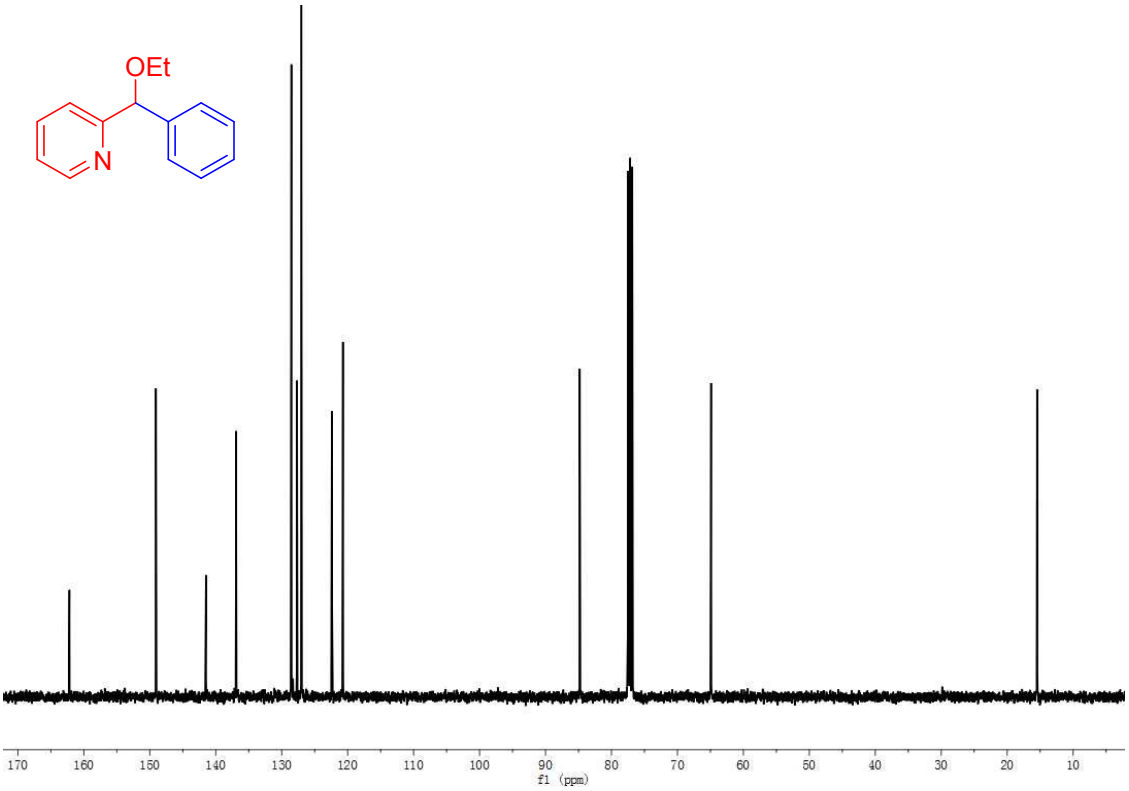
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 4-((4-Methoxyphenoxy)(phenyl)methyl)pyridine (3da)



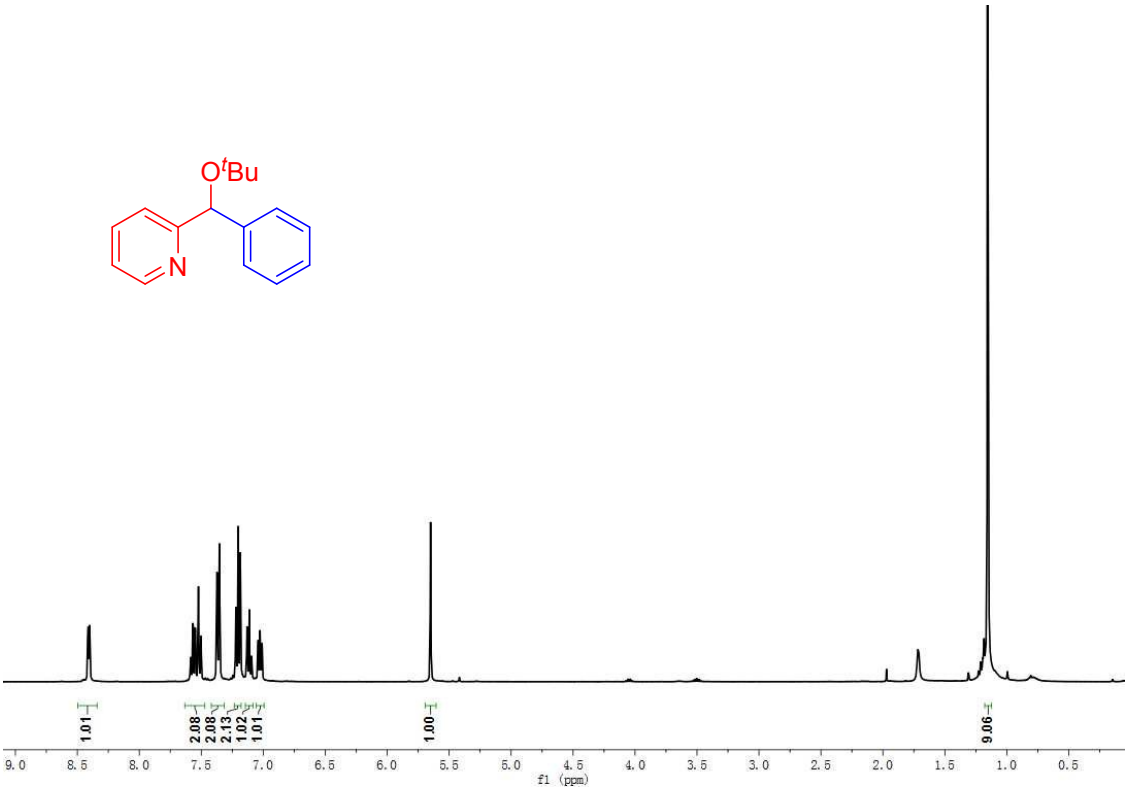
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-(Ethoxy(phenyl)methyl)pyridine (3ea)



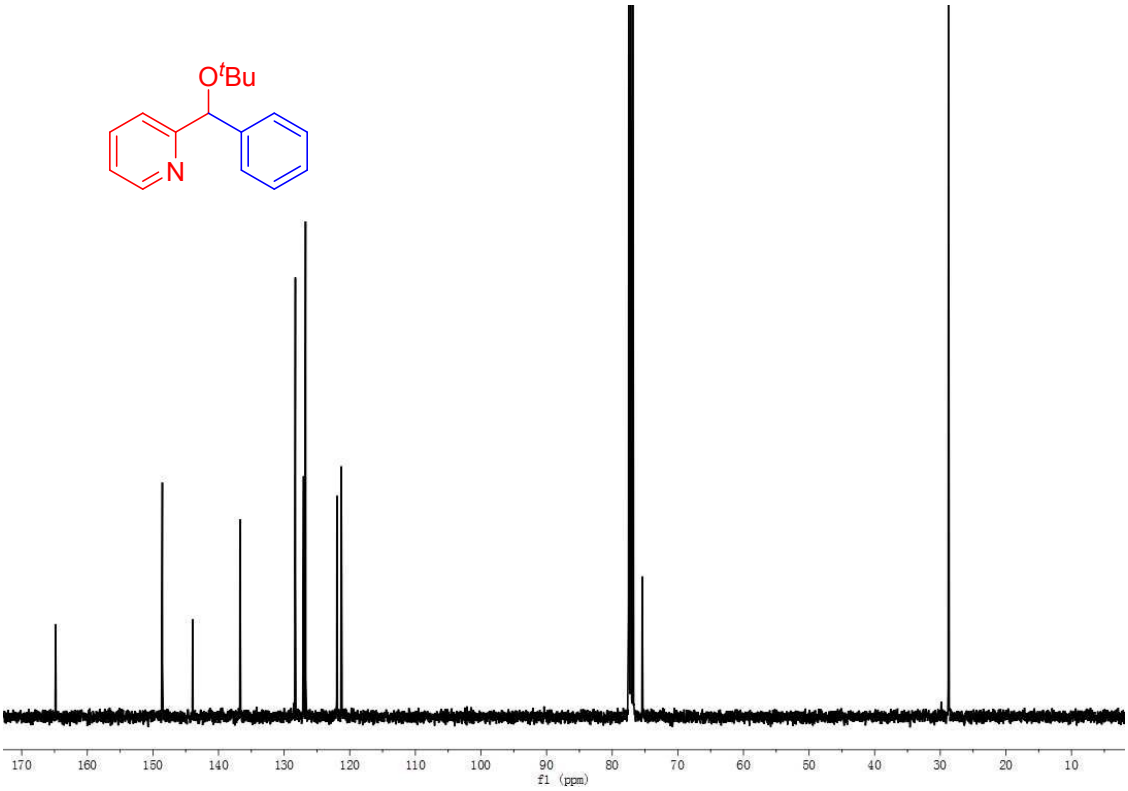
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-(Ethoxy(phenyl)methyl)pyridine (3ea)



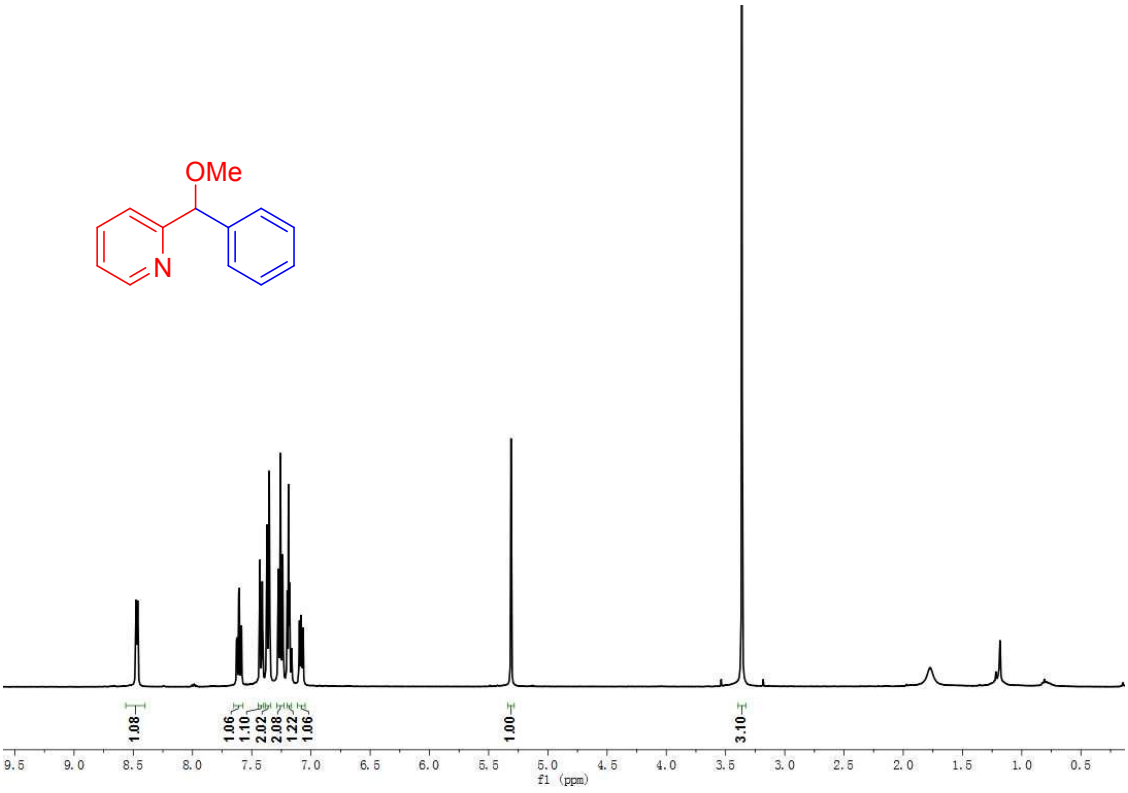
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-(*tert*-Butoxy(phenyl)methyl)pyridine (3fa)



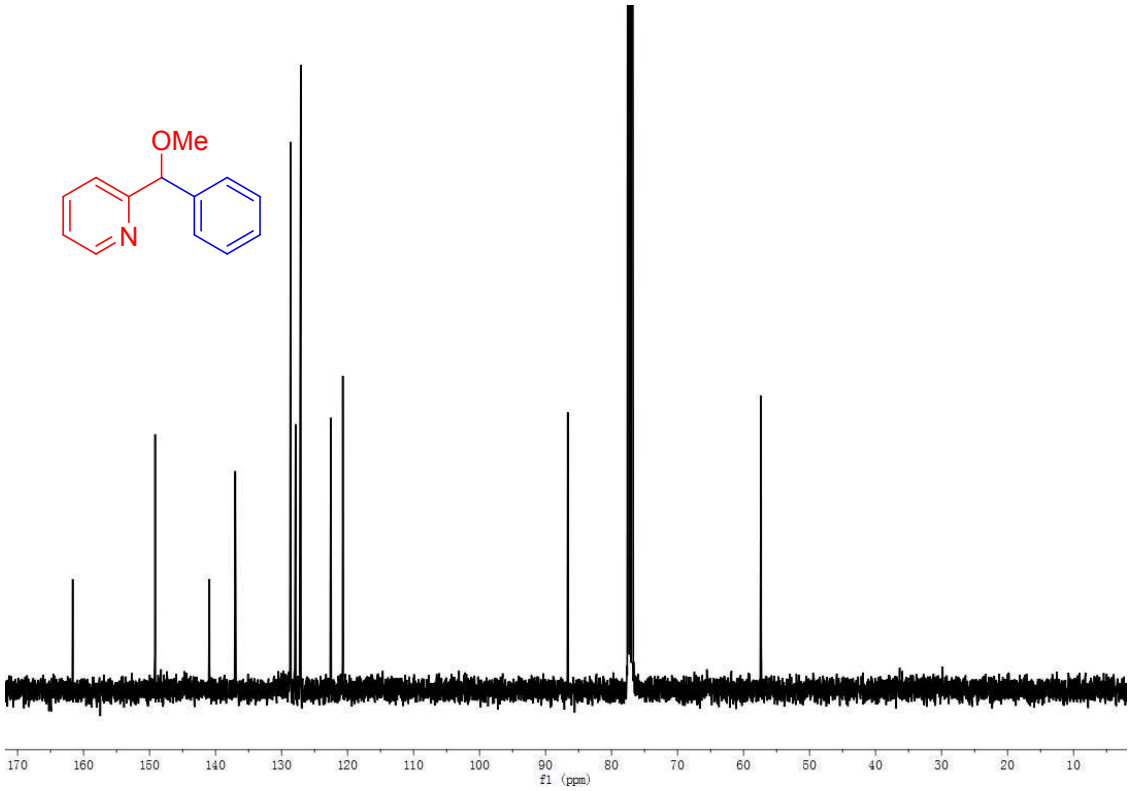
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-(*tert*-Butoxy(phenyl)methyl)pyridine (3fa)



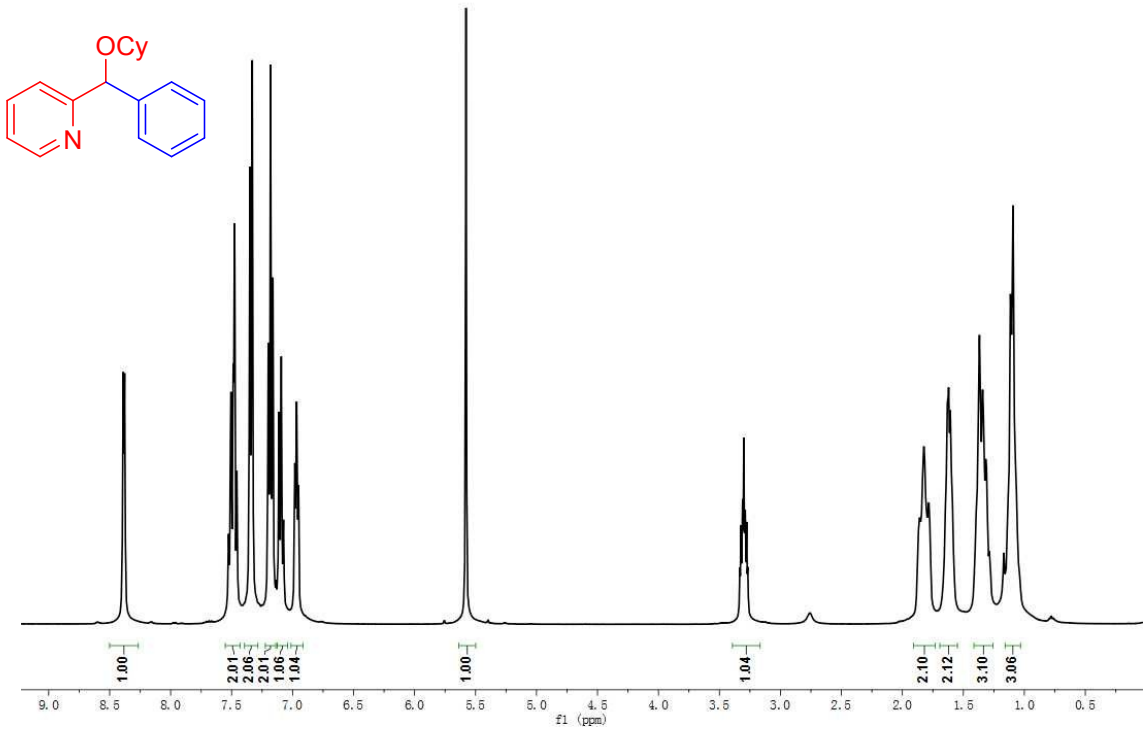
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-(Methoxy(phenyl)methyl)pyridine (3ga)



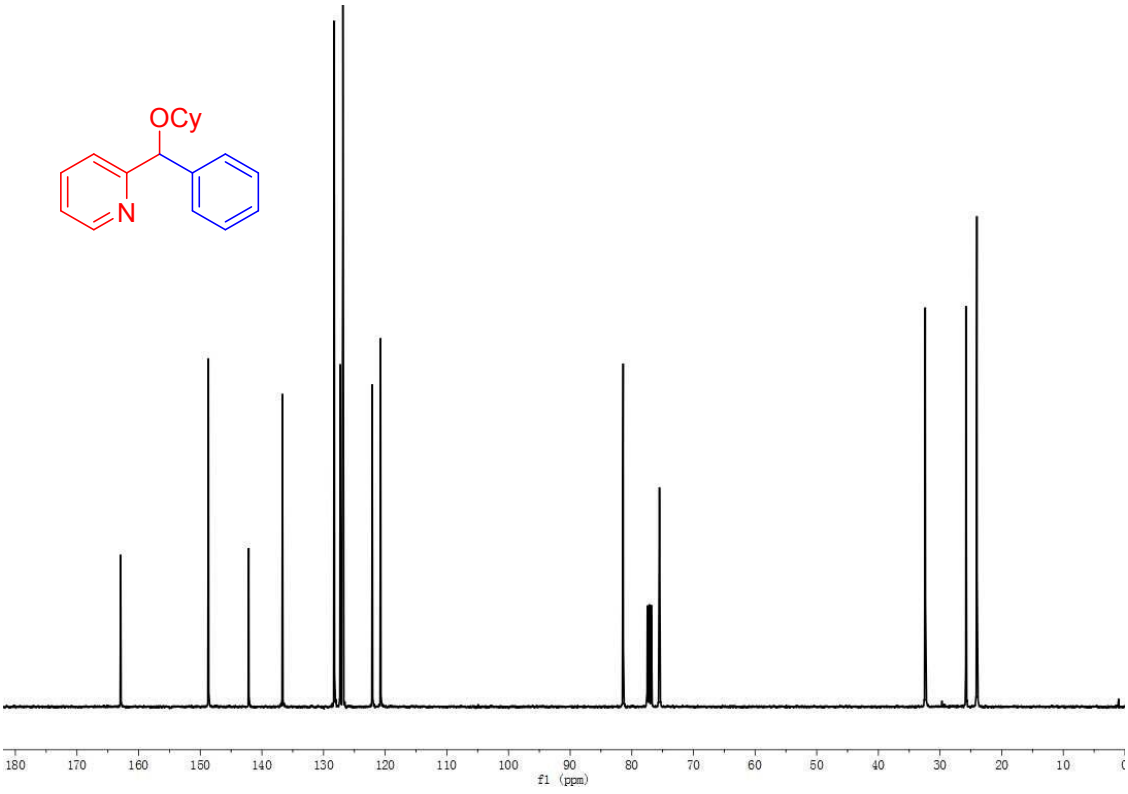
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-(Methoxy(phenyl)methyl)pyridine (3ga)



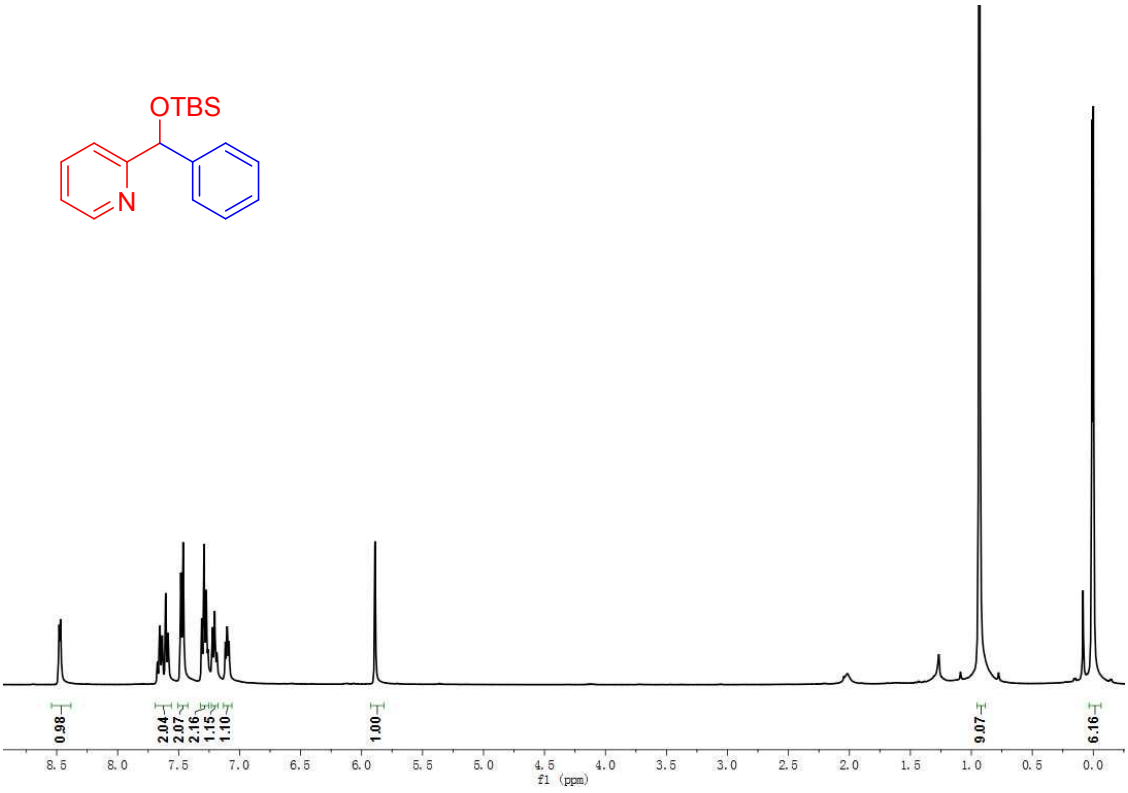
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-((Cyclohexyloxy)(phenyl)methyl)pyridine (3ha)



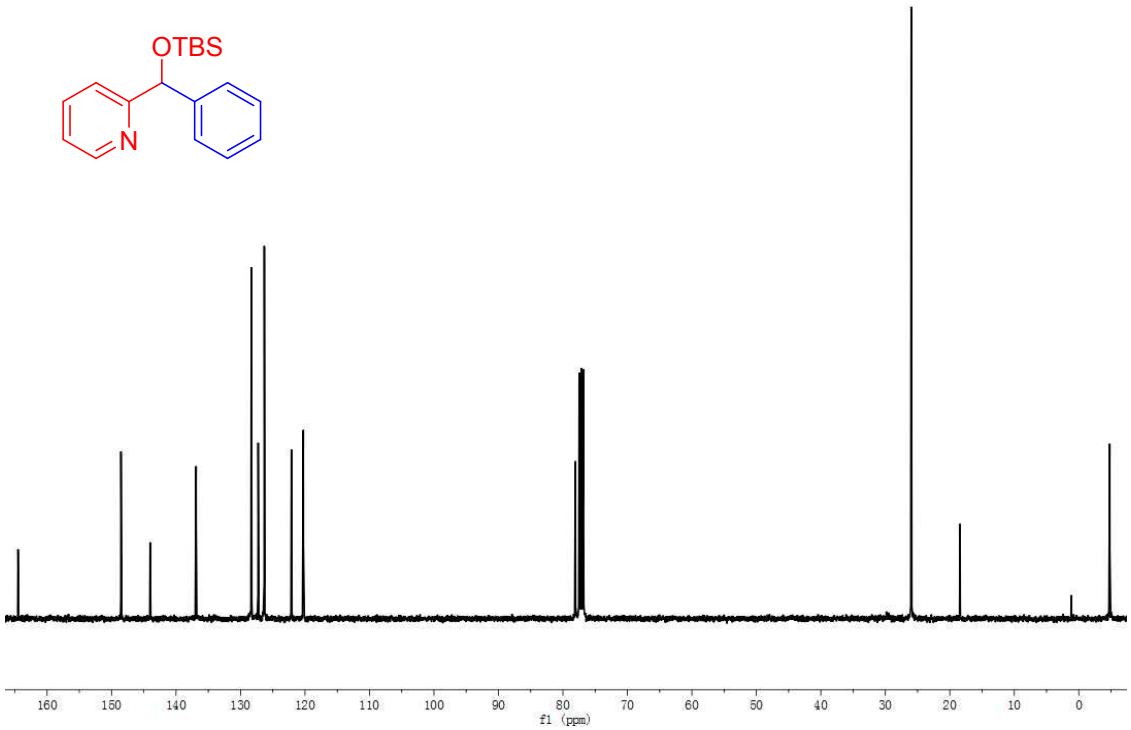
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-((Cyclohexyloxy)(phenyl)methyl)pyridine (3ha)



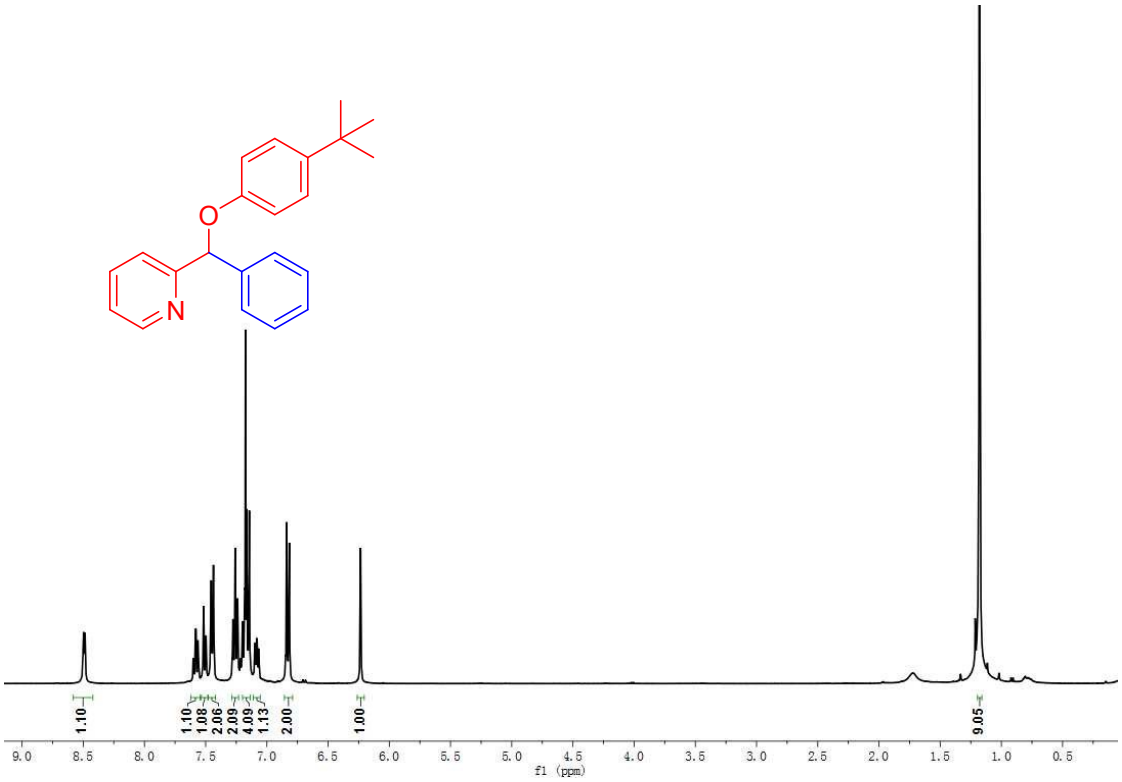
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-(((*tert*-Butyldimethylsilyl)oxy)(phenyl)methyl)pyridine (3ia)



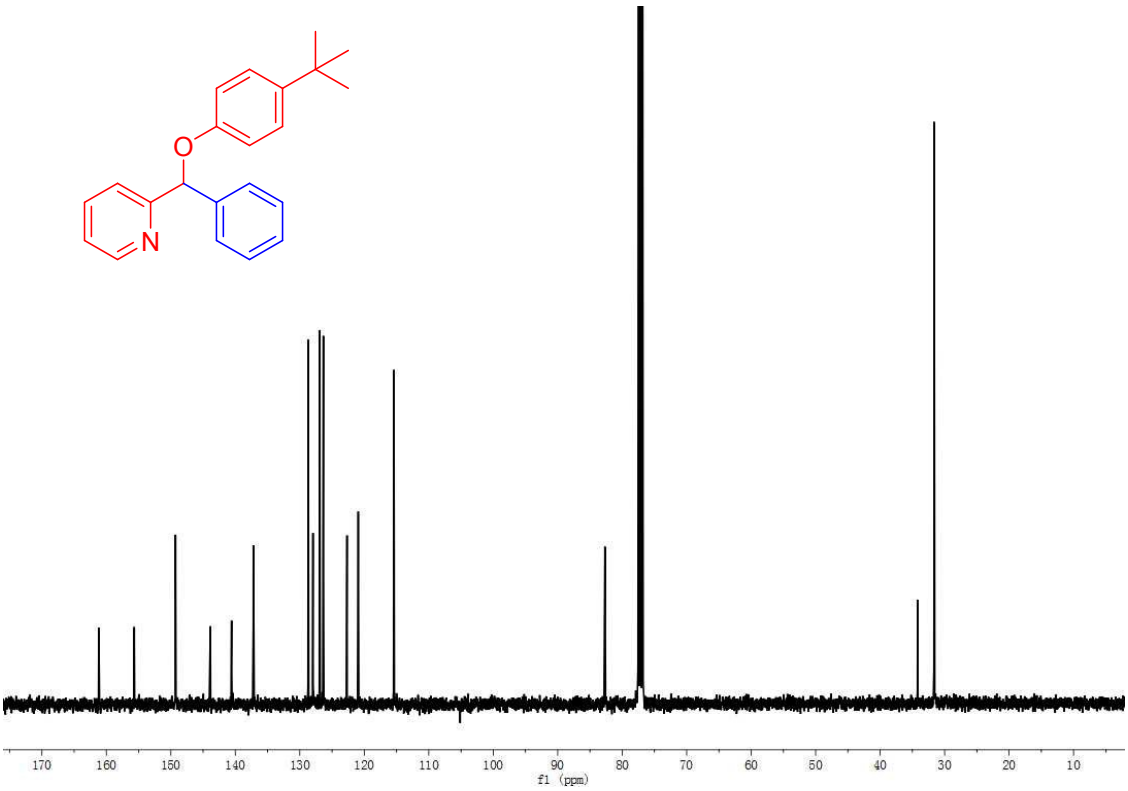
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-(((*tert*-Butyldimethylsilyl)oxy)(phenyl)methyl)pyridine (3ia)



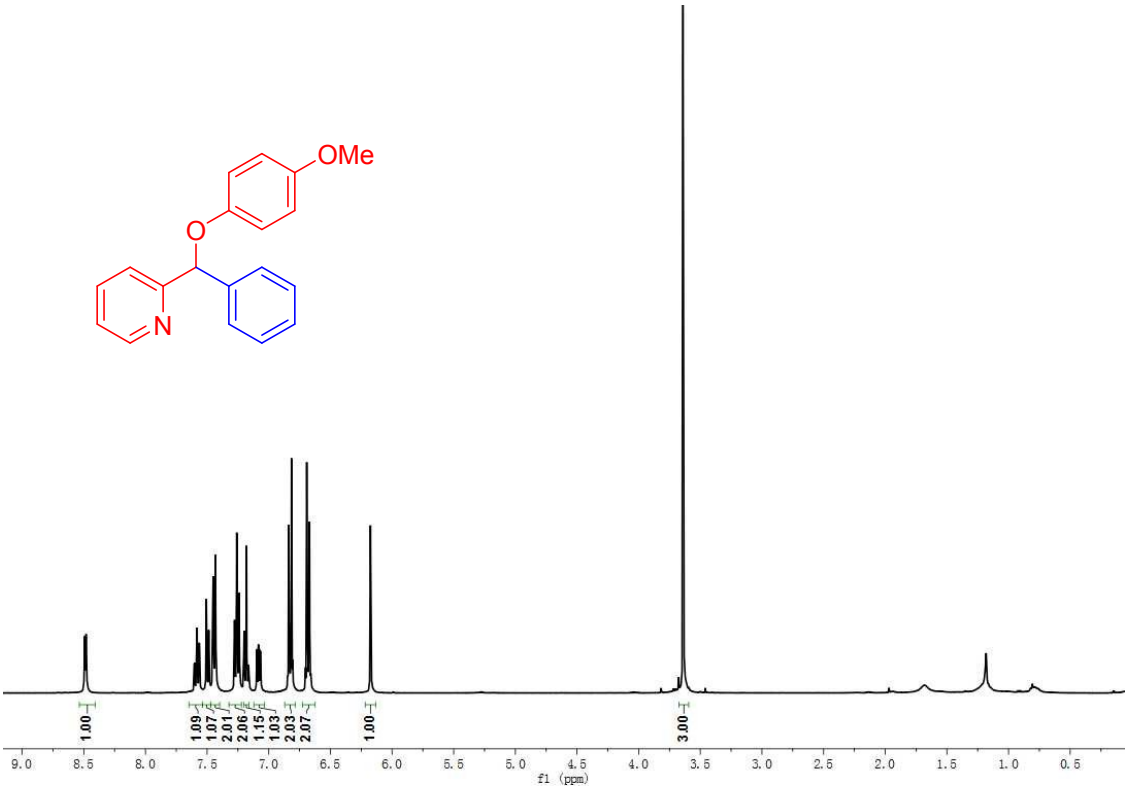
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-((4-(*tert*-Butyl)phenoxy)(phenyl)methyl)pyridine (3ja)



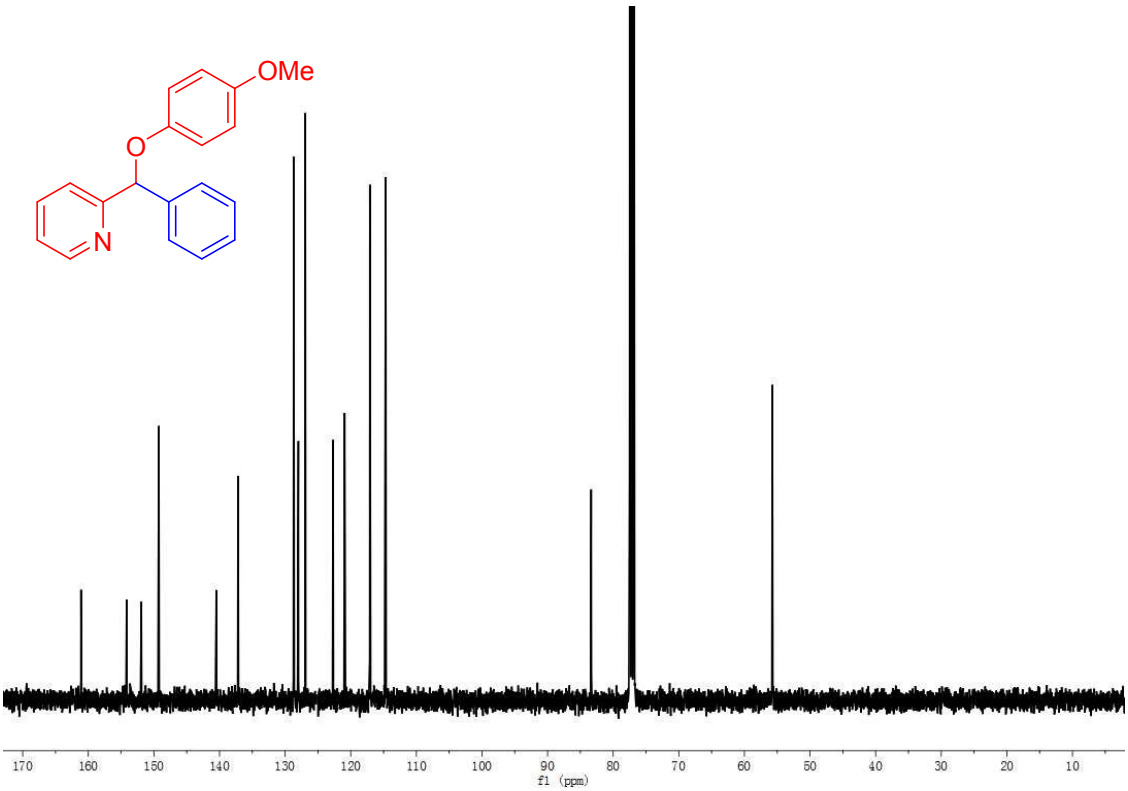
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-((4-(*tert*-Butyl)phenoxy)(phenyl)methyl)pyridine (3ja)



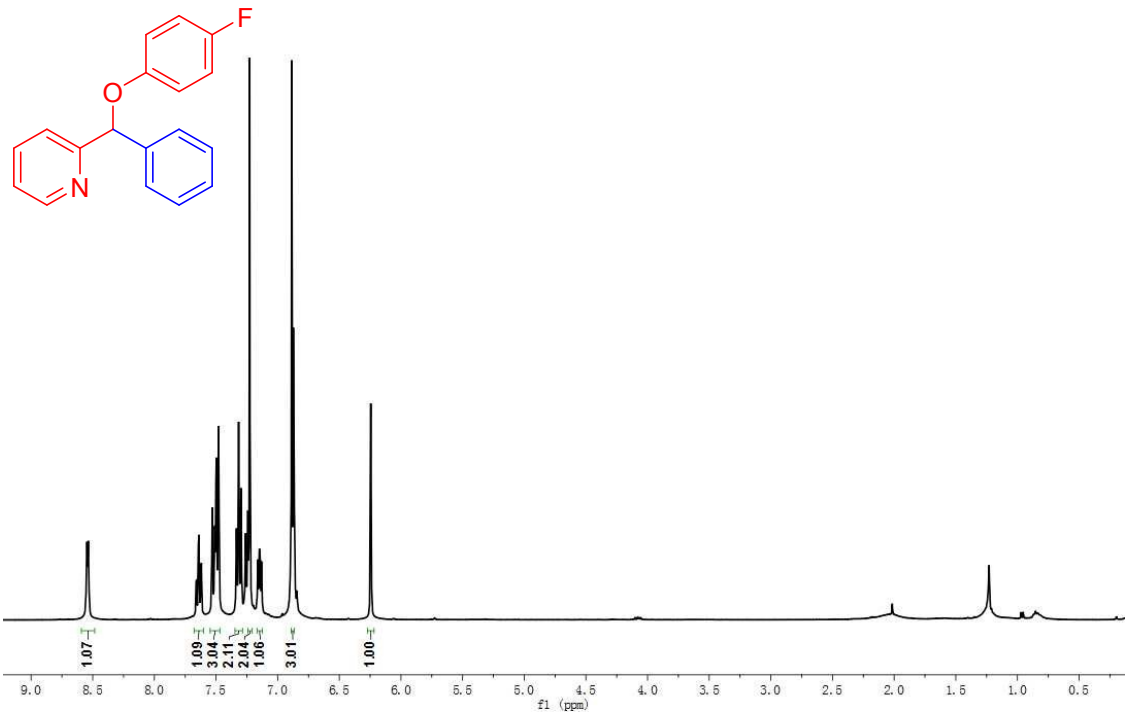
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-((4-Methoxyphenoxy)(phenyl)methyl)pyridine (3ka)



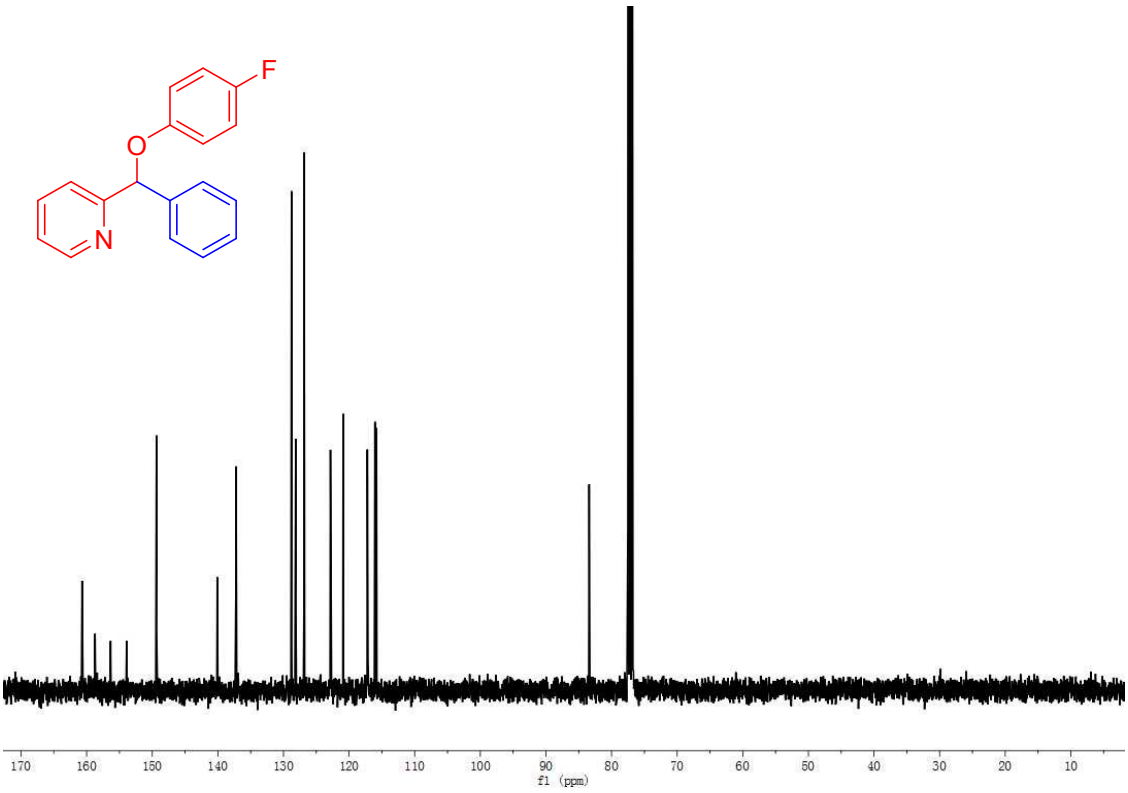
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-((4-Methoxyphenoxy)(phenyl)methyl)pyridine (3ka)



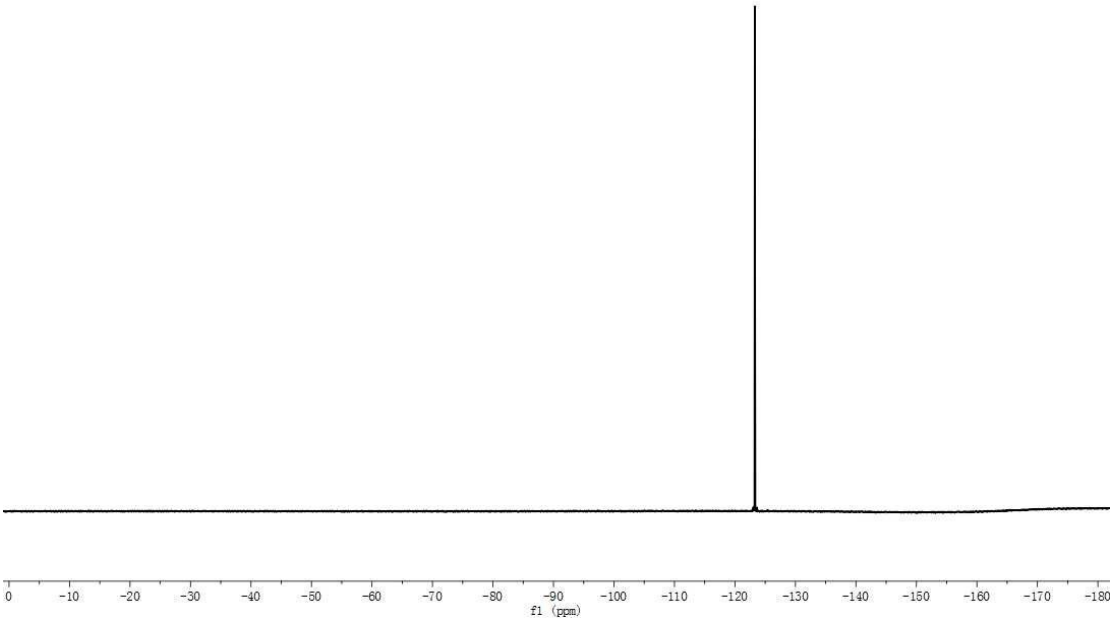
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-((4-Fluorophenoxy)(phenyl)methyl)pyridine (3la)



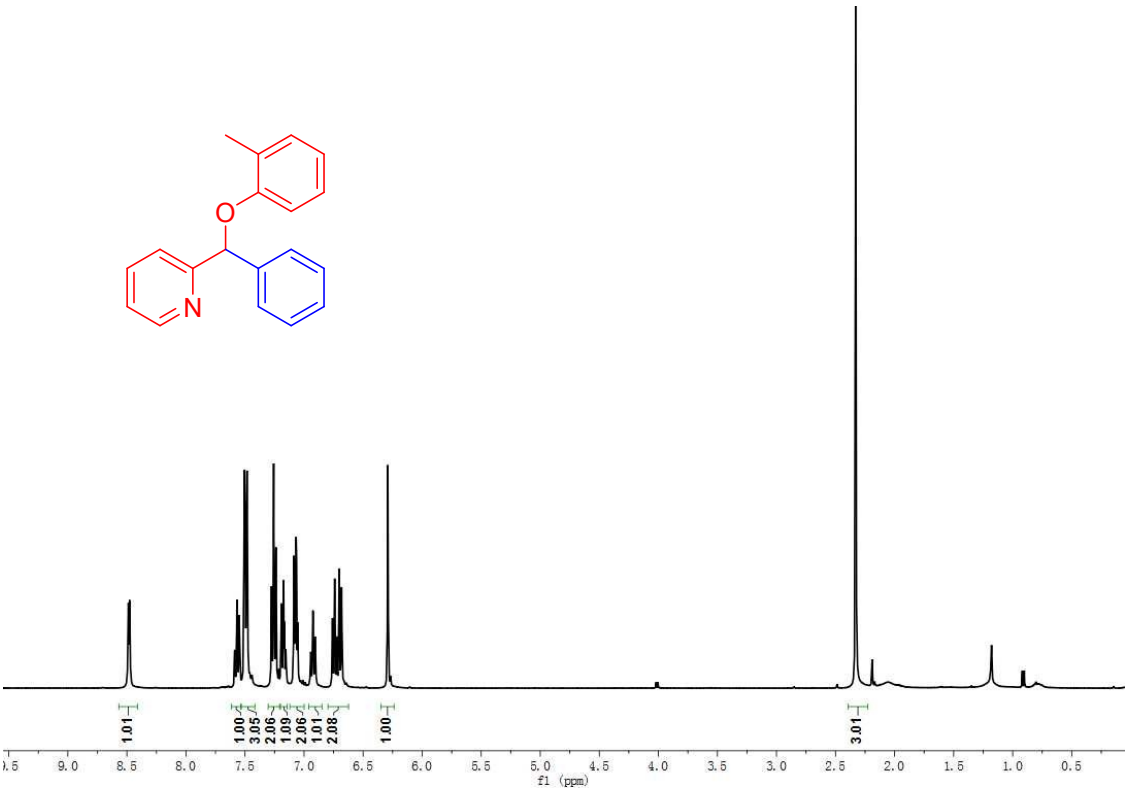
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-((4-Fluorophenoxy)(phenyl)methyl)pyridine (3la)



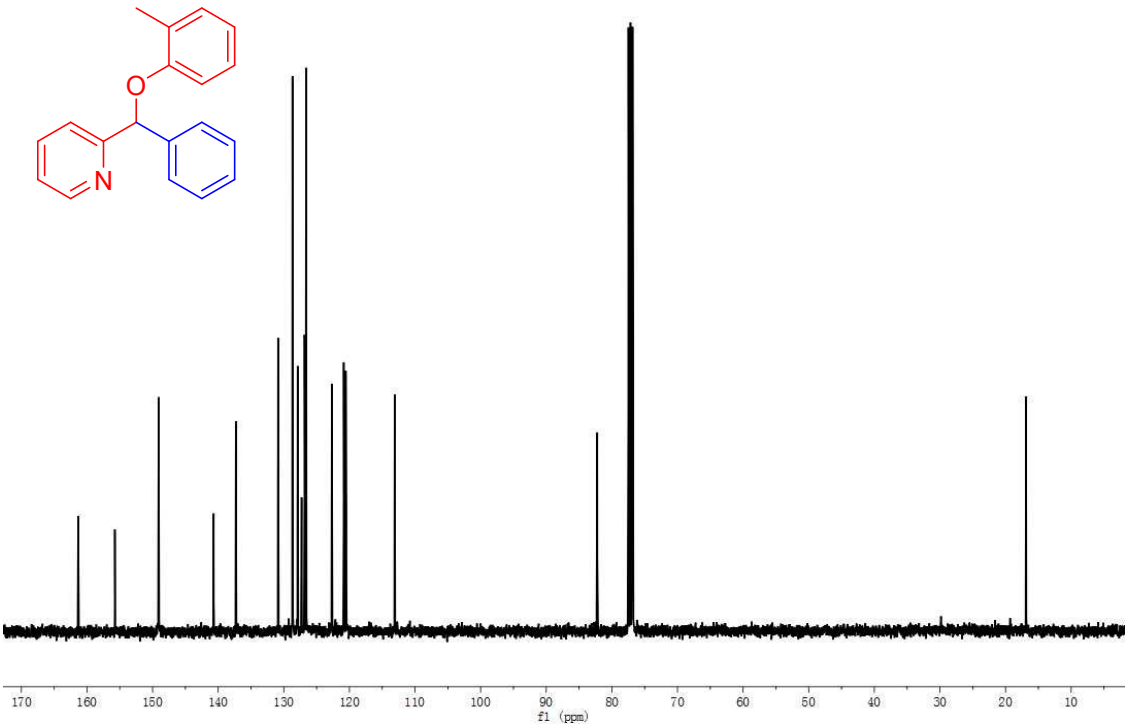
^{19} NMR spectra (376 MHz, Chloroform-*d*) of 2-((4-Fluorophenoxy)(phenyl)methyl)pyridine (3la)



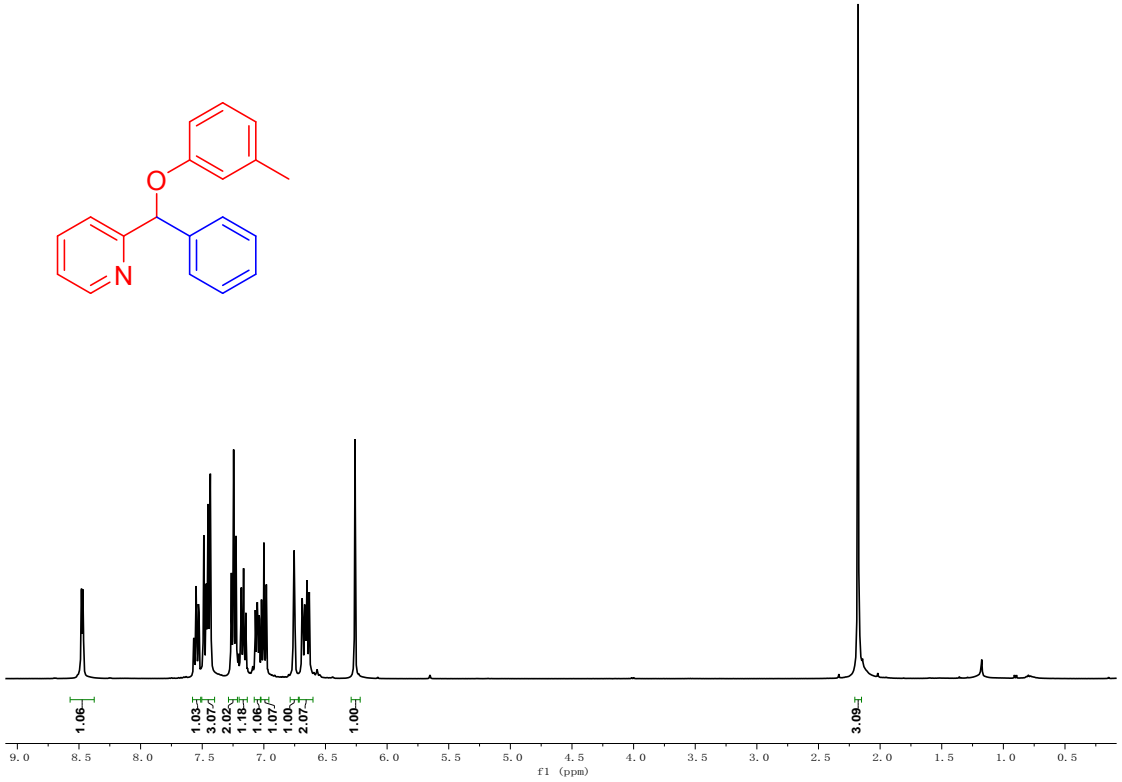
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-(Phenyl(o-tolyloxy)methyl)pyridine (3ma)



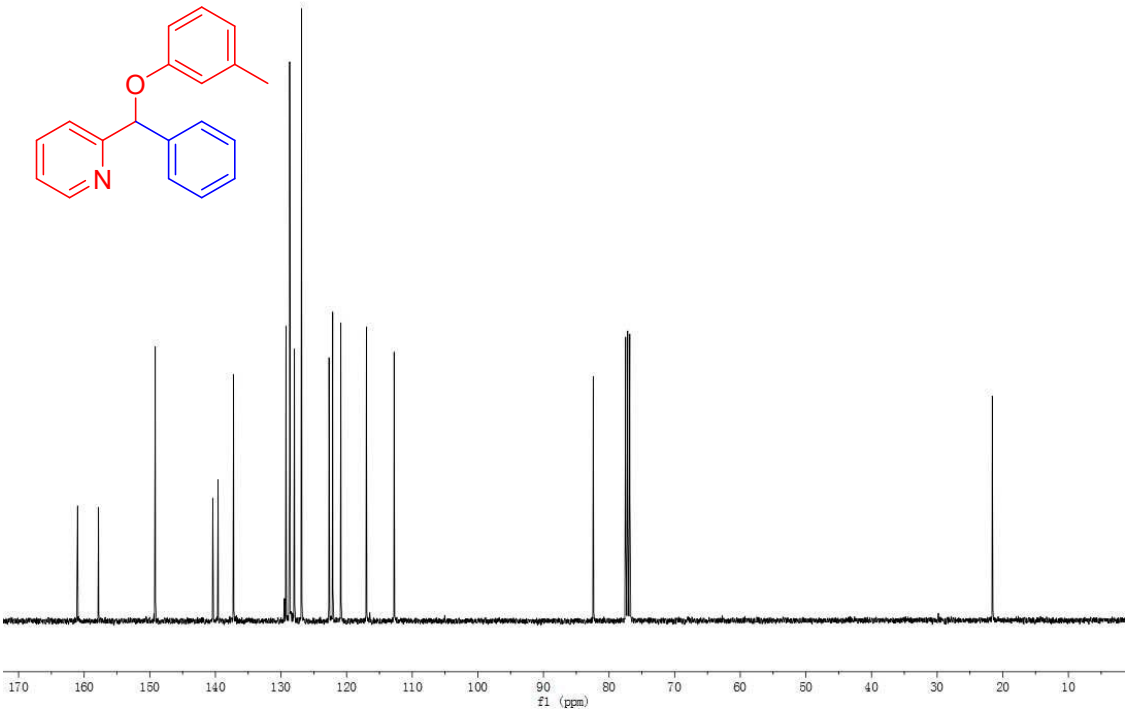
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-(Phenyl(o-tolyloxy)methyl)pyridine (3ma)



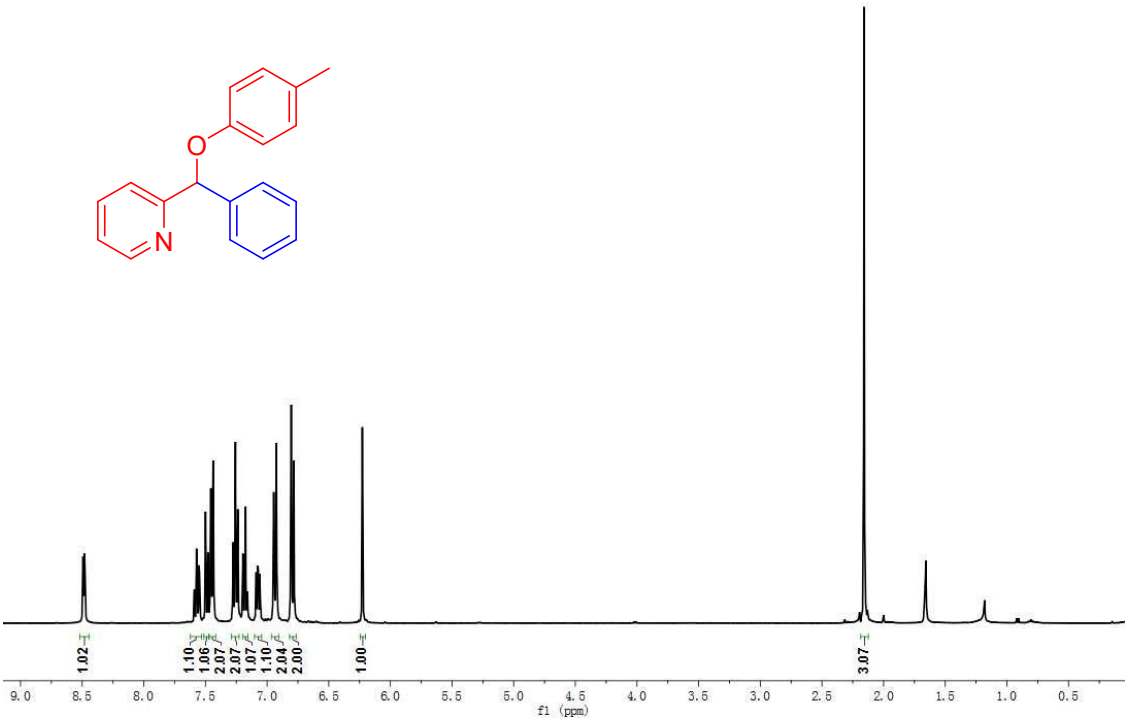
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-(Phenyl(m-tolyloxy)methyl)pyridine (3na)



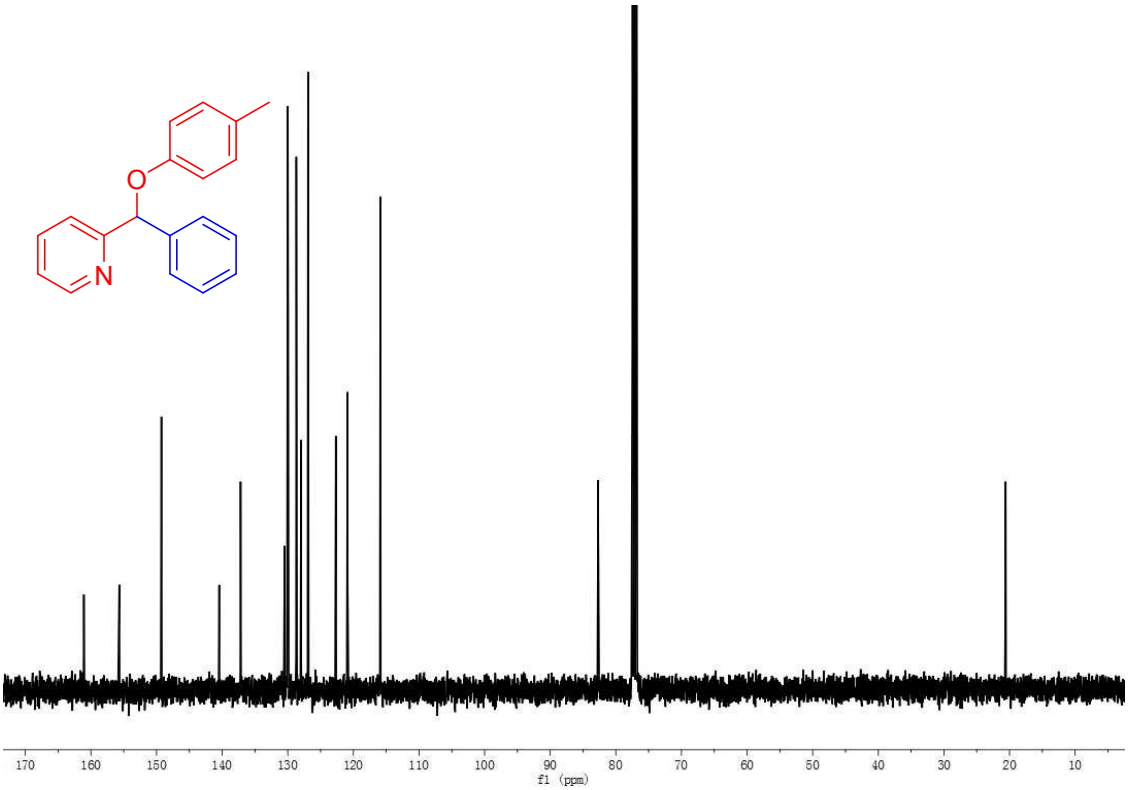
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-(Phenyl(m-tolyloxy)methyl)pyridine (3na)



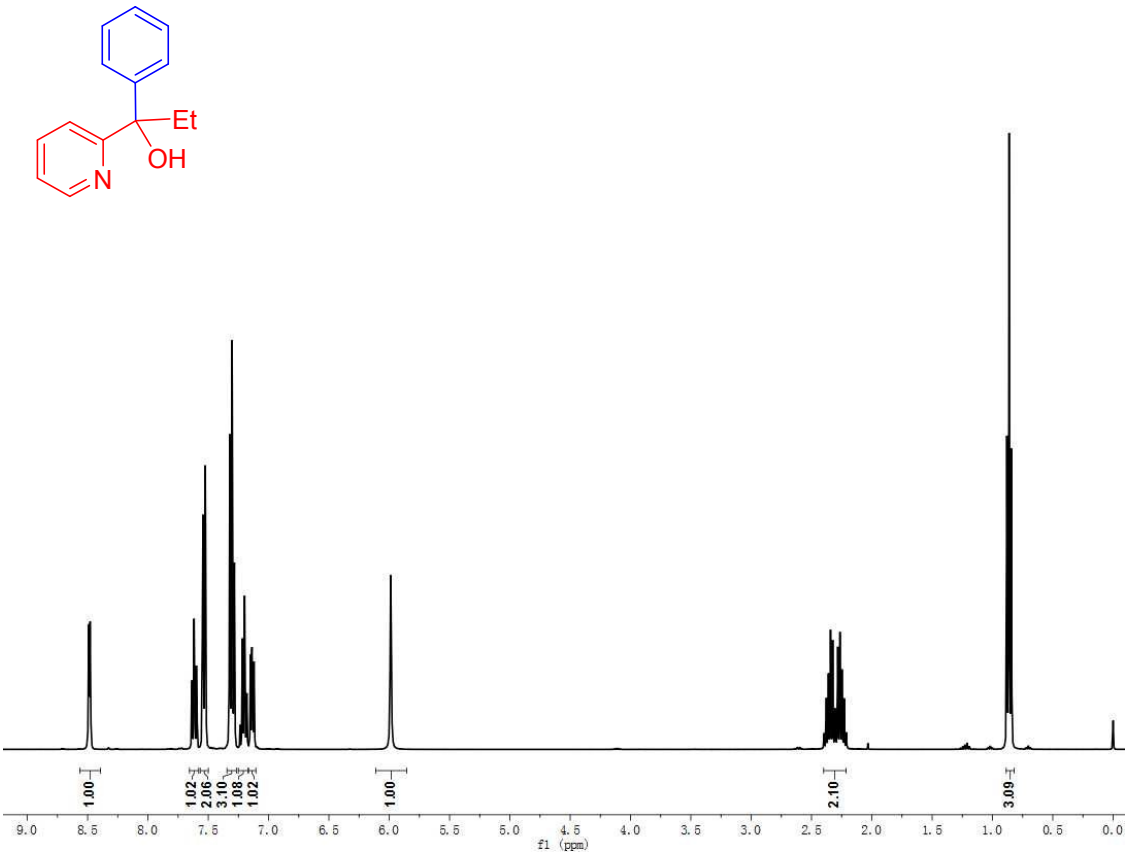
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 2-(Phenyl(p-tolyloxy)methyl)pyridine (3oa)



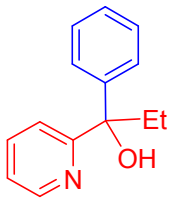
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 2-(Phenyl(p-tolyloxy)methyl)pyridine (3oa)

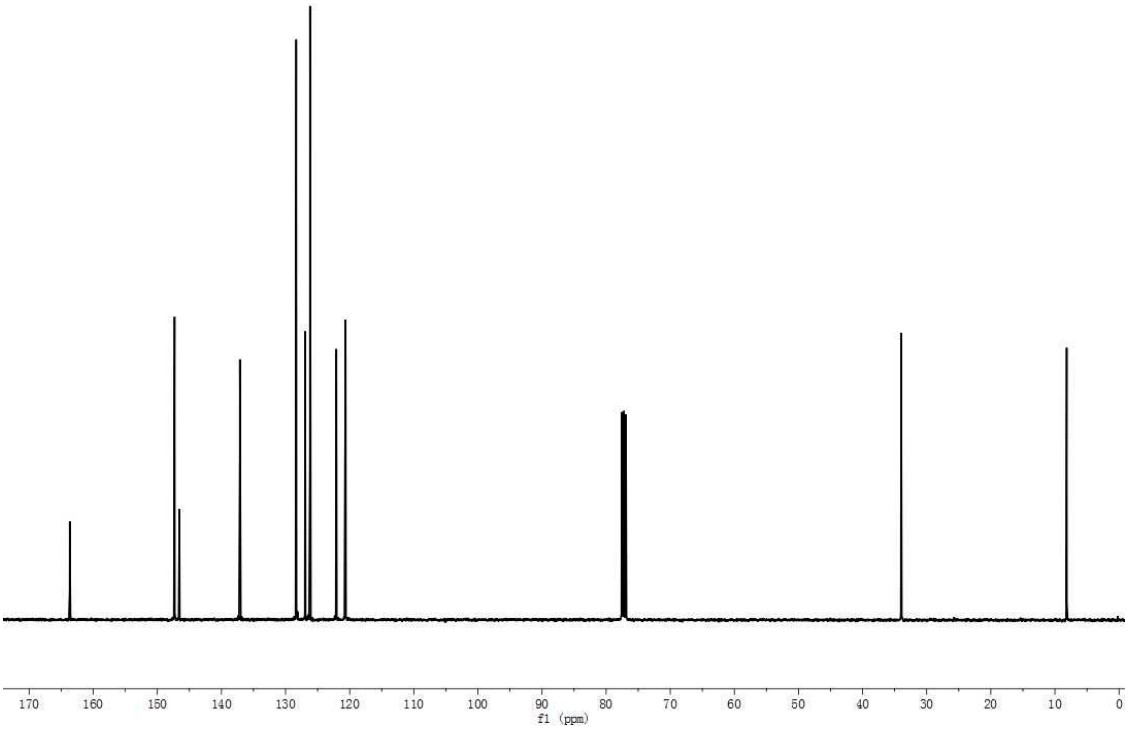


^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-Phenyl-1-(pyridin-2-yl)propan-1-ol (4ea)

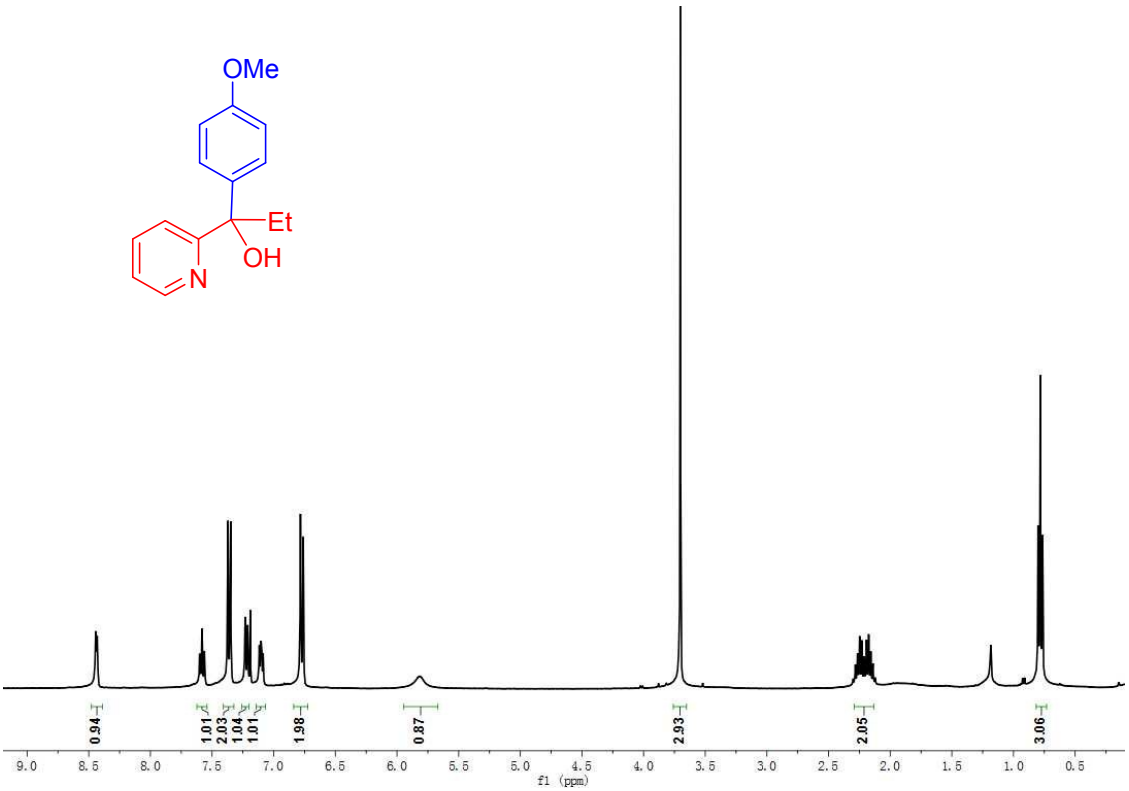


$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 1-Phenyl-1-(pyridin-2-yl)propan-1-ol (4ea)

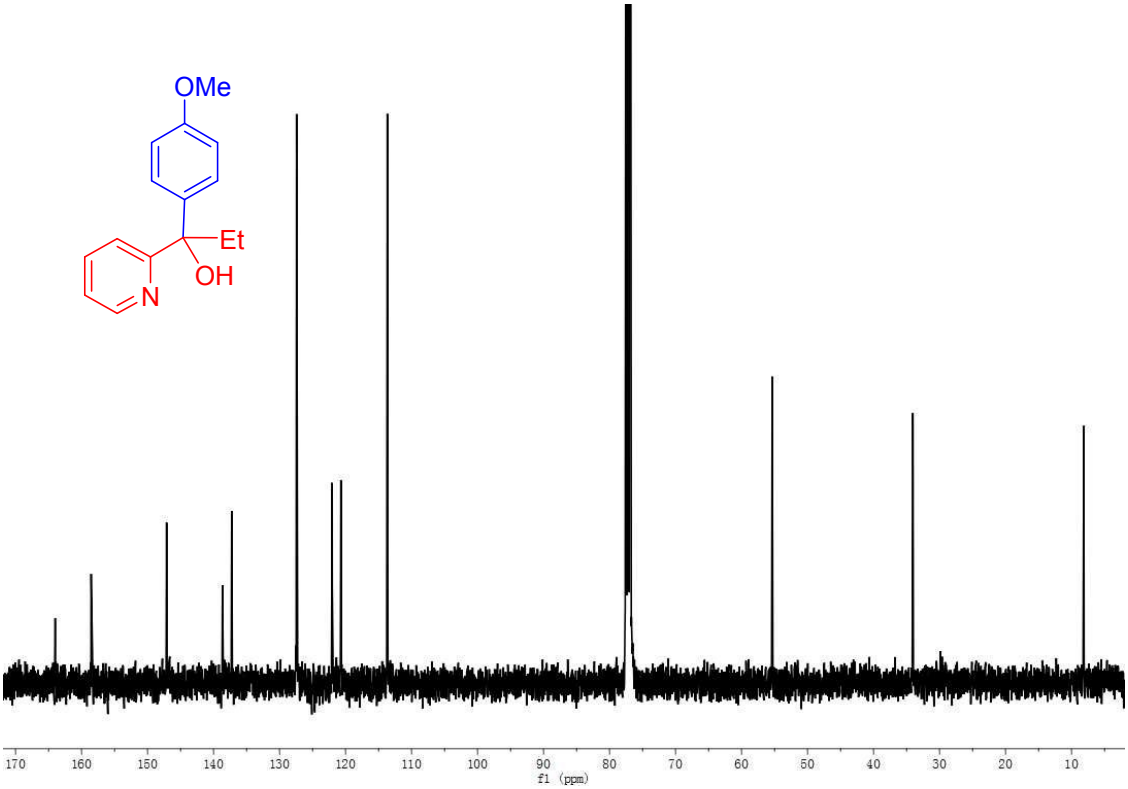




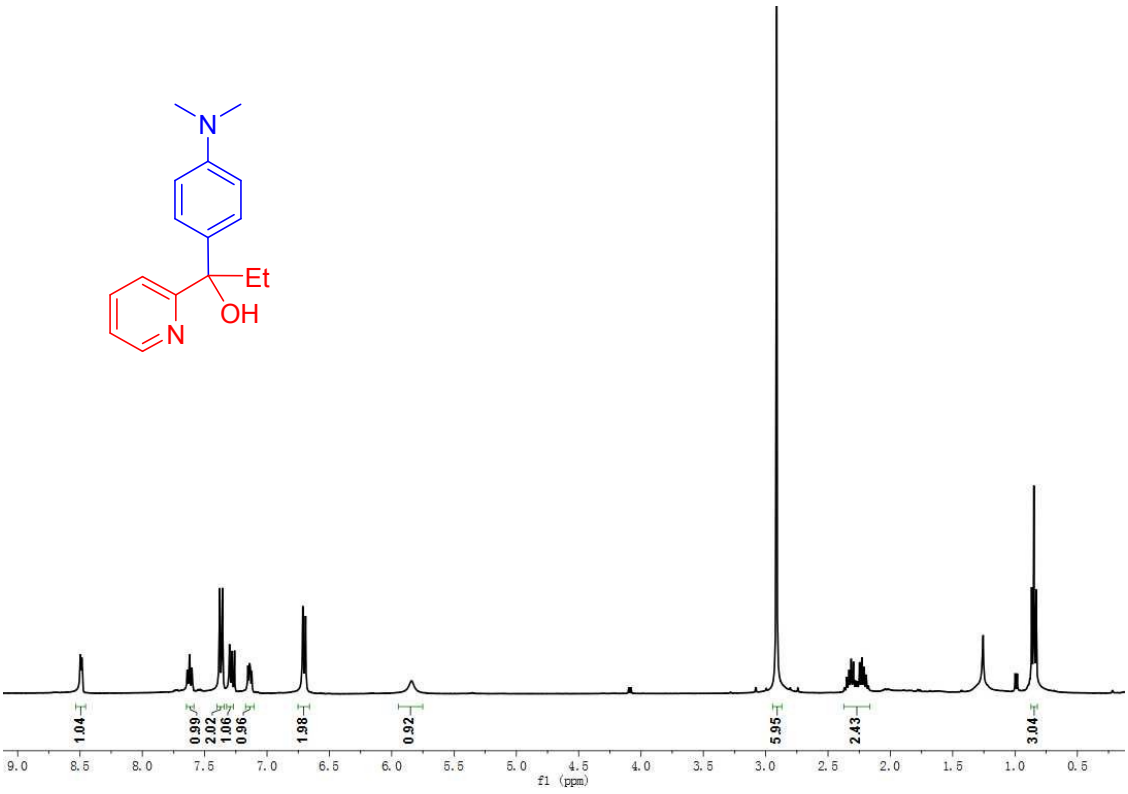
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-(4-Methoxyphenyl)-1-(pyridin-2-yl)propan-1-ol (4eb)



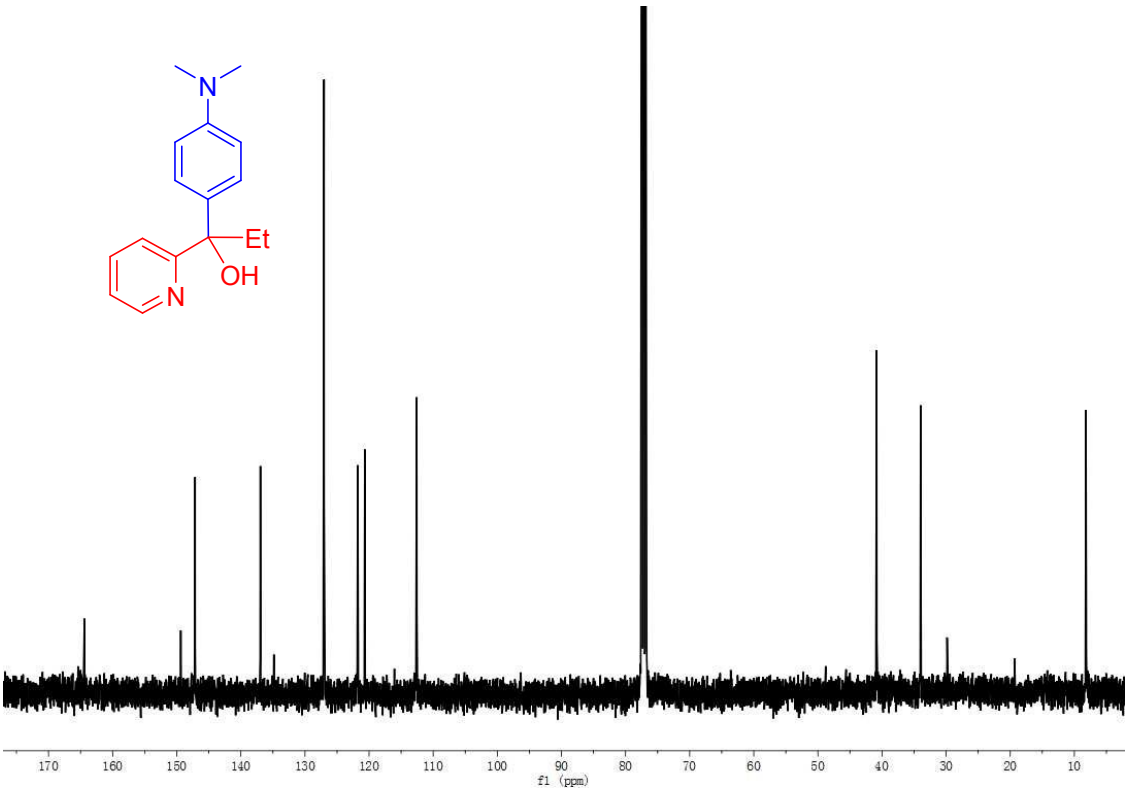
^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 1-(4-Methoxyphenyl)-1-(pyridin-2-yl)propan-1-ol (4eb)



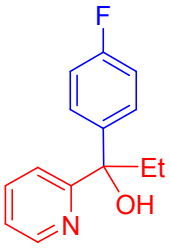
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-(4-(Dimethylamino)phenyl)-1-(pyridin-2-yl)propan-1-ol (4ec)

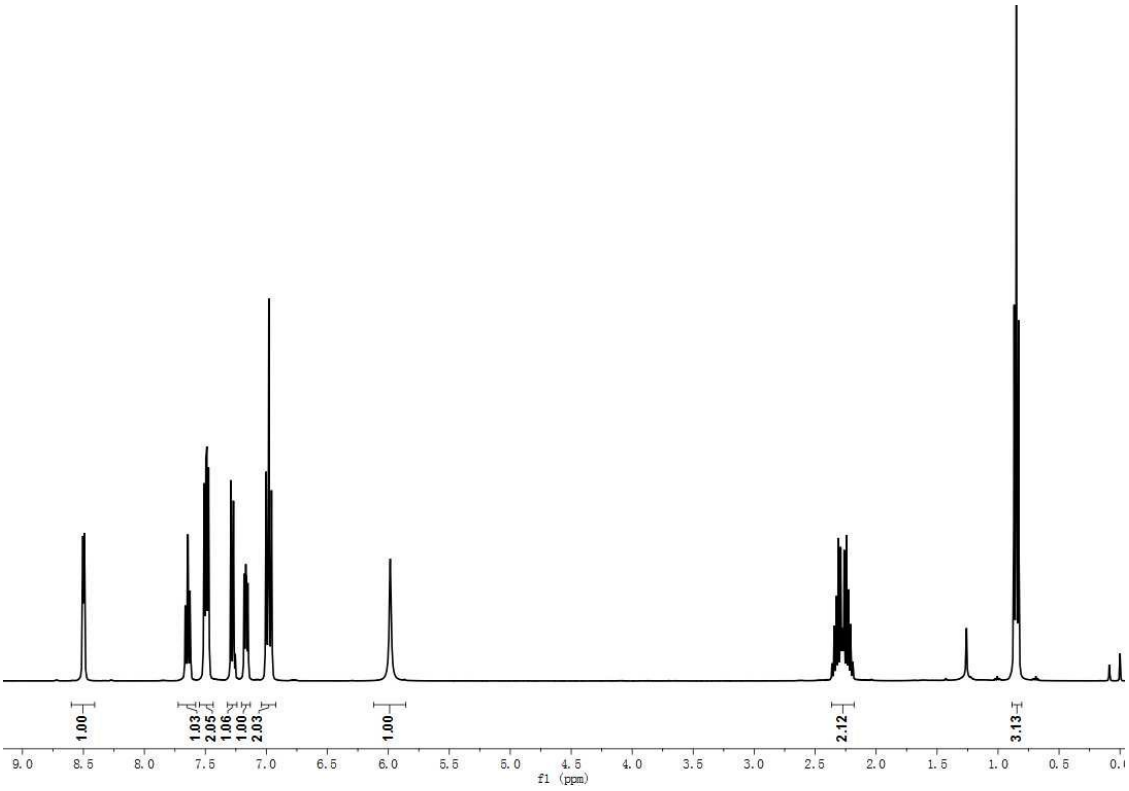


^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 1-(4-(Dimethylamino)phenyl)-1-(pyridin-2-yl)propan-1-ol (4ec)

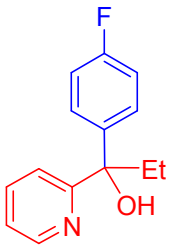


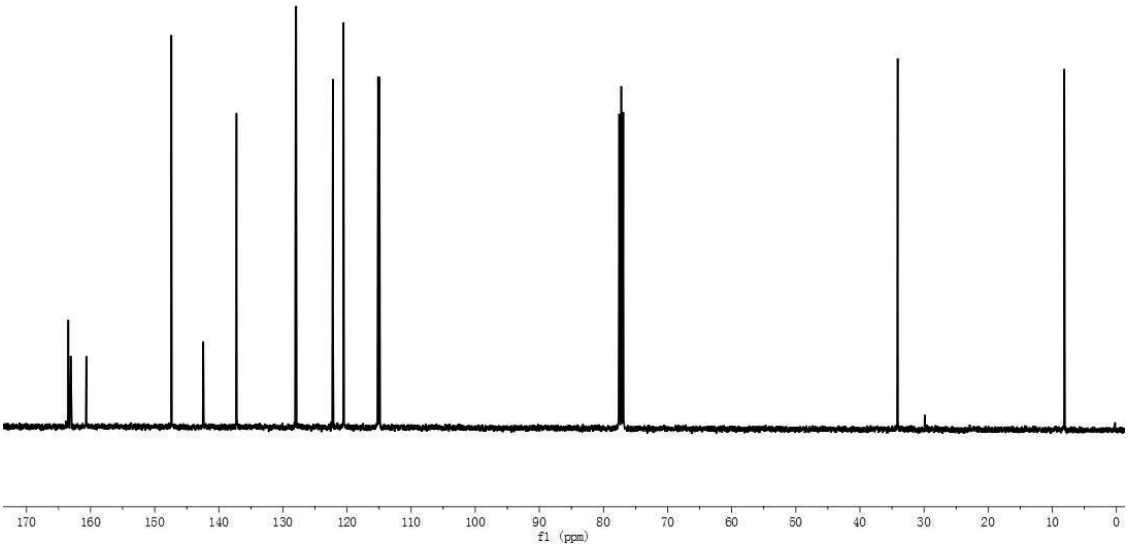
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-(4-Fluorophenyl)-1-(pyridin-2-yl)propan-1-ol (4ed)



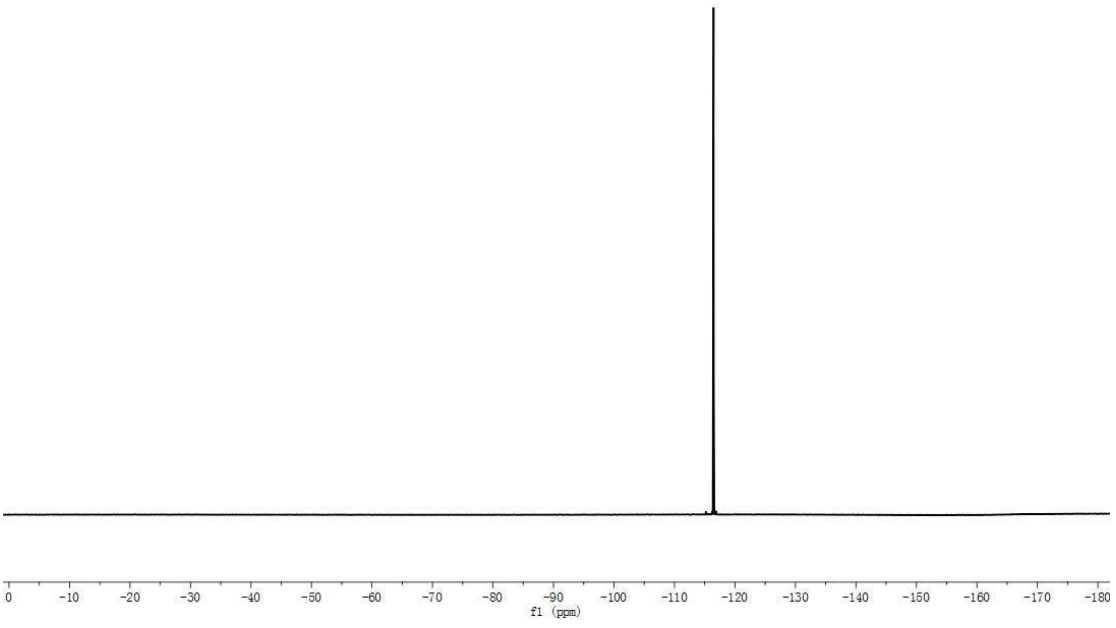


$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 1-(4-Fluorophenyl)-1-(pyridin-2-yl)propan-1-ol (4ed)

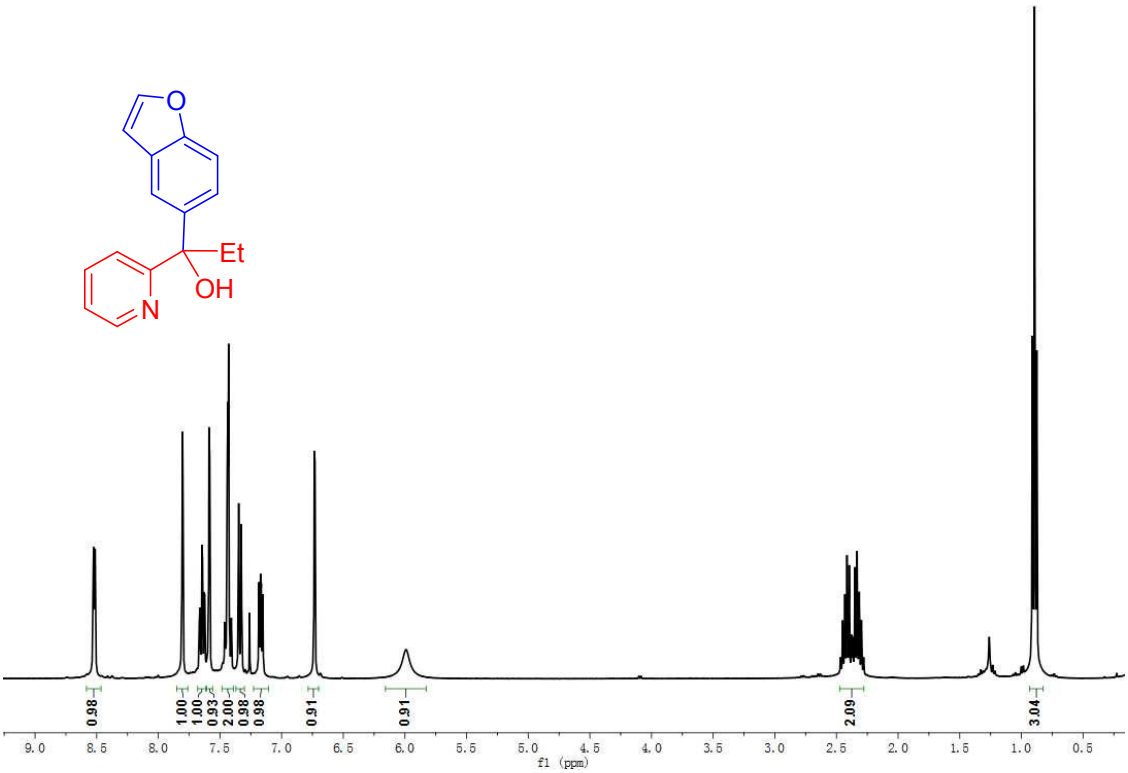




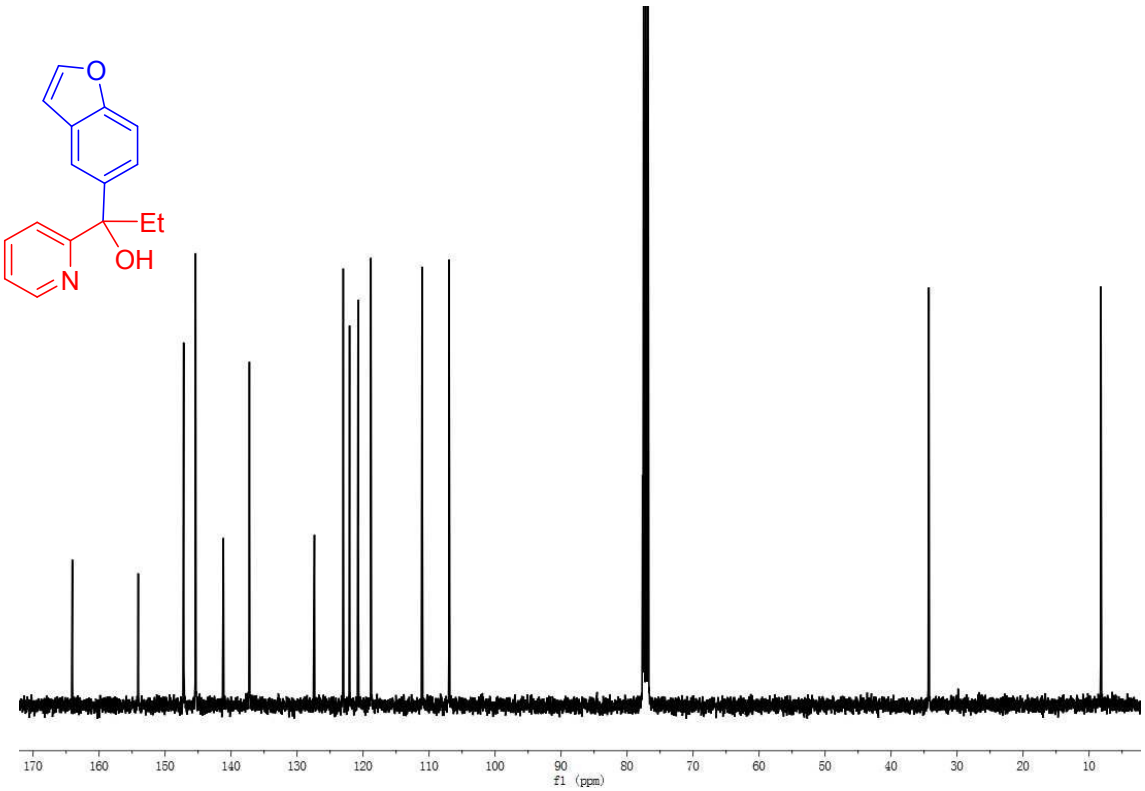
^{19}F NMR spectra (376 MHz, Chloroform-*d*) of 1-(4-Fluorophenyl)-1-(pyridin-2-yl)propan-1-ol (4ed)



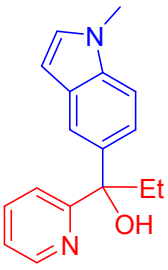
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-(Benzofuran-5-yl)-1-(pyridin-2-yl)propan-1-ol (4eg)

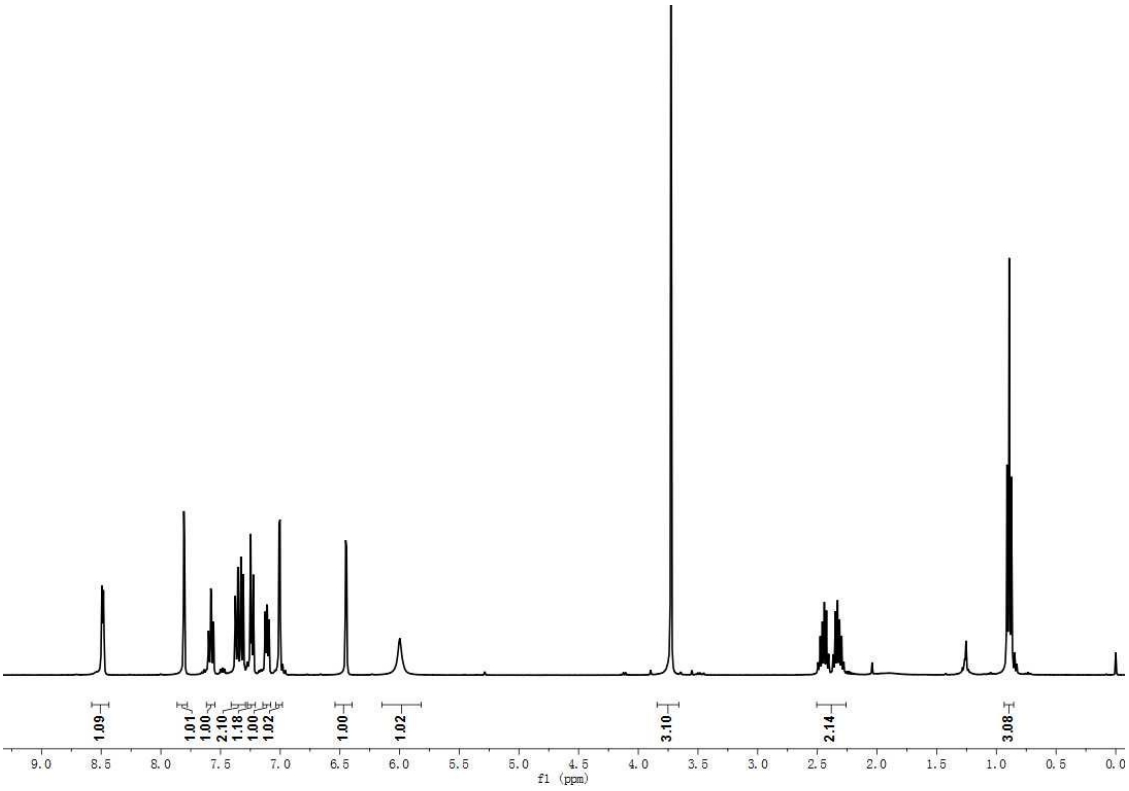


^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 1-(Benzofuran-5-yl)-1-(pyridin-2-yl)propan-1-ol (4eg)

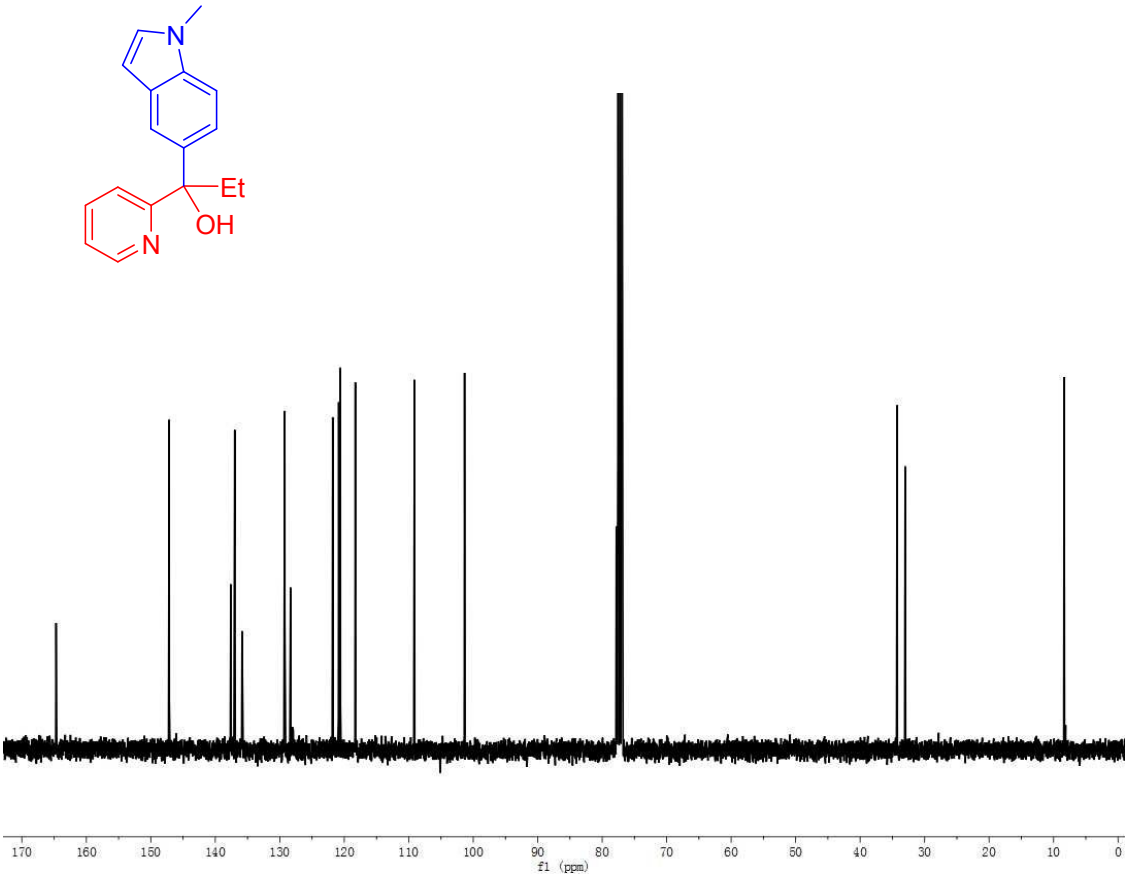


^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-(1-Methyl-1H-indol-5-yl)-1-(pyridin-2-yl)propan-1-ol (4eh)

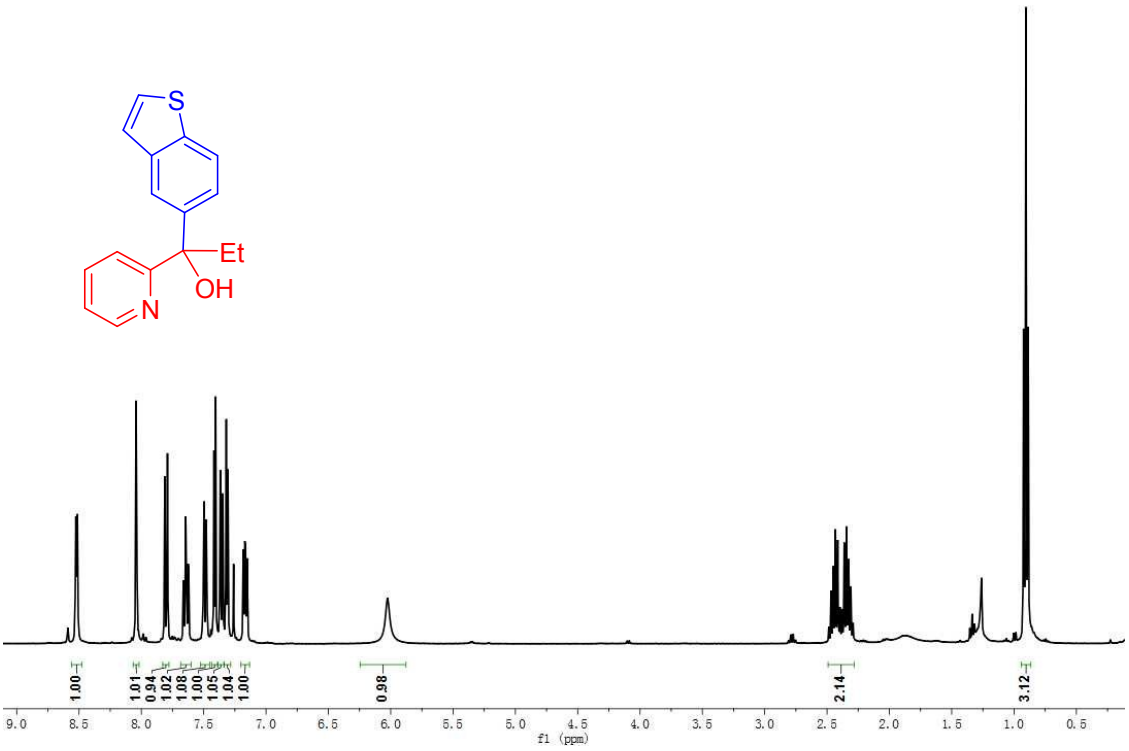




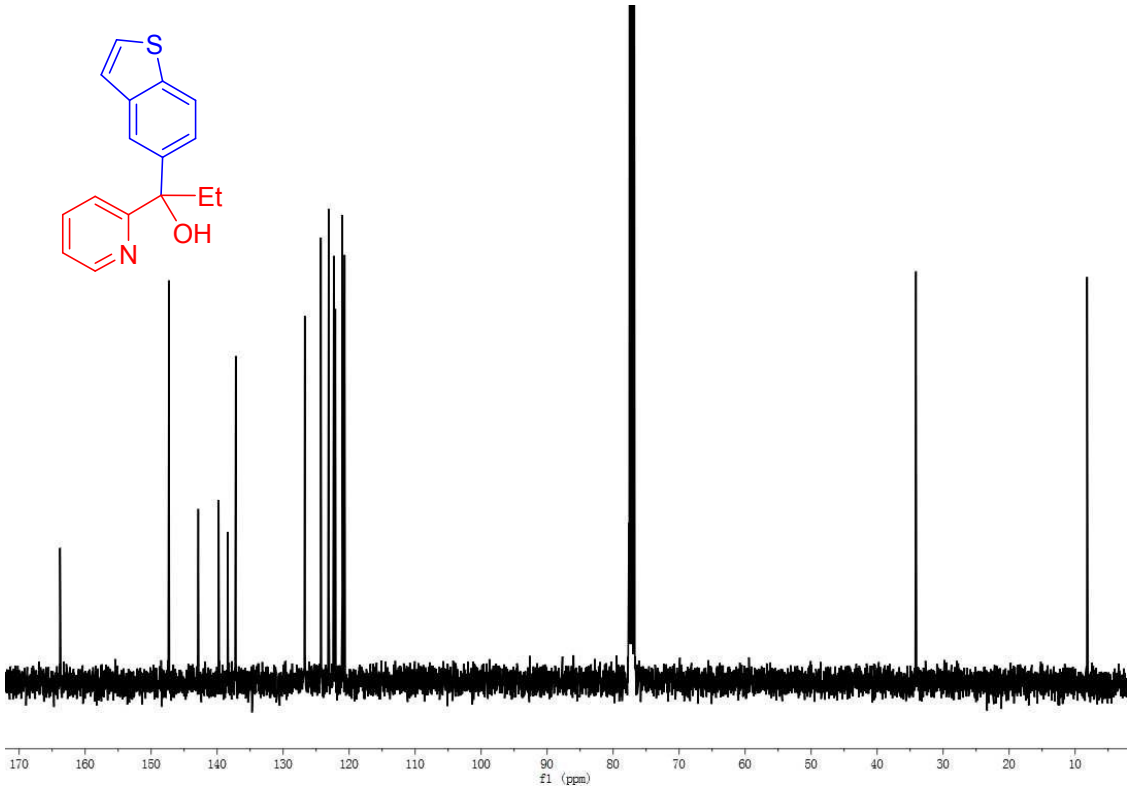
$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 1-(1-Methyl-1H-indol-5-yl)-1-(pyridin-2-yl)propan-1-ol (4eh)



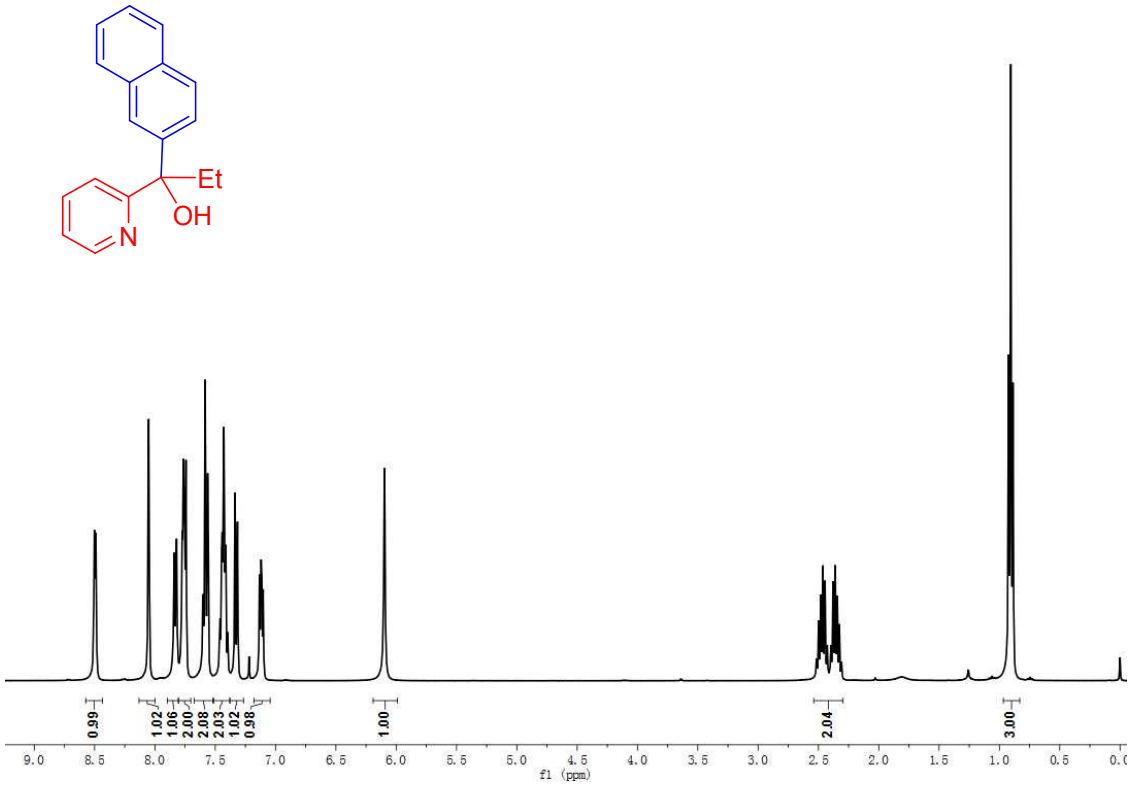
^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-(Benzo[b]thiophen-5-yl)-1-(pyridin-2-yl)propan-1-ol (4ei)



^{13}C{^{1}H} NMR spectra (100 MHz, Chloroform-*d*) of 1-(Benzo[b]thiophen-5-yl)-1-(pyridin-2-yl)propan-1-ol (4ei)



^{1}H NMR spectra (400 MHz, Chloroform-*d*) of 1-(Naphthalen-2-yl)-1-(pyridin-2-yl)propan-1-ol (4ej)



$^{13}C\{^{1}H\}$ NMR spectra (100 MHz, Chloroform-*d*) of 1-(Naphthalen-2-yl)-1-(pyridin-2-yl)propan-1-ol (4ej)