

Supplementary Materials

Selective C-O coupling reaction of *N*-methoxy arylamides and arylboric acids catalyzed by copper salt

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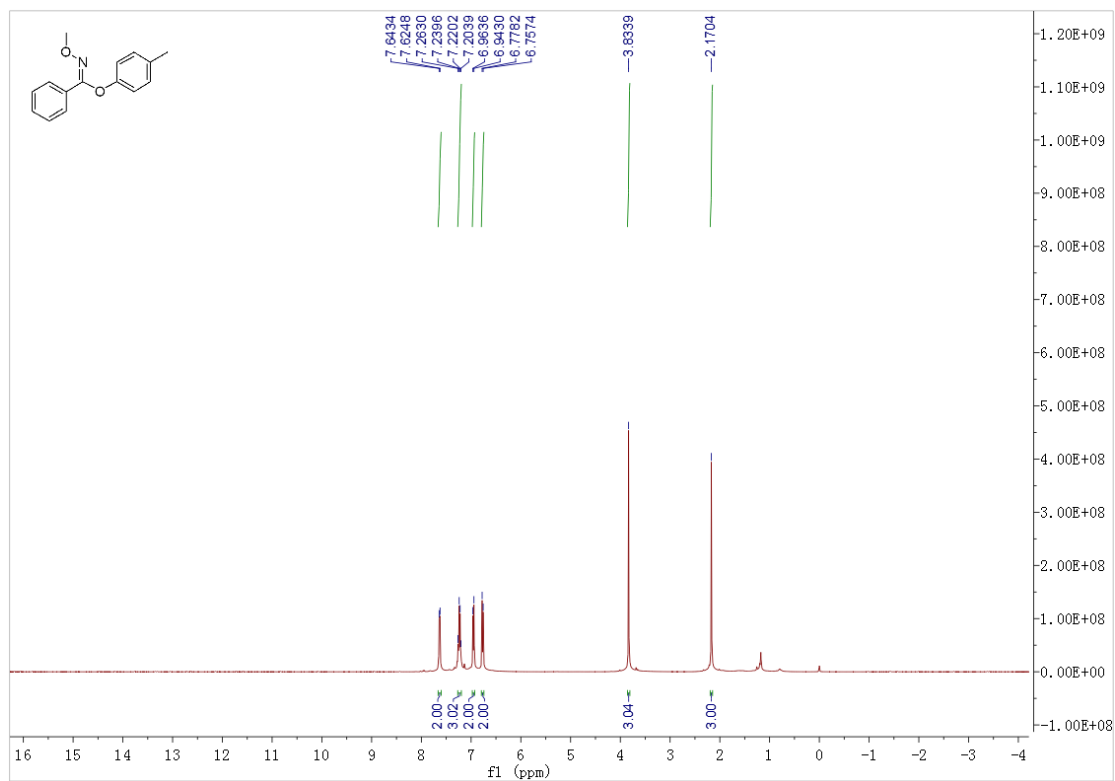
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liukunming@jxust.edu.cn (K. Liu), liujinbiao@jxust.edu.cn (J.-B. Liu).

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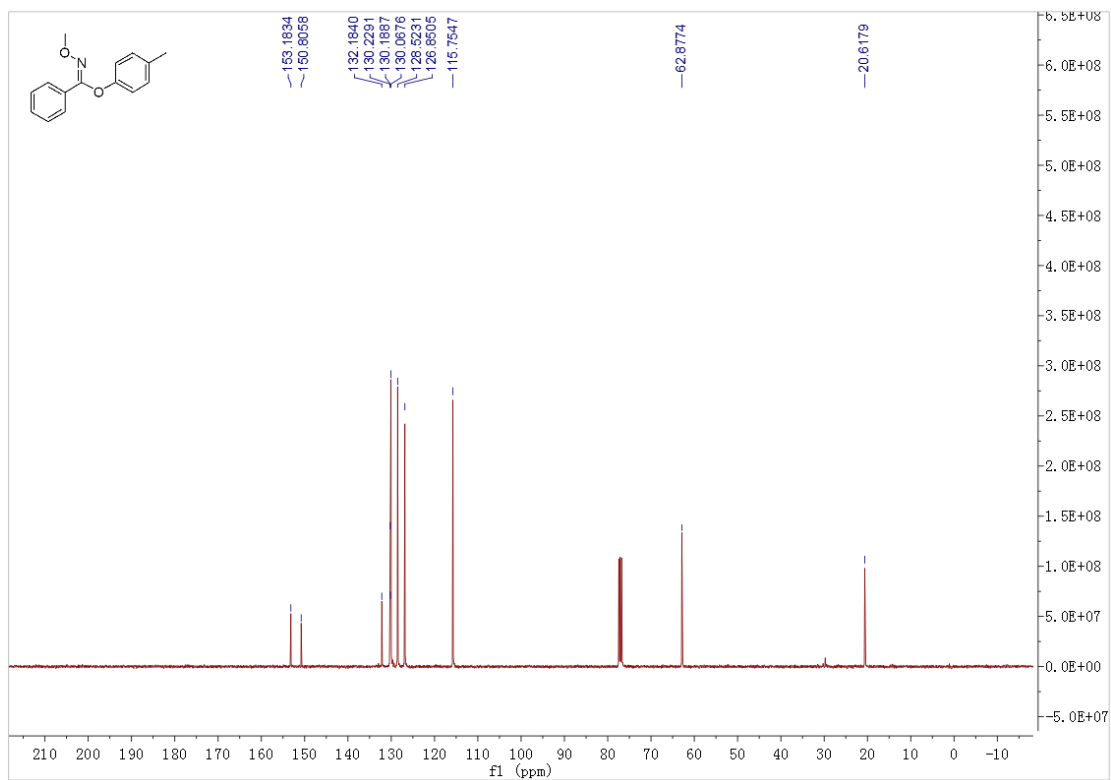
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1. The ^1H and ^{13}C NMR Spectra of Compounds **3a-3z**.

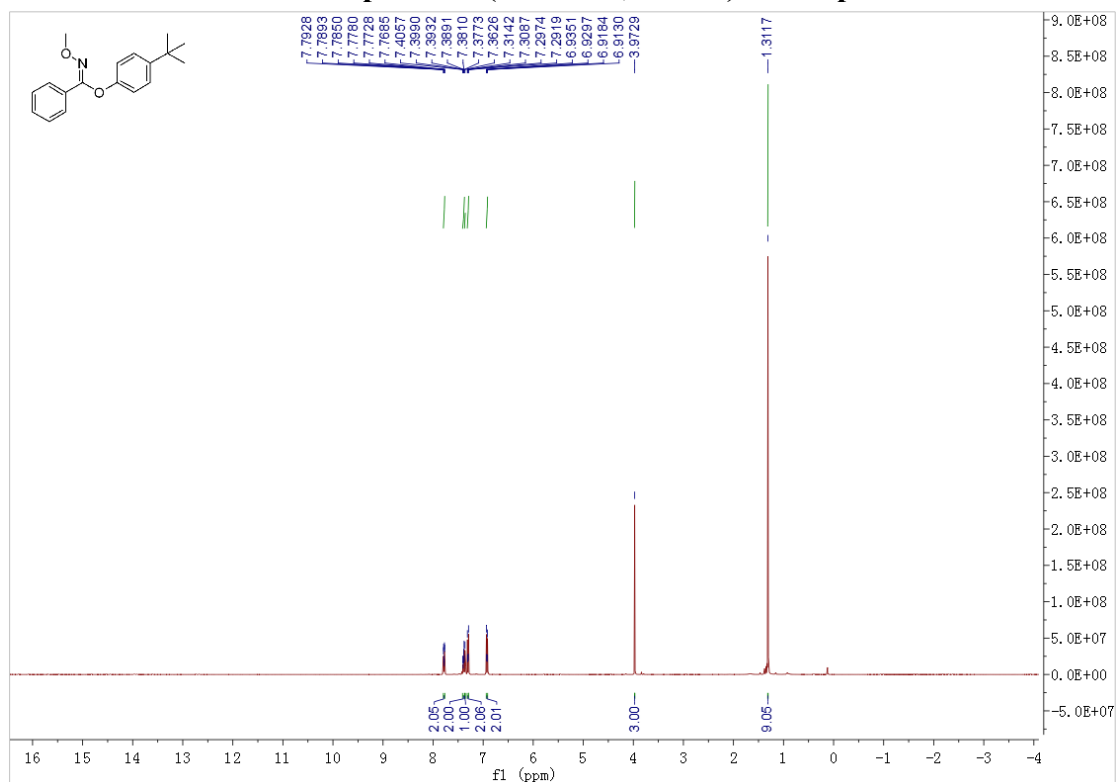
^1H NMR spectrum (400 MHz, CDCl_3) of compound 3a



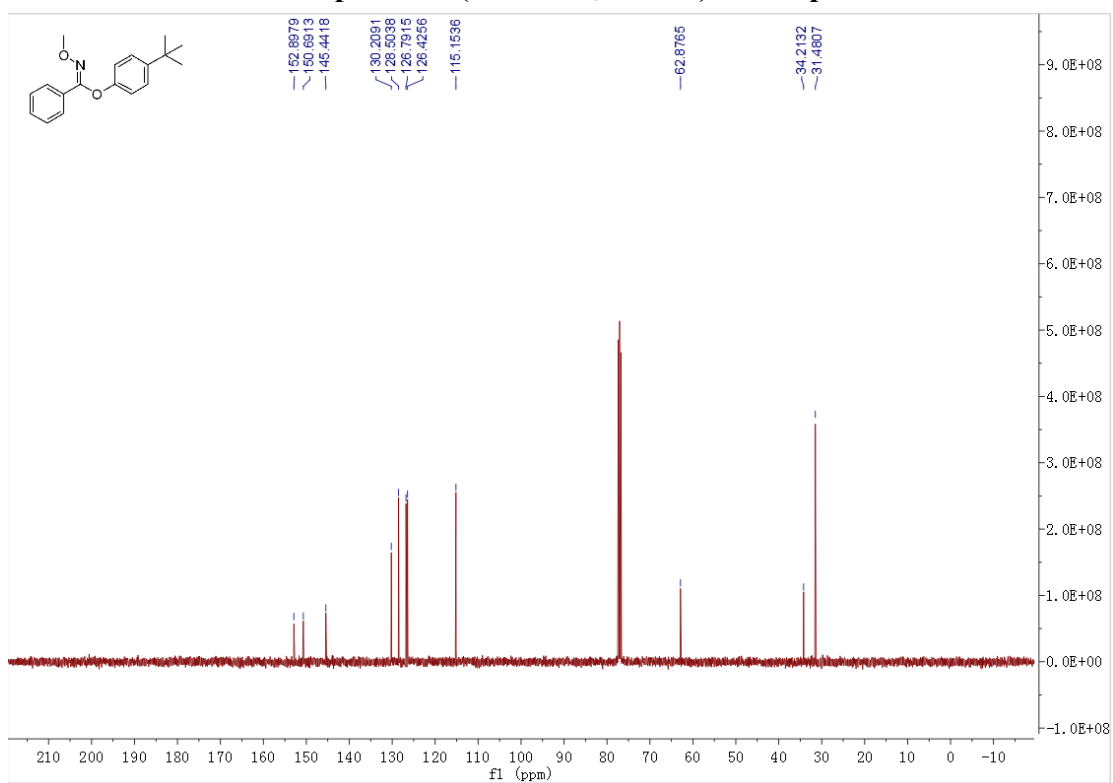
^{13}C NMR spectrum (400 MHz, CDCl_3) of compound 3a



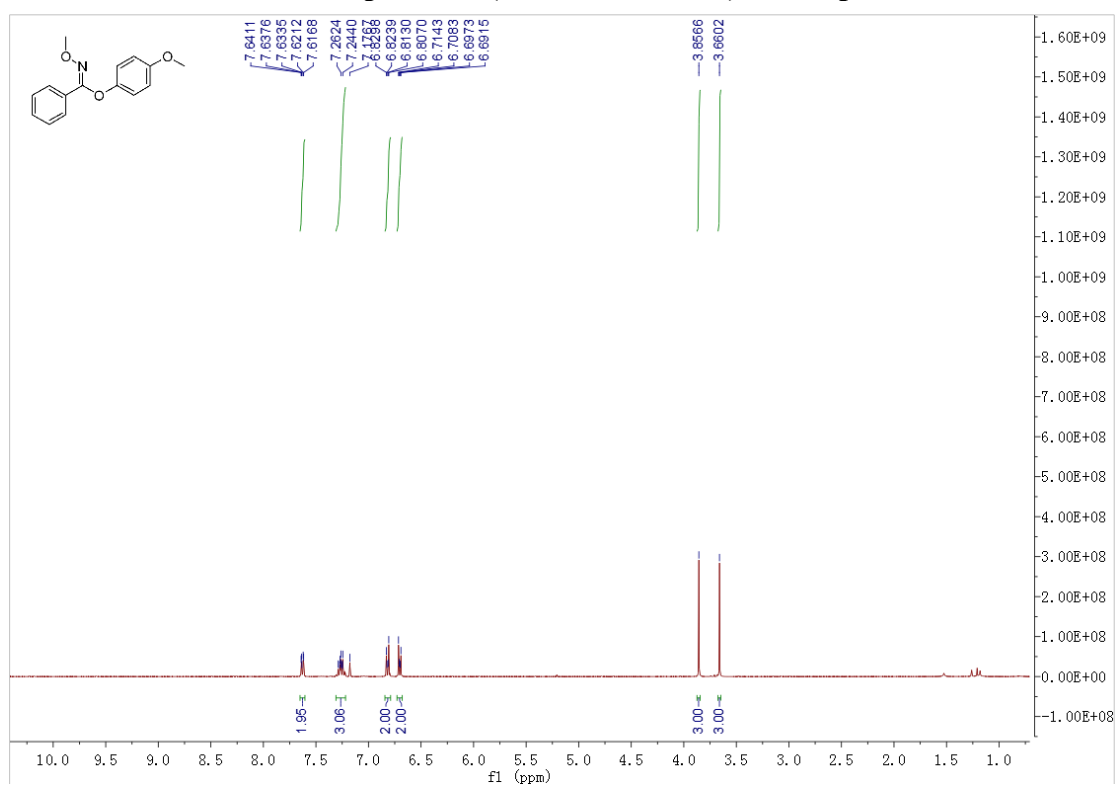
¹H NMR spectrum (400 MHz, CDCl₃) of compound 3b



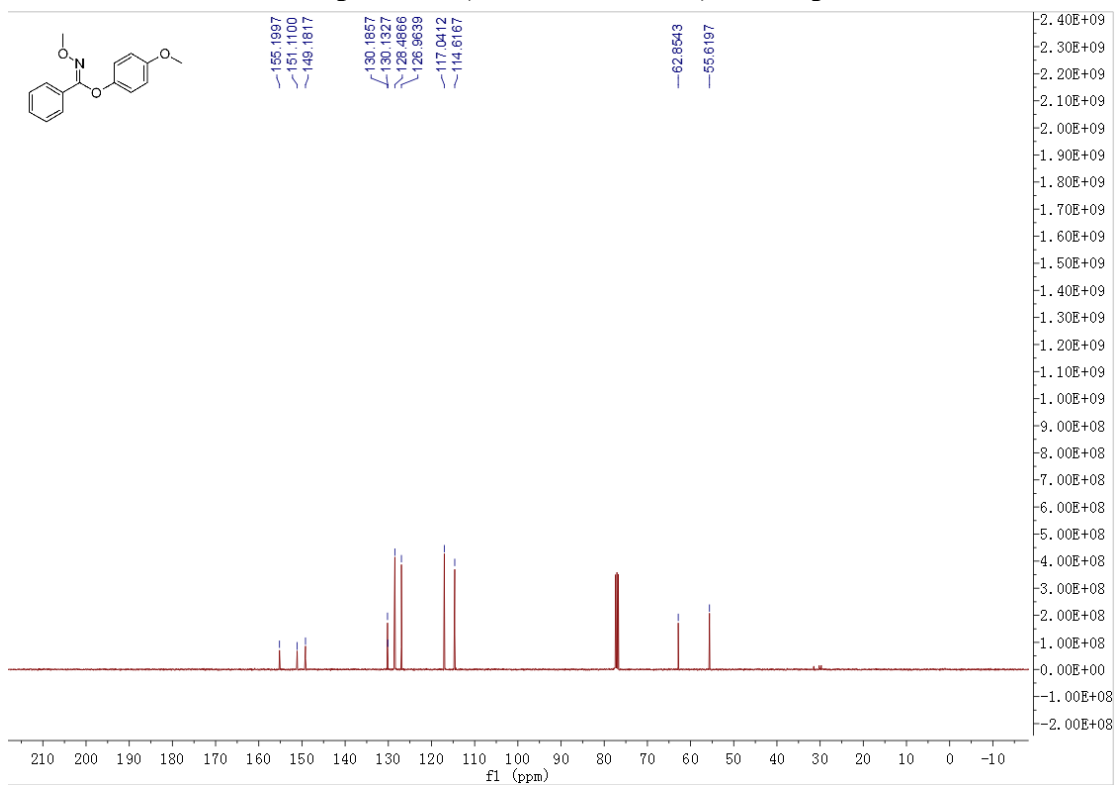
¹³C NMR spectrum (400 MHz, CDCl₃) of compound 3b



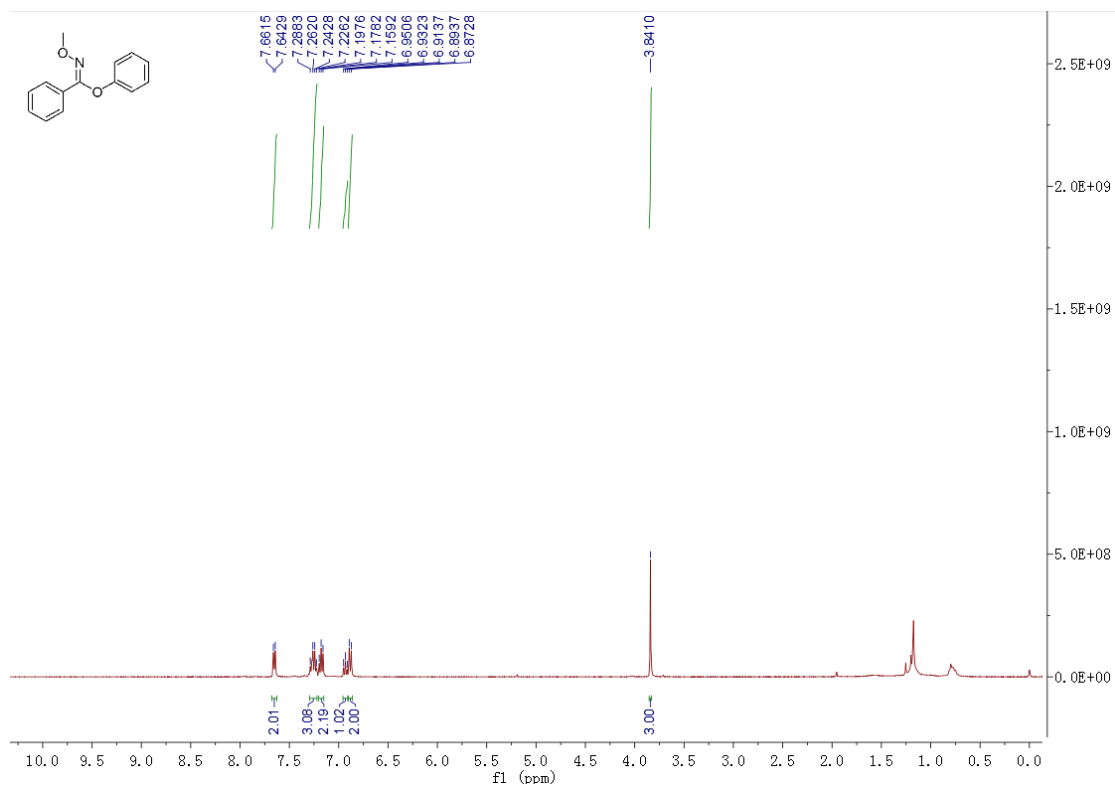
¹H NMR spectrum (400 MHz, CDCl₃) of compound 3c



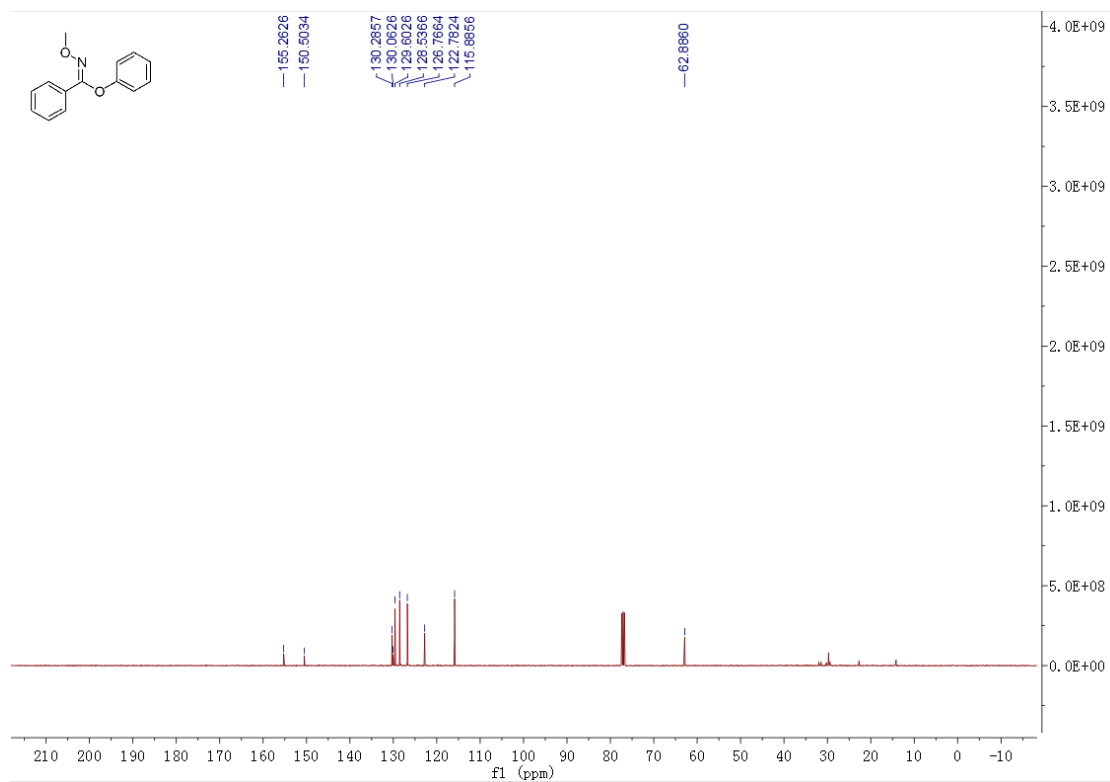
¹³C NMR spectrum (400 MHz, CDCl₃) of compound 3c



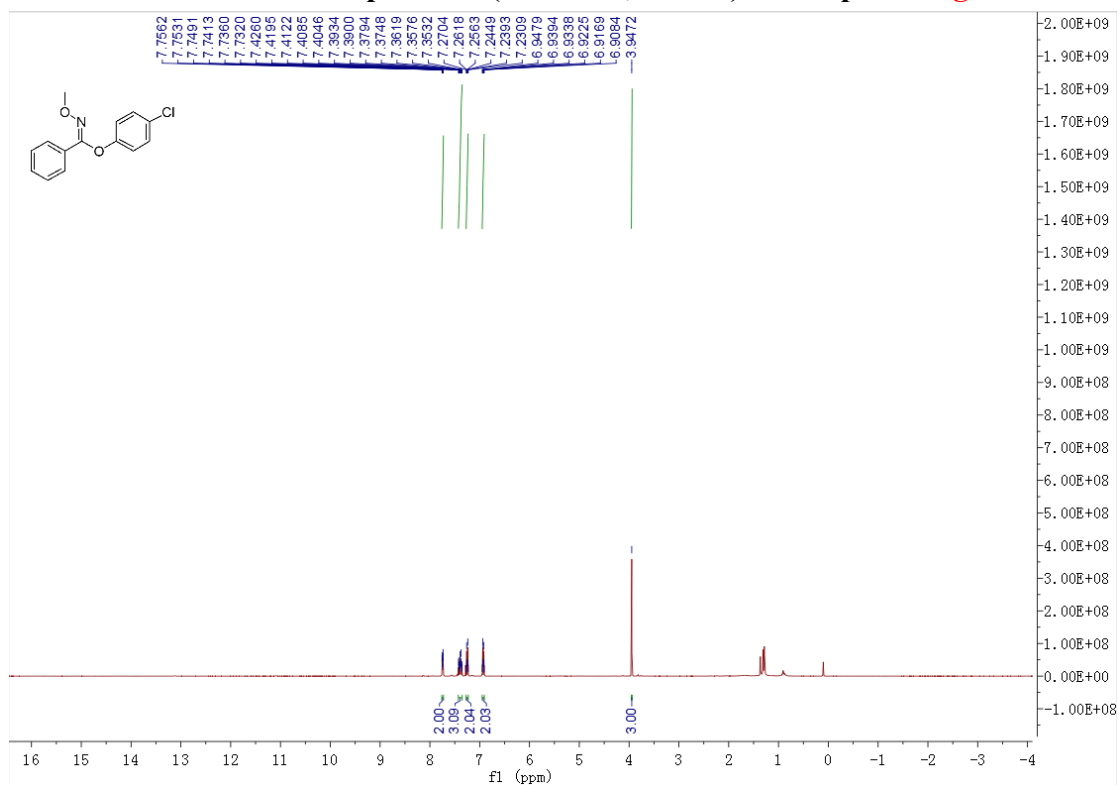
^1H NMR spectrum (400 MHz, CDCl_3) of compound 3d



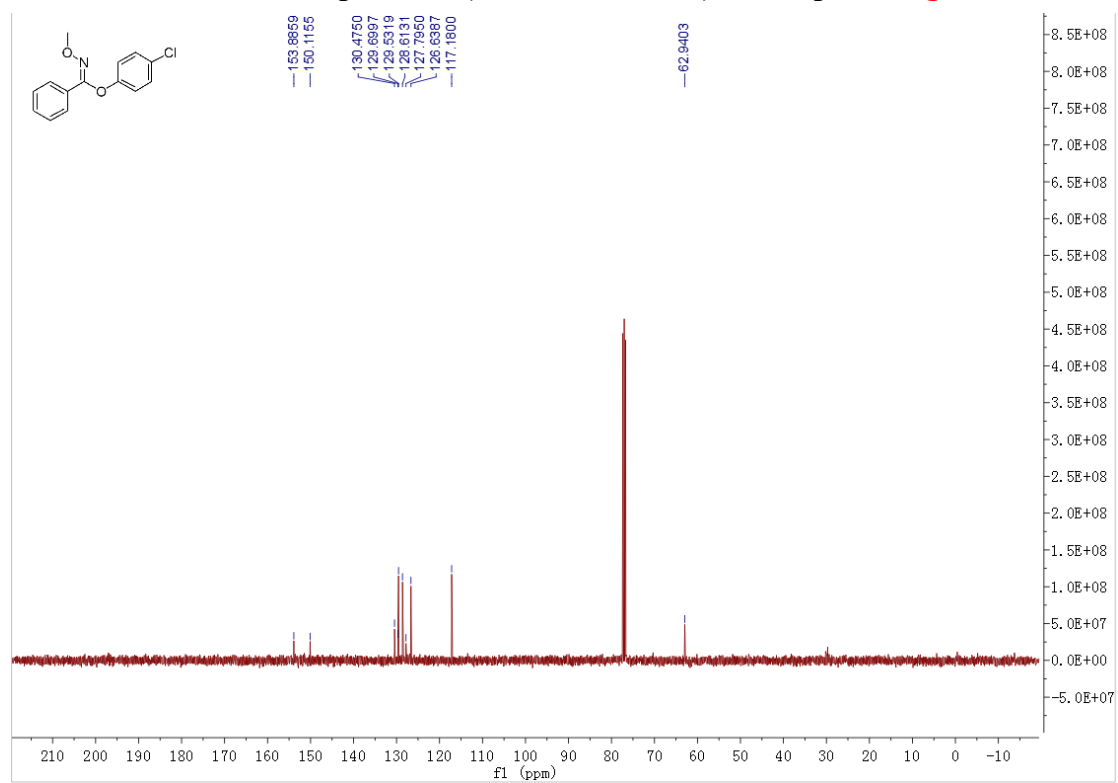
^{13}C NMR spectrum (400 MHz, CDCl_3) of compound 3d



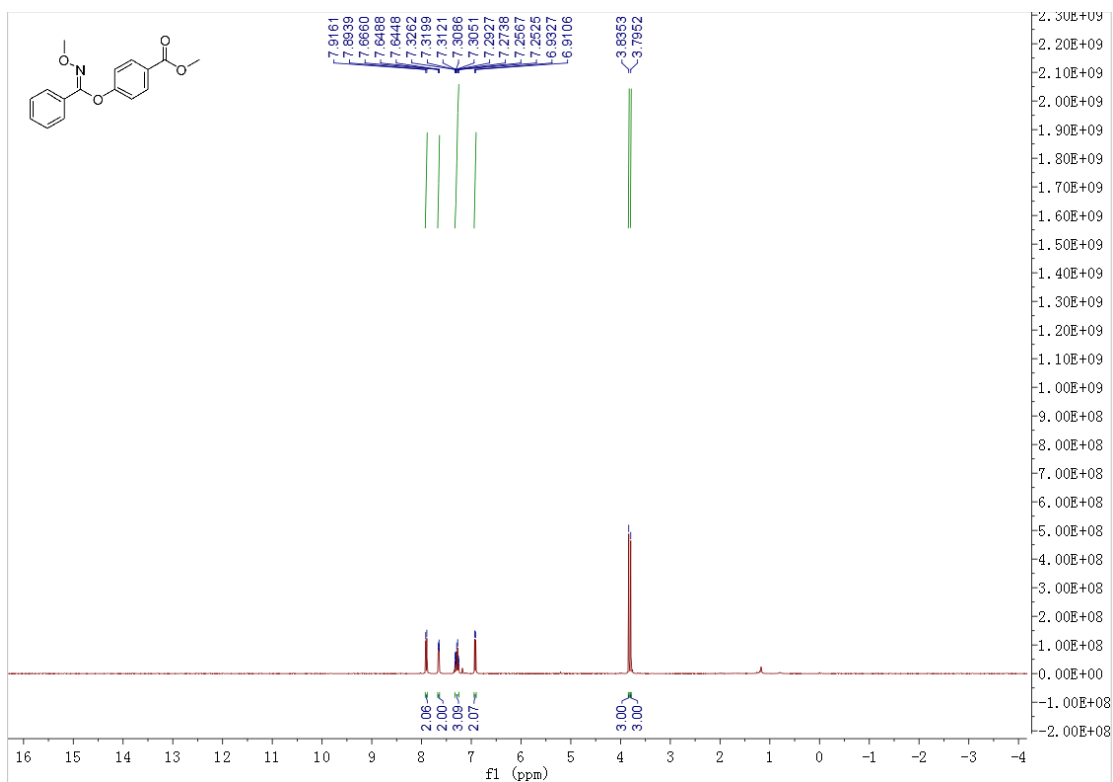
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3g**



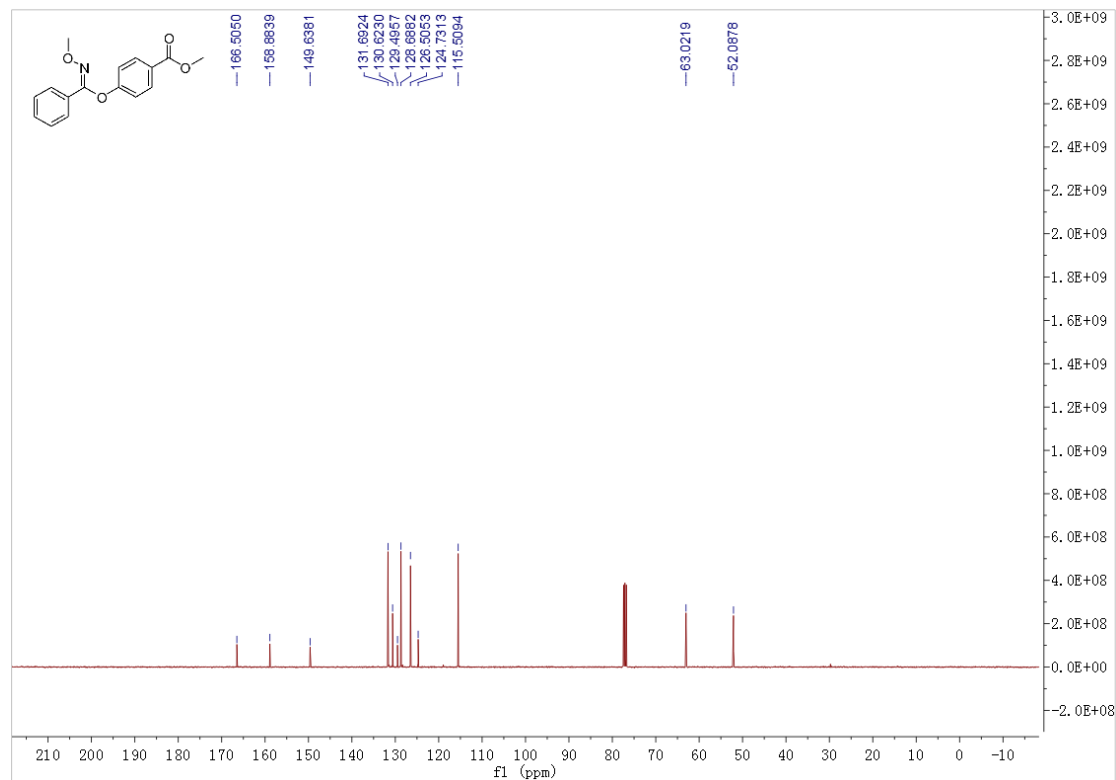
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3g**



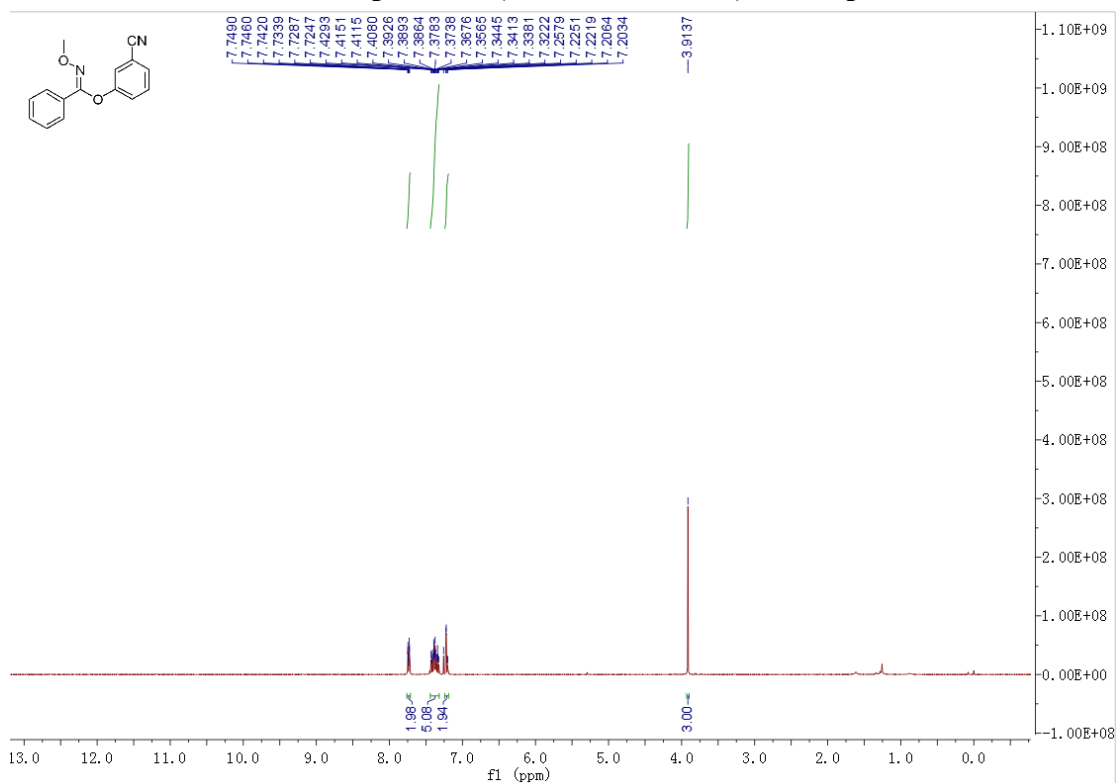
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3h**



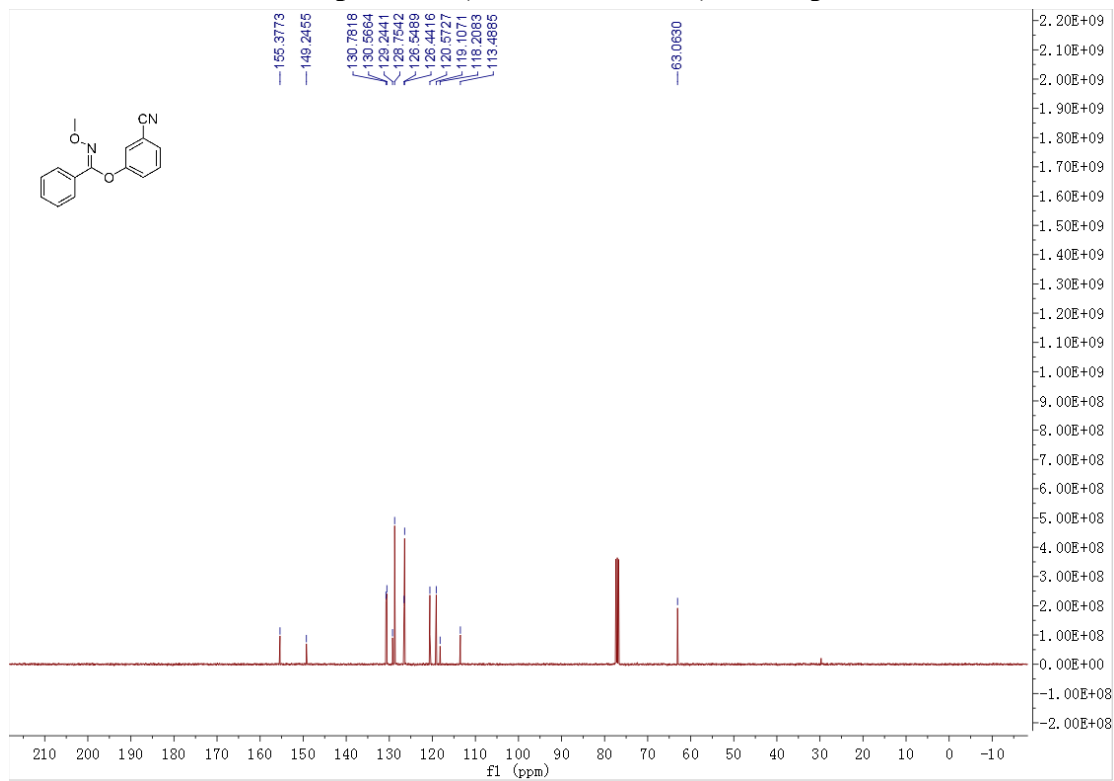
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3h**



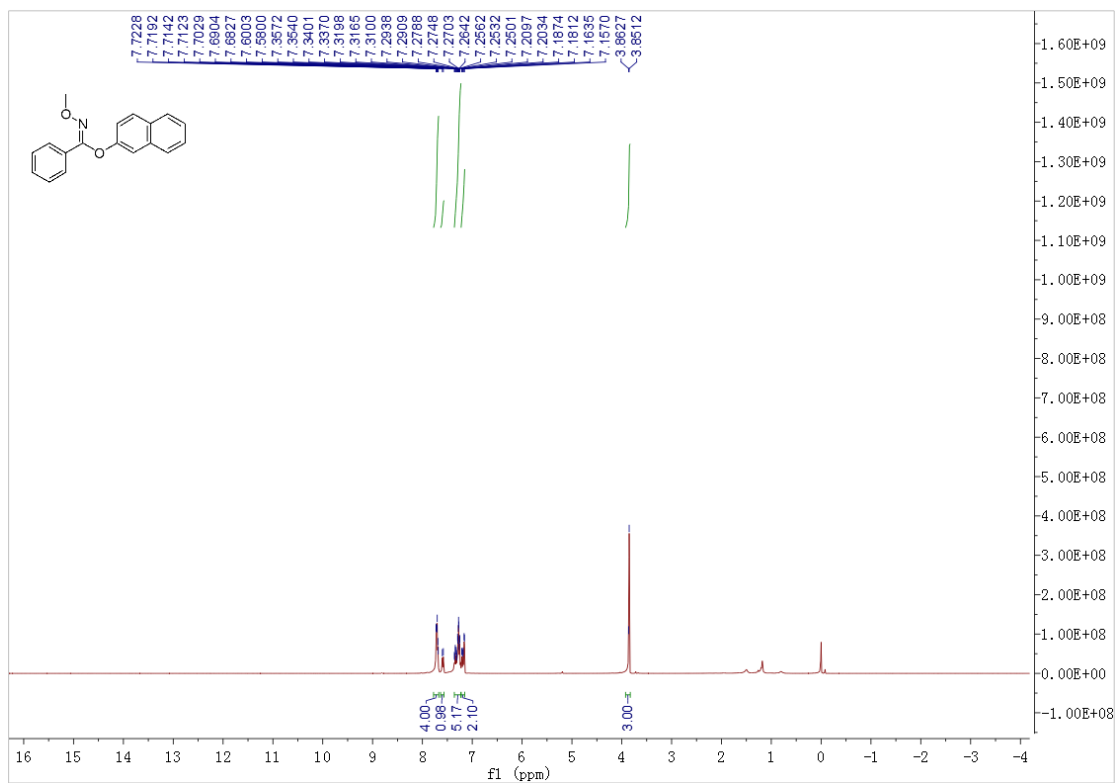
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3k**



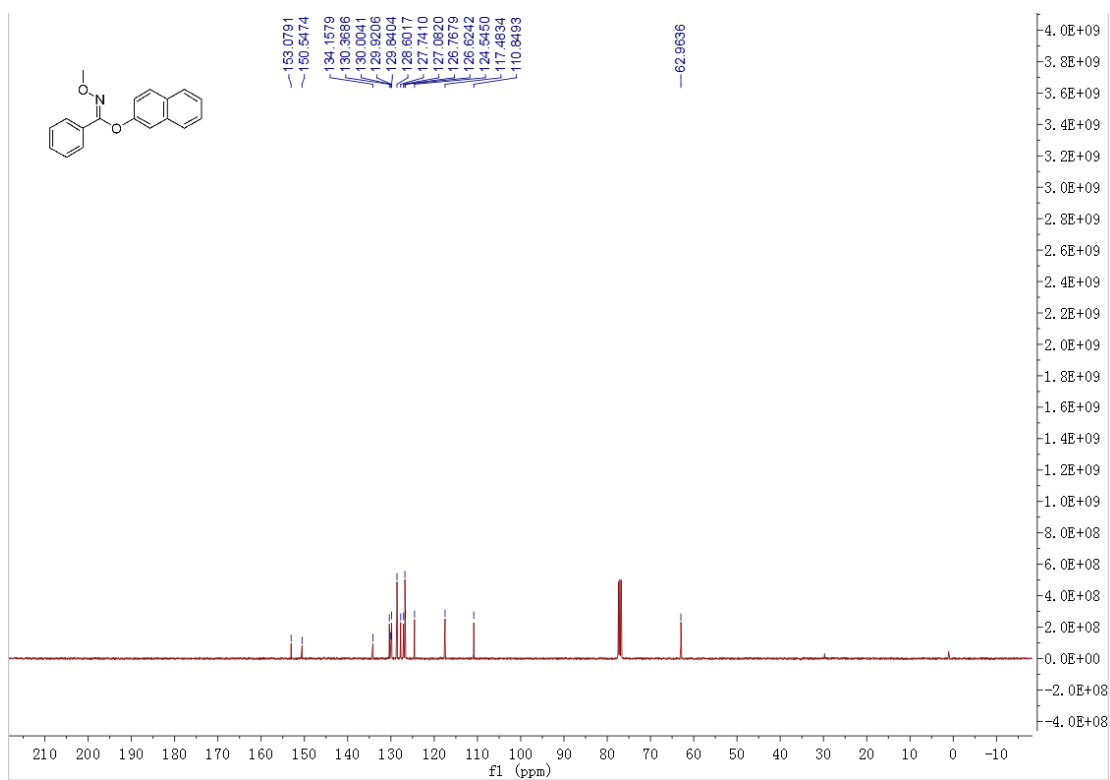
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3k**



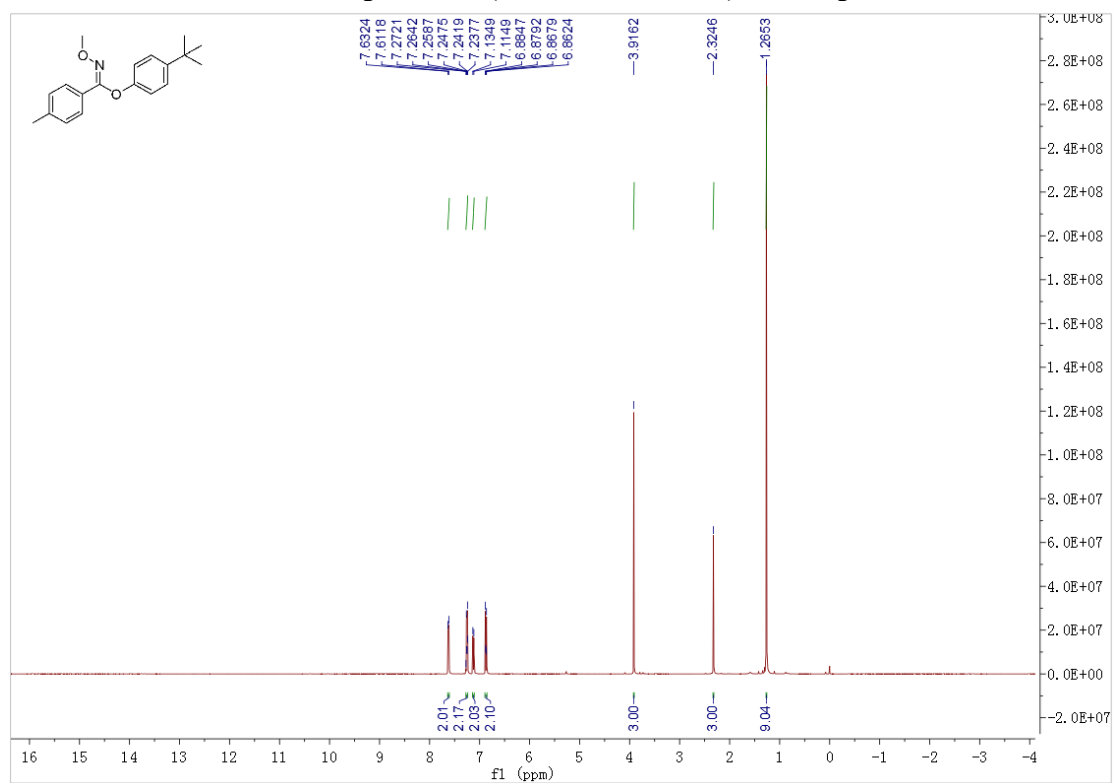
¹H NMR spectrum (400 MHz, CDCl₃) of compound **31**



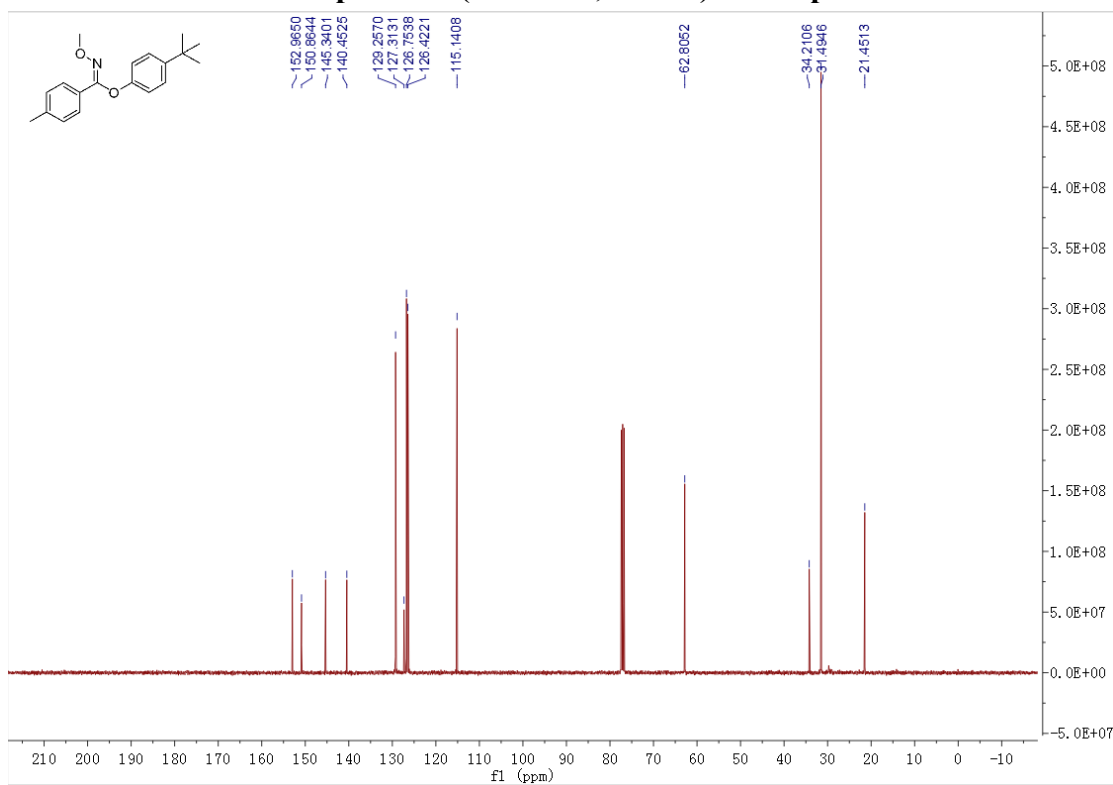
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **31**



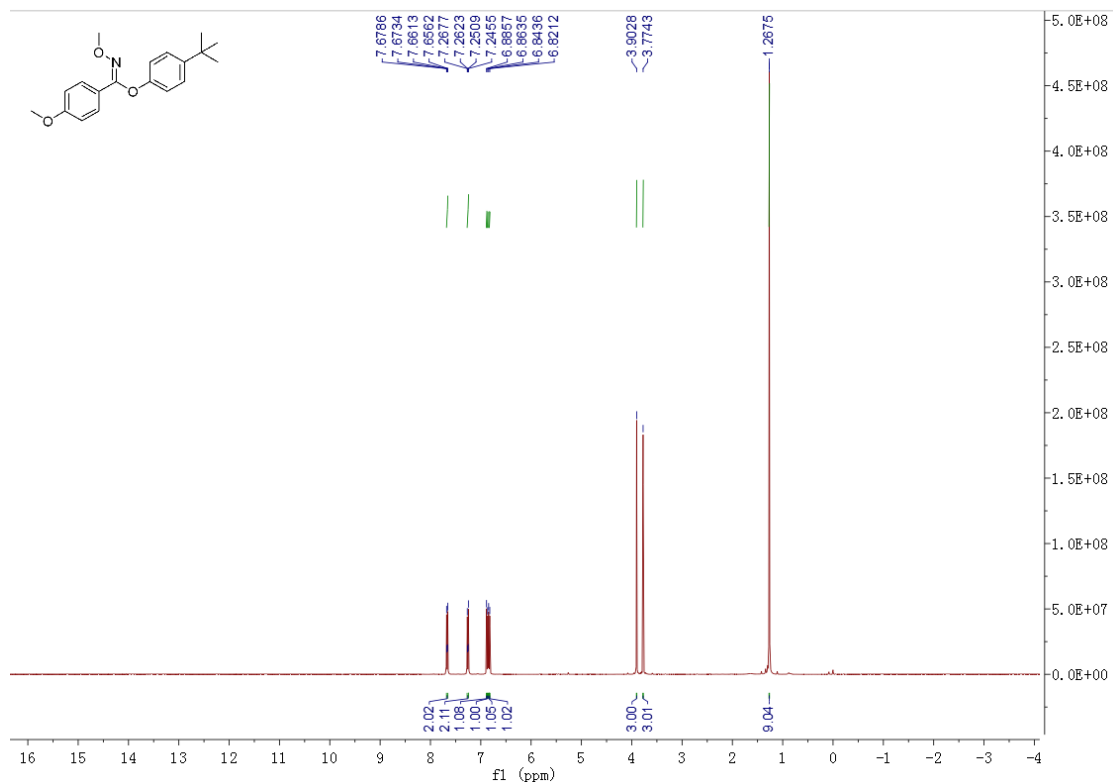
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3o**



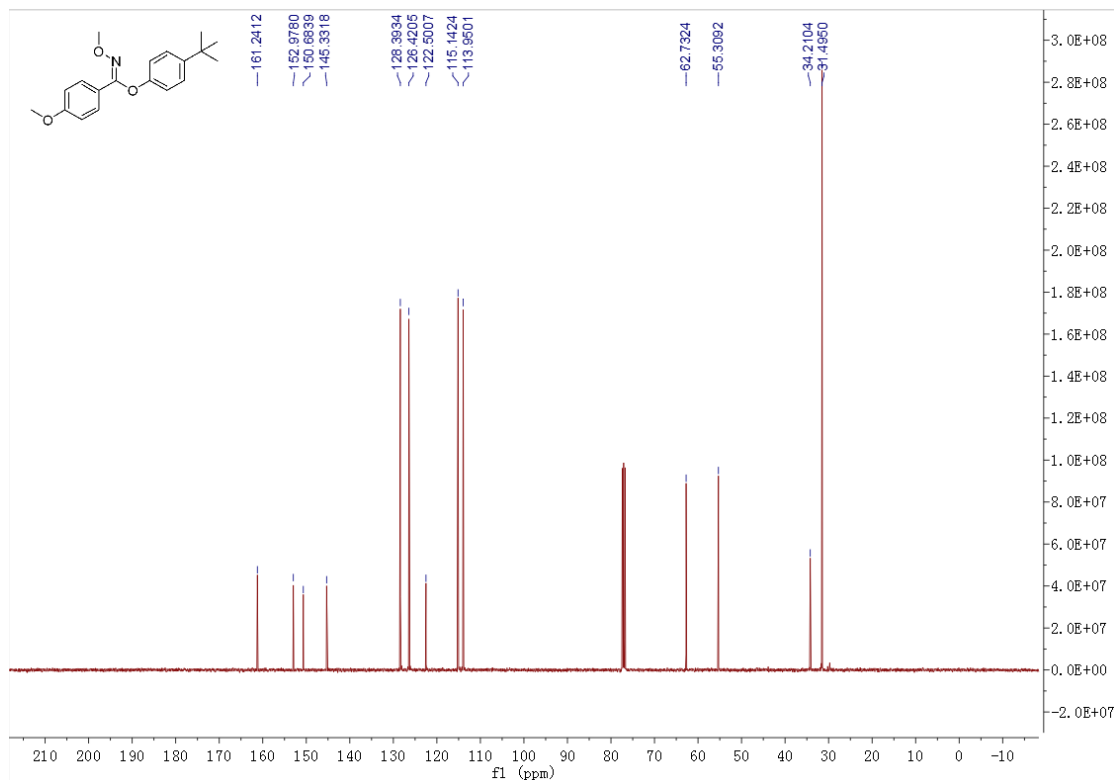
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3o**



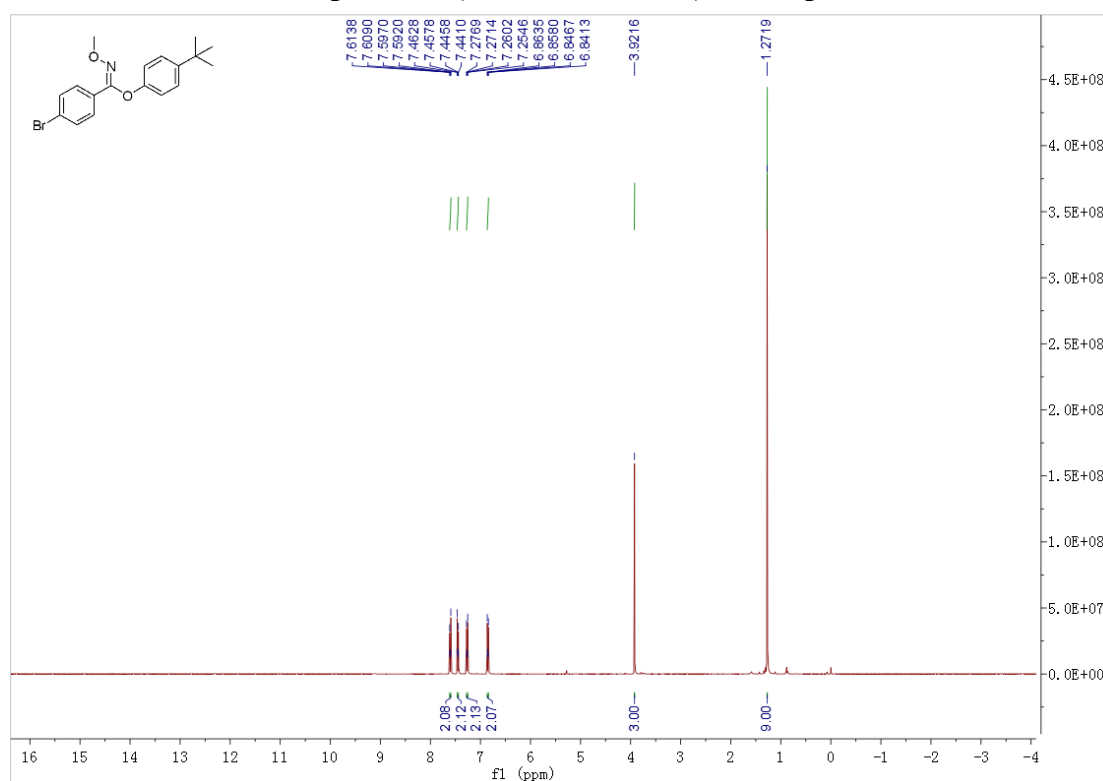
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3p**



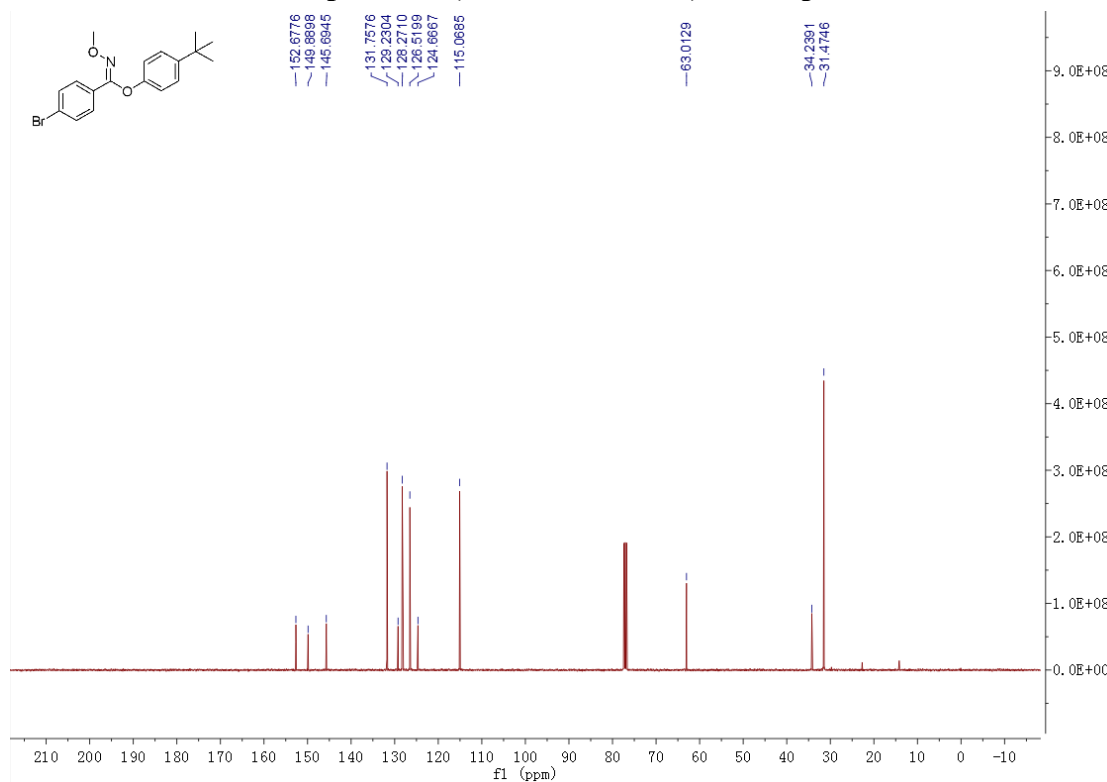
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3p**



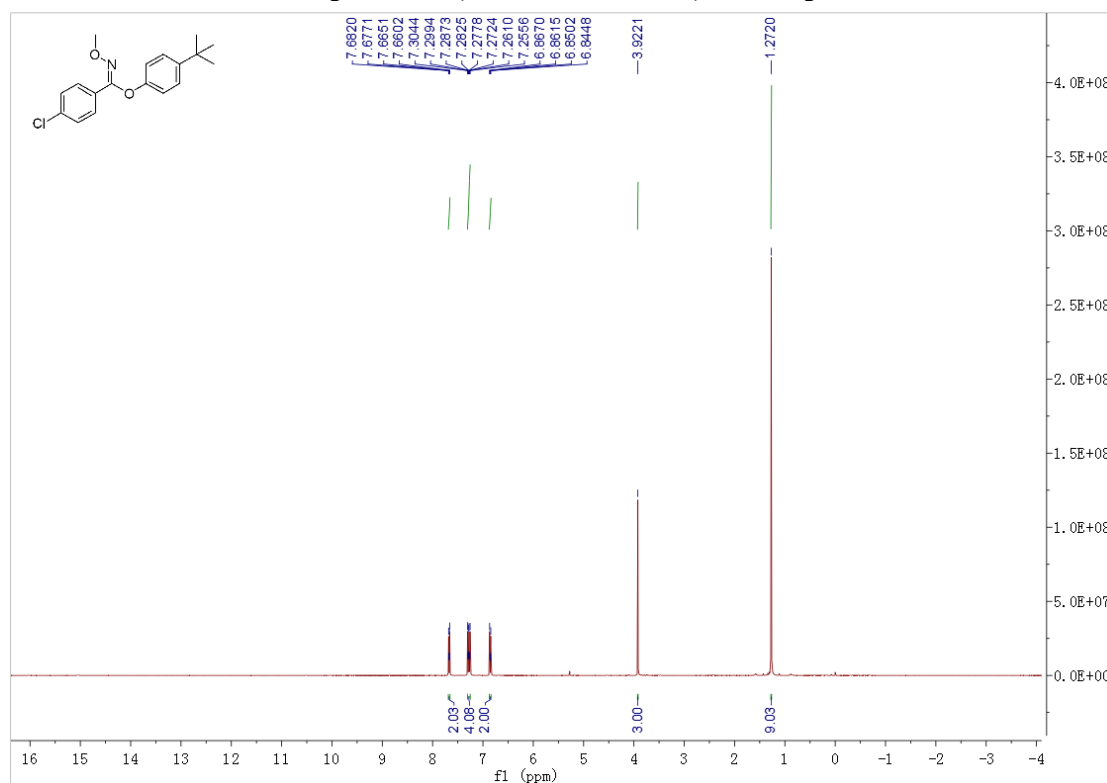
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3r**



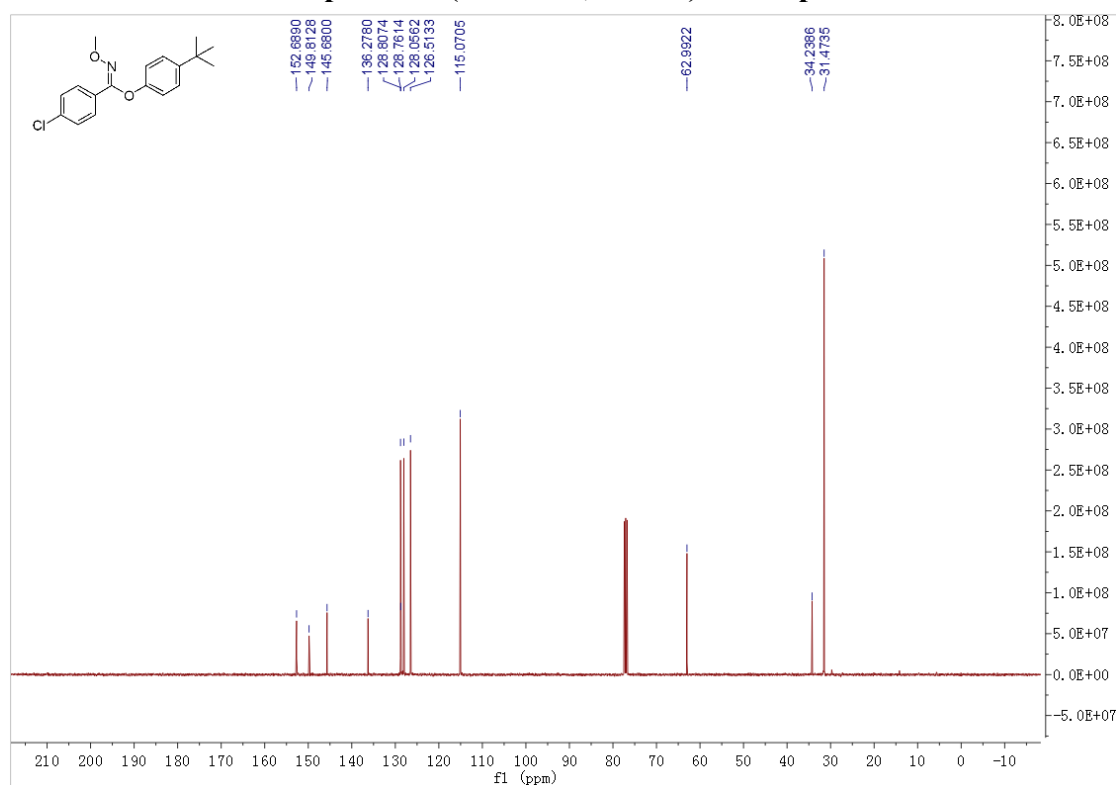
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3r**



¹H NMR spectrum (400 MHz, CDCl₃) of compound **3s**



¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3s**



COc1ccc(cc1)C(=O)Nc2ccc(F)cc2

Chemical structure: 4-(4-fluorophenyl)-N-methoxy-N-(4-tert-butylphenyl)benzamide.

¹H NMR spectrum (CDCl₃) showing peaks in the aromatic region (6.5-7.8 ppm), a methoxy singlet (~3.9 ppm), and a tert-butyl singlet (~1.3 ppm). Integration values are provided for each peak group.

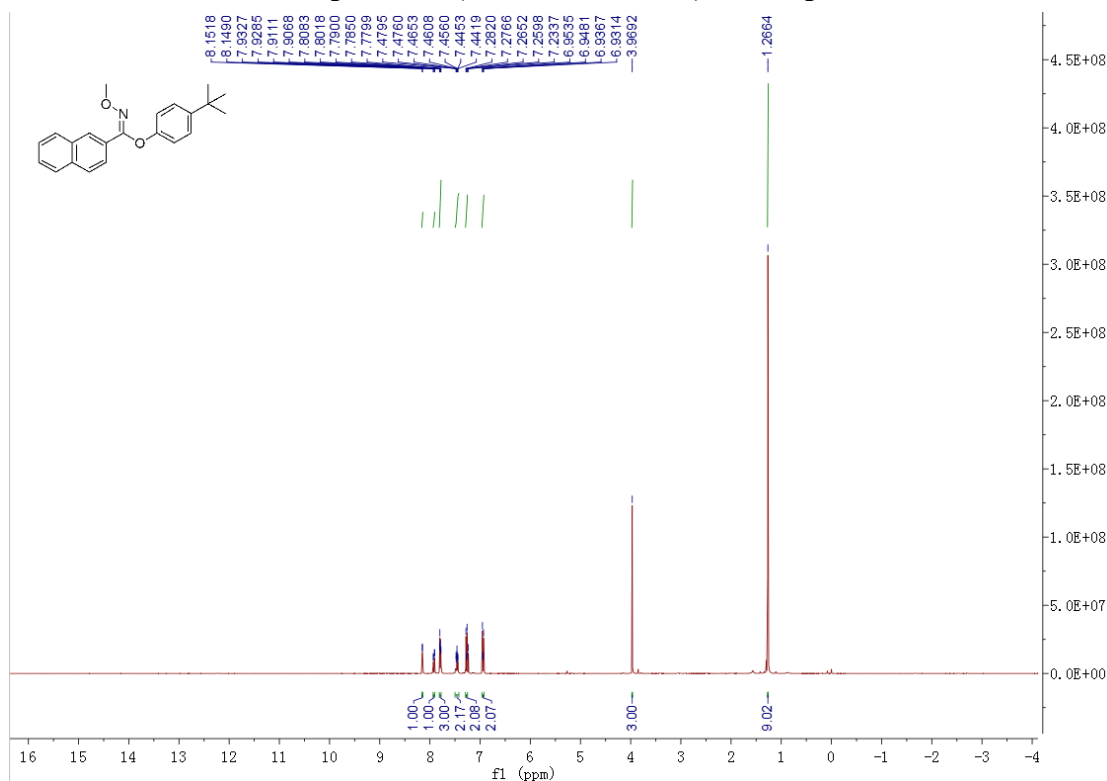
Chemical Shift (ppm)	Integration
7.7433, 7.7378, 7.7299, 7.7208, 7.7129, 7.7073, 7.2763, 7.2728, 7.2616, 7.2560, 7.0248, 7.0195, 7.0016, 6.9932, 6.9844, 6.9865, 6.9811, 6.9760, 6.9704, 6.9592, 6.9537	2.01, 2.00, 2.04, 2.00
3.9131	3.00
1.2710	9.01

Chemical structure: COc1ccc(cc1)C(=O)Oc2ccc(cc2)C(C)(C)C

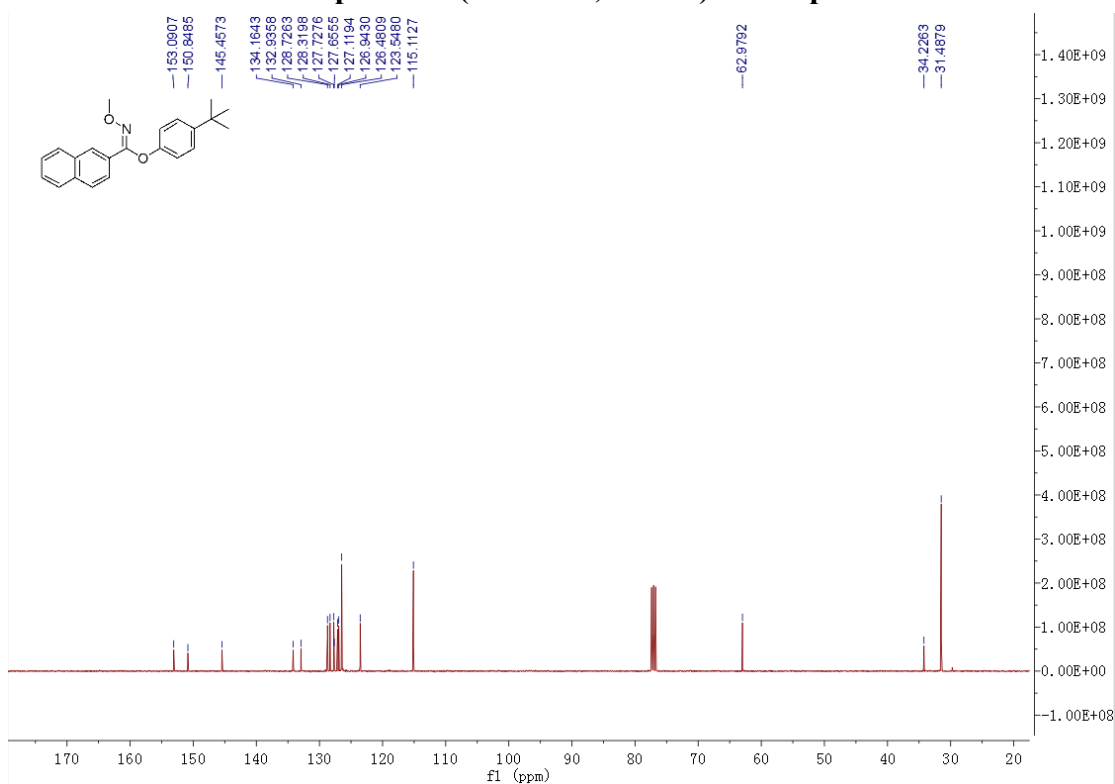
¹³C NMR spectrum (ppm):

- 165.2410
- 162.7504
- 152.7416
- 149.8707
- 145.6215
- 128.6836
- 128.7980
- 126.4884
- 126.3856
- 126.3552
- 115.7713
- 115.5535
- 115.1122
- 62.8939
- 34.2319
- 31.4742

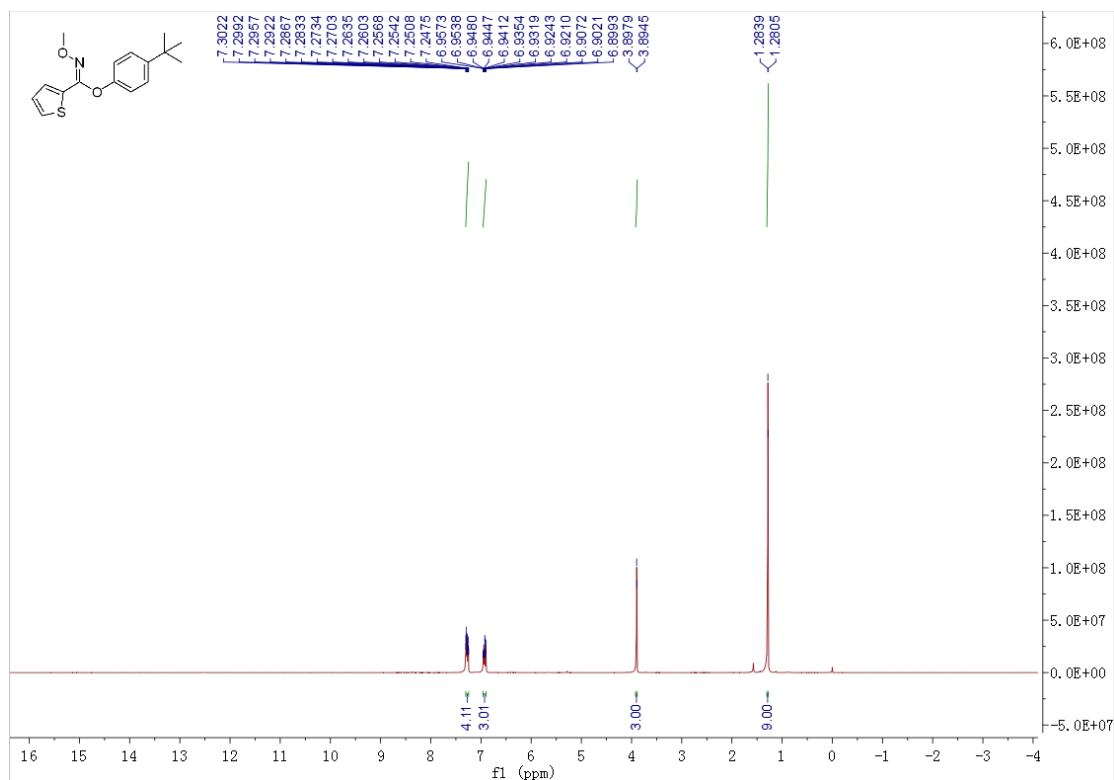
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3u**



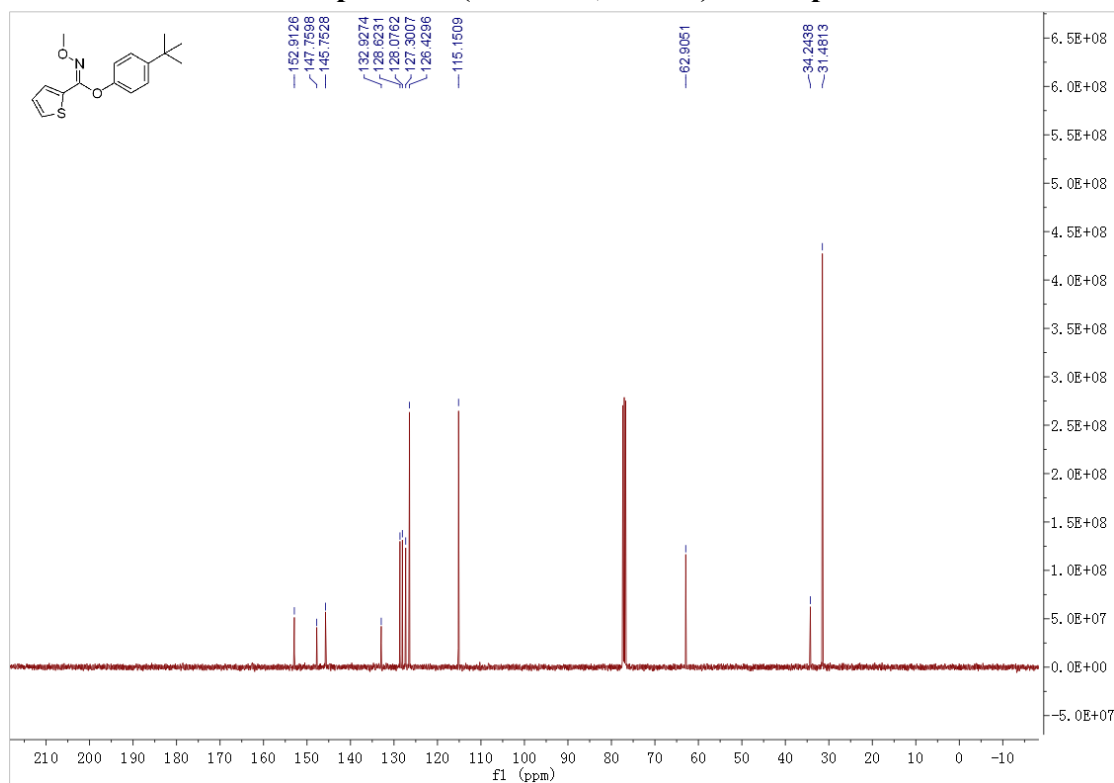
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3u**



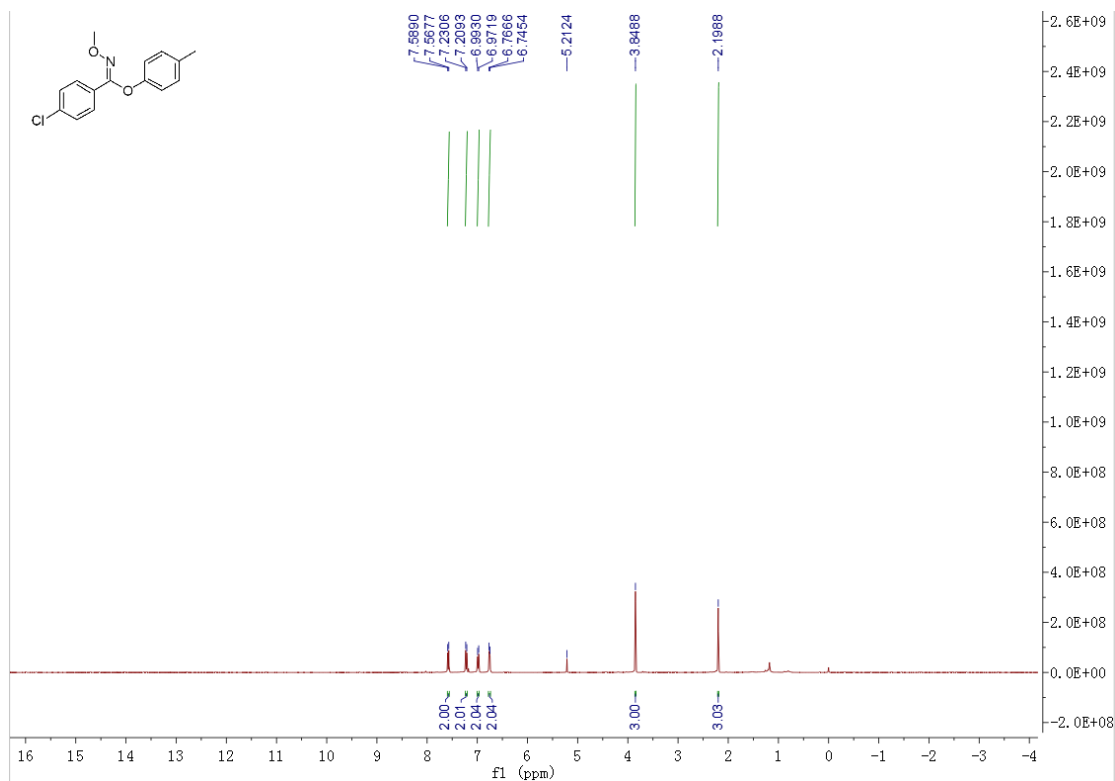
¹H NMR spectrum (400 MHz, CDCl₃) of compound **3v**



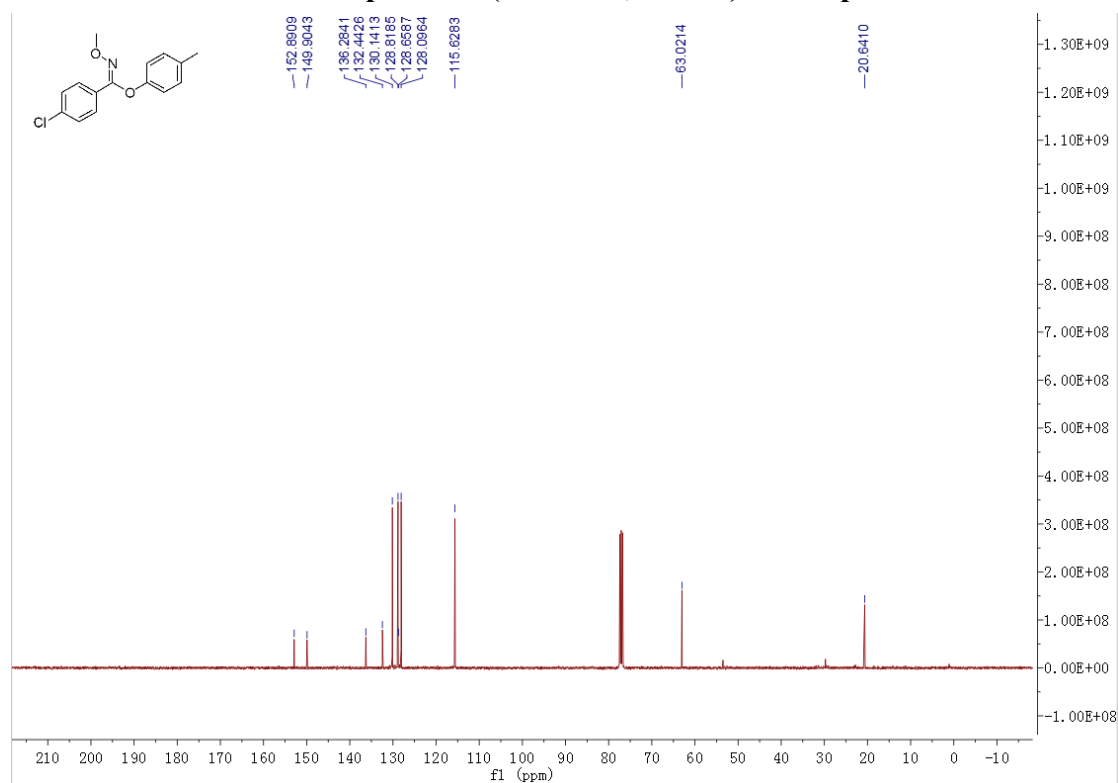
¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3v**



¹H NMR spectrum (400 MHz, CDCl₃) of compound **3z**

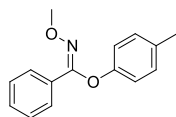


¹³C NMR spectrum (400 MHz, CDCl₃) of compound **3z**



2. The HRMS Spectra of representative Compounds

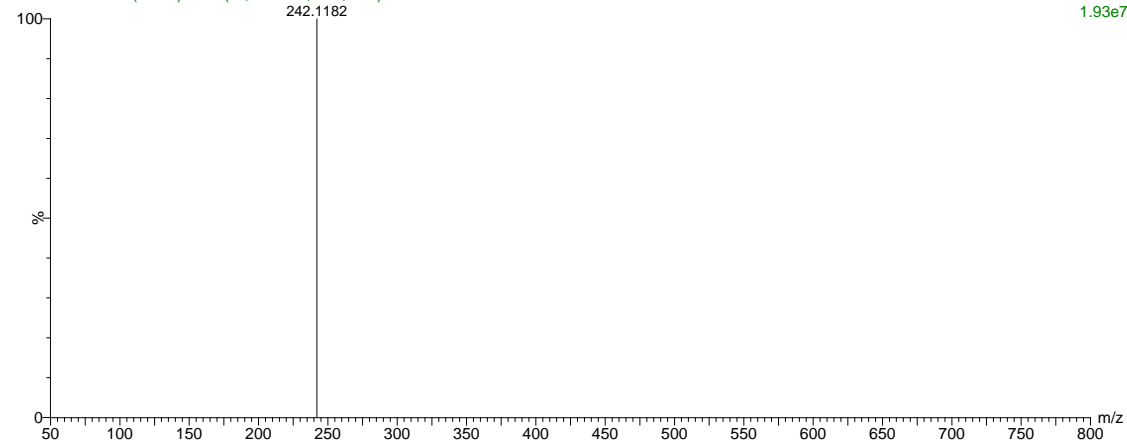
HRMS spectrum of compound 3a



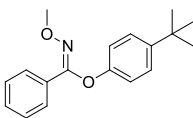
lh166

If20220624-1 11 (0.242) AM2 (Ar,20000.0,0.00,0.00)

1: TOF MS ES+
1.93e7



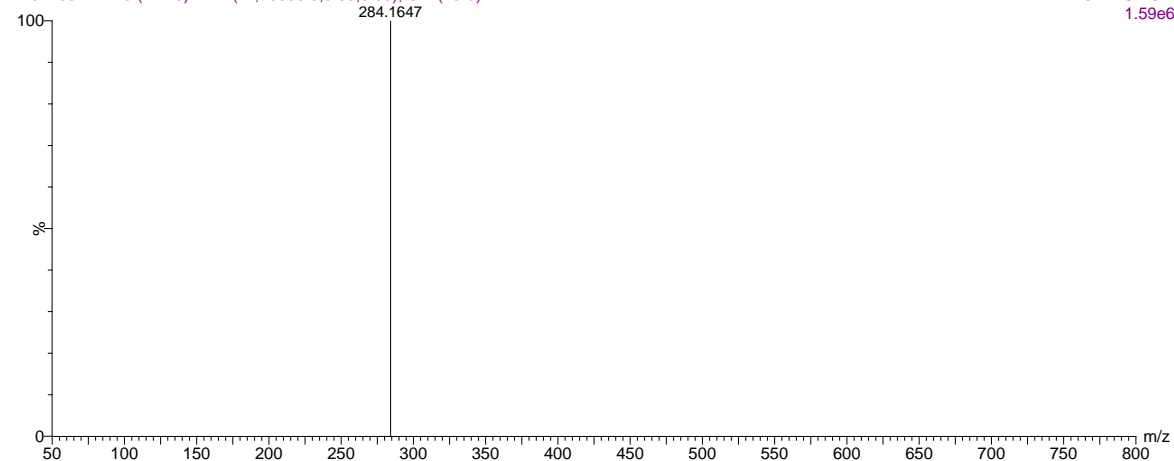
HRMS spectrum of compound 3b



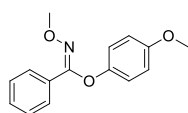
ljb-13

If20220624-2 73 (1.449) AM2 (Ar,20000.0,0.00,0.00); Cm (73-6)

1: TOF MS ES+
1.59e6



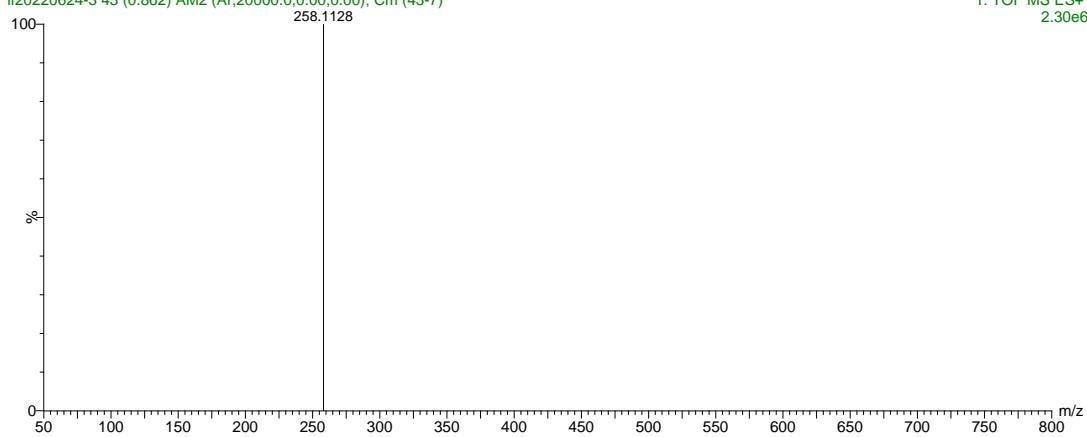
HRMS spectrum of compound 3c



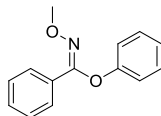
lh129

If20220624-3 43 (0.862) AM2 (Ar,20000.0,0.00,0.00); Cm (43-7)

1: TOF MS ES+
2.30e6



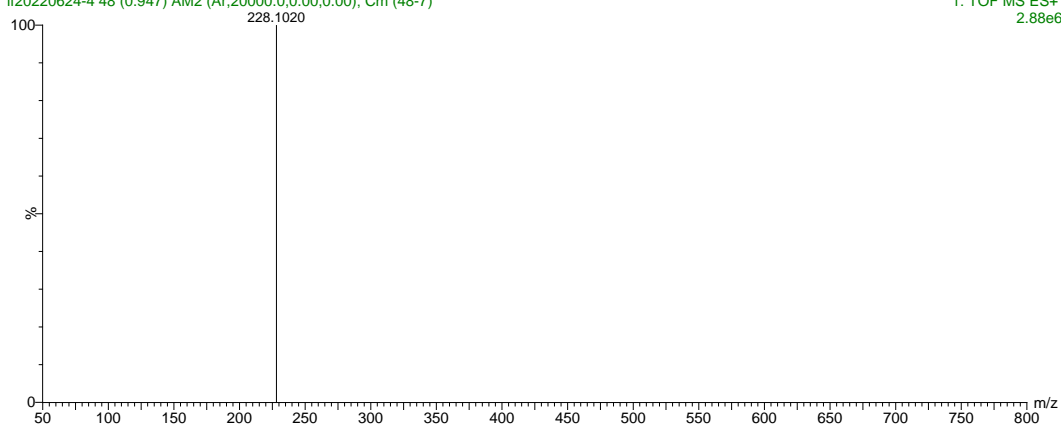
HRMS spectrum of compound 3d



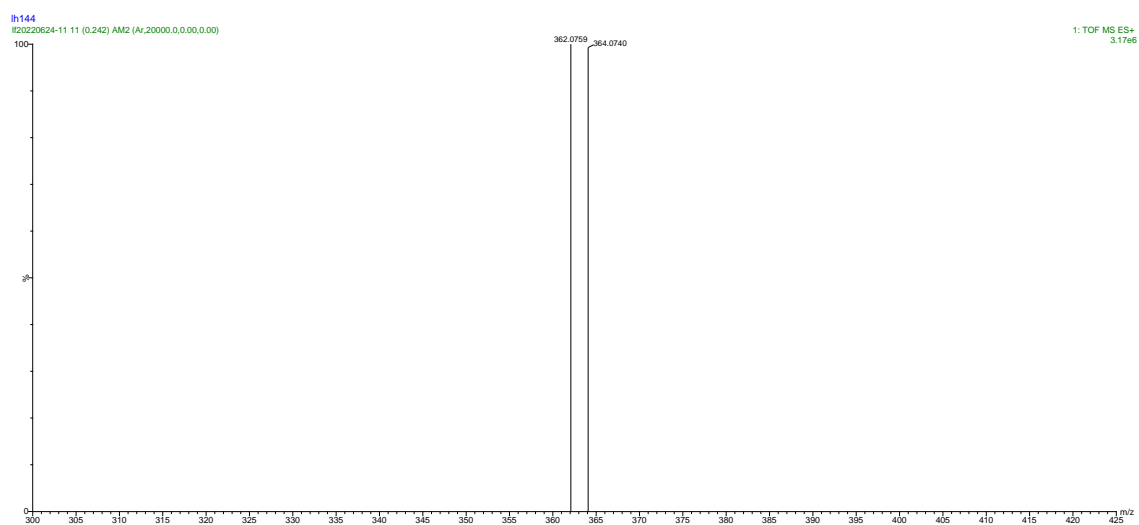
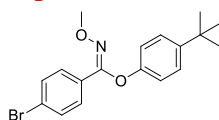
lh117

If20220624-4 48 (0.947) AM2 (Ar,20000.0,0.00,0.00); Cm (48-7)

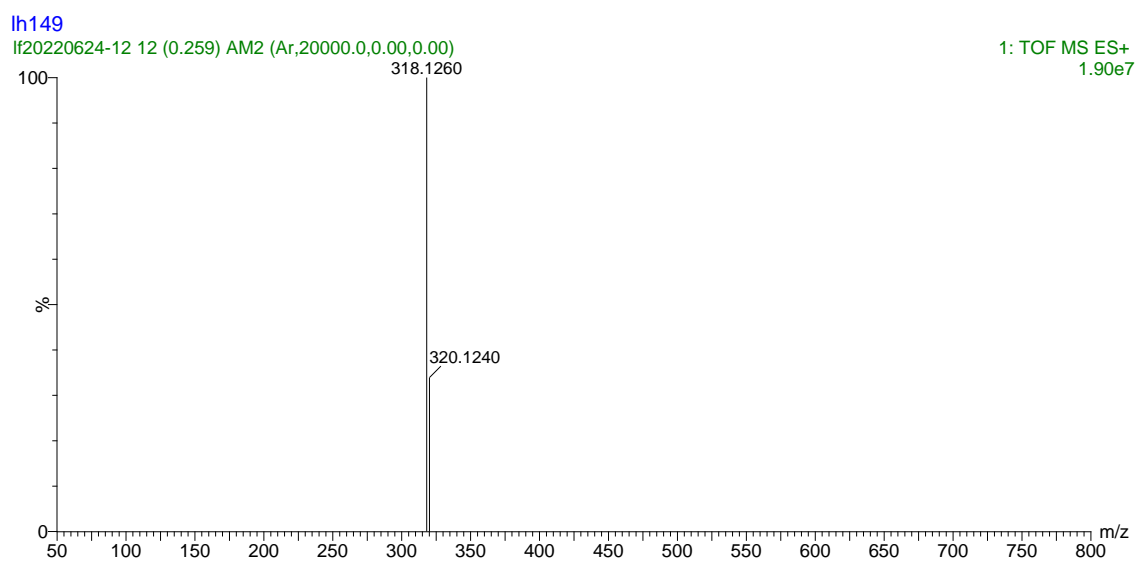
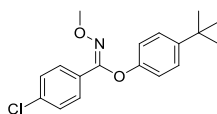
1: TOF MS ES+
2.88e6



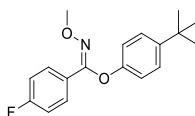
HRMS spectrum of compound 3r



HRMS spectrum of compound 3s



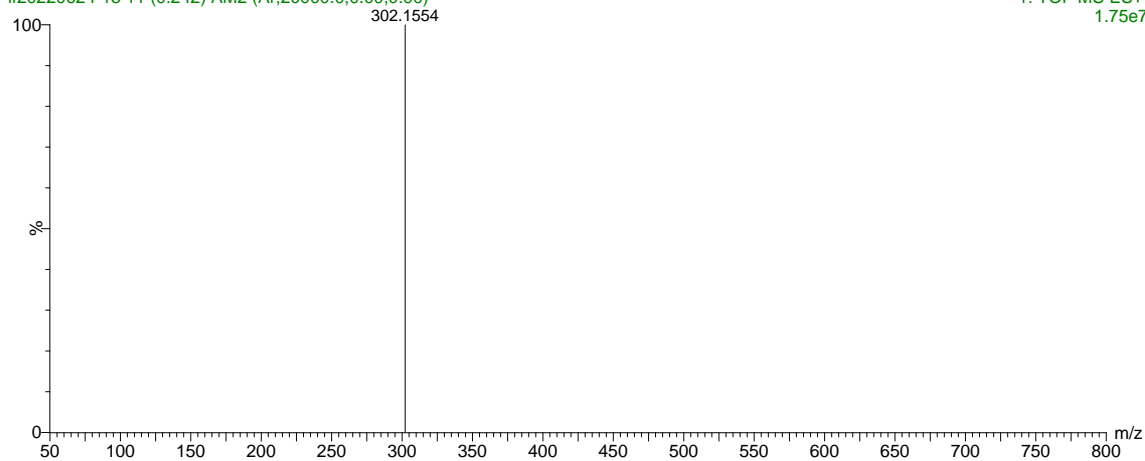
HRMS spectrum of compound 3t



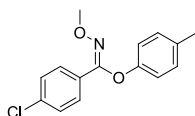
lh150

lf20220624-13 11 (0.242) AM2 (Ar,20000.0,0.00,0.00)

1: TOF MS ES+
1.75e7



HRMS spectrum of compound 3z



lh133

lf20220624-16 11 (0.242) AM2 (Ar,20000.0,0.00,0.00); Cm (11-6)

1: TOF MS ES+
9.02e6

