Supporting Information

Copper(0)—catalyzed aerobic oxidative synthesis of imines from amines under solvent-free conditions

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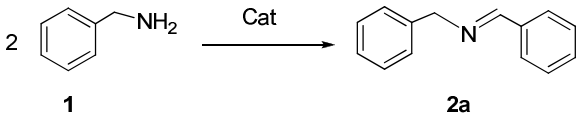
Table **S1**. Progress of the reaction with time[a]

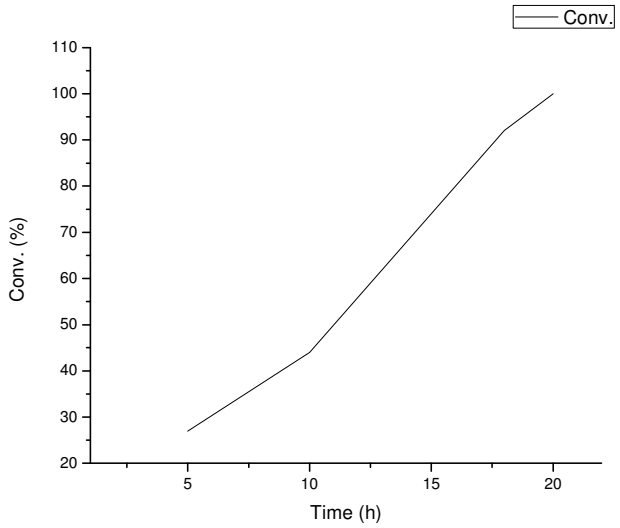


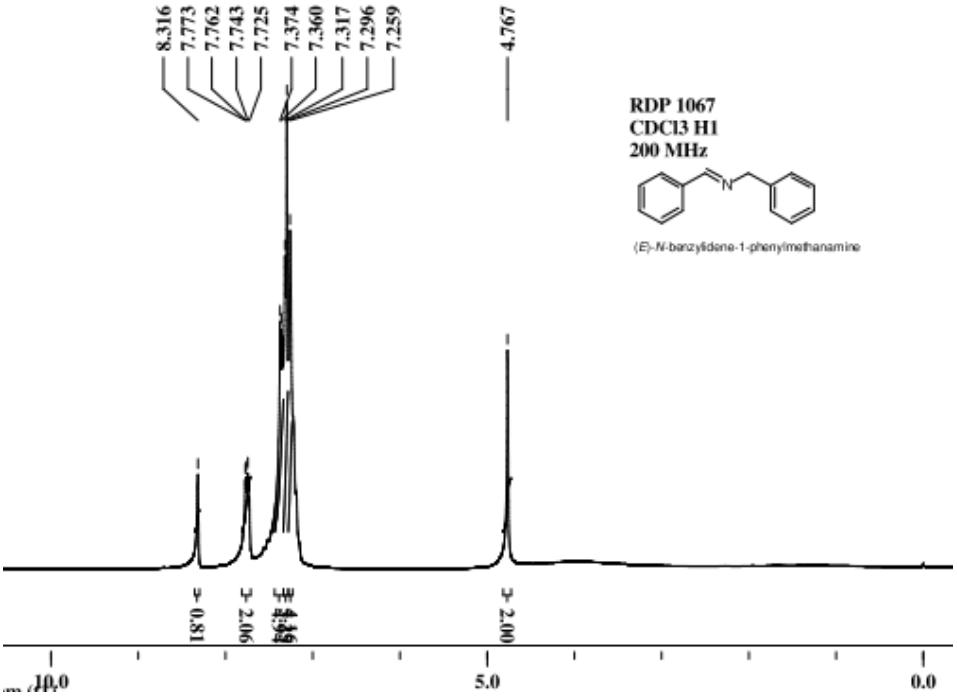
1 **2a**

Sr. No.	Time/h	Conv.[b]	Imine Yield[b]
1	5	27	27
2	10	44	43
3	18	92	92
4	20	100	99>

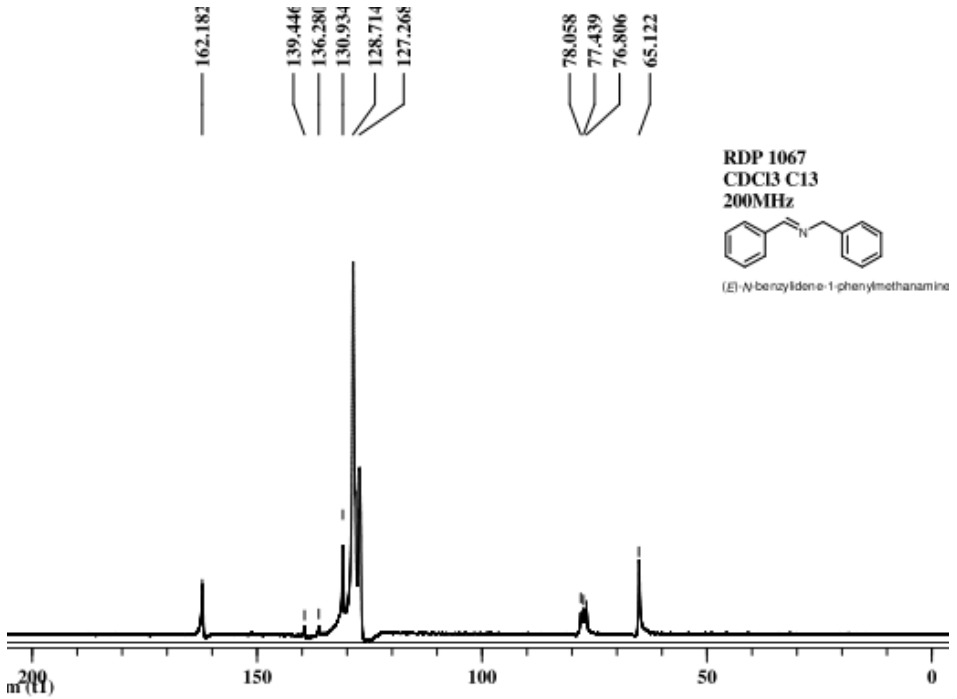
[a] Conditions: **1** (10 mmol), Cu (0.05 mmol), 90°C, open atmosphere.
[b] GC conversion.

Reaction plot for conversion v/s time





^{1}H NMR (Entry 1, Table 2)



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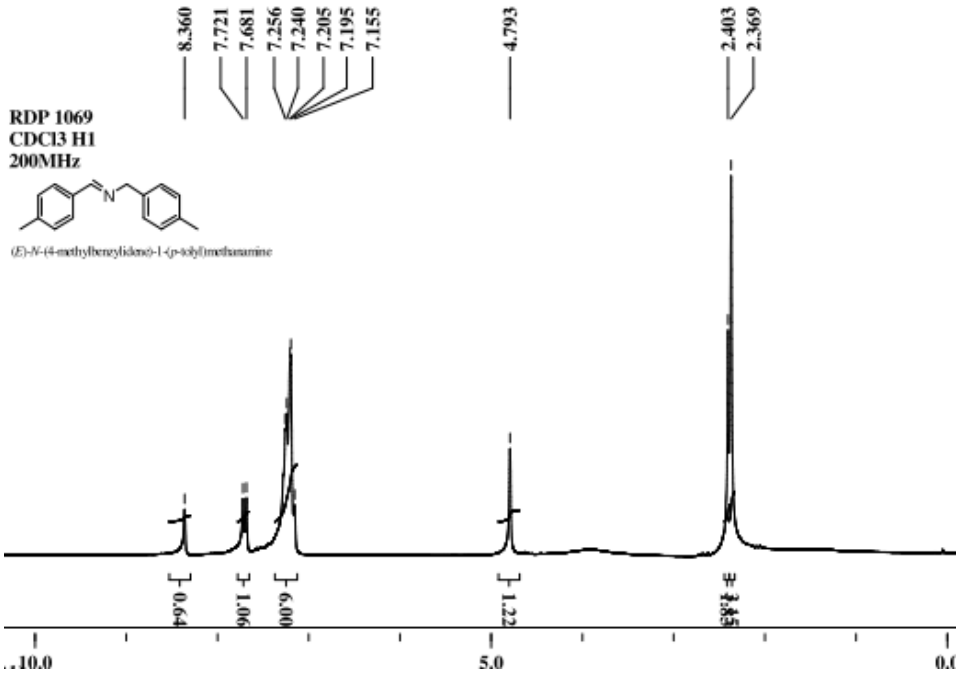
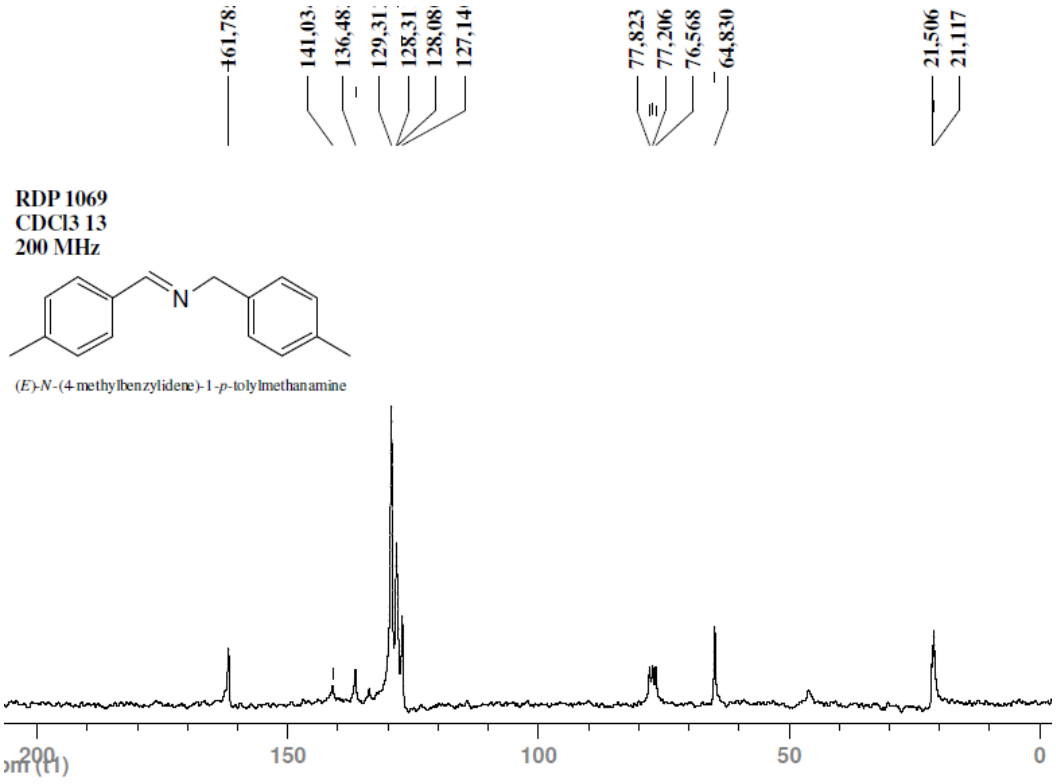
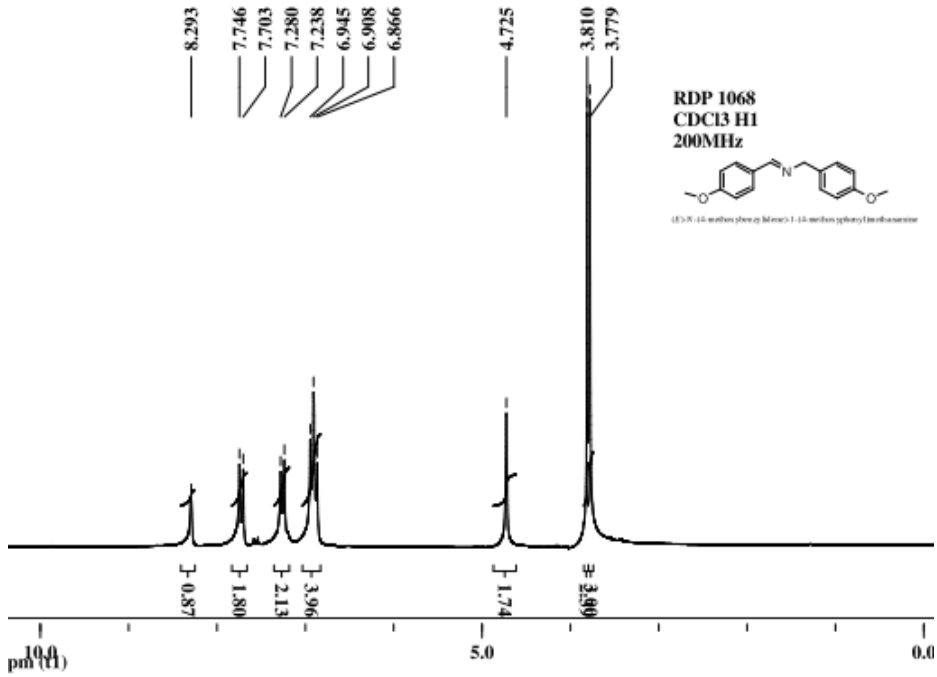


^{1}H NMR (Entry 2, Table 2)



^{13}C NMR (Entry 2, Table 2)



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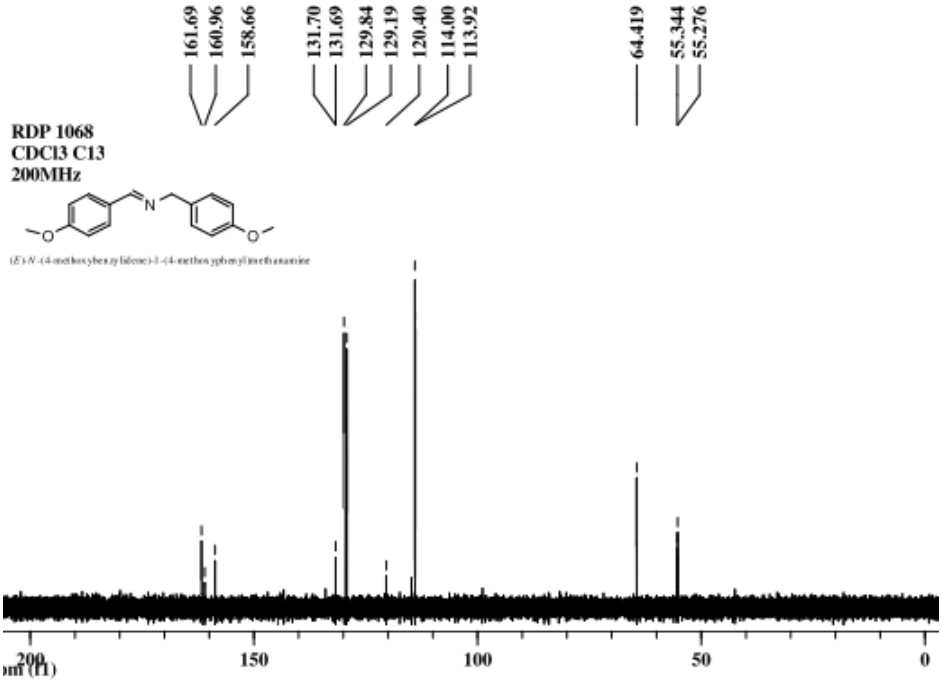

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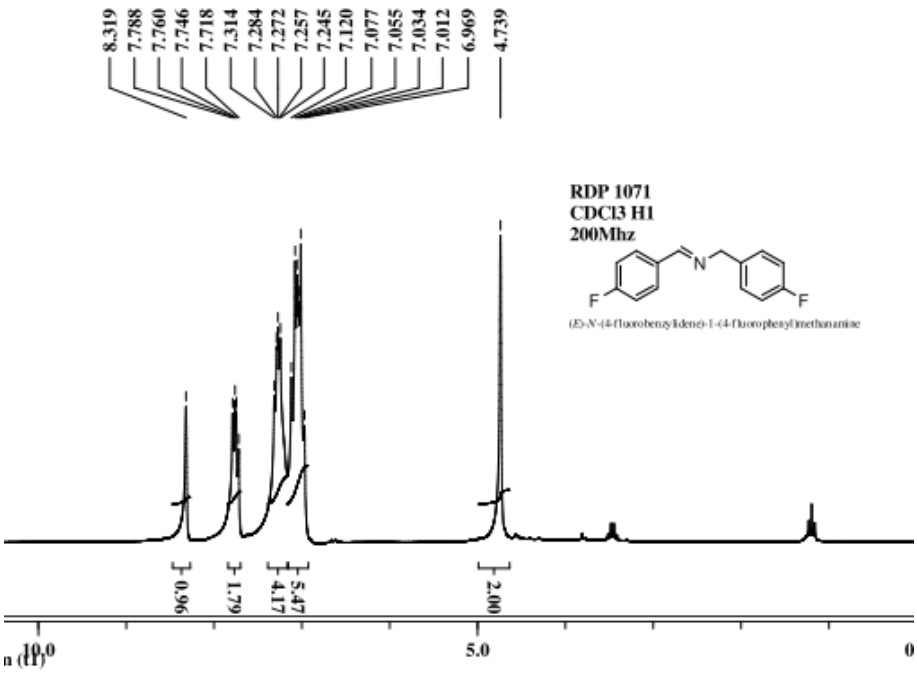

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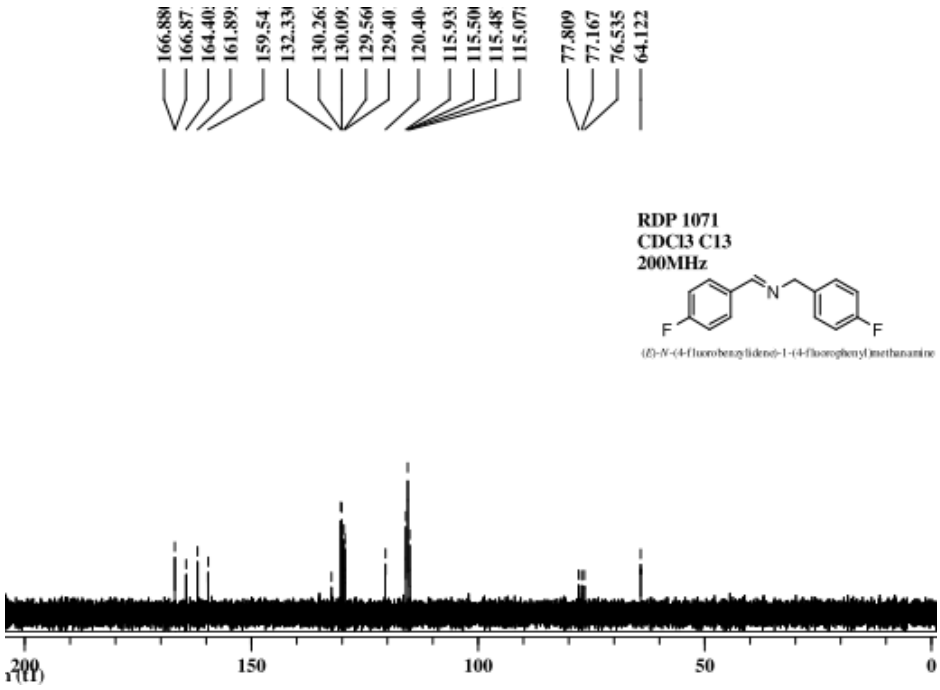

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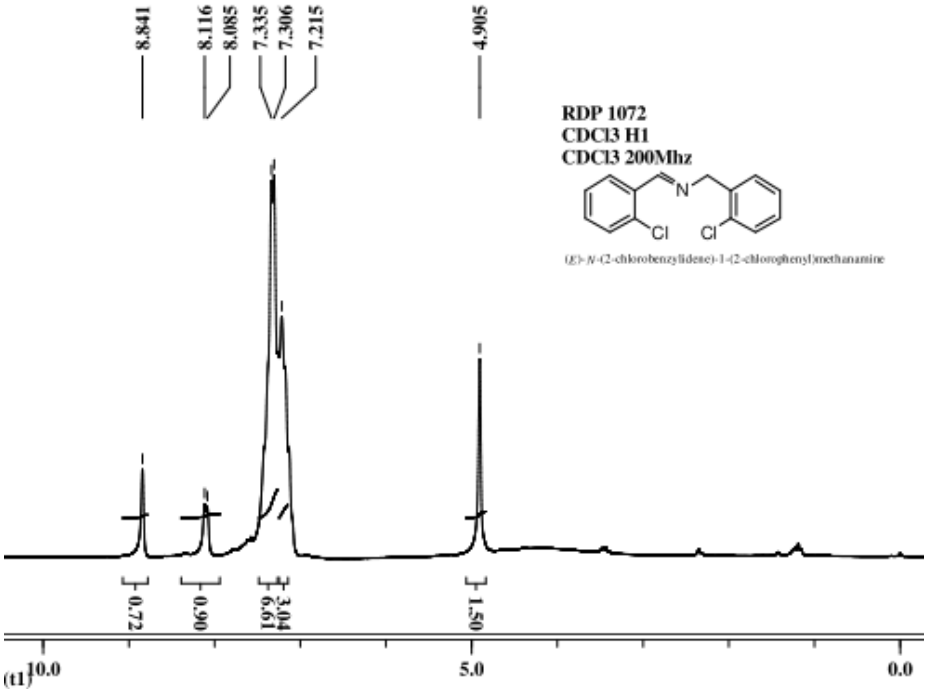

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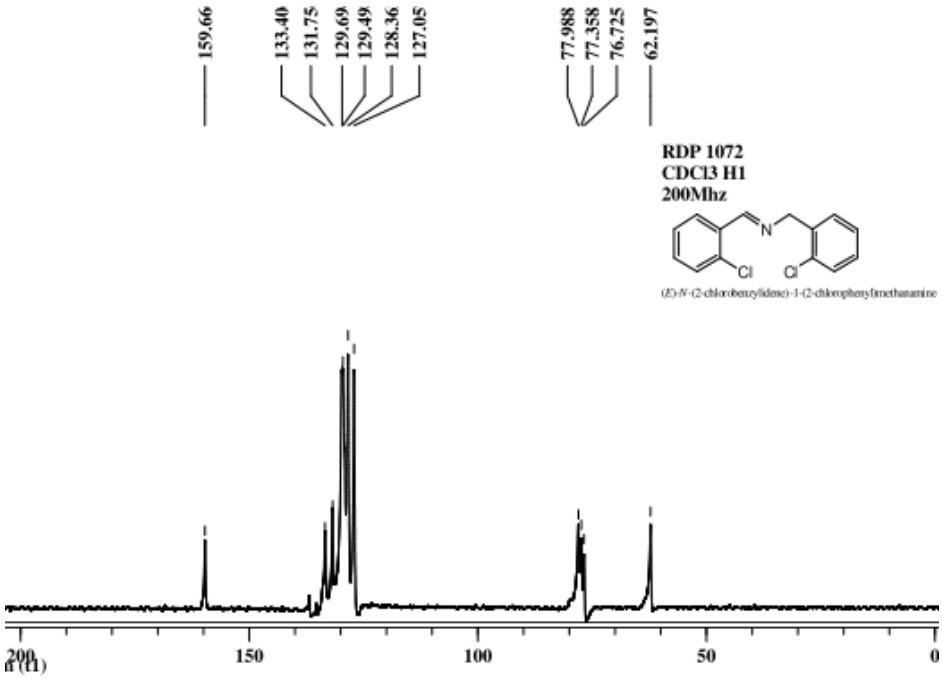

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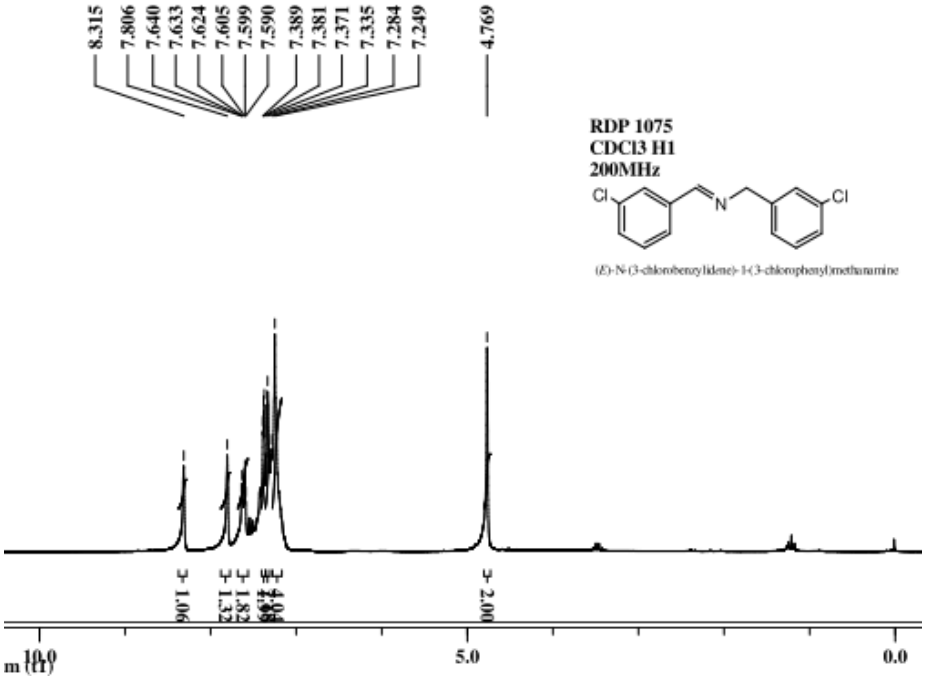

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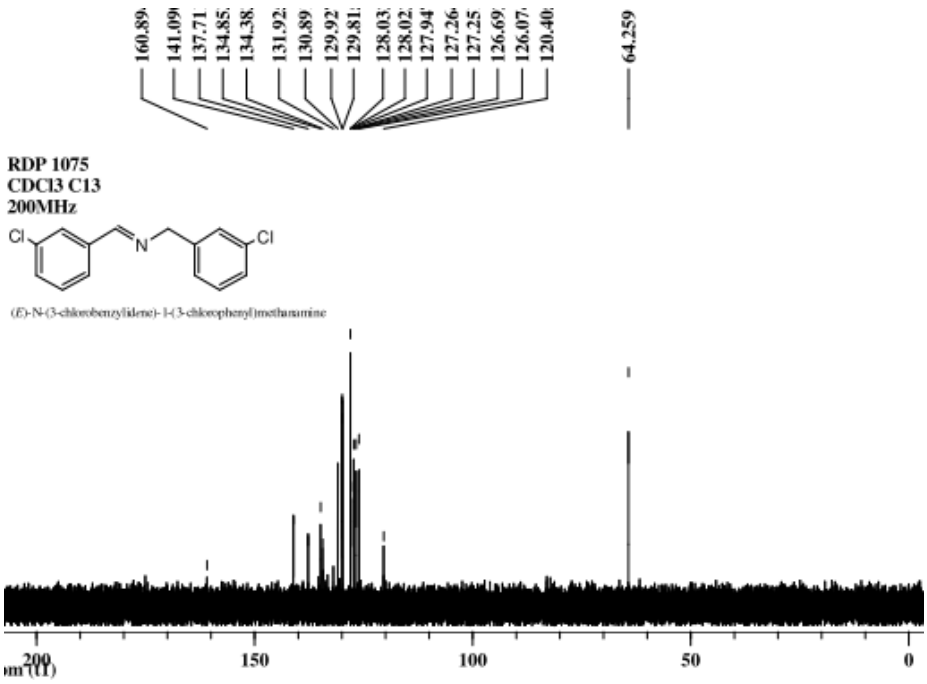
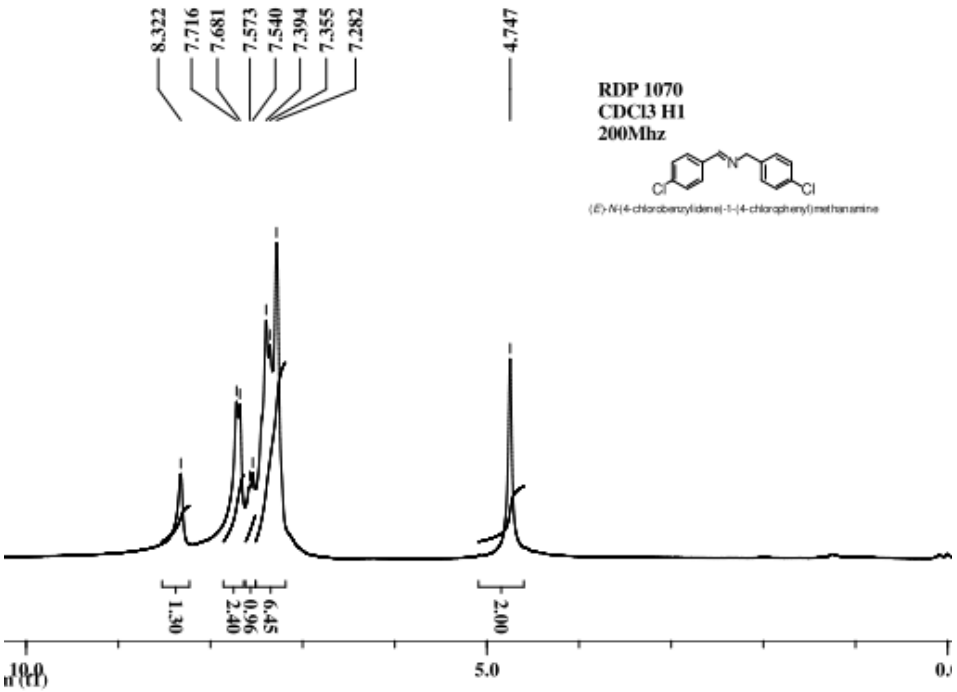


^{13}C NMR (Entry 6, Table 2)



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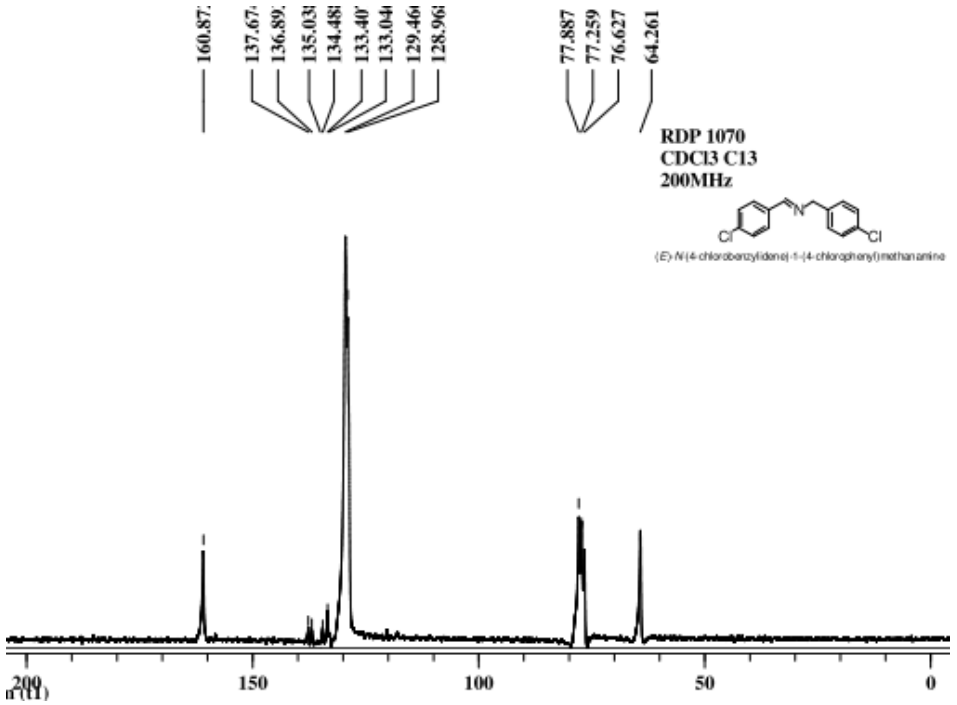

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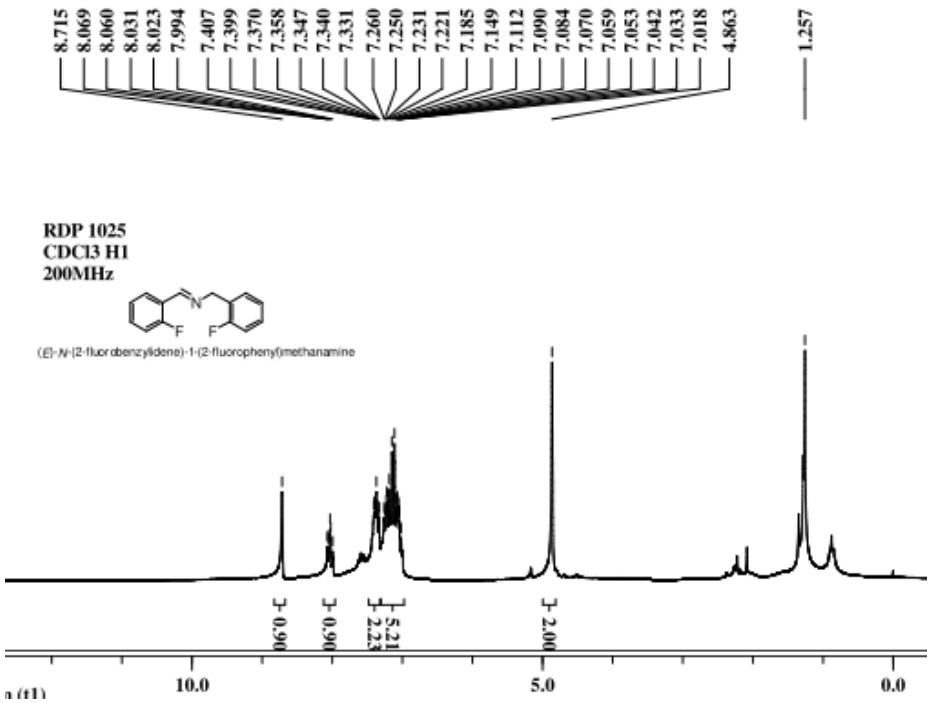

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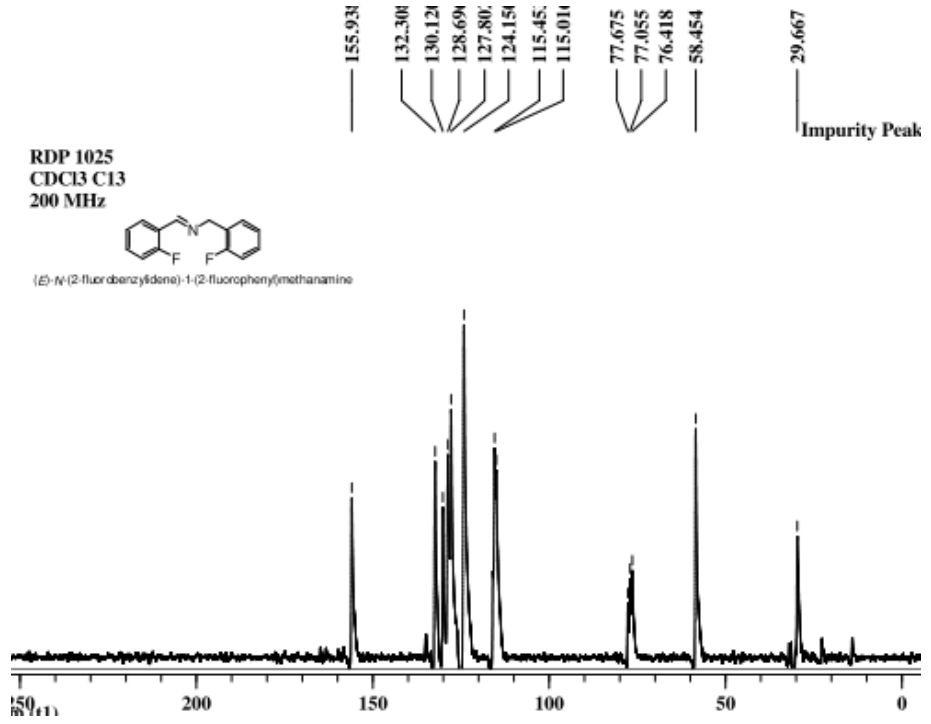

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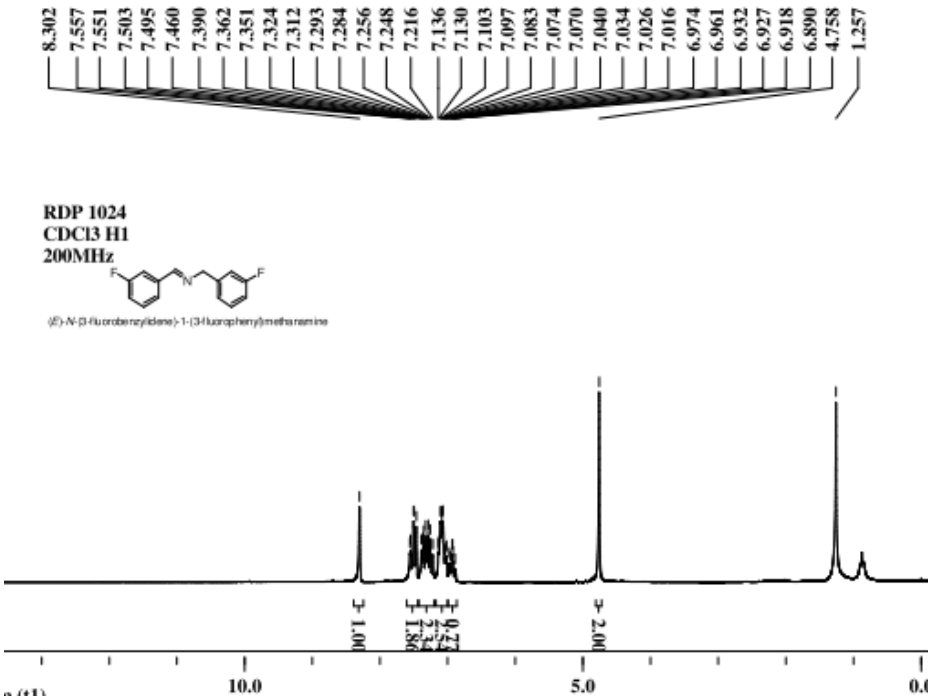

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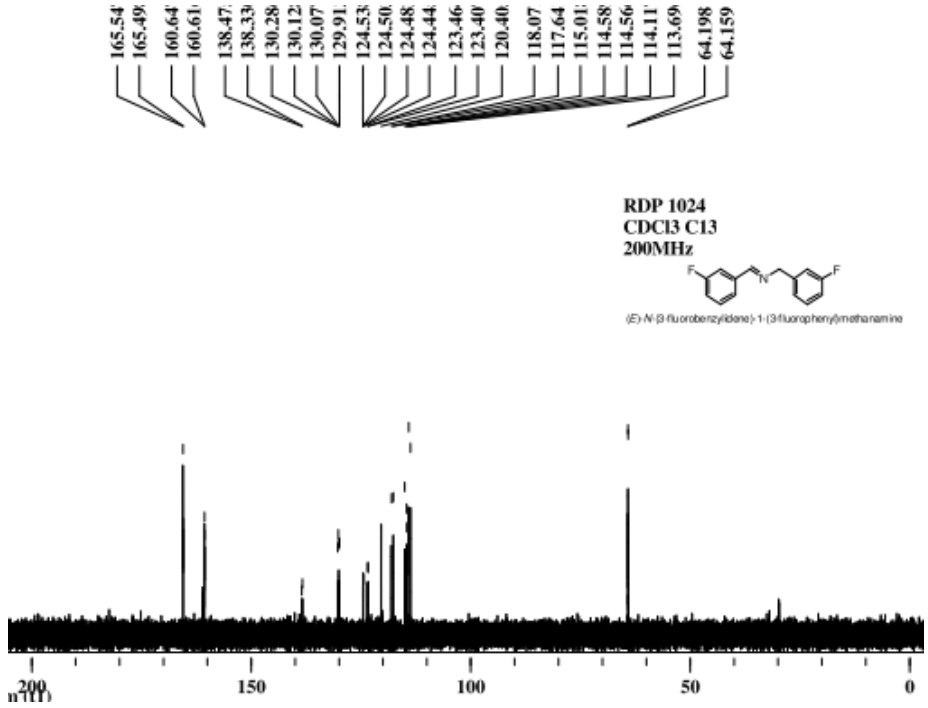

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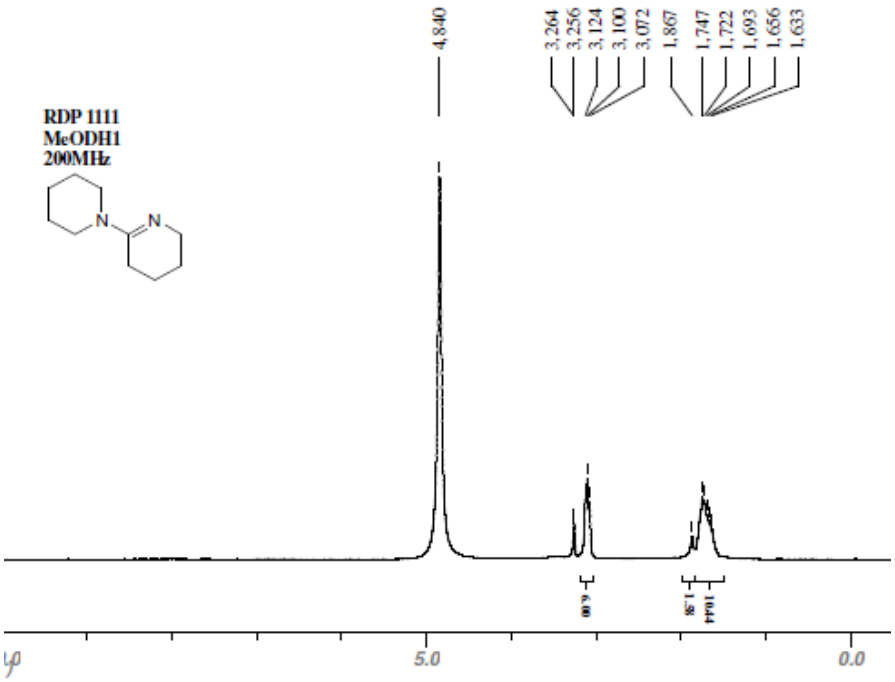

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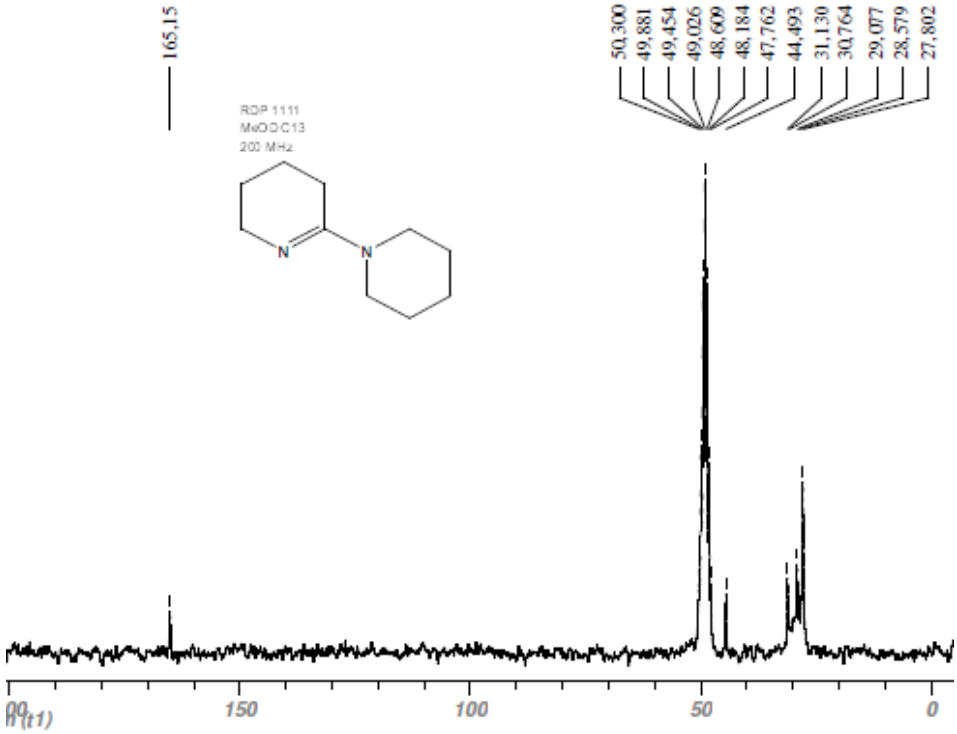

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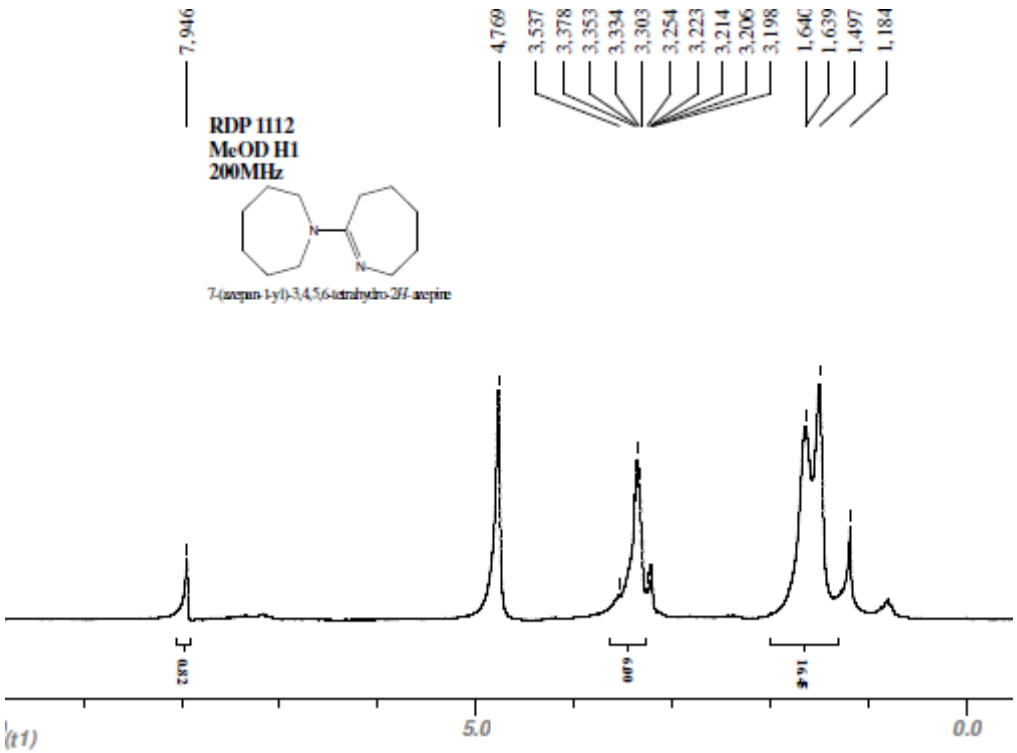

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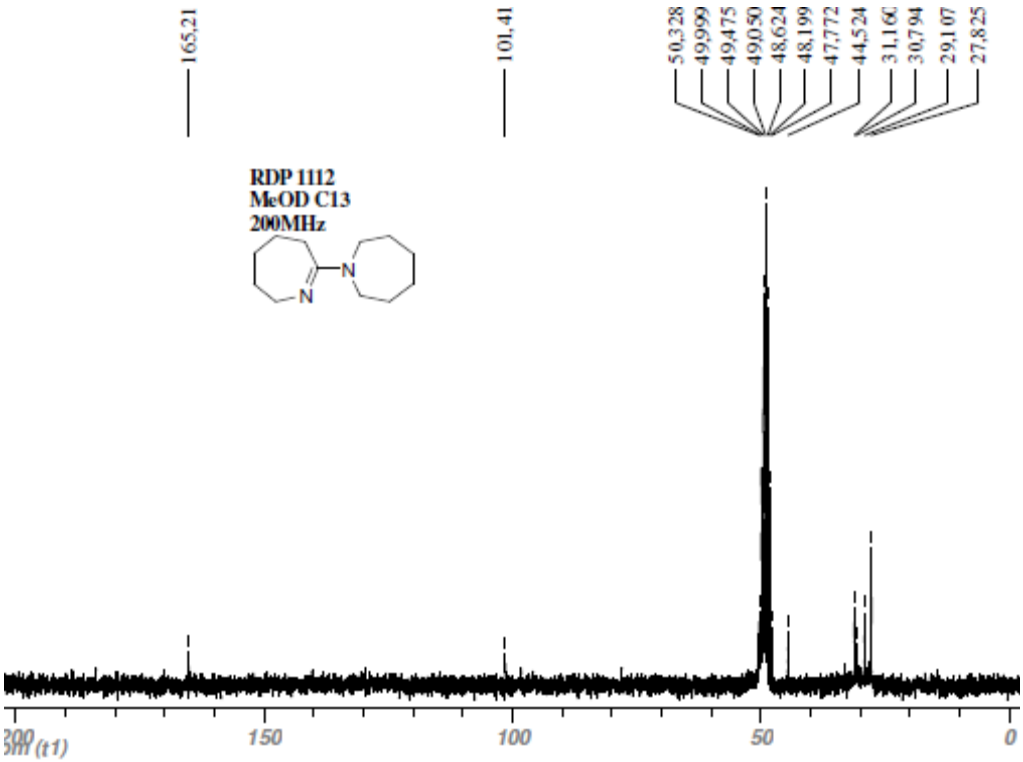

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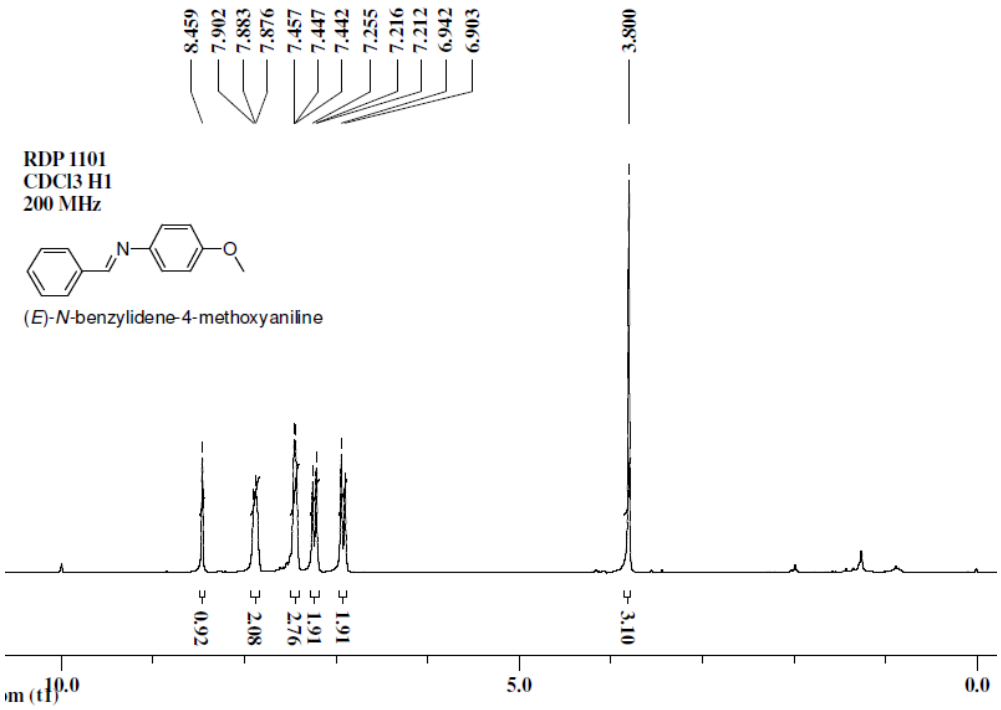

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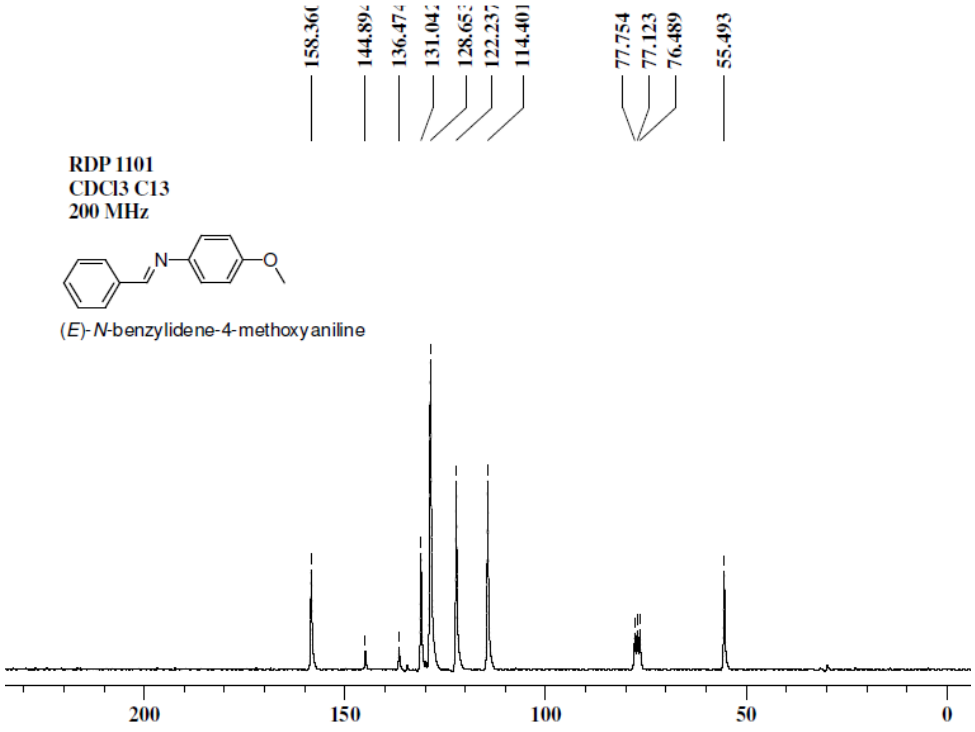

^{13}C NMR (Entry 15, Table 2)

GC-MS Spectra of Entry 1 Table 2

Central Salt and Marine Chemicals Research Institute 9/6/2011 16:38:26

C:\GCMSsolution\Data\Project1\ANALYTICAL SCINCE\RAJENDRA PATIL\RDP 1007_RTX 5 _011010_01.QGD

Sample Information

Analyzed by	: Admin
Analyzed	: 10/1/2010 9:59:13 AM
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Sample Name	:RDP 1007
Sample ID	: RDP 1007
Vial #	: 1
Injection Volume	: 0.200
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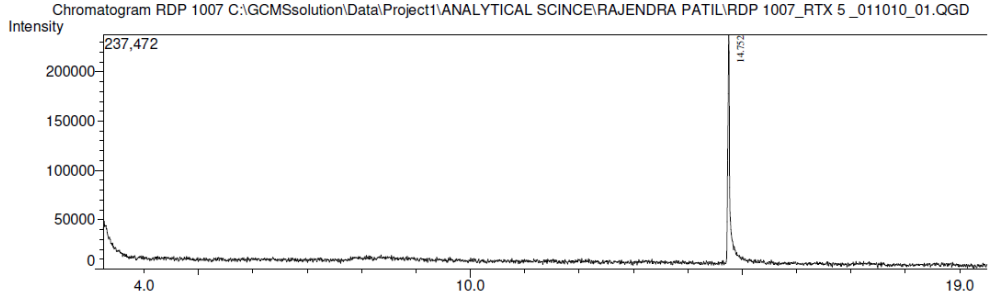
Method File	: C:\GCMSsolution\Data\Project1\PNBBR.qgm
Report File	:
Tuning File	: C:\GCMSsolution\System\Tune1\tuning_310510_EI.qgt

Chromatogram RDP 1007 C:\GCMSsolution\Data\Project1\ANALYTICAL SCINCE\RAJENDRA PATIL\RDP 1007_RTX 5 _011010_01.QGD

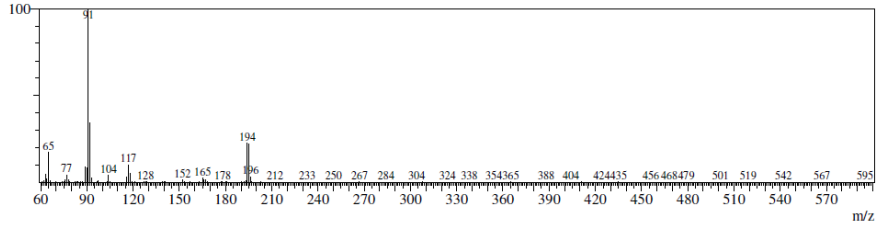


Peak Report TIC

Peak#	R.Time	Area	Area%	Height	Height%	Name	Base m/z
1	14.752	611012	100.00	231971	100.00	Benzylimine	91.00
		611012	100.00	231971	100.00		

Spectrum

Line#:1 R.Time:14.8(Scan#:1381)
MassPeaks:322
RawMode:Averaged 14.7-14.8(1380-1382) BasePeak:91(75247)
BG Mode:Calc. from Peak



GC-MS Spectra of Entry 10 Table 2

Sample Information

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Analyzed	: 2/2/2012 11:59:51 AM
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Sample Name	: RDP-1144
Sample ID	: RDP-1144
Vial #	: 1
Injection Volume	: 0.600
Data File	: C:\GCMSsolution\Data\Project1\ANALYTICAL SCINCE\RAJENDRA PATIL\RDP-1144_RTX 5 _020212_05.qgd
Method File	: C:\GCMSsolution\Data\Project1\PNBBR.qgm
Report File	:
Tuning File	: C:\GCMSsolution\System\Tune1\tuning_191010_EI.qgt

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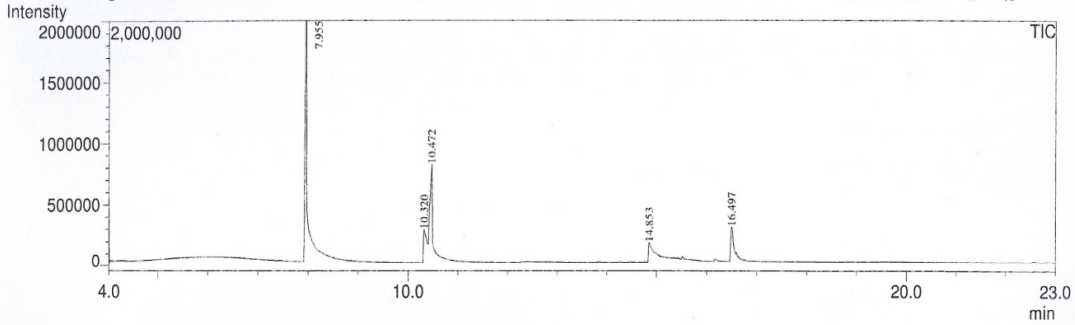

Peak Report TIC

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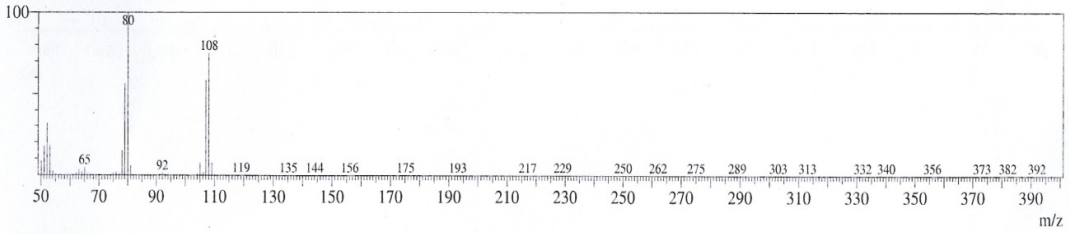
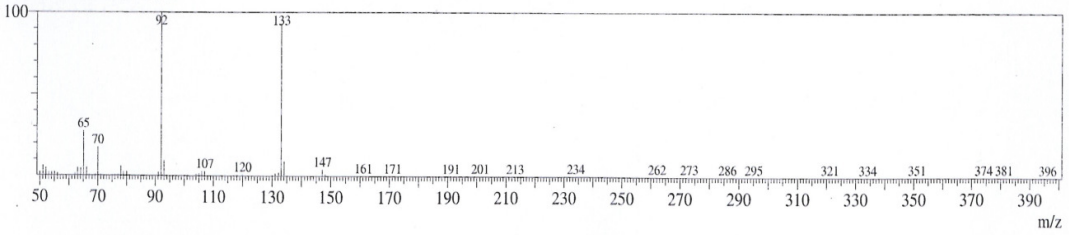
1	7.955	5584342	48.66	2451644	63.43	Picolyl amine
2	10.320	1266205	11.03	272659	7.05	
3	10.472	2237104	19.49	696367	18.02	Picolinamide
4	14.853	1108979	9.66	164425	4.25	Imine
5	16.497	1279663	11.15	279967	7.24	imine
		11476293	100.00	3865062	100.00	

Spectrum

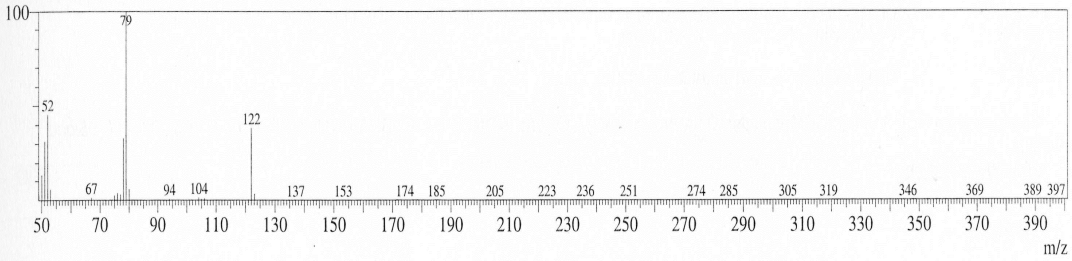
Line#:1 R.Time:8.0(Scan#:476)
MassPeaks:338
RawMode:Averaged 8.0-8.0(475-477) BasePeak:80(349908)
BG Mode:Calc. from Peak



Line#:2 R.Time:10.3(Scan#:759)
MassPeaks:337
RawMode:Averaged 10.3-10.3(758-760) BasePeak:92(54690)
BG Mode:Calc. from Peak



Line#:3 R.Time:10.5(Scan#:778)
MassPeaks:313
RawMode:Averaged 10.5-10.5(777-779) BasePeak:79(198777)
BG Mode:Calc. from Peak



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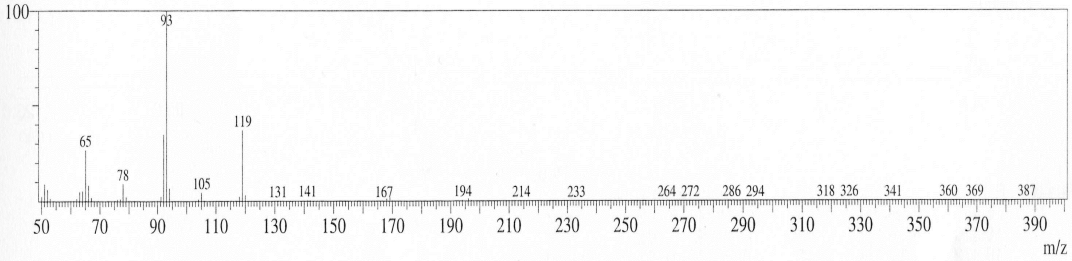
BG Mode:Calc. from Peak



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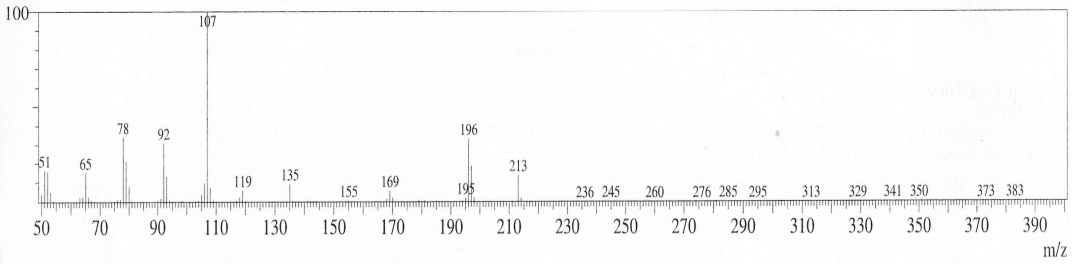
BG Mode:Calc. from Peak



GC-MS Spectra of Entry 14 Table 2

Central Salt and Marine Chemicals Research Institute 9/7/2011 12:31:26

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Sample ID	: RDP 1012
Vial #	: 1
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Method File	: C:\GCMSsolution\Data\Project1\PNBBR.qgm
Report File	:
Tuning File	: C:\GCMSsolution\System\Tune1\tuning_191010_EI.qgt

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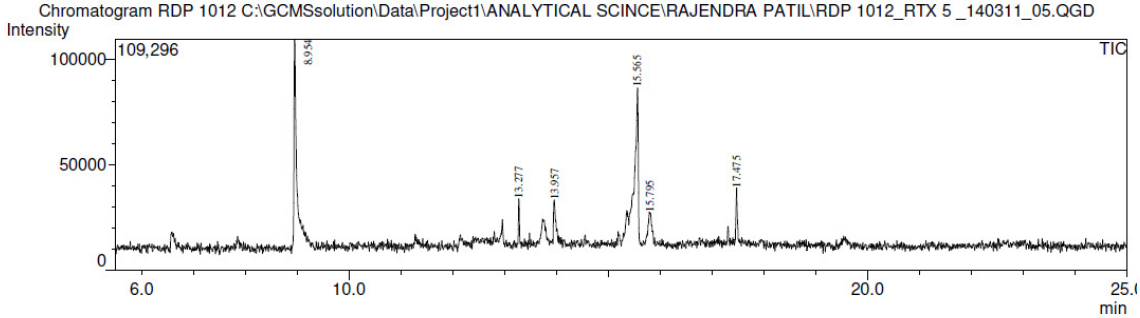

Peak Report TIC

Peak#	R.Time	Area	Area%	Height	Height%	Name
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2	8.954	322120	33.45	97264	32.56	Imine
3	13.277	26710	2.77	21699	7.26	
4	13.957	54081	5.62	20651	6.91	
5	15.565	348282	36.16	72104	24.14	
6	15.795	39252	4.08	10962	3.67	
7	17.475	43335	4.50	25339	8.48	
		963102	100.00	298707	100.00	

Spectrum

Line#:1 R.Time:3.5(Scan#:171)
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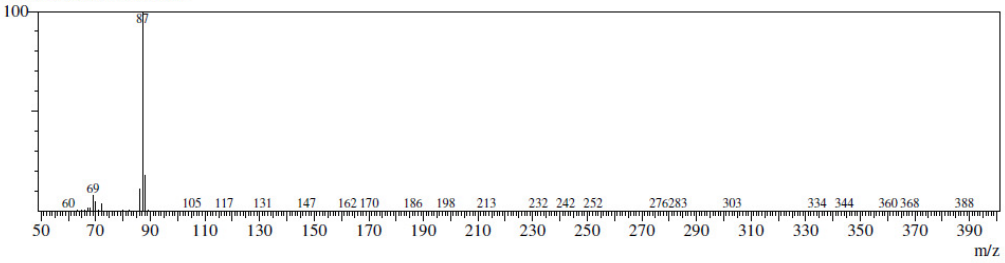
BG Mode:Calc. from Peak



Line#:2 R.Time:9.0(Scan#:823)
MassPeaks:283
RawMode:Averaged 8.9-9.0(822-824) BasePeak:98(41023)
BG Mode:Calc. from Peak