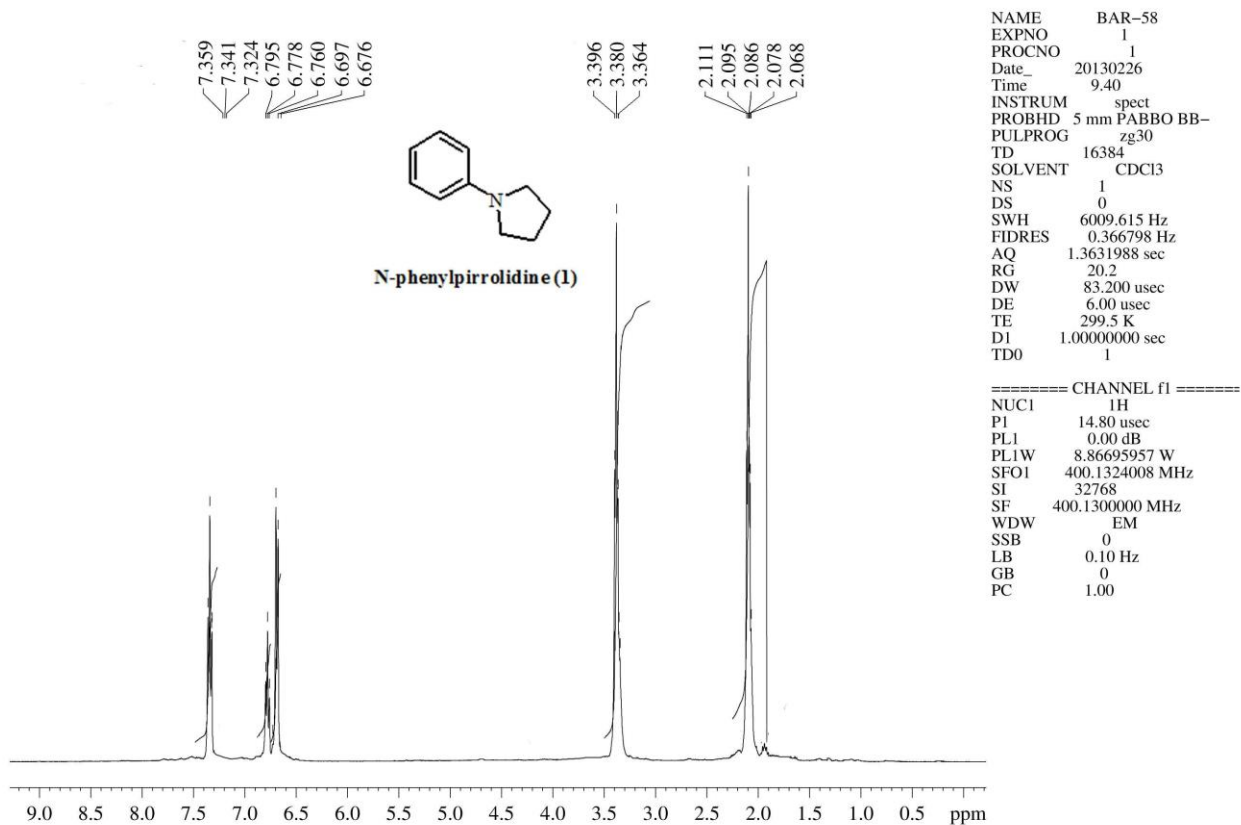


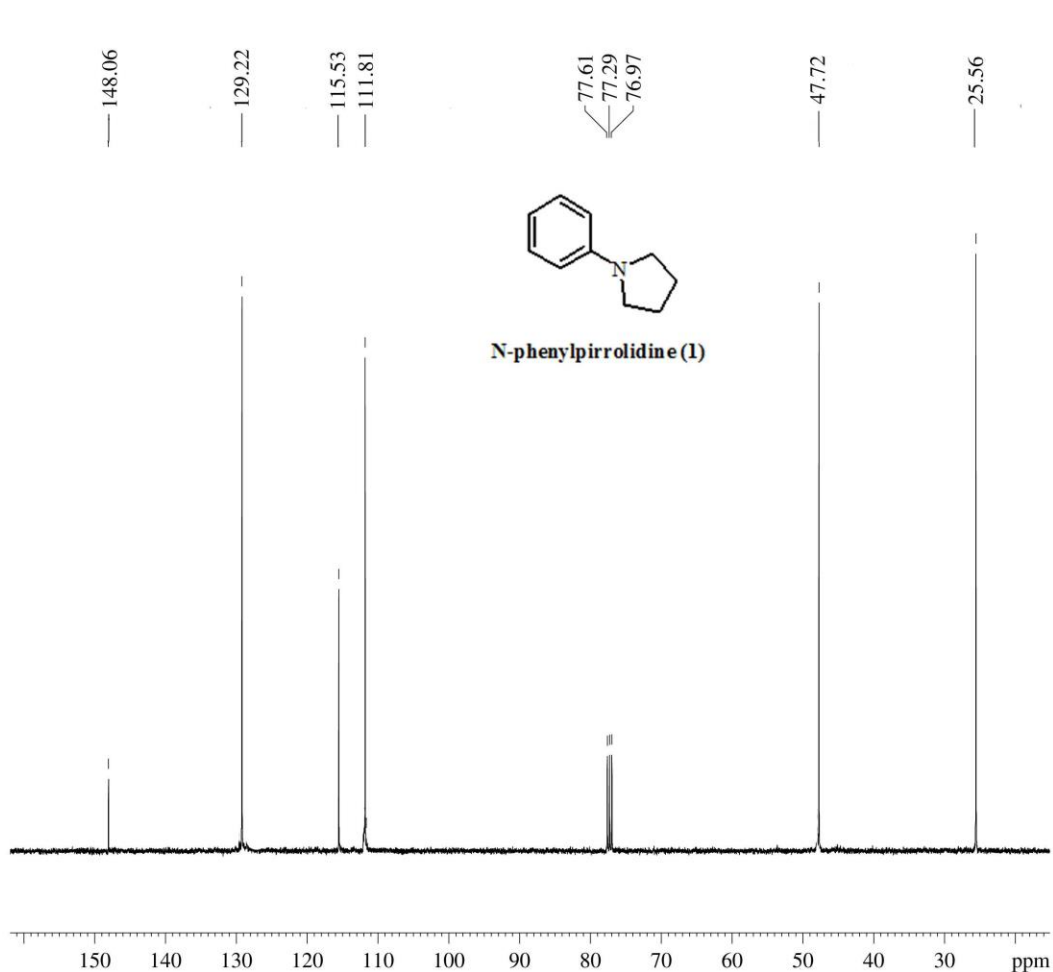
Synthesis of N-aryl-substituted pyrrolidines and piperidines by reaction of anilines with α,ω -diols catalyzed by $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$ in carbon tetrachloride

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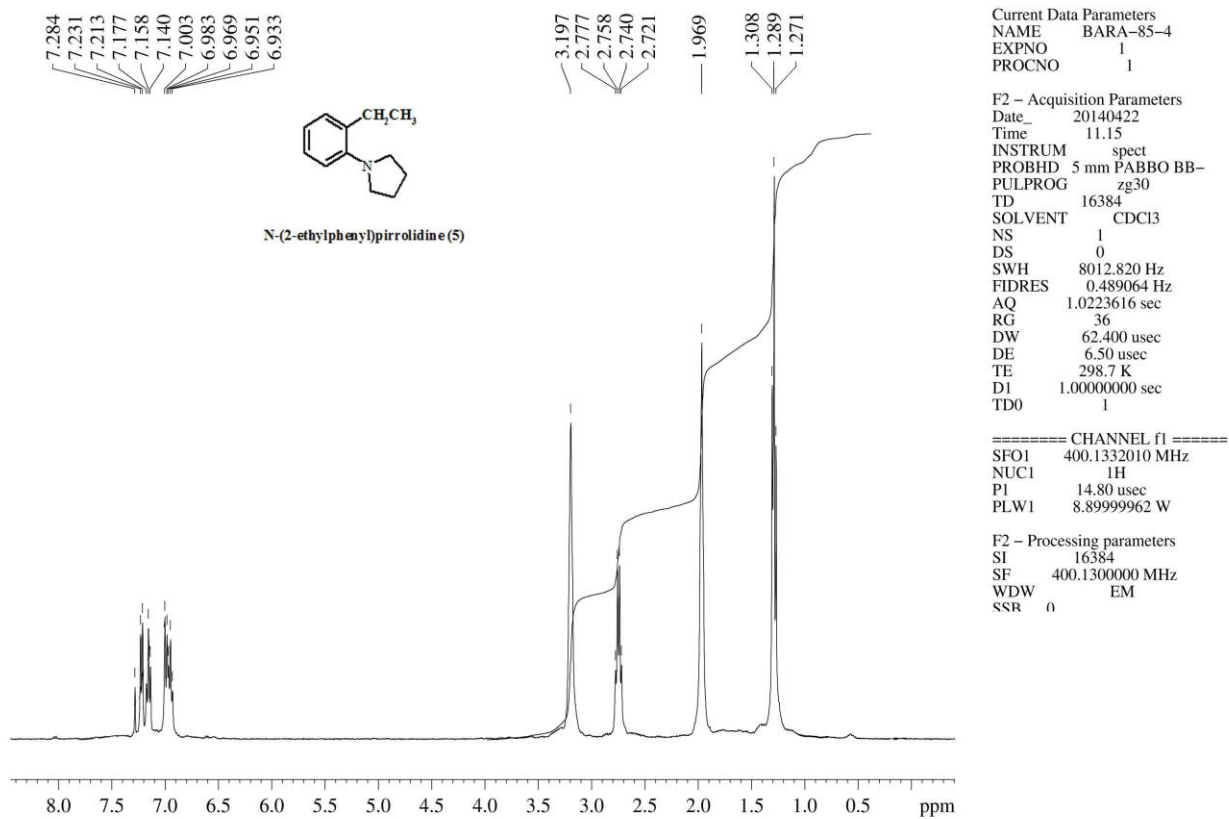
NAME      BAR-58
EXPNO     2
PROCNO    1
Date_     20130226
Time      9.45
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         115
DS         2
SWH        25252.525 Hz
FIDRES     0.770646 Hz
AQ         0.6488564 sec
RG         2050
DW         19.800 usec
DE         6.00 usec
TE         300.0 K
D1         1.00000000 sec
D11        0.03000000 sec
TD0        8
    
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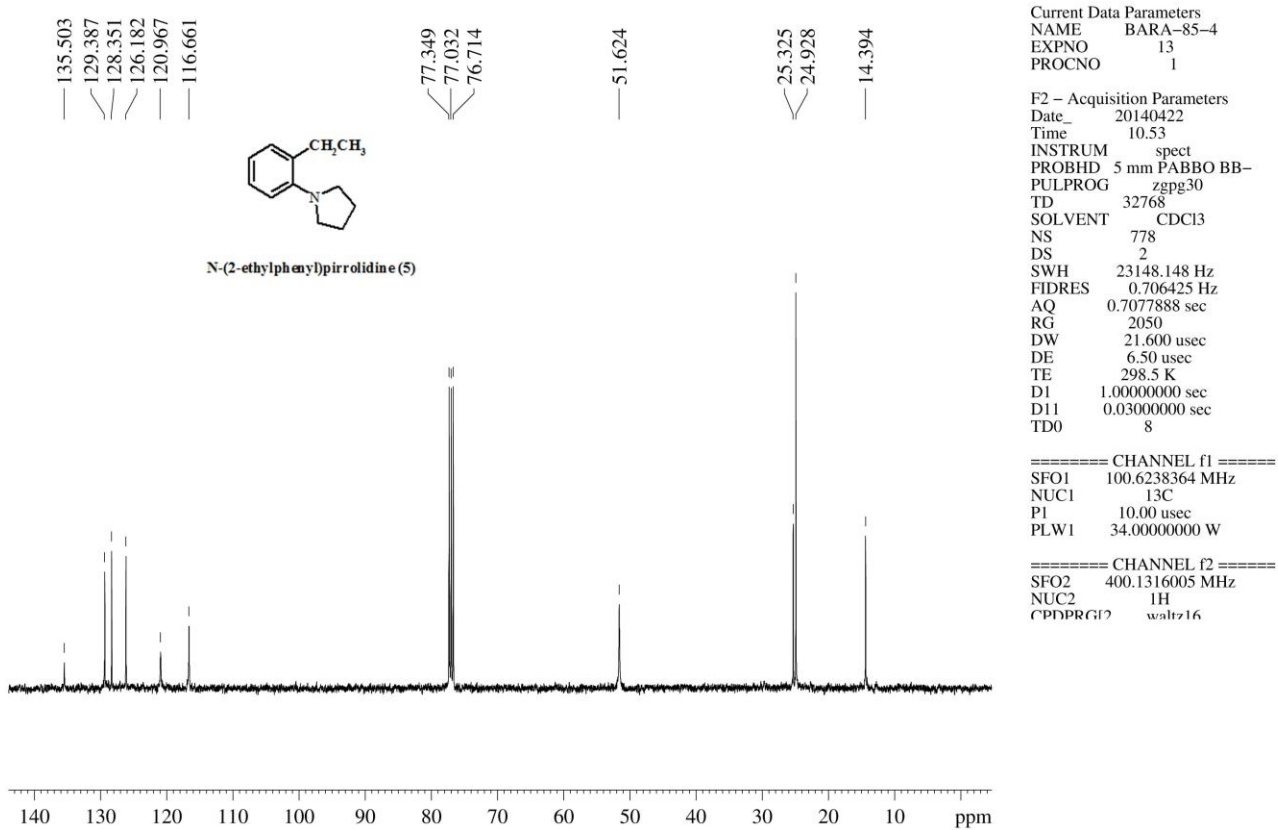
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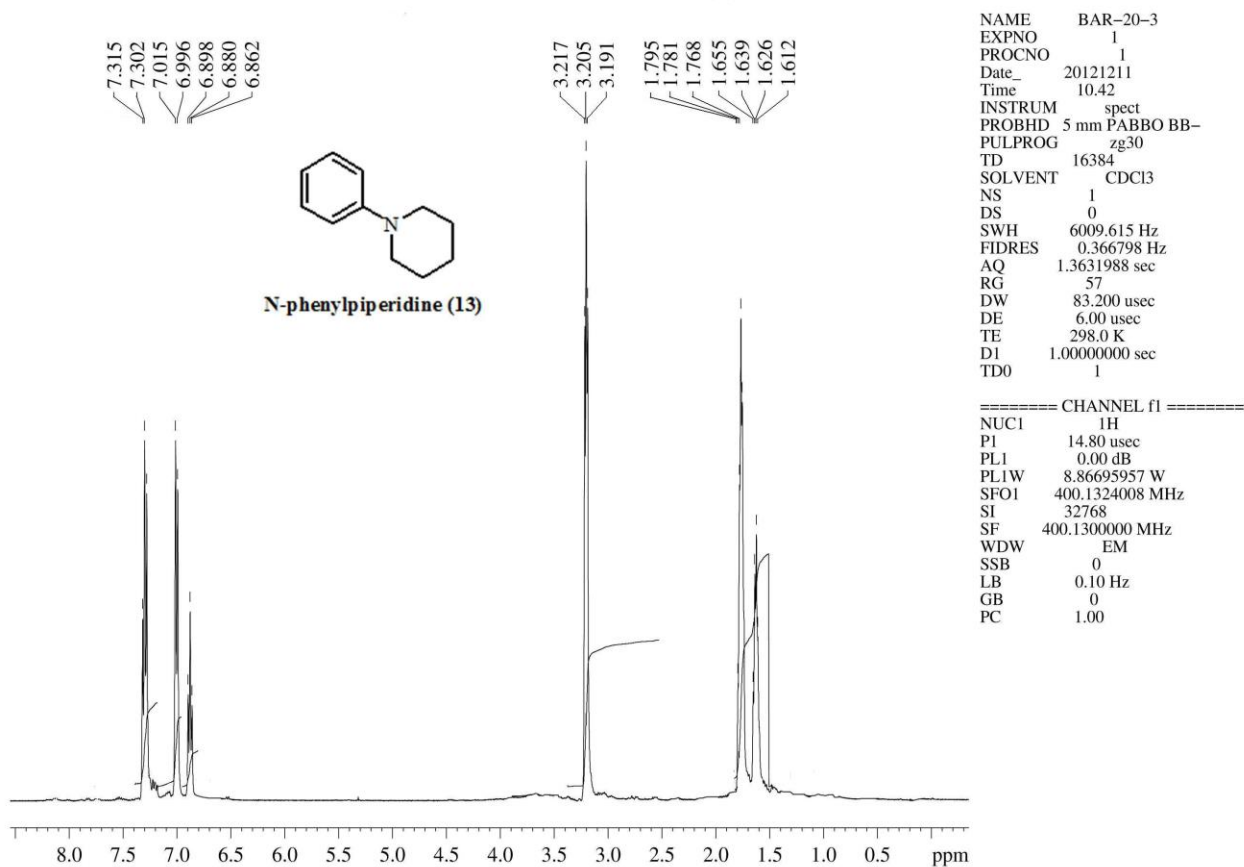
===== CHANNEL f1 =====
NUC1      13C
P1         10.00 usec
PL1        0.00 dB
PL1W       33.91046524 W
SFO1      100.6248425 MHz
    
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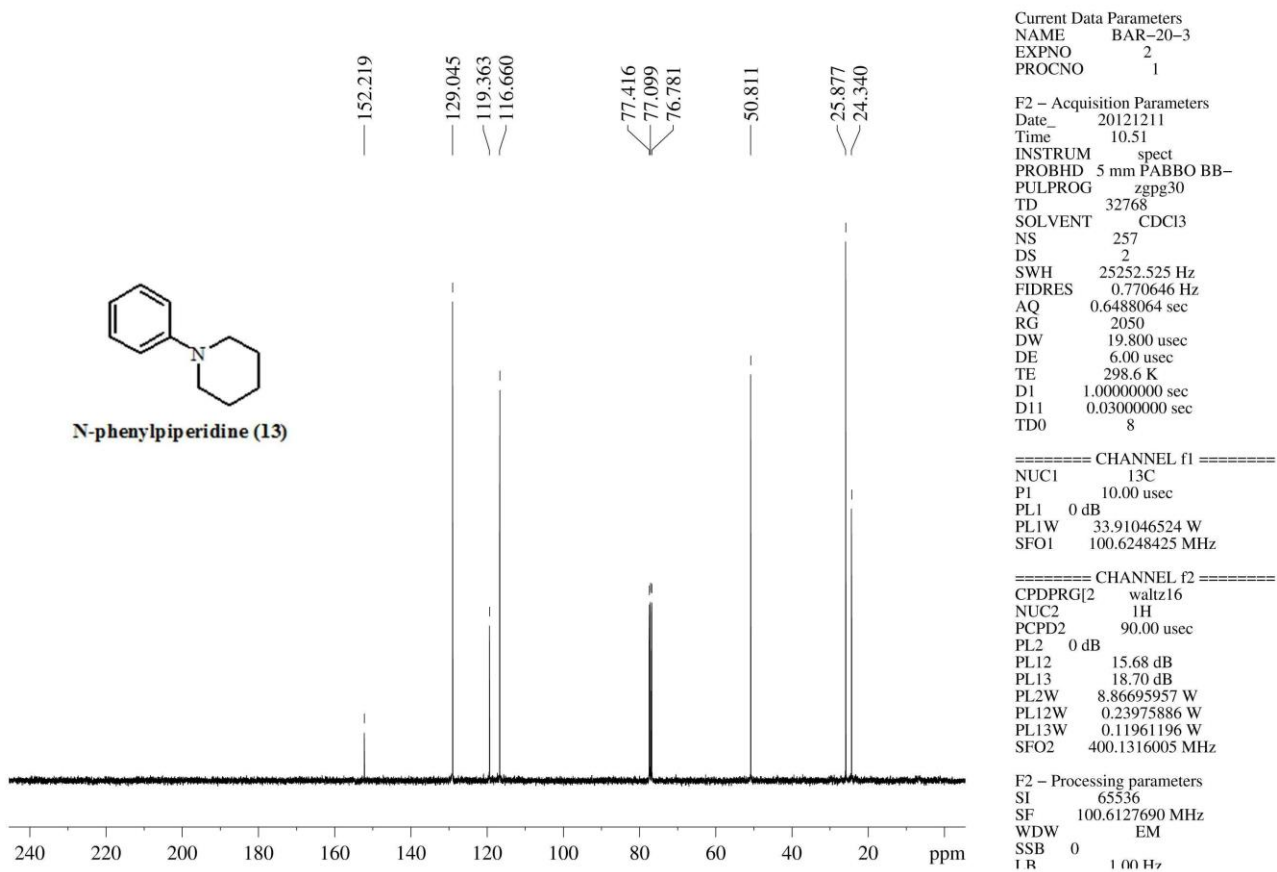
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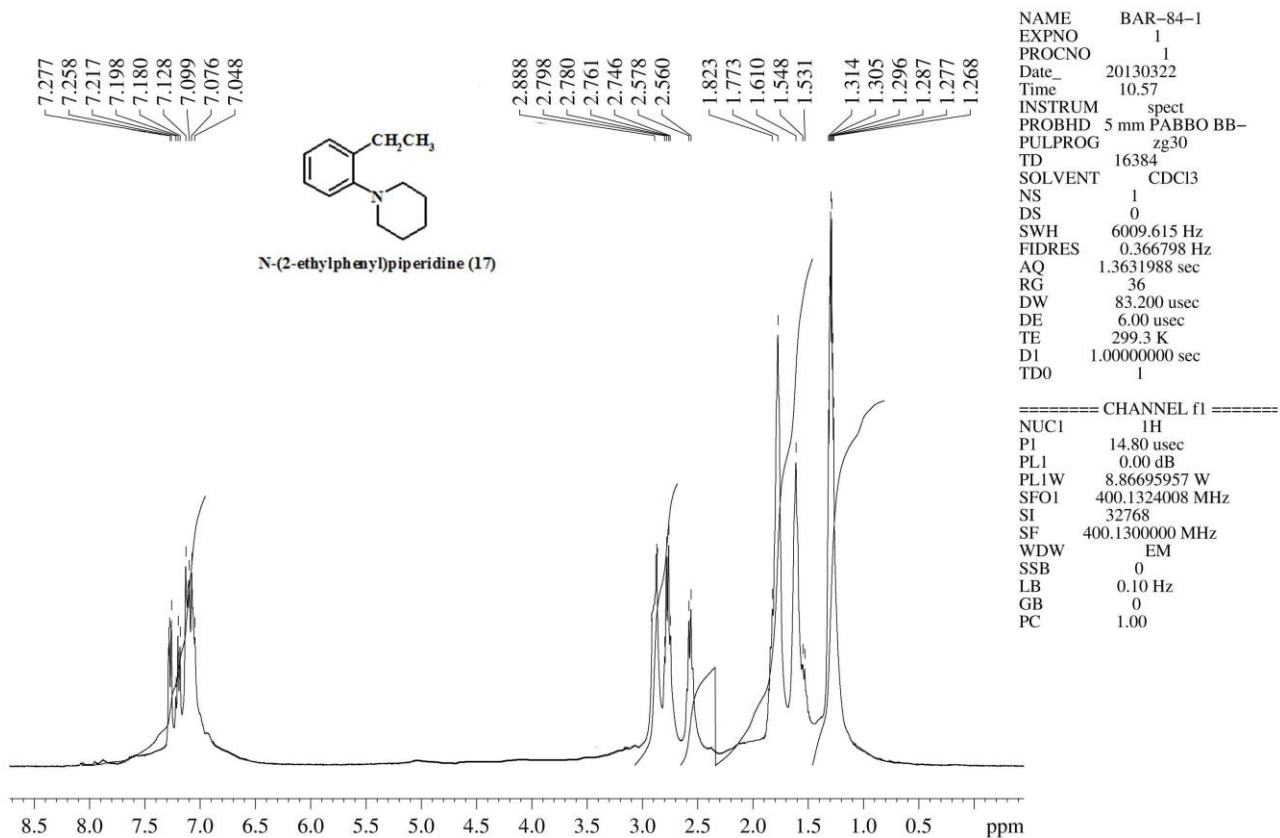
===== CHANNEL f2 =====
CPDPRG2   waltz16
NUC2       1H
PCPD2     90.00 usec
PL2        0.00 dB
PL12       15.68 dB
PL13       18.70 dB
PL2W       8.86695957 W
PL12W      0.23975886 W
PL13W      0.11961196 W
SFO2      400.1316005 MHz
SI         65536
SF         100.6127690 MHz
WDW        EM
SSB         0
LB          1.00 Hz
GB          0
PC          1.40
    
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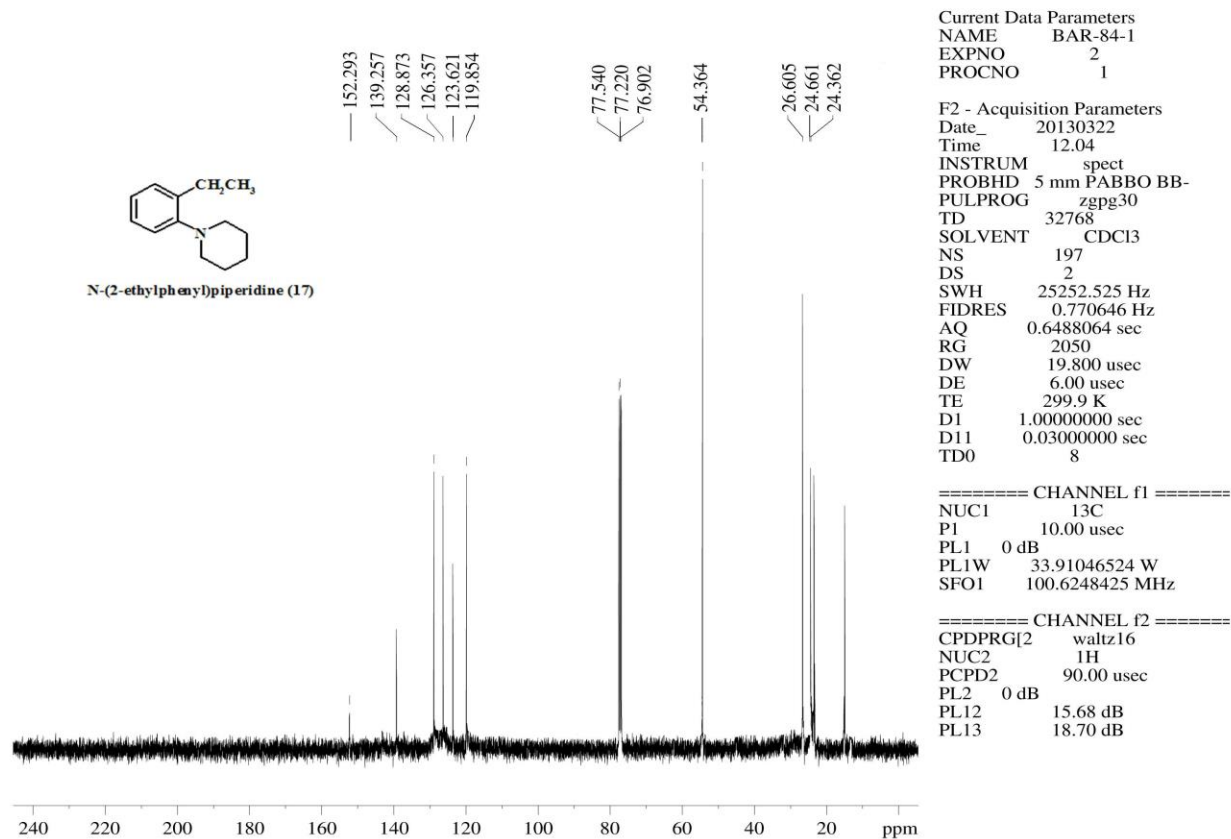


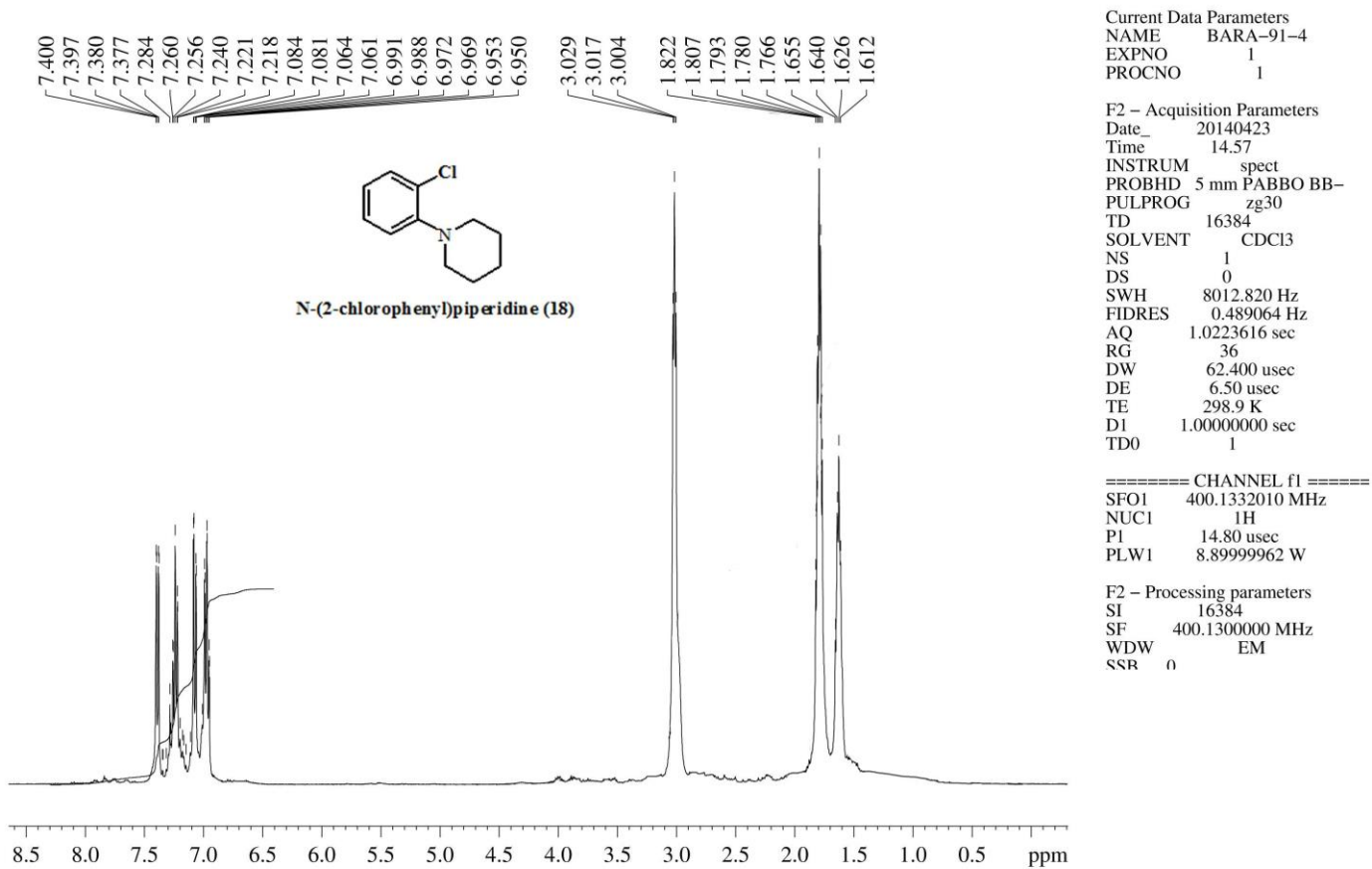


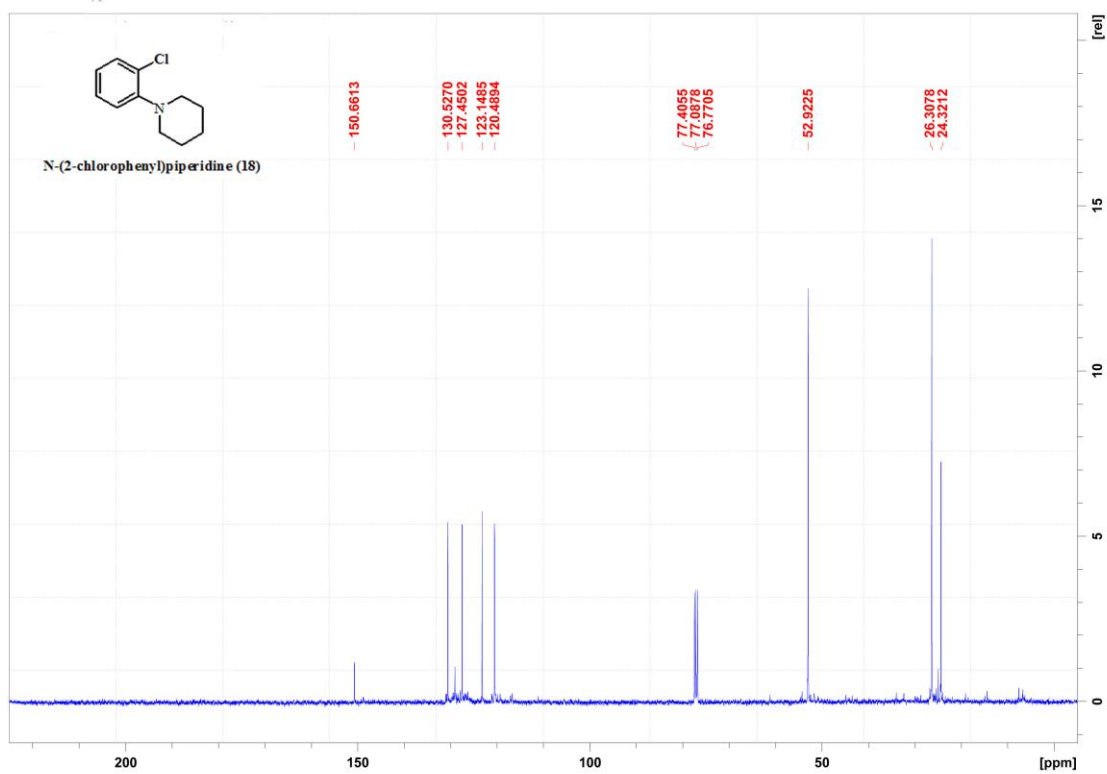


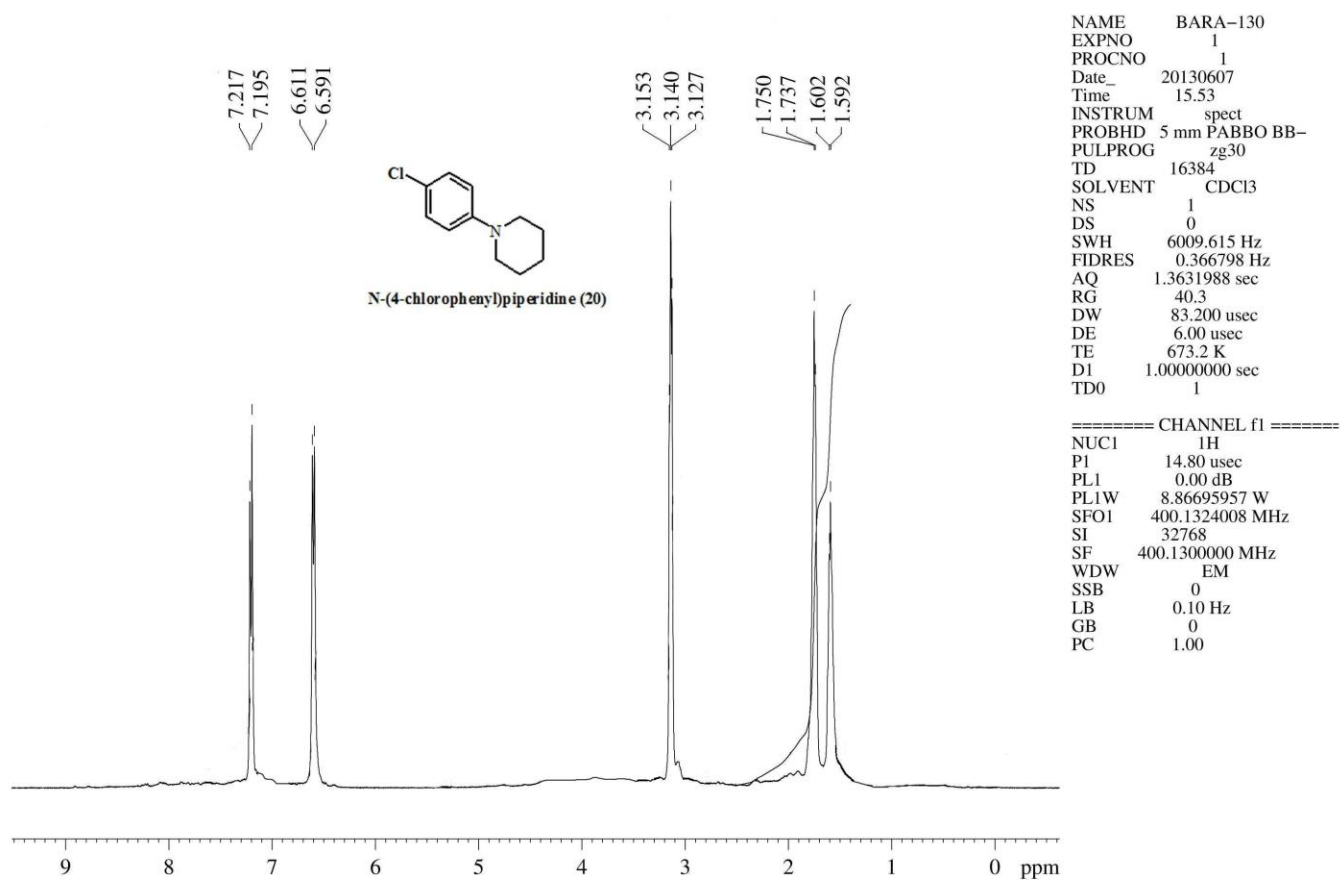


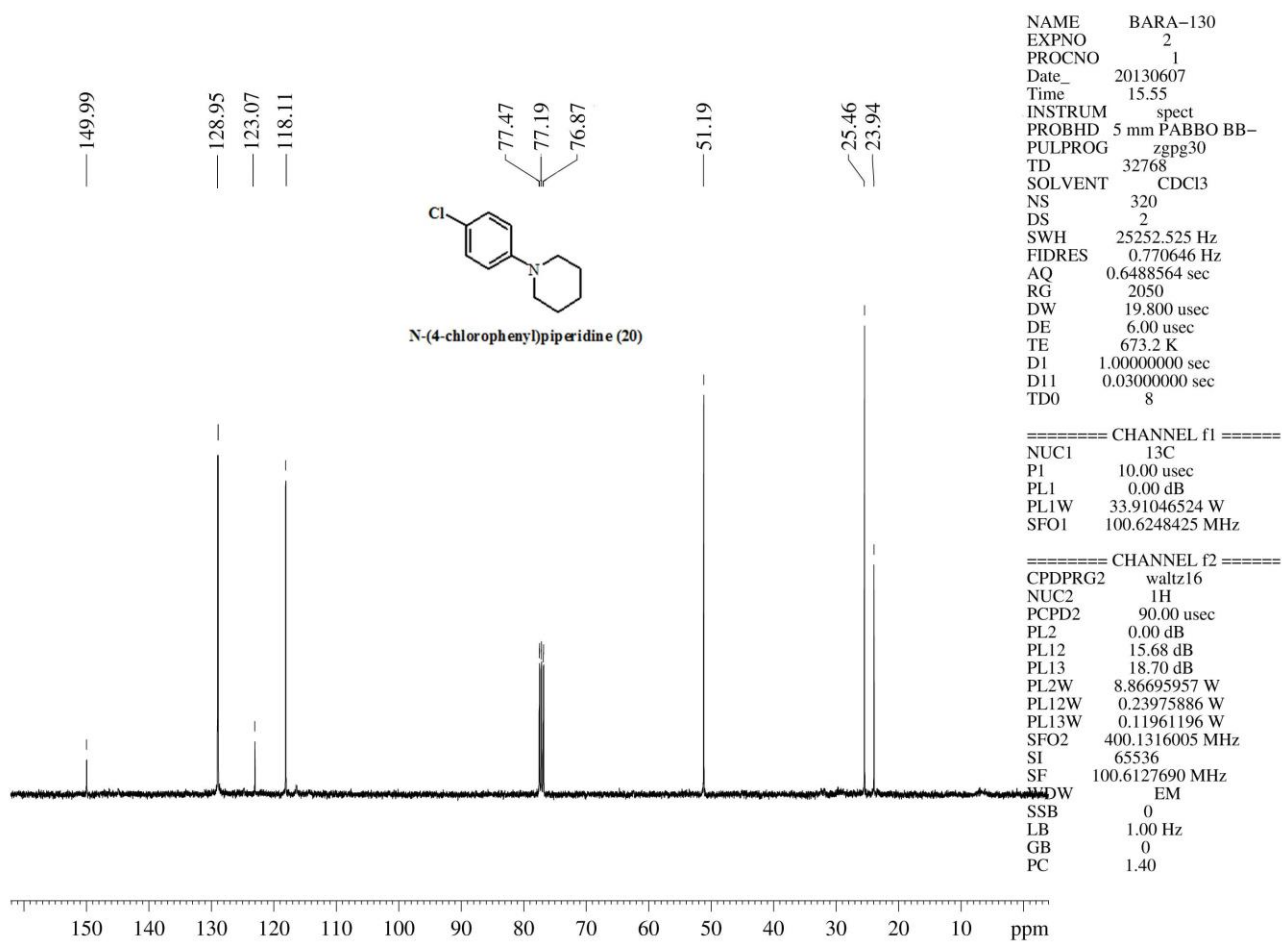


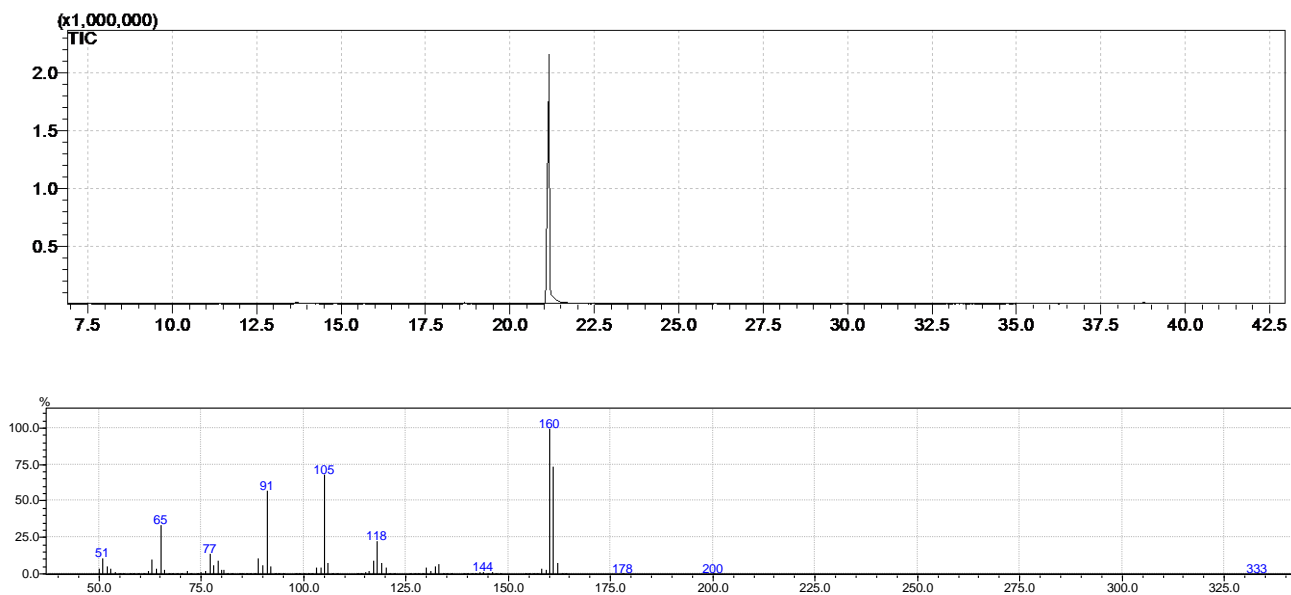
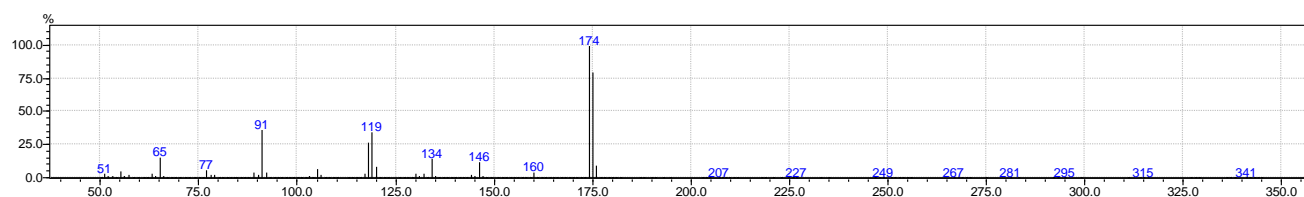
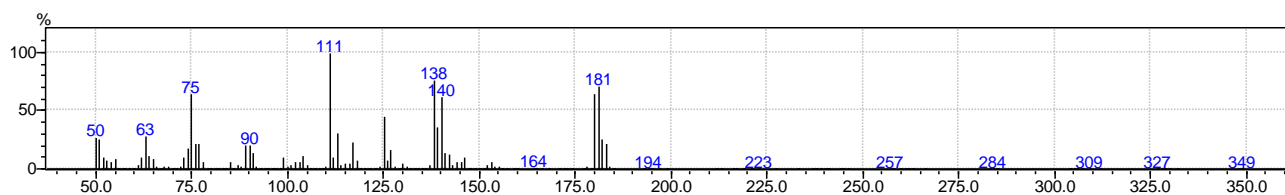
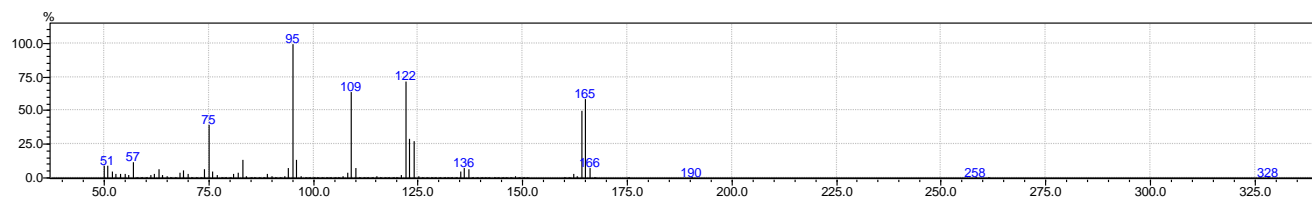


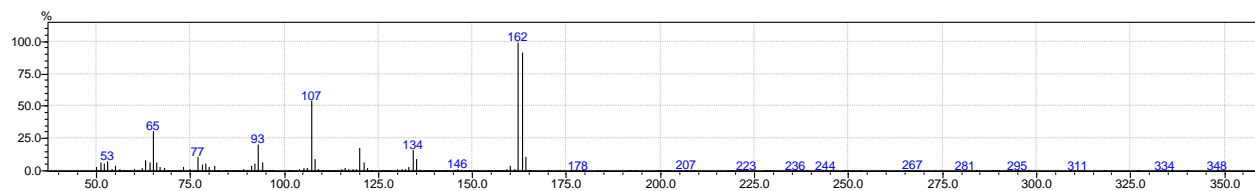
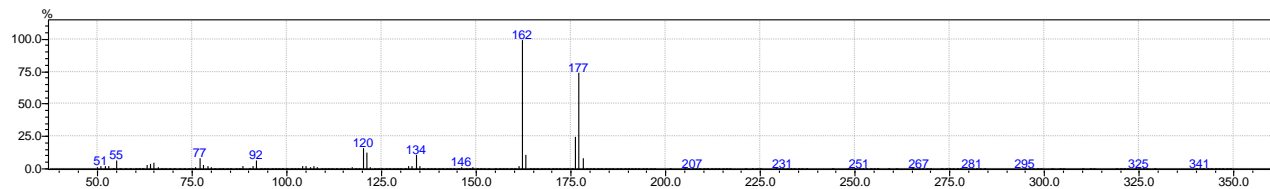
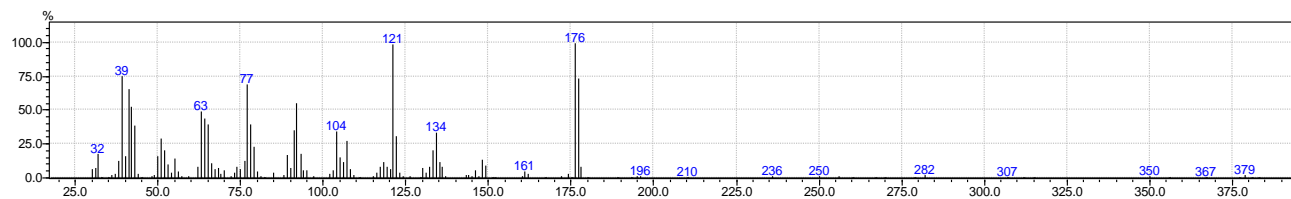
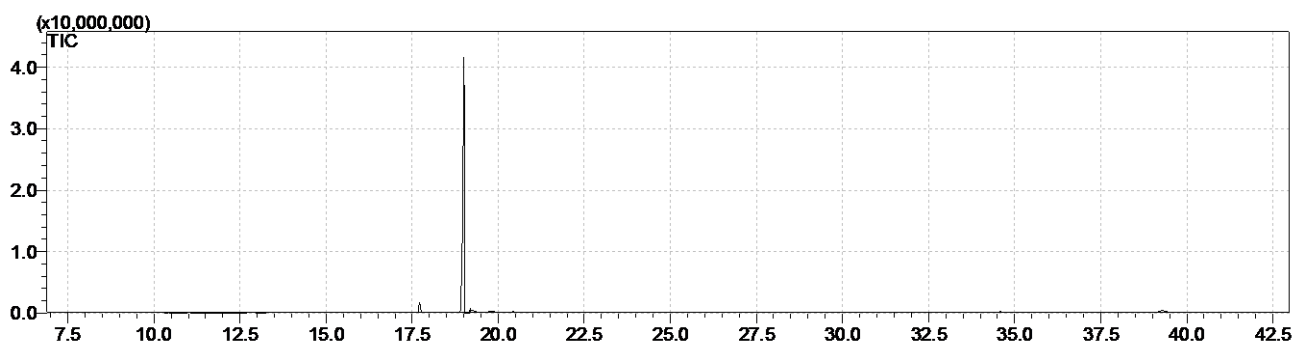


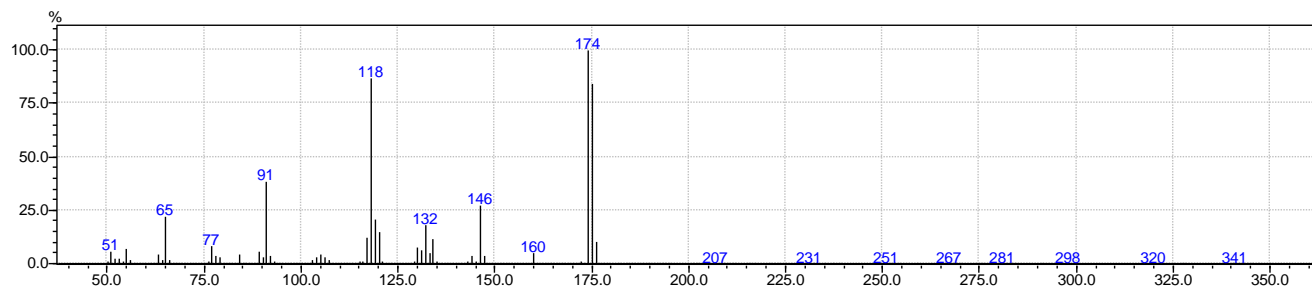
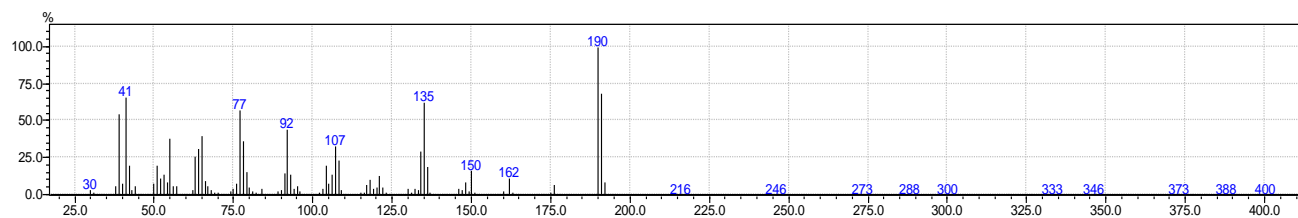
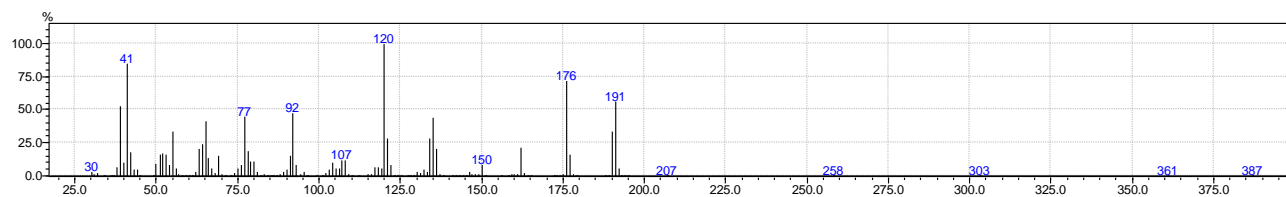






N-(3-methylphenyl)pyrrolidine (3)**N-(2-ethylphenyl)pyrrolidine (5)****N-(4-chlorophenyl)pyrrolidine (8)****N-(4-fluorophenyl)pyrrolidine (9)**

N-(3-hydroxyphenyl)pyrrolidine (10)**N-(4-methoxyphenyl)pyrrolidine (12)****N-(3-methoxyphenyl)pyrrolidine (11)****N-(2-methylphenyl)piperidine (14)**

**N-(3-methoxyphenyl)piperidine (23)****N-(4-methoxyphenyl)piperidine (24)****N-(3-hydroxyphenyl)piperidine (22)**