

## SUPPORTING INFORMATION

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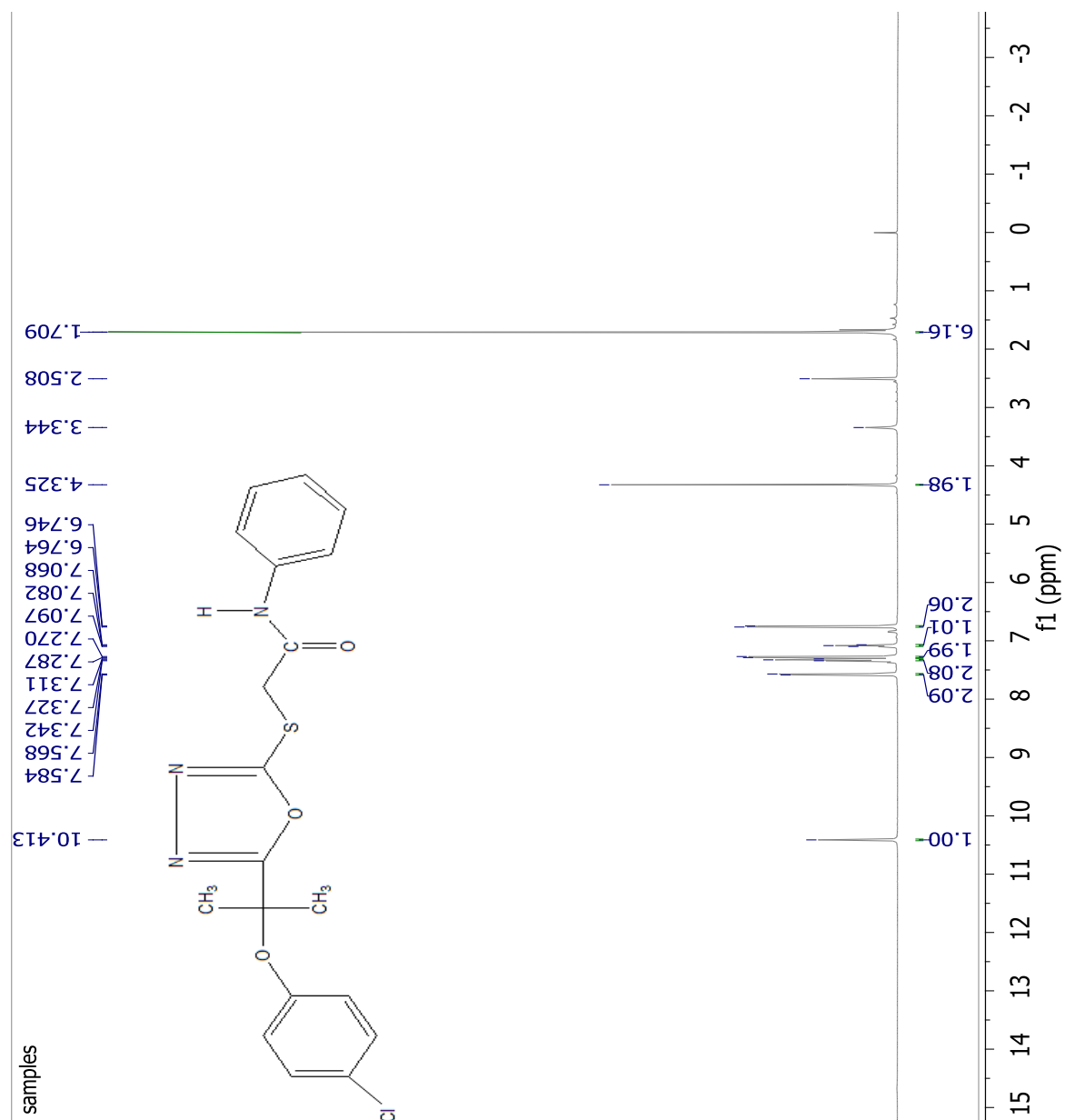


Figure-S1: <sup>1</sup>H-NMR spectrum of compound 3a

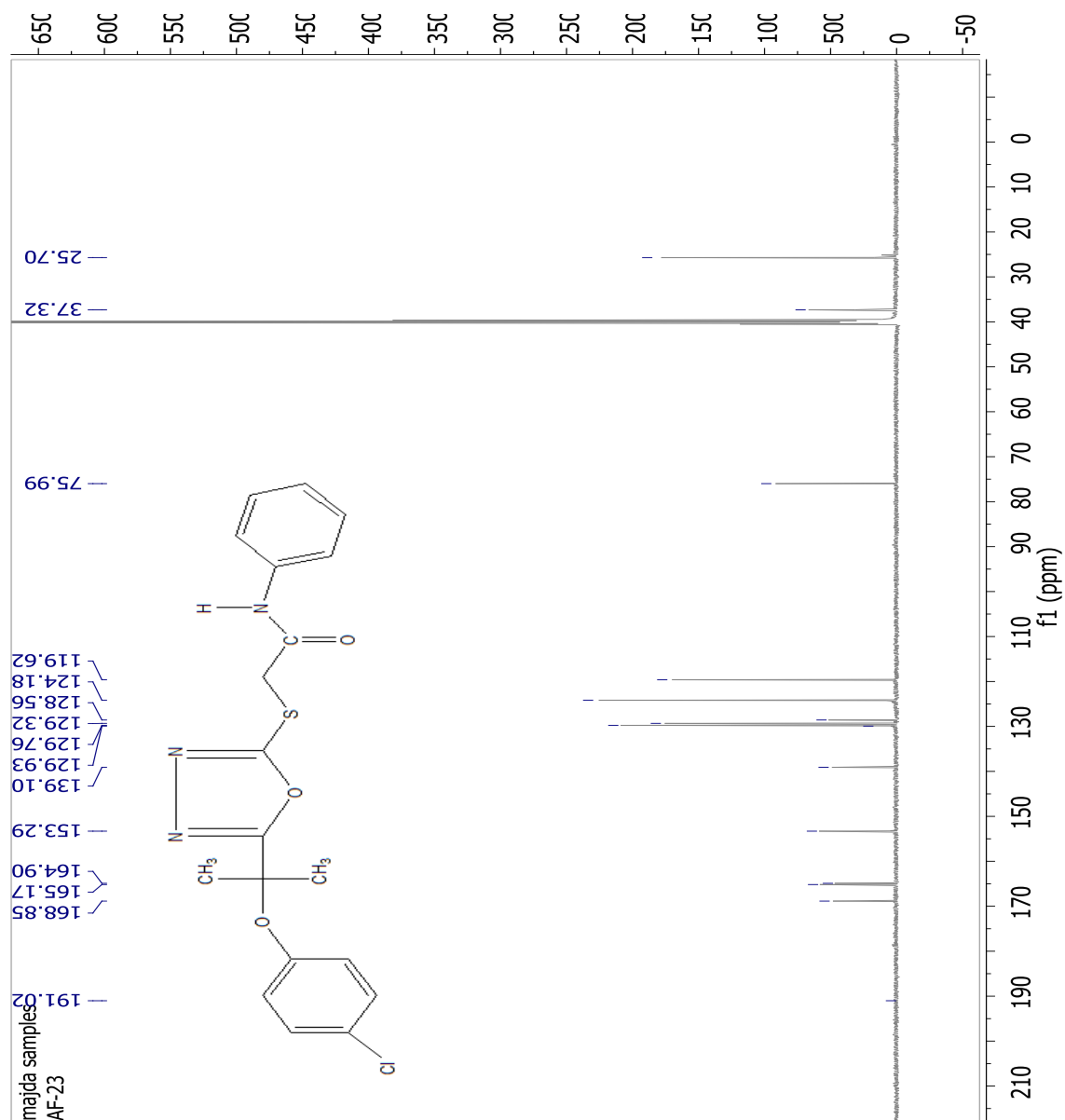


Figure-S2: <sup>13</sup>C-NMR spectrum of compound 3a

Mass Lab (104)  
6/19/2017 1:14:38 PM

File: 28P  
Date Run: 06-19-2017 (Time Run: 13:10:55)  
Sample: MMAJDA BATOOL/INST. OF CHEM /UNL OF PUNJAB LAHORE  
Instrument: JEOL 600 MSRoute  
Inlet: Direct Probe  
Ionization mode: EI+

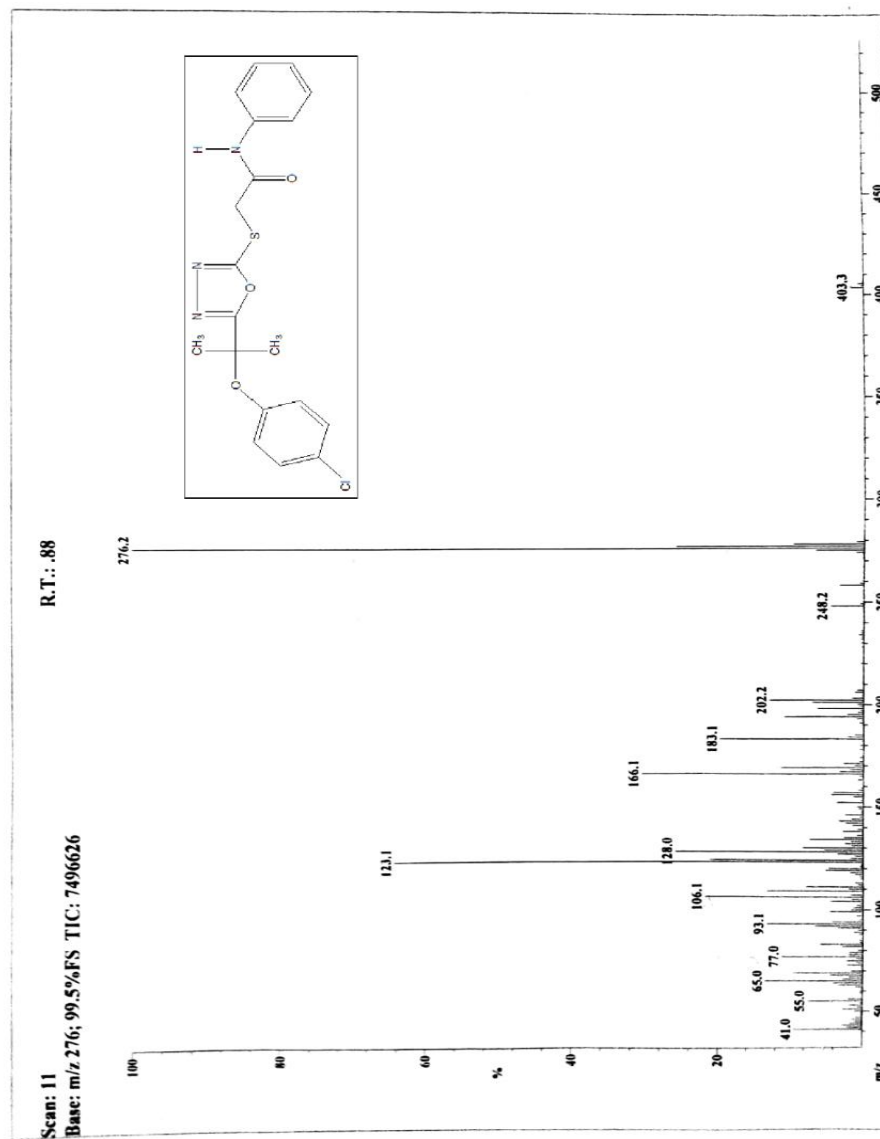


Figure-S3: EI-MS of compound 3a

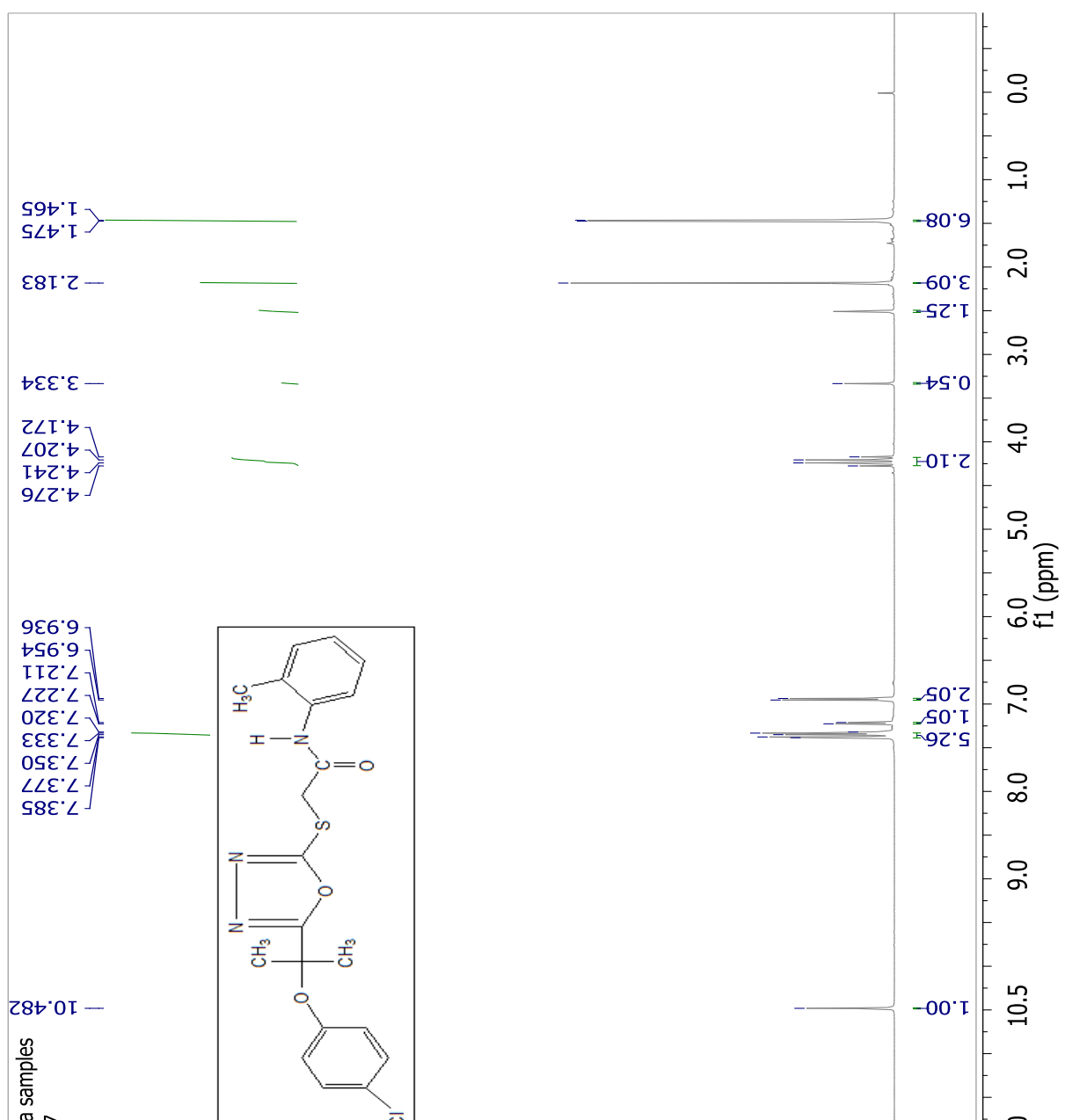


Figure-S4:  $^1\text{H}$ -NMR spectrum of compound 3b

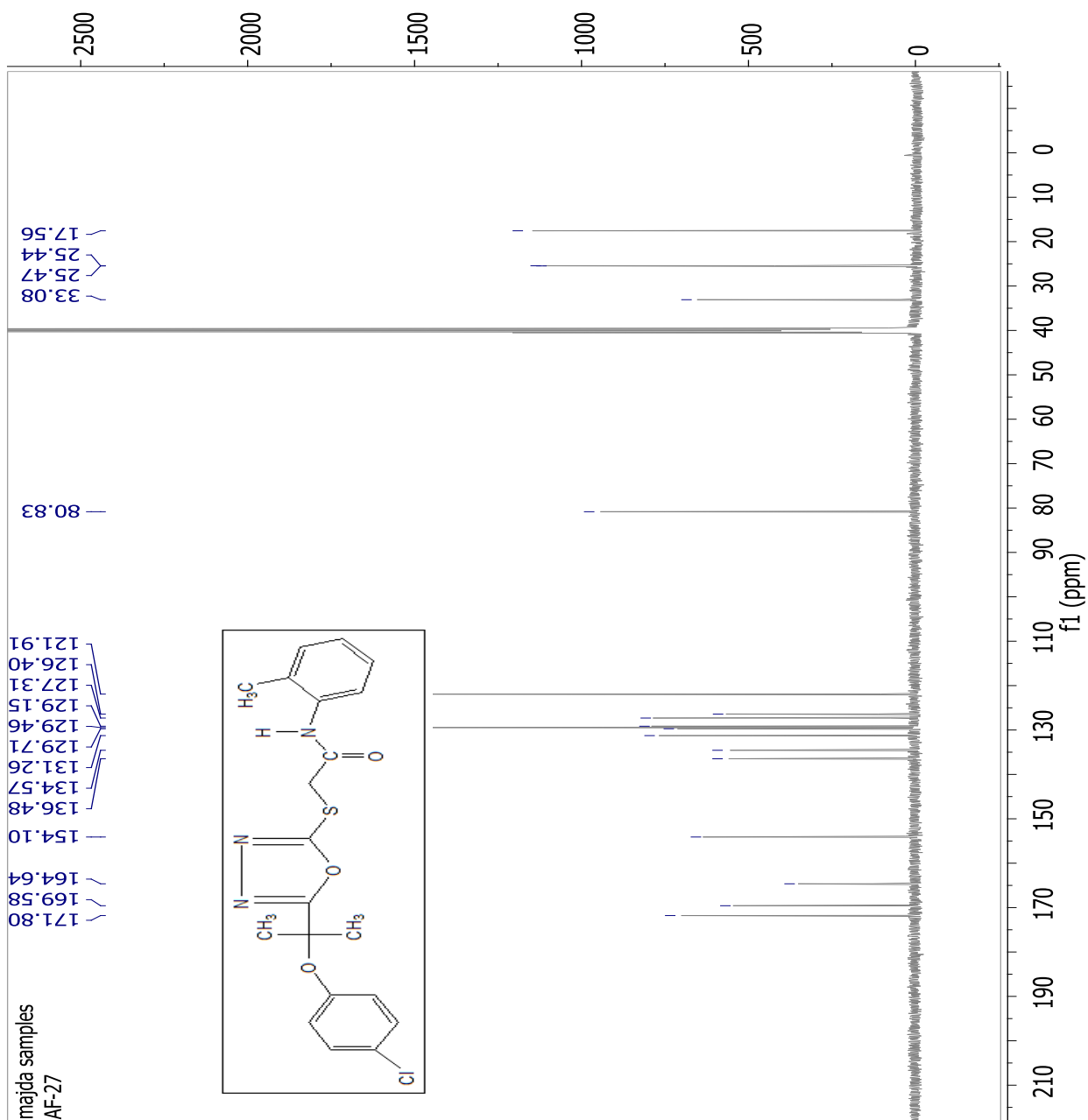


Figure-S5:  $^{13}\text{C}$ -NMR spectrum of compound 3b



Mass Lab (104)  
6/20/2017 10:19:52 AM

File: 41P  
Date Run: 06-20-2017 (Time Run: 10:11:39)  
Sample: MAJDA BATOOL/INST. OF CHEM /UNLOF PUNJAB LAHORE  
Instrument: JEOL 600 MSRoute  
Inlet: Direct Probe  
Ionization mode: EI+

n: 8  
e: m/z 290; 99.5%FS TIC: 8911554

R.T.: .62

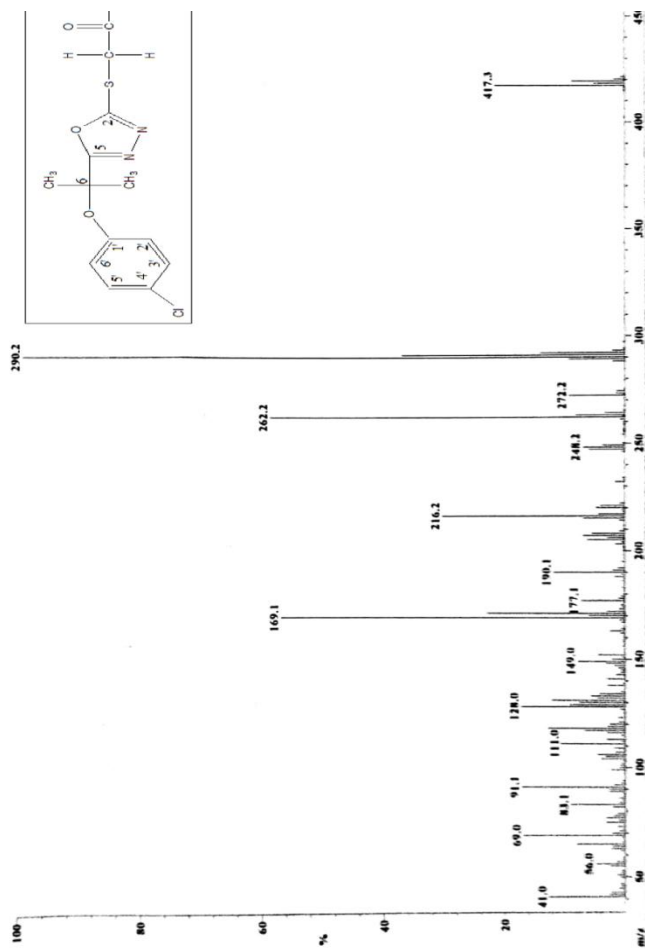


Figure-S6-: EI-MS of compound 3b

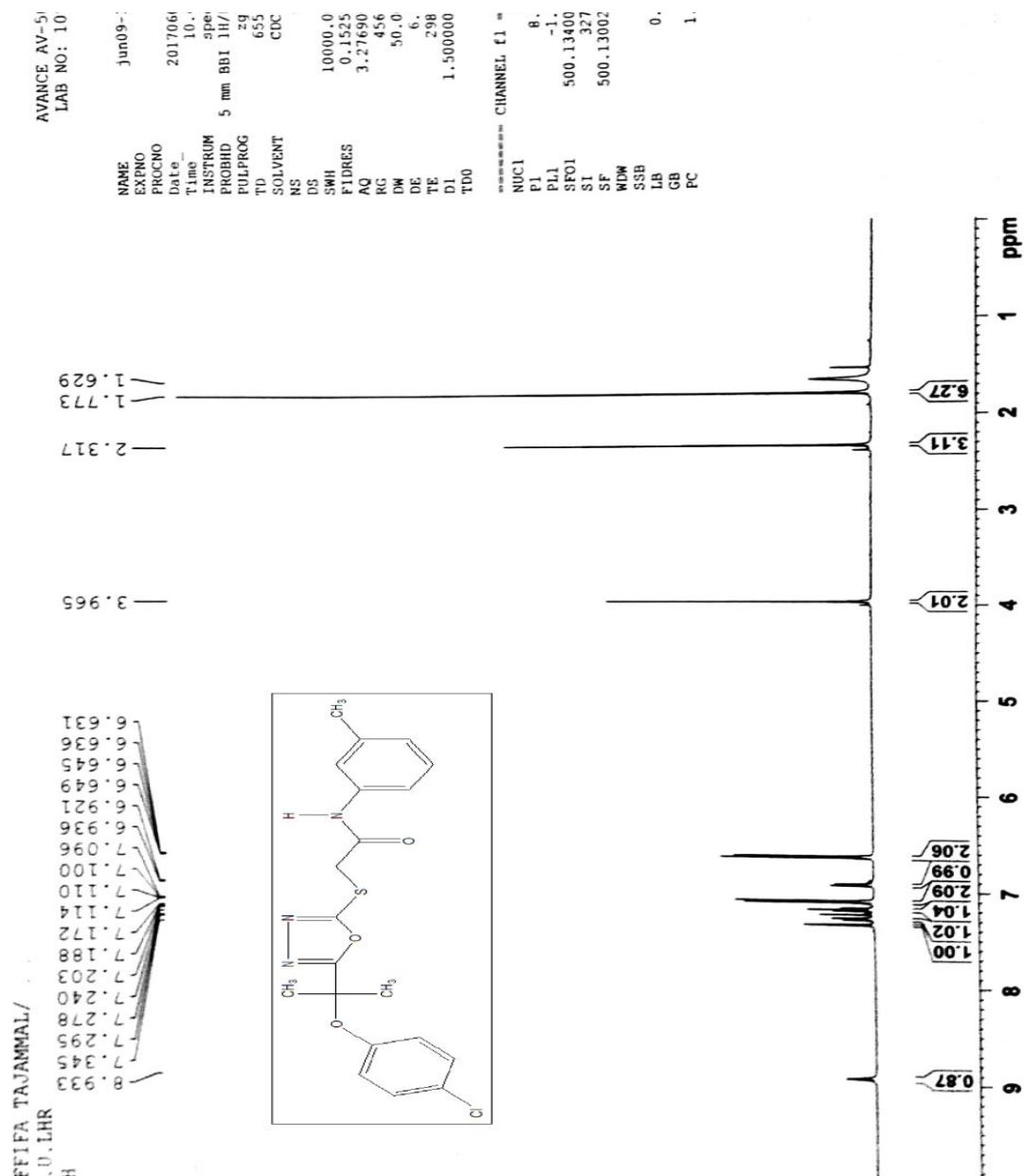


Figure-S7:  $^1\text{H}$ -NMR spectrum of compound 3c

AFFIFA /42P/CH:DEPT:U.O.PUNJAB/BB/

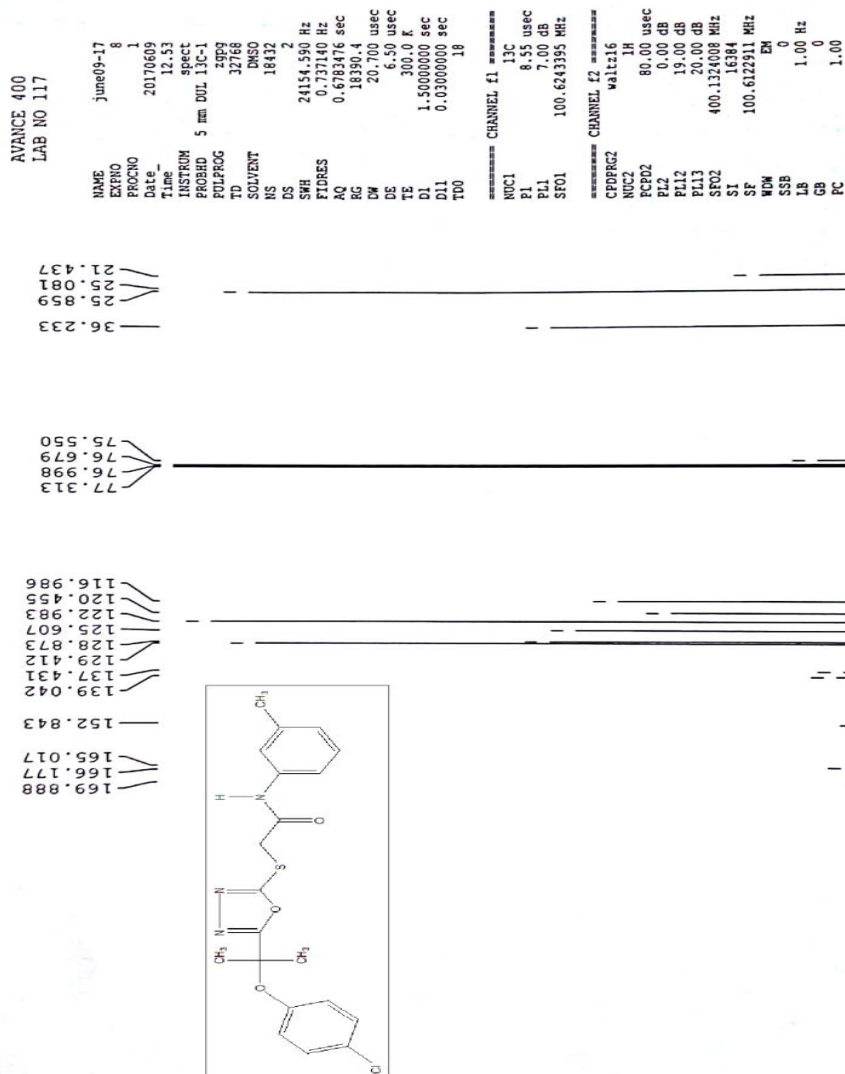


Figure-S8: <sup>13</sup> C-NMR spectrum of compound 3c

File: 42P Date Run: 06-20-2017 (Time Run: 08:53:33)  
Sample: MALDA BATOOL/INST. OF CHEM/UNIOF PUNJAB LAHORE  
Instrument: JEOL 600 MSRoute  
Inlet: Direct Probe  
Ionization mode: ESI

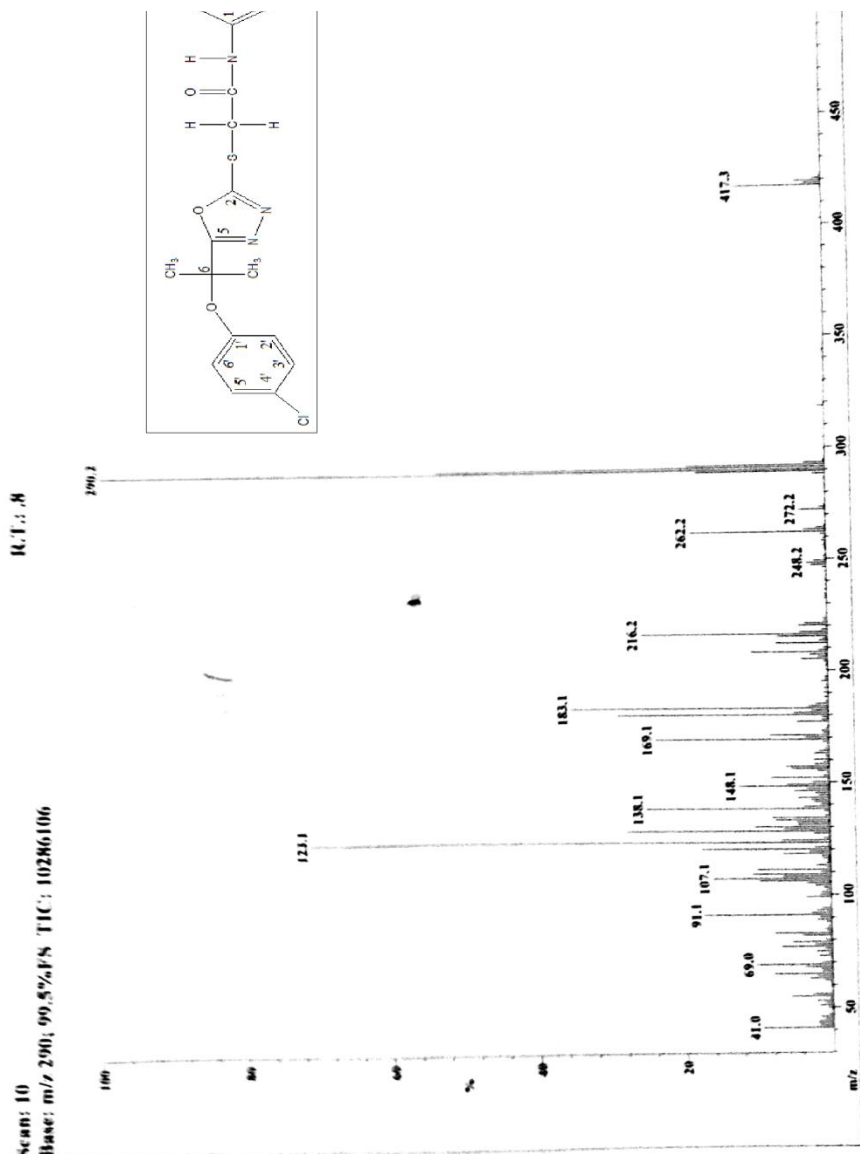


Figure-S9-: EI-MS of compound 3c

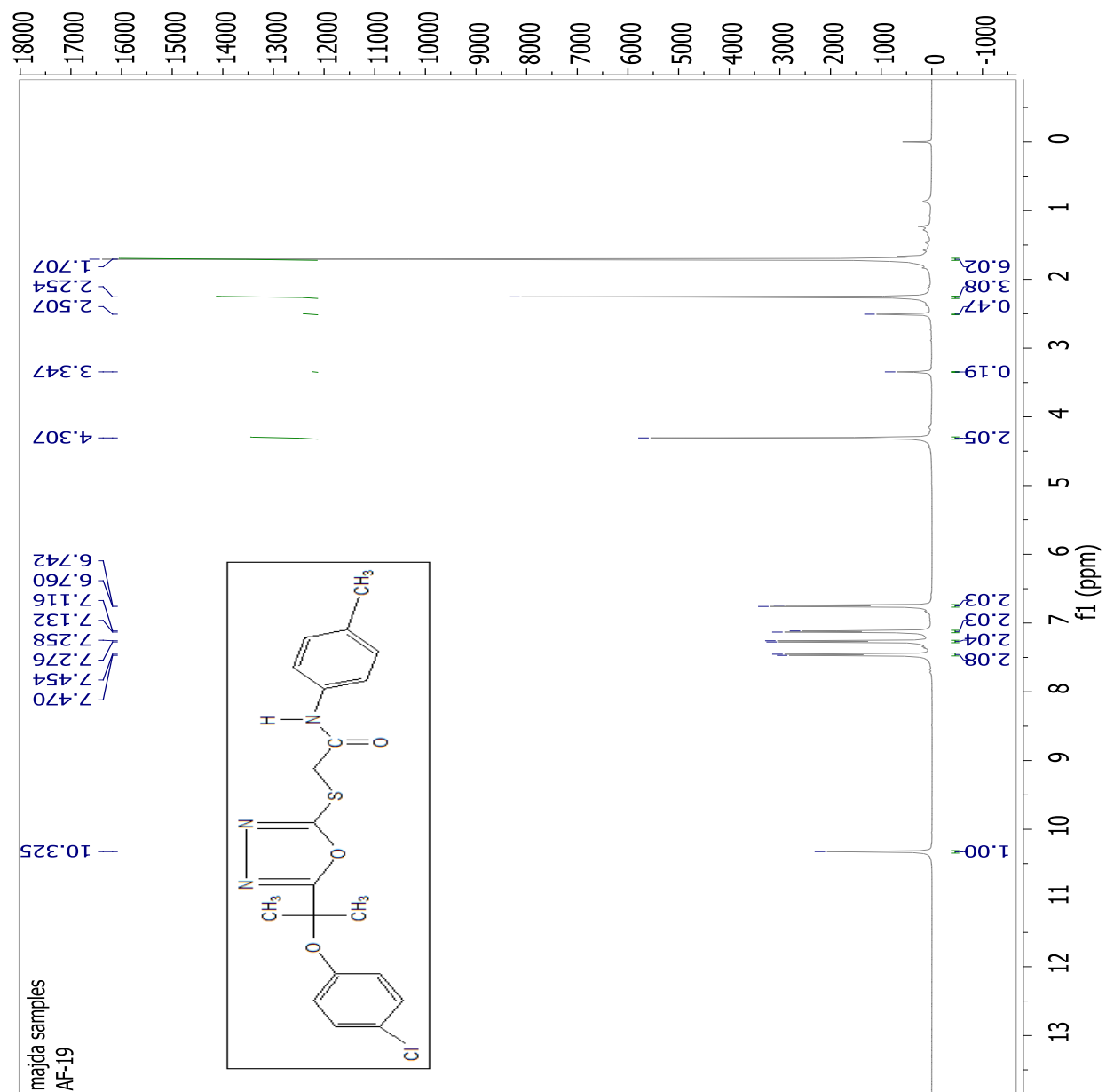


Figure-S10: <sup>1</sup>H-NMR spectrum of compound 3d

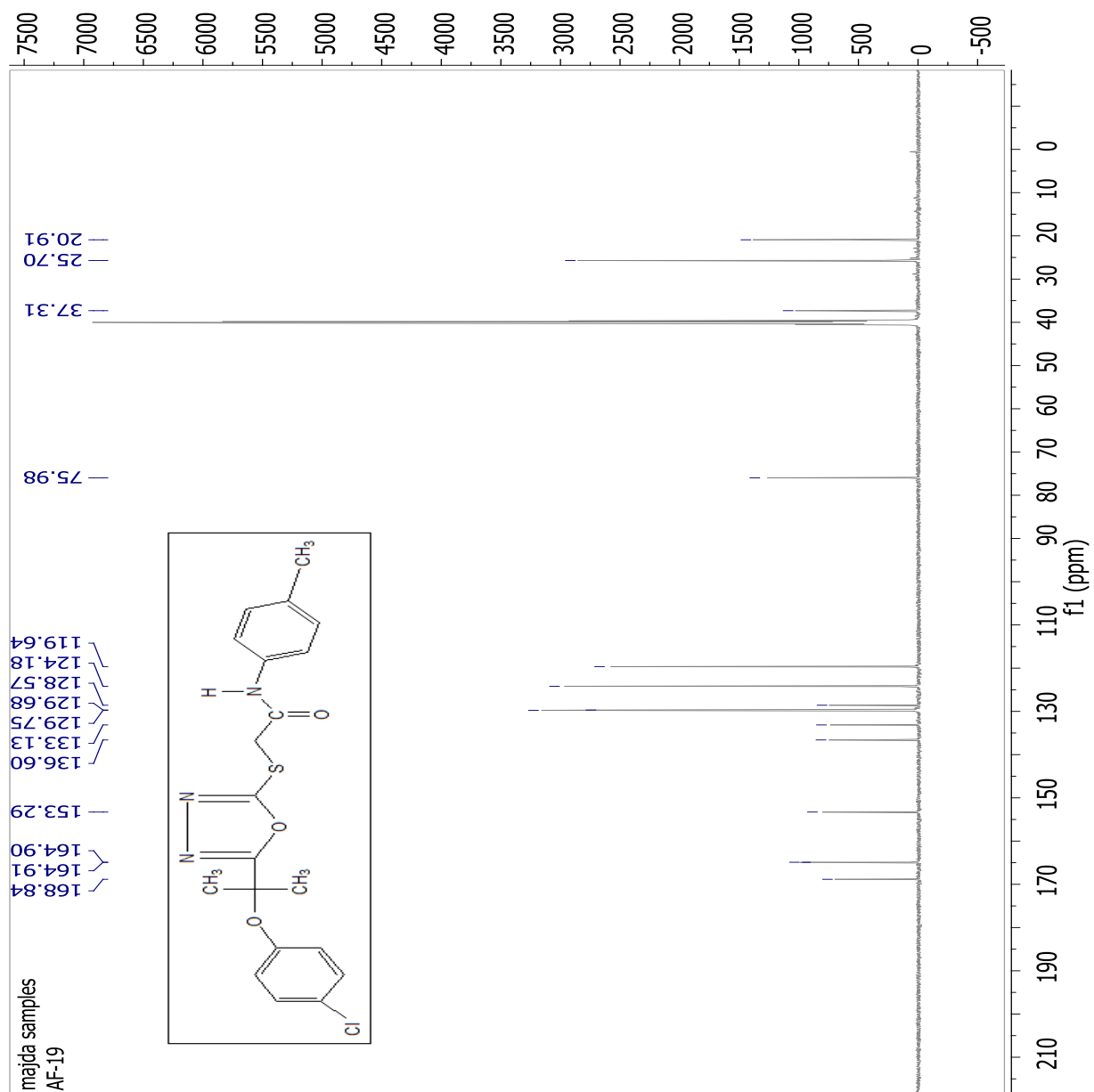


Figure-S11:  $^{13}\text{C}$ -NMR spectrums of compound 3d

File: 10P  
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Sample: MAJIDA BATOOL/INST. OF CHEM/UNIOF PUNJAB LAHORE  
Instrument: JEOL 600 MSRoute  
Inlet: Direct Probe  
Ionization mode: EI+

R.T.: .98

Scan: 12  
Base: m/z 290; 99.5%FS TIC: 6957470

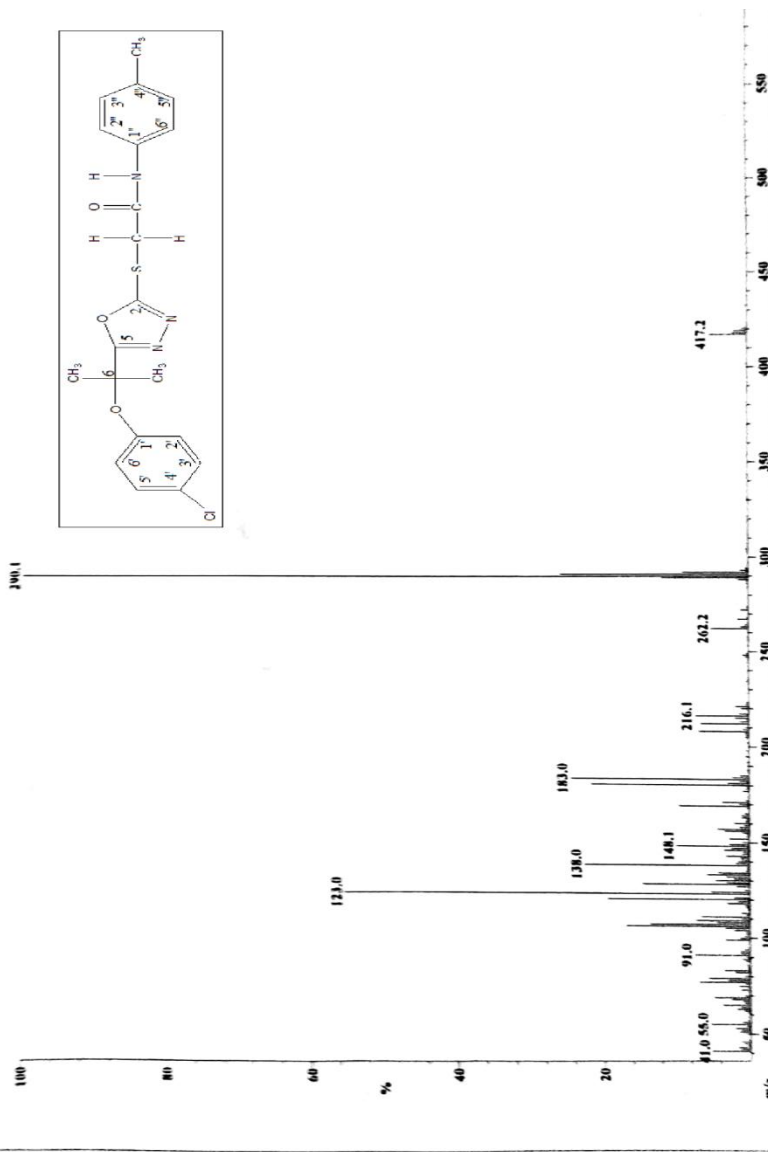


Figure-S12-: EI-MS of compound 3d

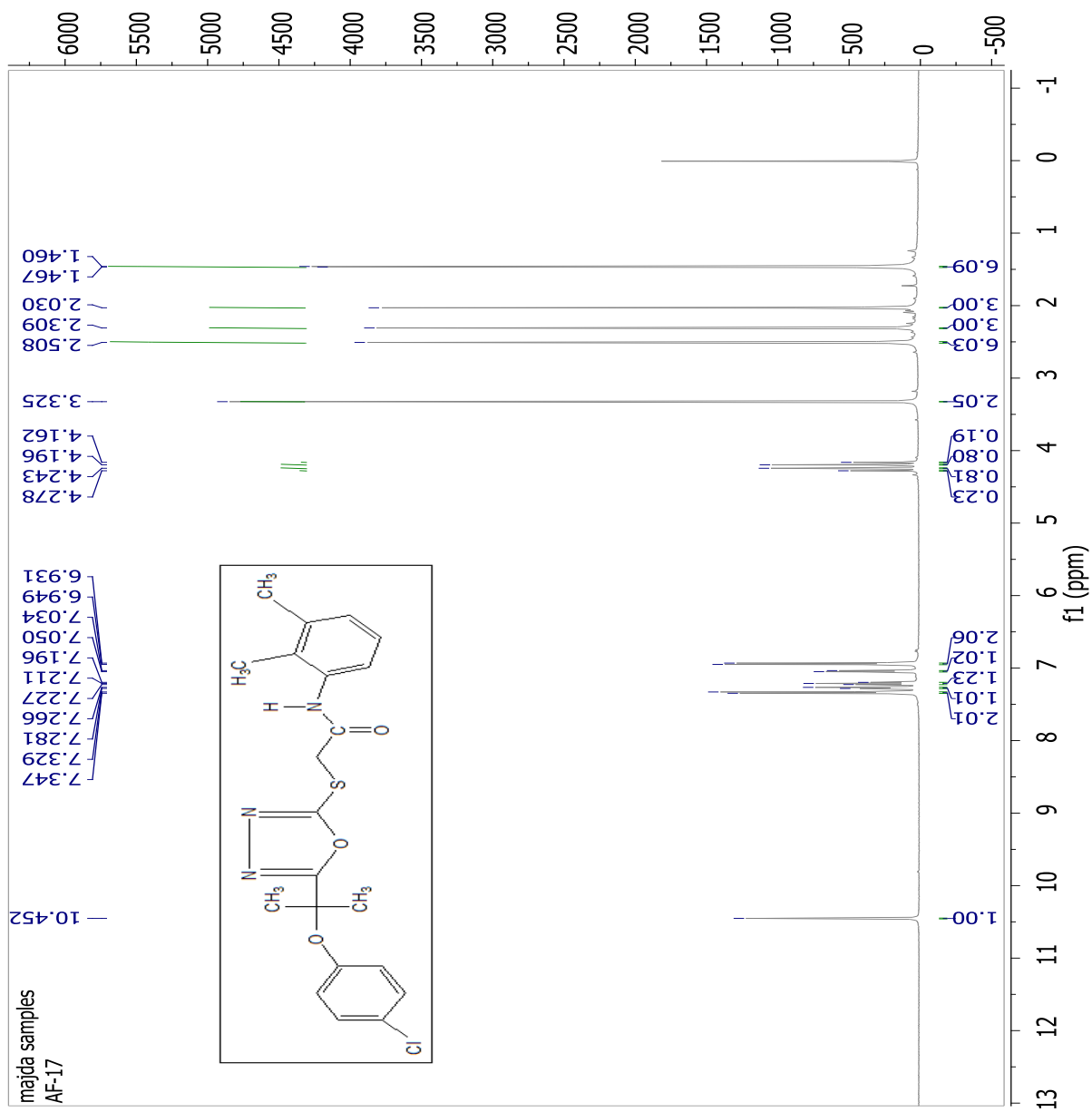


Figure-S13: <sup>1</sup>H-NMR spectrum of compound 3e



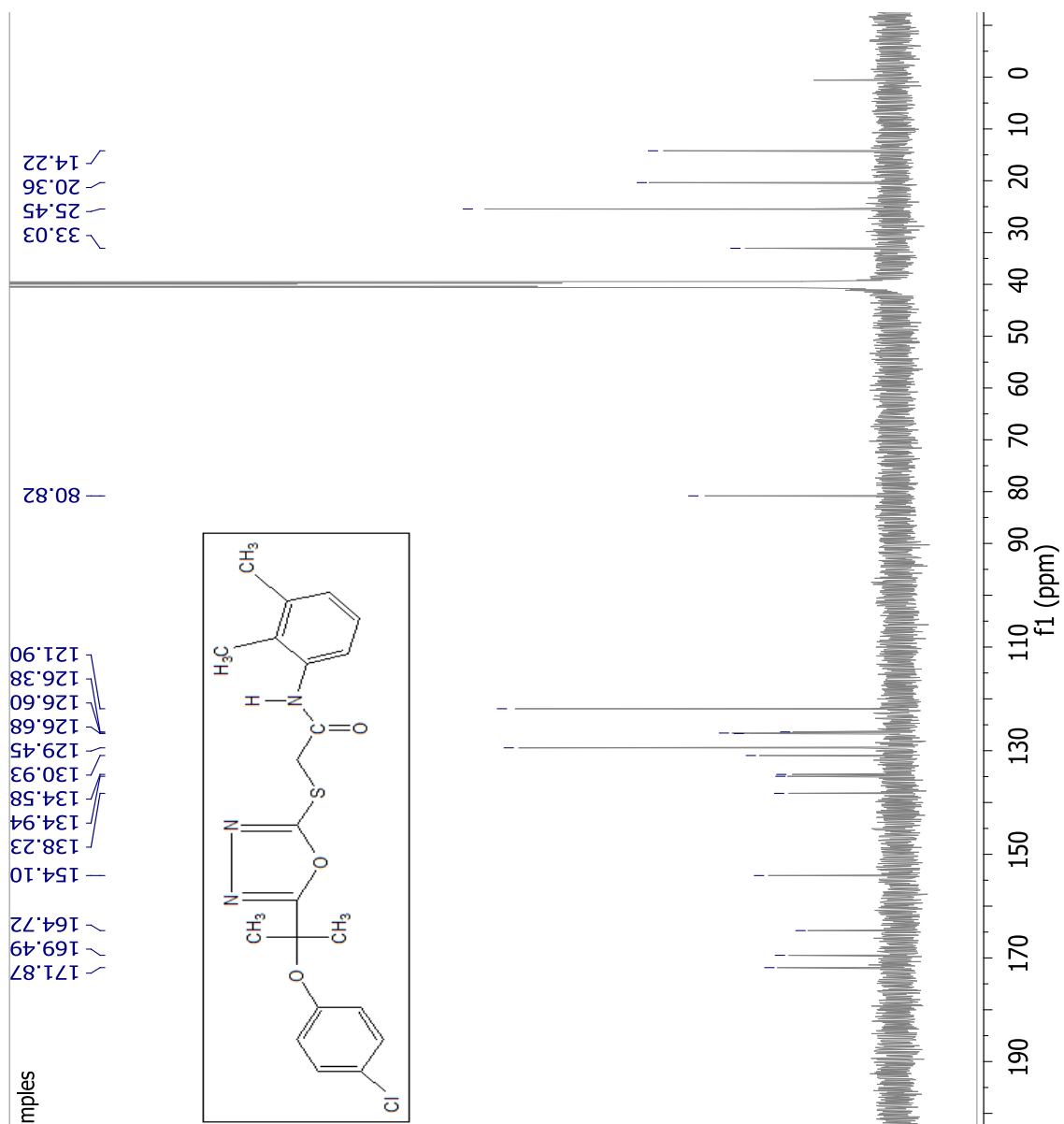


Figure-S14:  $^{13}\text{C}$ -NMR spectrum of compound 3e

Mass Lab (104)

6/20/2017 9:21:56 AM

File: 2P  
Sample: MAJDA BATOOL/INST. OF CHEM /UNIOF PUNJAB LAHORE  
Instrument: JEOL 600 MSRoute  
Inlet: Direct Probe  
Date Run: 06-20-2017 (Time Run: 09:13:10)  
Ionization mode: EI+

n: 9  
e: m/z 304; 99.5%FS TIC: 10912760

R.T.: .72

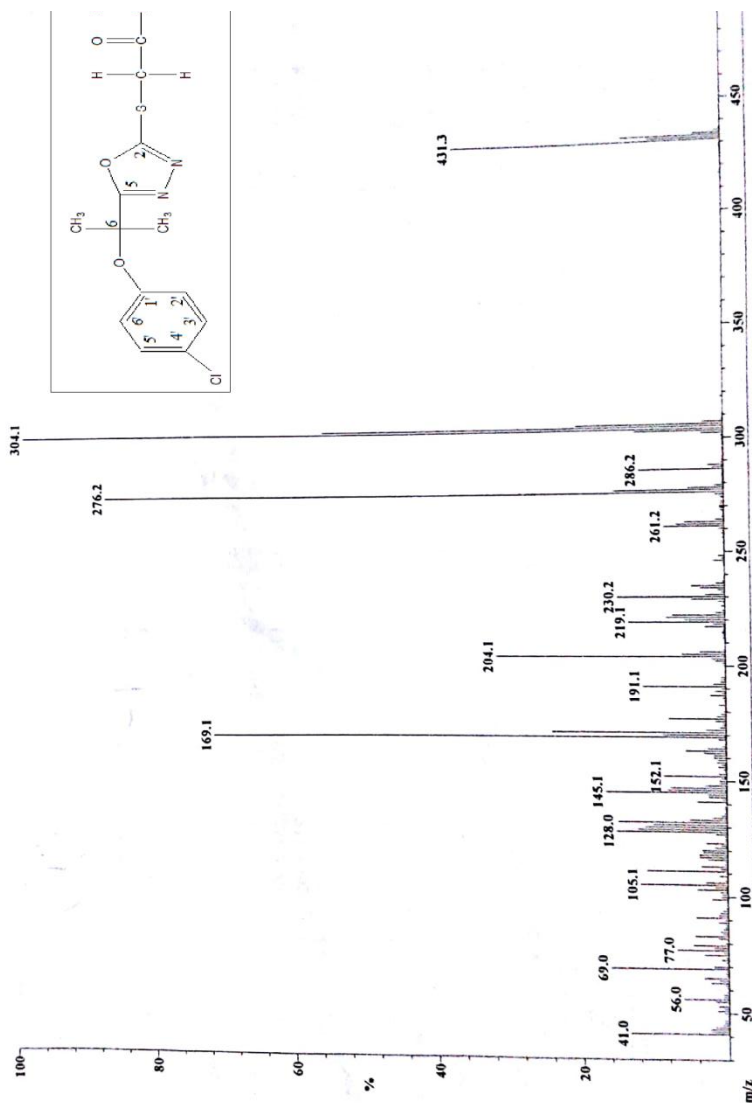


Figure-S15-: EI-MS of compound 3e

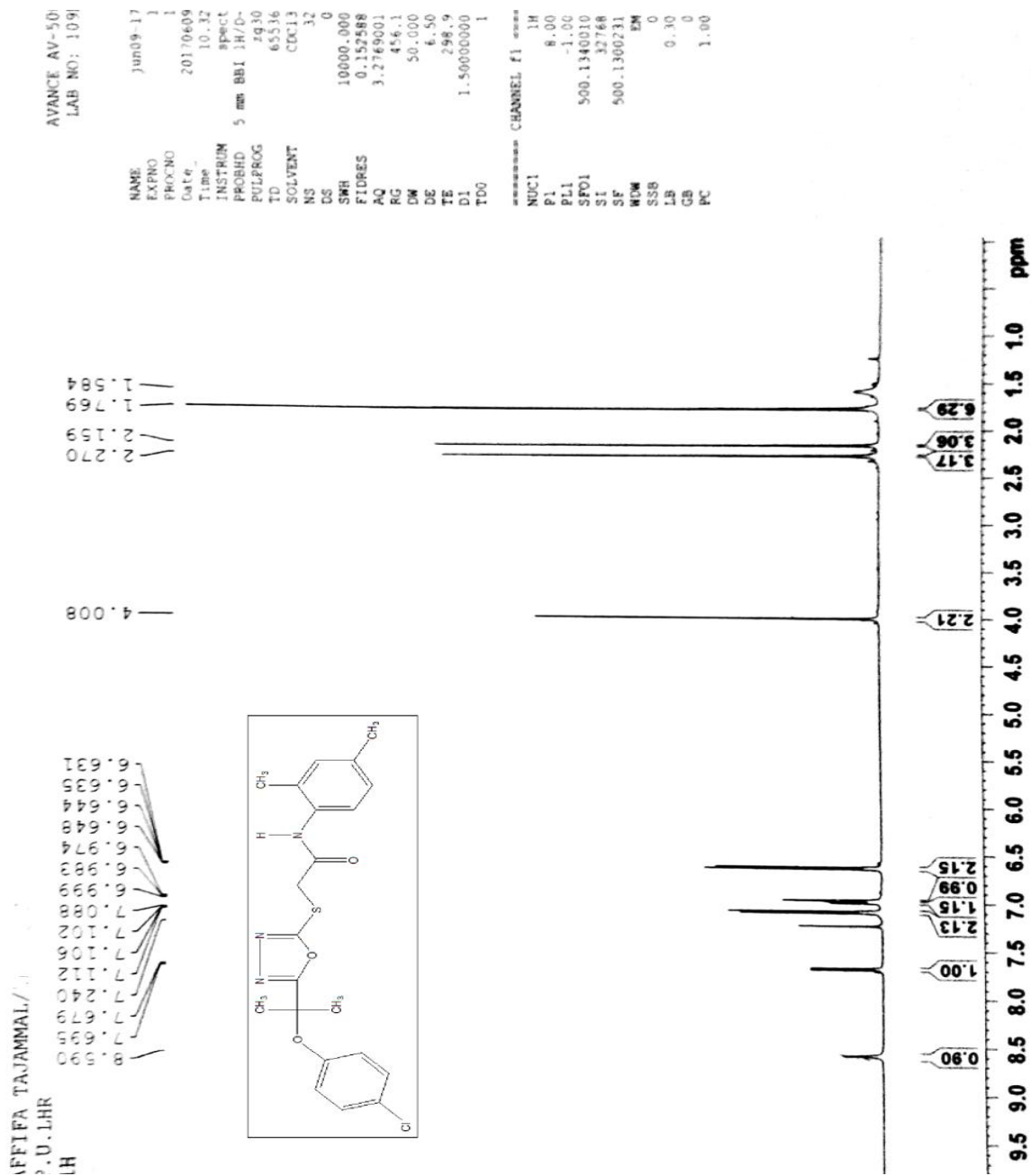


Figure-S16: <sup>1</sup>H-NMR spectrum of compound 3f

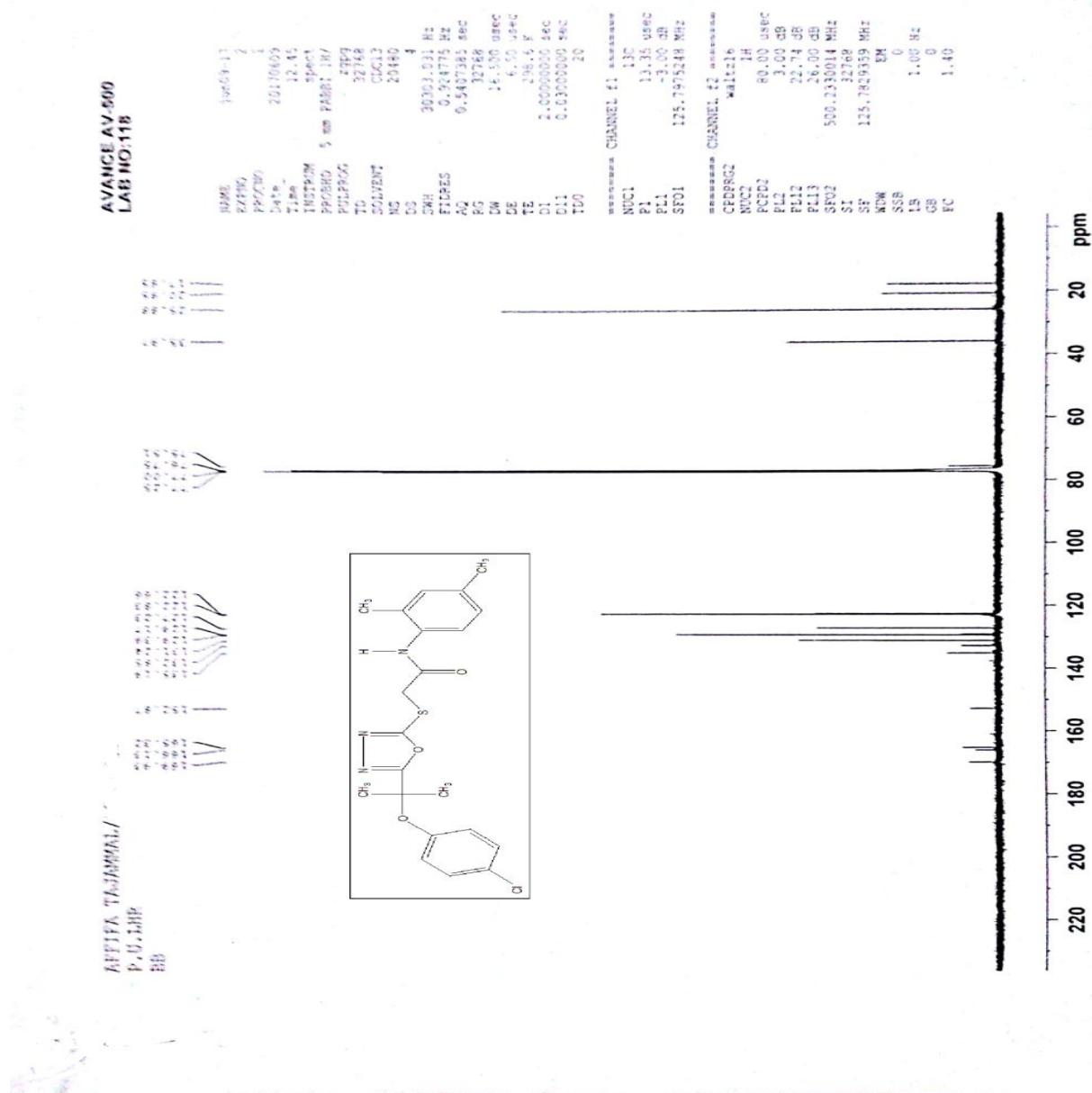


Figure-S17: <sup>13</sup>C-NMR spectrum of compound 3f

File: 1P  
 Date Run: 06-19-2017 (Time Run: 13:36:16)  
 Sample: MAJDA BATOOL/INST. OF CHEM /UNIOF PUNJAB LAHORE  
 Instrument: JEOL 600 MSRoute  
 Inlet: Direct Probe  
 Ionization mode: EI+

R.T.: .62

an: 8  
 se: m/z 304; 99.5%FS TIC: 12237032

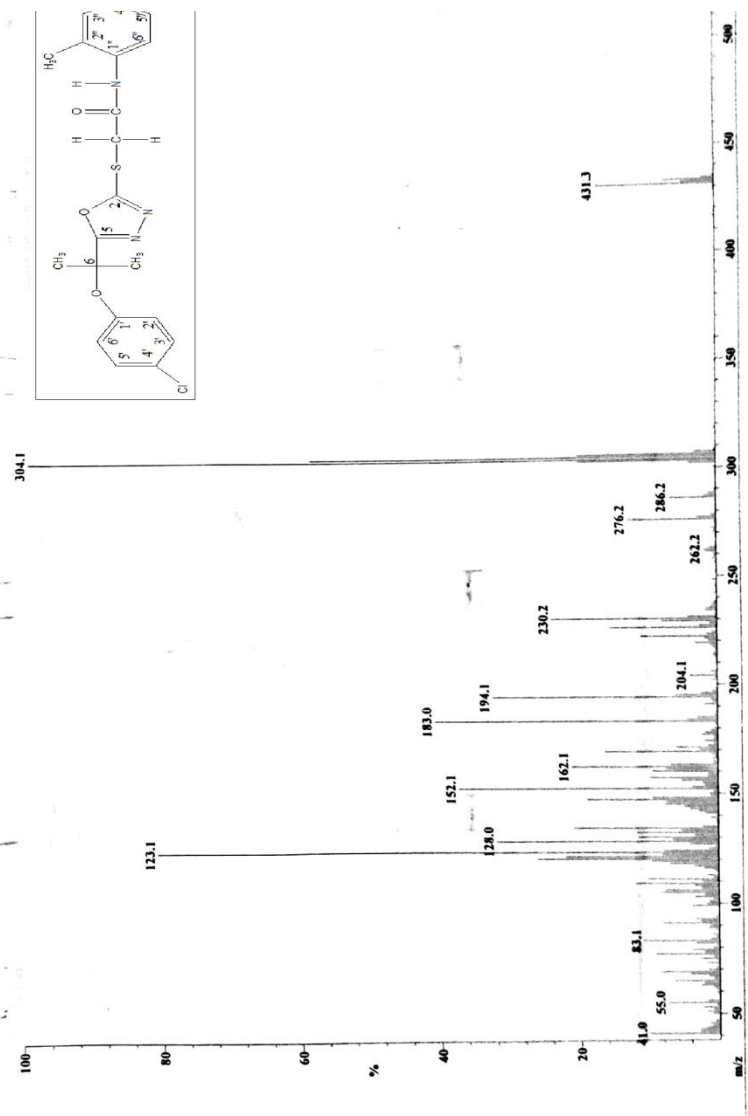


Figure-S18-: EI-MS of compound 3f

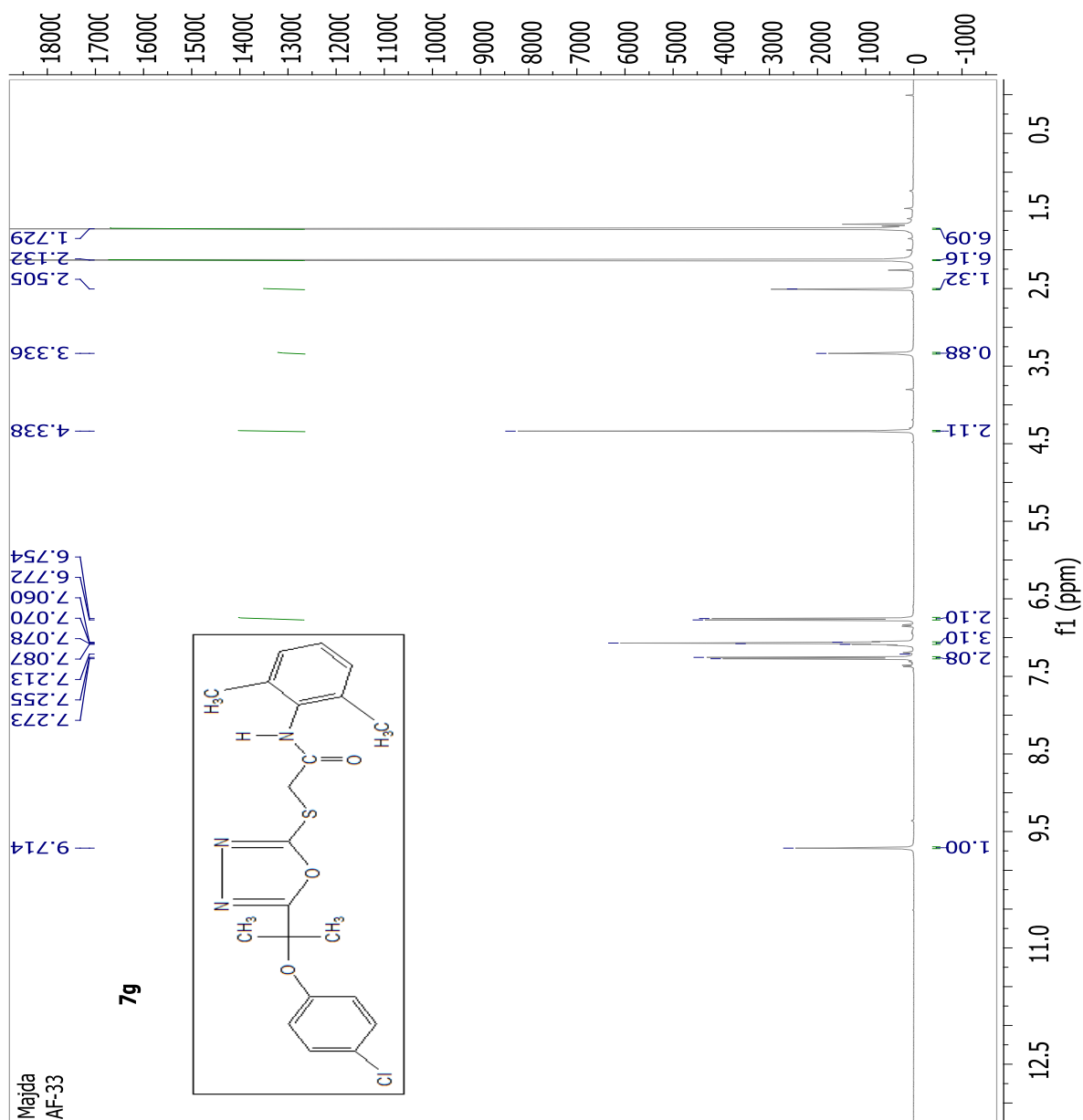


Figure-S19: <sup>1</sup>H-NMR spectrum of compound 3g

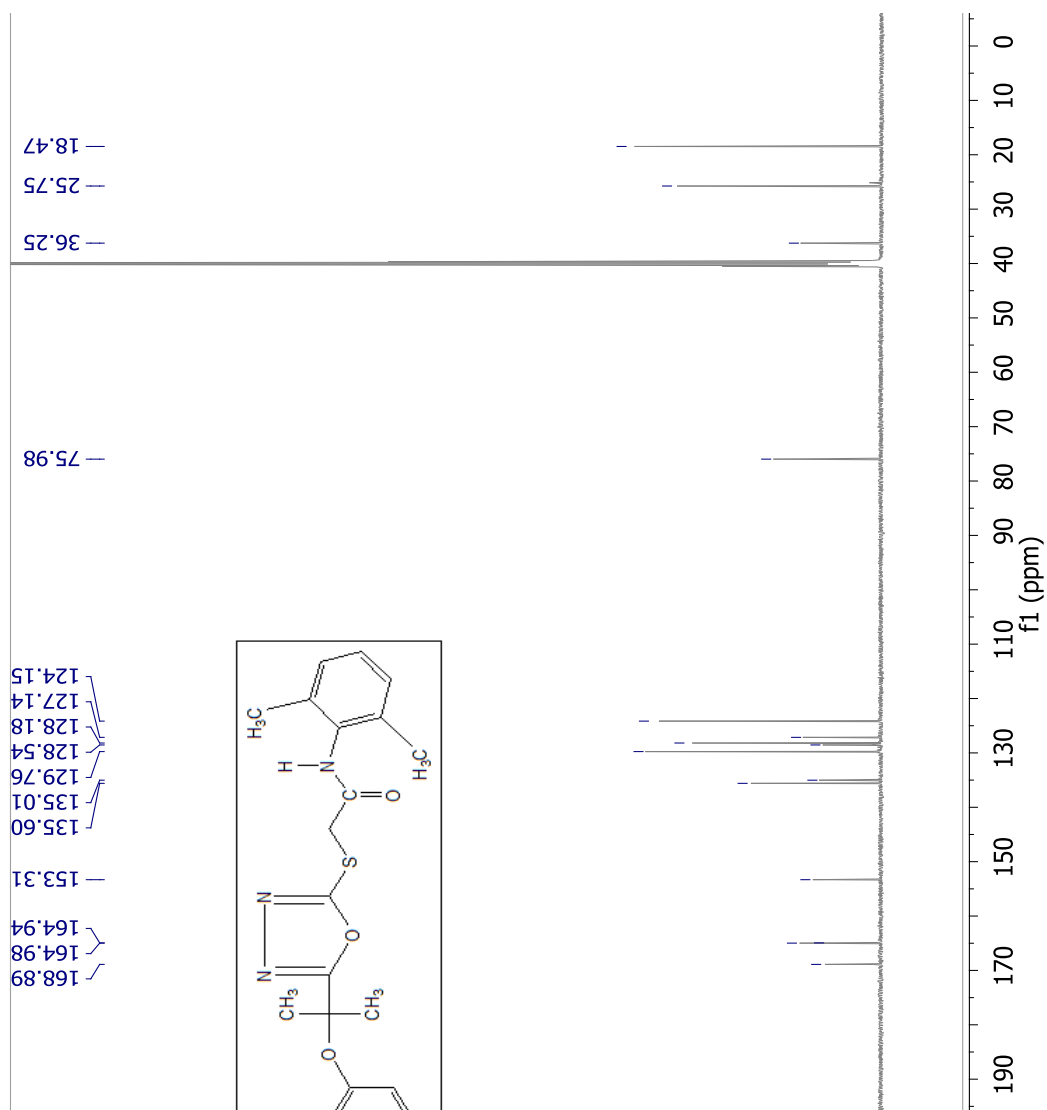


Figure-S23:  $^{13}\text{C}$ -NMR spectrum of compound 3g

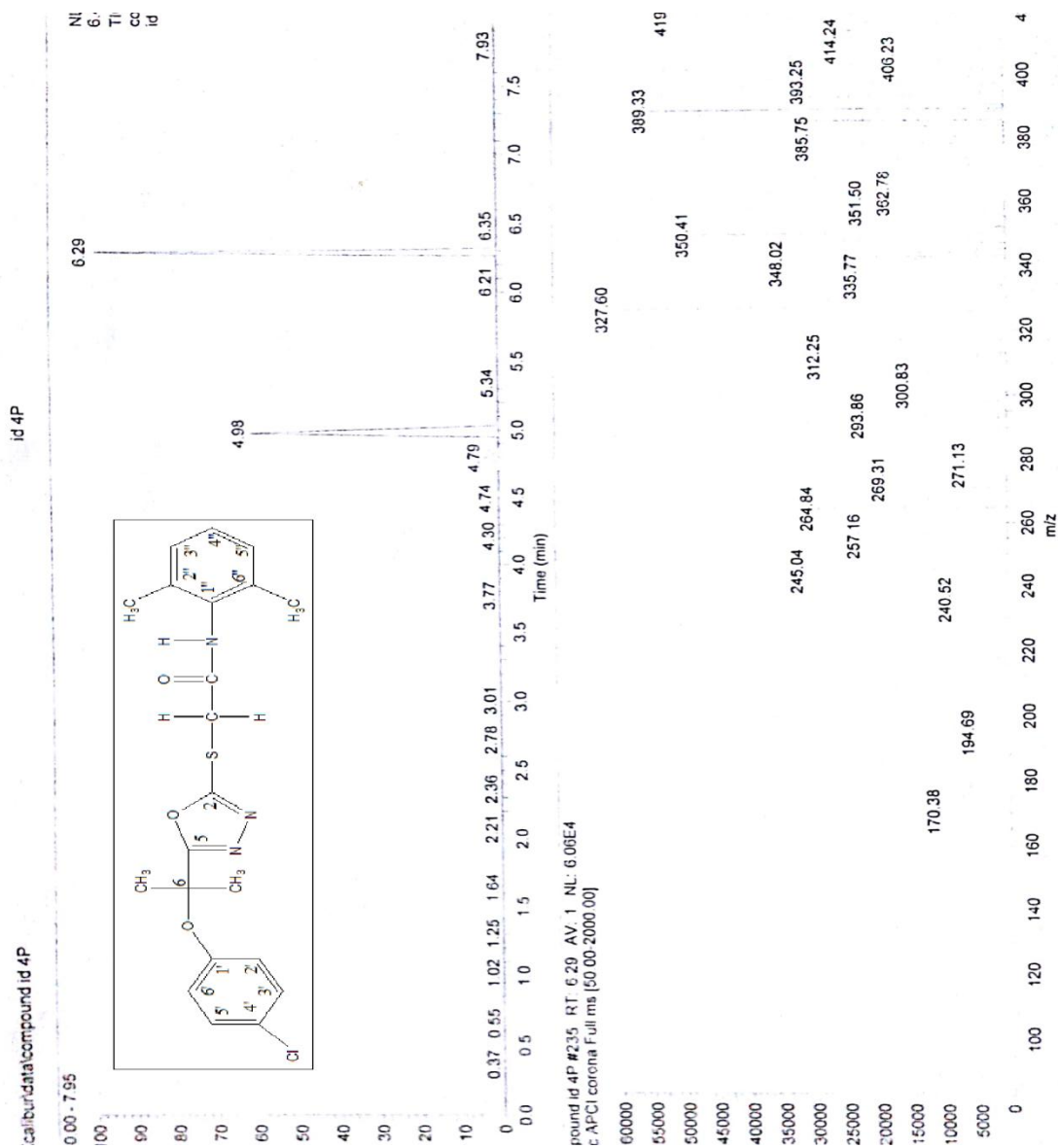


Figure-S21-: EI-MS of compound 3g



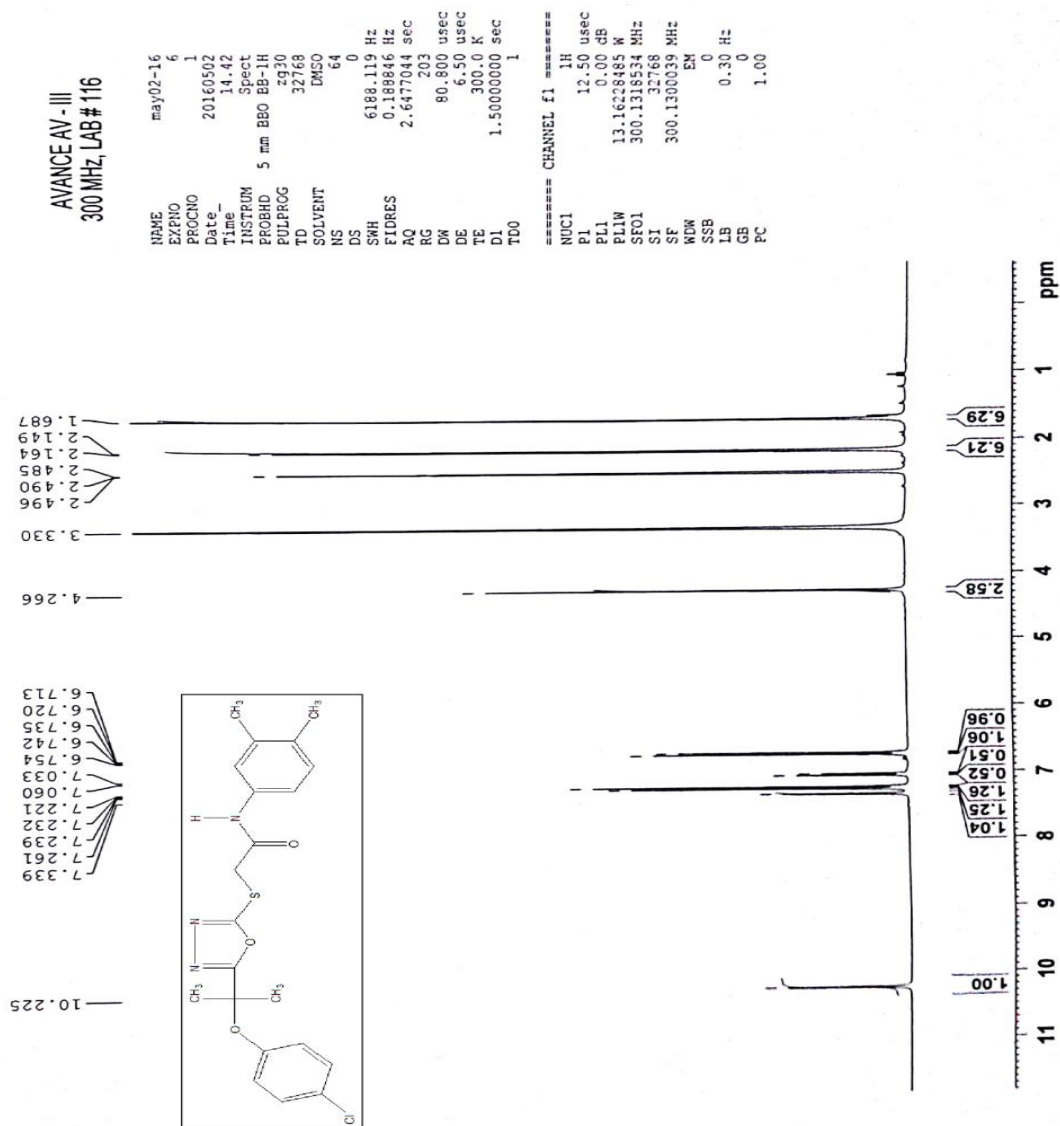


Figure-S22:  $^1\text{H}$ -NMR spectrum of compound 3h

AVANCE AV - III  
300 MHz, LAB # 116



File: SP  
Date Run: 06-20-2017 (Time Run: 10:02:00)  
Sample: MAJDA BATOOL/INST. OF CHEM /UNI.OF PUNJAB LAHORE  
Instrument: JEOL 600 MSRoute  
Inlet: Direct Probe  
Ionization mode: EI+

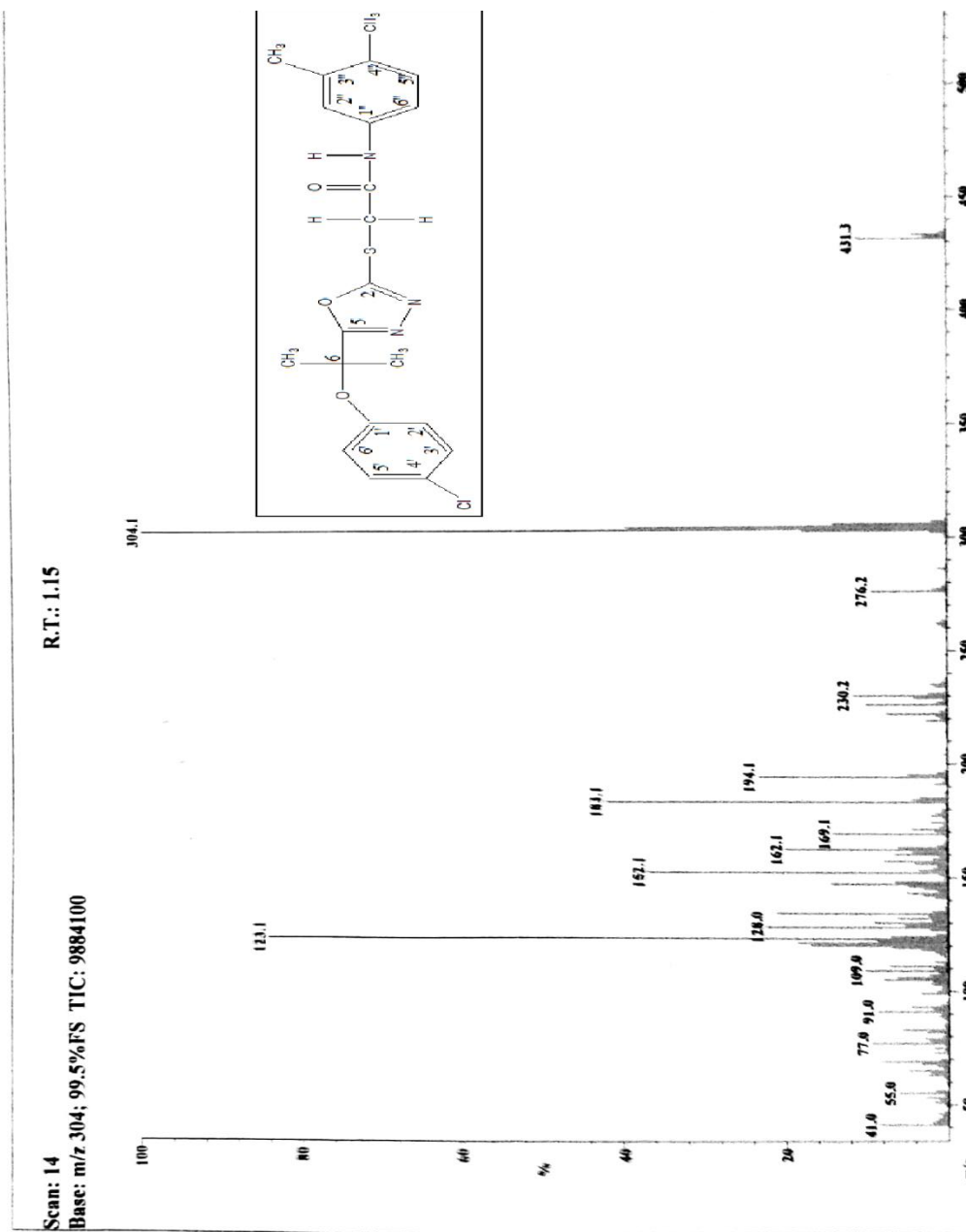


Figure-S24-: EI-MS of compound 3h

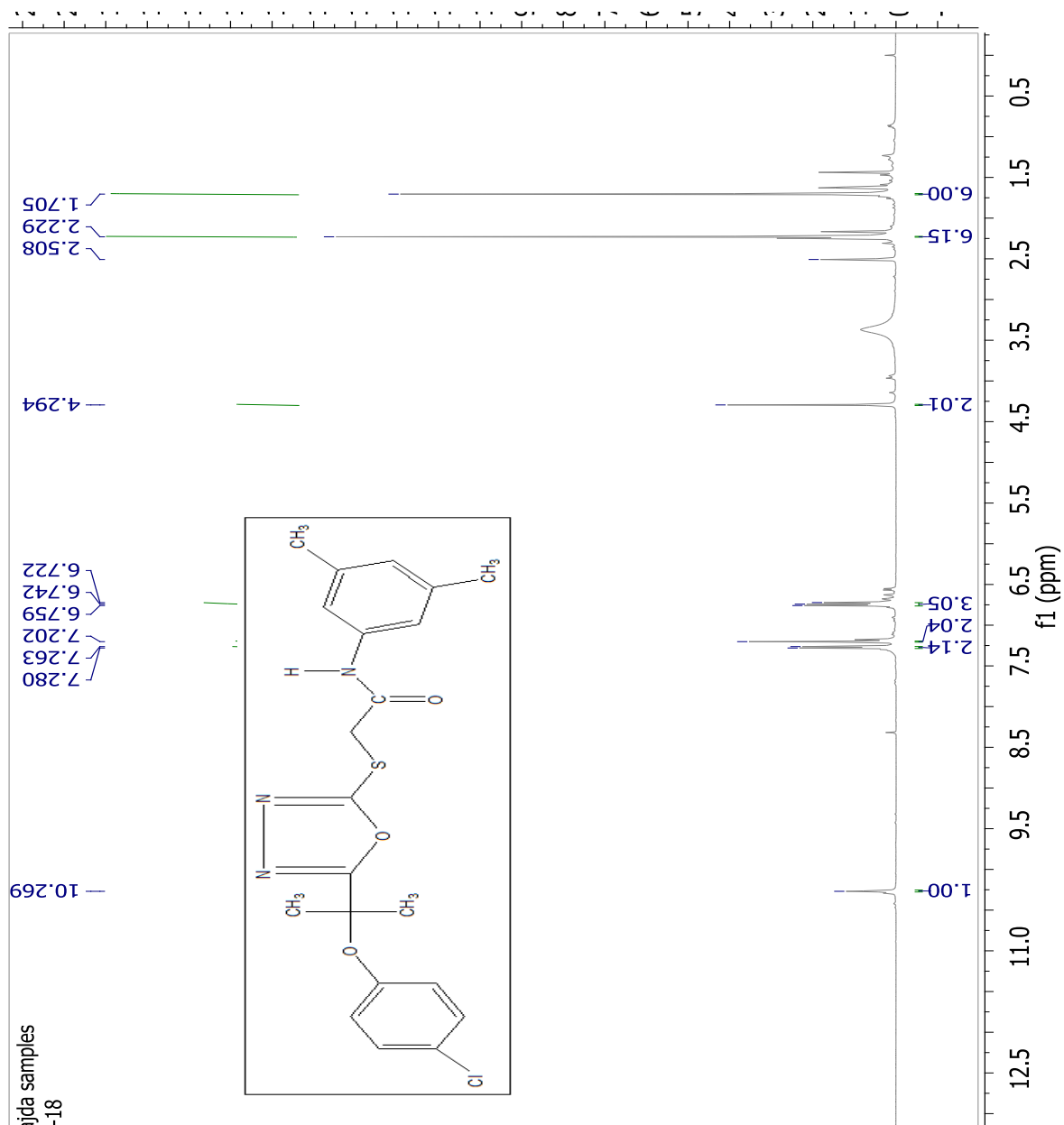


Figure-S25: <sup>1</sup>H-NMR spectrum of compound 3i

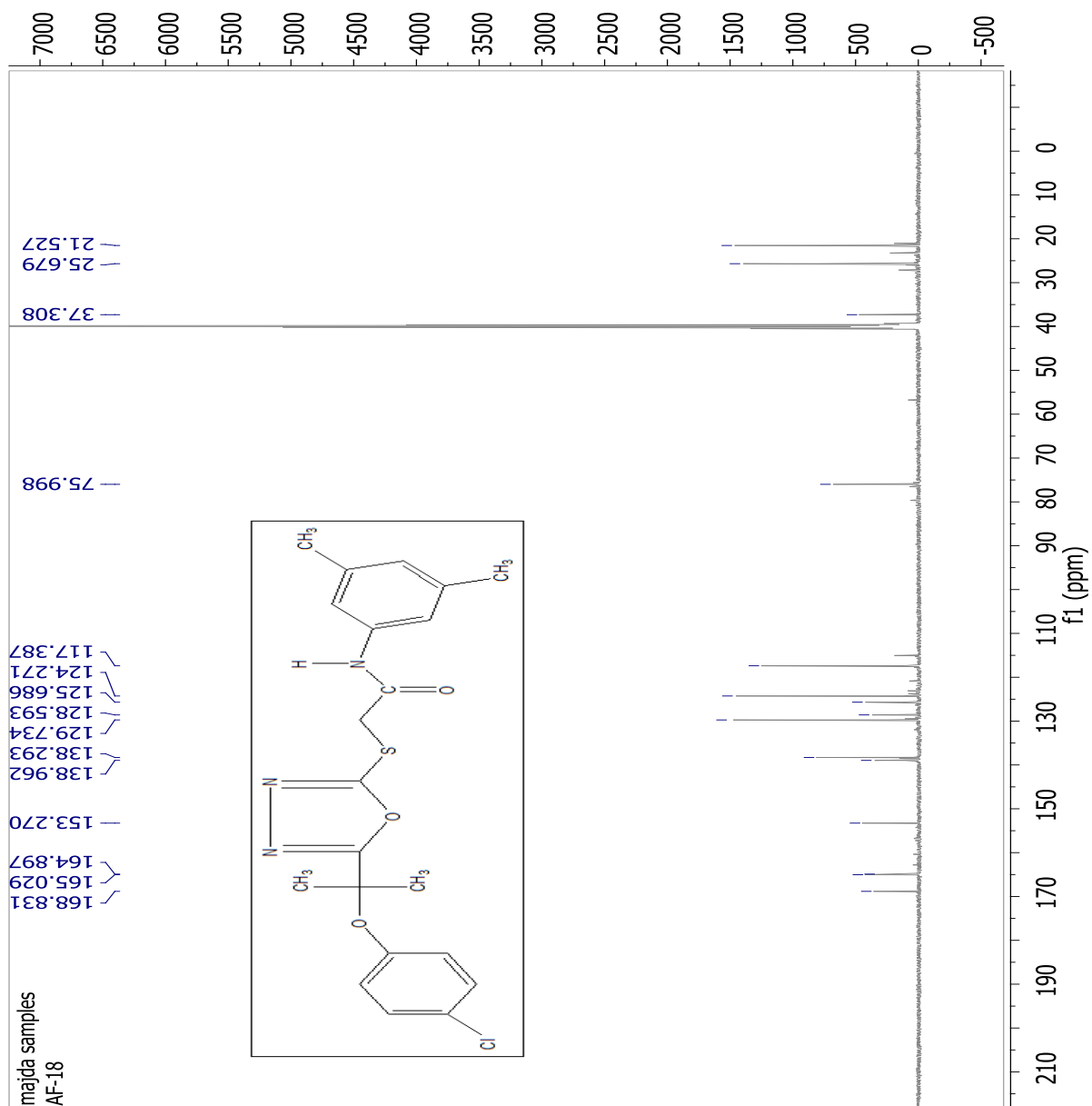


Figure-S26: <sup>13</sup>C-NMR spectrum of compound 3i

File: 6P  
 Date Run: 06-20-2017 (Time Run: 10:36:17)  
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 Instrument: JEOL 600 MSRoute  
 Inlet: Direct Probe  
 Ionization mode: EI+

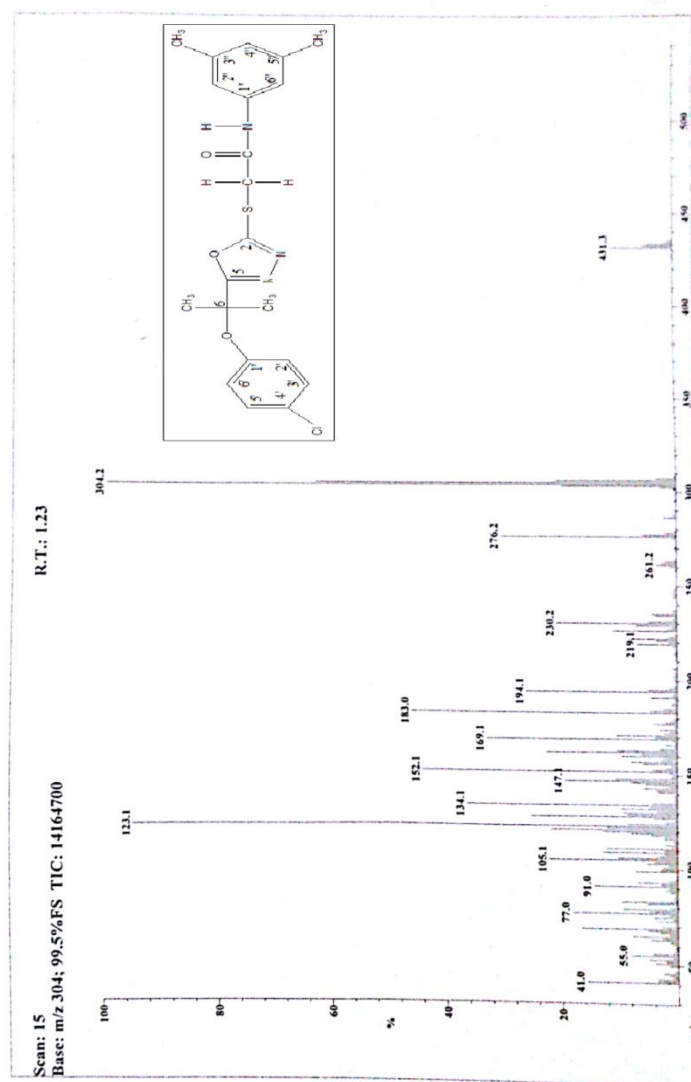


Figure-S27-: EI-MS of compound 3i