

# Supporting Information

## Linearization of carbohydrate derived polycyclic frameworks

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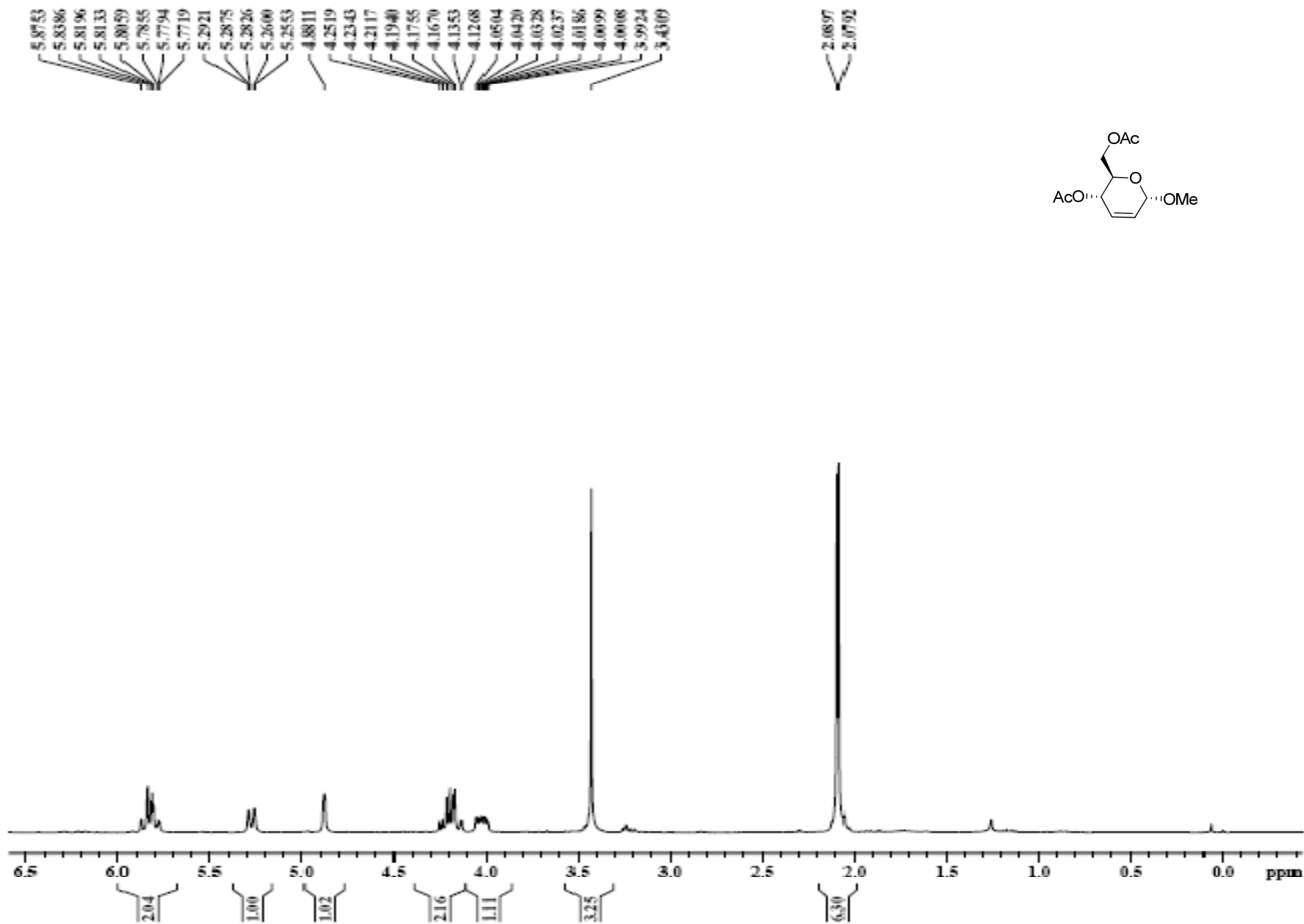
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Lucknow-226031, UP, India

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NMR spectrum of compounds

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**Figure 1** <sup>1</sup>H NMR spectrum of compound 2

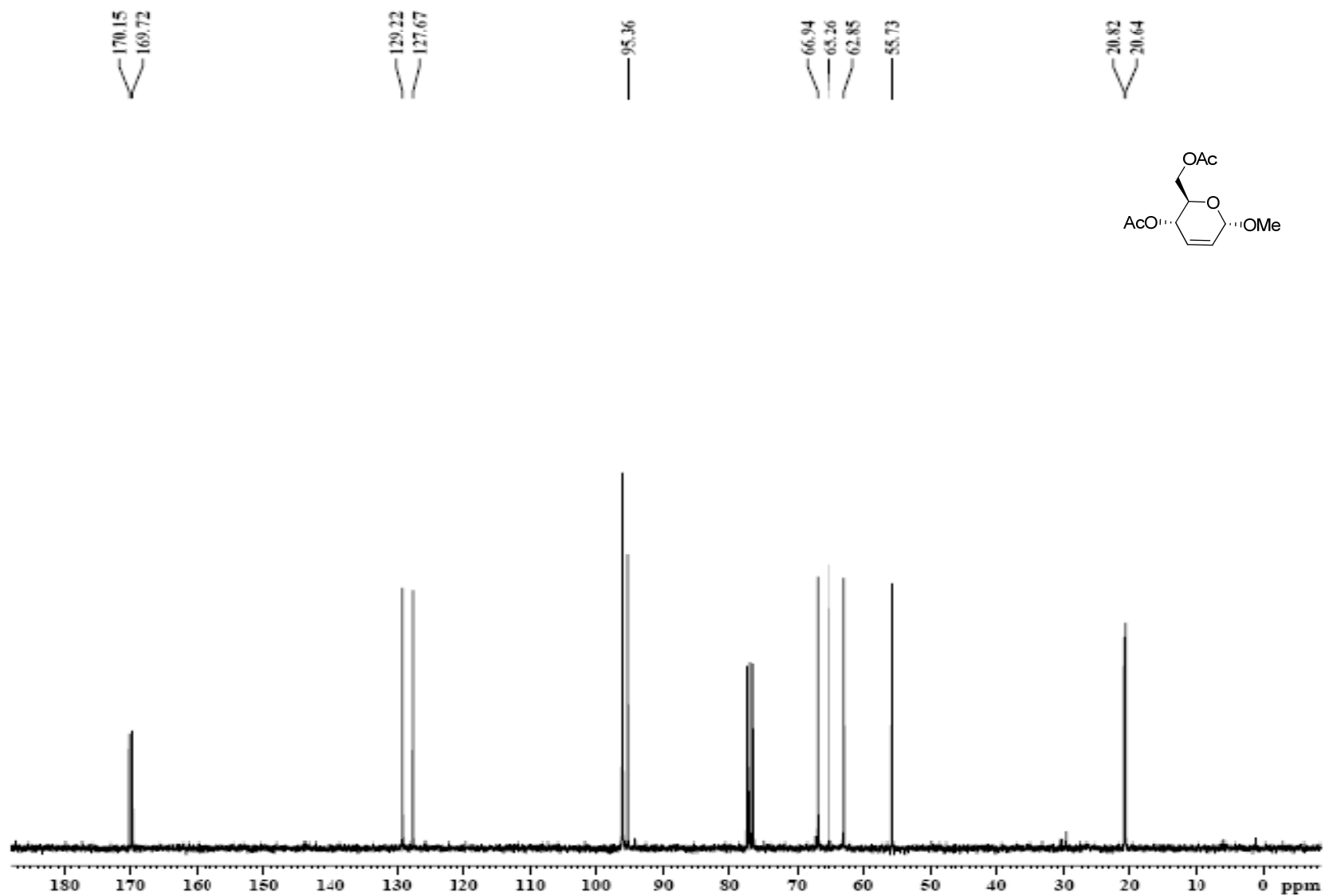
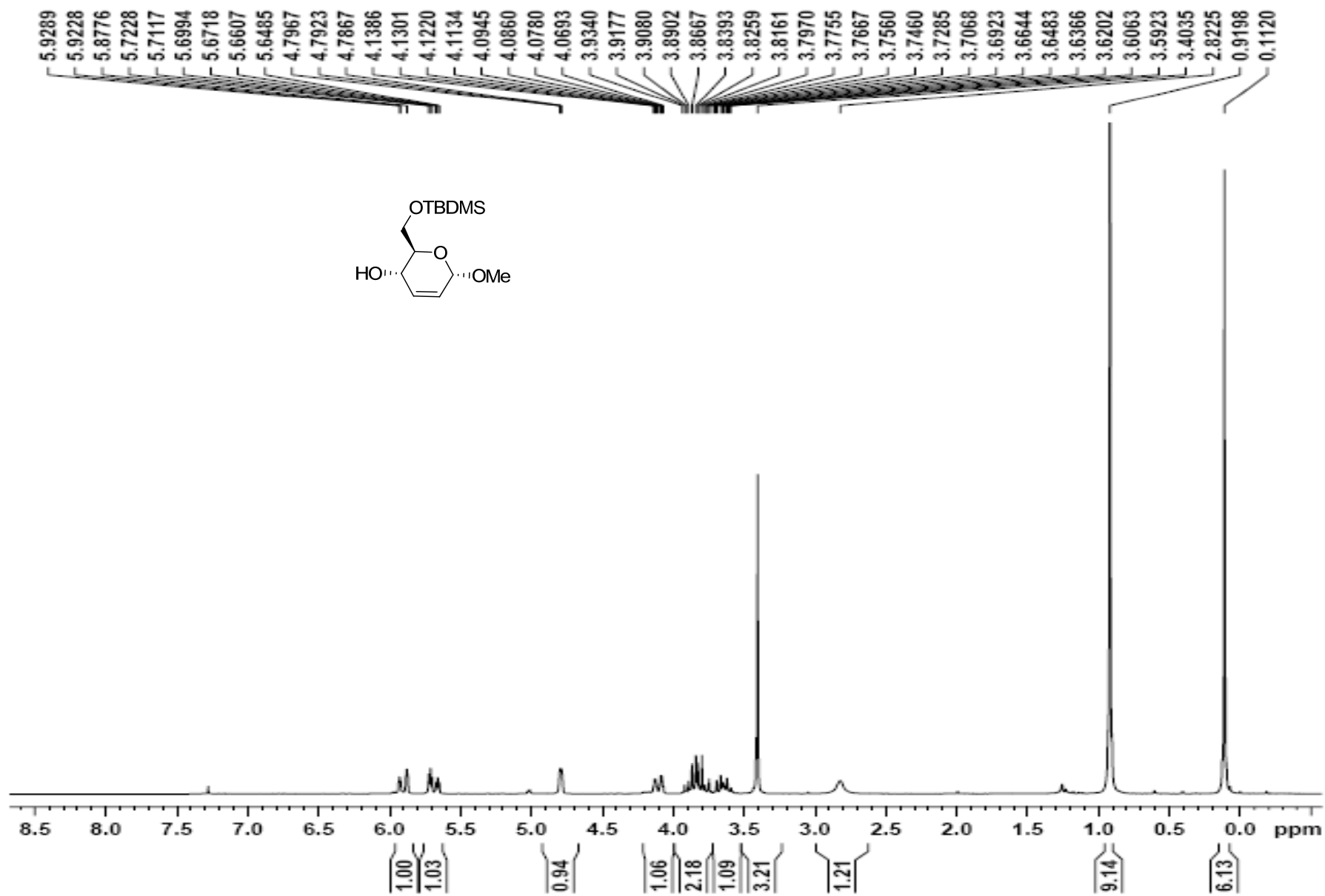


Figure 2  $^{13}\text{C}$  NMR spectrum of compound 2



**Figure 3** <sup>1</sup>H NMR spectrum of compound **4**

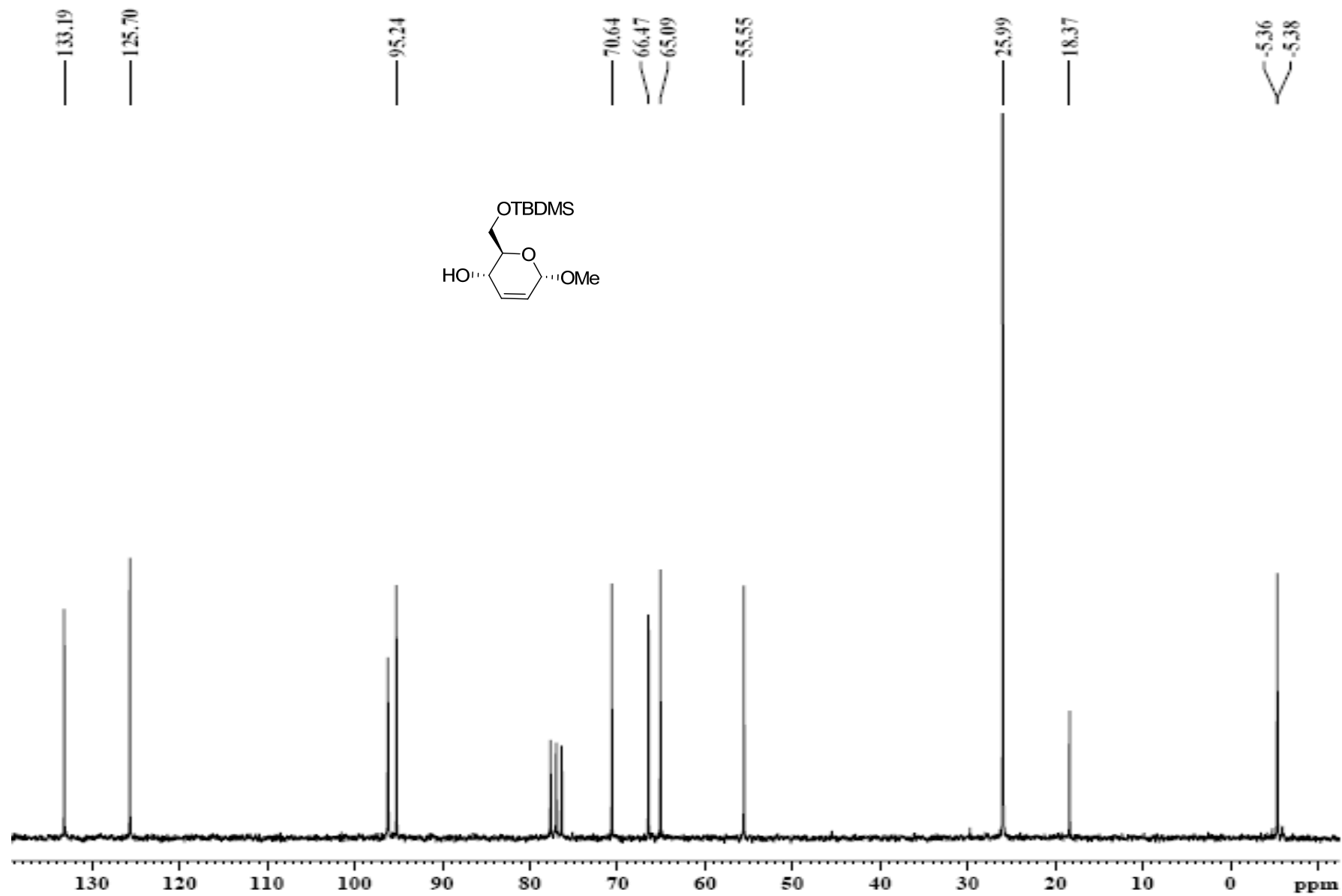
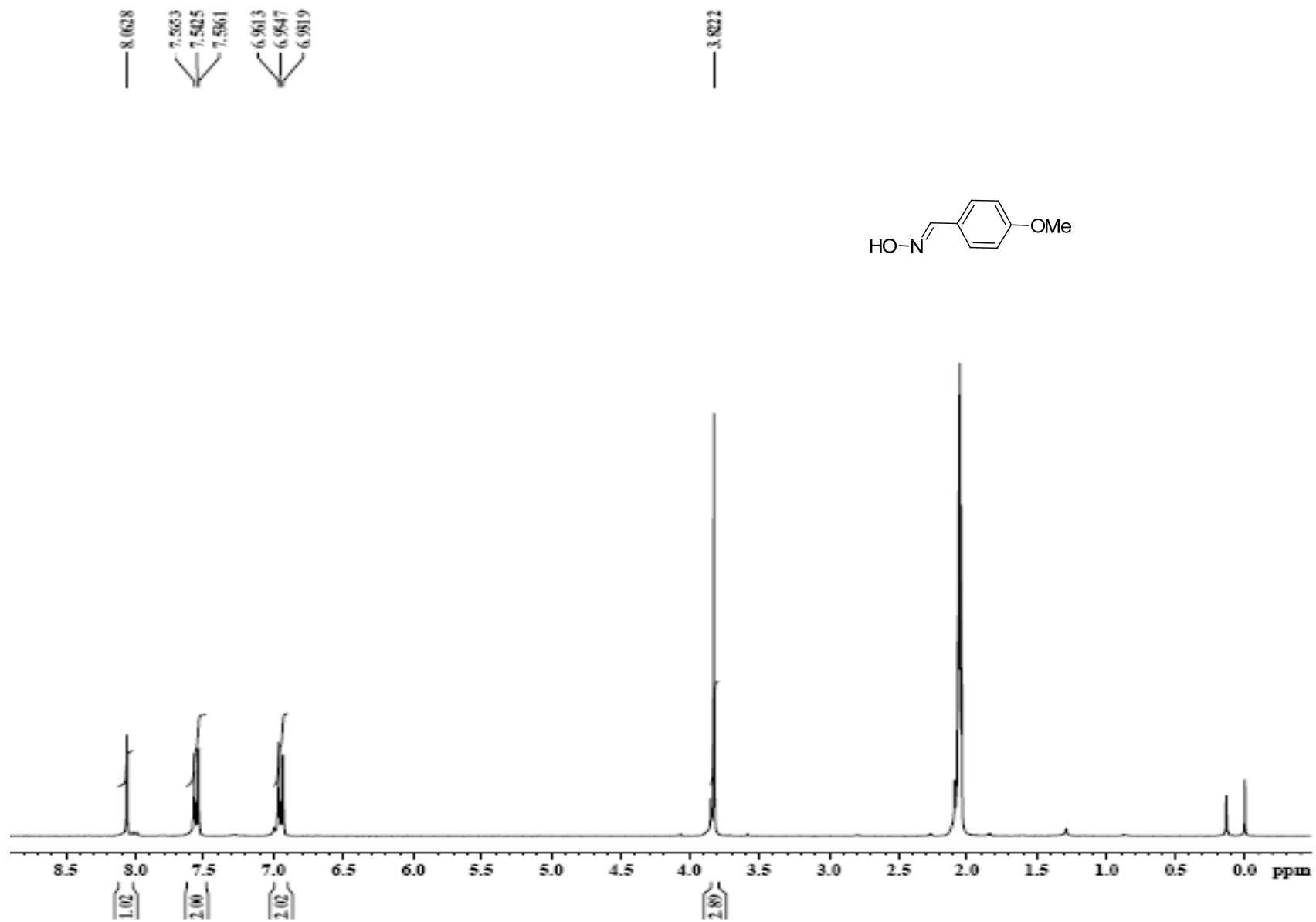


Figure 4 <sup>13</sup>C NMR spectrum of compound 4



**Figure 5** <sup>1</sup>H NMR spectrum of compound **9**

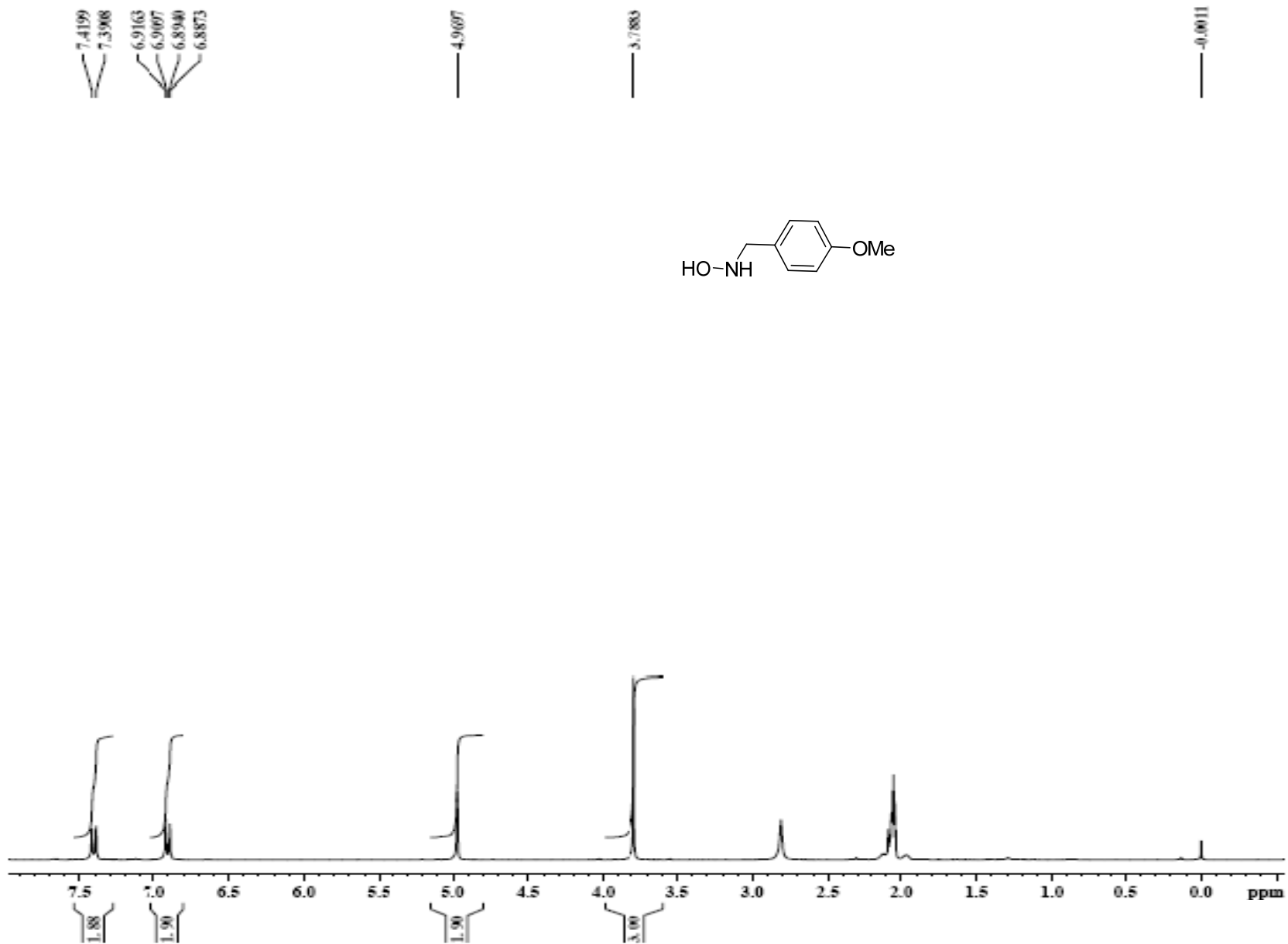


Figure 6 <sup>1</sup>H NMR spectrum of compound 10

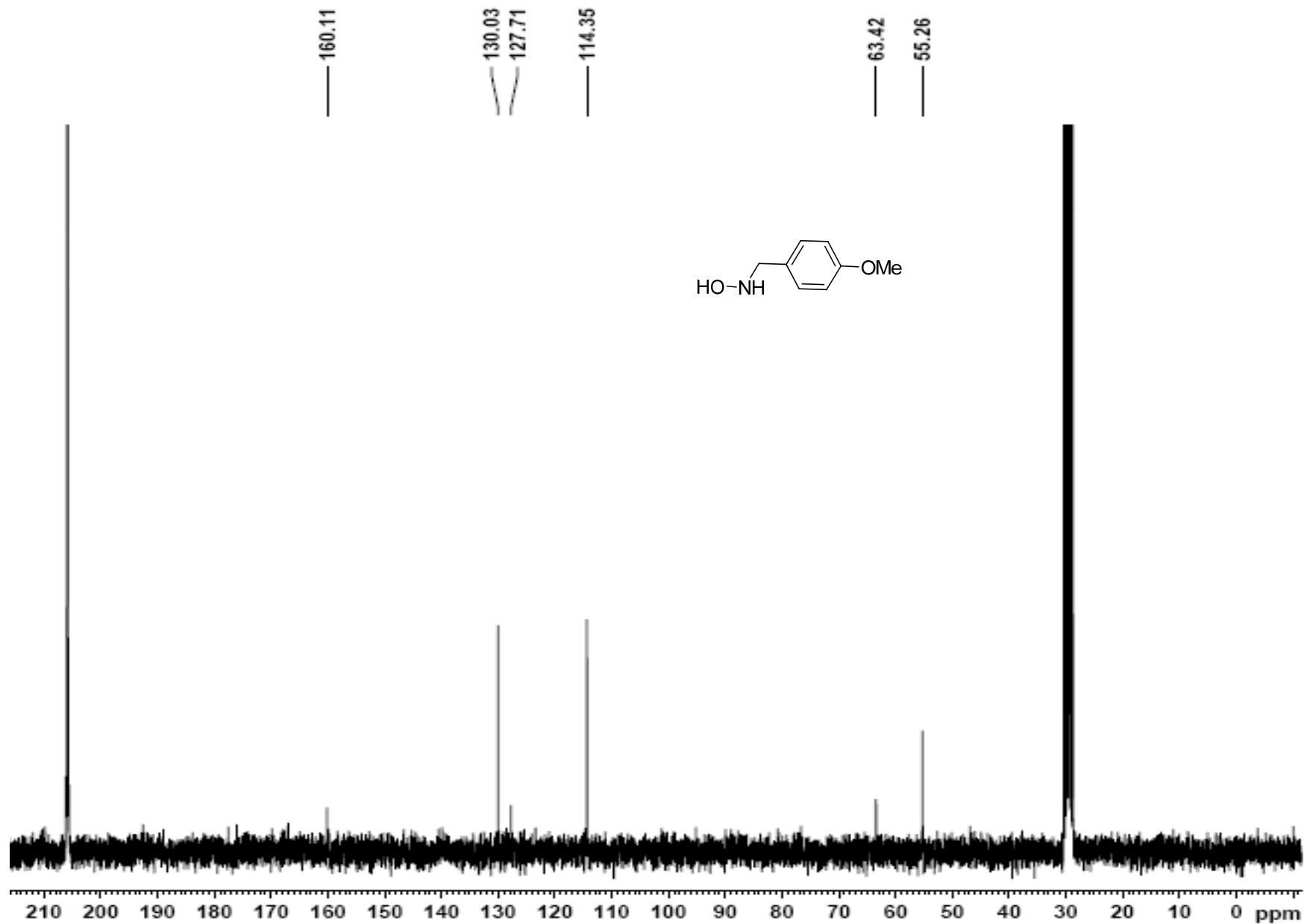
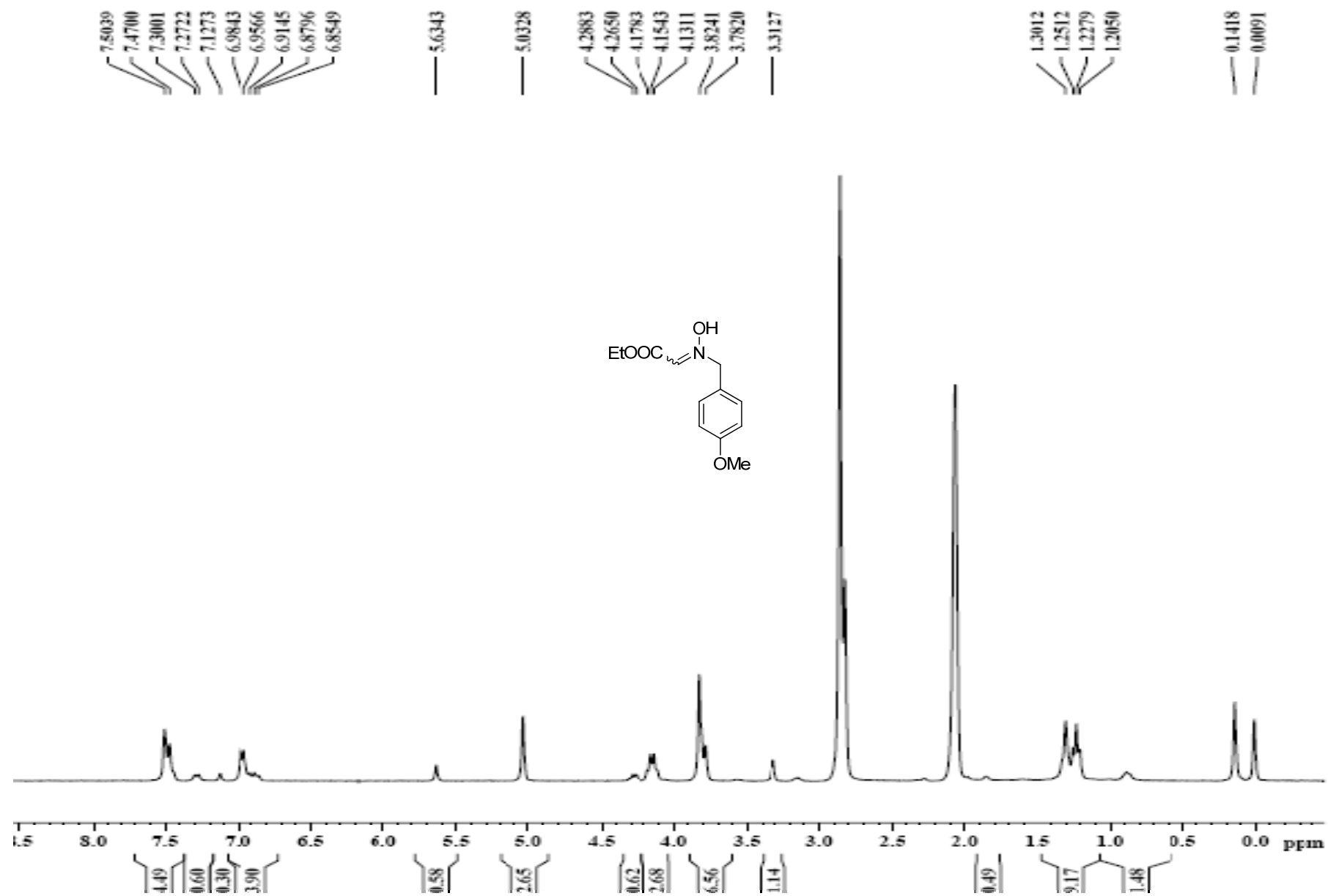
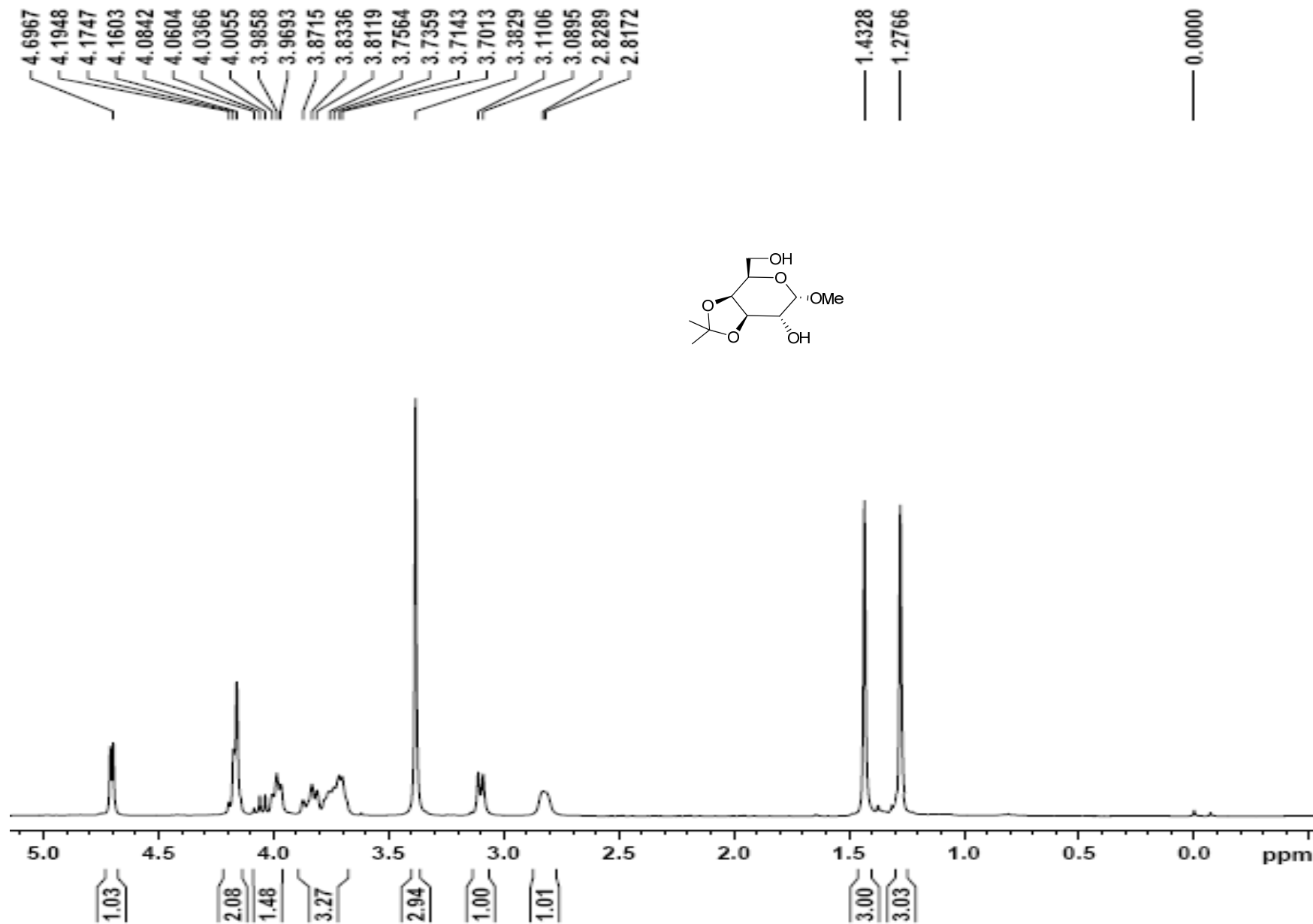


Figure 7  $^{13}\text{C}$  NMR spectrum of compound 10





**Figure 8**  $^1\text{H}$  NMR spectrum of compound 5



**Figure 9** <sup>1</sup>H NMR spectrum of compound 13

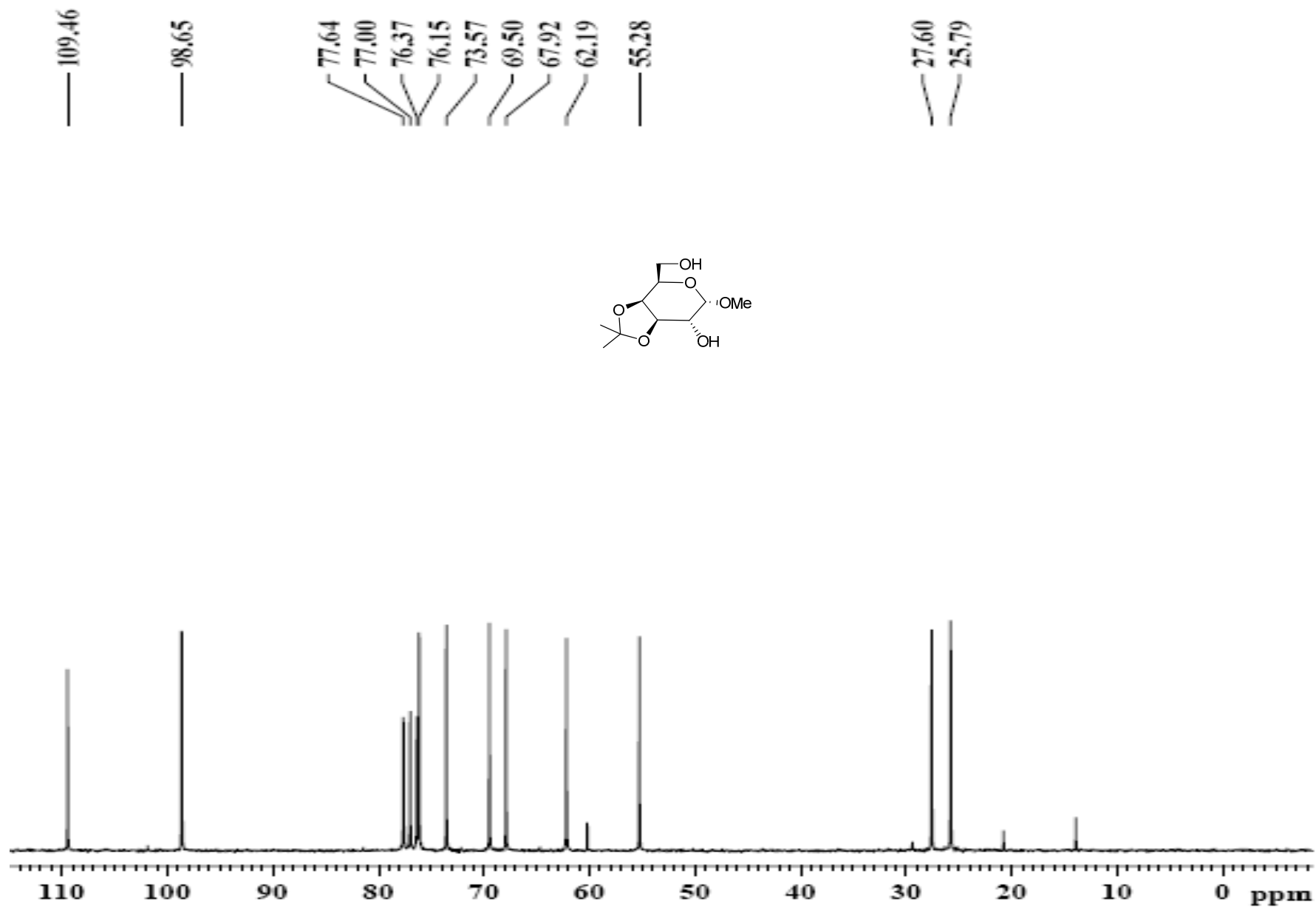


Figure 10 <sup>13</sup>C NMR spectrum of compound 13

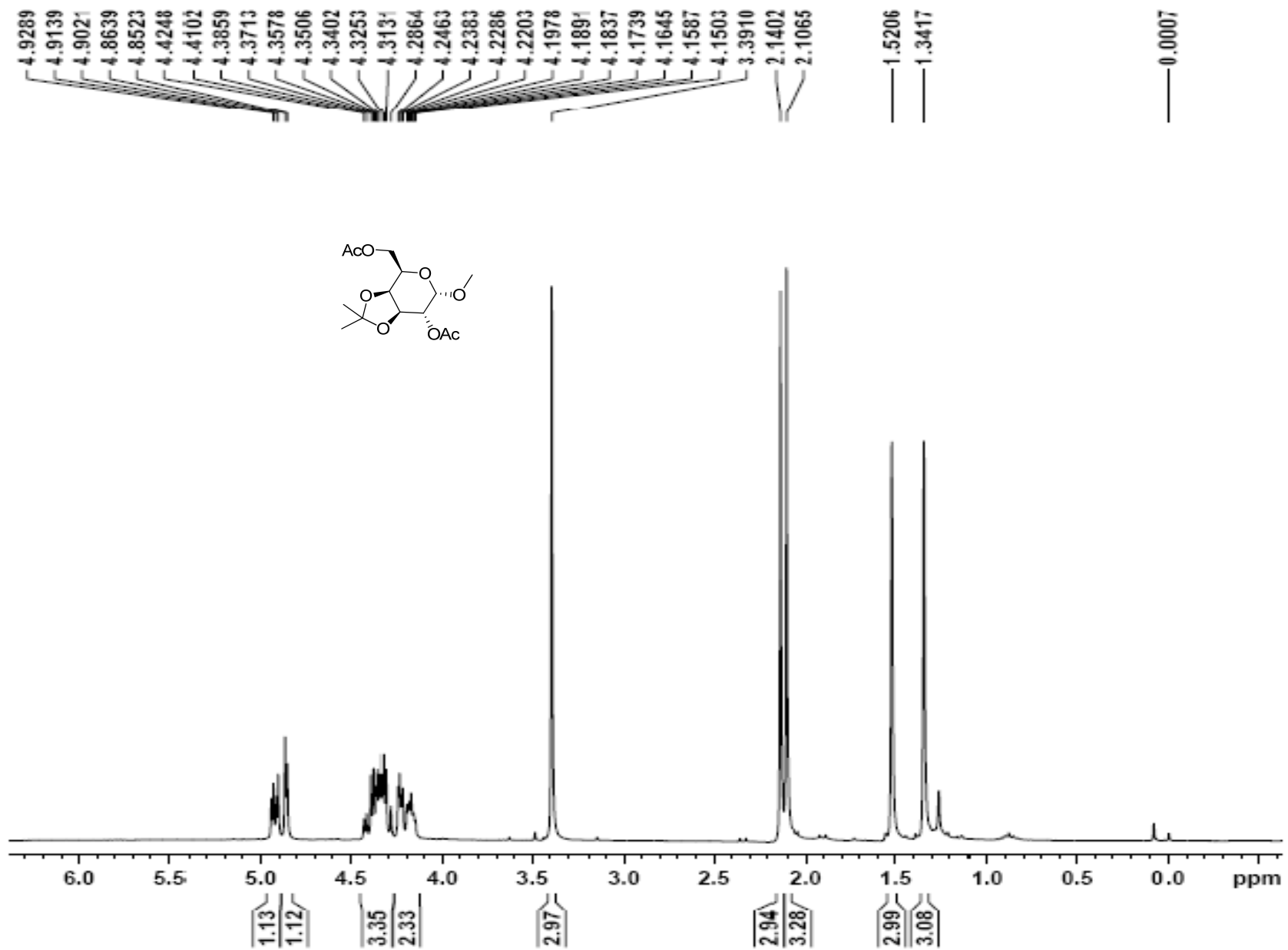


Figure 11 <sup>1</sup>H NMR spectrum of compound 14

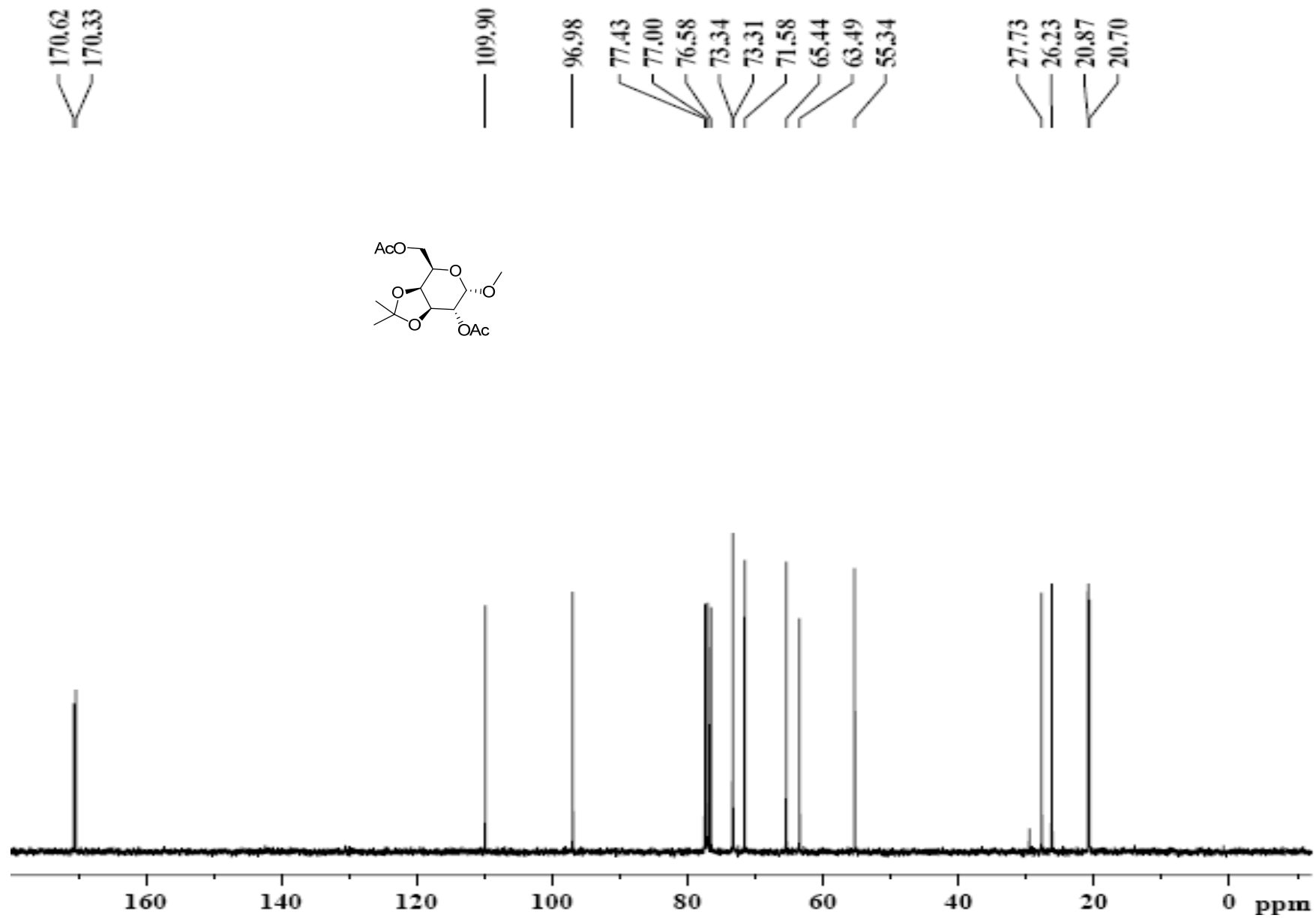


Figure 12  $^{13}\text{C}$  NMR spectrum of compound 14

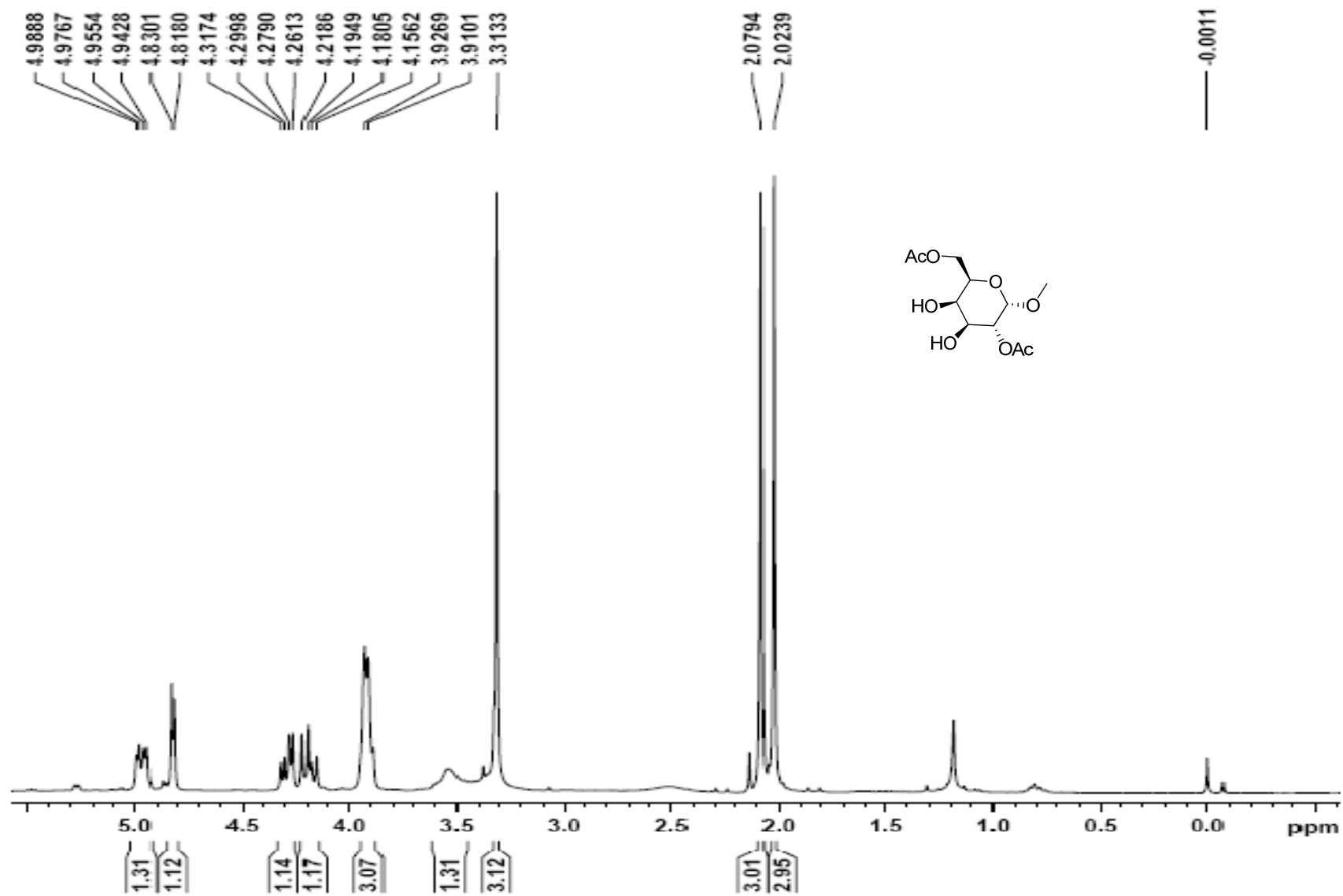
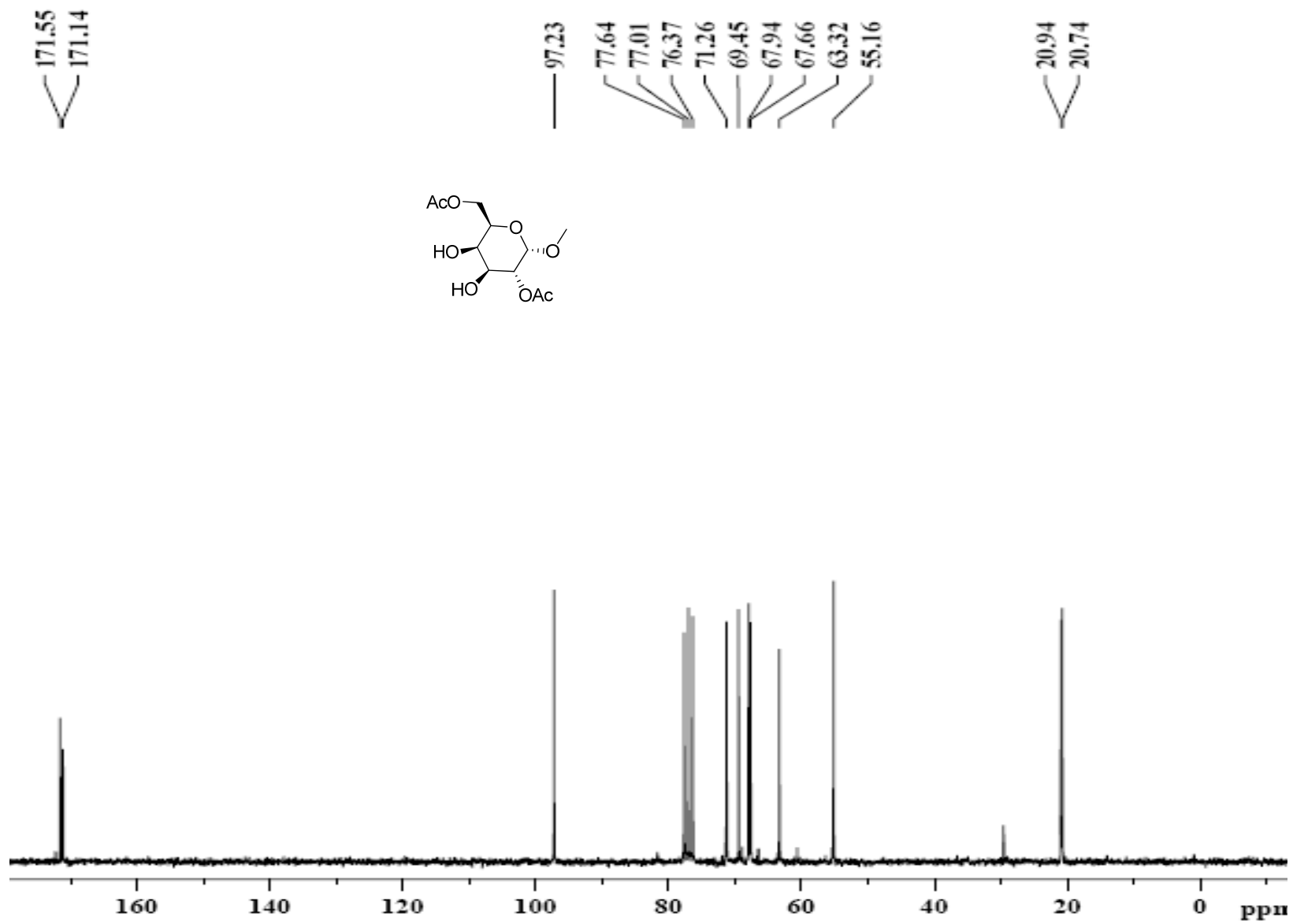


Figure 13  $^1\text{H}$  NMR spectrum of compound 15



**Figure 14**  $^{13}\text{C}$  NMR spectrum of compound **15**

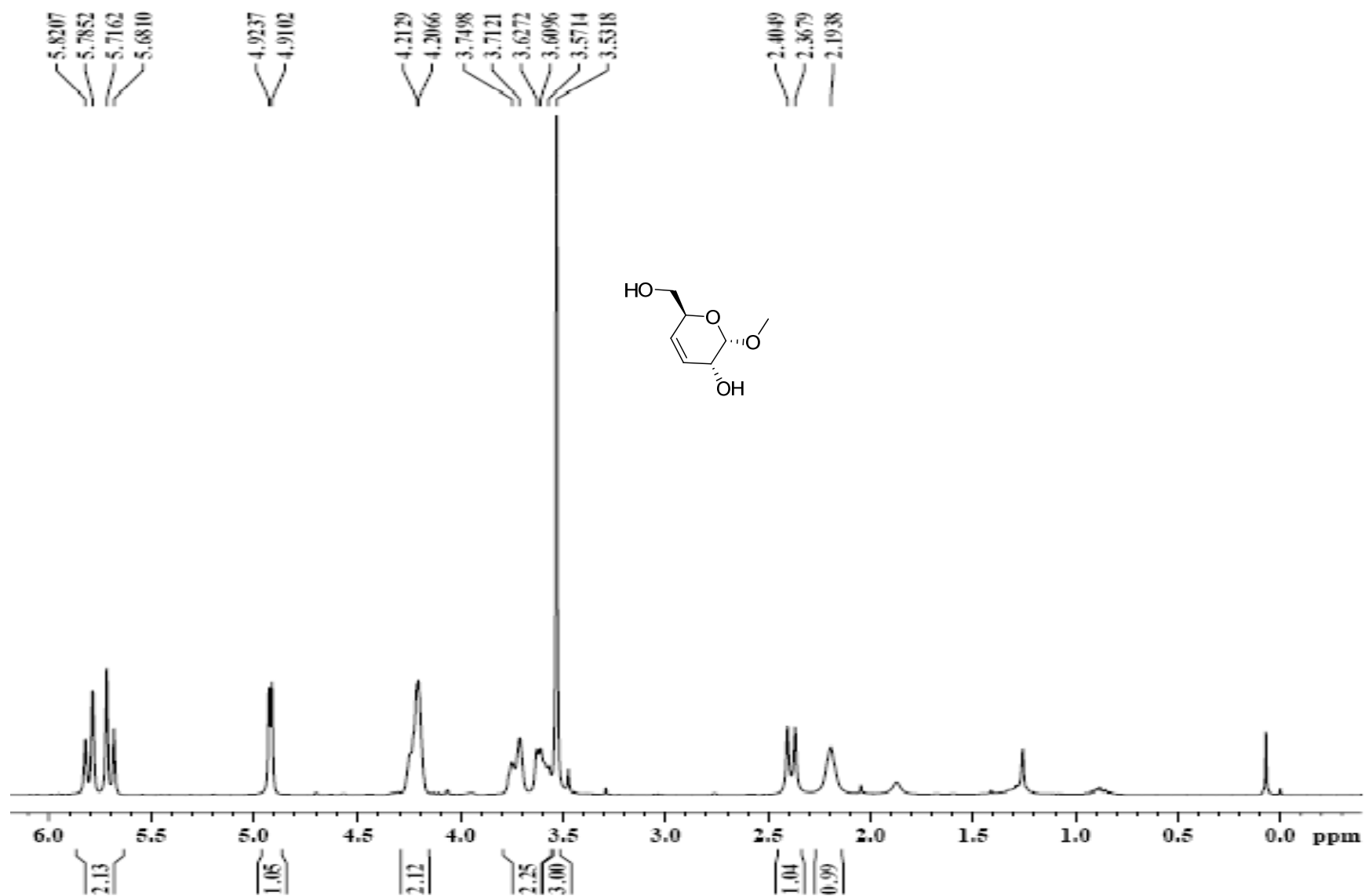


Figure 15 <sup>1</sup>H NMR spectrum of compound 17



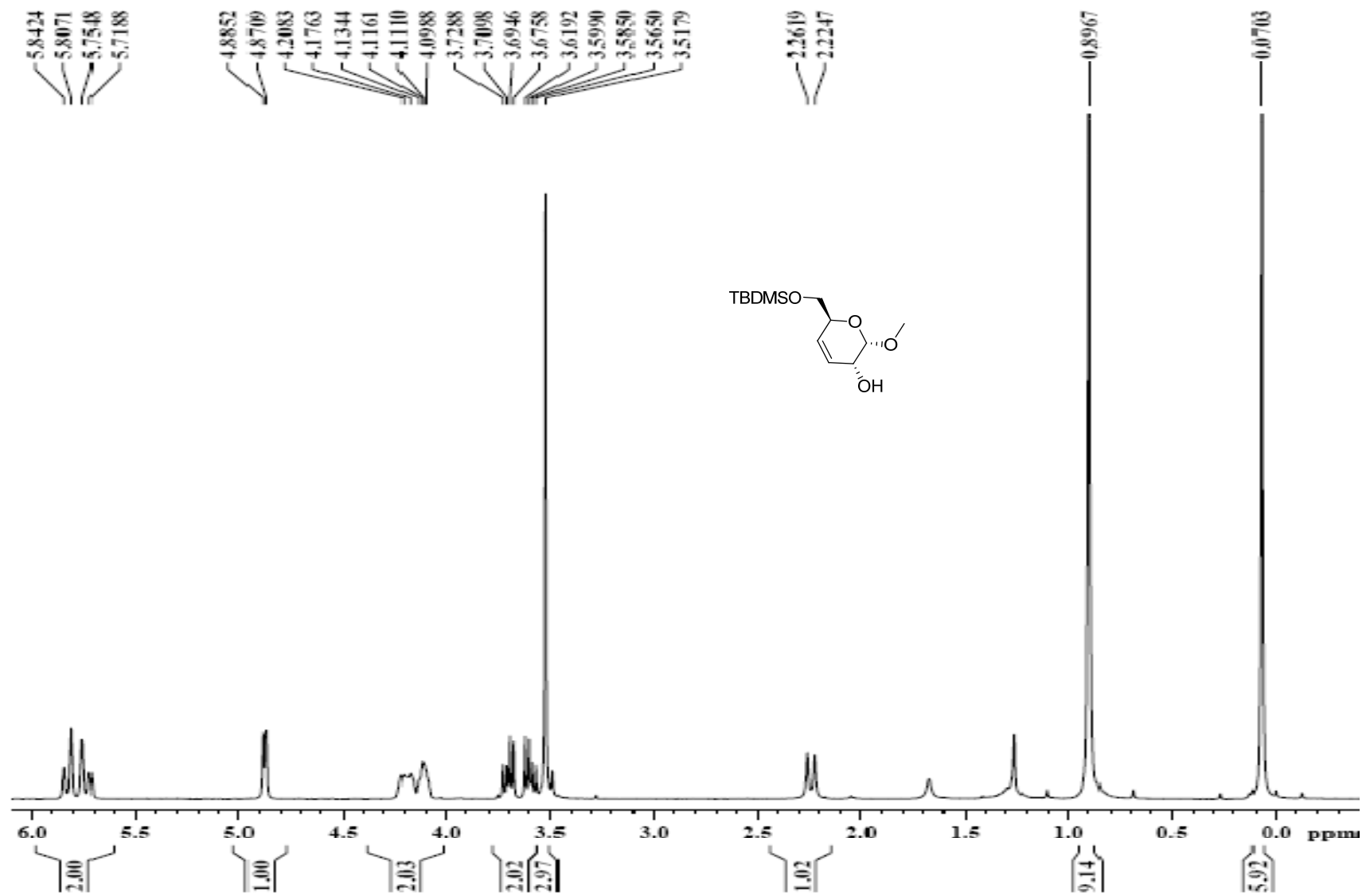


Figure 16  $^1\text{H}$  NMR spectrum of compound 18

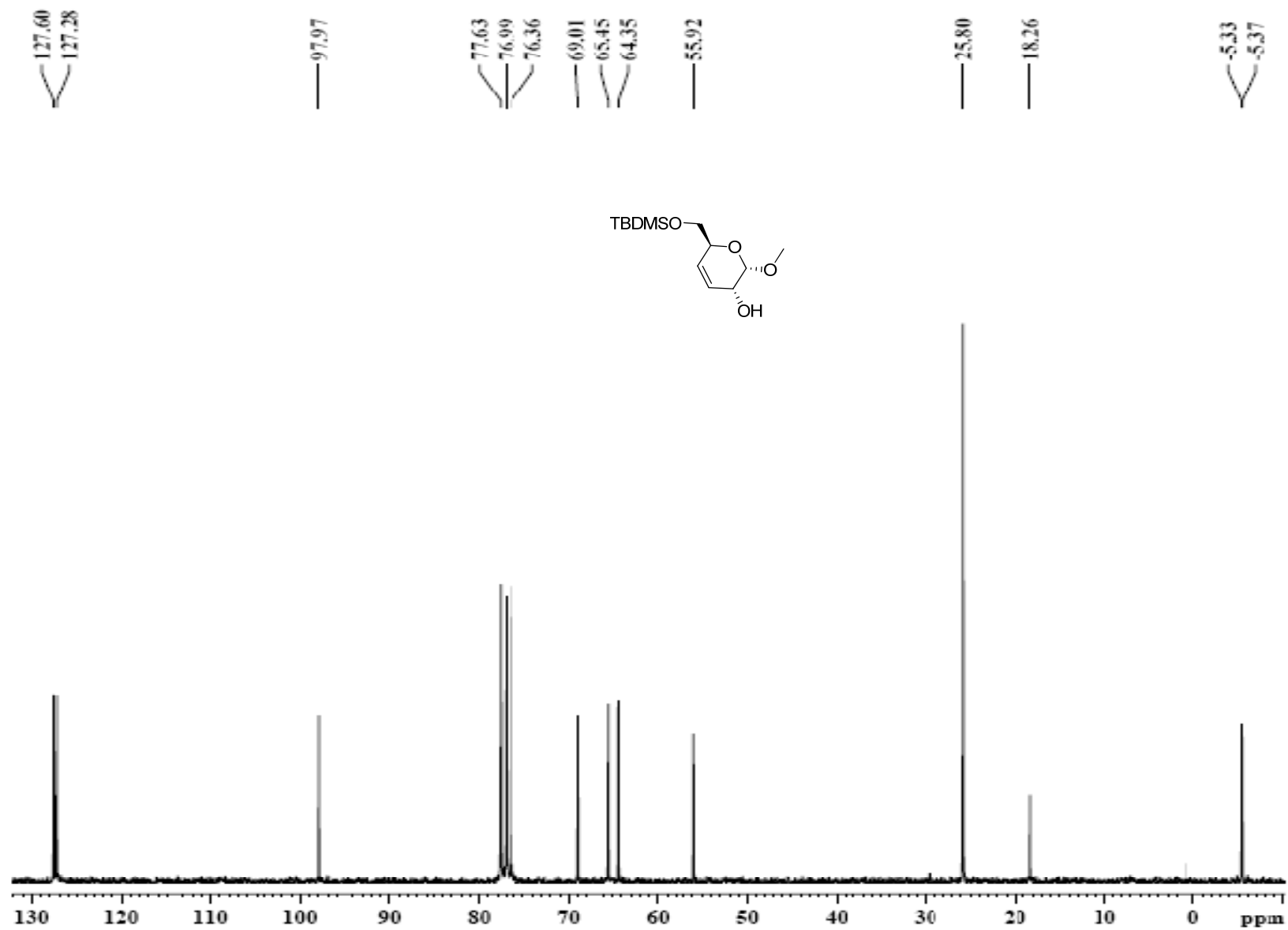
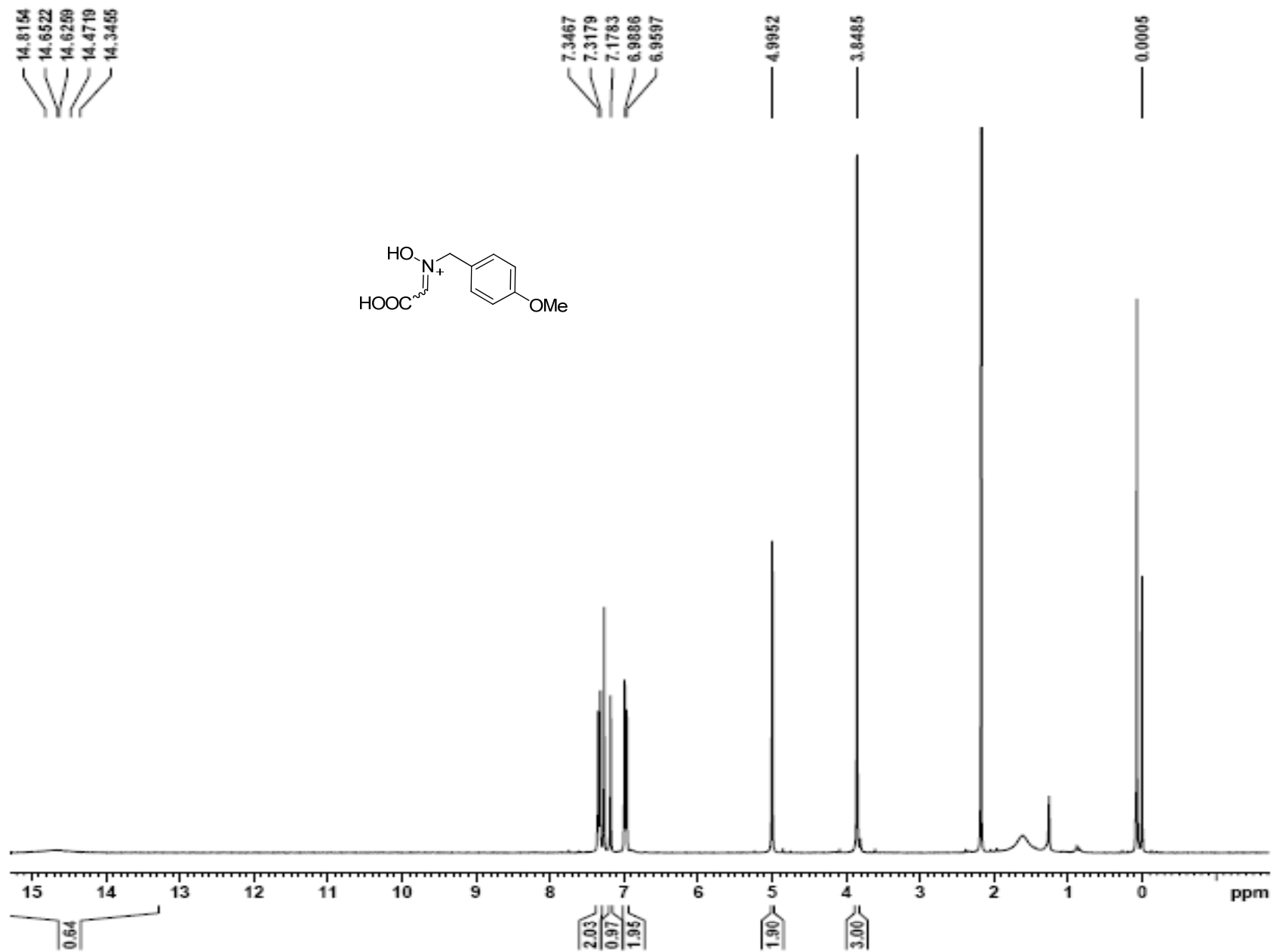


Figure 17 <sup>13</sup>C NMR spectrum of compound **18**



**Figure 18** <sup>1</sup>H NMR spectrum of compound **11**

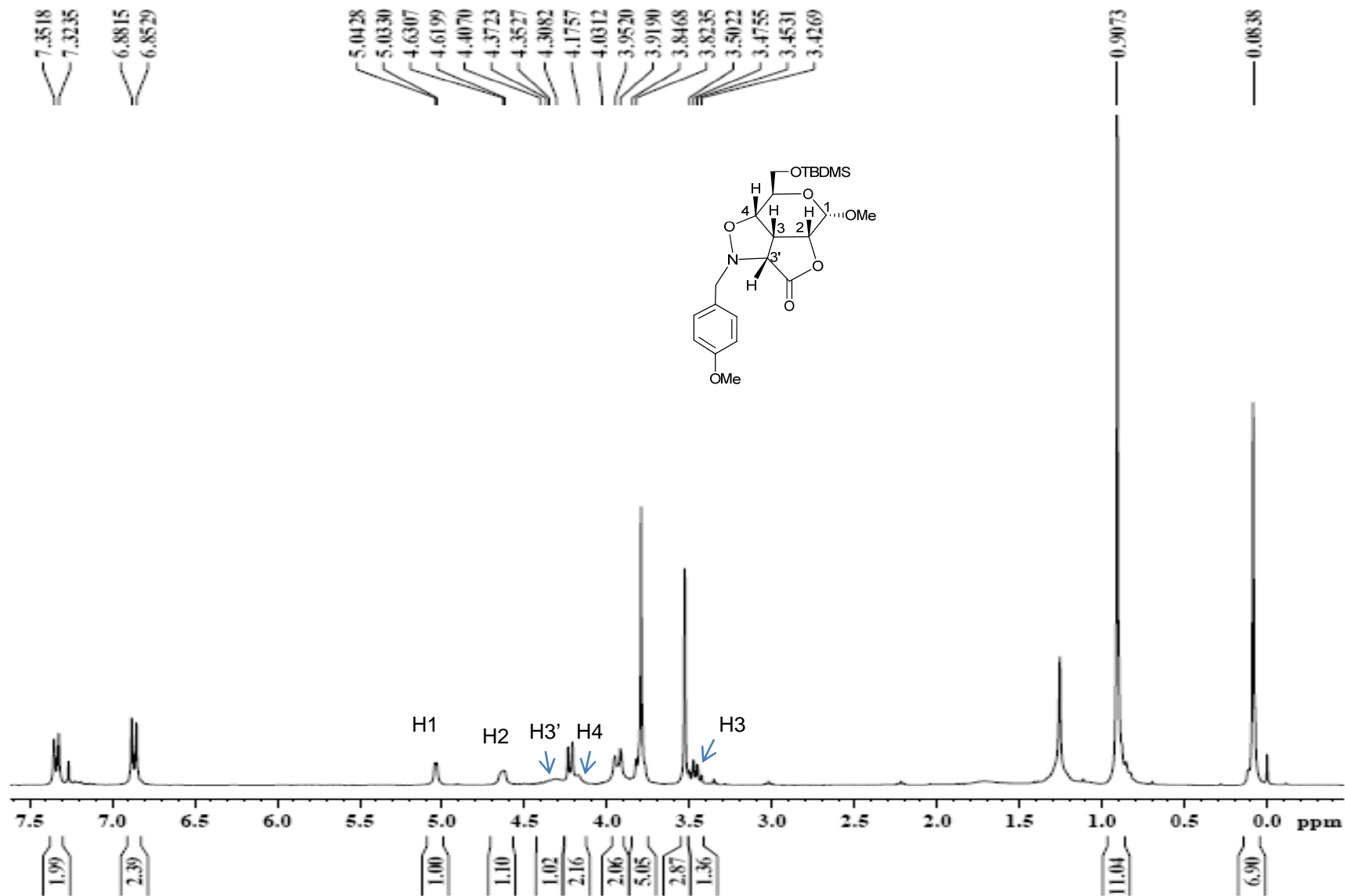
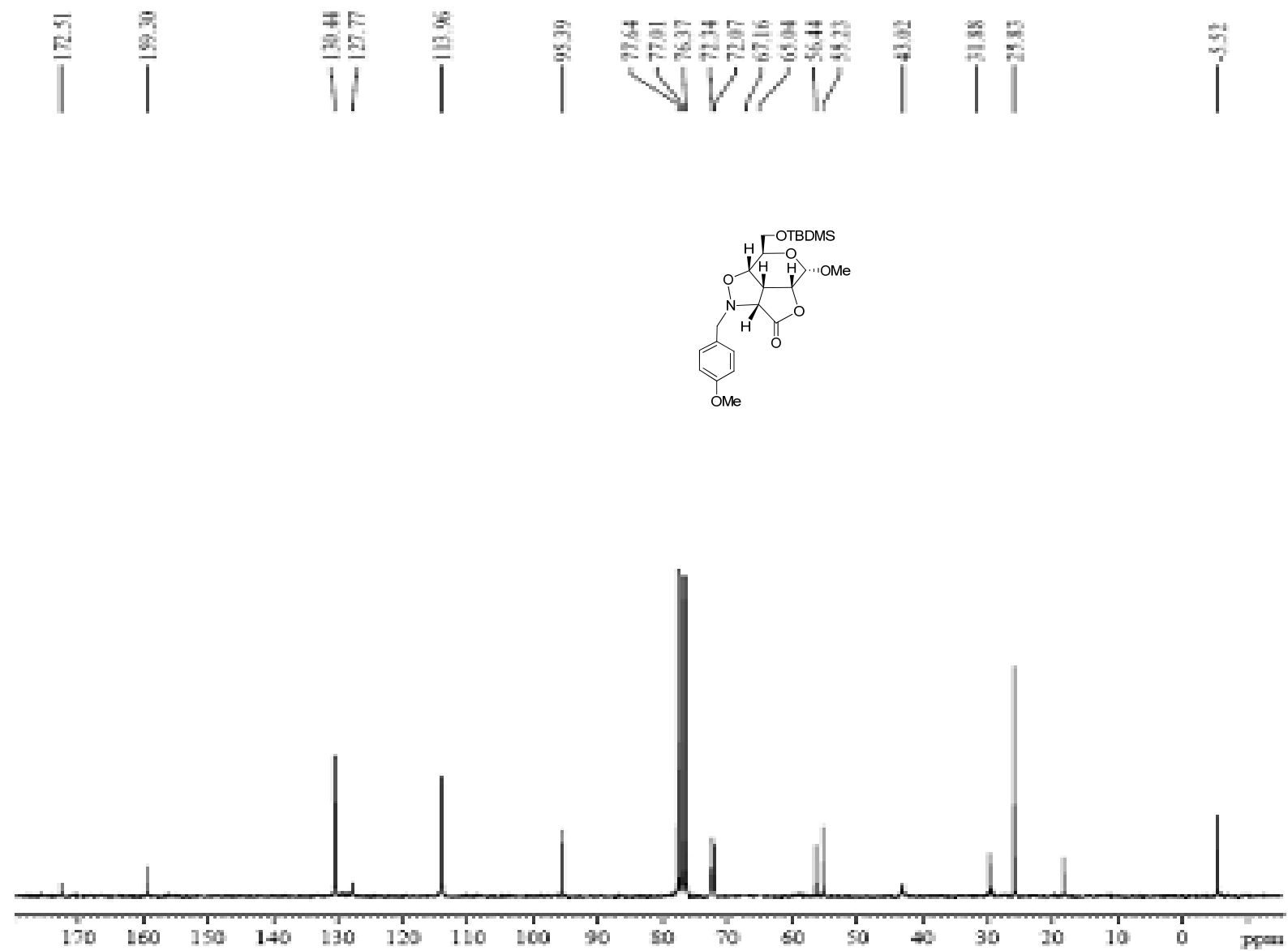
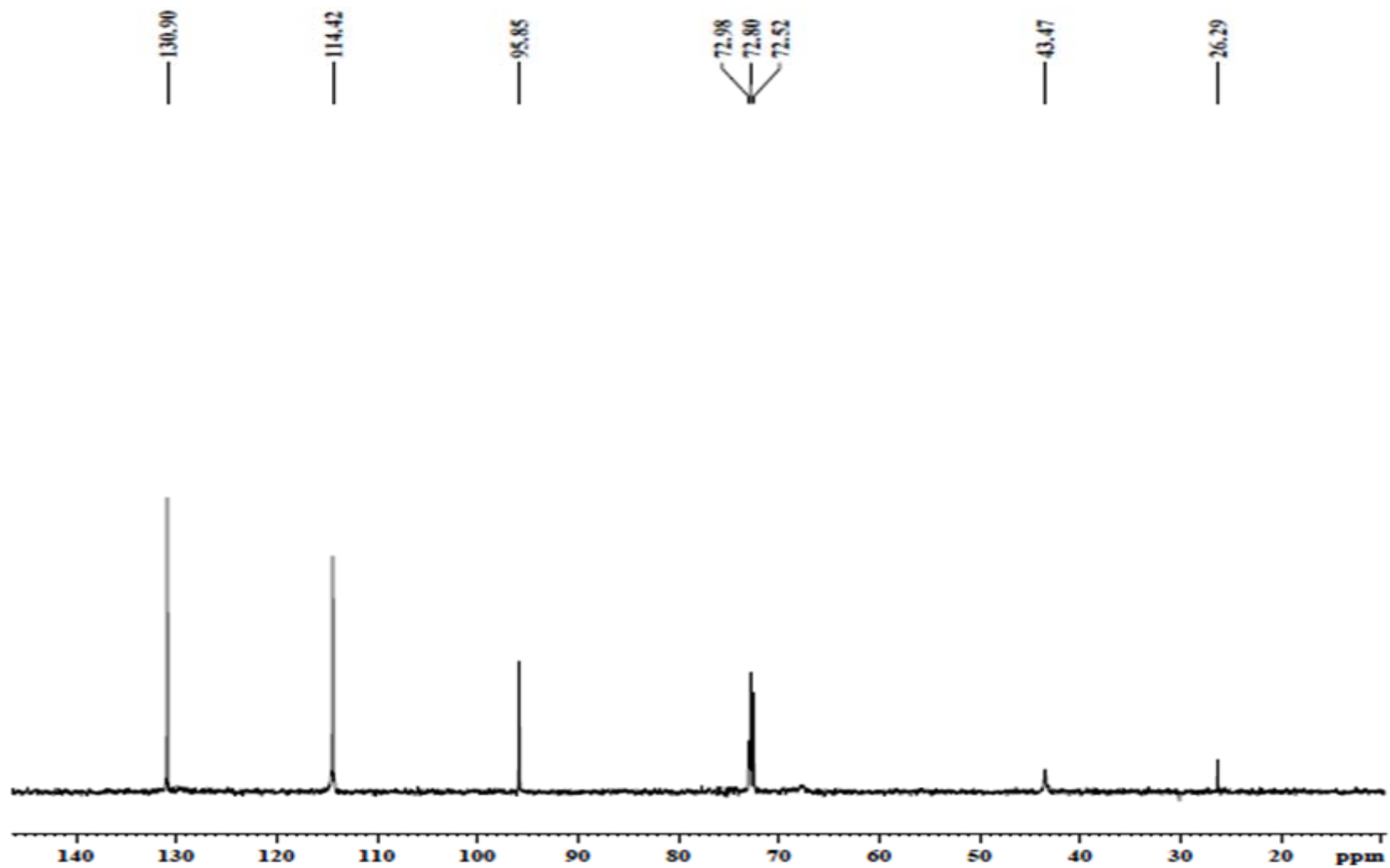


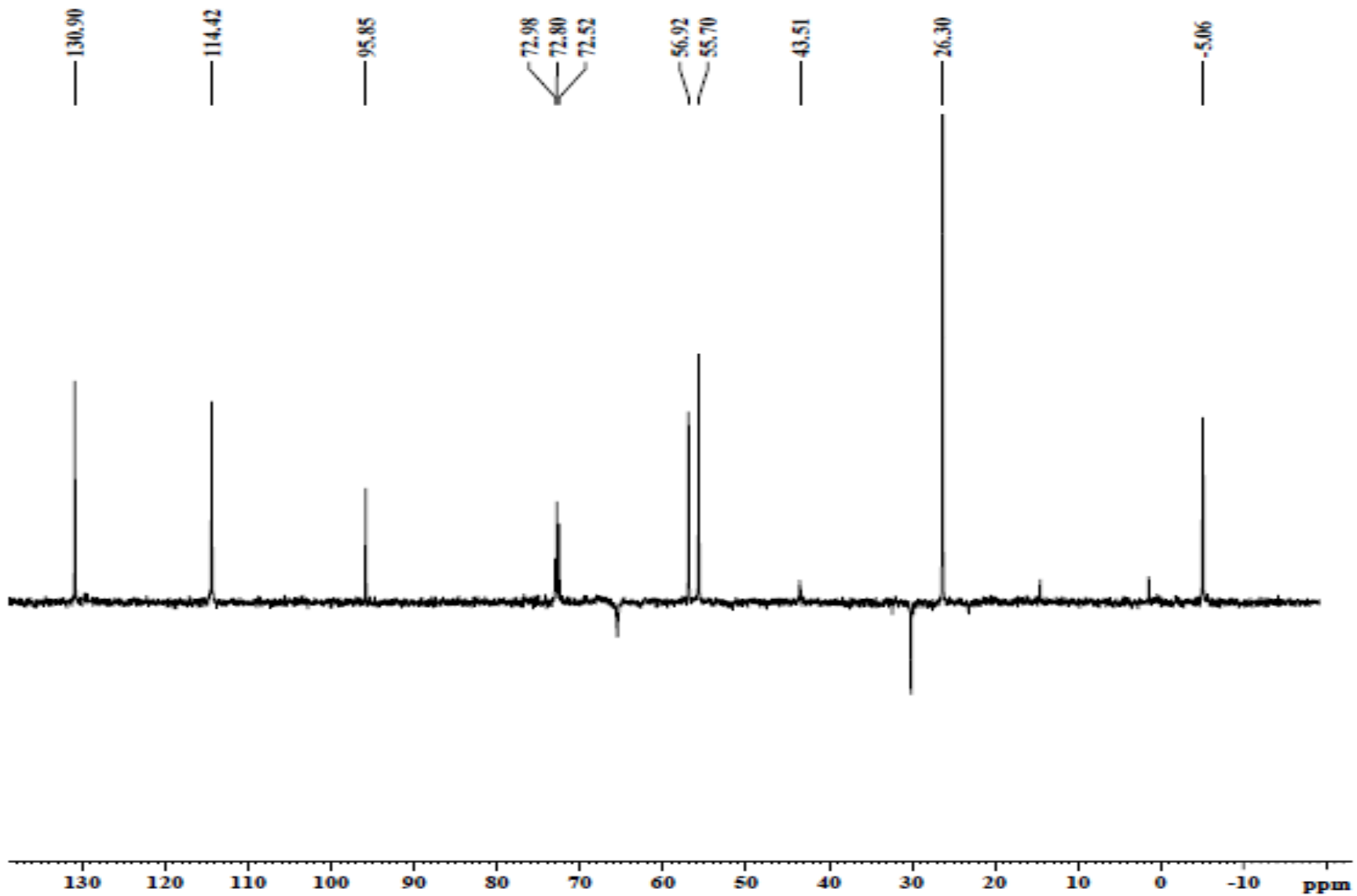
Figure 19 <sup>1</sup>H NMR spectrum of compound 19



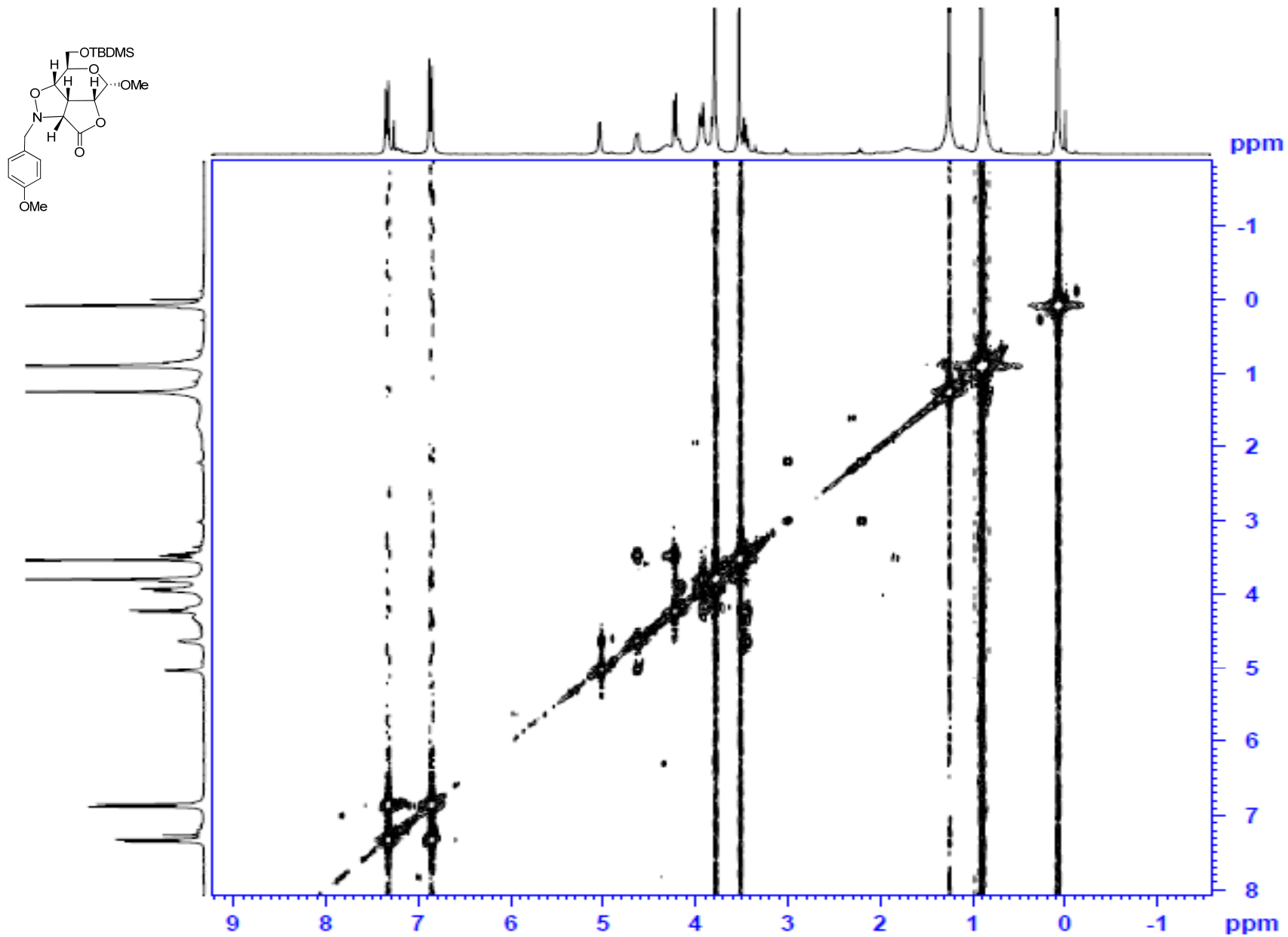
**Figure 20** <sup>13</sup>C NMR spectrum of compound **19**



**Figure 21** DEPT 90 spectrum of compound **19**

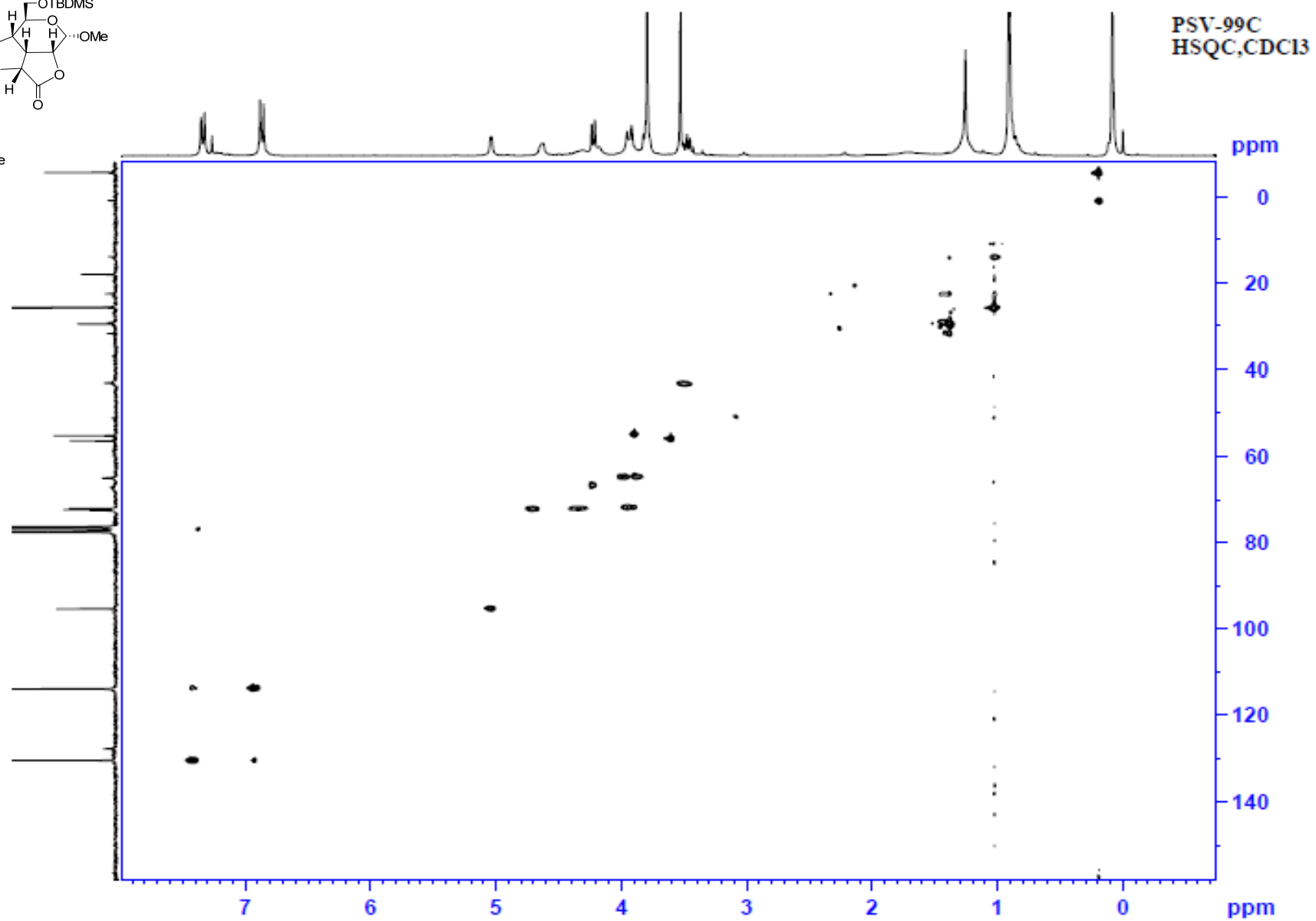
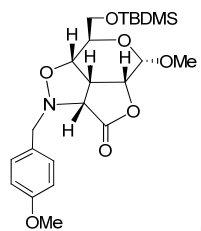


**Figure 22** DEPT 135 spectrum of compound **19**

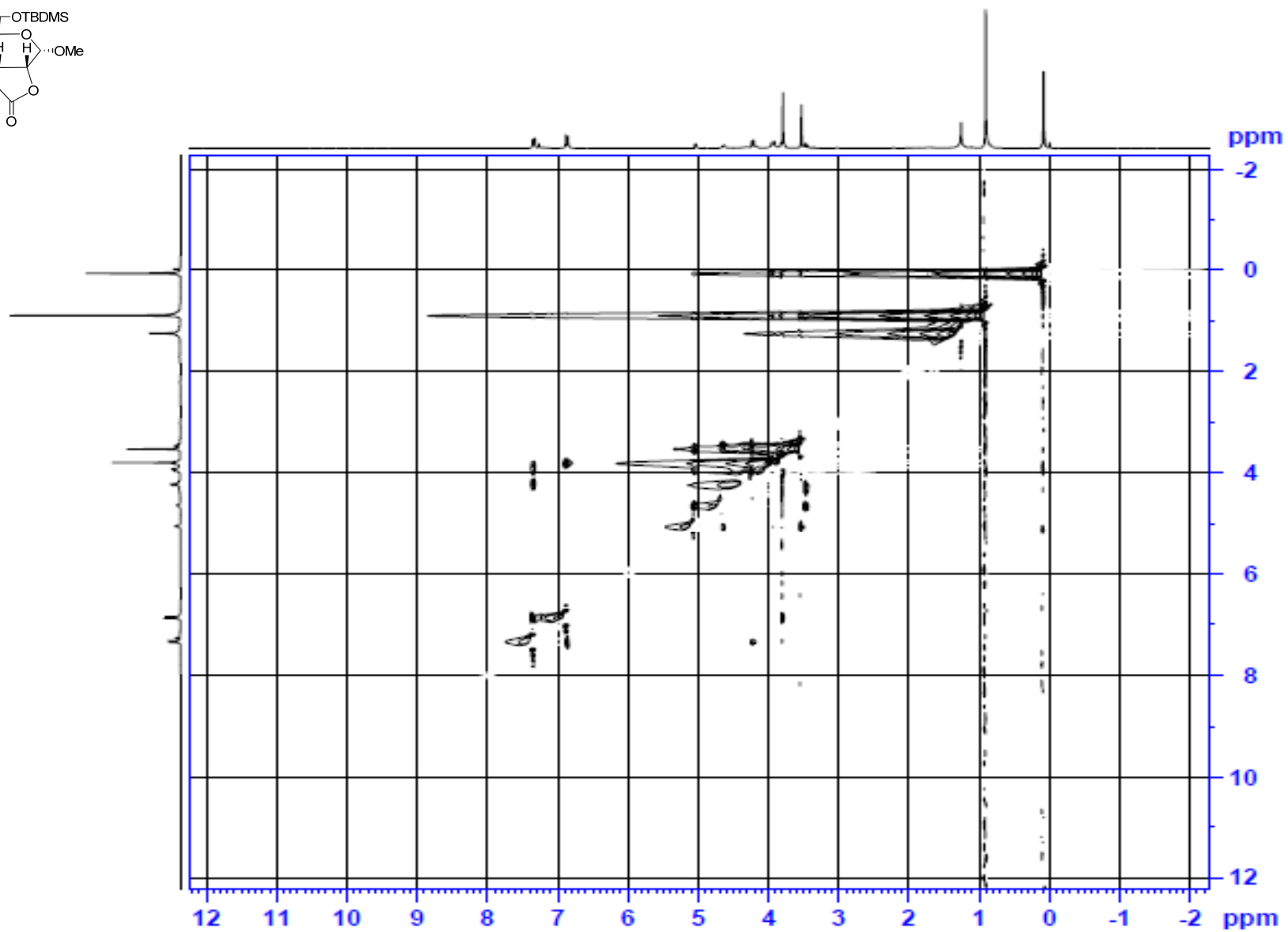
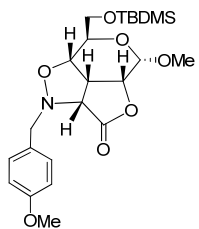


**Figure 23** COSY spectrum of compound **19**





**Figure 24** HSQC spectrum of compound **19**



**Figure 25** NOESY spectrum of compound **19**

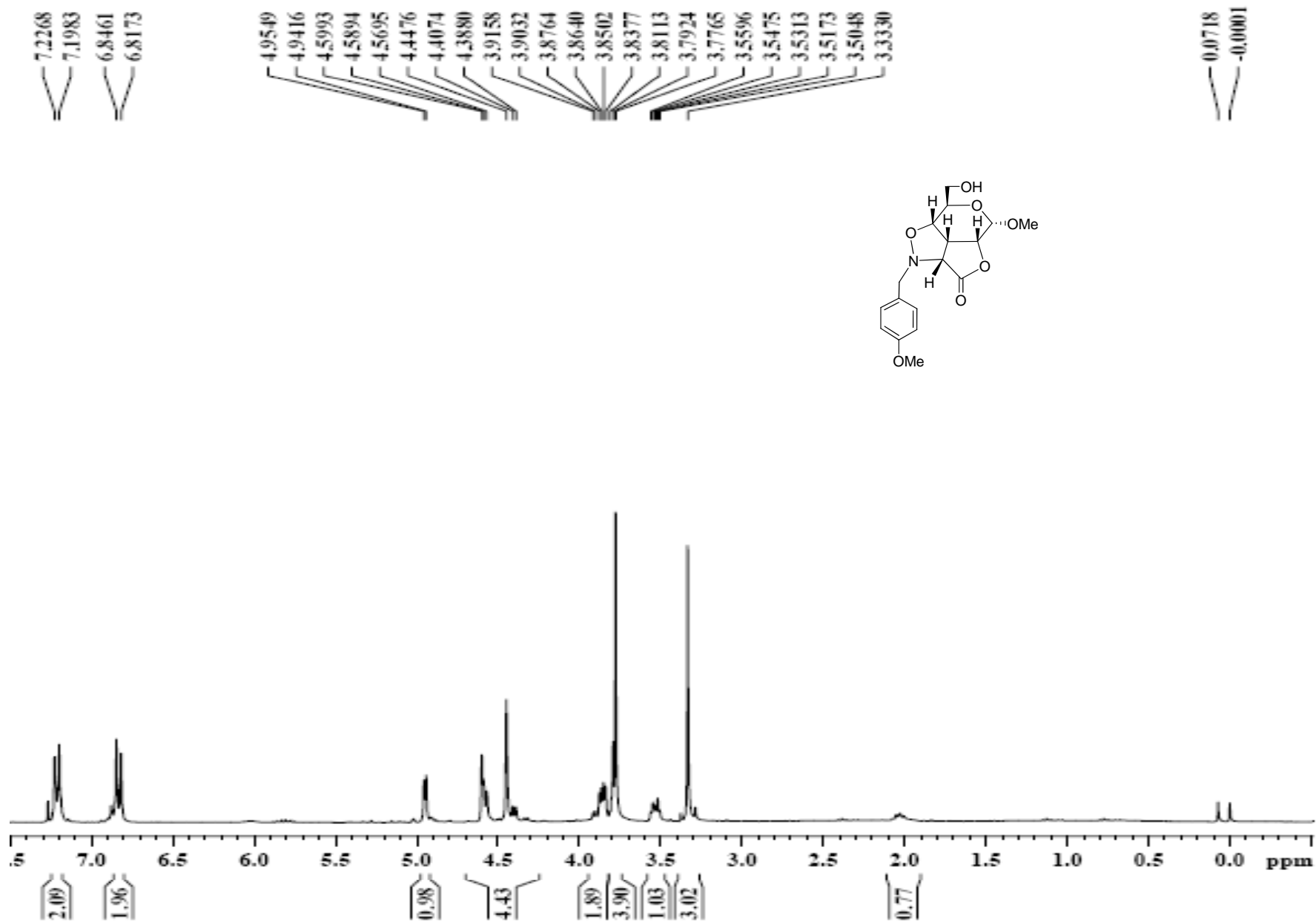
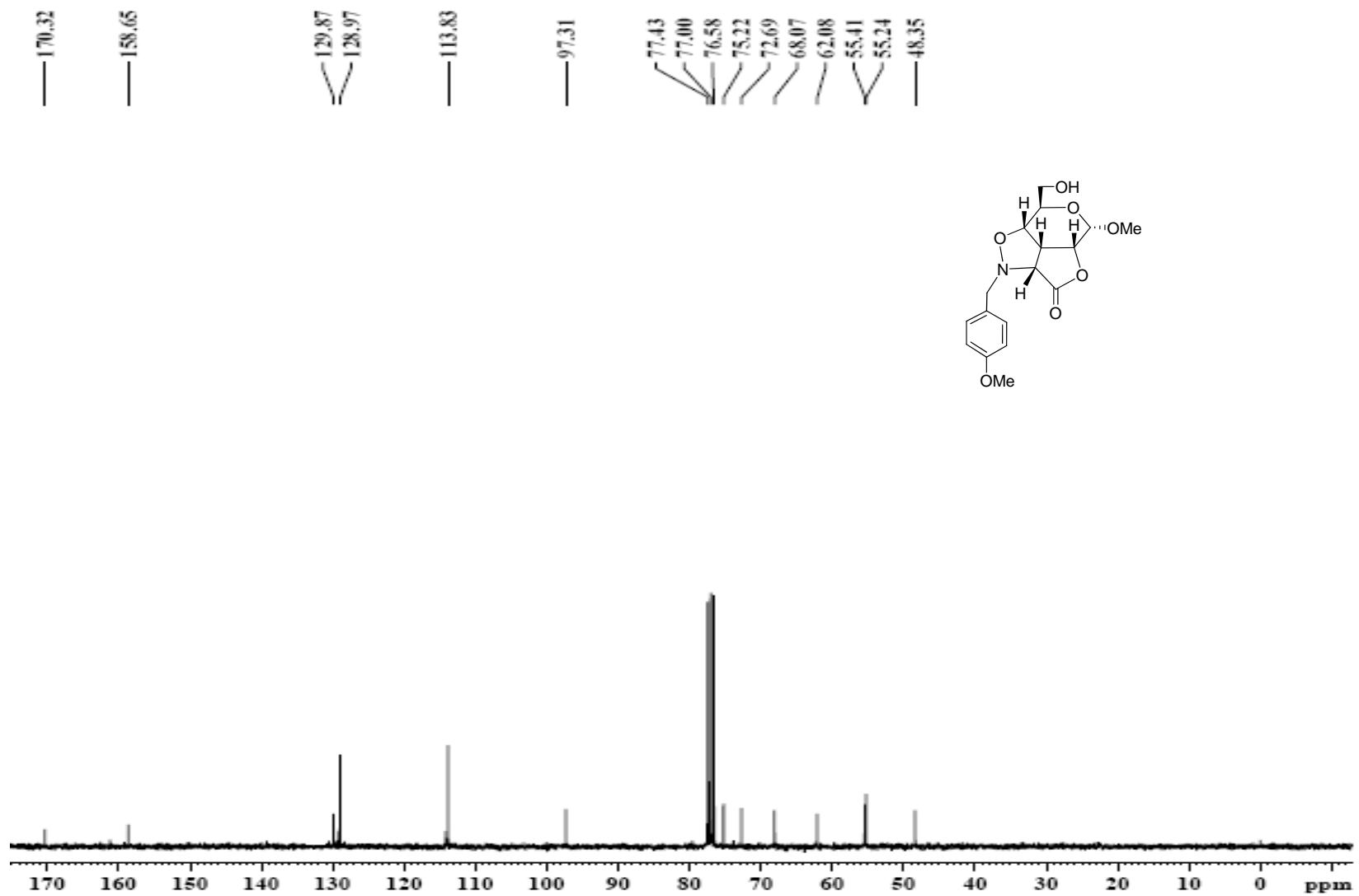


Figure 26 <sup>1</sup>H NMR spectrum of compound 20



**Figure 27**  $^{13}\text{C}$  NMR spectrum of compound **20**

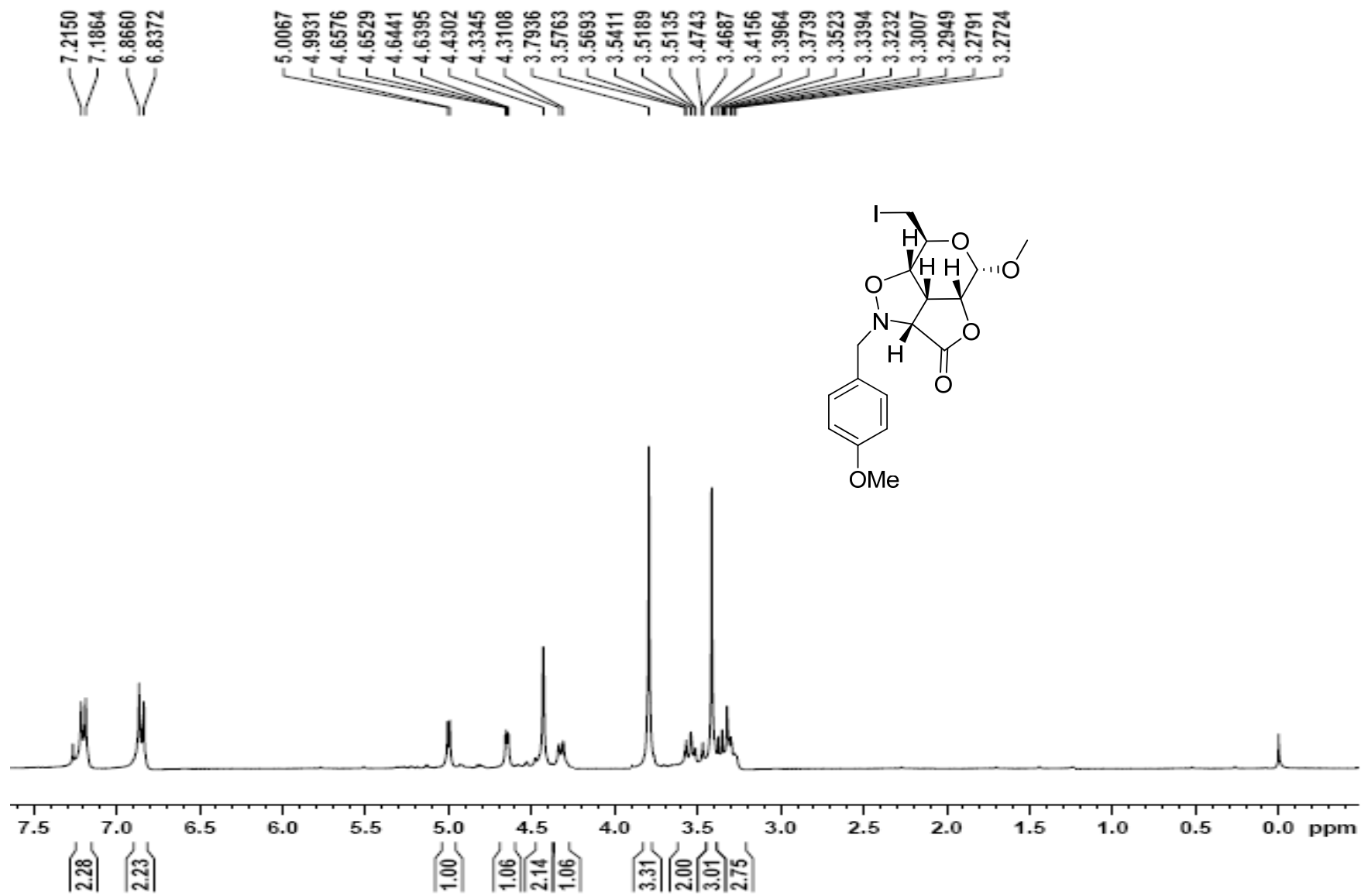


Figure 28  $^1\text{H}$  NMR spectrum of compound 21

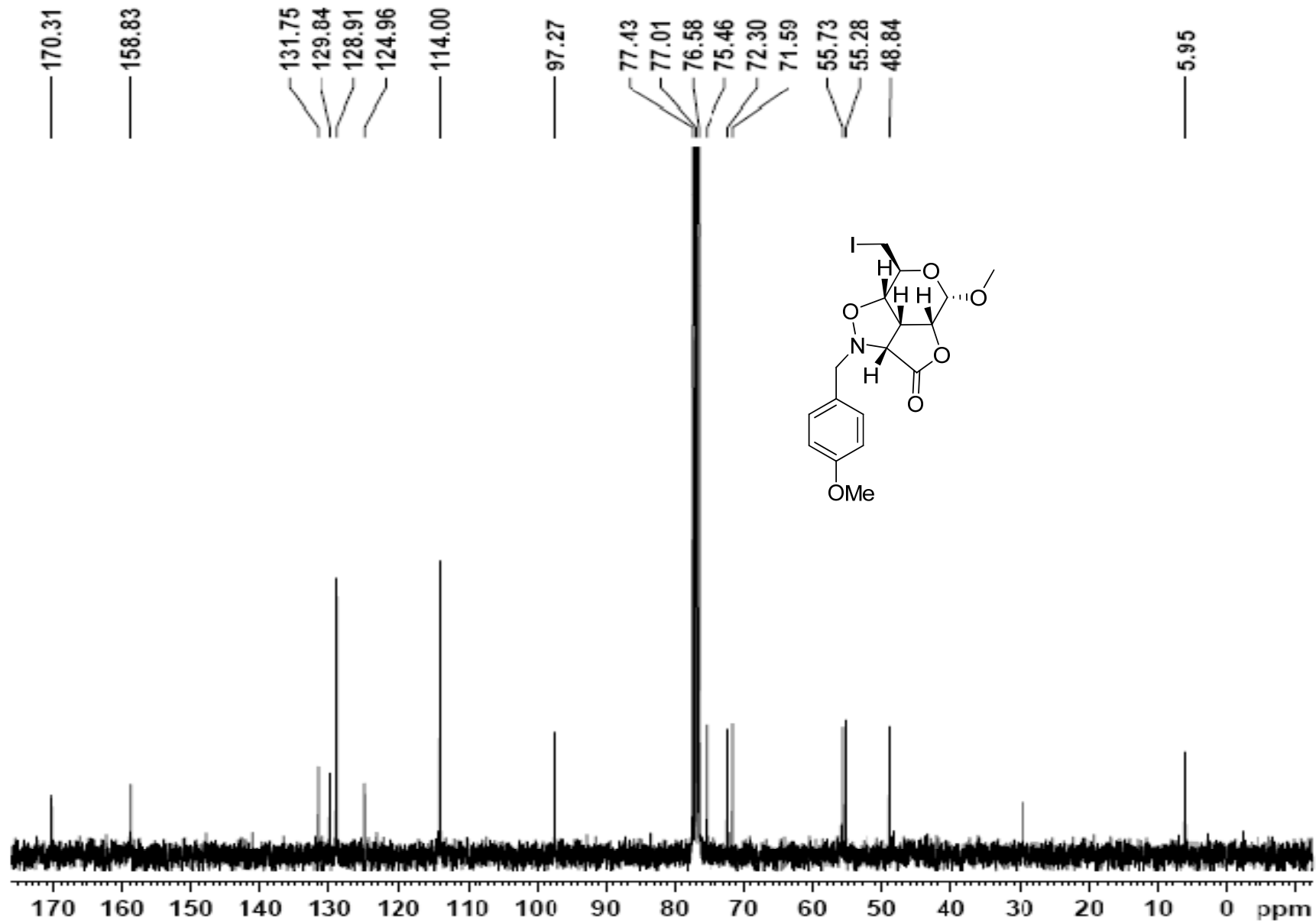


Figure 29  $^{13}\text{C}$  NMR spectrum of compound 21

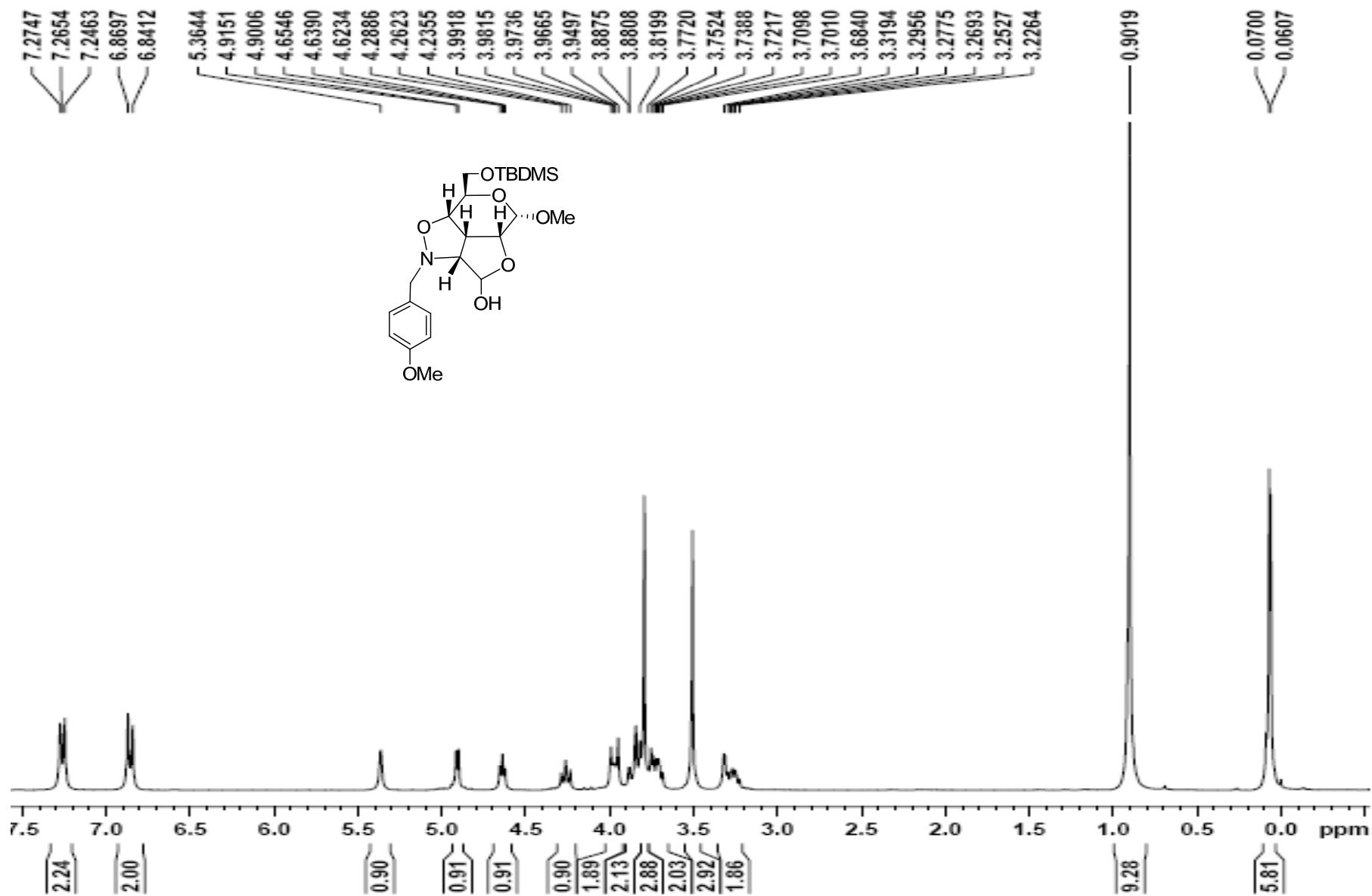


Figure 30  $^1\text{H}$  NMR spectrum of compound 22

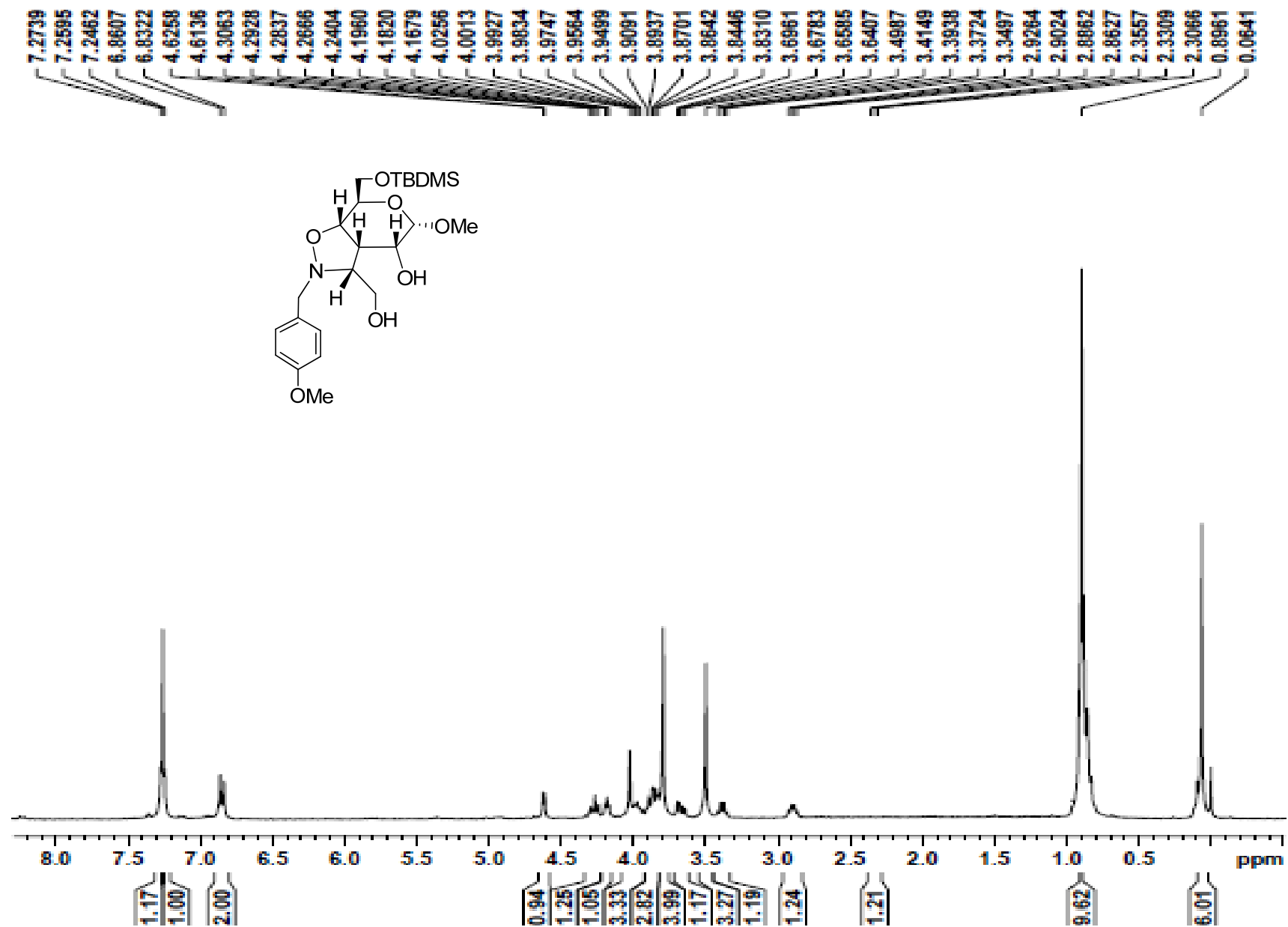


Figure 31 <sup>1</sup>H NMR spectrum of compound 23



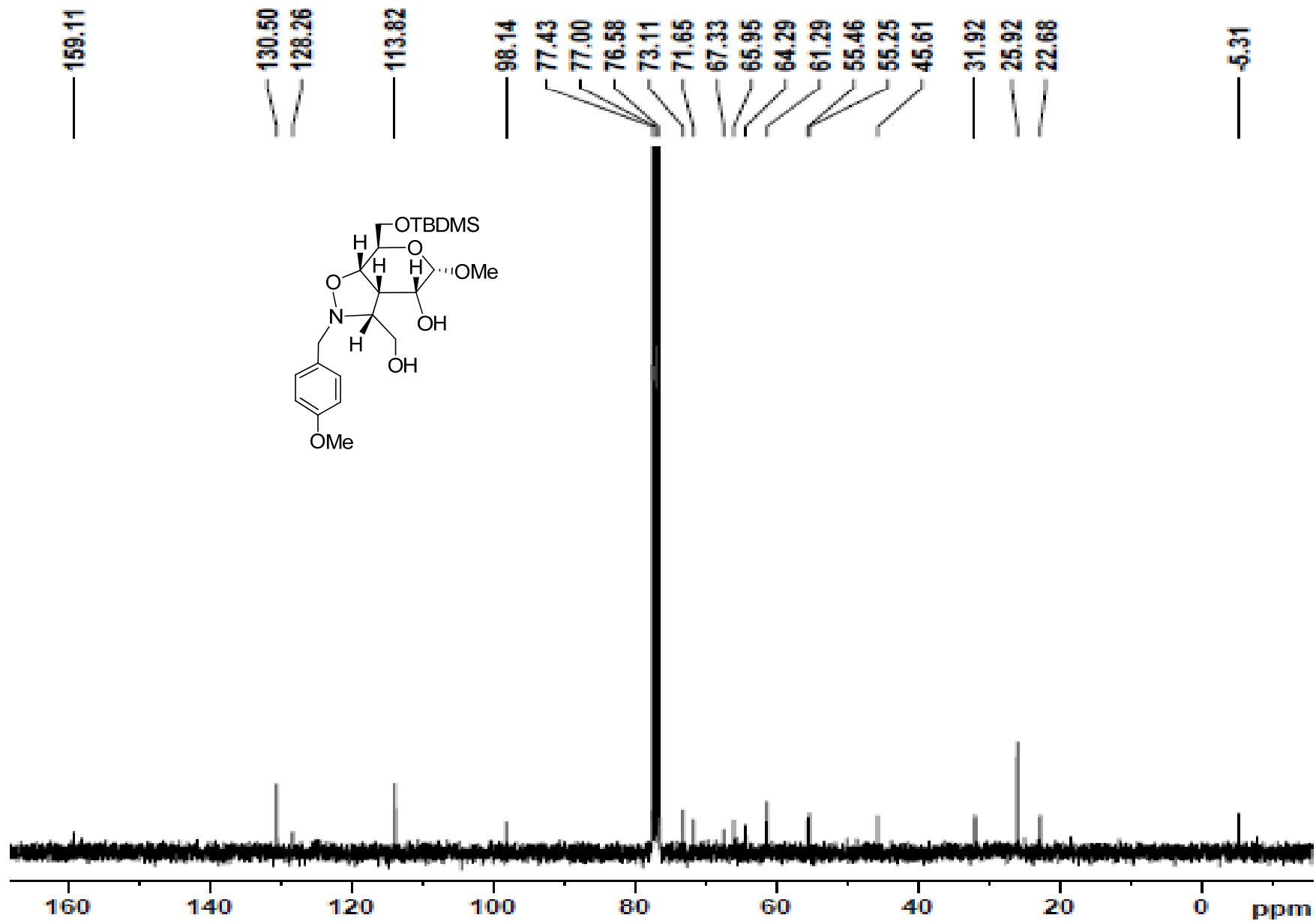
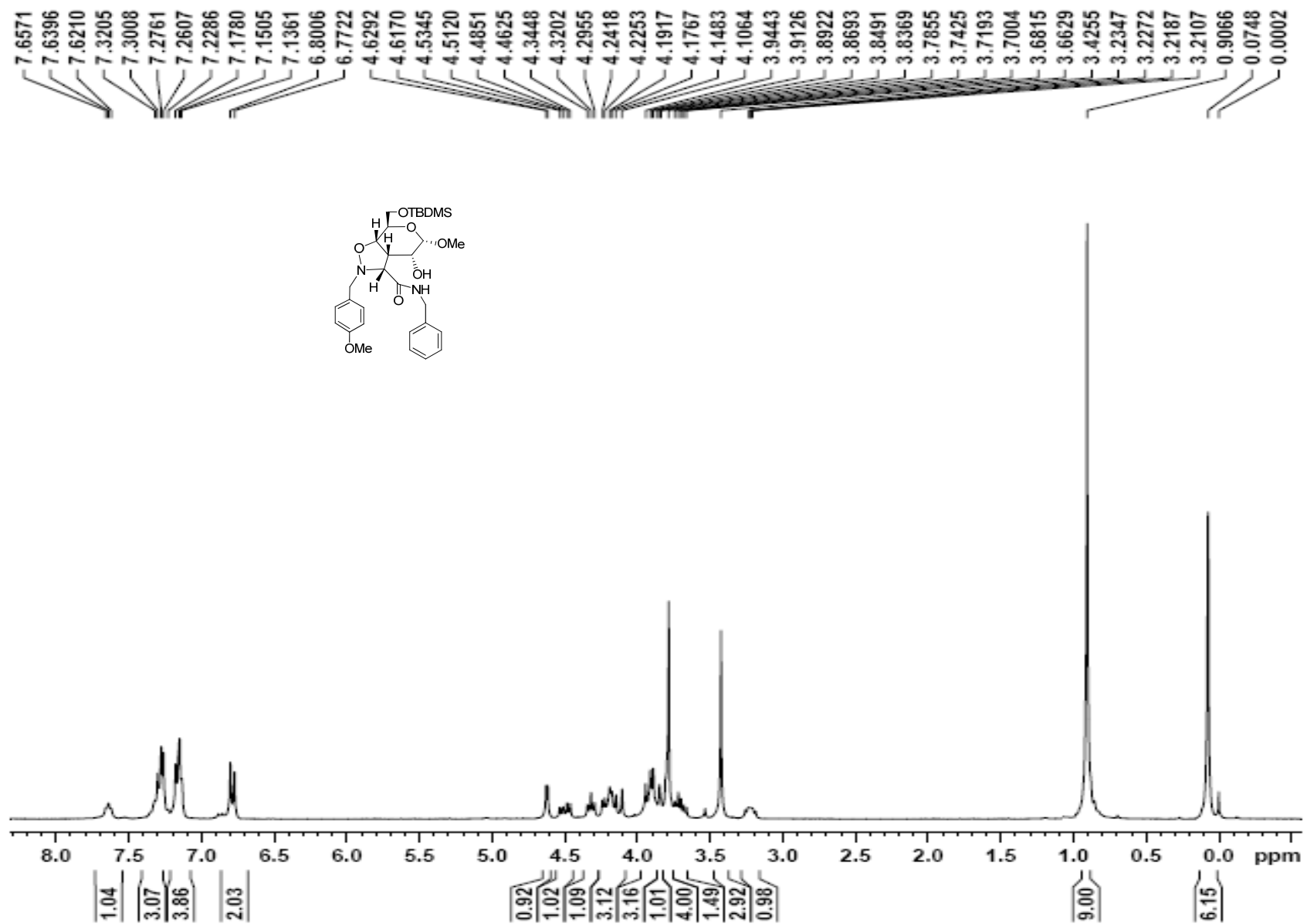


Figure 32 <sup>13</sup>C NMR spectrum of compound 23



**Figure 33** <sup>1</sup>H NMR spectrum of compound 24

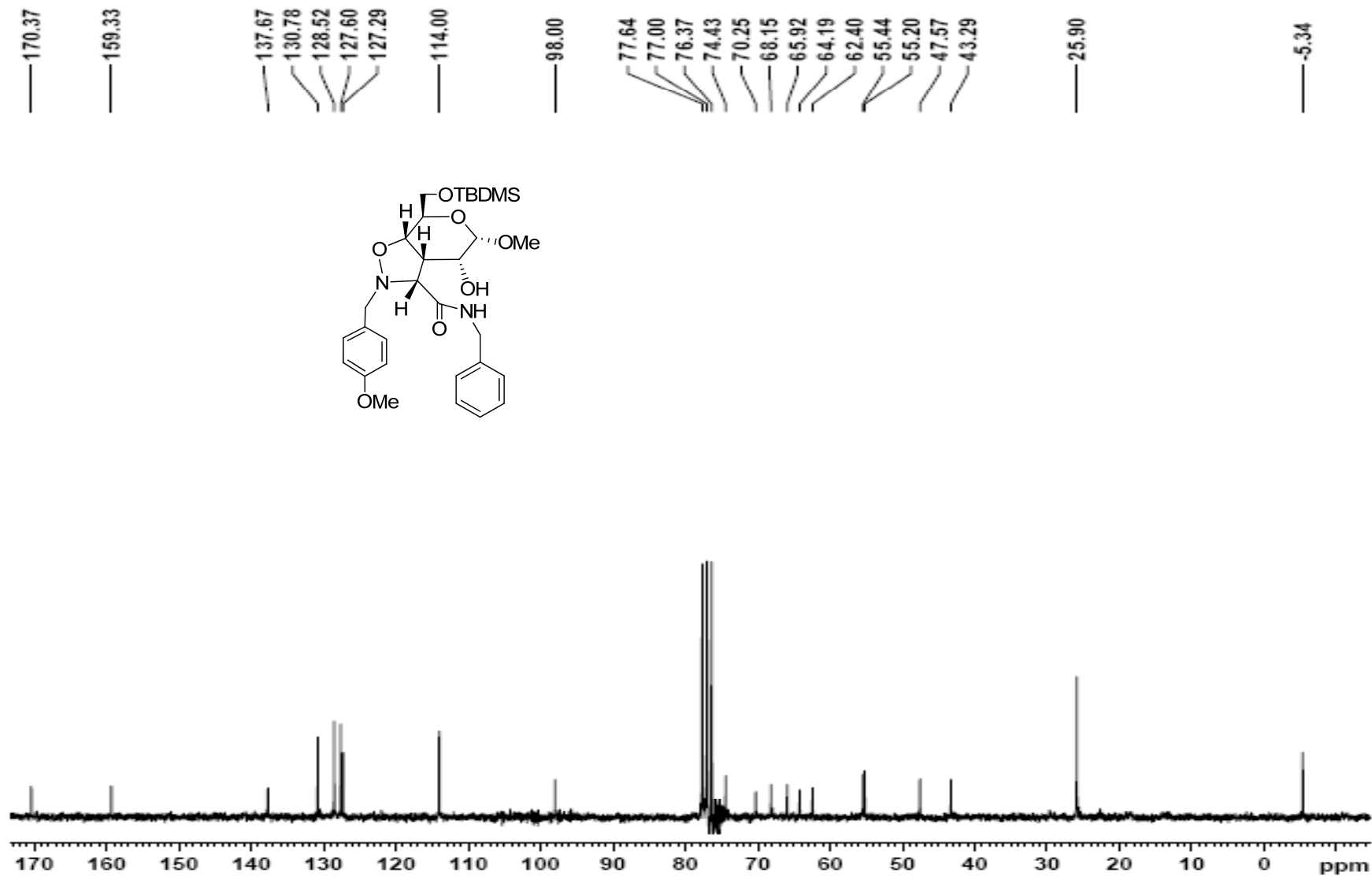


Figure 34 <sup>13</sup>C NMR spectrum of compound 24

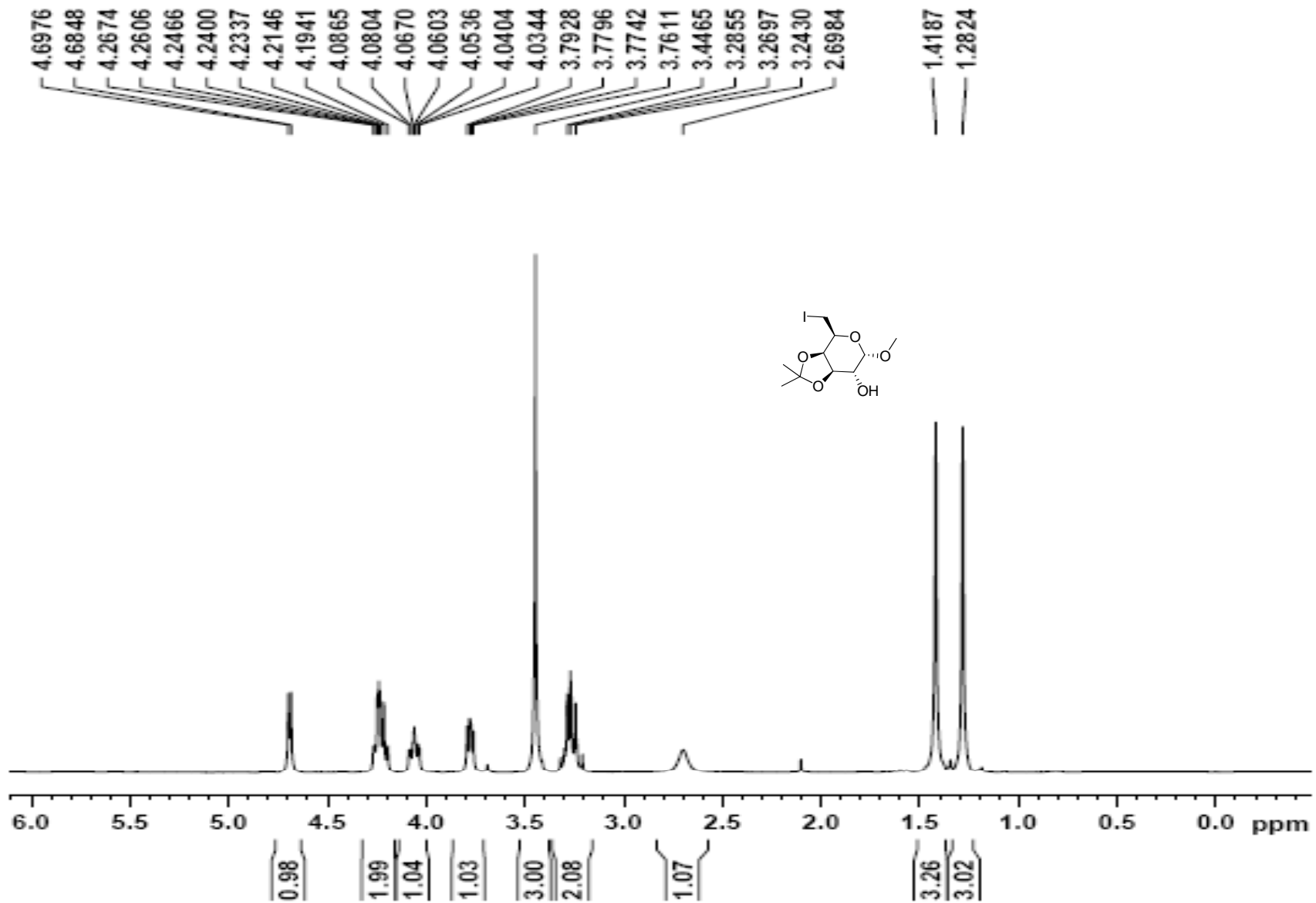


Figure 35  $^1\text{H}$  NMR spectrum of compound 25

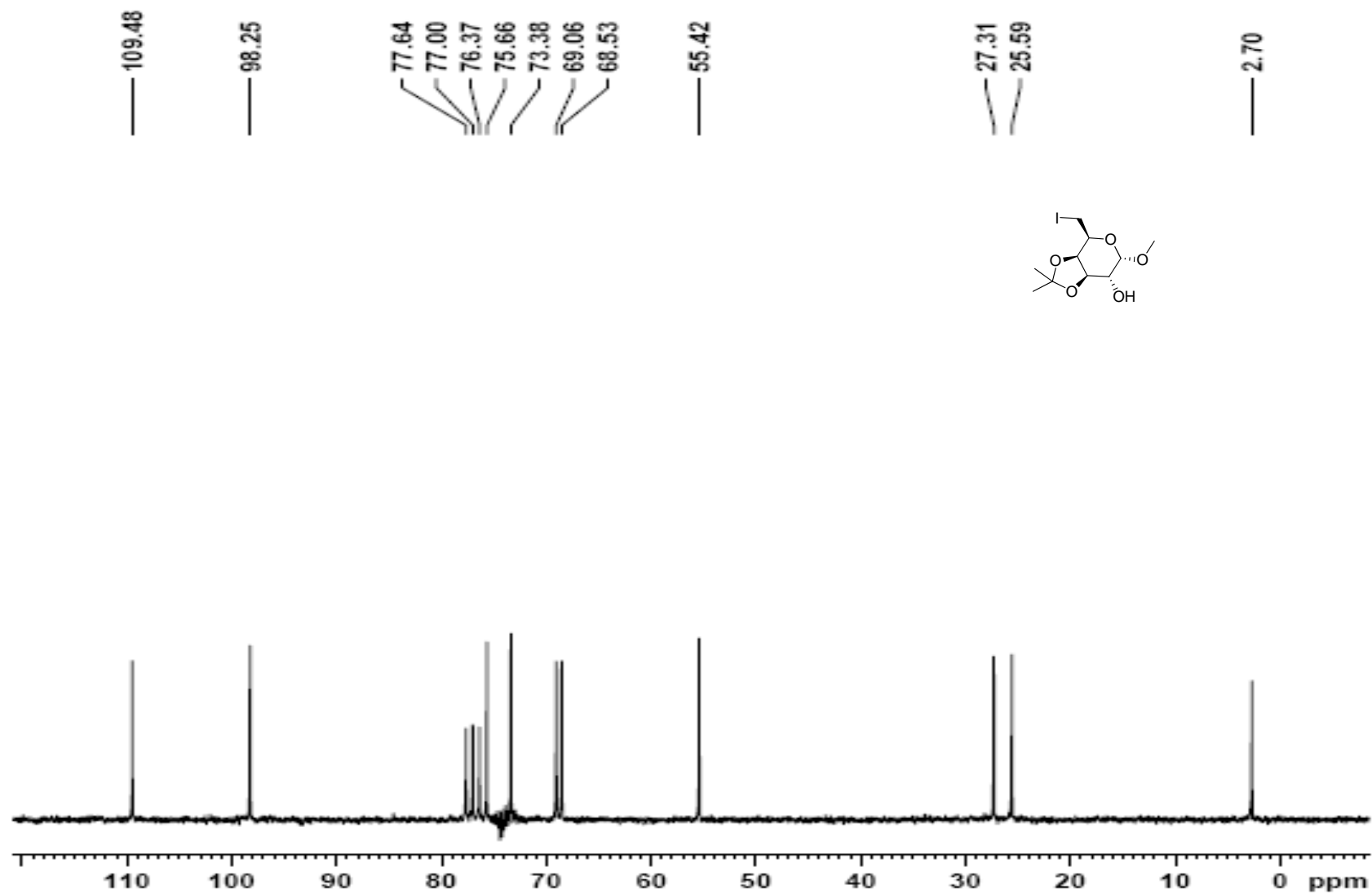


Figure 36 <sup>13</sup>C NMR spectrum of compound 25

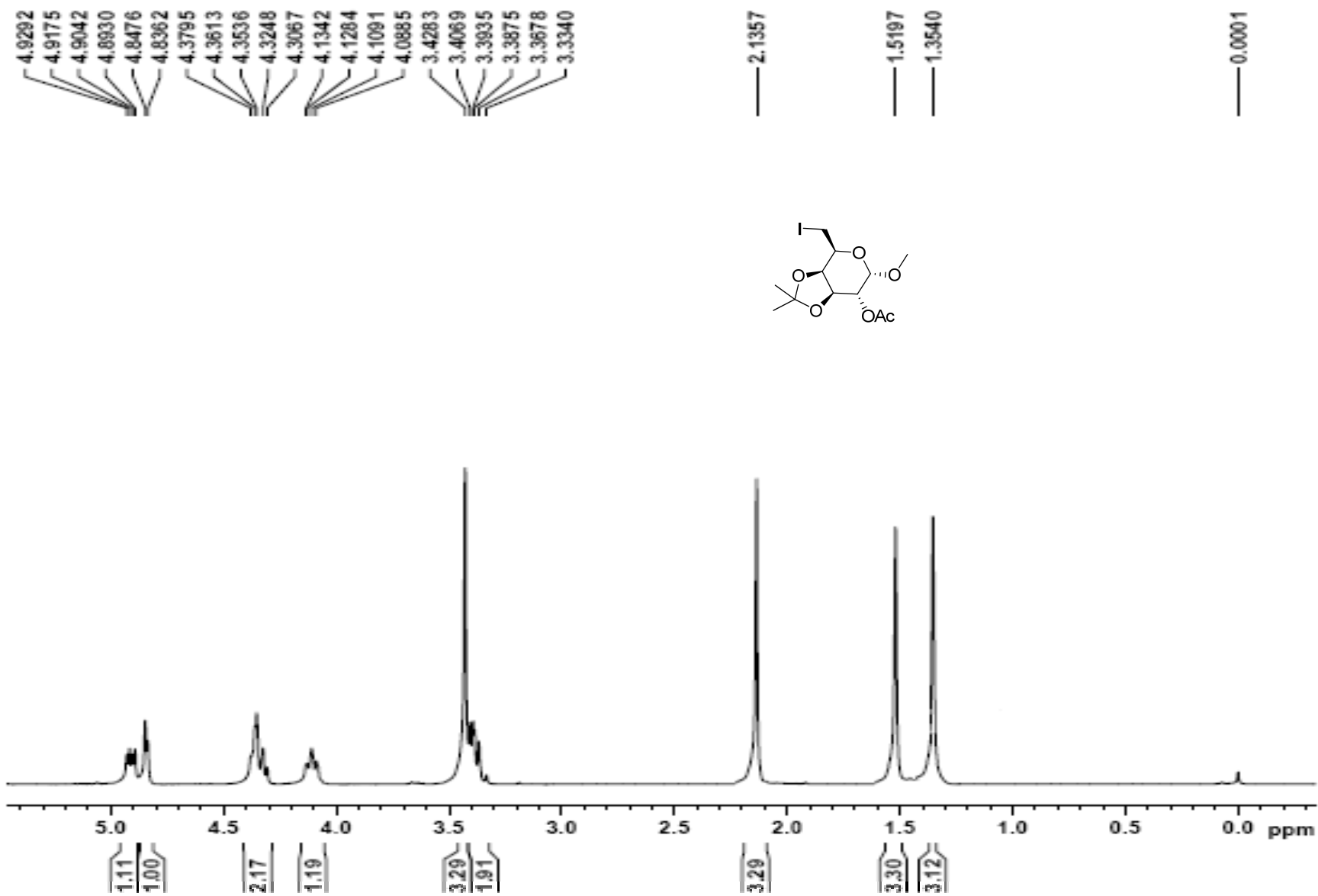


Figure 37  $^1\text{H}$  NMR spectrum of compound 26

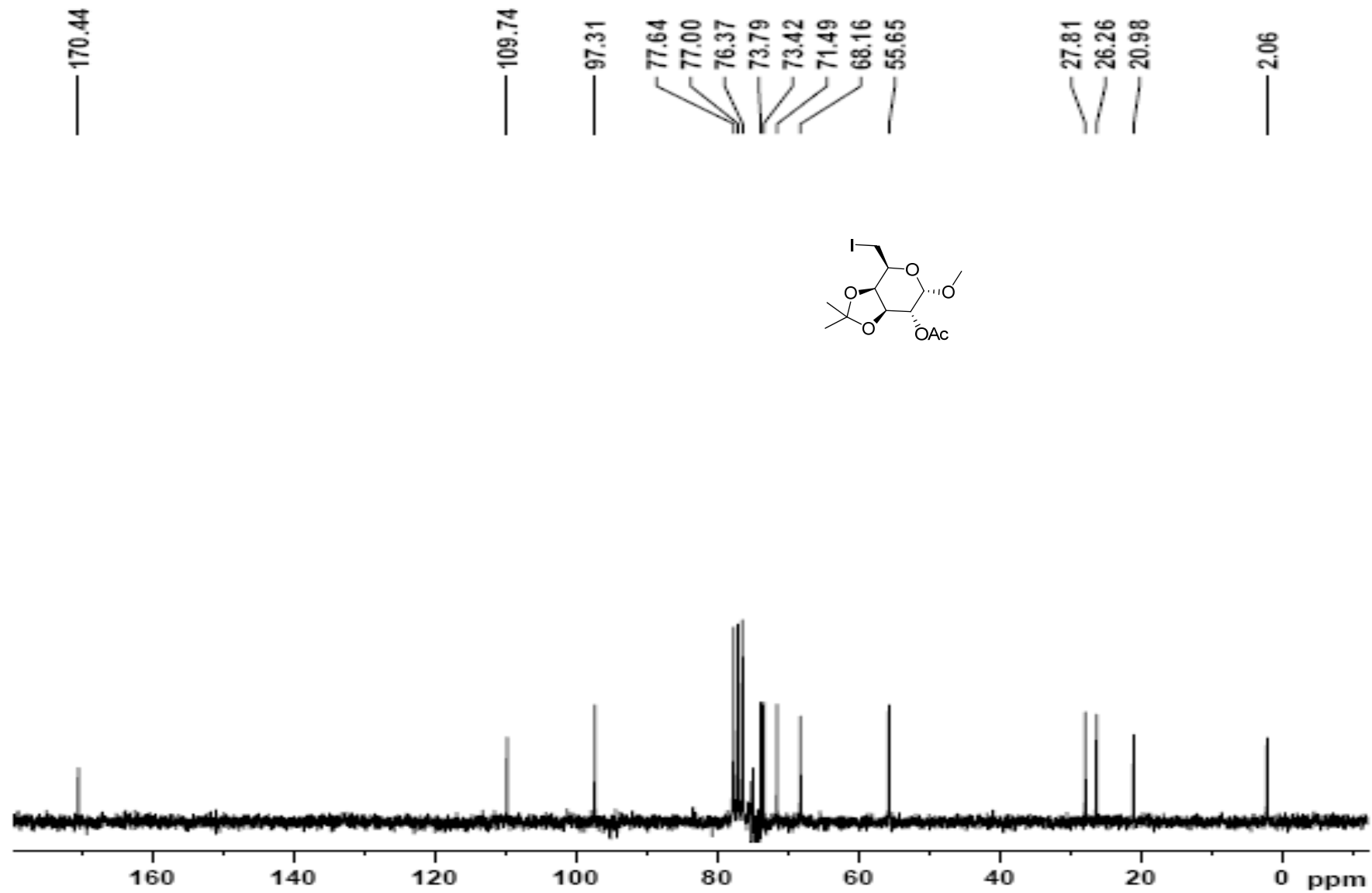


Figure 38 <sup>13</sup>C NMR spectrum of compound 26

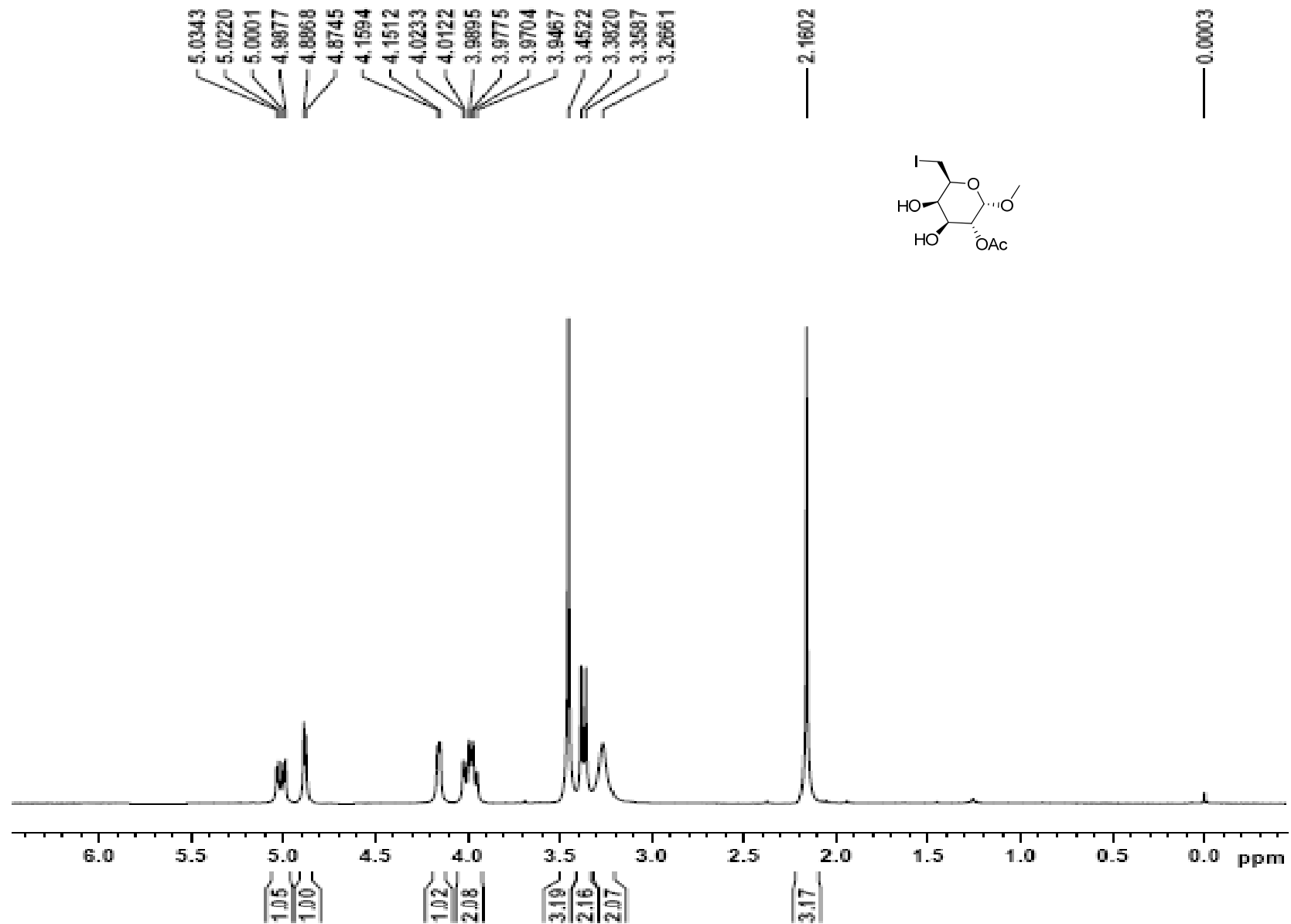


Figure 39 <sup>1</sup>H NMR spectrum of compound 27



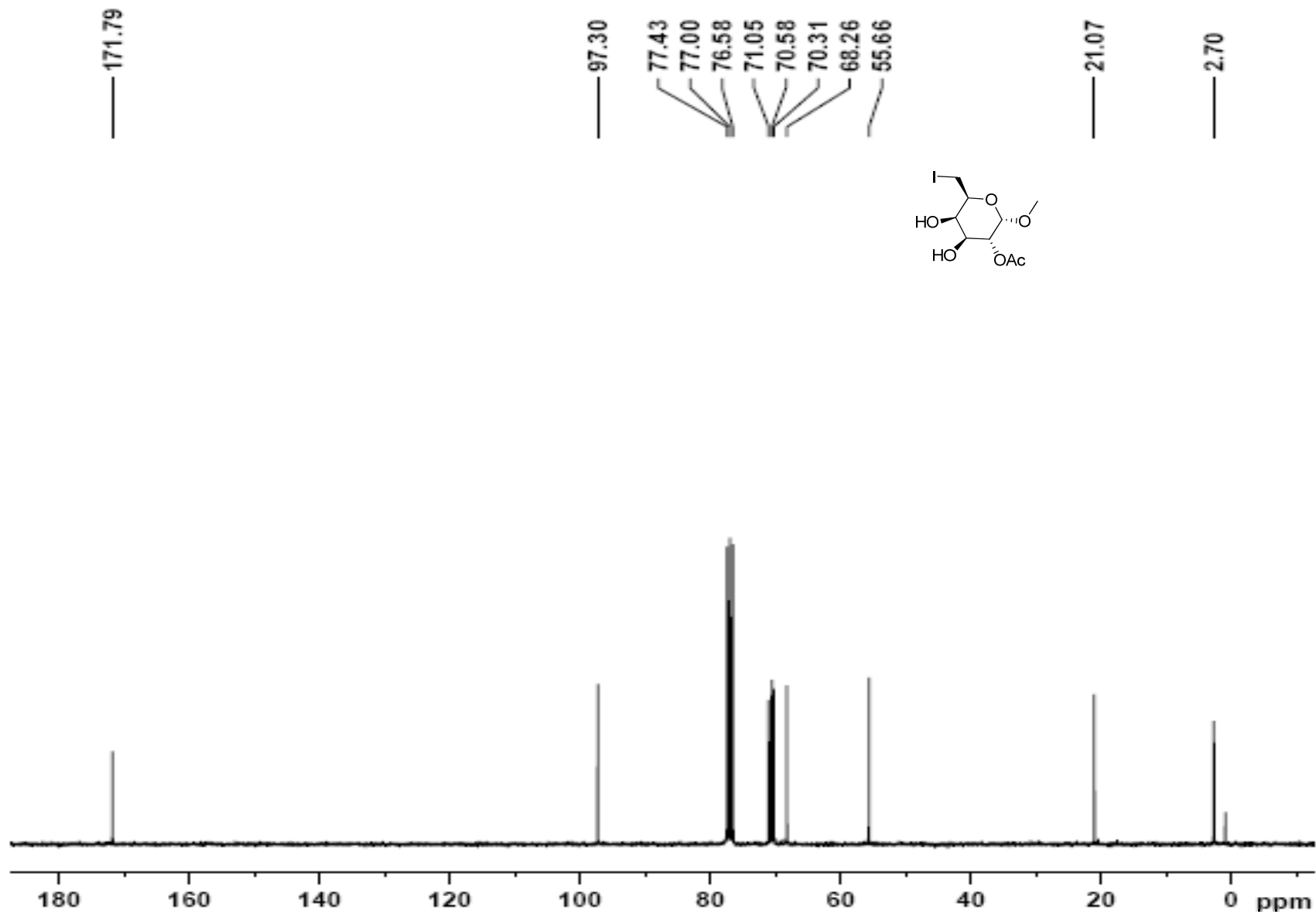


Figure 40 <sup>13</sup>C NMR spectrum of compound 27

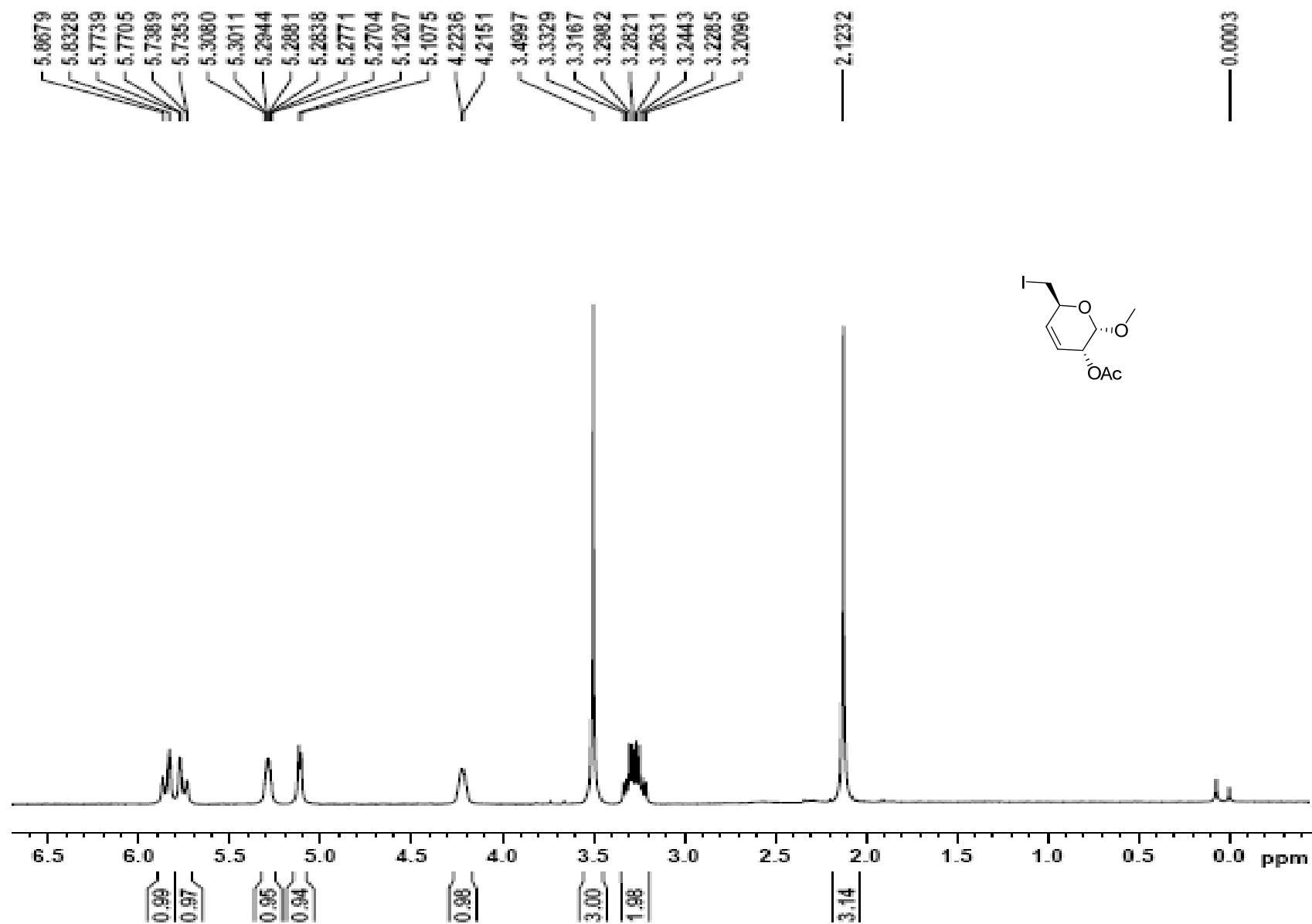


Figure 41 <sup>1</sup>H NMR spectrum of compound 28

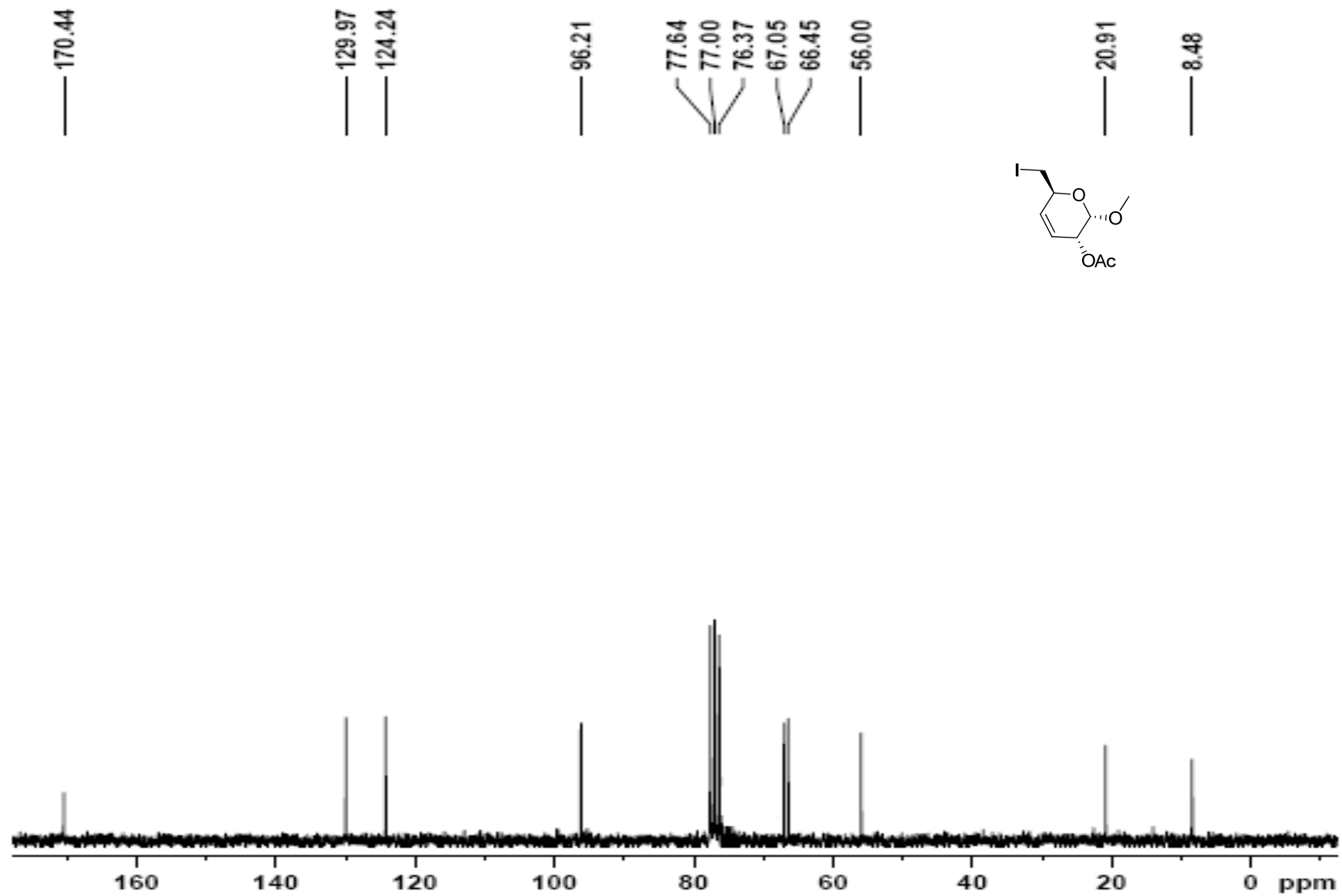


Figure 42 <sup>13</sup>C NMR spectrum of compound 28

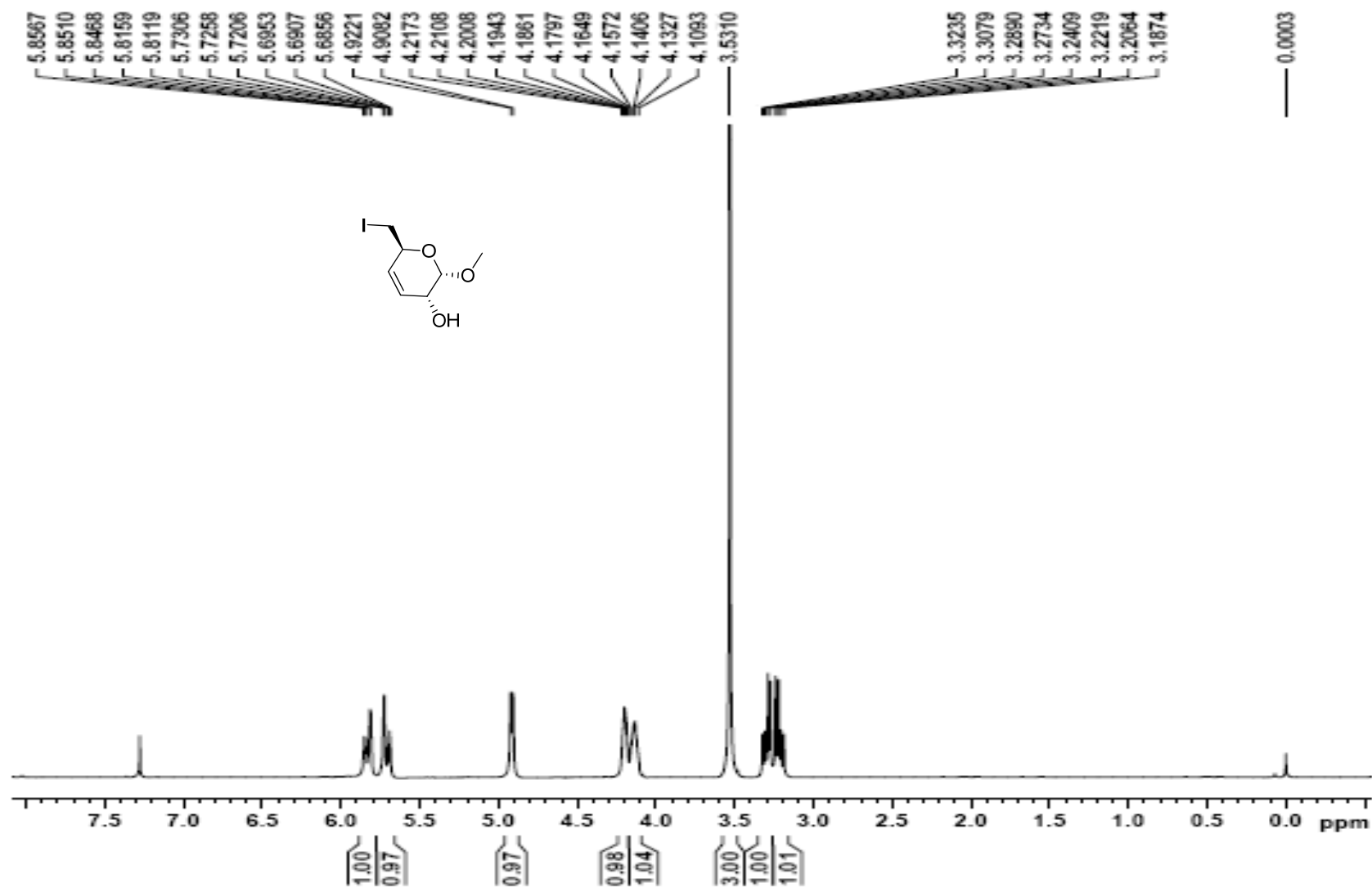
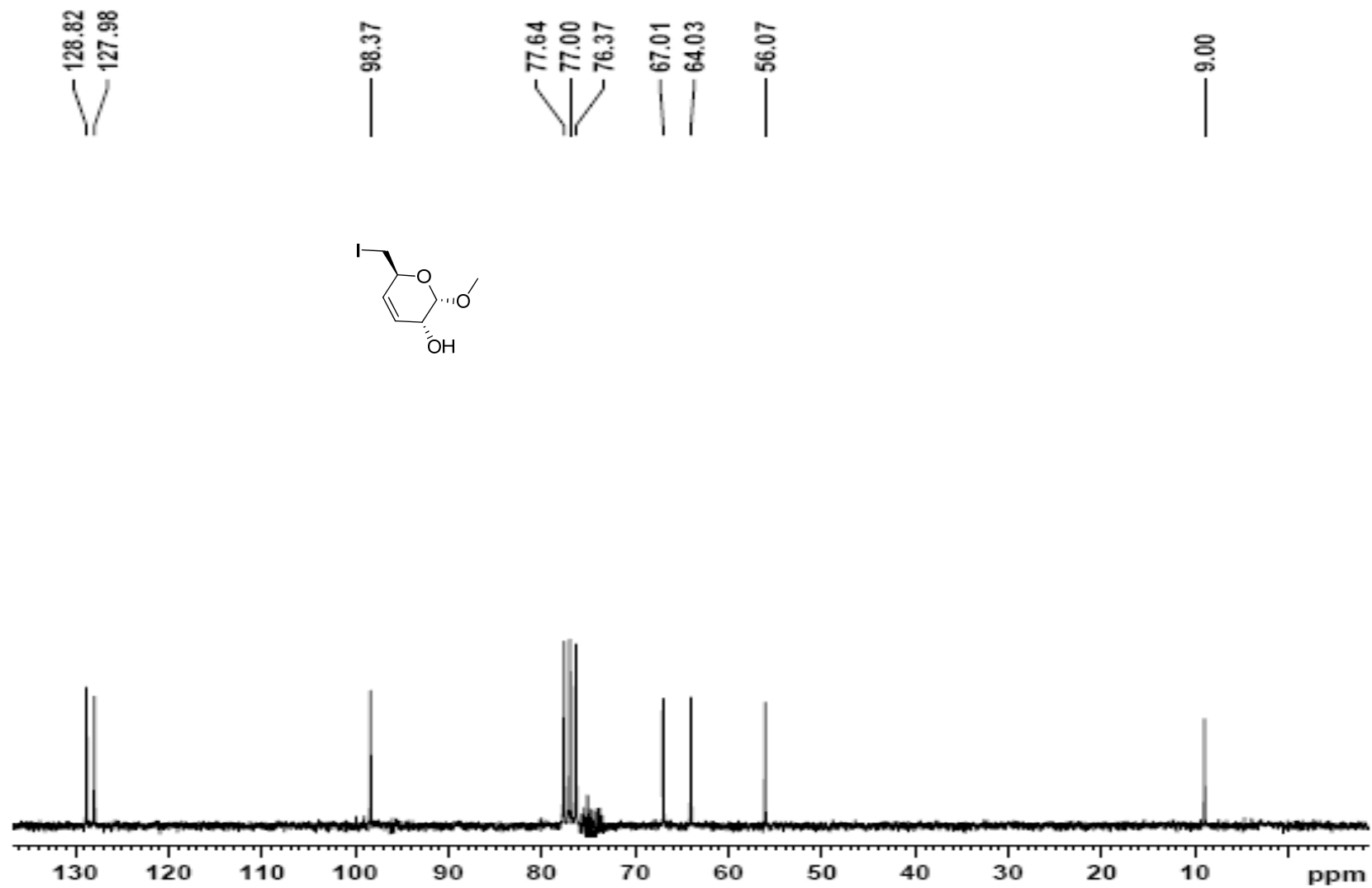


Figure 43 <sup>1</sup>H NMR spectrum of compound 29



**Figure 44** <sup>13</sup>C NMR spectrum of compound **29**

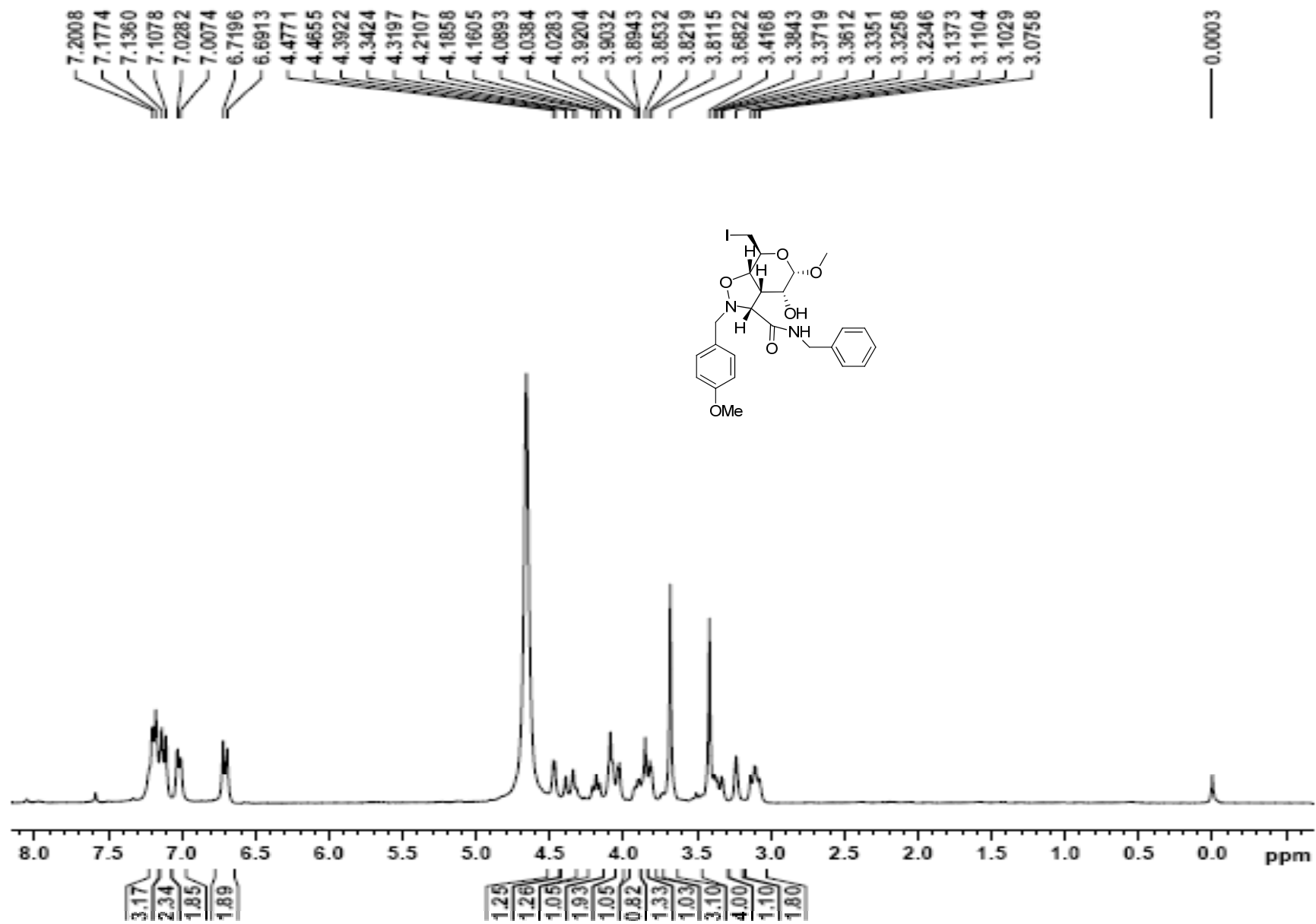


Figure 45  $^1\text{H}$  NMR spectrum of compound 30a

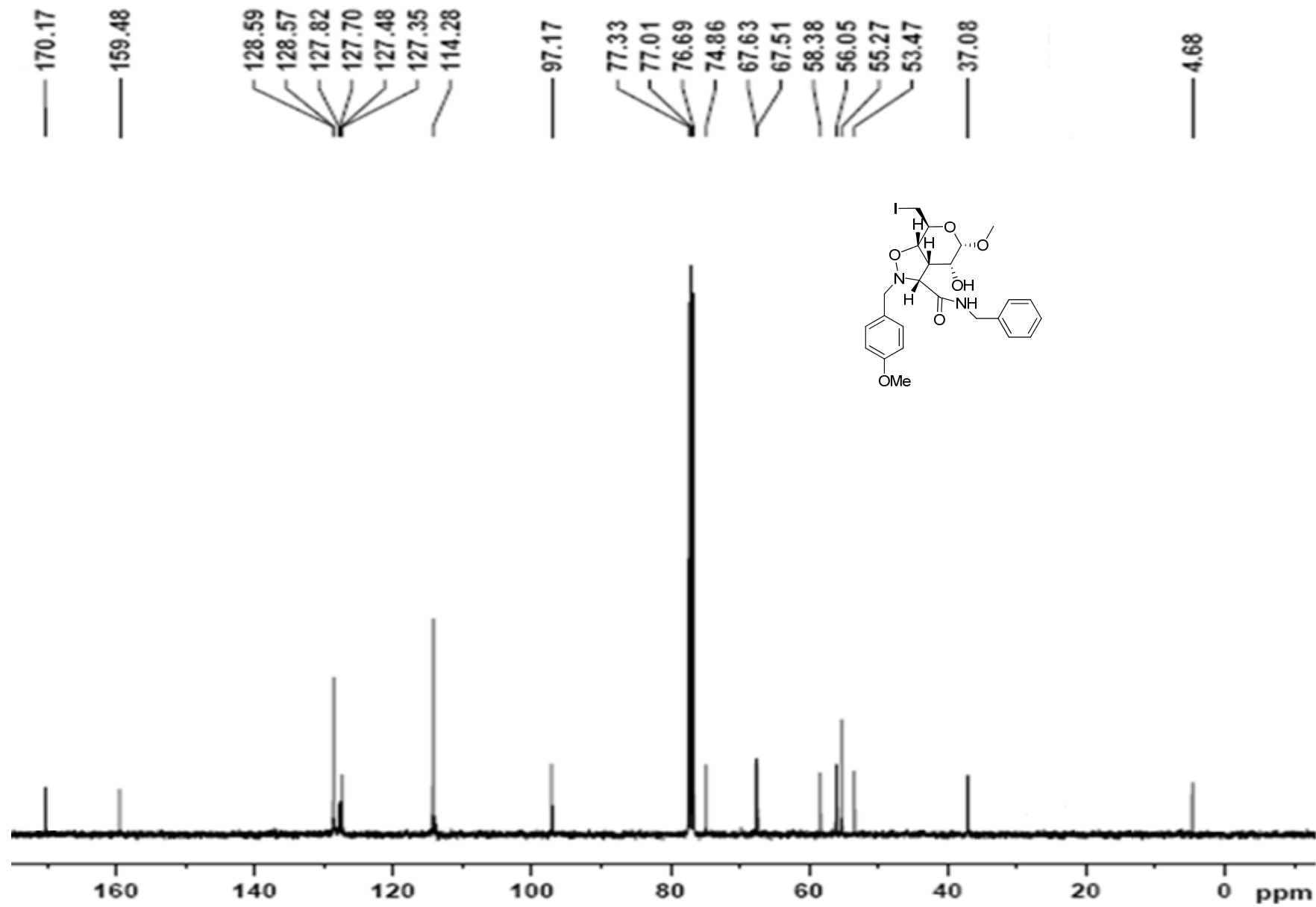


Figure 46 <sup>13</sup>C NMR spectrum of compound 30a

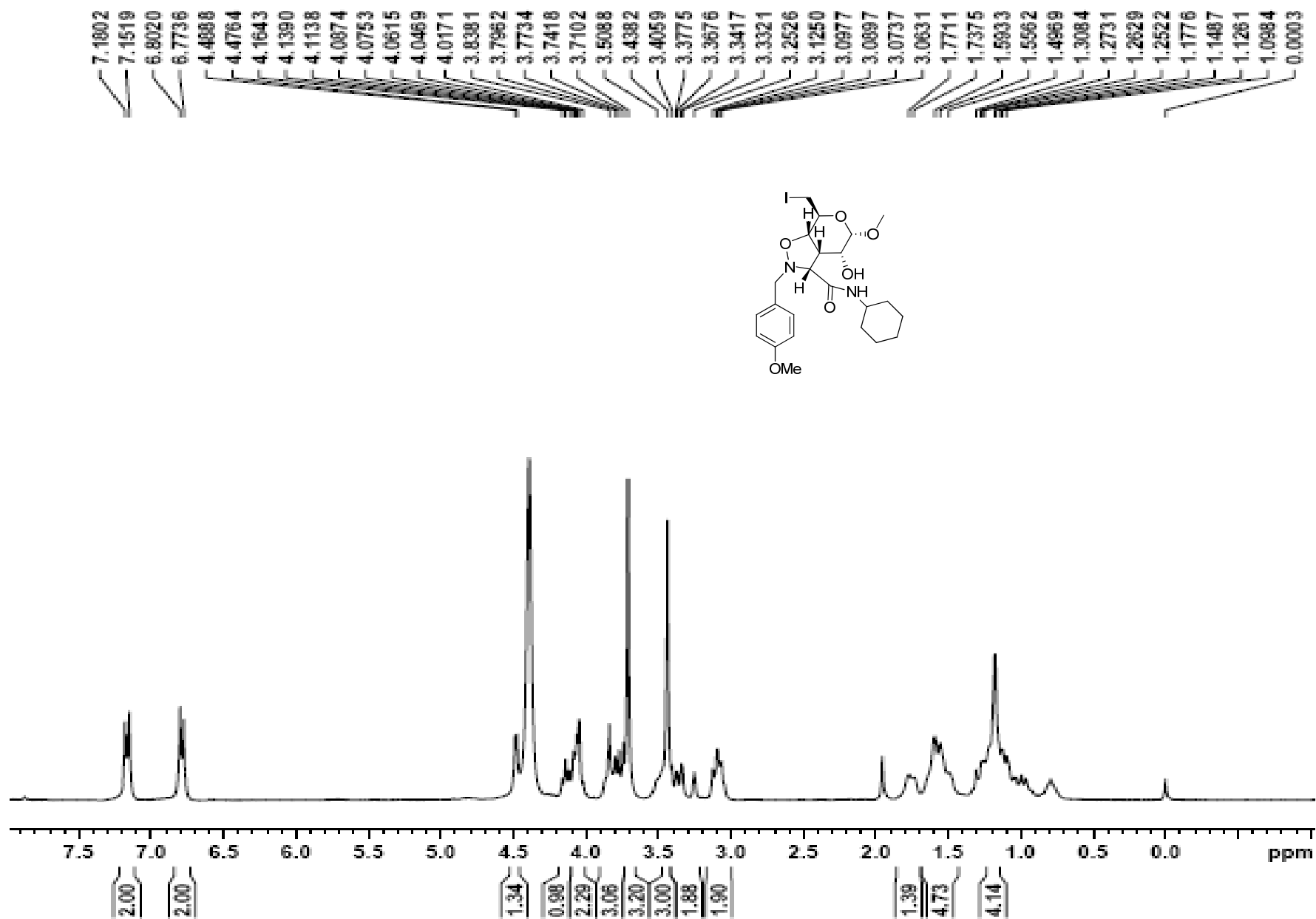


Figure 47 <sup>1</sup>H NMR spectrum of compound 30b



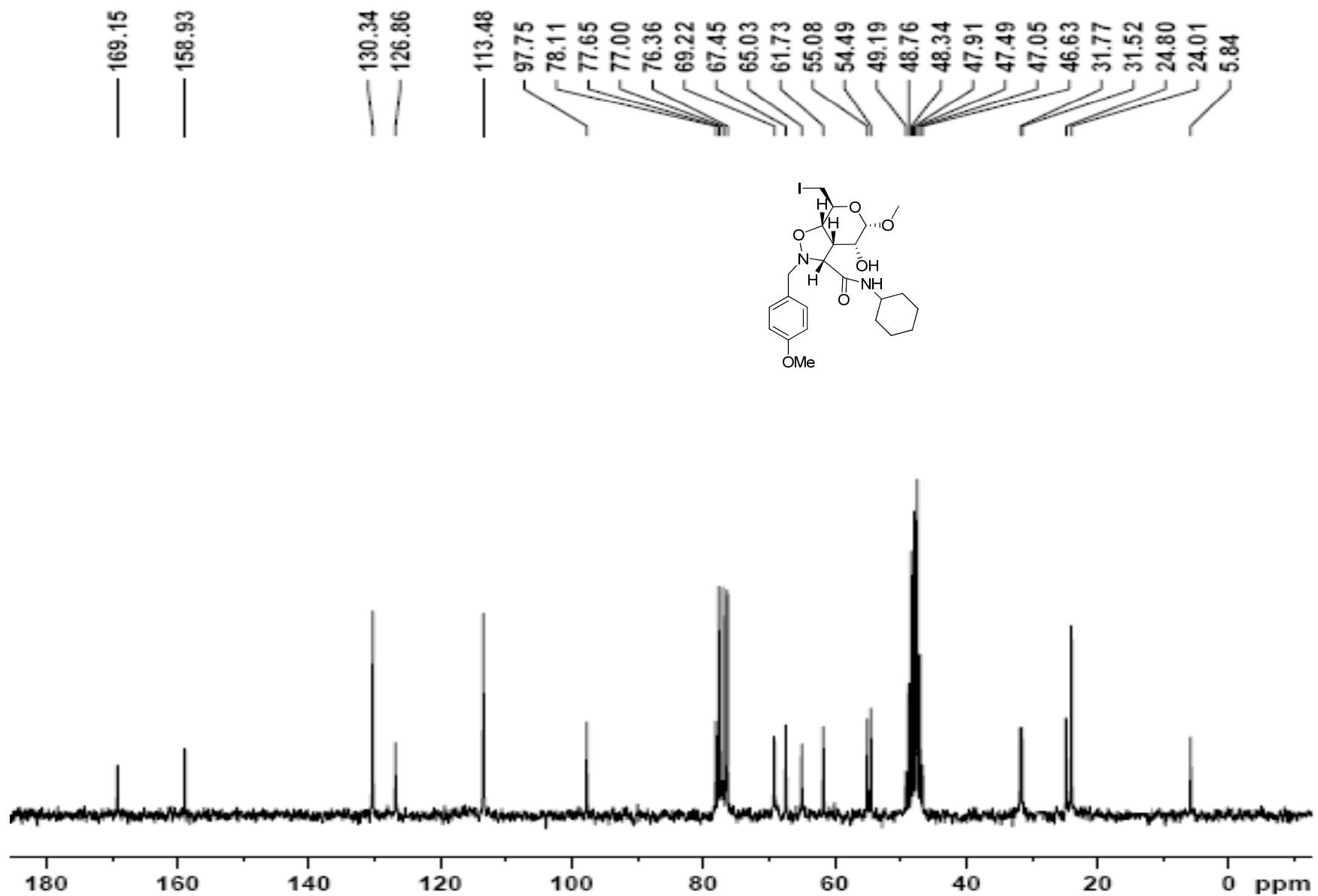


Figure 48 <sup>13</sup>C NMR spectrum of compound 30b

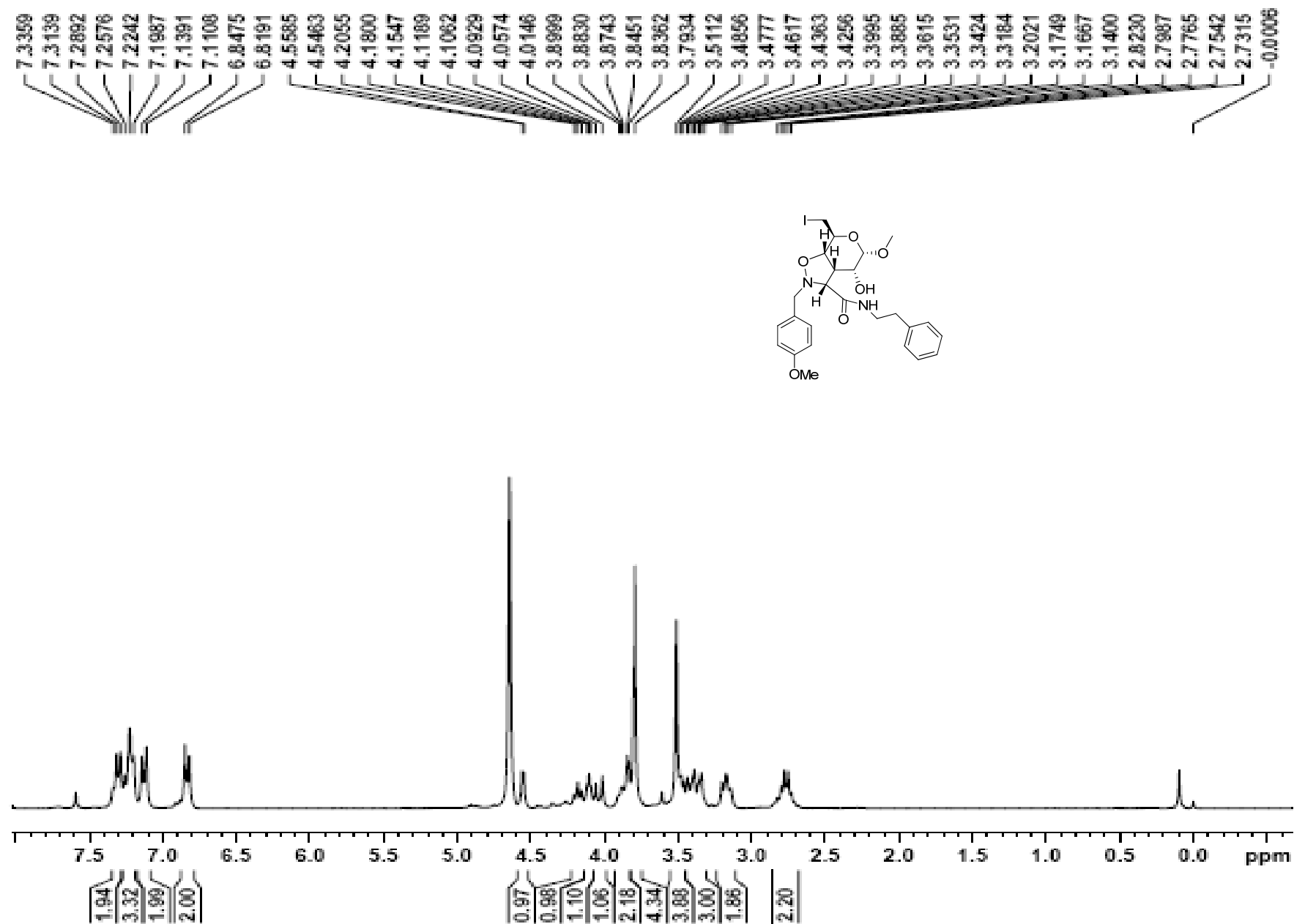


Figure 49 <sup>1</sup>H NMR spectrum of compound 30c

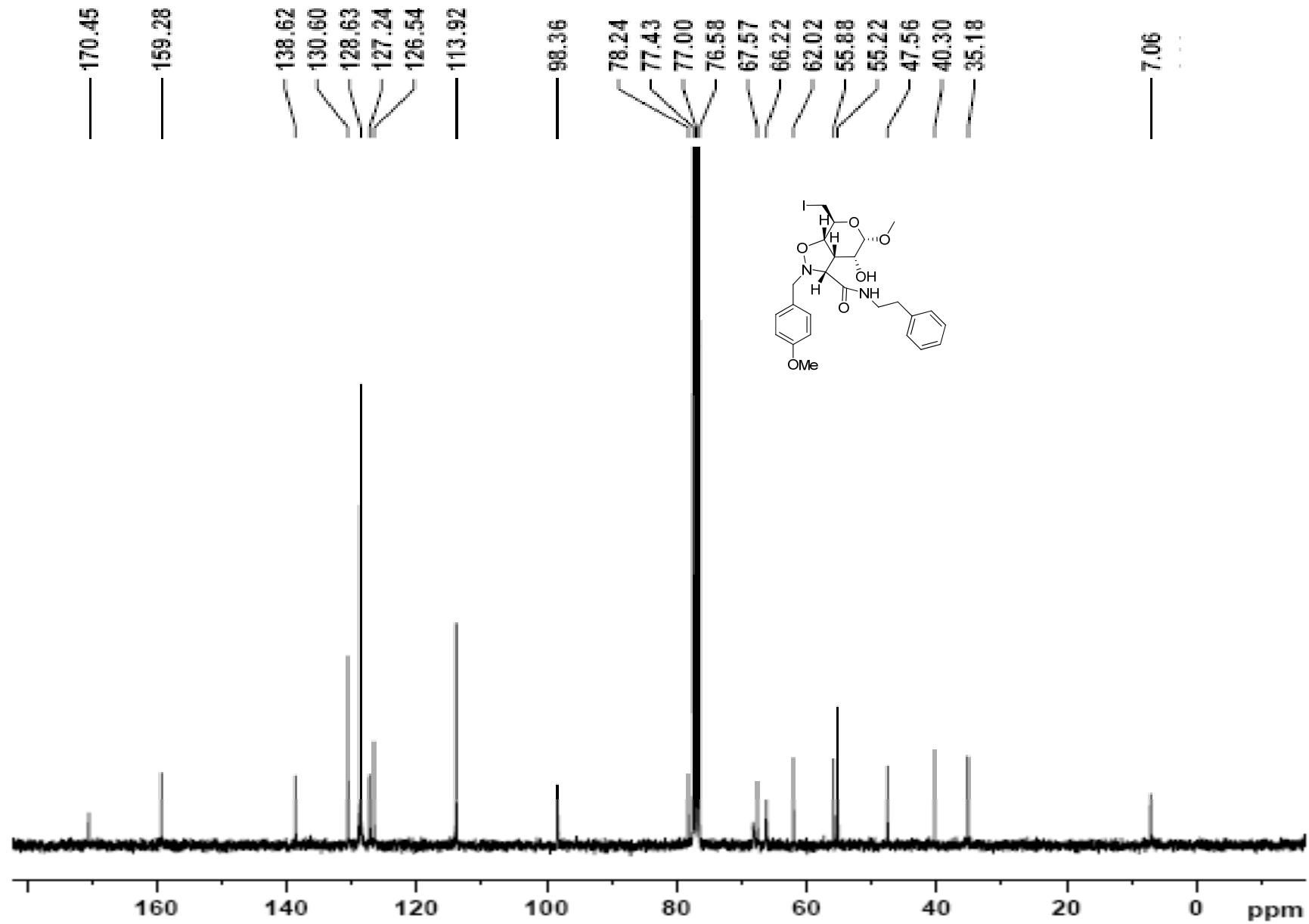


Figure 50  $^{13}\text{C}$  NMR spectrum of compound 30c

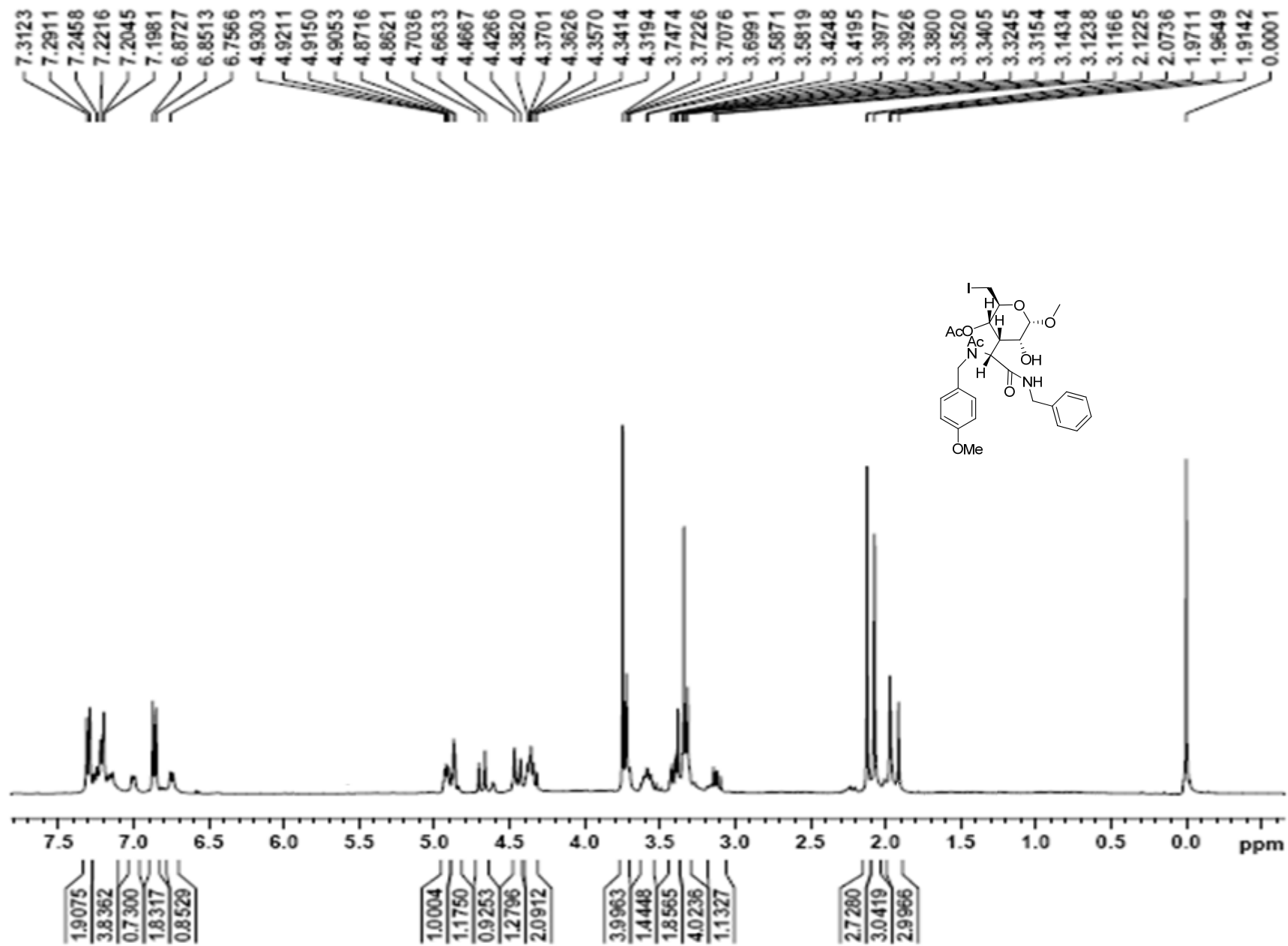


Figure 51 <sup>1</sup>H NMR spectrum of compound 32a

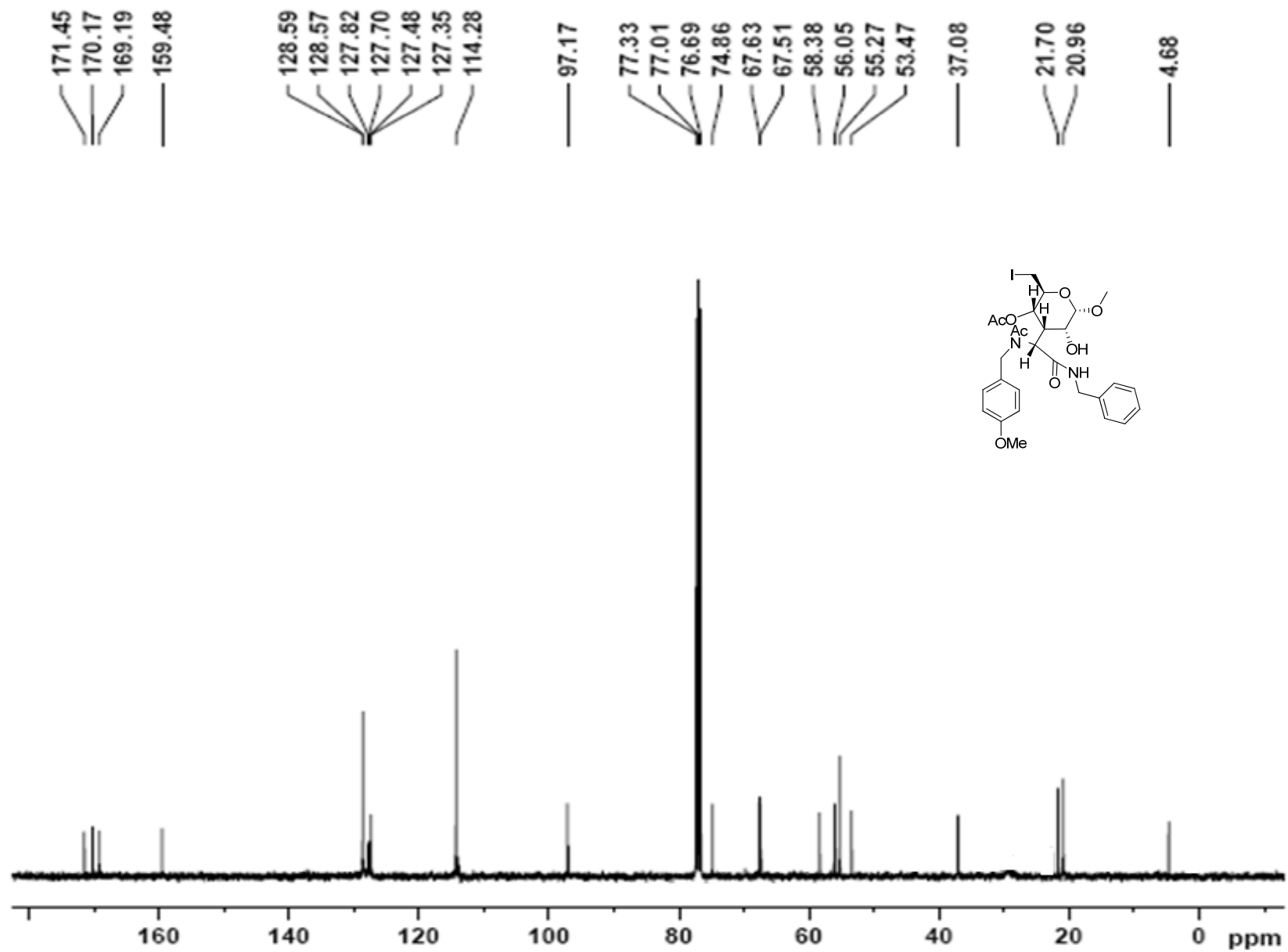
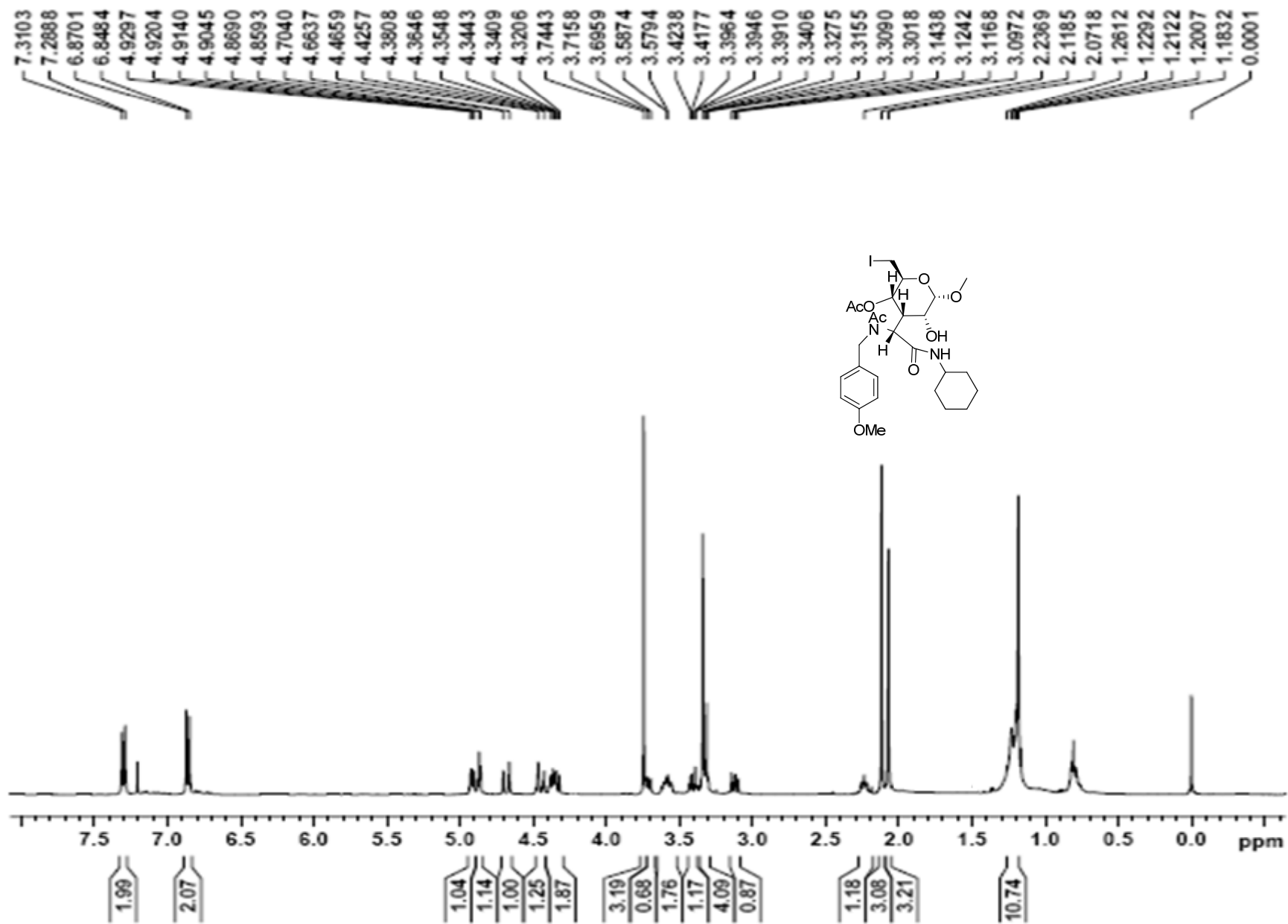
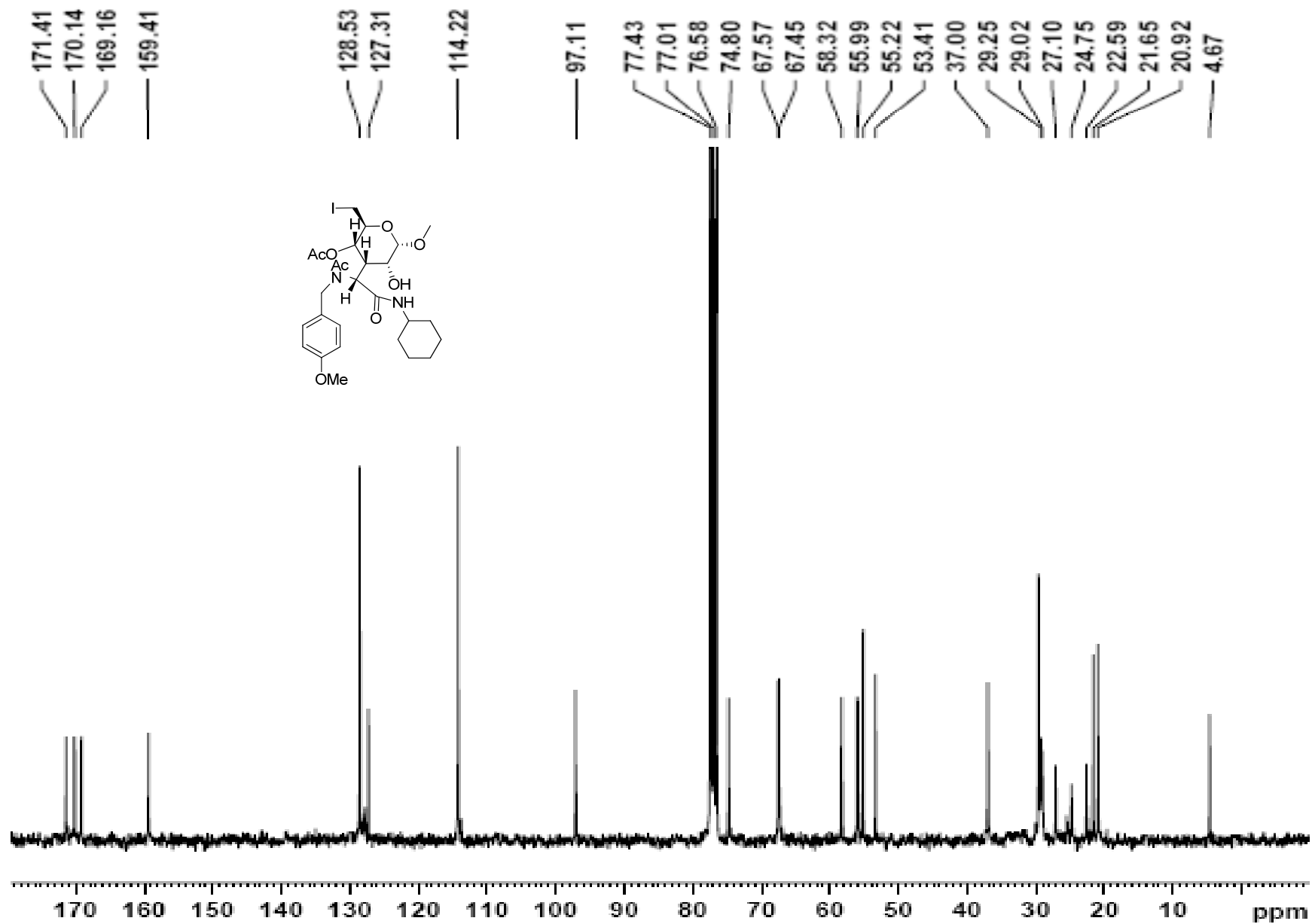


Figure 52 <sup>13</sup>C NMR spectrum of compound 32a



**Figure 53**  $^1\text{H}$  NMR spectrum of compound **32b**



**Figure 54**  $^{13}\text{C}$  NMR spectrum of compound **32b**

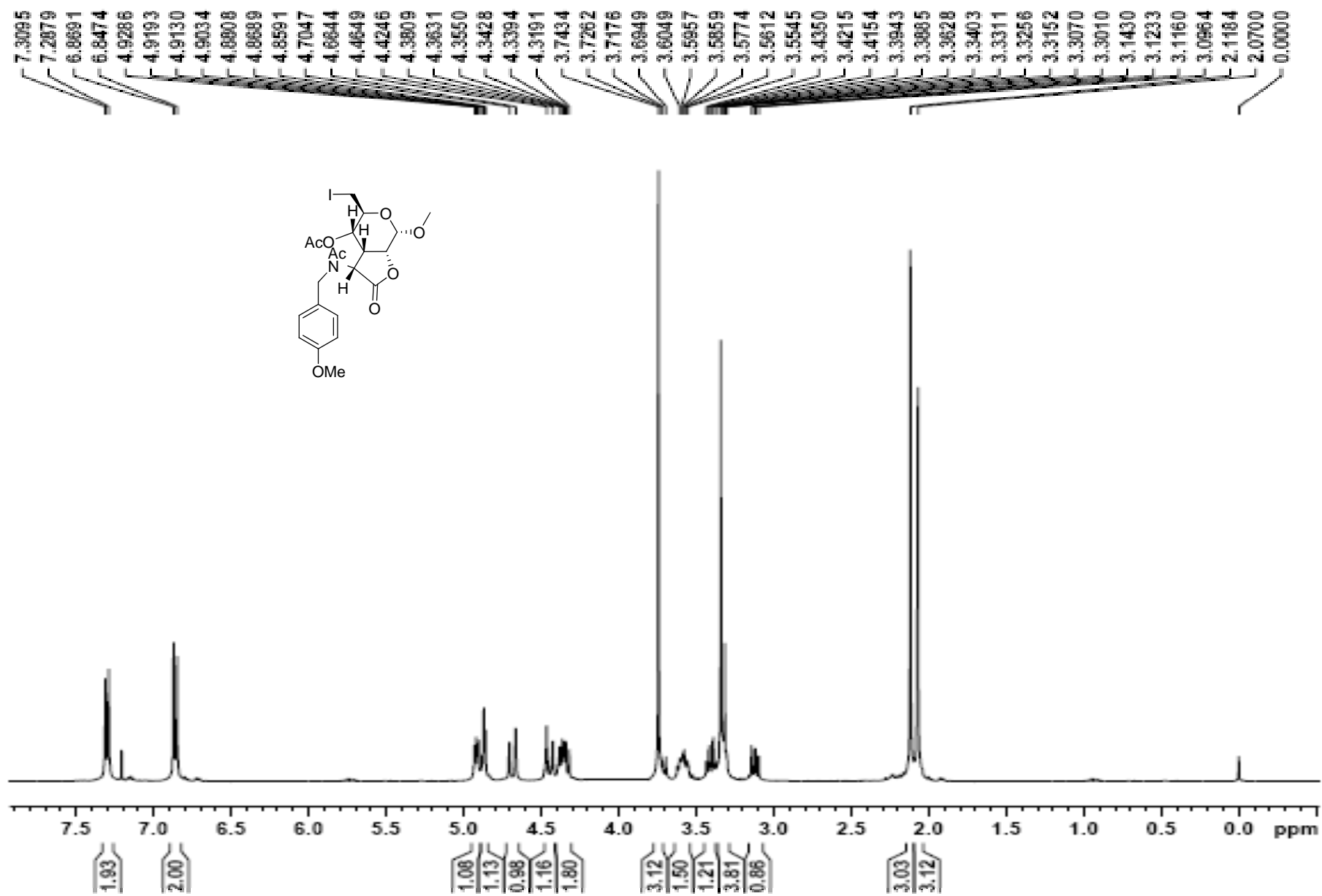


Figure 55 <sup>1</sup>H NMR spectrum of compound 34



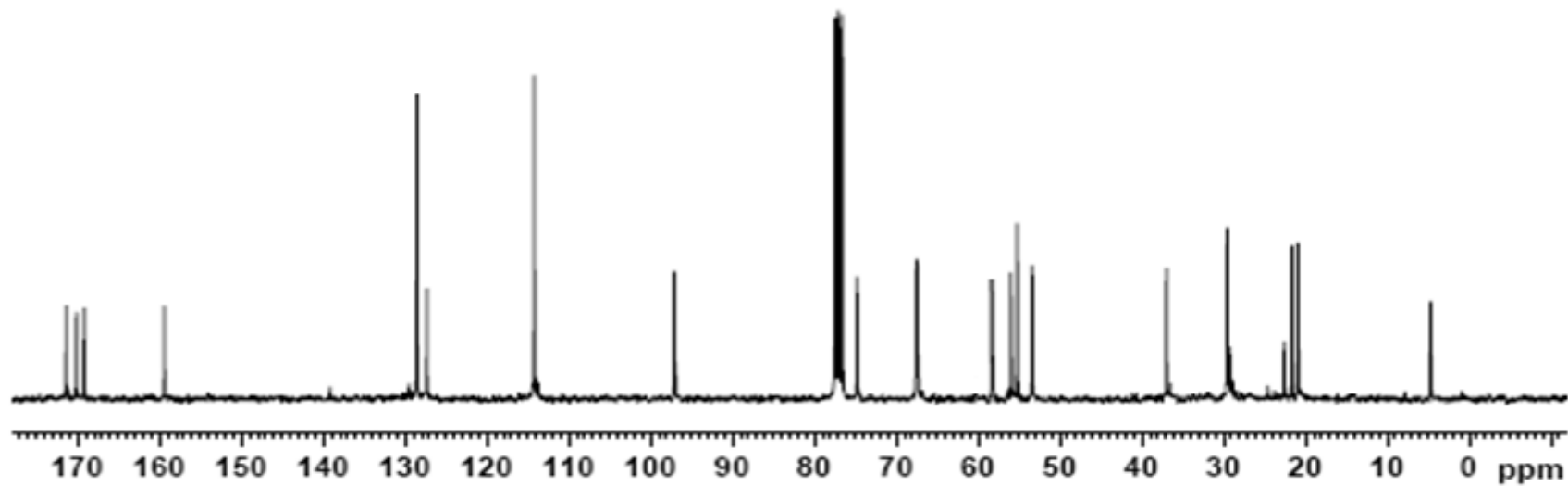
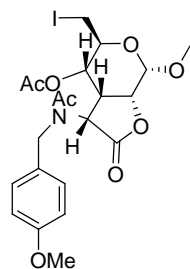
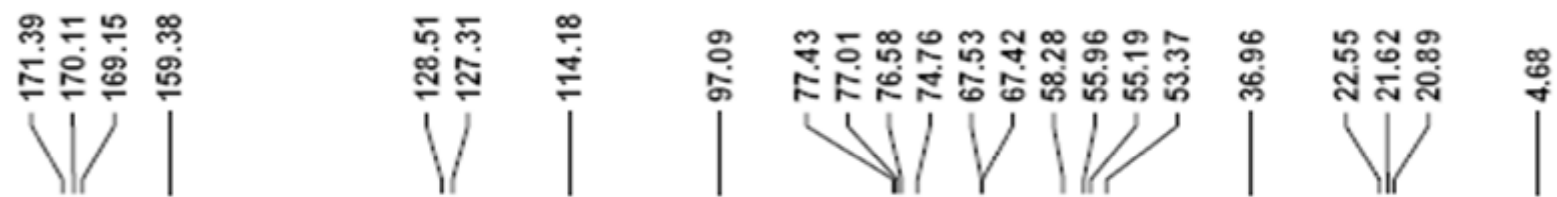


Figure 56  $^{13}\text{C}$  NMR spectrum of compound 34

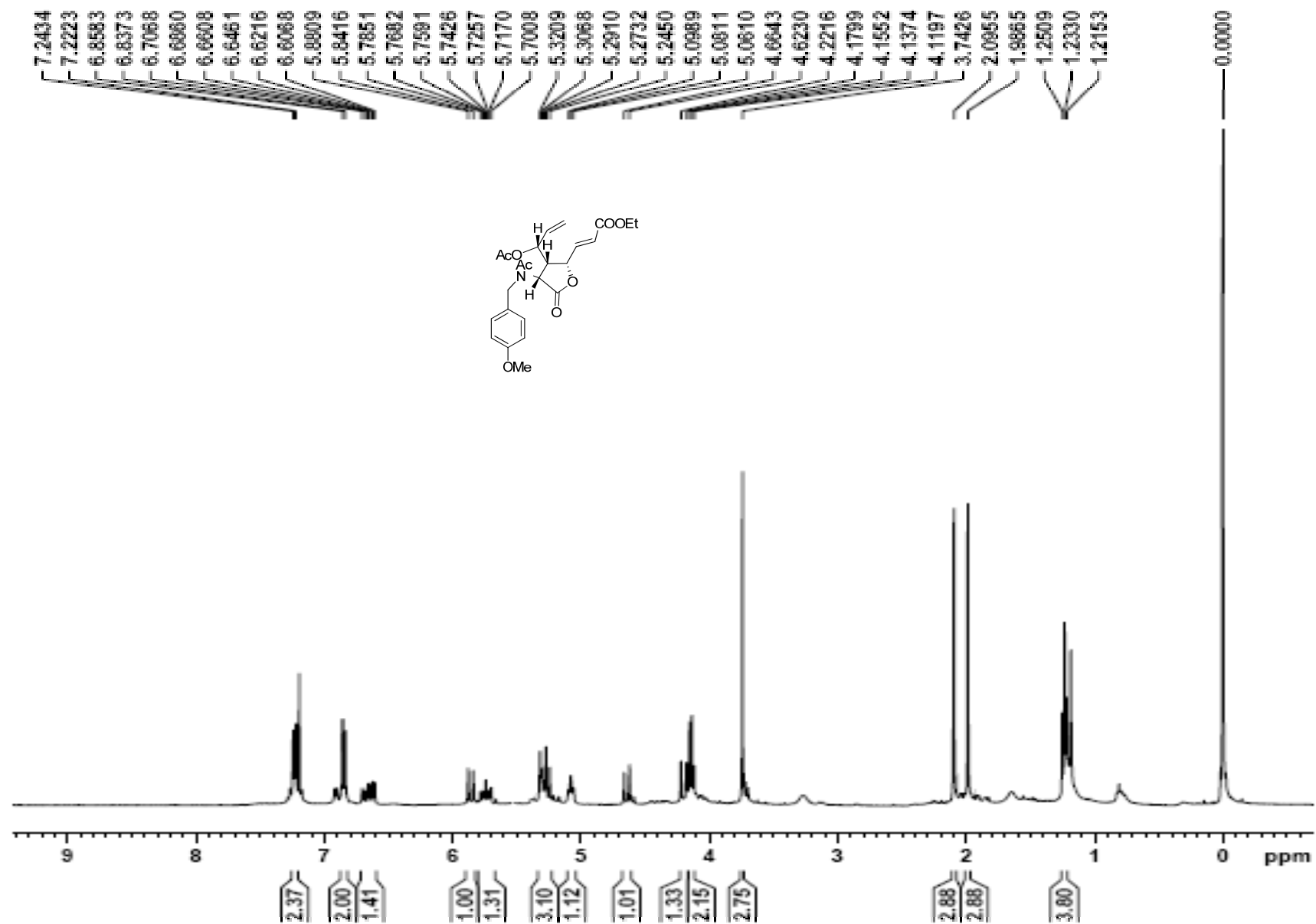


Figure 57 <sup>1</sup>H NMR spectrum of compound 36

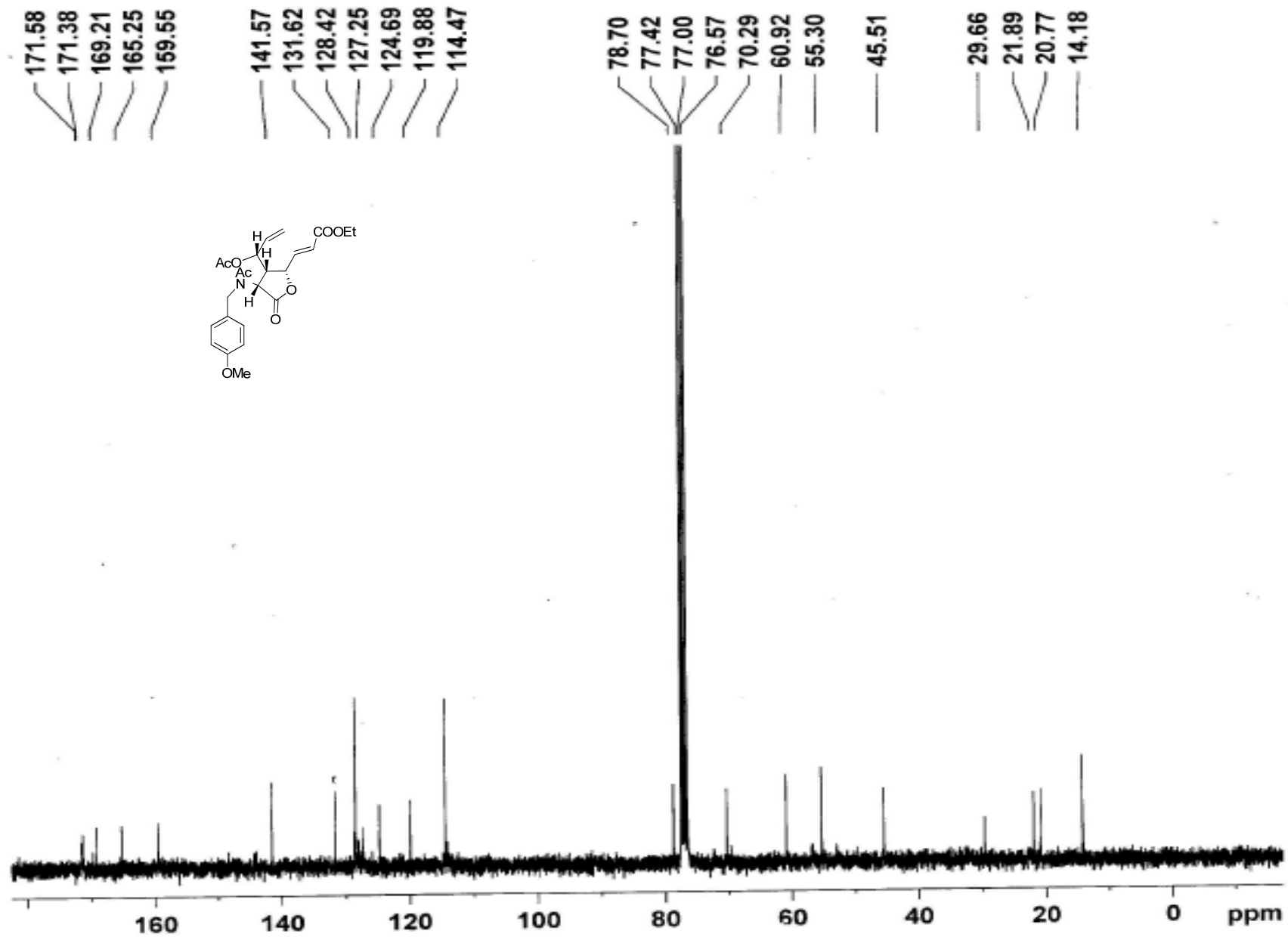
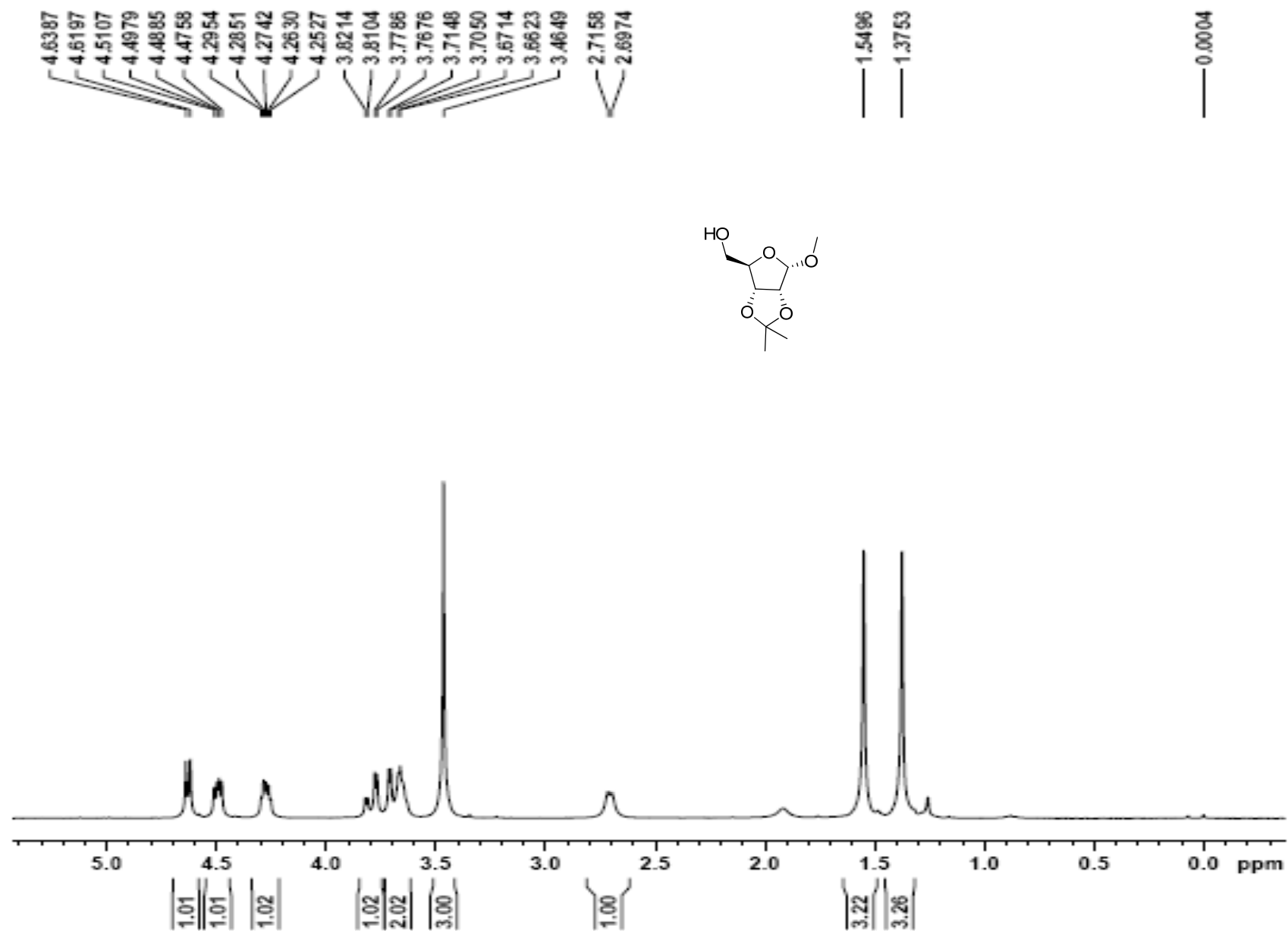


Figure 58  $^{13}\text{C}$  NMR spectrum of compound 36



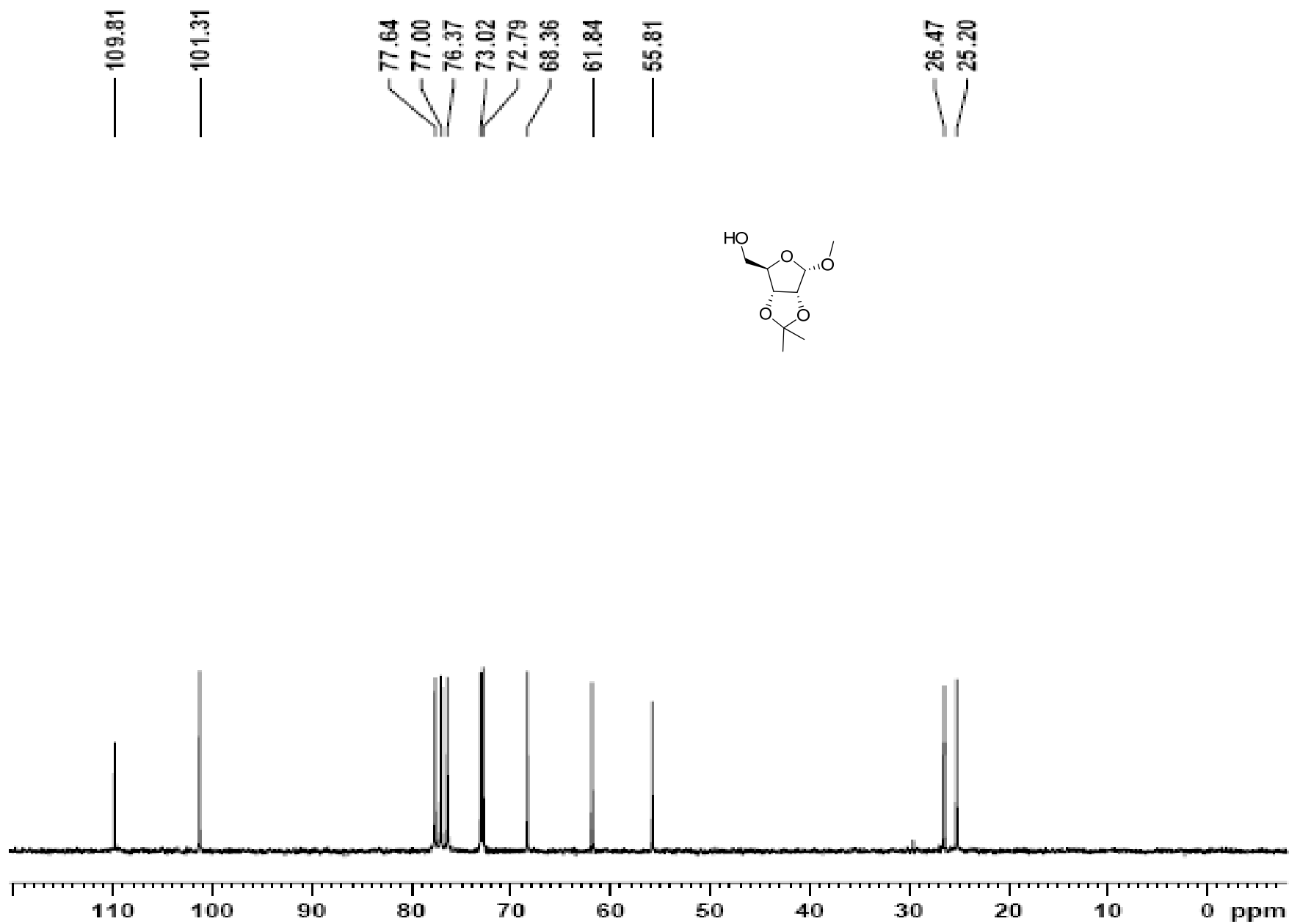


Figure 60  $^{13}\text{C}$  NMR spectrum of compound 38

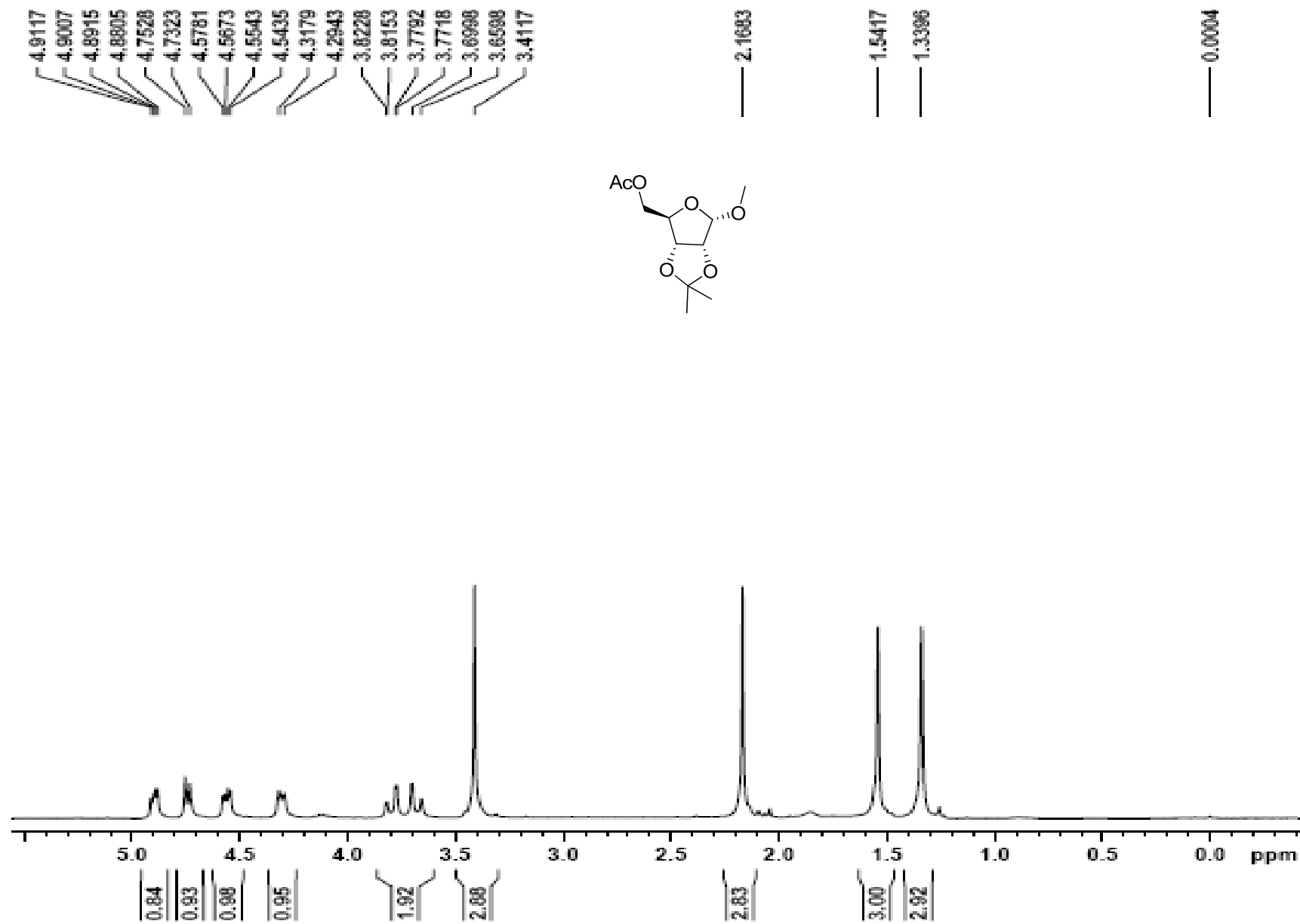


Figure 61 <sup>1</sup>H NMR spectrum of compound 39

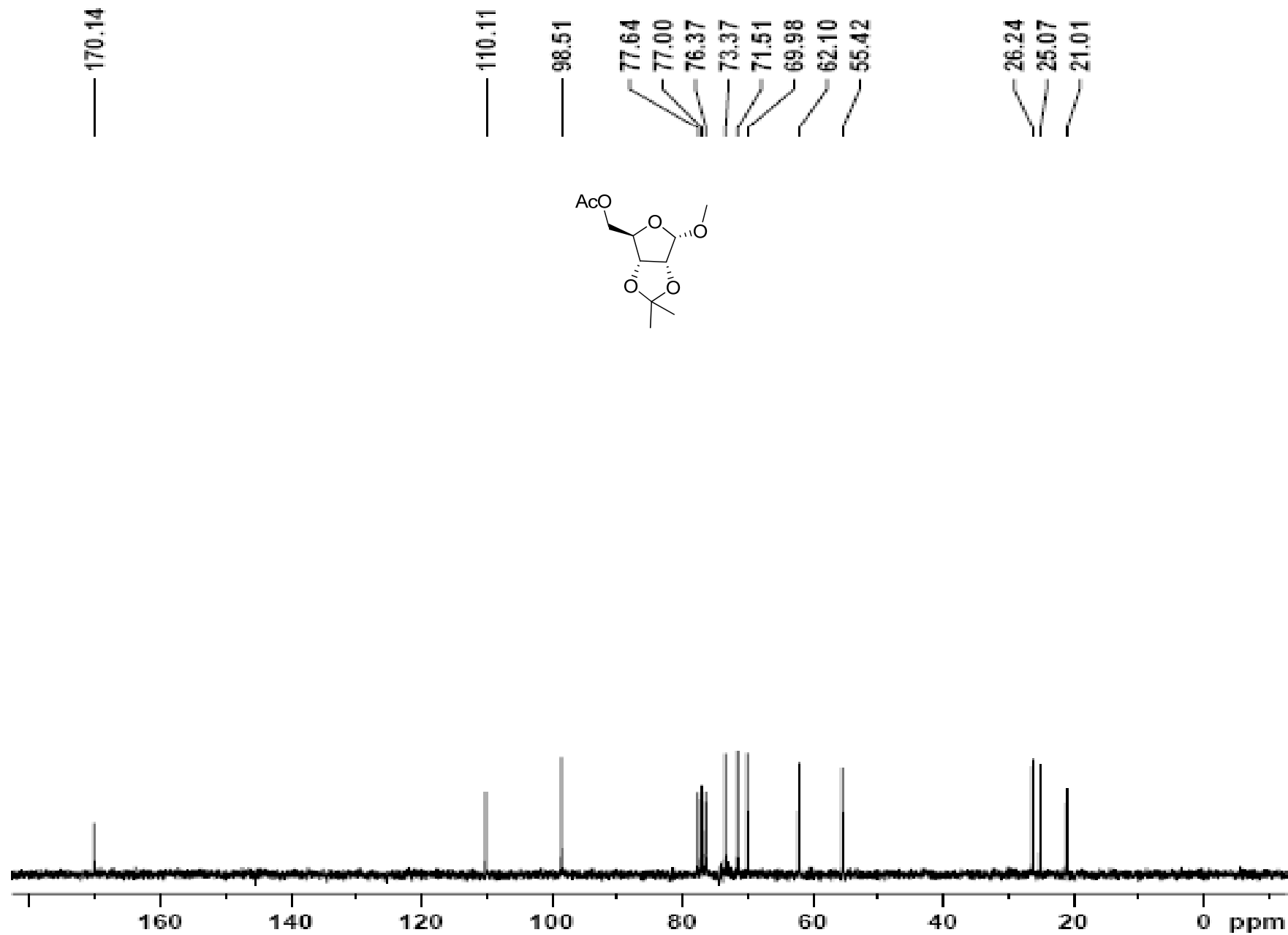
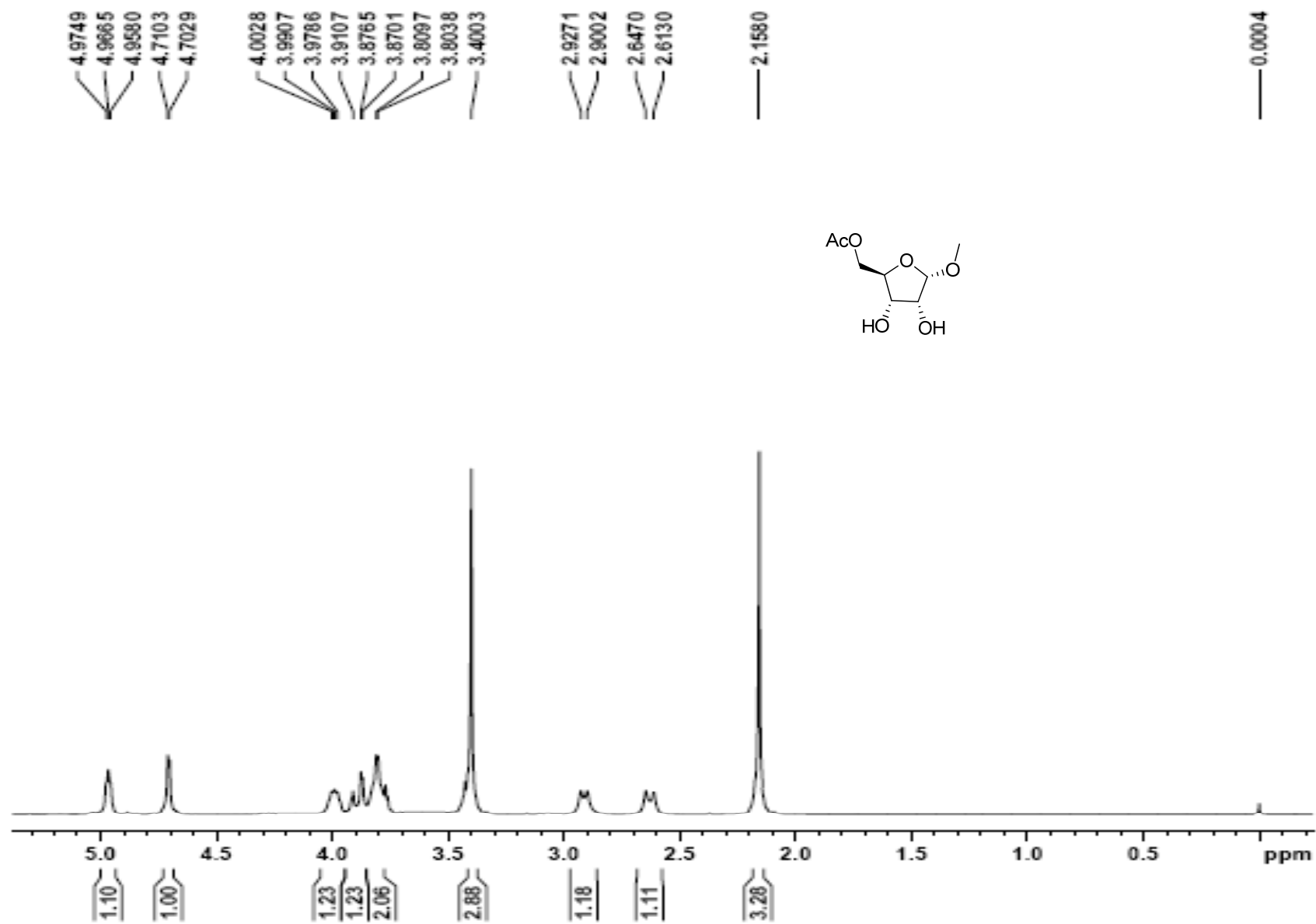


Figure 62  $^{13}\text{C}$  NMR spectrum of compound 39



**Figure 63** <sup>1</sup>H NMR spectrum of compound **40**



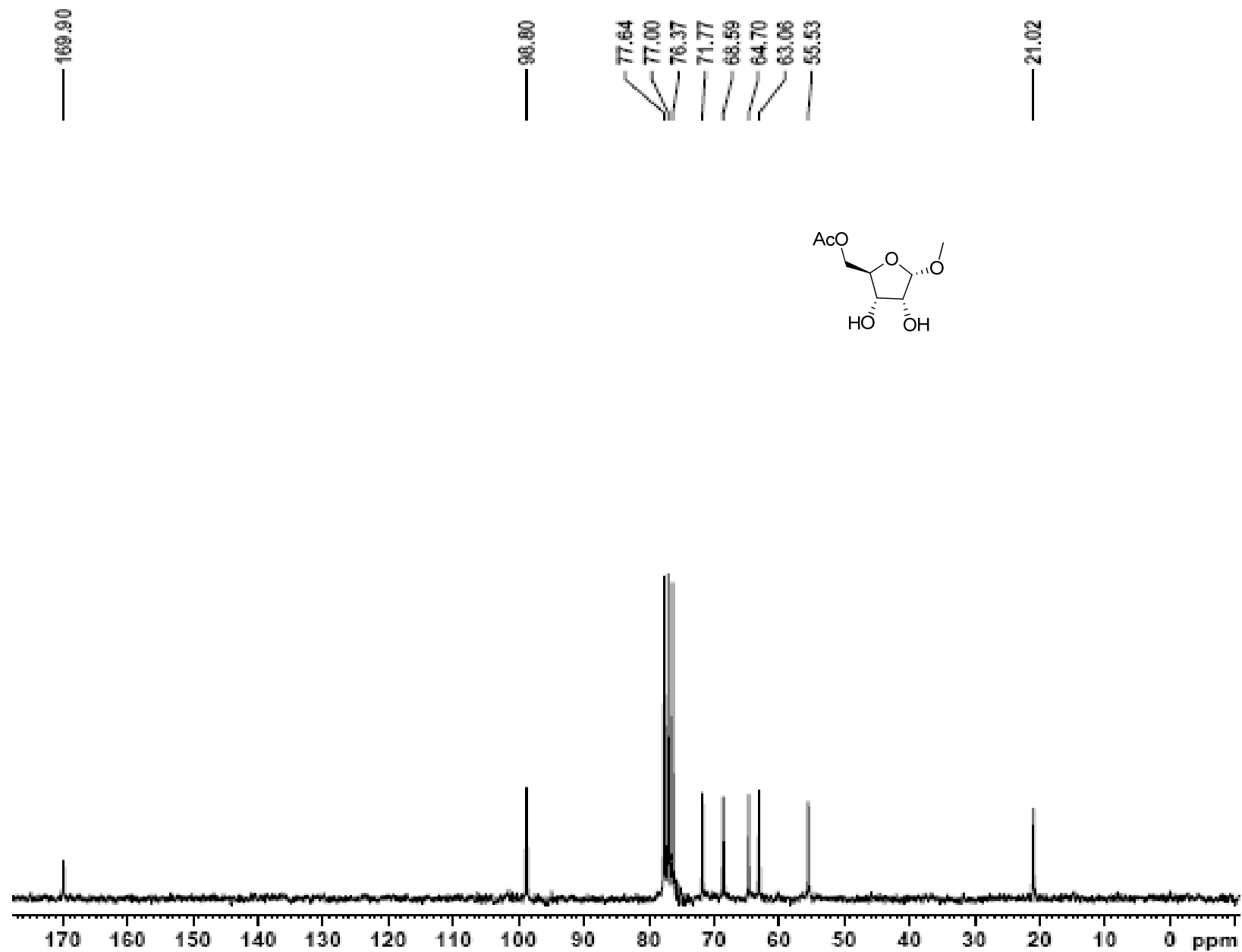


Figure 64  $^{13}\text{C}$  NMR spectrum of compound 40

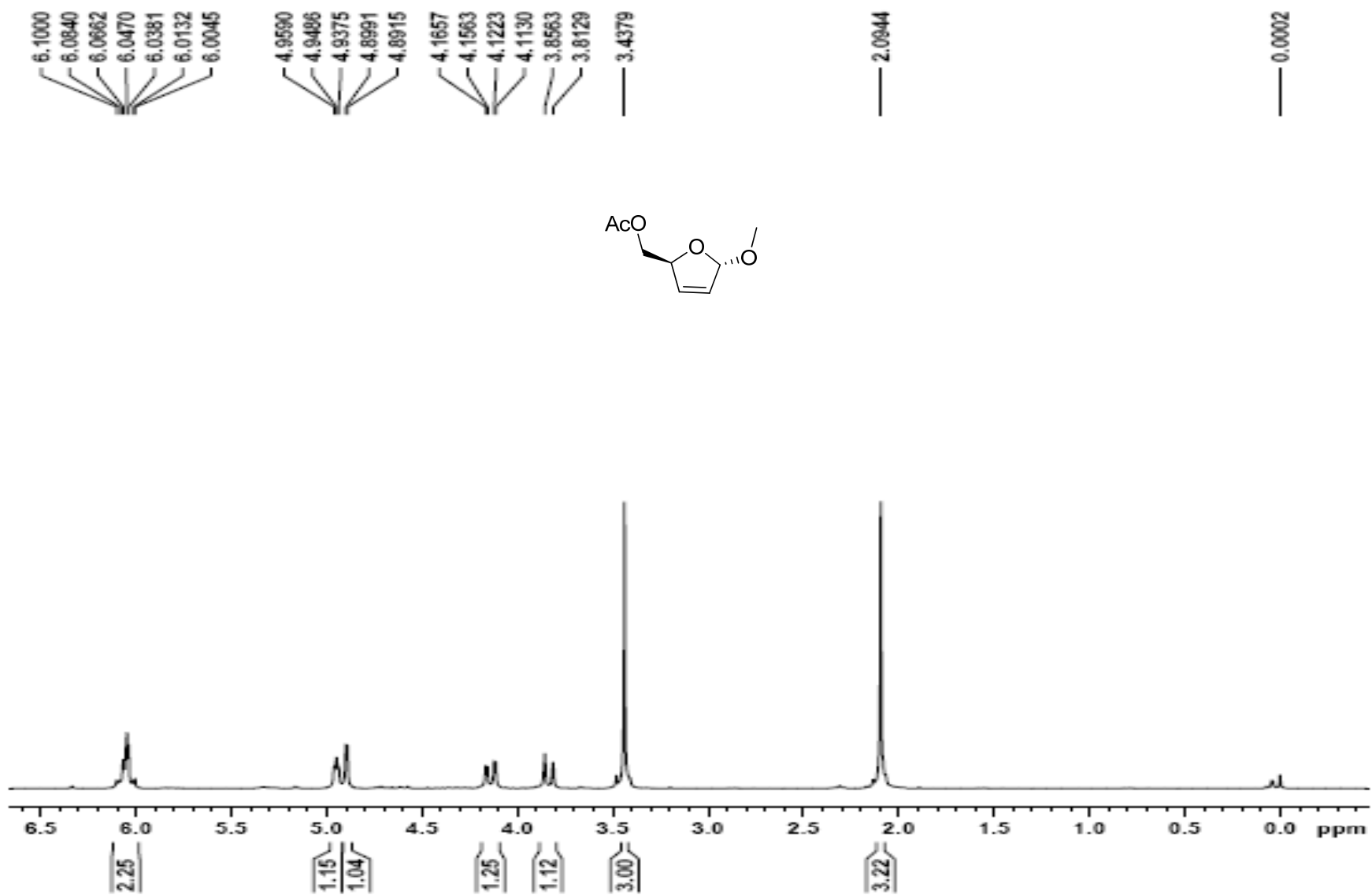


Figure 65 <sup>1</sup>H NMR spectrum of compound 41

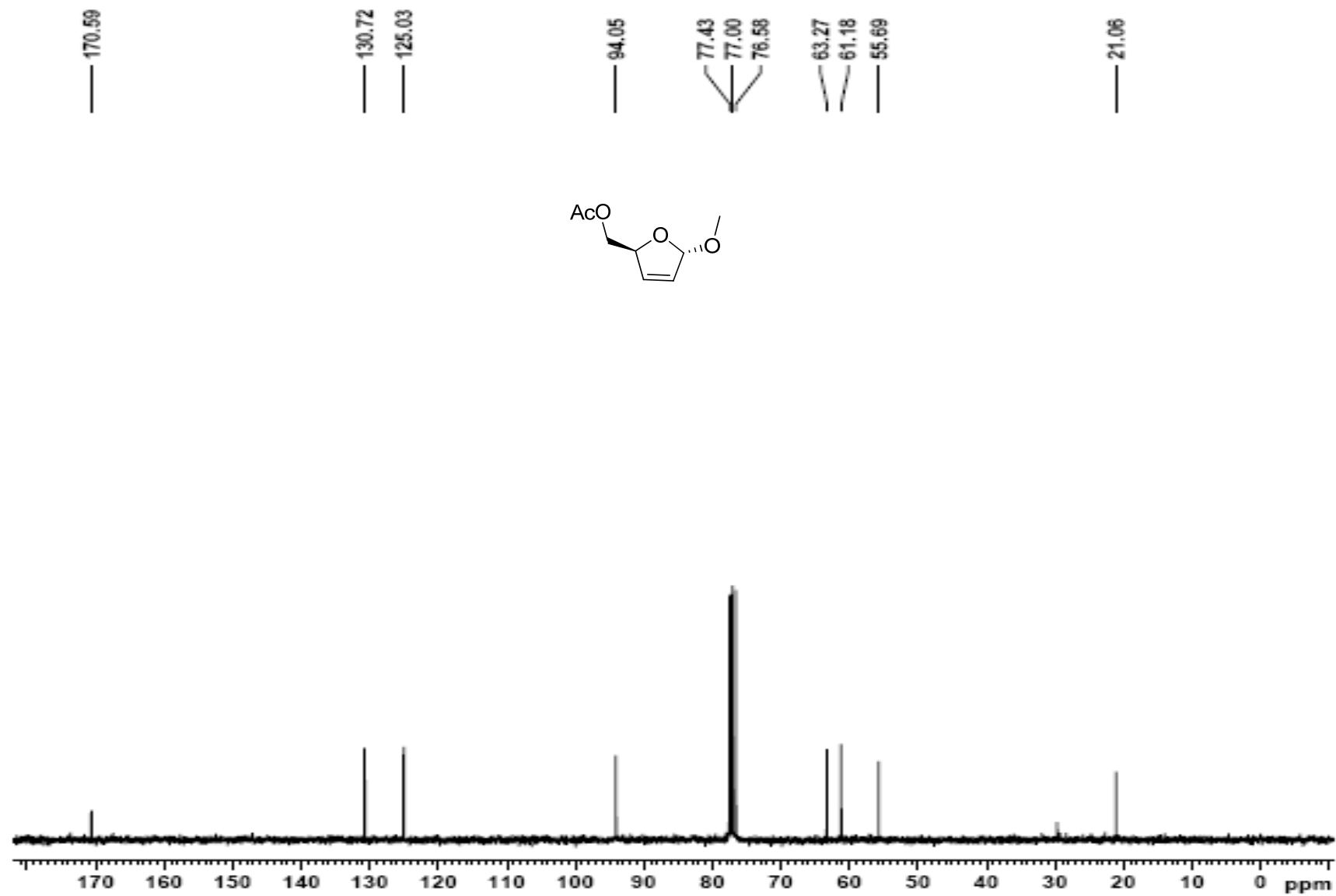


Figure 66 <sup>13</sup>C NMR spectrum of compound 41

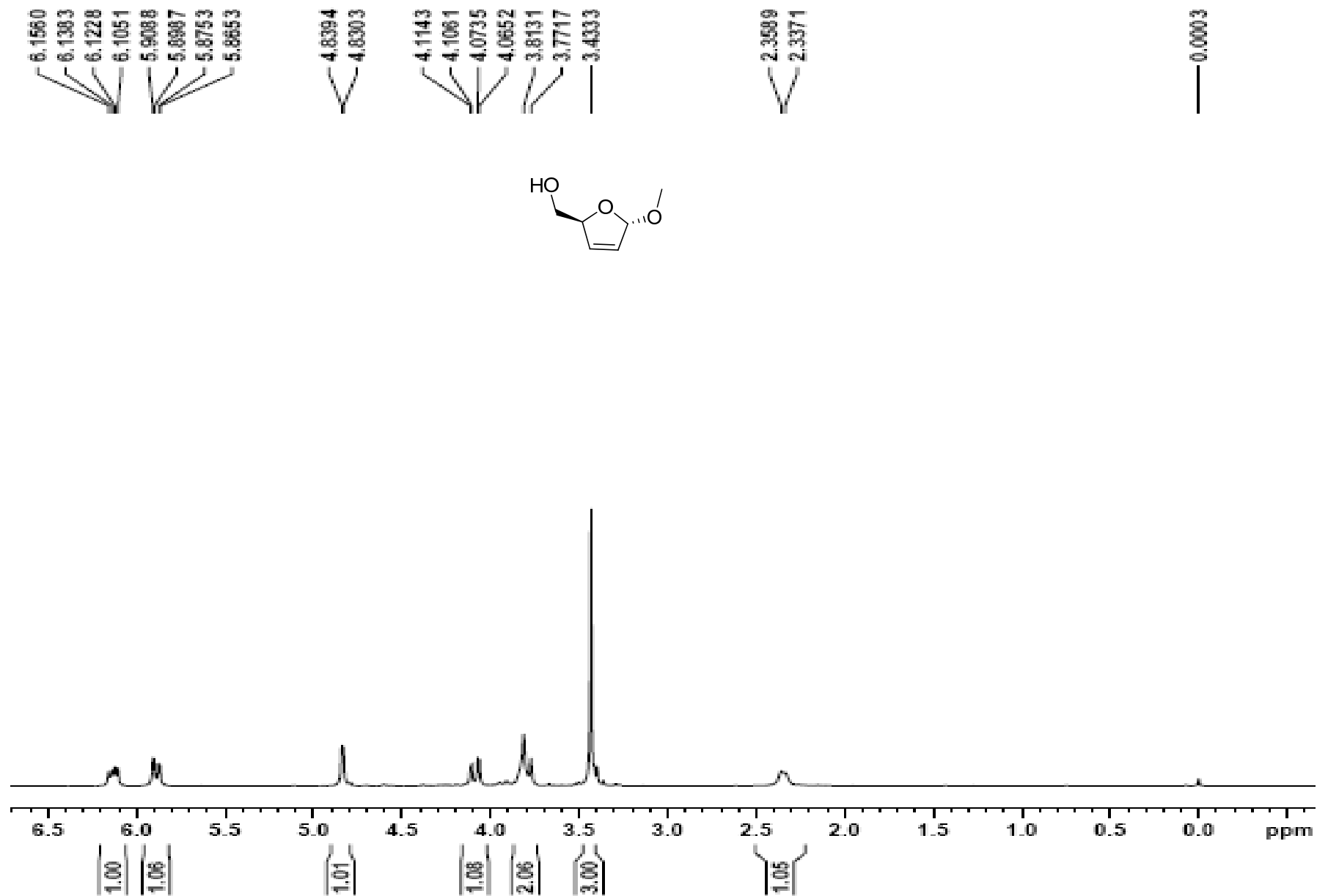


Figure 67 <sup>1</sup>H NMR spectrum of compound 42

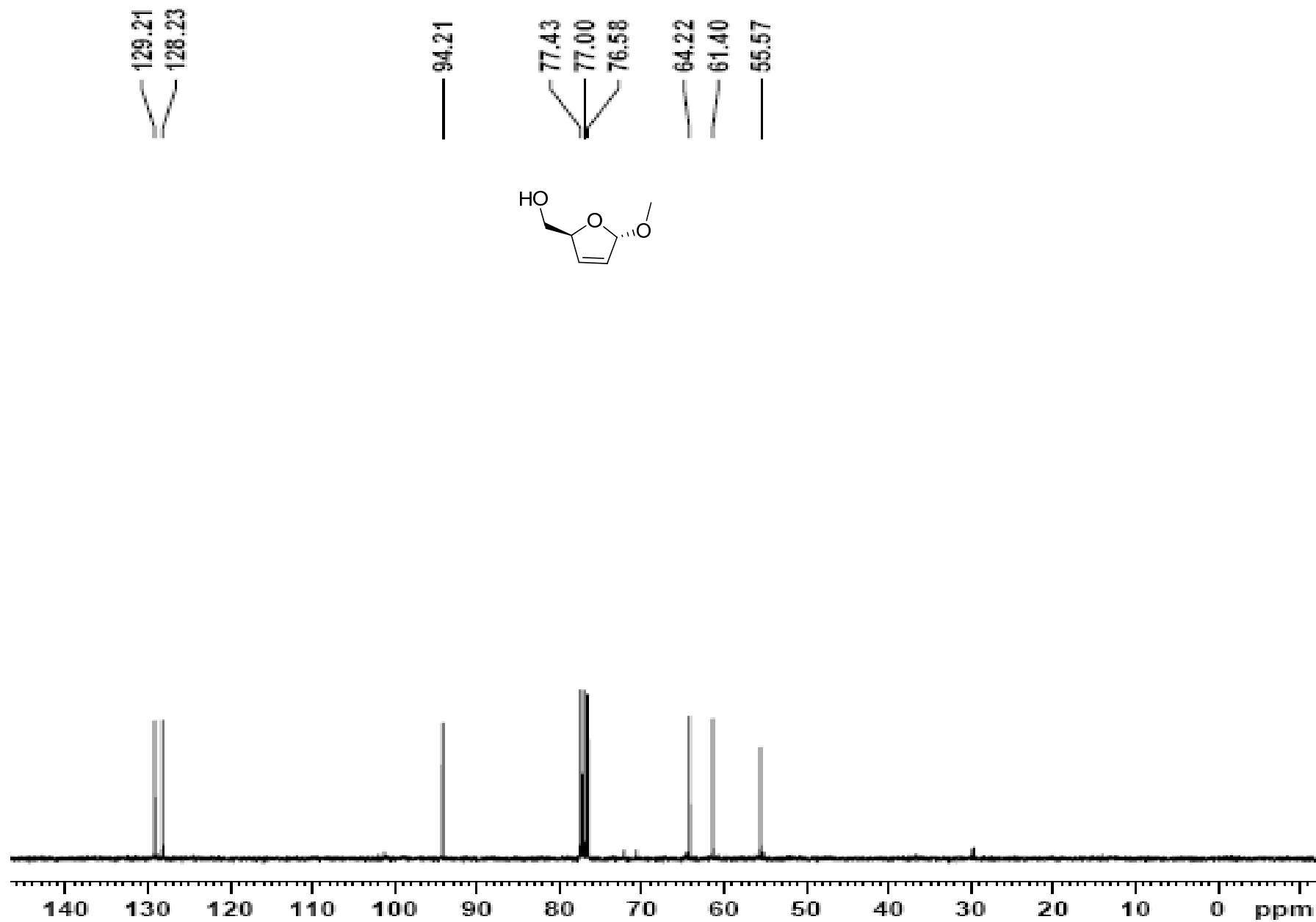


Figure 68 <sup>13</sup>C NMR spectrum of compound 42

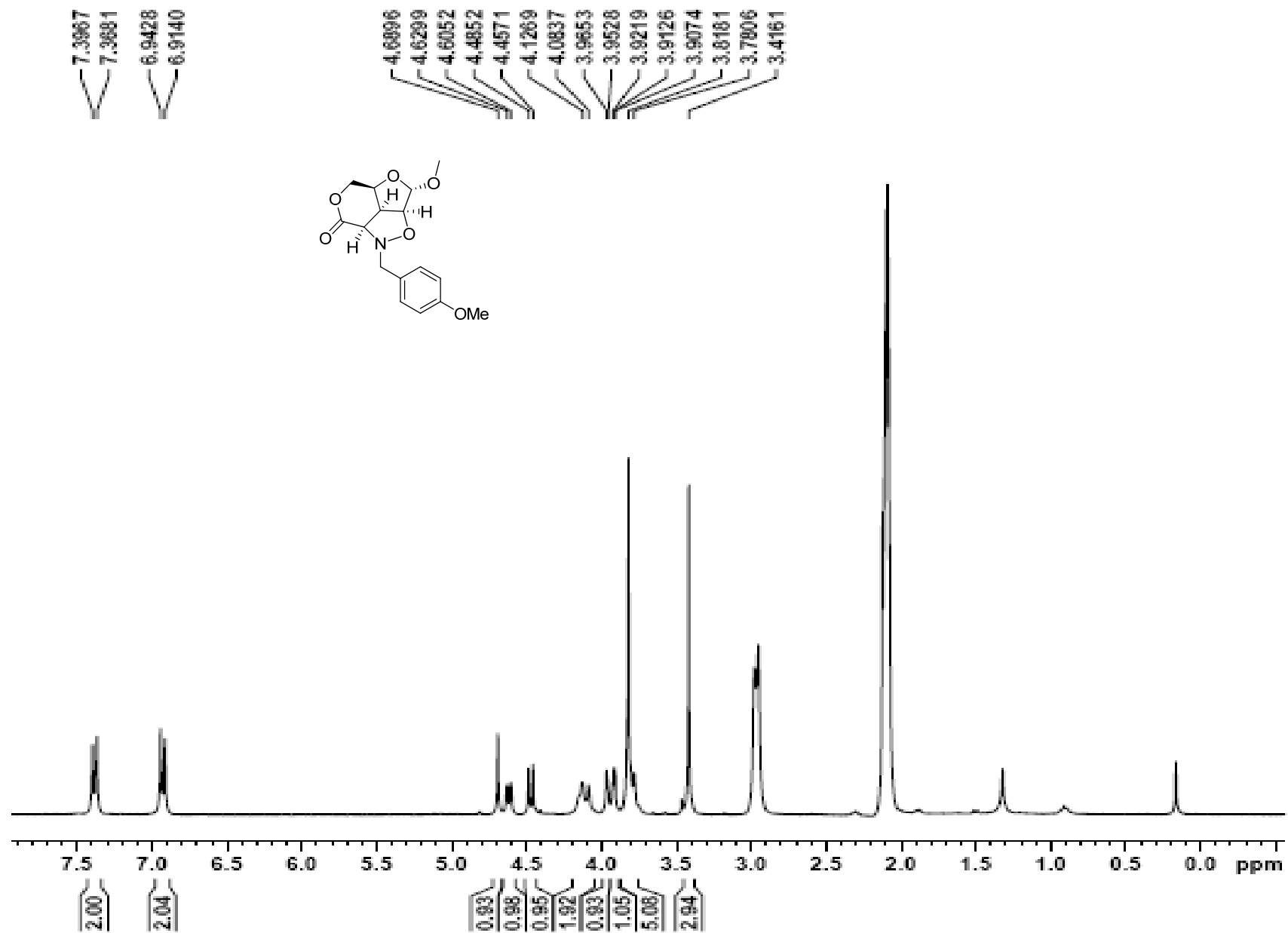


Figure 69 <sup>1</sup>H NMR spectrum of compound 43

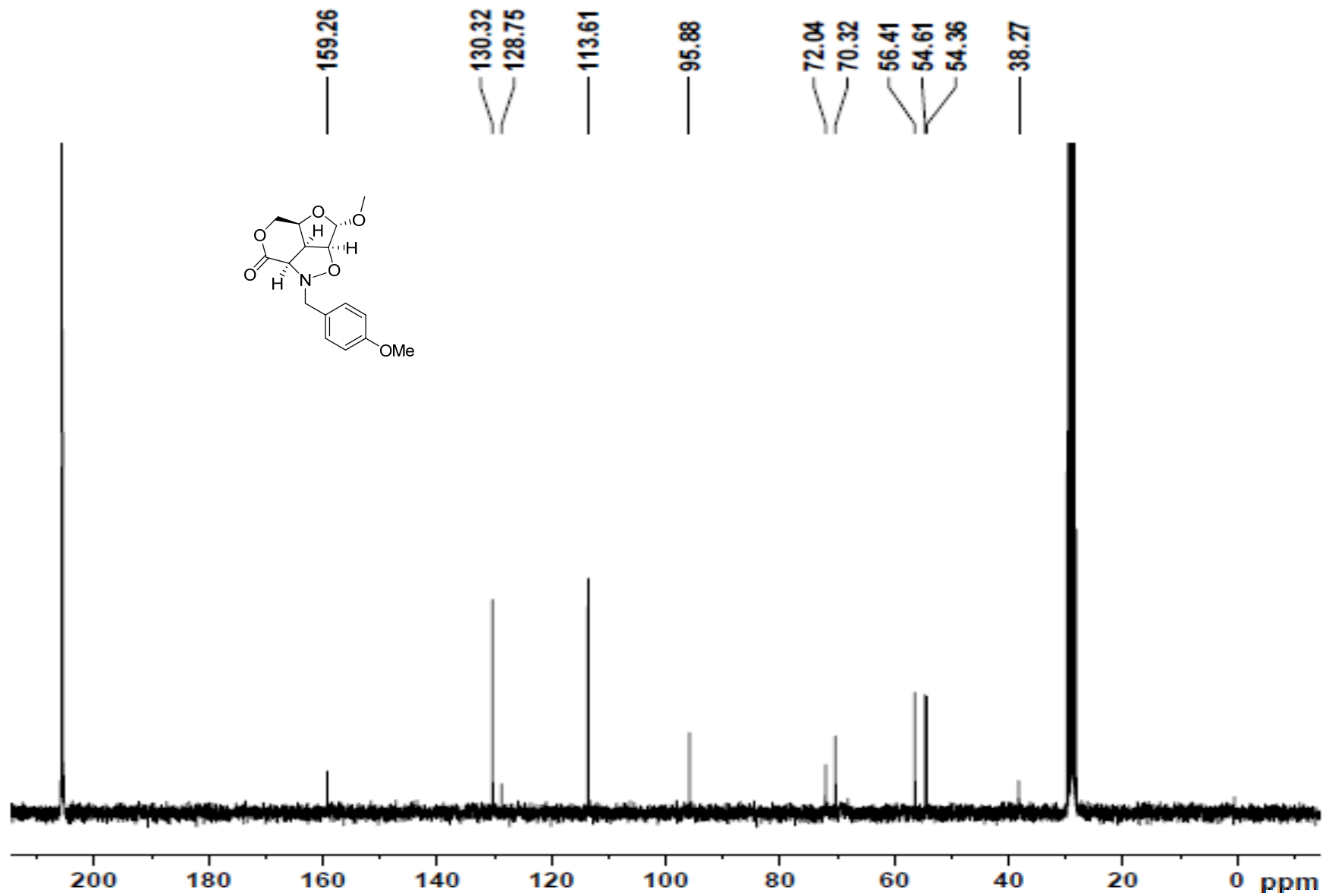


Figure 70 <sup>13</sup>C NMR spectrum of compound 43

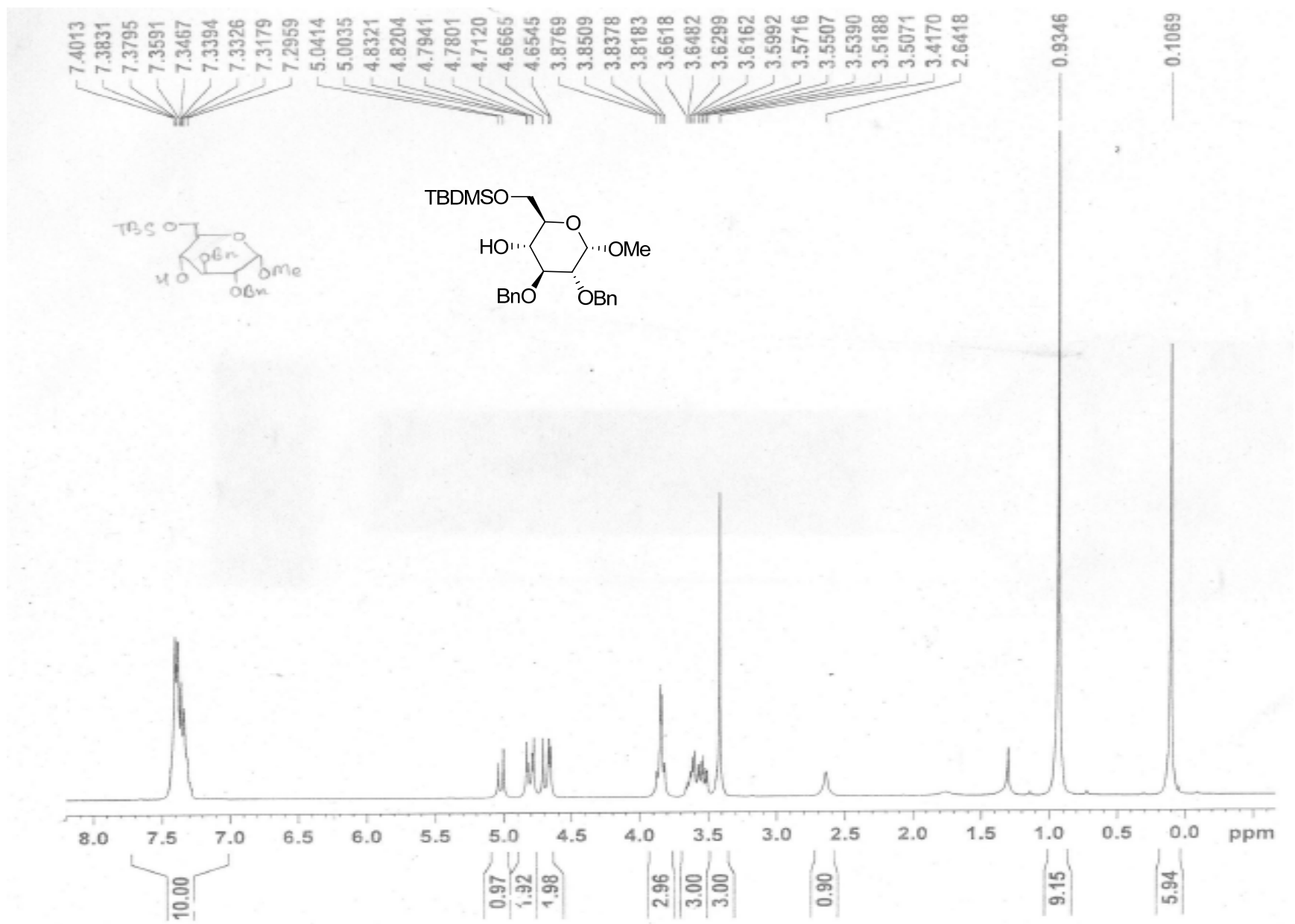


Figure 71 <sup>1</sup>H NMR spectrum of compound 48



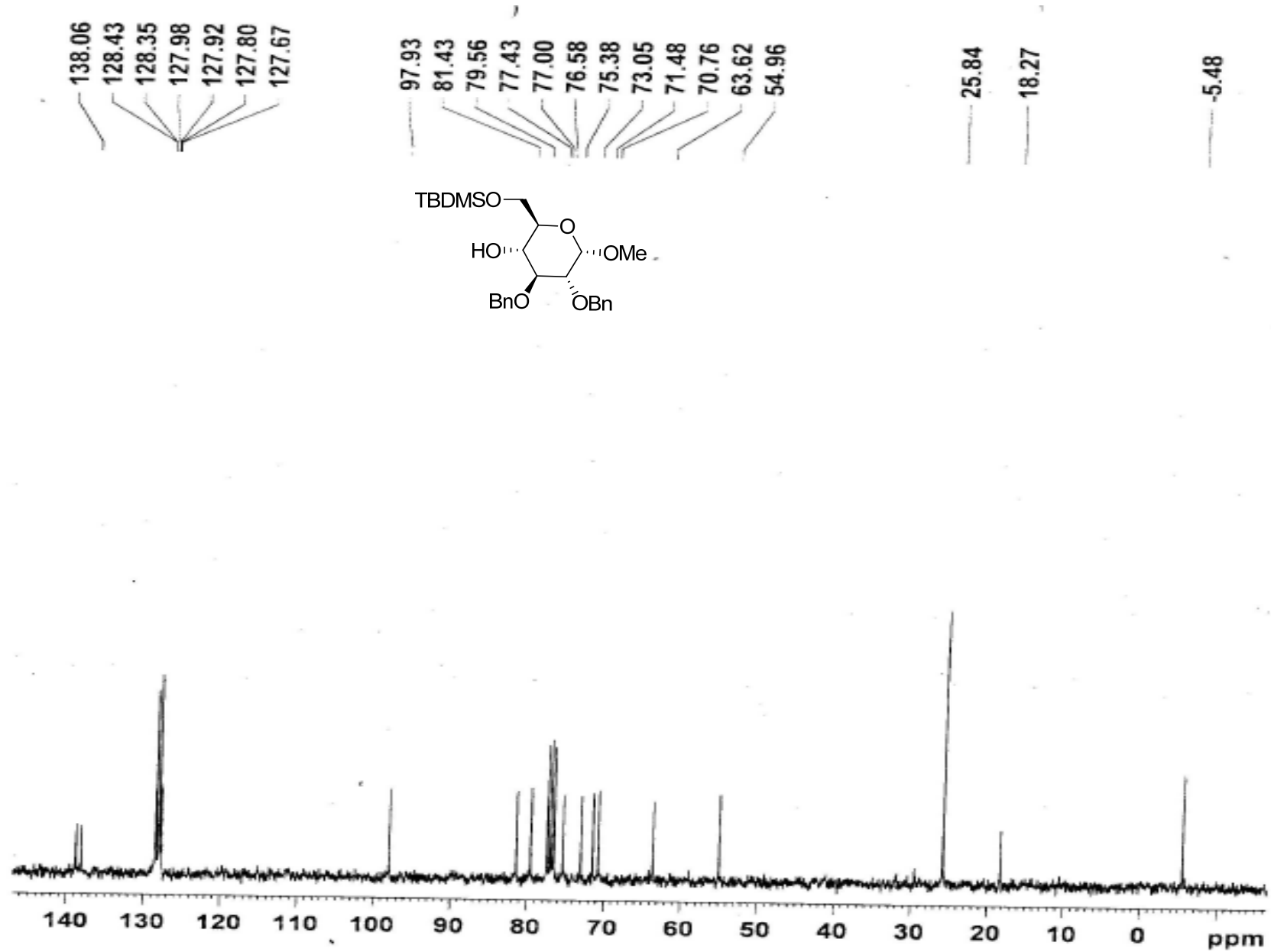


Figure 72  $^{13}\text{C}$  NMR spectrum of compound 48

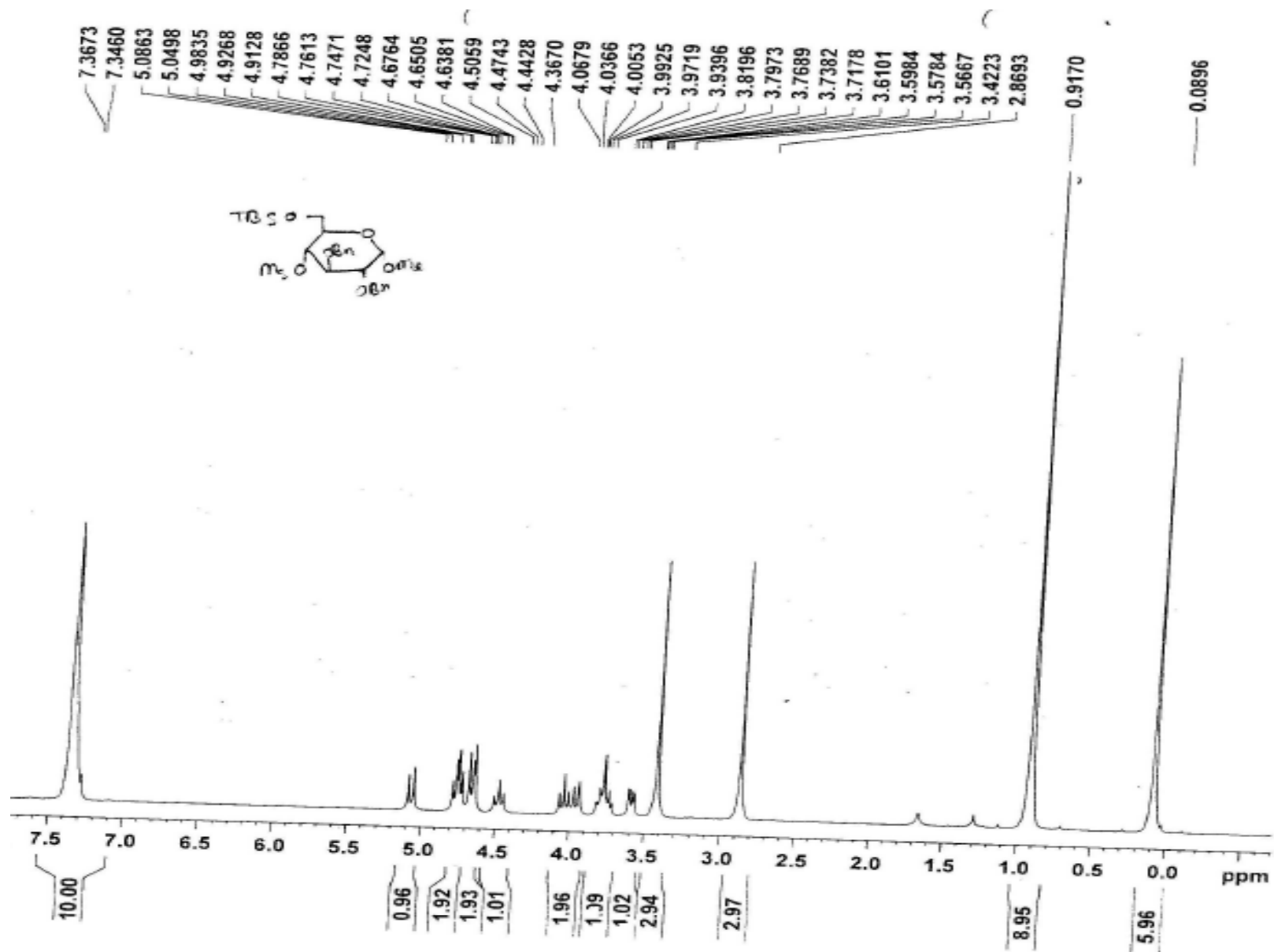


Figure 73 <sup>1</sup>H NMR spectrum of compound 49

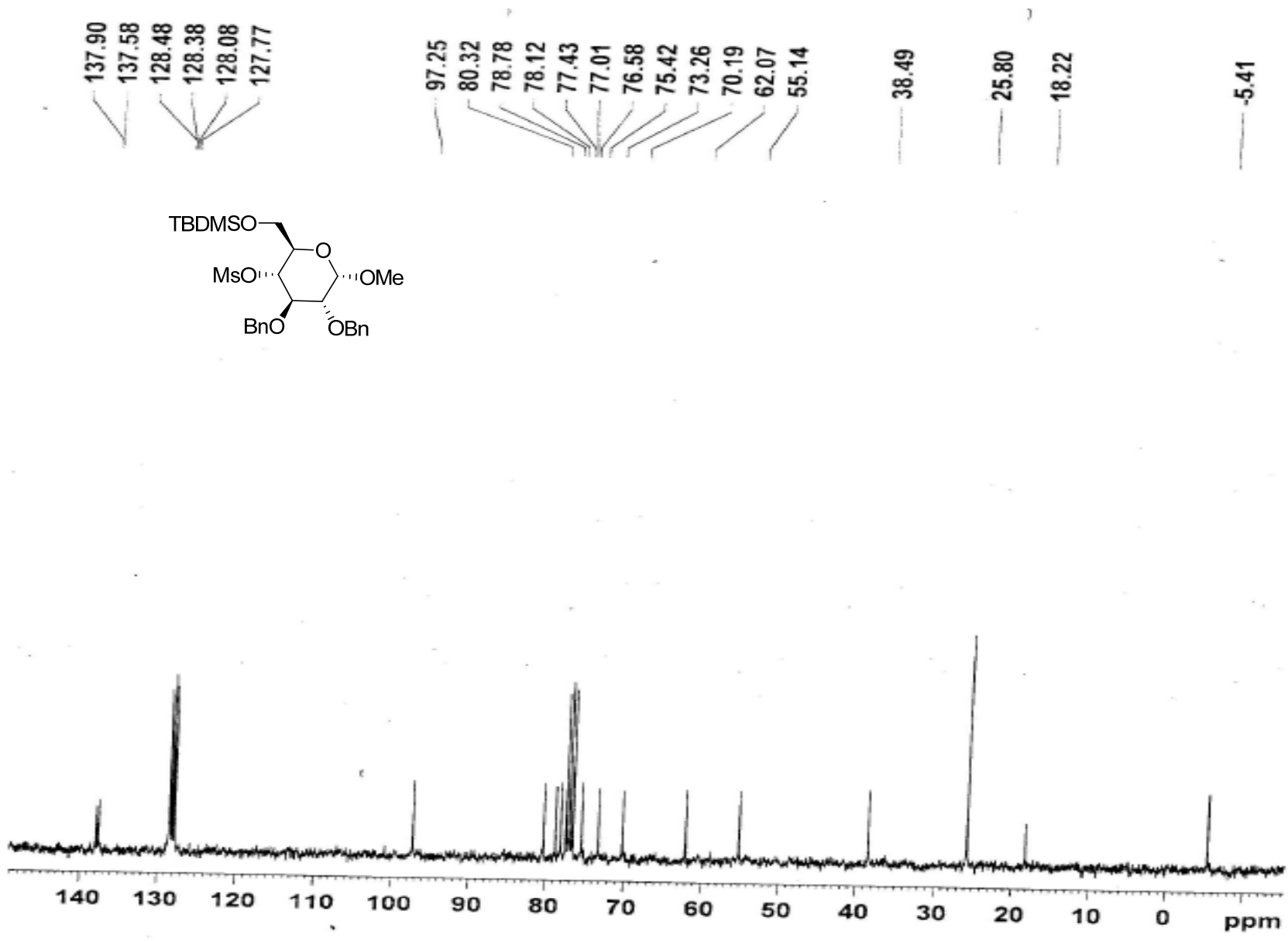


Figure 74 <sup>13</sup>C NMR spectrum of compound 49

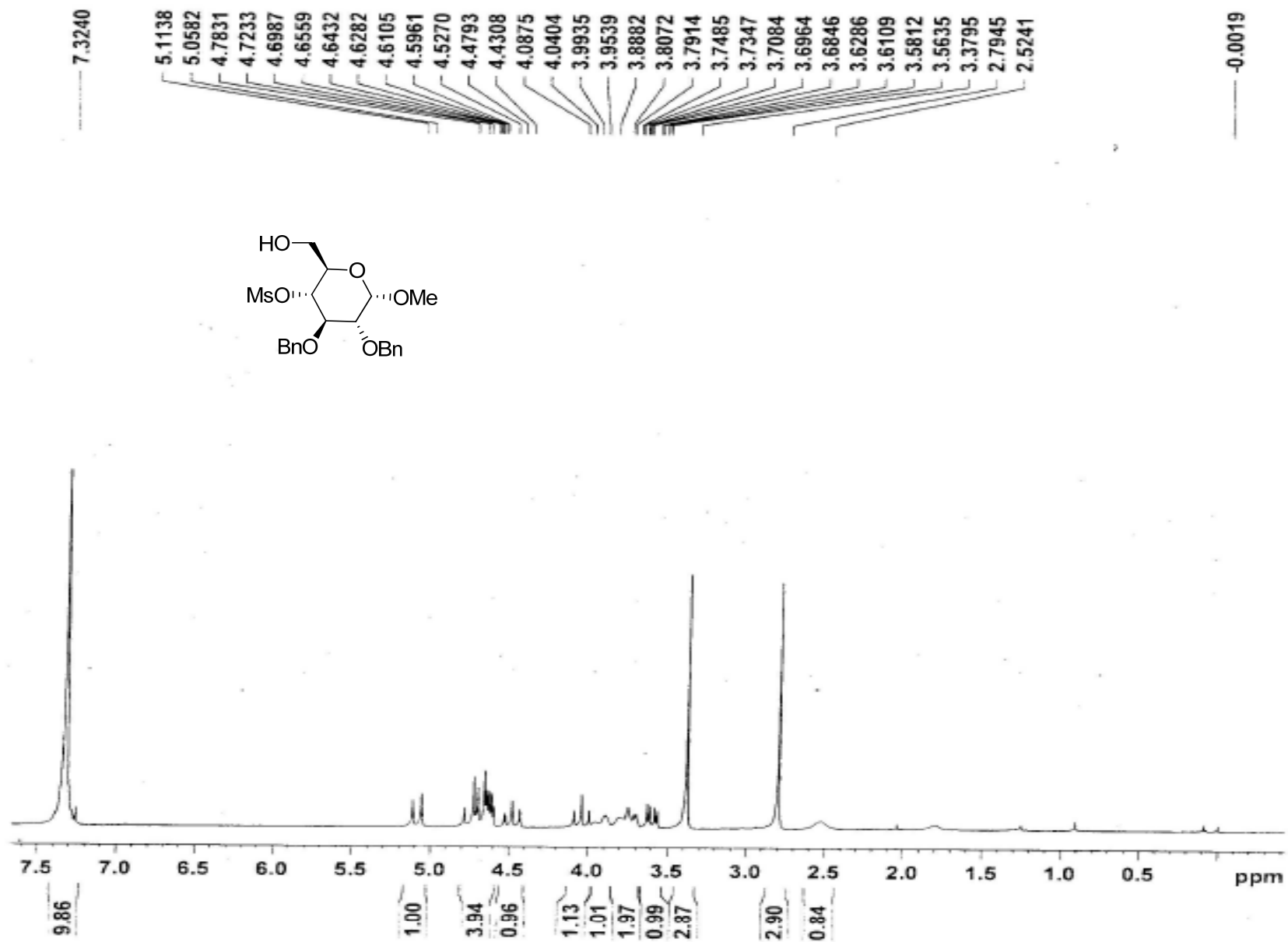


Figure 75 <sup>1</sup>H NMR spectrum of compound 50

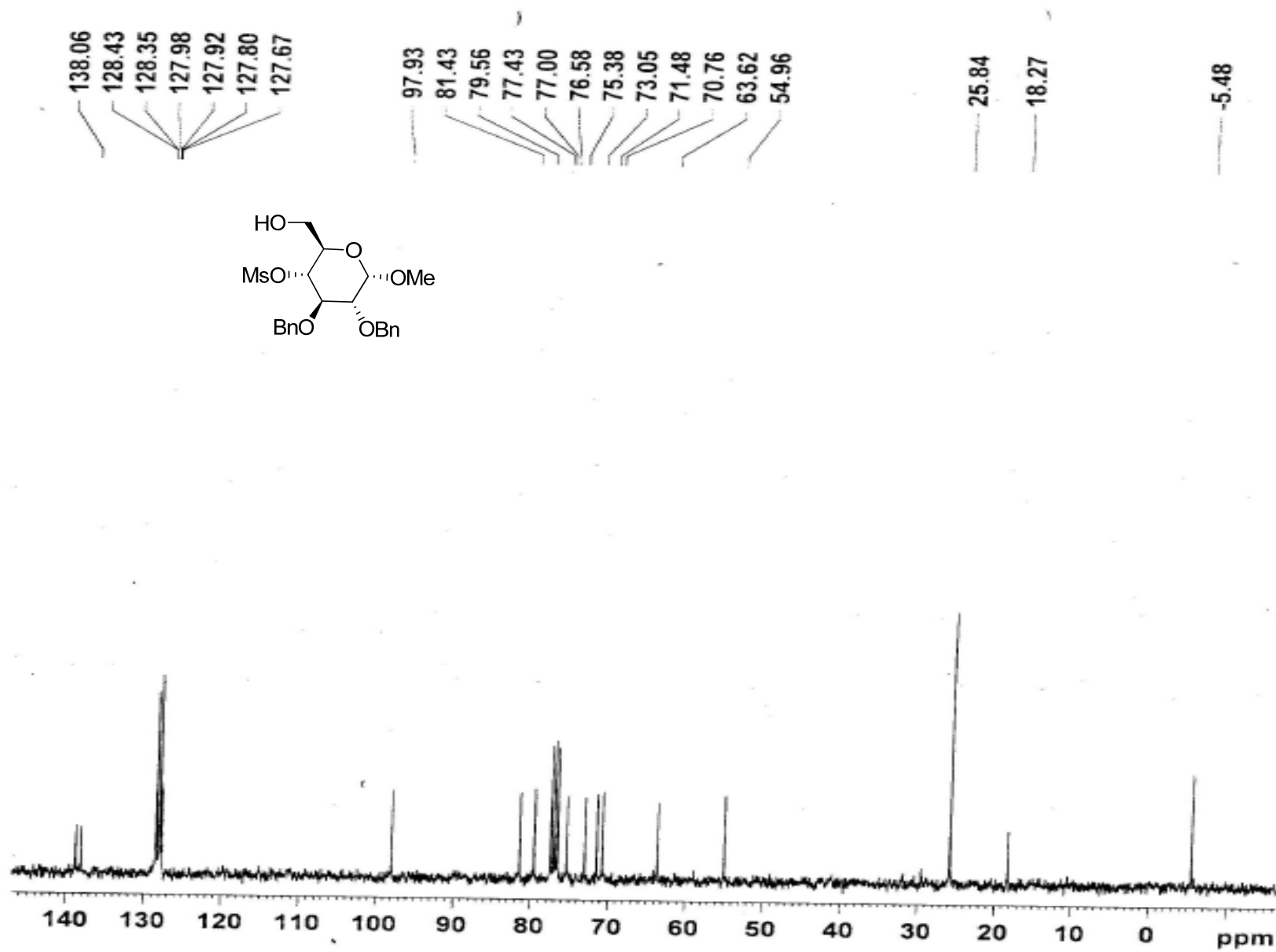


Figure 76 <sup>13</sup>C NMR spectrum of compound 50

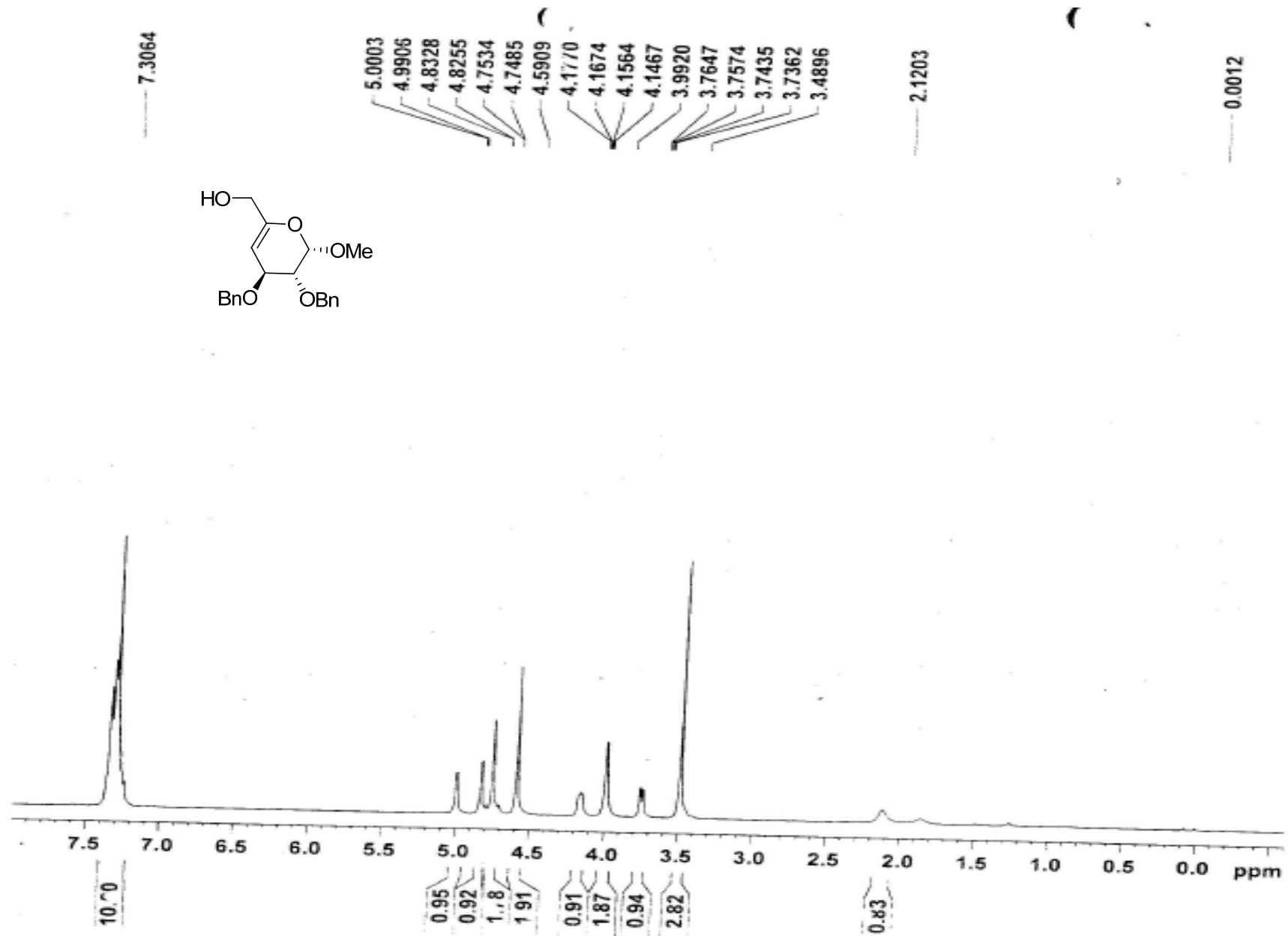


Figure 77 <sup>1</sup>H NMR spectrum of compound 52

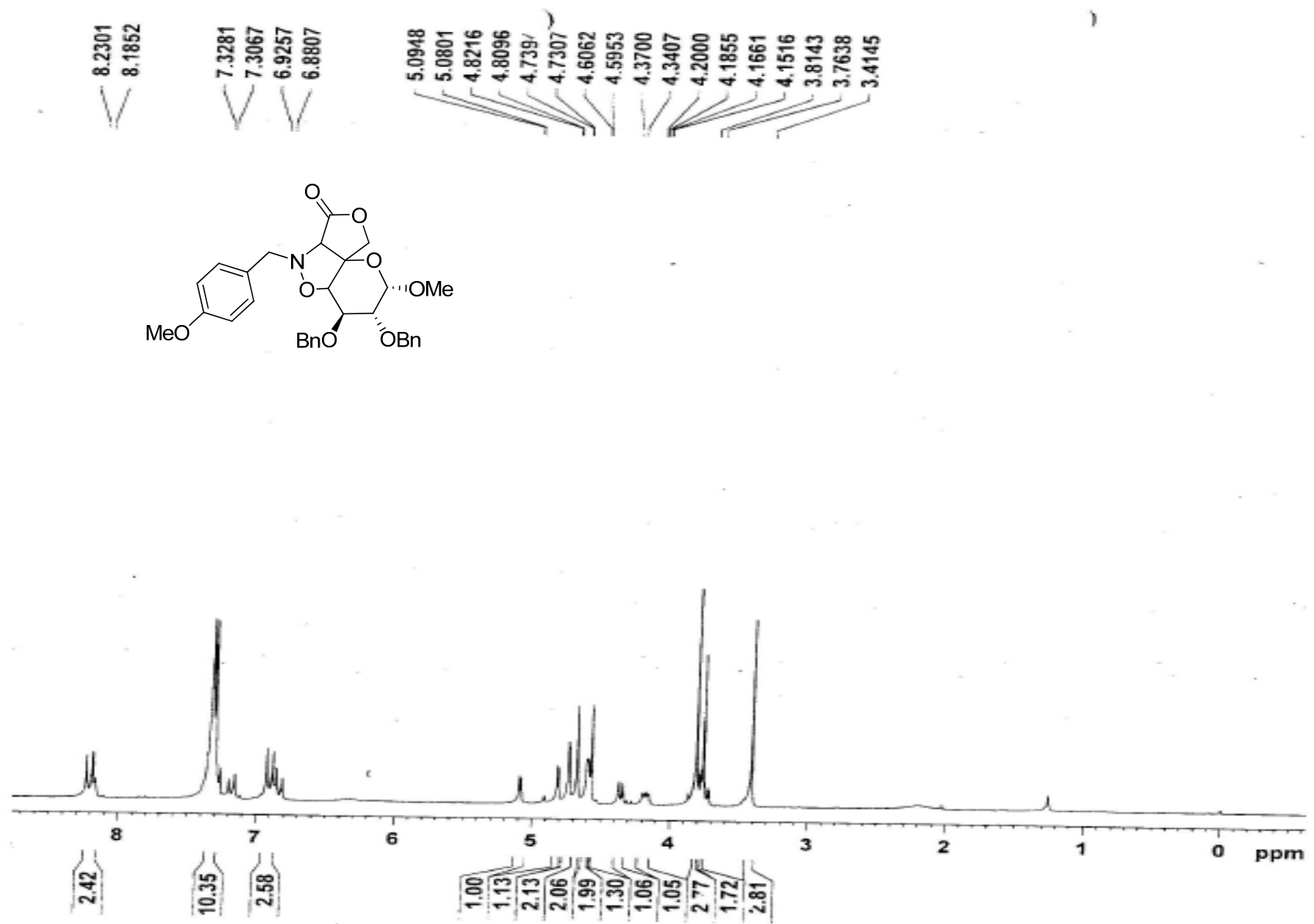


Figure 78 <sup>1</sup>H NMR spectrum of compound 53

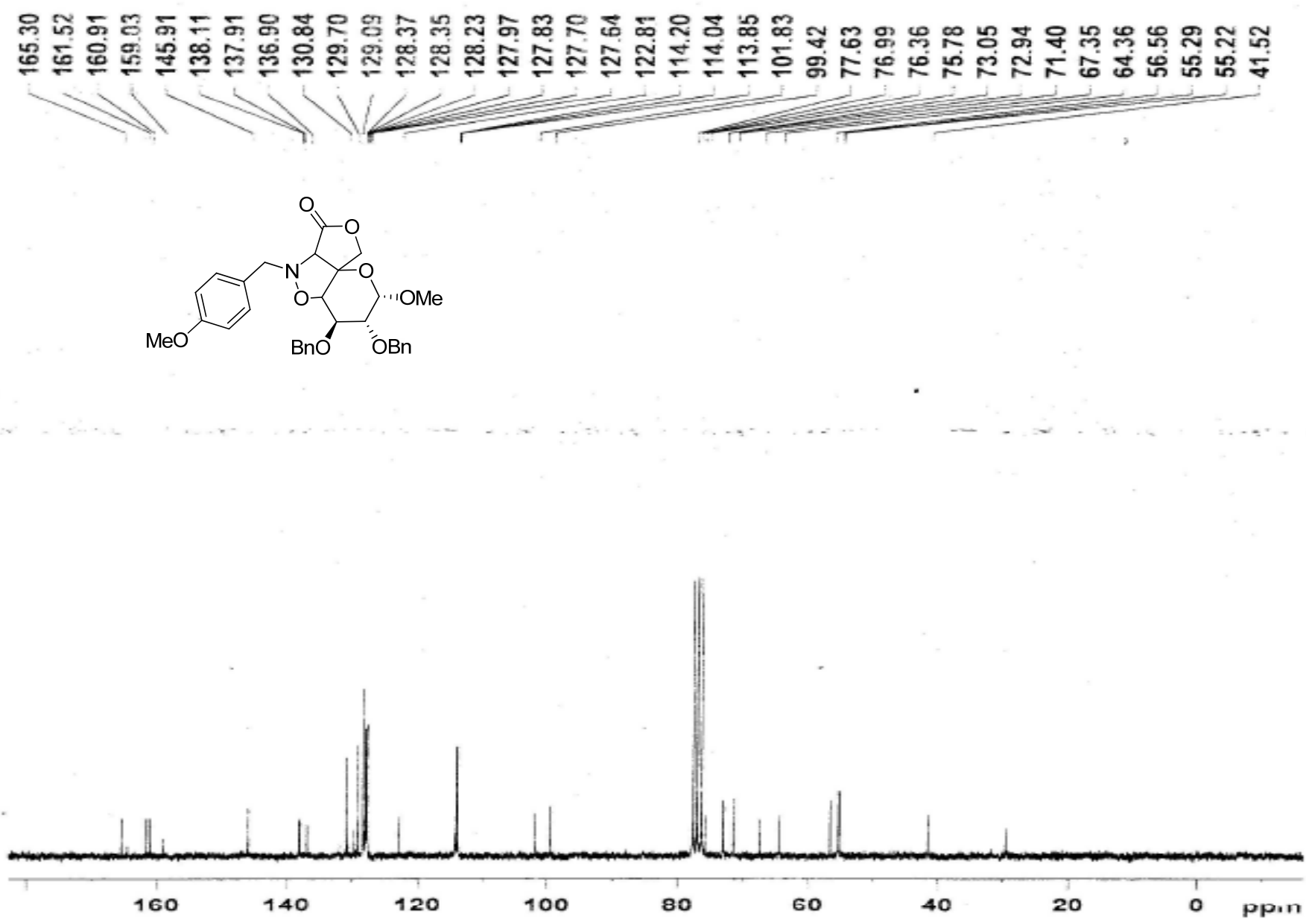


Figure 74 <sup>13</sup>C NMR spectrum of compound 53