

**Frustrated Lewis Pairs in Two-Dimensional Borocarbonitrile for facile synthesis of 3-Aminoimidazo [1, 2- $\alpha$ ] pyridines using TMSCN as isonitrile equivalence**

Jing Leng,<sup>a</sup> Mohd Sajid Ali,<sup>b</sup> Hamad A. Al-Lohedan,<sup>b</sup> Chandra Sekhar Rout,<sup>c\*</sup> K. Pramoda,<sup>c\*</sup> Kothanahally S. Sharath Kumar,<sup>d\*</sup>

<sup>a</sup>School of Chemistry and Chemical Engineering, Yangzhou Polytechnic Institute, Yangzhou, Jiangsu 225127, P. R. China.

<sup>b</sup>Department of Chemistry, College of Science, King Saud University, P.O. Box 2455, Riyadh 11451, Saudi Arabia.

<sup>c</sup>Centre for Nano and Material Sciences, Jain (Deemed-to-be-University), Jain Global Campus, Kanakapura, Bangalore-562112.

<sup>d</sup>Department of studies in Chemistry, Manasagangotri, University of Mysore, Mysore-570006.

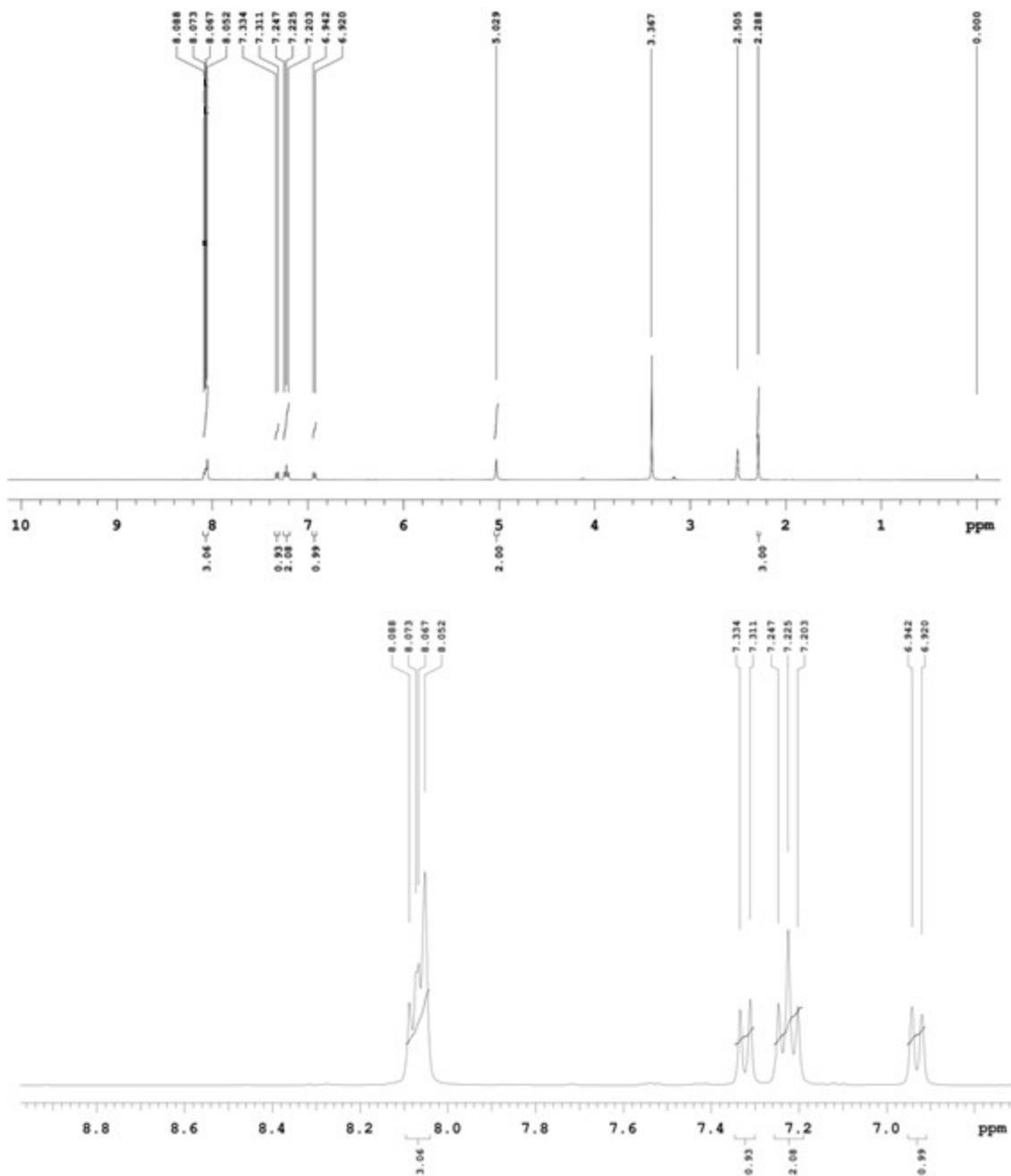
\*Corresponding authors

E-mail: [r.chandrasekhar@jainuniversity.ac.in](mailto:r.chandrasekhar@jainuniversity.ac.in) ; [k.pramoda@jainuniversity.ac.in](mailto:k.pramoda@jainuniversity.ac.in) ;  
[sharu.shivaramu@gmail.com](mailto:sharu.shivaramu@gmail.com)

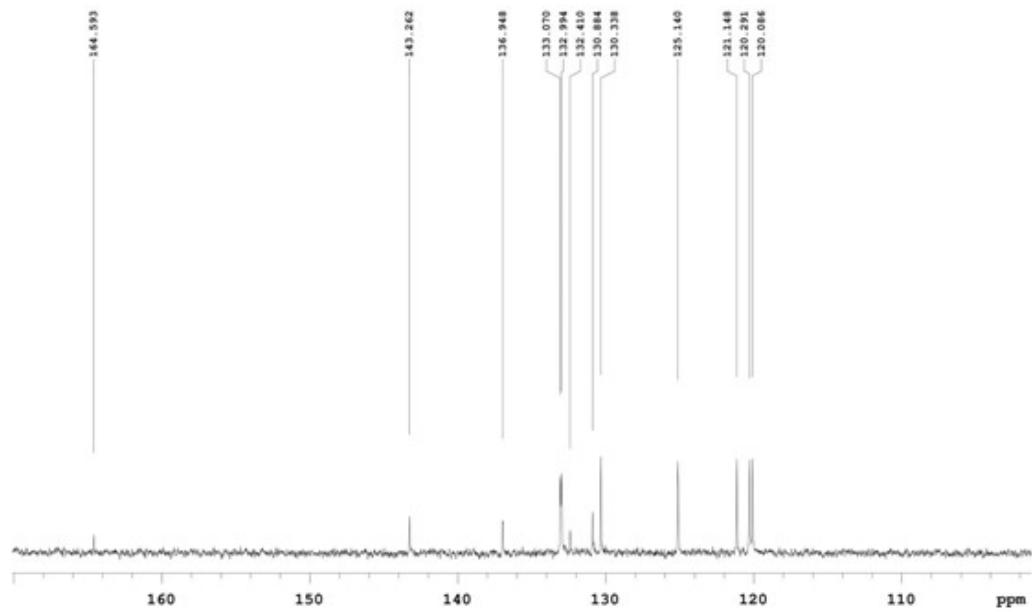
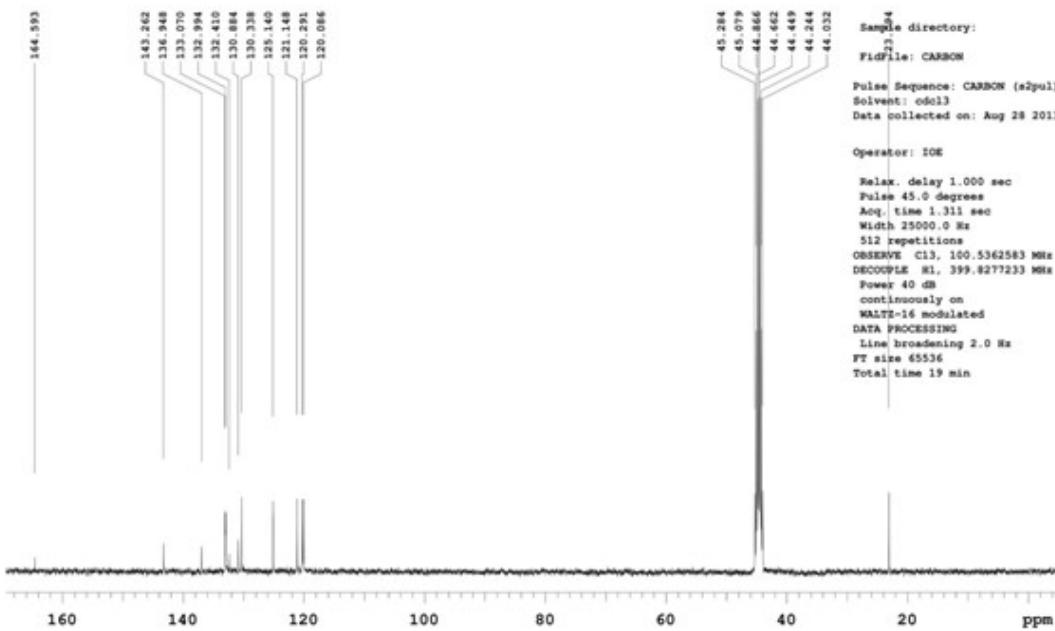
**Calculation of Turn over number (TON) (Catalysis Letters, 2021, 151, 1397-1405)**

$$\text{TON} = \frac{\text{Moles of substrate taken (amino pyridine)} \times \% \text{ yield of Product}}{(\text{Moles of catalyst taken}) \times 100 \times 10^{-3}}$$

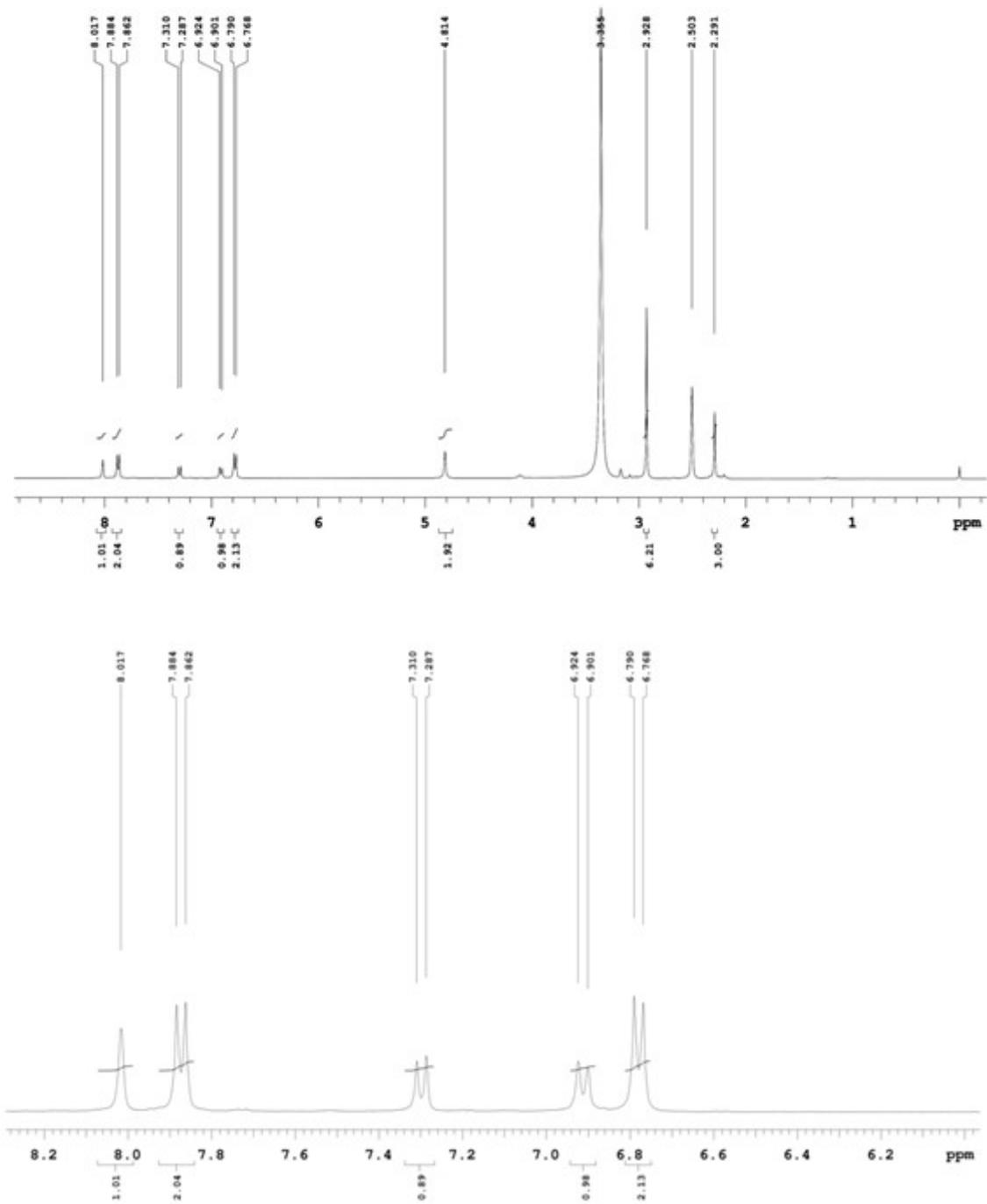
**<sup>1</sup>H and <sup>13</sup>C NMR of 3-Aminoimidazo [1, 2- $\alpha$ ] pyridines (4a-4q)**



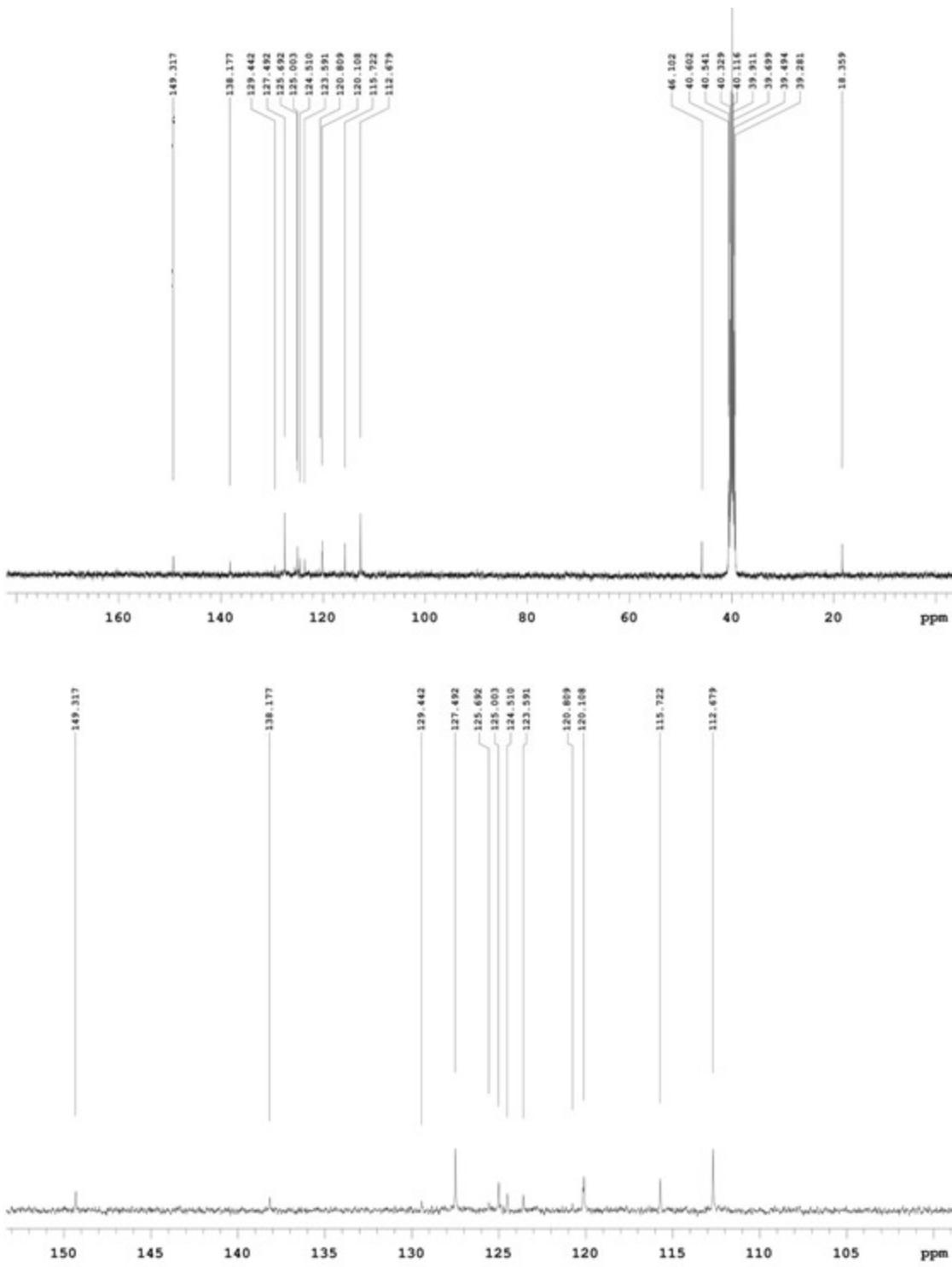
**<sup>1</sup>H NMR spectrum of compound 4a**



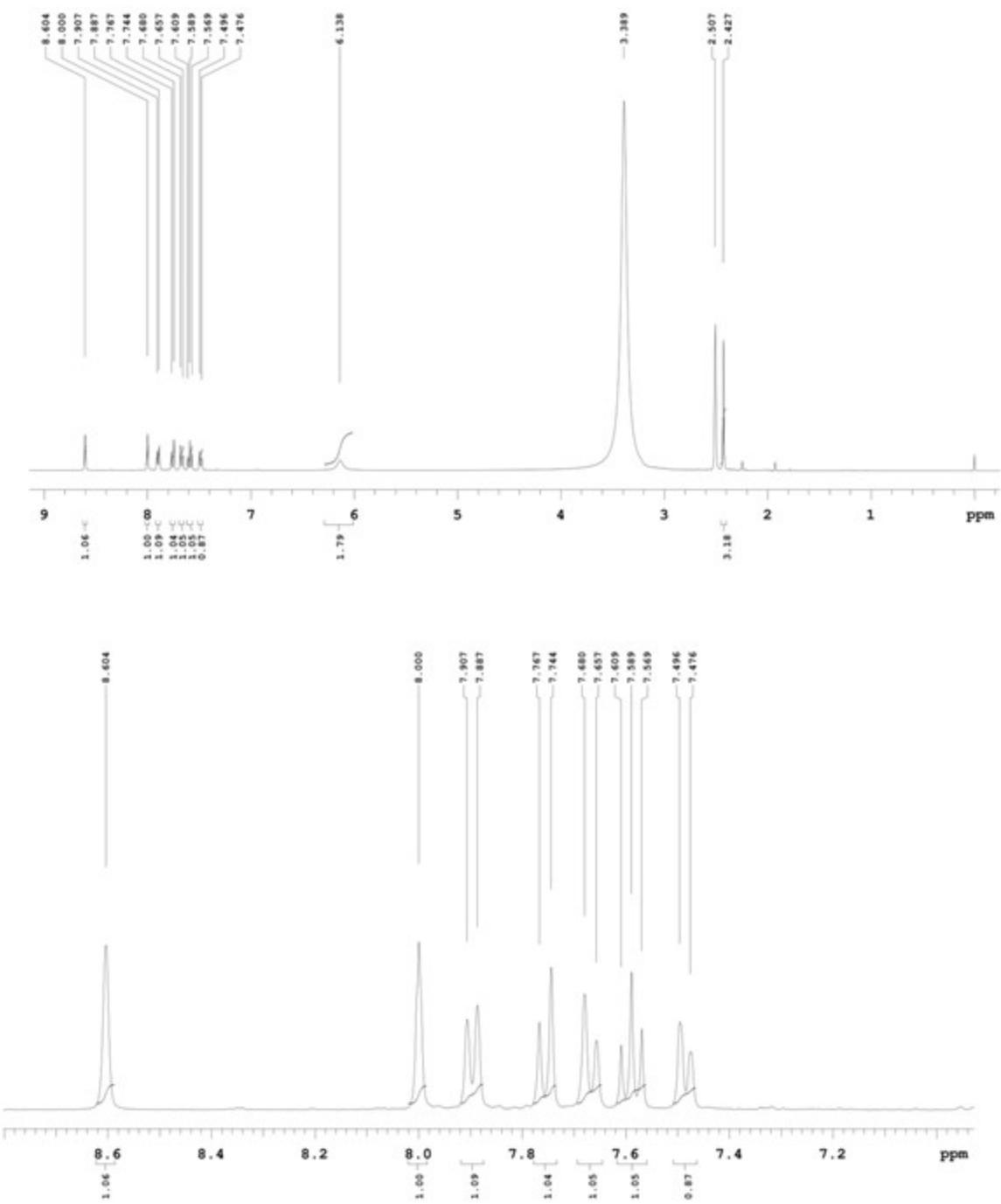
$^{13}\text{C}$  NMR spectrum of compound 4a



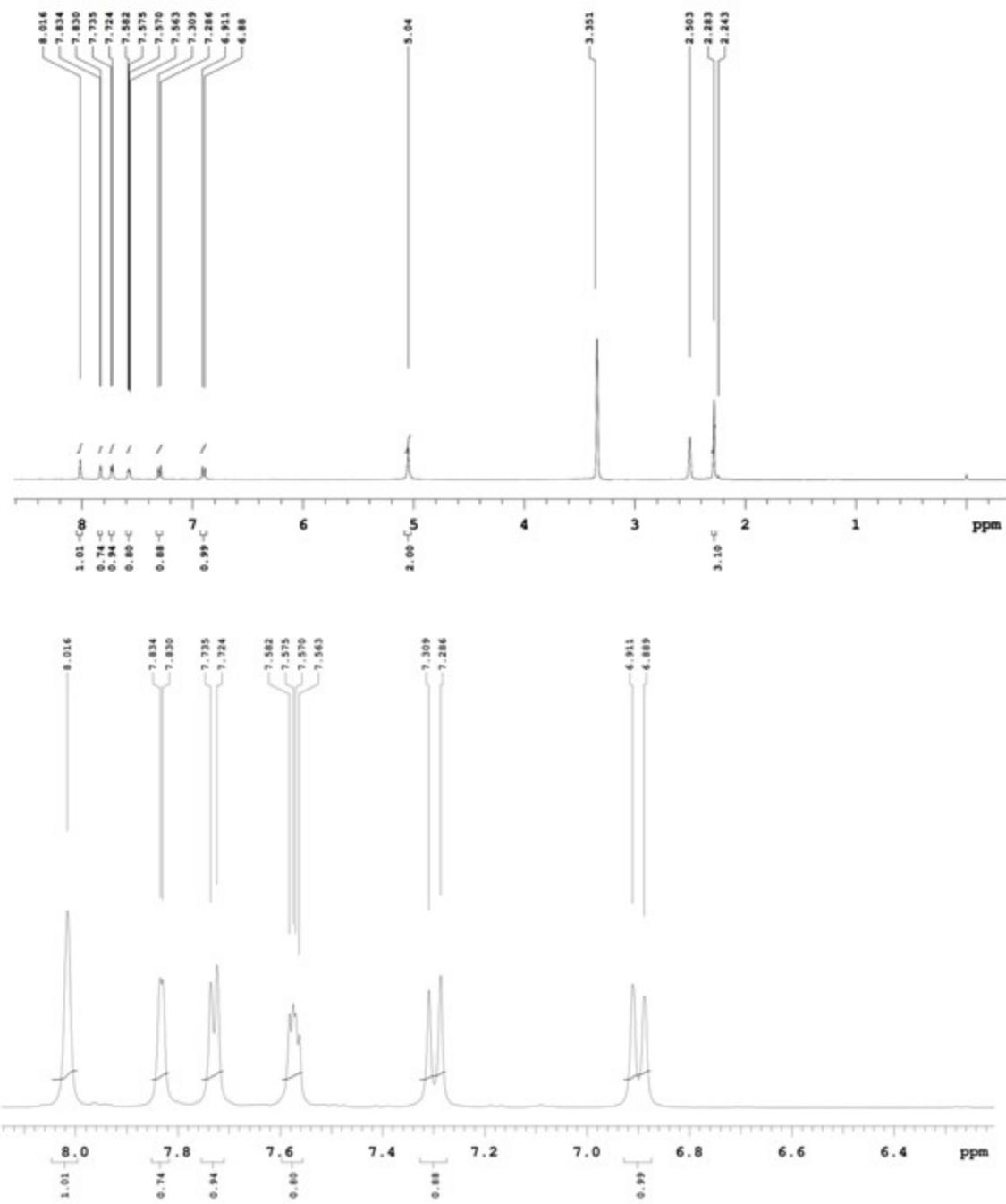
<sup>1</sup>H NMR spectrum of compound 4b

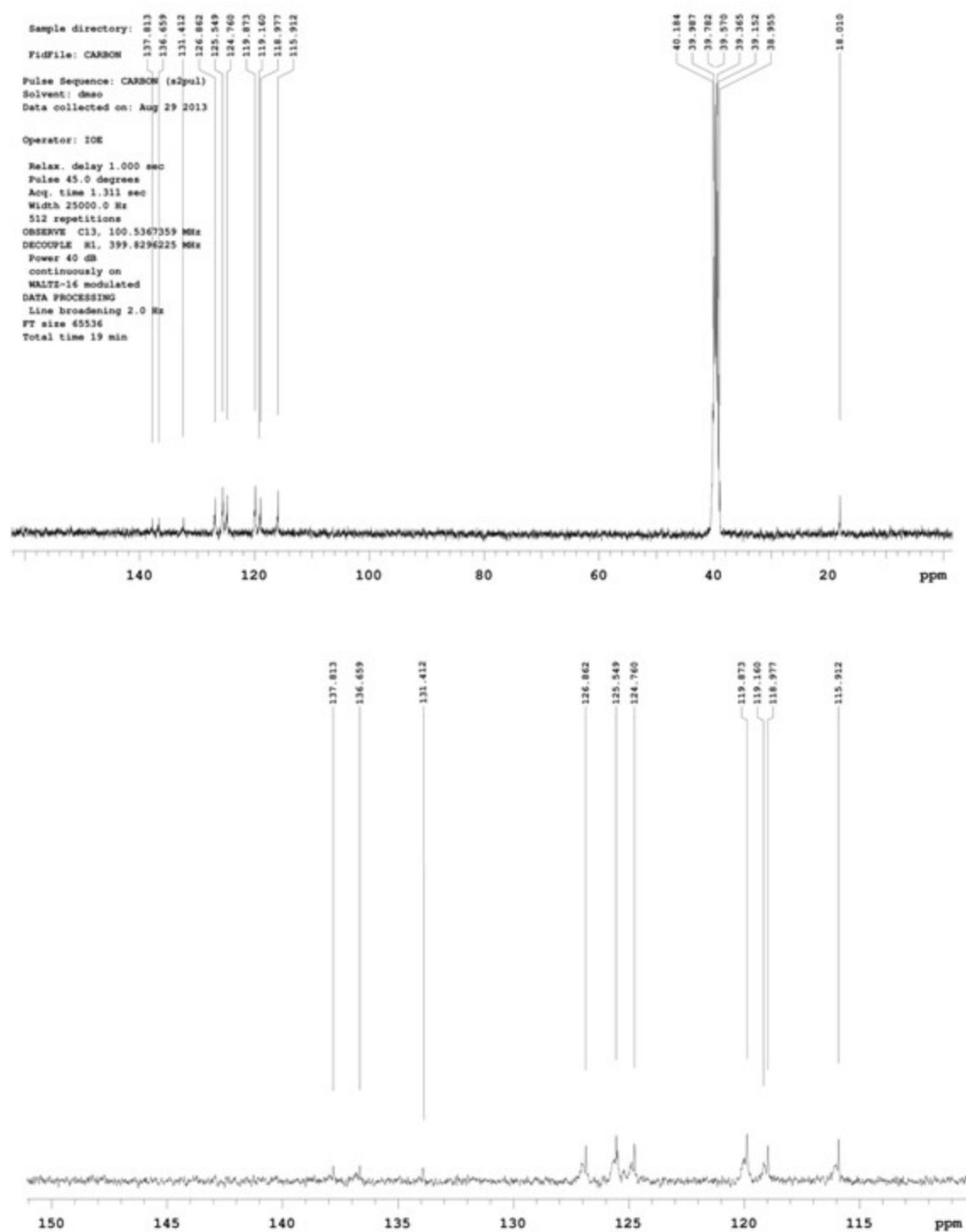


<sup>13</sup>C NMR spectrum of compound 4b

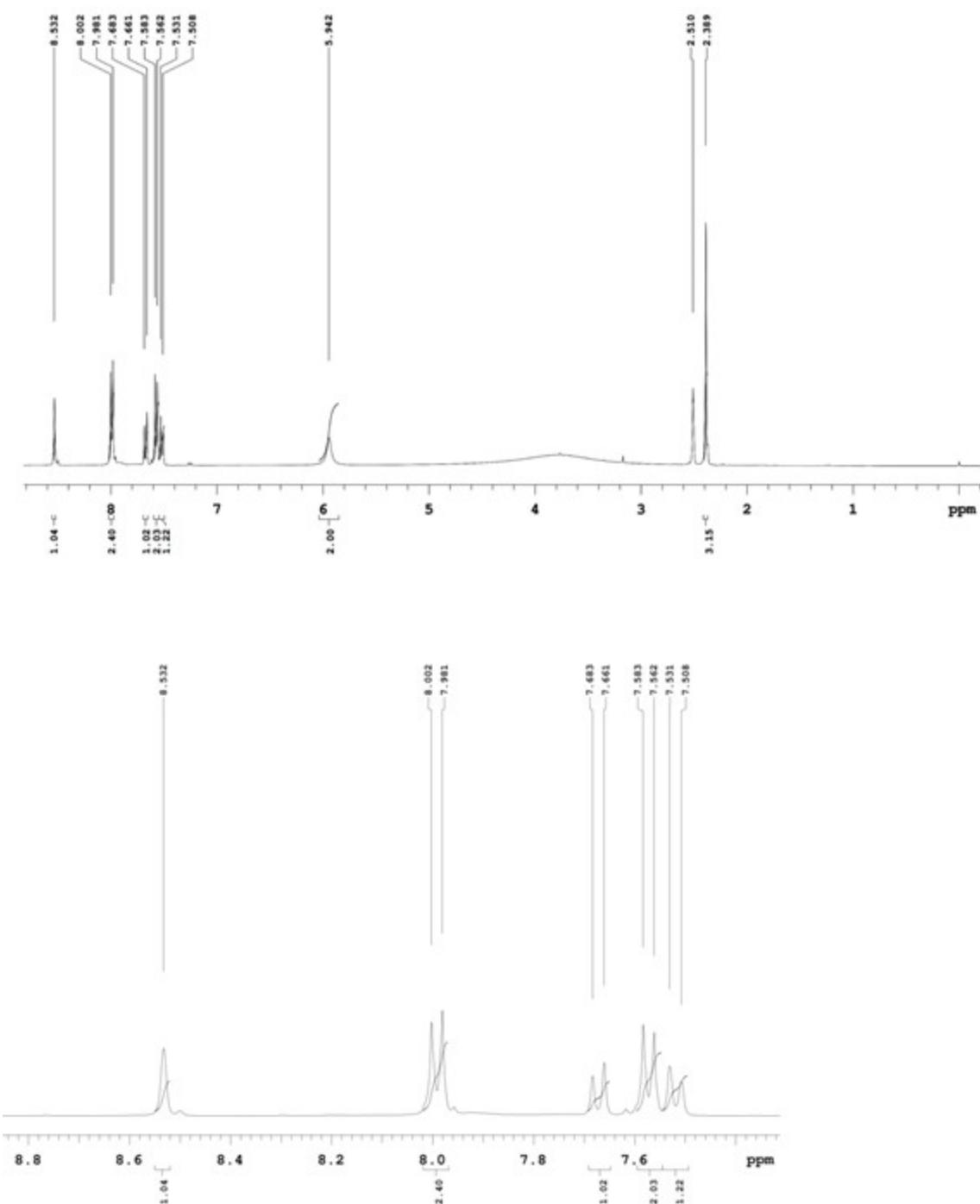


<sup>1</sup>H NMR spectrum of compound 4c





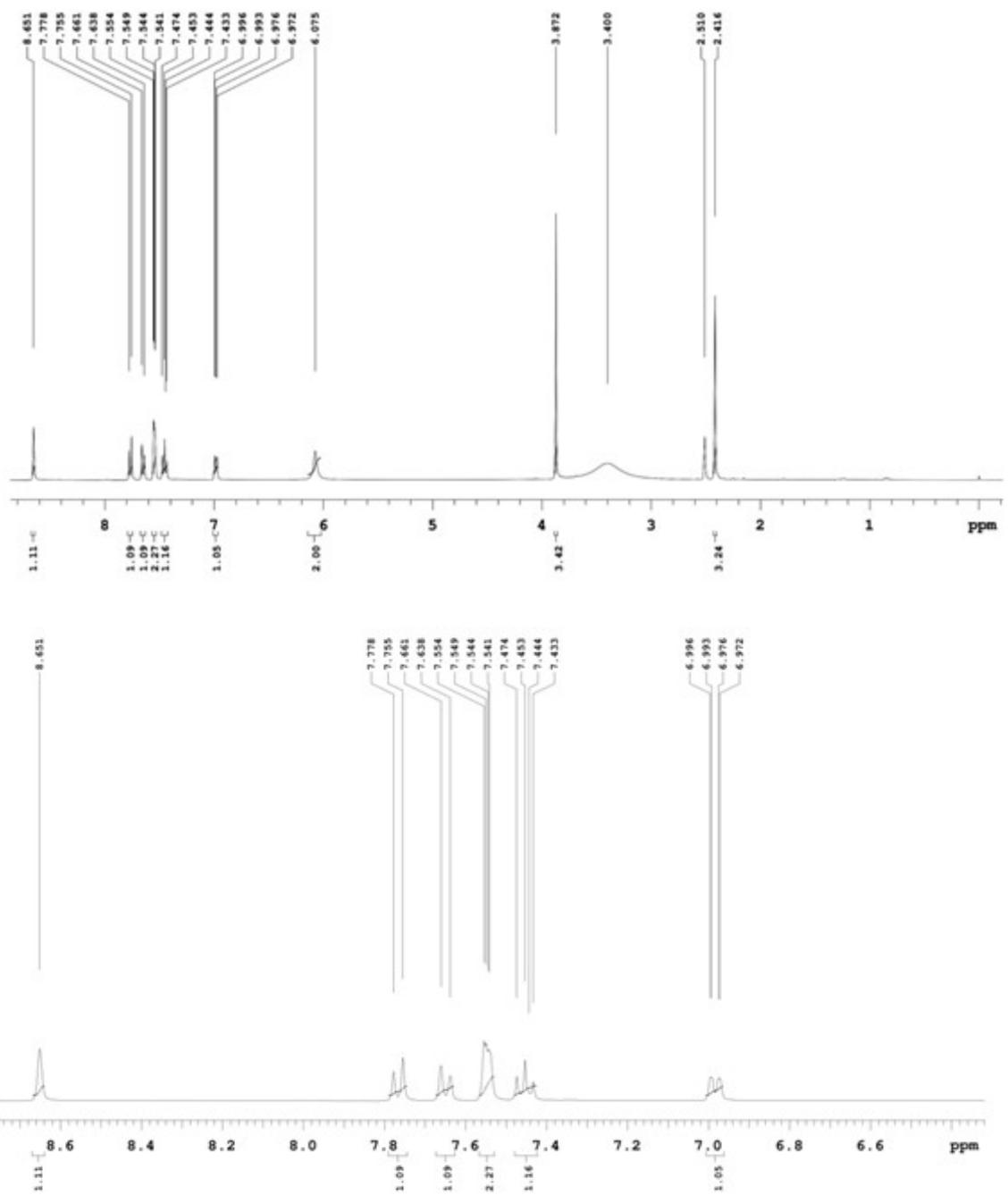
$^{13}\text{C}$  NMR spectrum of compound 4d



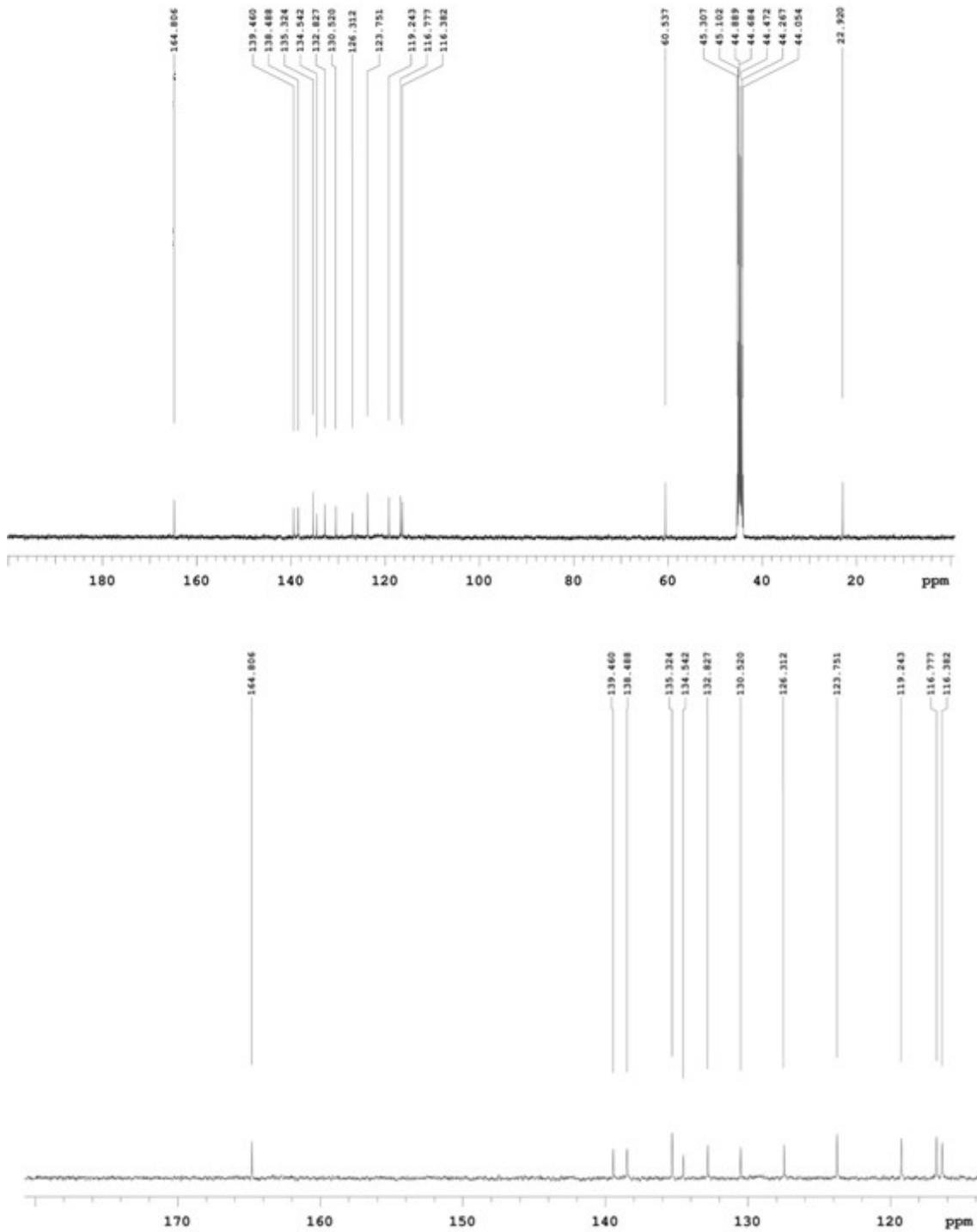
<sup>1</sup>H NMR spectrum of compound 4e



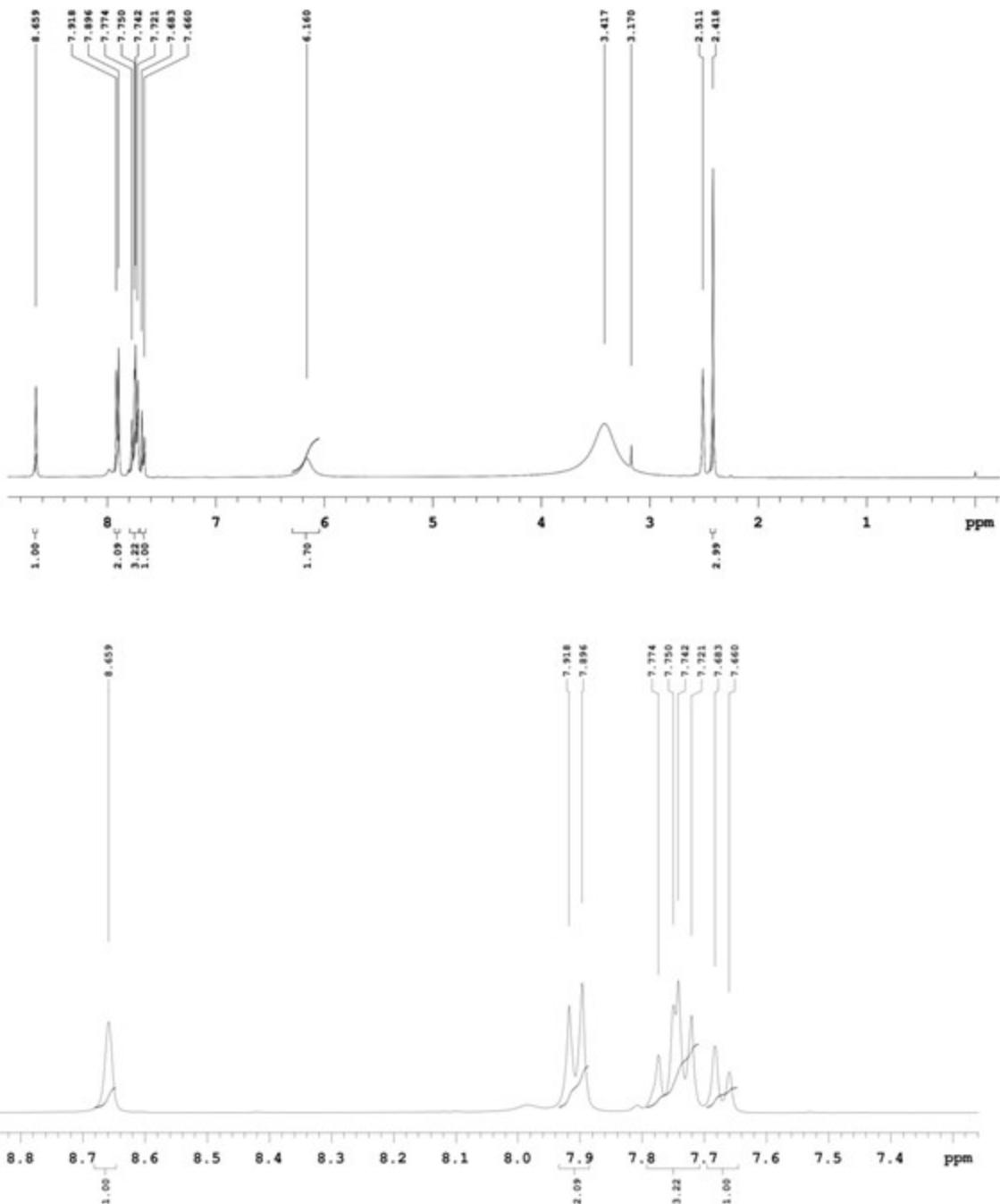
$^{13}\text{C}$  NMR spectrum of compound 4e



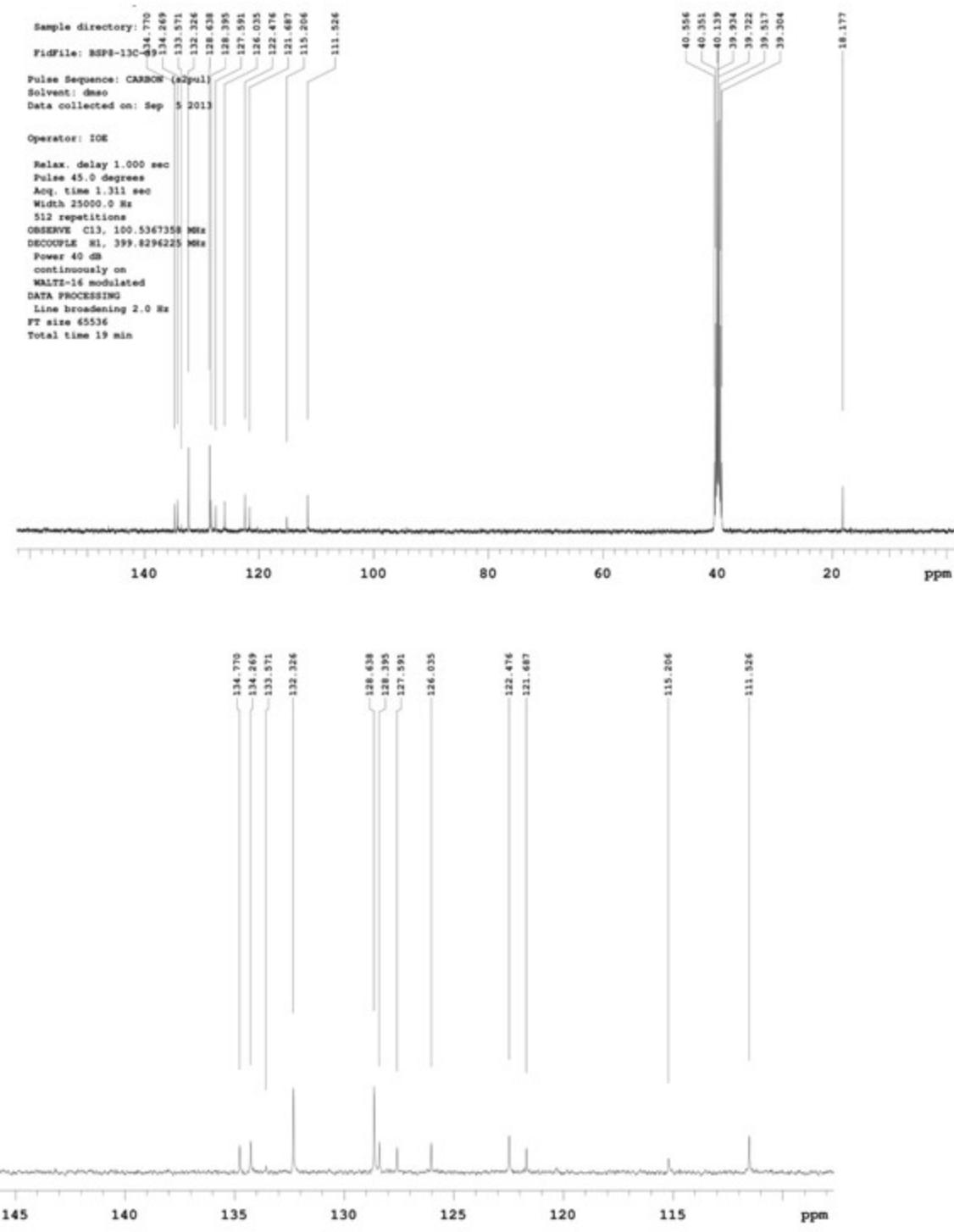
<sup>1</sup>H NMR spectrum of compound 4f

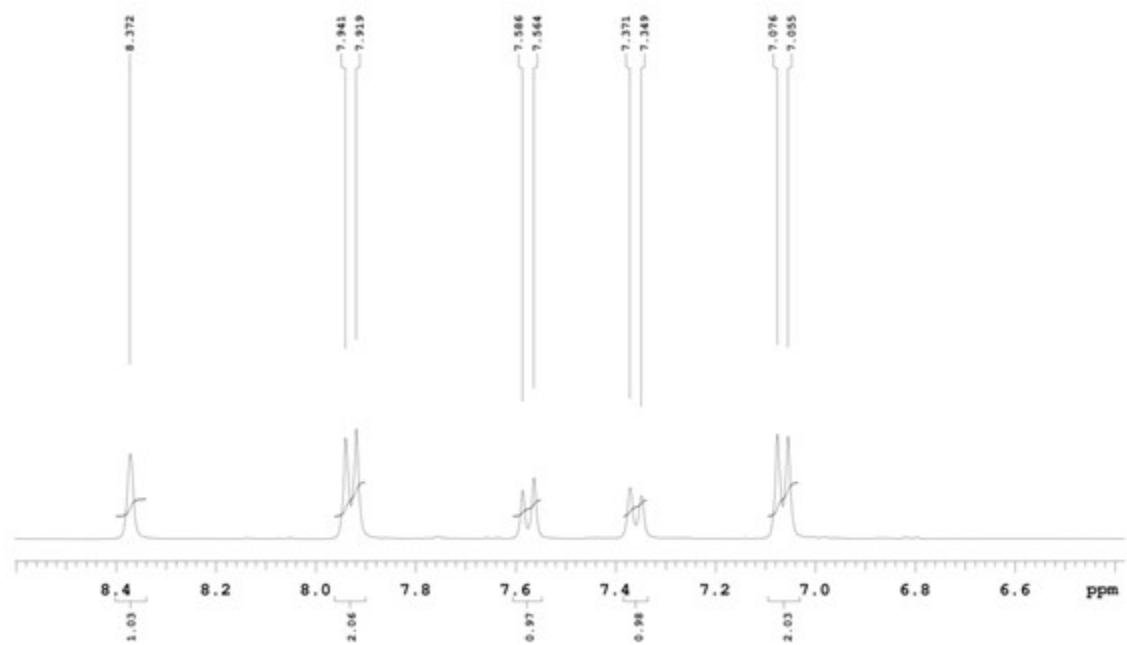
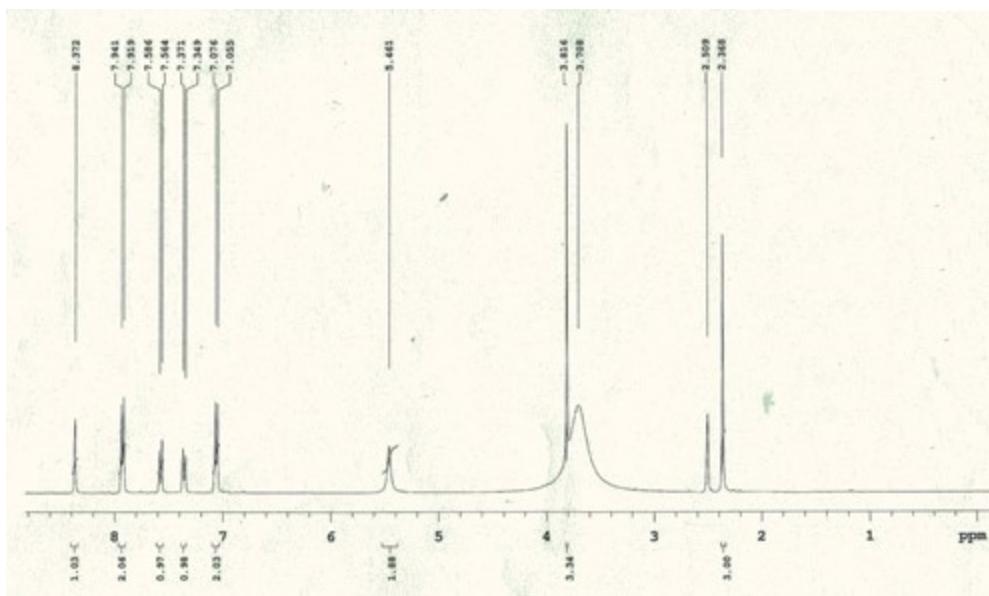


$^{13}\text{C}$  NMR spectrum of compound 4f

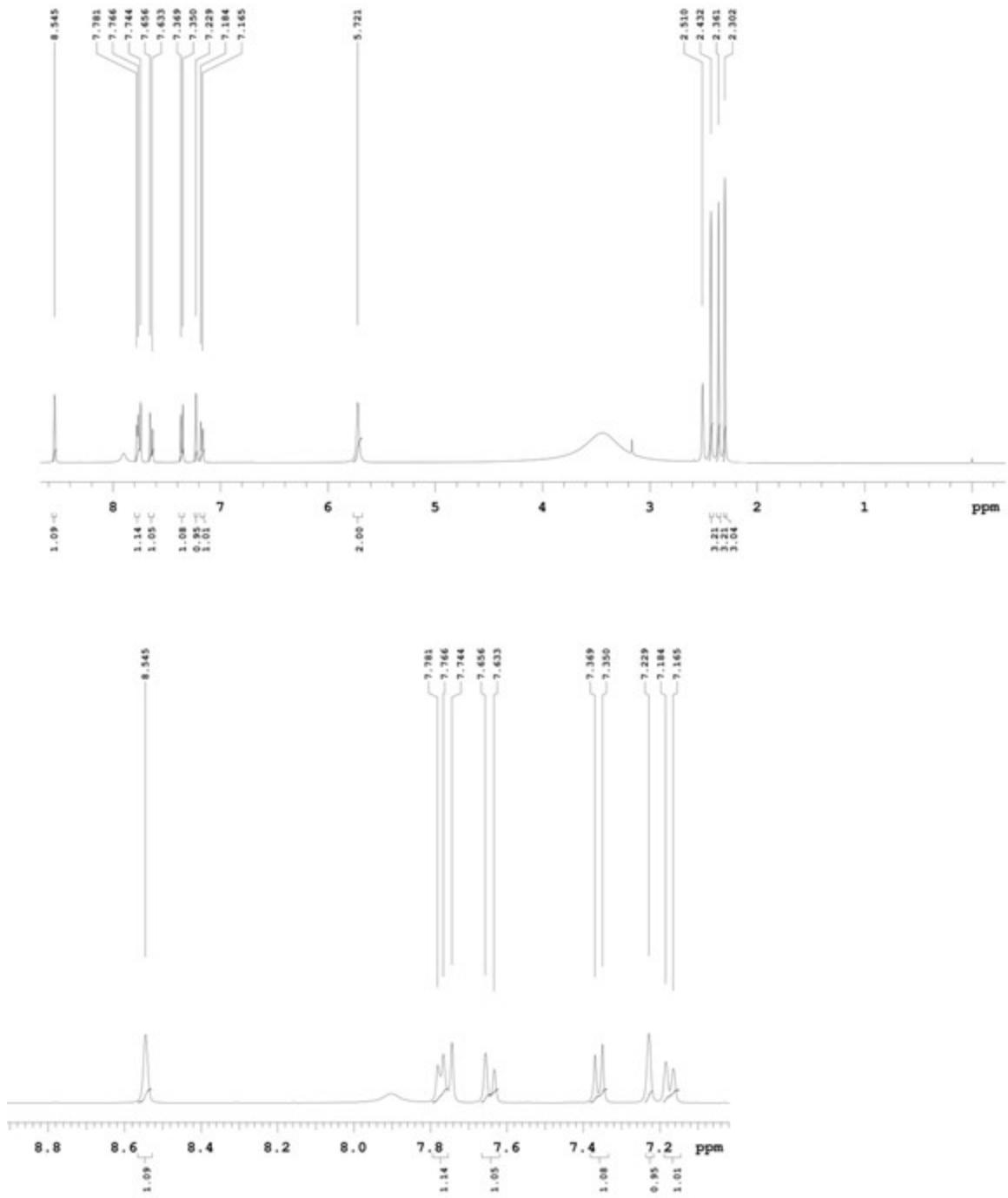


<sup>1</sup>H NMR spectrum of compound 4g

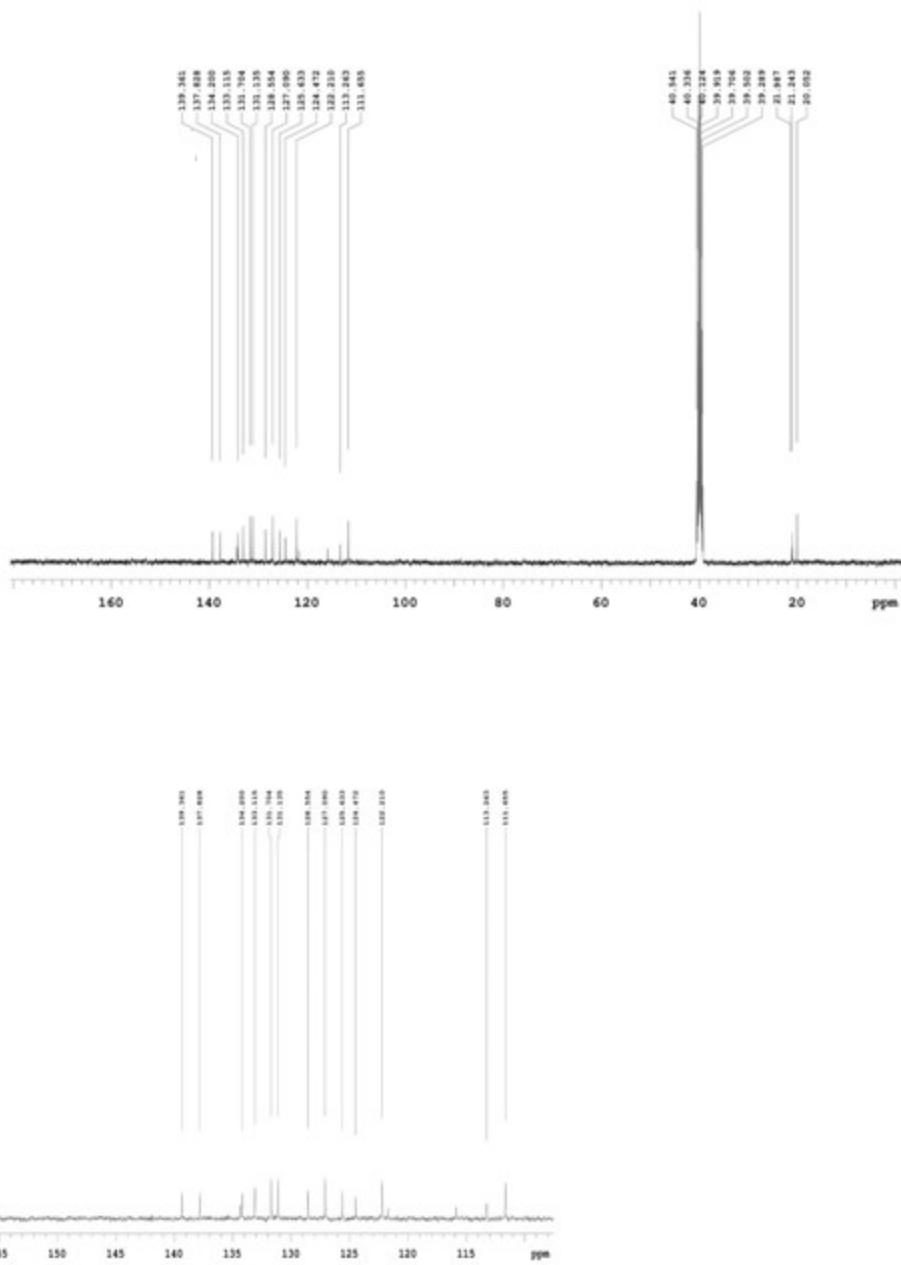




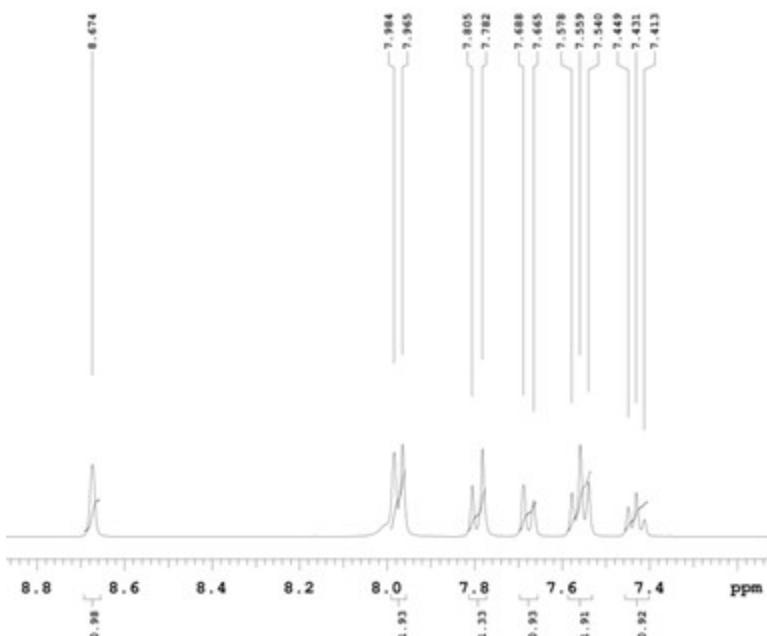
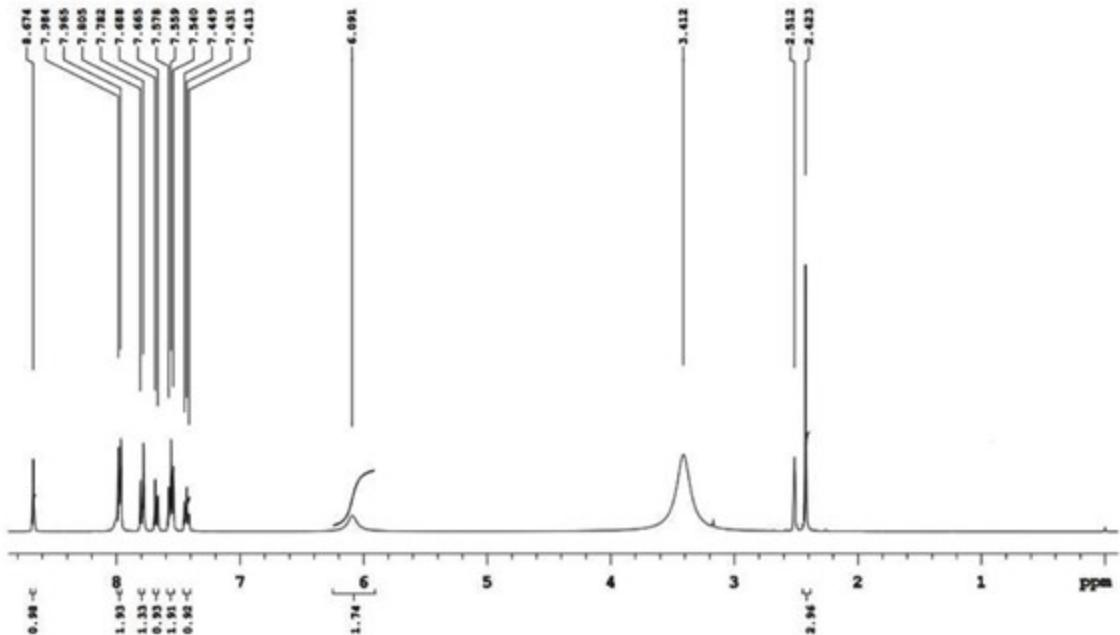
<sup>1</sup>H NMR spectrum of compound 4h



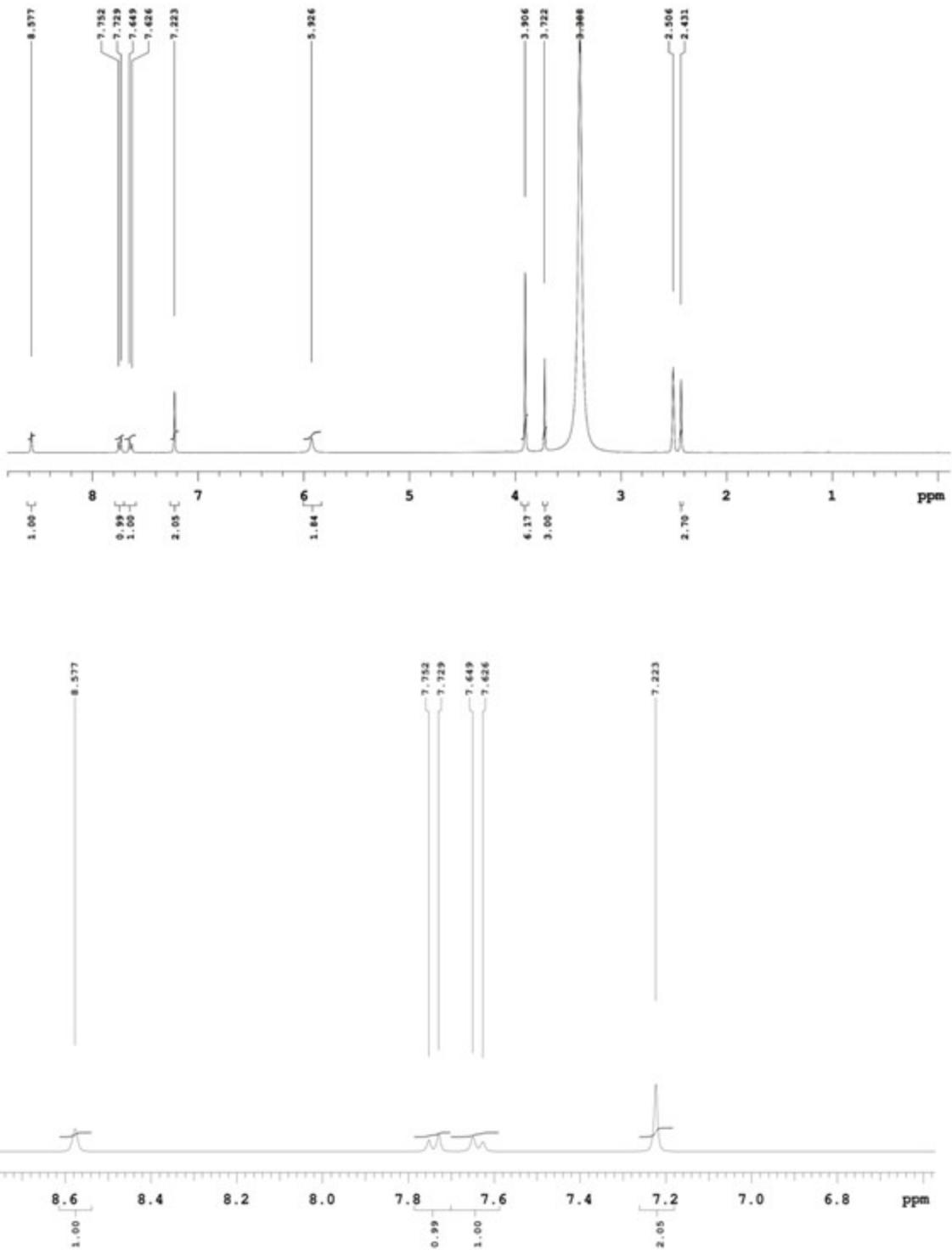
### <sup>1</sup>H NMR spectrum of compound 4i



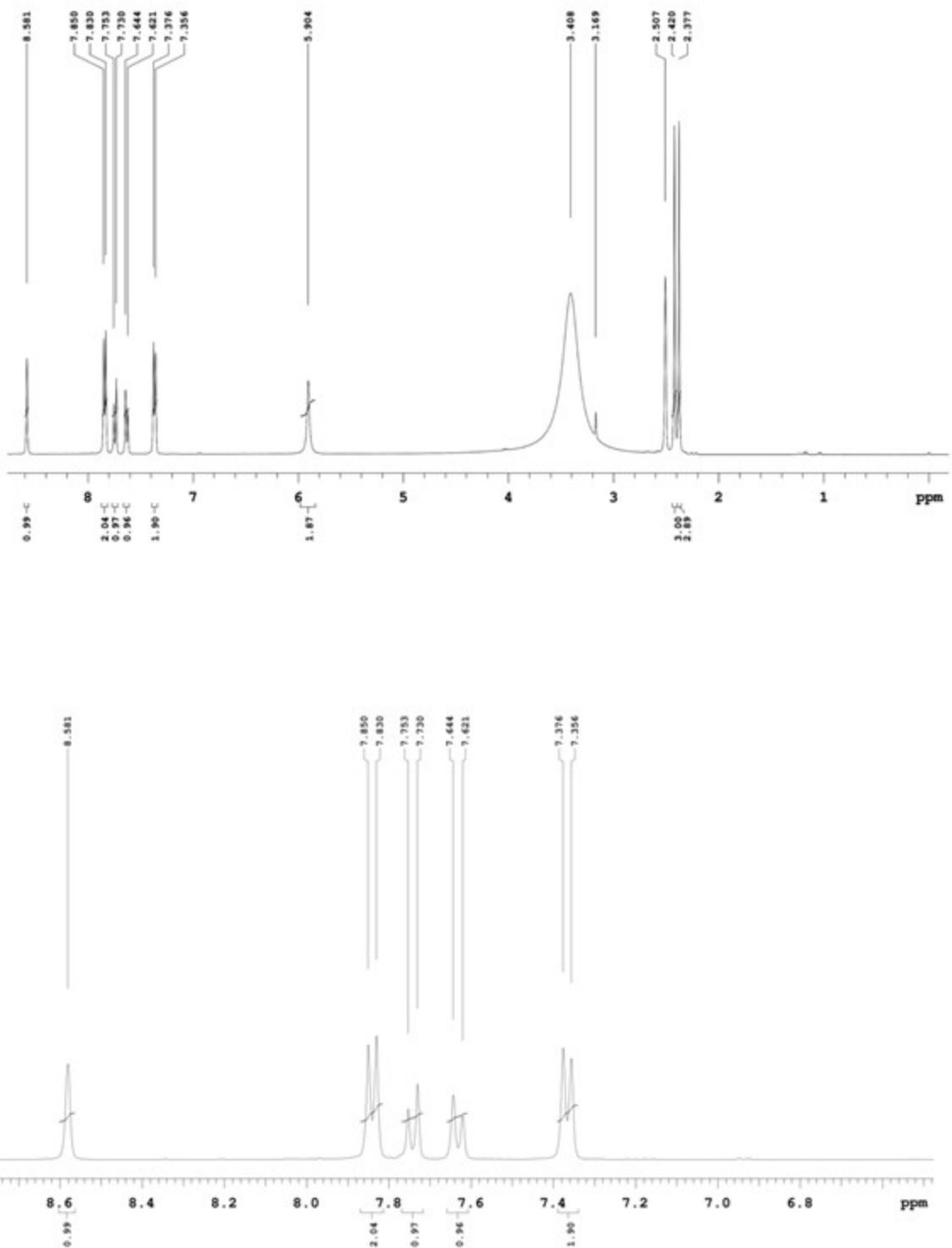
<sup>13</sup>C NMR spectrum of compound 4i



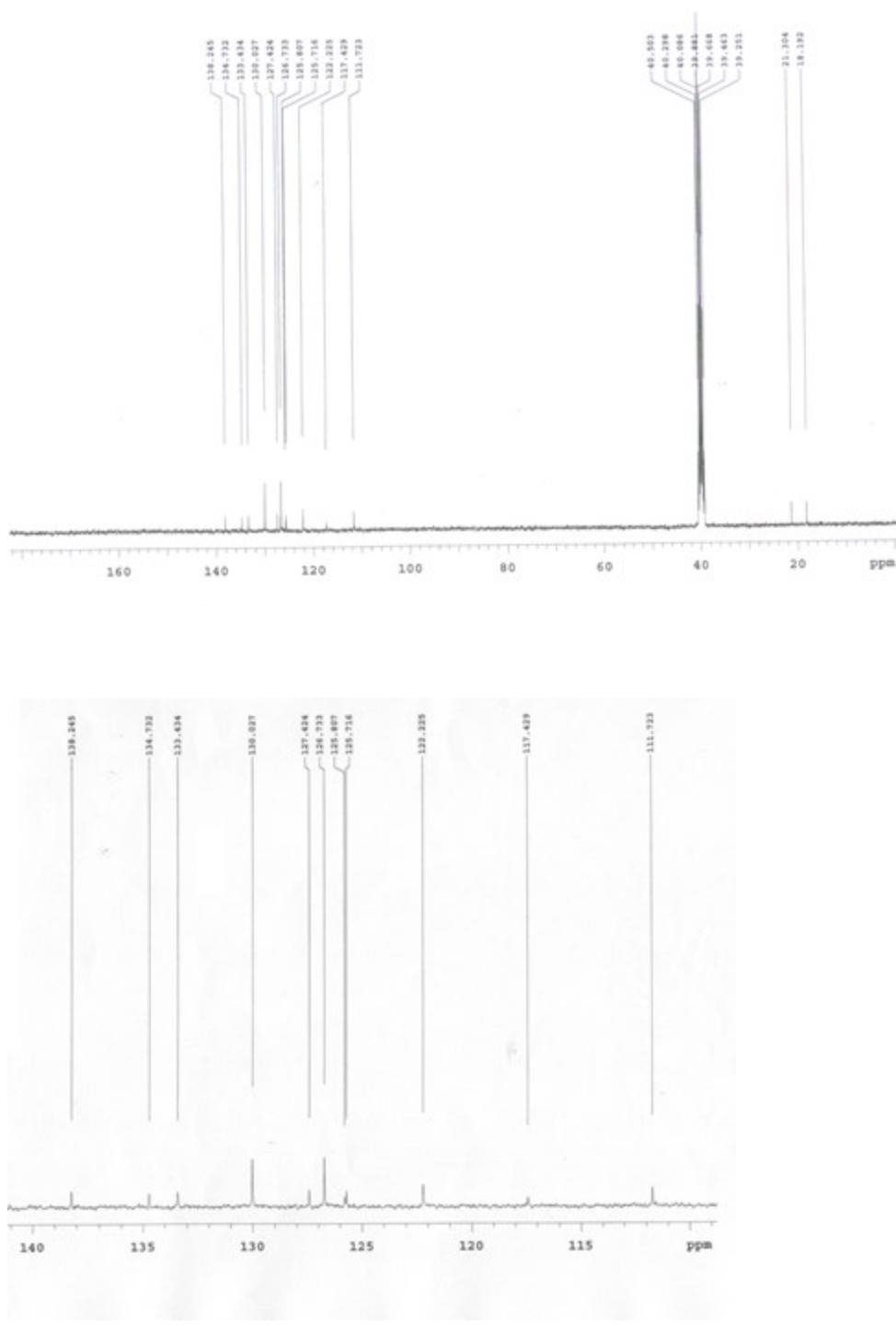
<sup>1</sup>H NMR spectrum of compound 4j



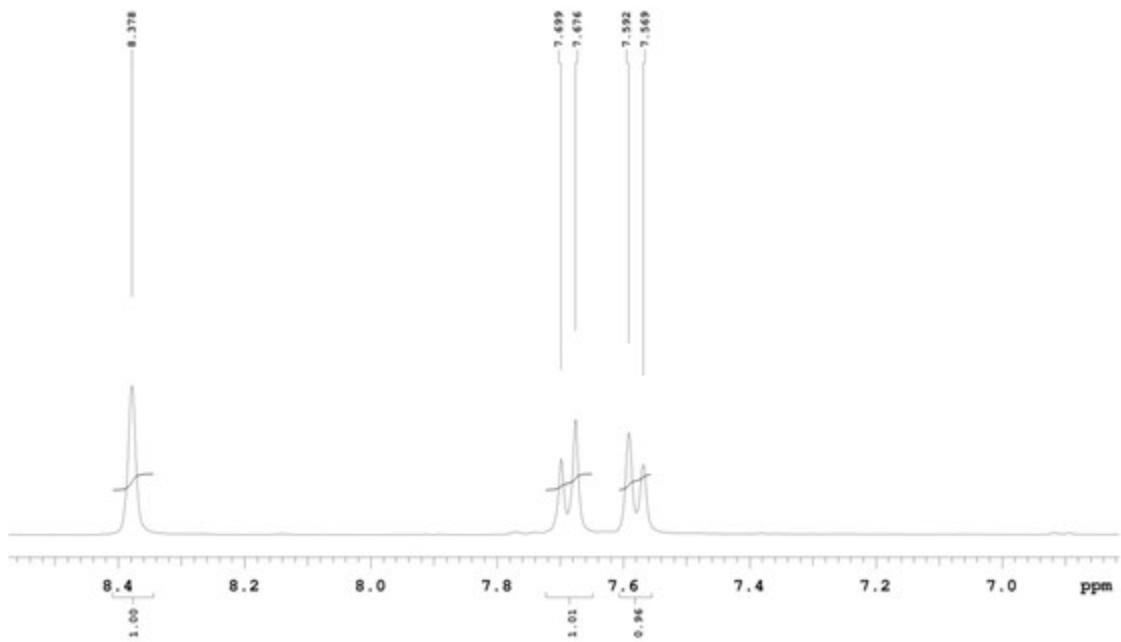
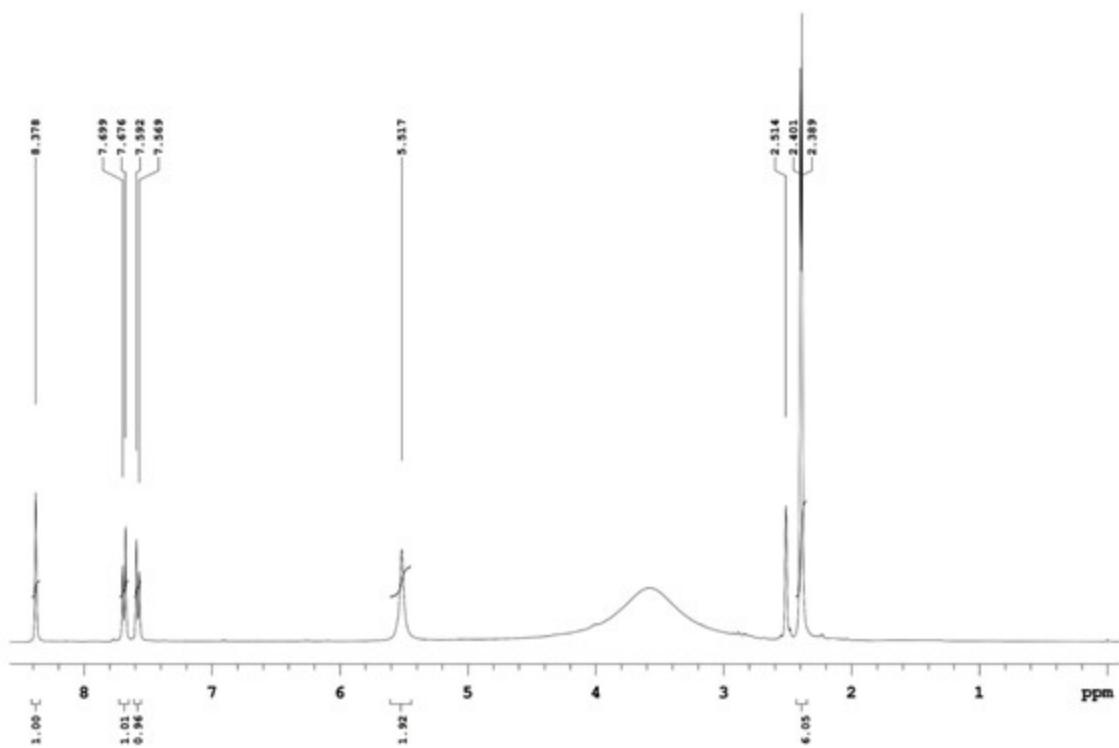
<sup>1</sup>H NMR spectrum of compound 4k



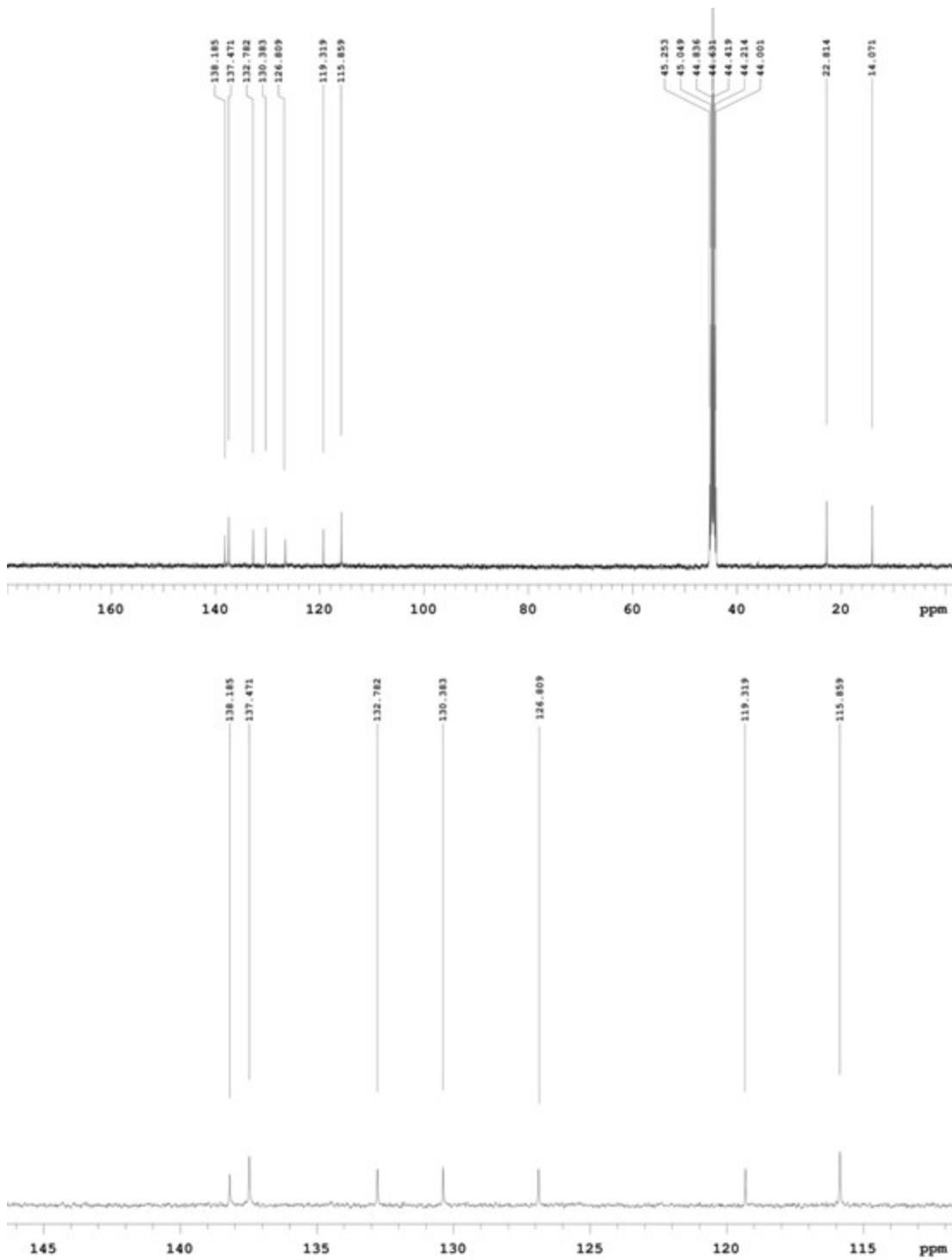
<sup>1</sup>H NMR spectrum of compound 4l



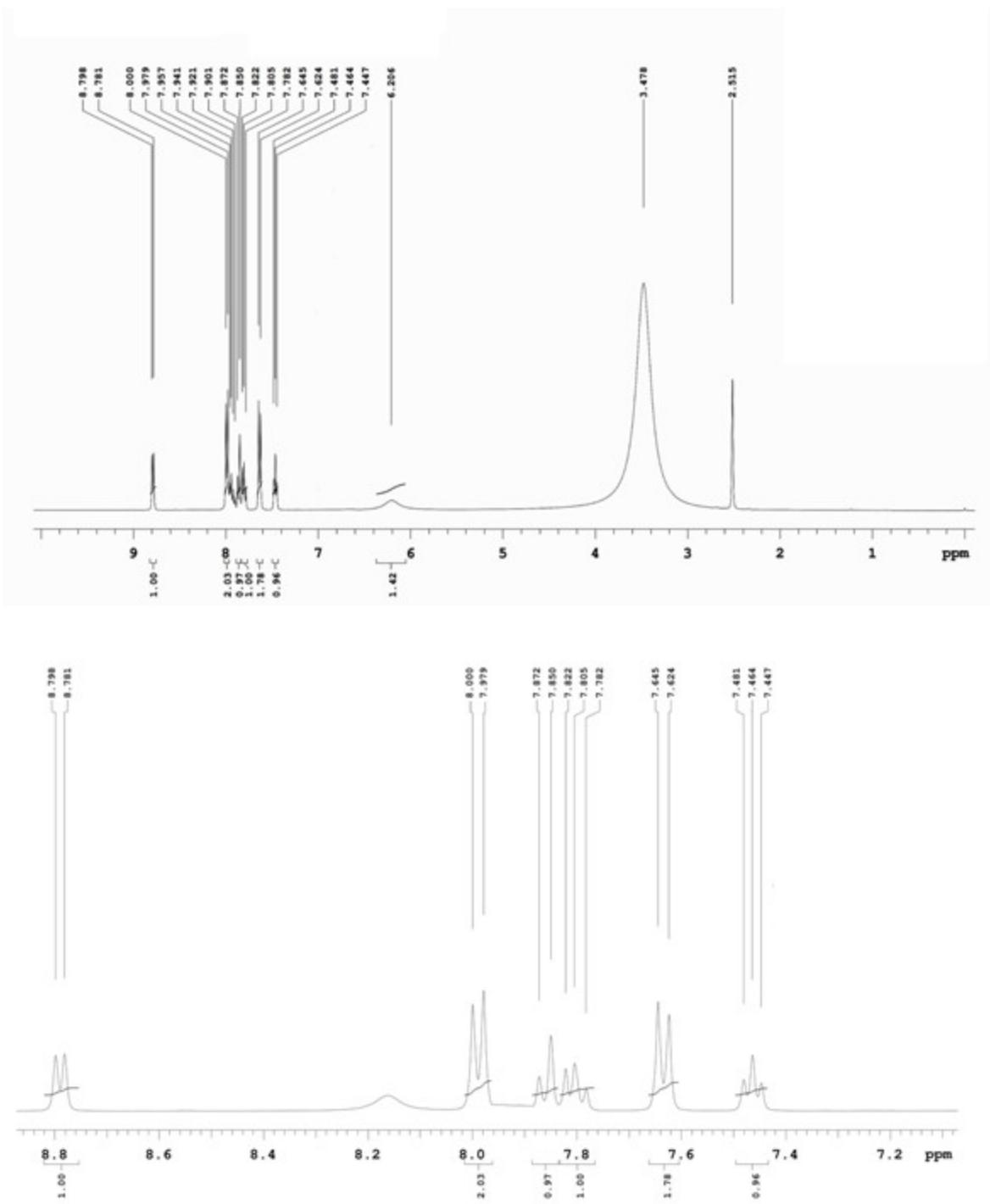
$^{13}\text{C}$  NMR spectrum of compound 4l



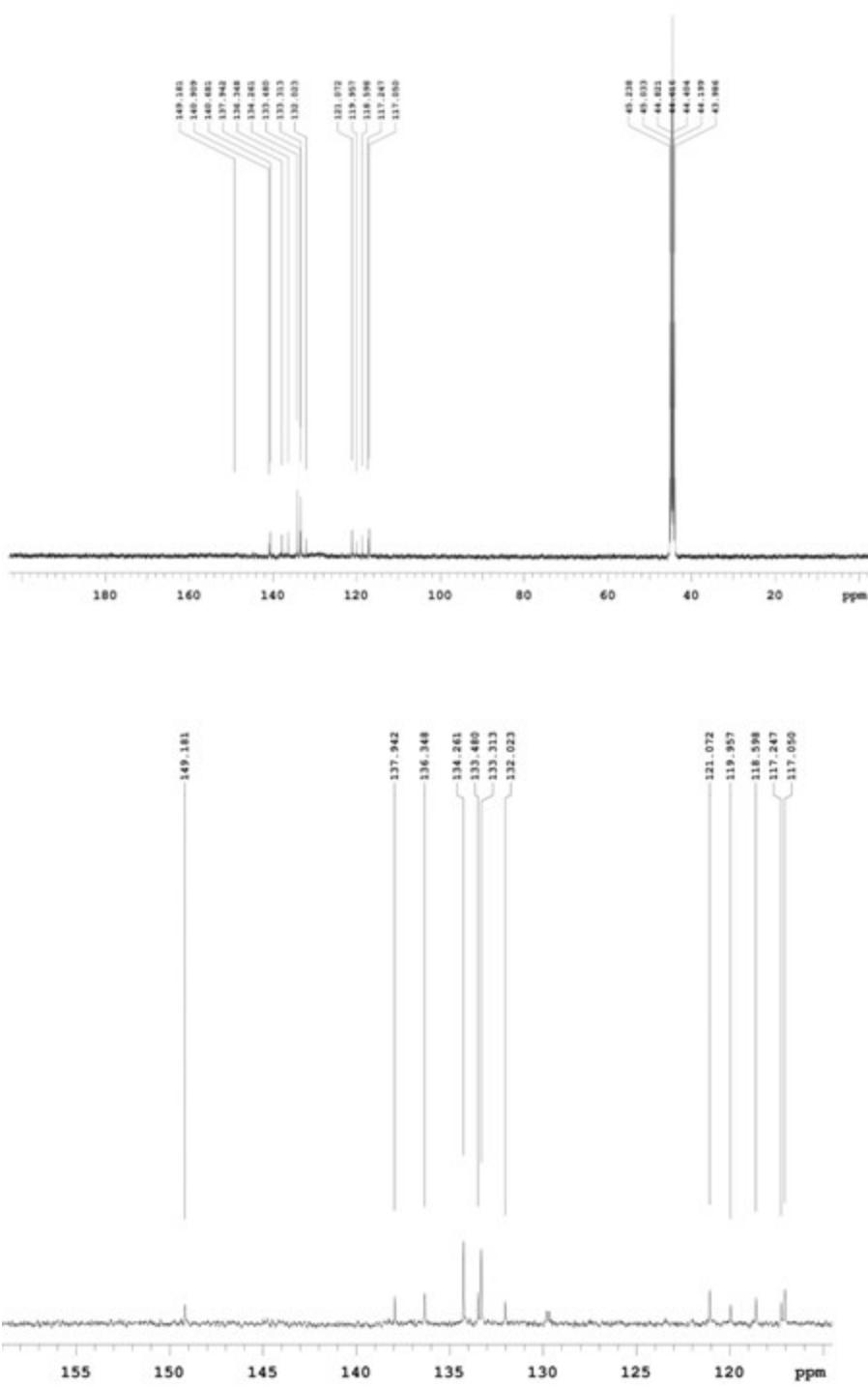
<sup>1</sup>H NMR spectrum of compound 4m



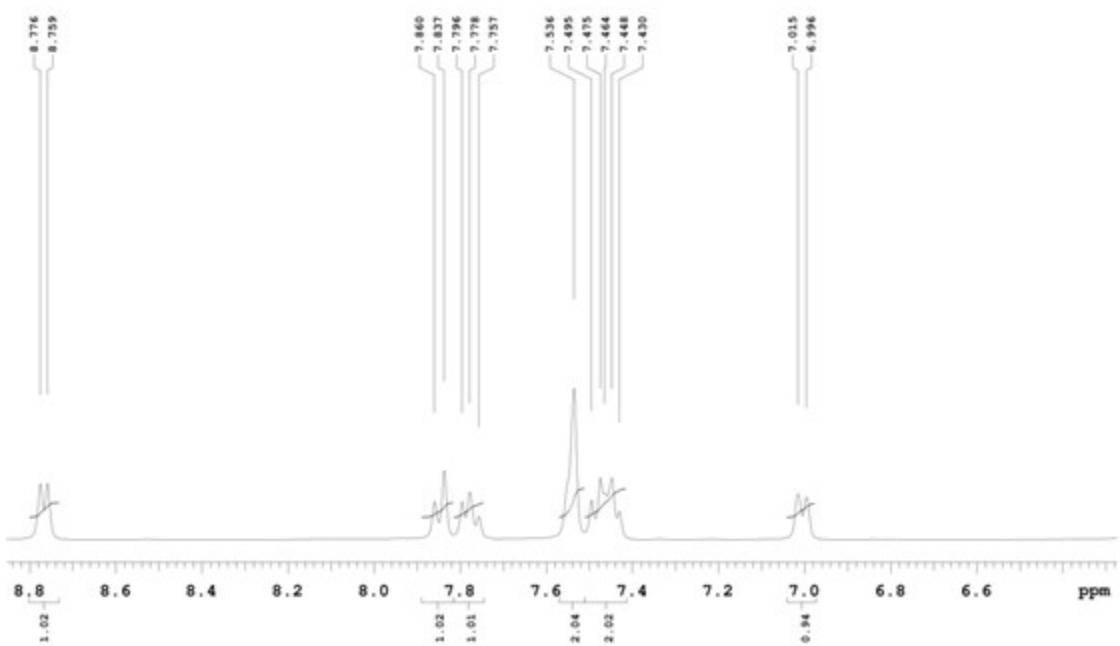
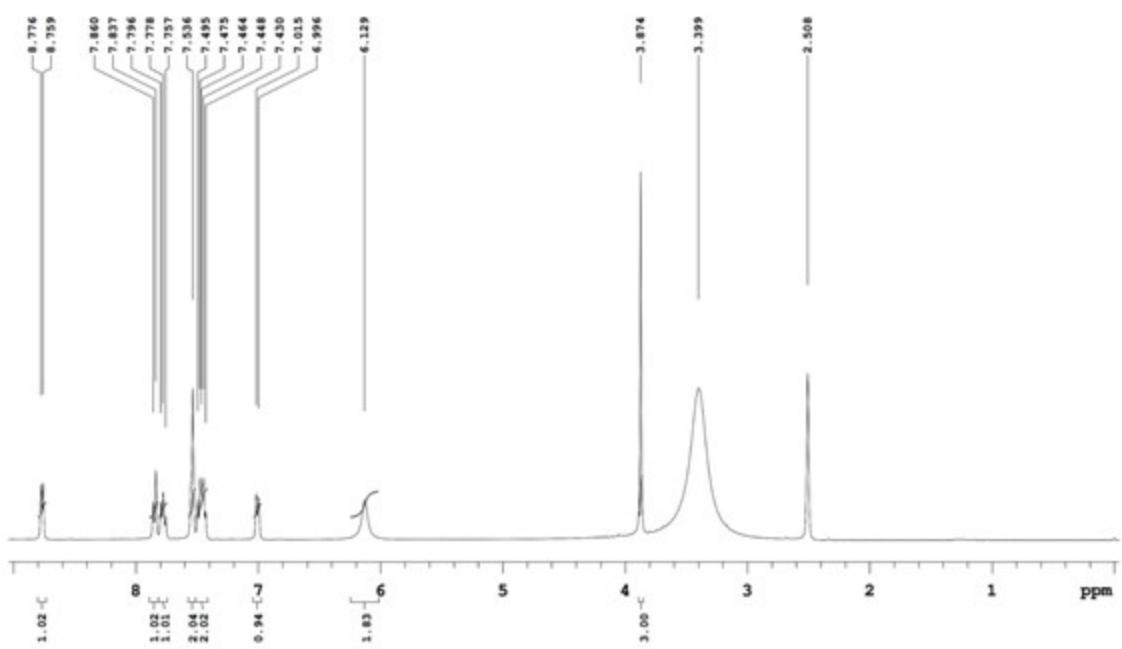
$^{13}\text{C}$  NMR spectrum of compound 4m



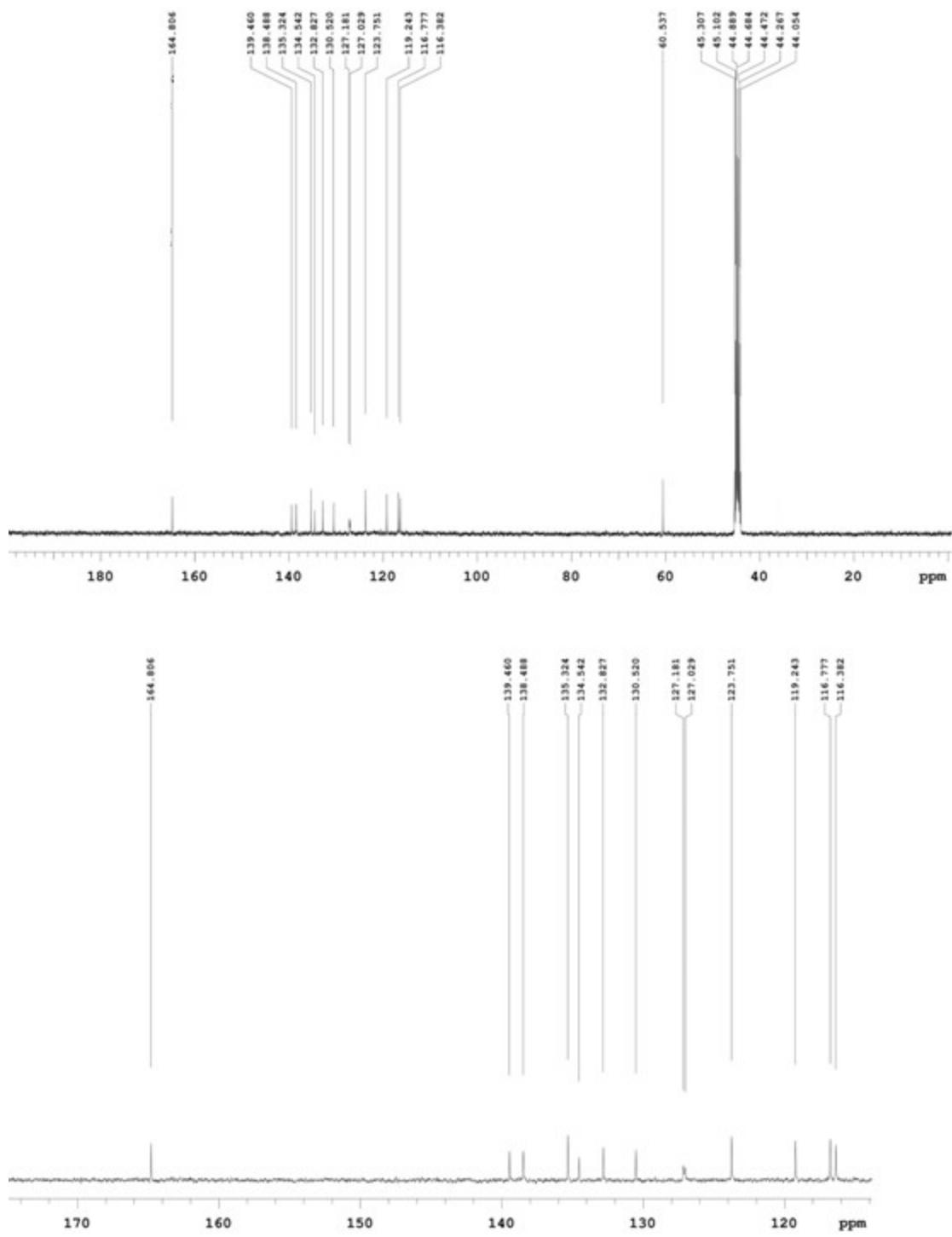
$^1\text{H}$  NMR spectrum of compound 4n

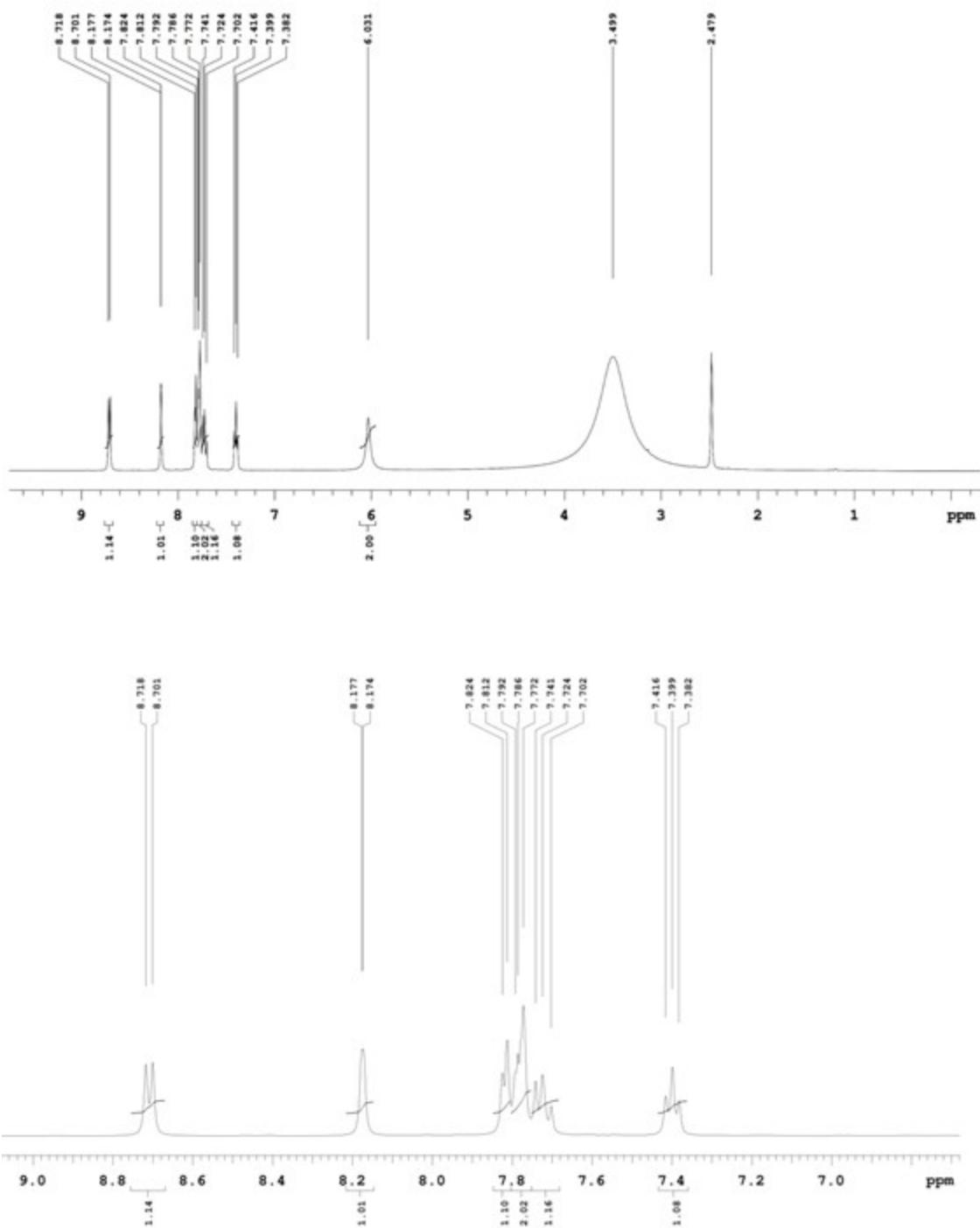


<sup>13</sup>C NMR spectrum of compound 4n

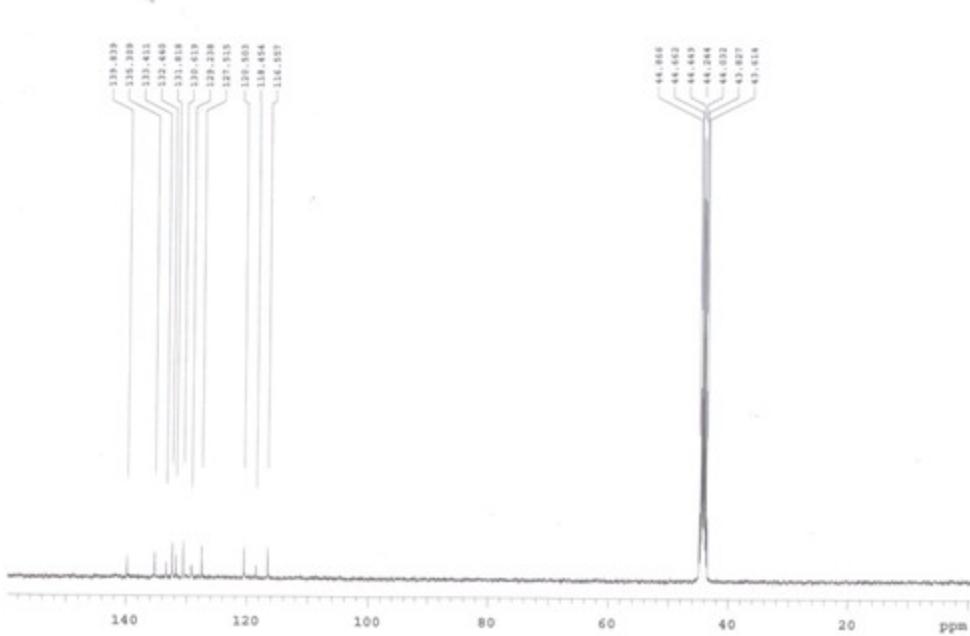


<sup>1</sup>H NMR spectrum of compound 4o

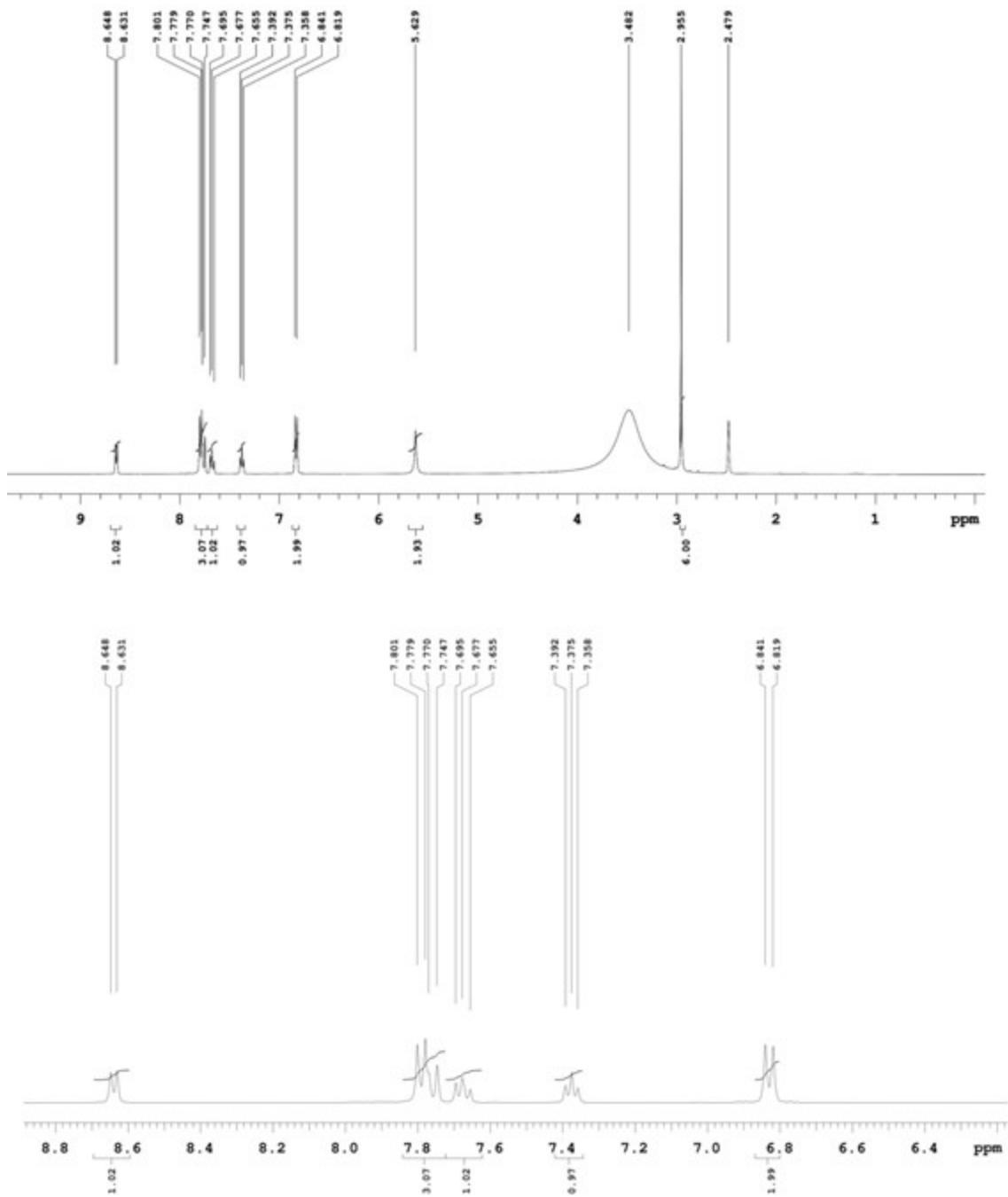




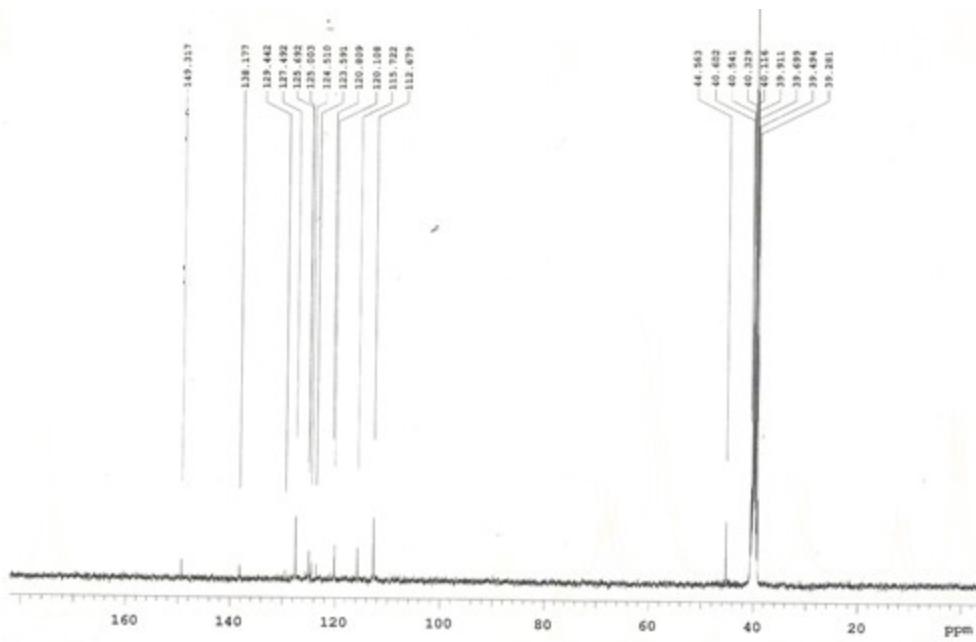
<sup>1</sup>H NMR spectrum of compound 4p



$^{13}\text{C}$  NMR spectrum of compound 4p



<sup>1</sup>H NMR spectrum of compound 4q



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