

*Electronic Supplementary Information*

**Copper-Catalyzed *N*-alkylation of Indoles by *N*-  
Tosylhydrazones**

Li Ling<sup>a,b</sup>, Jing Cao<sup>a</sup>, Jianfeng Hu<sup>a,b</sup>, Hao Zhang<sup>a,b,c\*</sup>

<sup>a</sup> College of Chemistry and Chemical Engineering, Inner Mongolia University, Hohhot 010021, P. R. China

<sup>b</sup> Inner Mongolia Key Laboratory of Fine Organic Synthesis, Hohhot 010021, P. R. China.

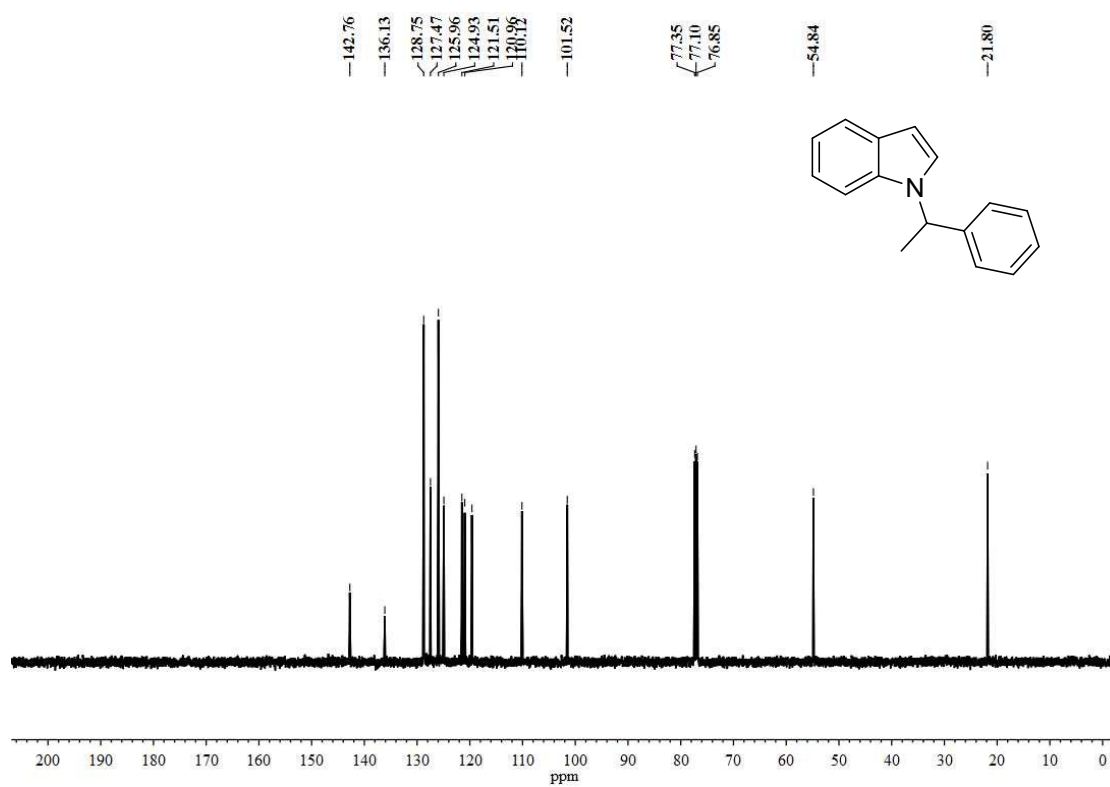
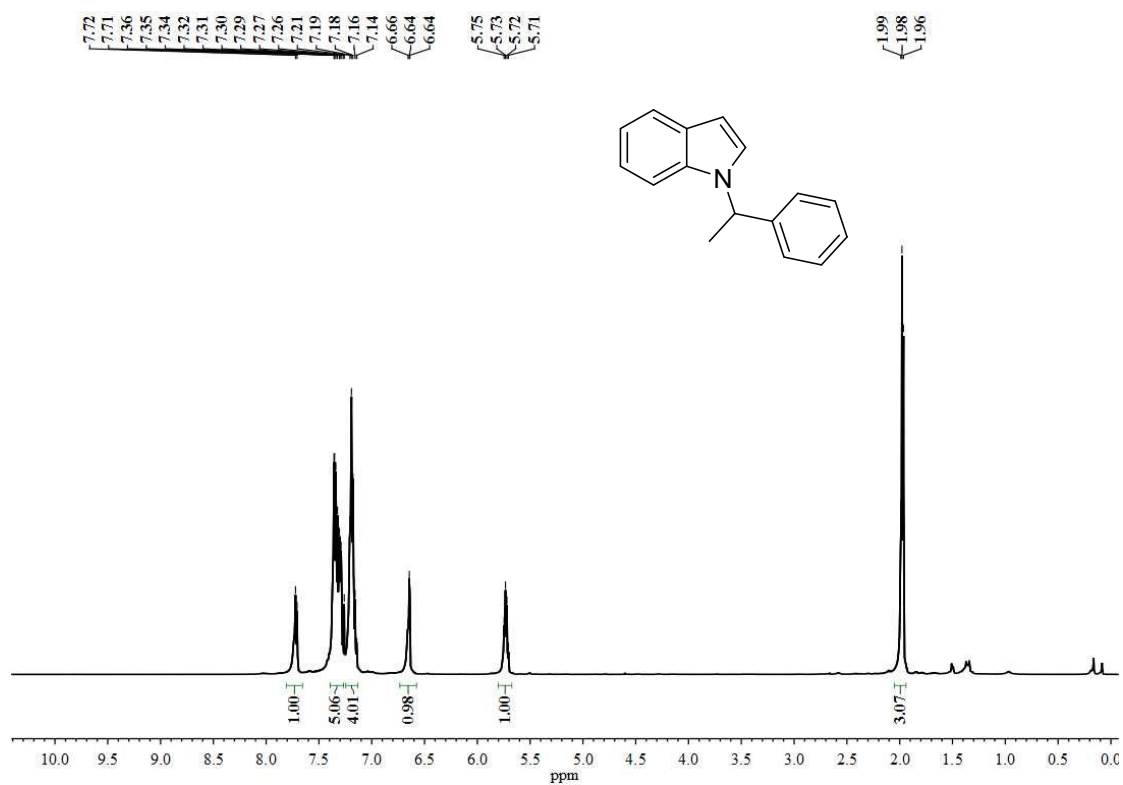
<sup>c</sup> State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, P. R. China

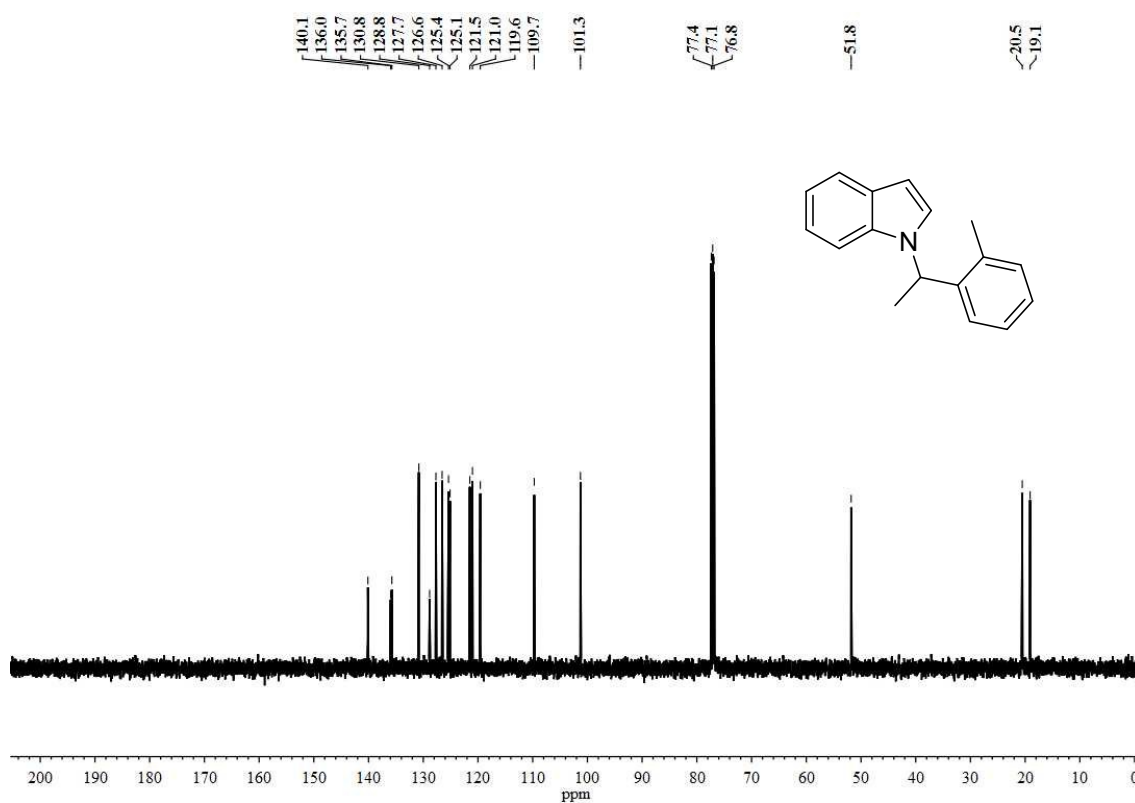
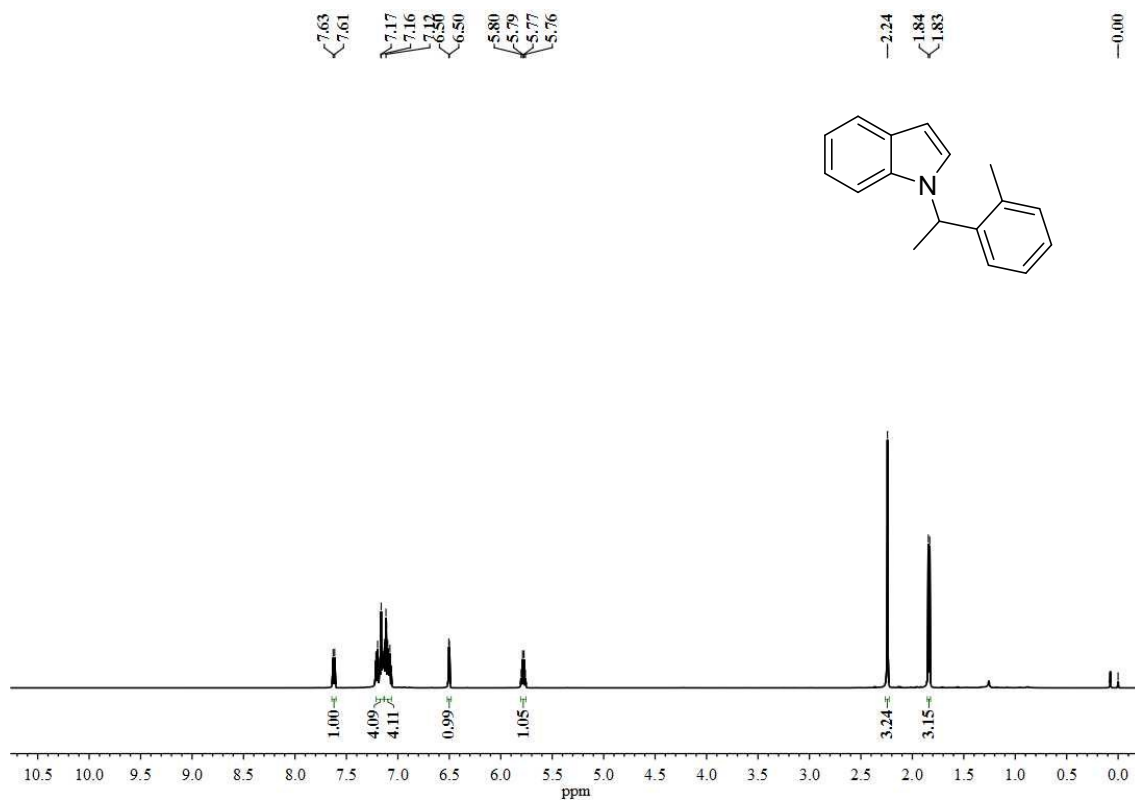
\*Corresponding Author, tel.: +86-471-4994406, fax: +86-471-4994406, e-mail:  
haozhang@imu.edu.cn; [zh\\_hjf@hotmail.com](mailto:zh_hjf@hotmail.com)

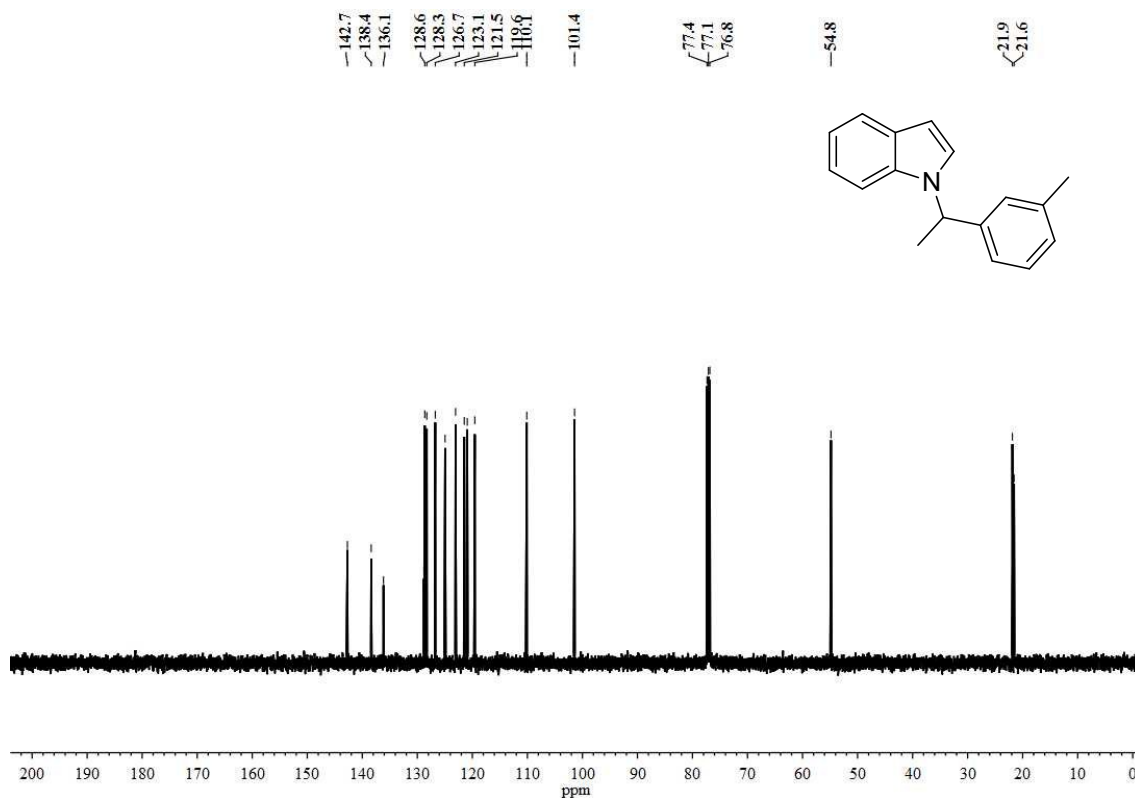
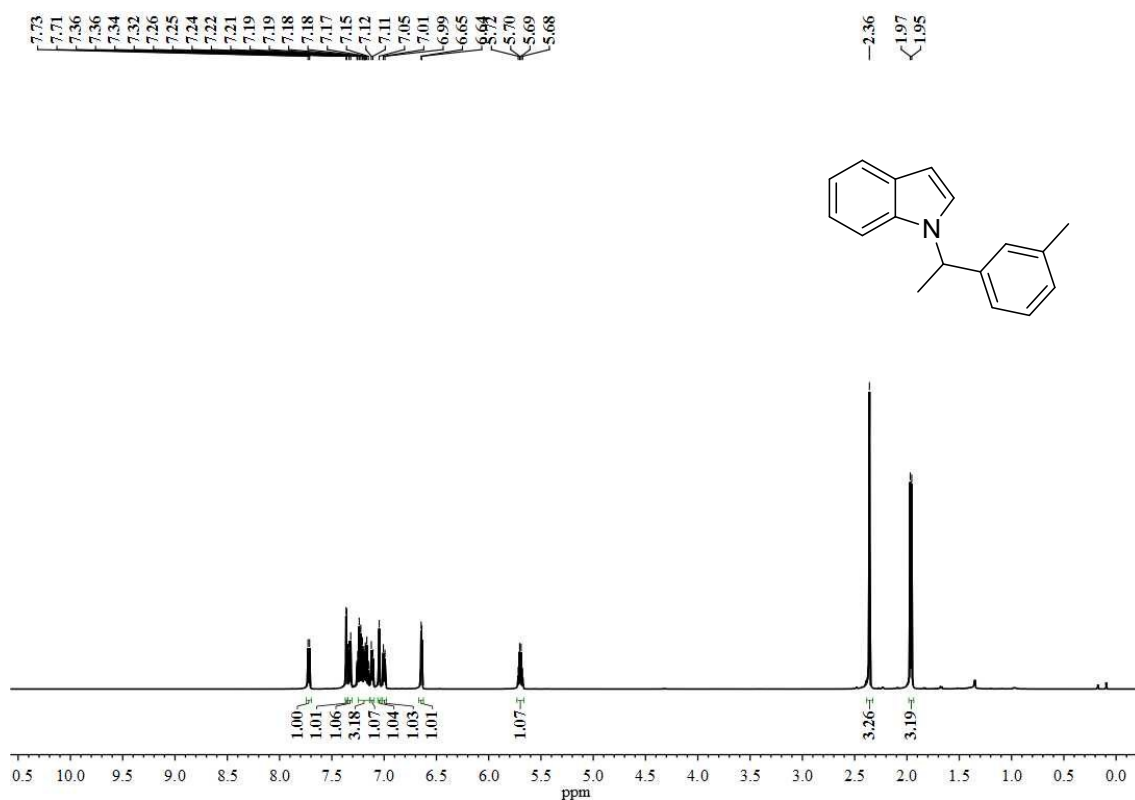
**Table of Contents**

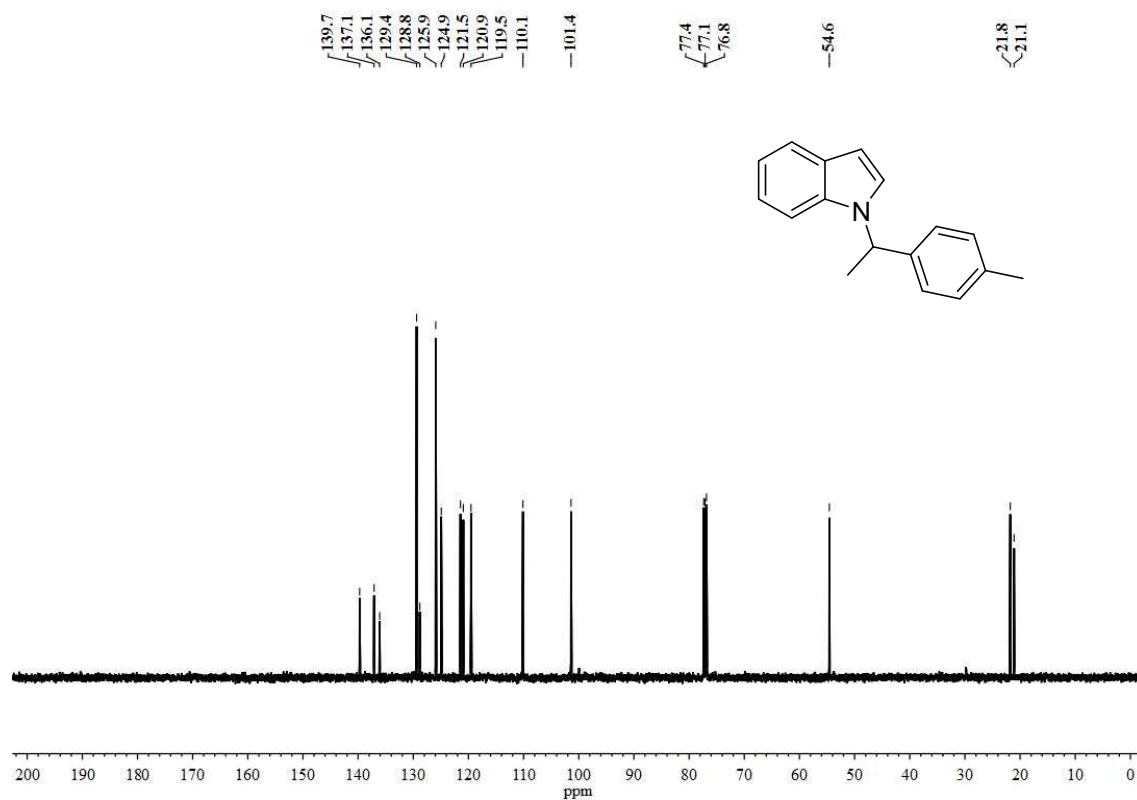
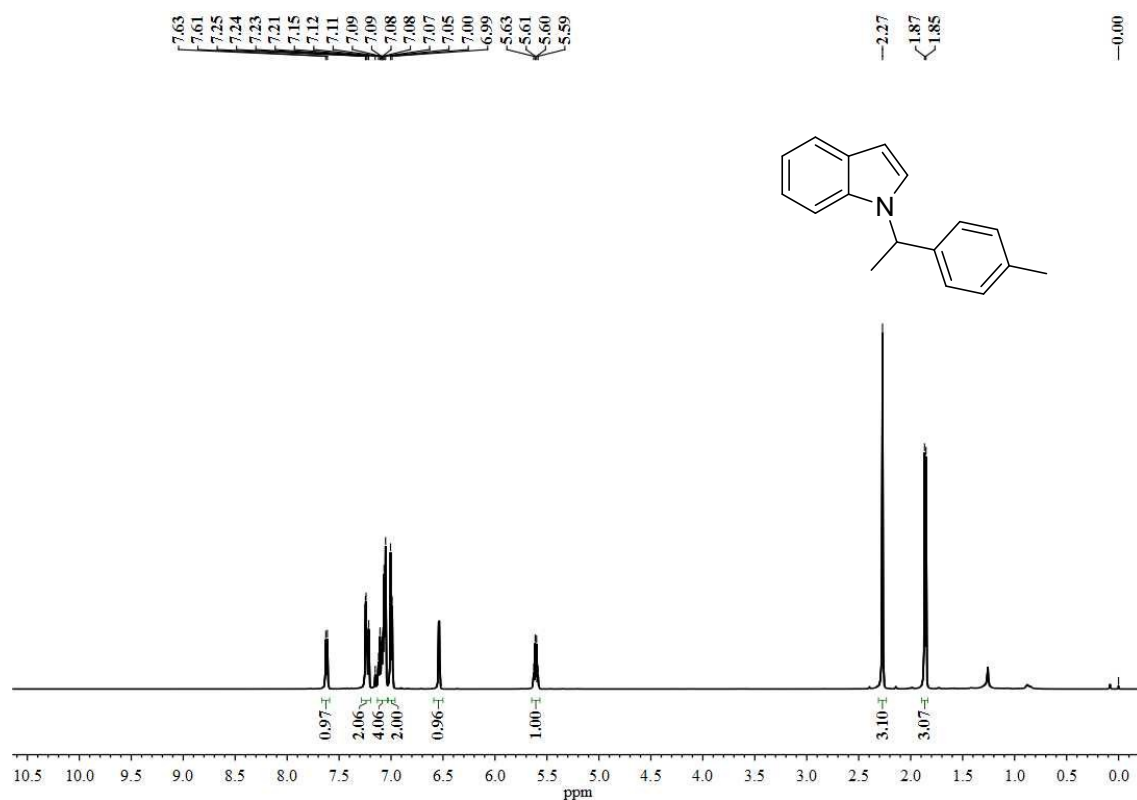
|                                                        |            |
|--------------------------------------------------------|------------|
| <b>1. <sup>1</sup>H and <sup>13</sup>C NMR spectra</b> | <b>S2</b>  |
| <b>2. HRMS (ESI-TOF) spectra</b>                       | <b>S30</b> |

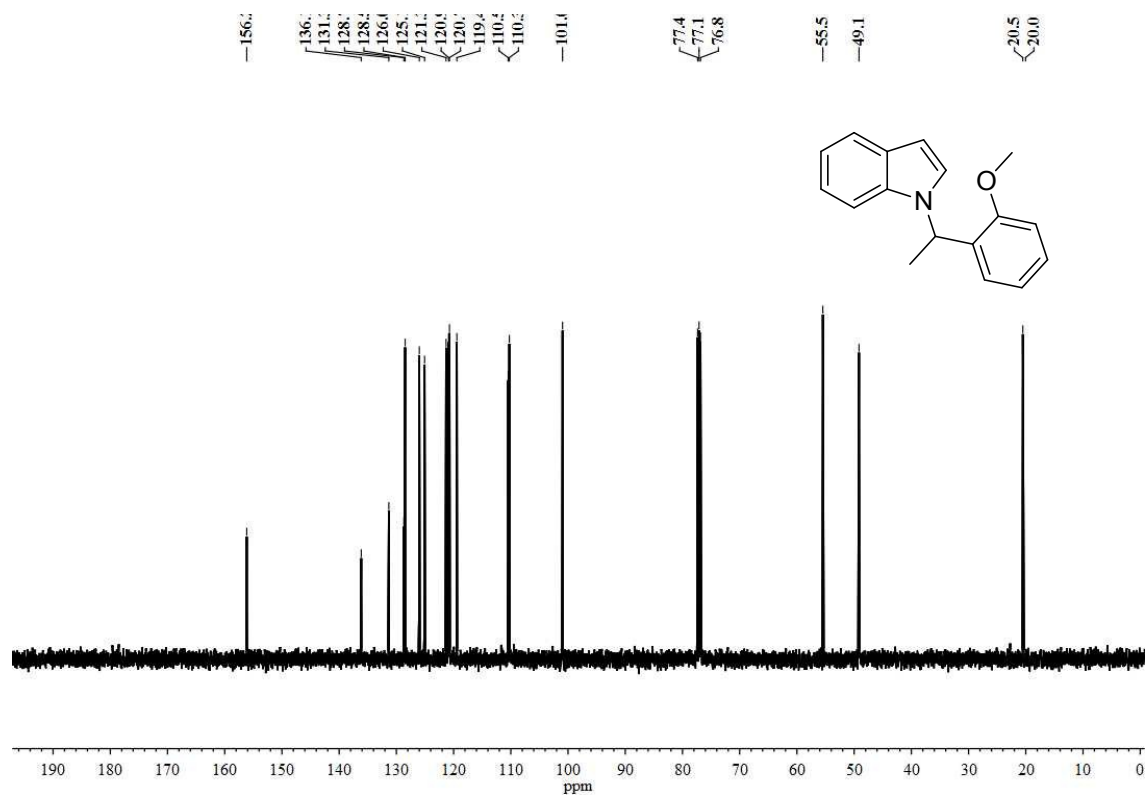
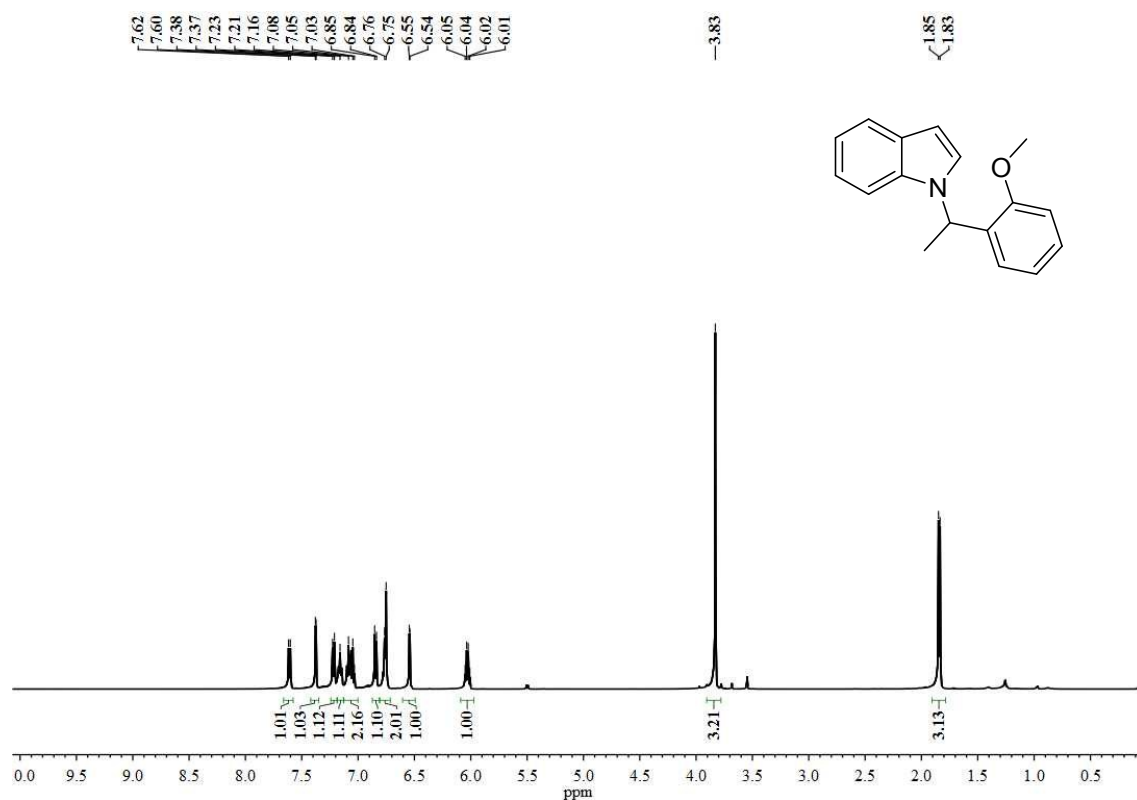
# 1. $^1\text{H}$ and $^{13}\text{C}$ NMR spectra

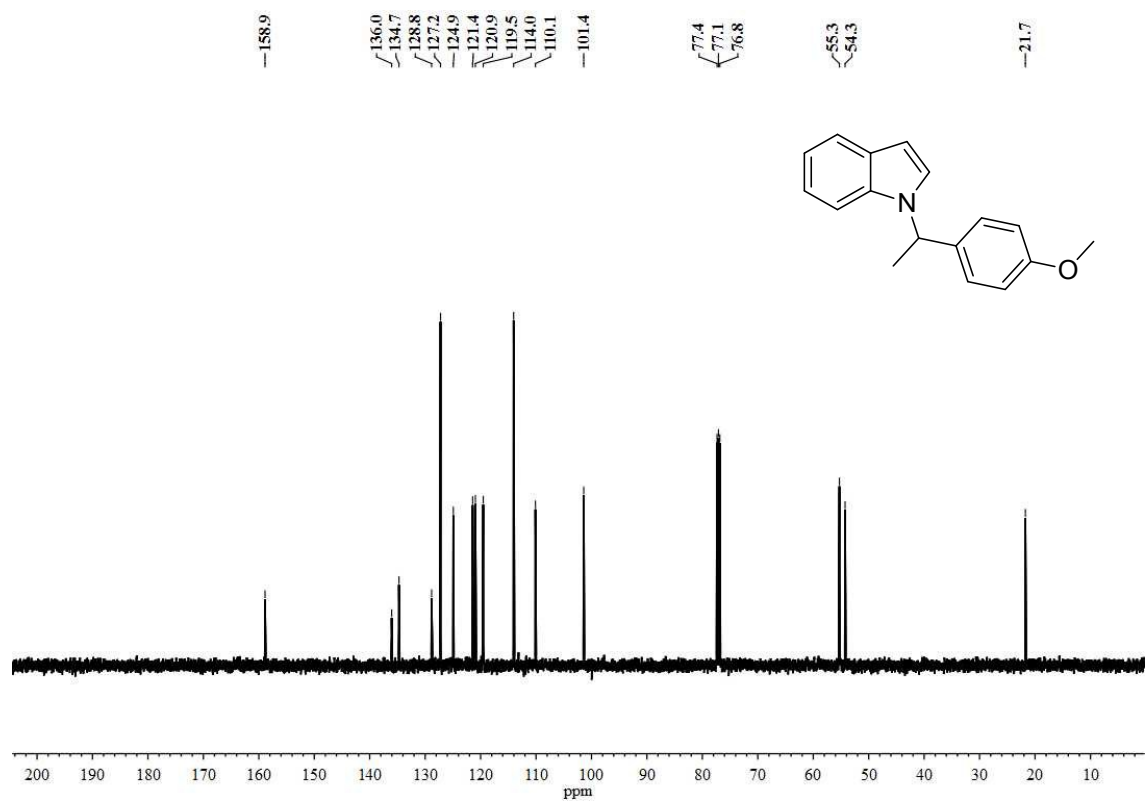
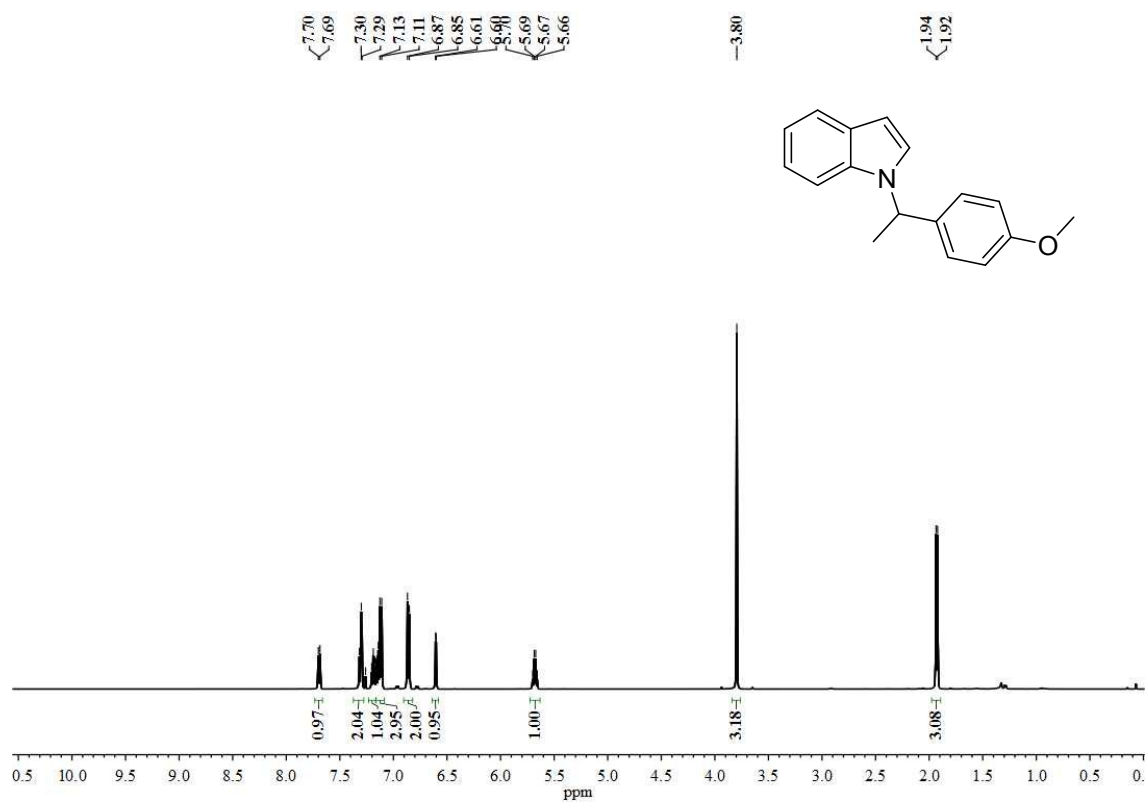


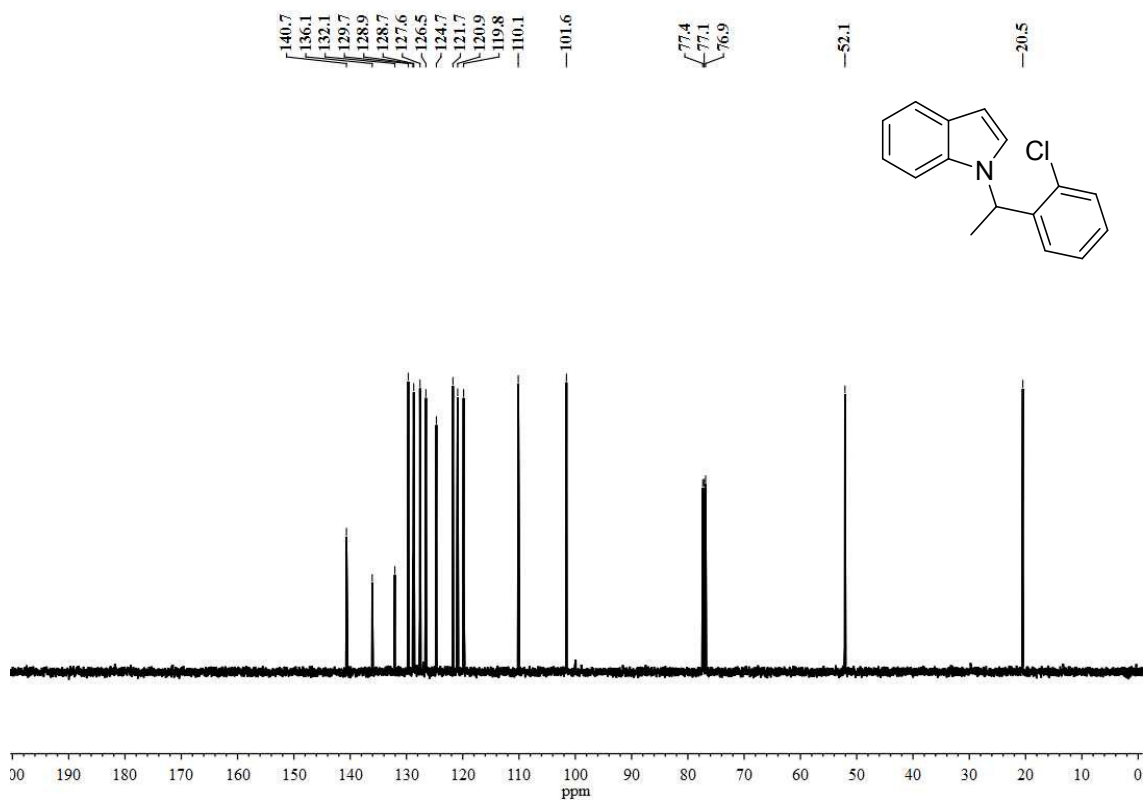
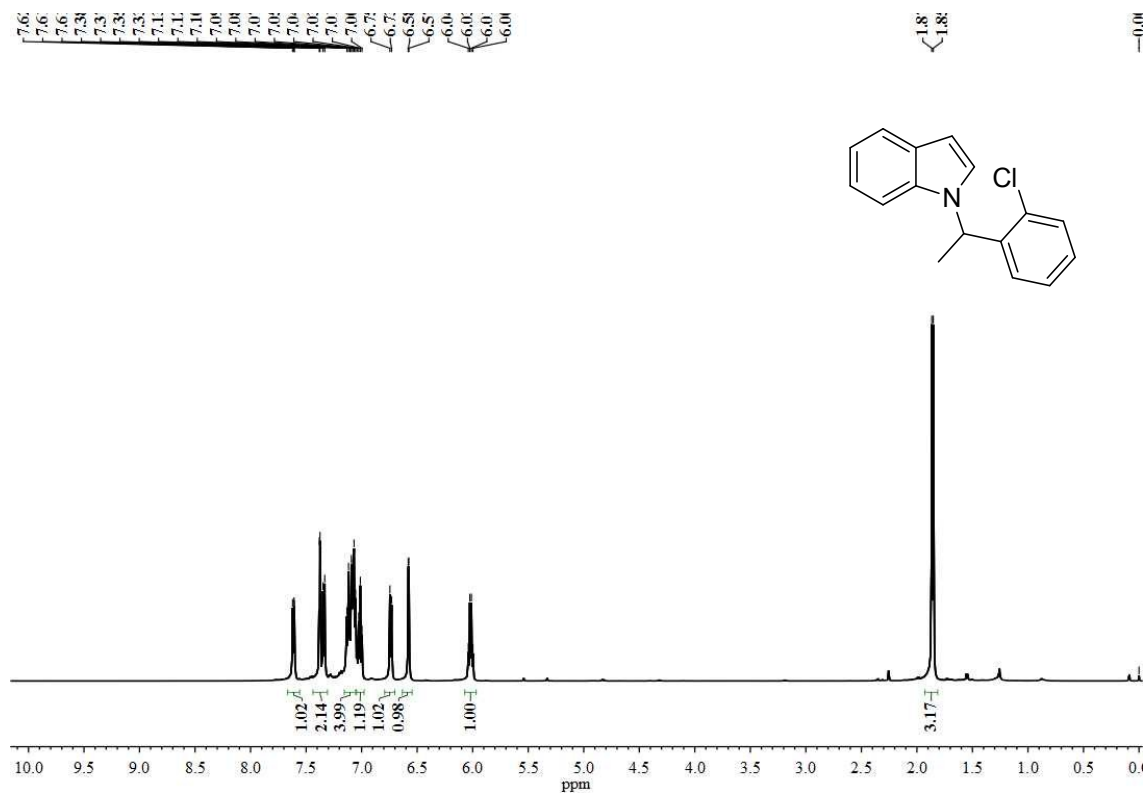




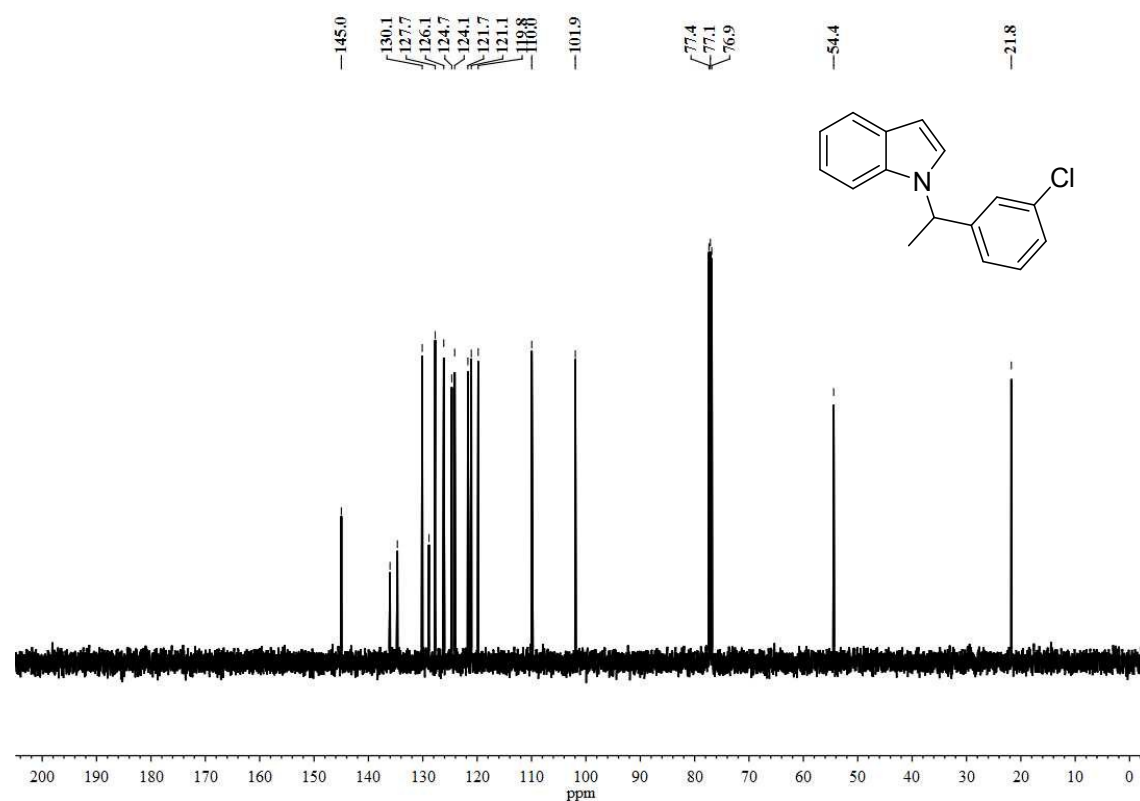
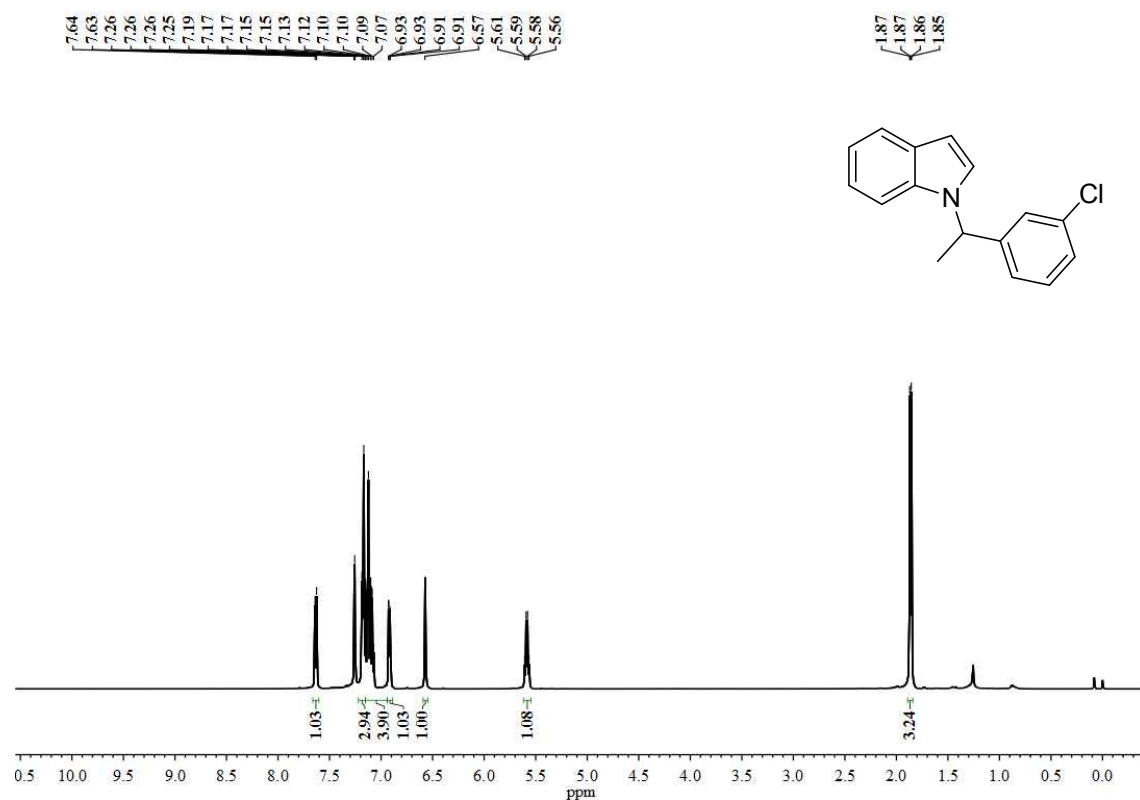


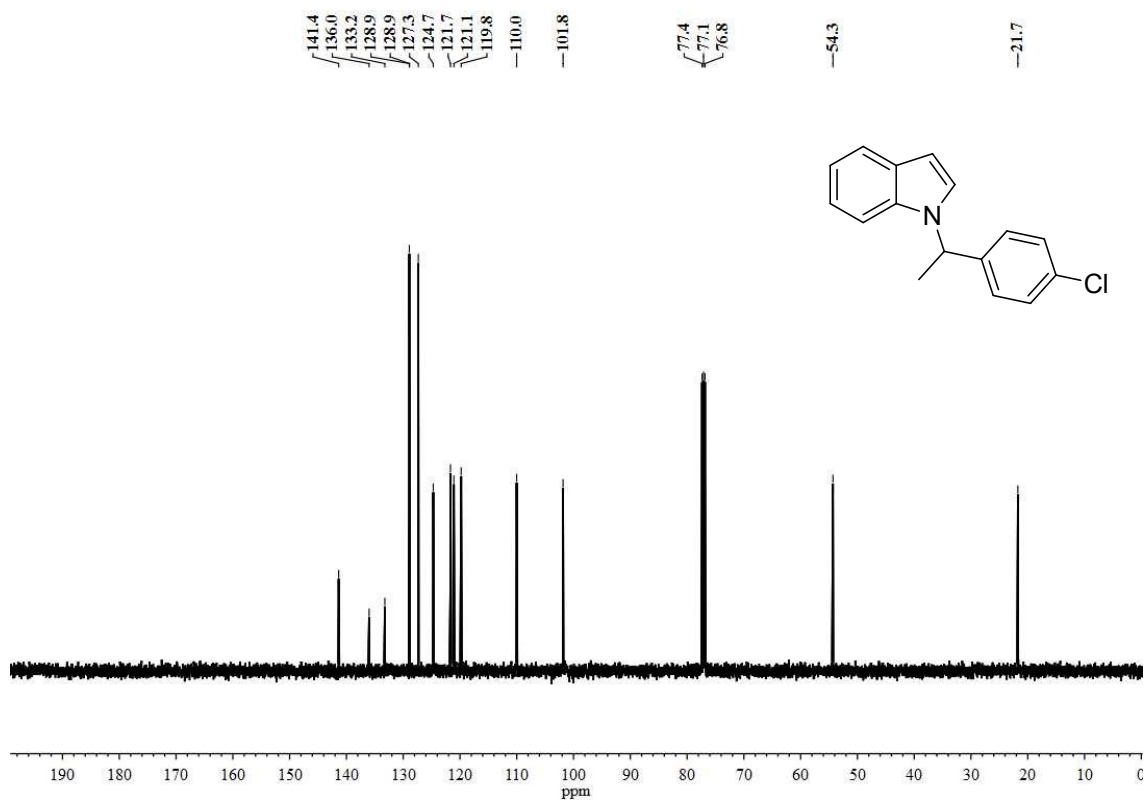
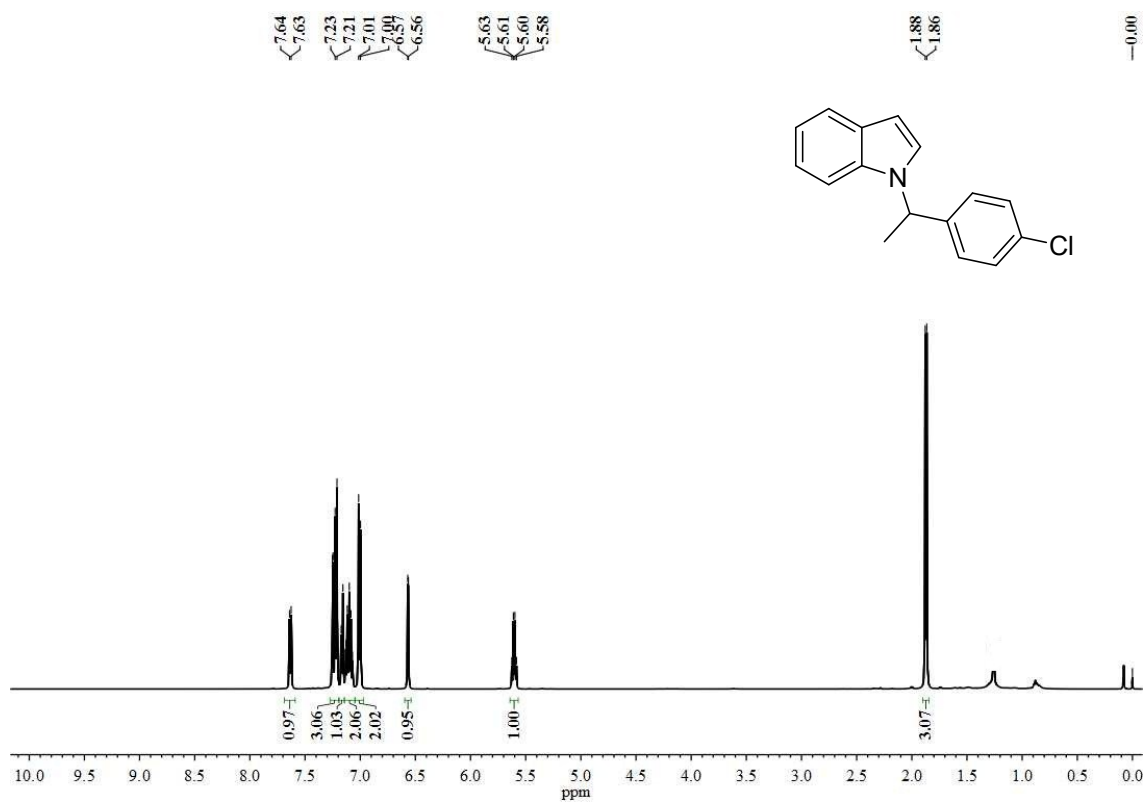


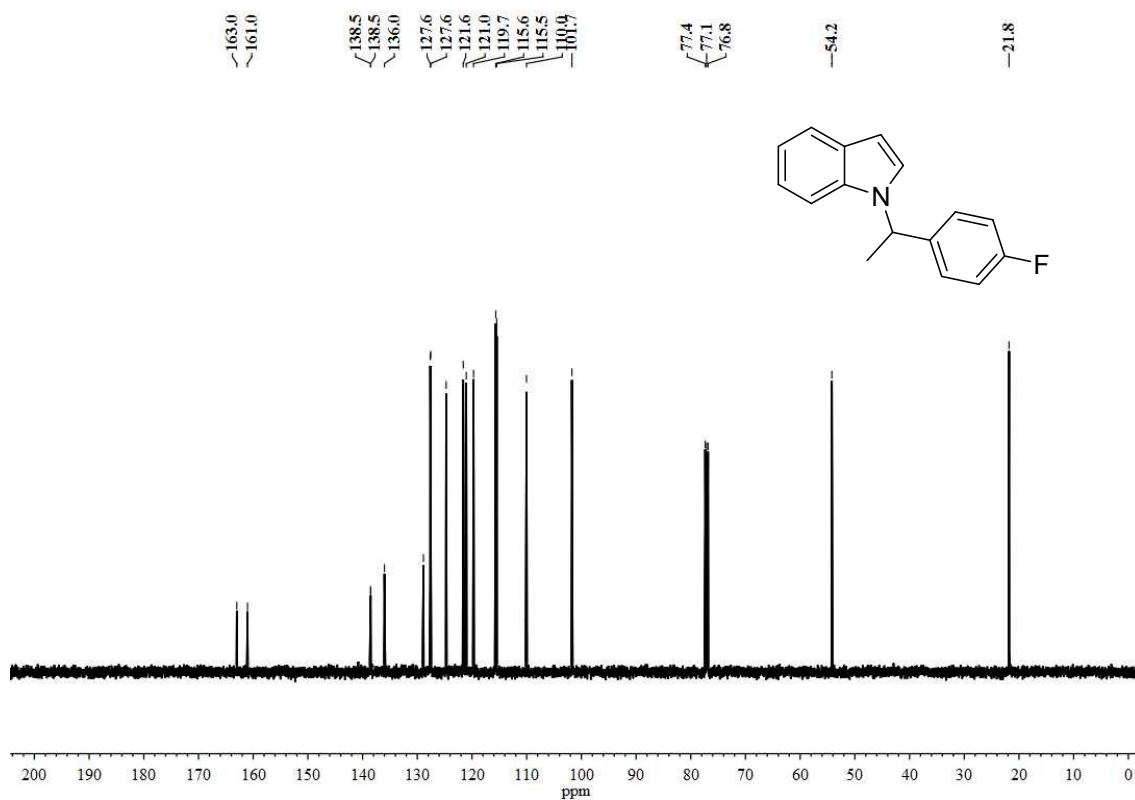
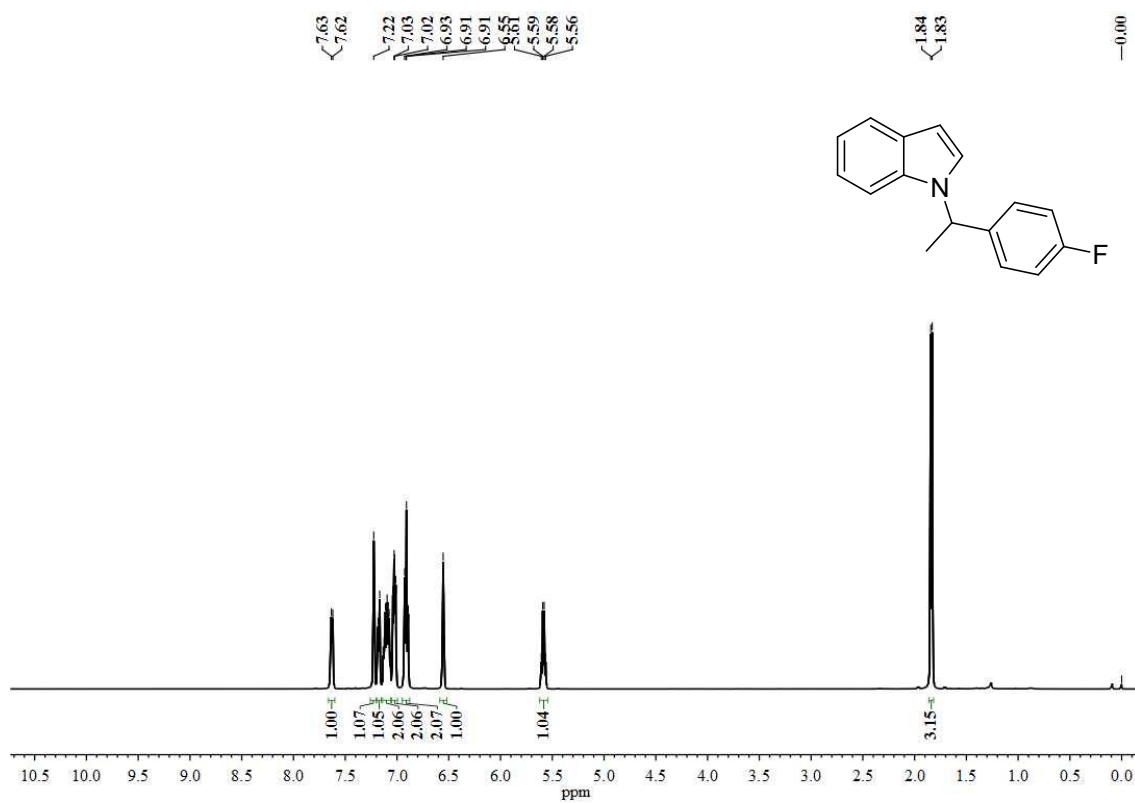


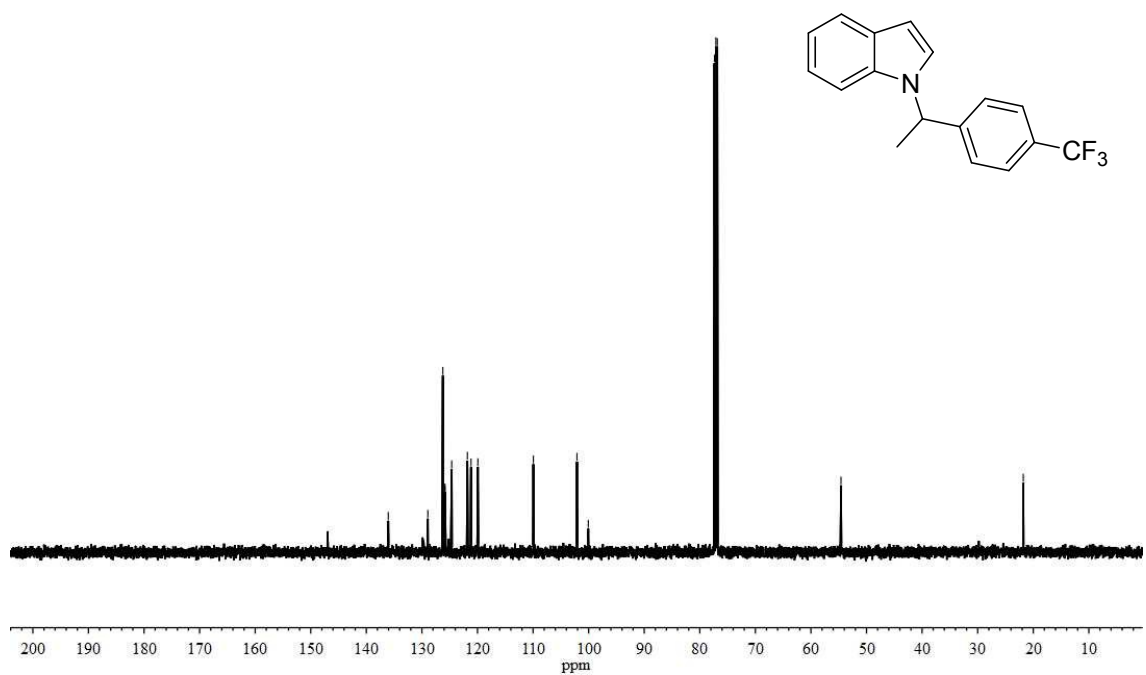
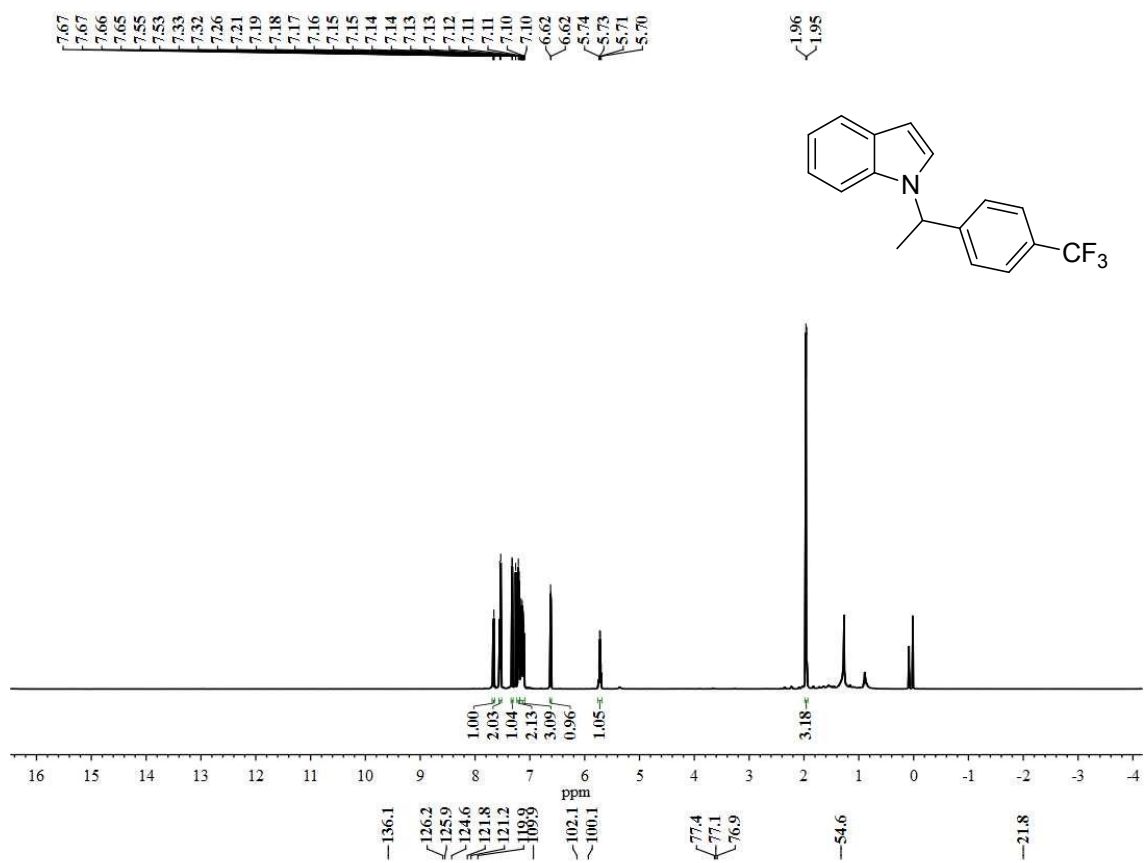


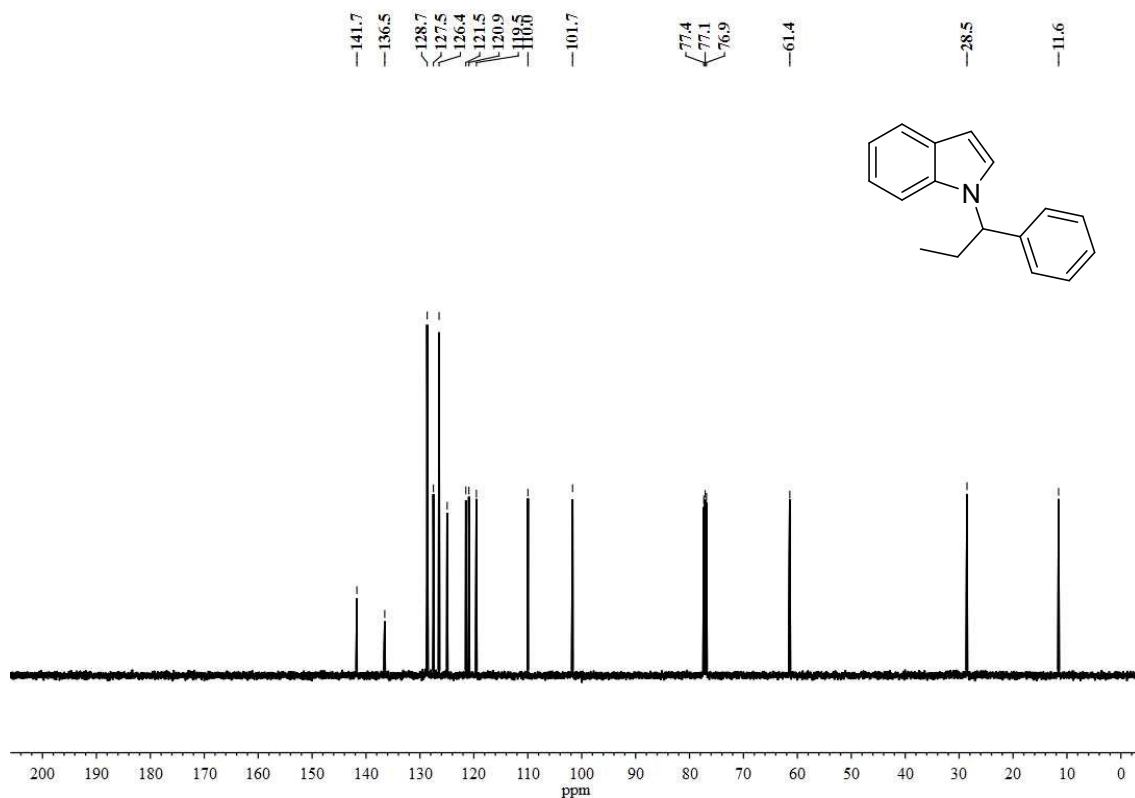
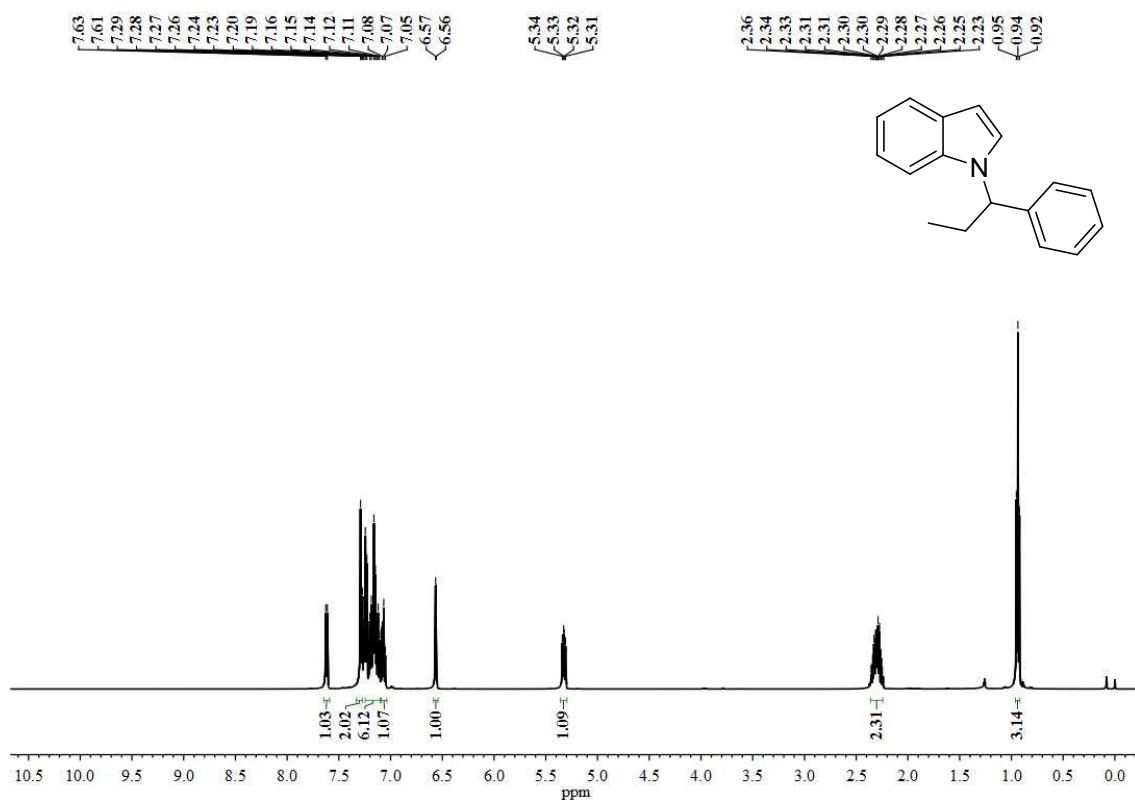


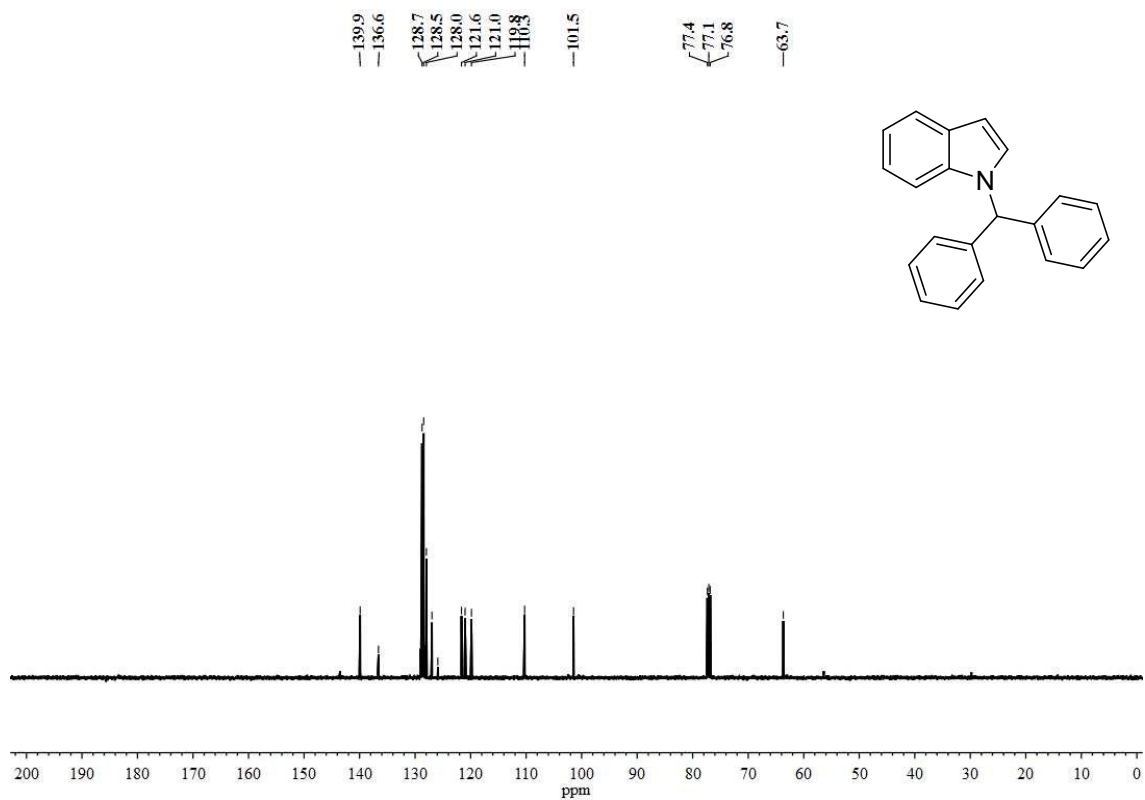
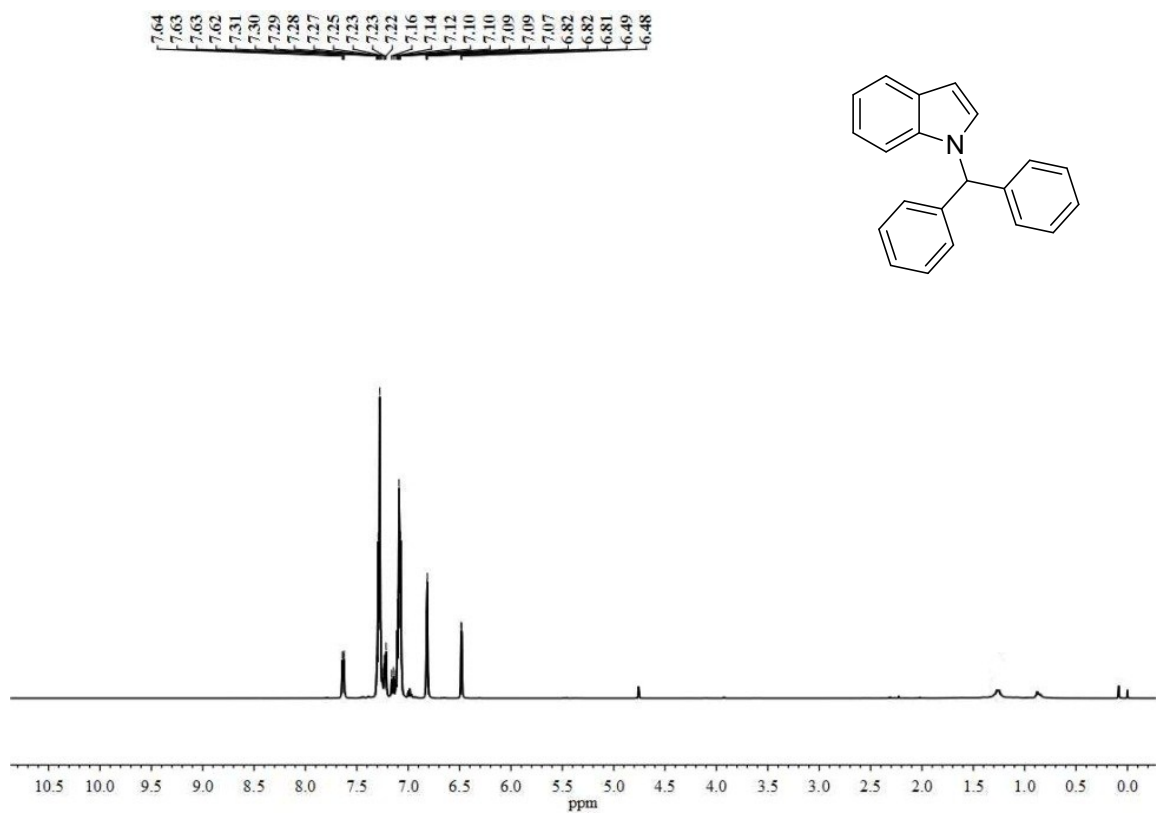


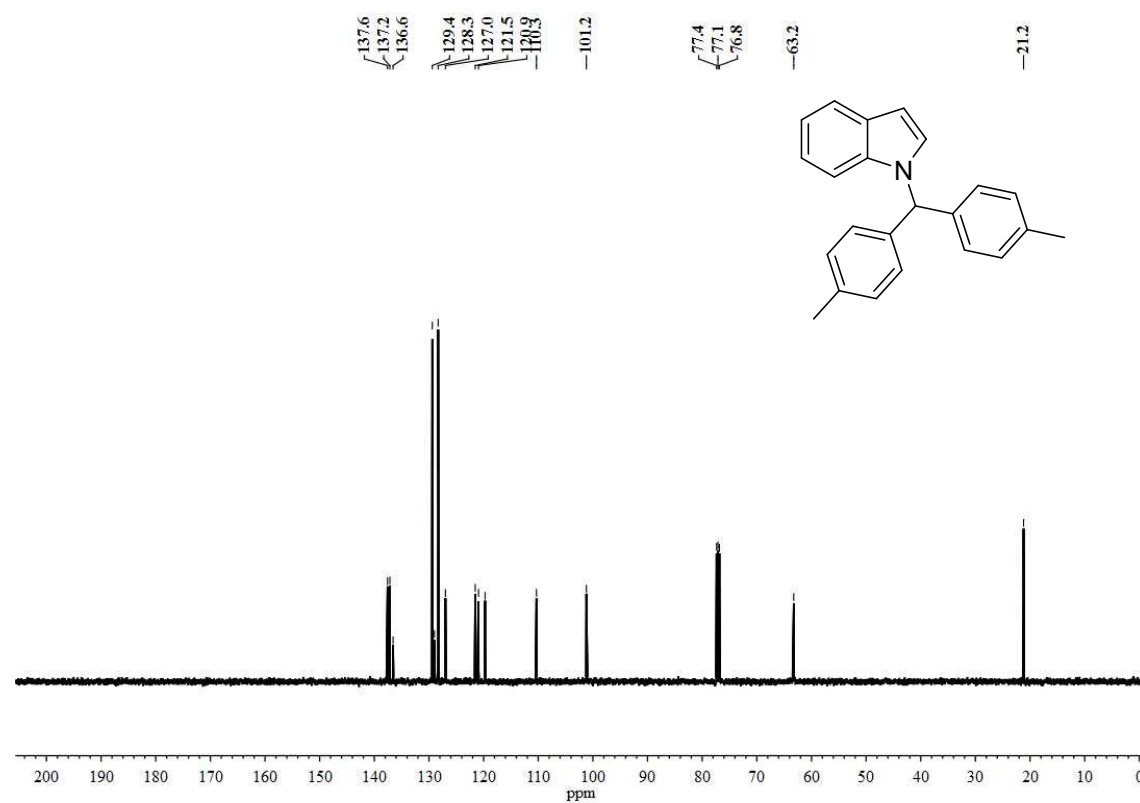
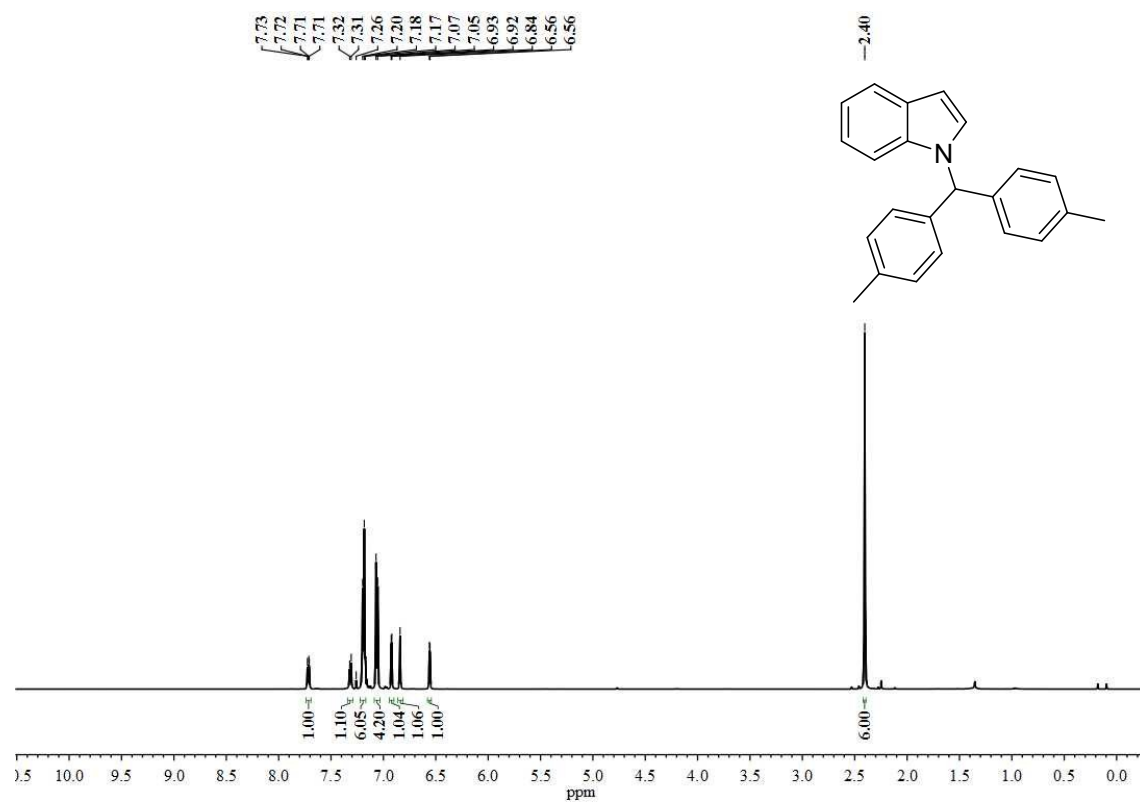


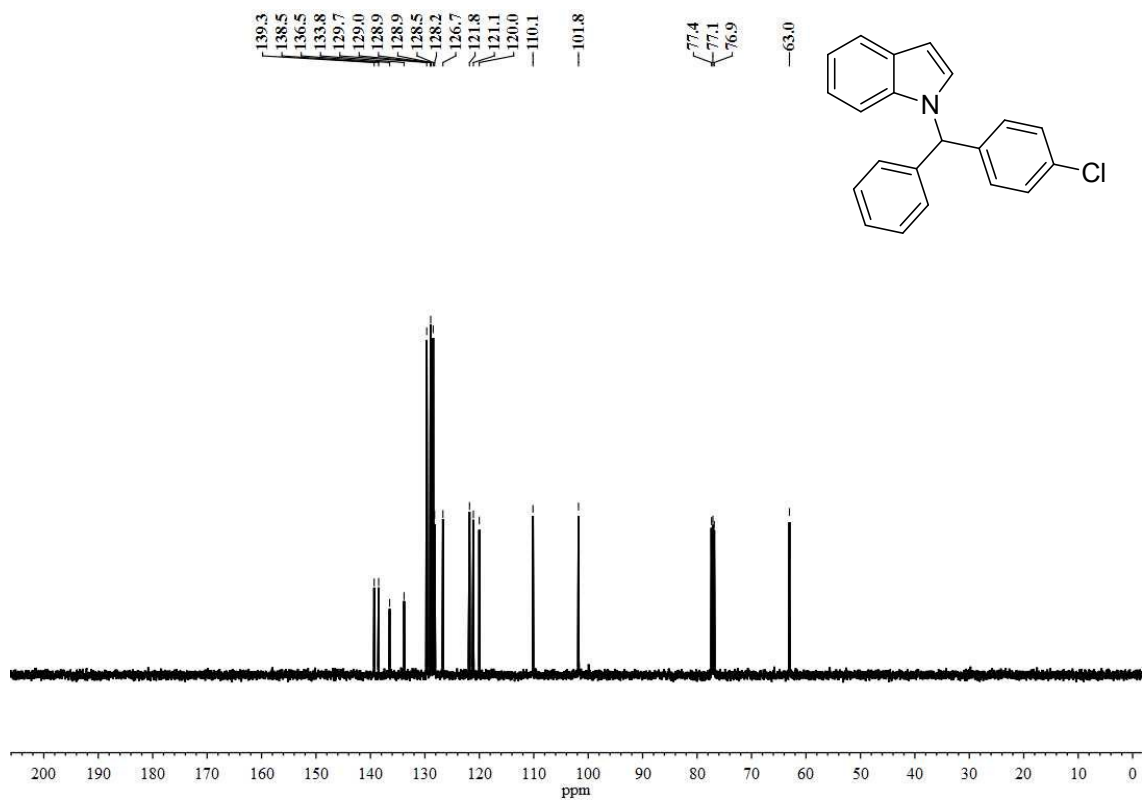
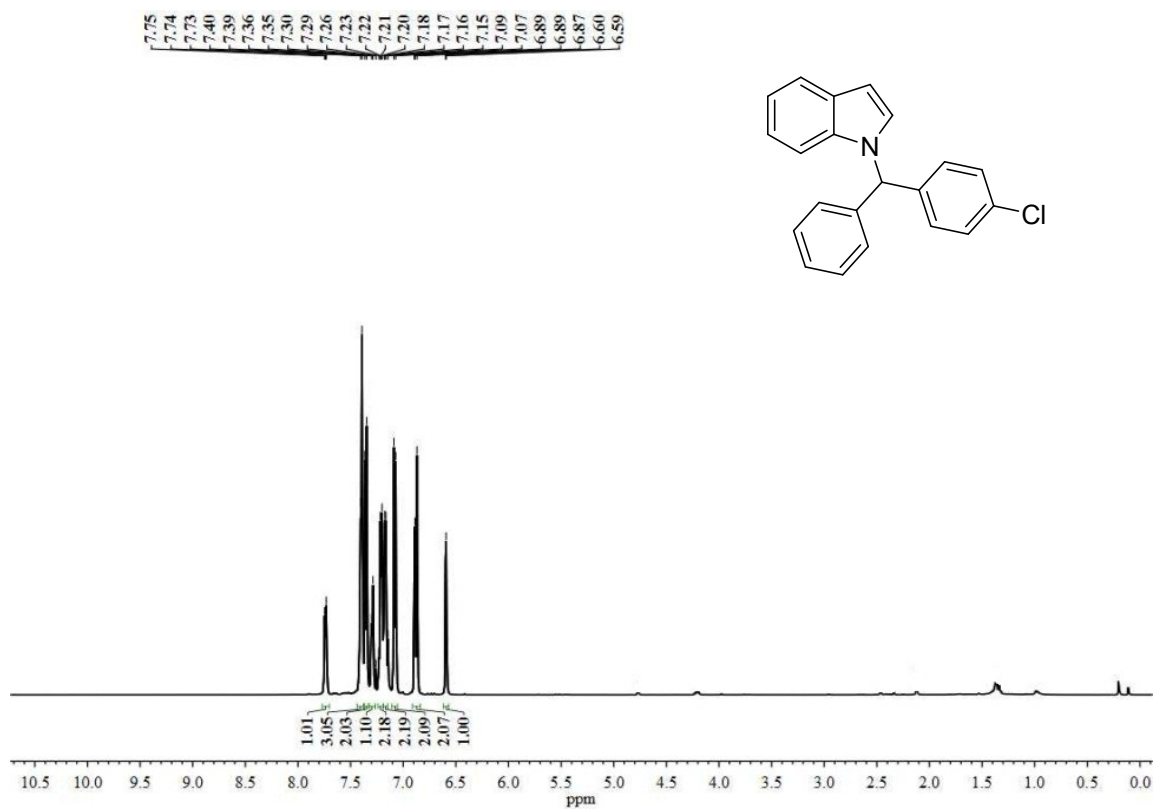




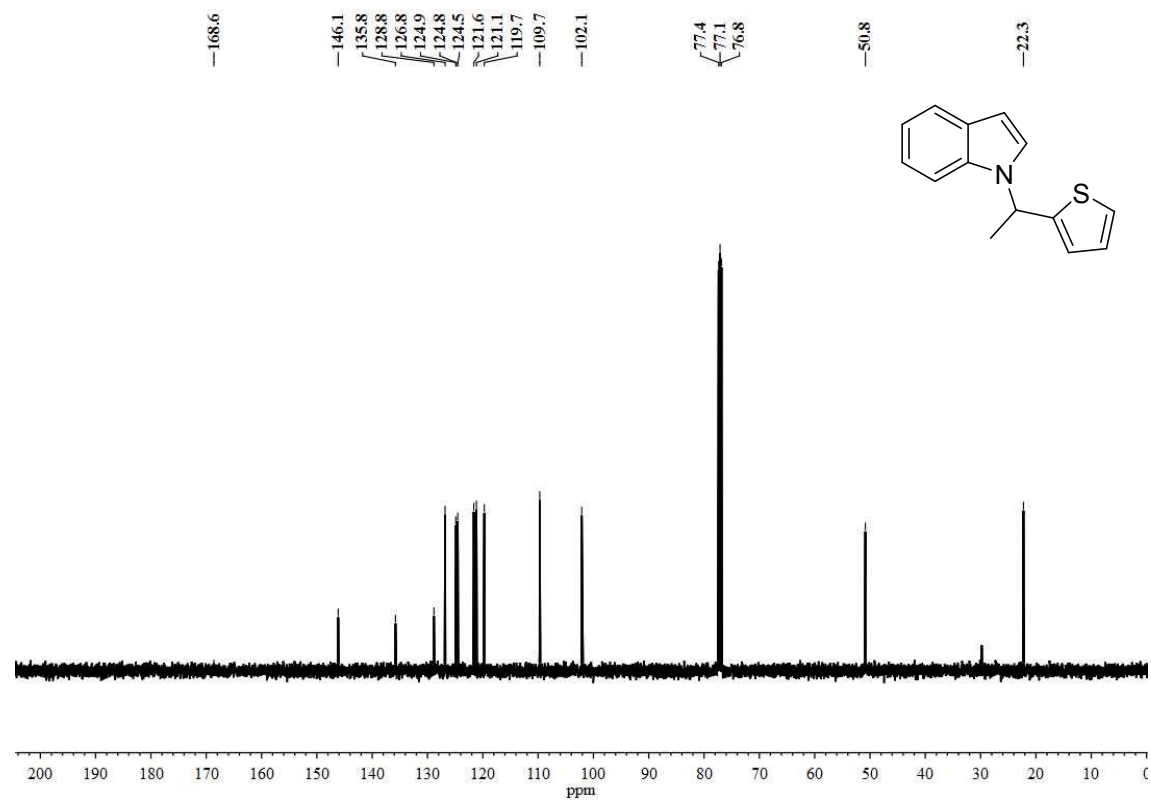
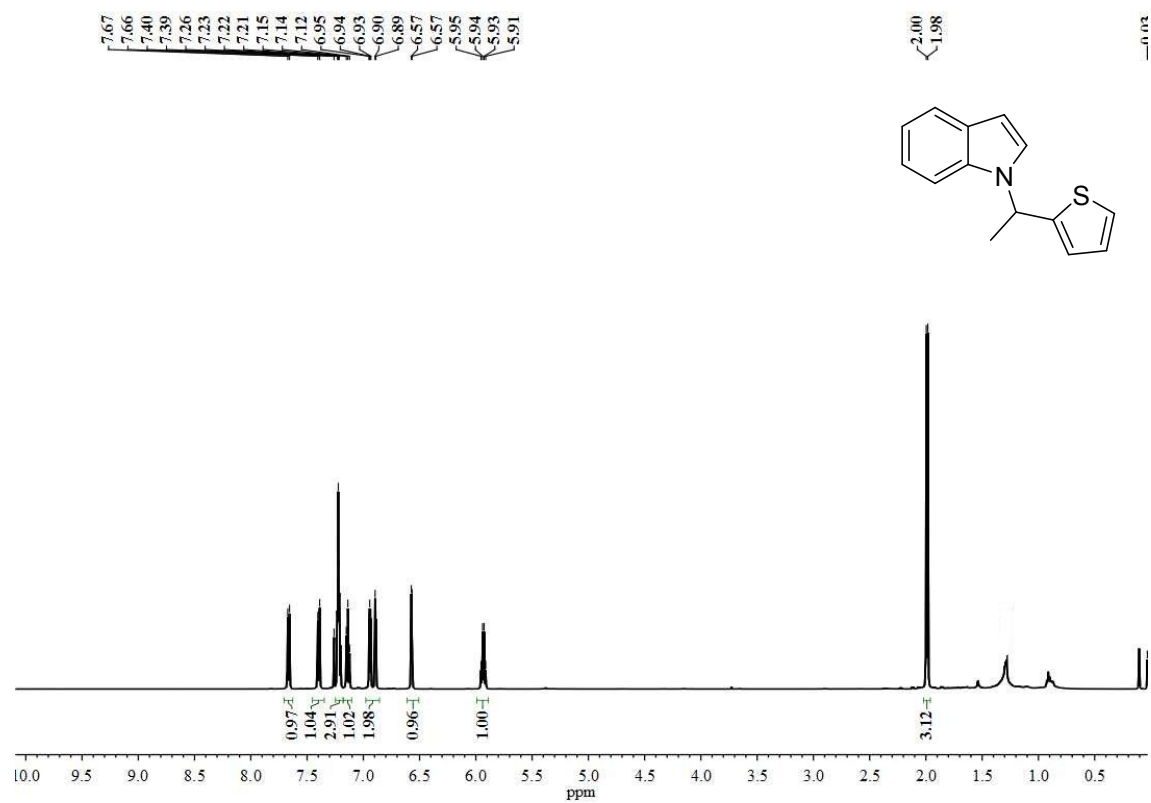


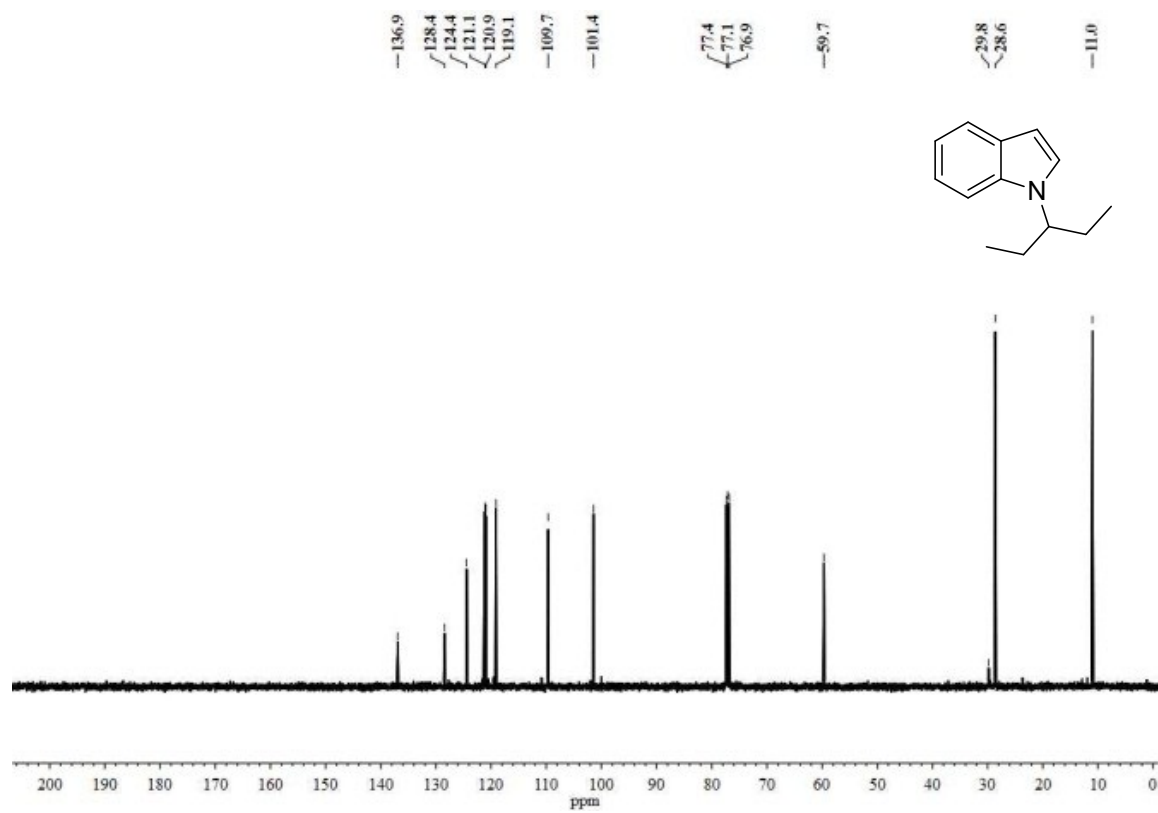
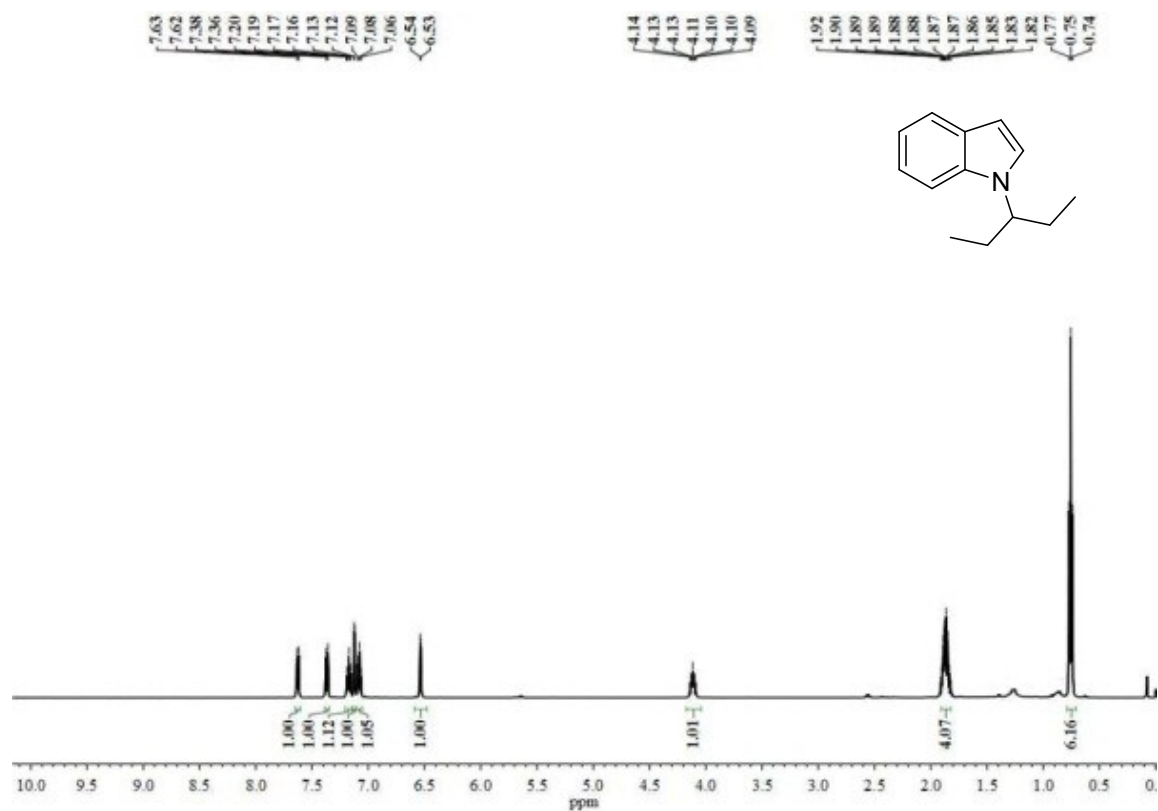


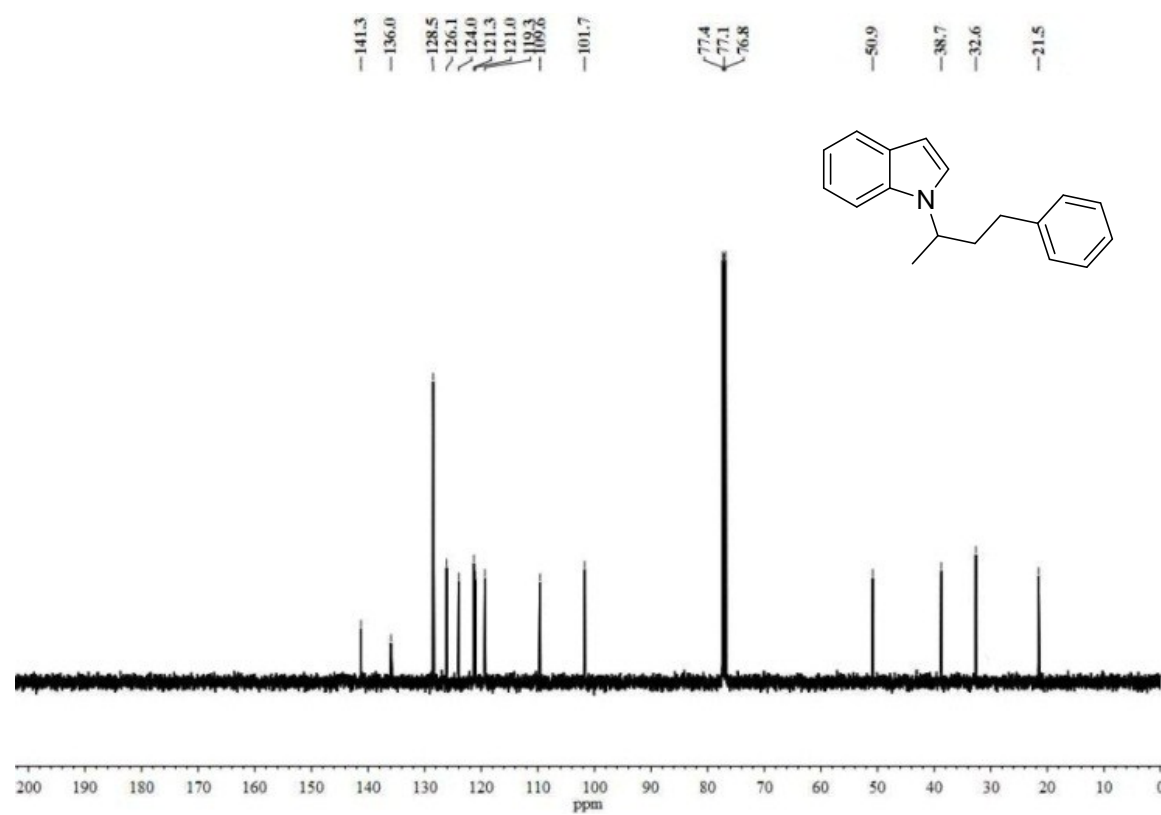
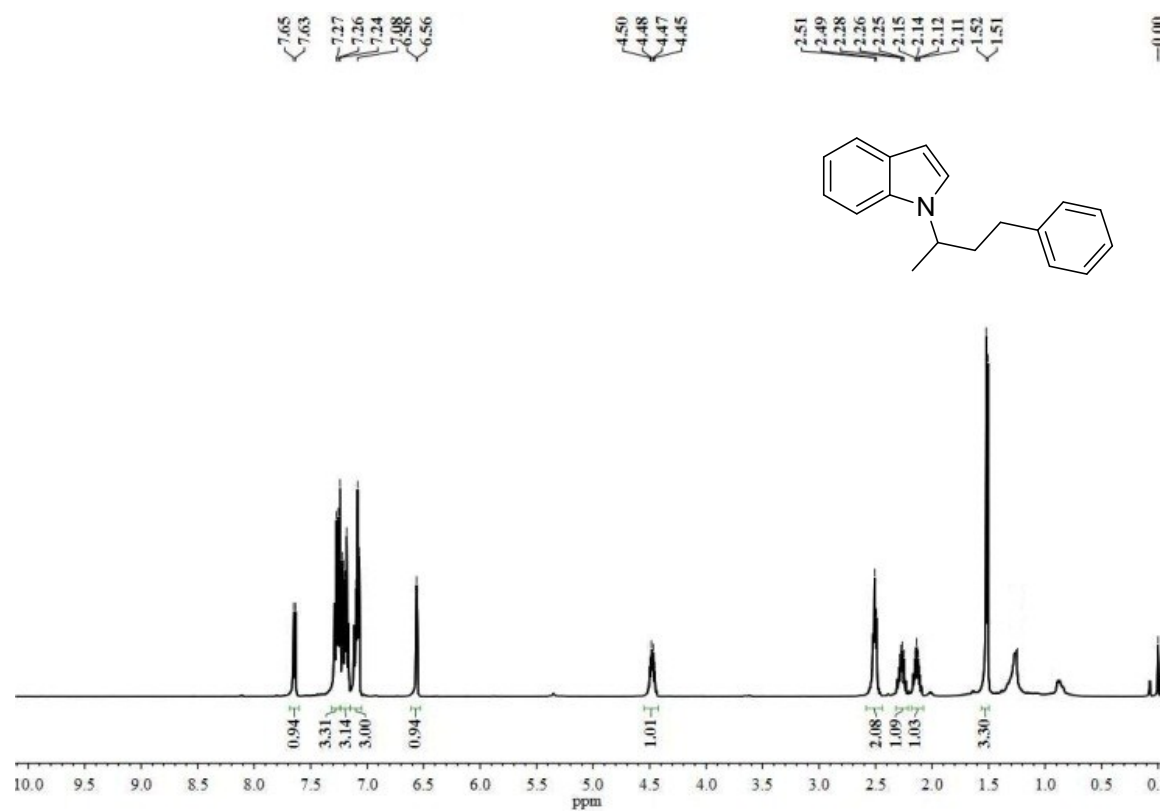


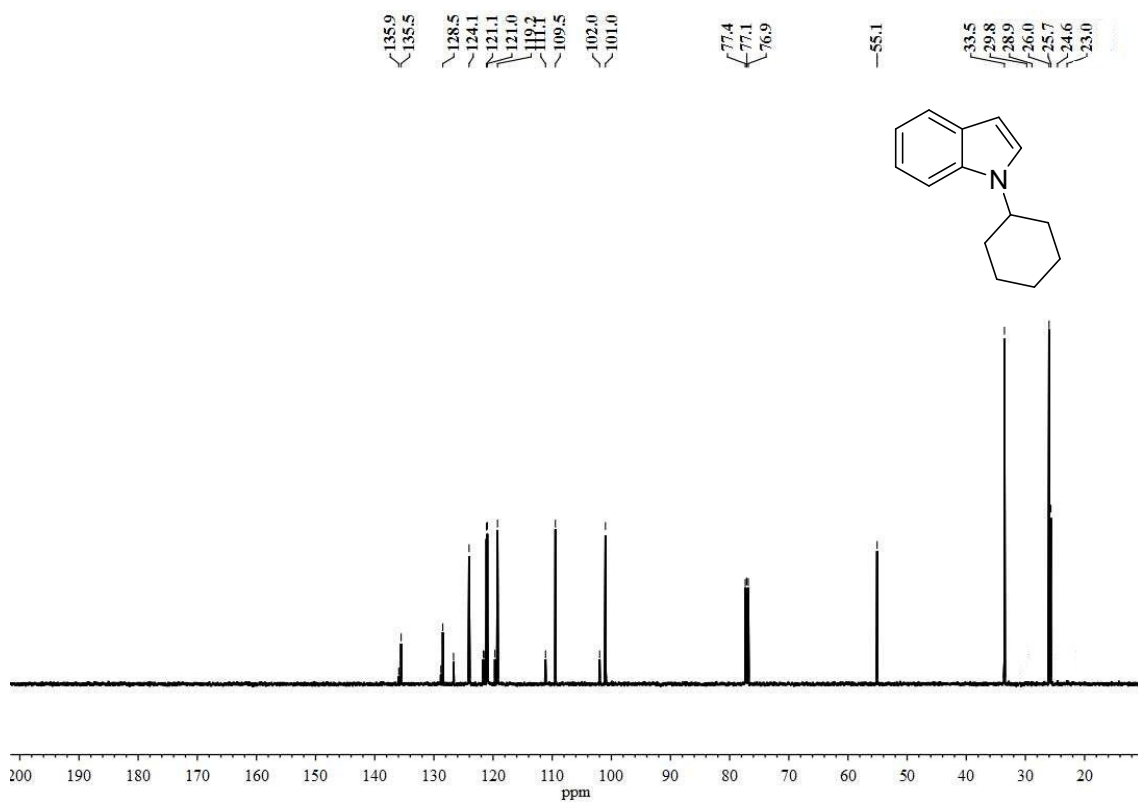
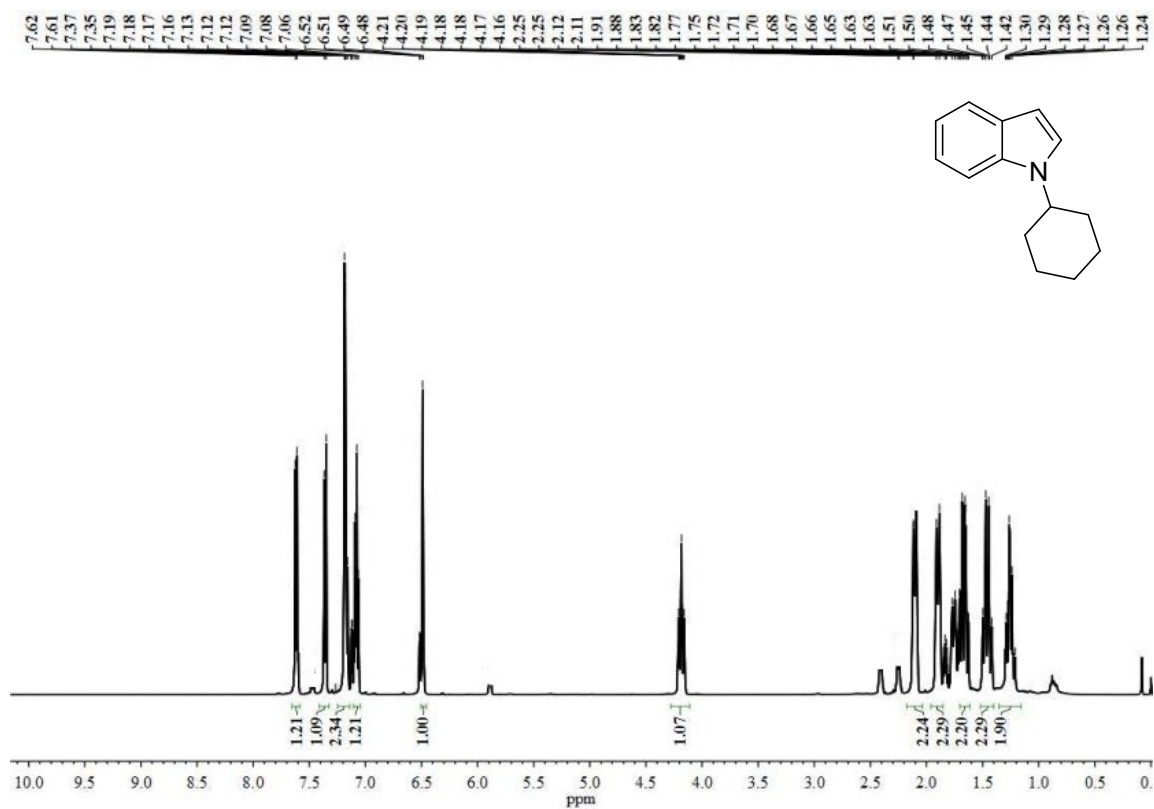


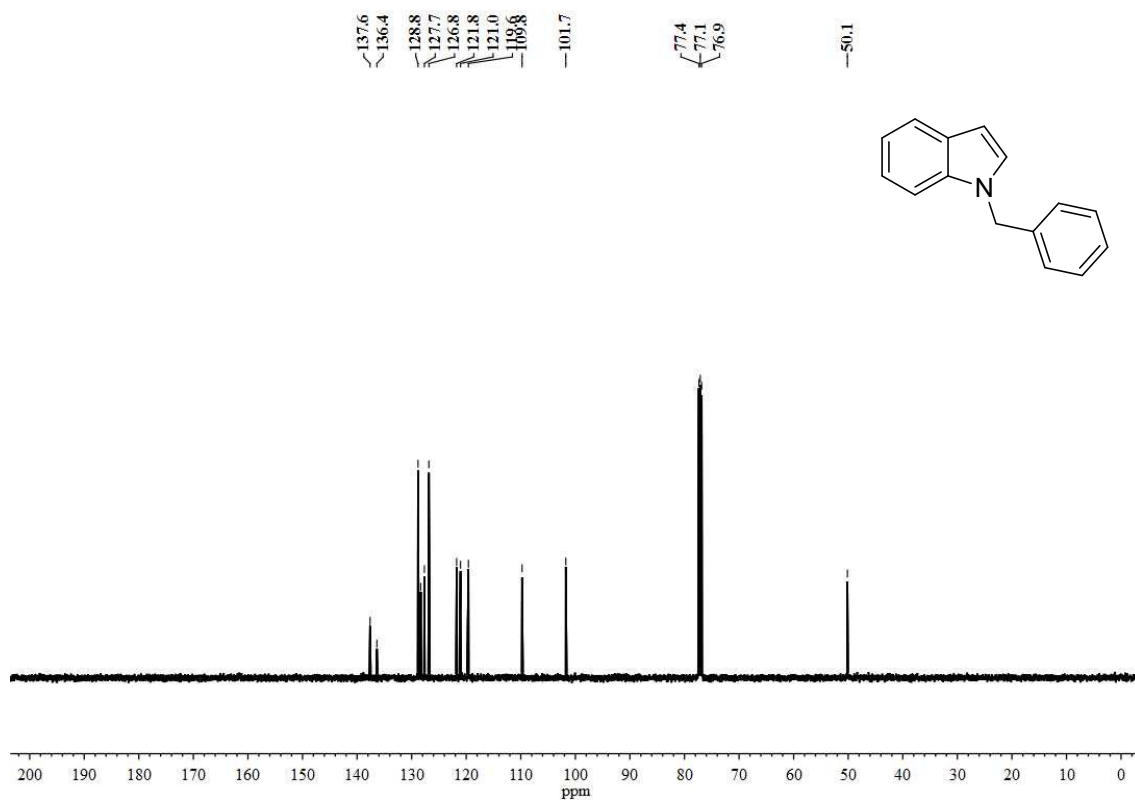
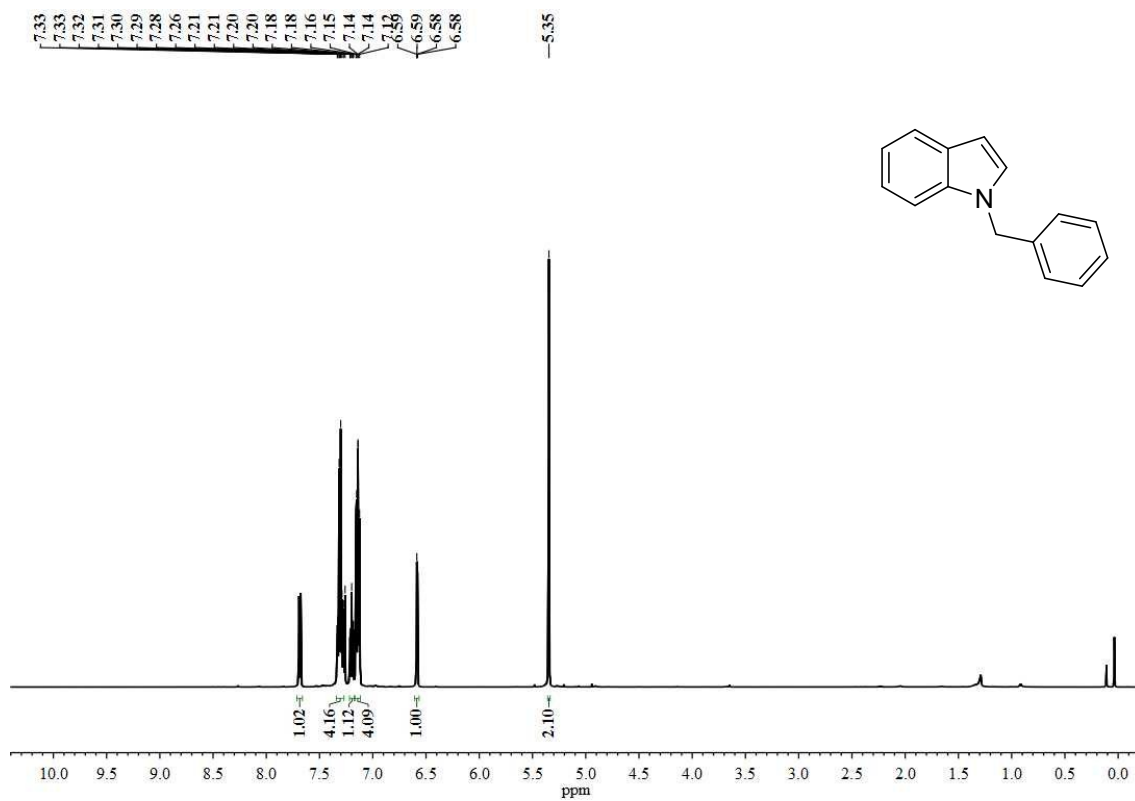


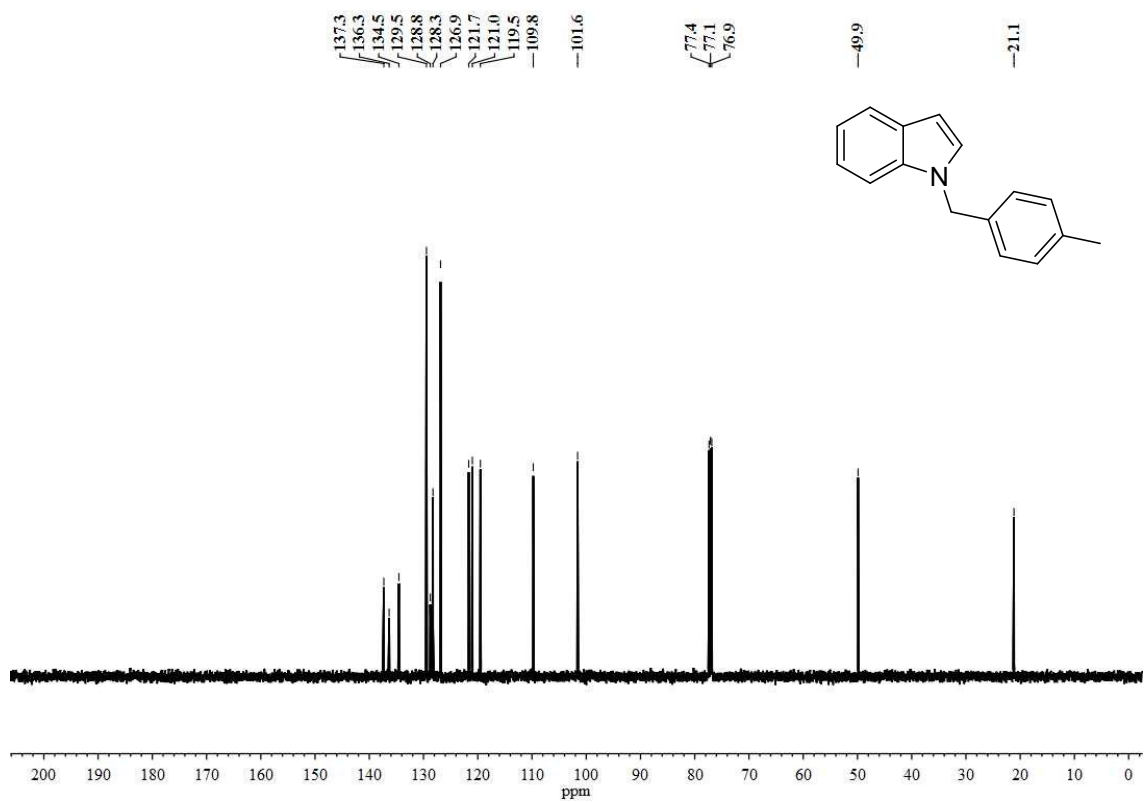
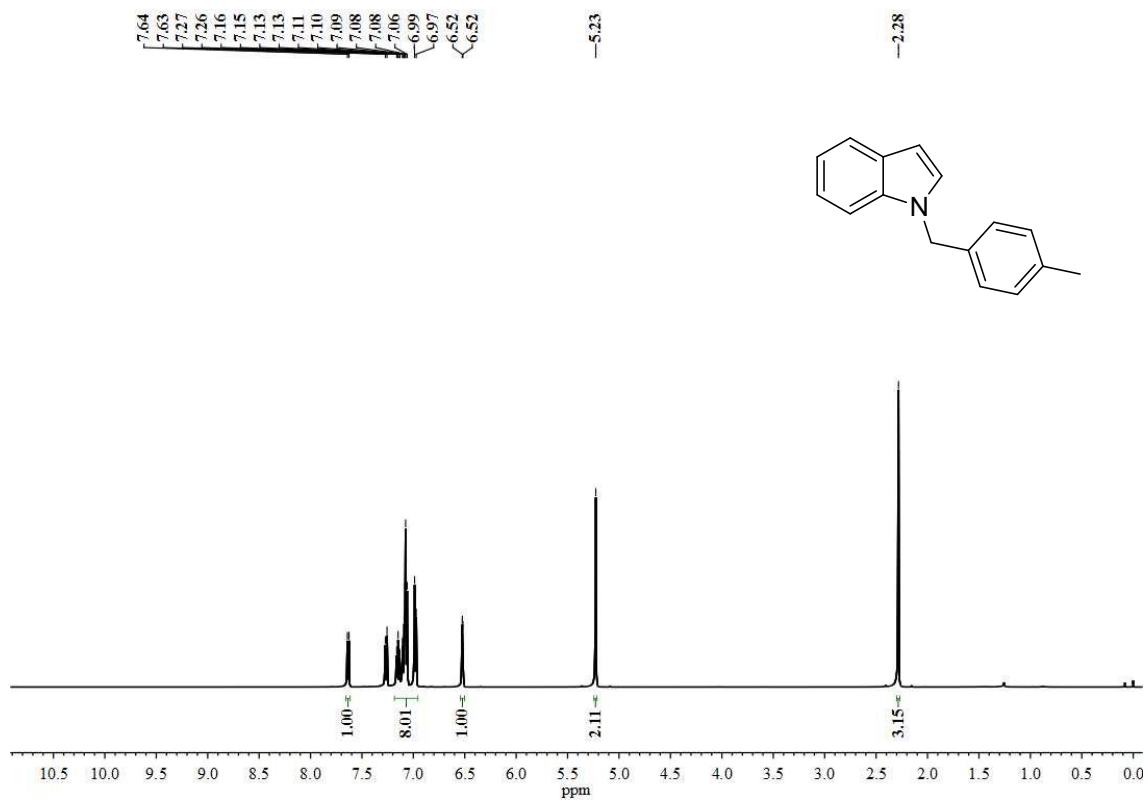


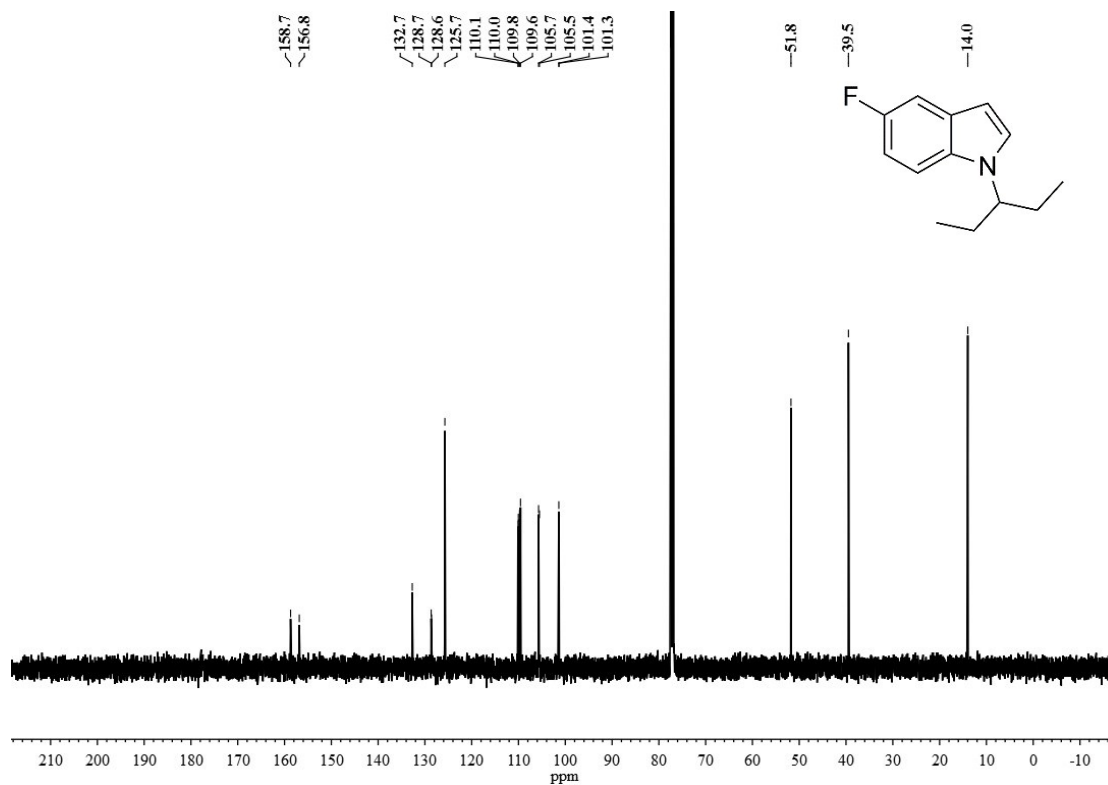
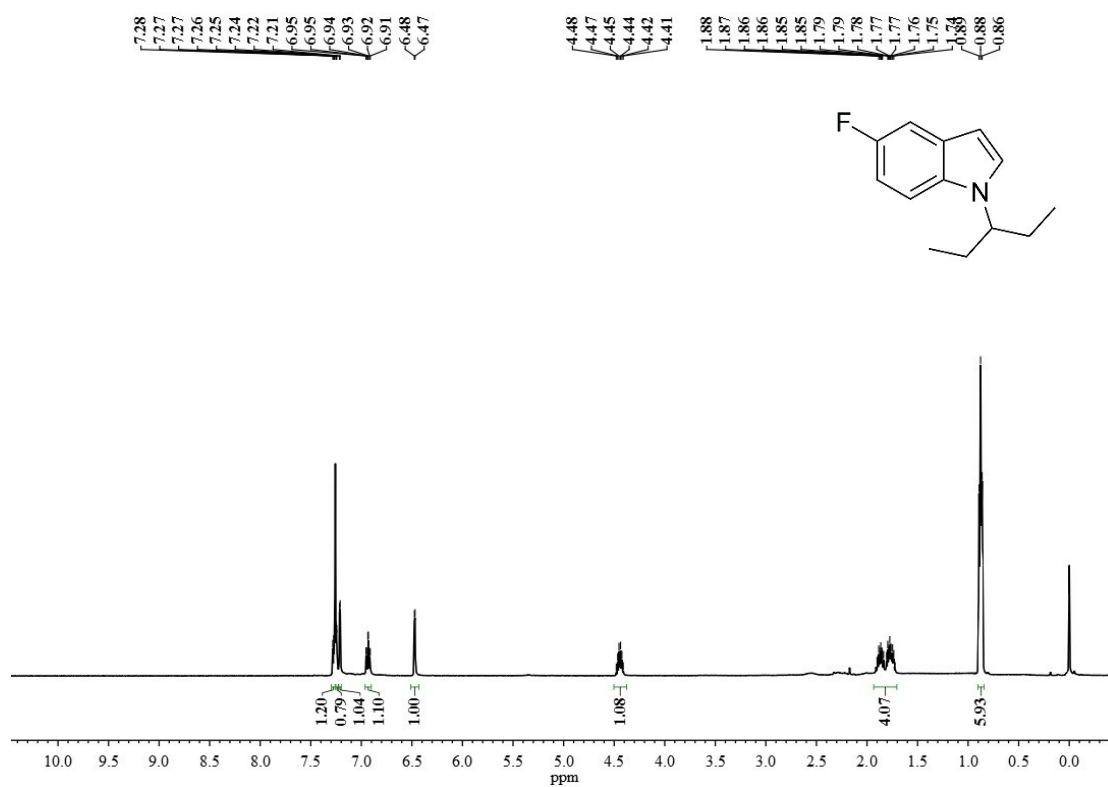


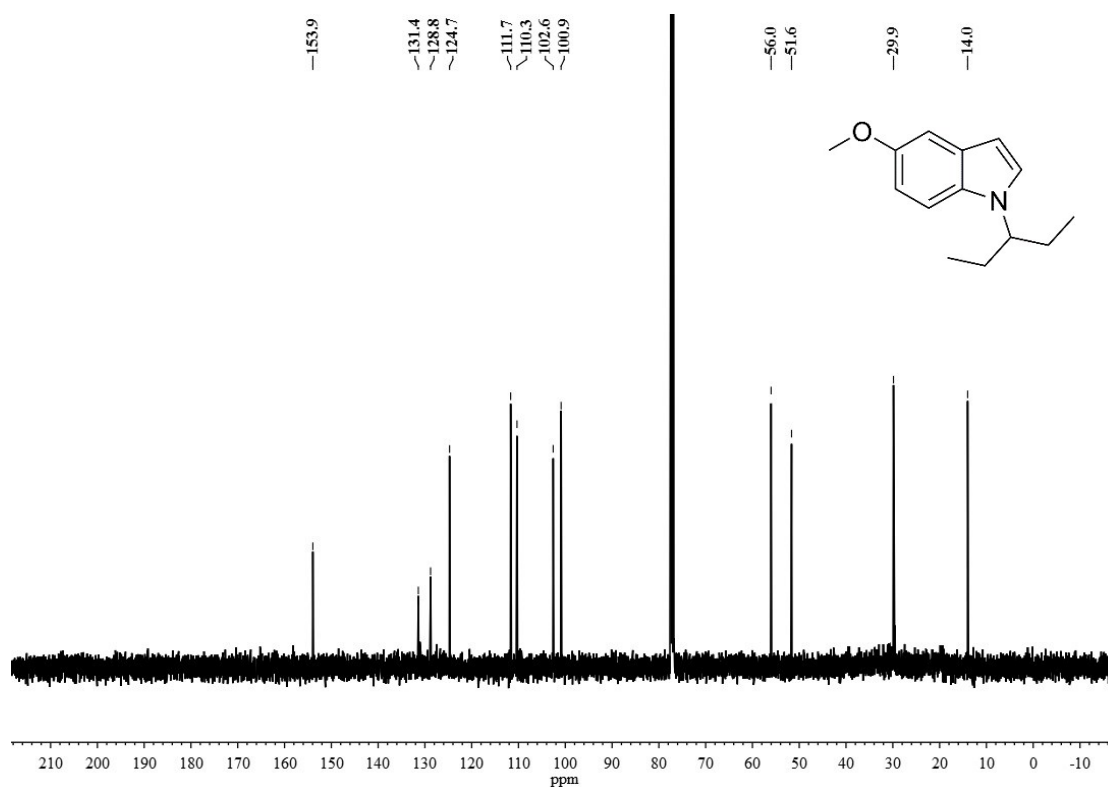
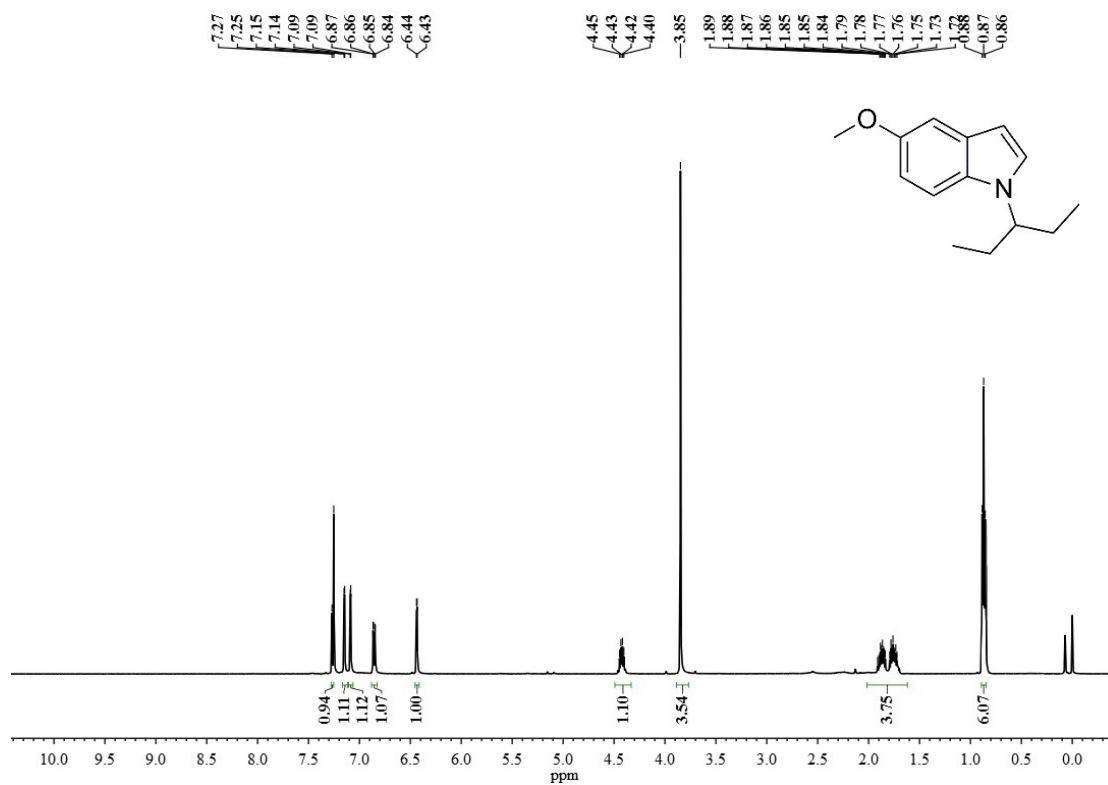




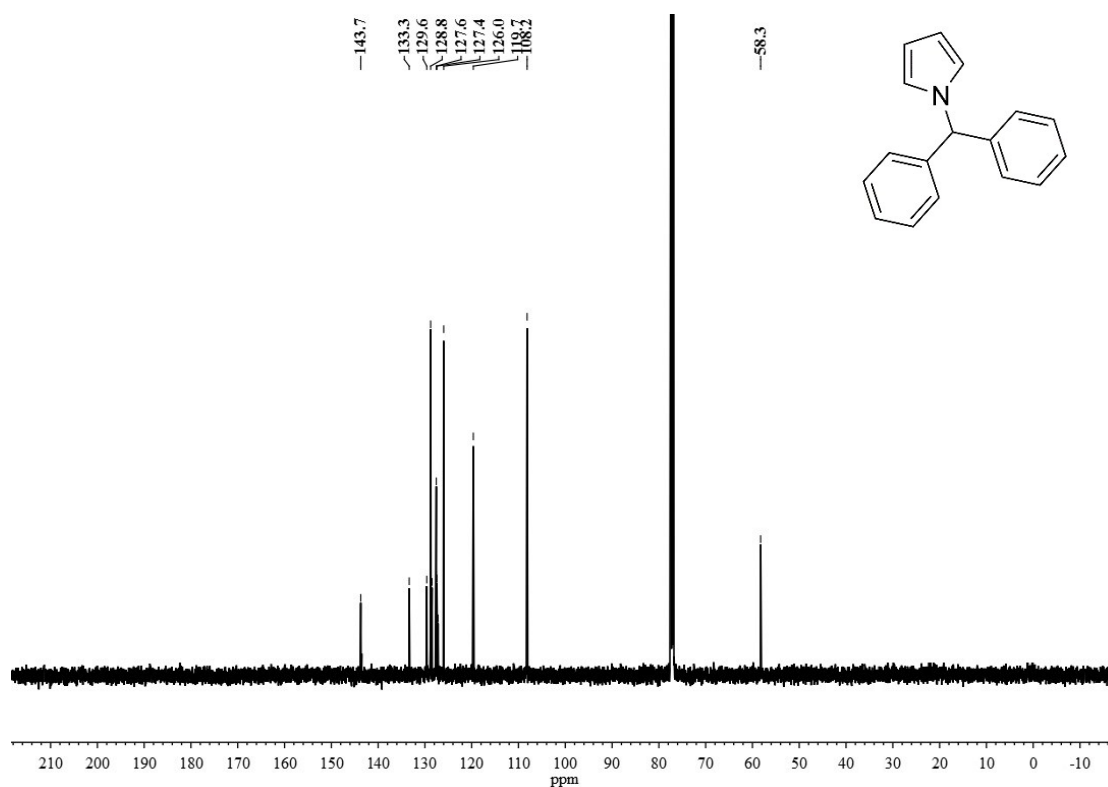
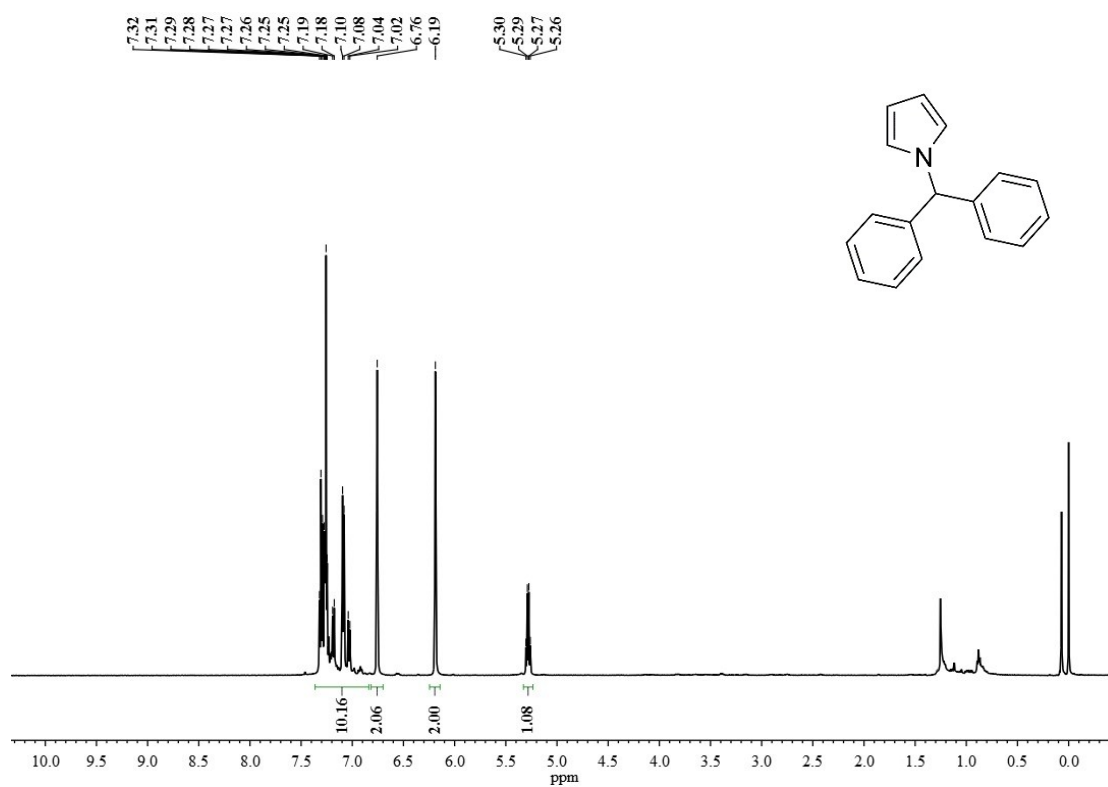


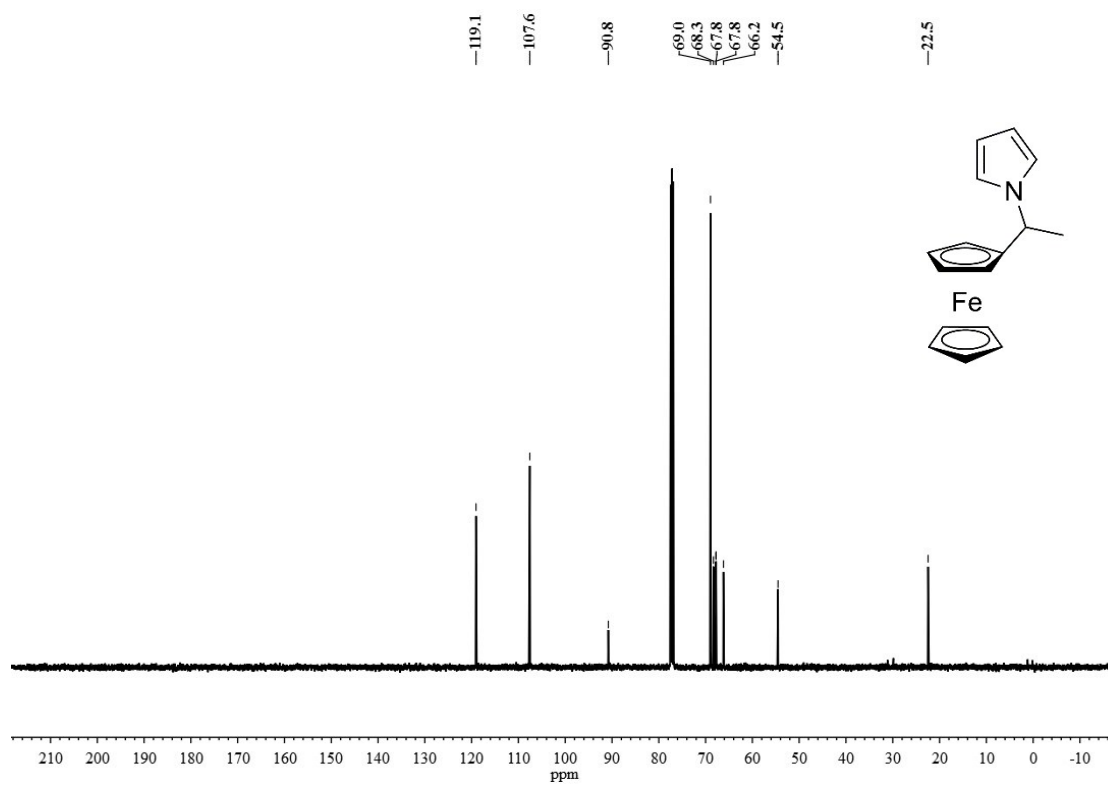
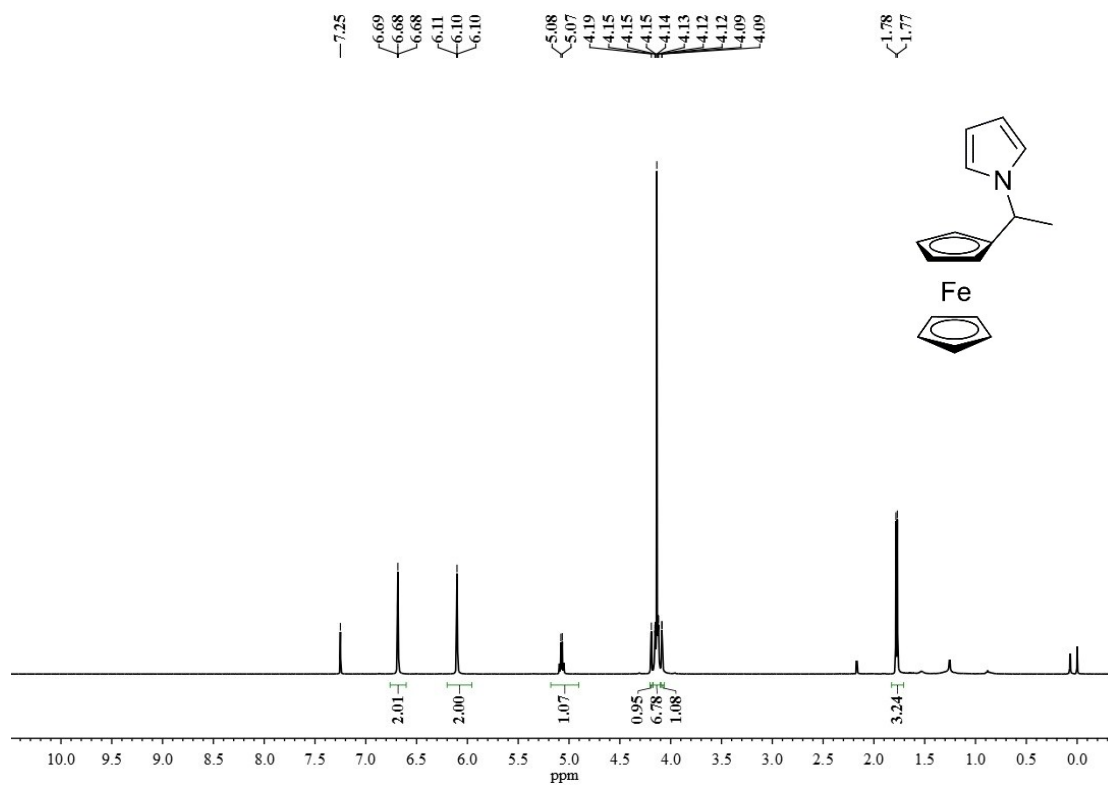


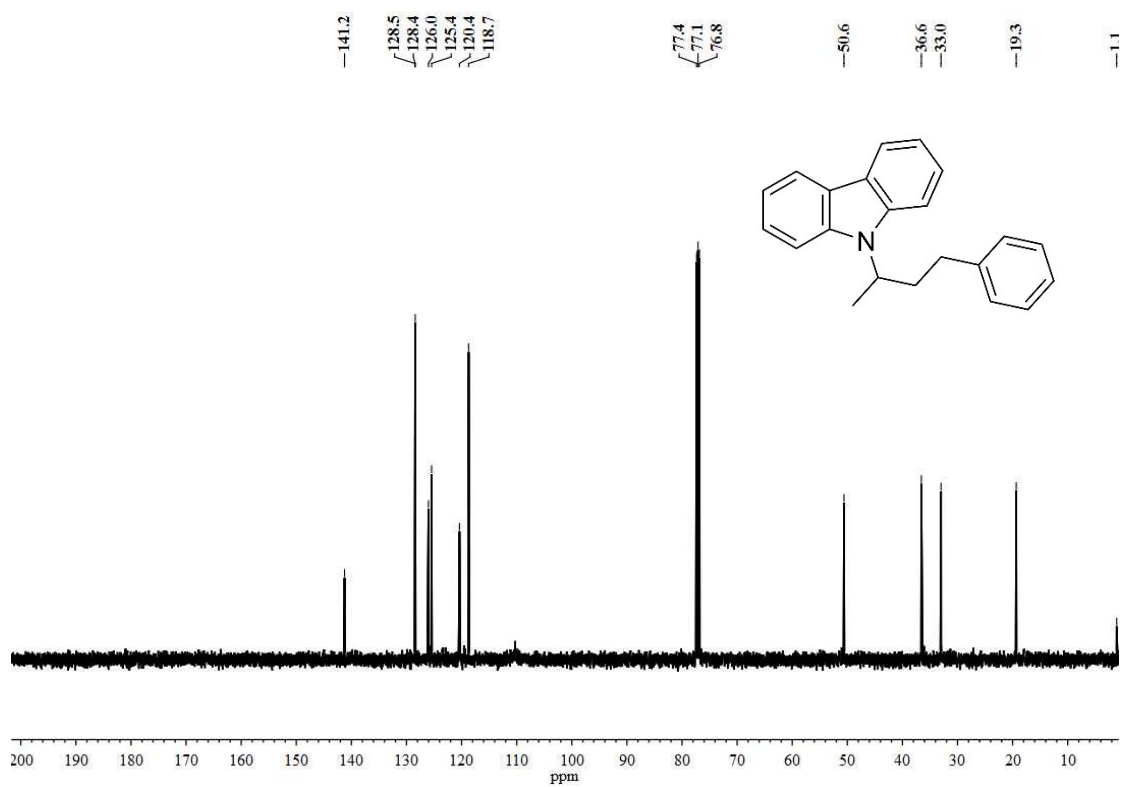
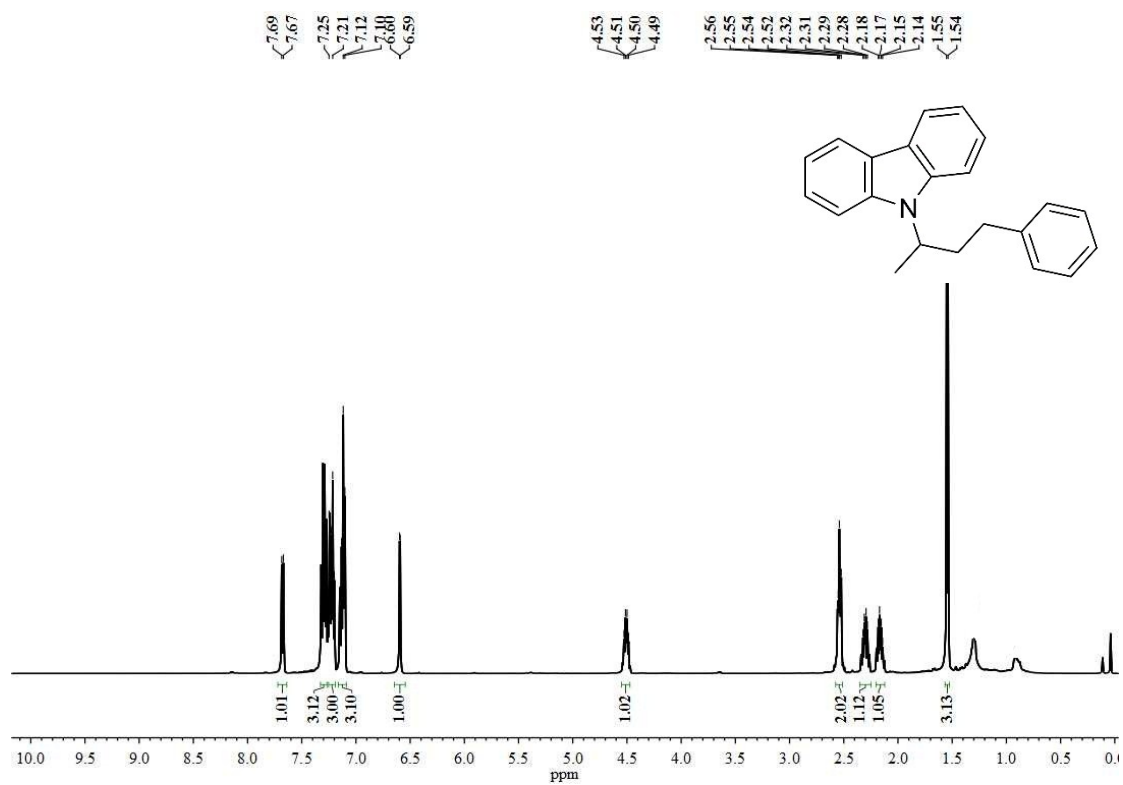


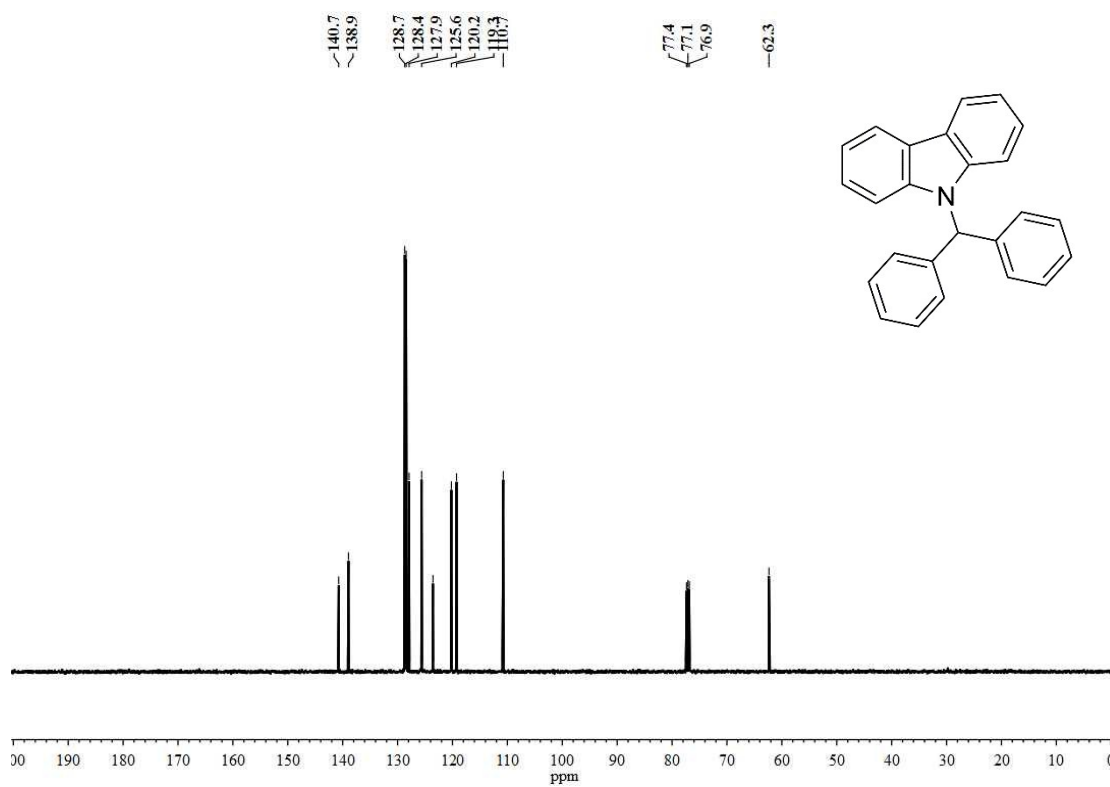
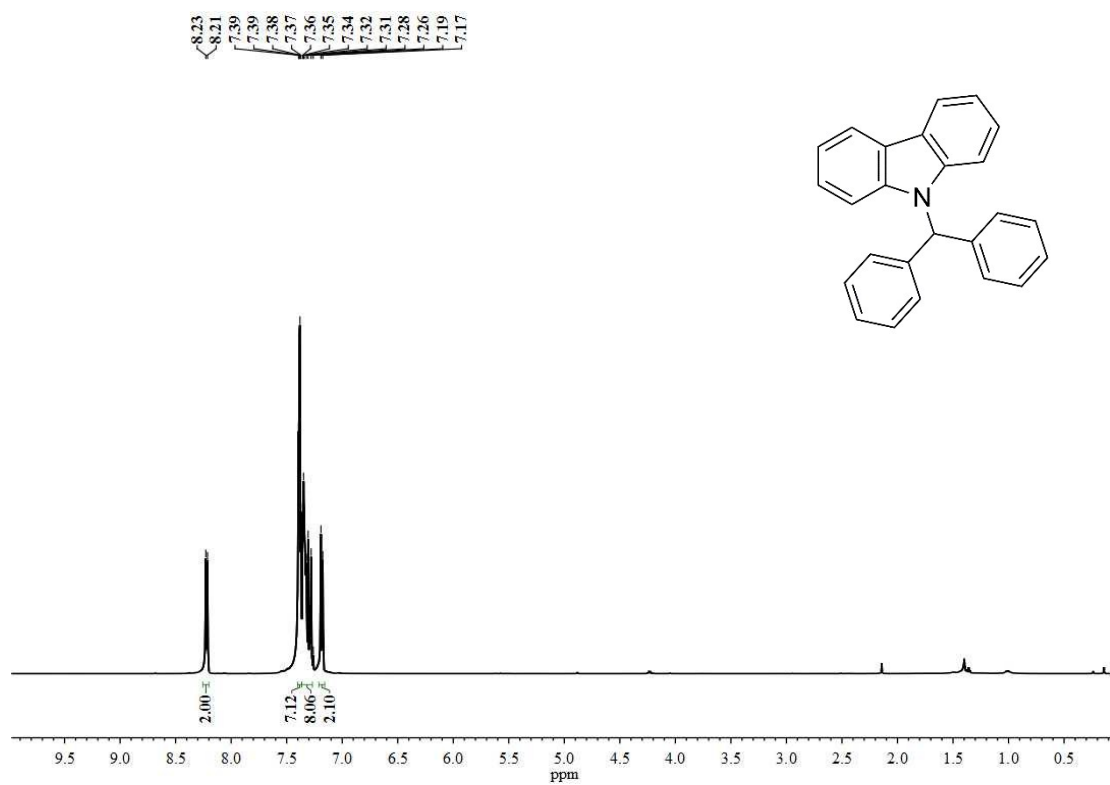


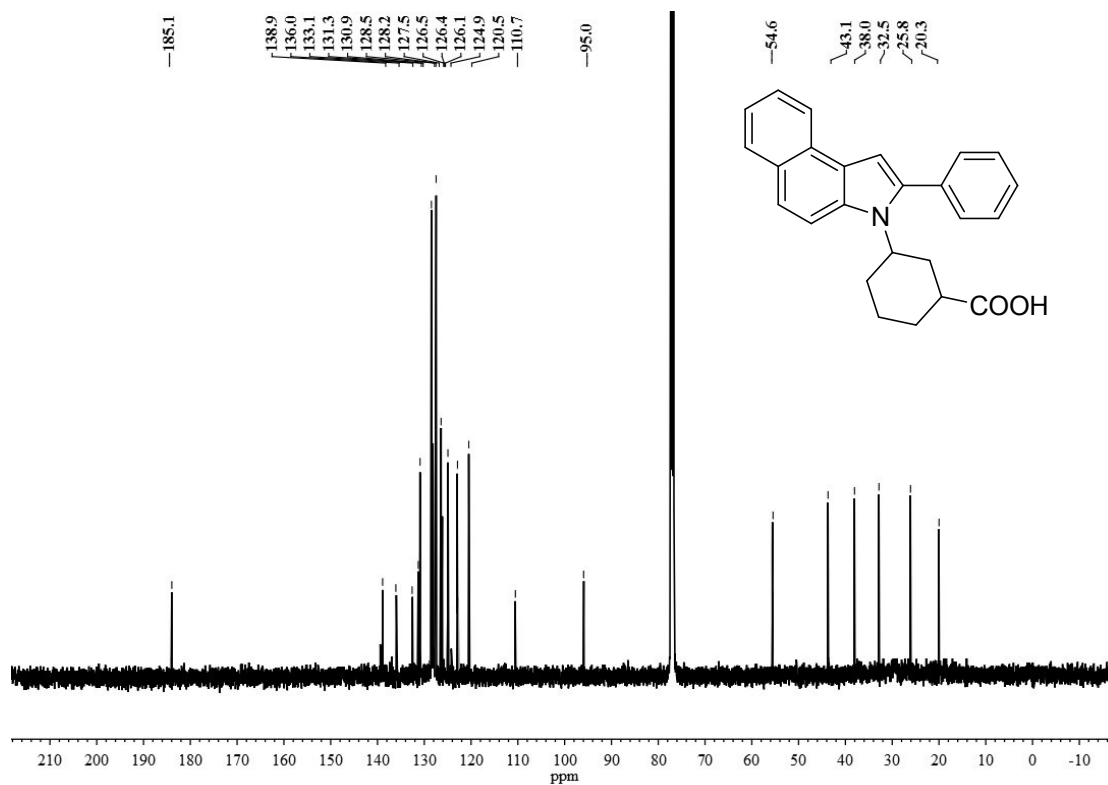
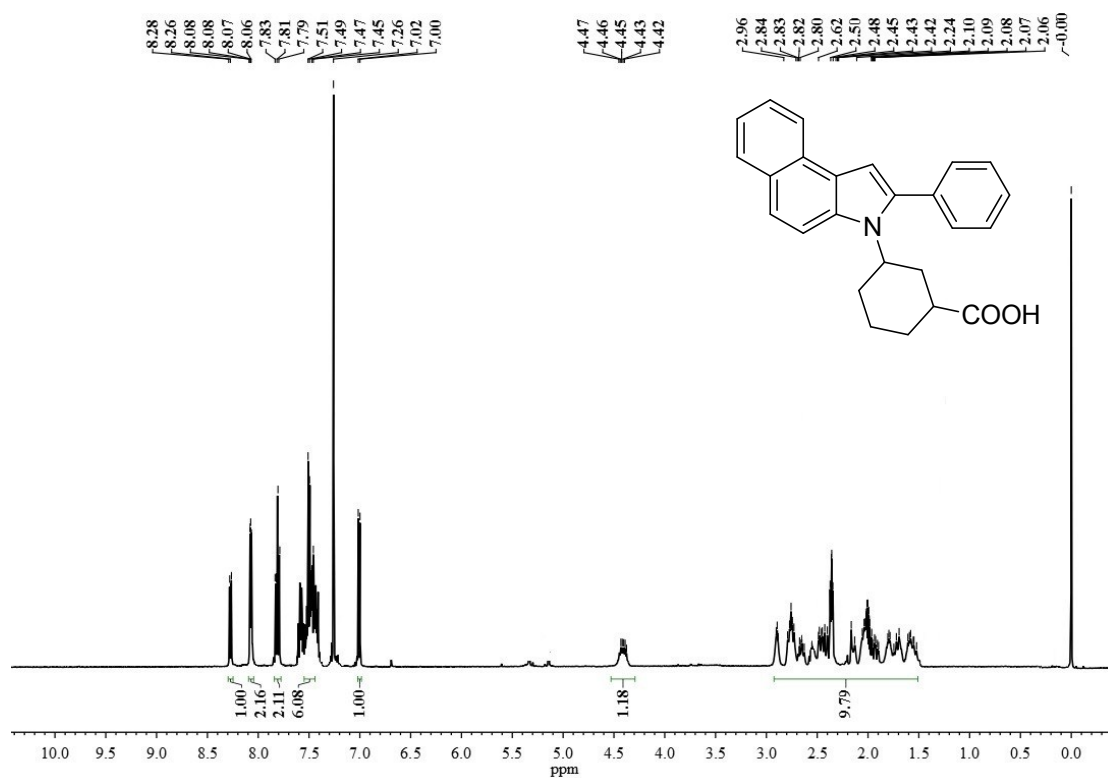












## 2. HRMS (ESI-TOF) spectra

