

## Synthesis of a novel heterocyclic scaffold utilizing 2-cyano-N-(3-cyano-4,6-dimethyl-2-oxopyridin-1-yl) acetamide

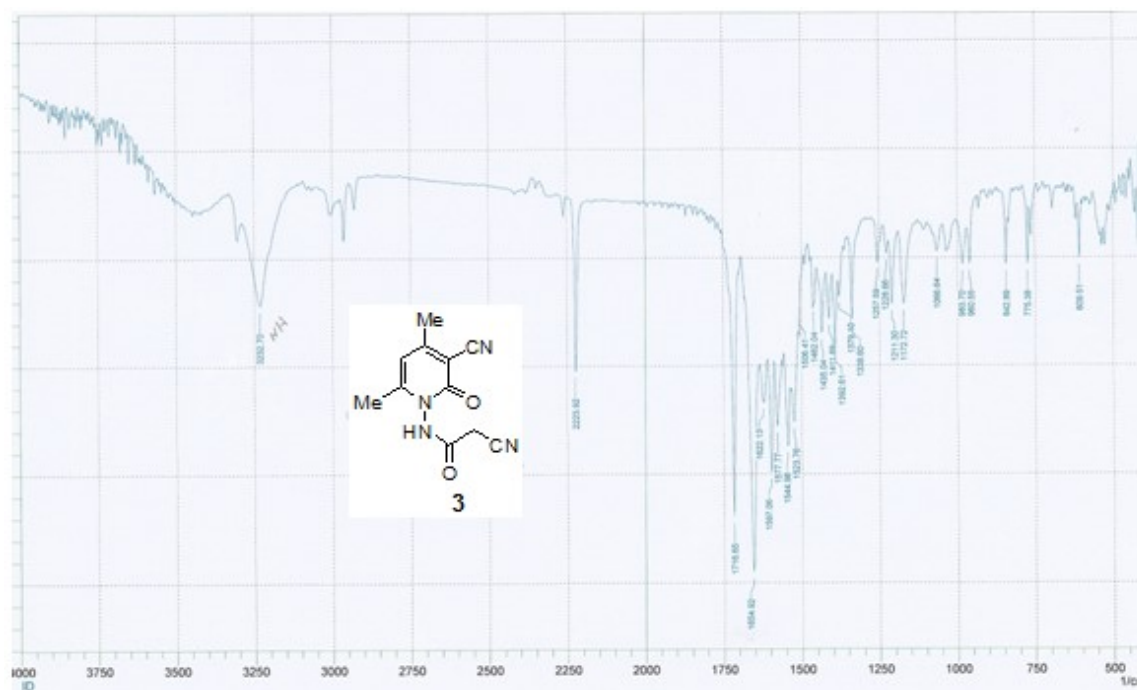
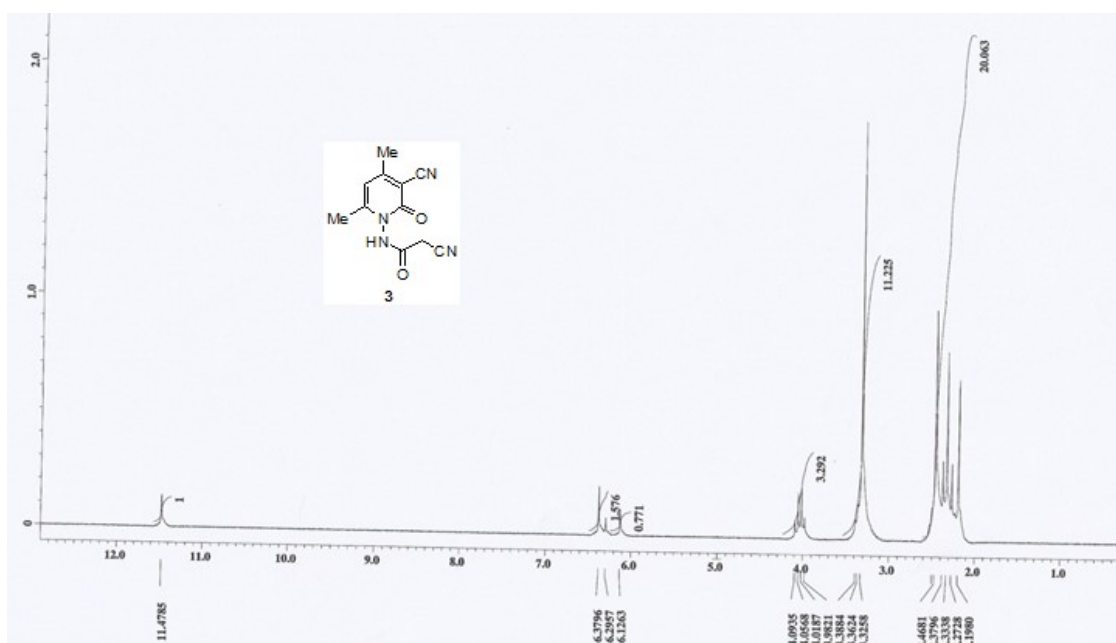
Rizk E. Khidre,<sup>a,b\*</sup> Diaa A. Ibrahim,<sup>a,c</sup> Ibrahim Ali M. Radini <sup>a</sup>

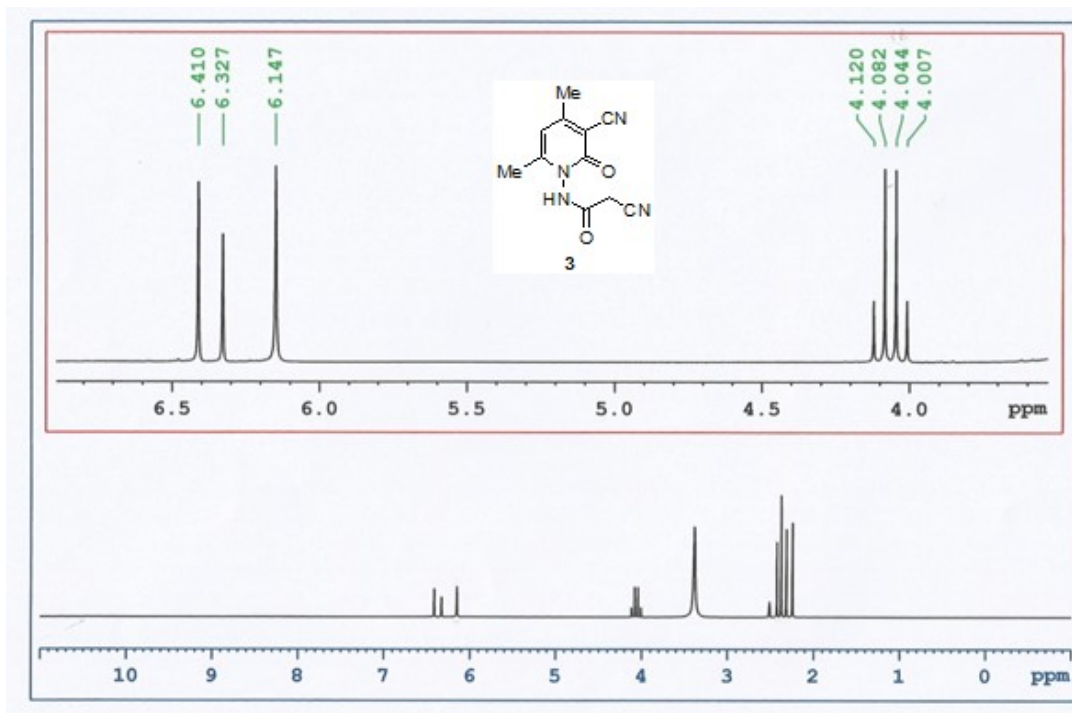
<sup>a</sup>*Chemistry Department, Faculty of Science, Jazan University, Jazan, Saudi Arabia*

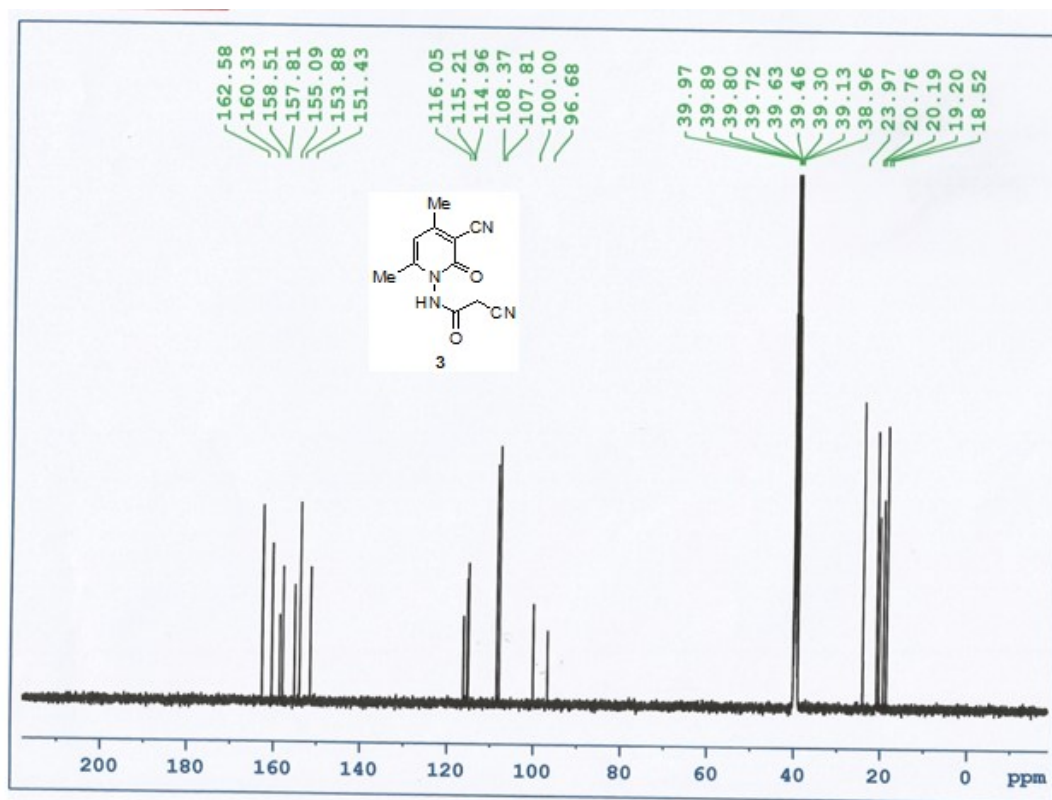
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<sup>c</sup>*National Organization for Drug Control & Research, P.O. Box: 29, Giza 112313, Egypt*

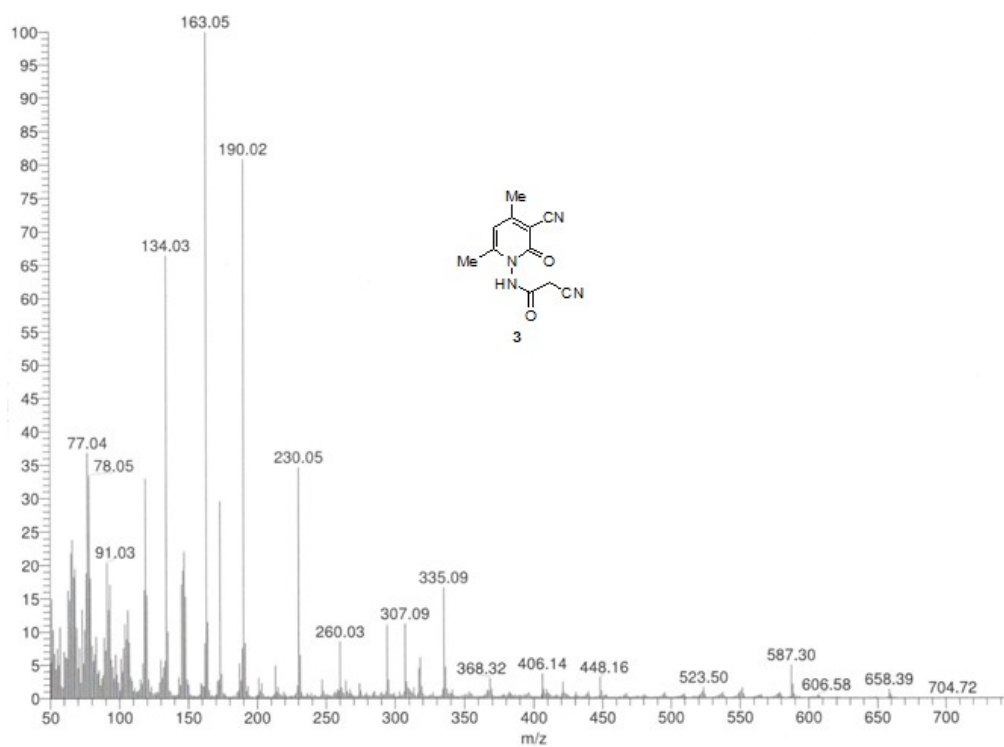
*E-mail: [rizkkhidre@yahoo.com](mailto:rizkkhidre@yahoo.com)*

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

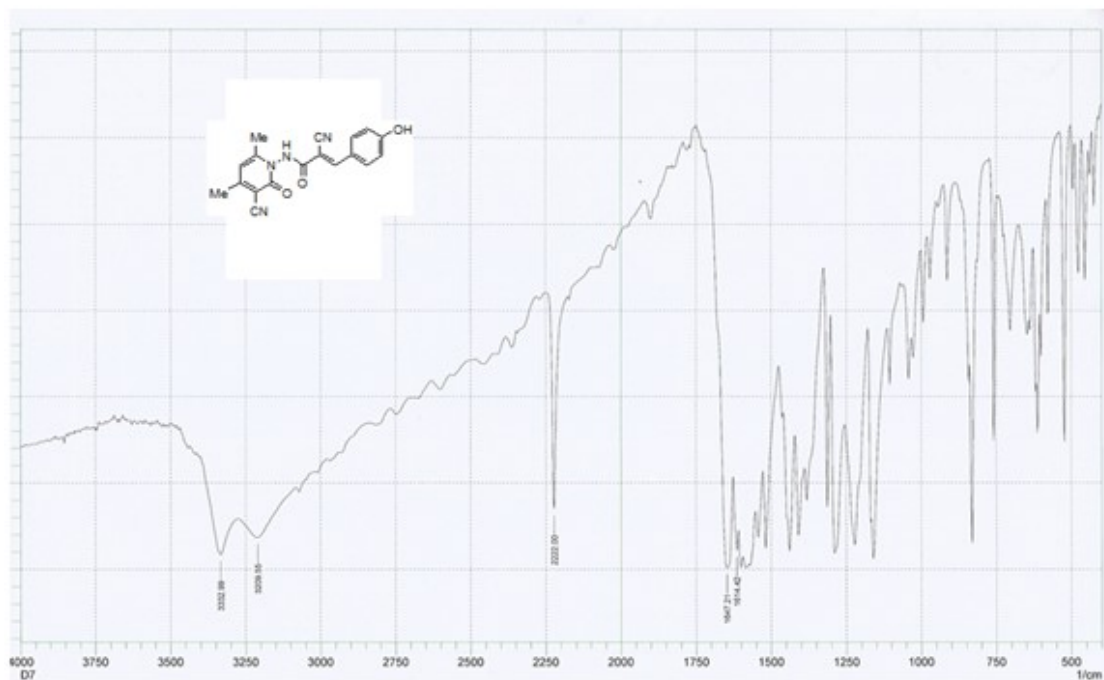
 $^1\text{H}$  NMR spectrum of compound **3**



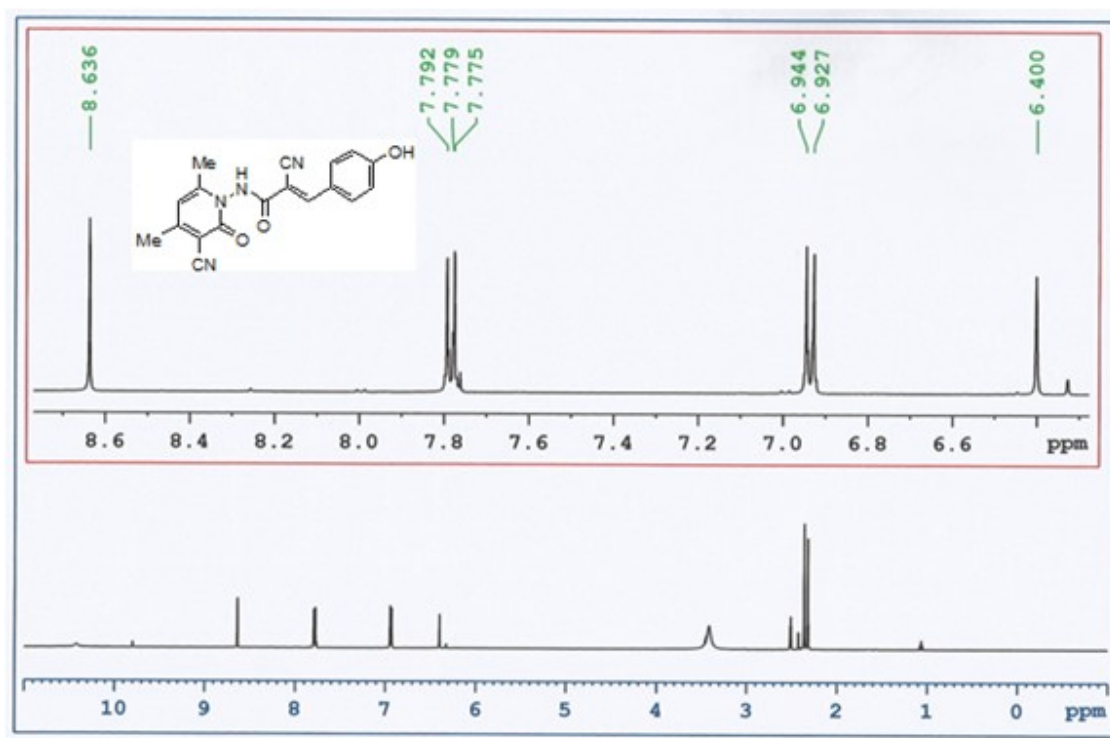
<sup>13</sup>C NMR spectrum of compound **3**

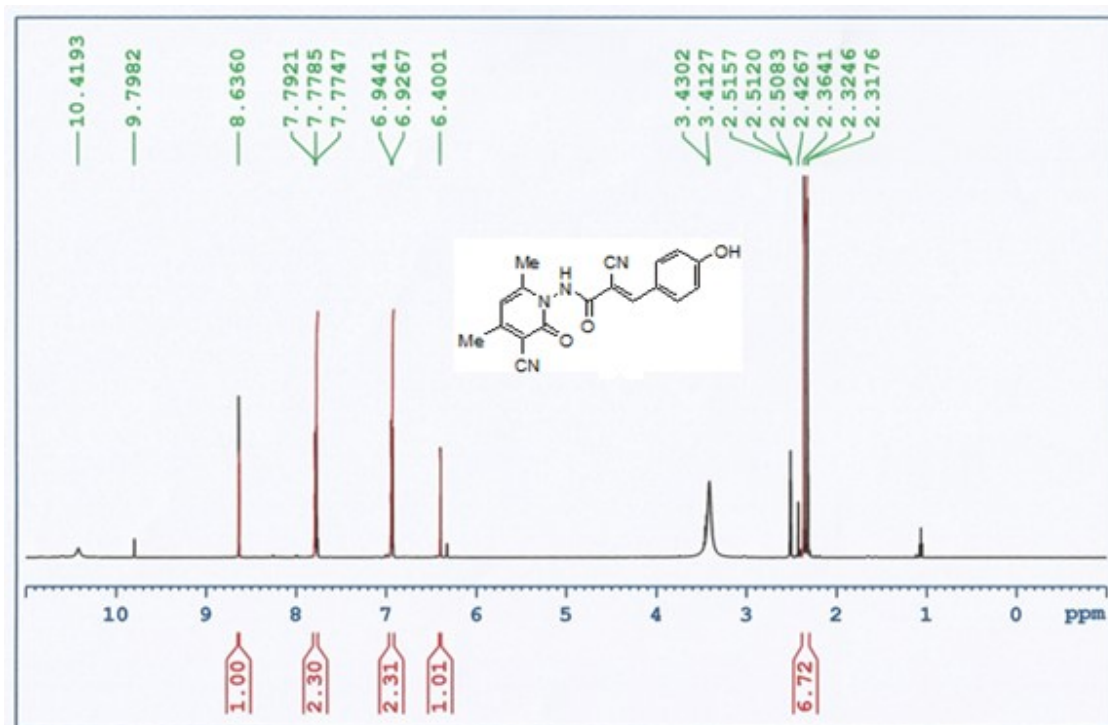
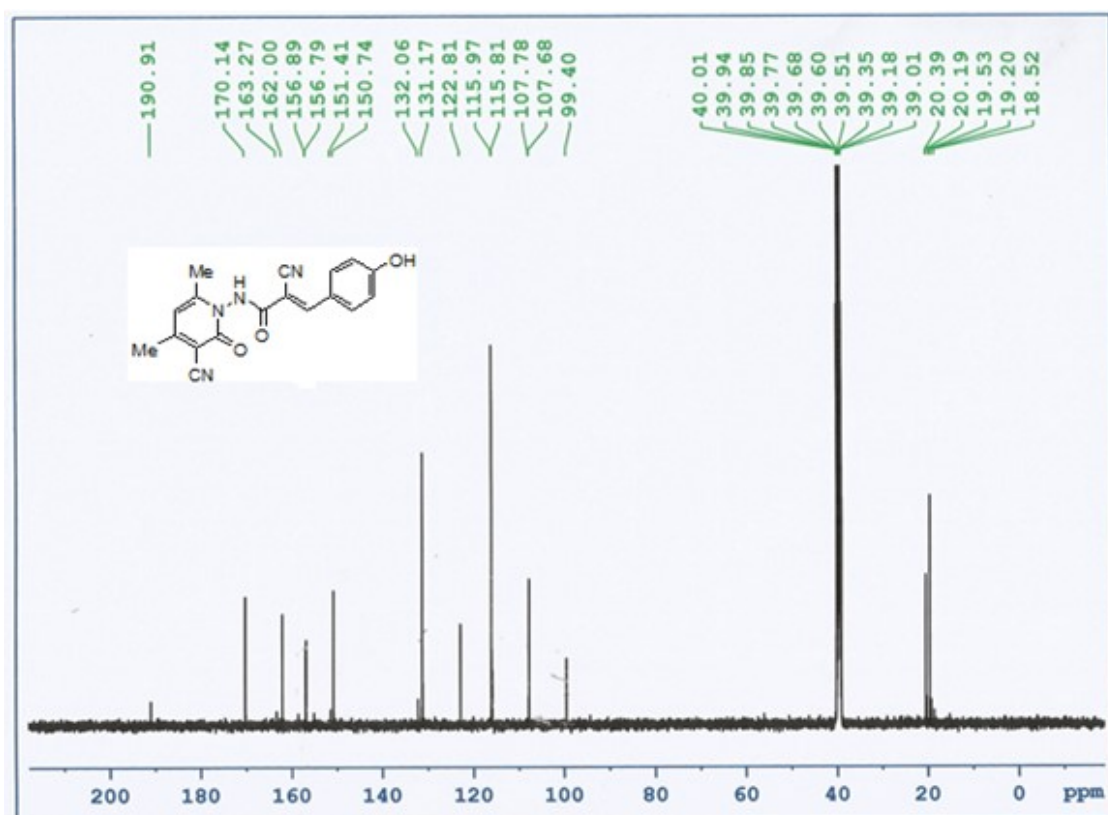


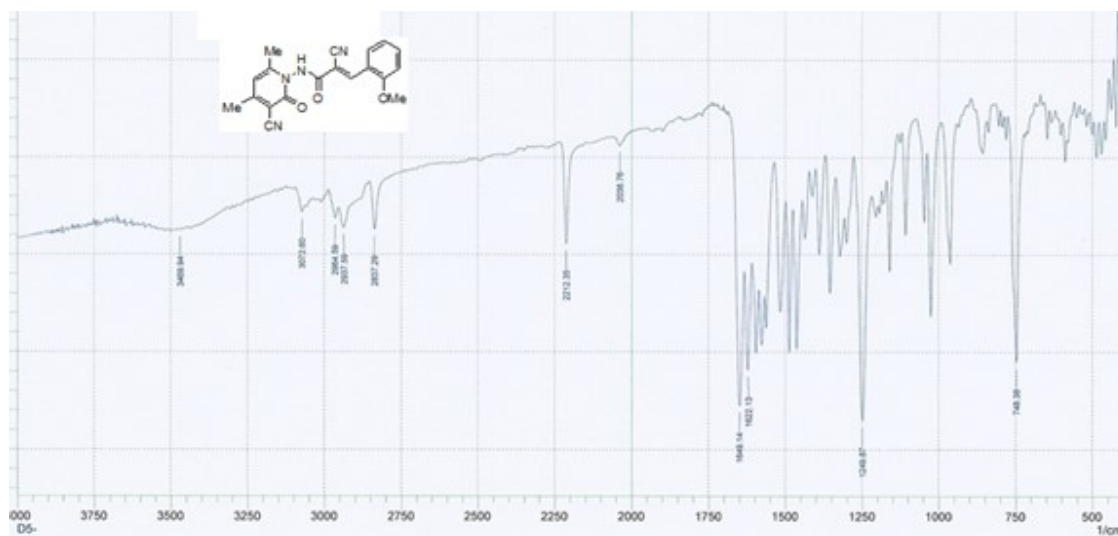
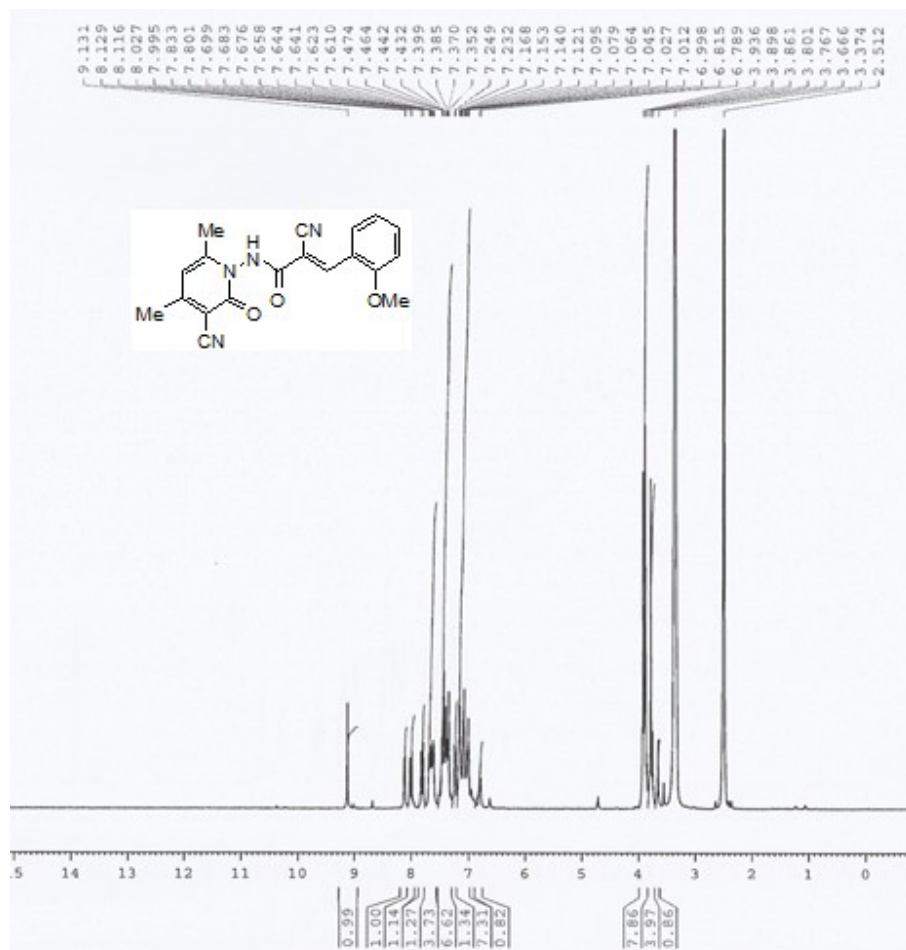
Mass spectrum of compound **3**

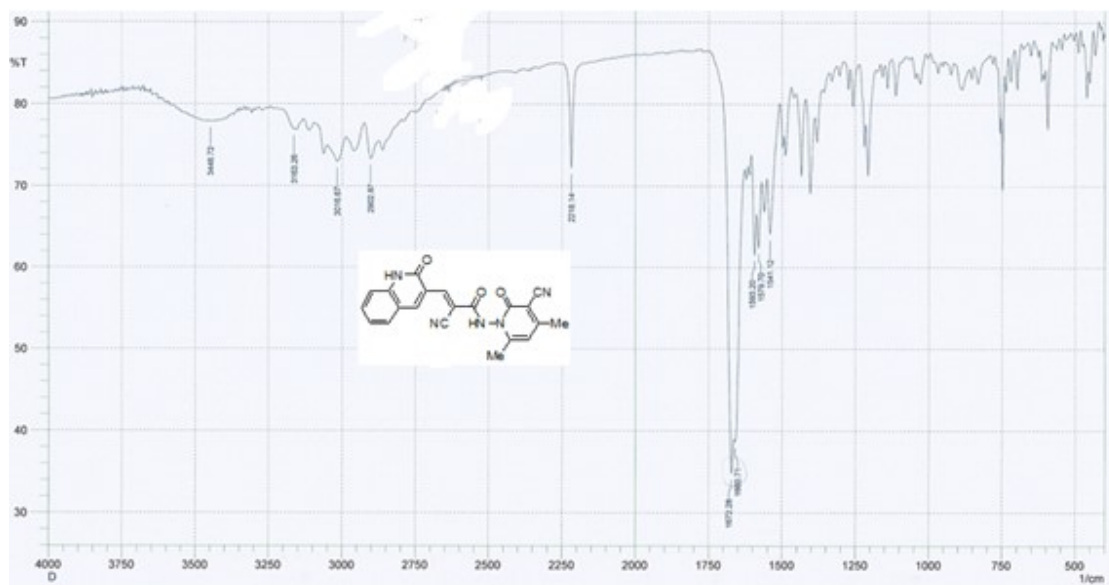
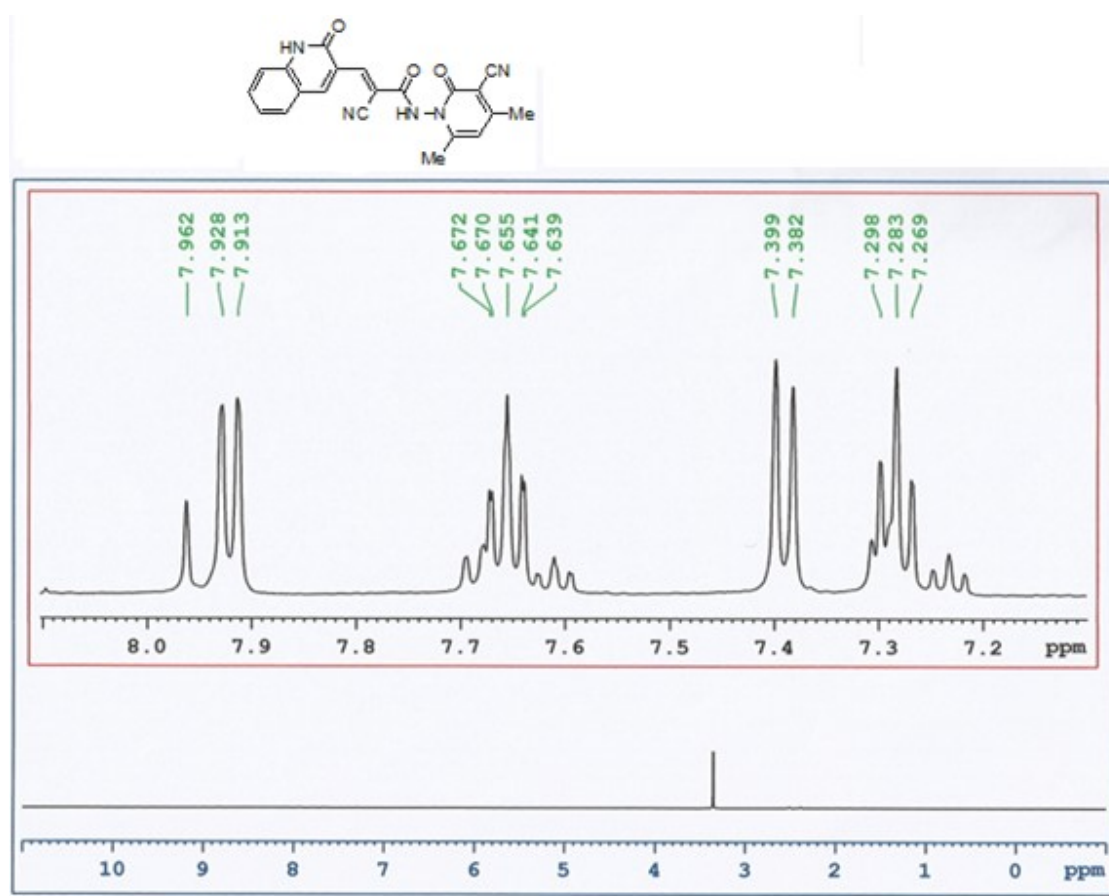


IR spectrum of compound 5c

<sup>1</sup>H NMR spectrum of compound 5c

<sup>1</sup>H NMR spectrum of compound **5c**<sup>13</sup>C NMR spectrum of compound **5c**

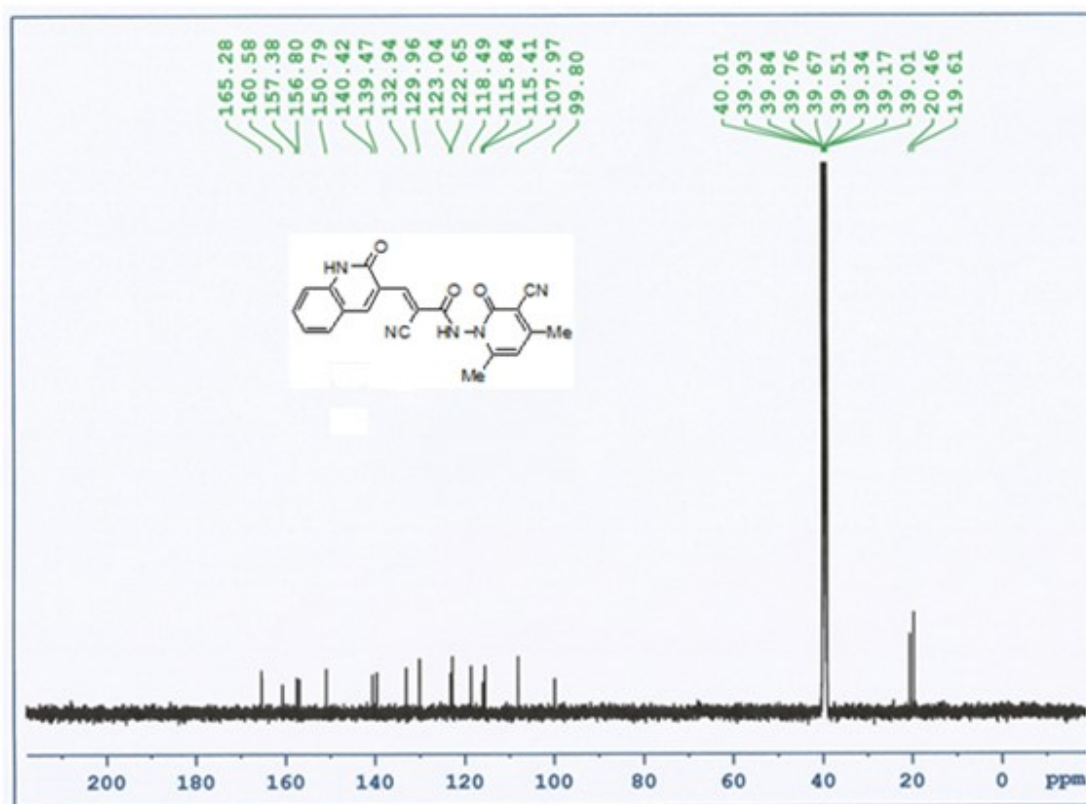
IR Spectrum of compound **5e**<sup>1</sup>H NMR spectrum of compound **5e**

IR spectrum of compound **5f**<sup>1</sup>H NMR spectrum of compound **5f**

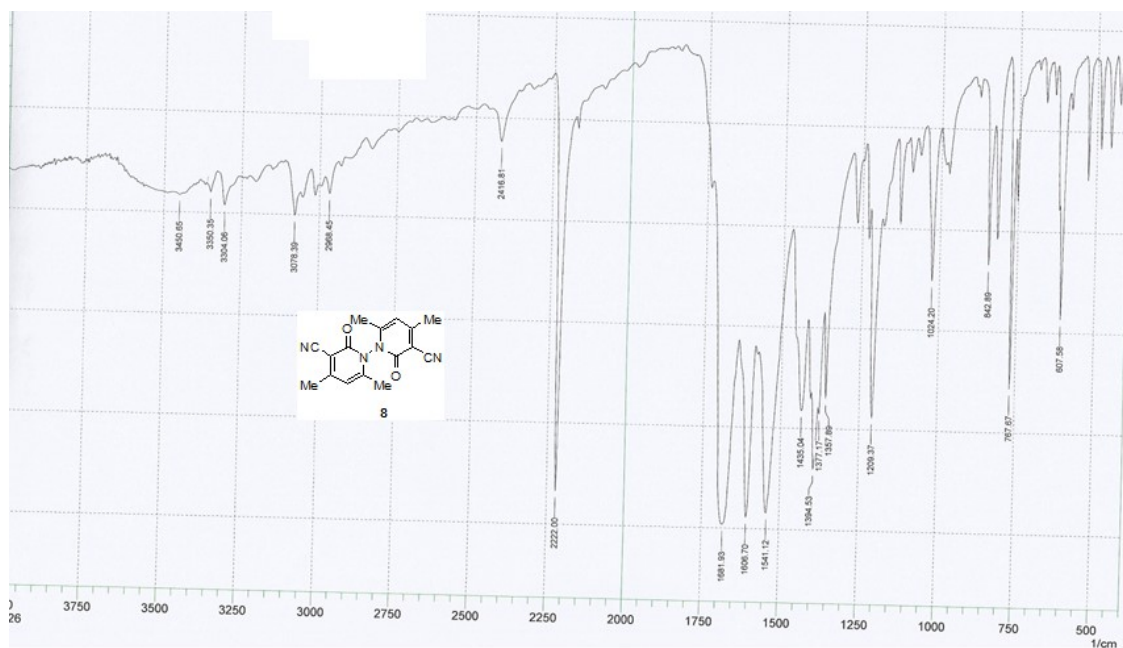




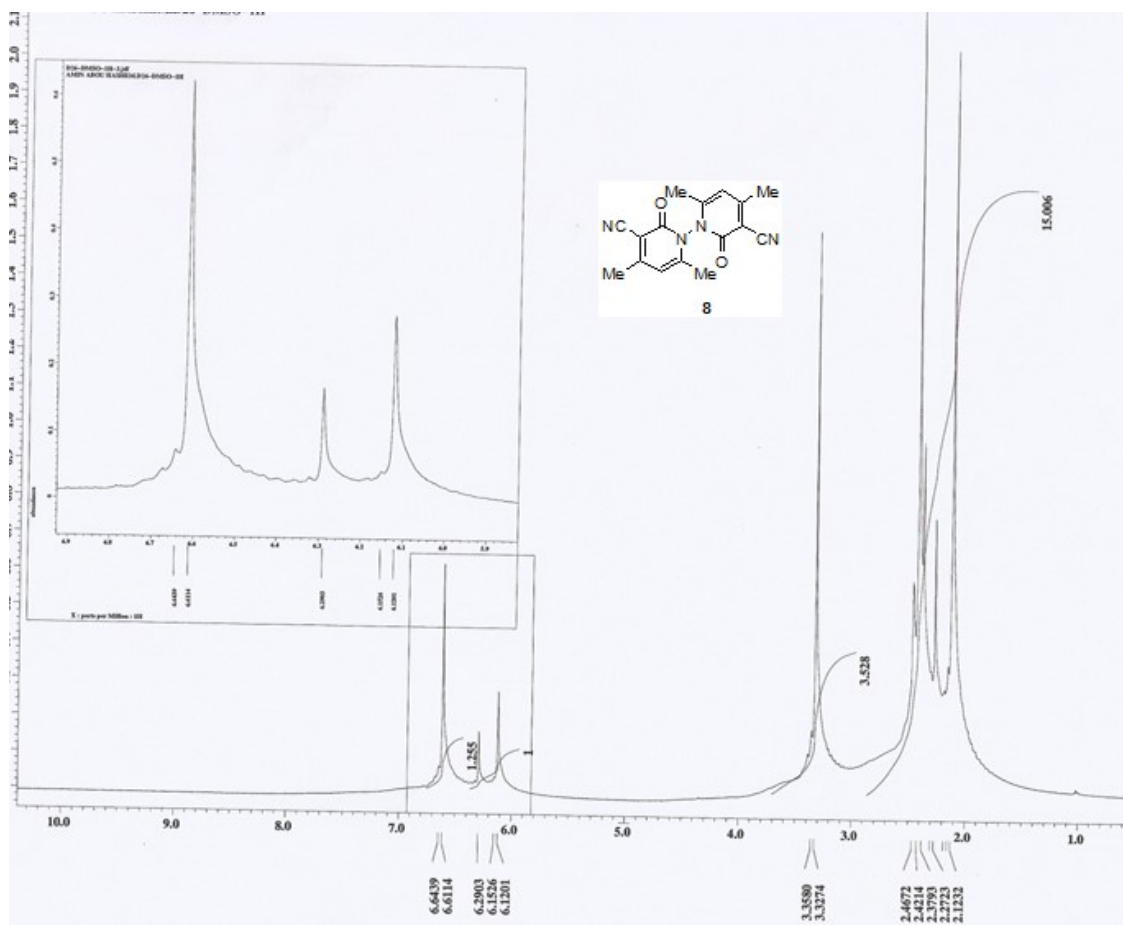
<sup>1</sup>H NMR spectrum of compound **5f**

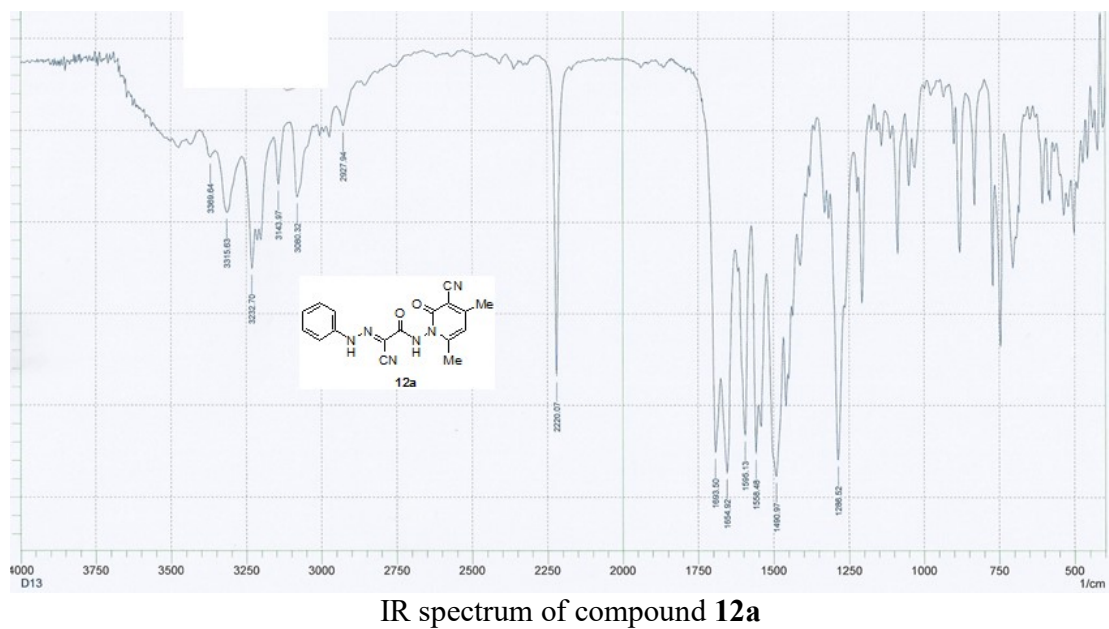
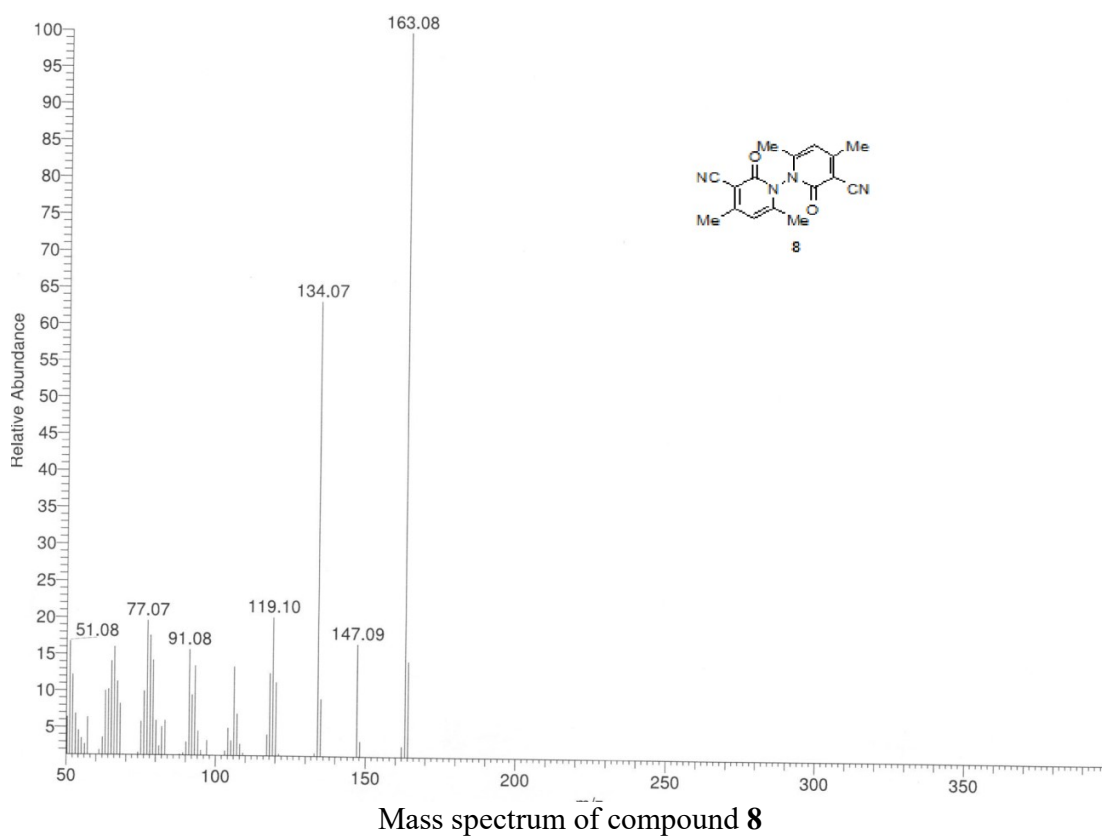


<sup>13</sup>C NMR spectrum of compound **5f**



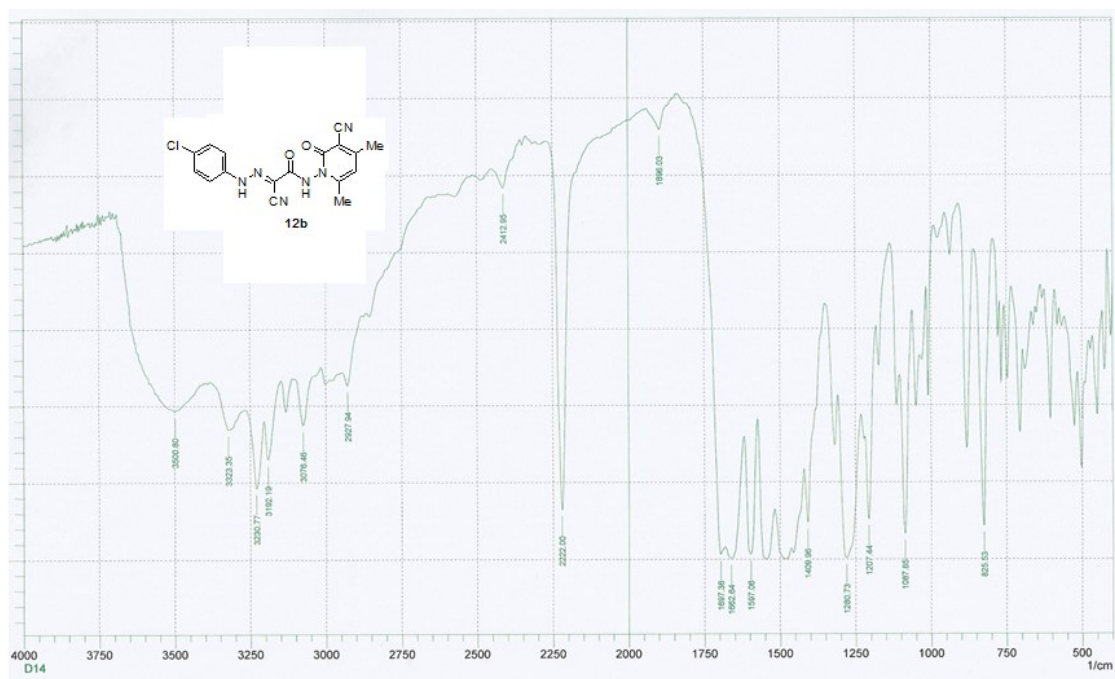
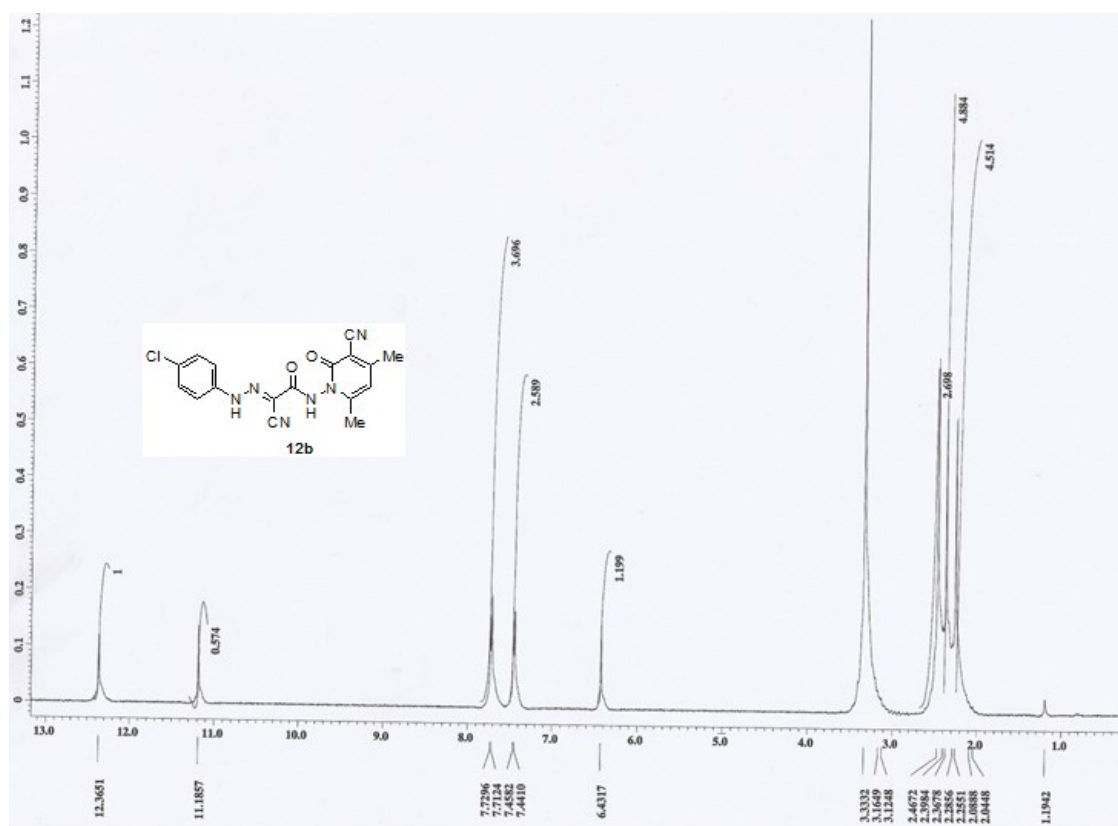
IR spectrum of compound 8

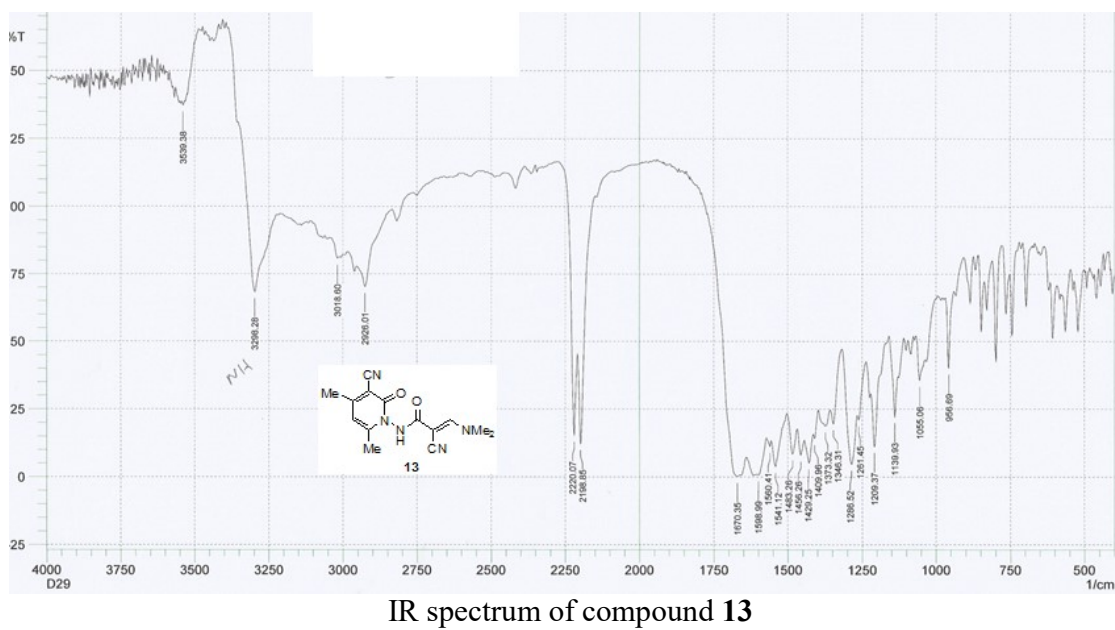
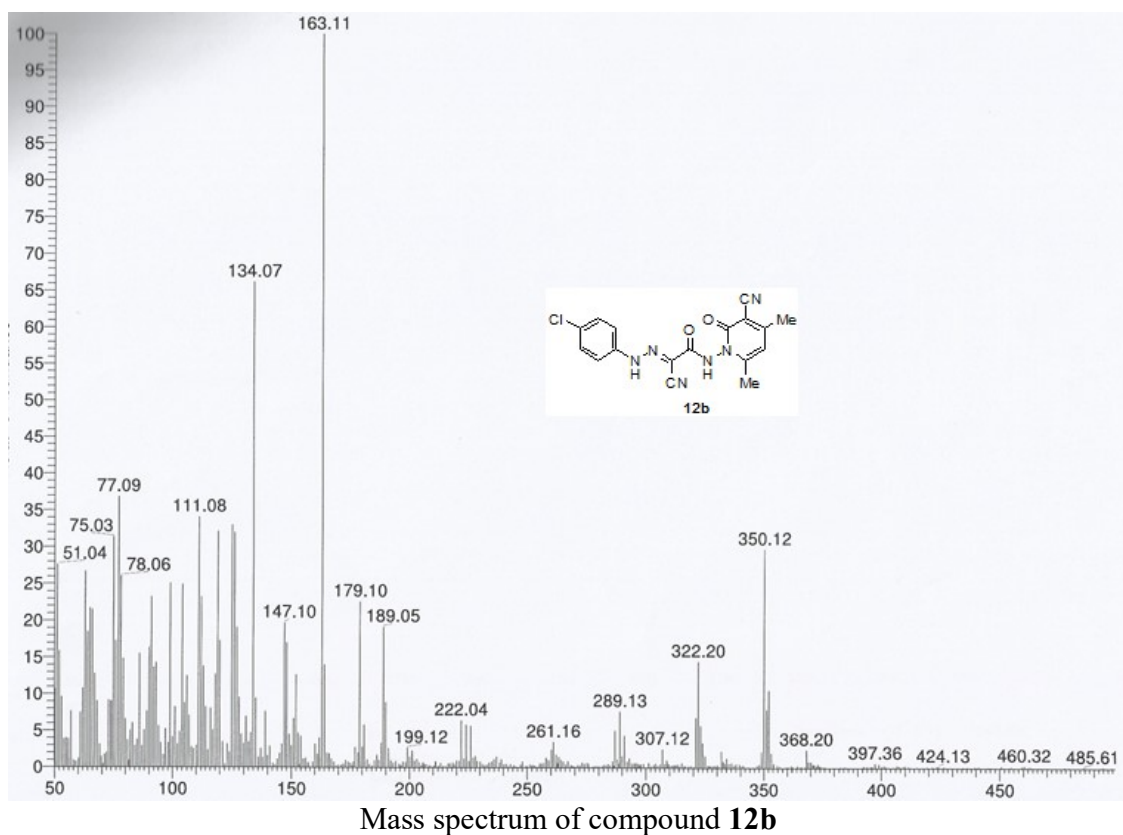
<sup>1</sup>H NMR spectrum of compound 8

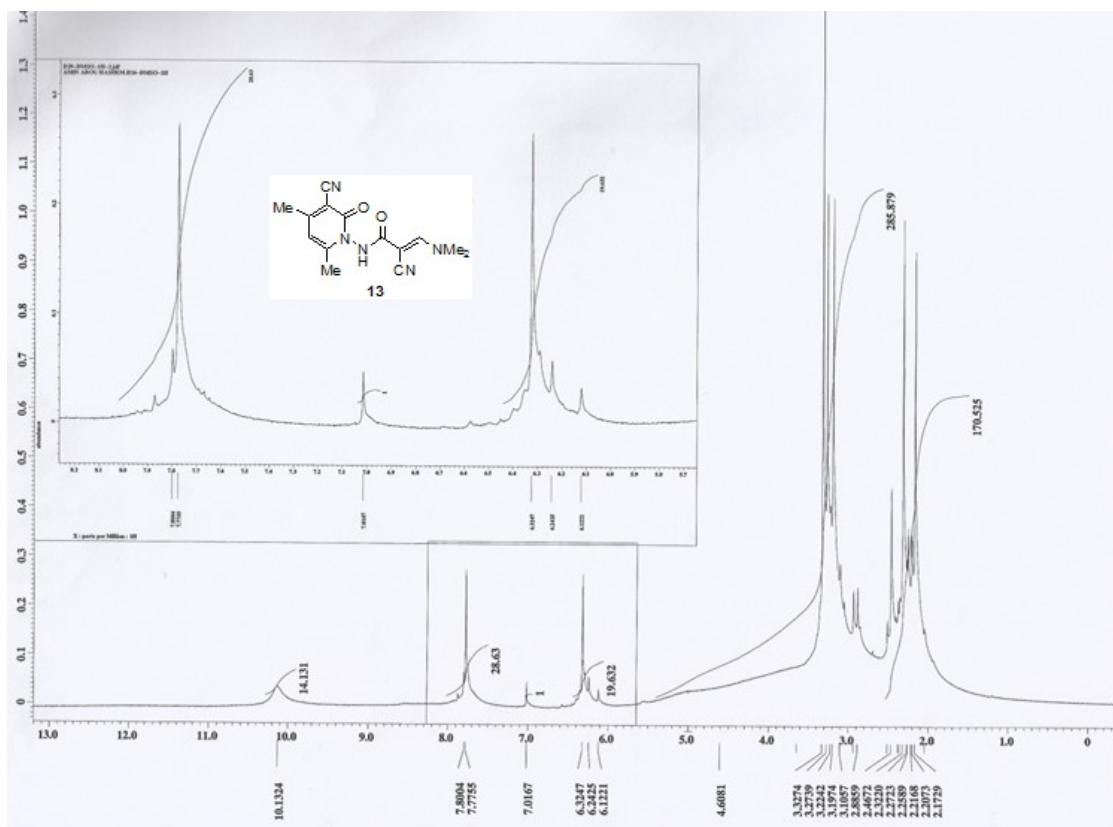




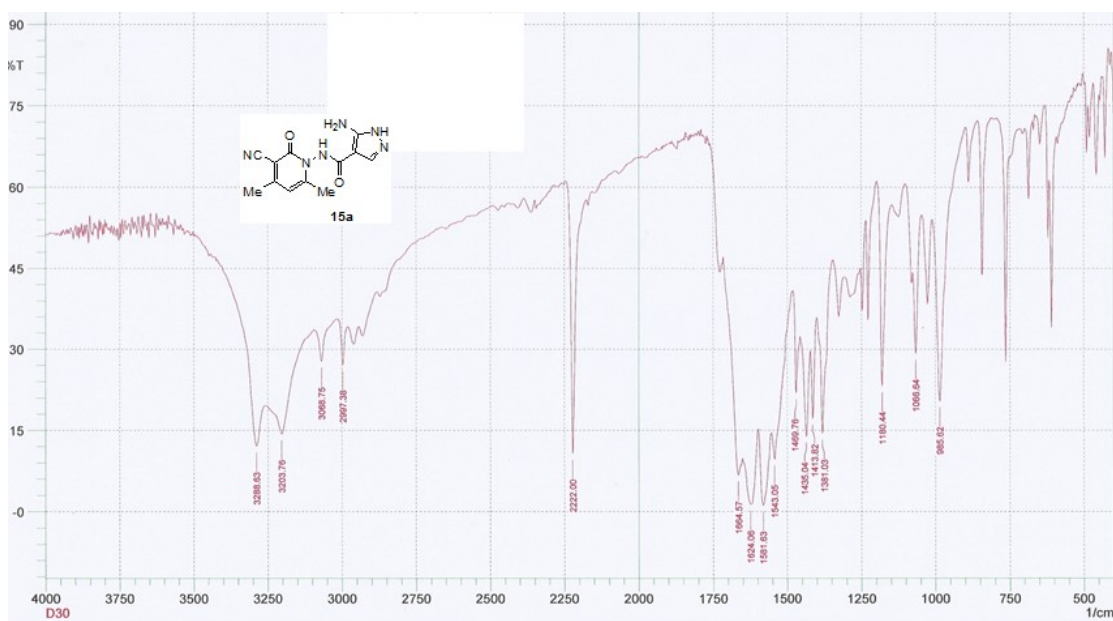
<sup>1</sup>H NMR spectrum of compound **12a**

IR spectrum of compound **12b**<sup>1</sup>H NMR spectrum of compound **12b**

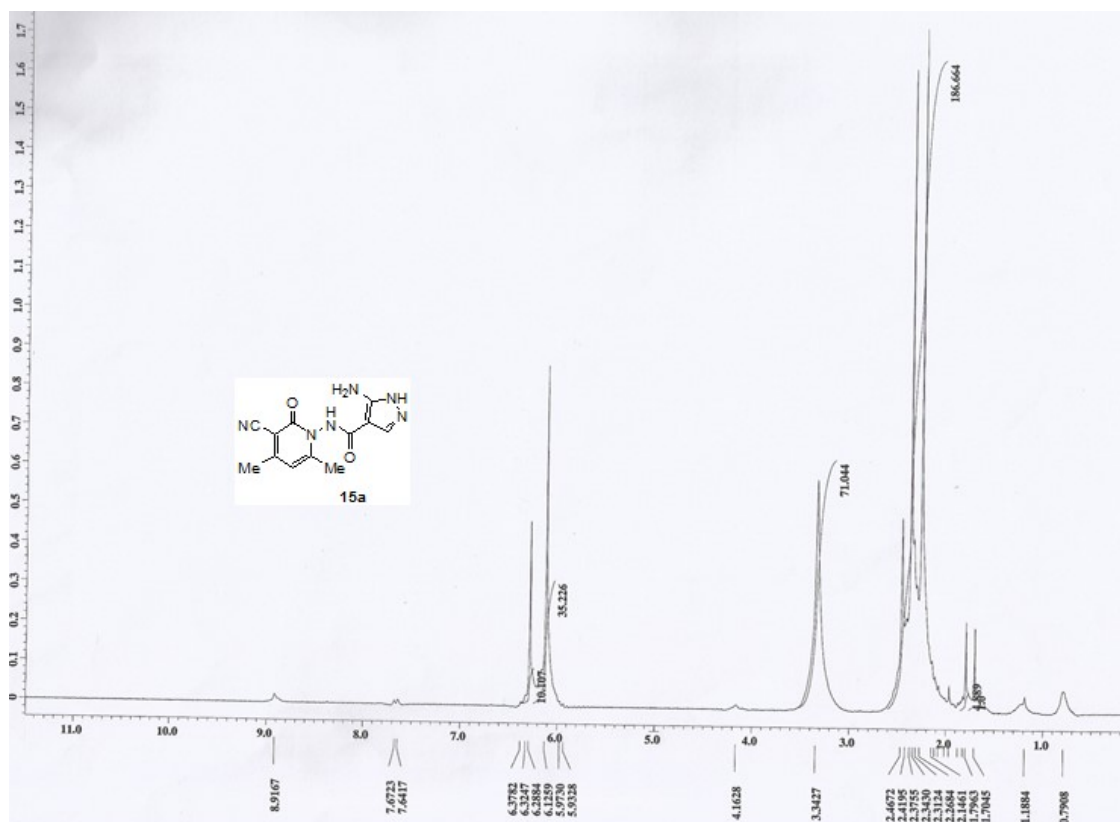




<sup>1</sup>H NMR spectrum of compound 13



IR spectrum of compound 15a



$^1\text{H NMR}$  spectrum of compound **15a**