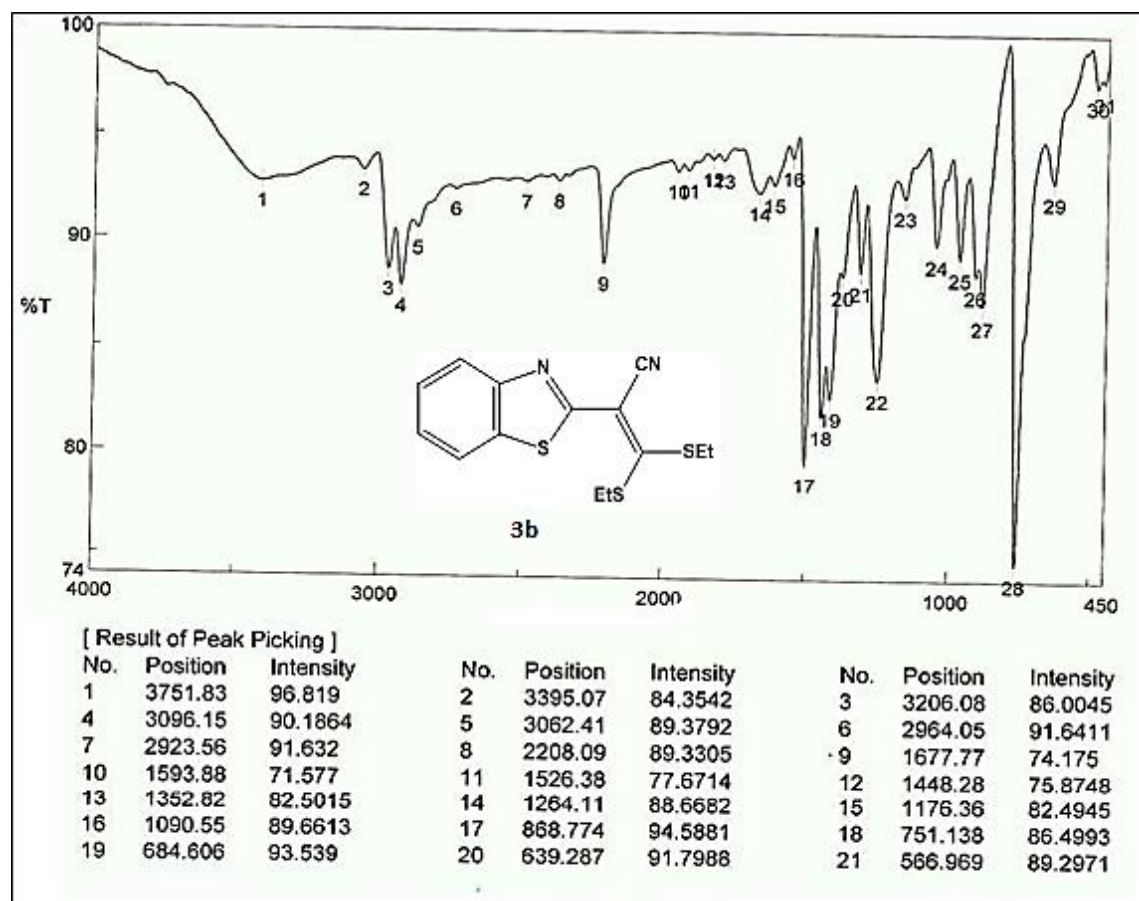


## **Supporting Information**

### **Design and Synthesis of a New Class of Pyridine-Based *N*-Sulfonamides Exhibiting Antiviral, Antimicrobial and Enzyme Inhibition Characteristics**

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**Figure S1** IR Spectrum of compound **3b**

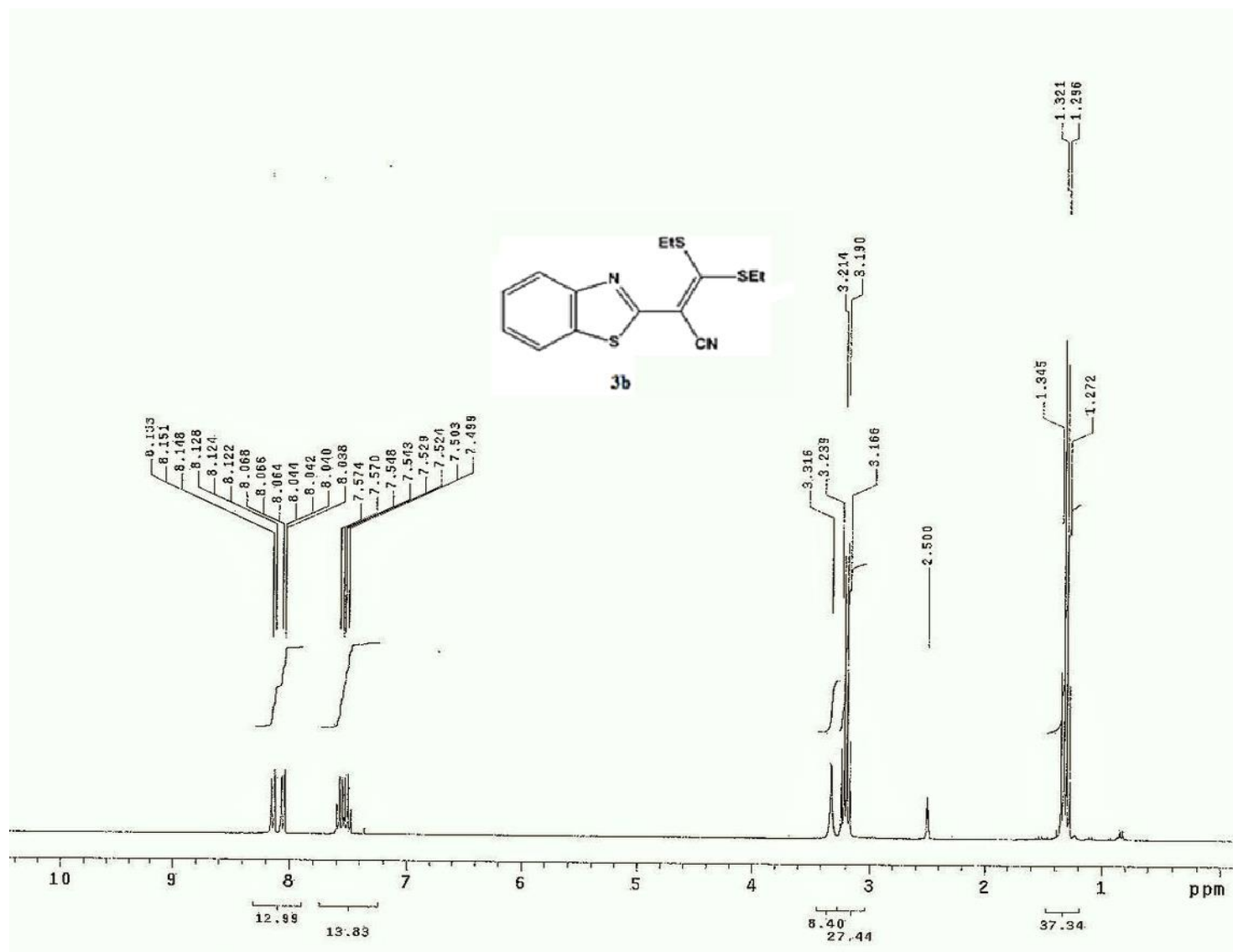


Figure S2 <sup>1</sup>H NMR Spectrum of compound **3b**

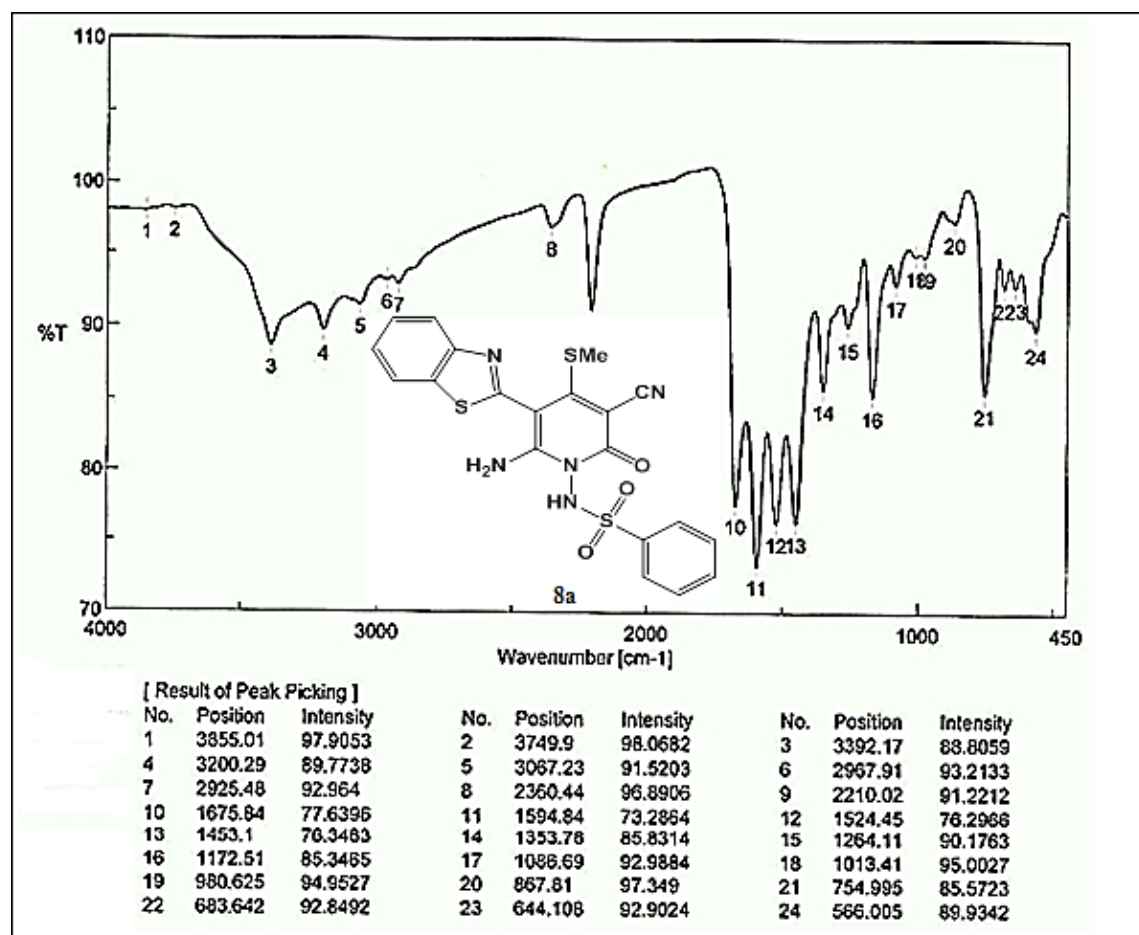


Figure S3 IR Spectrum of compound 8a

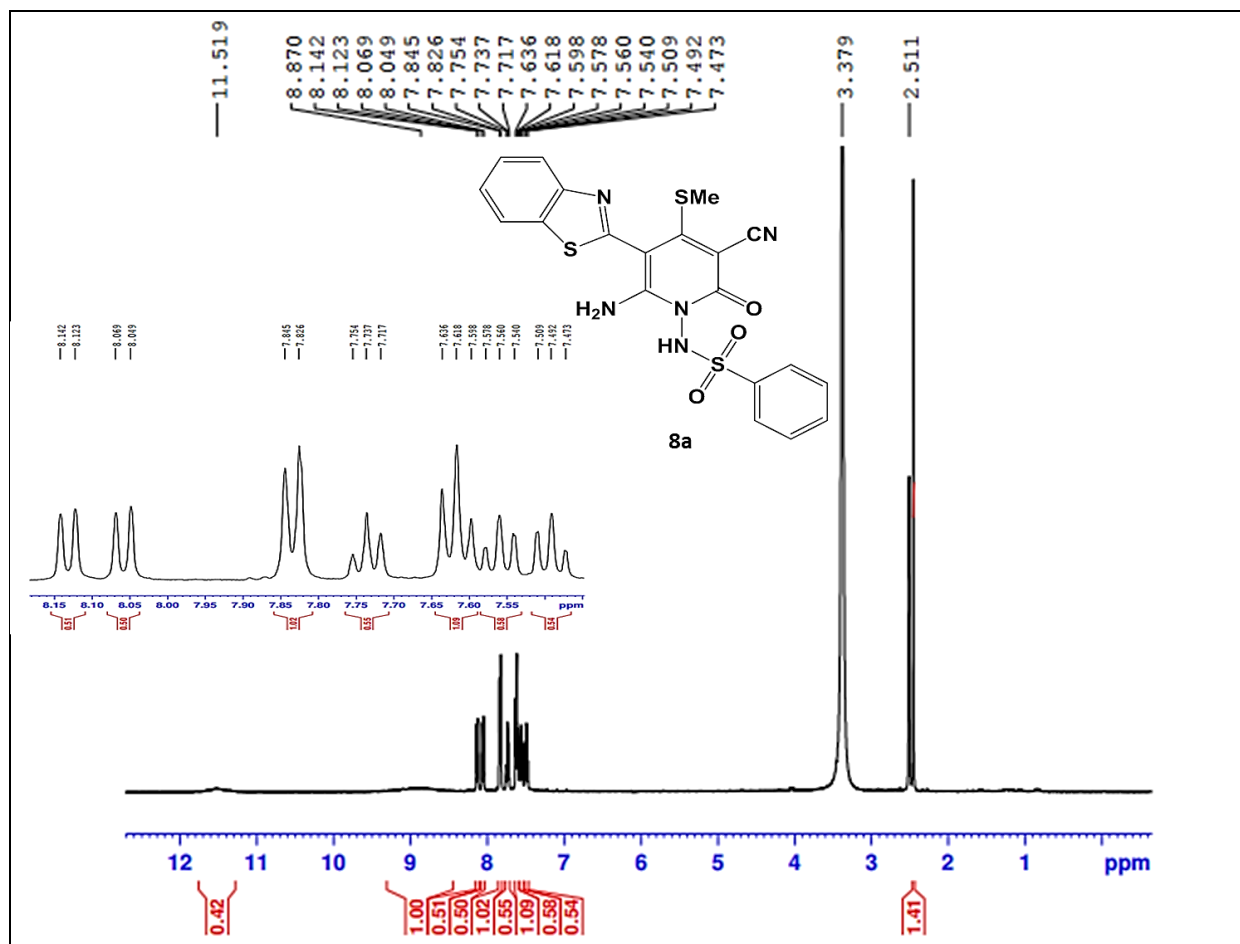


Figure S4 <sup>1</sup>H NMR Spectrum of compound **8a**

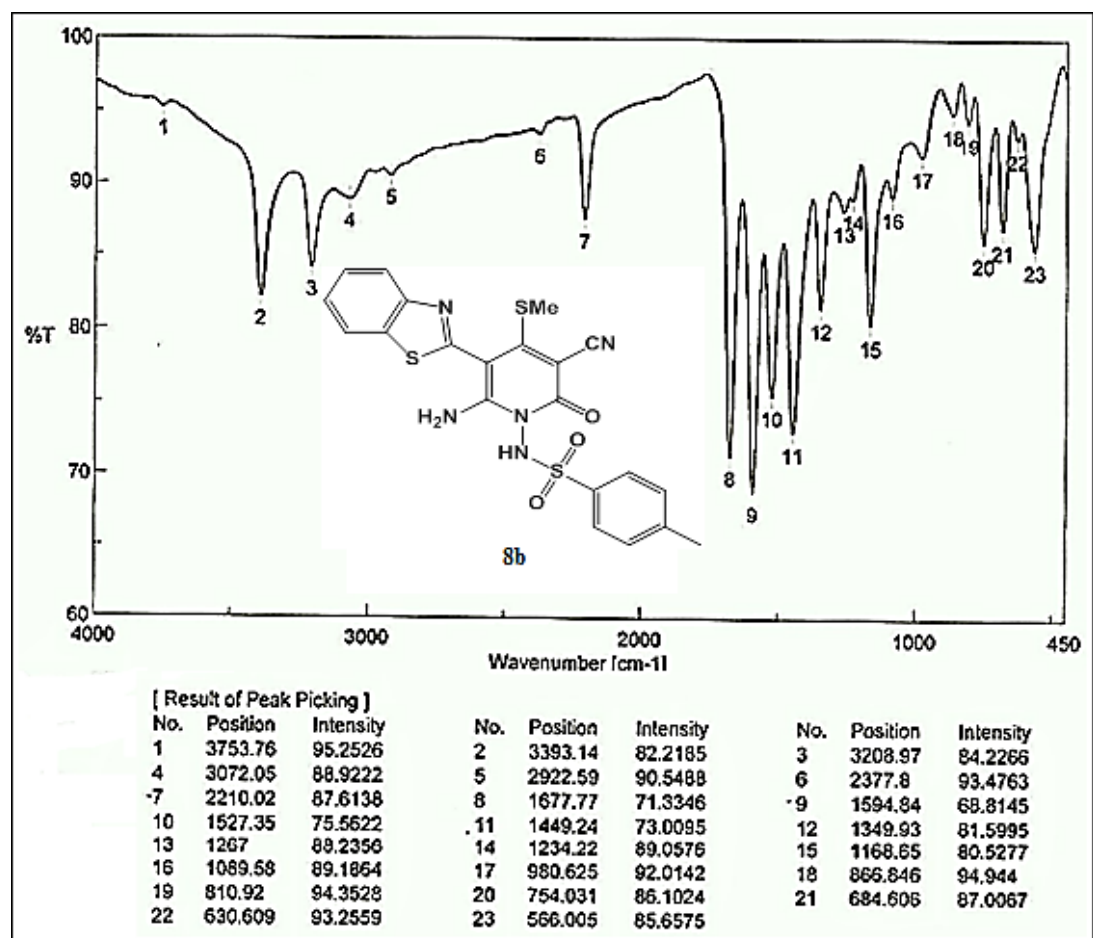
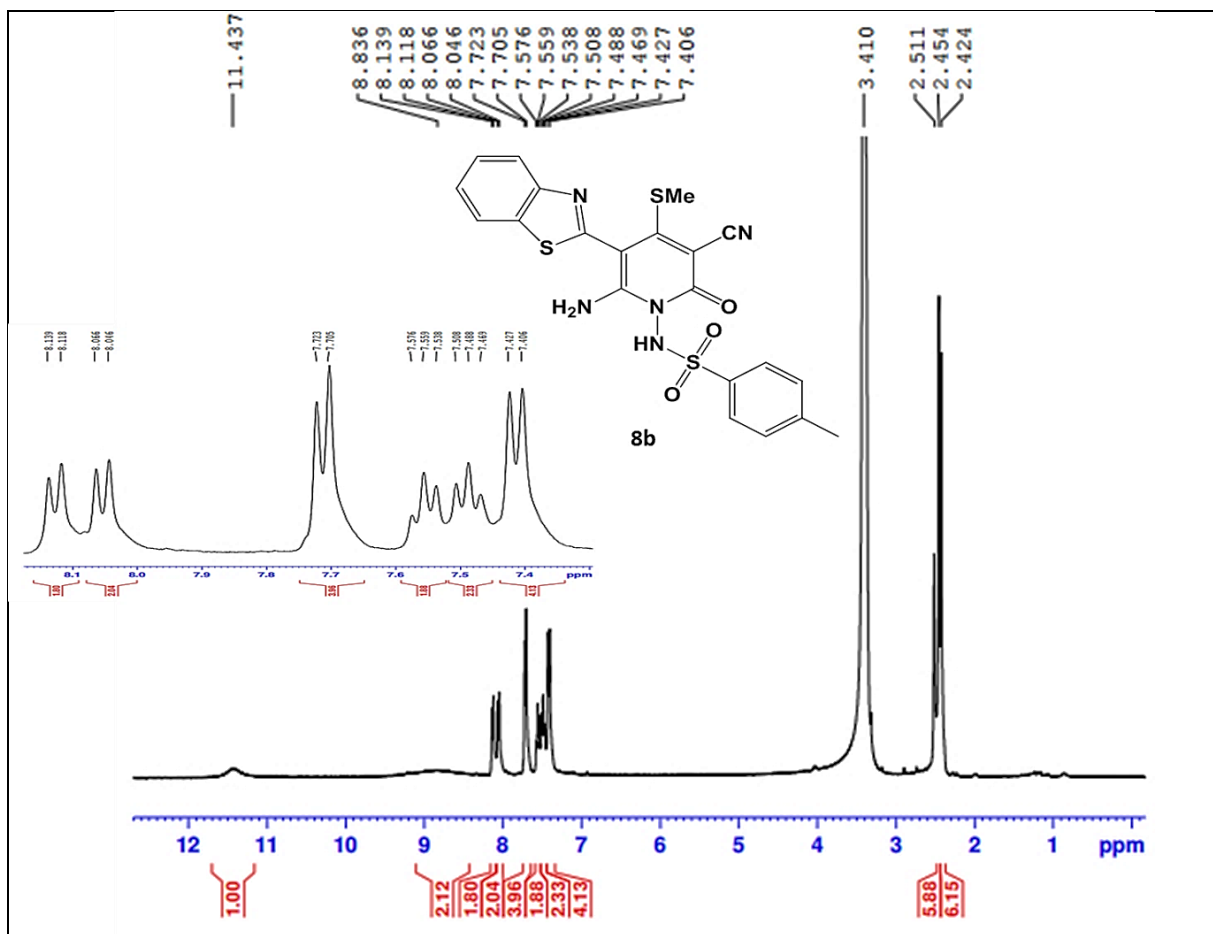


Figure S5 IR Spectrum of compound 8b



**Figure S6** <sup>1</sup>H NMR Spectrum of compound **8b**

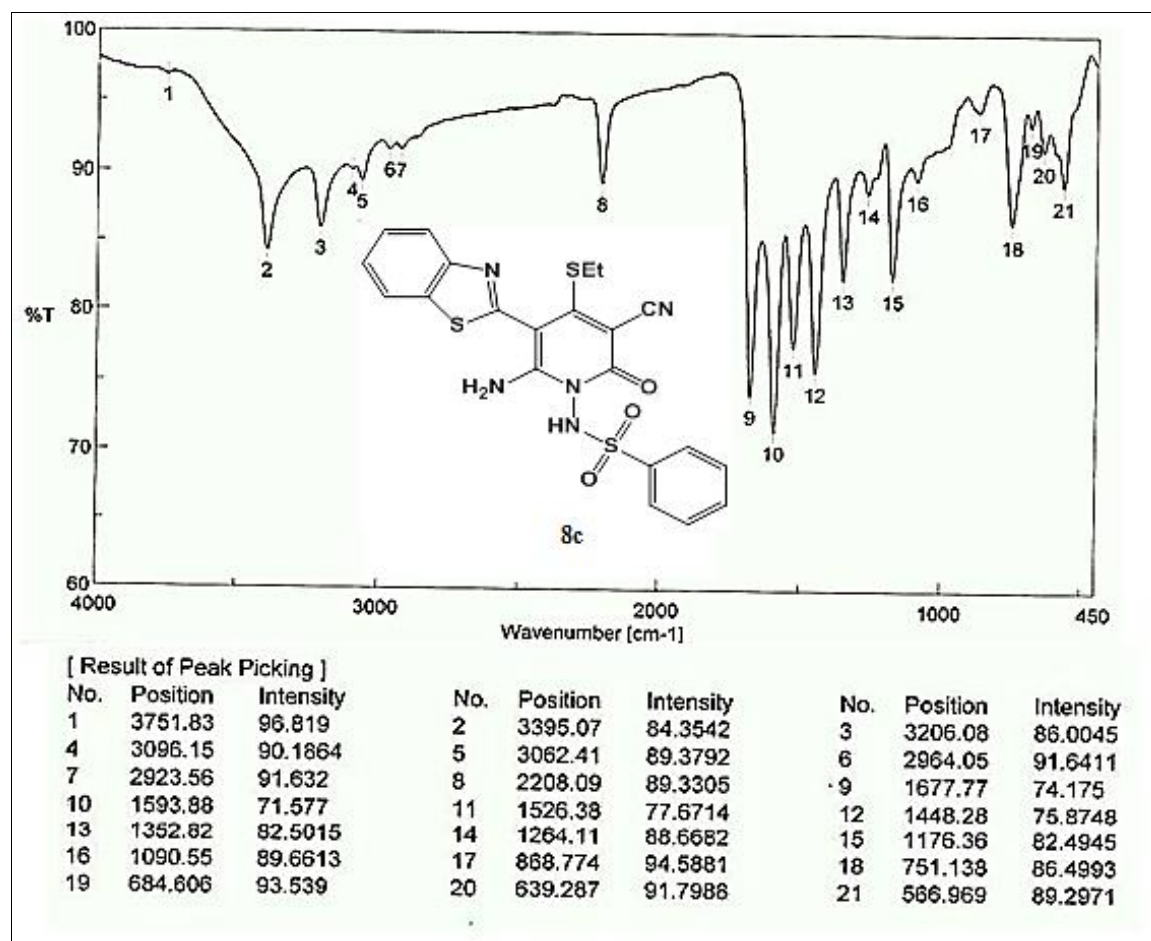


Figure S7 IR Spectrum of compound **8c**



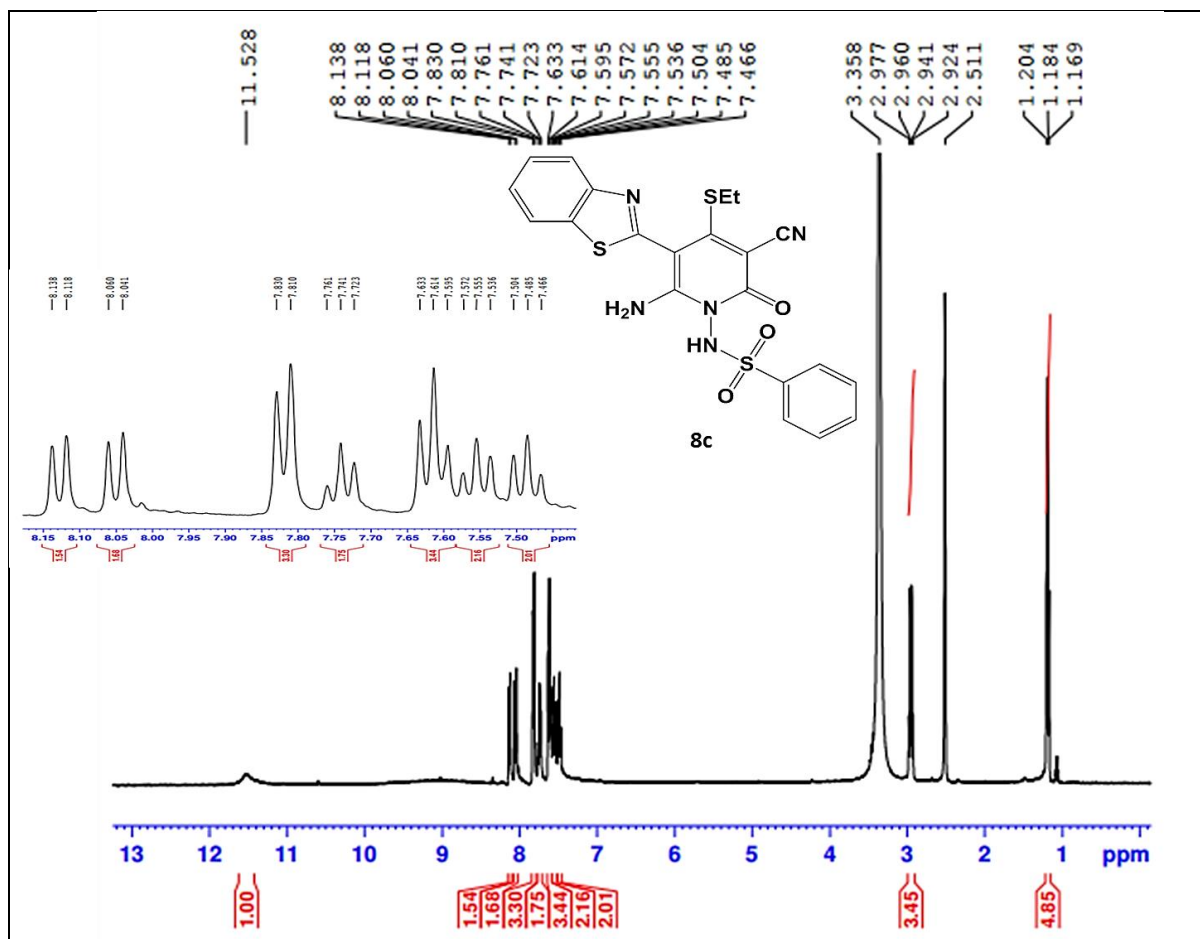


Figure S8  $^1\text{H}$  NMR Spectrum of compound **8c**

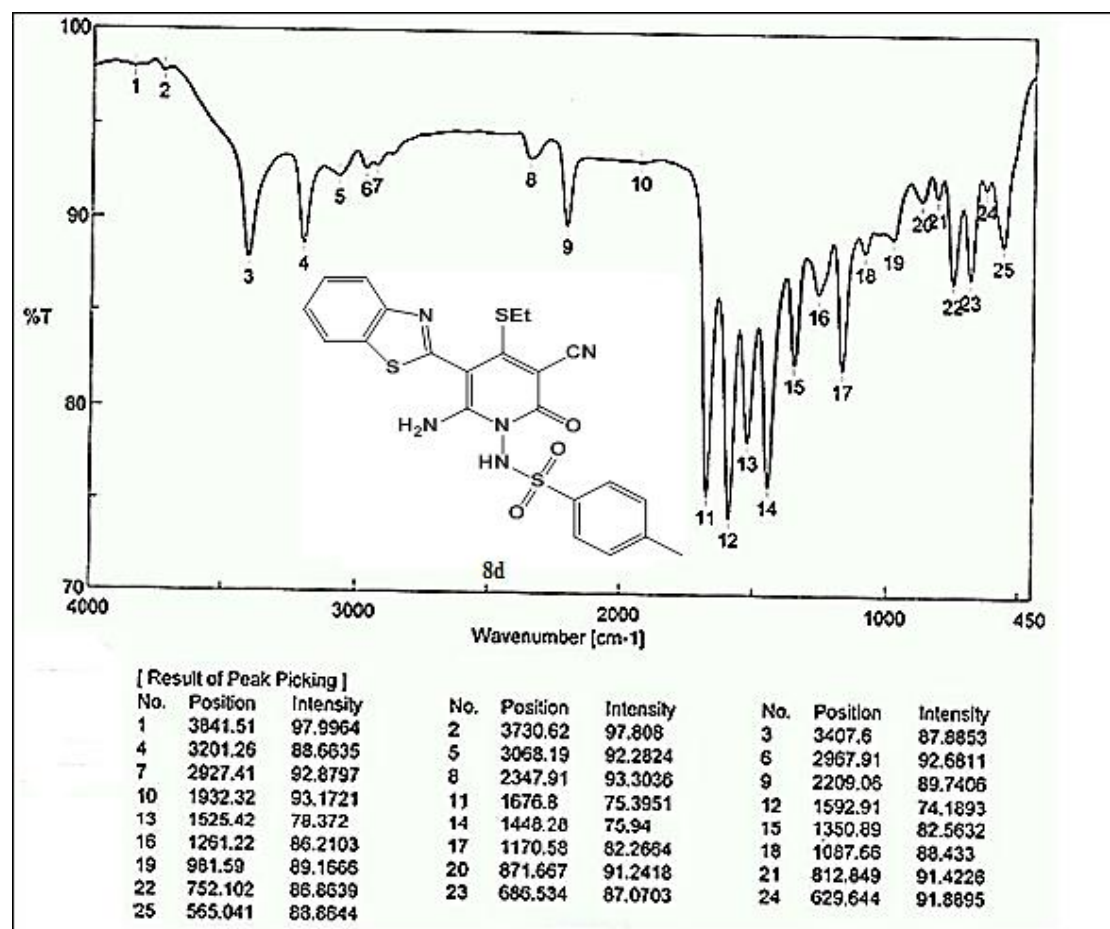


Figure S9 IR Spectrum of compound 3d

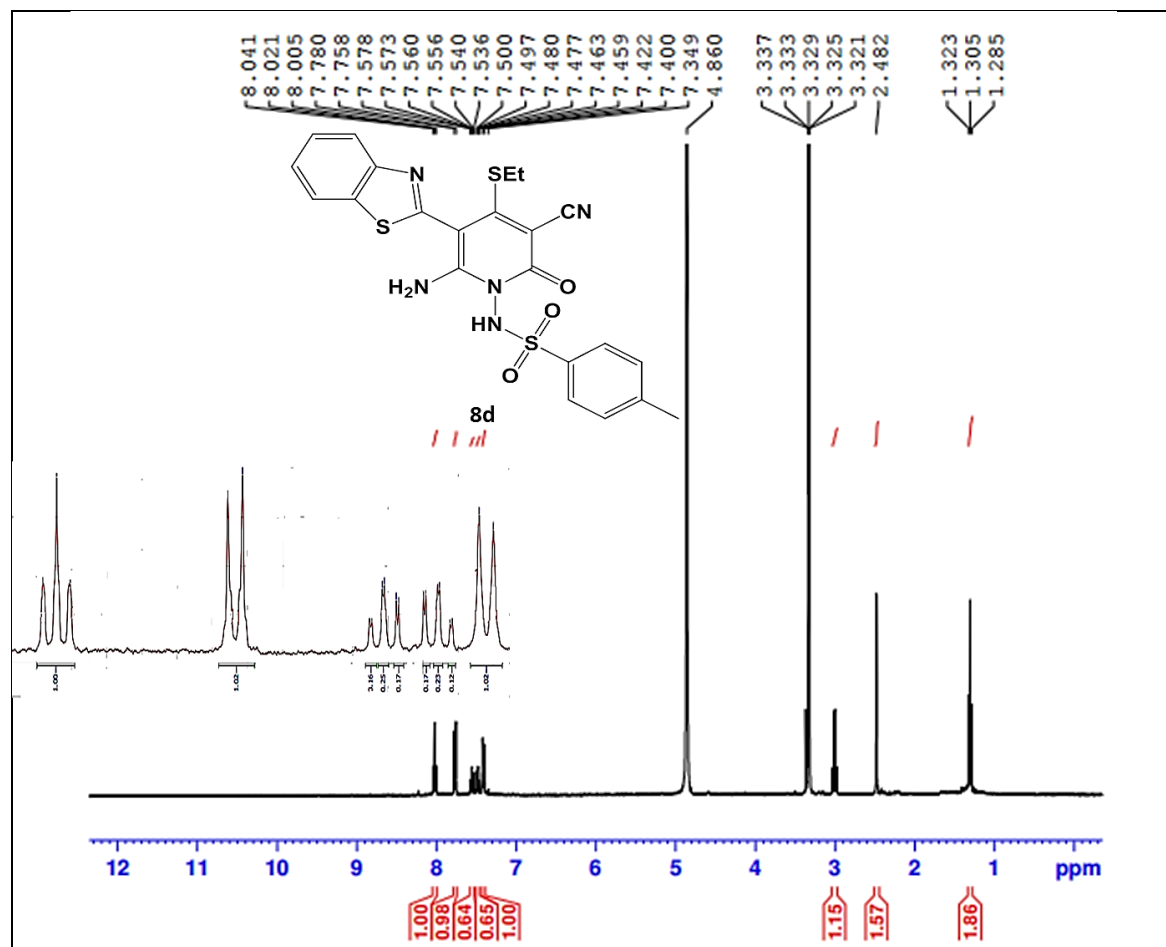


Figure S10 <sup>1</sup>H NMR Spectrum of compound **8d**

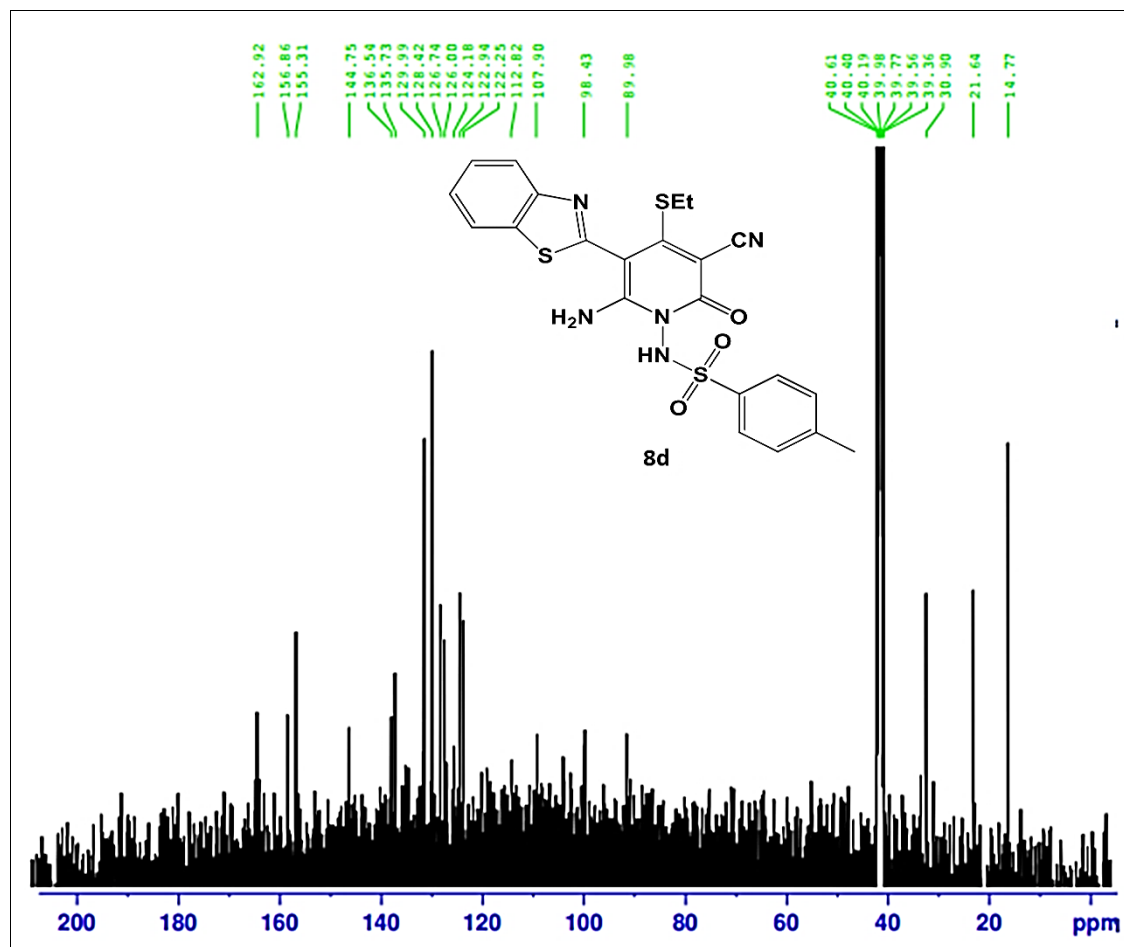


Figure S11 <sup>13</sup>C NMR Spectrum of compound 8d

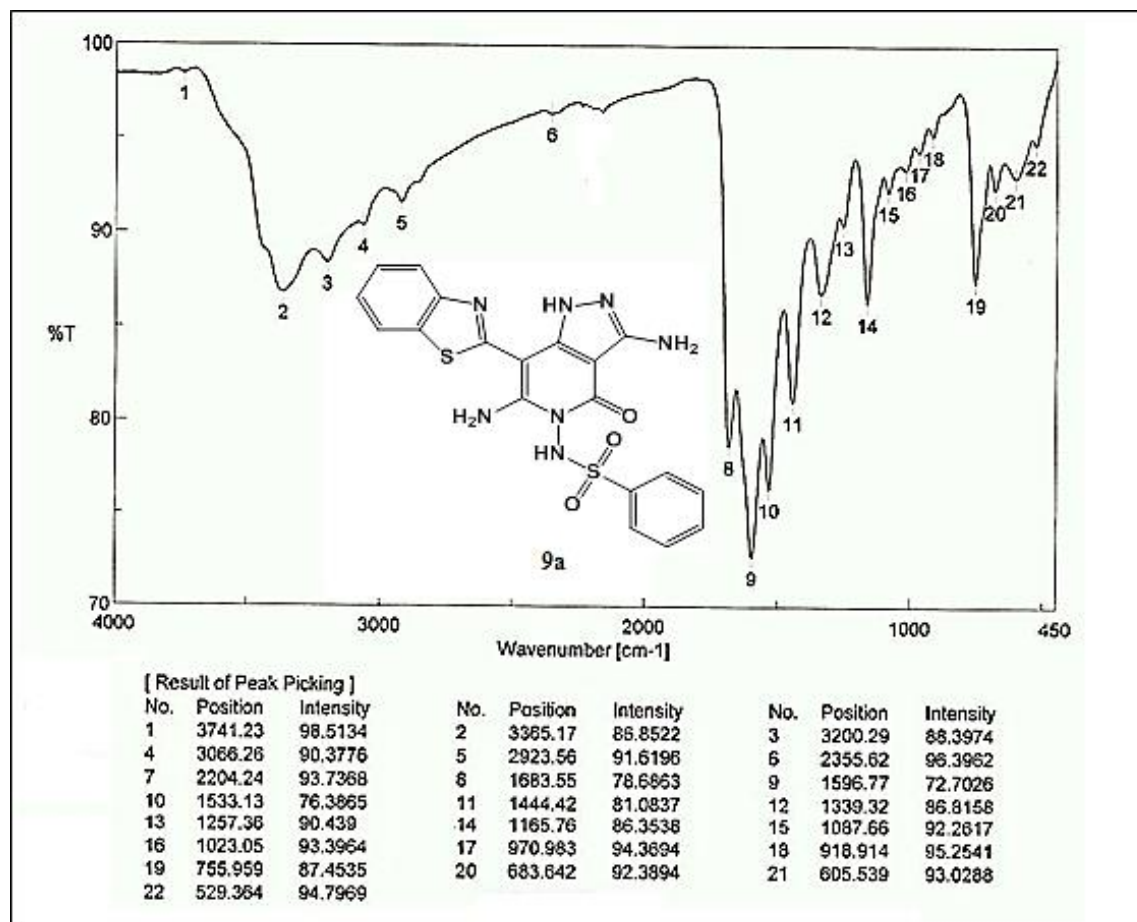


Figure S12 IR Spectrum of compound 9a

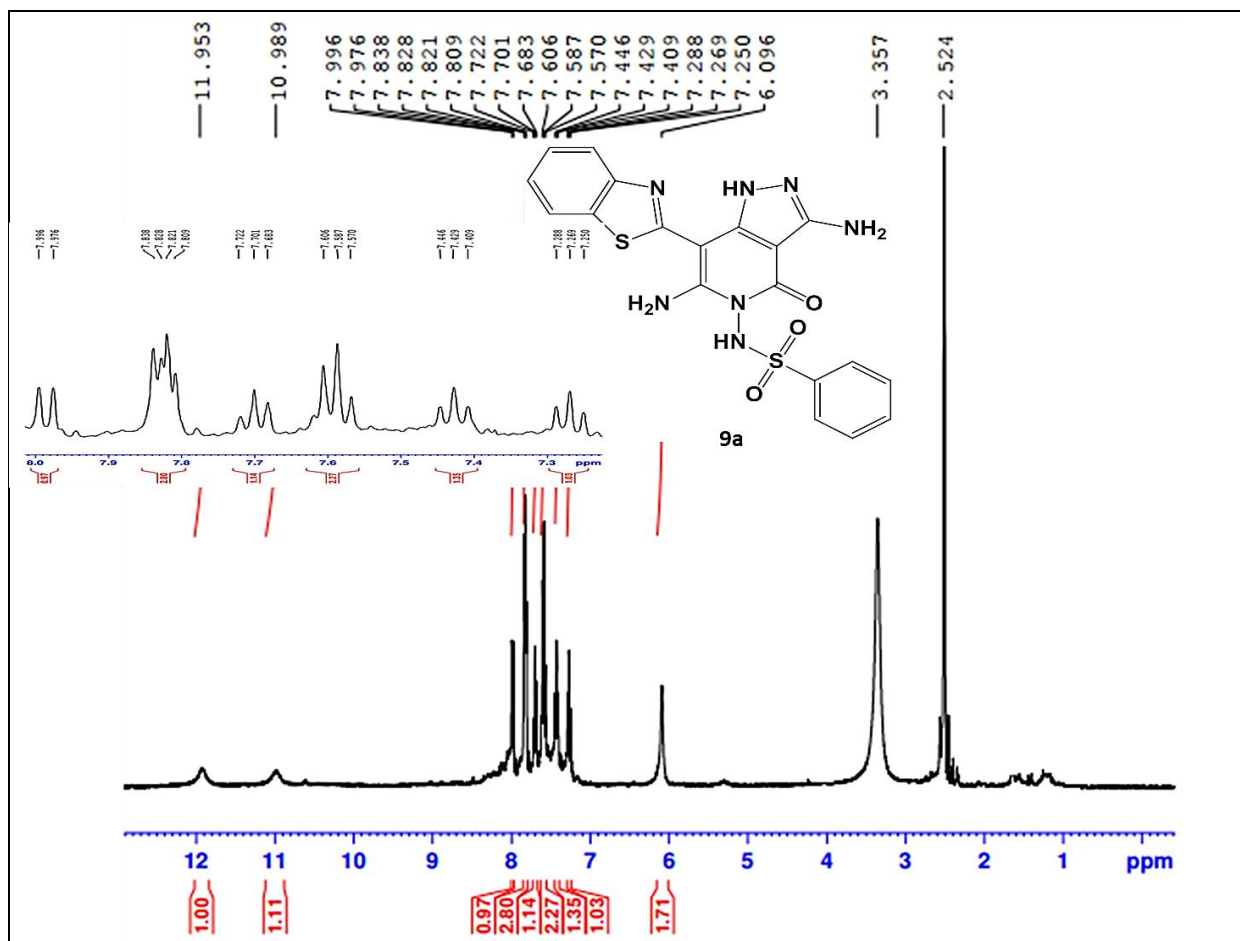


Figure S13  $^1\text{H}$  NMR Spectrum of compound 9a

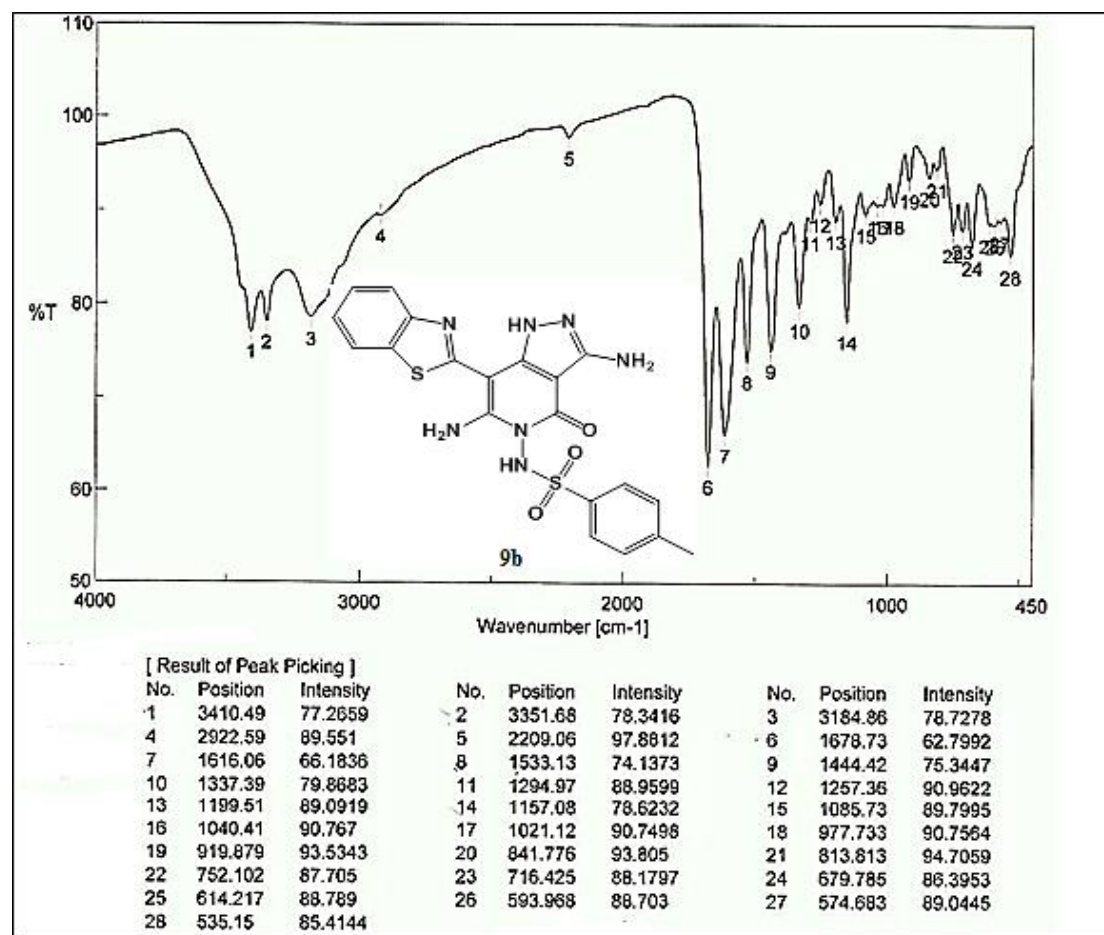


Figure S14 IR Spectrum of compound 9b

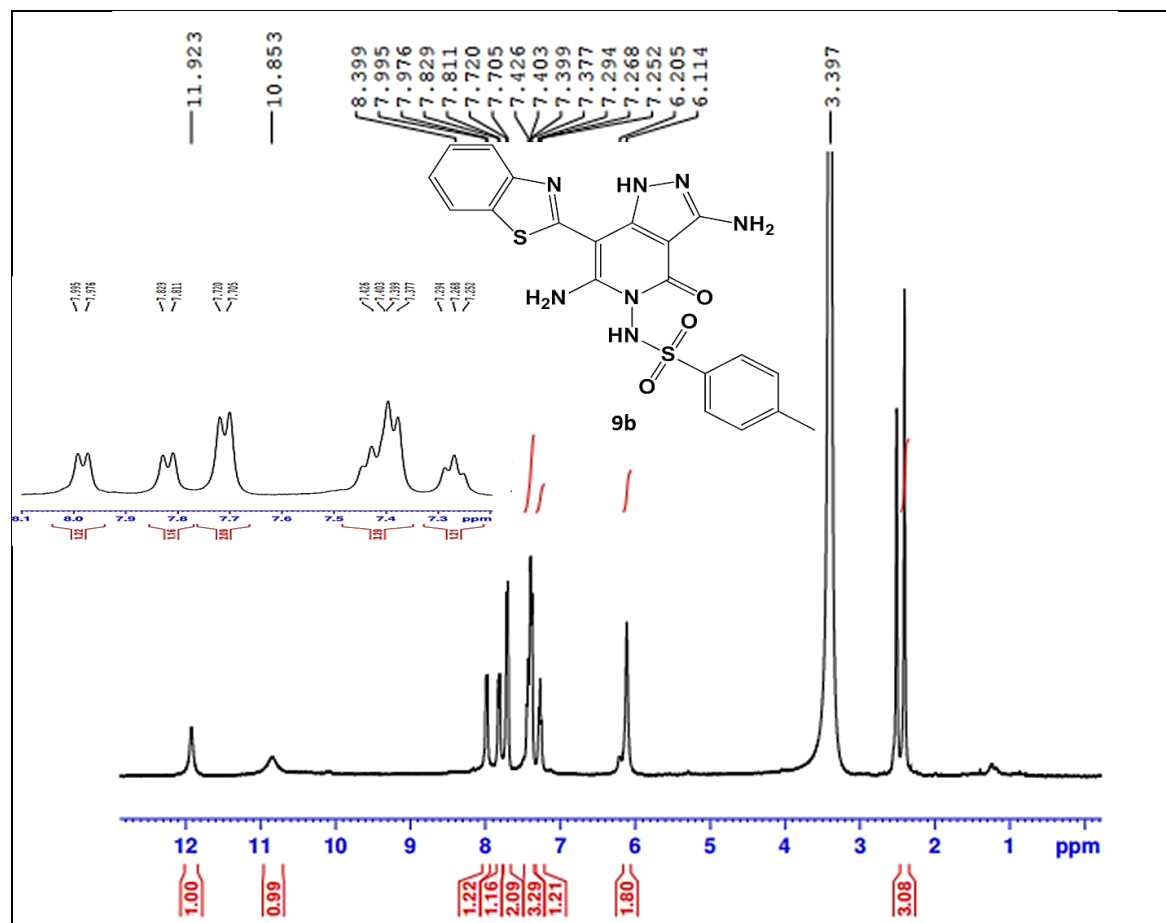
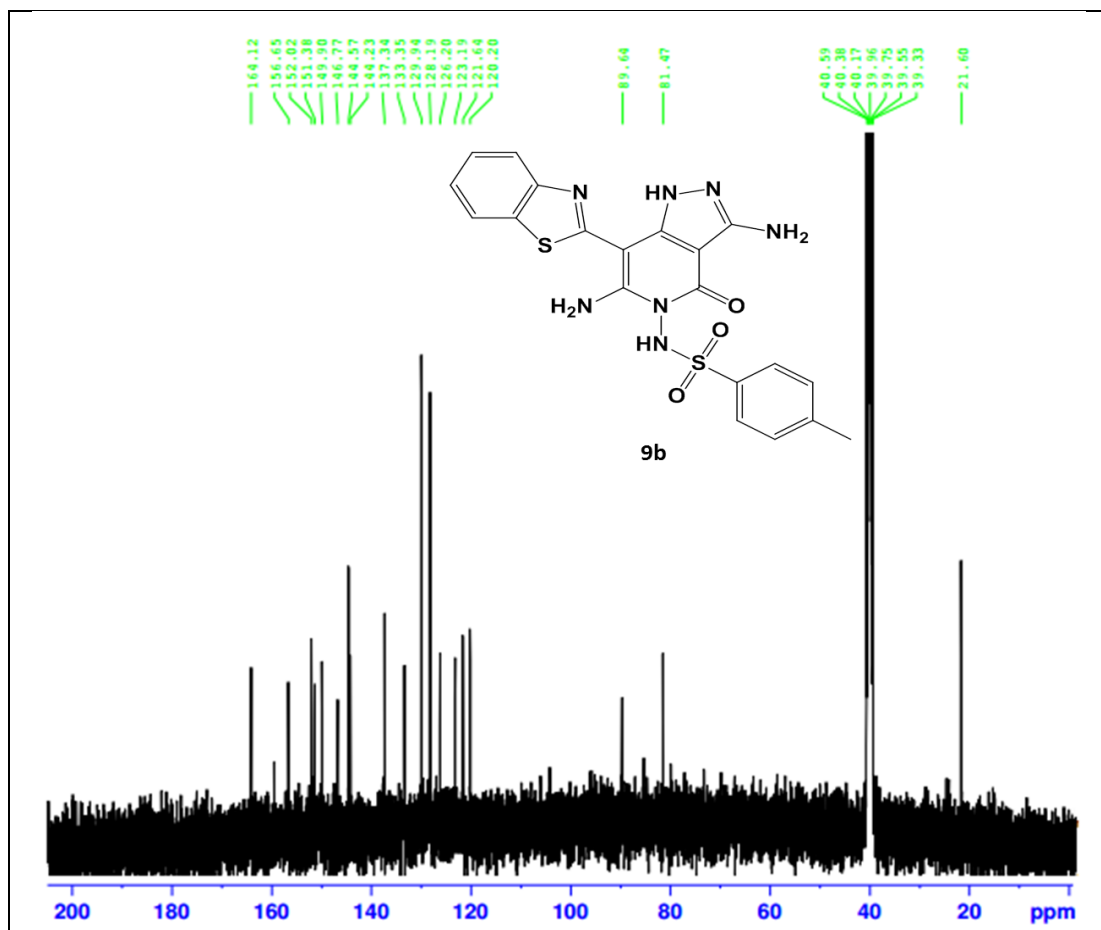


Figure S15 <sup>1</sup>H NMR Spectrum of compound **9b**





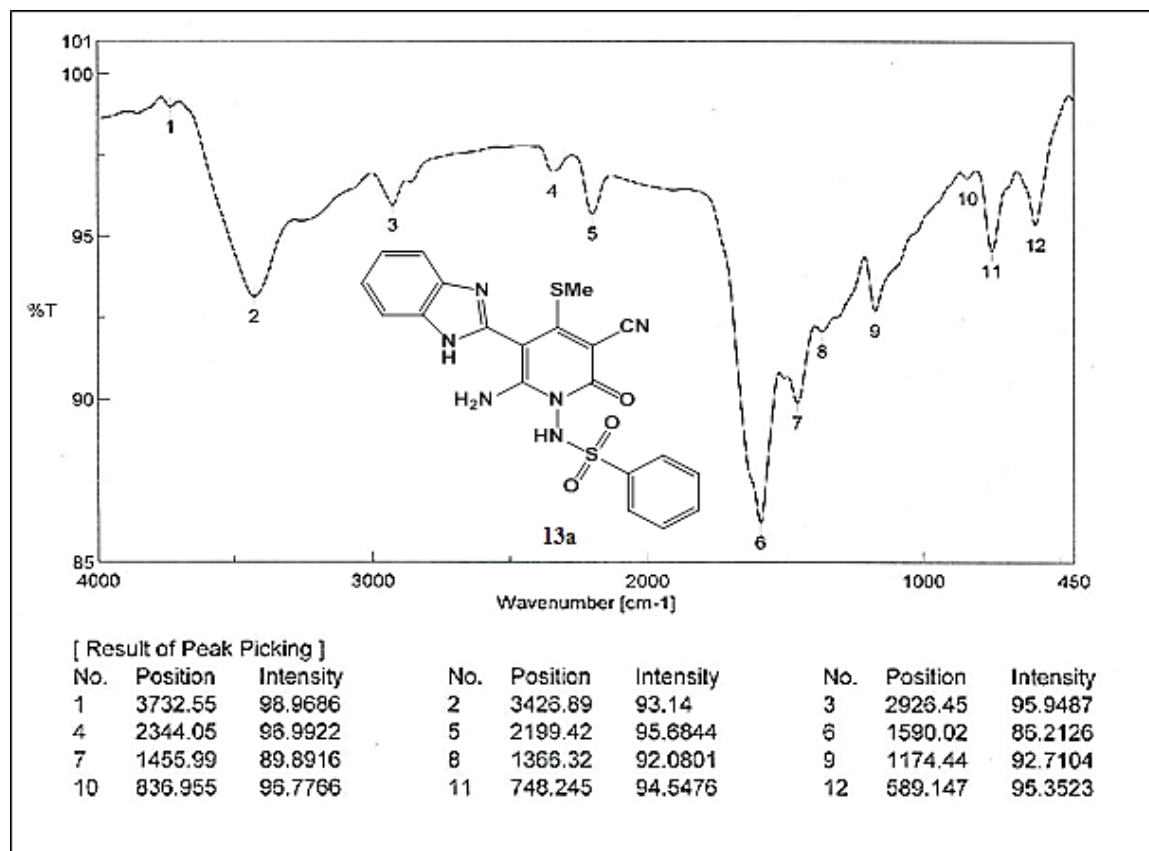


Figure S17 IR Spectrum of compound 13a

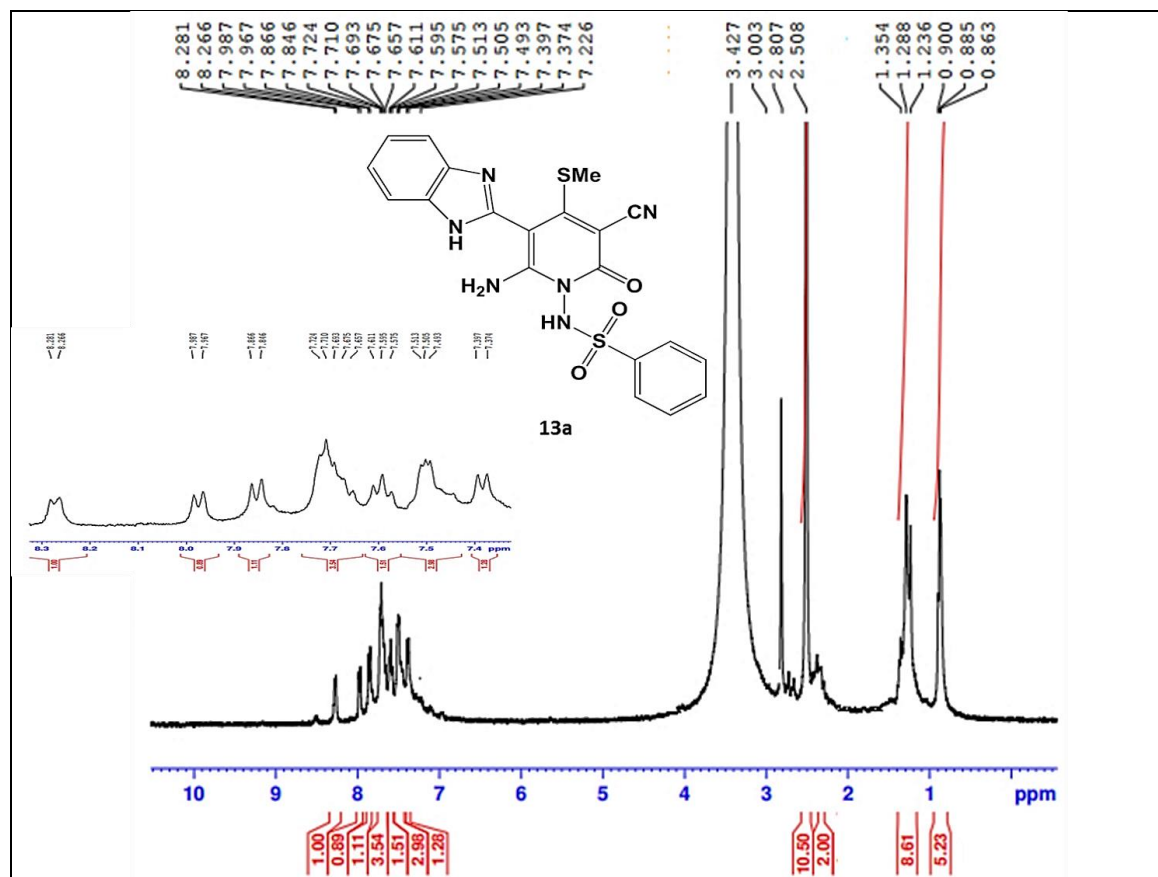


Figure S18 <sup>1</sup>H NMR Spectrum of compound 13b

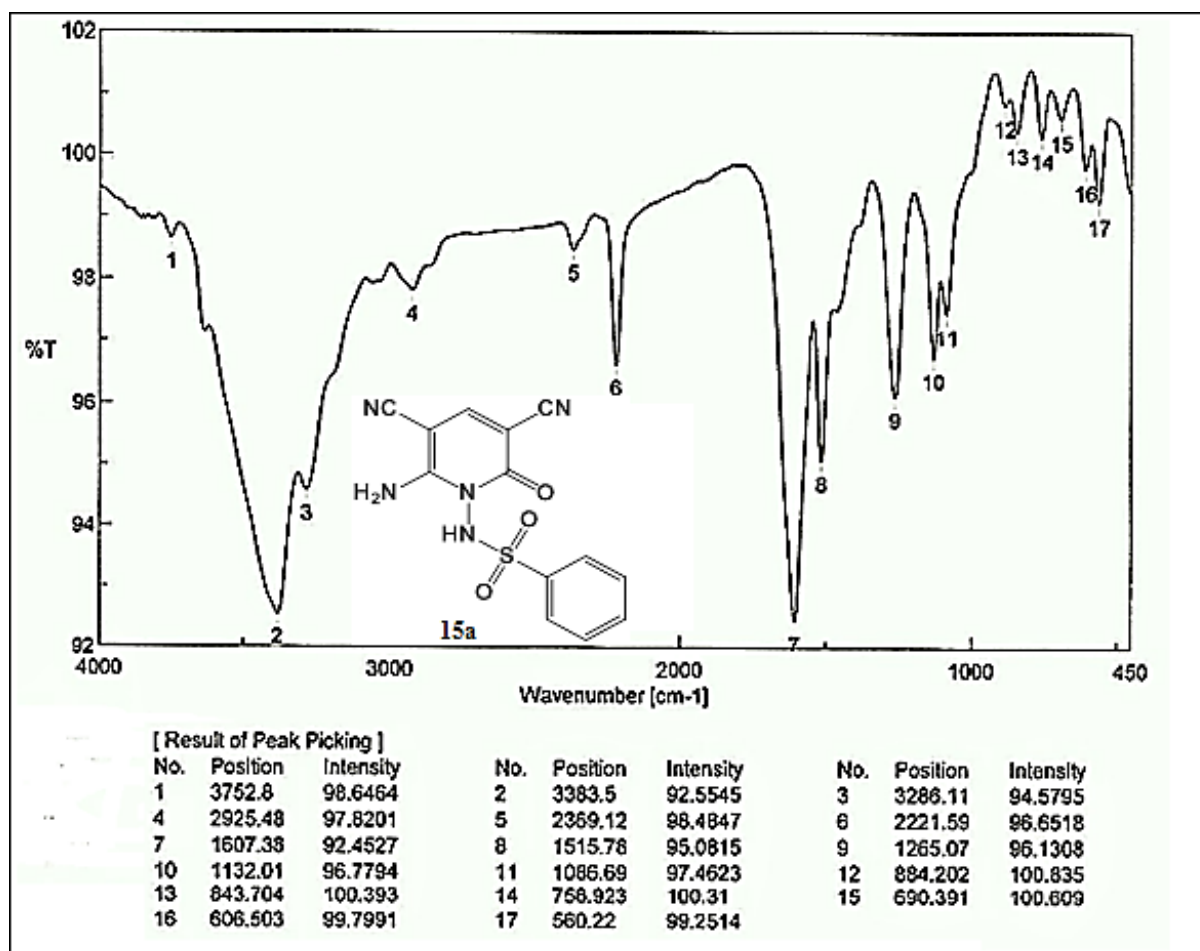


Figure S19 IR Spectrum of compound 15a



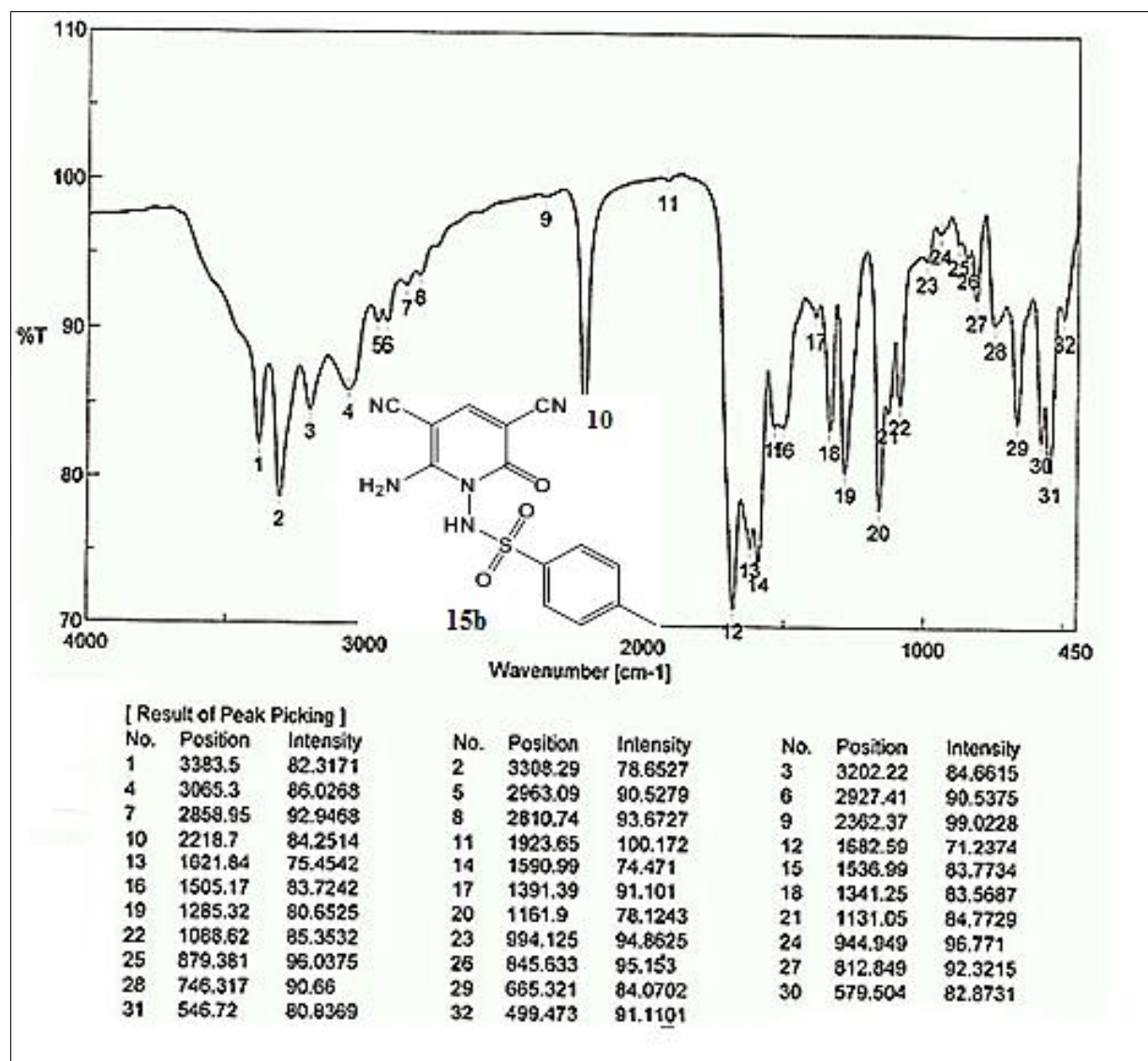


Figure S21 IR Spectrum of compound 15b

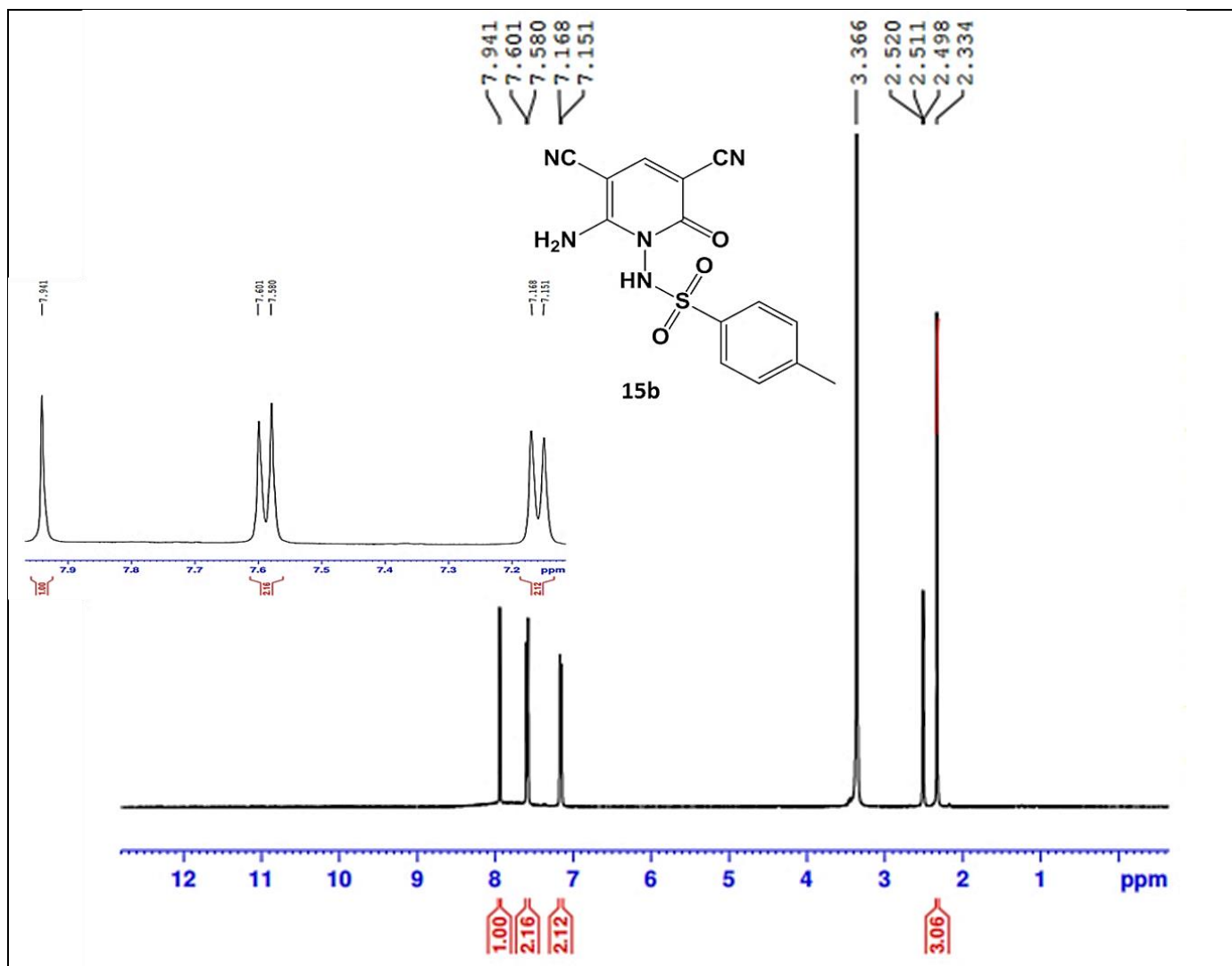


Figure S22  $^1\text{H}$  NMR Spectrum of compound **15b**

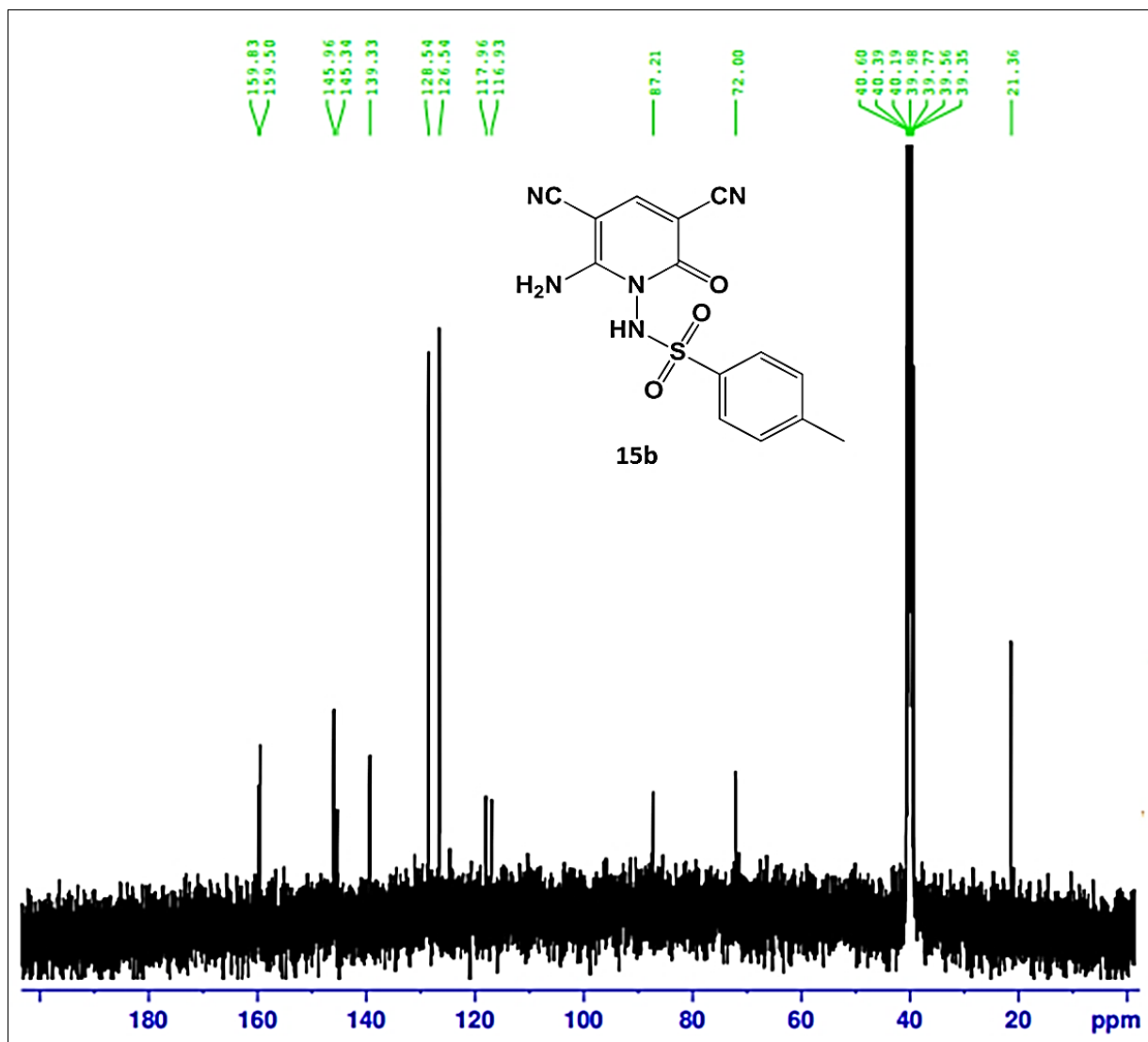


Figure S23  $^{13}\text{C}$  NMR Spectrum of compound 15b



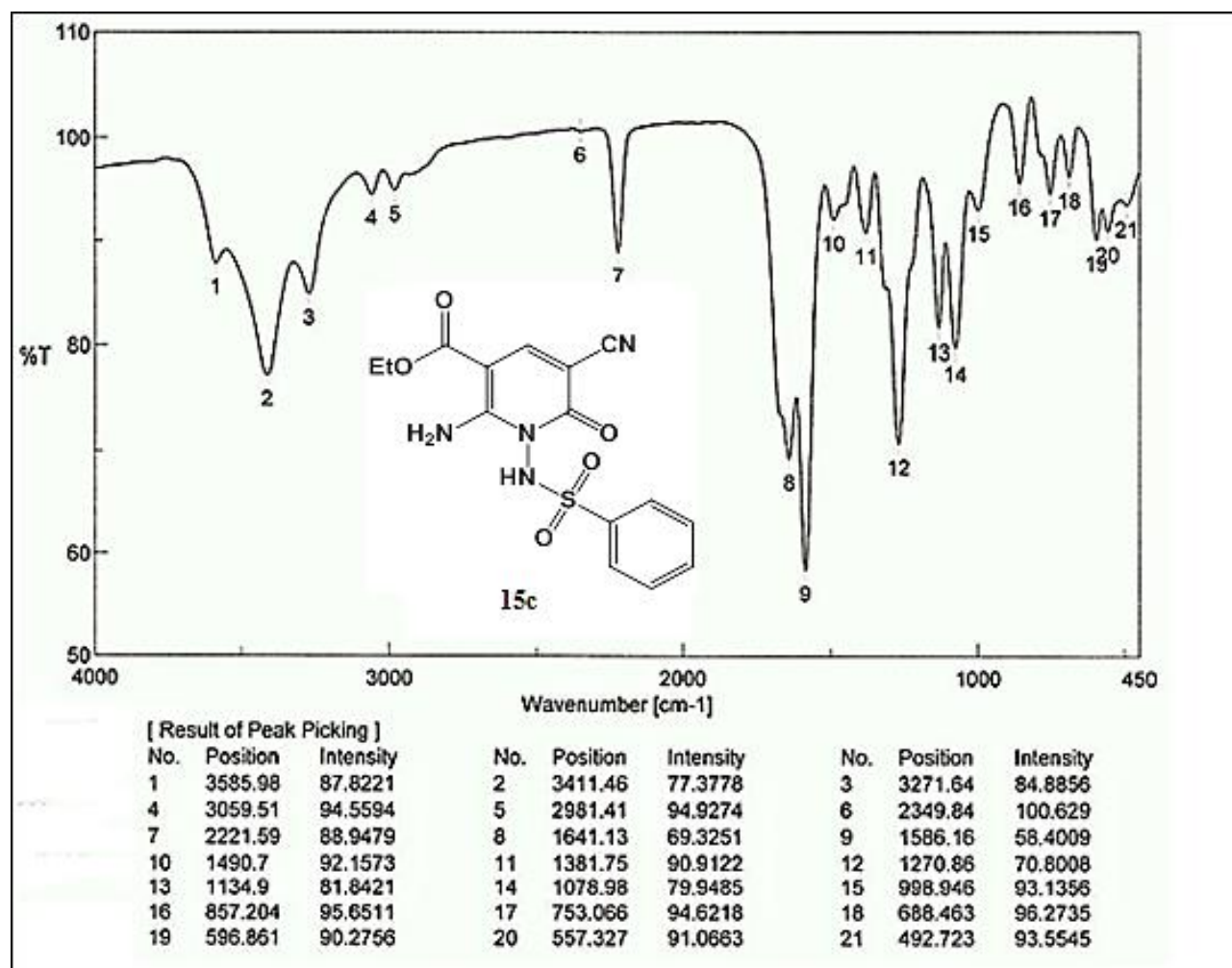


Figure S24 IR Spectrum of compound 15c

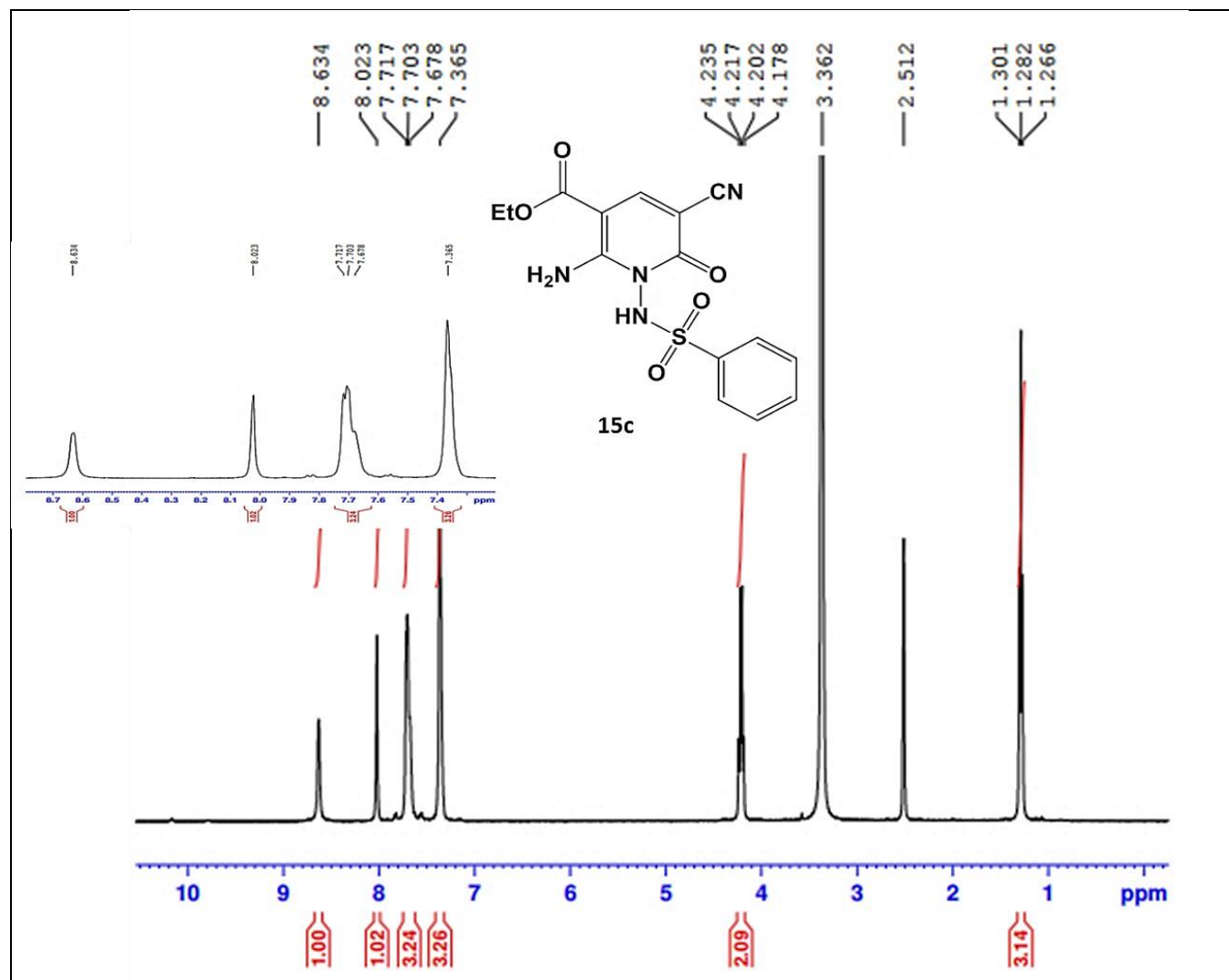


Figure S25 <sup>1</sup>H NMR Spectrum of compound 15c

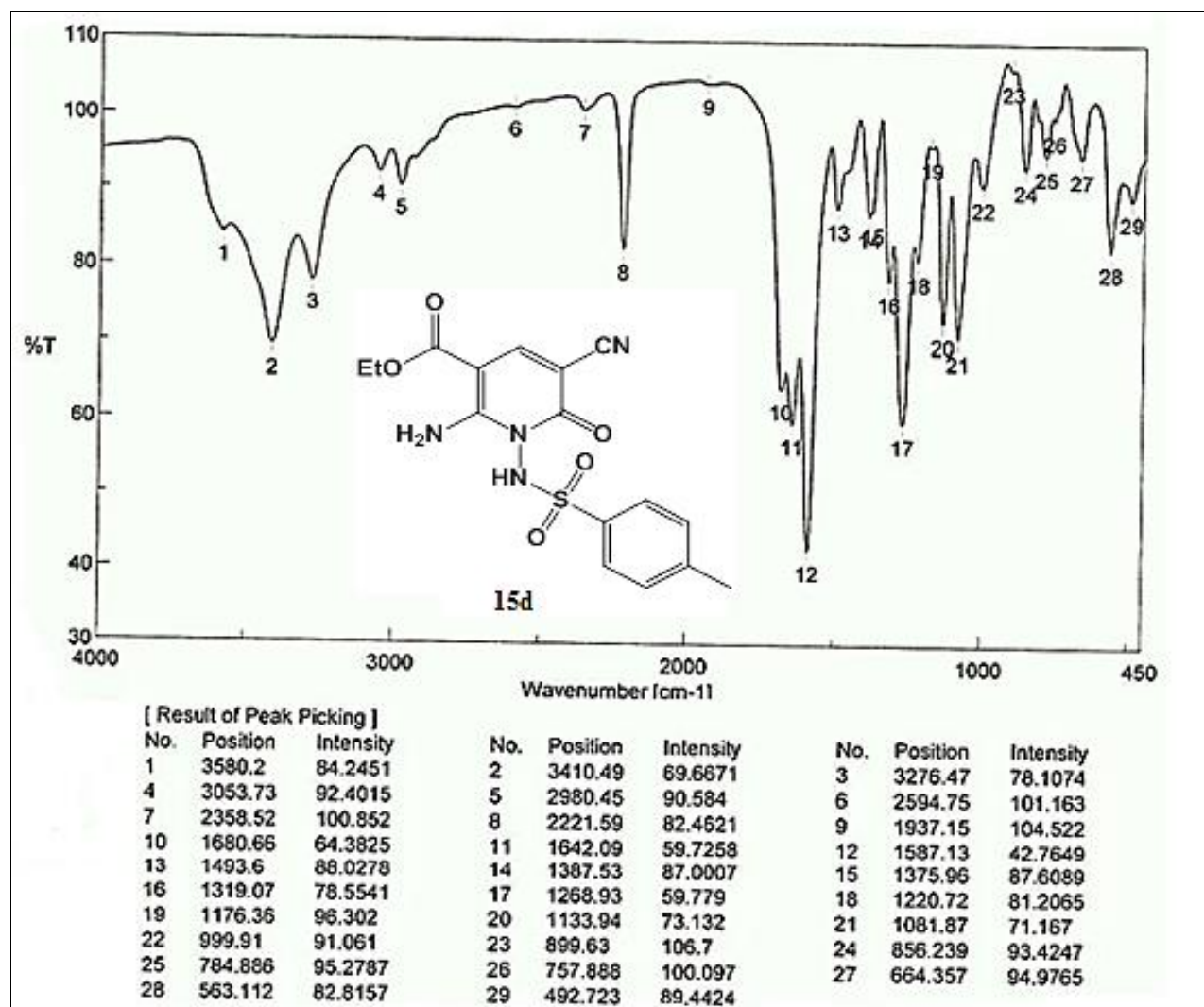


Figure S26 IR Spectrum of compound 15d

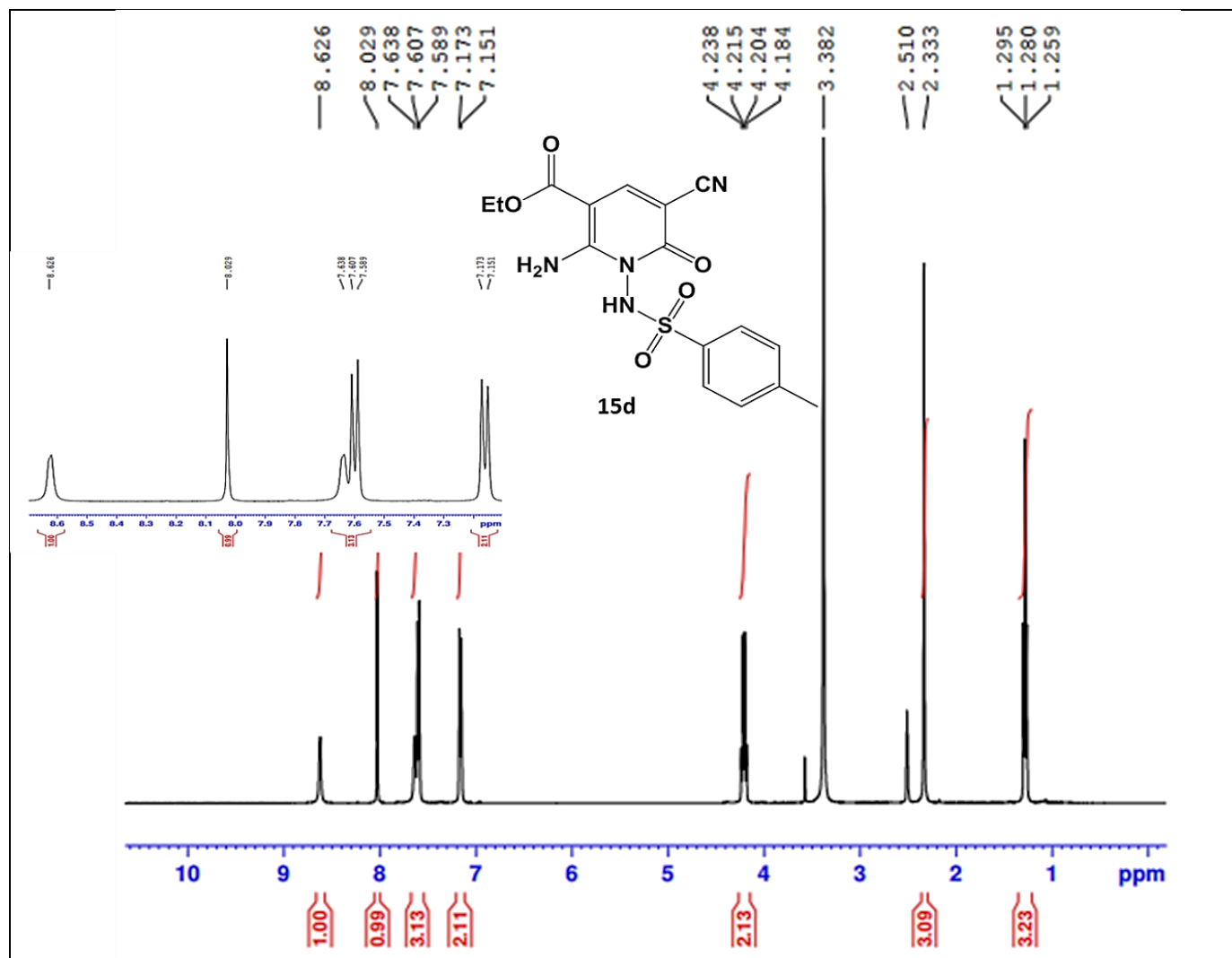


Figure S27 <sup>1</sup>H NMR Spectrum of compound 15d

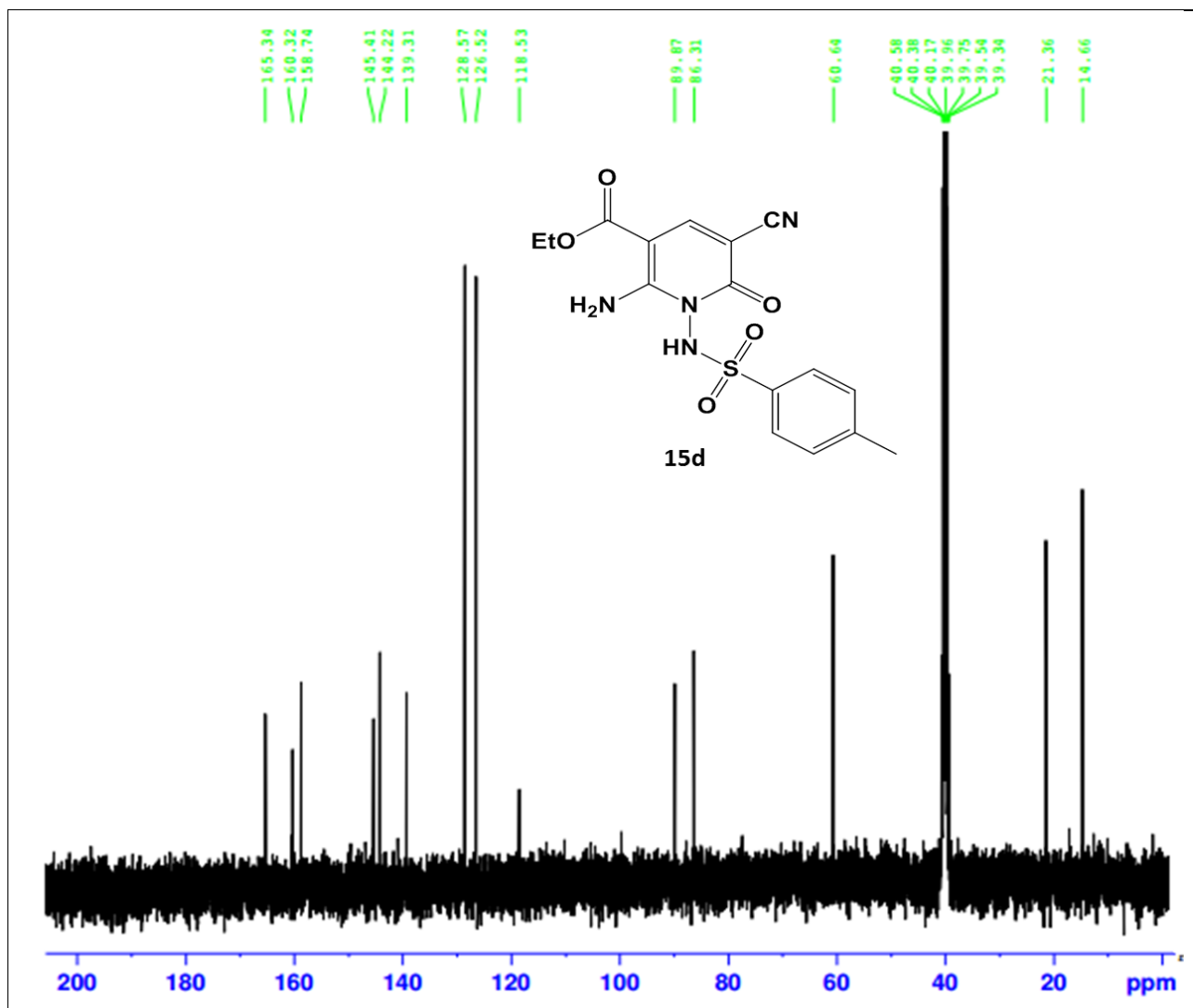


Figure S28 <sup>13</sup>C NMR Spectrum of compound 15d

**Table S1.** Non-toxic doses of tested compounds on FRHK-4, Hep2, BGM, Vero, and Huh 7.5 cell lines.

Tested materials	Nontoxic dose on <b>FRHK-4</b> cell line (µg/mL)	Nontoxic dose on <b>Hep2</b> cell line (µg/mL)	Nontoxic dose on <b>BGM</b> cell line (µg/mL)	Nontoxic dose on <b>Vero</b> cell line (µg/mL)	Nontoxic dose on <b>Huh 7.5</b> cell line (µg/mL)
<b>3b</b>	110	110	110	110	100
<b>8a</b>	100	100	90	100	100
<b>8b</b>	110	110	110	110	100
<b>8c</b>	120	120	120	120	120
<b>8d</b>	120	120	120	120	120
<b>9a</b>	90	90	90	90	90
<b>9b</b>	90	90	90	90	90
<b>13a</b>	100	100	100	100	100
<b>15a</b>	100	100	90	100	90
<b>15b</b>	100	90	90	90	90
<b>15c</b>	100	90	90	90	90
<b>15d</b>	90	90	90	90	90

<sup>a</sup>NT = Not tested