

## Supplementary Information for

### Synthesis and enzyme inhibitory properties of quinoxaline-bridged bis(imidazolium) salts

**Murat Yiğit,<sup>a,\*</sup> Yeliz Demir,<sup>b</sup> Ali Arınç,<sup>c</sup> Beyhan Yiğit,<sup>c</sup> Murat Koca,<sup>d</sup> İsmail Özdemir,<sup>e</sup> and İlhami Gülçin<sup>f</sup>**

<sup>a</sup>Department of Chemistry and Chemical Process Technologies, Vocational School of Technical Sciences, Adiyaman University, 02040-Adiyaman, Turkey

<sup>b</sup>Department of Pharmacy Services, Nihat Delibalta Göle Vocational High School, Ardahan University, 75000-Ardahan, Turkey

<sup>c</sup>Department of Chemistry, Faculty of Science and Art, Adiyaman University, 02040-Adiyaman, Turkey

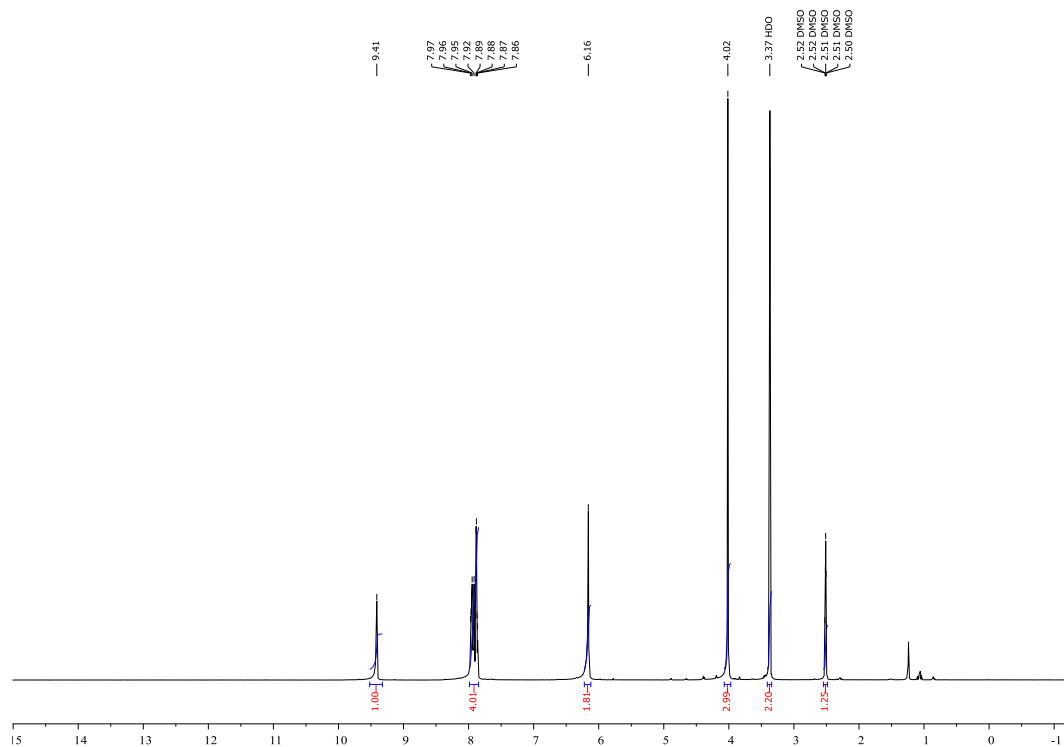
<sup>d</sup>Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Adiyaman University, 02040-Adiyaman, Turkey

<sup>e</sup>Department of Chemistry, Faculty of Science and Art, İnönü University, 44280 Malatya, Turkey

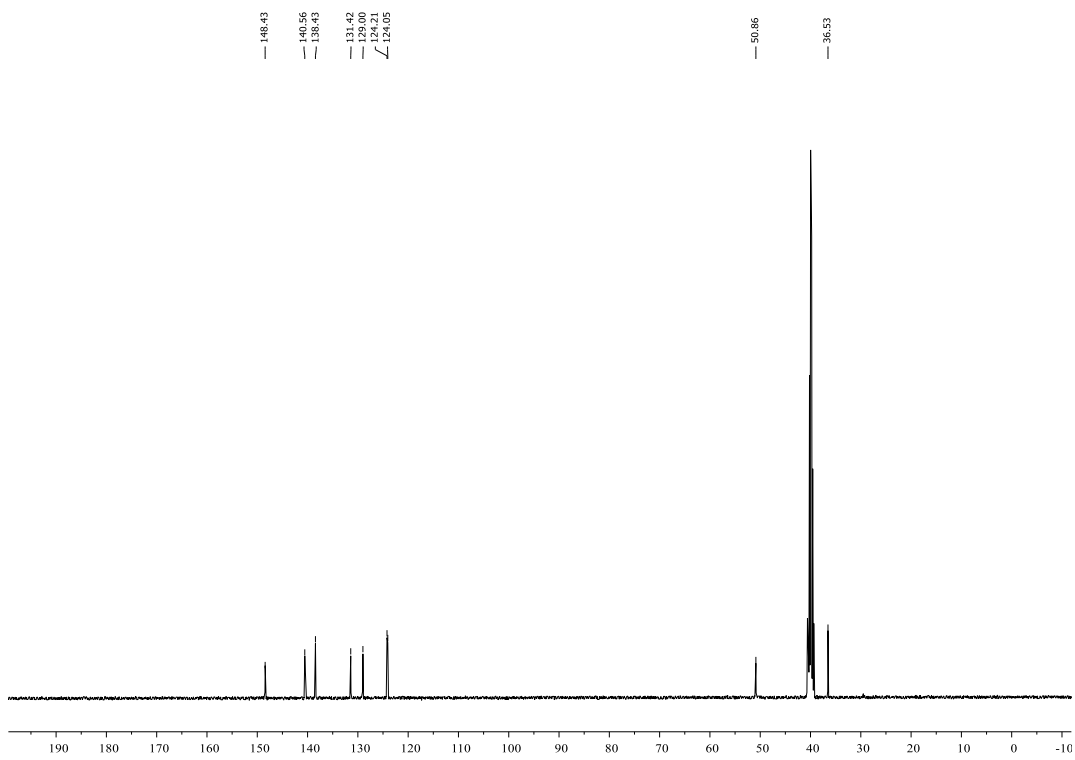
<sup>f</sup>Atatürk University, Faculty of Science, Department of Chemistry, 25240-Erzurum, Turkey

### *Contents*

Characterising data of <b>3</b>	S2
Characterising data of <b>4</b>	S3
Characterising data of <b>5</b>	S4
Characterising data of <b>6</b>	S5
Characterising data of <b>7</b>	S6
Characterising data of <b>8</b>	S7
Characterising data of <b>9</b>	S8
Characterising data of <b>10</b>	S9



**Figure S1.** <sup>1</sup>H NMR Spectrum of **3**



**Figure S2.** <sup>13</sup>C NMR Spectrum of **3**

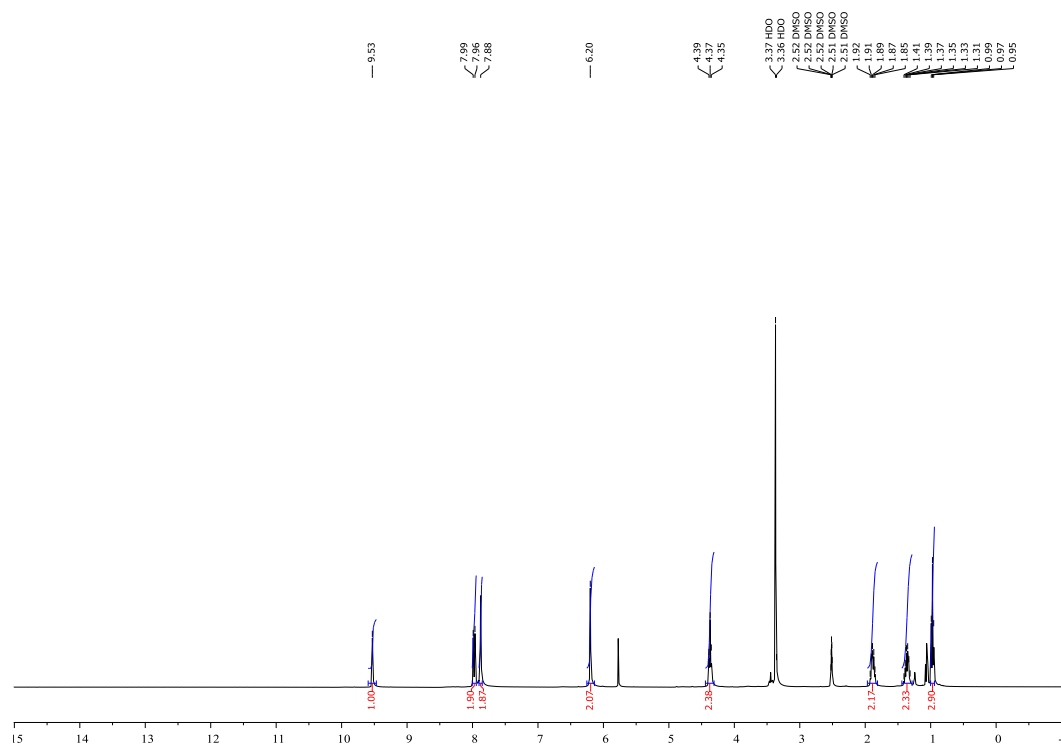


Figure S3.  $^1\text{H}$  NMR Spectrum of **4**

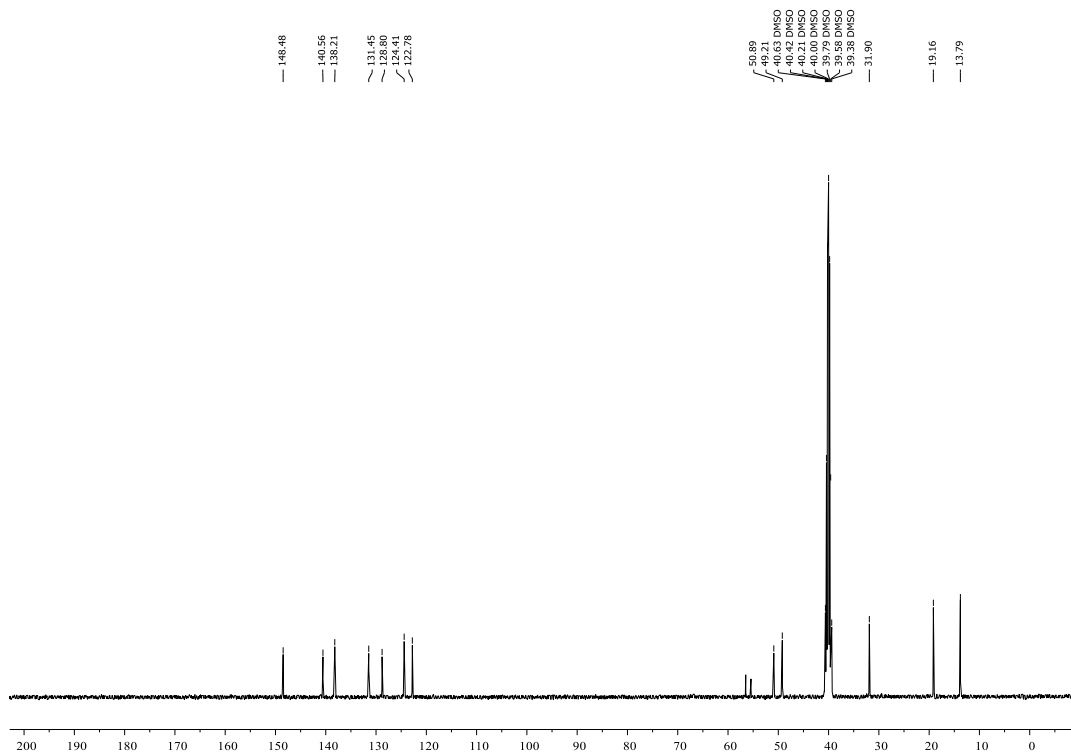
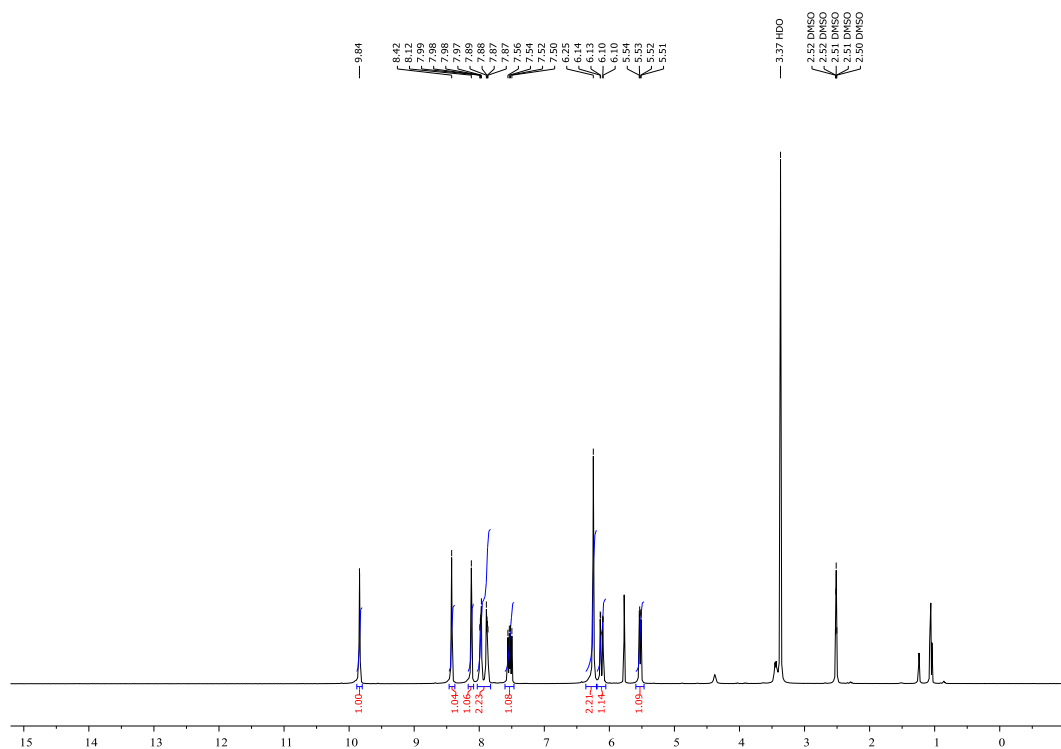
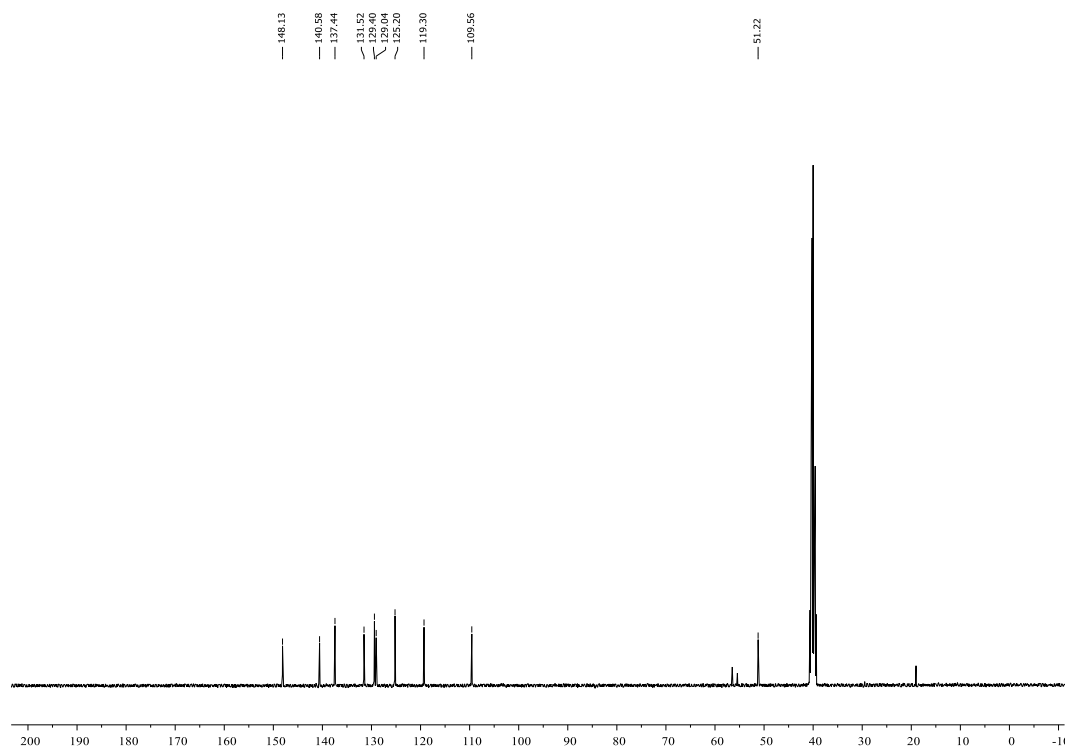


Figure S4.  $^{13}\text{C}$  NMR Spectrum of **4**



**Figure S5.**  $^1\text{H}$  NMR Spectrum of **5**



**Figure S6.**  $^{13}\text{C}$  NMR Spectrum of **5**

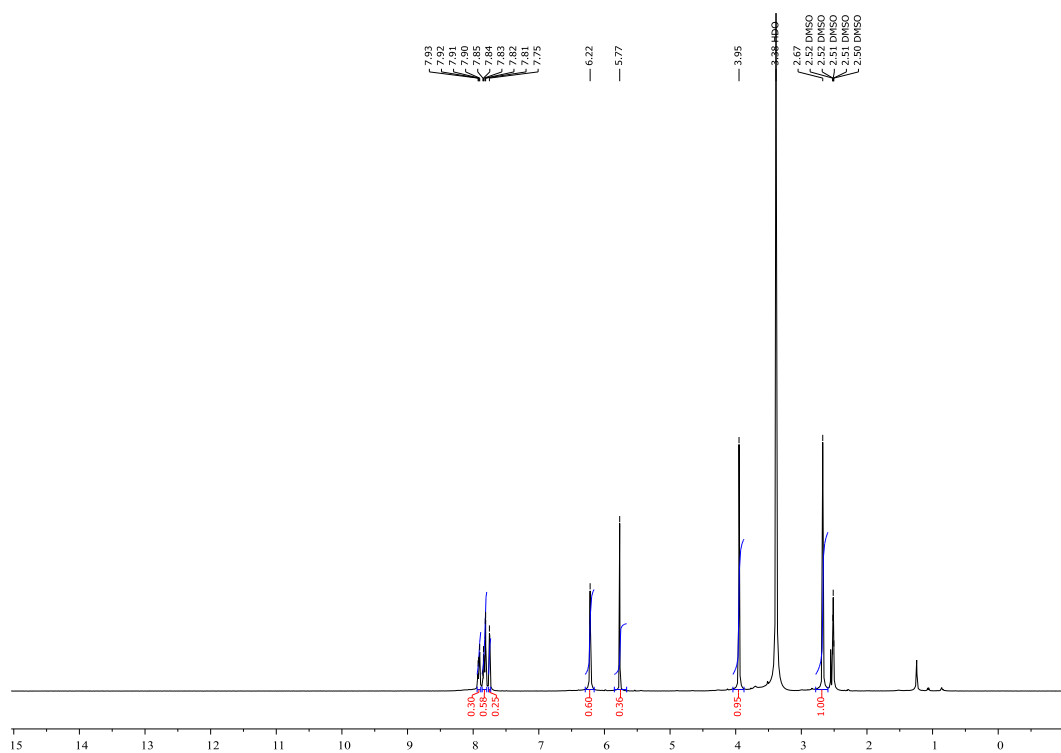


Figure S7.  $^1\text{H}$  NMR Spectrum of **6**

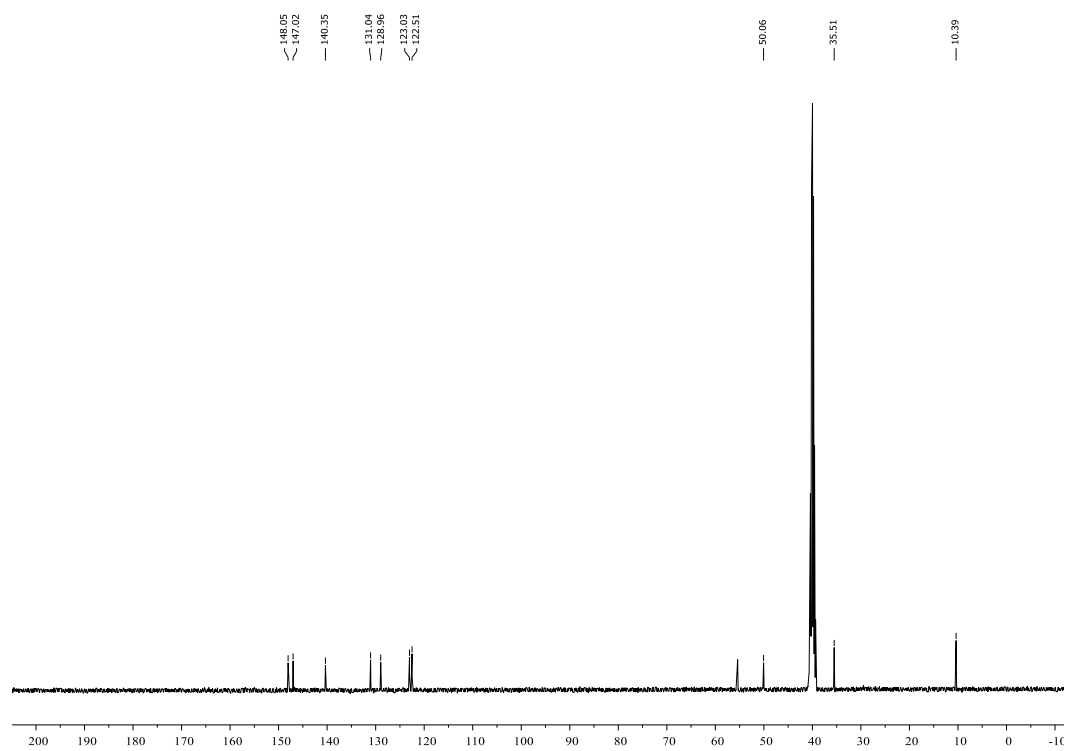


Figure S8.  $^{13}\text{C}$  NMR Spectrum of **6**

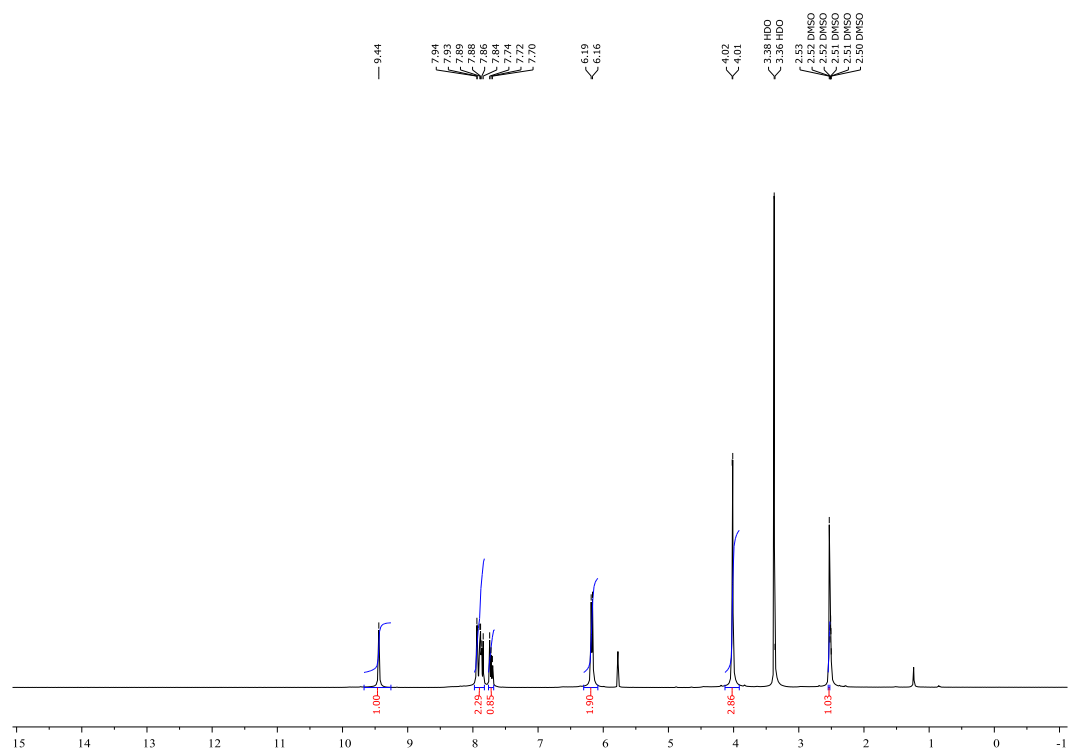


Figure S9. <sup>1</sup>H NMR Spectrum of **7**

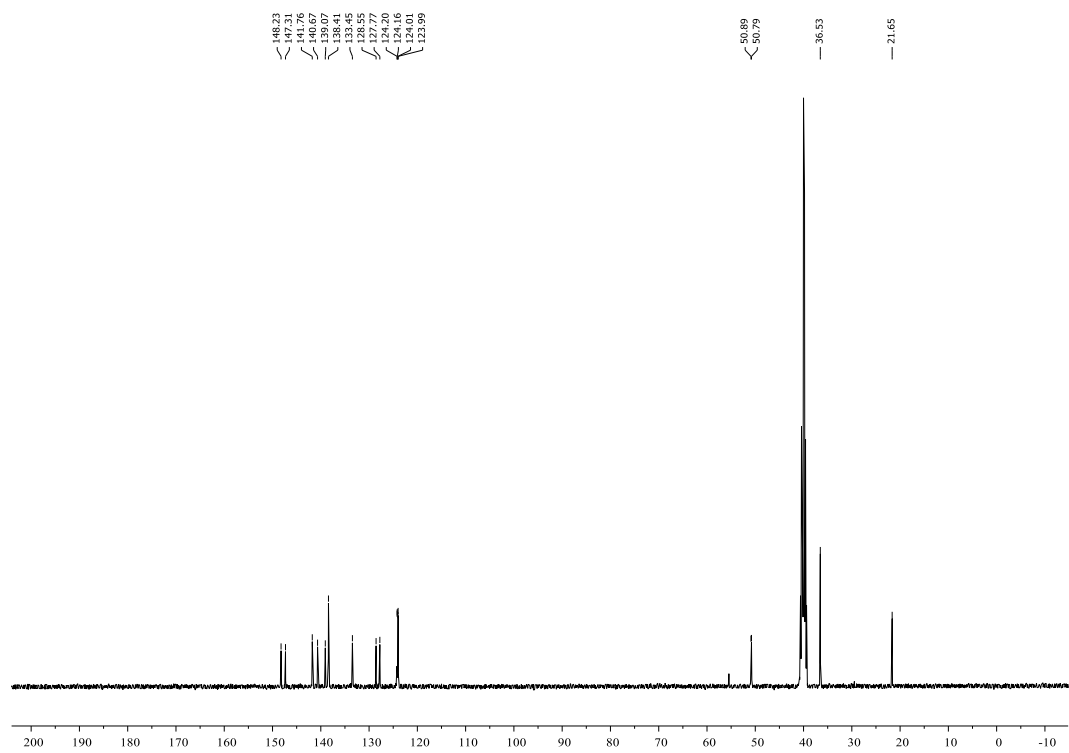


Figure S10. <sup>13</sup>C NMR Spectrum of **7**

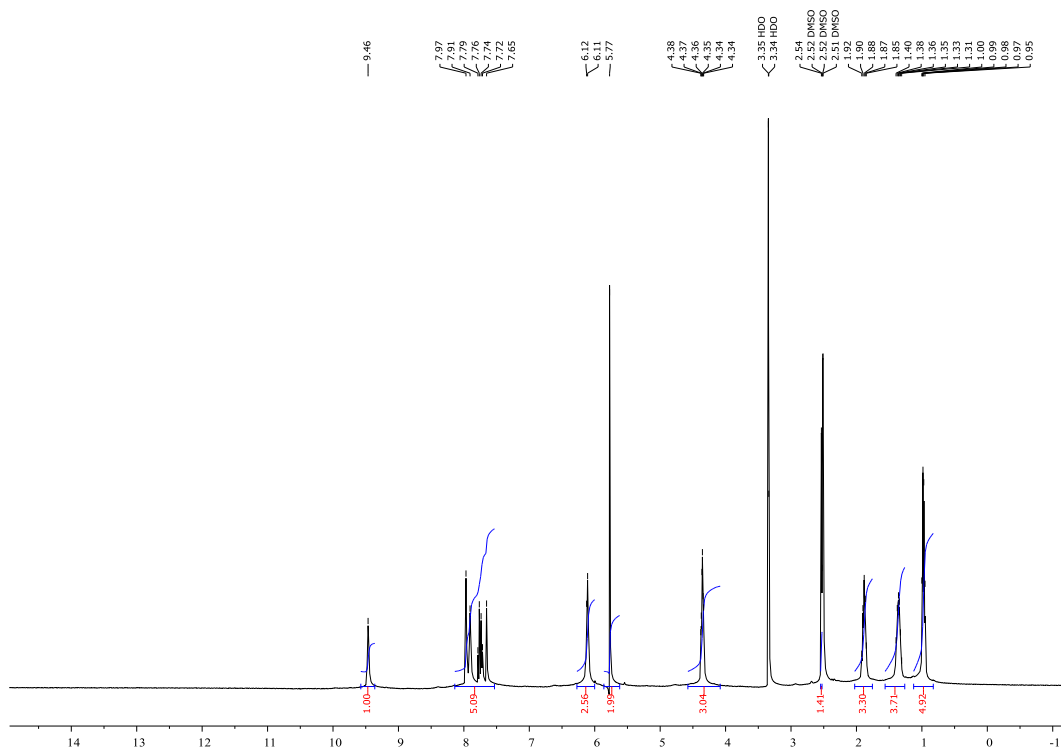


Figure S11.  $^1\text{H}$  NMR Spectrum of **8**

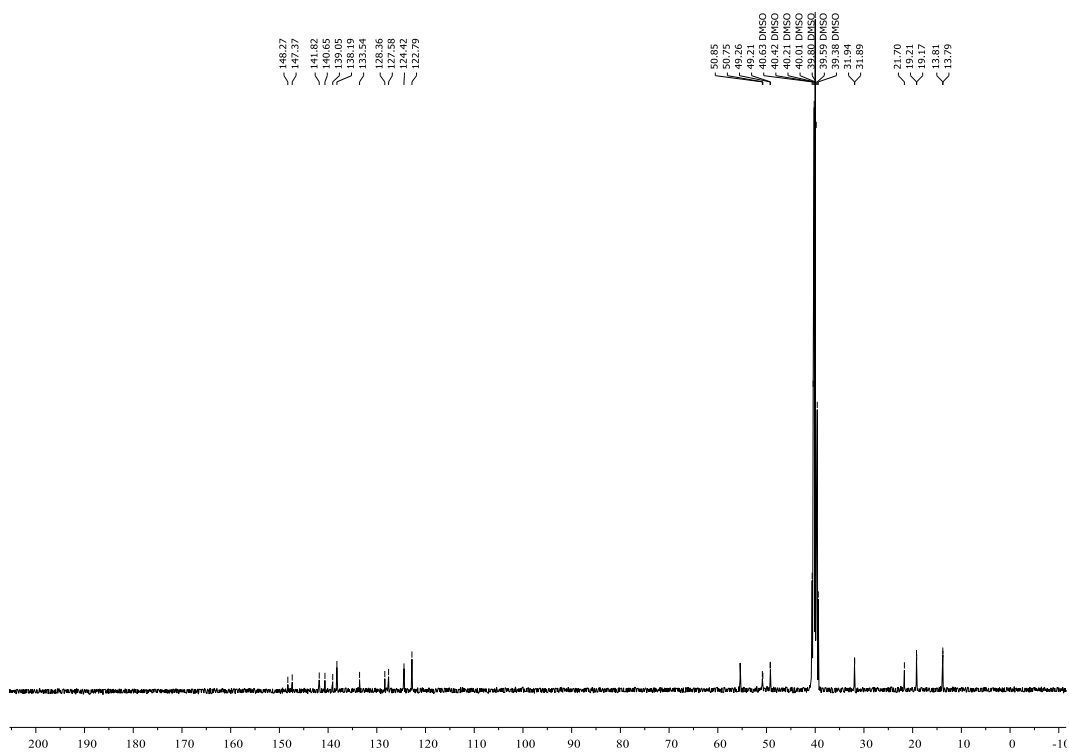


Figure S12.  $^{13}\text{C}$  NMR Spectrum of **8**

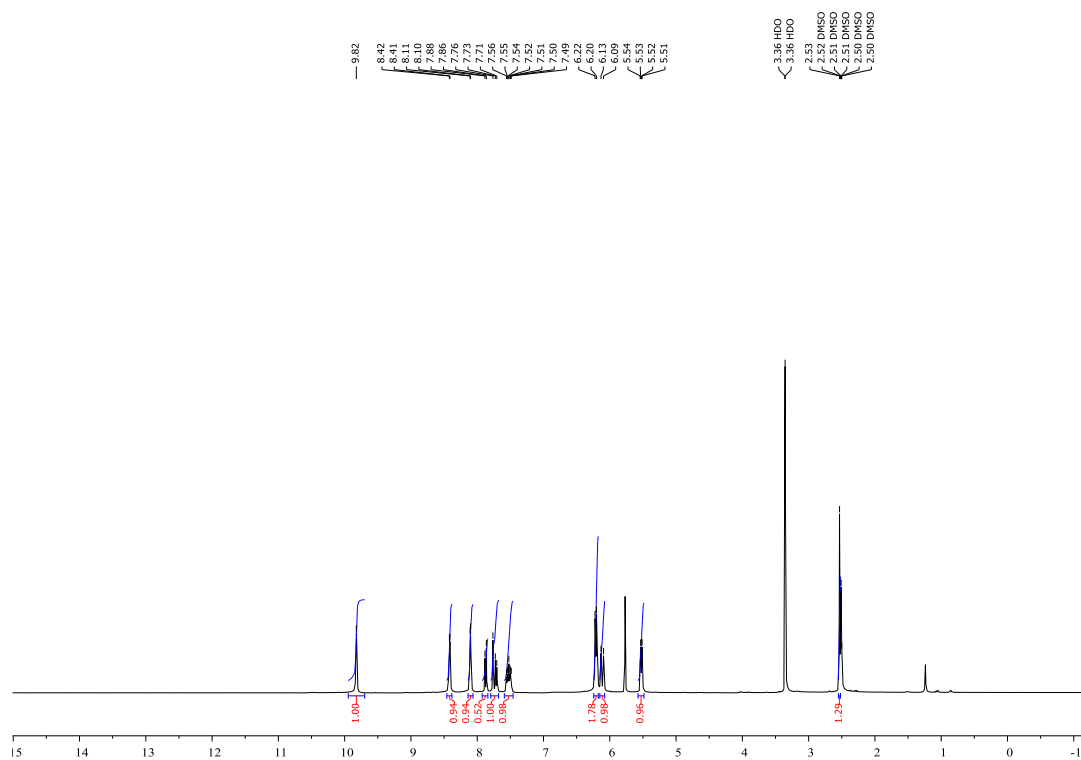


Figure S13. <sup>1</sup>H NMR Spectrum of **9**

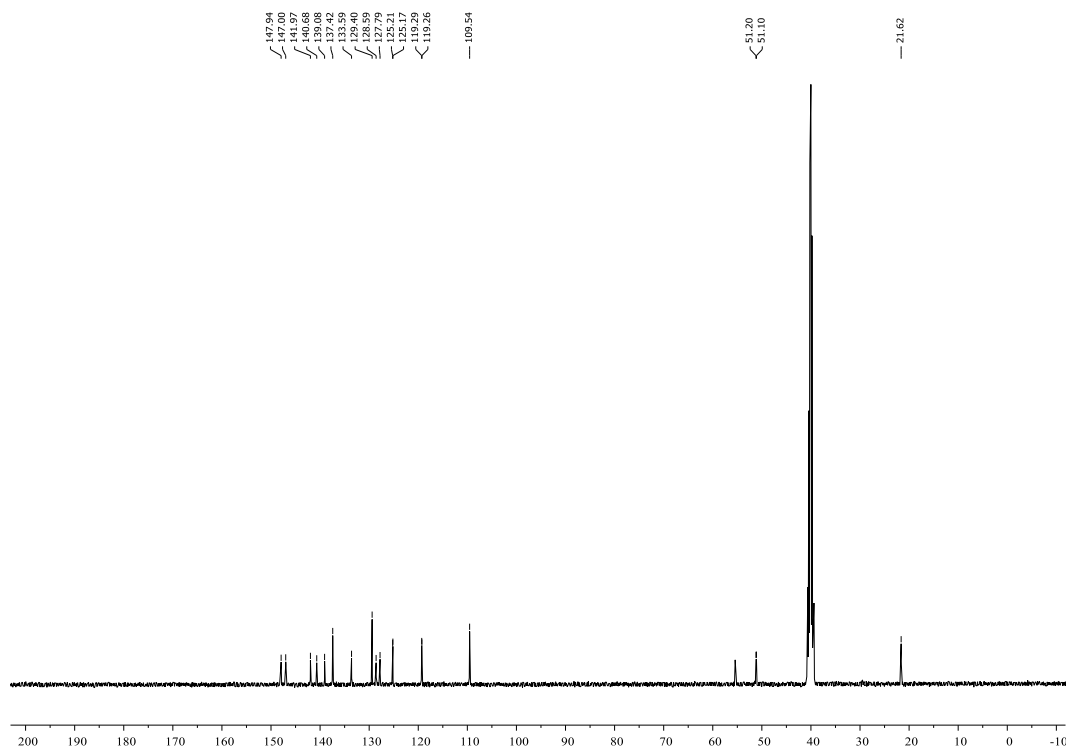
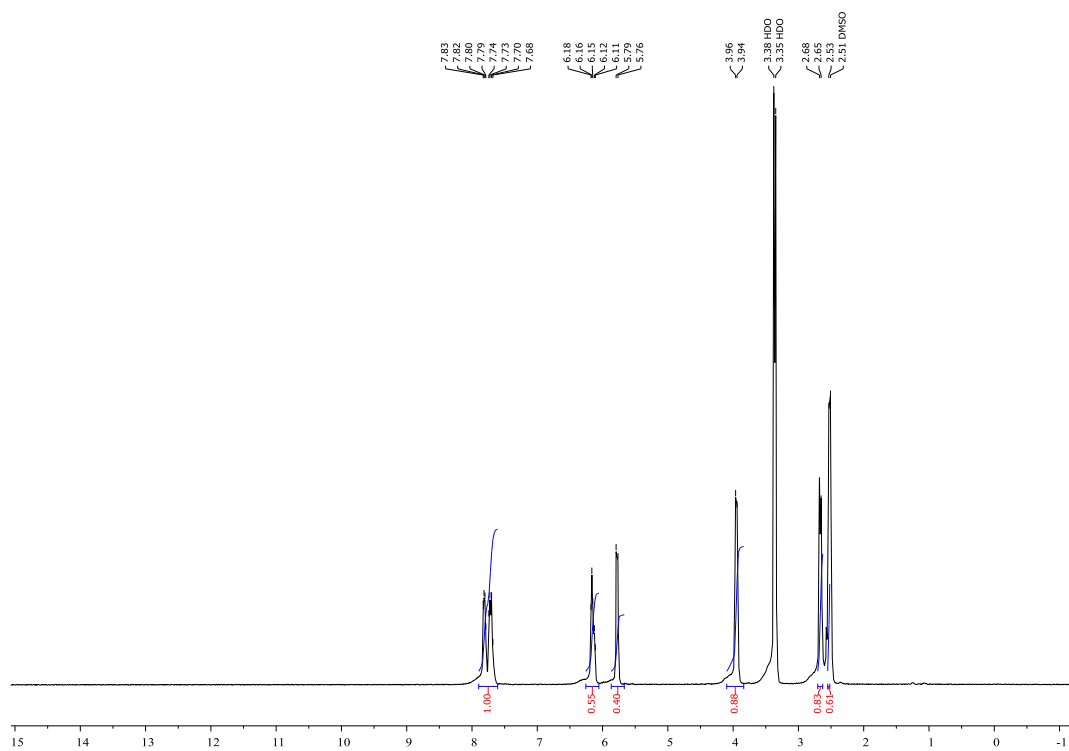
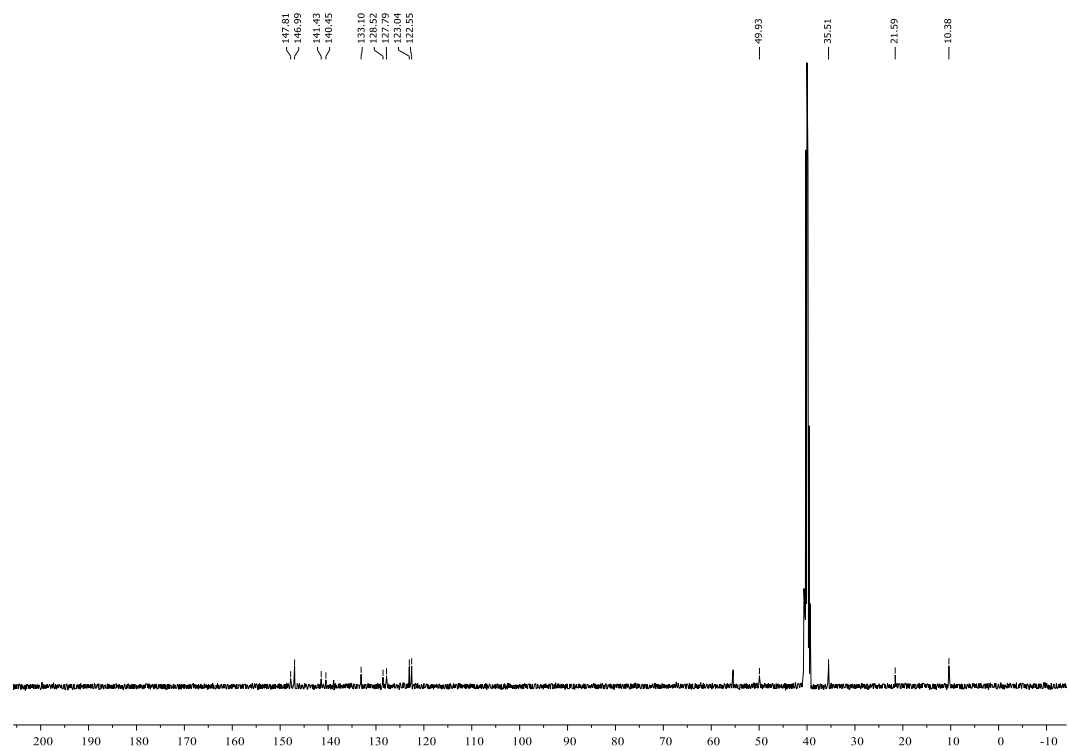


Figure S14. <sup>13</sup>C NMR Spectrum of **9**



**Figure S15.**  $^1\text{H}$  NMR Spectrum of **10**



**Figure S16.**  $^{13}\text{C}$  NMR Spectrum of **10**