

# Supplementary material

## Potent and selective benzothiazole-based antimitotics with improved water solubility: design, synthesis, and evaluation as novel anticancer agents

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**$^1\text{H}$  NMR**

**$^{13}\text{C}$  NMR**

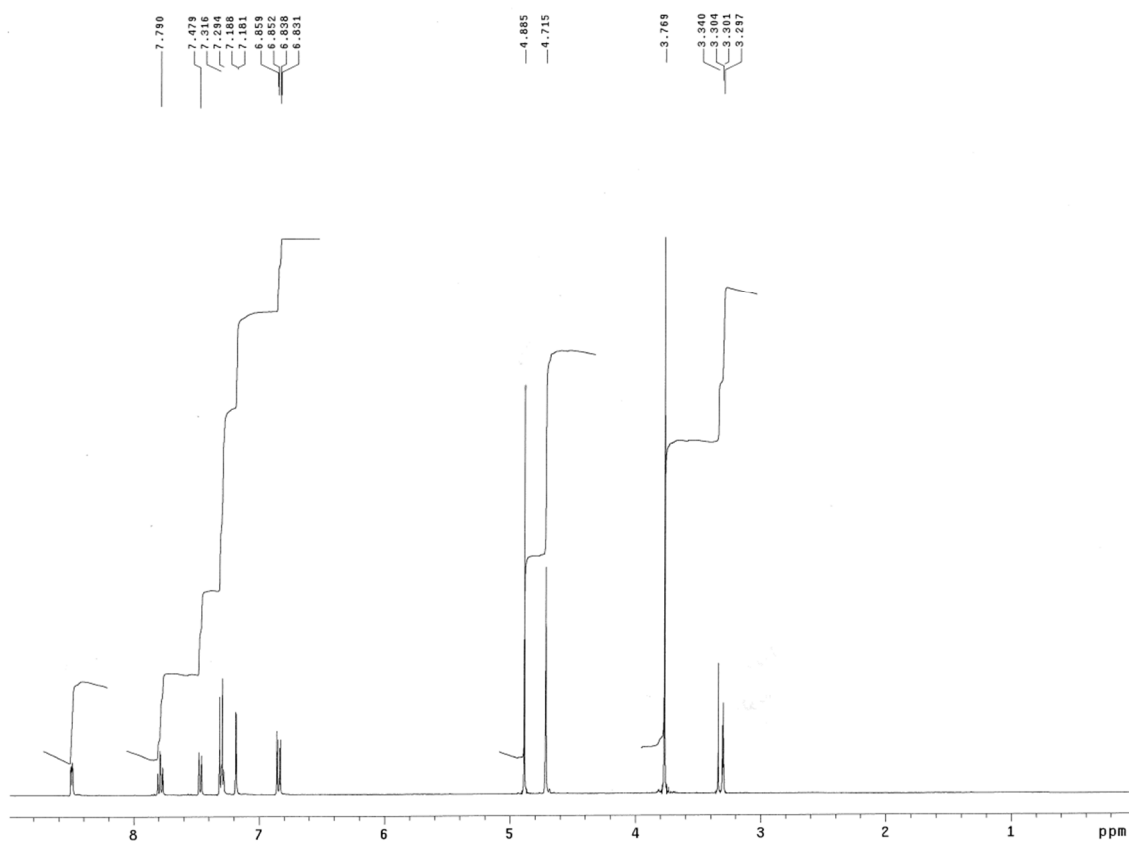


Figure S1a. <sup>1</sup>H NMR (MeOD, 400 MHz) spectrum of compound **1**.

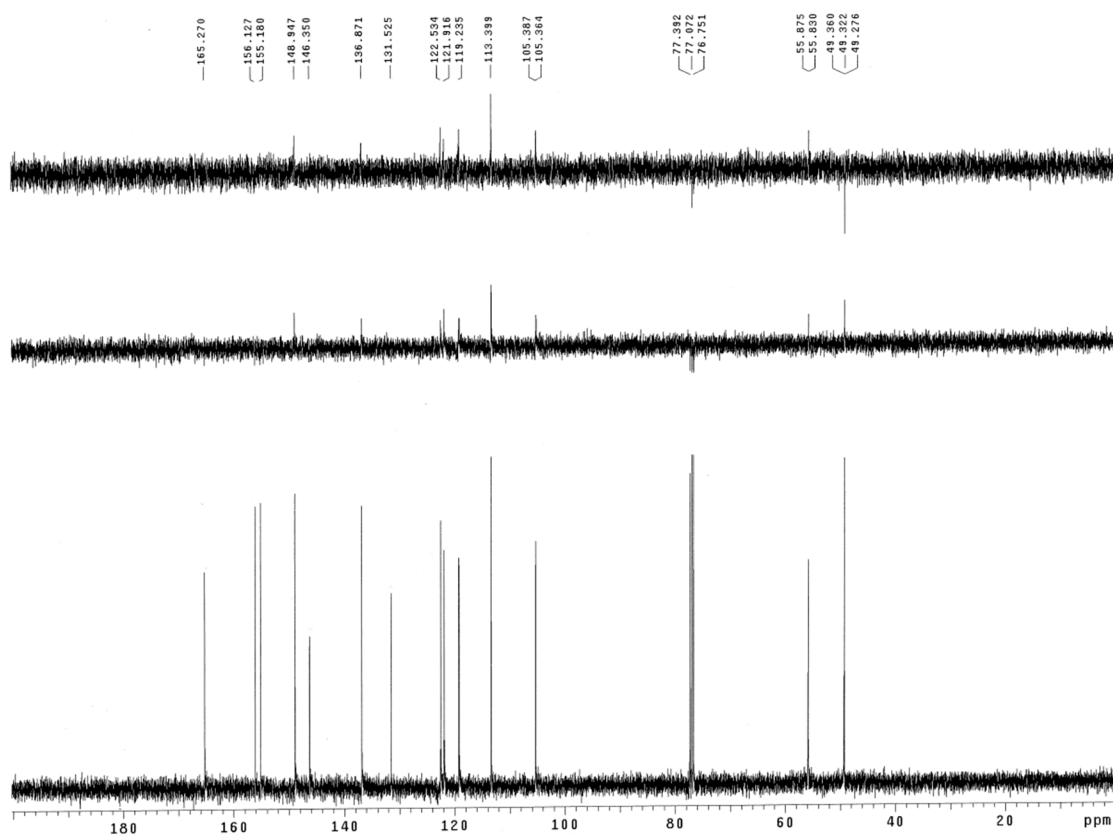


Figure S1b. <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz) spectra of compound **1**.

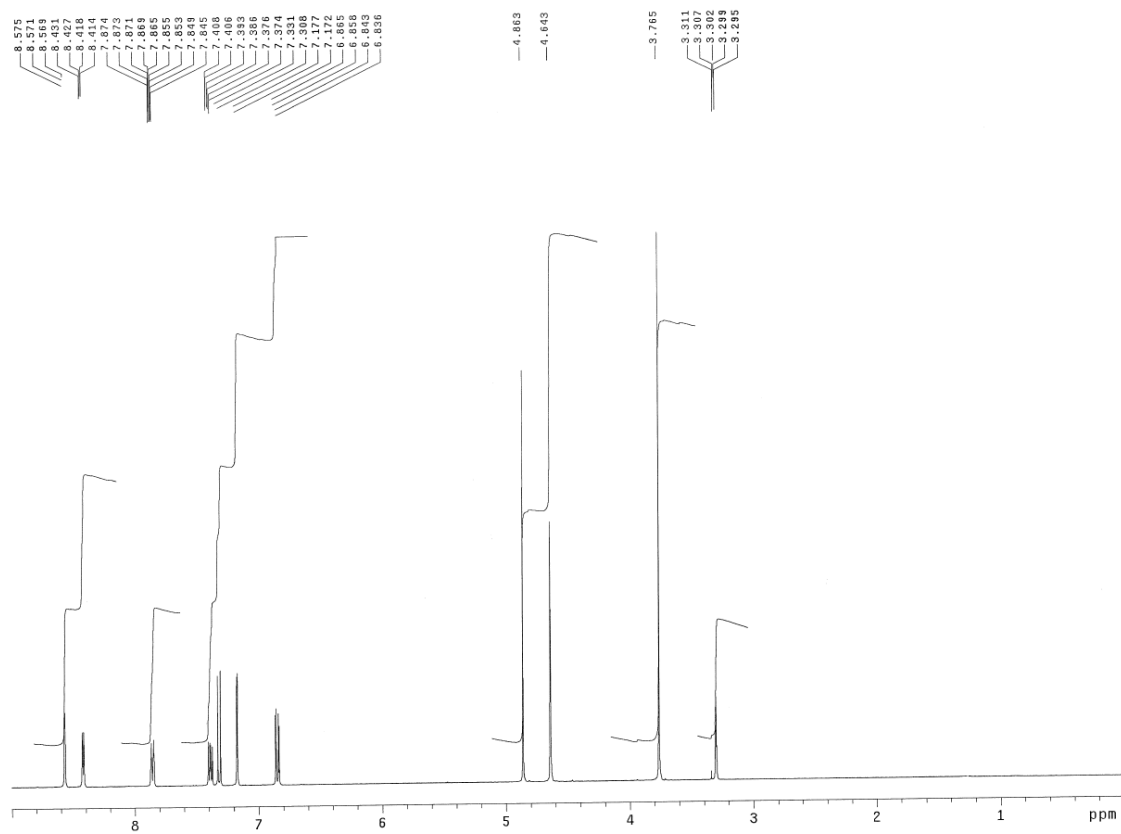


Figure S2a. <sup>1</sup>H NMR (MeOD, 400 MHz) spectrum of compound 2.

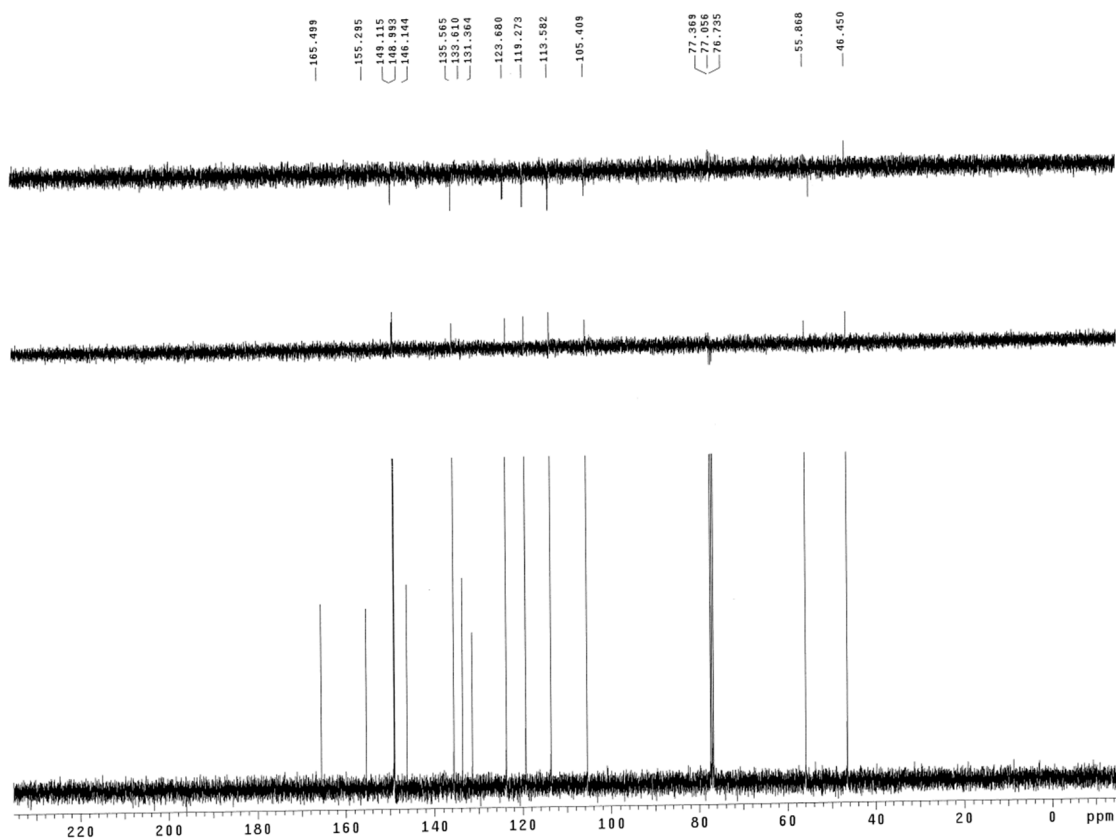


Figure S2b. <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz) spectra of compound 2.

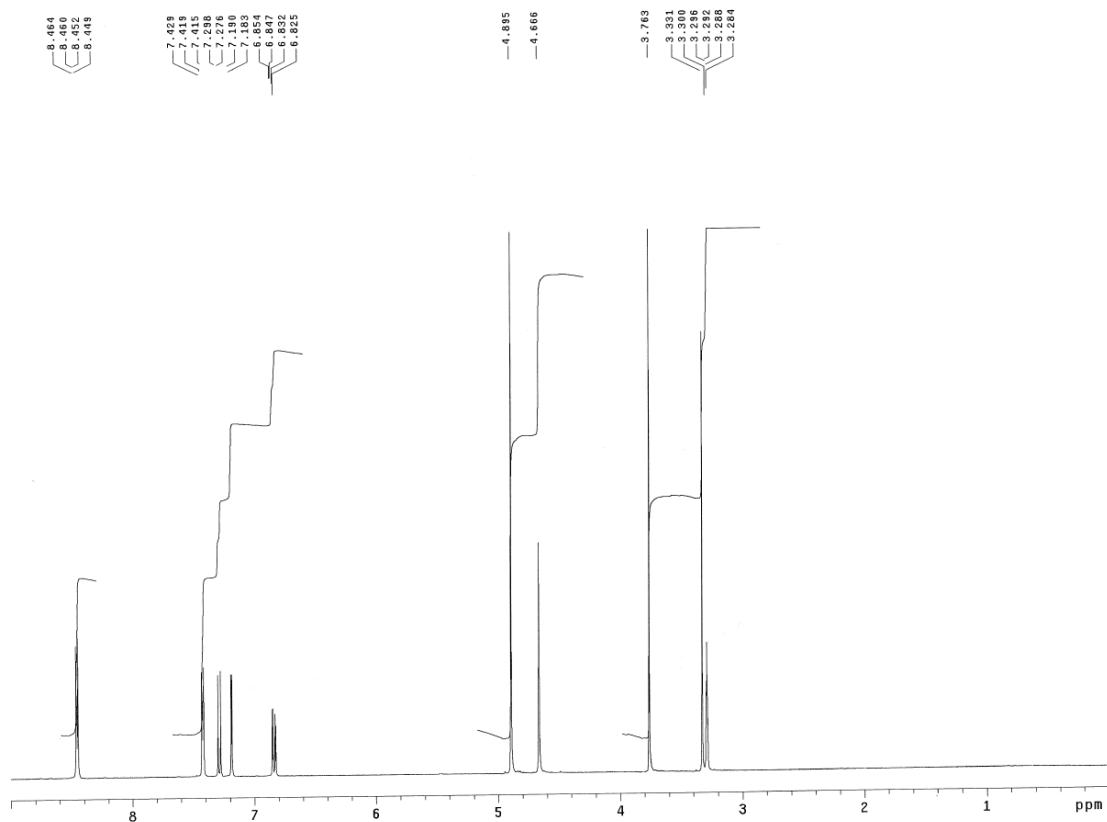


Figure S3a. <sup>1</sup>H NMR (MeOD, 400 MHz) spectrum of compound **3**.

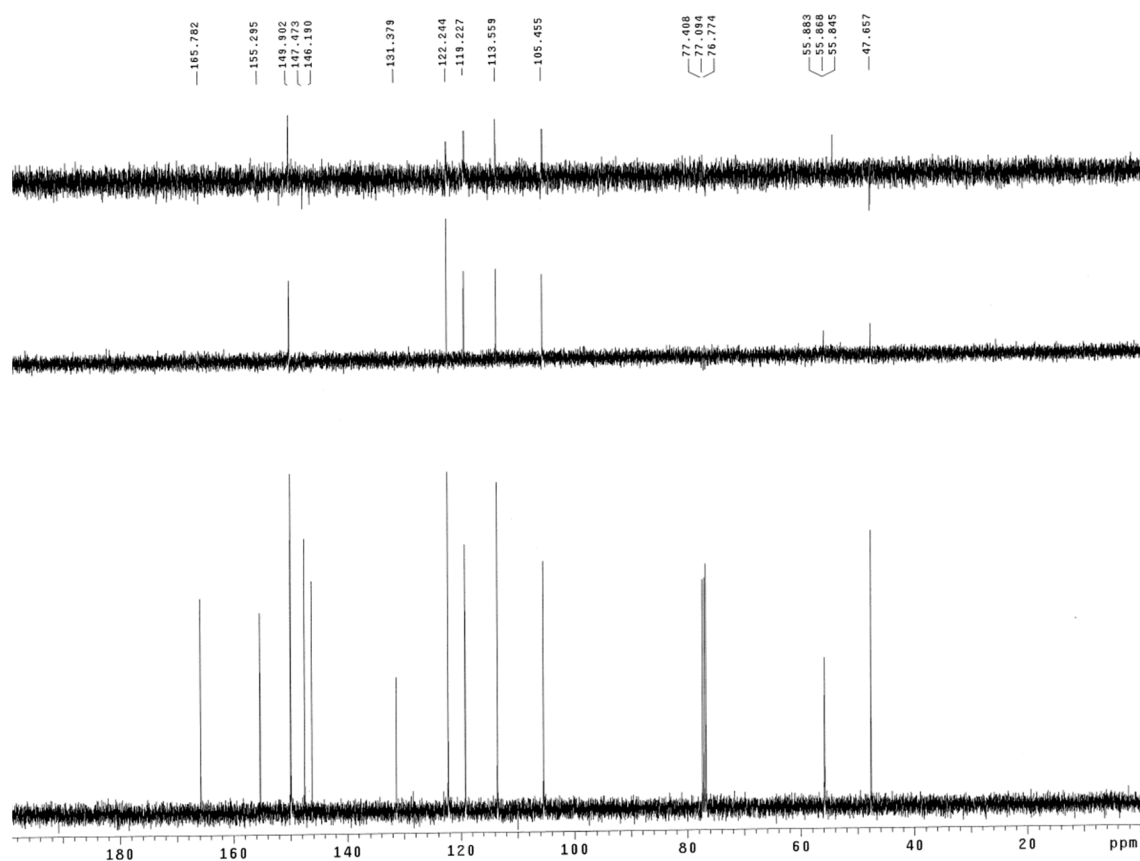
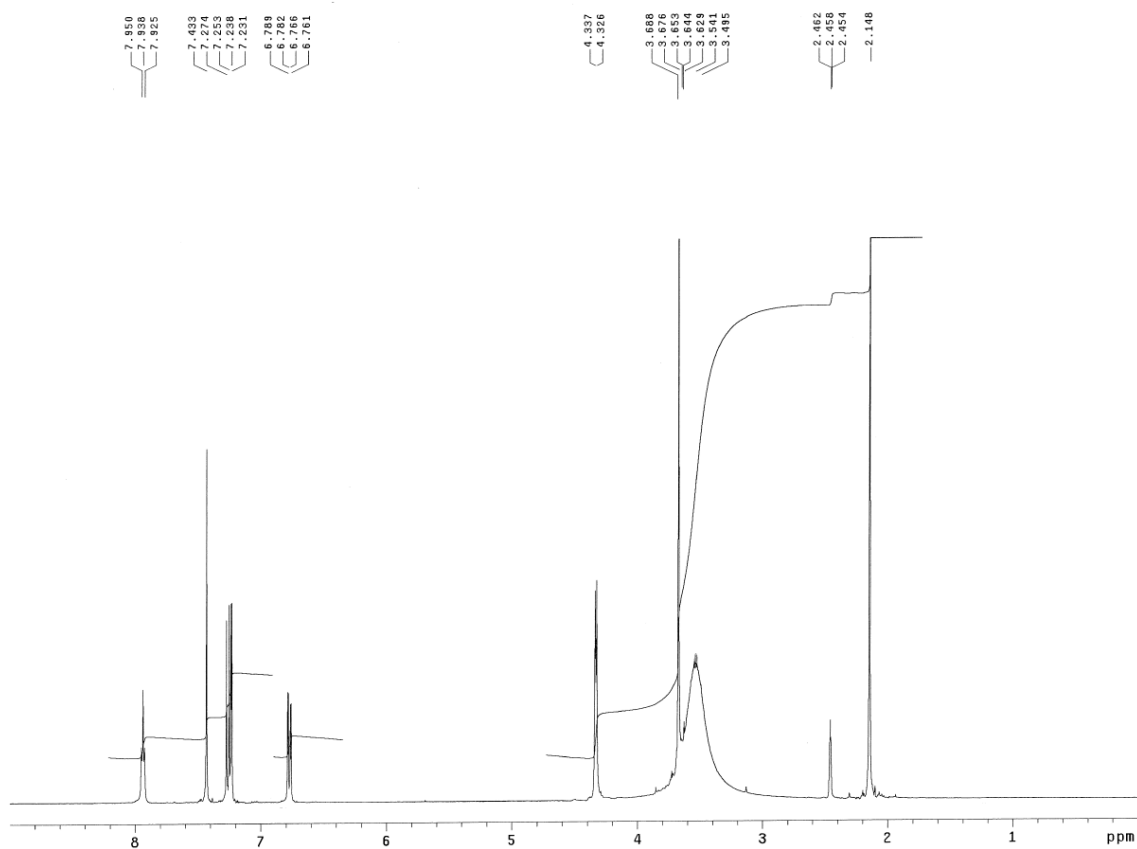
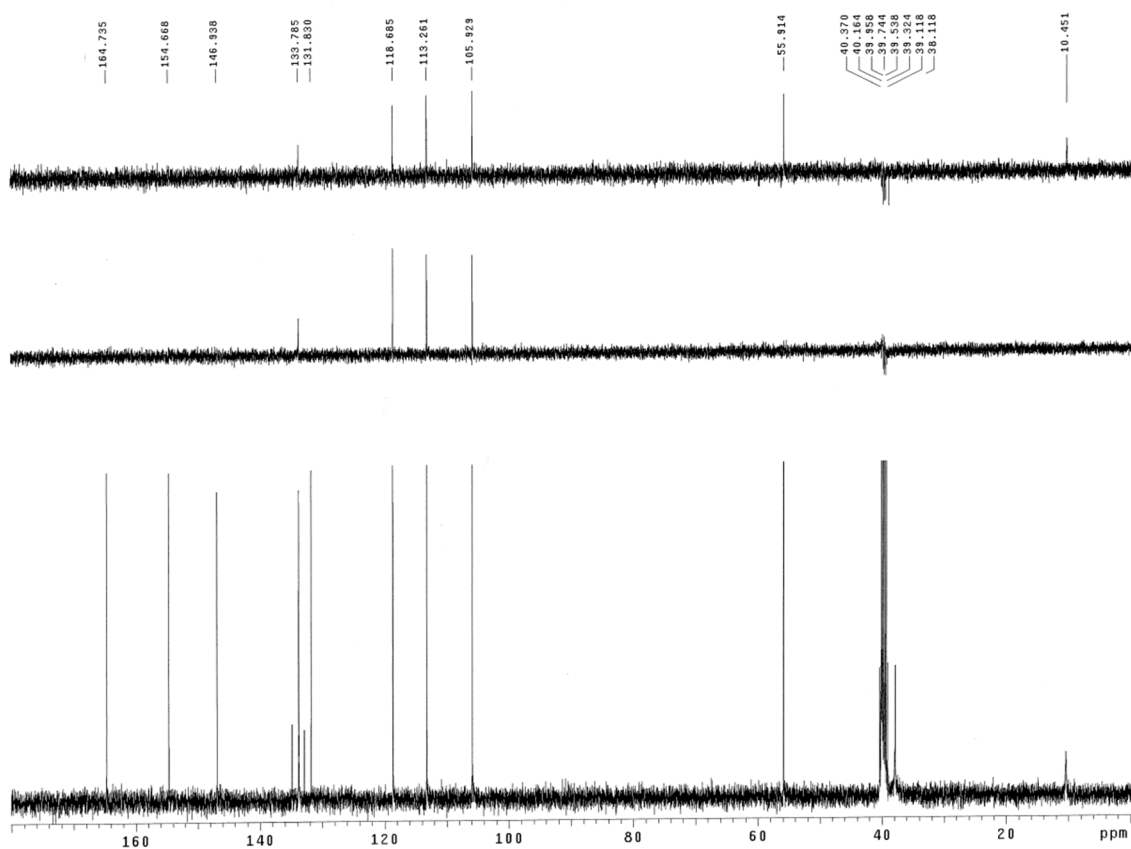


Figure S3b. <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz) spectra of compound **3**.



**Figure S4a.** <sup>1</sup>H NMR (DMSO-d<sub>6</sub>, 400 MHz) spectrum of compound 4.



**Figure S4b.** <sup>13</sup>C NMR (DMSO-d<sub>6</sub>, 100 MHz) spectra of compound 4.

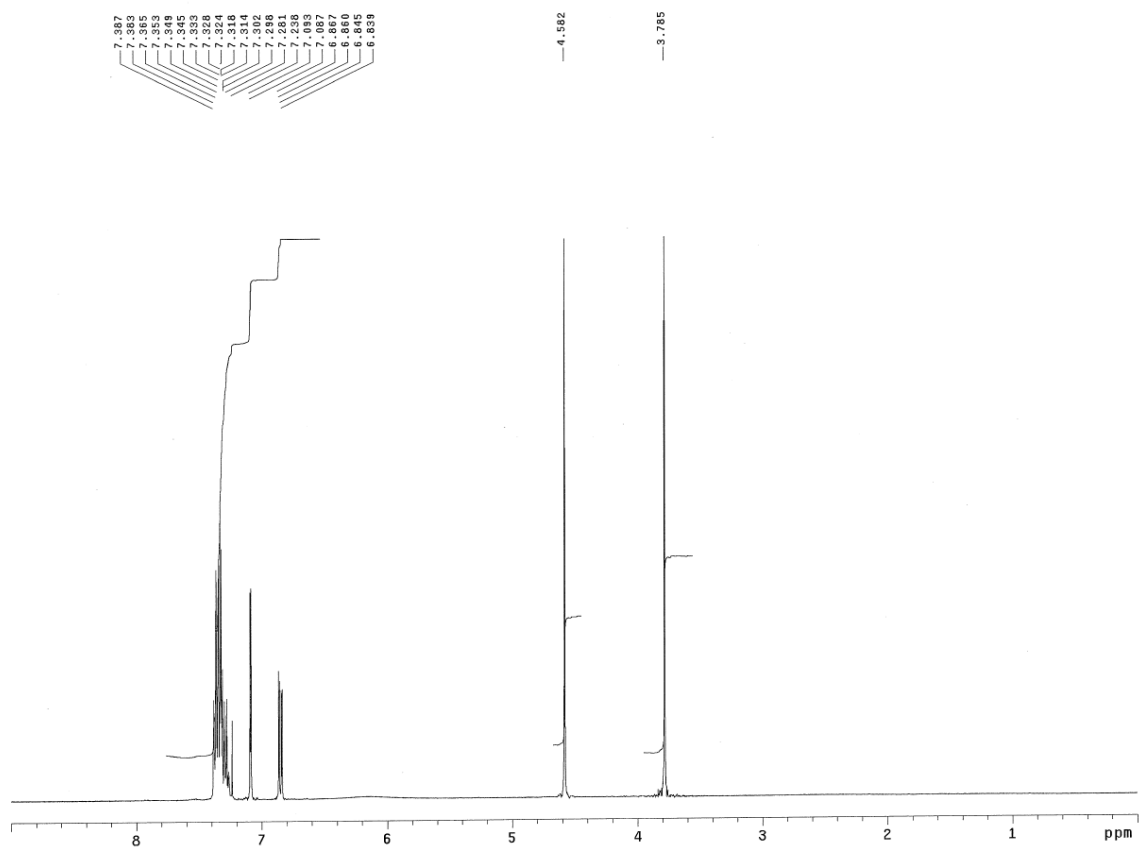


Figure S5a.  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz) spectrum of compound **5**.

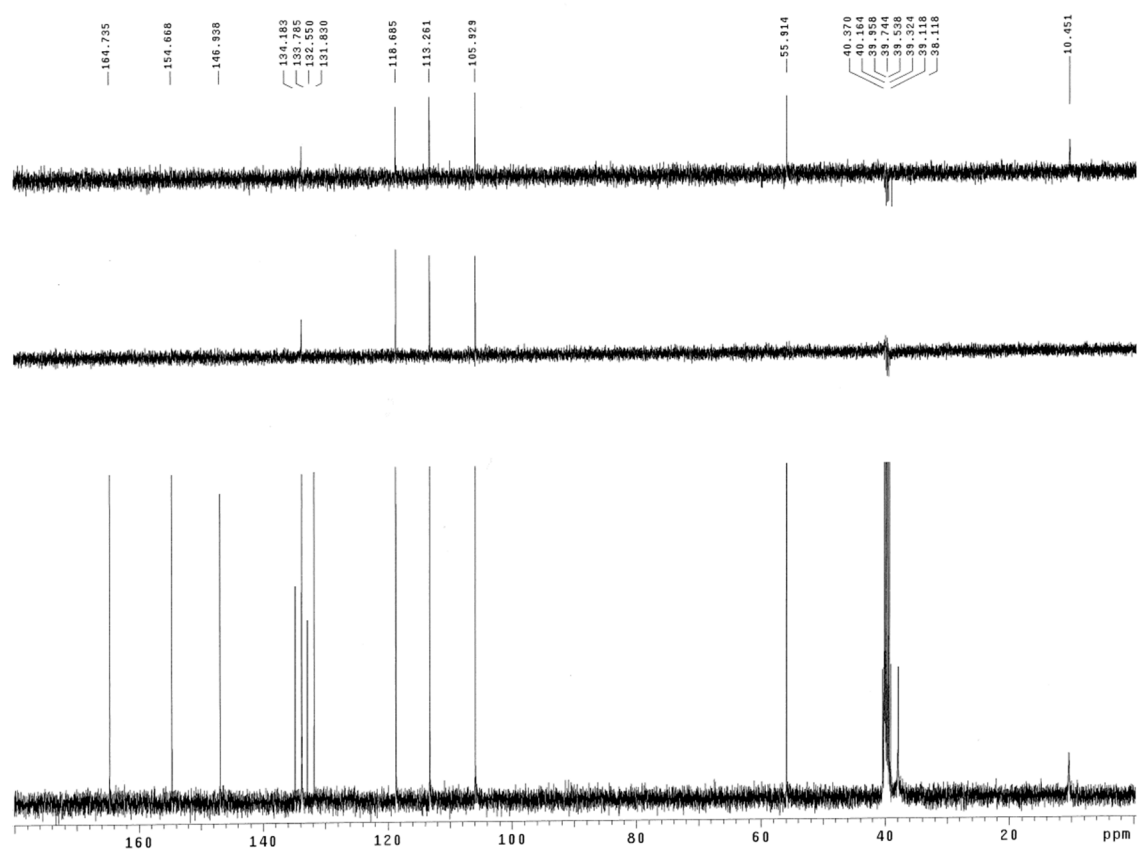


Figure S5b.  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz) spectra of compound **5**.

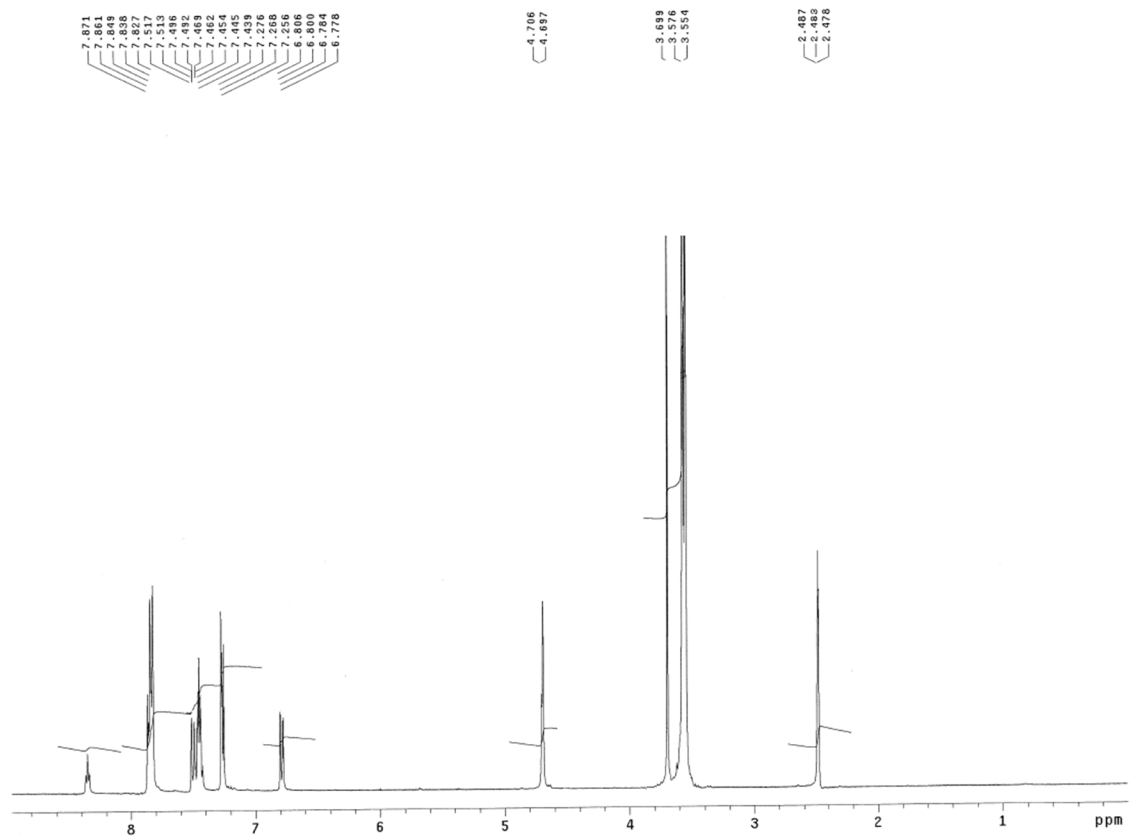


Figure S6a. <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz) spectrum of compound **6**.

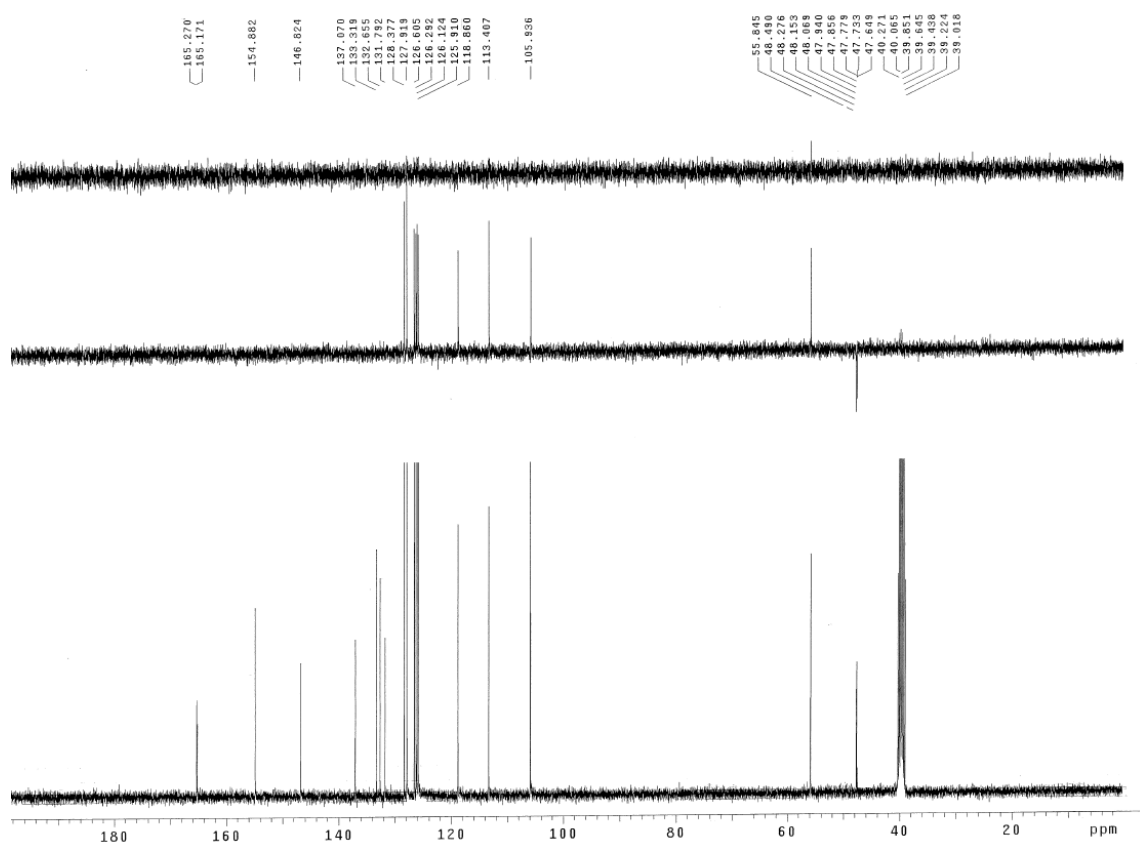


Figure S6b. <sup>13</sup>C NMR (DMSO-d<sub>6</sub>, 100 MHz) spectra of compound **6**.



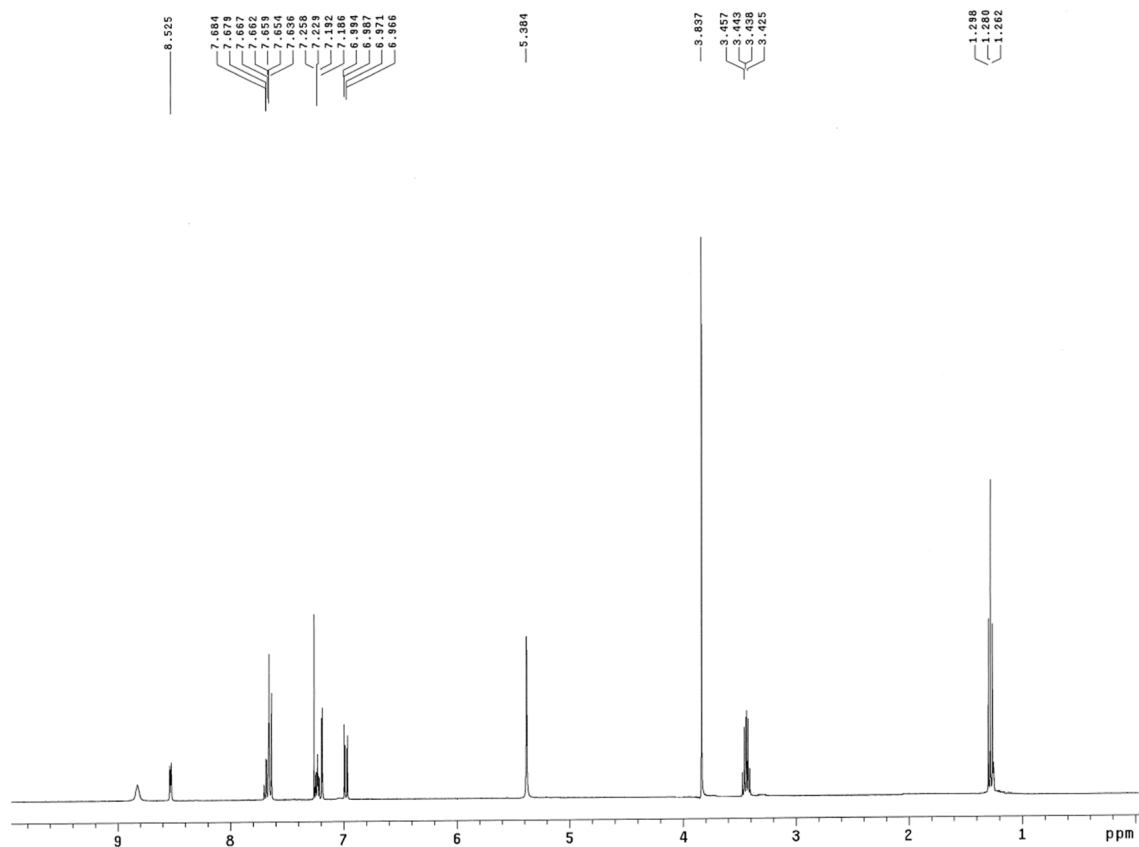


Figure S7a.  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz) spectrum of compound **7**.

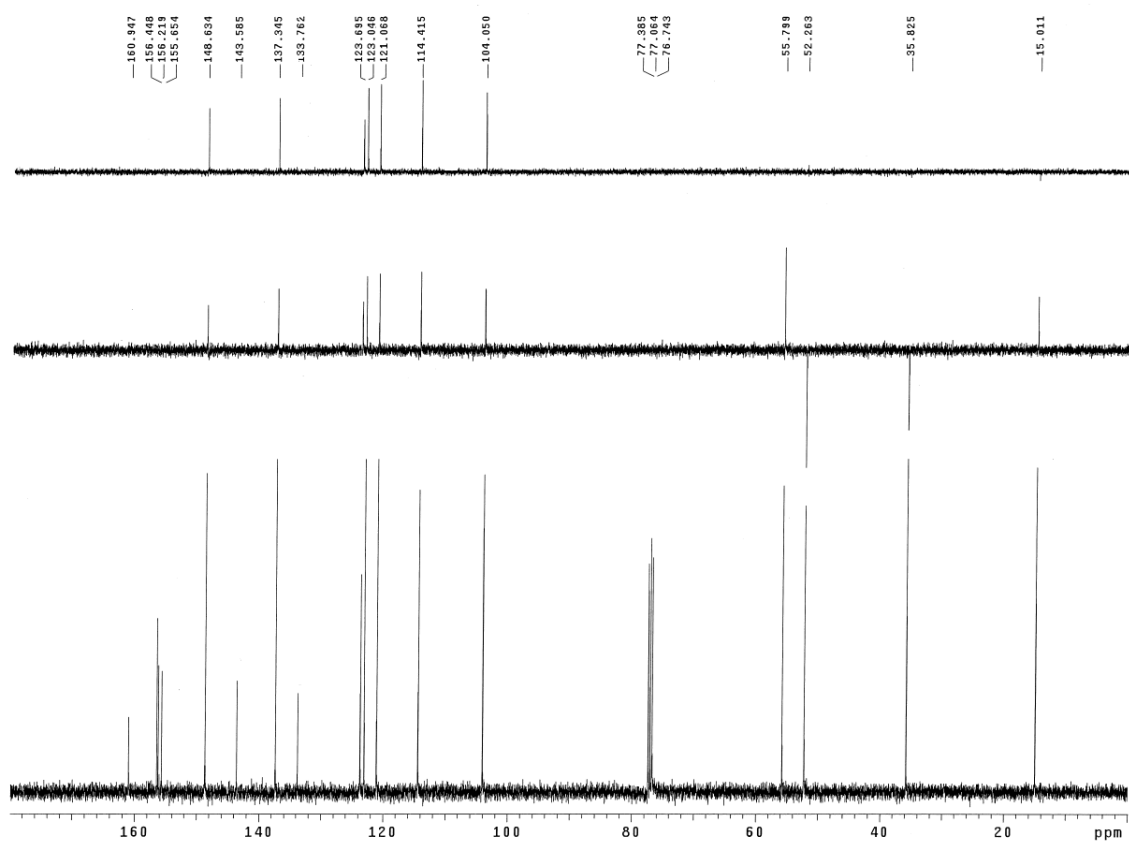
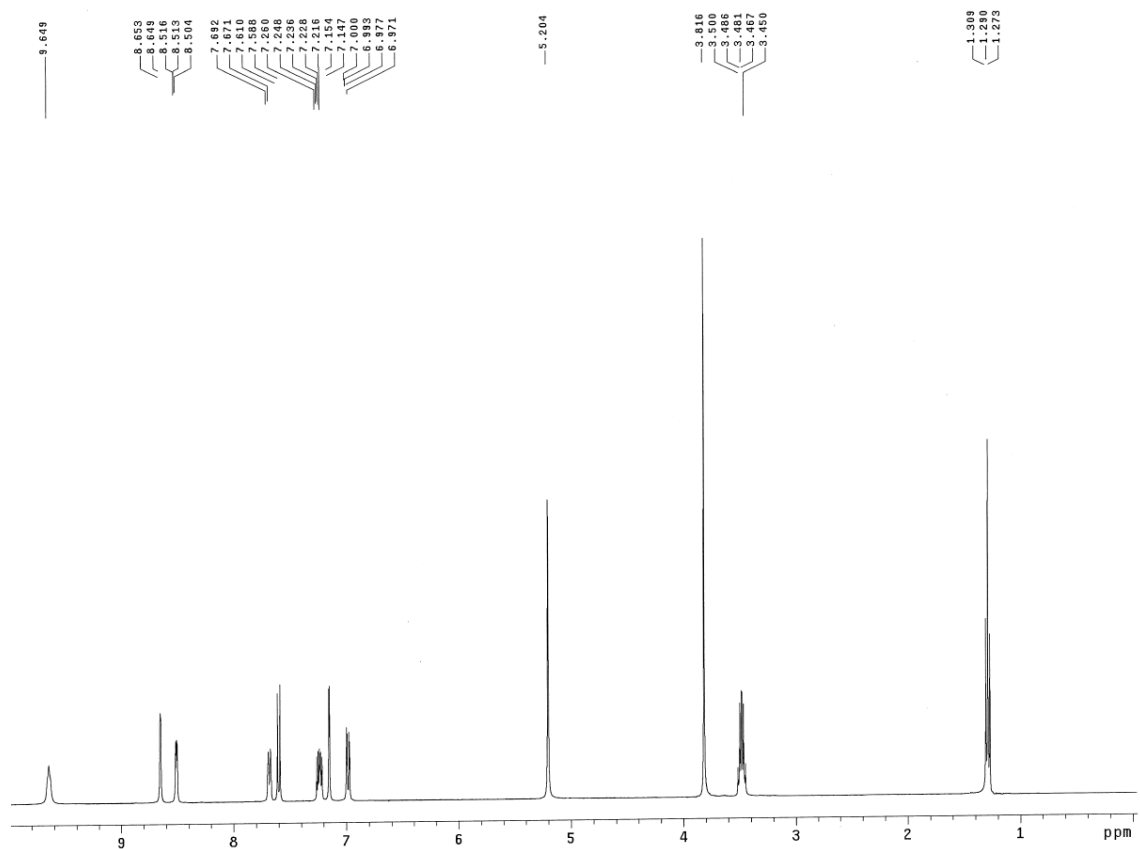
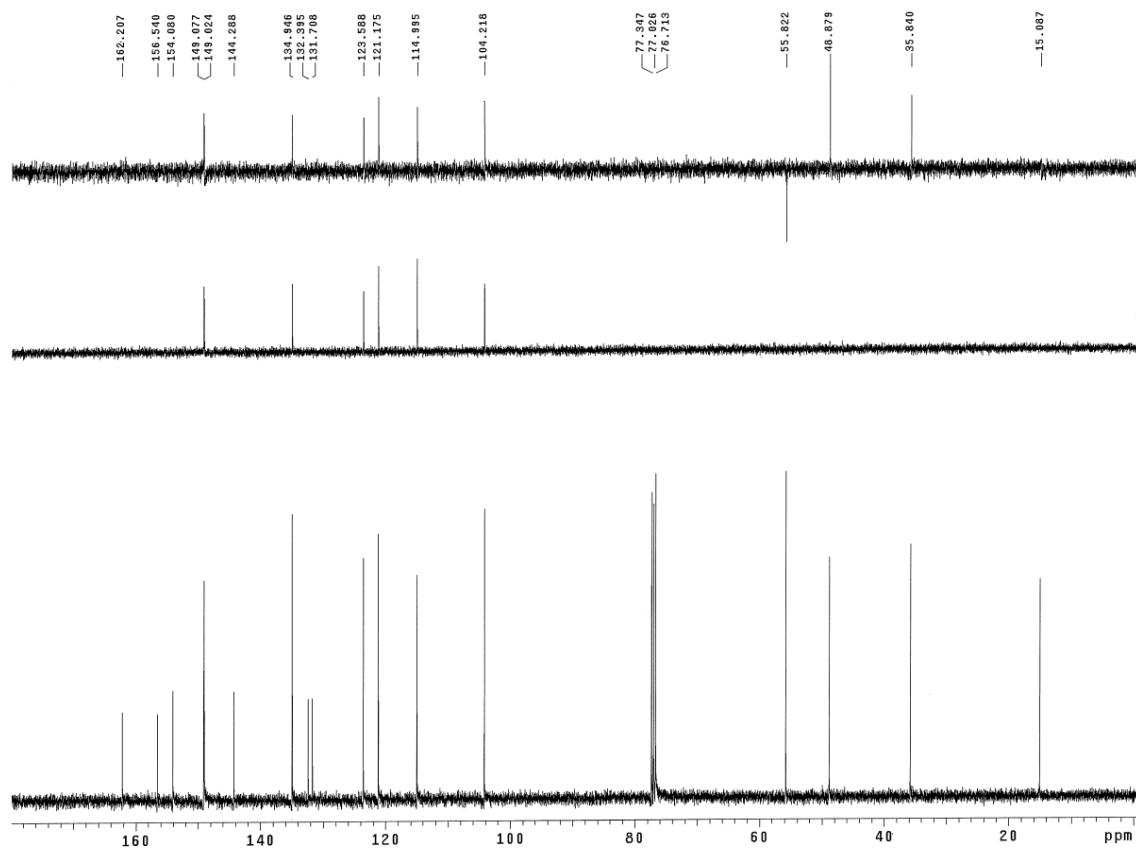


Figure S7b.  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz) spectra of compound **7**.



**Figure S8a.**  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz) spectrum of compound **8**.



**Figure S8b.**  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz) spectra of compound **8**.

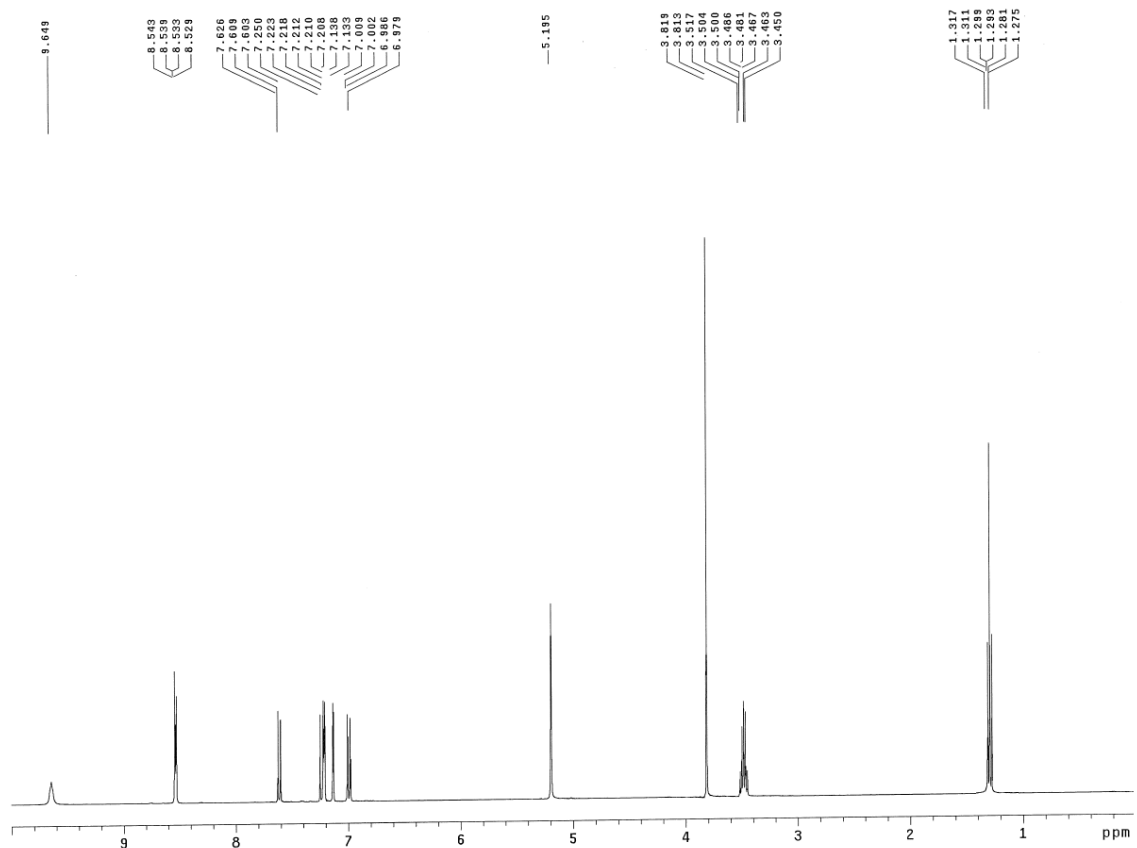


Figure S9a.  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz) spectrum of compound **9**.

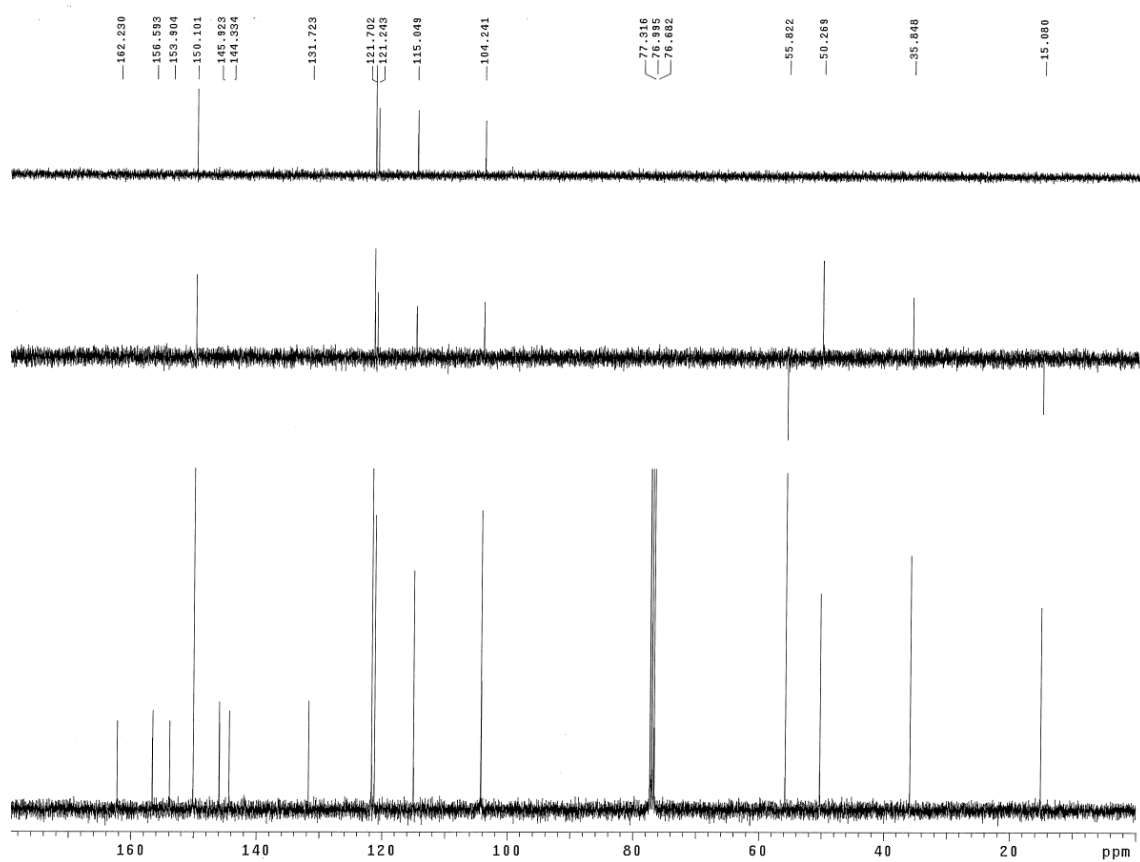
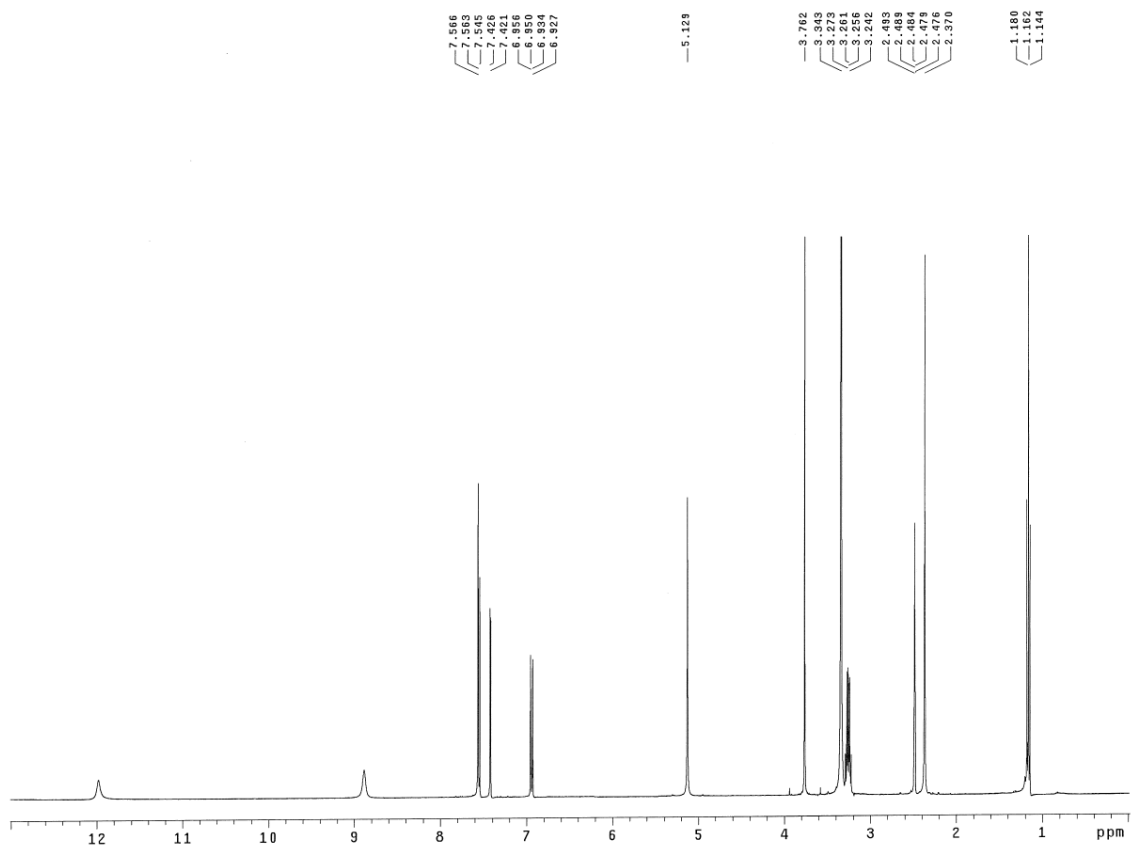
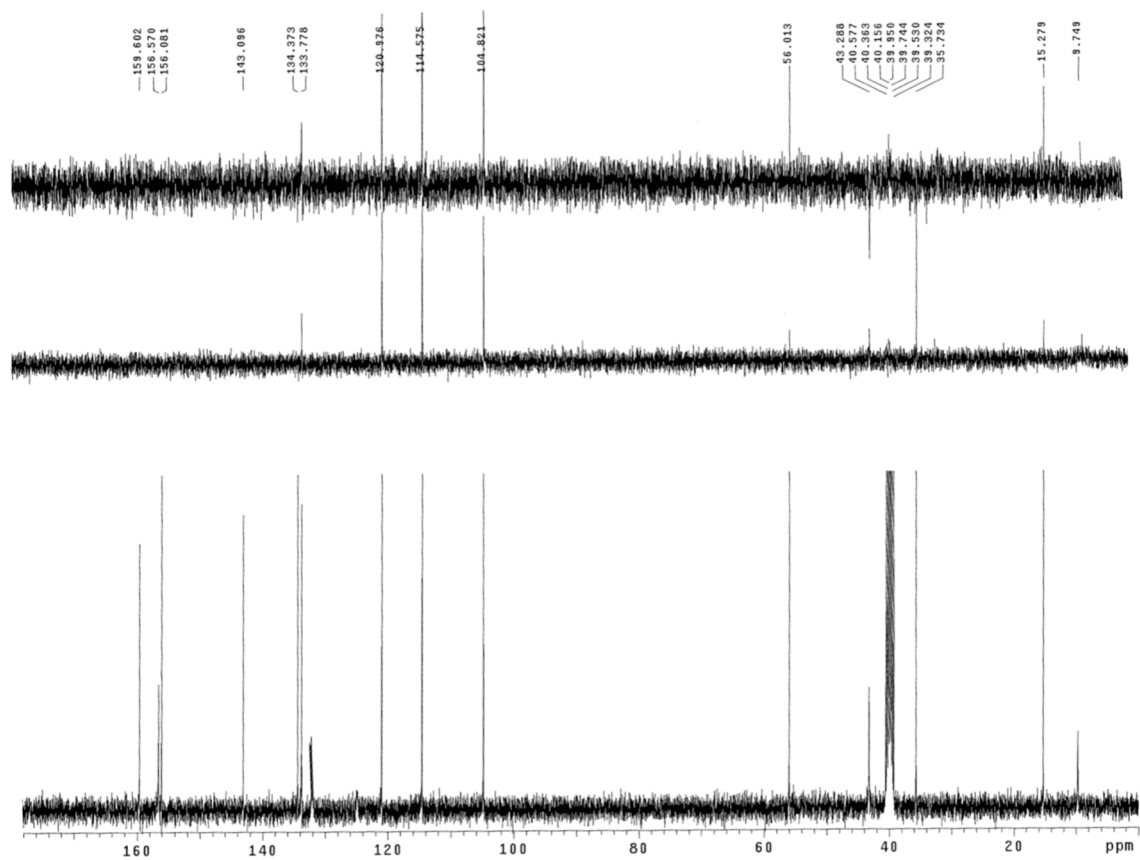


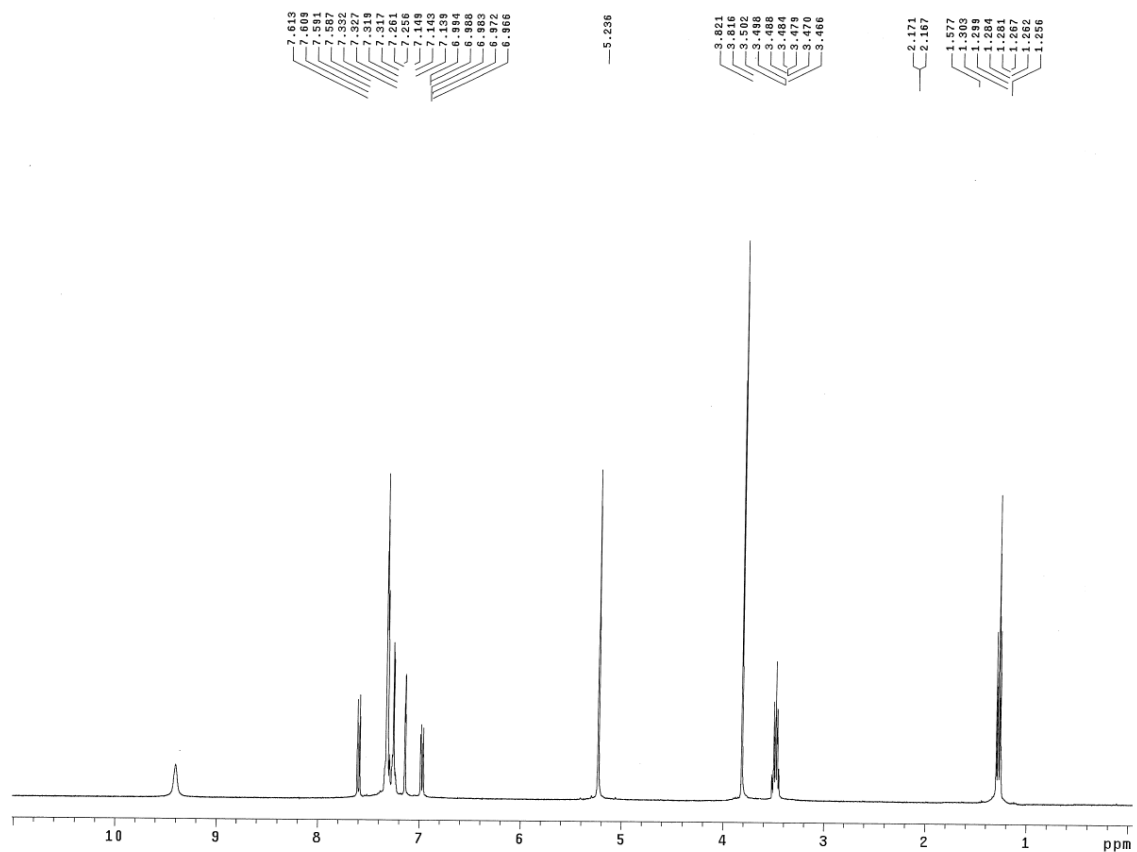
Figure S9b.  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz) spectra of compound **9**.



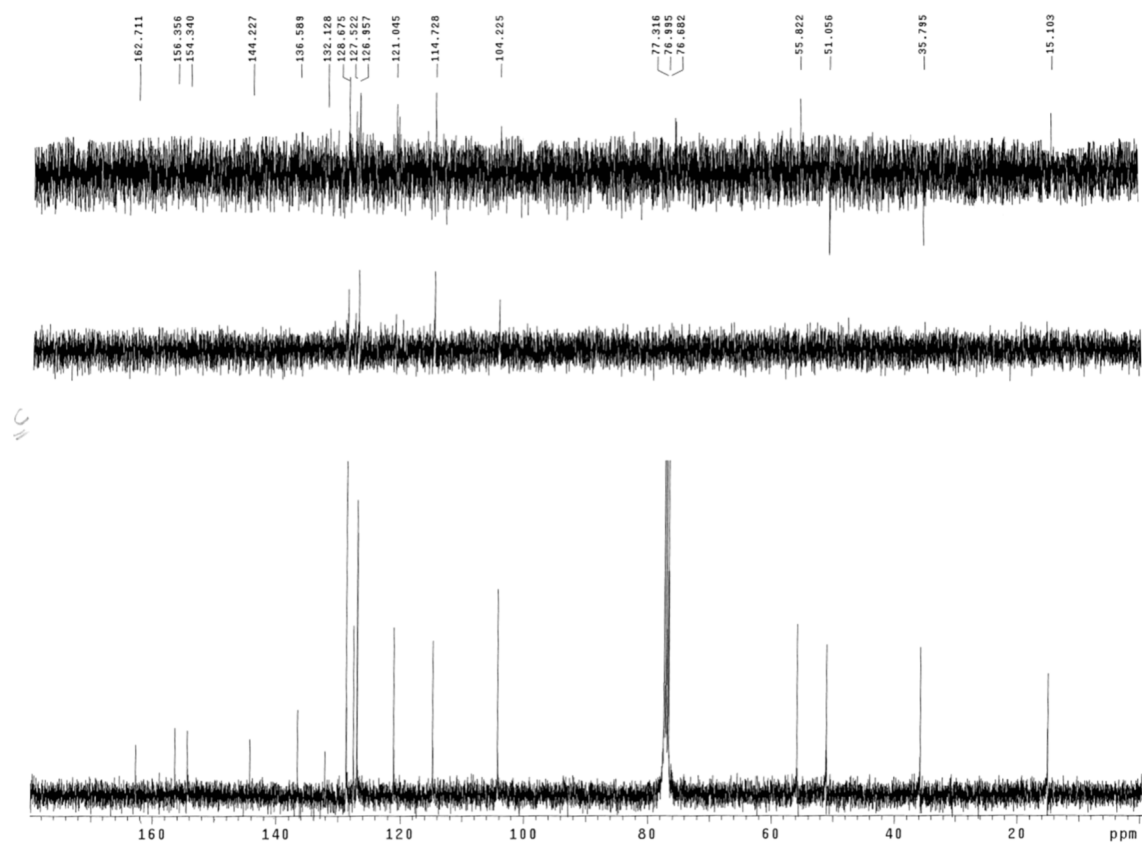
**Figure S10a.**  $^1\text{H}$  NMR (DMSO- $\text{d}_6$ , 400 MHz) spectrum of compound **10**.



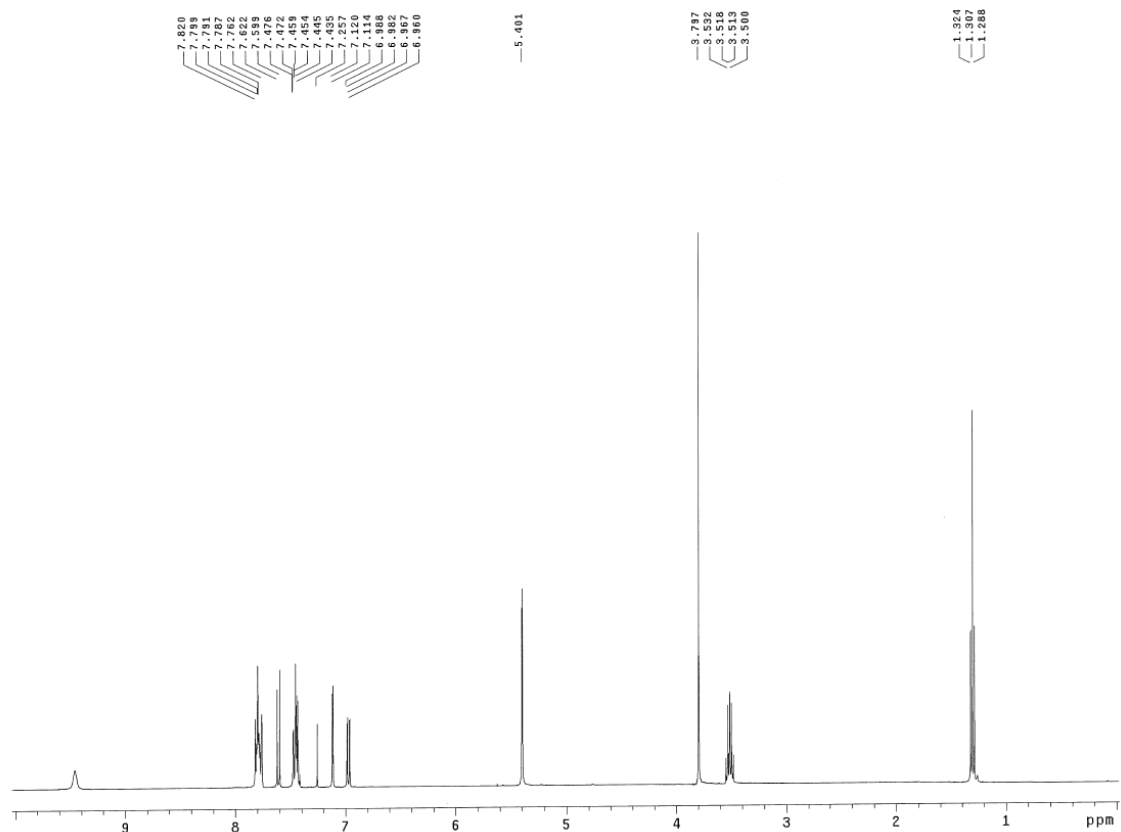
**Figure S10b.**  $^{13}\text{C}$  NMR (DMSO- $\text{d}_6$ , 100 MHz) spectra of compound **10**.



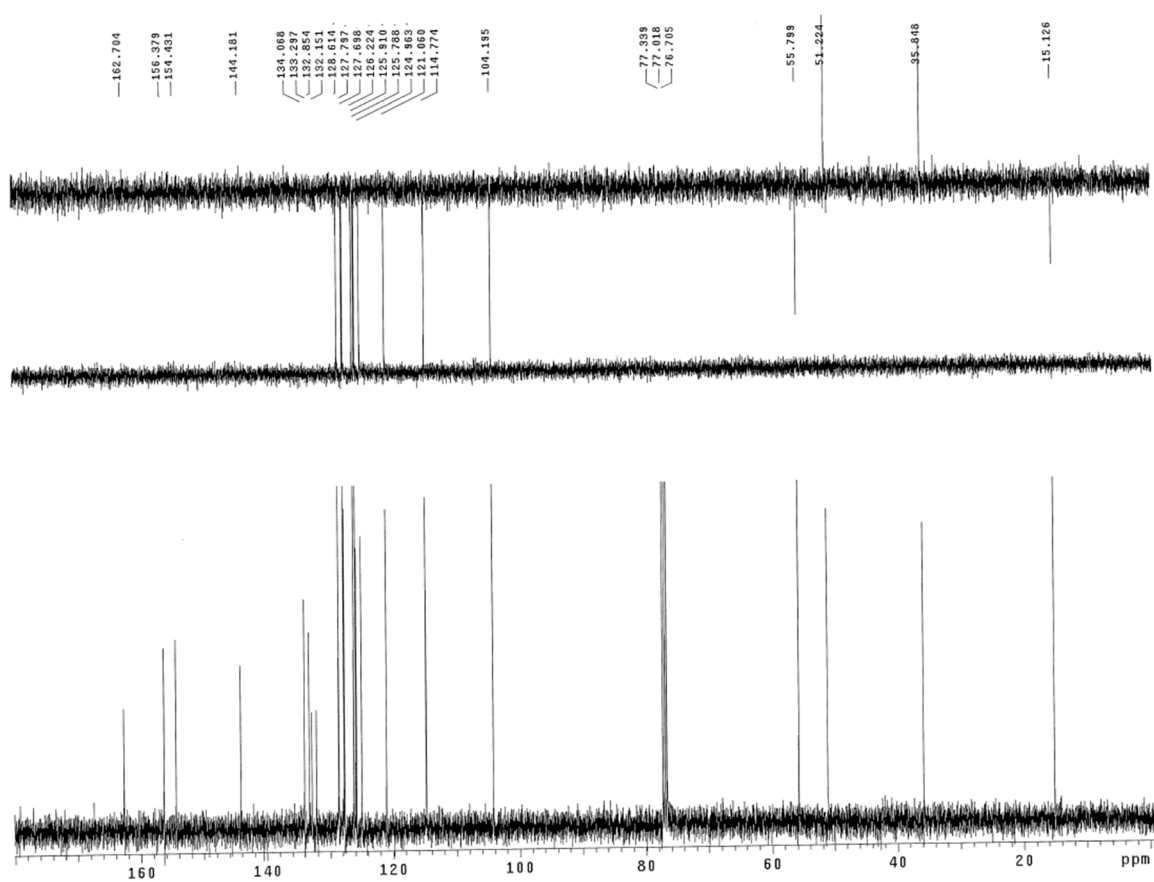
**Figure S11a.**  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz) spectrum of compound **11**.



**Figure S11b.**  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz) spectra of compound **11**.



**Figure S12a.**  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz) spectrum of compound **12**.



**Figure S12b.**  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz) spectra of compound **12**.

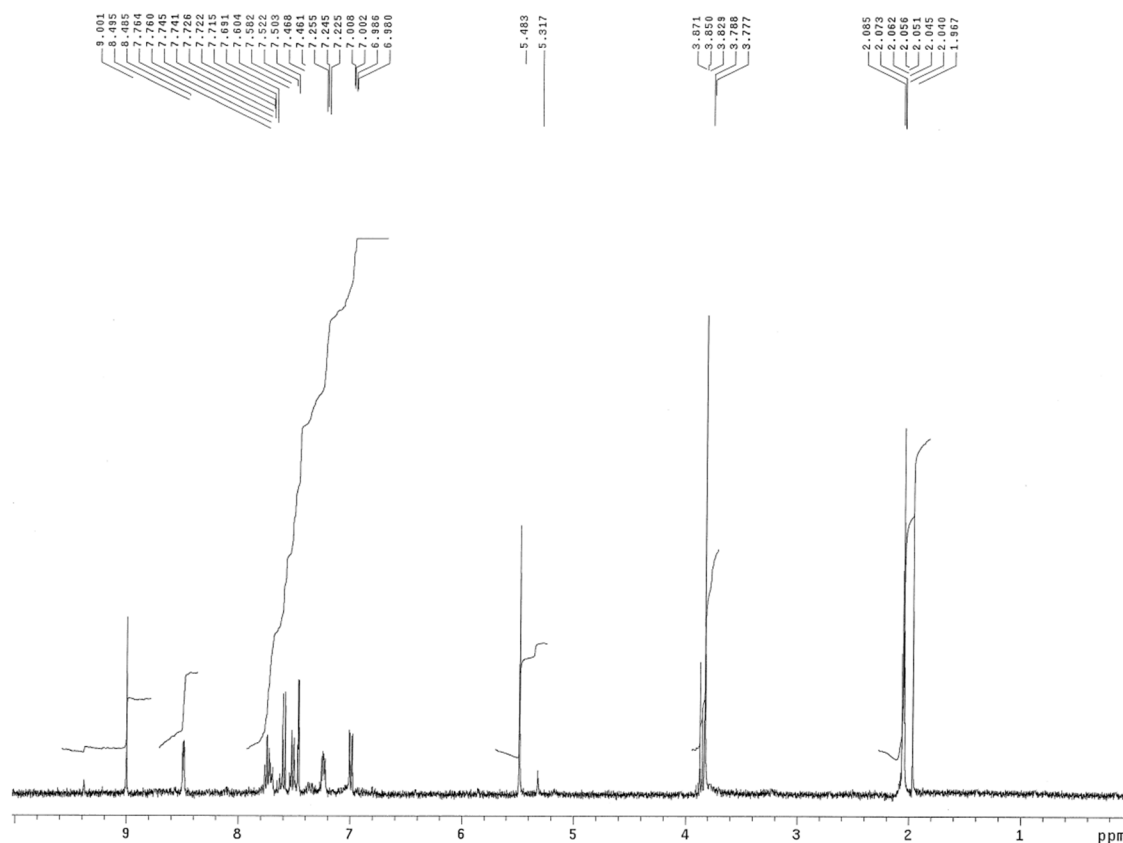


Figure S13a. <sup>1</sup>H NMR (acetone-d<sub>6</sub>, 400 MHz) spectrum of compound **13**.

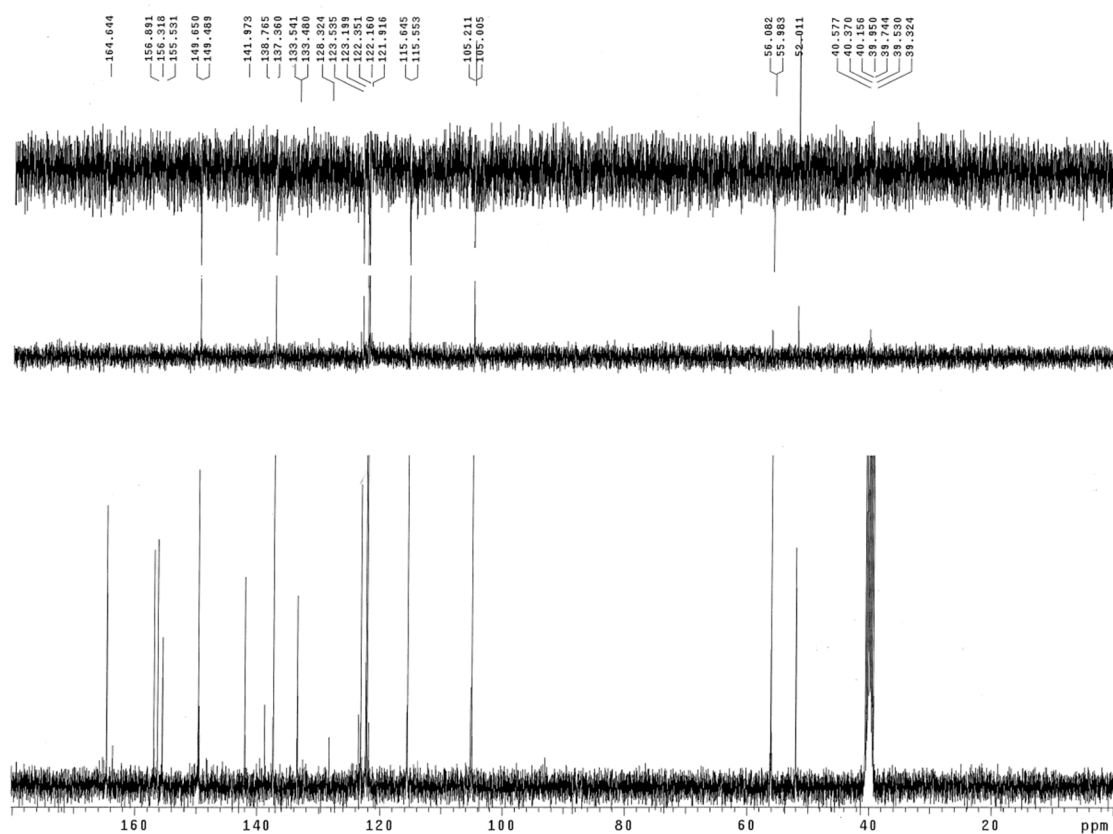


Figure S13b. <sup>13</sup>C NMR (DMSO-d<sub>6</sub>, 100 MHz) spectra of compound **13**.