

# Supplementary Information

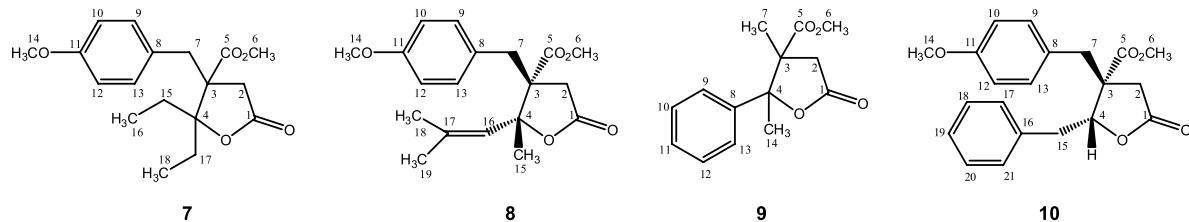
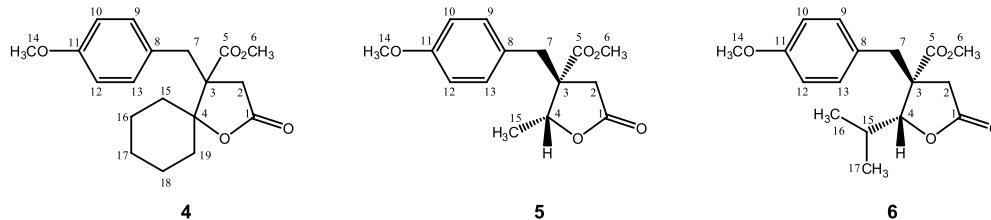
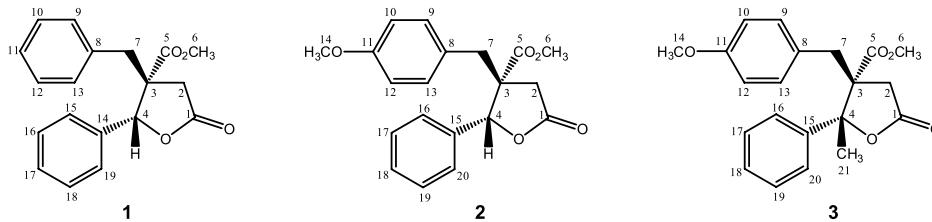
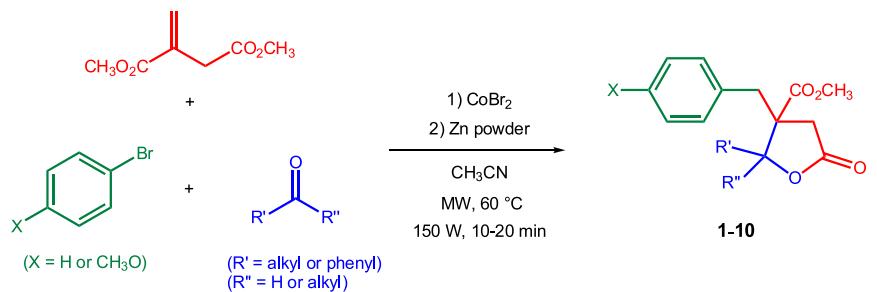
## Microwave-Assisted Synthesis and Antileishmanial Activity of 3-methoxycarbonyl- $\gamma$ -butyrolactone Derivatives

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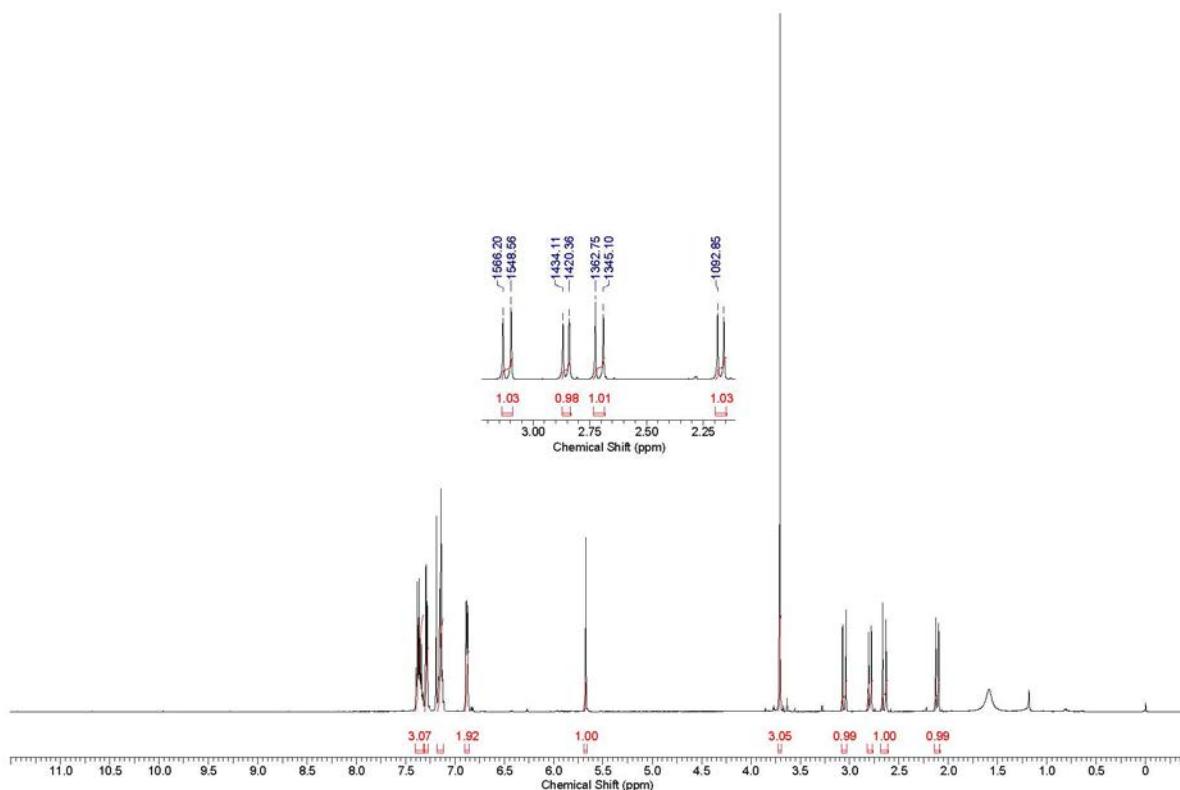
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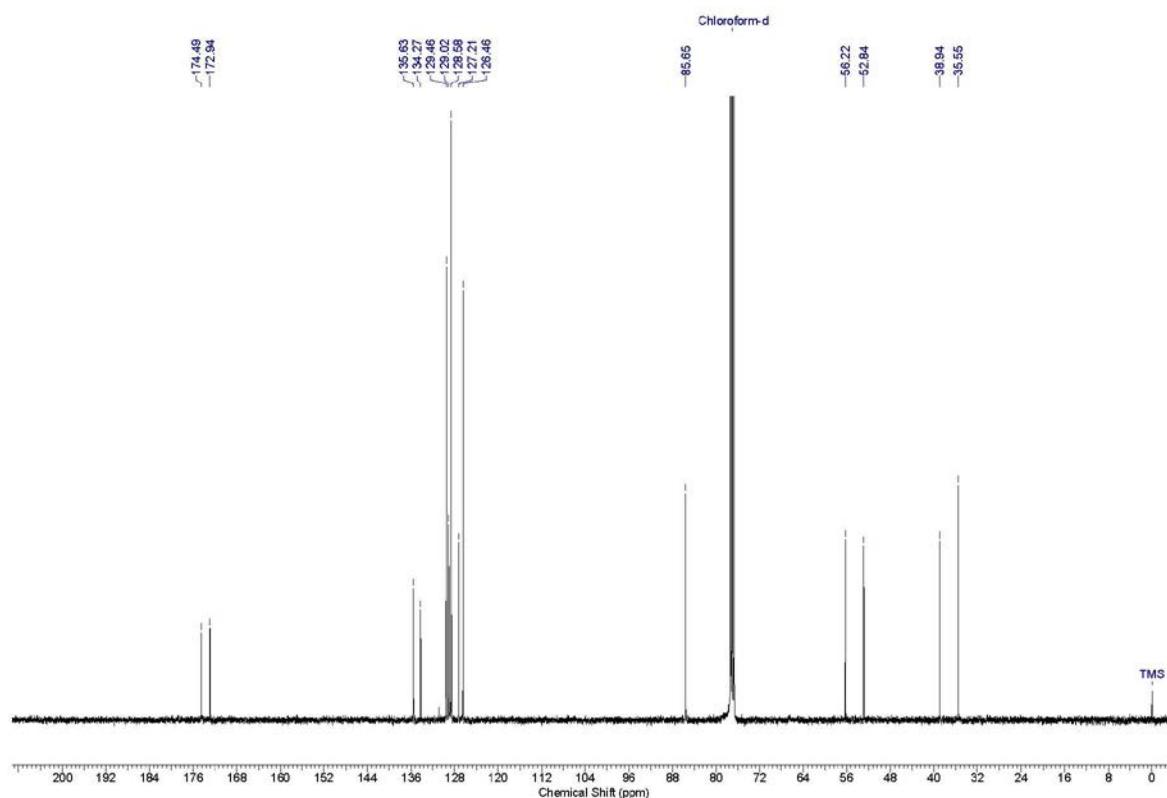
### General Information



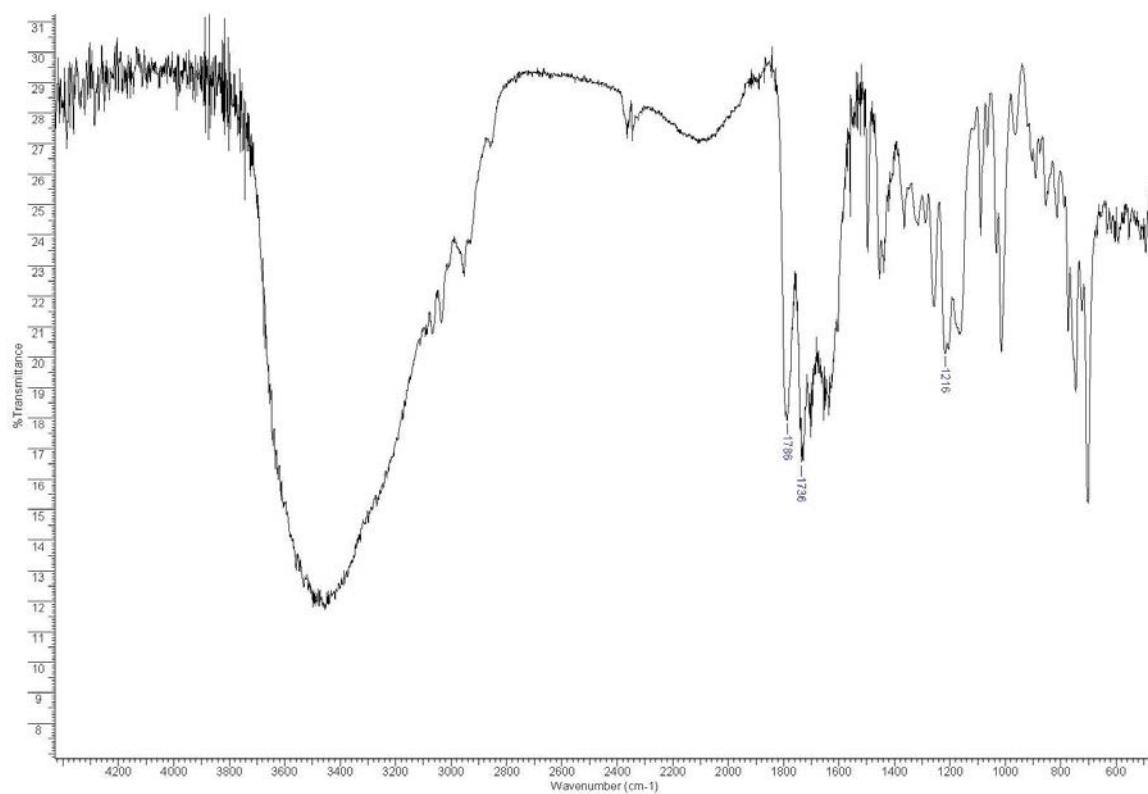
\*e-mail: pmdonate@usp.br



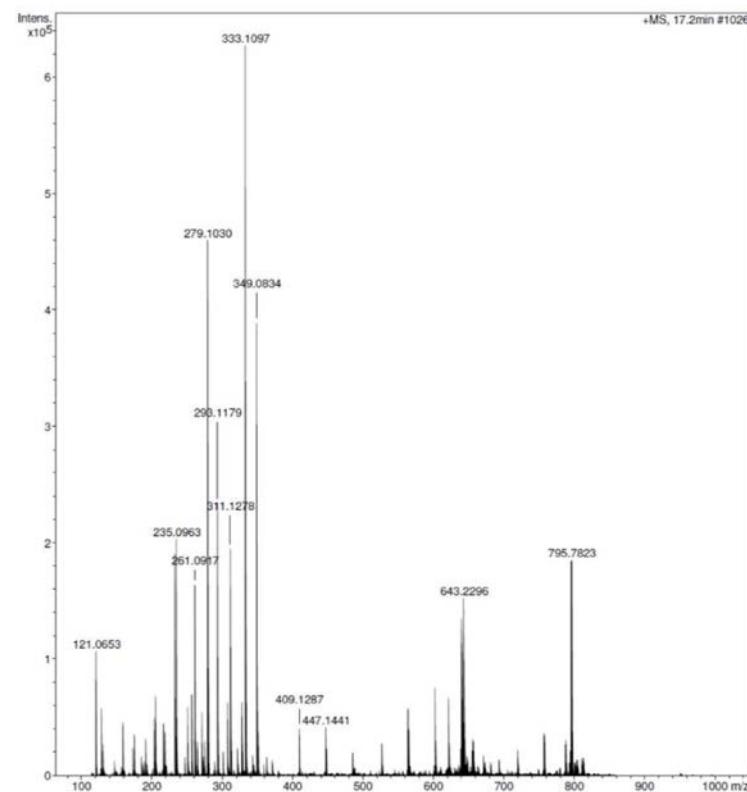
**Figure S1.**  $^1\text{H}$  NMR spectrum of compound **1** ( $\text{CDCl}_3$ , 400 MHz).



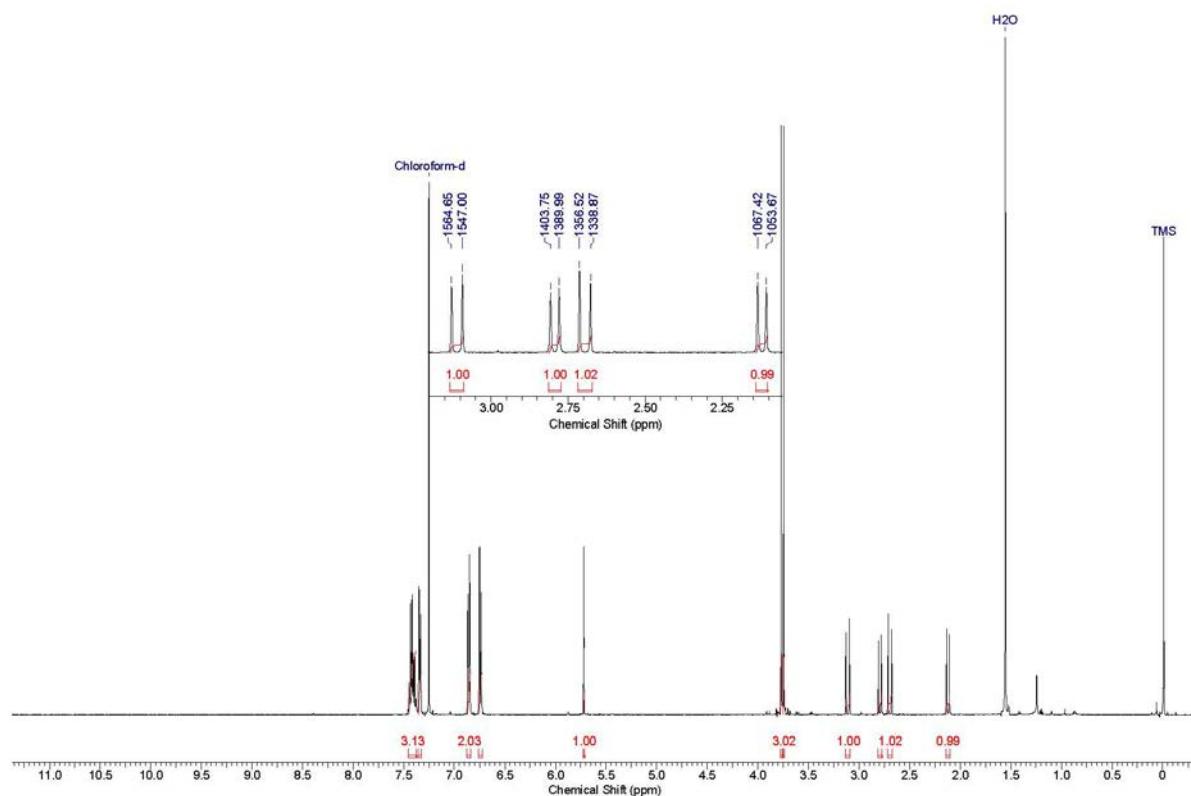
**Figure S2.**  $^{13}\text{C}$  NMR spectrum of compound **1** ( $\text{CDCl}_3$ , 100 MHz).



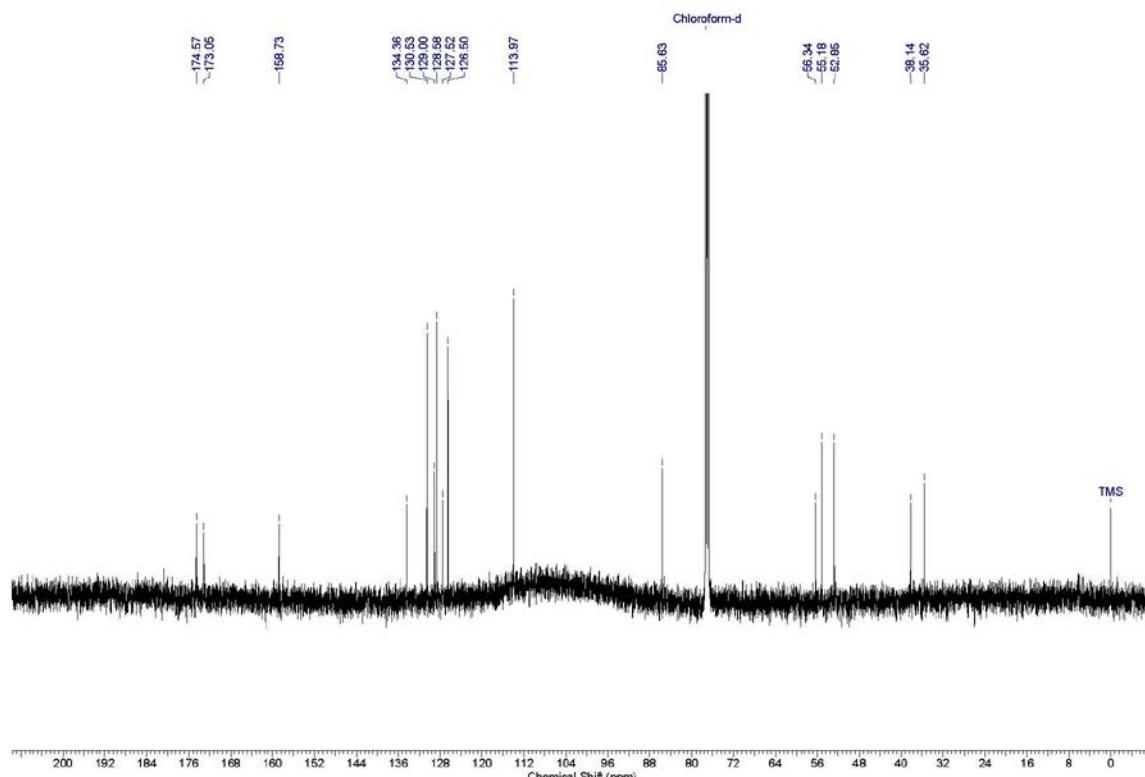
**Figure S3.** IR (KBr) spectrum of compound 1.



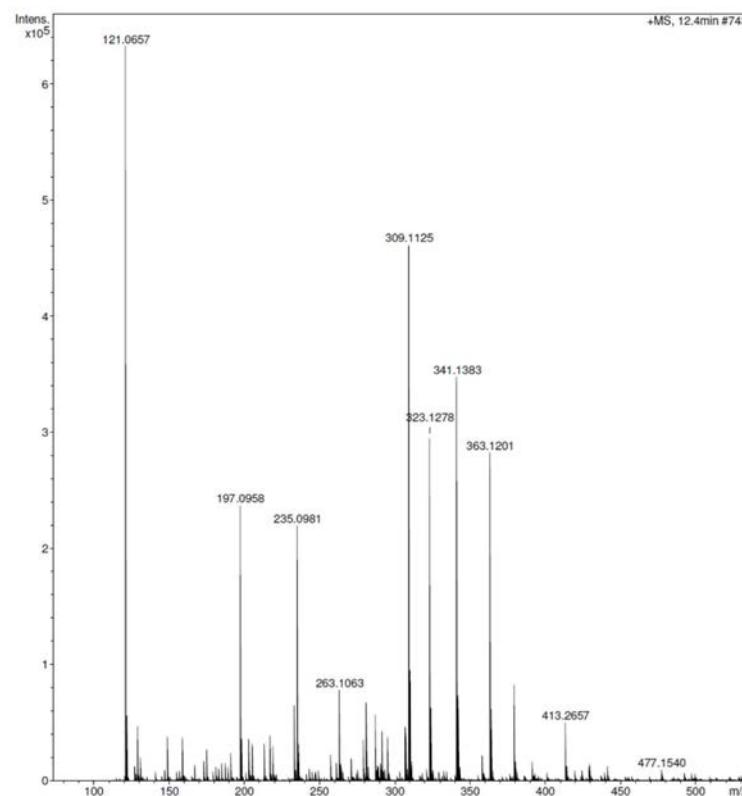
**Figure S4.** ESI-MS spectrum of compound 1.



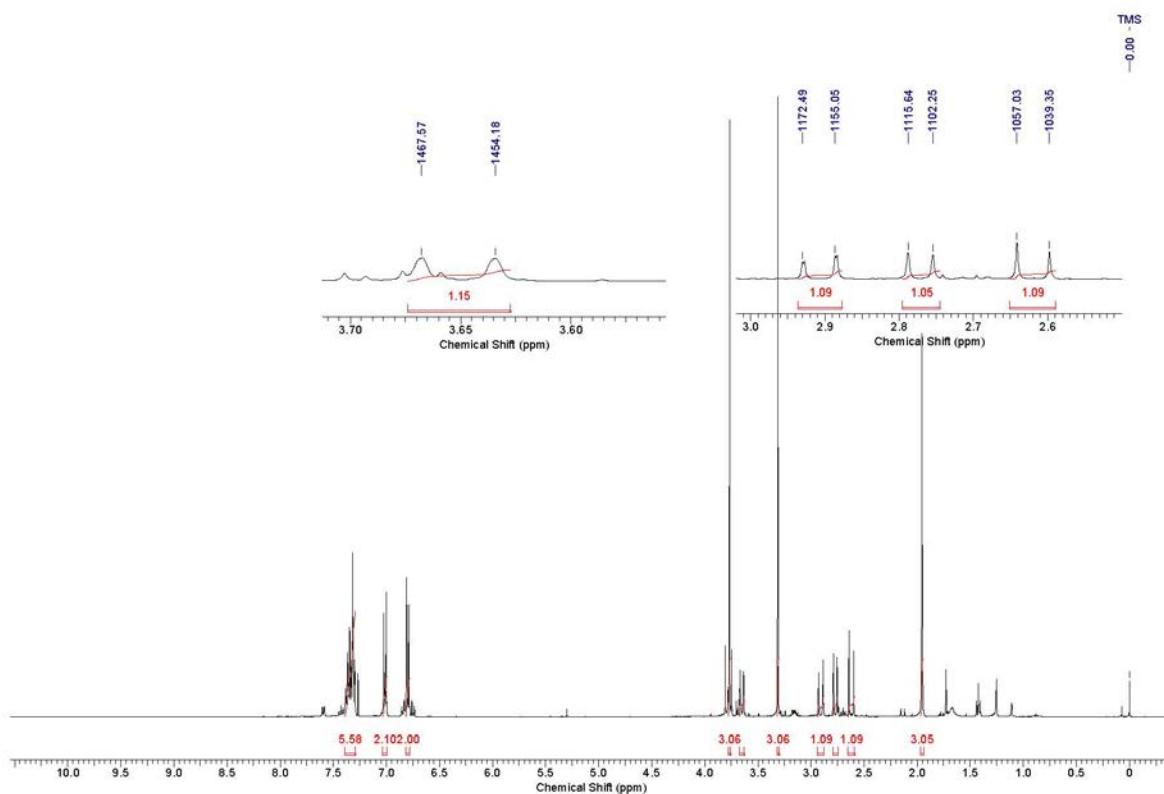
**Figure S5.** <sup>1</sup>H NMR spectrum of compound 2 (CDCl<sub>3</sub>, 400 MHz).



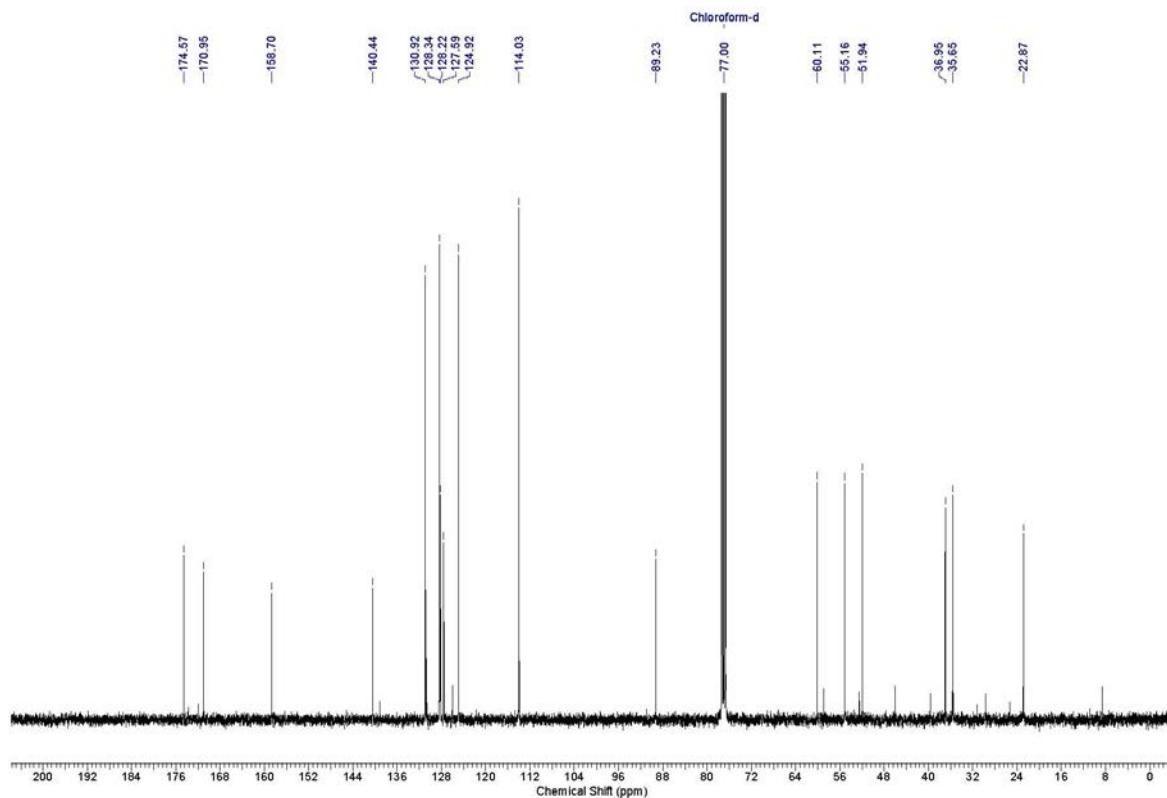
**Figure S6.** <sup>13</sup>C NMR spectrum of compound 2 (CDCl<sub>3</sub>, 100 MHz).



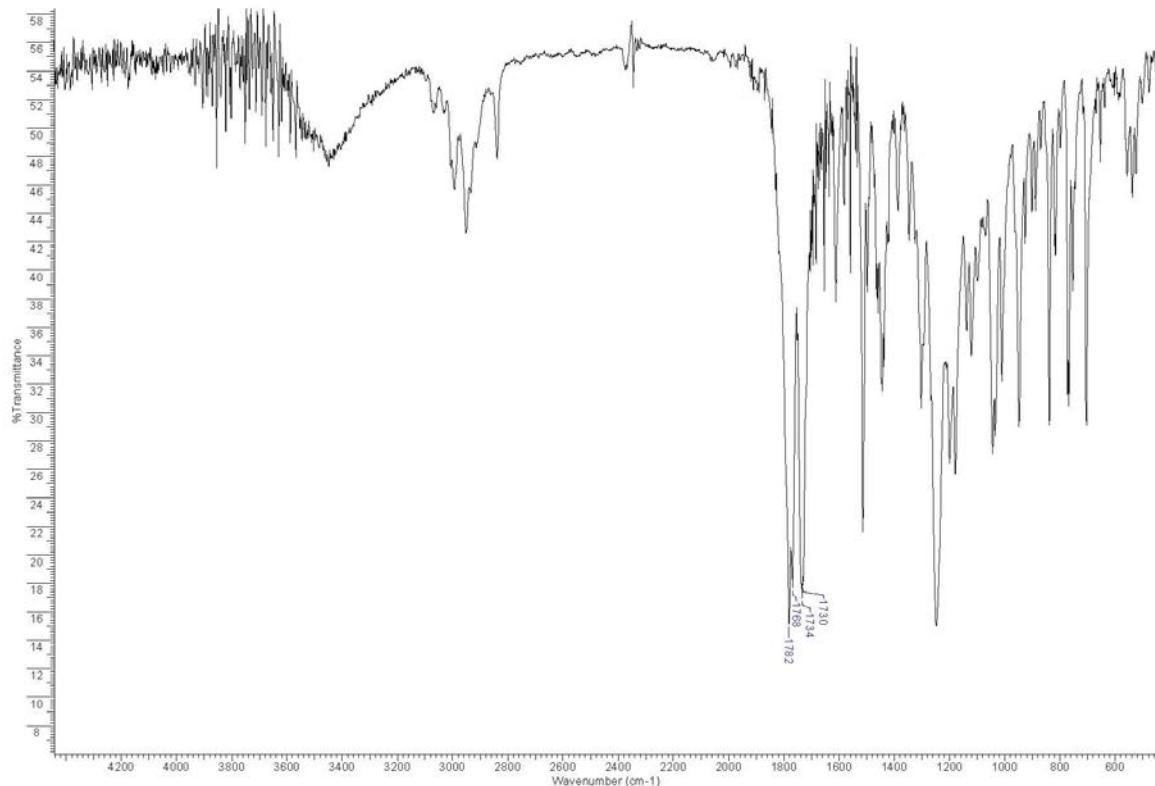
**Figure S7.** ESI-MS spectrum of compound 2.



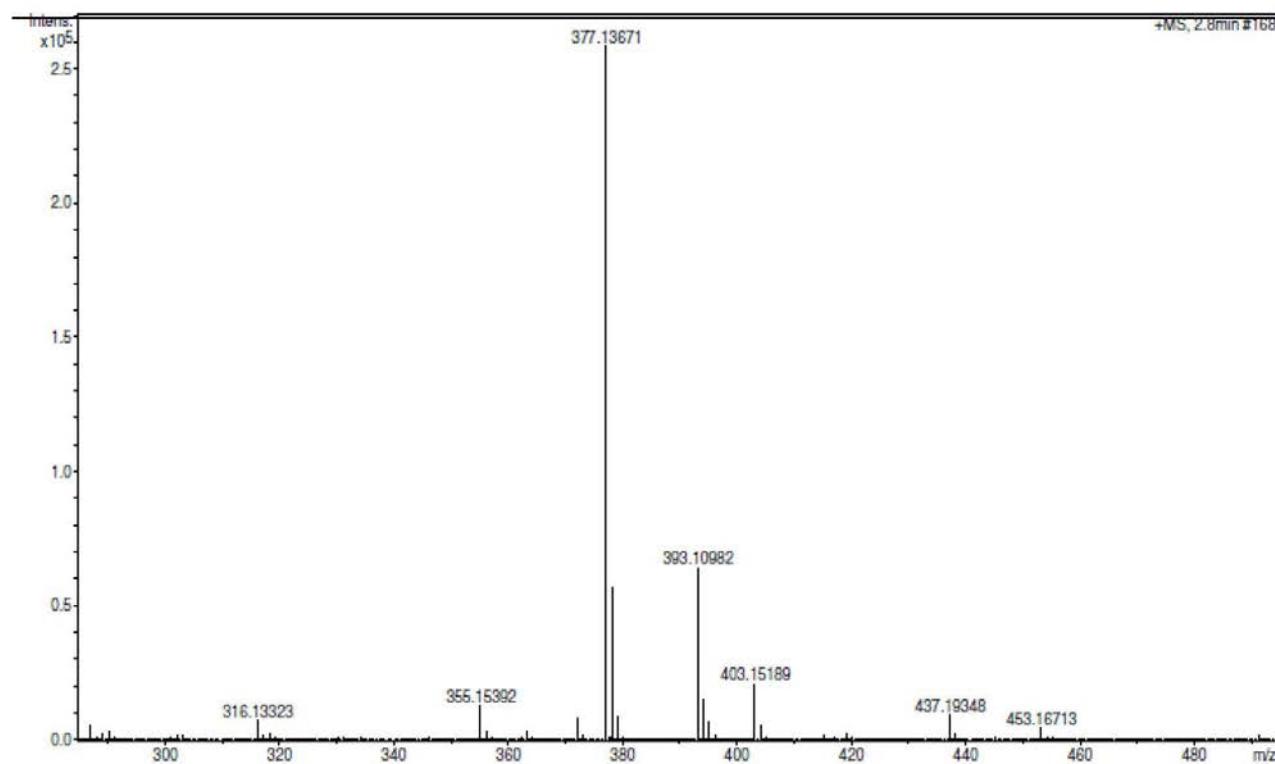
**Figure S8.** <sup>1</sup>H NMR spectrum of compound 3 (CDCl<sub>3</sub>, 400 MHz).



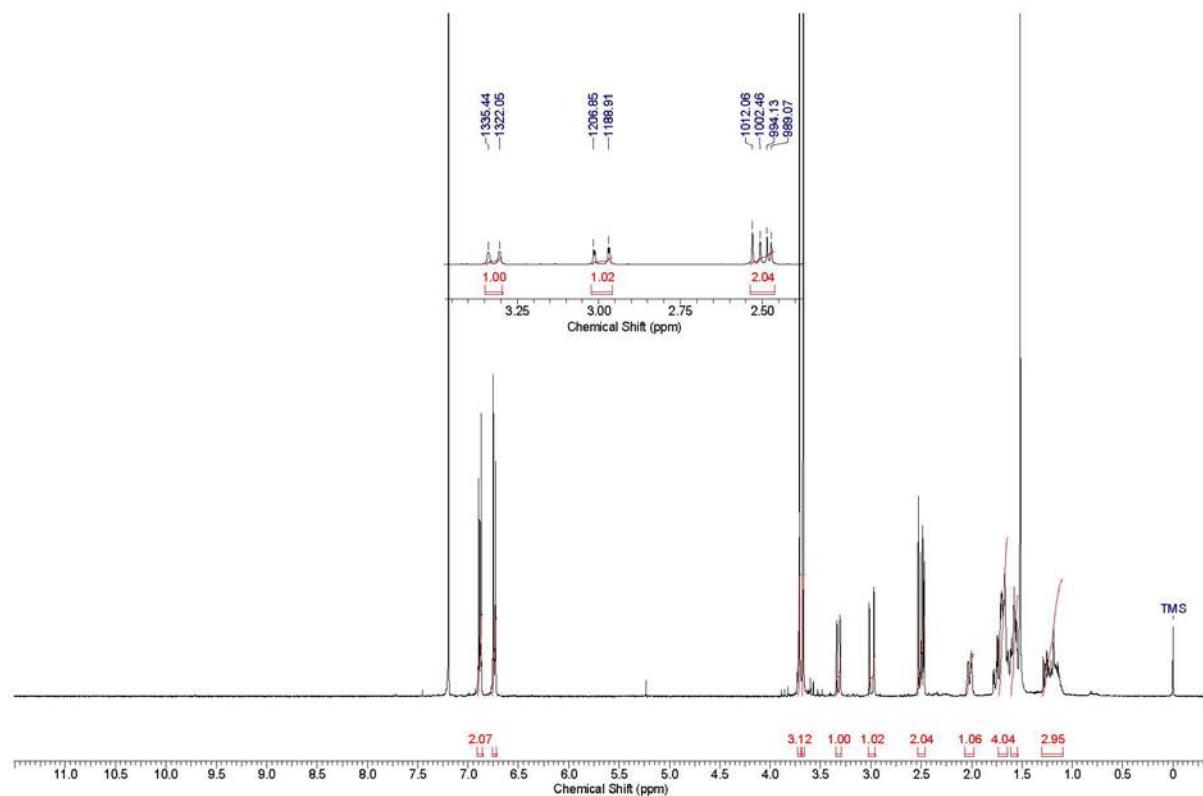
**Figure S9.**  $^{13}\text{C}$  NMR spectrum of compound 3 ( $\text{CDCl}_3$ , 100 MHz).



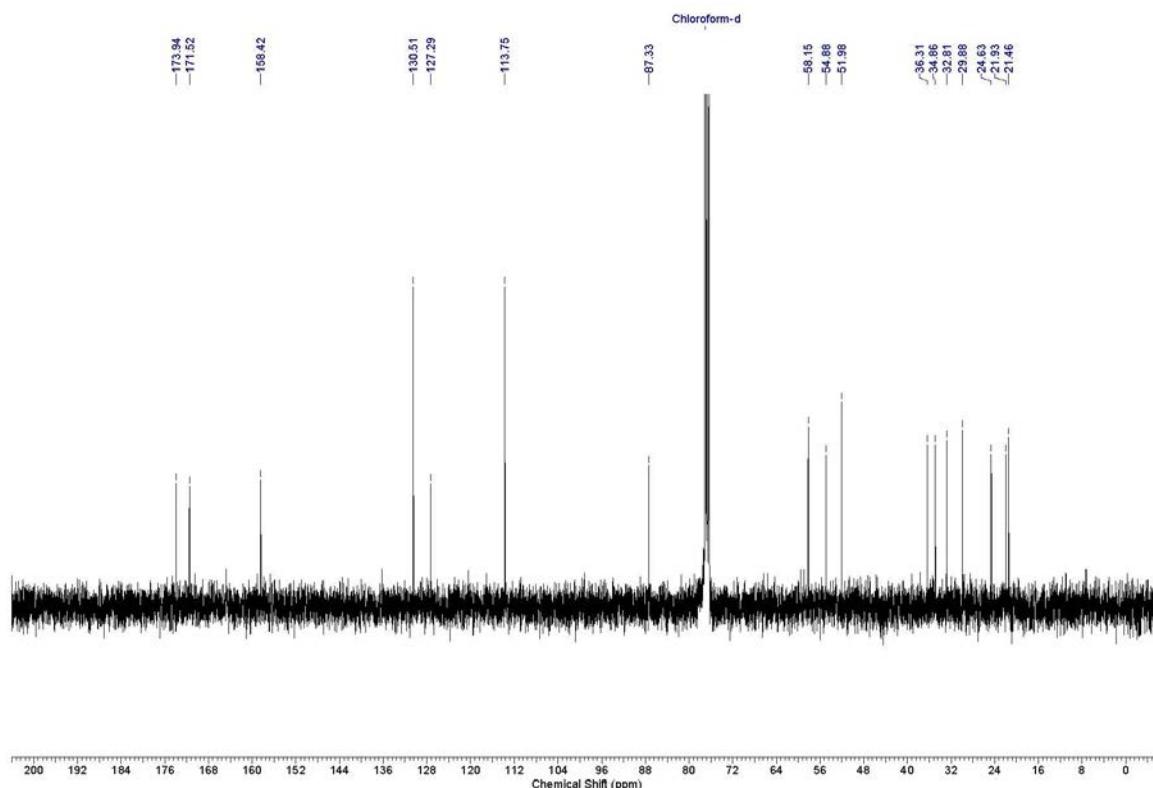
**Figure S10.** IR (KBr) spectrum of compound 3.



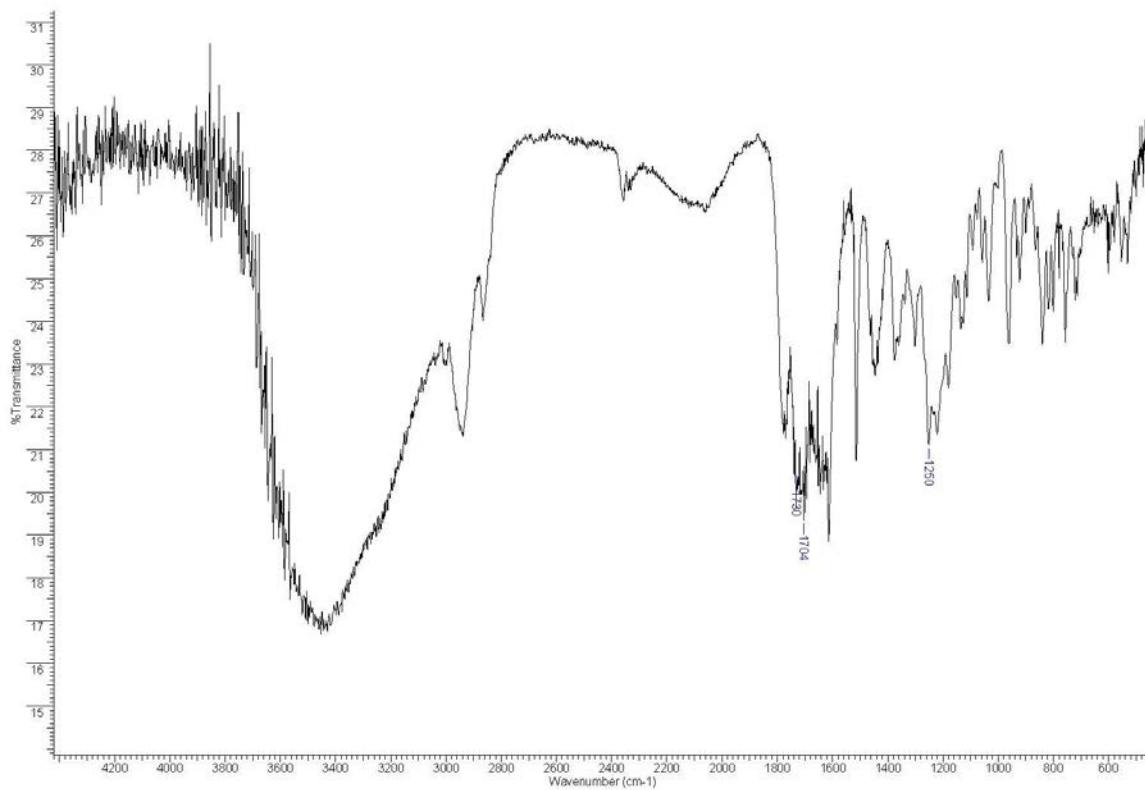
**Figure S11.** ESI-MS spectrum of compound 3.



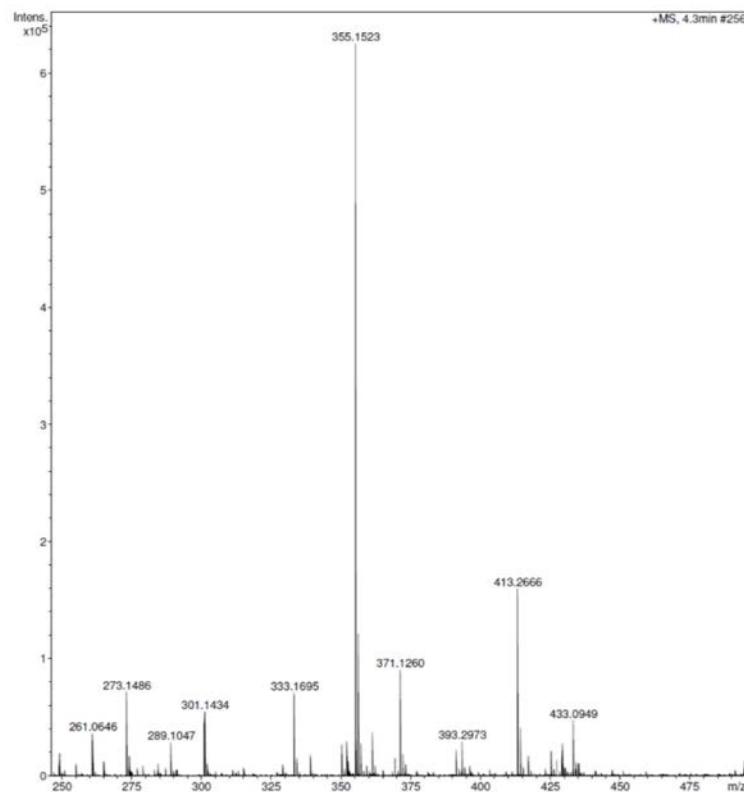
**Figure S12.** <sup>1</sup>H NMR spectrum of compound 4 (CDCl<sub>3</sub>, 400 MHz).



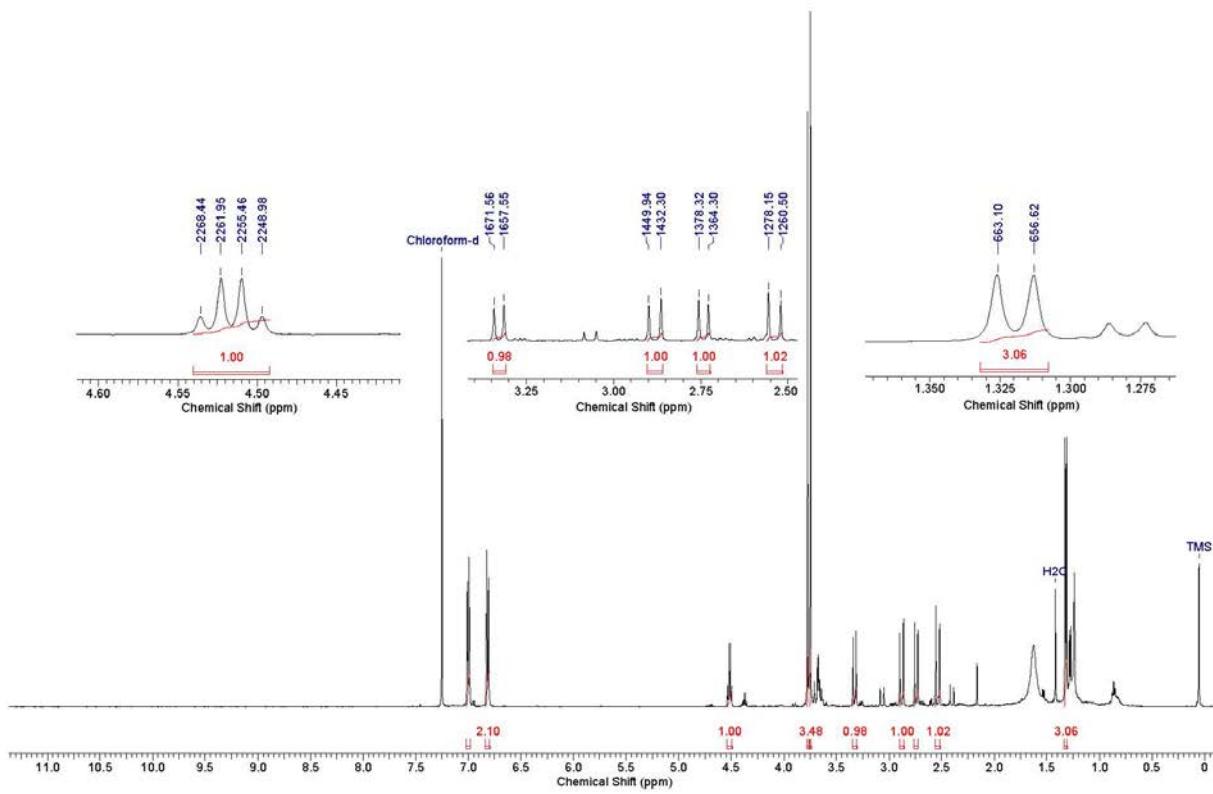
**Figure S13.**  $^{13}\text{C}$  NMR spectrum of compound **4** ( $\text{CDCl}_3$ , 100 MHz).



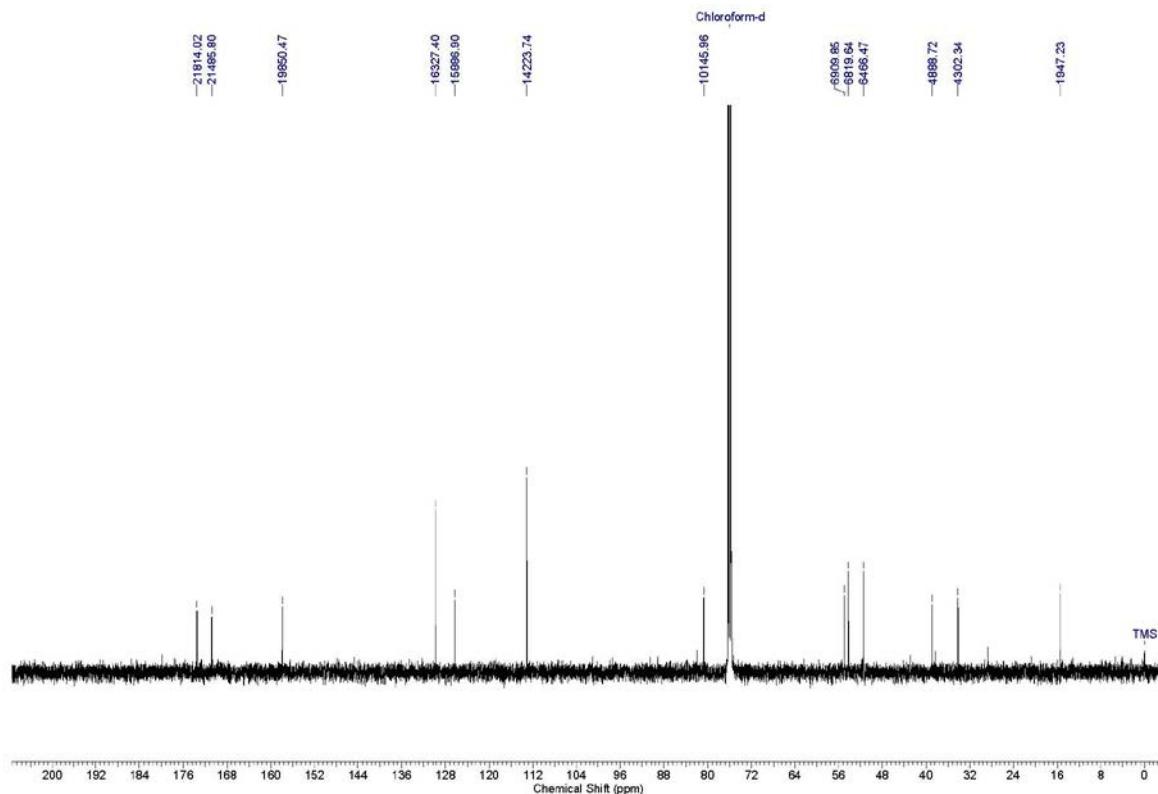
**Figure S14.** IR (KBr) spectrum of compound **4**.



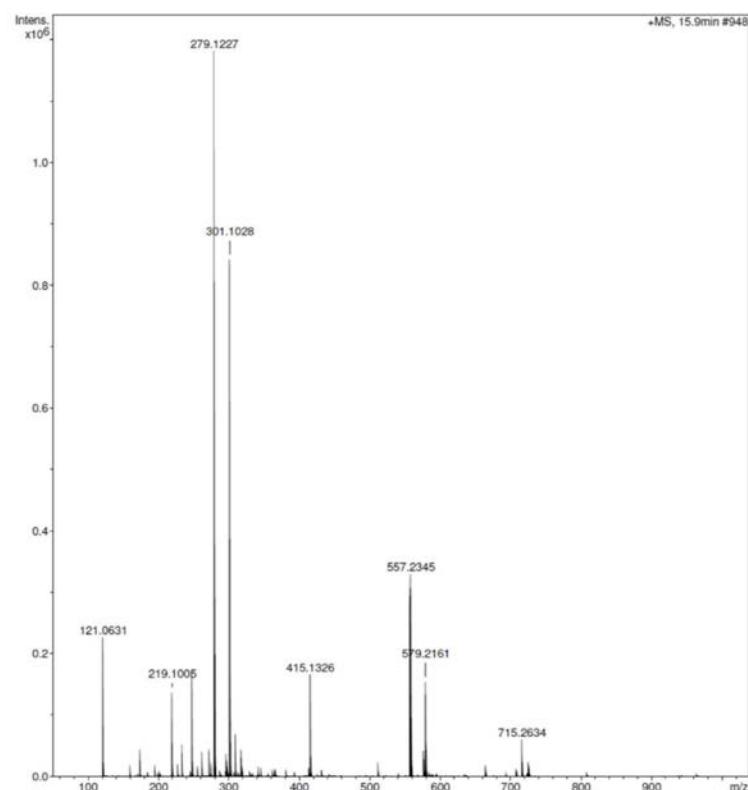
**Figure S15.** ESI-MS spectrum of compound 4.



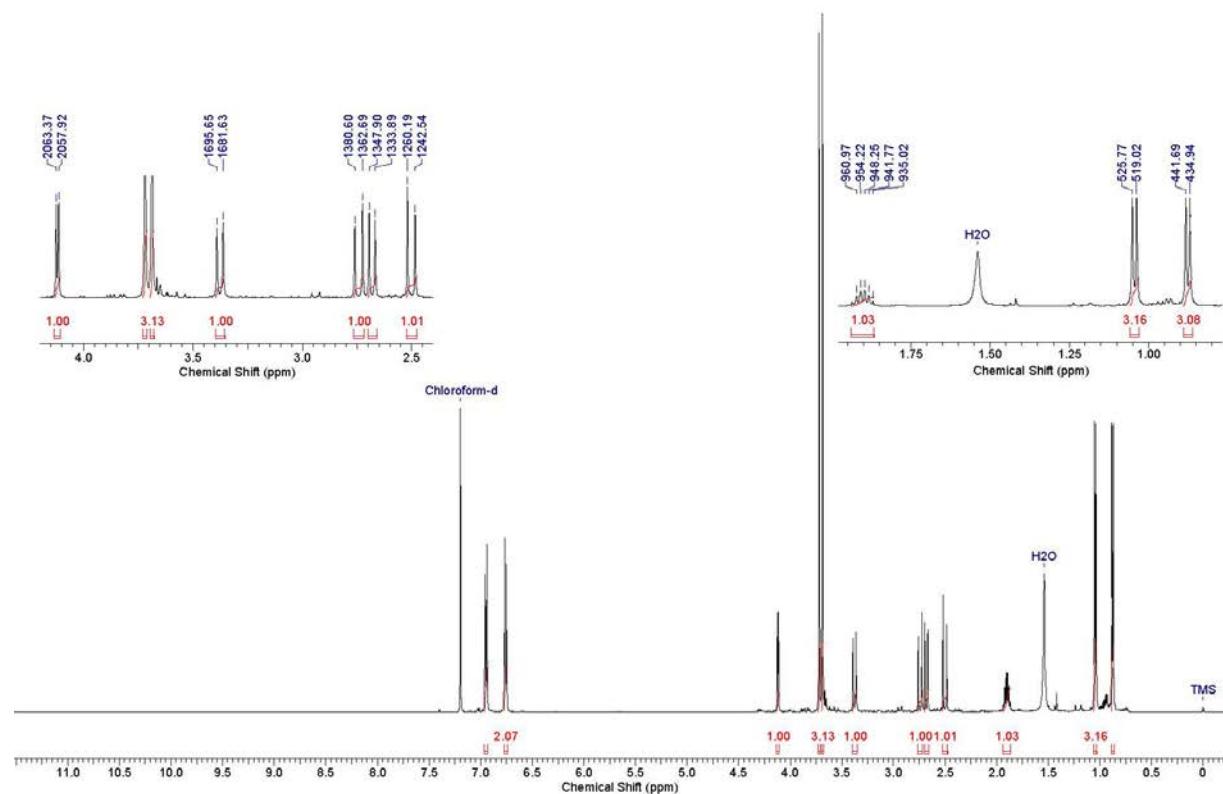
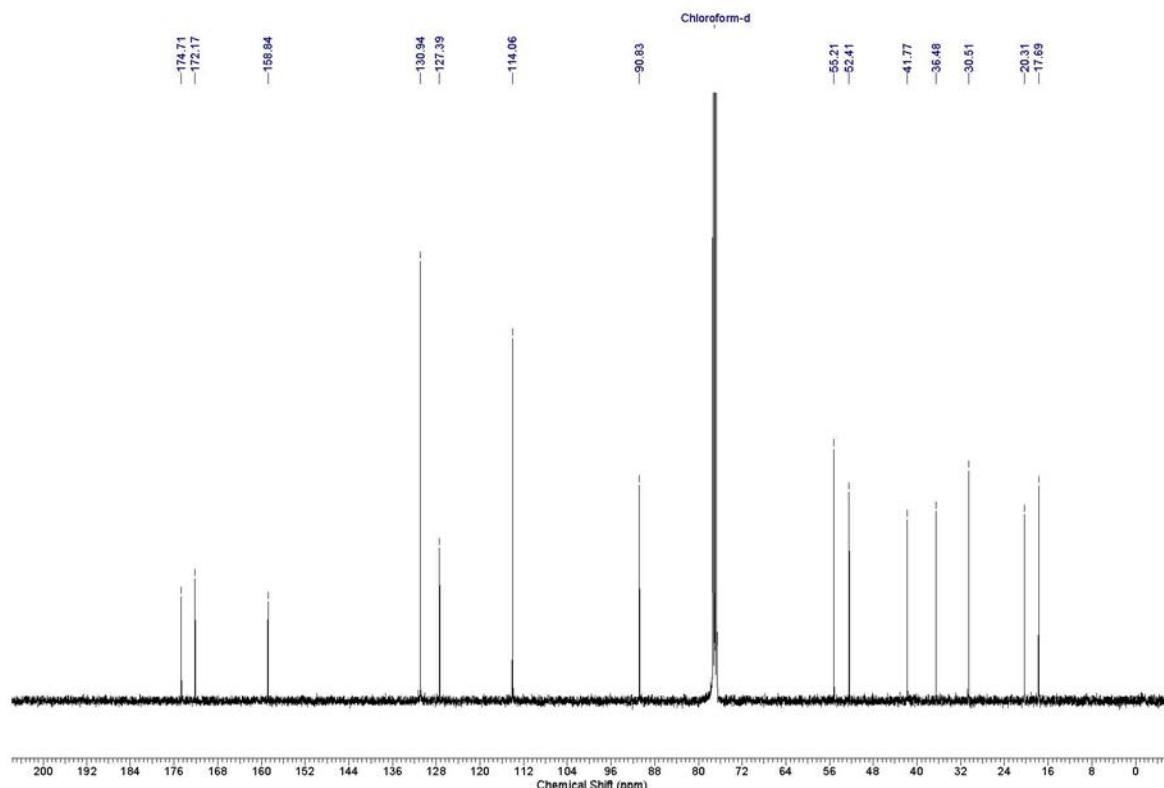
**Figure S16.**  $^1\text{H}$  NMR spectrum of compound **5** ( $\text{CDCl}_3$ , 400 MHz).



**Figure S17.**  $^{13}\text{C}$  NMR spectrum of compound **5** ( $\text{CDCl}_3$ , 100 MHz).



**Figure S18.** ESI-MS spectrum of compound **5**.

**Figure S19.**  $^1\text{H}$  NMR spectrum of compound **6** ( $\text{CDCl}_3$ , 400 MHz).**Figure S20.**  $^{13}\text{C}$  NMR spectrum of compound **6** ( $\text{CDCl}_3$ , 100 MHz).

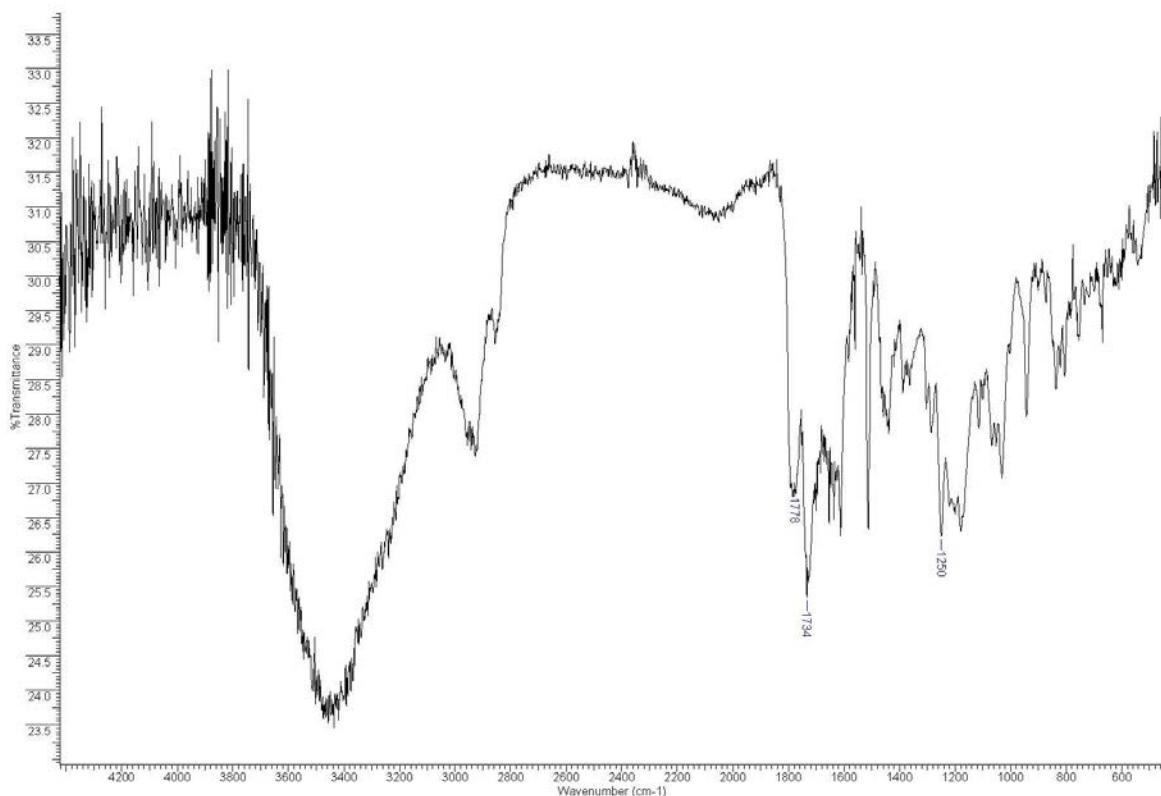


Figure S21. IR (KBr) spectrum of compound 6.

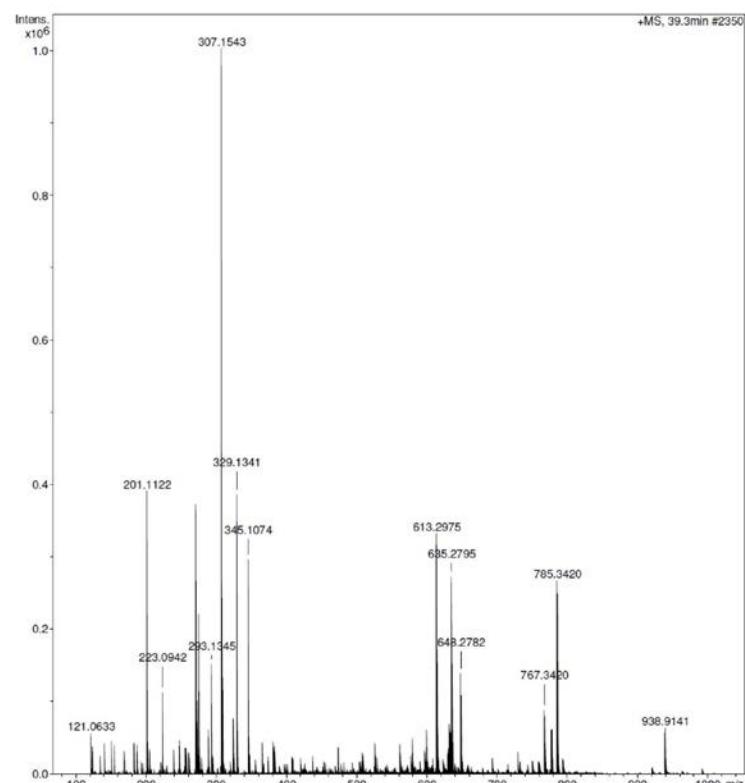
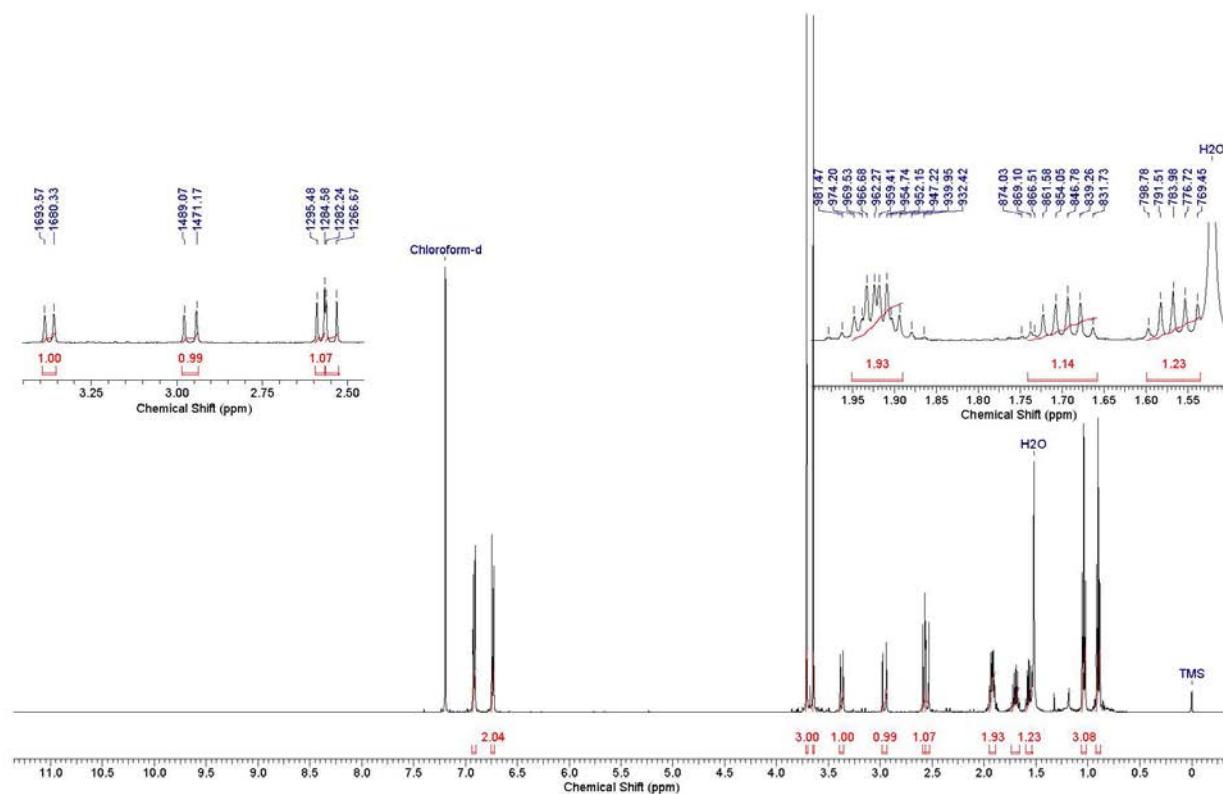
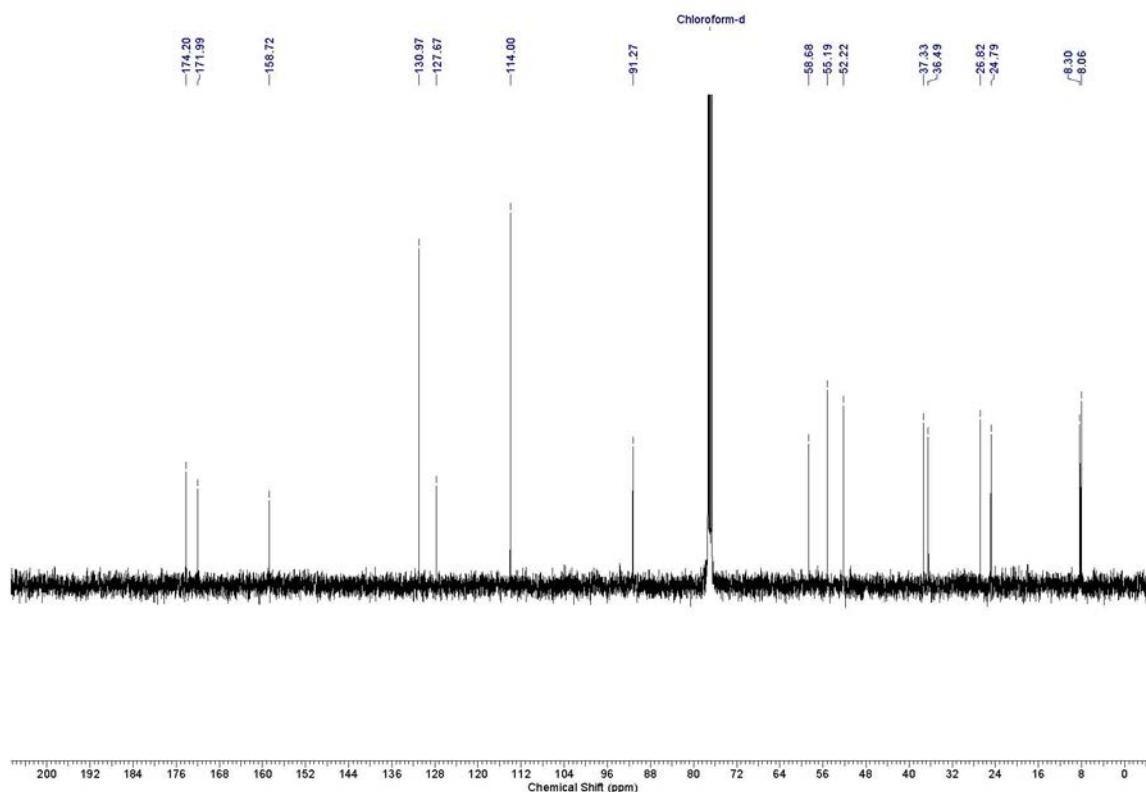


Figure S22. ESI-MS spectrum of compound 6.



**Figure S23.**  $^1\text{H}$  NMR spectrum of compound **7** ( $\text{CDCl}_3$ , 400 MHz).



**Figure S24.**  $^{13}\text{C}$  NMR spectrum of compound 7 ( $\text{CDCl}_3$ , 100 MHz).

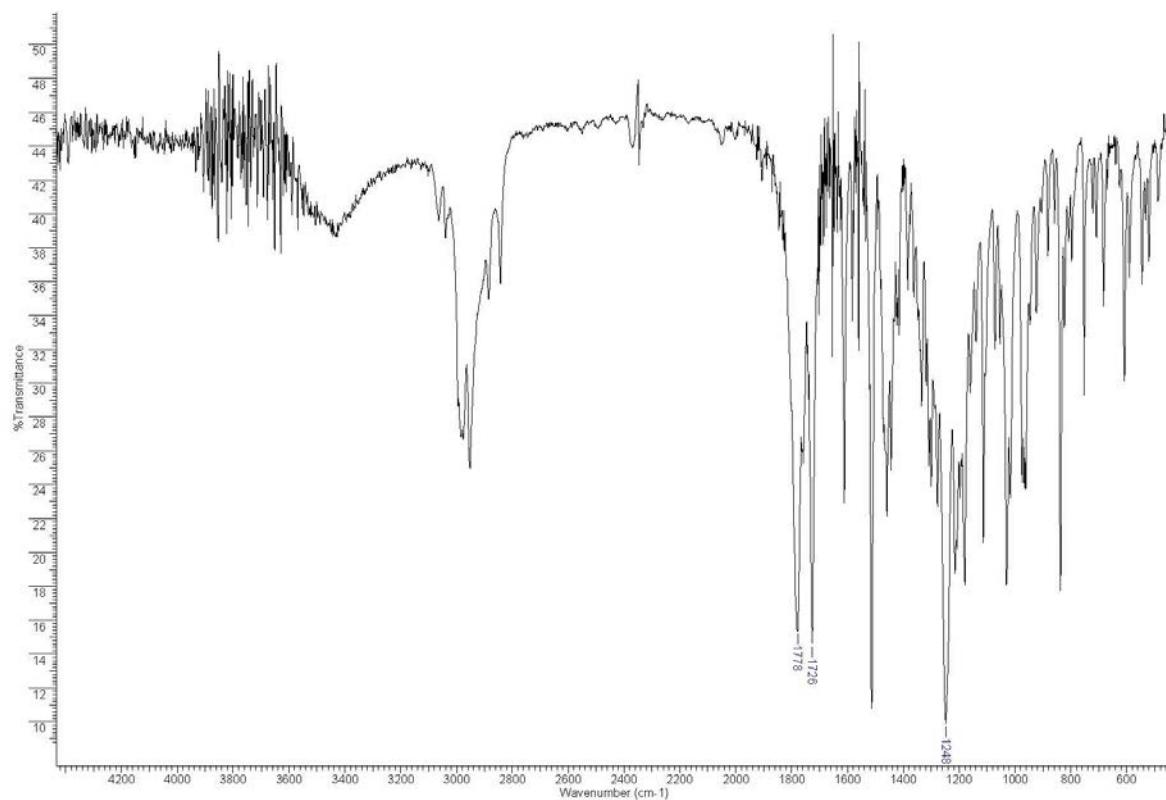


Figure S25. IR (KBr) spectrum of compound 7.

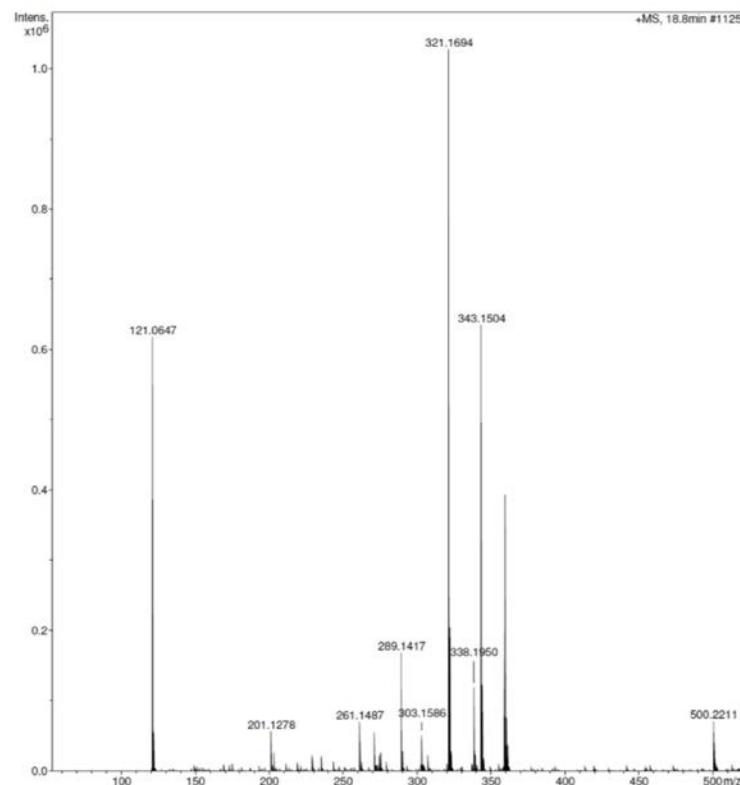
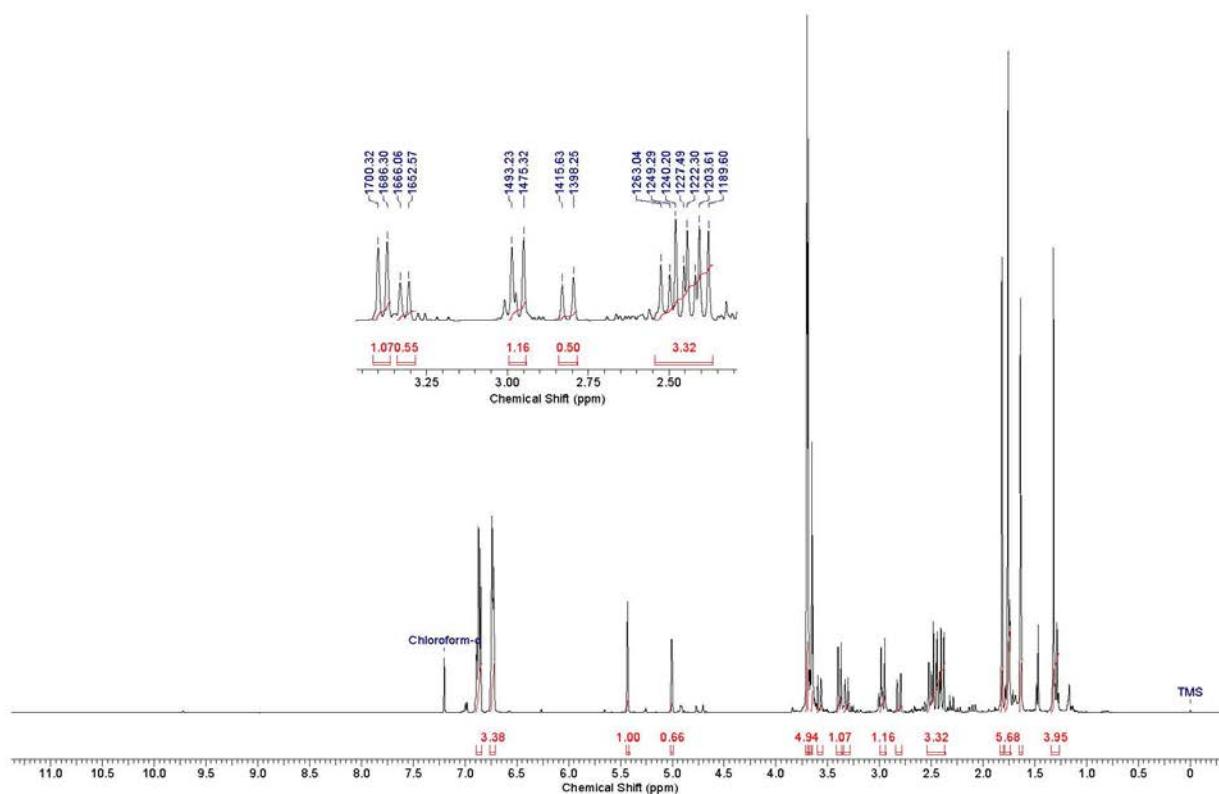
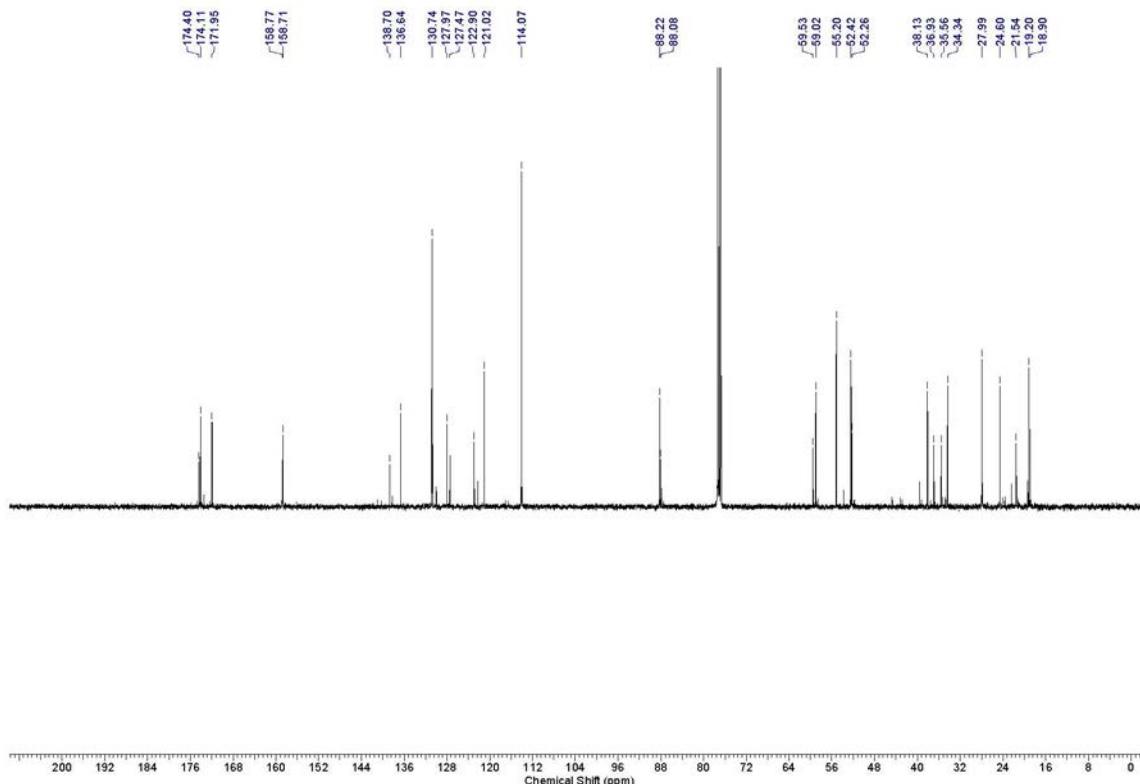


Figure S26. ESI-MS spectrum of compound 7.



**Figure S27.** <sup>1</sup>H NMR spectrum of compound 8 (CDCl<sub>3</sub>, 400 MHz).



**Figure S28.** <sup>13</sup>C NMR spectrum of compound 8 (CDCl<sub>3</sub>, 100 MHz).

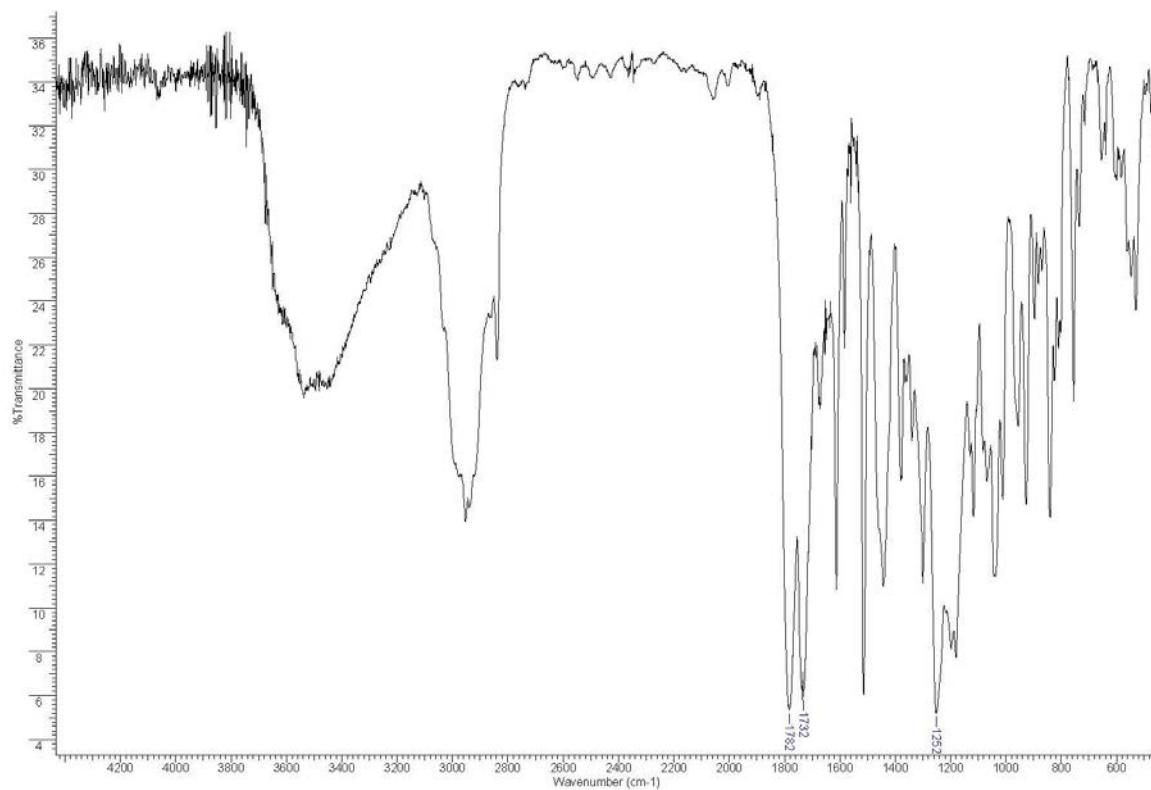


Figure S29. IR (KBr) spectrum of compound 8.

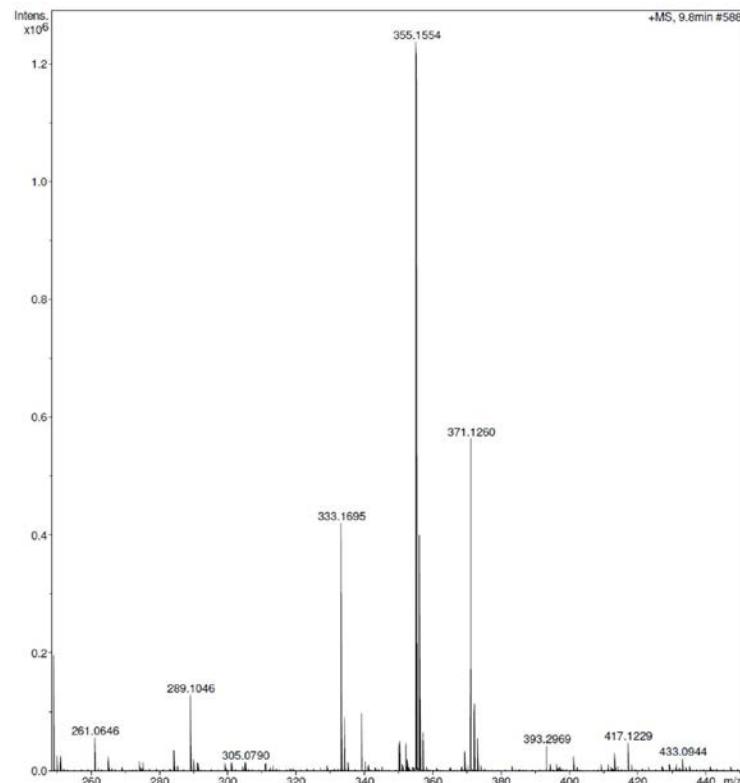
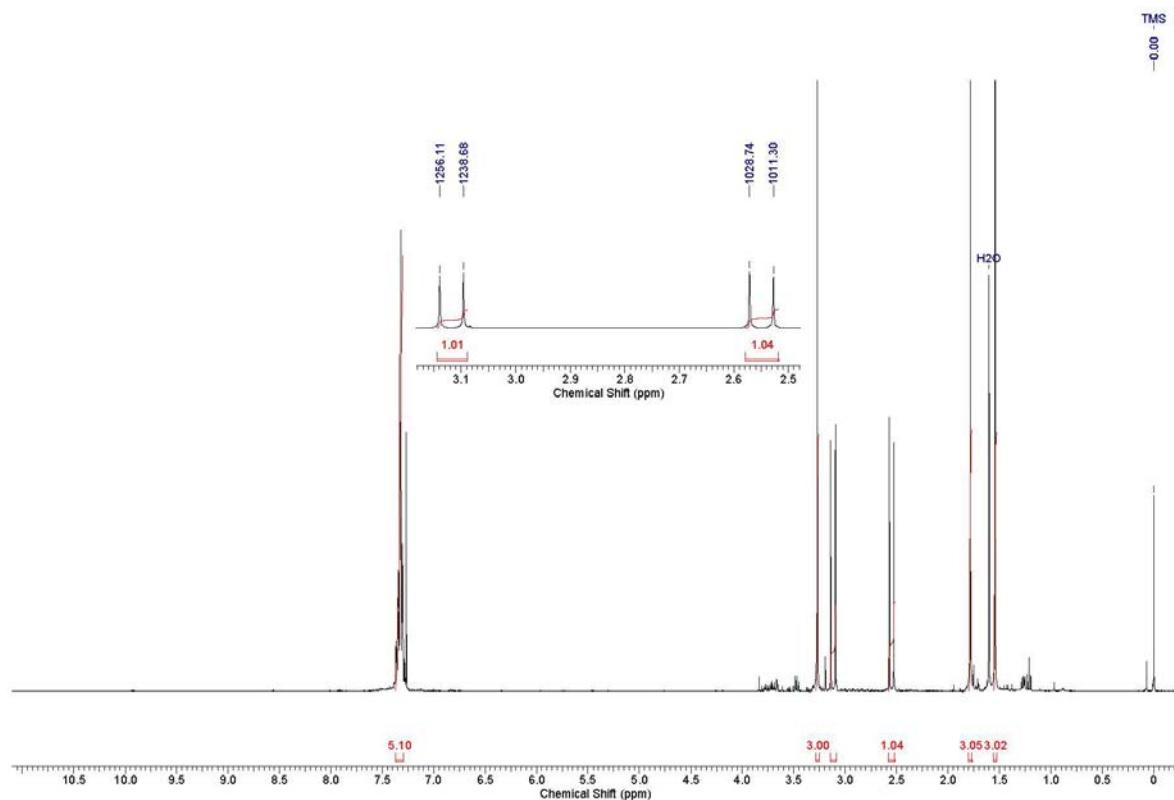
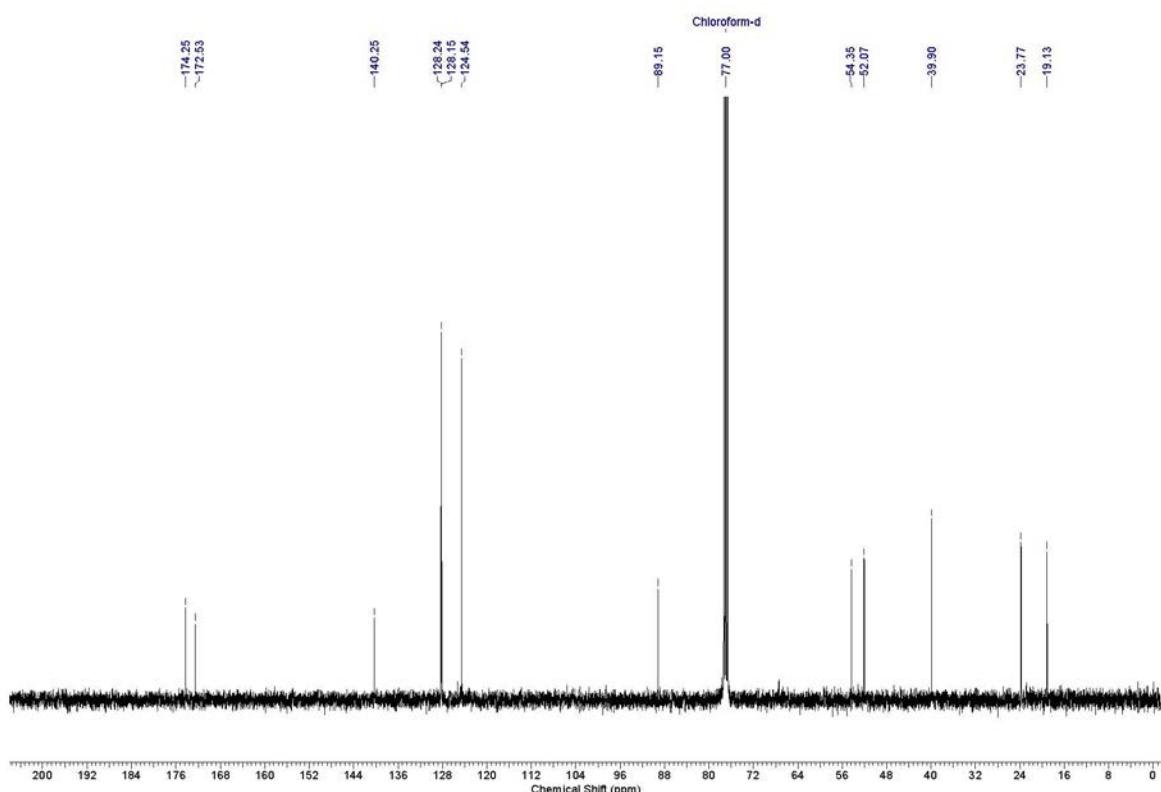


Figure S30. ESI-MS spectrum of compound 8.



**Figure S31.**  $^1\text{H}$  NMR spectrum of compound **9** ( $\text{CDCl}_3$ , 400 MHz).



**Figure S32.**  $^{13}\text{C}$  NMR spectrum of compound **9** ( $\text{CDCl}_3$ , 100 MHz).

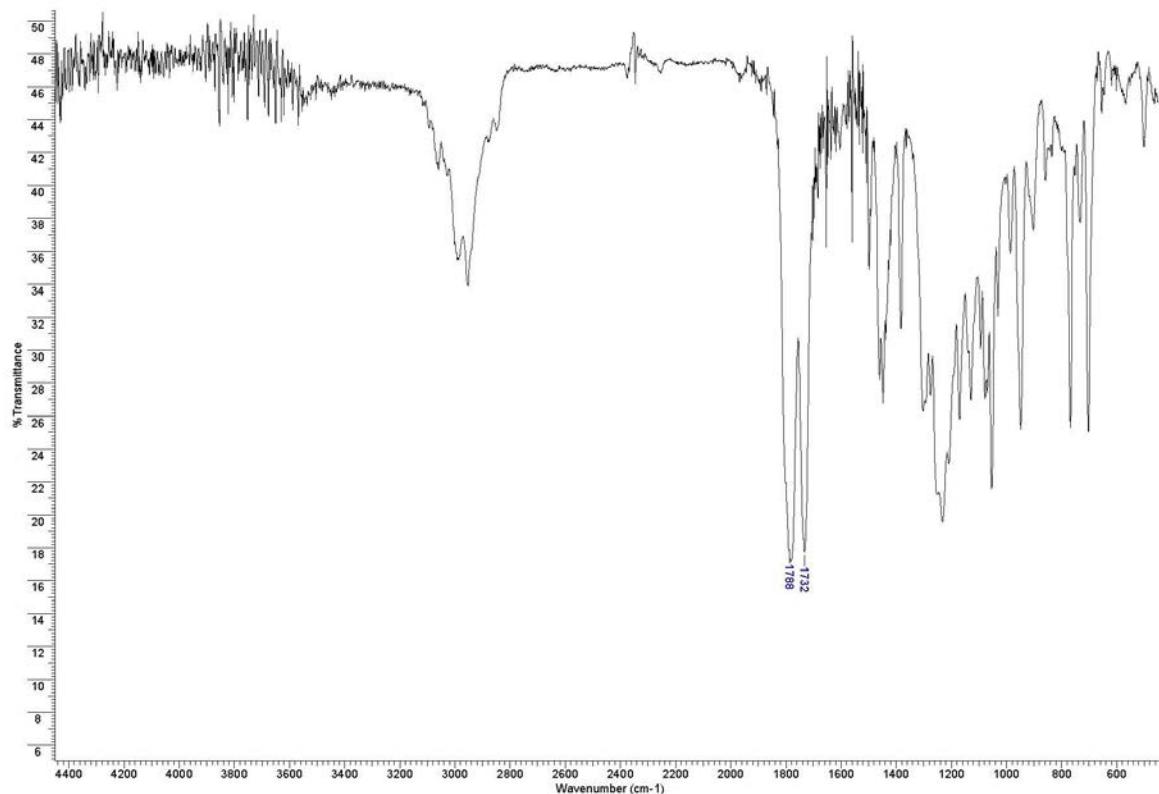


Figure S33. IR (KBr) spectrum of compound 9.

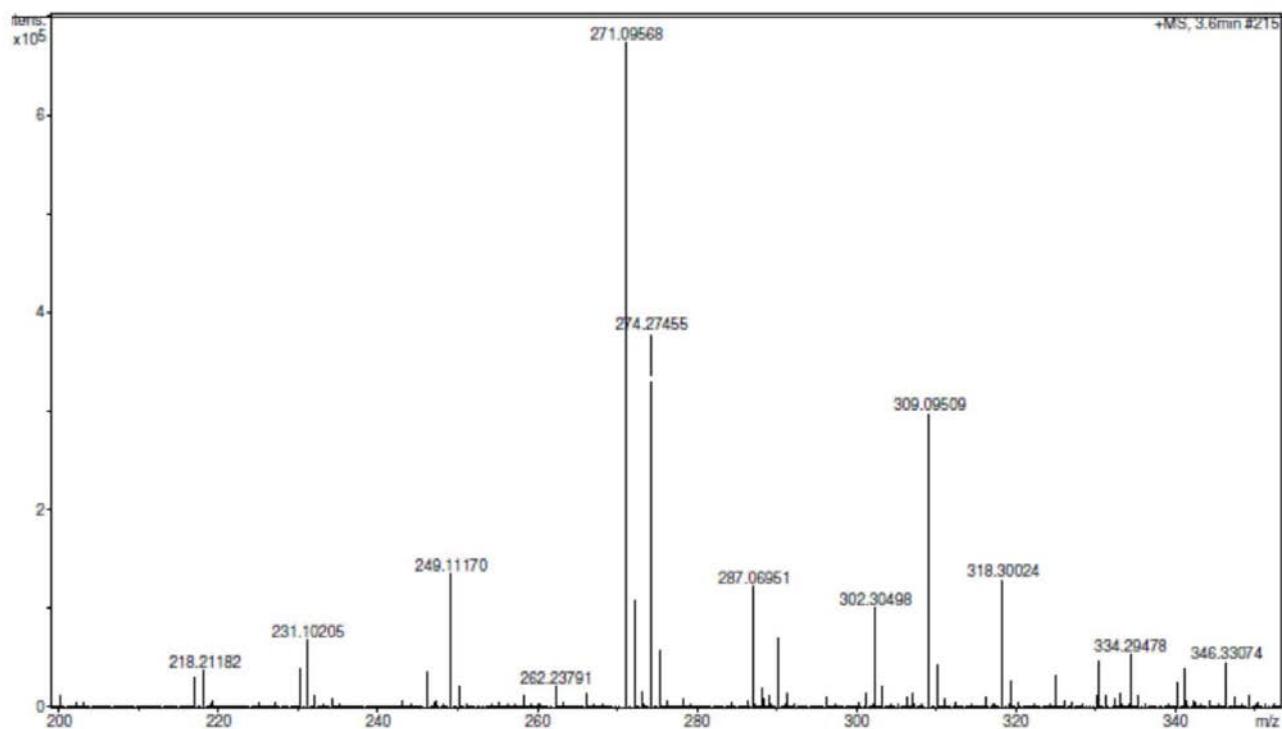
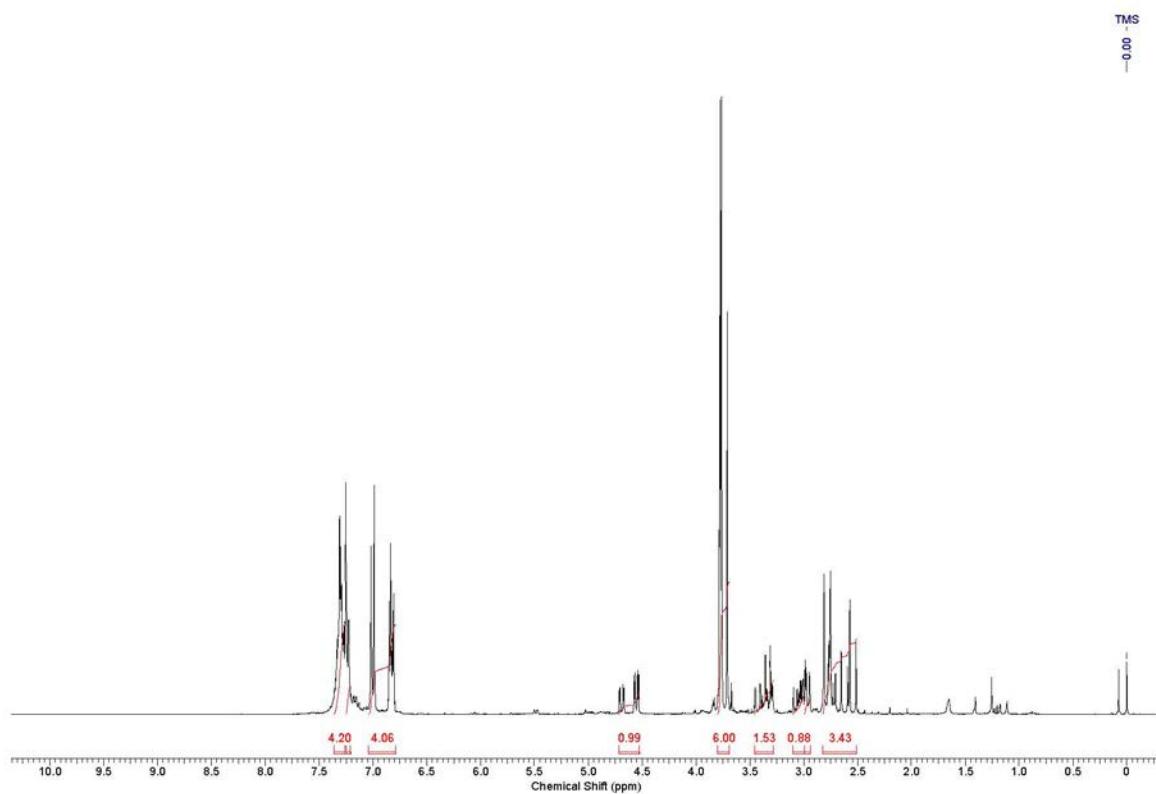
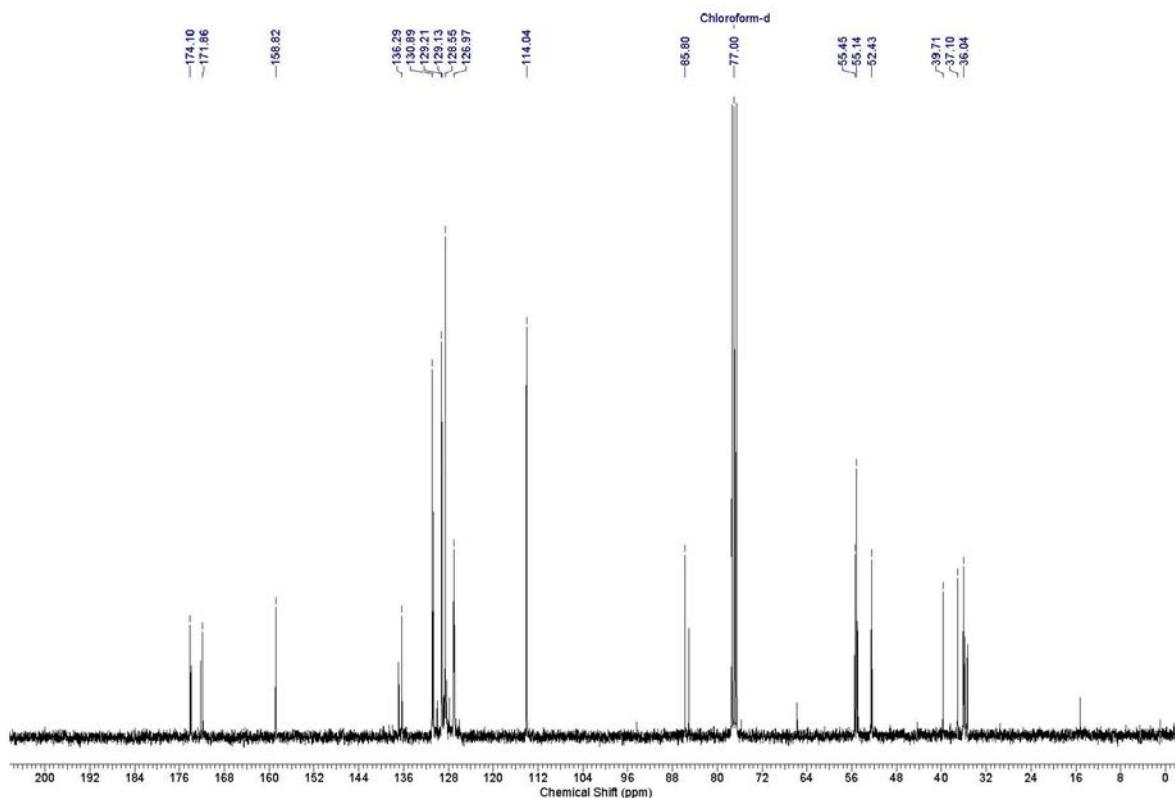


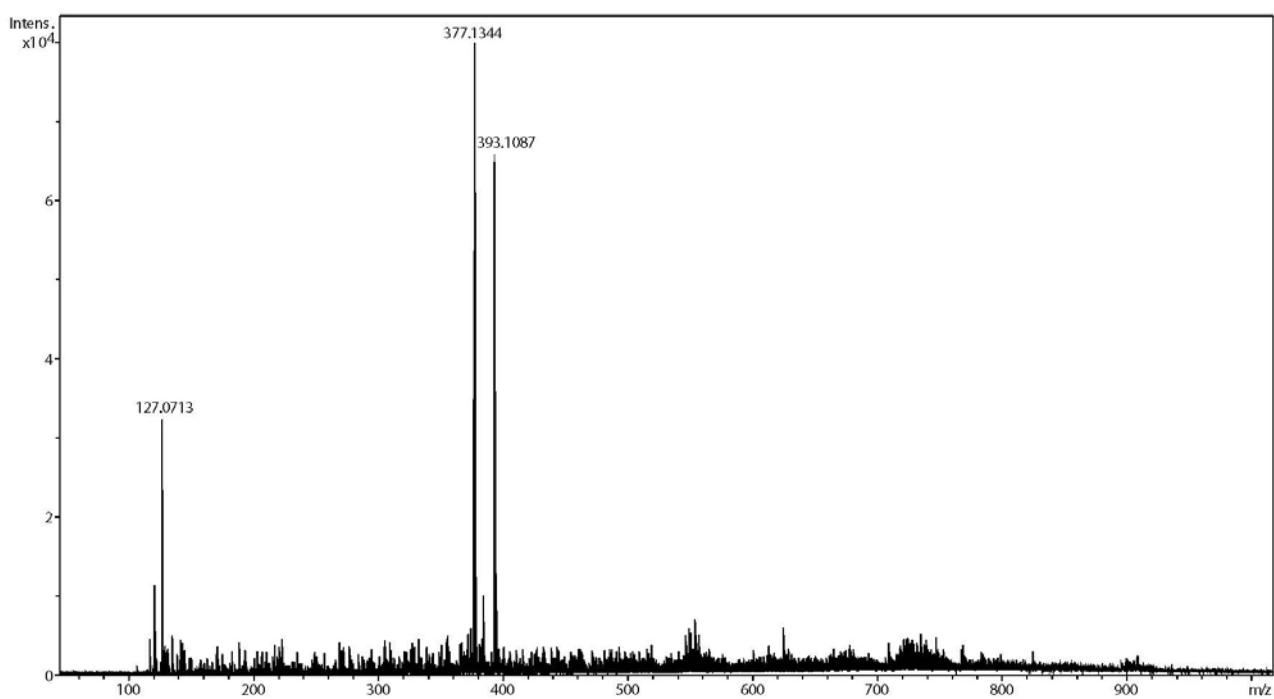
Figure S34. ESI-MS spectrum of compound 9.



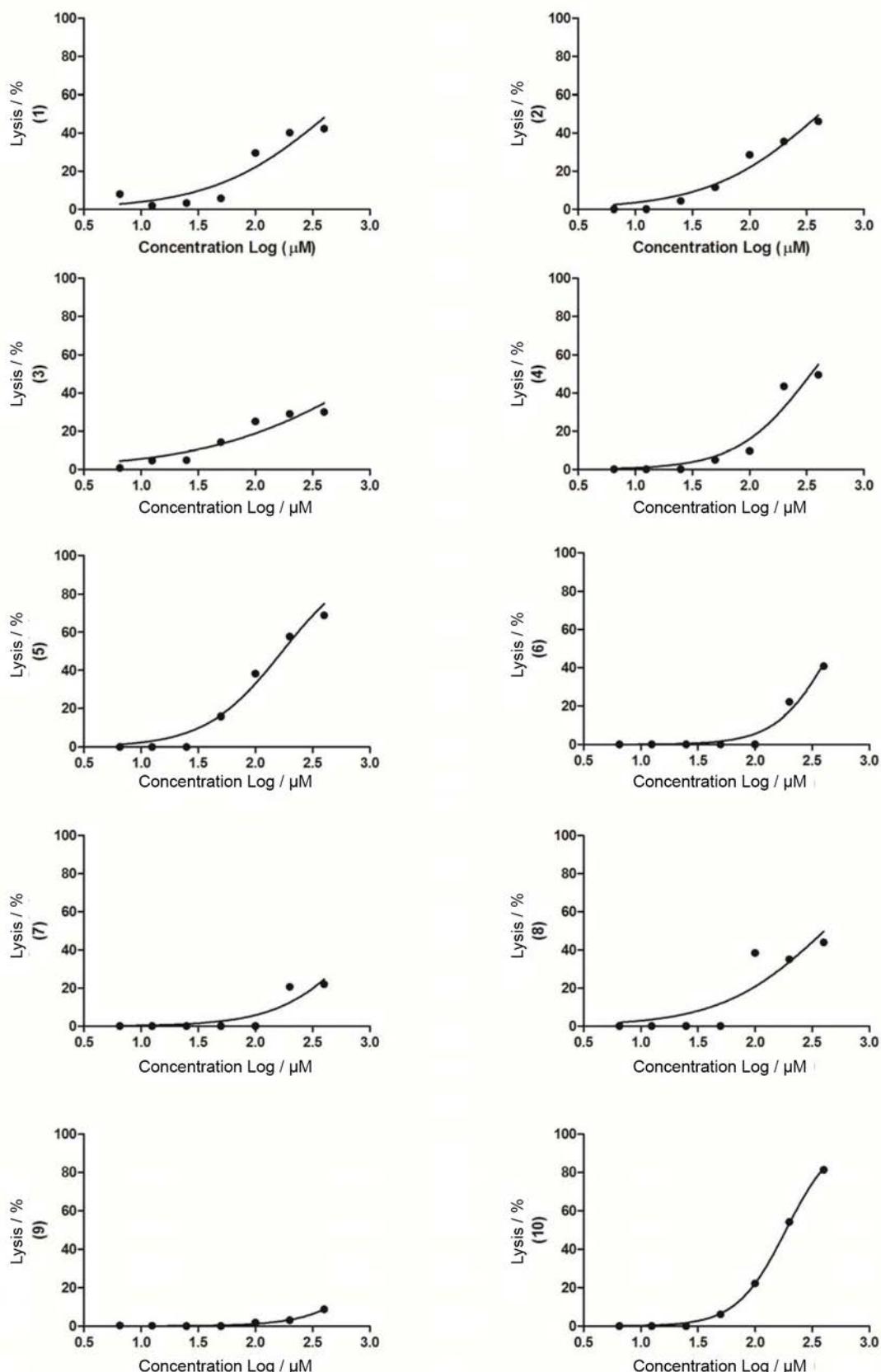
**Figure S35.** <sup>1</sup>H NMR spectrum of compound **10** ( $\text{CDCl}_3$ , 400 MHz).



**Figure S36.** <sup>13</sup>C NMR spectrum of compound **10** ( $\text{CDCl}_3$ , 100 MHz).



**Figure S37.** ESI-MS spectrum of compound **10**.



**Figure S38.** Curves used to calculate the  $\text{IC}_{50}$  values of compounds **1-10**.