

# Design, synthesis and biological evaluation of tricyclic pyrazolo[1,5-*c*][1,3]benzoxazin-5(5H)-one scaffolds as selective BuChE inhibitors

Guo-liang Qiu<sup>a,\*</sup>, Shao-sheng He<sup>a,c,\*</sup>, Shi-chao Chen<sup>a</sup>, Bo Li<sup>a</sup>, Hui-hui Wu<sup>b</sup>, Jing Zhang<sup>b</sup> & Wen-jian Tang<sup>a</sup>

<sup>a</sup>School of Pharmacy, Anhui Medical University, Hefei 230032, PR China; <sup>b</sup>Anhui Prevention and Treatment Center for Occupational Disease, Anhui No. 2 Province People's Hospital, Hefei 230022, PR China; <sup>c</sup>Lujiang County People's Hospital, Anhui, Lujiang 231500, China

## Content

Copies of NMR spectra of compounds 3a–3f and 6a–6q

S2–S26

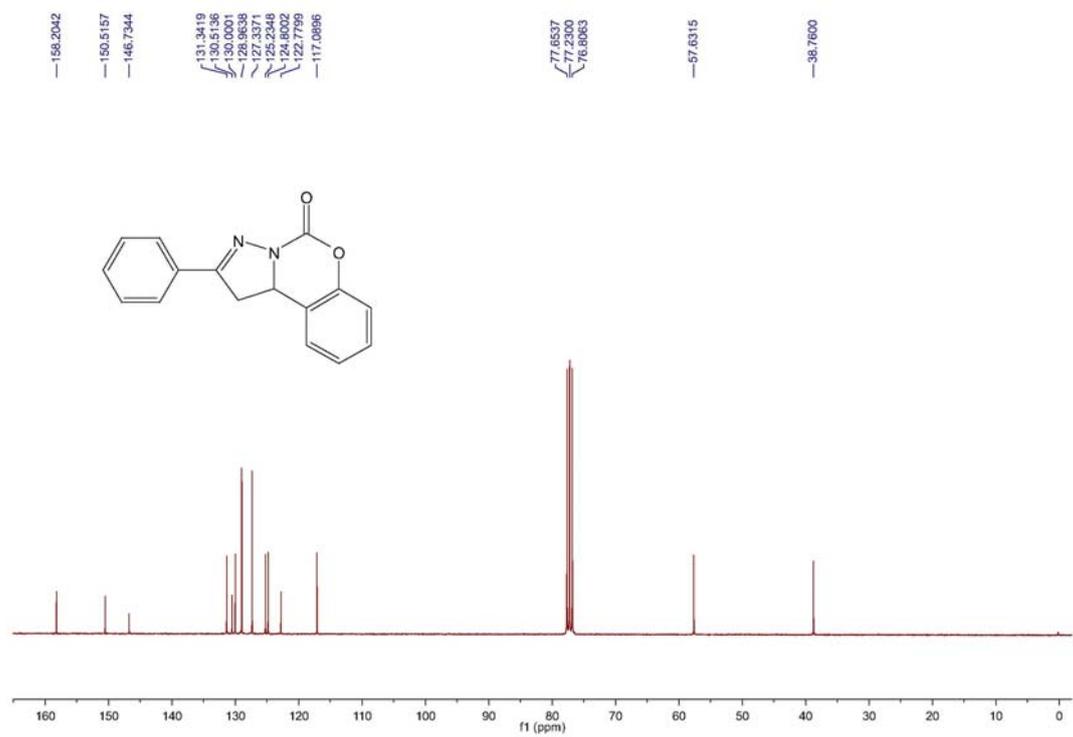
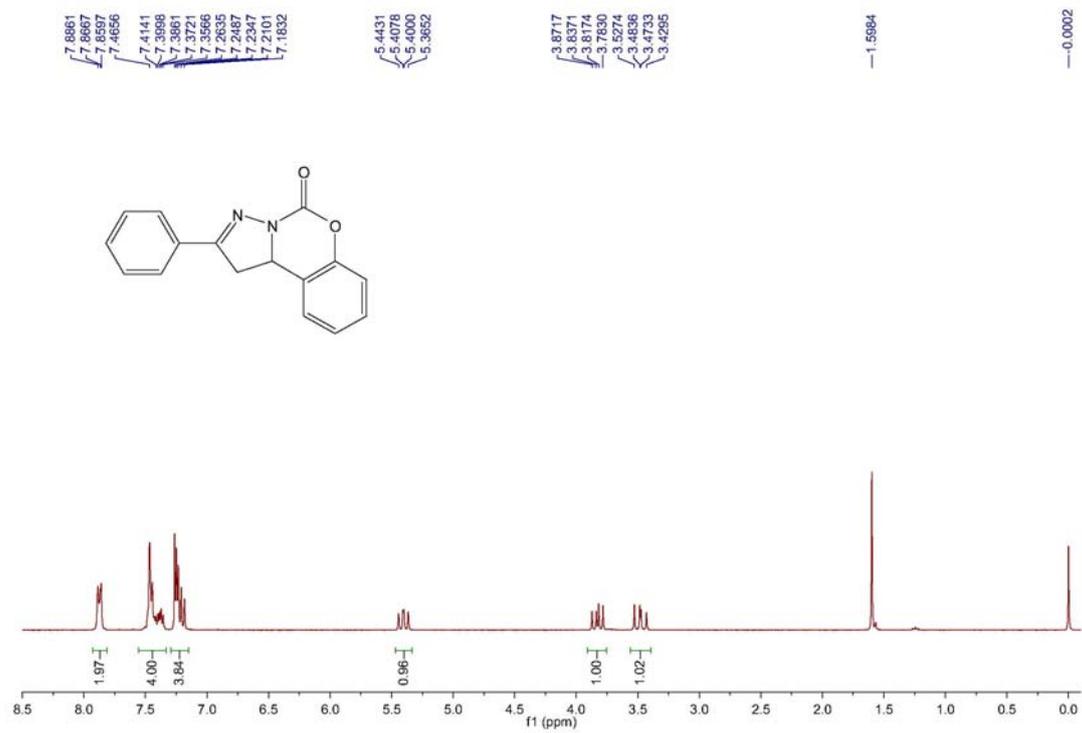


Figure S1. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound 3a.

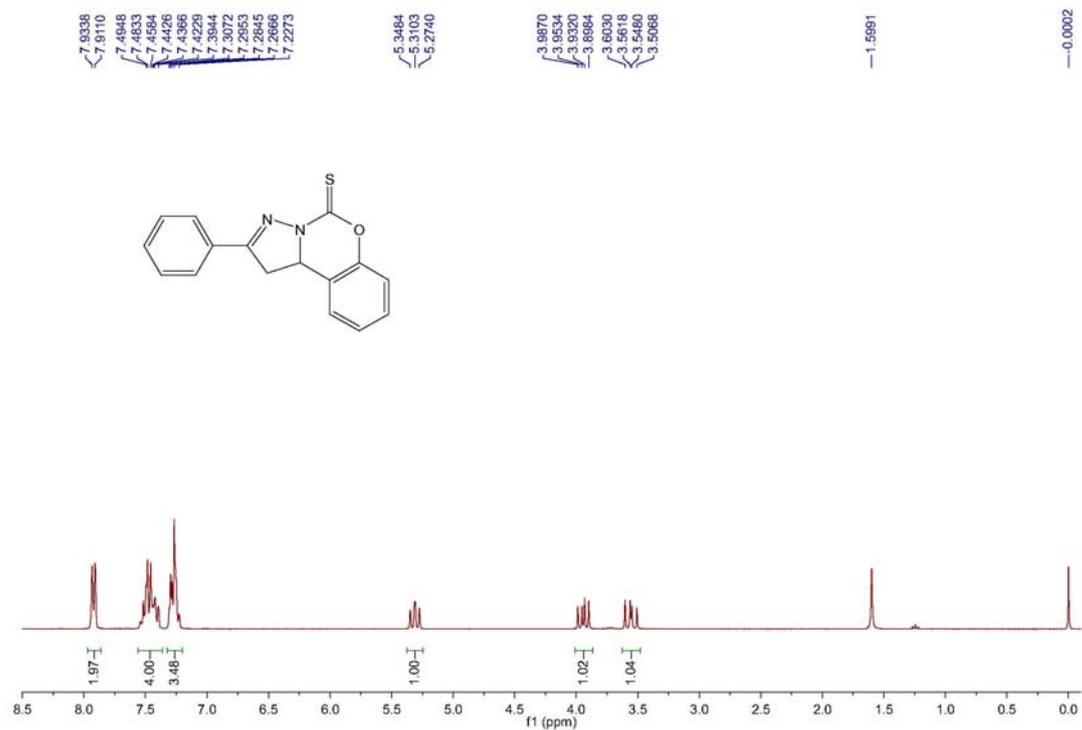


Figure S2. <sup>1</sup>H-NMR spectrum of compound 3b.

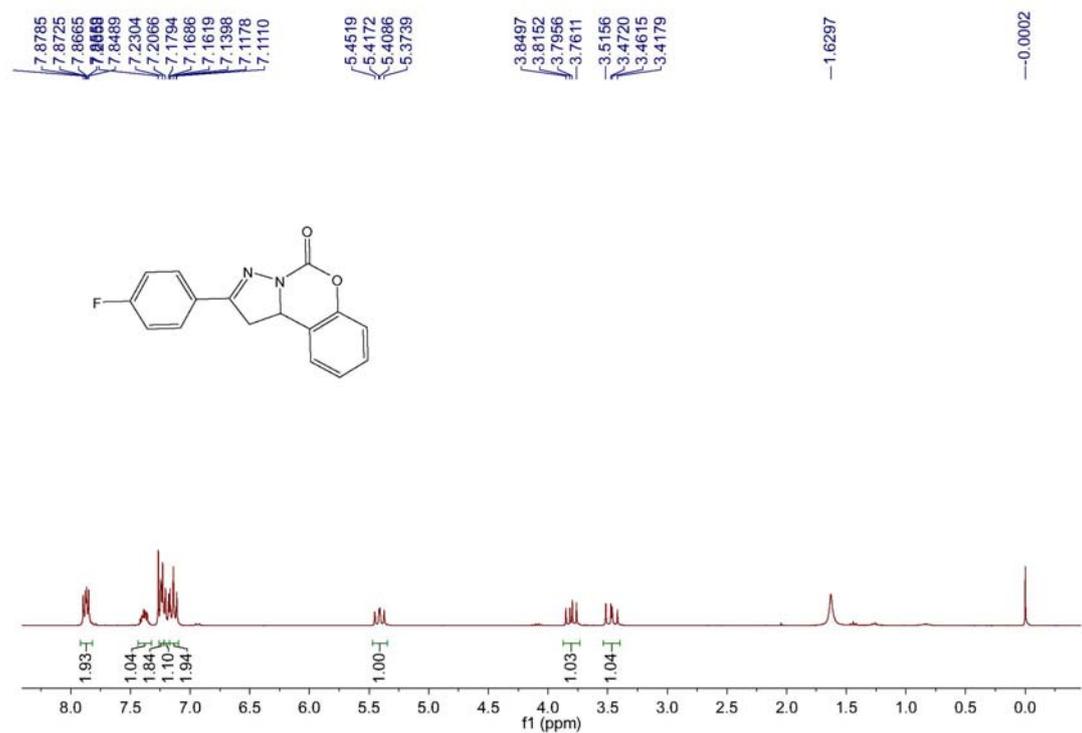


Figure S3. <sup>1</sup>H-NMR spectrum of compound 3c.

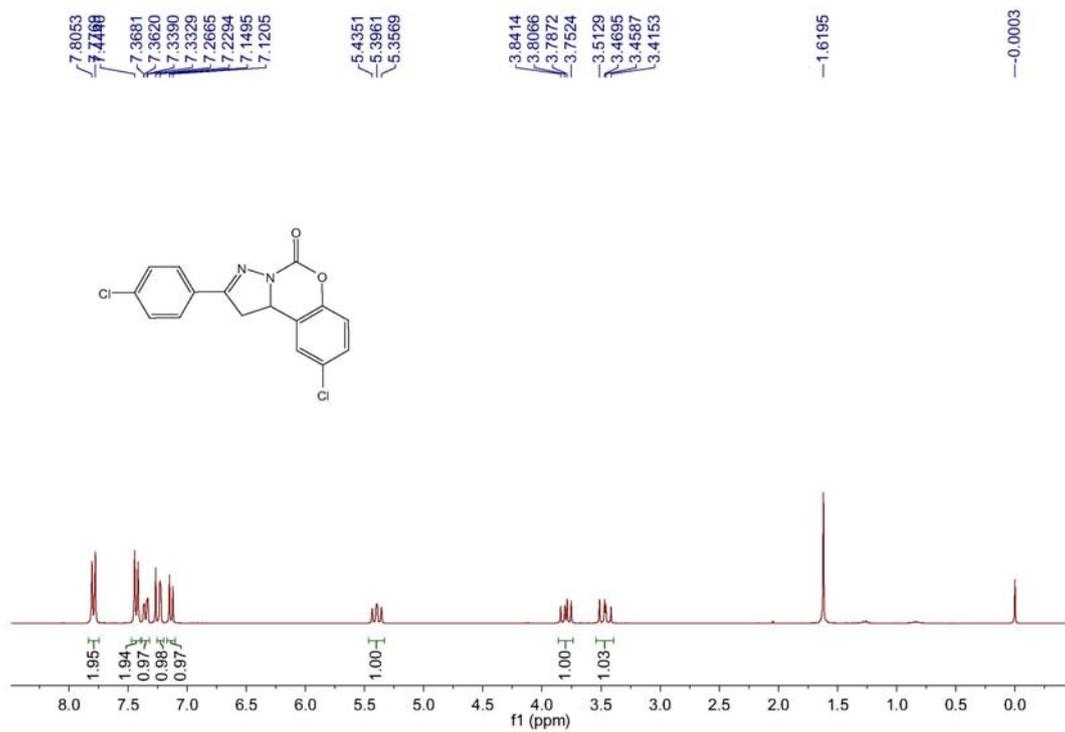


Figure S4. <sup>1</sup>H-NMR spectrum of compound 3d.

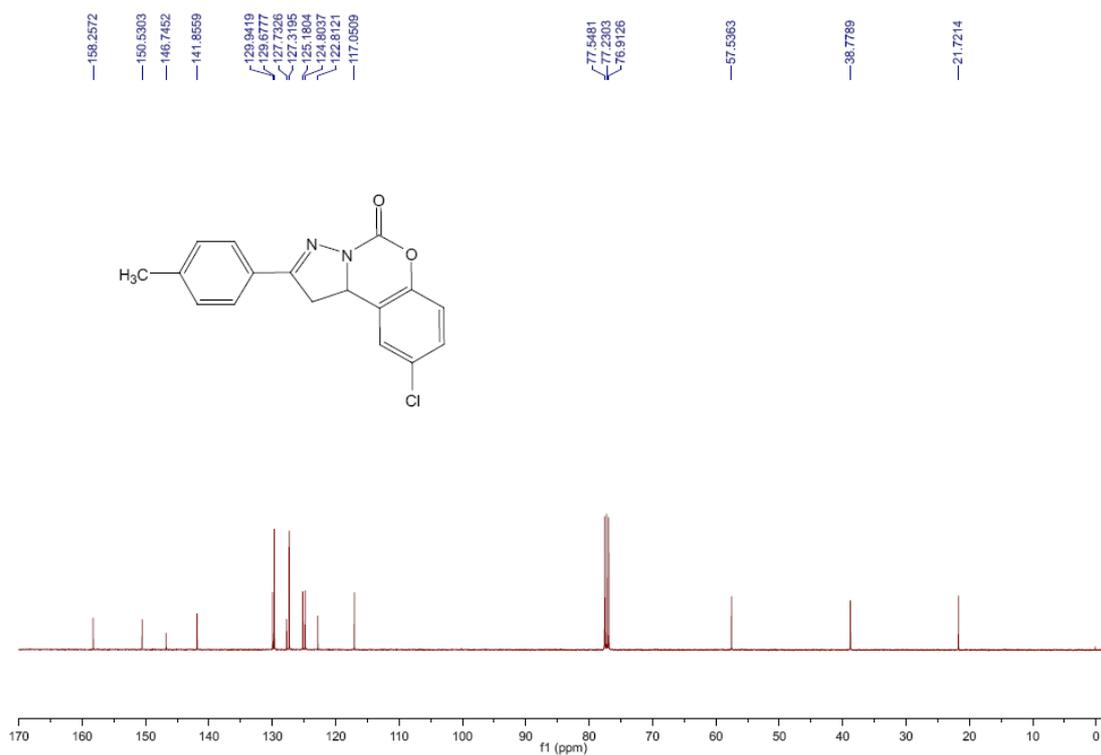
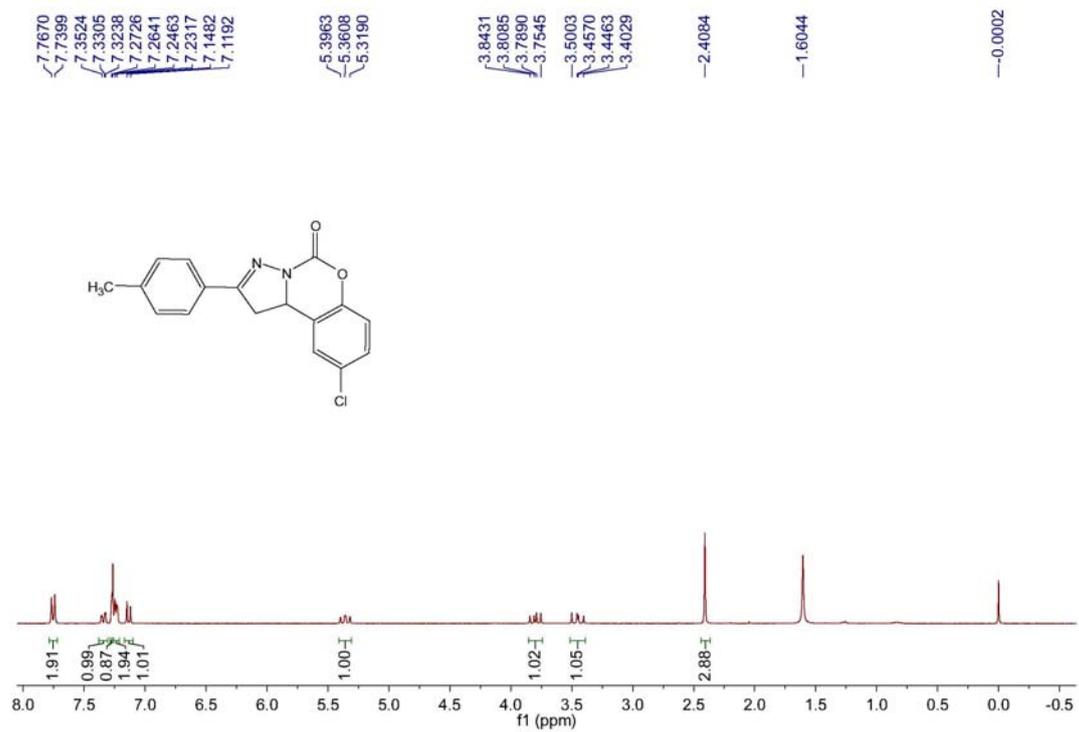
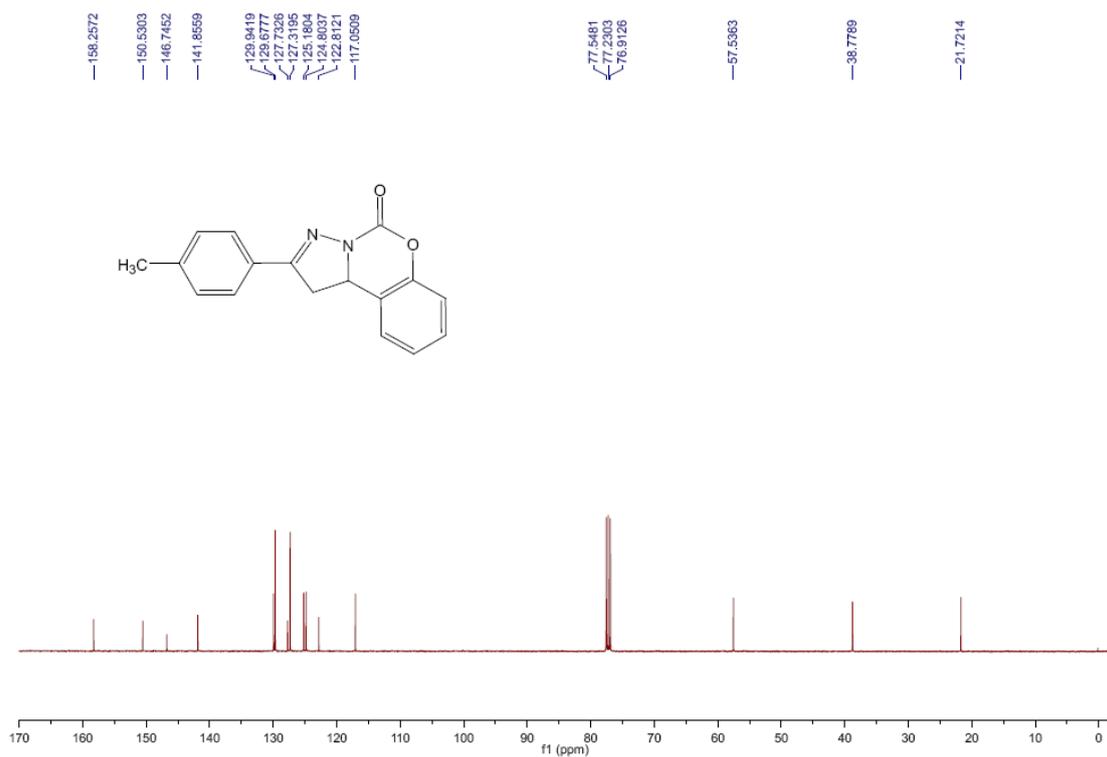
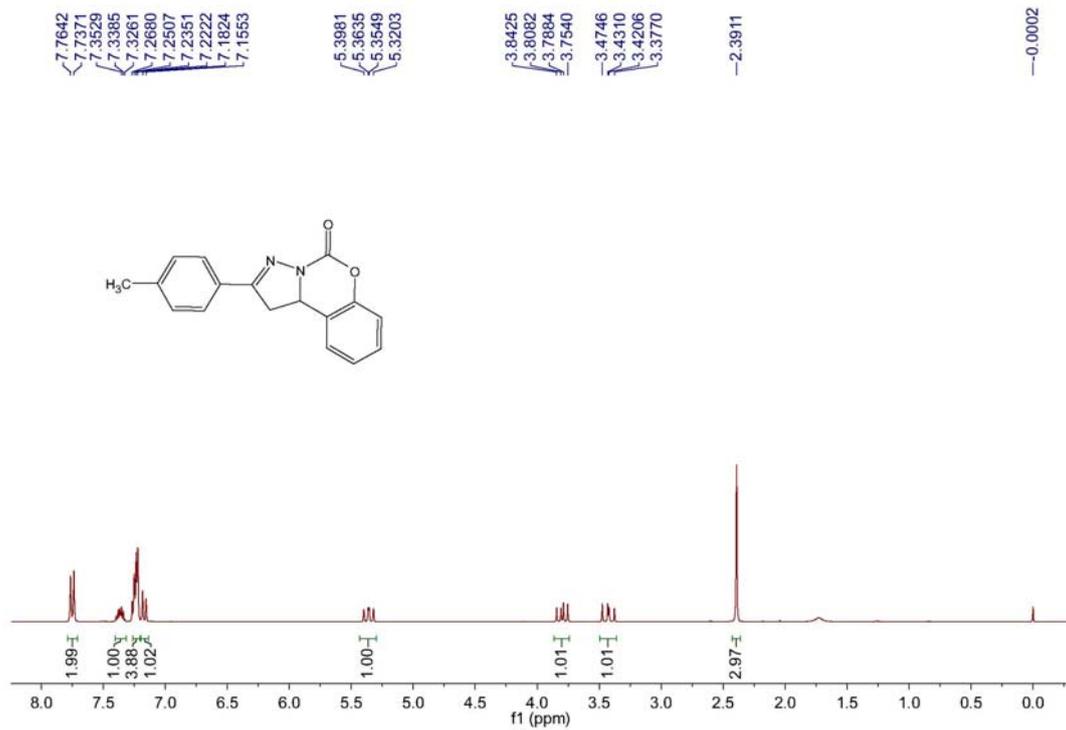
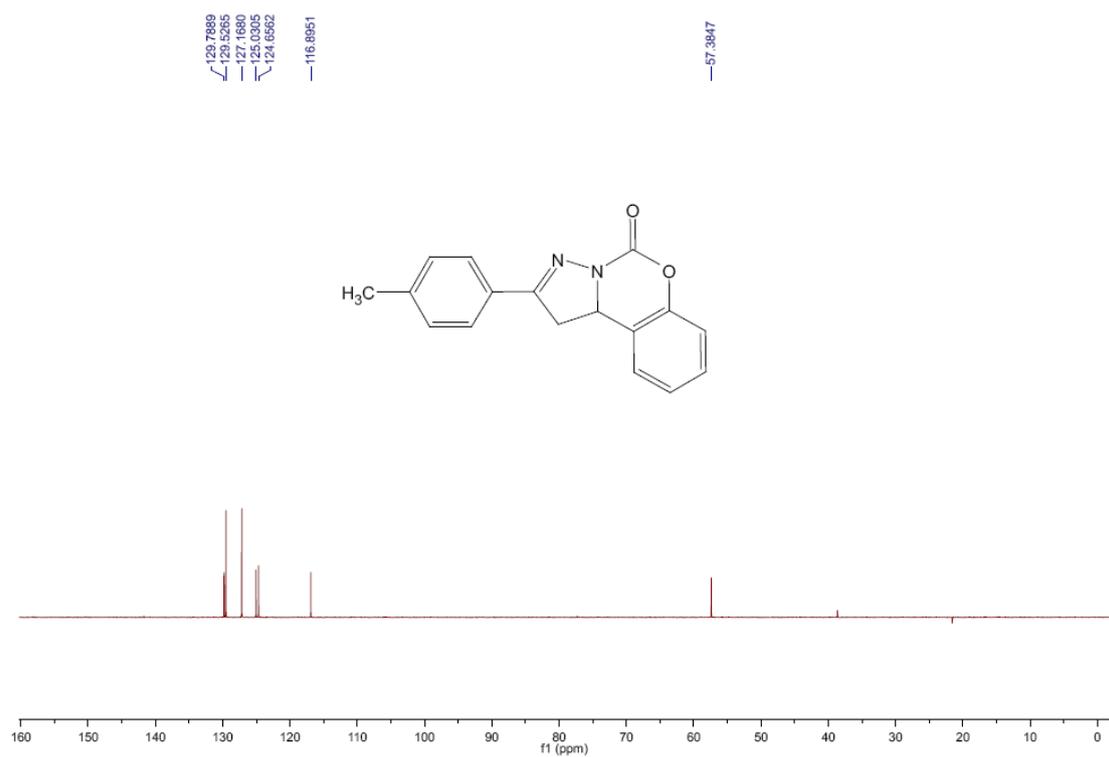
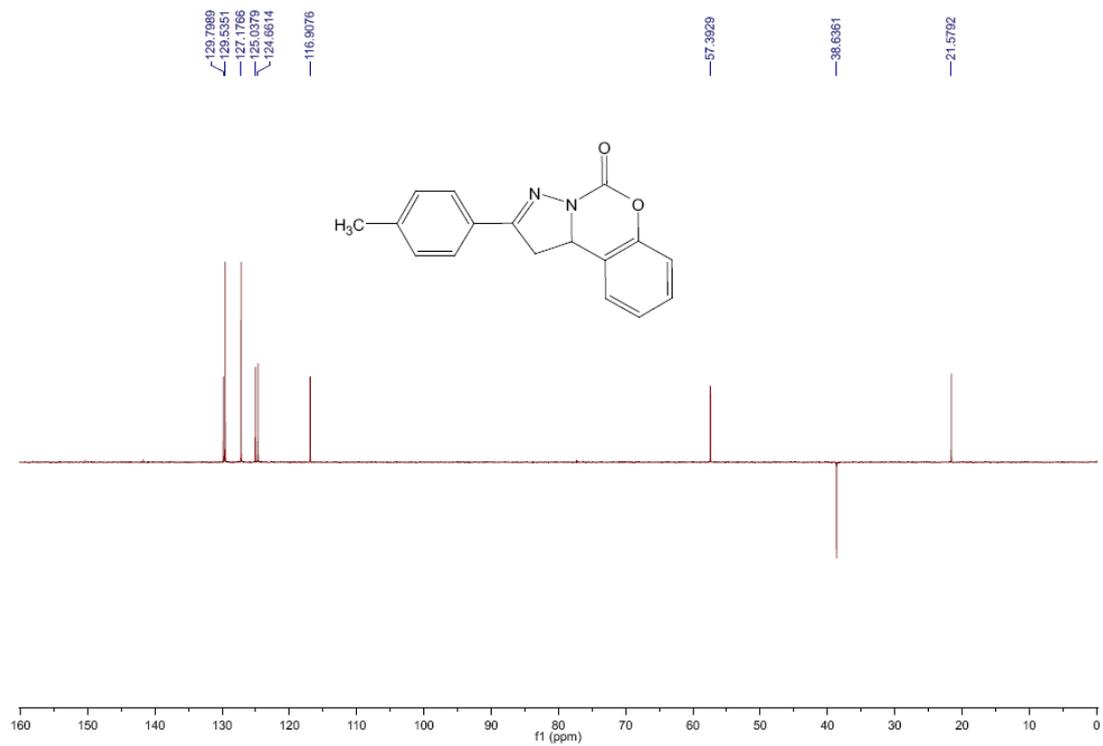
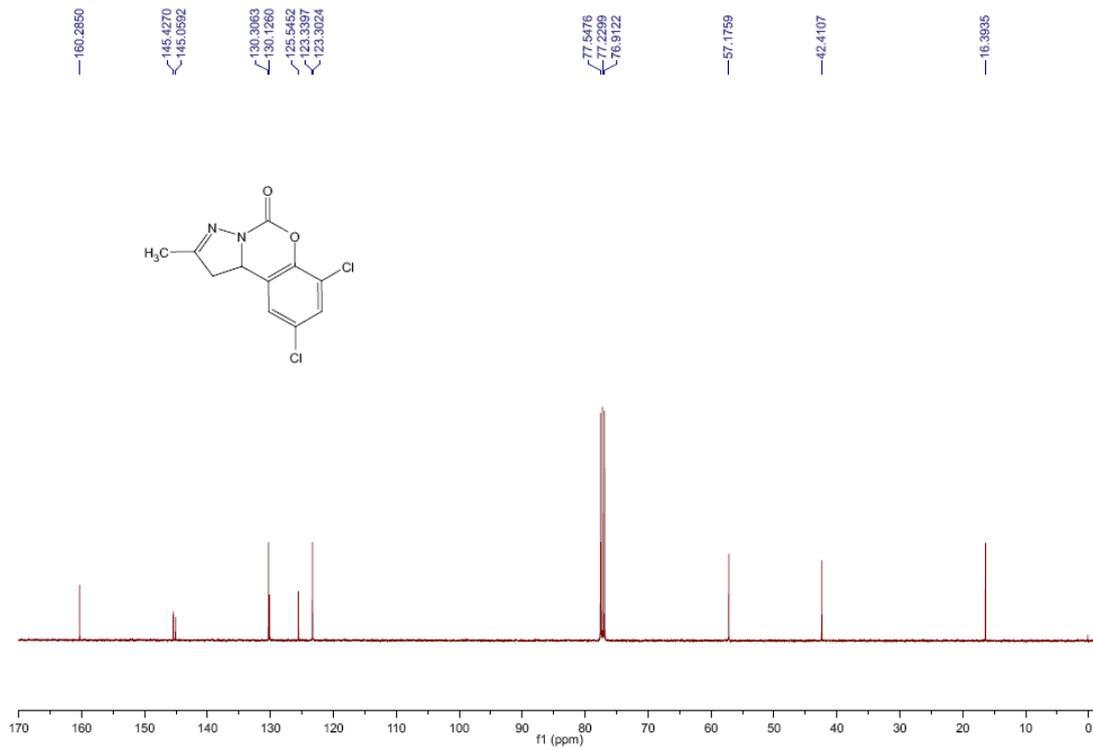
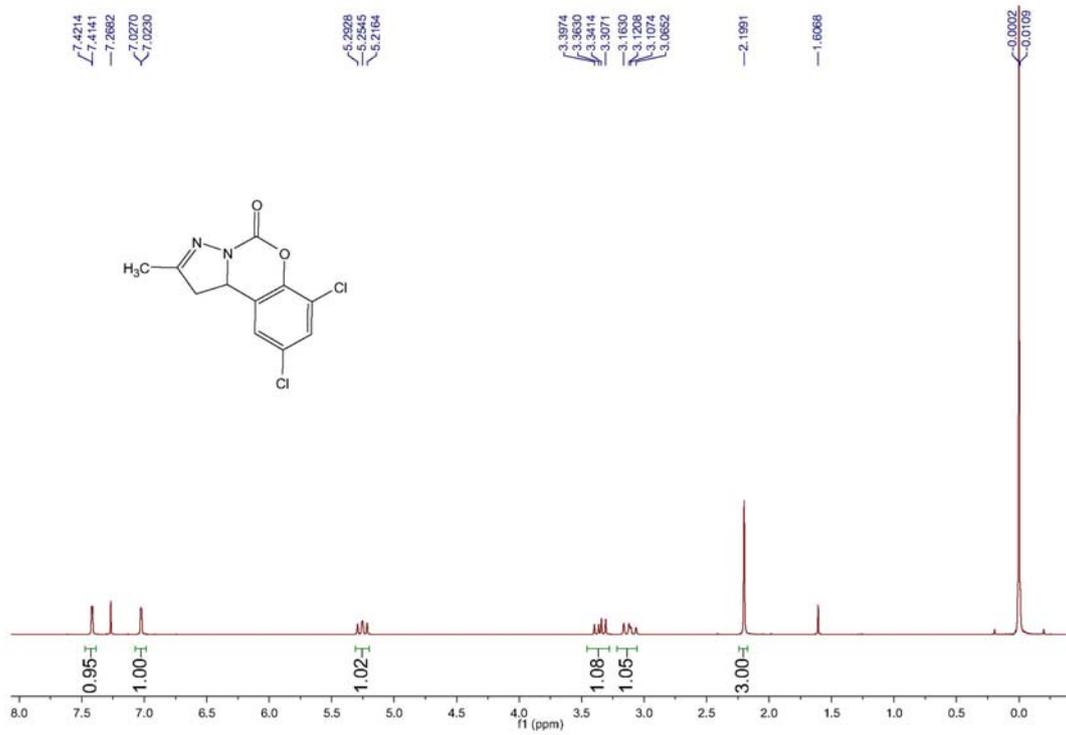


Figure S5. <sup>1</sup>H-NMR spectrum of compound 3e.





**Figure S6.** <sup>1</sup>H-NMR, <sup>13</sup>C-NMR and DEPT spectra of compound **3f**.



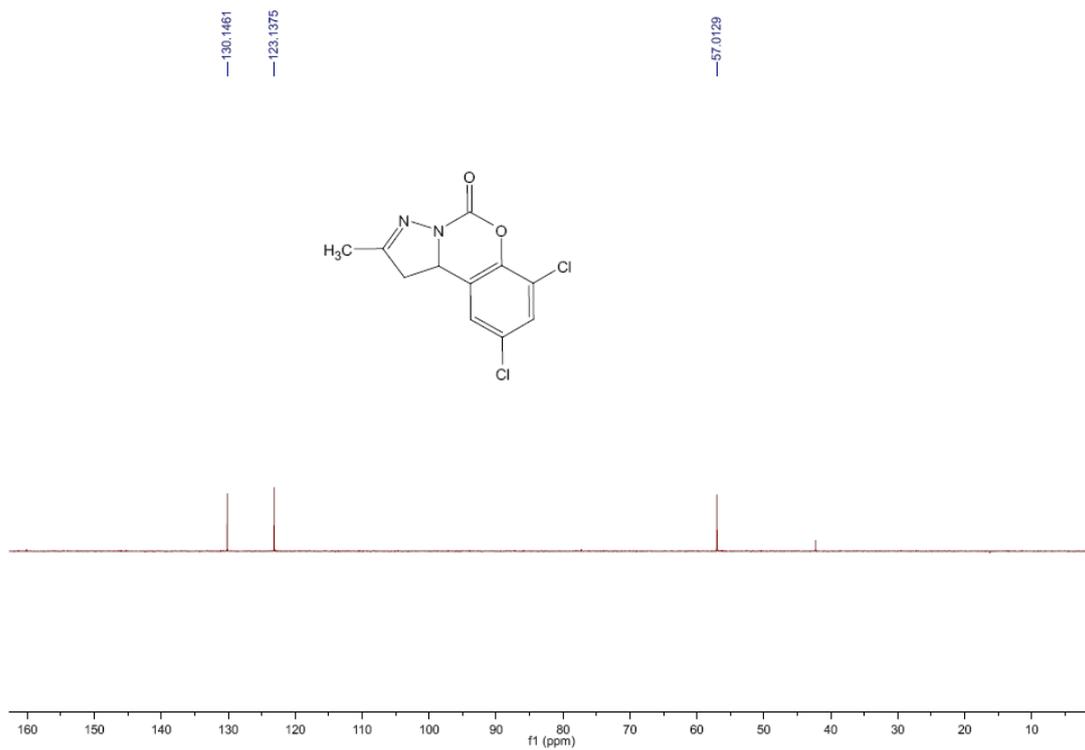
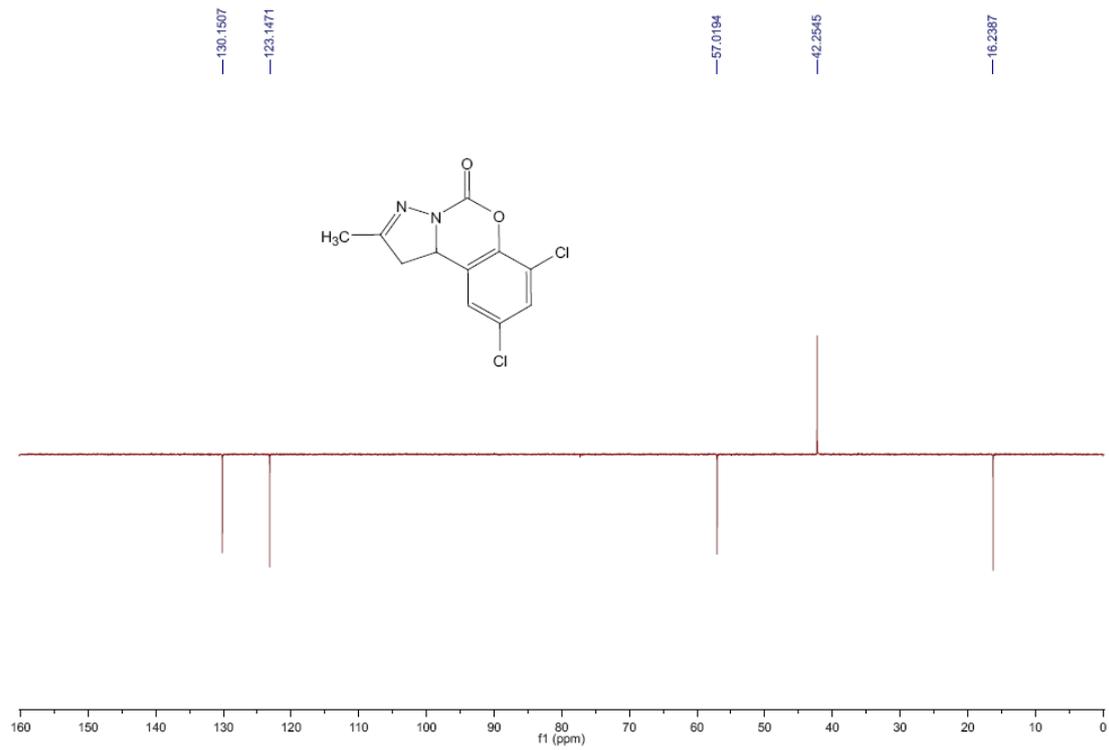
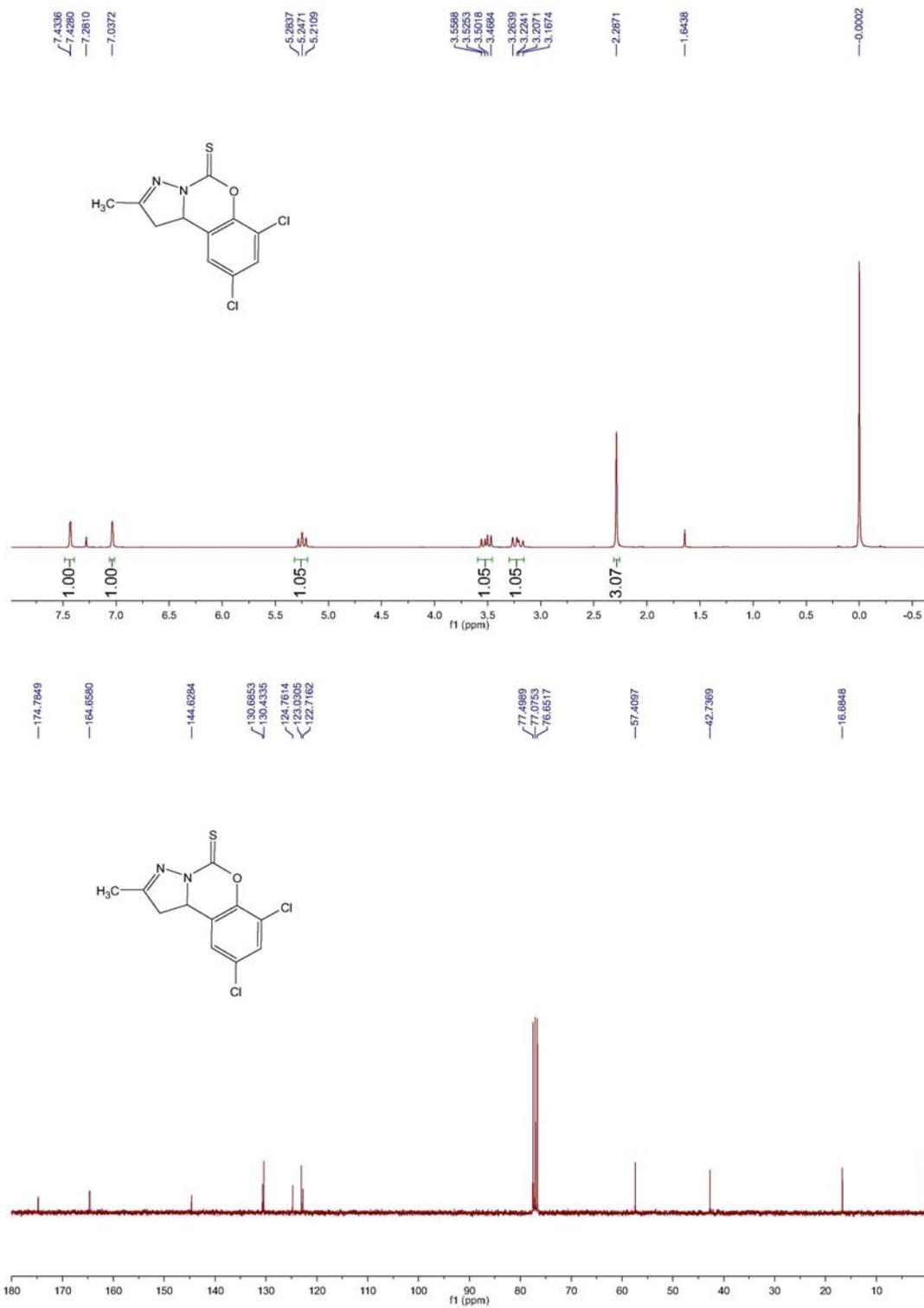
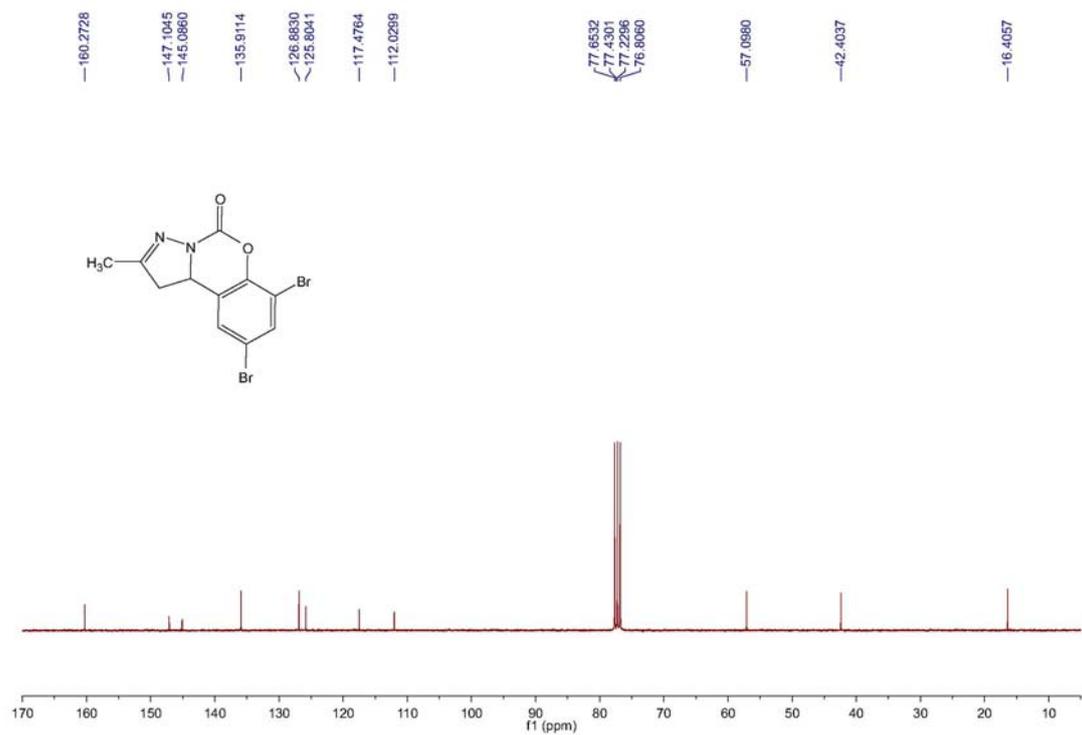
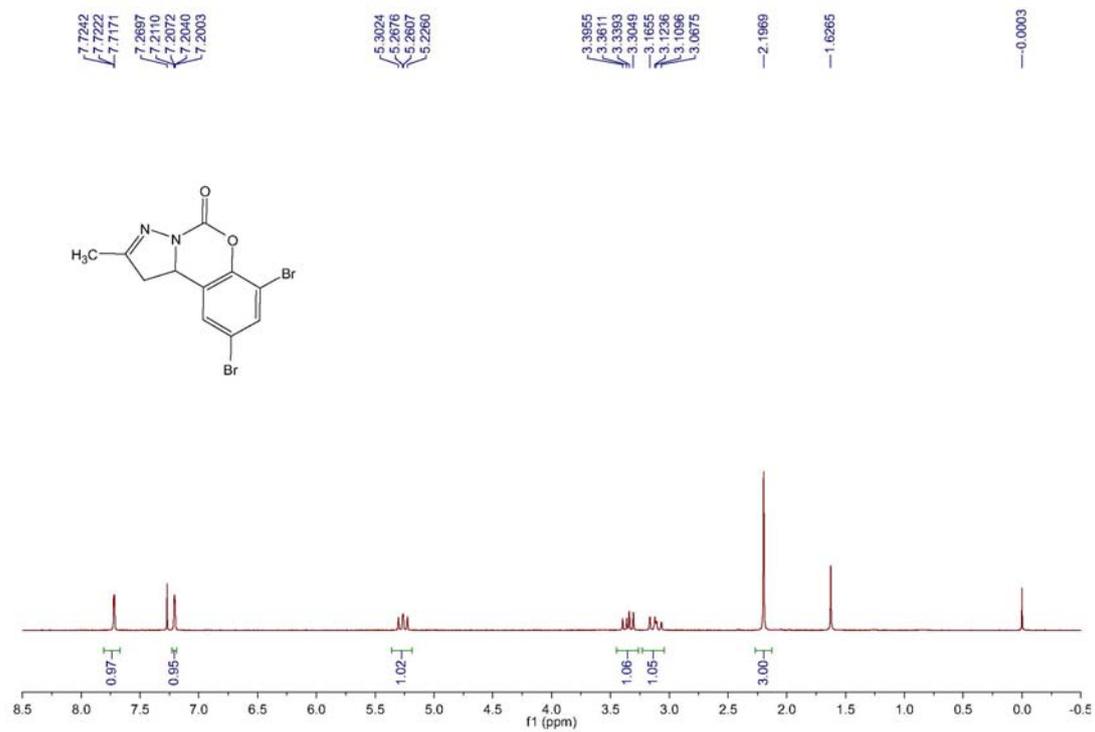


Figure S7.  $^1\text{H-NMR}$ ,  $^{13}\text{C-NMR}$  and DEPT spectra of compound 6a.



**Figure S8.** <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6b**.



**Figure S9.** <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6c**.

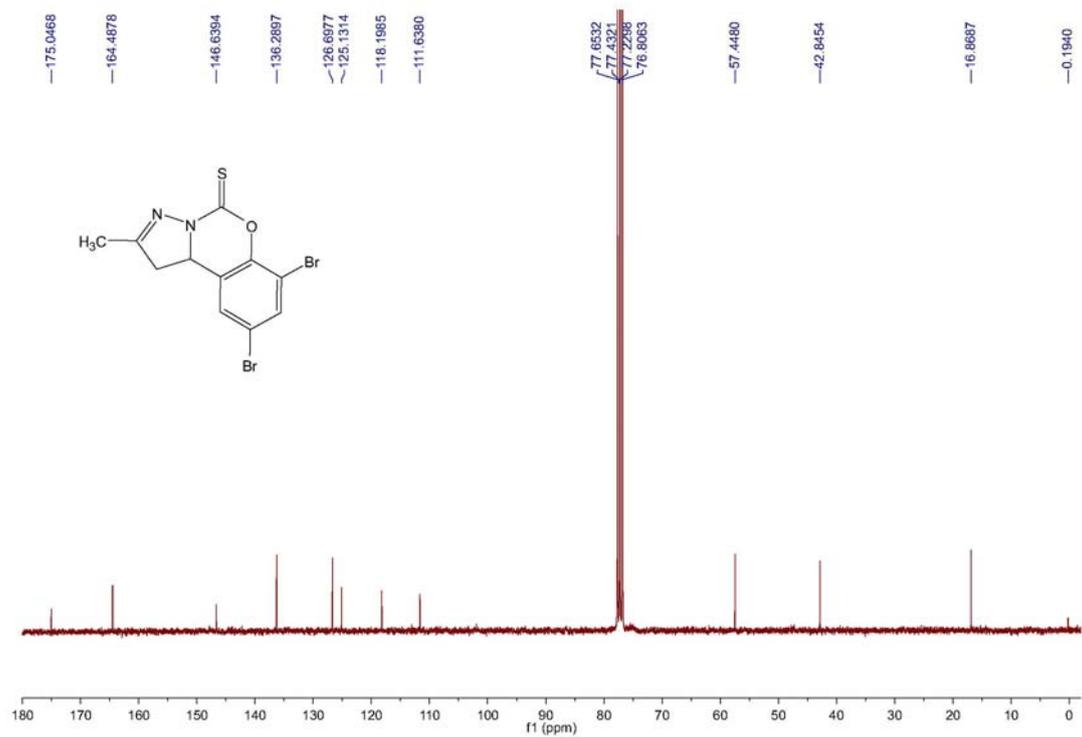
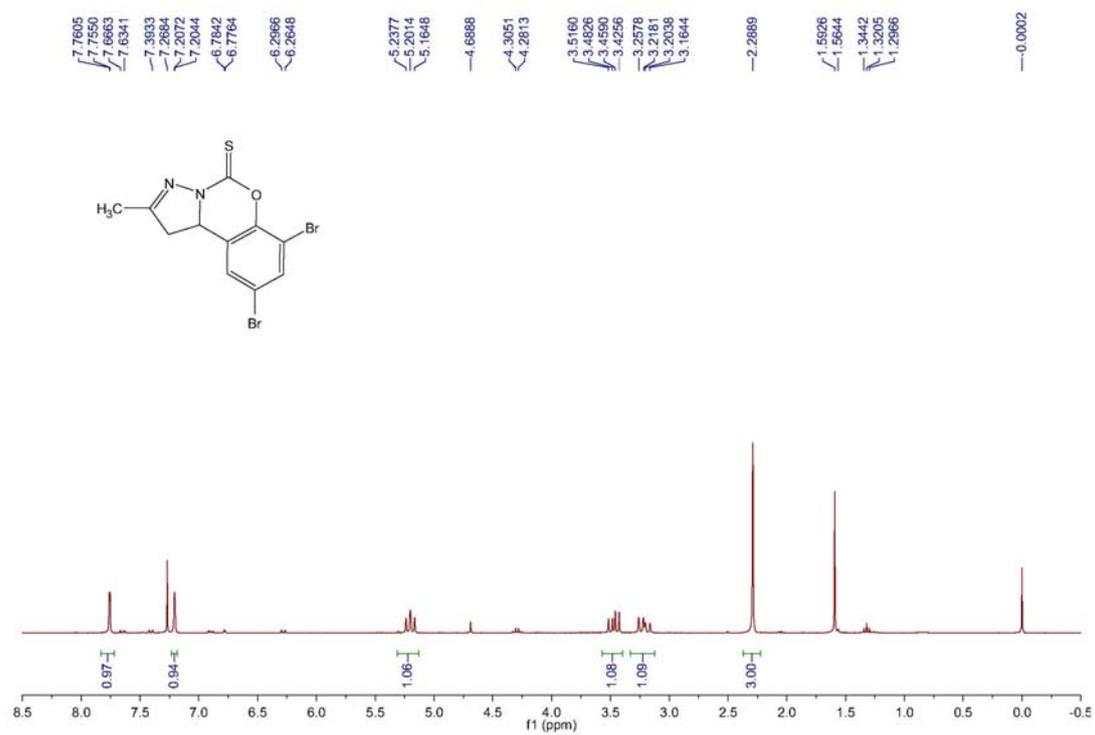
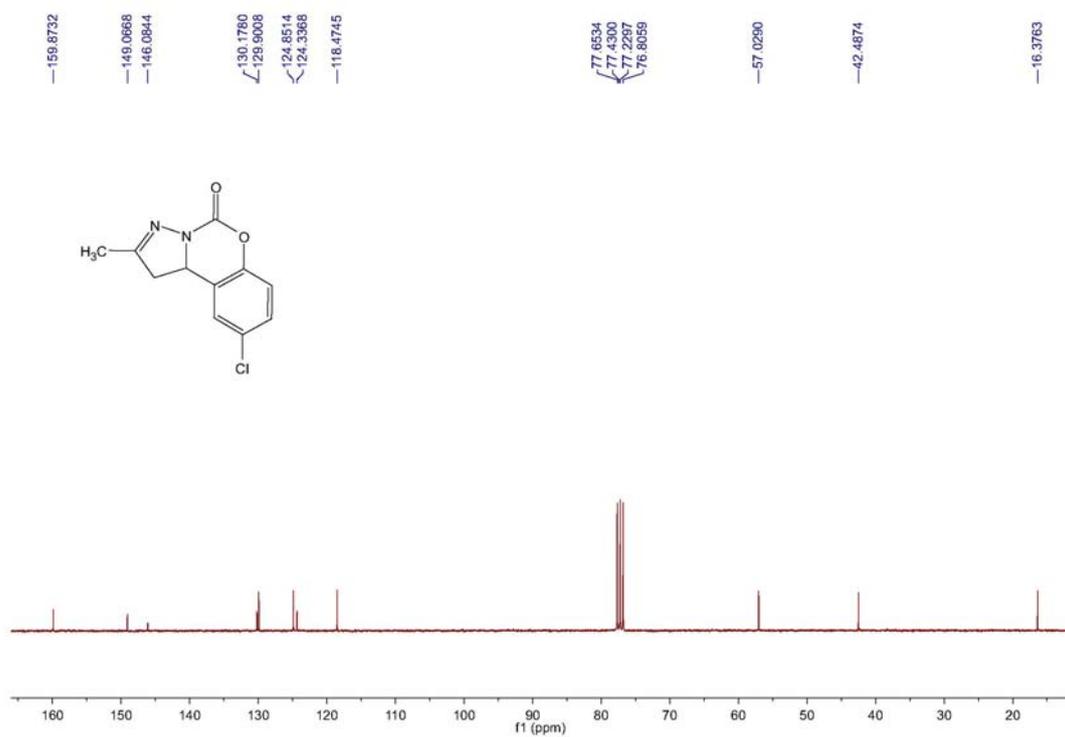
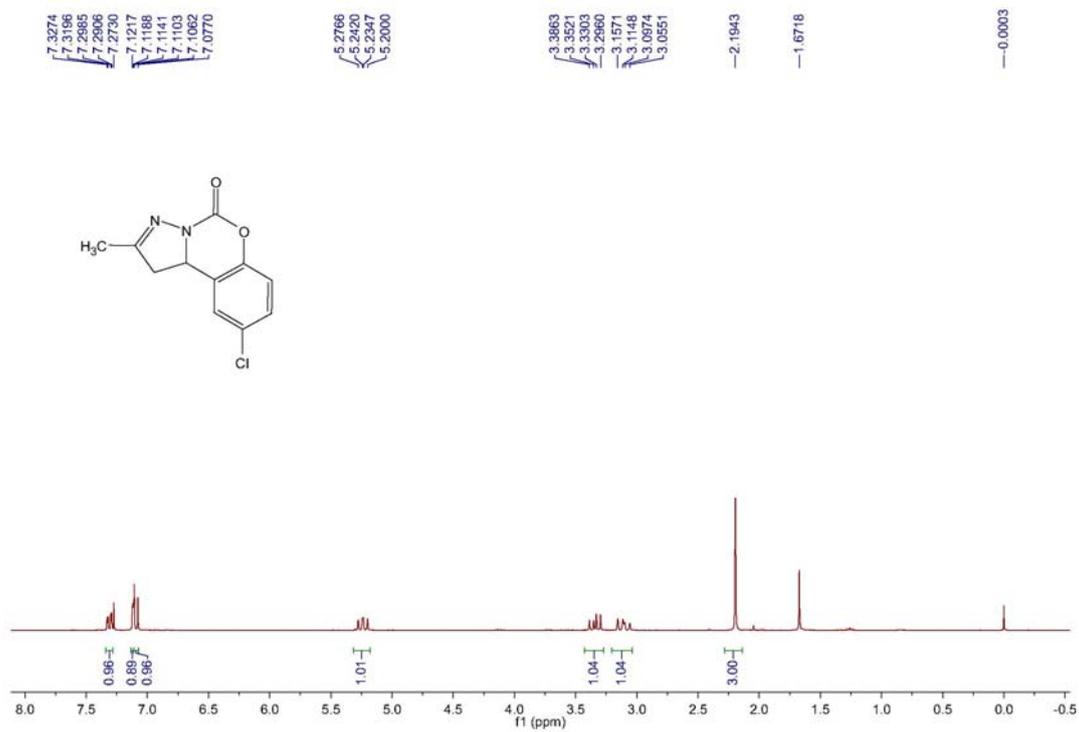


Figure S10.  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  spectra of compound **6d**.



**Figure S11.** <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6e**.

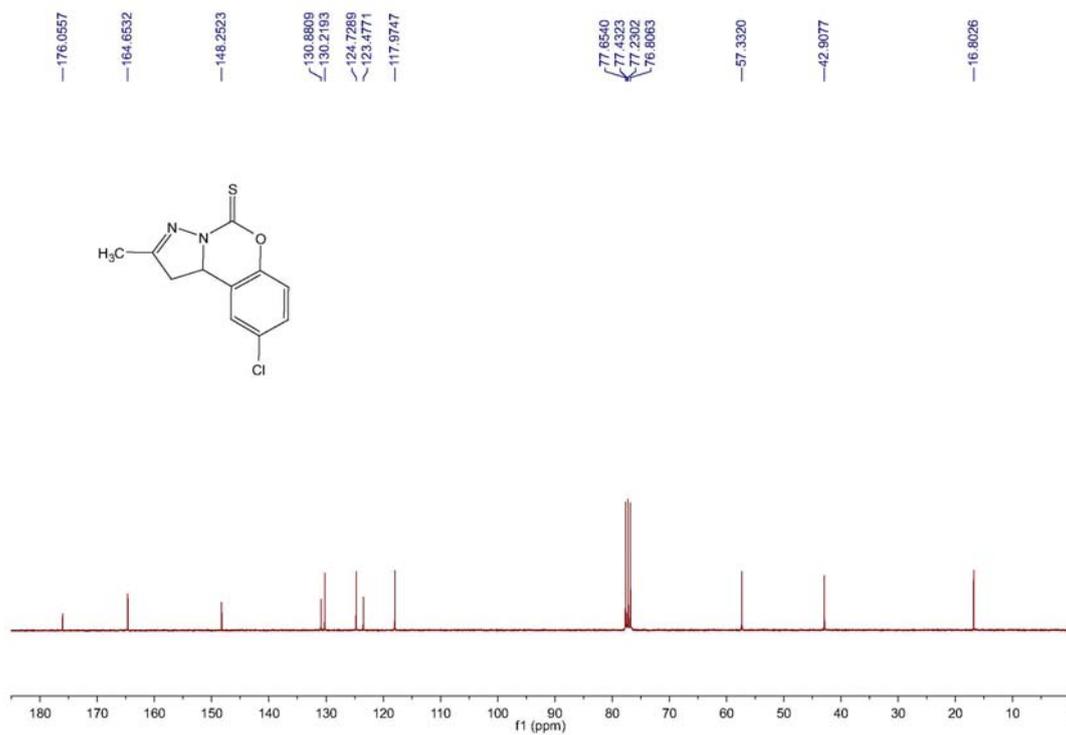
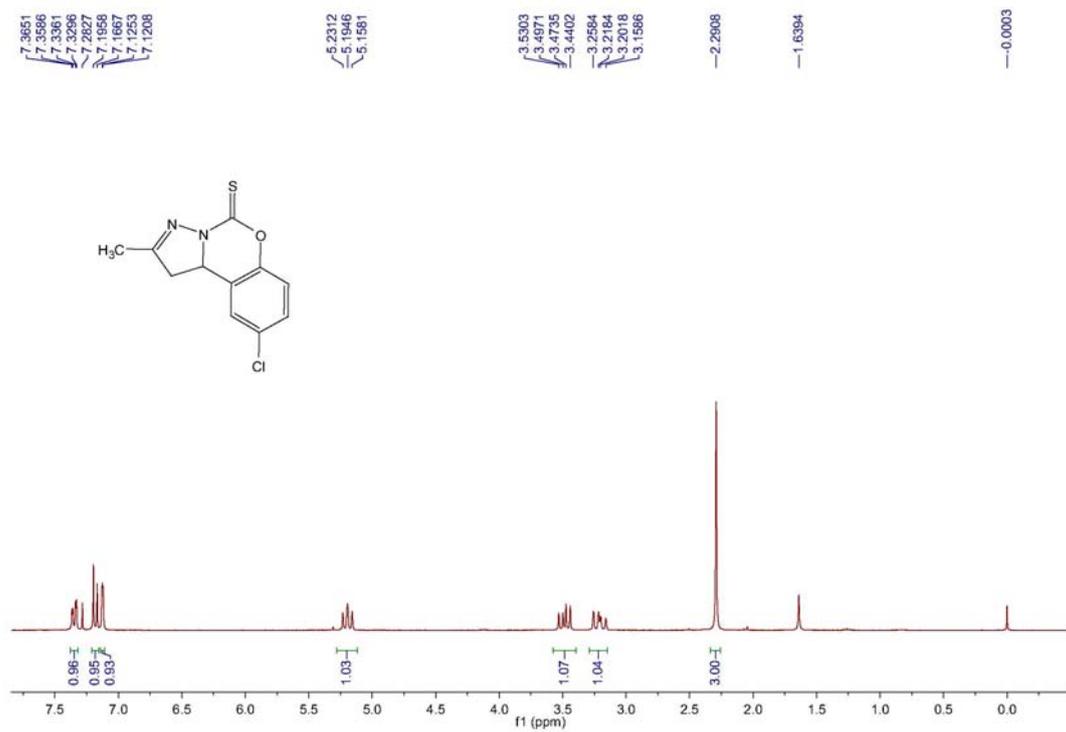


Figure S12.  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectra of compound 6f.

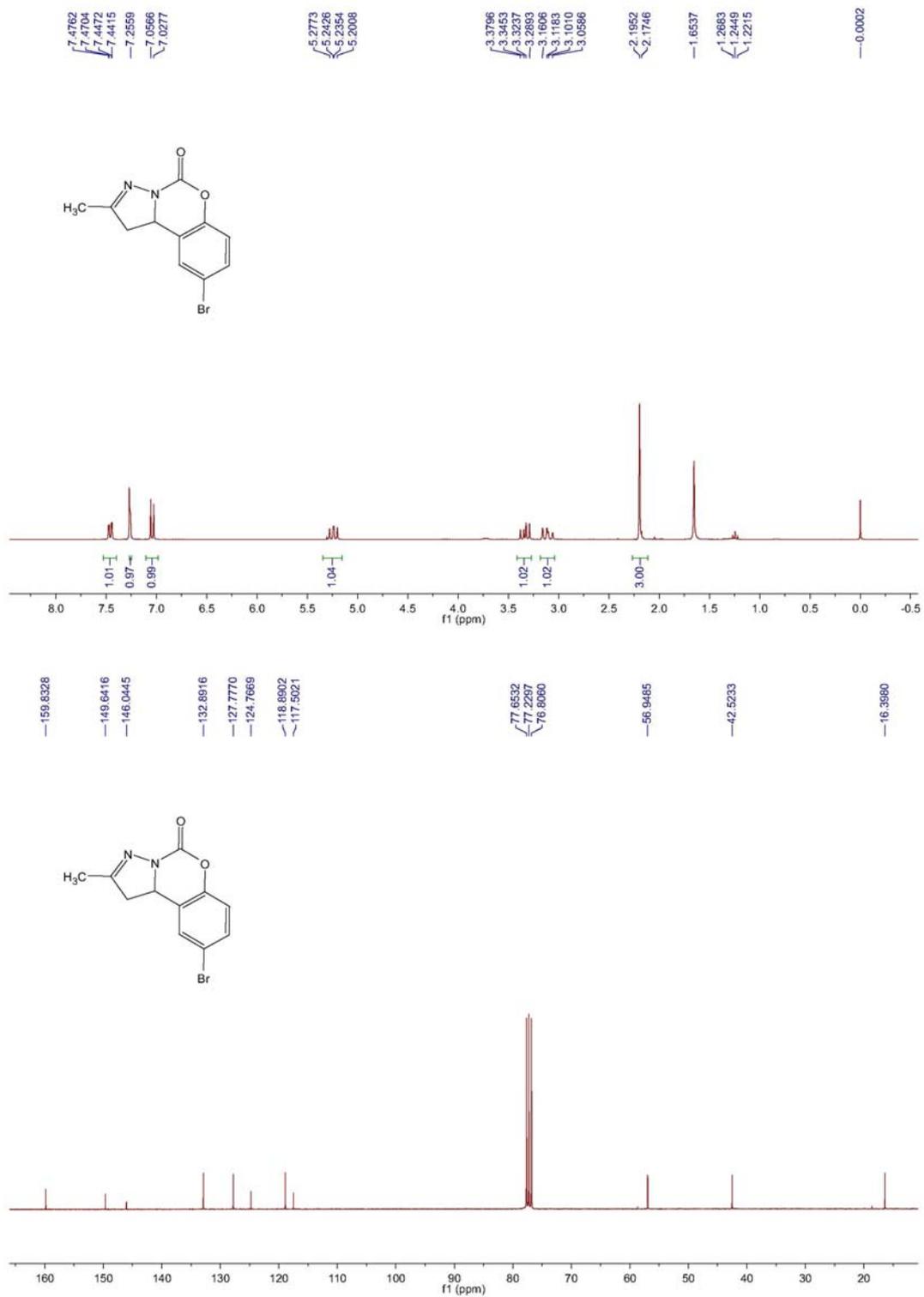


Figure S13. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6g**.

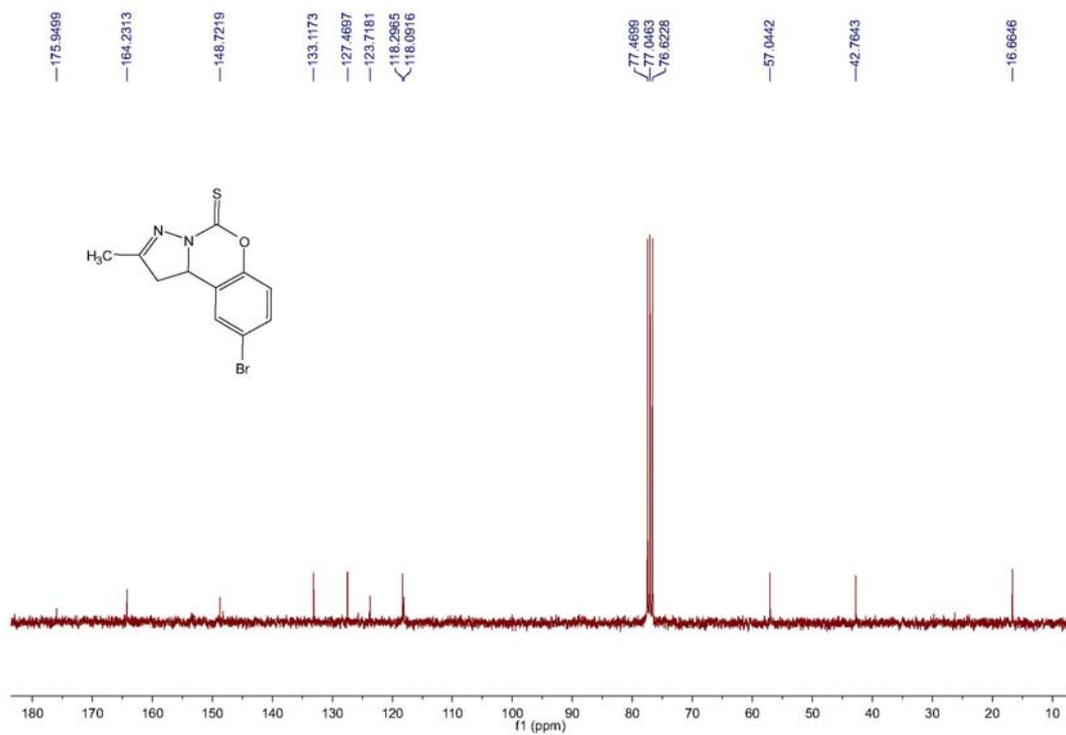
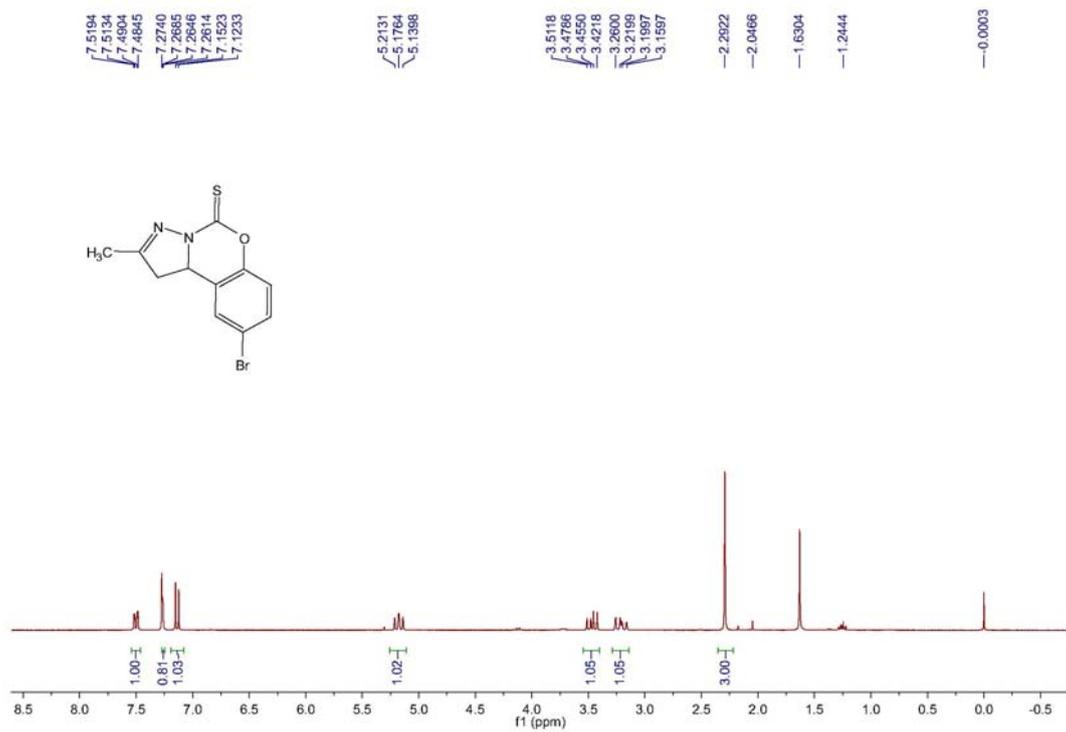
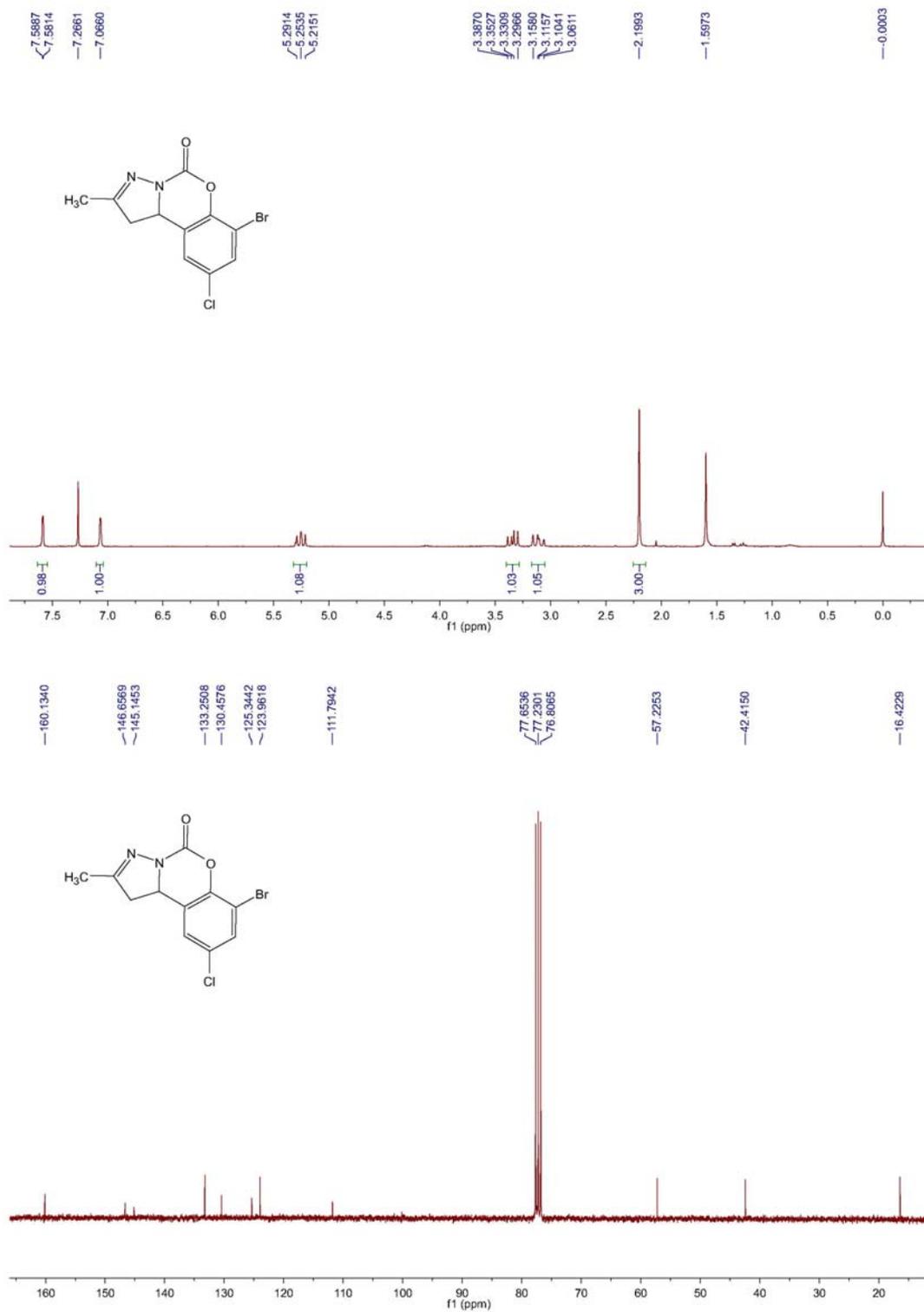
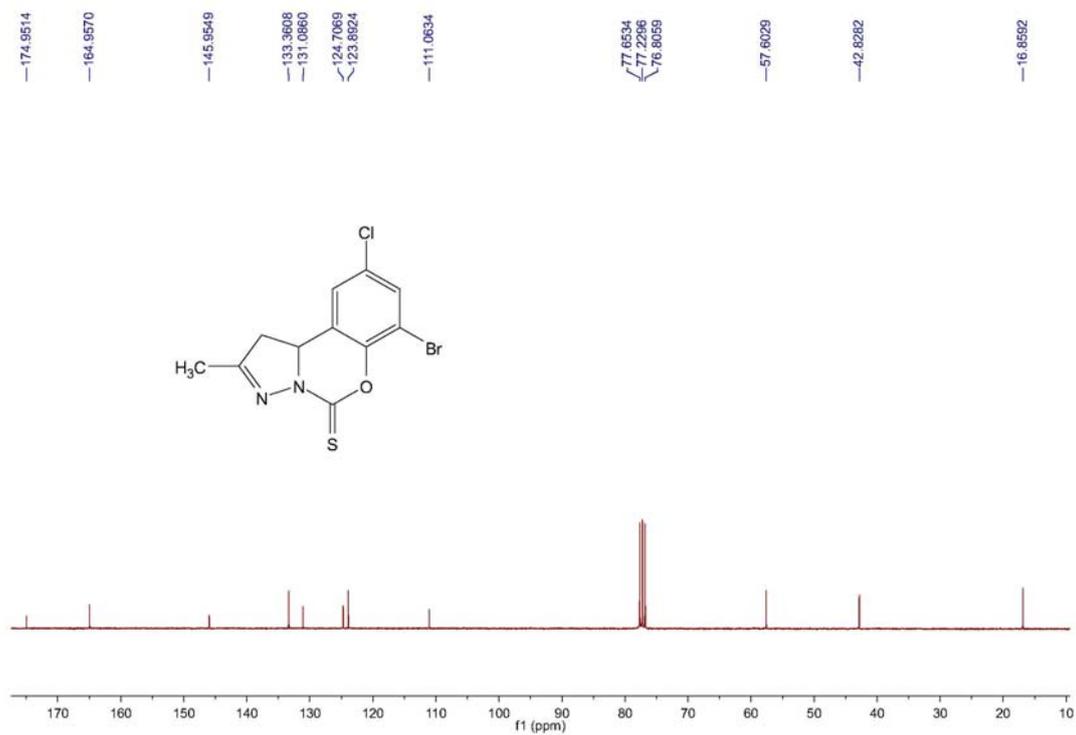
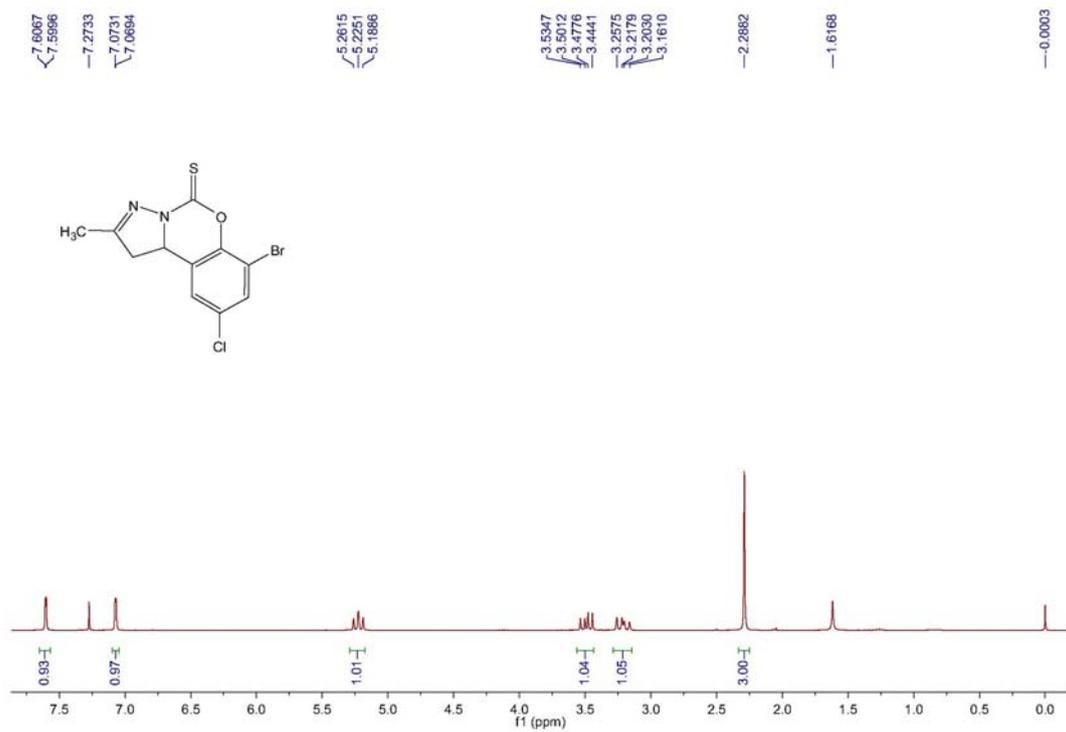


Figure S14.  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  spectra of compound **6h**.



**Figure S15.** <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6i**.



**Figure S16.** <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6j**.

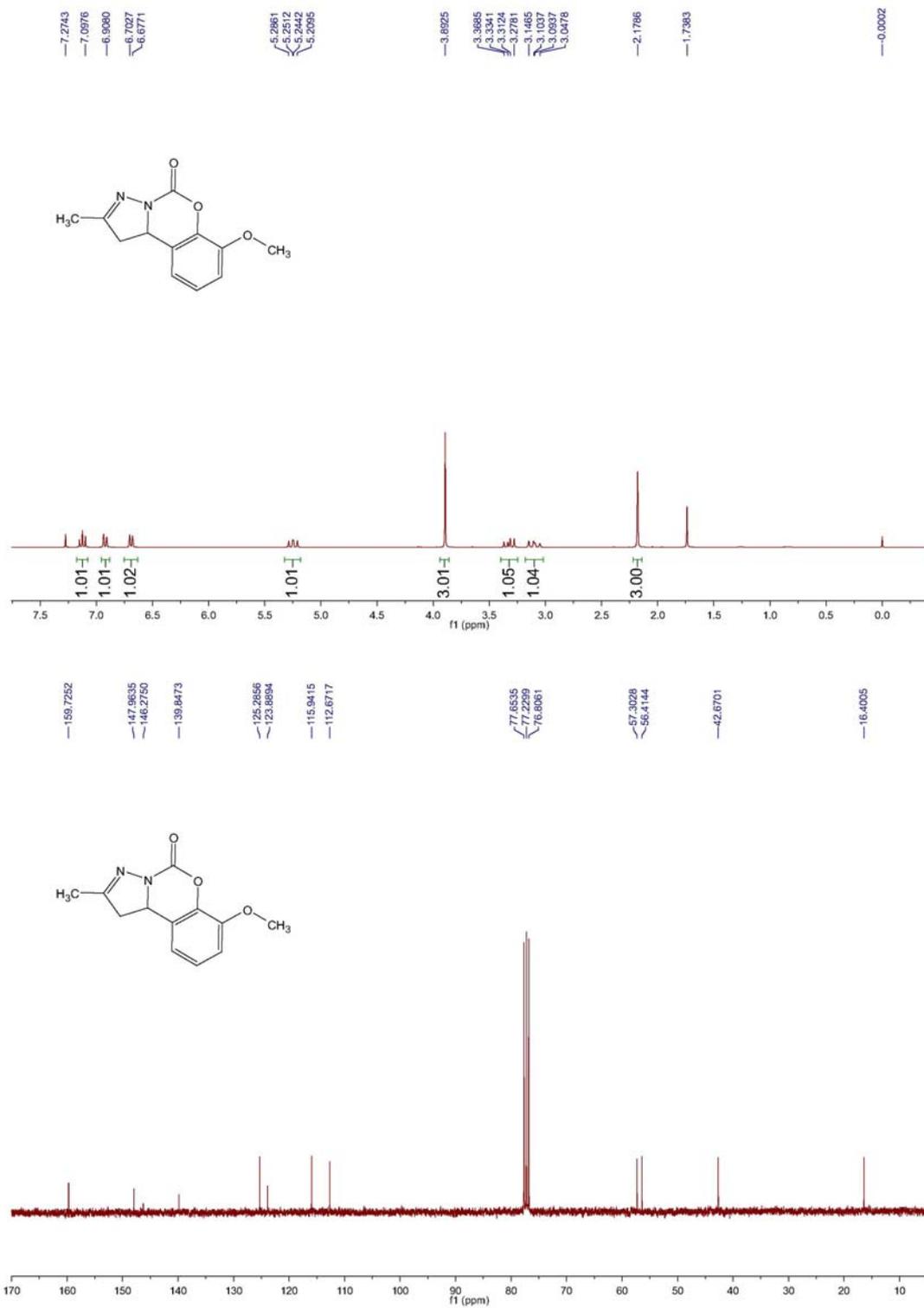


Figure S17. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6k**.

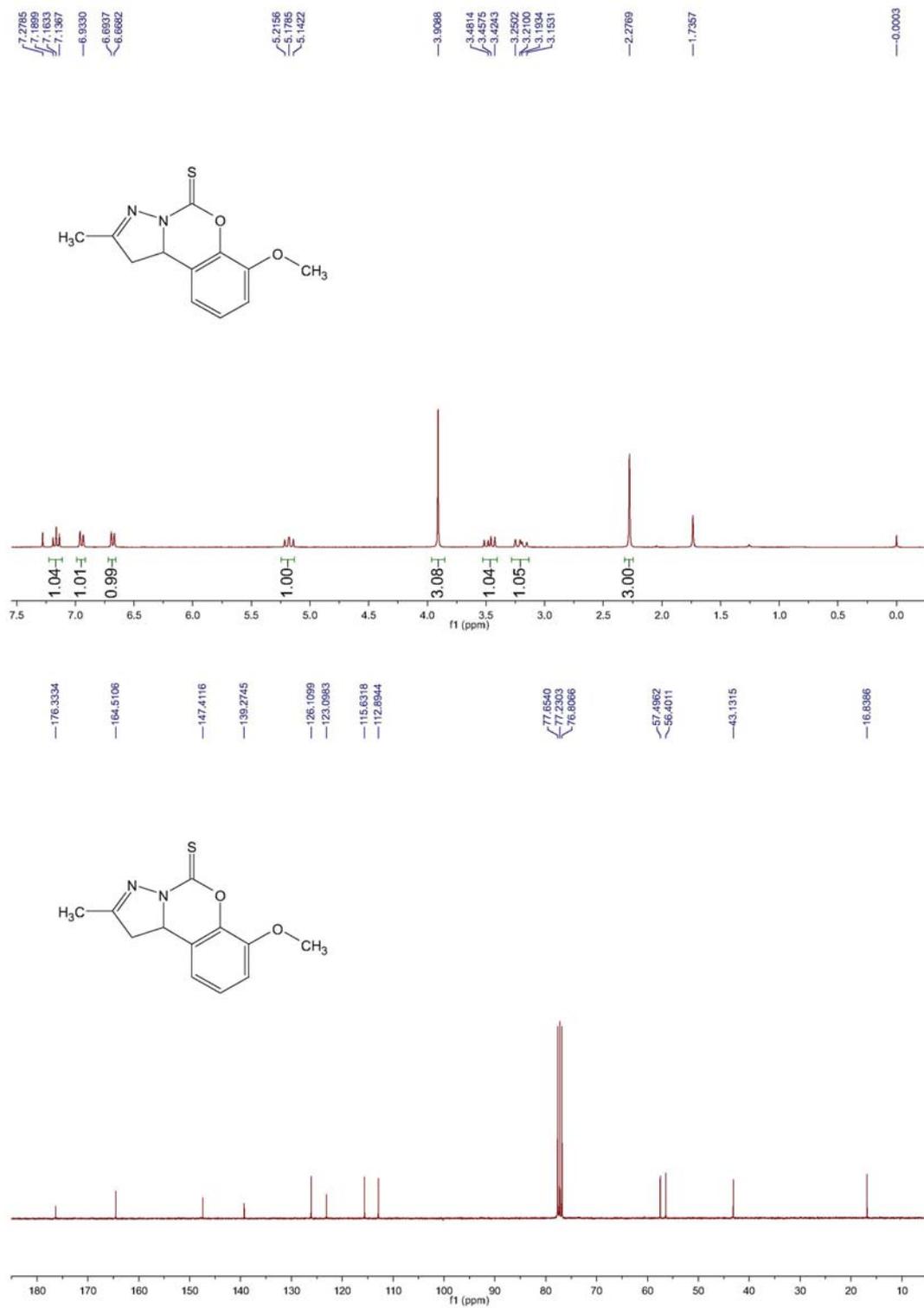
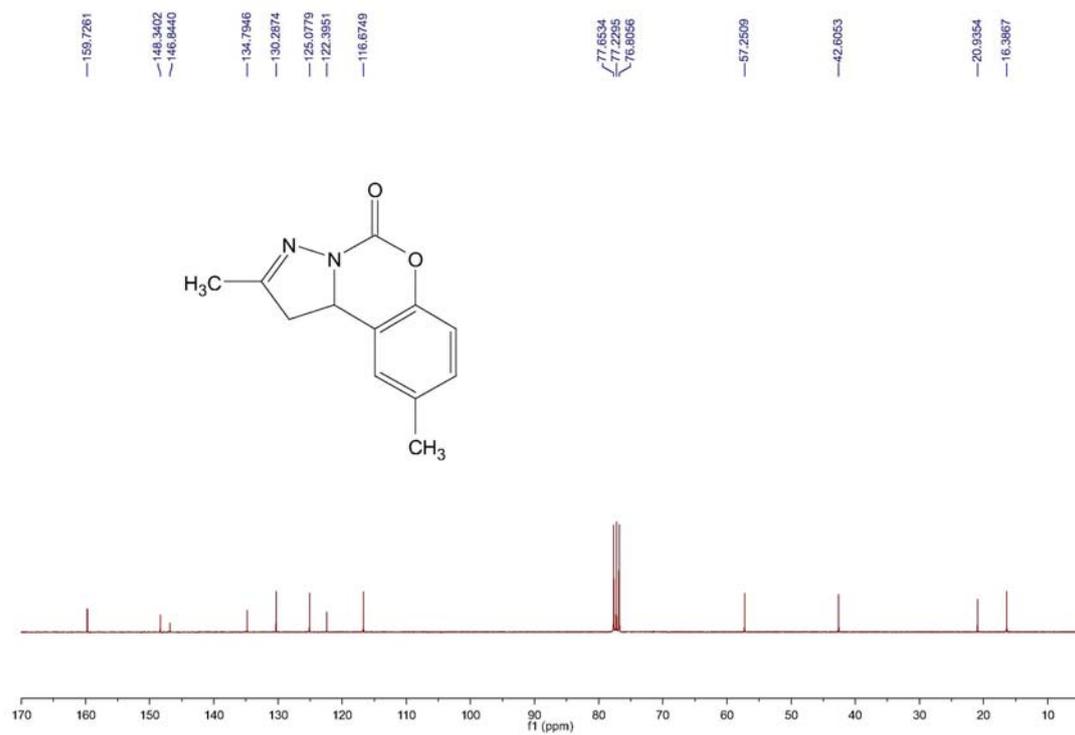
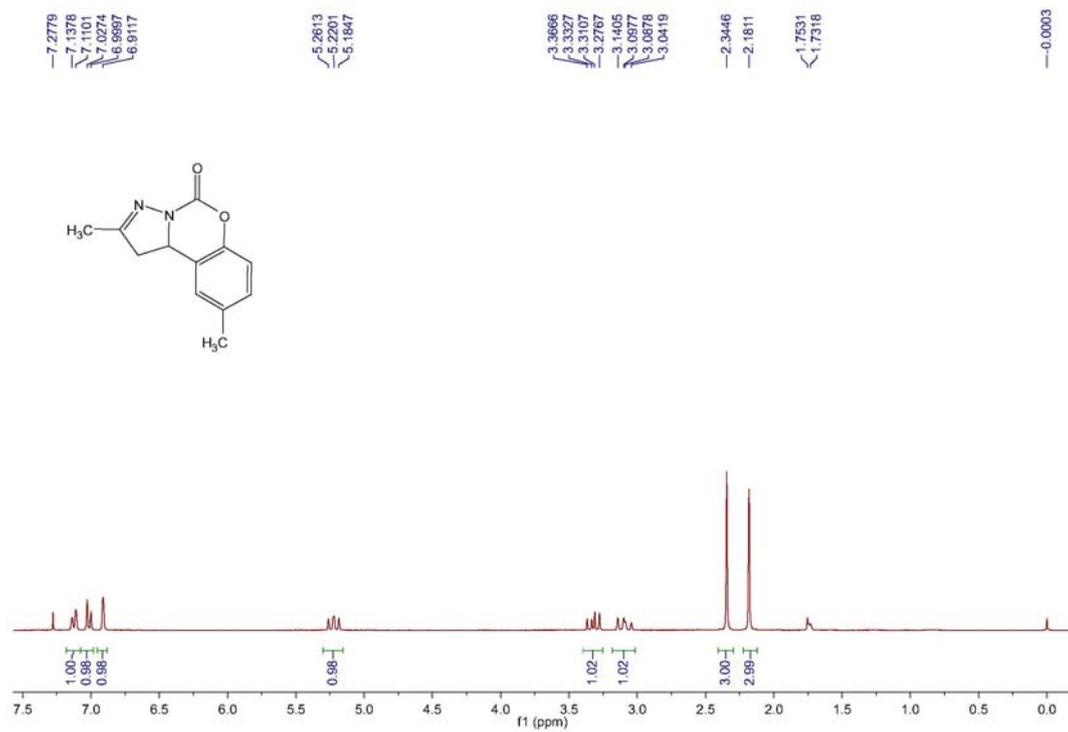


Figure S18. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound 61.



**Figure S19.** <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6m**.

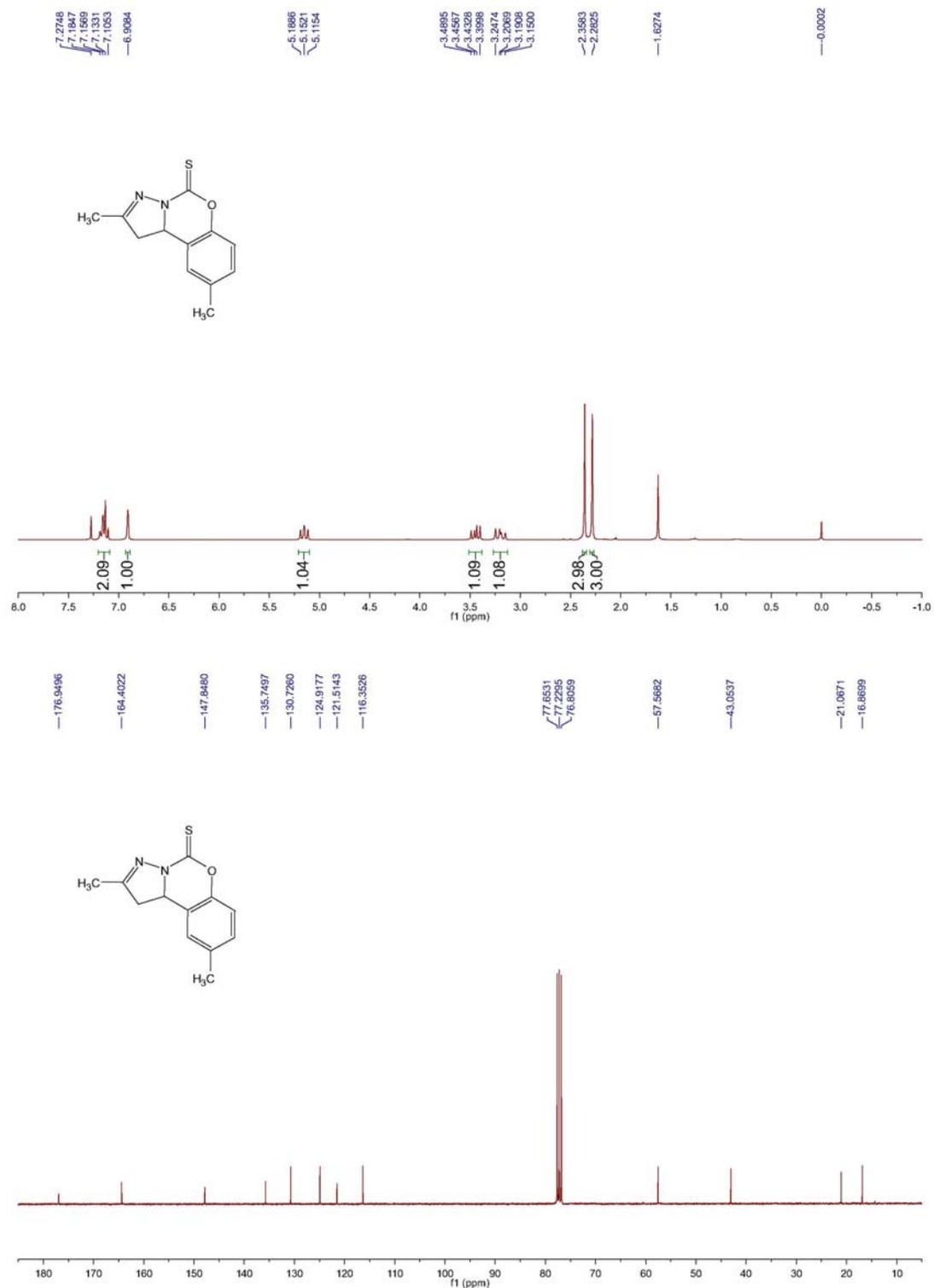


Figure S20. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound **6n**.

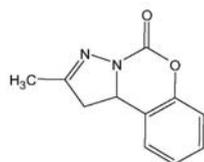
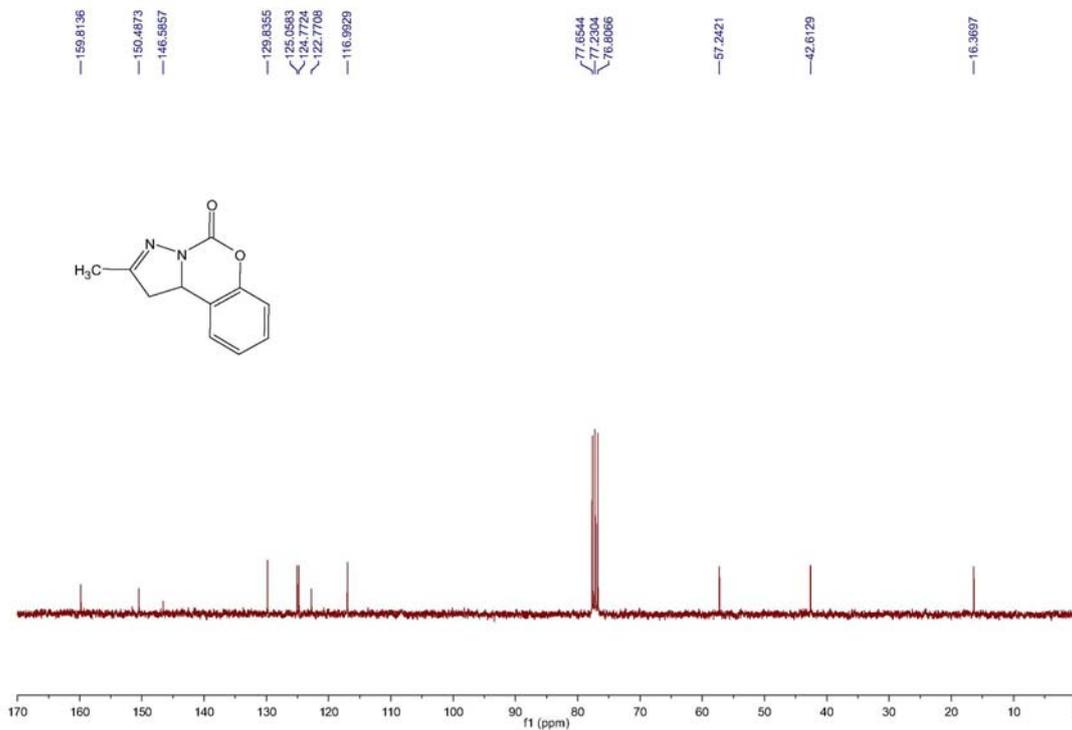
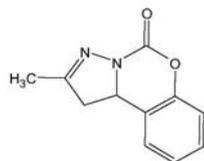
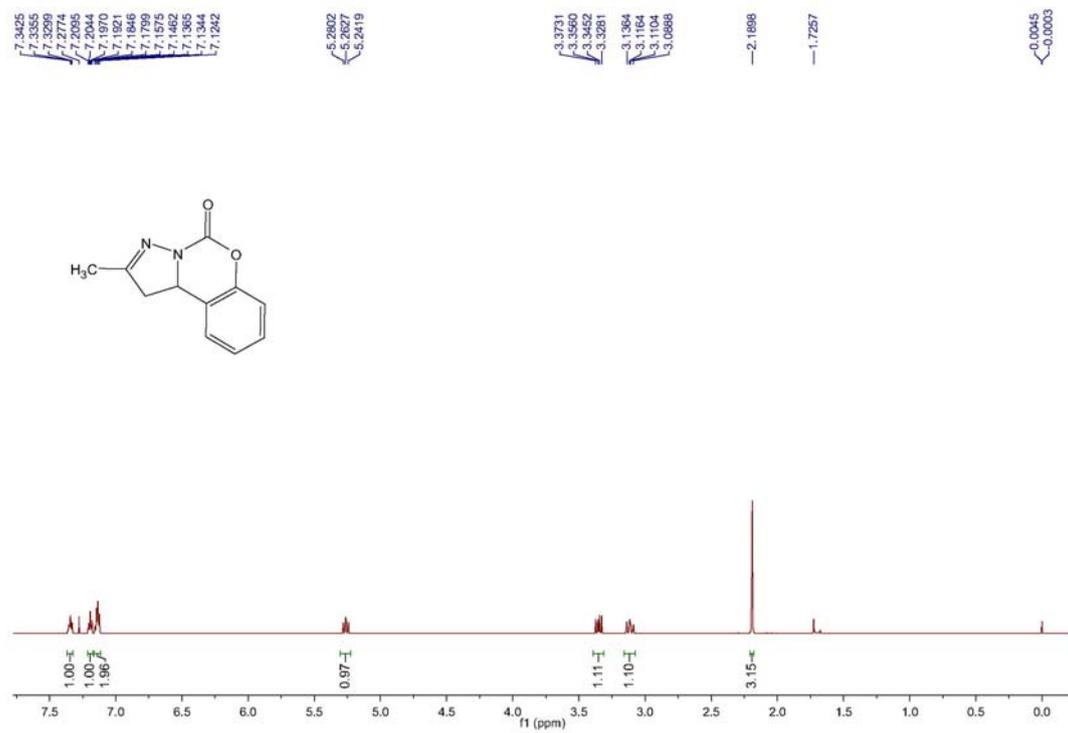
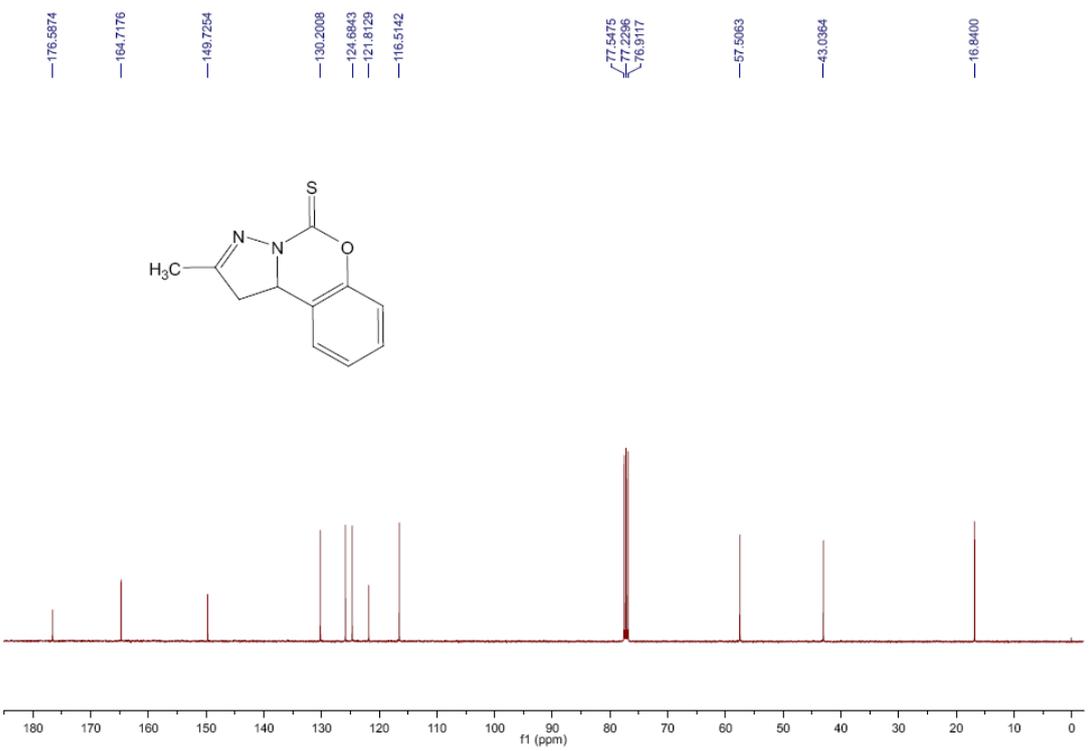
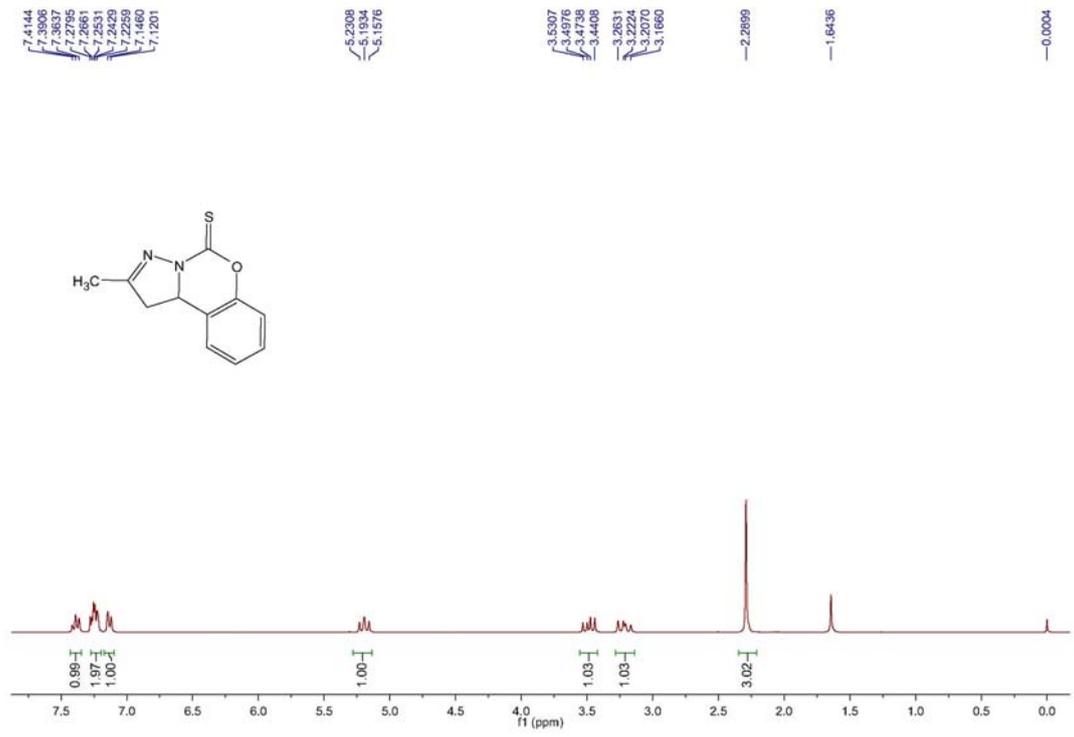
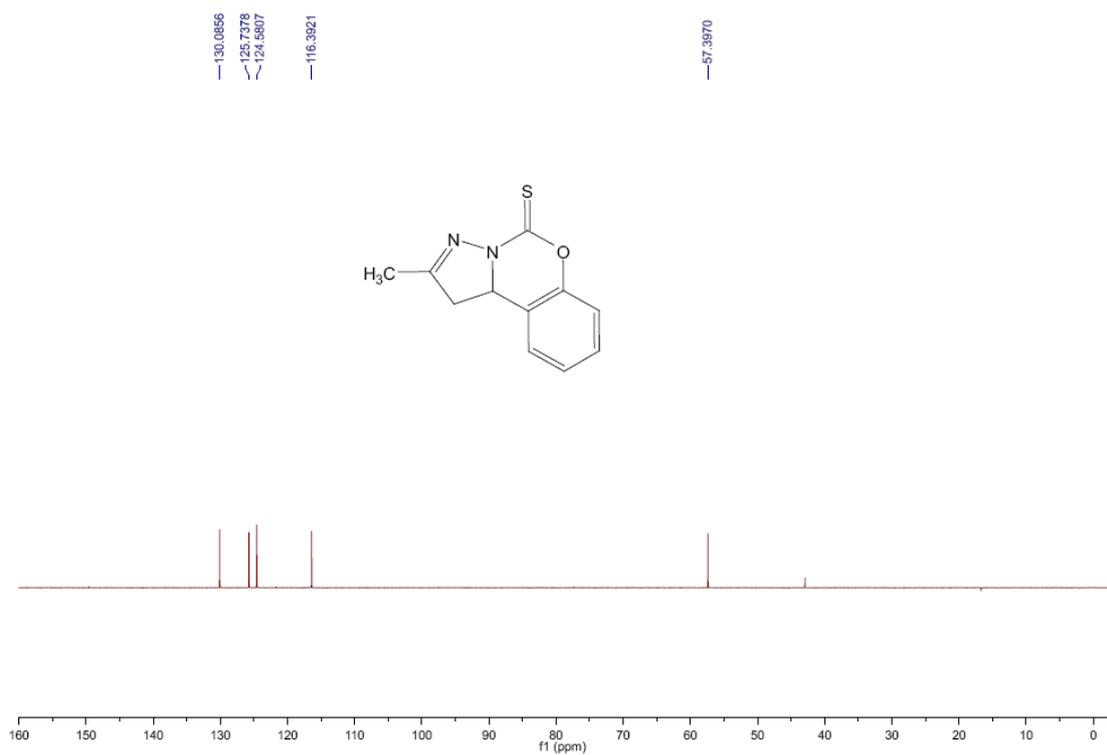
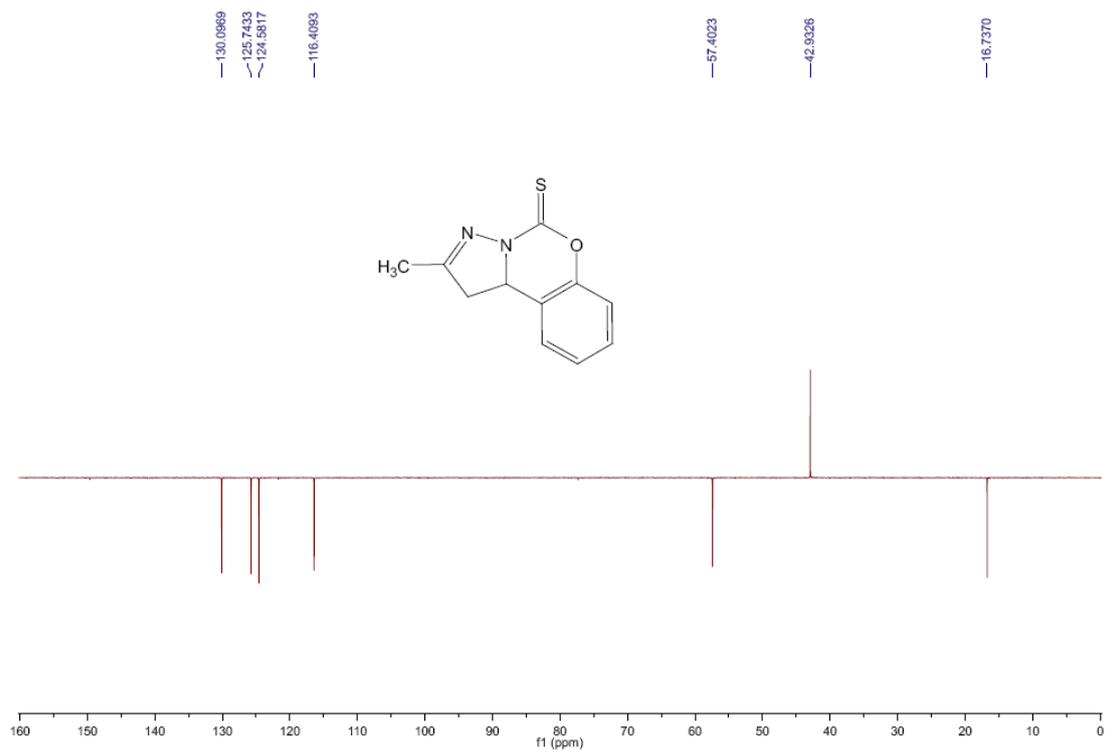


Figure S21.  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectra of compound 60.





**Figure S22.** <sup>1</sup>H-NMR, <sup>13</sup>C-NMR and DEPT spectra of compound **6p**.

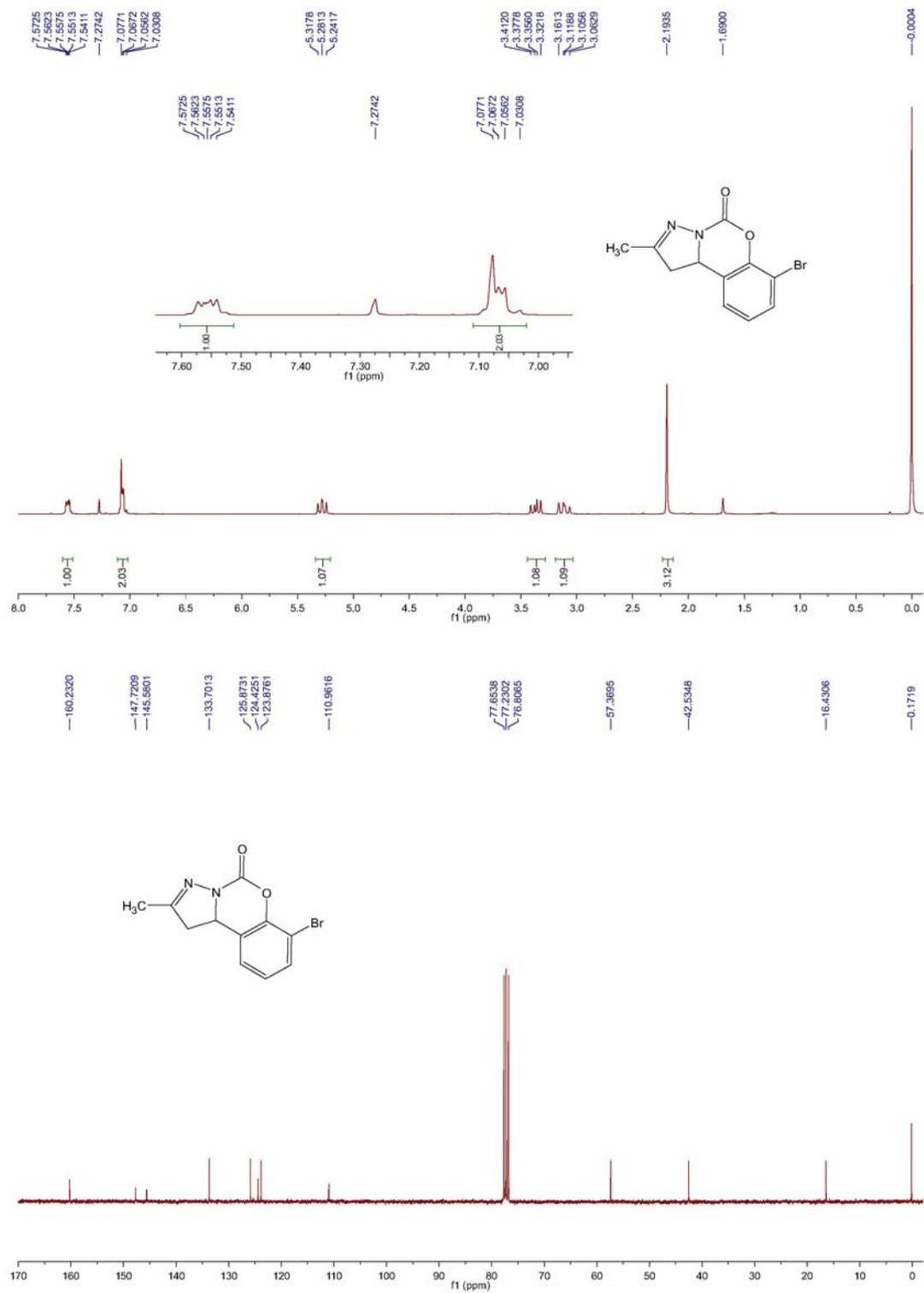


Figure S23. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectra of compound 6q.