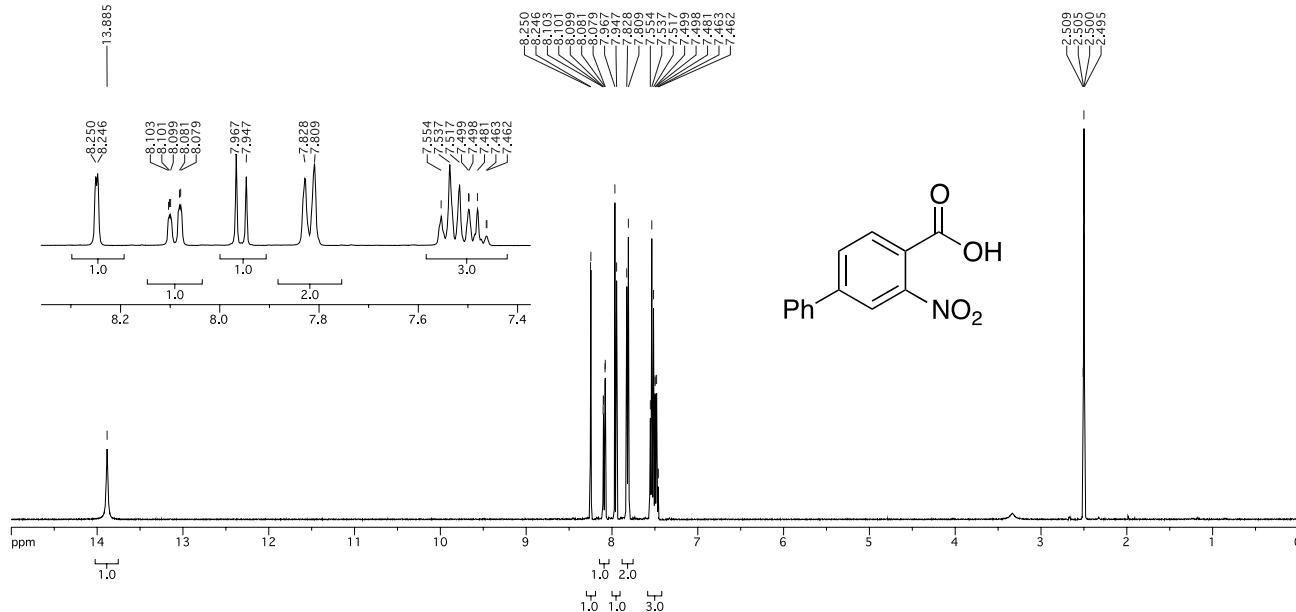
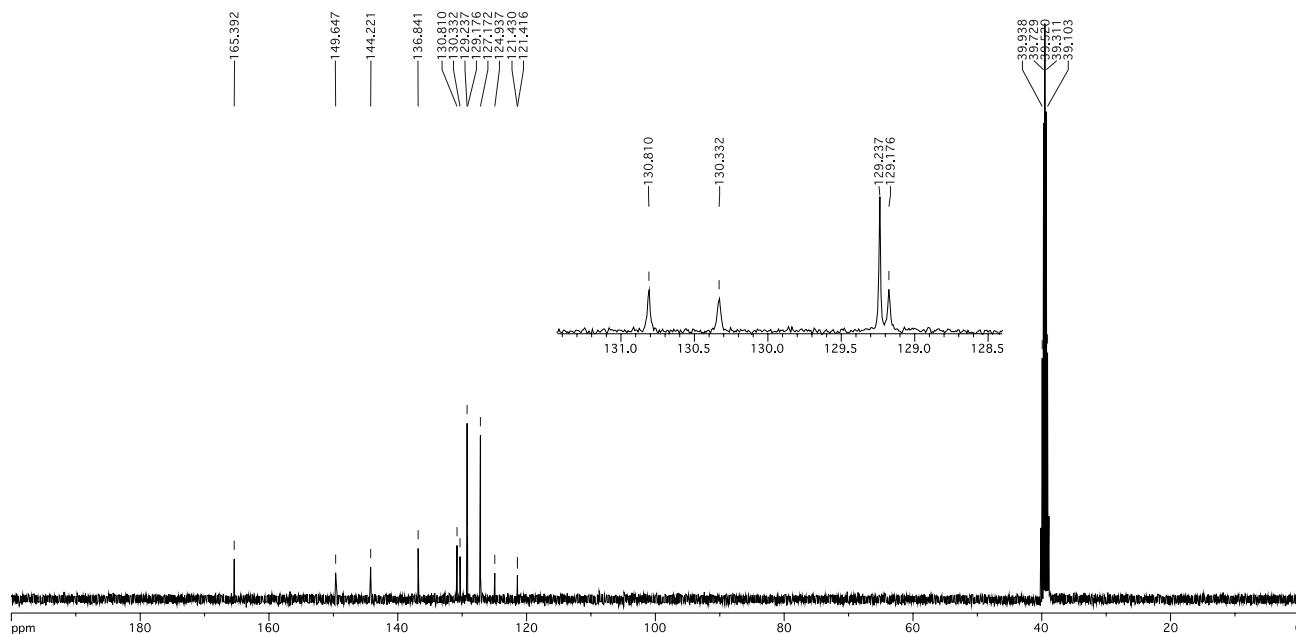


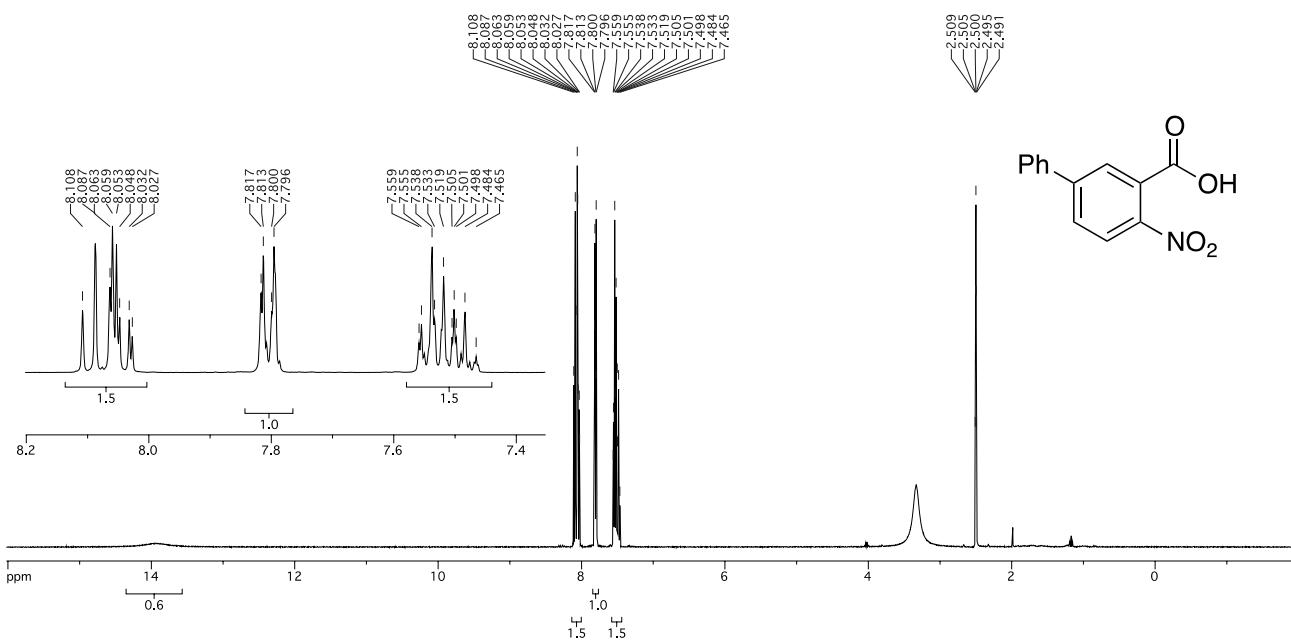
## VII. $^1\text{H}$ and $^{13}\text{C}$ NMR Spectra of Substituted Benzoic Acids



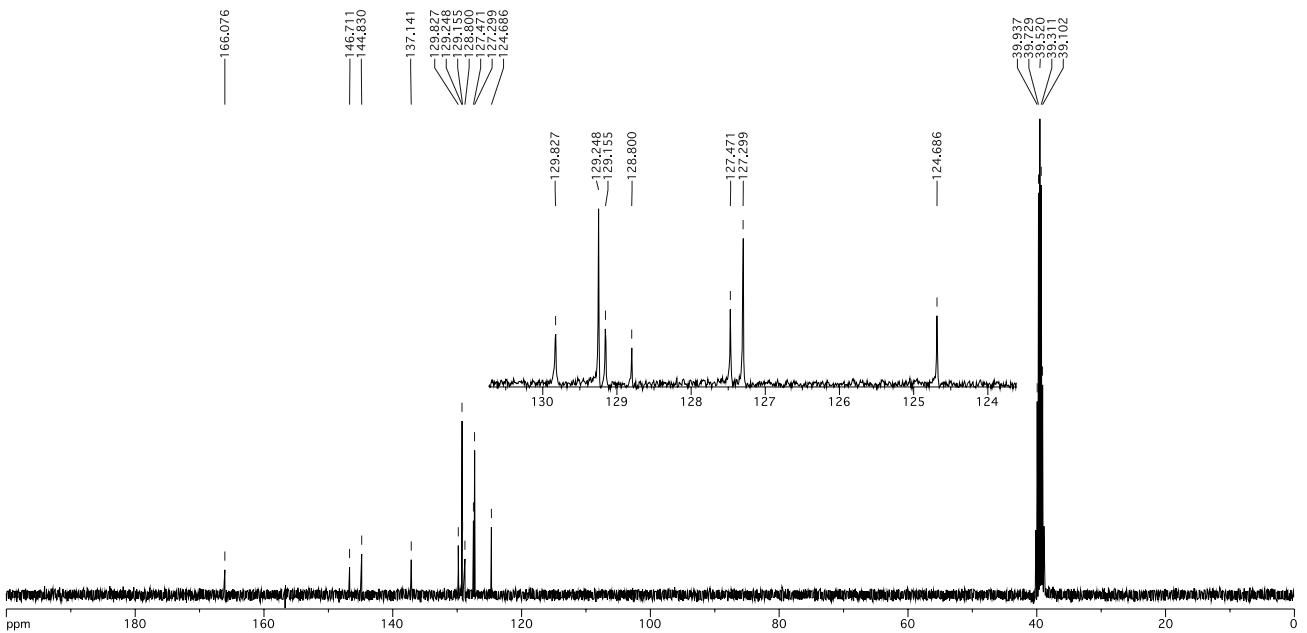
<sup>1</sup>H NMR spectrum of **4-phenyl-2-nitrobenzoic acid (2d)** in DMSO-*d*<sub>6</sub> at 400 MHz.



<sup>13</sup>C NMR spectrum of **4-phenyl-2-nitrobenzoic acid (2d)** in DMSO-*d*<sub>6</sub> at 100 MHz.

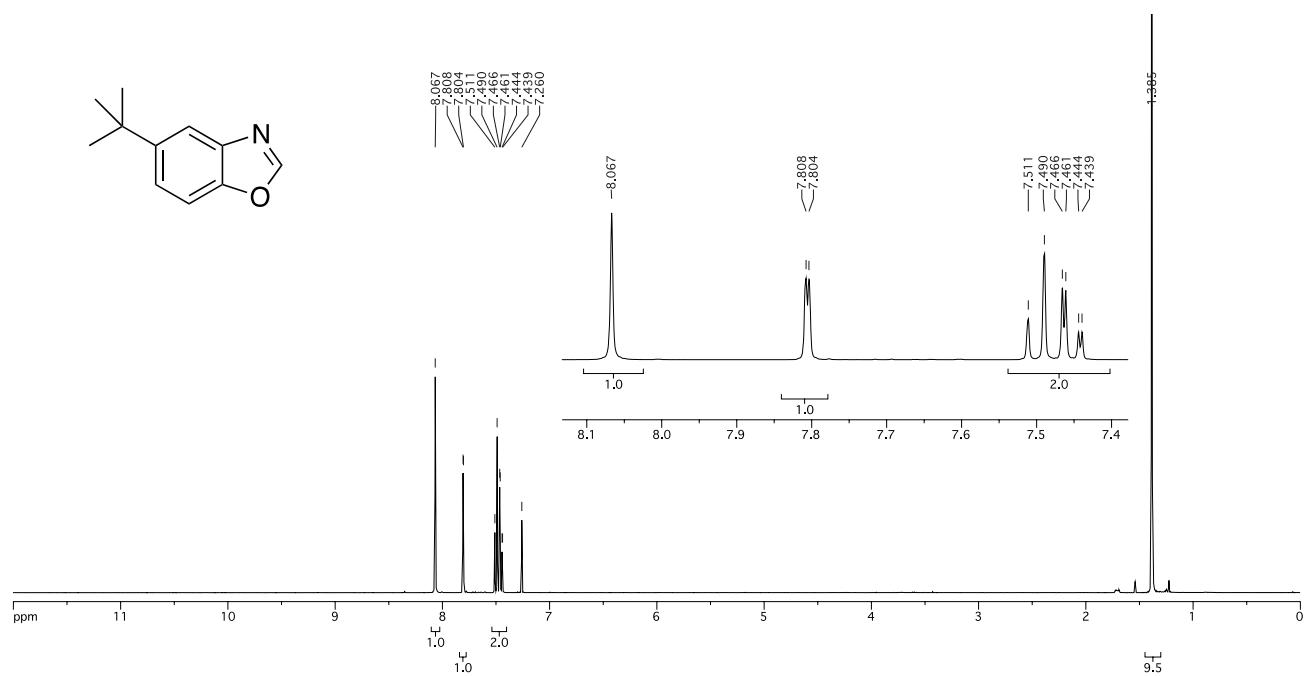


<sup>1</sup>H NMR spectrum of **5-phenyl-2-nitrobenzoic acid (2j)** in DMSO-*d*<sub>6</sub> at 400 MHz.

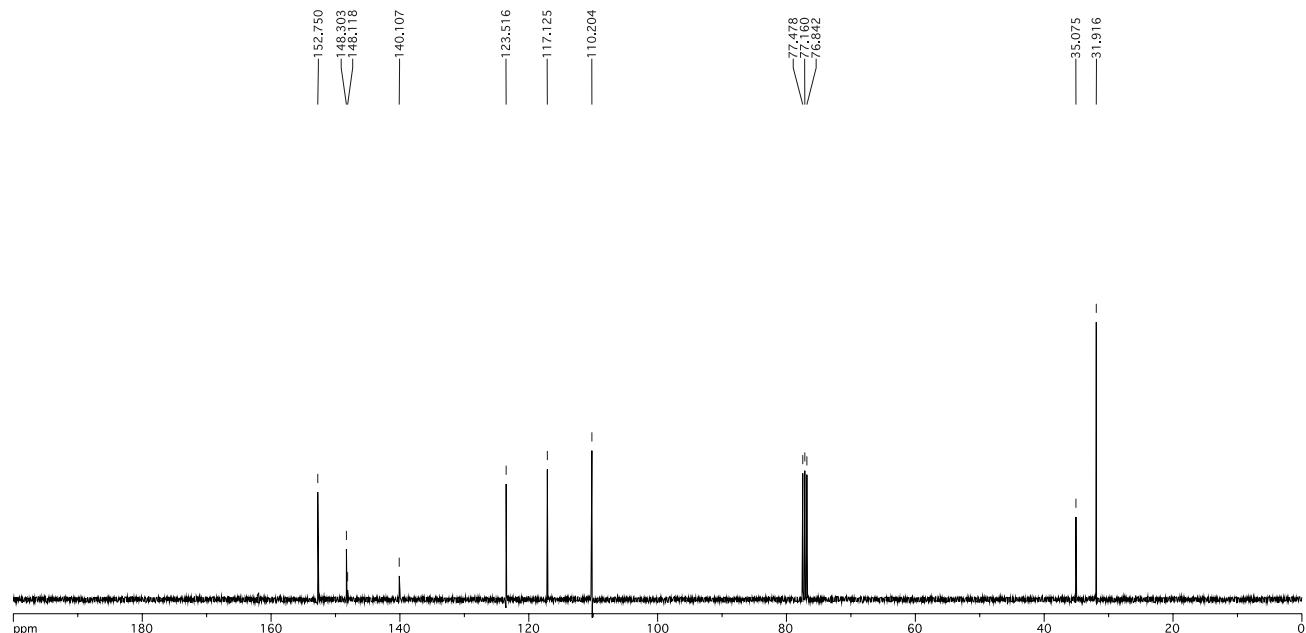


<sup>13</sup>C NMR spectrum of **5-phenyl-2-nitrobenzoic acid (2j)** in DMSO-*d*<sub>6</sub> at 100 MHz.

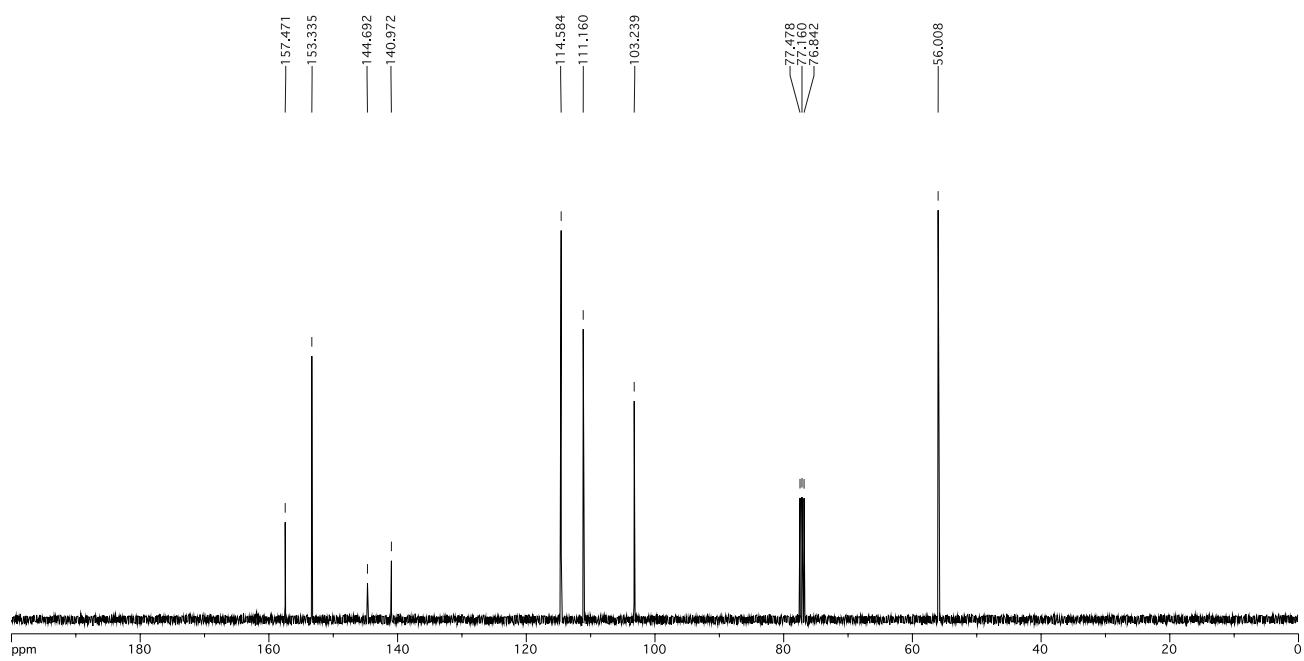
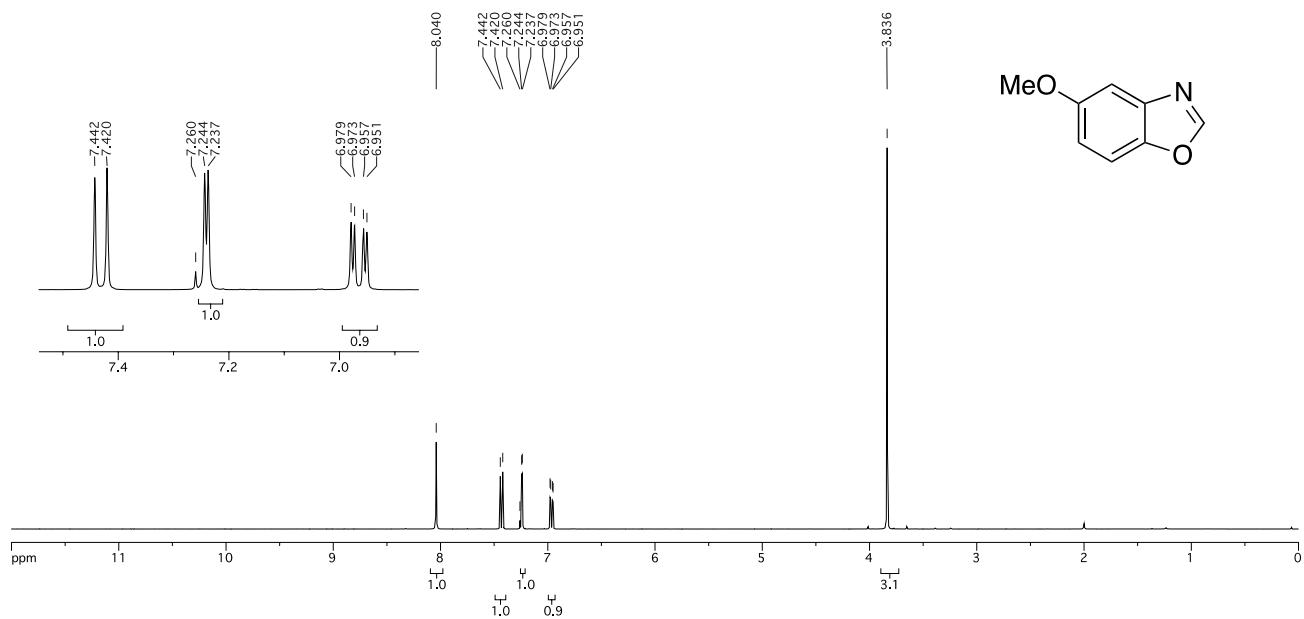
### VIII. $^1\text{H}$ and $^{13}\text{C}$ NMR Spectra of Substituted Benzoxazoles

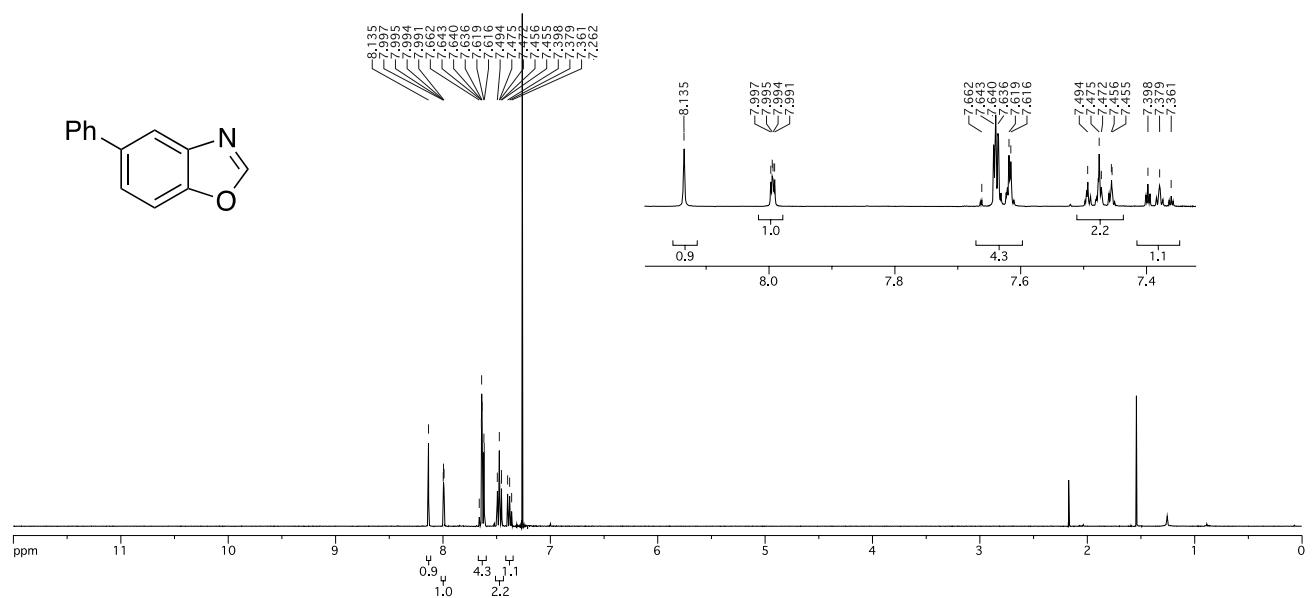


$^1\text{H}$  NMR spectrum of **5-*tert*-butylbenzoxazole (1c)** in  $\text{CDCl}_3$  at 400 MHz.

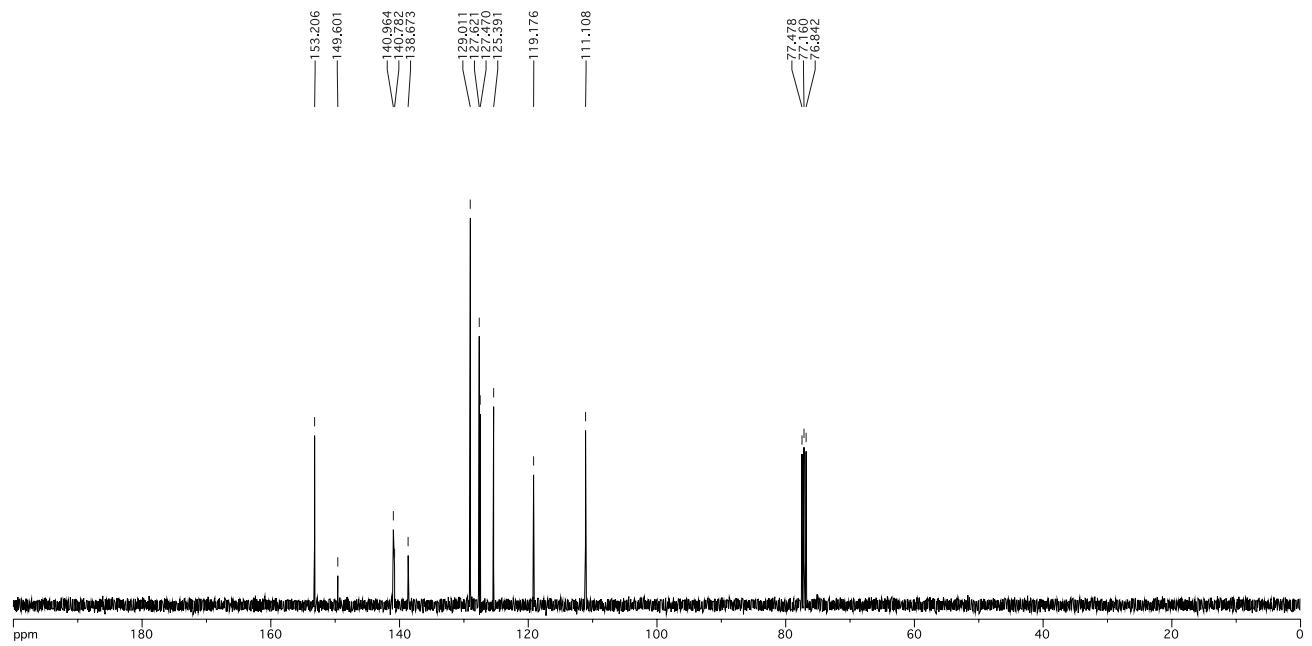


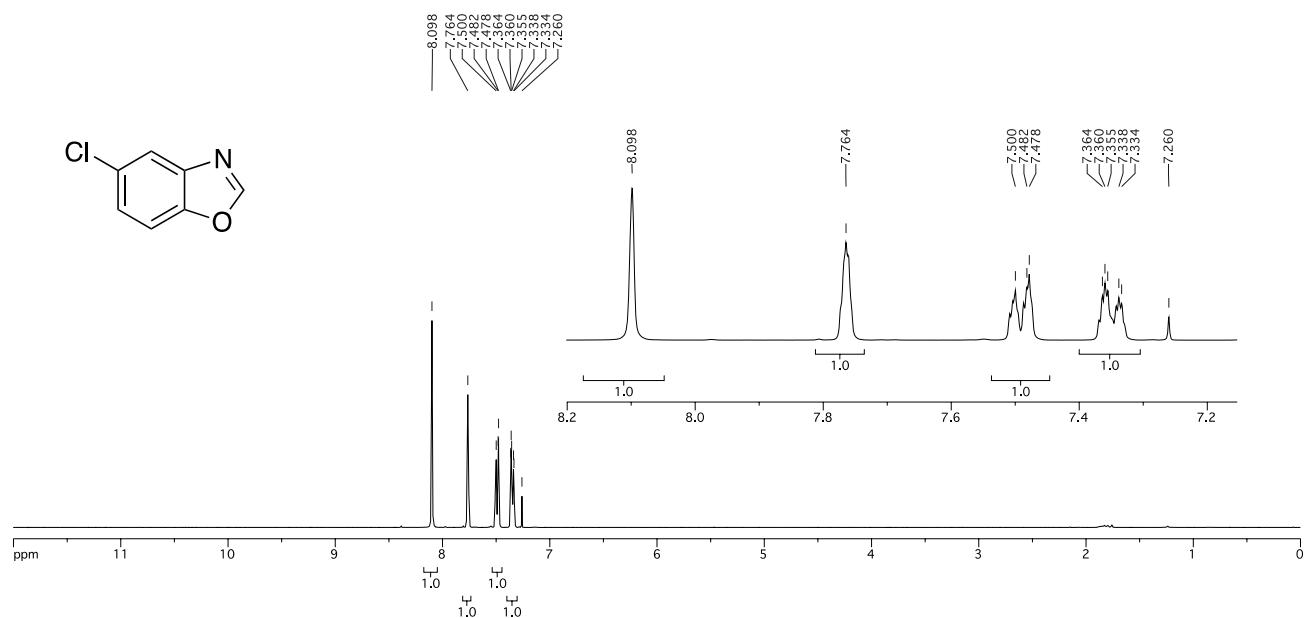
$^{13}\text{C}$  NMR spectrum of **5-*tert*-butylbenzoxazole (1c)** in  $\text{CDCl}_3$  at 100 MHz.



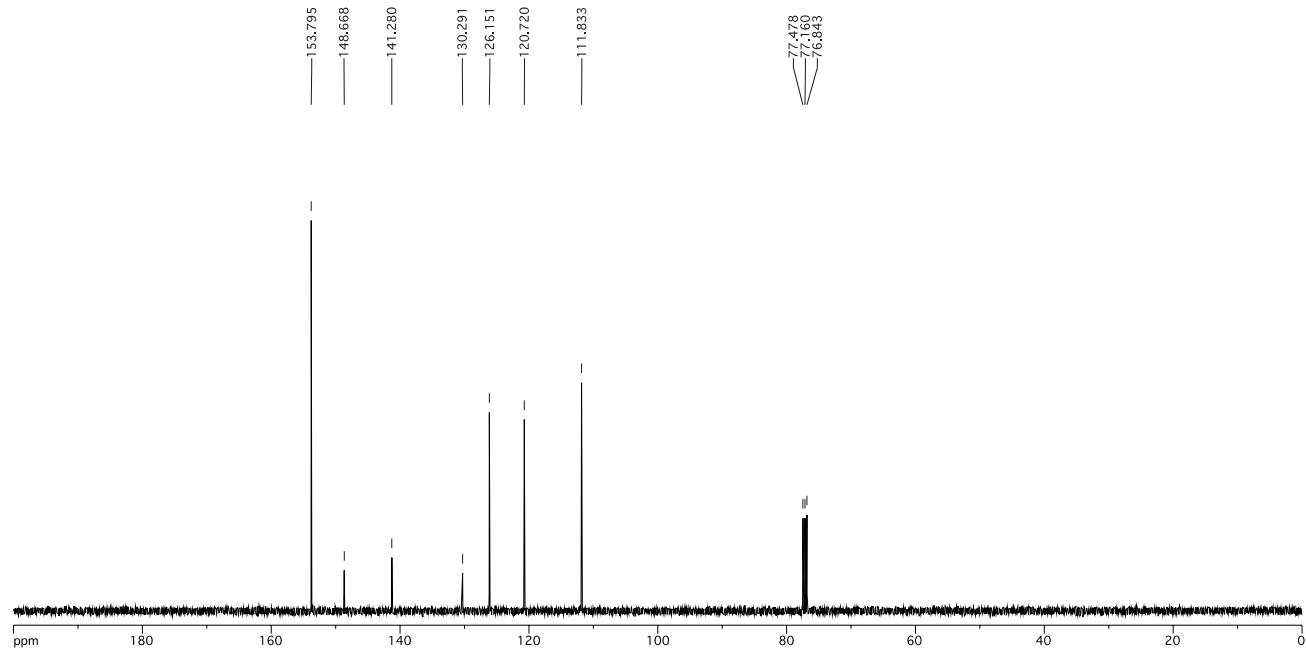


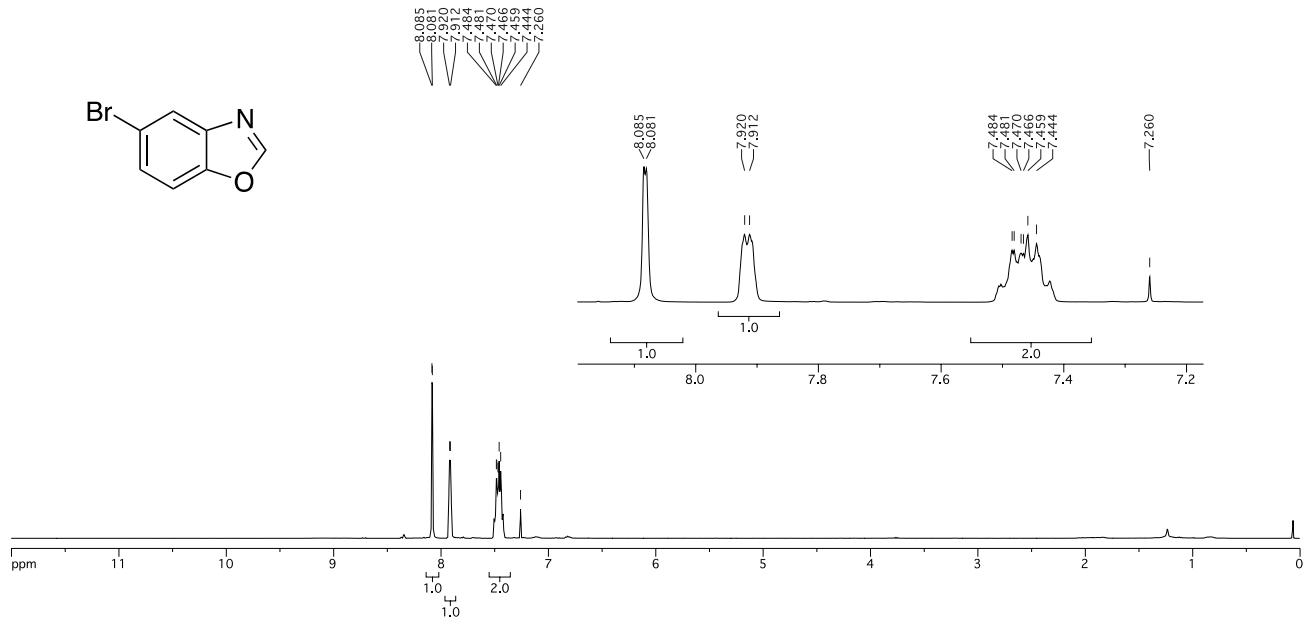
<sup>1</sup>H NMR spectrum of **5-phenylbenzoxazole (1e)** in  $\text{CDCl}_3$  at 400 MHz.



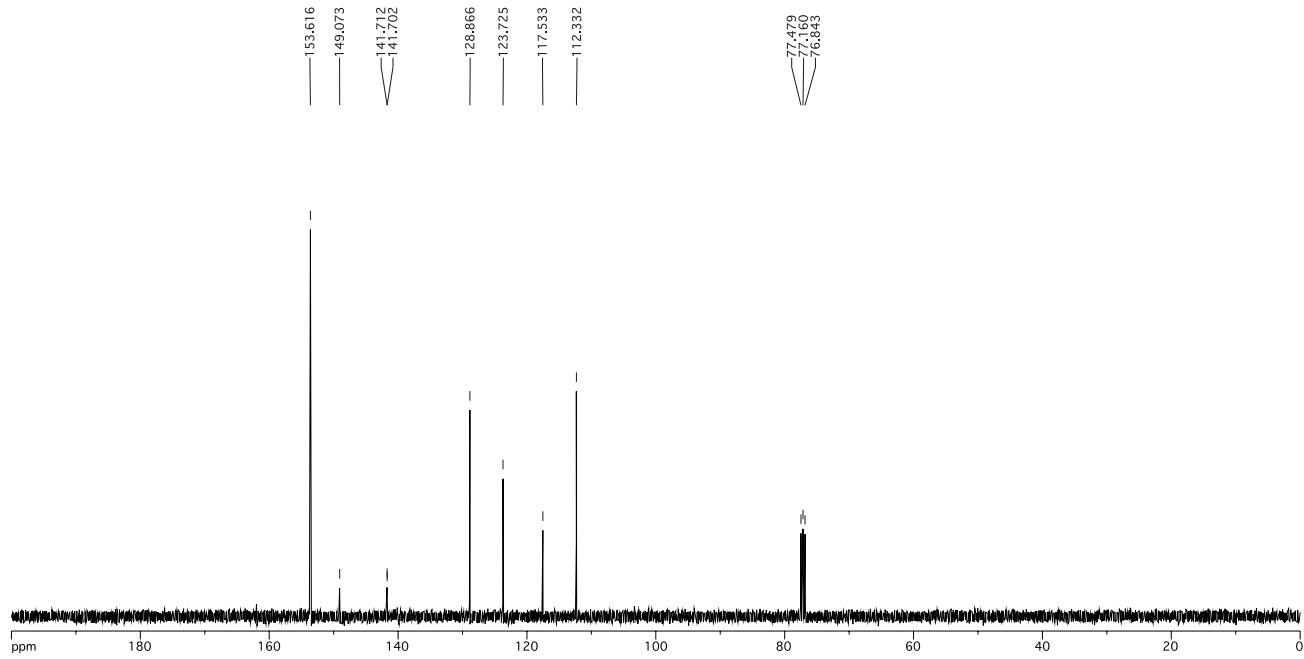


<sup>1</sup>H NMR spectrum of **5-chlorobenzoxazole (1f)** in  $\text{CDCl}_3$  at 400 MHz.

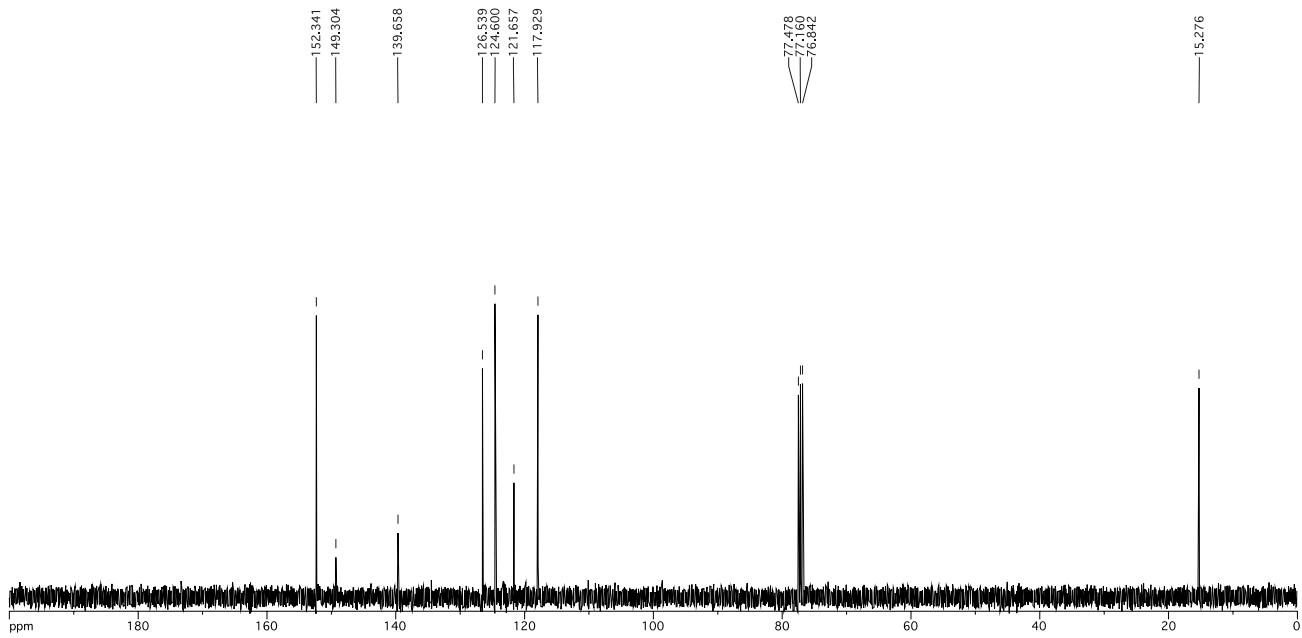
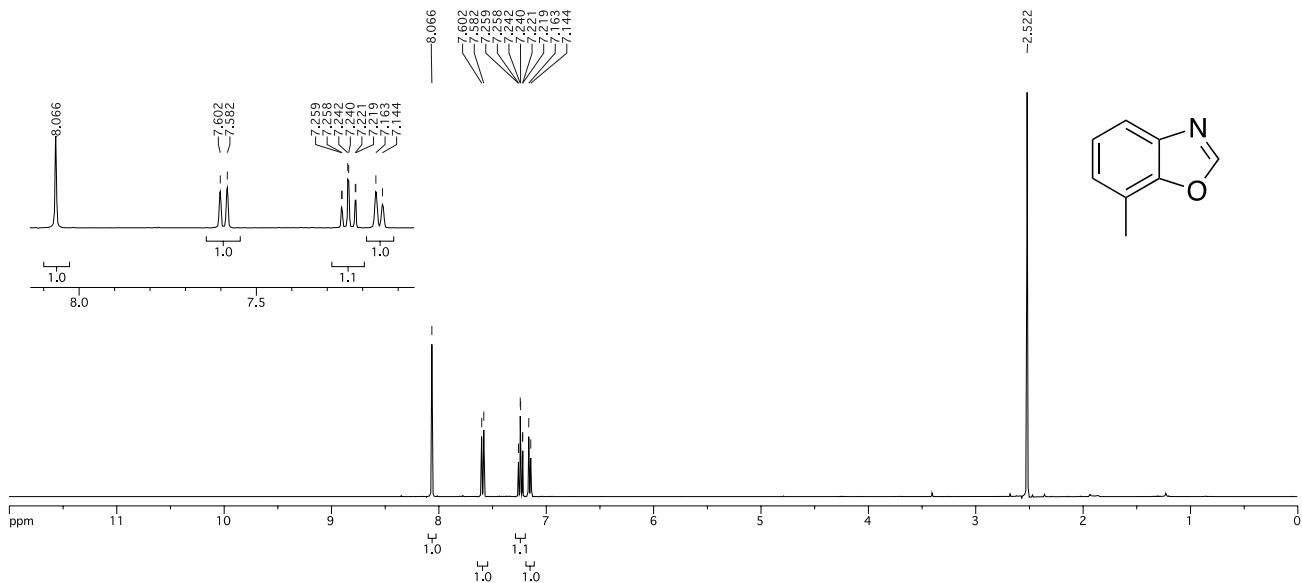


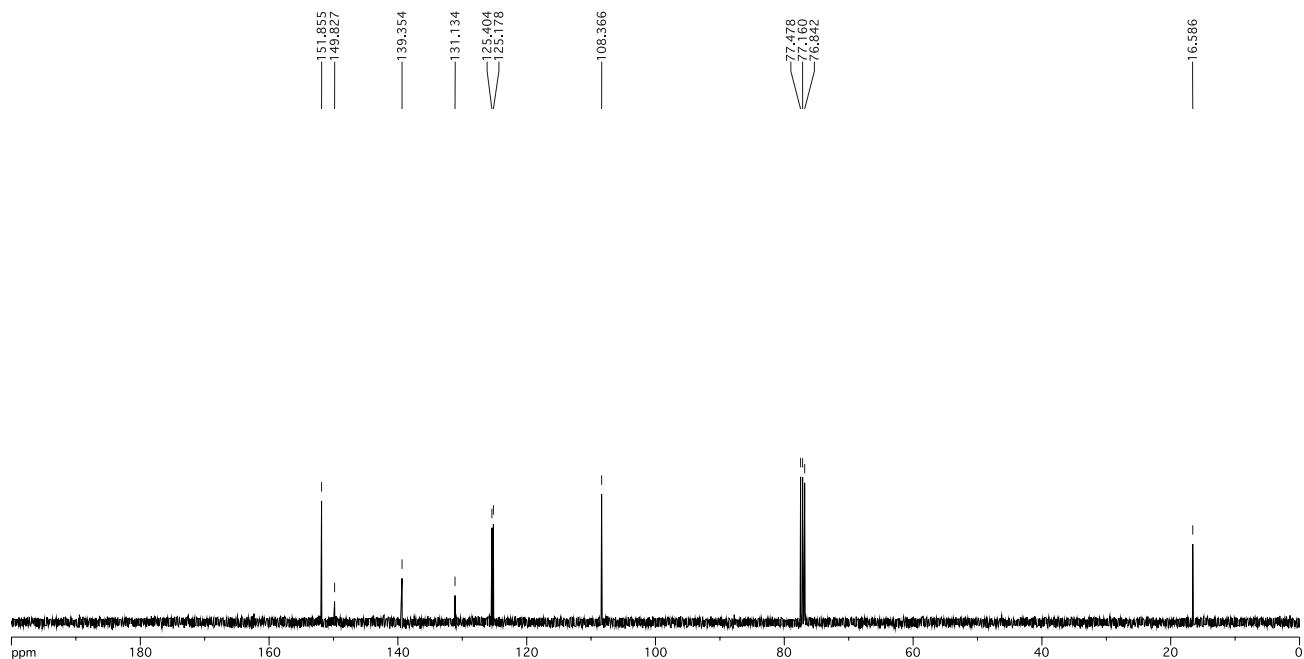
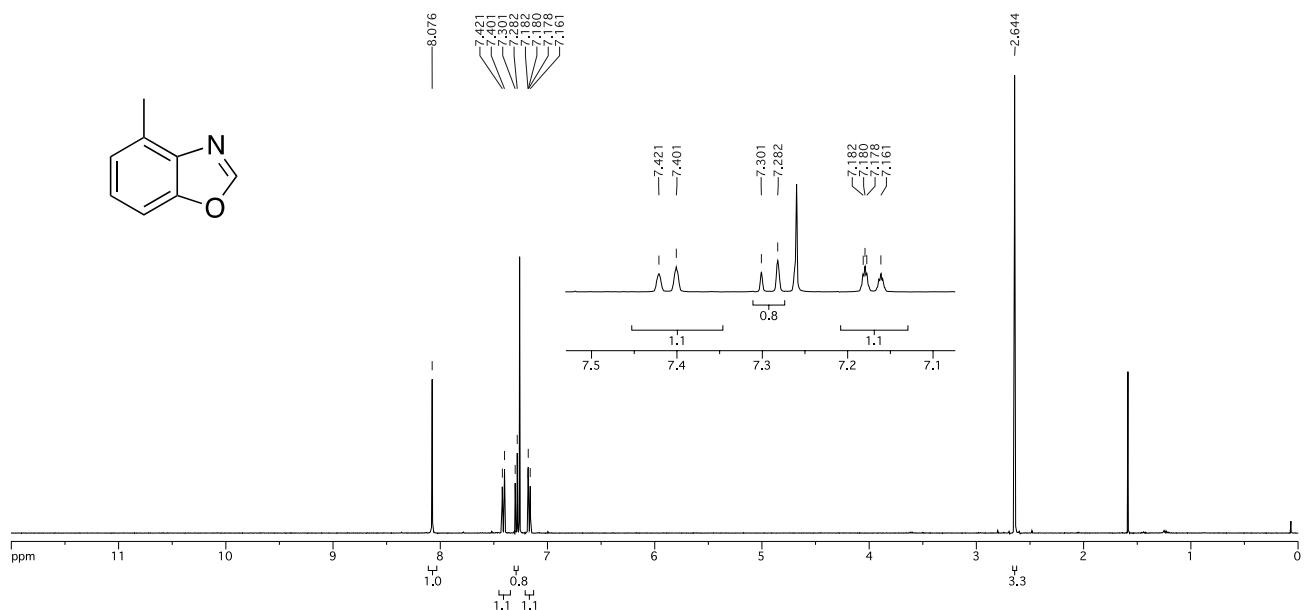


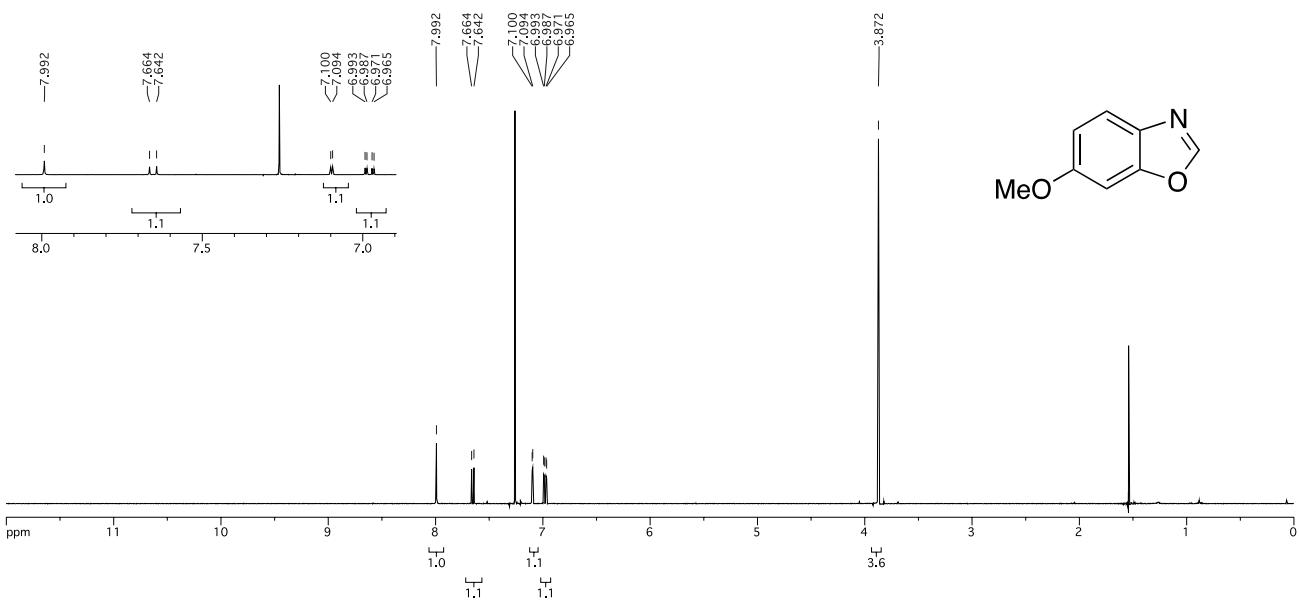
$^1\text{H}$  NMR spectrum of **5-bromobenzoxazole (1g)** in  $\text{CDCl}_3$  at 400 MHz.



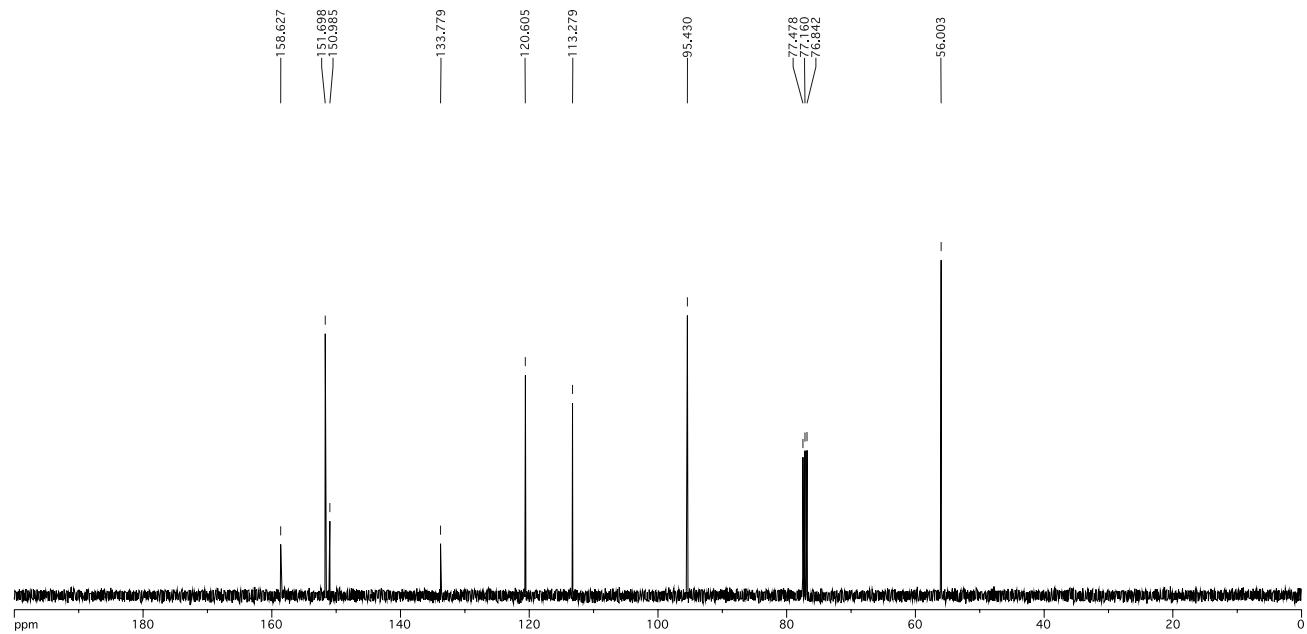
$^{13}\text{C}$  NMR spectrum of **5-bromobenzoxazole (1g)** in  $\text{CDCl}_3$  at 100 MHz.

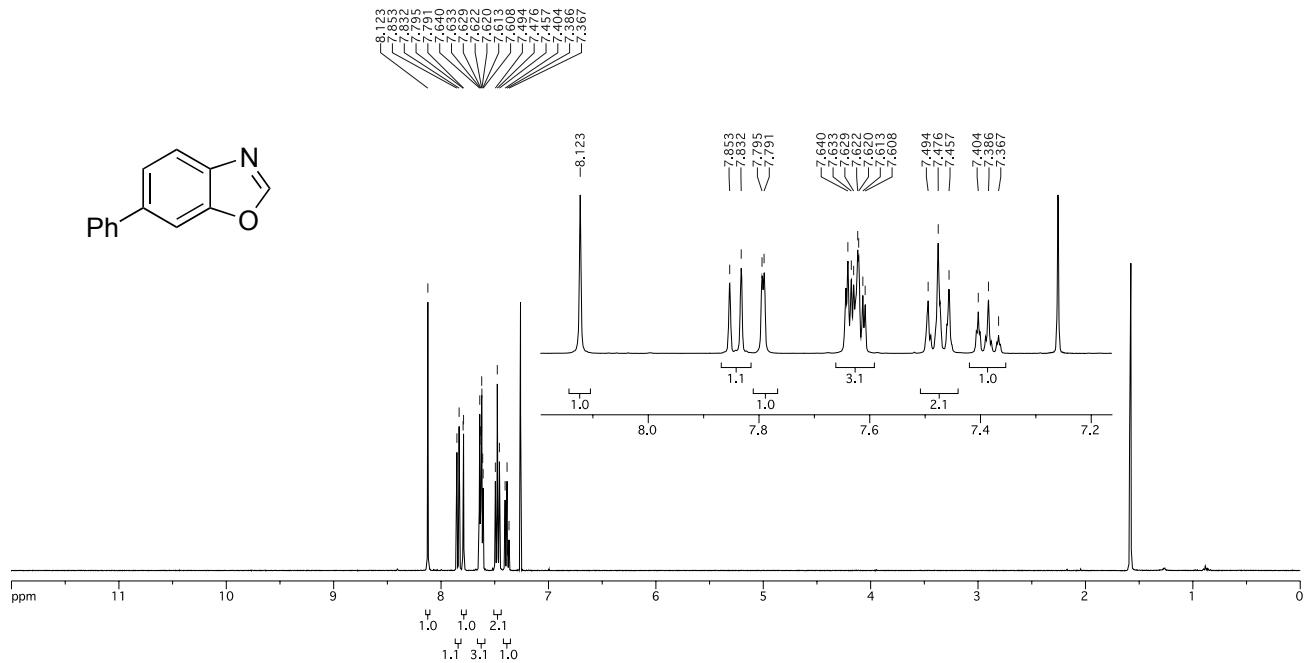




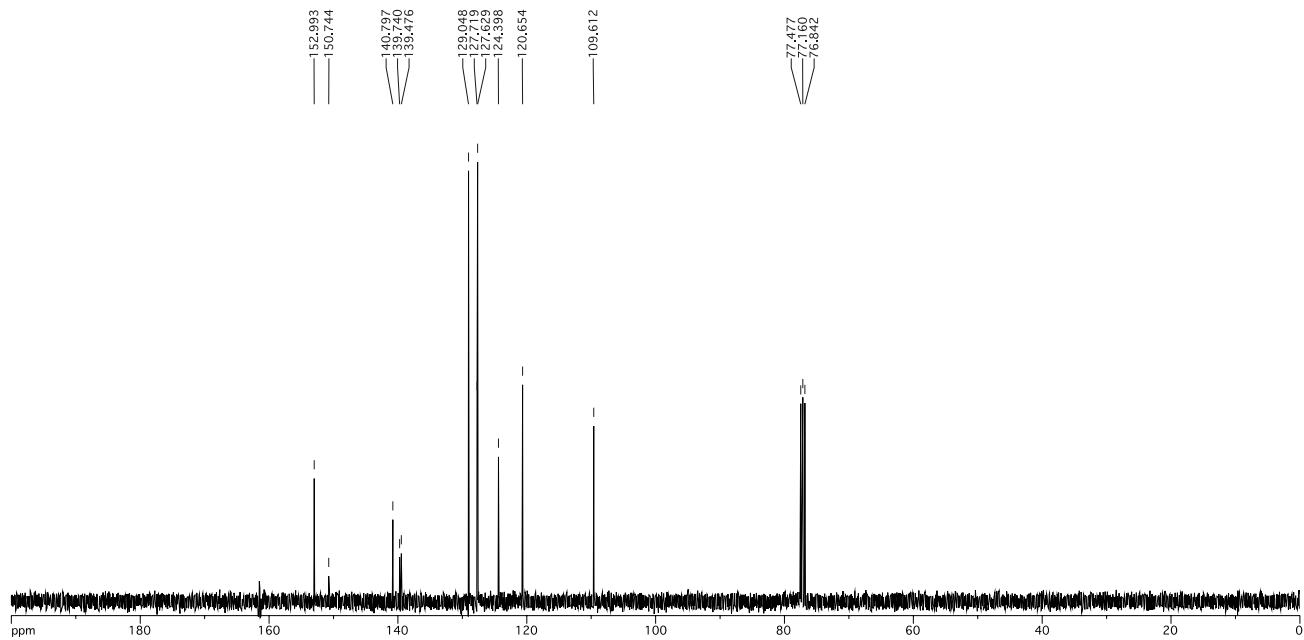


<sup>1</sup>H NMR spectrum of **6-methoxybenzoxazole (1j)** in  $\text{CDCl}_3$  at 400 MHz.

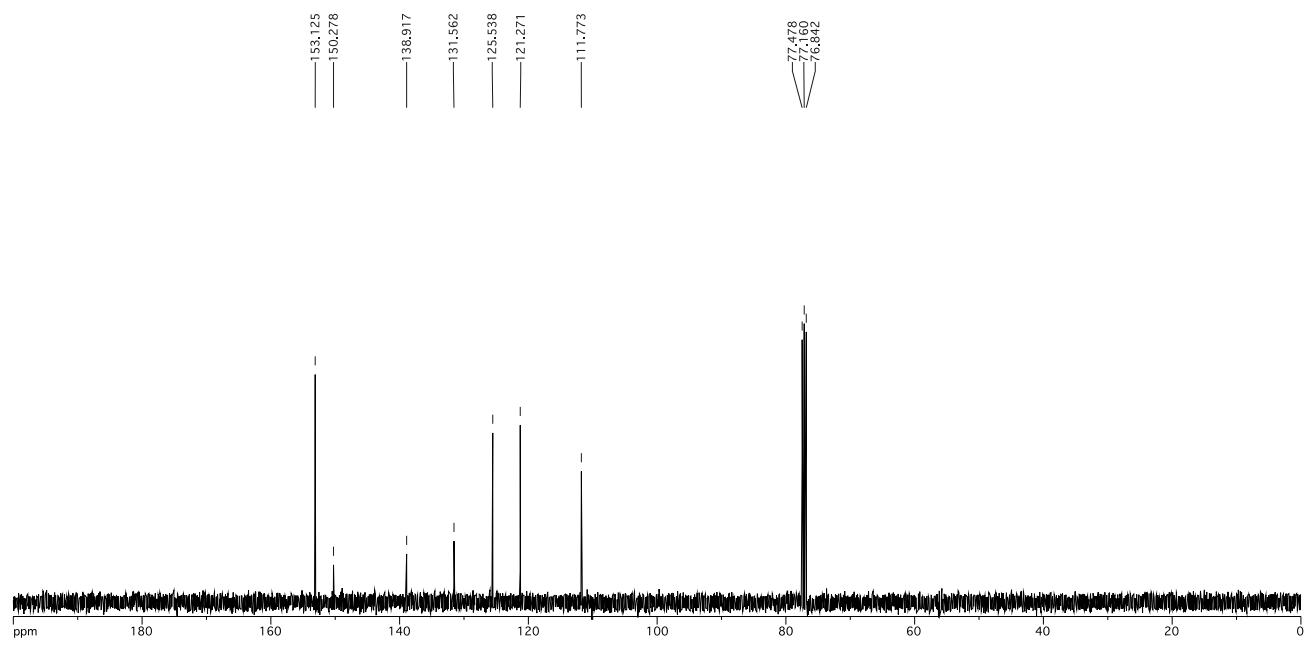
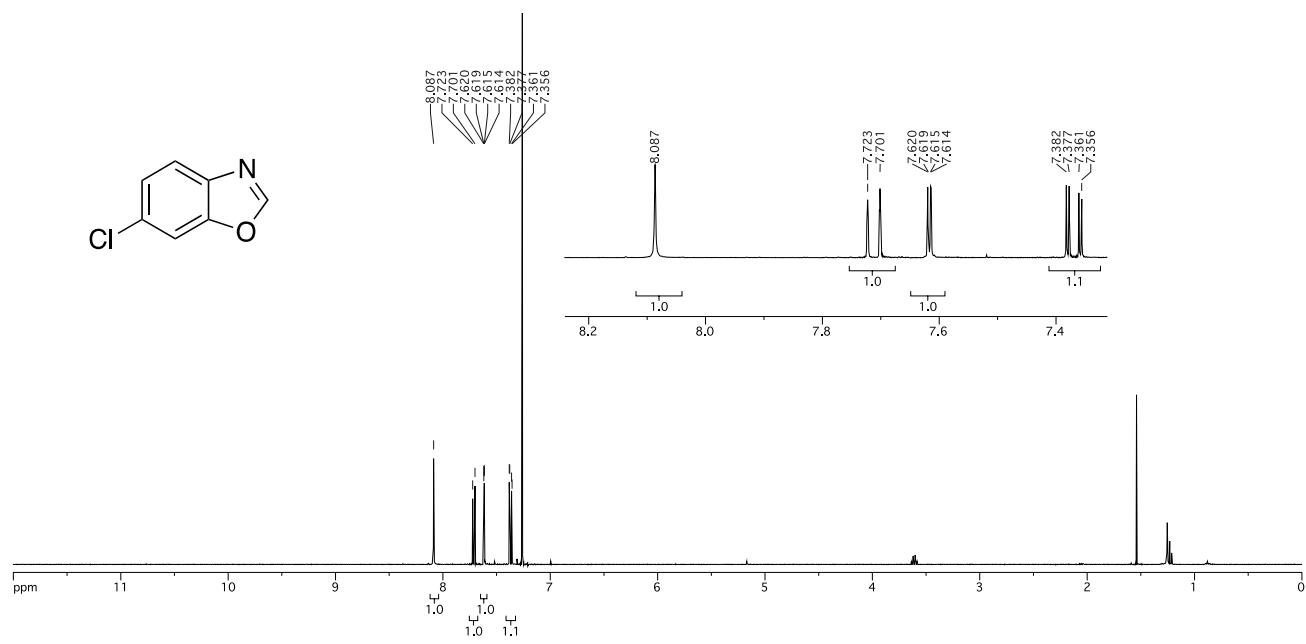


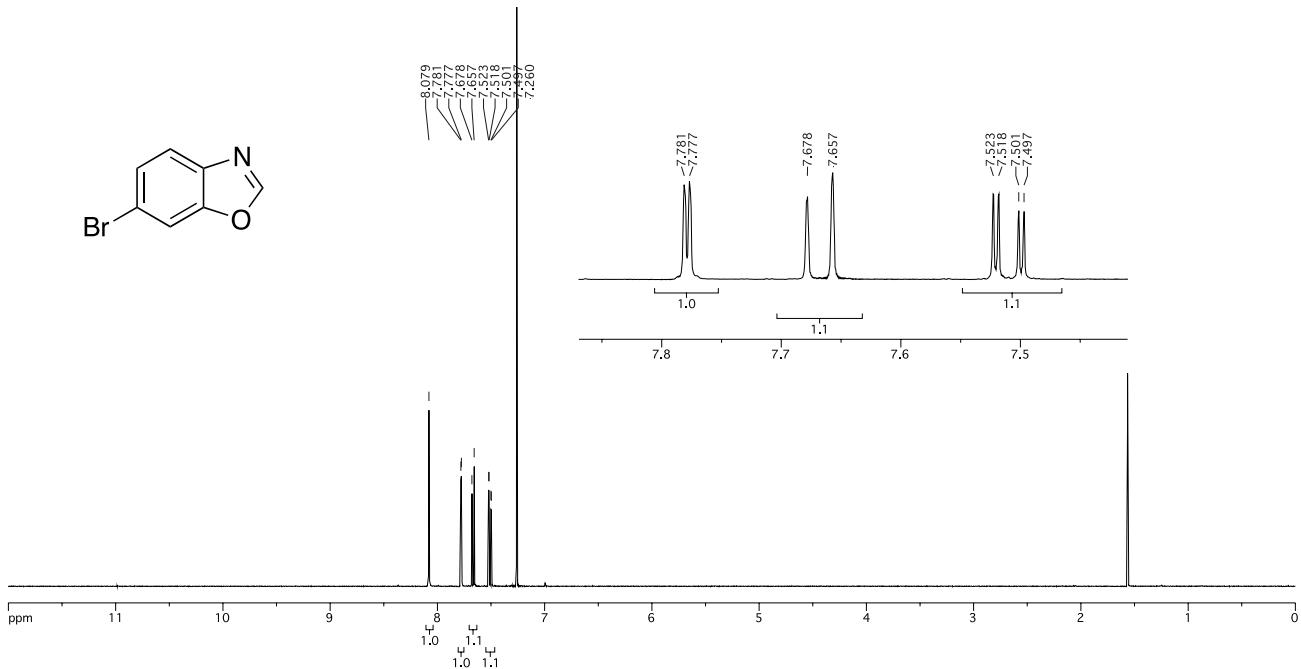
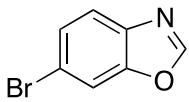


<sup>1</sup>H NMR spectrum of **6-phenylbenzoxazole (1k)** in CDCl<sub>3</sub> at 400 MHz.

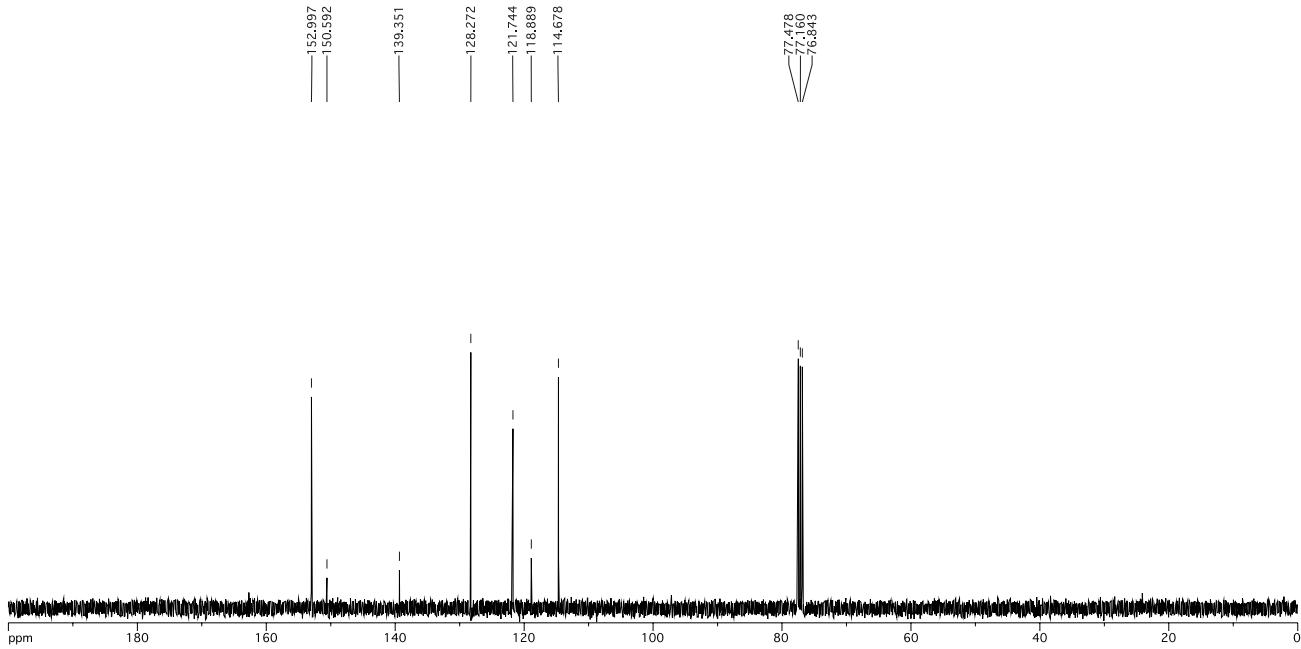


<sup>13</sup>C NMR spectrum of **6-phenylbenzoxazole (1k)** in CDCl<sub>3</sub> at 100 MHz.



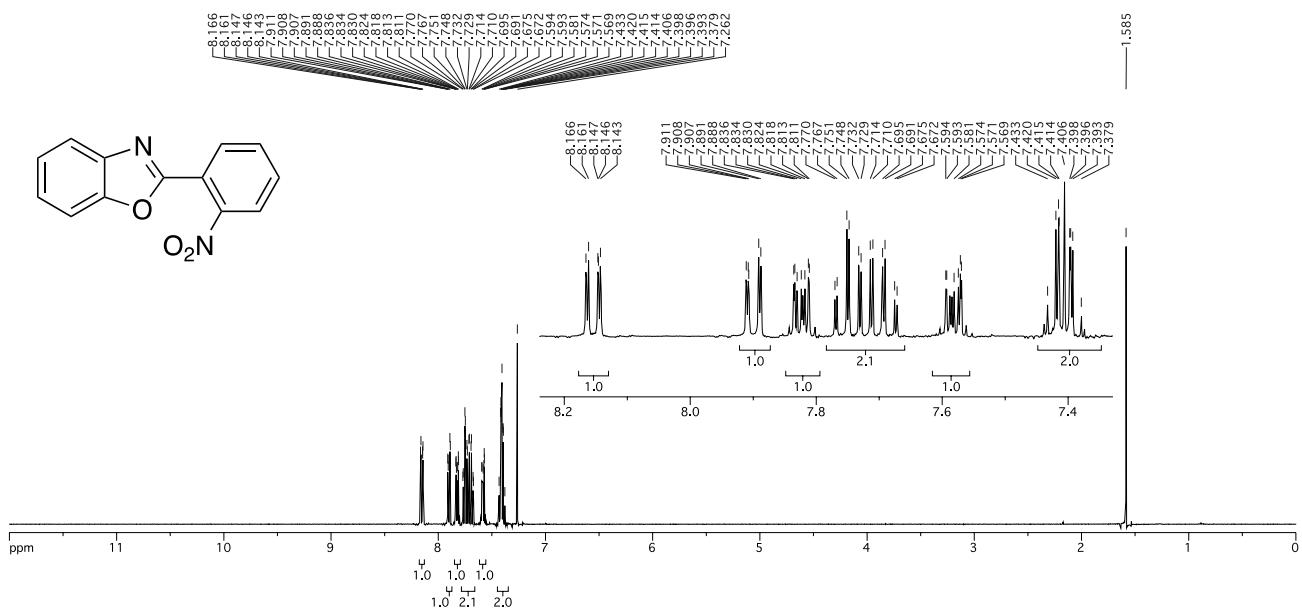


<sup>1</sup>H NMR spectrum of **6-bromobenzoxazole (1m)** in CDCl<sub>3</sub> at 400 MHz.

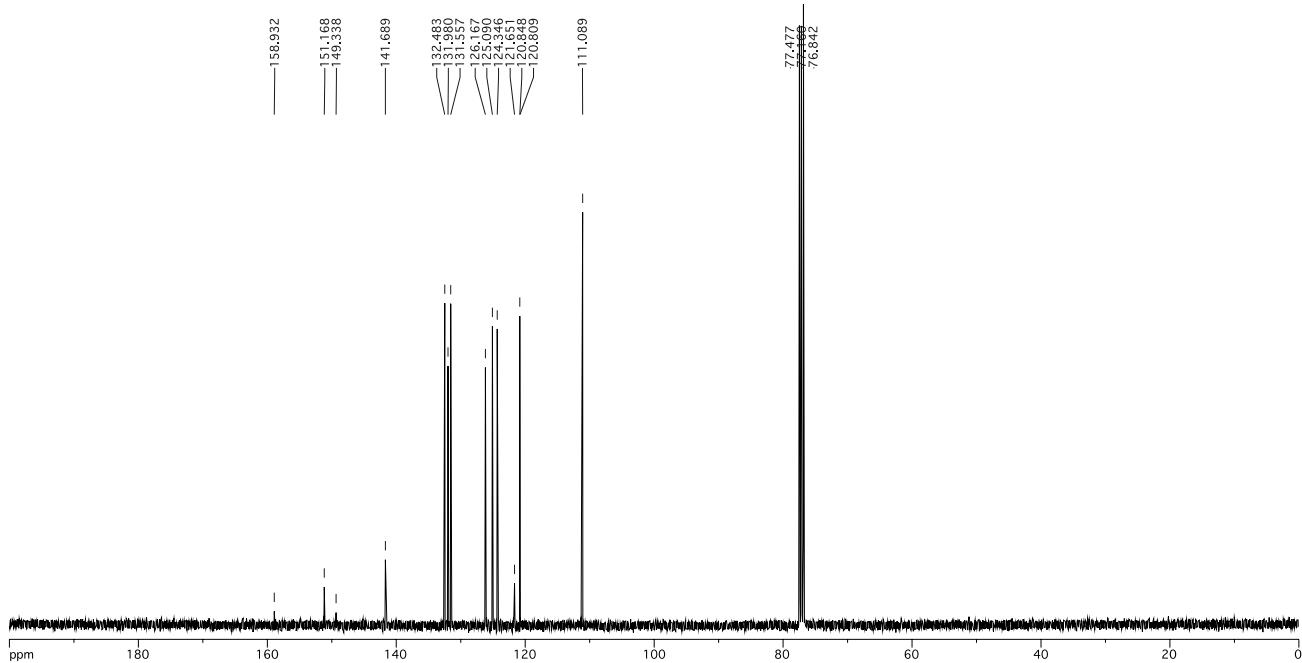


<sup>13</sup>C NMR spectrum of **6-bromobenzoxazole (1m)** in CDCl<sub>3</sub> at 100 MHz.

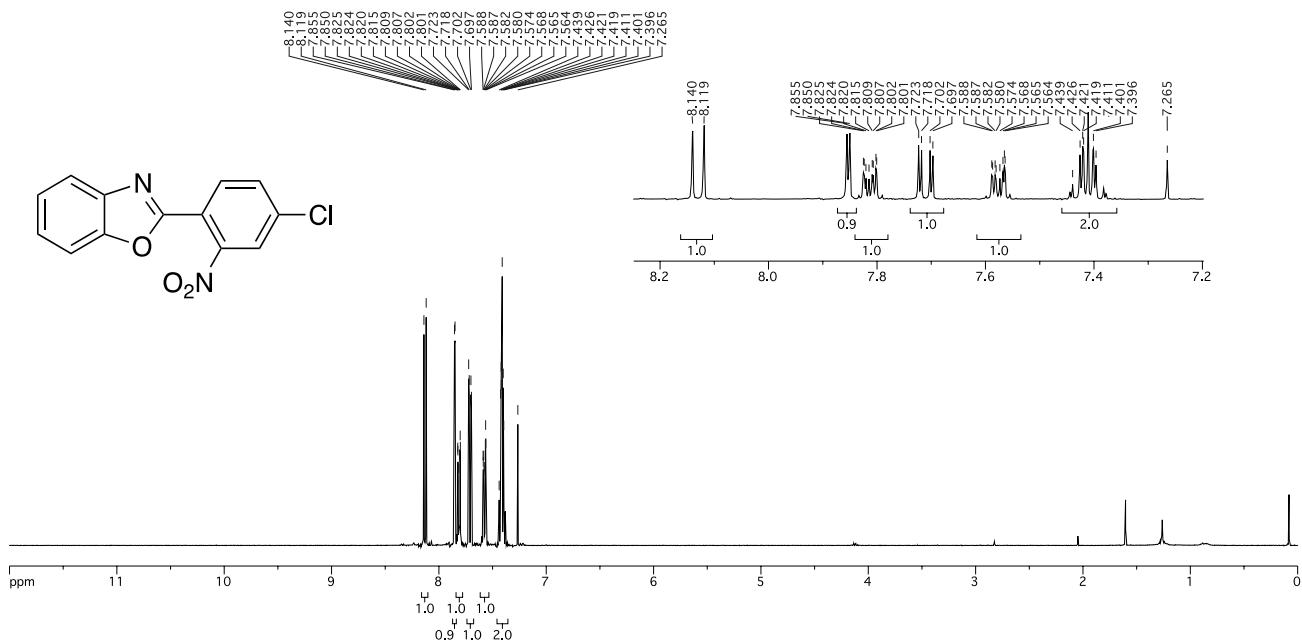
## IX. $^1\text{H}$ and $^{13}\text{C}$ NMR Spectra of Direct Arylation Products in Table 2 (3aa-3al)



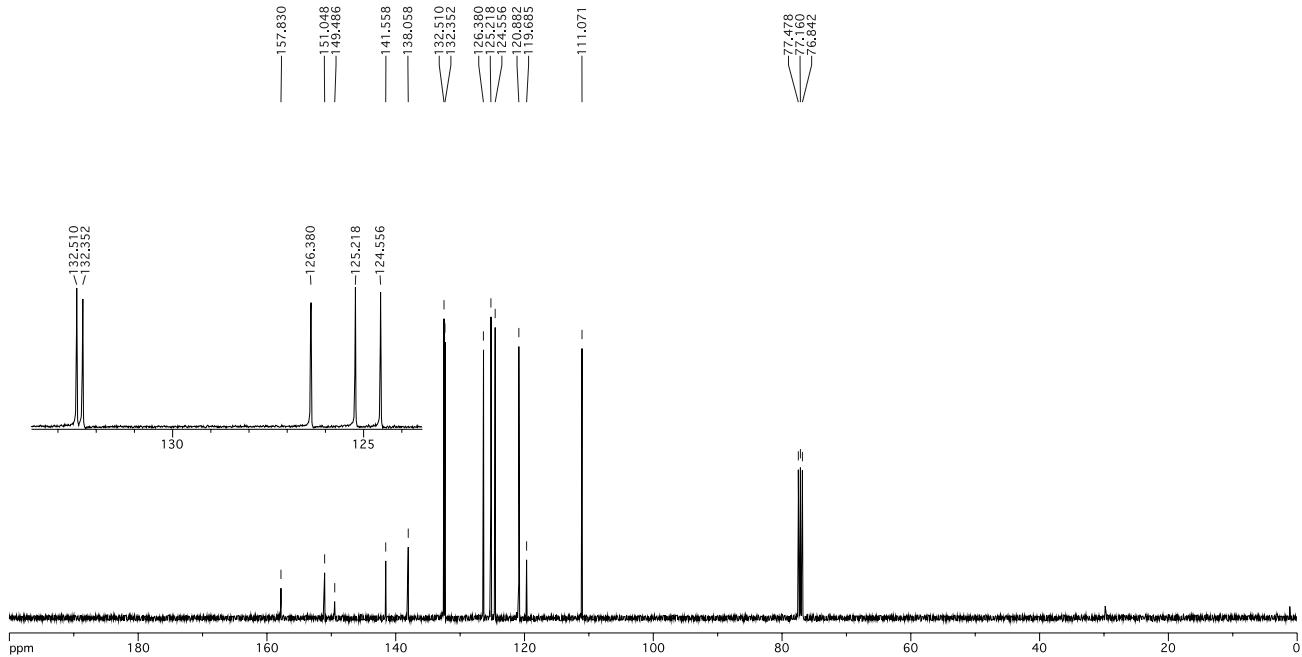
<sup>1</sup>H NMR spectrum of **2-(2-nitrophenyl)-benzoxazole (3aa)** in CDCl<sub>3</sub> at 400 MHz.



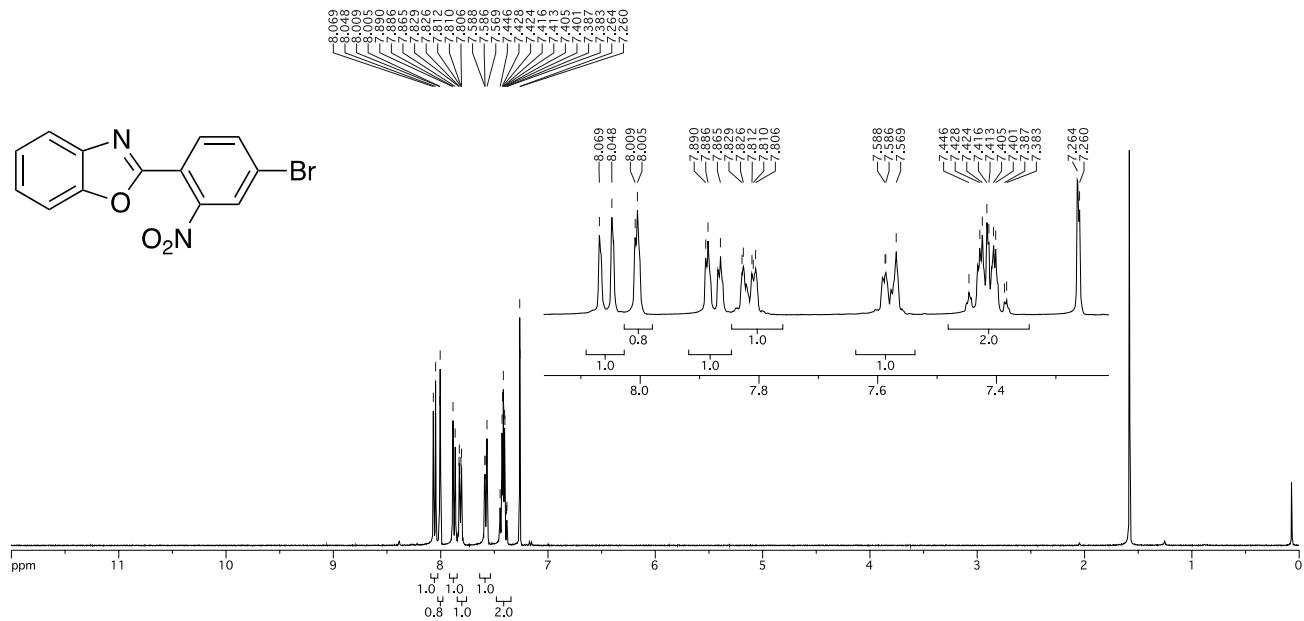
<sup>13</sup>C NMR spectrum of **2-(2-nitrophenyl)-benzoxazole (3aa)** in CDCl<sub>3</sub> at 100 MHz.



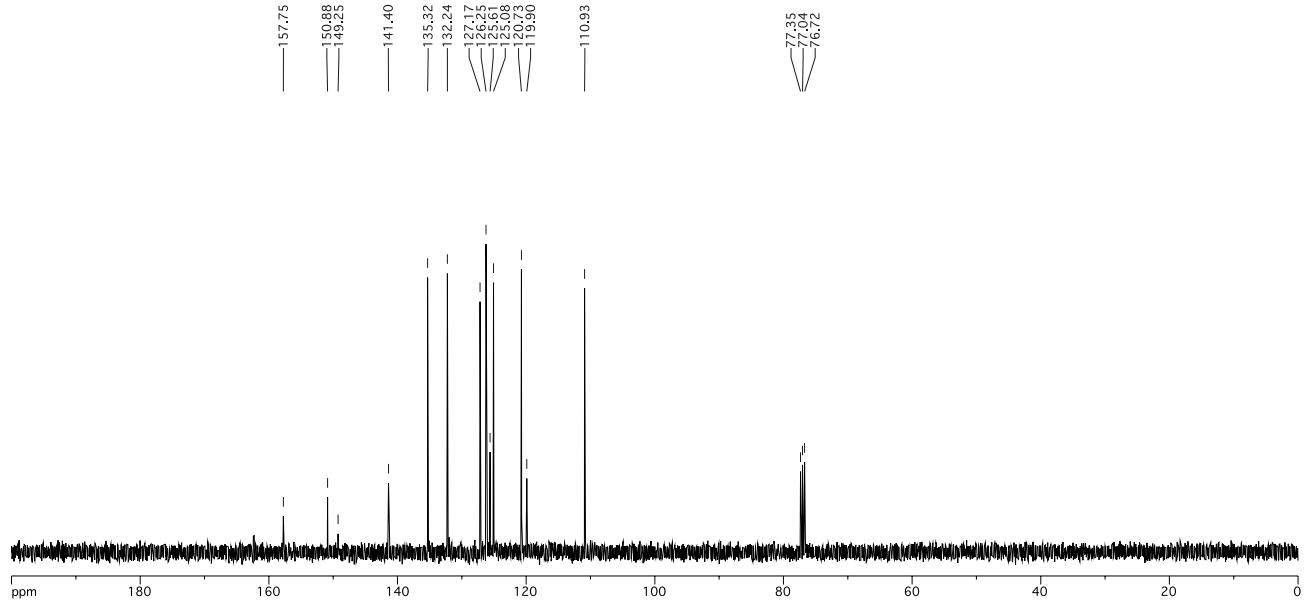
<sup>1</sup>H NMR spectrum of 2-(4-chloro-2-nitrophenyl)-benzoxazole (**3ab**) in CDCl<sub>3</sub> at 400 MHz.



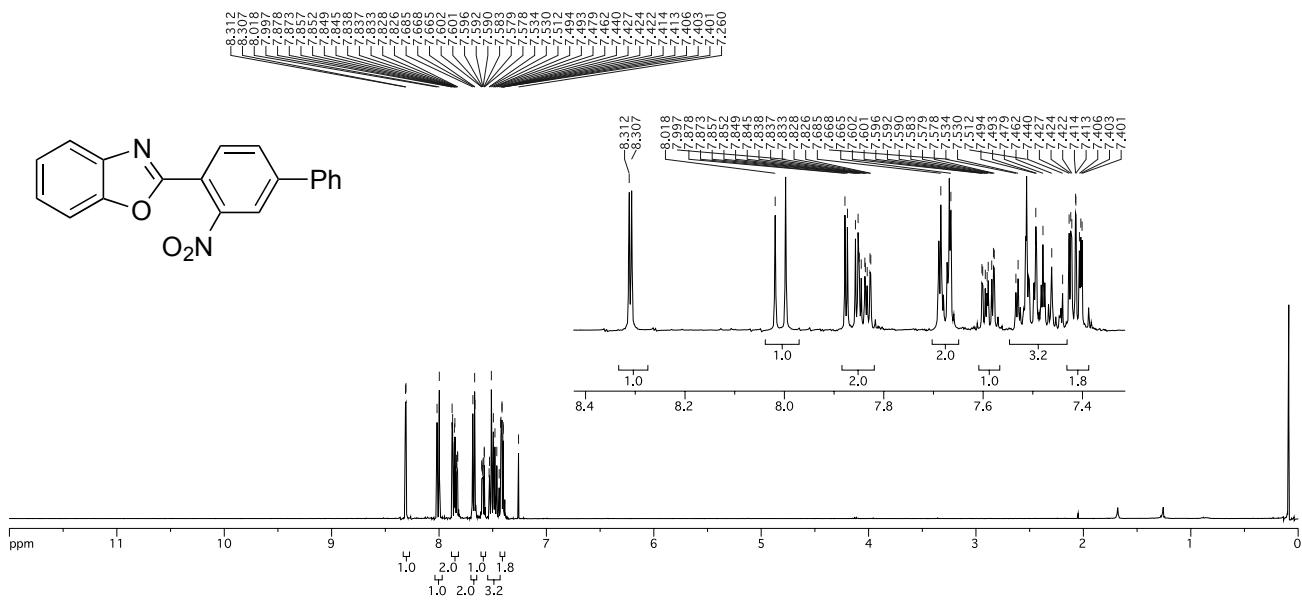
<sup>13</sup>C NMR spectrum of **2-(4-chloro-2-nitrophenyl)-benzoxazole (3ab)** in CDCl<sub>3</sub> at 100 MHz.



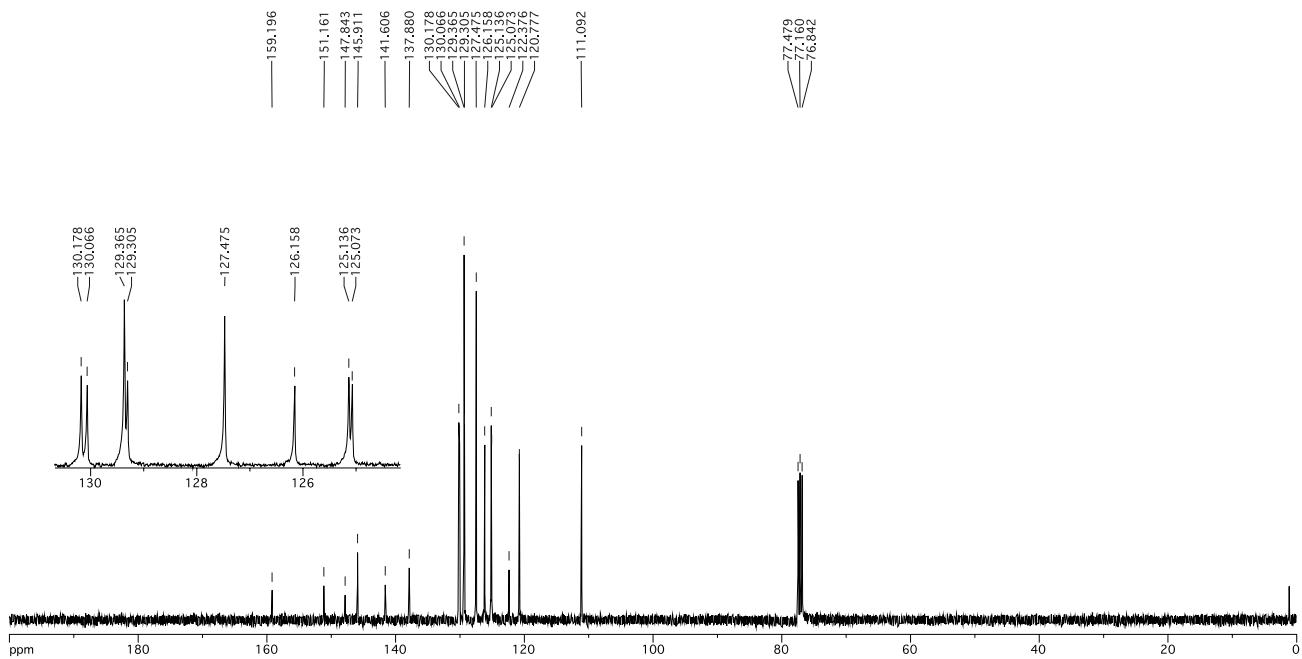
<sup>1</sup>H NMR spectrum of **2-(4-bromo-2-nitrophenyl)-benzoxazole (3ac)** in CDCl<sub>3</sub> at 400 MHz.



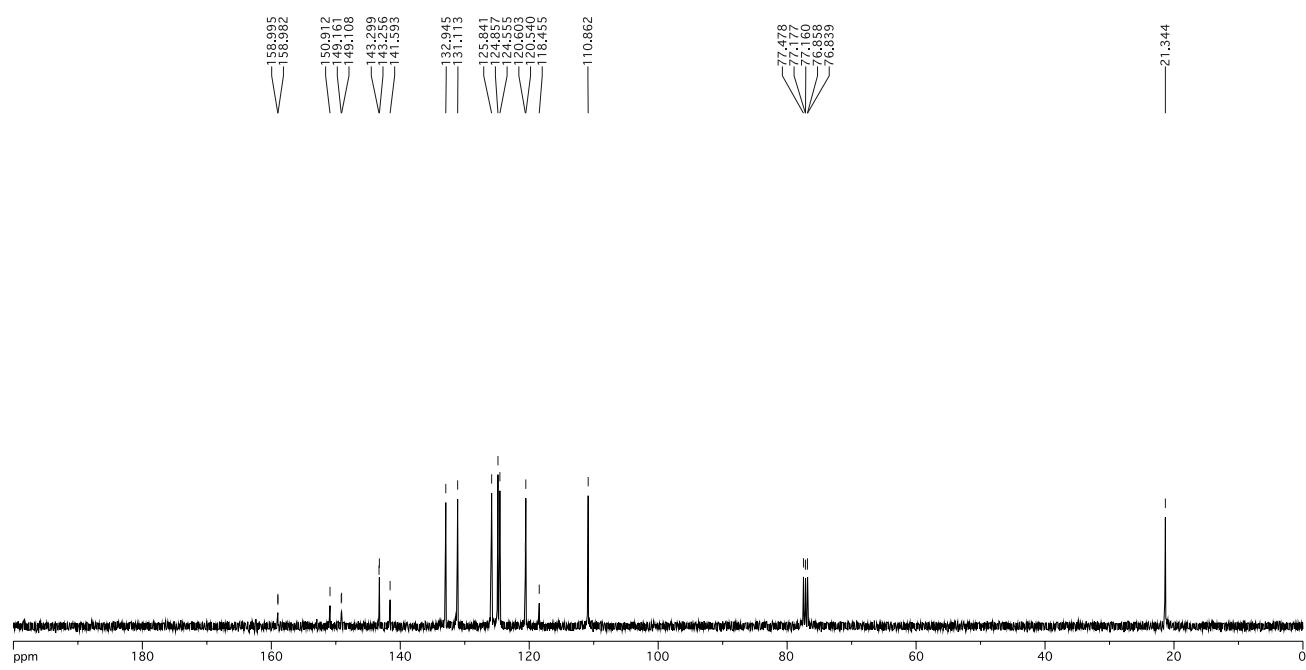
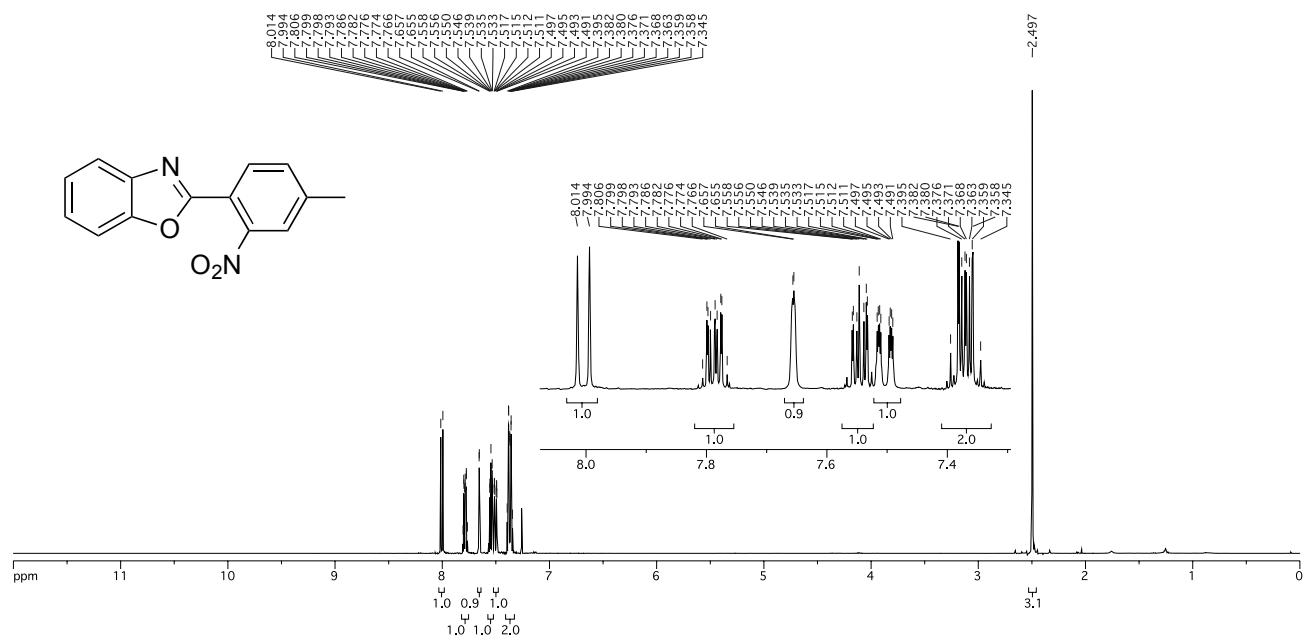
<sup>13</sup>C NMR spectrum of **2-(4-bromo-2-nitrophenyl)-benzoxazole (3ac)** in CDCl<sub>3</sub> at 100 MHz.

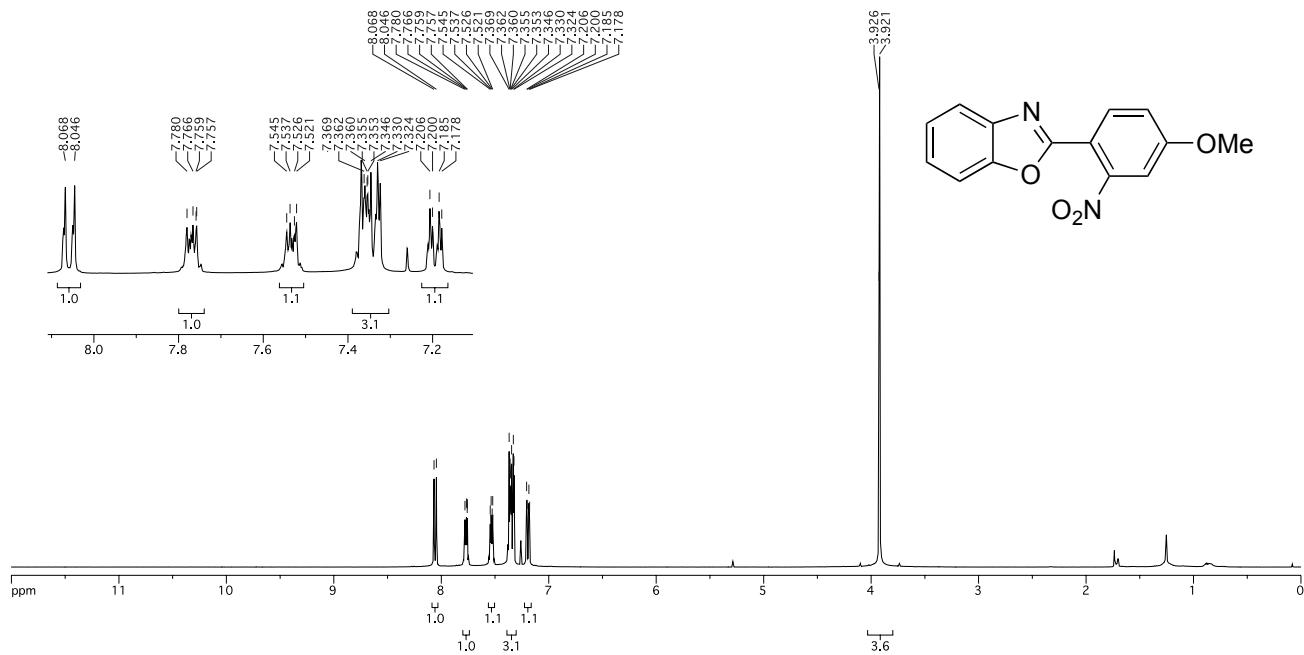


<sup>1</sup>H NMR spectrum of **2-(4-phenyl-2-nitrophenyl)-benzoxazole (3ad)** in CDCl<sub>3</sub> at 400 MHz.

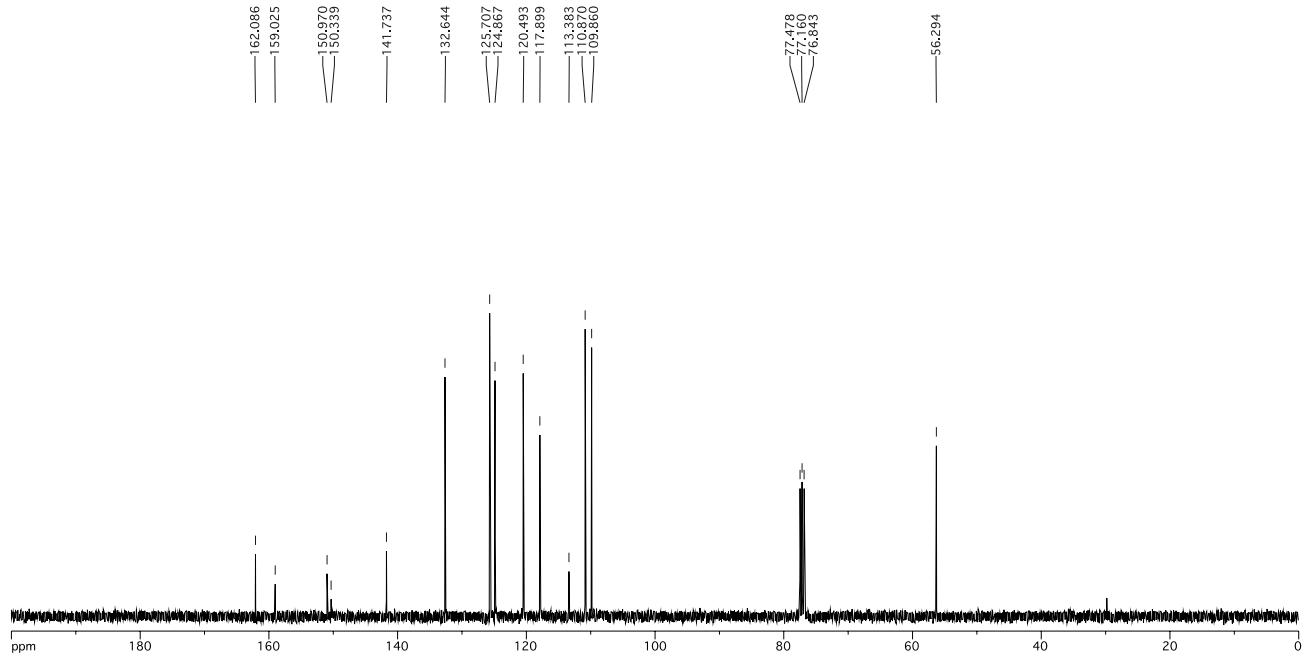


<sup>13</sup>C NMR spectrum of **2-(4-phenyl-2-nitrophenyl)-benzoxazole (3ad)** in CDCl<sub>3</sub> at 100 MHz.

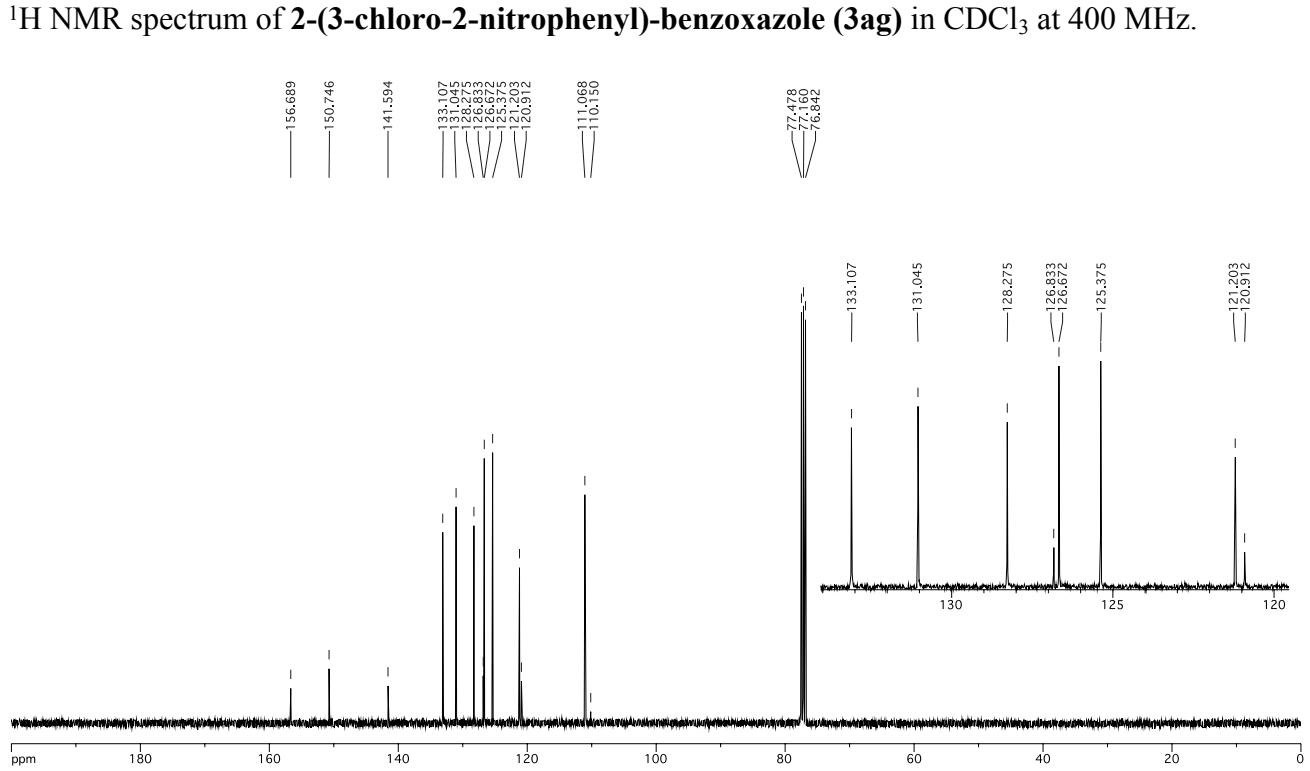
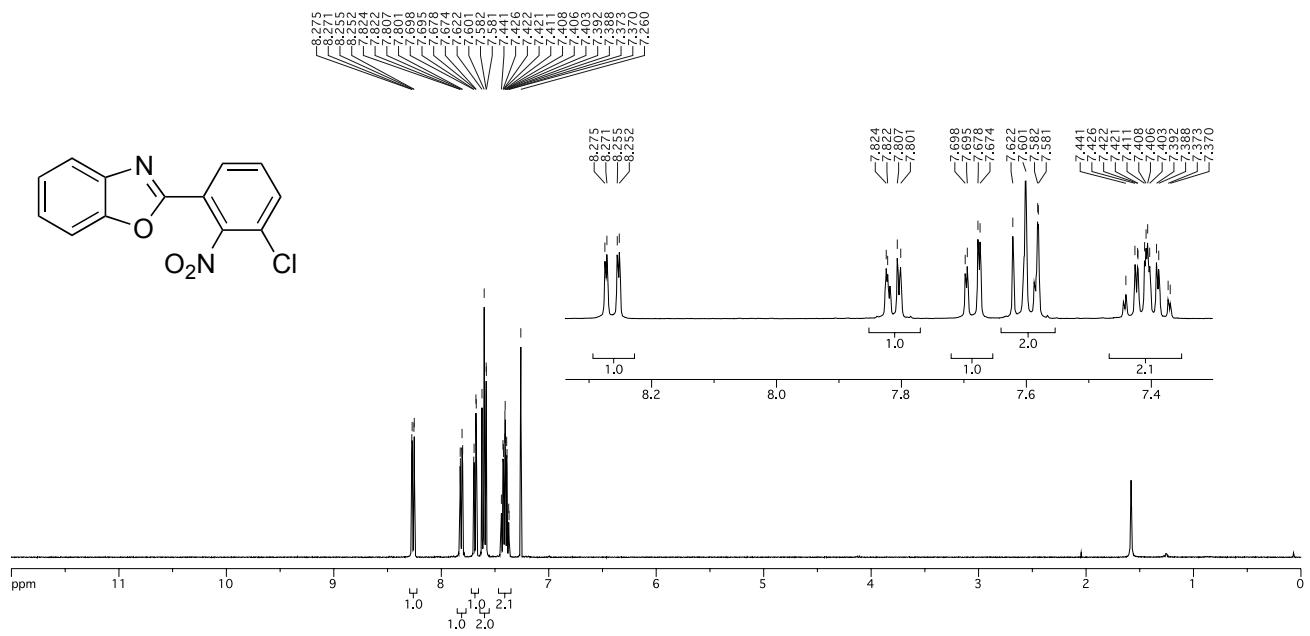


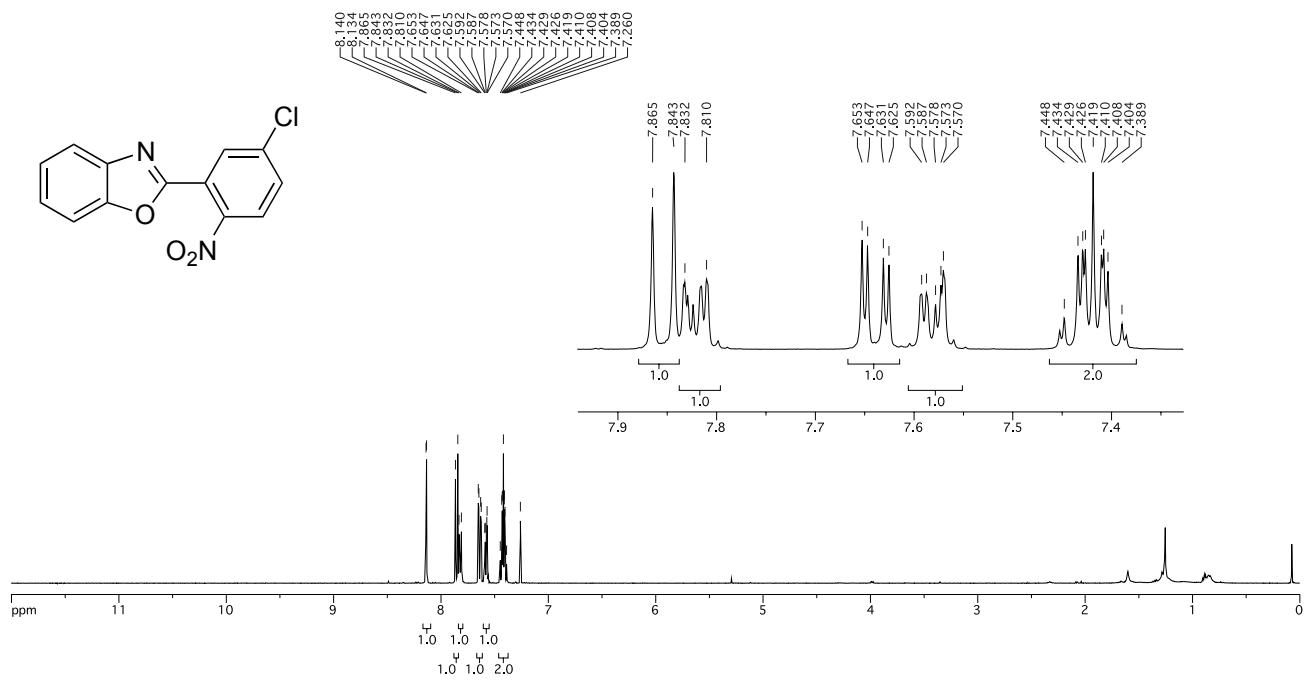


<sup>1</sup>H NMR spectrum of **2-(4-methoxy-2-nitrophenyl)-benzoxazole (3af)** in CDCl<sub>3</sub> at 400 MHz.

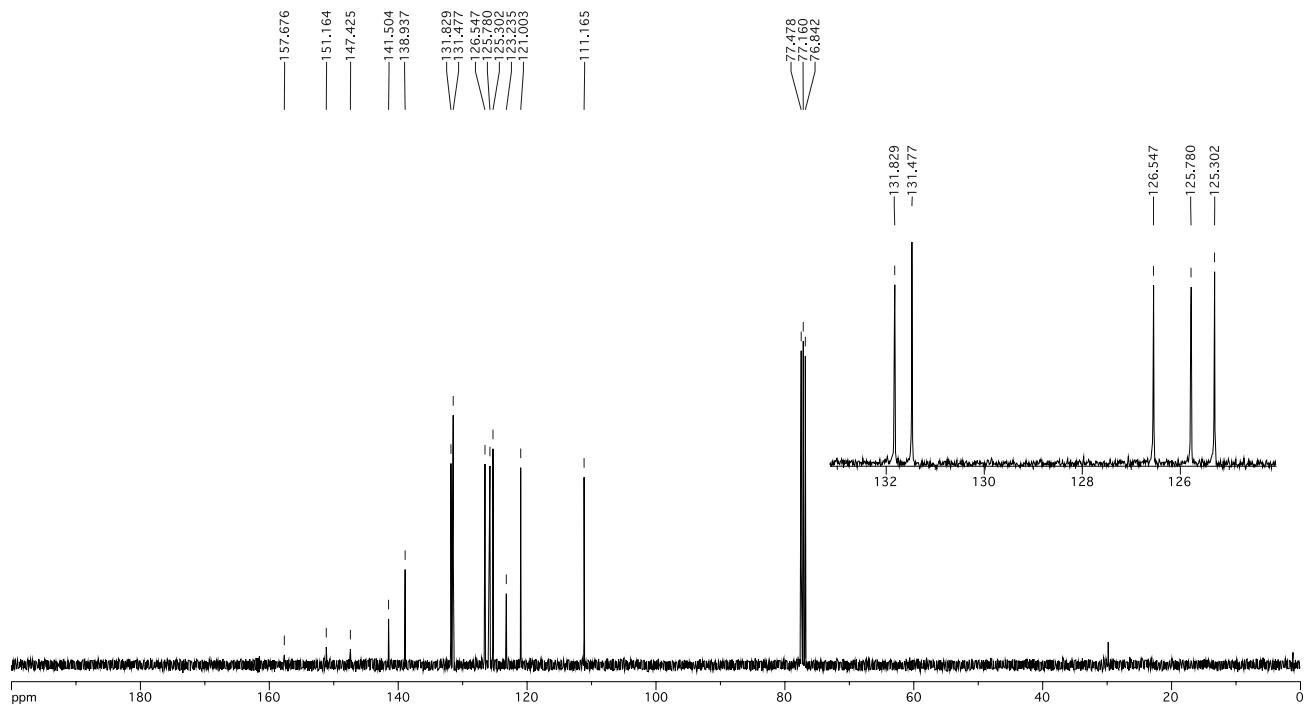


<sup>13</sup>C NMR spectrum of **2-(4-methoxy-2-nitrophenyl)-benzoxazole (3af)** in CDCl<sub>3</sub> at 100 MHz.

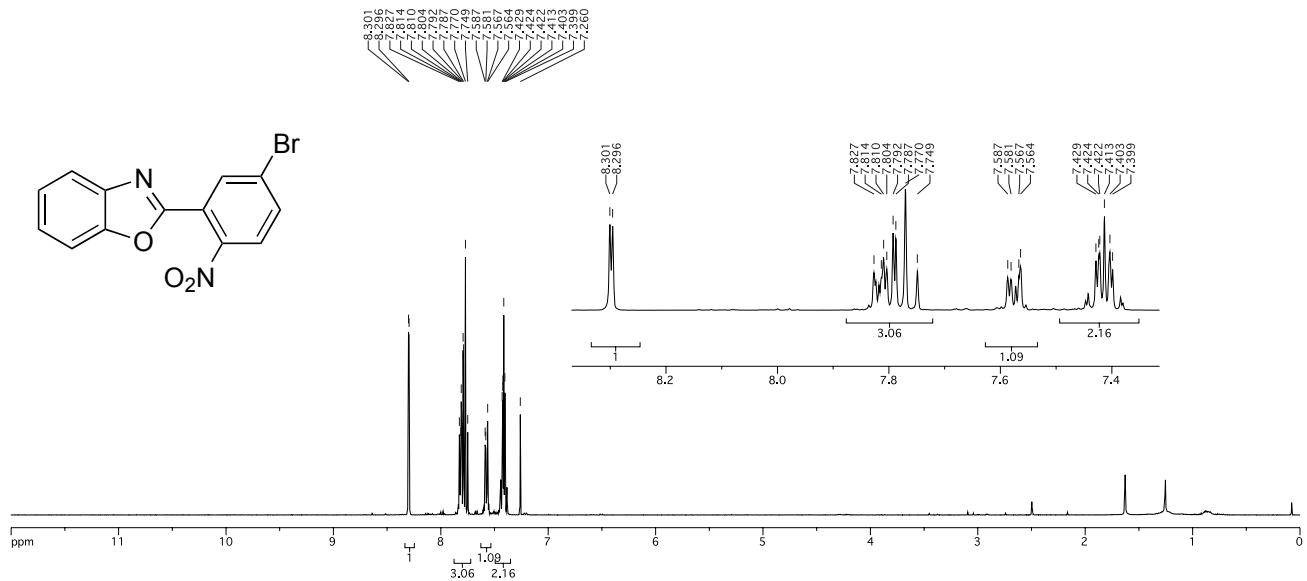




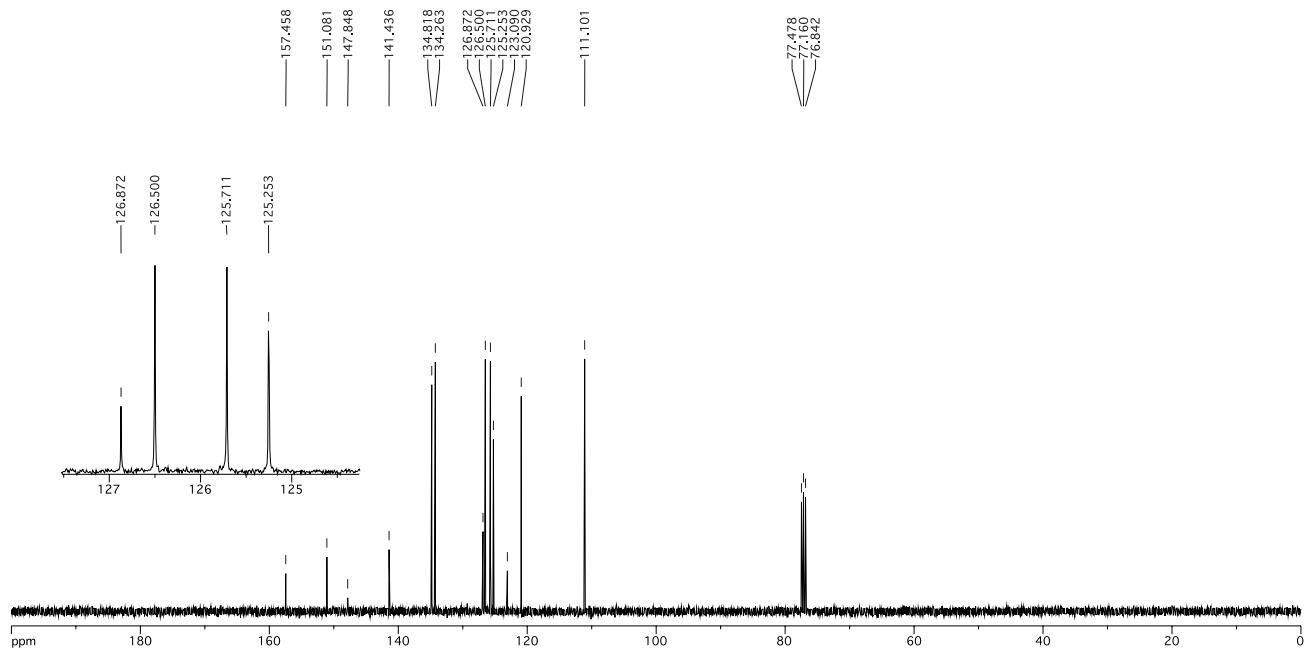
<sup>1</sup>H NMR spectrum of 2-(3-chloro-6-nitrophenyl)-benzoxazole (3ah) in  $\text{CDCl}_3$  at 400 MHz.



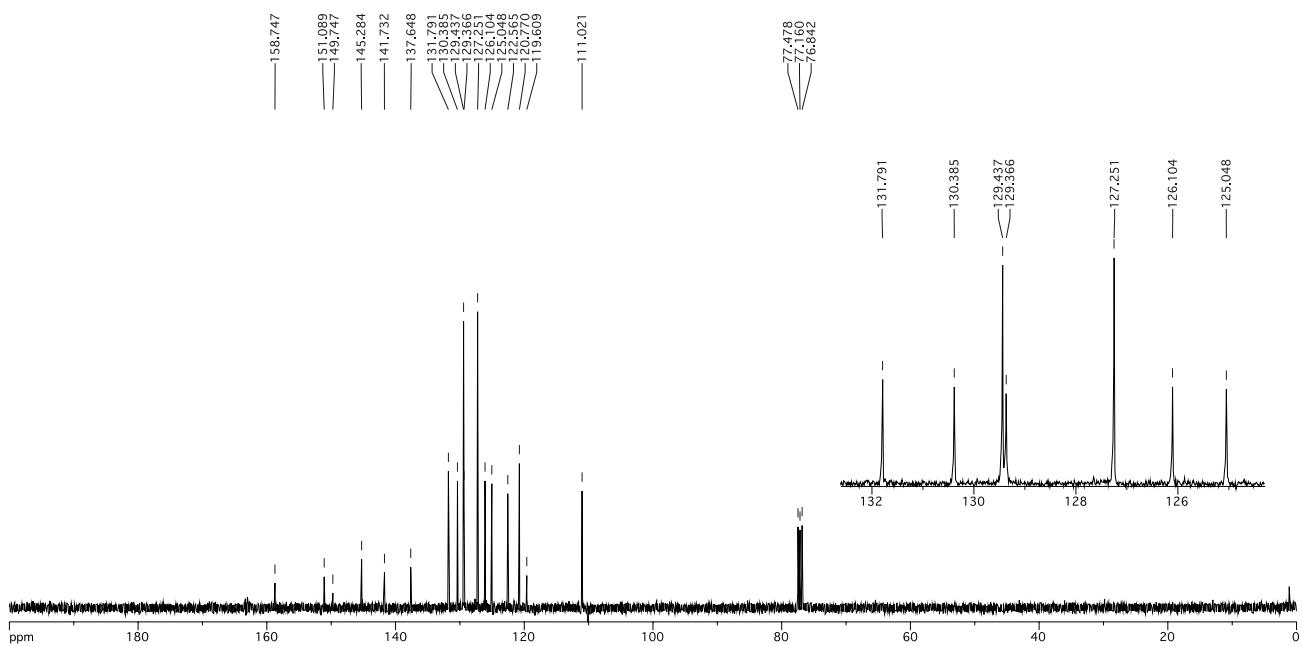
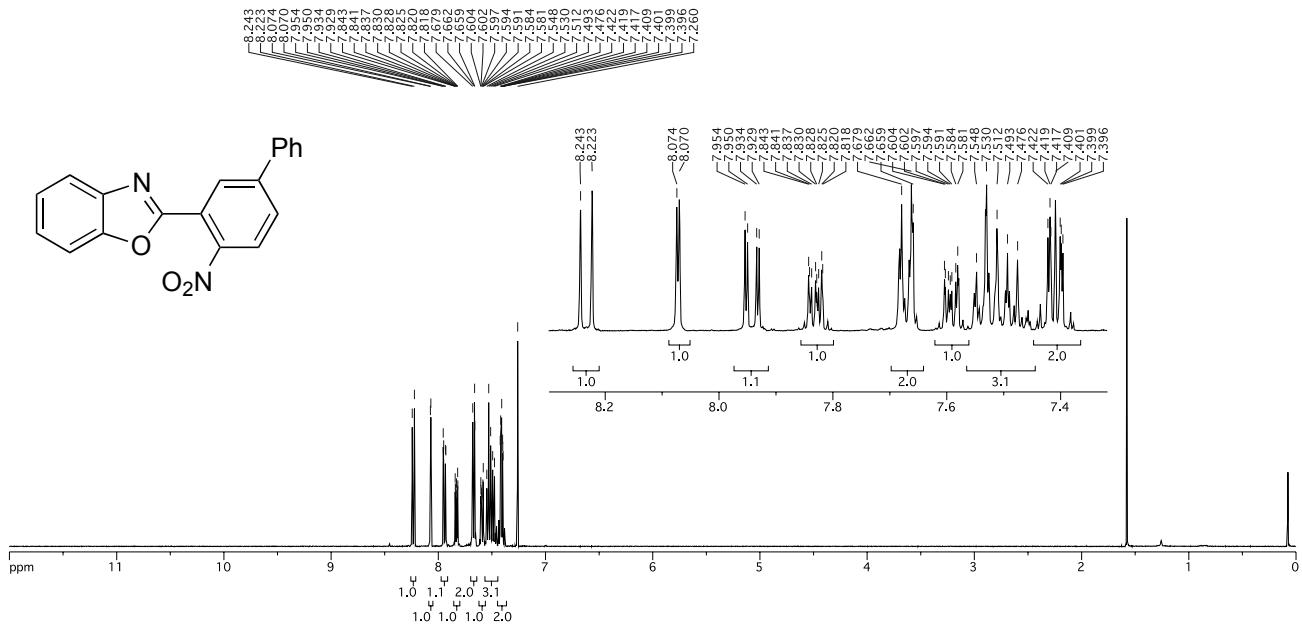
<sup>13</sup>C NMR spectrum of 2-(3-chloro-6-nitrophenyl)-benzoxazole (3ah) in  $\text{CDCl}_3$  at 100 MHz.

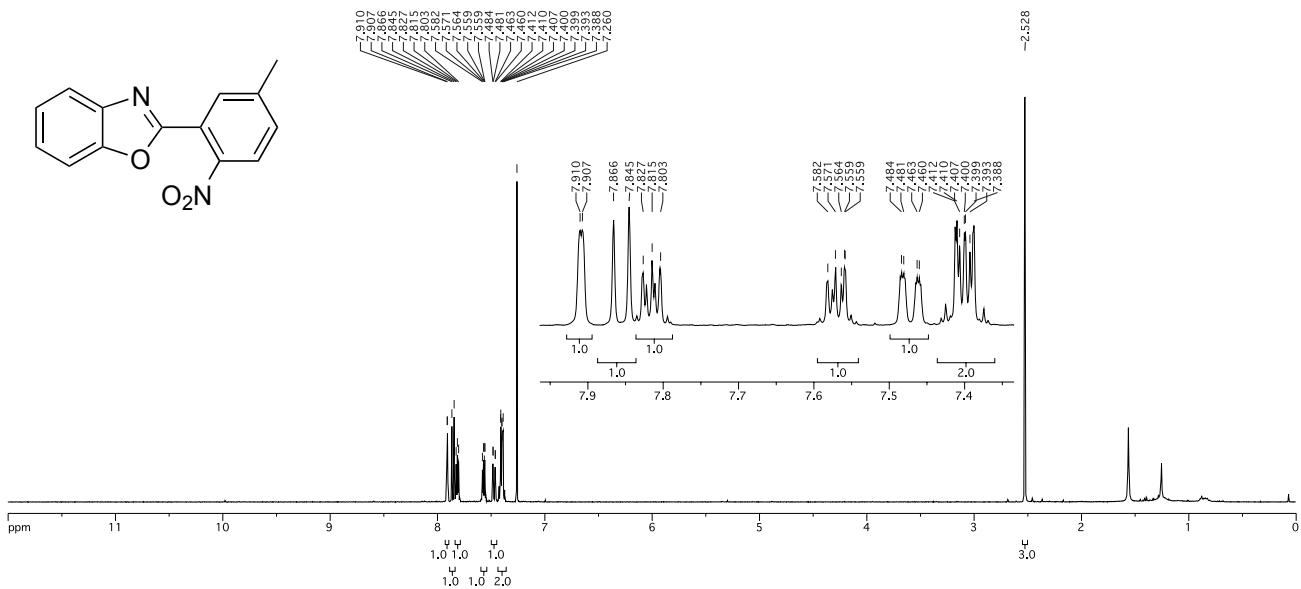
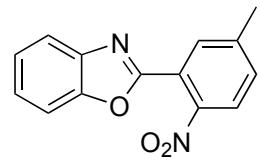


<sup>1</sup>H NMR spectrum of **2-(3-bromo-6-nitrophenyl)-benzoxazole (3ai)** in CDCl<sub>3</sub> at 400 MHz.

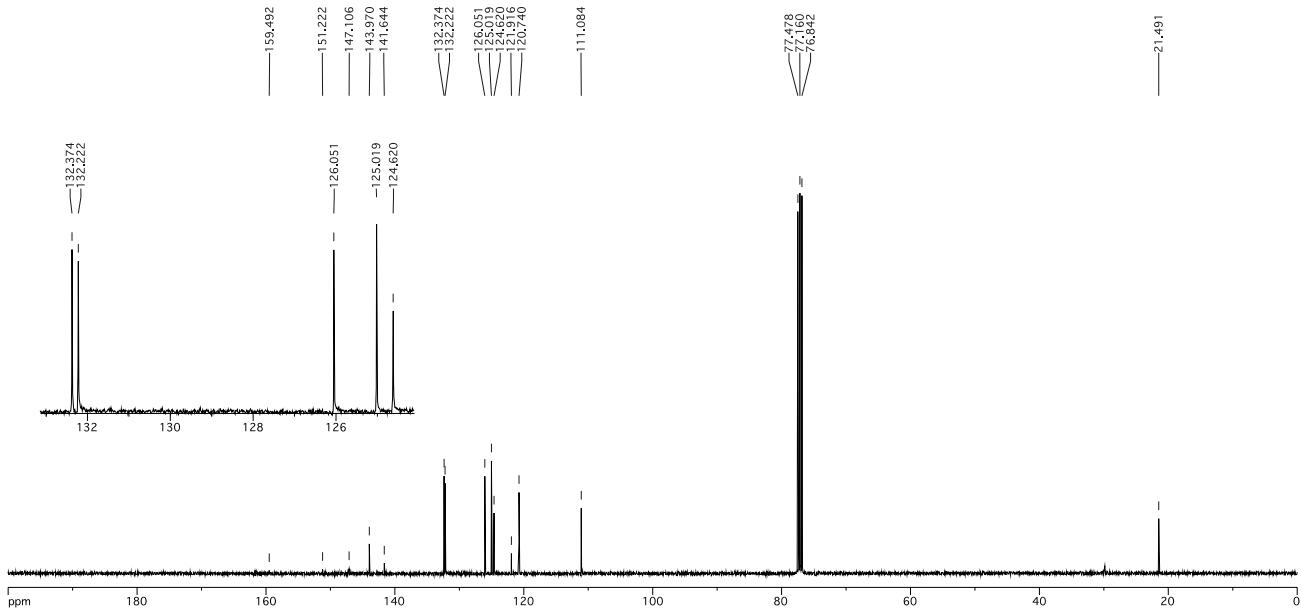


<sup>13</sup>C NMR spectrum of **2-(3-bromo-6-nitrophenyl)-benzoxazole (3ai)** in CDCl<sub>3</sub> at 100 MHz.

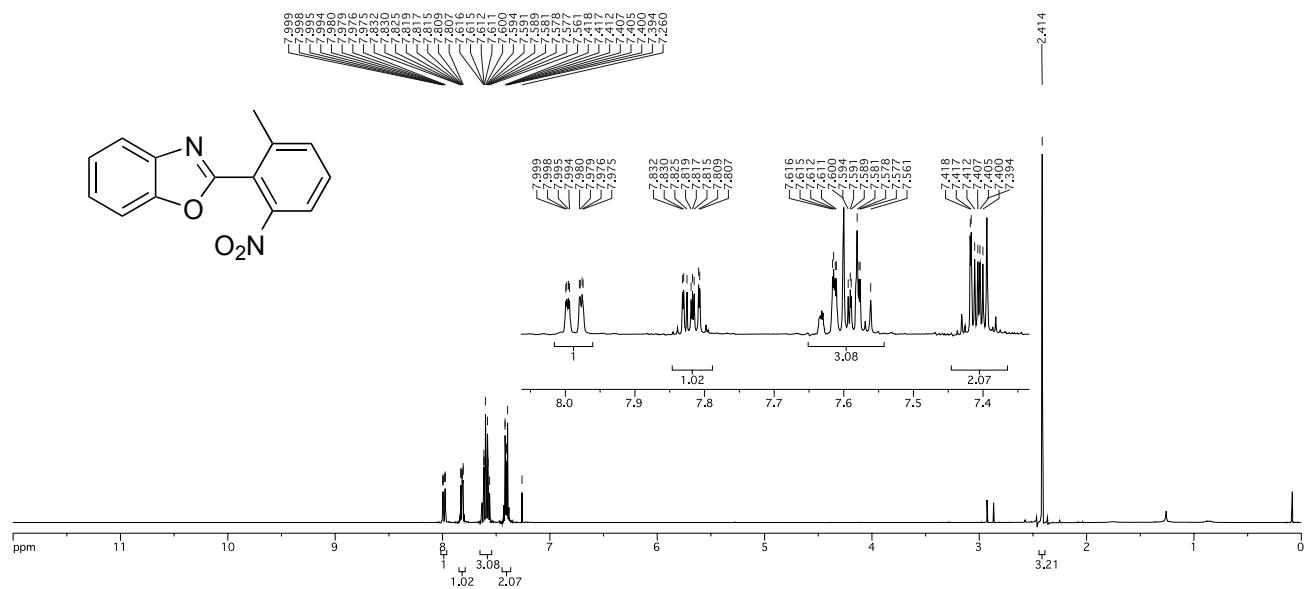




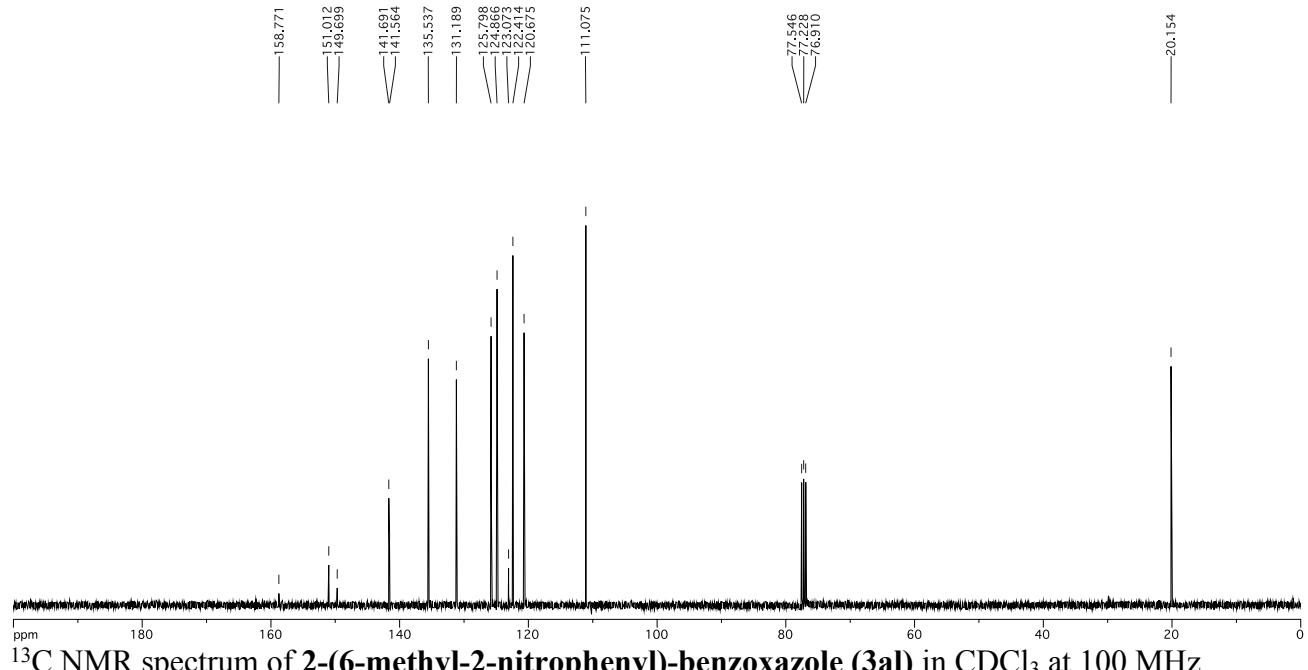
<sup>1</sup>H NMR spectrum of 2-(5-methyl-2-nitrophenyl)-benzoxazole (**3ak**) in CDCl<sub>3</sub> at 400 MHz.



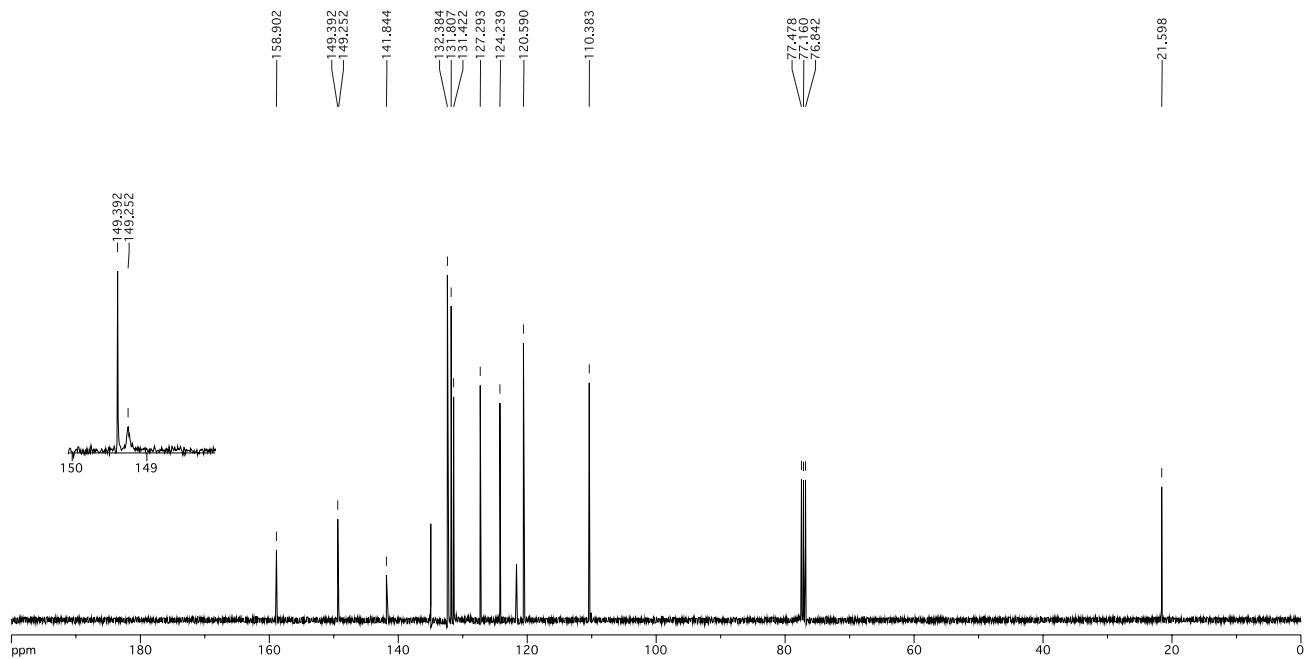
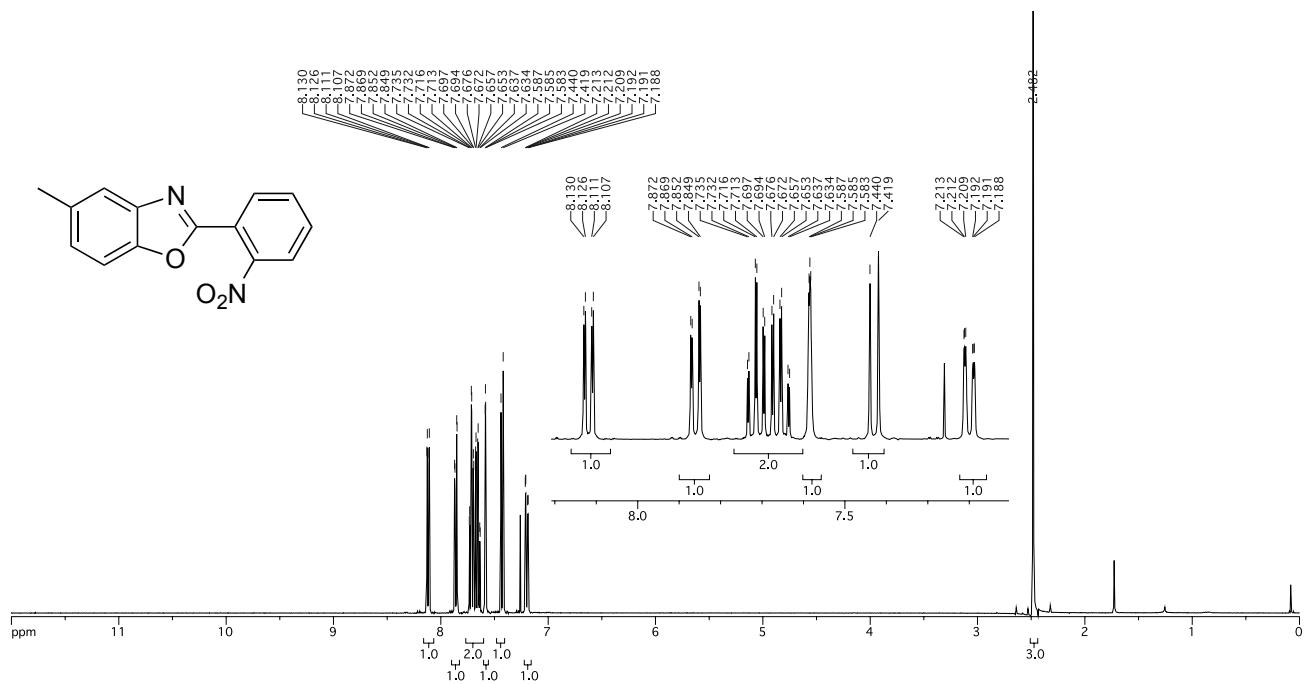
<sup>13</sup>C NMR spectrum of **2-(5-methyl-2-nitrophenyl)-benzoxazole (3ak)** in CDCl<sub>3</sub> at 100 MHz.

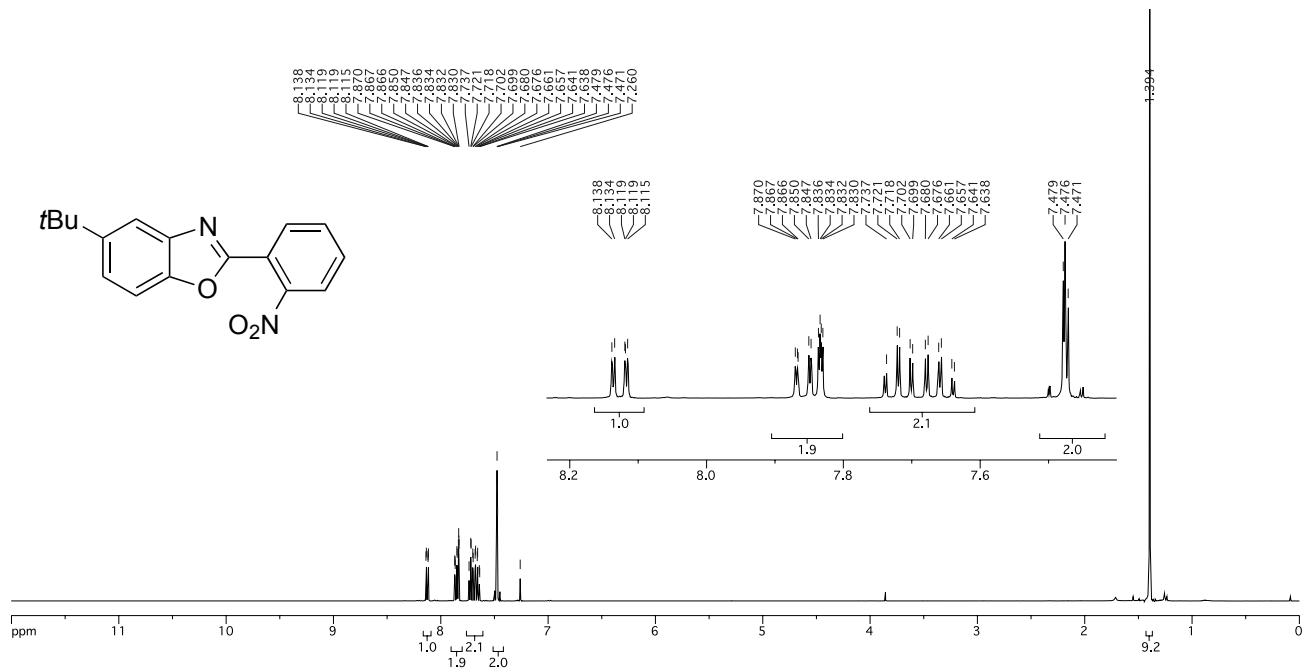


<sup>1</sup>H NMR spectrum of **2-(6-methyl-2-nitrophenyl)-benzoxazole (3al)** in CDCl<sub>3</sub> at 400 MHz.

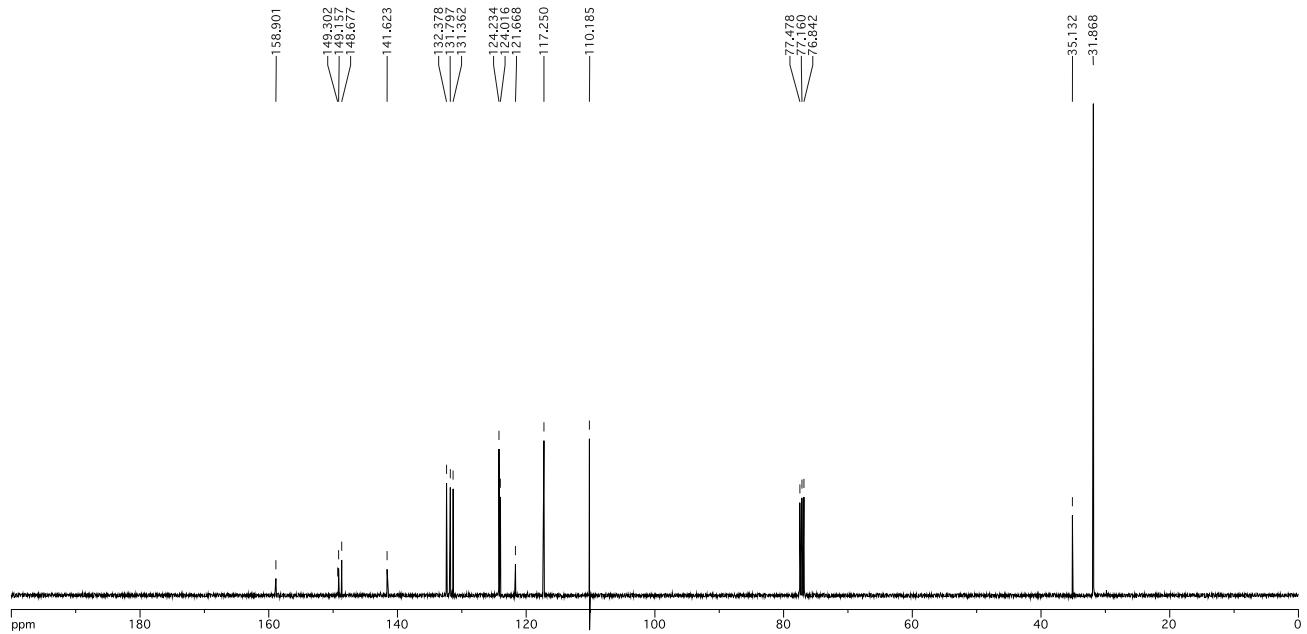


<sup>13</sup>C NMR spectrum of **2-(6-methyl-2-nitrophenyl)-benzoxazole (3al)** in CDCl<sub>3</sub> at 100 MHz.

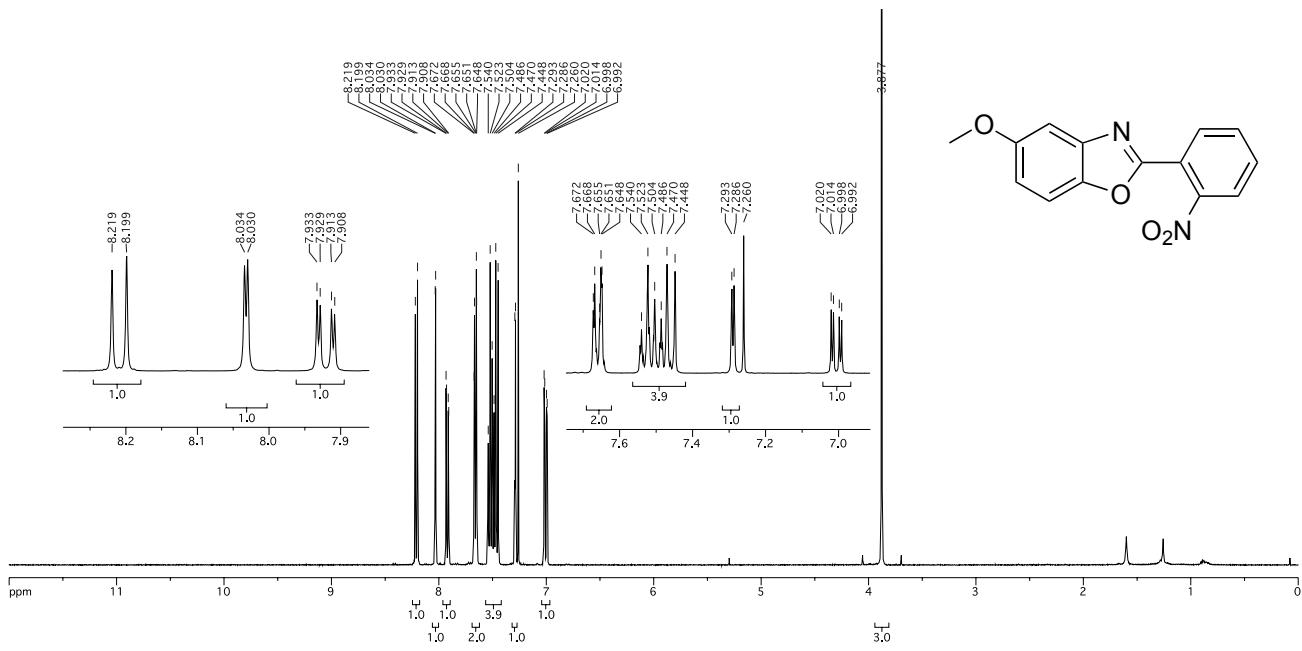




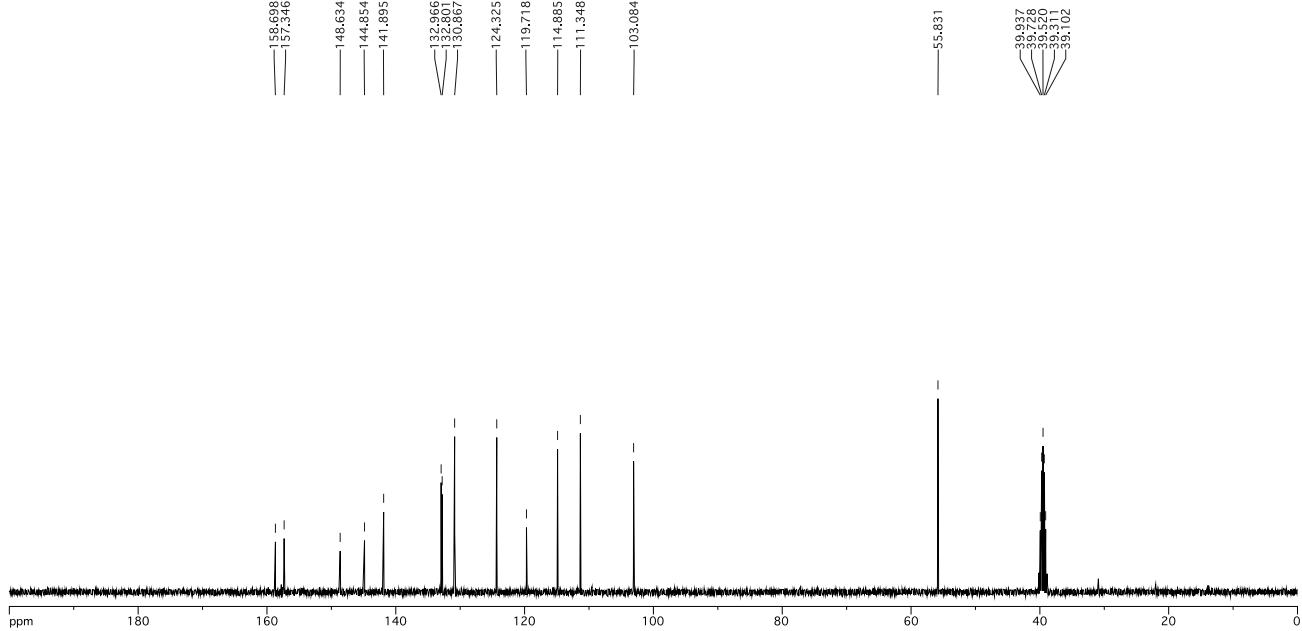
<sup>1</sup>H NMR spectrum of **5-tert-butyl-2-(2-nitrophenyl)-benzoxazole (3ca)** in CDCl<sub>3</sub> at 400 MHz.



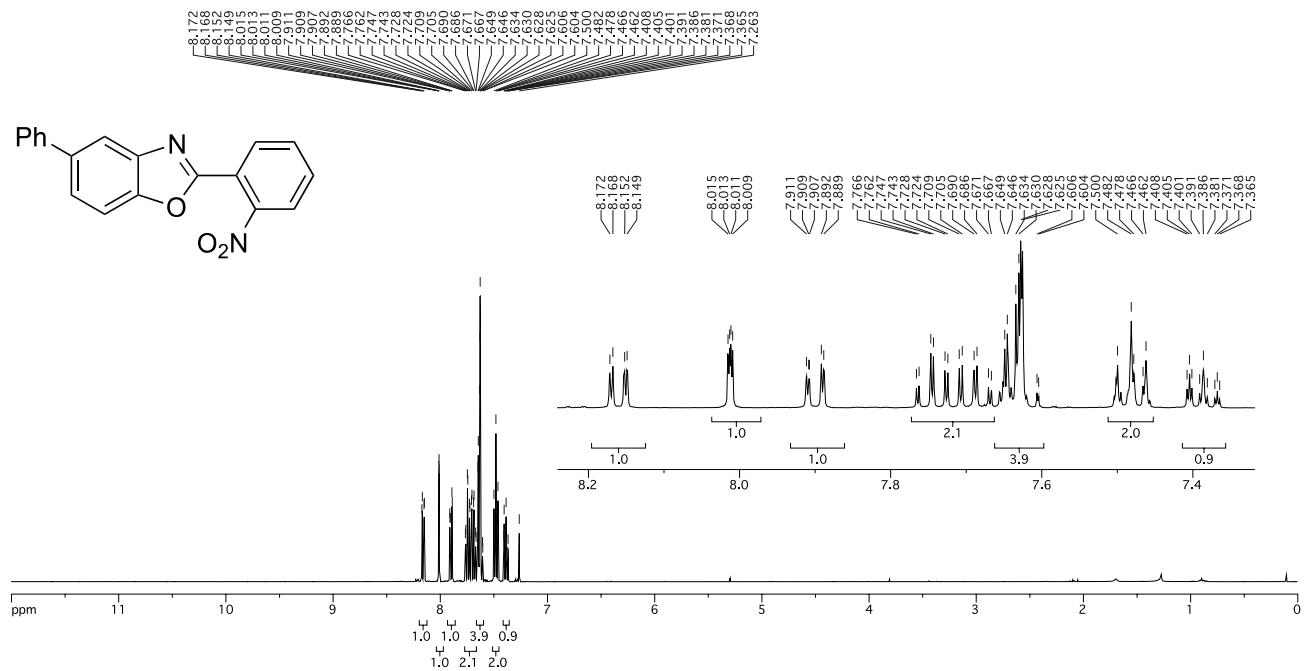
<sup>13</sup>C NMR spectrum of **5-tert-butyl-2-(2-nitrophenyl)-benzoxazole (3ca)** in CDCl<sub>3</sub> at 100 MHz.



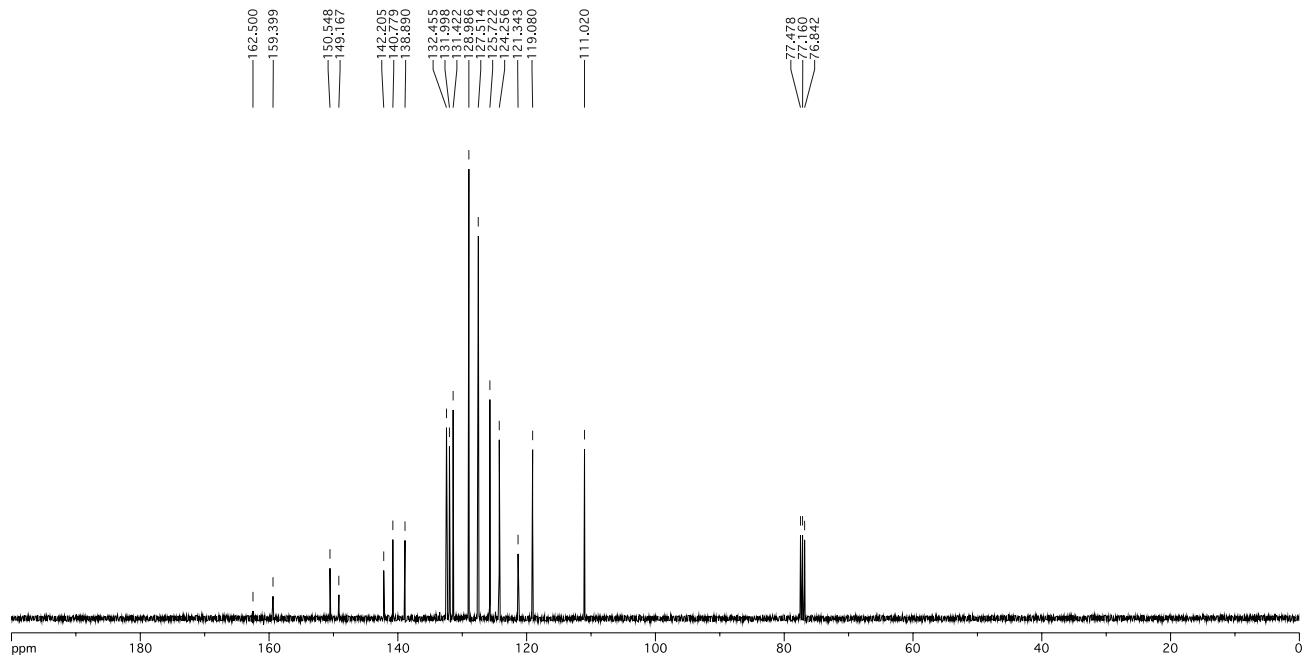
<sup>1</sup>H NMR spectrum of **5-methoxy-2-(2-nitrophenyl)-benzoxazole (3da)** in DMSO-*d*<sub>6</sub> at 400 MHz.



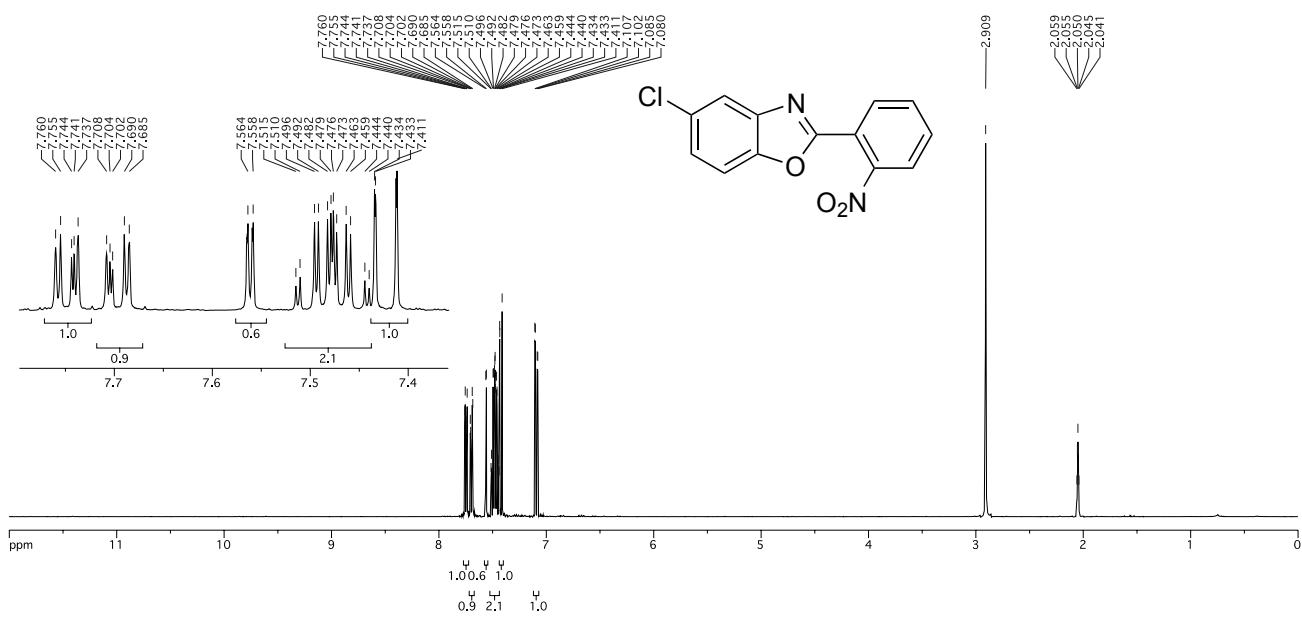
<sup>13</sup>C NMR spectrum of **5-methoxy-2-(2-nitrophenyl)-benzoxazole (3da)** in DMSO-*d*<sub>6</sub> at 100 MHz.



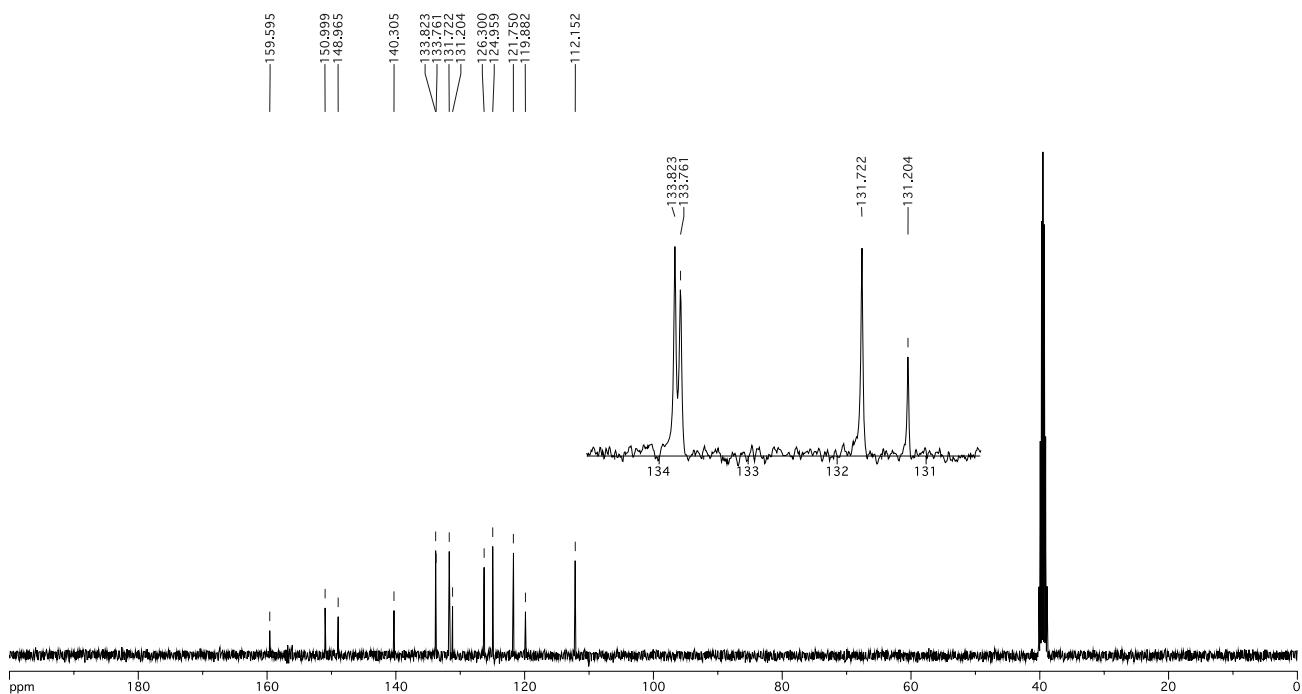
<sup>1</sup>H NMR spectrum of **5-phenyl-2(2-nitrophenyl)-benzoxazole (3ea)** in CDCl<sub>3</sub> at 400 MHz.



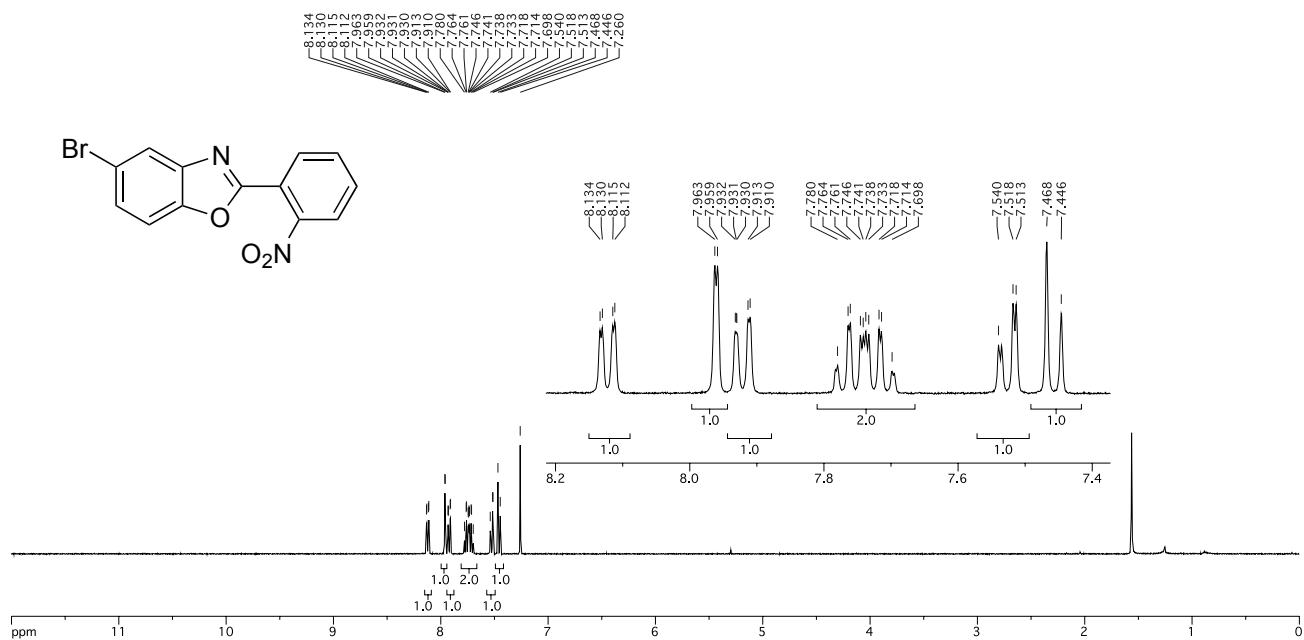
<sup>13</sup>C NMR spectrum of **5-phenyl-2(2-nitrophenyl)-benzoxazole (3ea)** in CDCl<sub>3</sub> at 100 MHz.



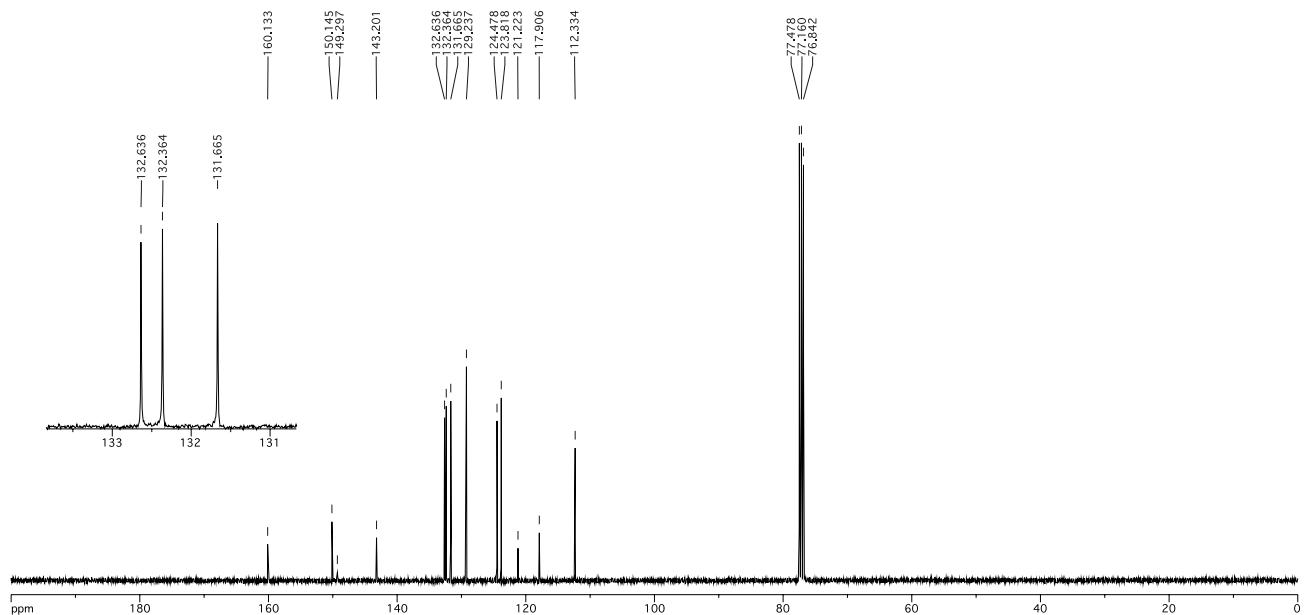
<sup>1</sup>H NMR spectrum of **6-chloro-2-(2-nitrophenyl)-benzoxazole (3fa)** in DMSO-*d*<sub>6</sub> at 400 MHz.



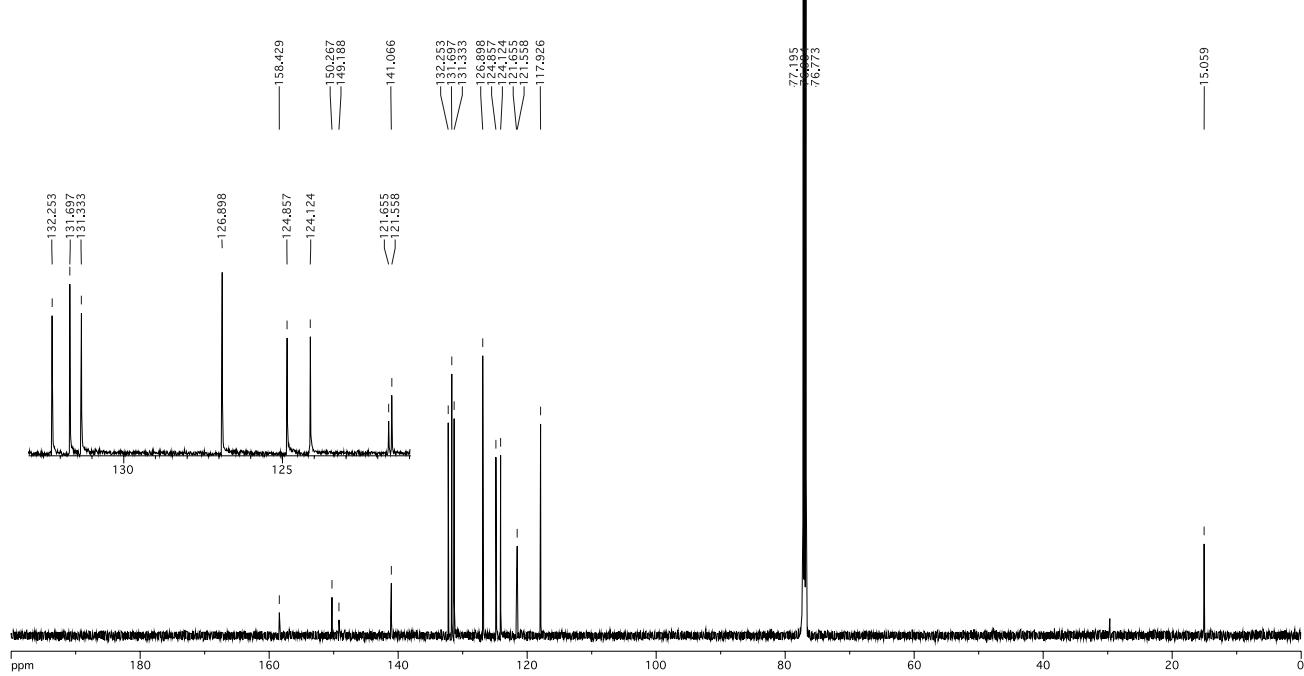
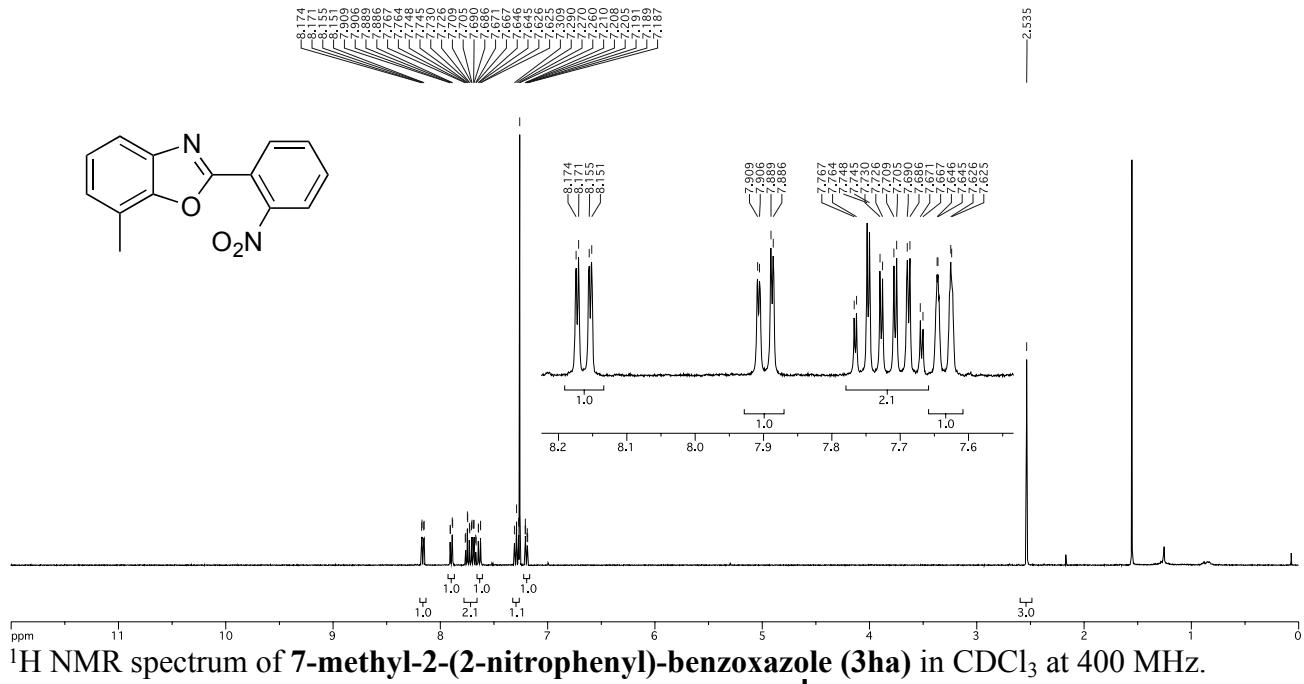
<sup>13</sup>C NMR spectrum of **6-chloro-2-(2-nitrophenyl)-benzoxazole (3fa)** in DMSO-*d*<sub>6</sub> at 100 MHz.

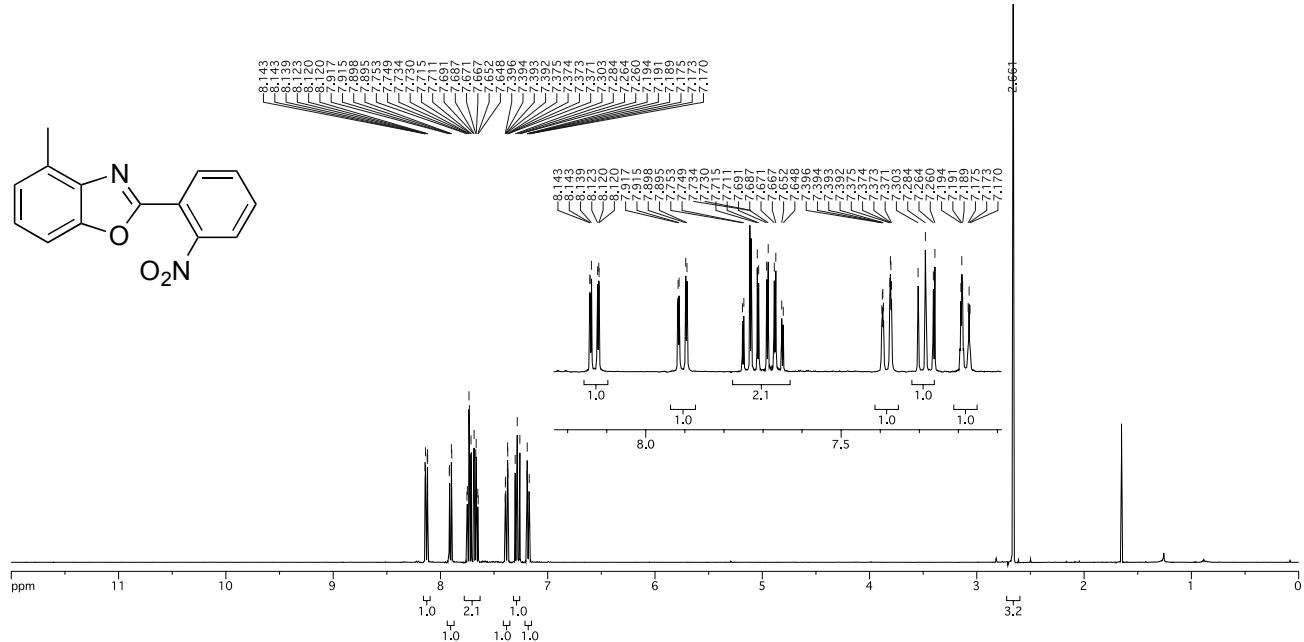


<sup>1</sup>H NMR spectrum of **5-bromo-2-(2-nitrophenyl)-benzoxazole (3ga)** in CDCl<sub>3</sub> at 400 MHz.

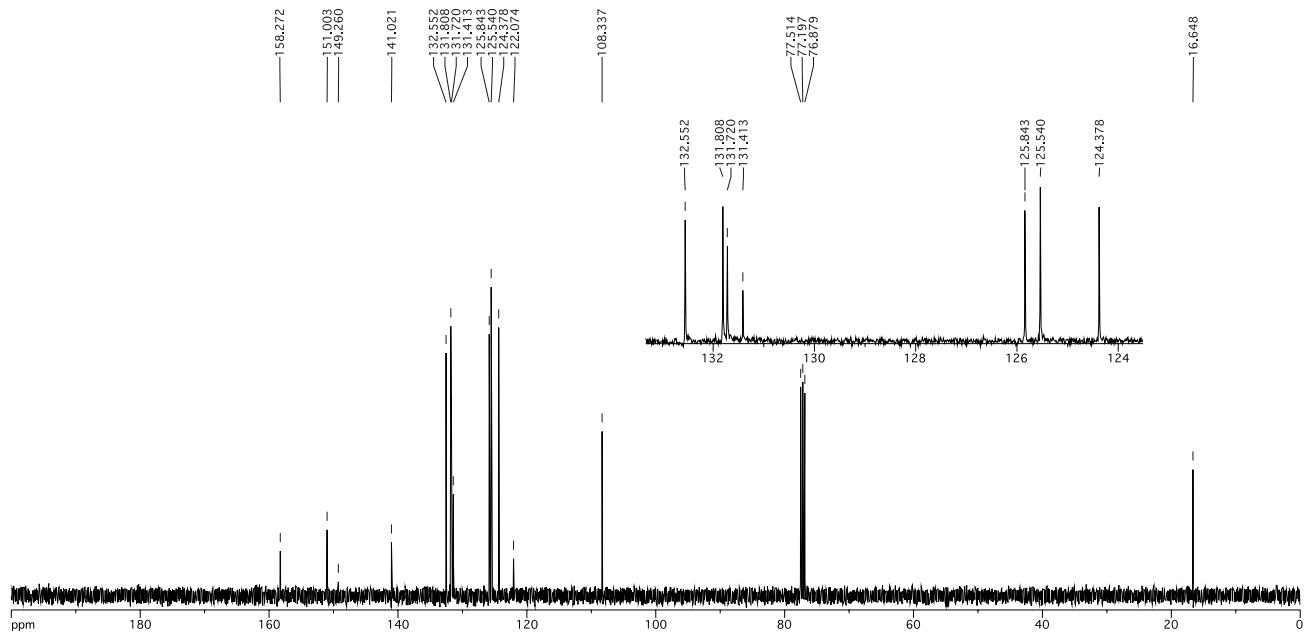


<sup>13</sup>C NMR spectrum of **5-bromo-2-(2-nitrophenyl)-benzoxazole (3ga)** in CDCl<sub>3</sub> at 100 MHz.

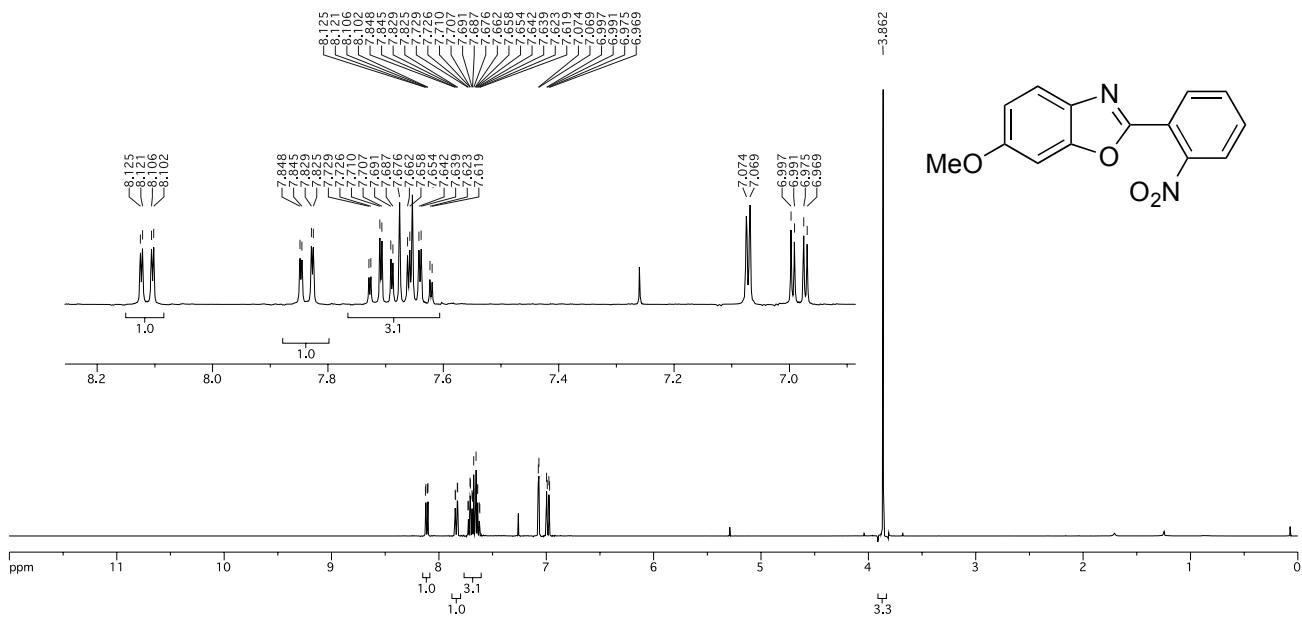




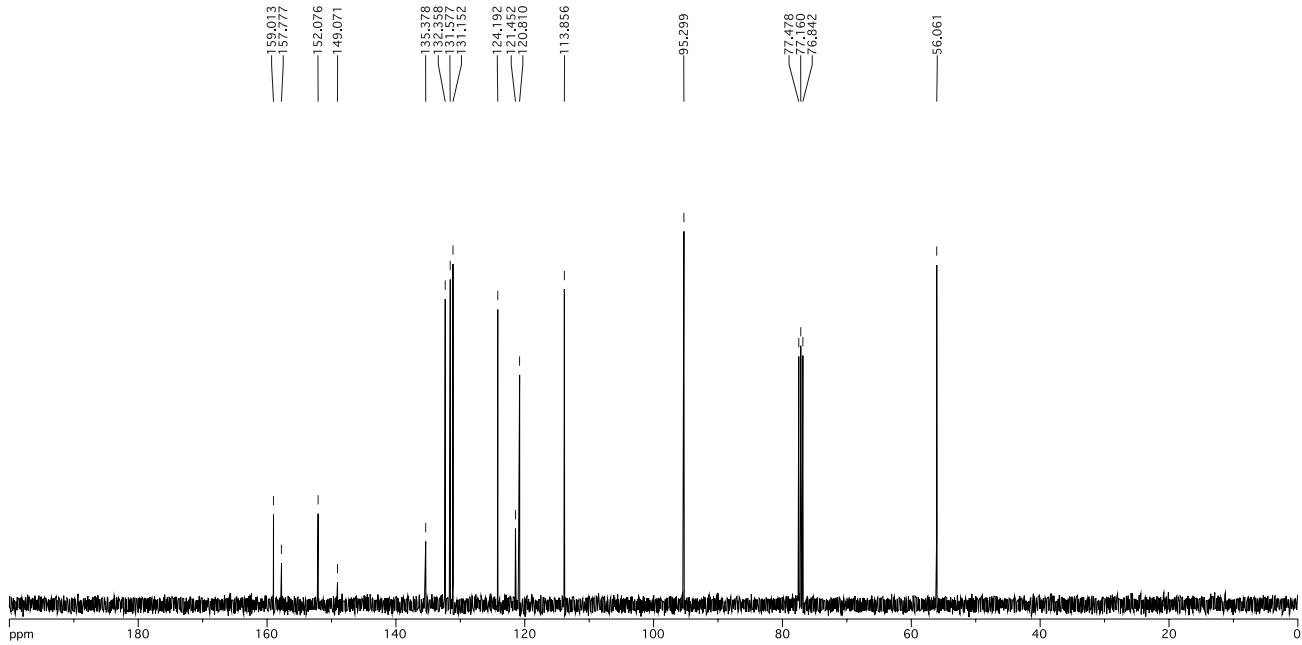
<sup>1</sup>H NMR spectrum of **4-methyl-2-(2-nitrophenyl)-benzoxazole (3ia)** in CDCl<sub>3</sub> at 400 MHz.

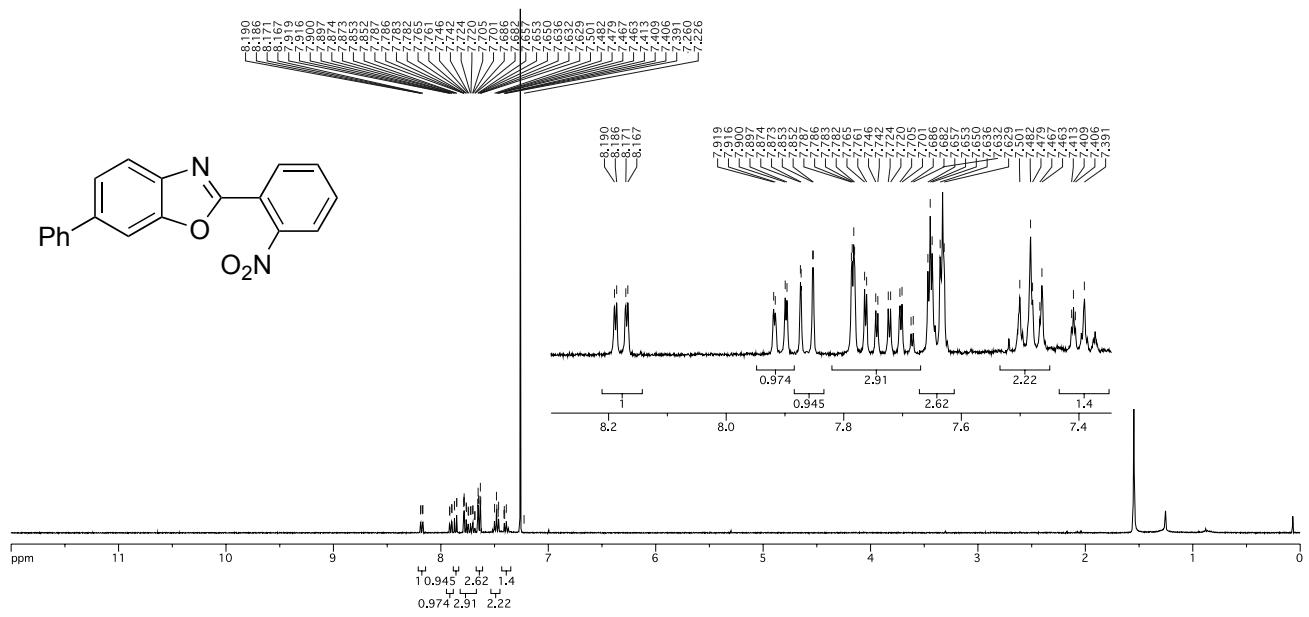


<sup>13</sup>C NMR spectrum of **4-methyl-2-(2-nitrophenyl)-benzoxazole (3ia)** in CDCl<sub>3</sub> at 100 MHz.

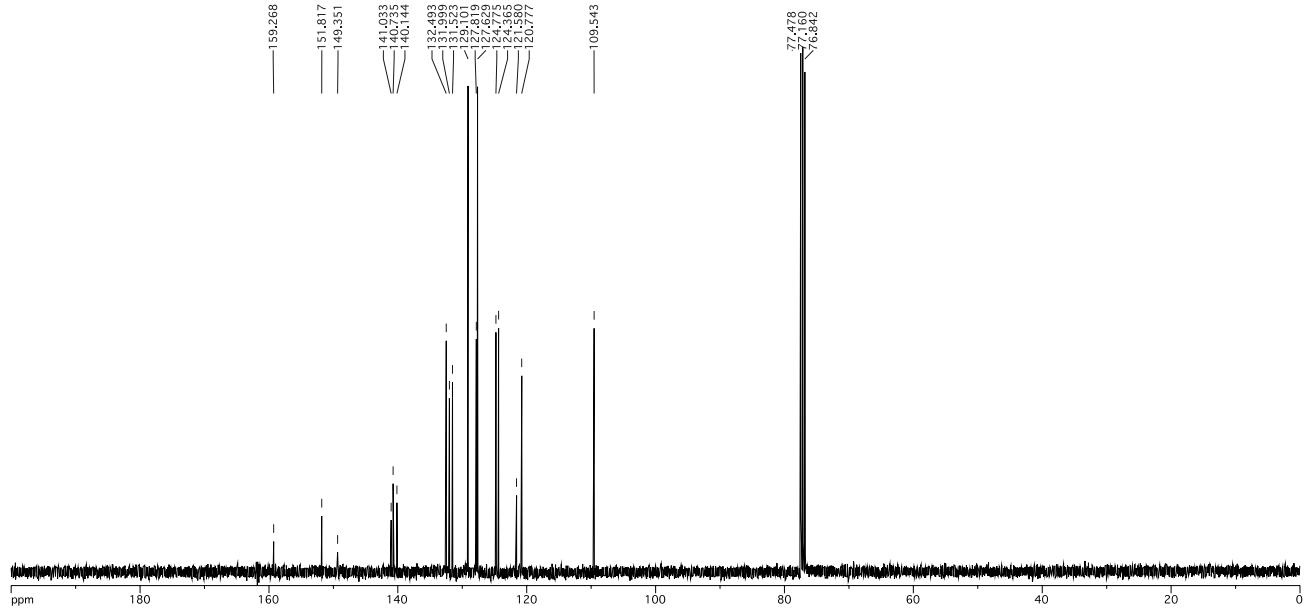


<sup>1</sup>H NMR spectrum of **6-methoxy-2-(2-nitrophenyl)-benzoxazole (3ja)** in  $\text{CDCl}_3$  at 400 MHz.

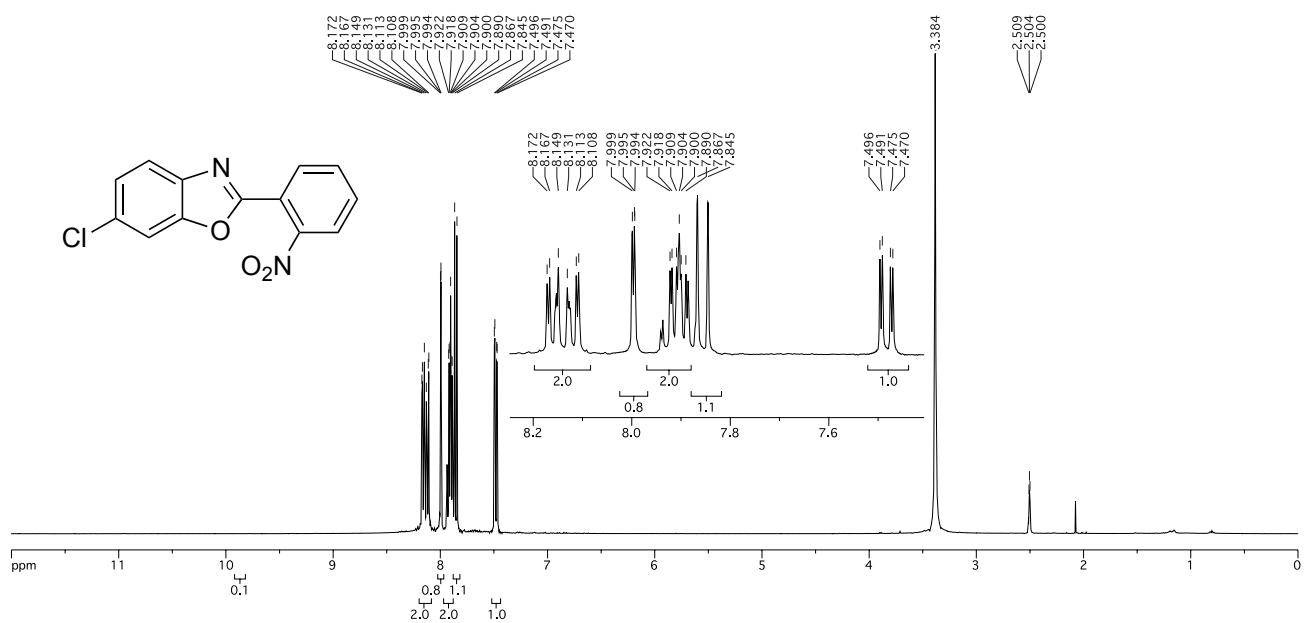




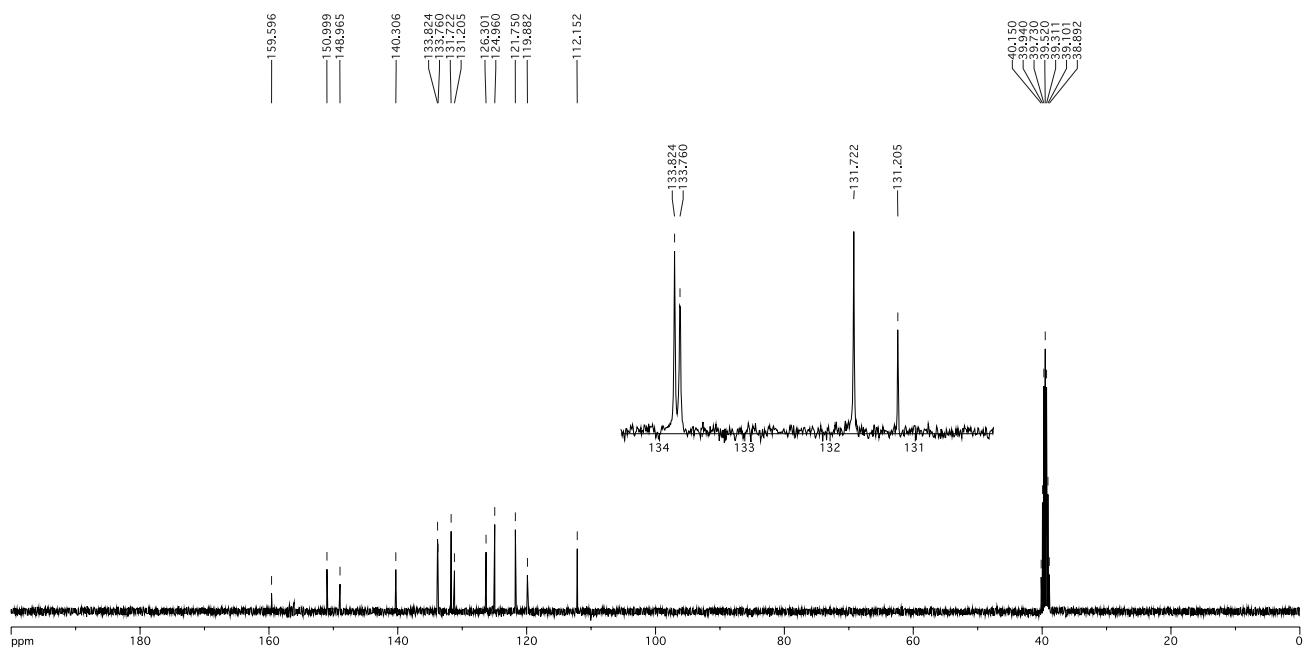
<sup>1</sup>H NMR spectrum of **6-phenyl-2-(2-nitrophenyl)-benzoxazole (3ka)** in CDCl<sub>3</sub> at 400 MHz.



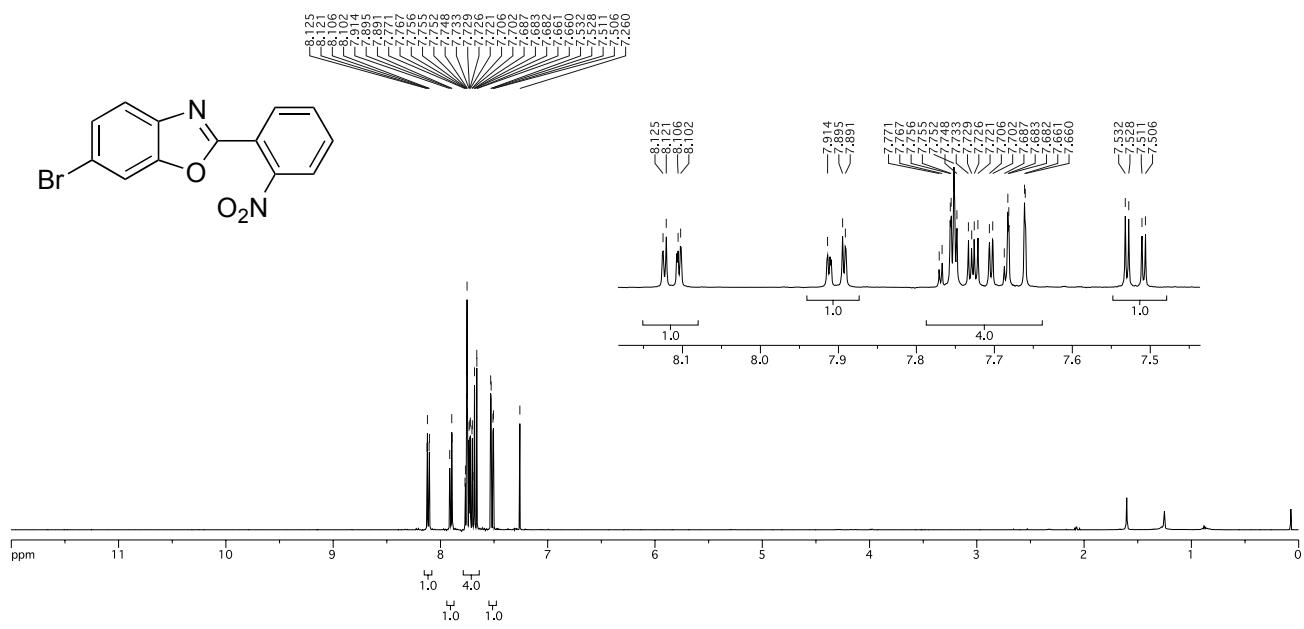
<sup>13</sup>C NMR spectrum of **6-phenyl-2-(2-nitrophenyl)-benzoxazole (3ka)** in CDCl<sub>3</sub> at 100 MHz.



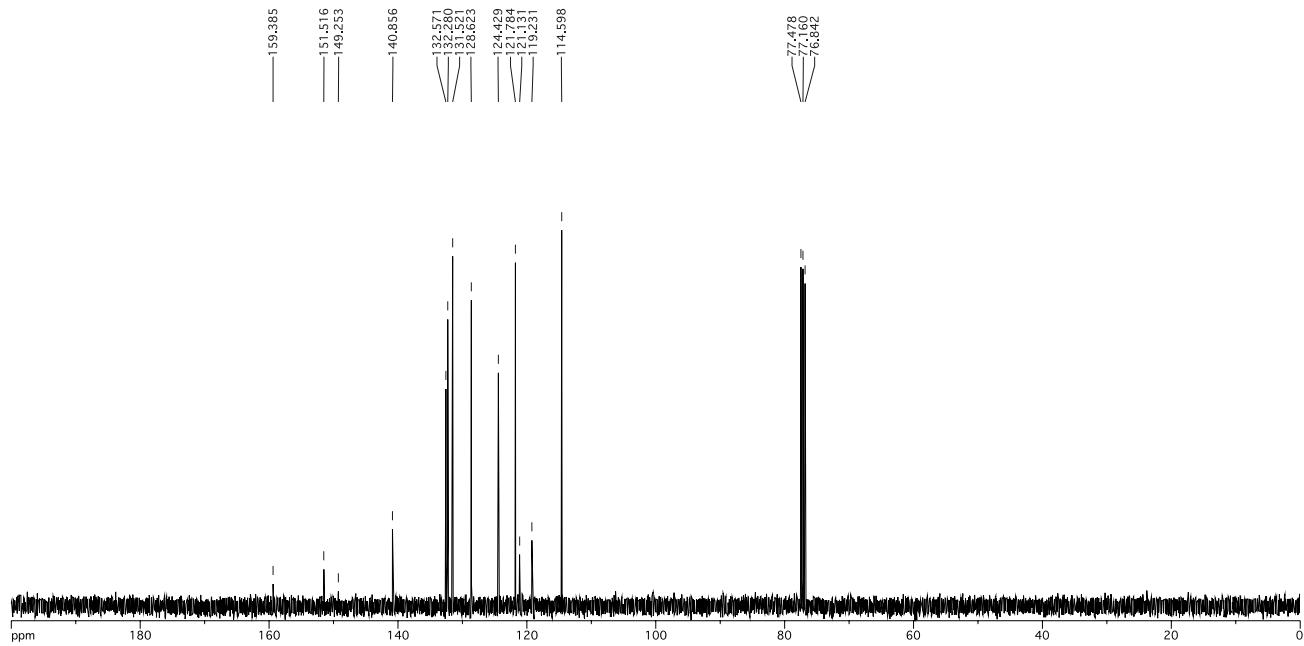
<sup>1</sup>H NMR spectrum of **6-chloro-2-(2-nitrophenyl)-benzoxazole (3la)** in DMSO-*d*<sub>6</sub> at 400 MHz.



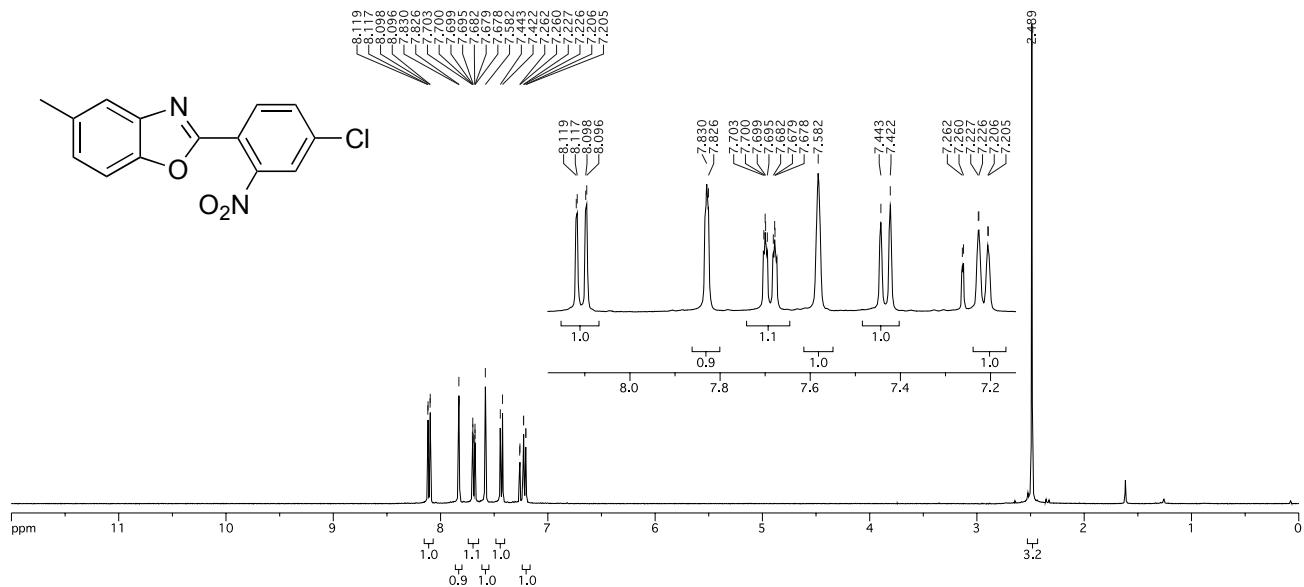
<sup>13</sup>C NMR spectrum of **6-chloro-2-(2-nitrophenyl)-benzoxazole (3la)** in DMSO-*d*<sub>6</sub> at 100 MHz.



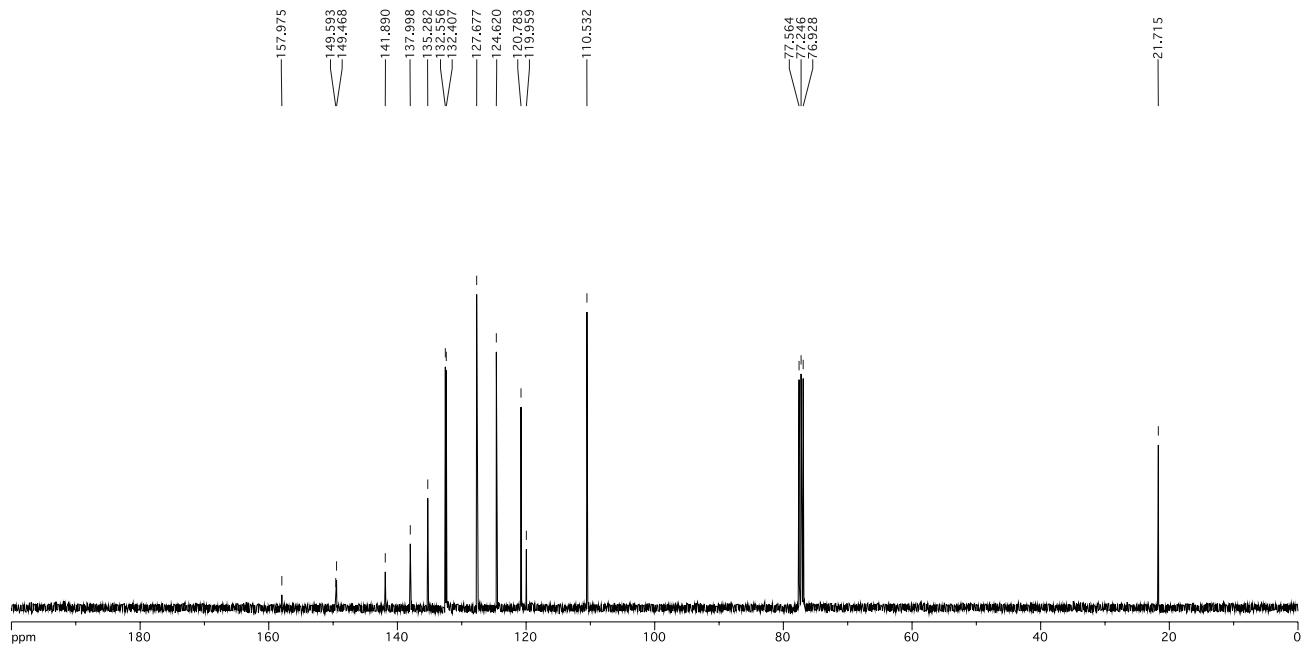
<sup>1</sup>H NMR spectrum of **6-bromo-2-(2-nitrophenyl)-benzoxazole (3ma)** in CDCl<sub>3</sub> at 400 MHz.



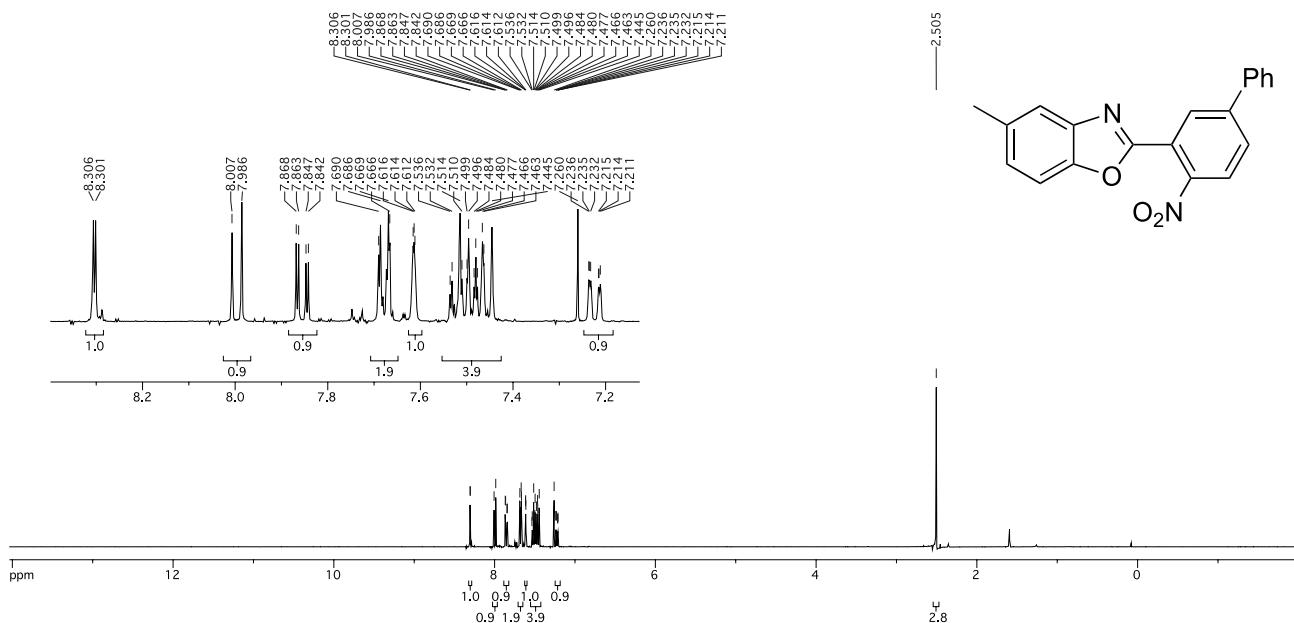
<sup>13</sup>C NMR spectrum of **6-bromo-2-(2-nitrophenyl)-benzoxazole (3ma)** in CDCl<sub>3</sub> at 100 MHz.



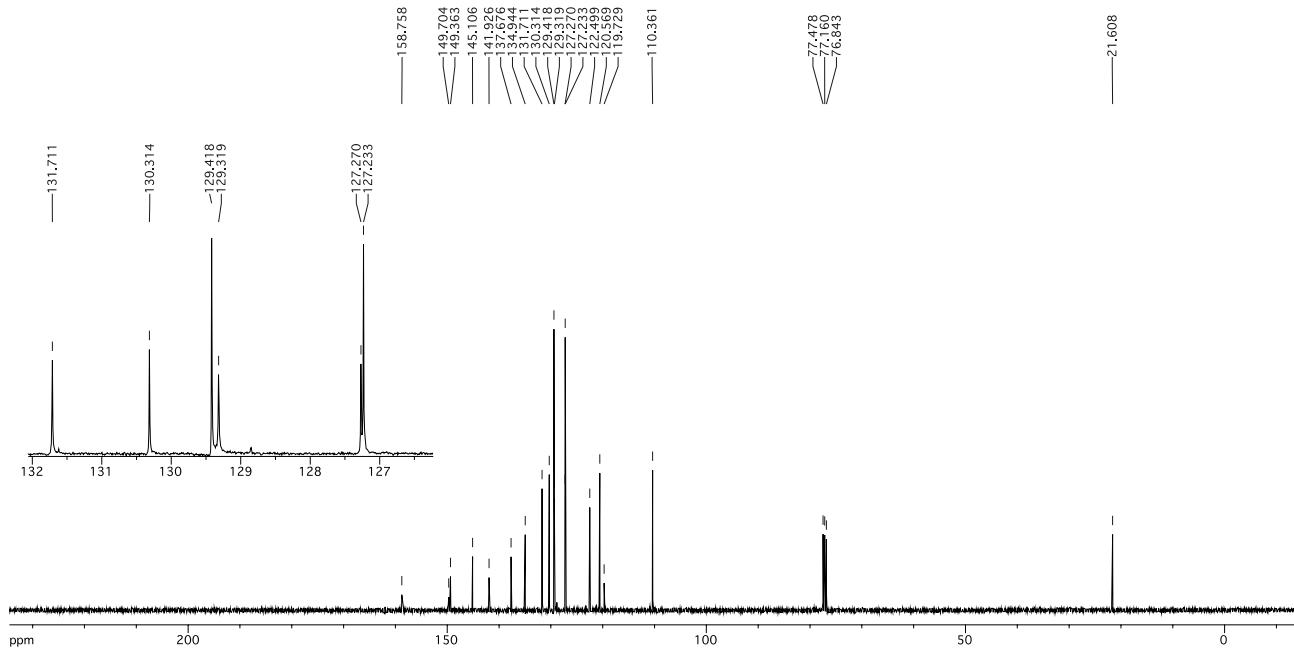
<sup>1</sup>H NMR spectrum of **5-methyl-2-(4-chloro-2-nitrophenyl)-benzoxazole (3bb)** in CDCl<sub>3</sub> at 400 MHz.



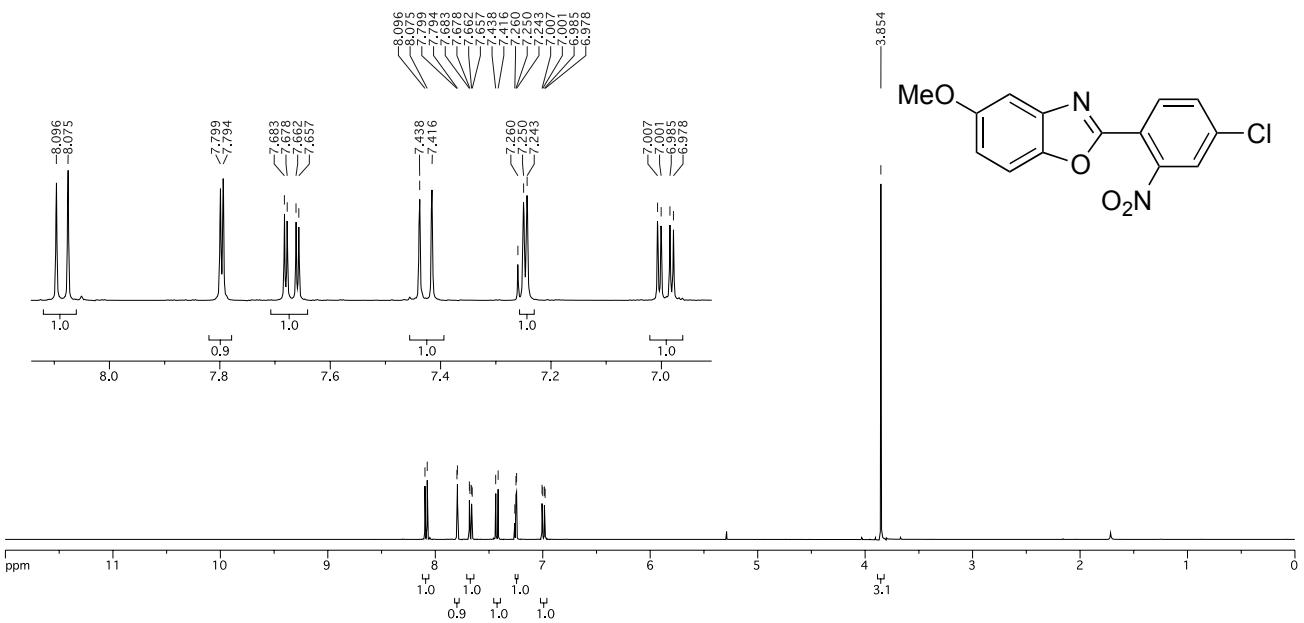
<sup>13</sup>C NMR spectrum of **5-methyl-2-(4-chloro-2-nitrophenyl)-benzoxazole (3bb)** in CDCl<sub>3</sub> at 100 MHz.



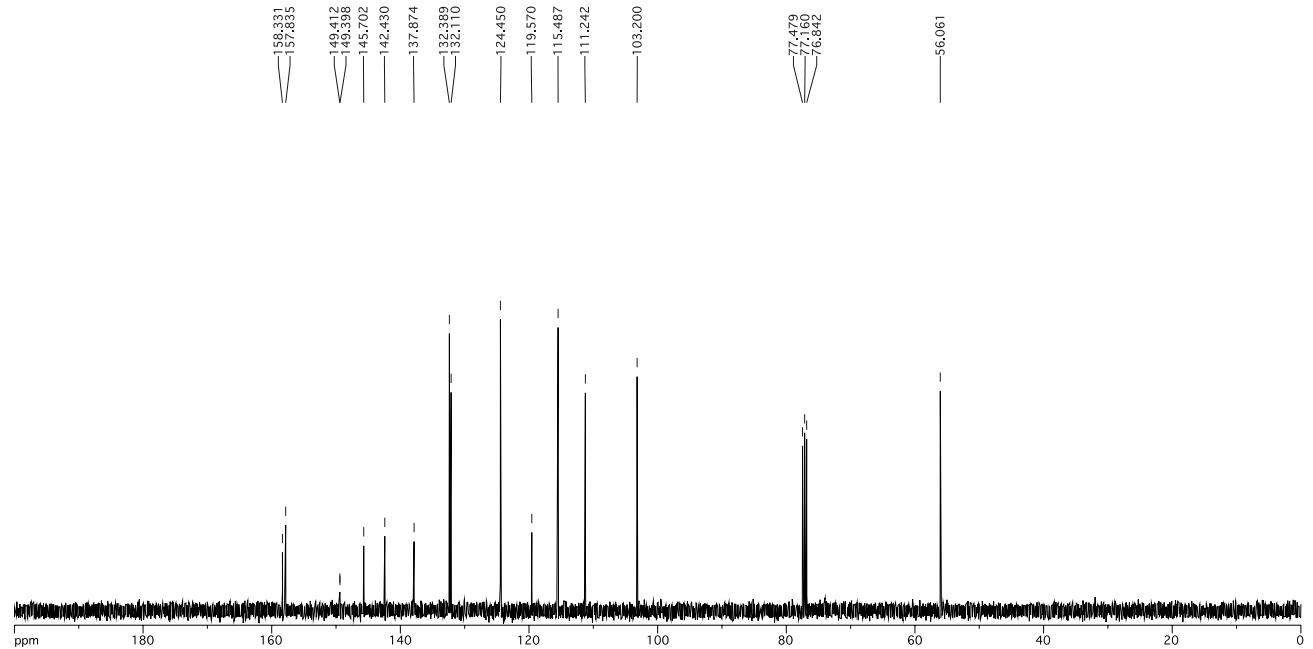
<sup>1</sup>H NMR spectrum of **5-methyl-2-(4-phenyl-2-nitrophenyl)-benzoxazole (3bj)** in CDCl<sub>3</sub> at 400 MHz.

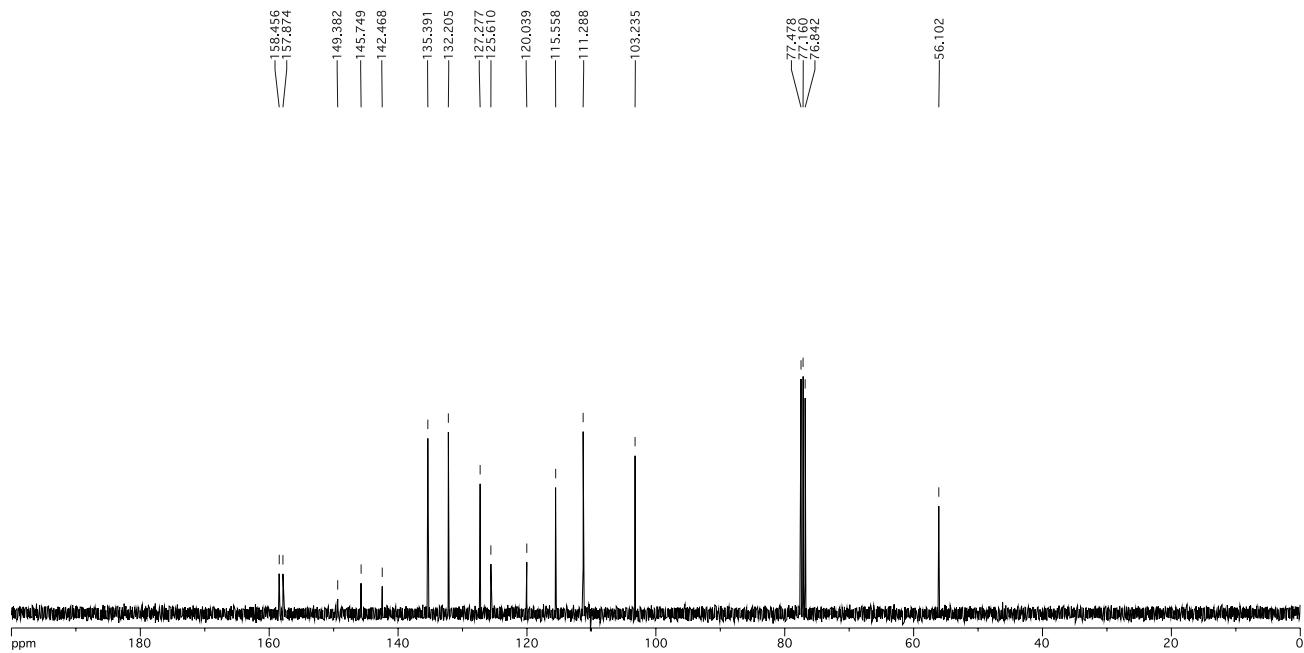
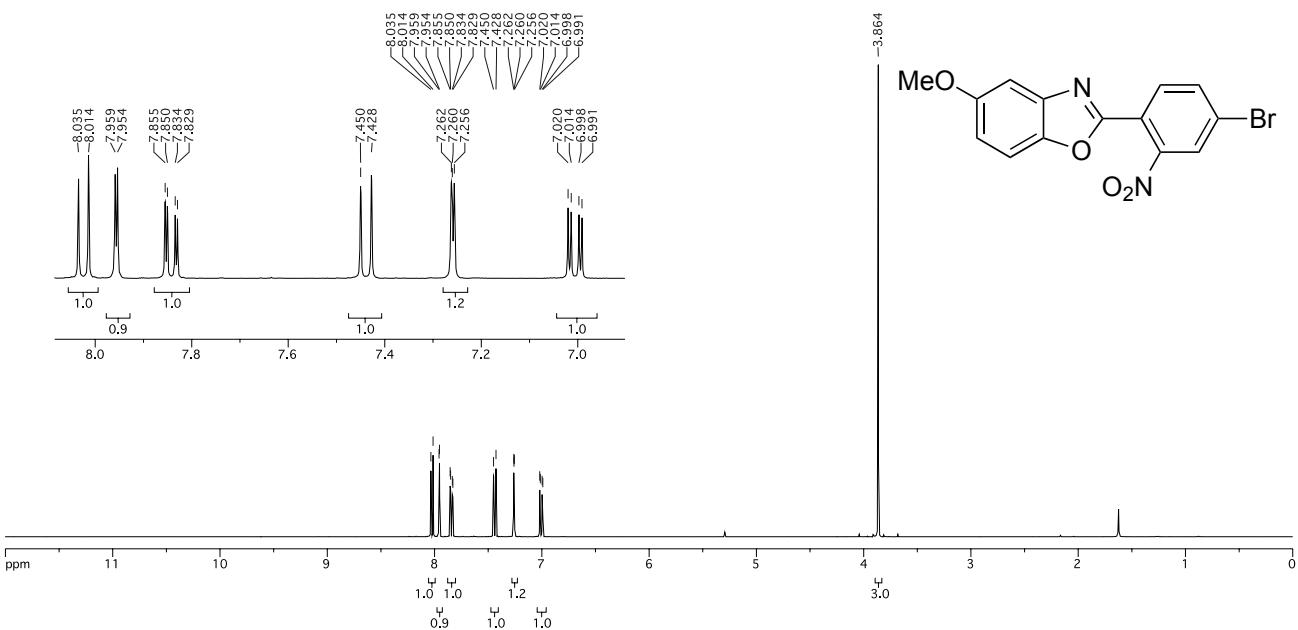


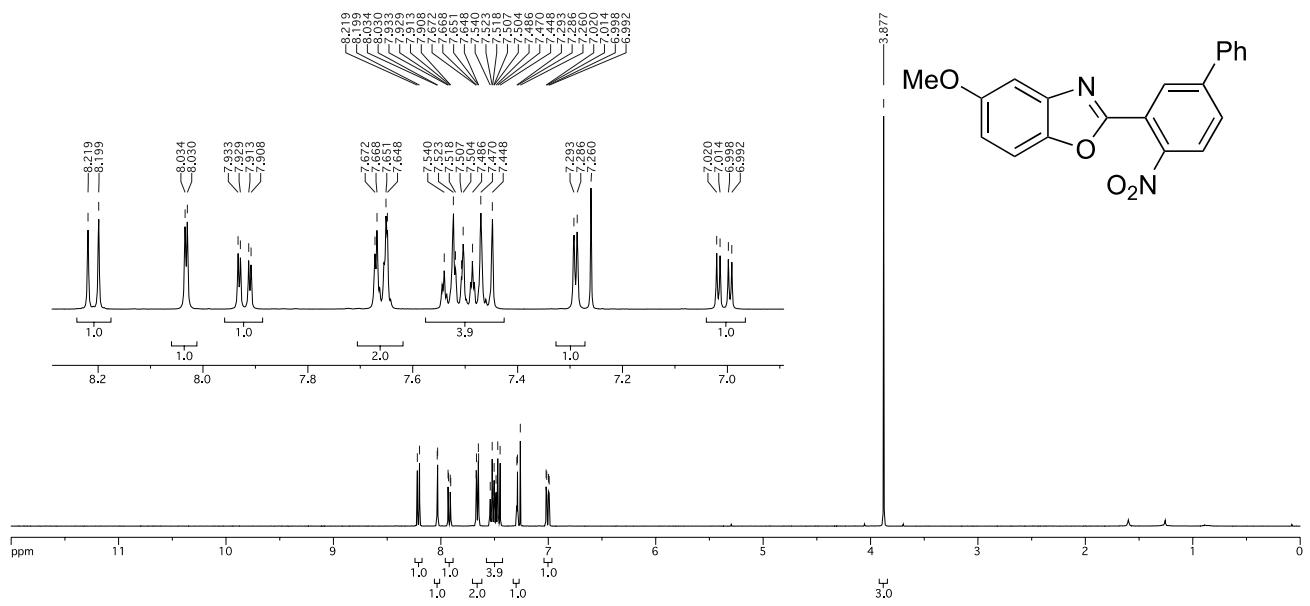
<sup>13</sup>C NMR spectrum of **5-methyl-2-(4-phenyl-2-nitrophenyl)-benzoxazole (3bj)** in CDCl<sub>3</sub> at 100 MHz.



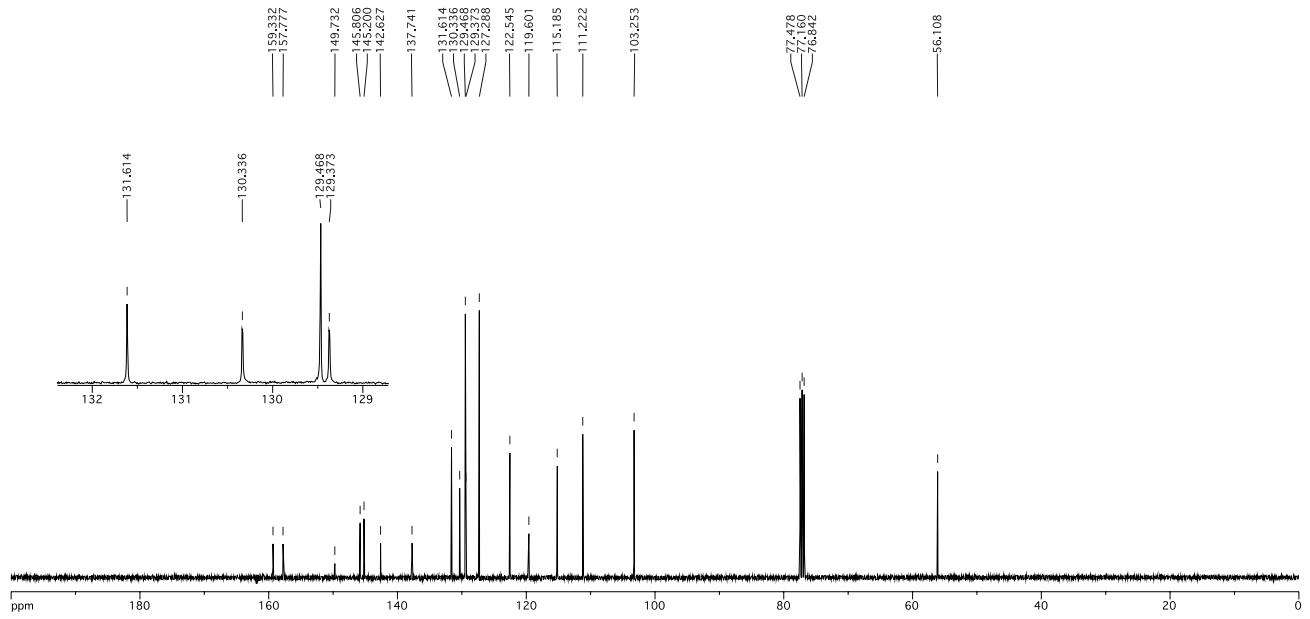
<sup>1</sup>H NMR spectrum of **5-methoxy-2-(4-chloro-2-nitrophenyl)-benzoxazole (3db)** in  $\text{CDCl}_3$  at 400 MHz.



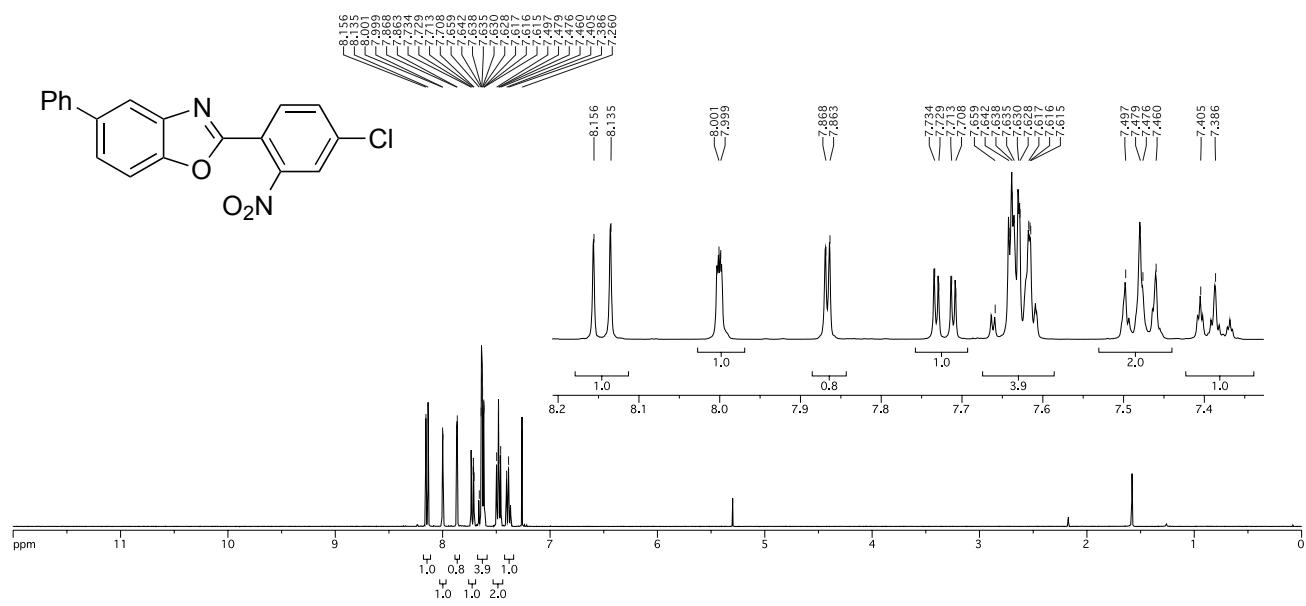




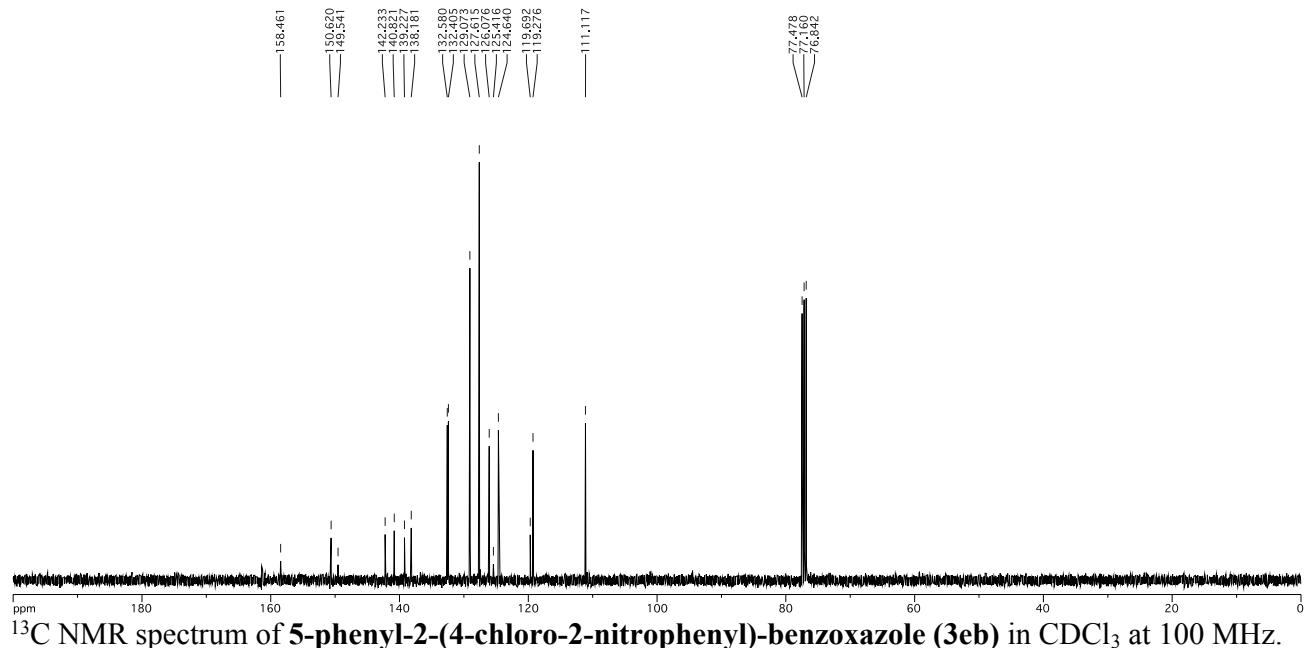
<sup>1</sup>H NMR spectrum of **5-methoxy-2-(5-phenyl-2-nitrophenyl)-benzoxazole (3dj)** in CDCl<sub>3</sub> at 400 MHz.



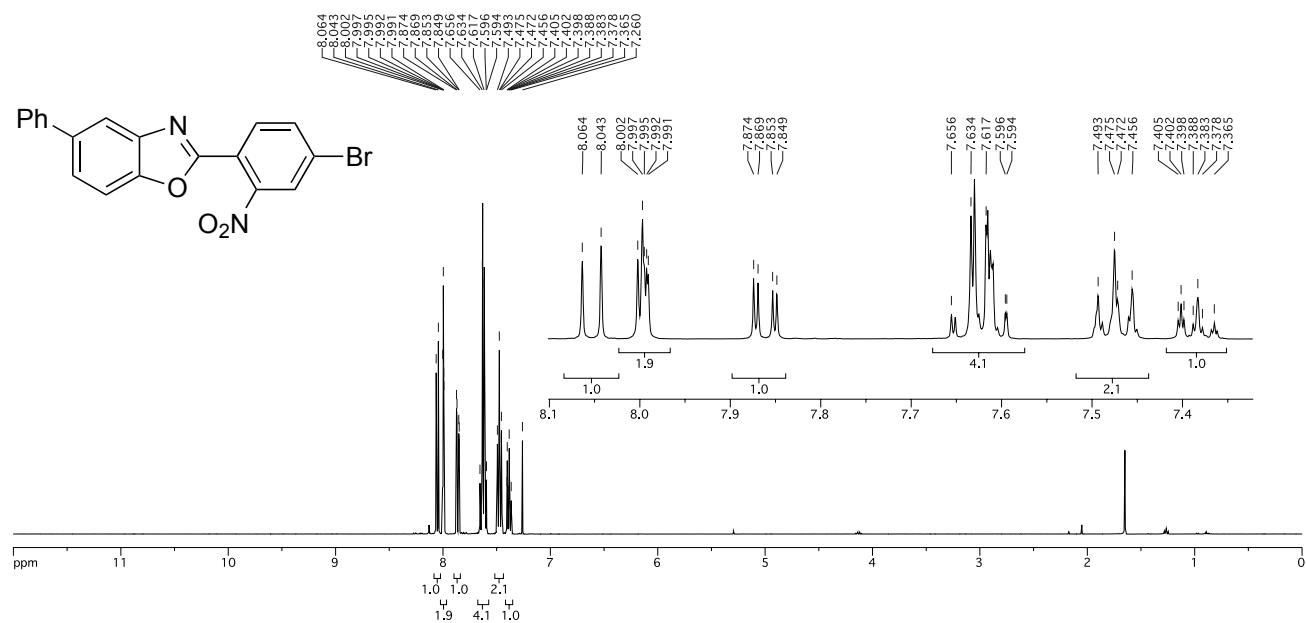
<sup>13</sup>C NMR spectrum of **5-methoxy-2-(5-phenyl-2-nitrophenyl)-benzoxazole (3dj)** in CDCl<sub>3</sub> at 100 MHz.



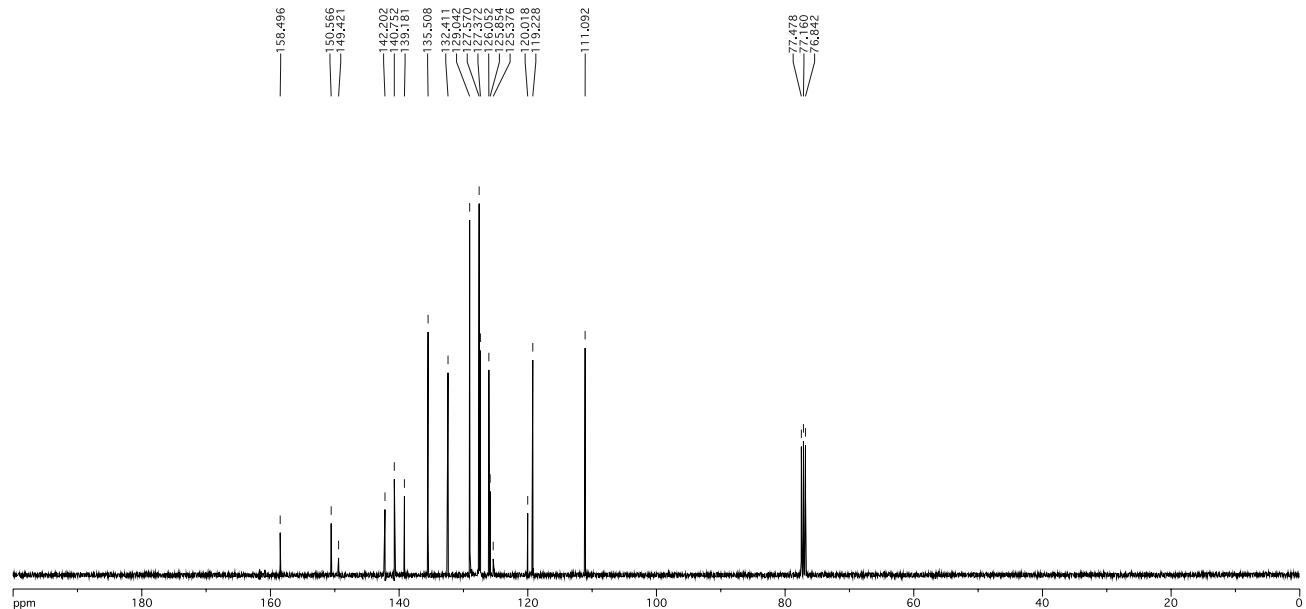
<sup>1</sup>H NMR spectrum of **5-phenyl-2-(4-chloro-2-nitrophenyl)-benzoxazole (3eb)** in CDCl<sub>3</sub> at 400 MHz.



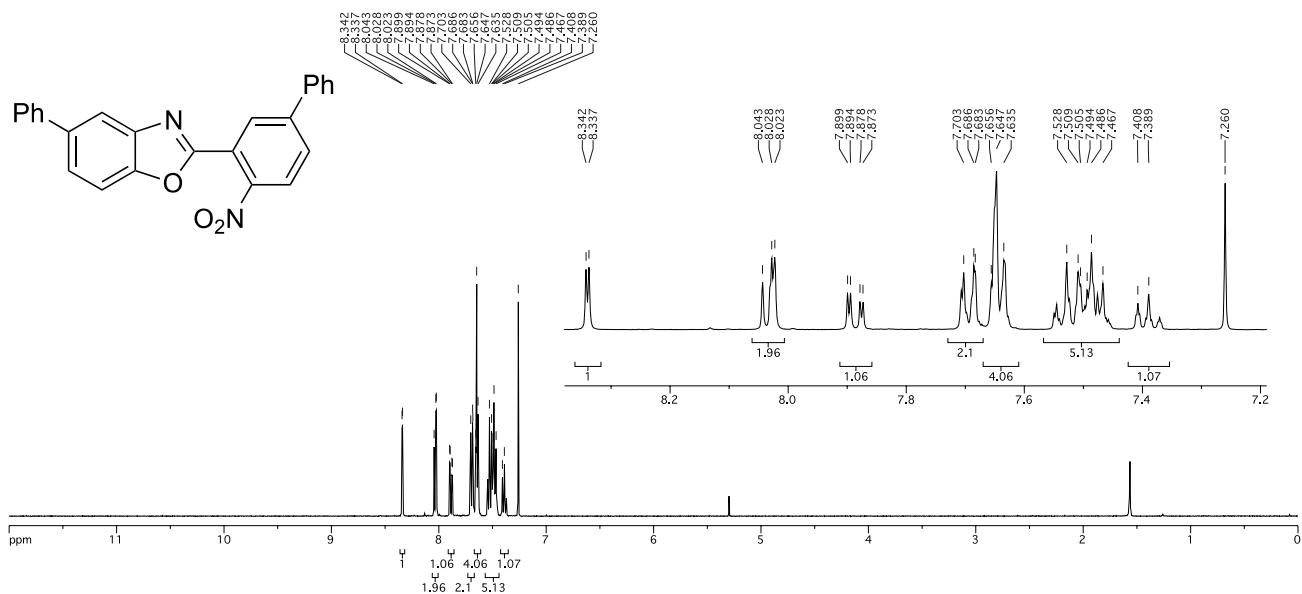
<sup>13</sup>C NMR spectrum of **5-phenyl-2-(4-chloro-2-nitrophenyl)-benzoxazole (3eb)** in CDCl<sub>3</sub> at 100 MHz.



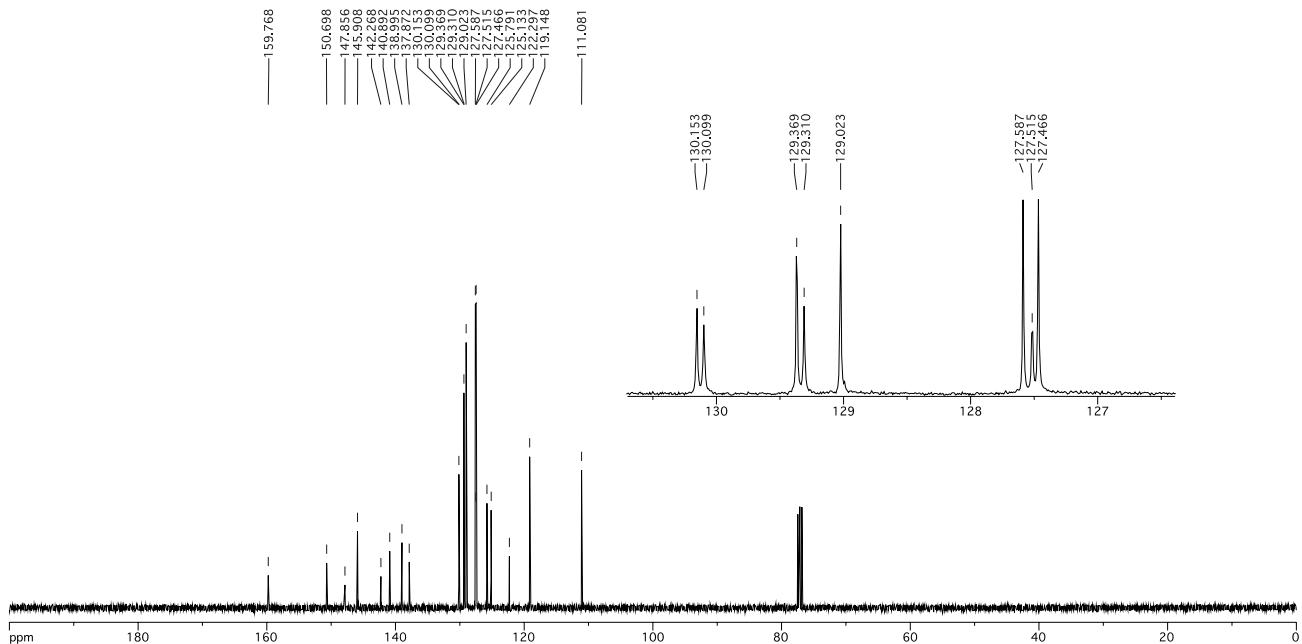
<sup>1</sup>H NMR spectrum of **5-phenyl-2-(4-bromo-2-nitrophenyl)-benzoxazole (3ec)** in CDCl<sub>3</sub> at 400 MHz.



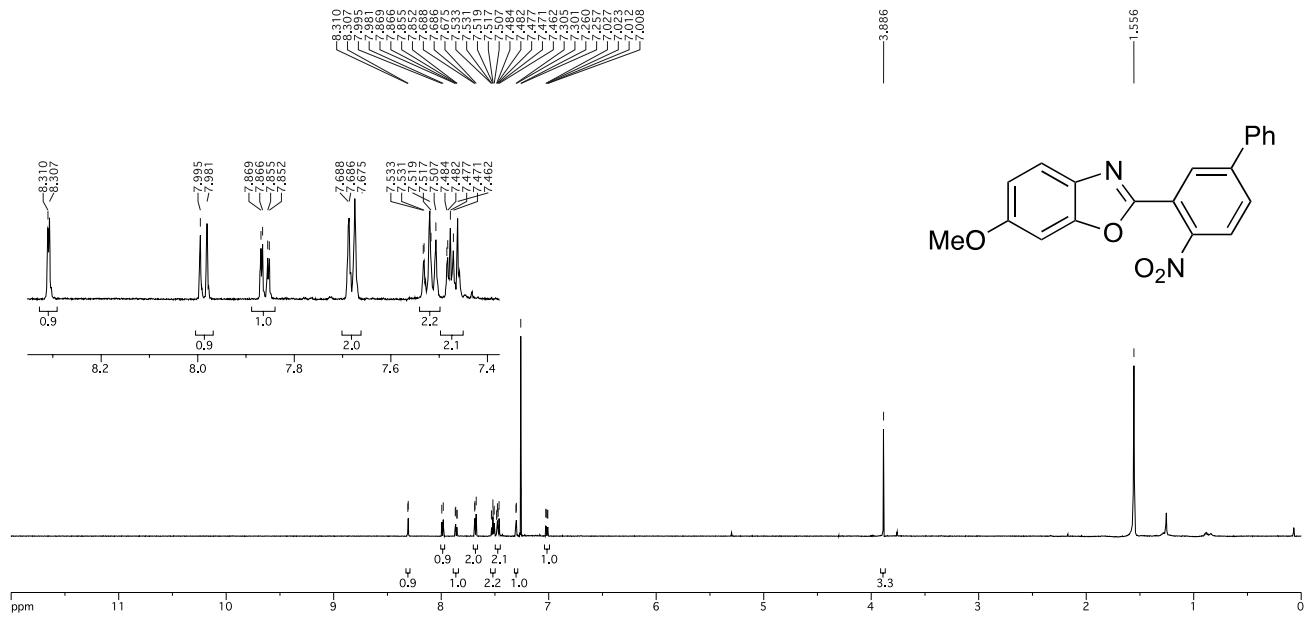
<sup>13</sup>C NMR spectrum of **5-phenyl-2-(4-bromo-2-nitrophenyl)-benzoxazole (3ec)** in CDCl<sub>3</sub> at 100 MHz.



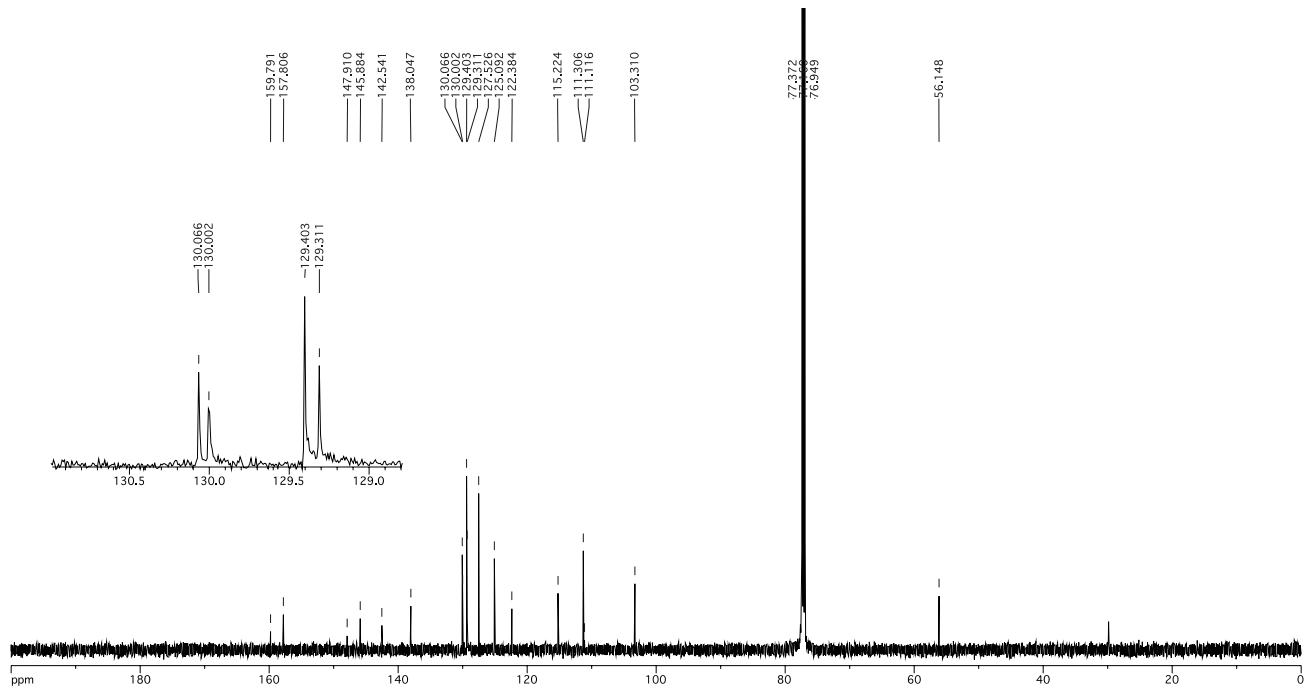
<sup>1</sup>H NMR spectrum of **5-phenyl-2-(5-phenyl-2-nitrophenyl)-benzoxazole (3ej)** in CDCl<sub>3</sub> at 400 MHz.



<sup>13</sup>C NMR spectrum of **5-phenyl-2-(5-phenyl-2-nitrophenyl)-benzoxazole (3ej)** in CDCl<sub>3</sub> at 100 MHz.



<sup>1</sup>H NMR spectrum of **6-methoxy-2-(5-phenyl-2-nitrophenyl)-benzoxazole (3jj)** in CDCl<sub>3</sub> at 600 MHz.



<sup>13</sup>C NMR spectrum of **6-methoxy-2-(5-phenyl-2-nitrophenyl)-benzoxazole (3jj)** in CDCl<sub>3</sub> at 125 MHz.