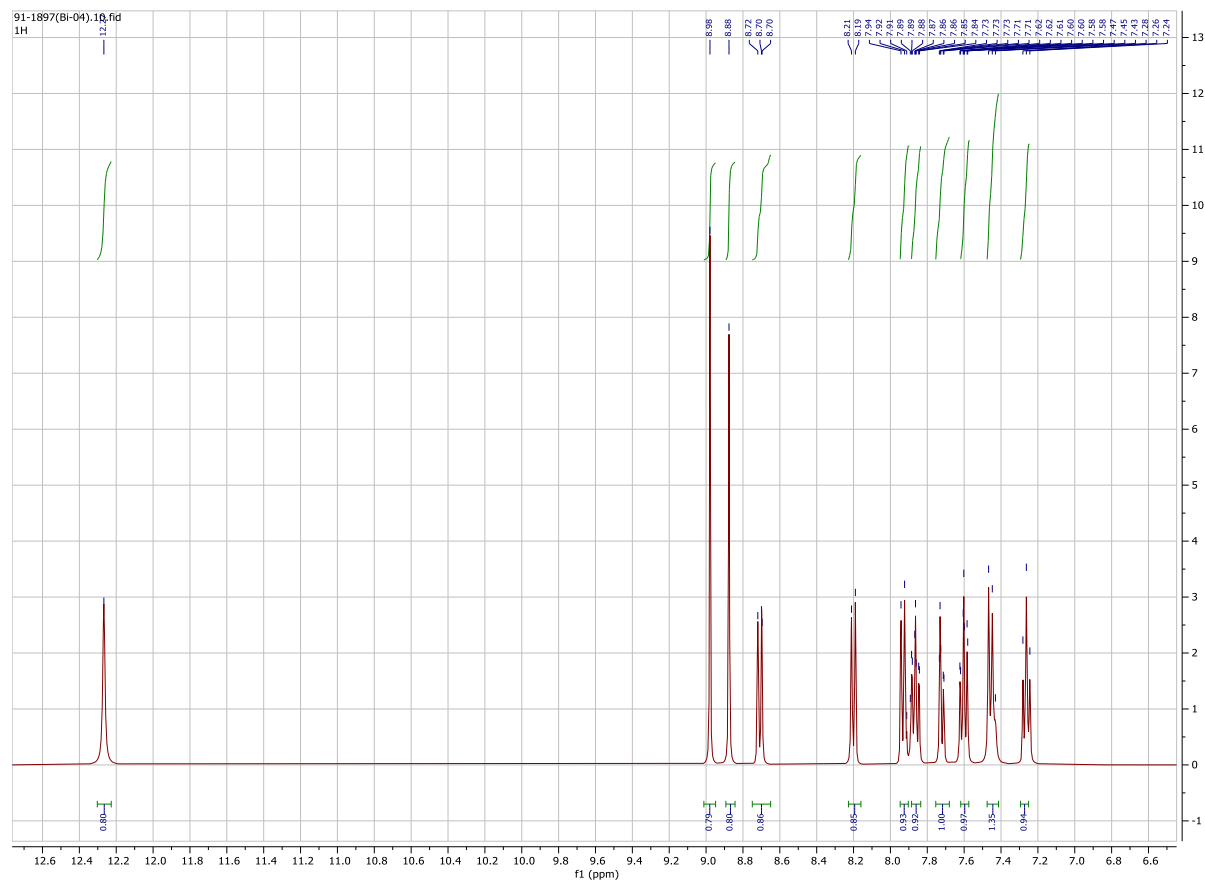
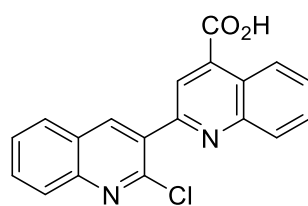


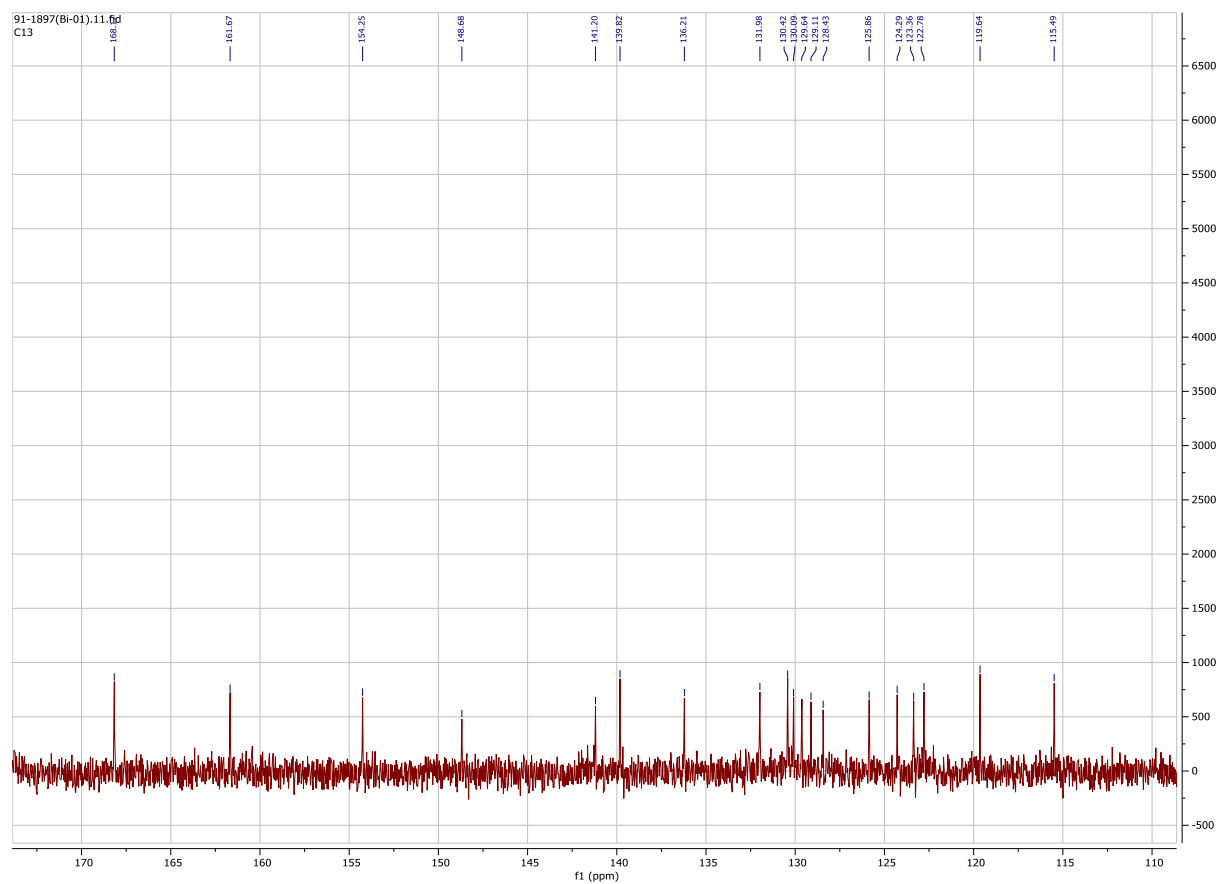
## Supplementary Materials

Figure 1. $^1\text{H}$ NMR of 2'-chloro-[2,3'-biquinoline]-4-carboxylic acid (4) .....	2
Figure 2. $^{13}\text{C}$ NMR of 2'-chloro-[2,3'-biquinoline]-4-carboxylic acid (4) .....	3
Figure 3. The $^1\text{H}$ NMR of 2'-chloro-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (7) .....	4
Figure 4. The $^{13}\text{C}$ NMR of 2'-chloro-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (7) .....	5
Figure 5. $^1\text{H}$ NMR of 2'-methoxy-8'-methyl-[2,3'-biquinoline]-4-carboxylic acid (9) .....	6
Figure 6. $^{13}\text{C}$ NMR of 2'-methoxy-8'-methyl-[2,3'-biquinoline]-4-carboxylic acid (9) .....	7
Figure 7. $^1\text{H}$ NMR of 2'-methoxy-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (10) .....	8
Figure 8. $^{13}\text{C}$ NMR of 2'-methoxy-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (10) .....	9
Figure 9. The $^1\text{H}$ NMR of 2-phenylquinoline-4-carboxylic acid (12) .....	10
Figure 10. The $^{13}\text{C}$ NMR of 2-phenylquinoline-4-carboxylic acid (12) .....	11
Figure 11. The $^1\text{H}$ NMR spectroscopic of 2-(o-tolylimino)propanoic acid (15) .....	12
Figure 12. The NMR spectroscopic of 2-(o-tolylimino)propanoic acid (15) .....	14
Figure 13. $^1\text{H}$ NMR of 2-((2-hydroxyethyl)amino)quinoline-3-carbaldehyde (17) .....	15
Figure 14. $^{13}\text{C}$ NMR of 2-((2-hydroxyethyl)amino)quinoline-3-carbaldehyde (17) .....	16
Figure 15. $^1\text{H}$ NMR of 3-chloro-3-(2-chloro-6-iodoquinolin-3-yl)acrylaldehyde (20) .....	17
Figure 16. $^{13}\text{C}$ NMR of 3-chloro-3-(2-chloro-6-iodoquinolin-3-yl)acrylaldehyde (20) .....	19
Figure 17. $^1\text{H}$ NMR of N-(((4-iodophenyl)amino)methylene)-N-methylmethanaminium (21) ...	20
Figure 18. $^{13}\text{C}$ NMR of N-(((4-iodophenyl)amino)methylene)-N-methylmethanaminium (21) ..	21

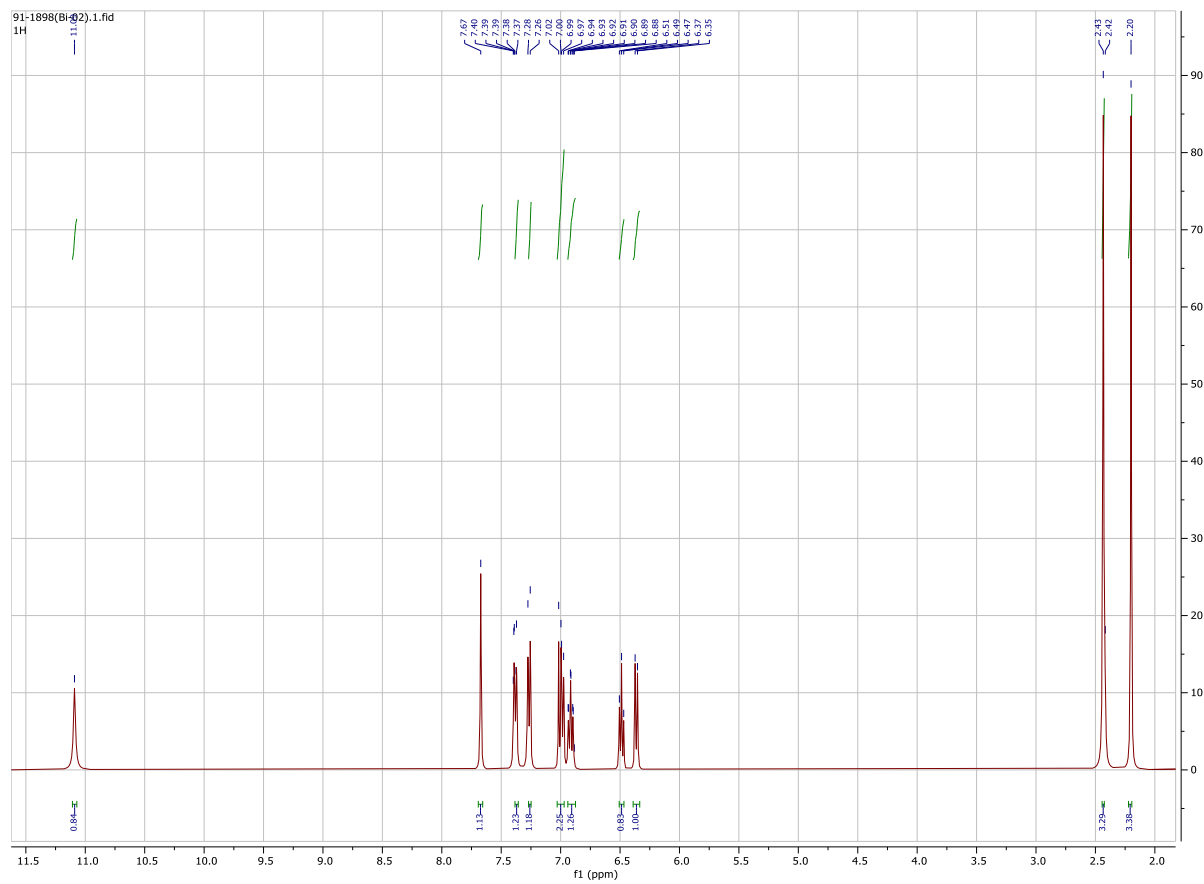
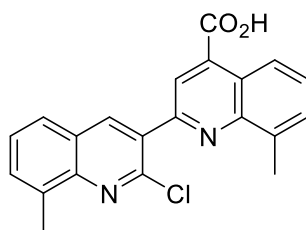
**Figure 1.**  $^1\text{H}$  NMR of 2'-chloro-[2,3'-biquinoline]-4-carboxylic acid (**4**)



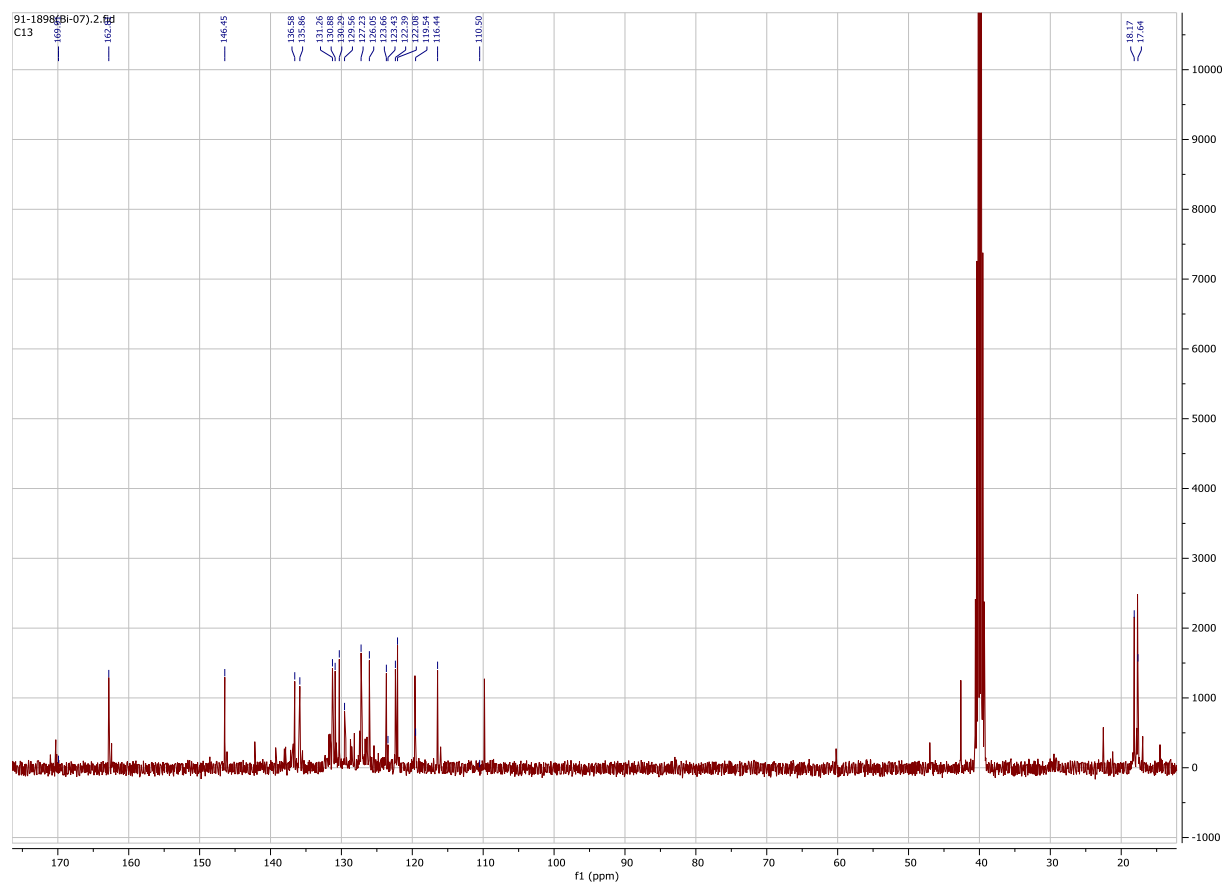
**Figure 2.**  $^{13}\text{C}$  NMR of 2'-chloro-[2,3'-biquinoline]-4-carboxylic acid (**4**)



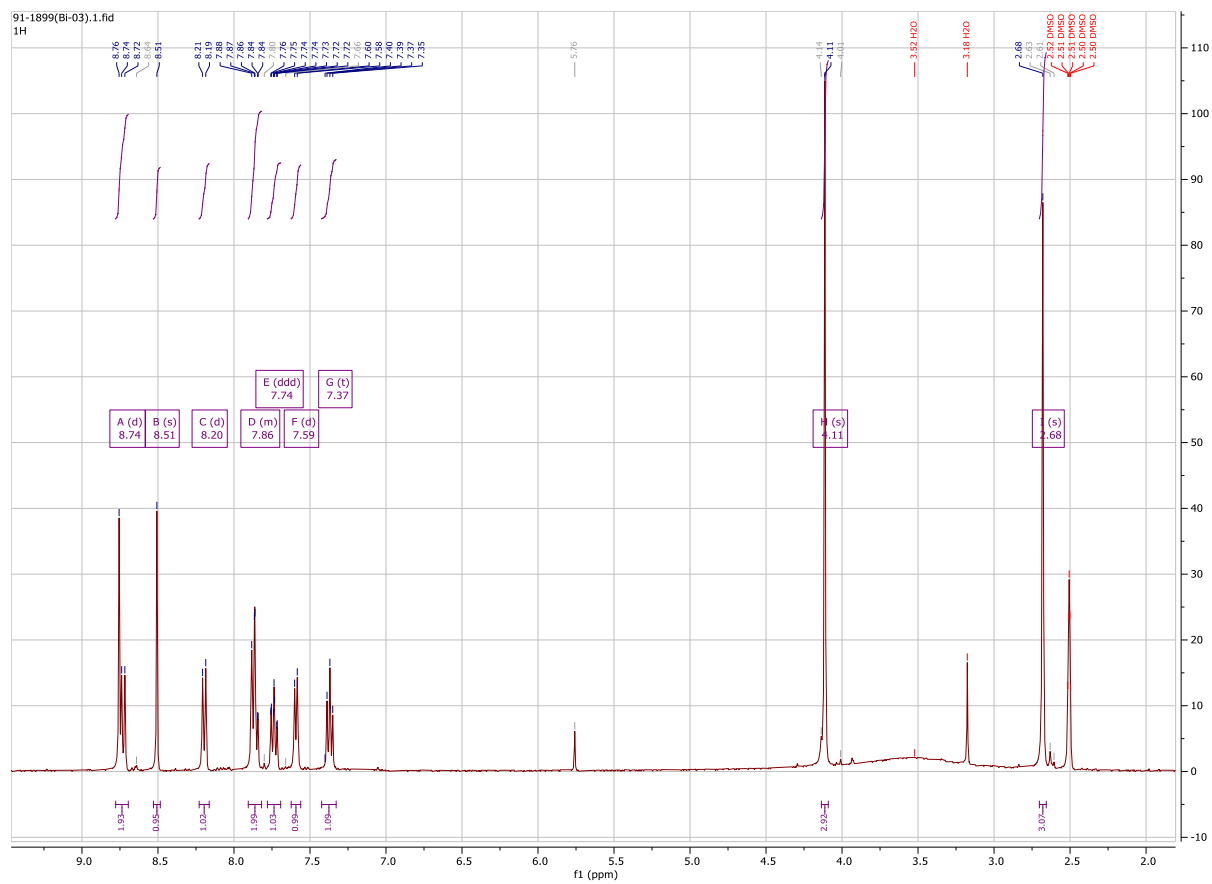
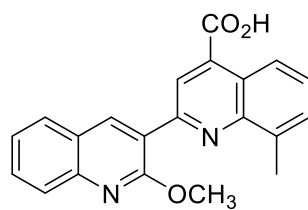
**Figure 3.** The  $^1\text{H}$  NMR of 2'-chloro-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (**7**)



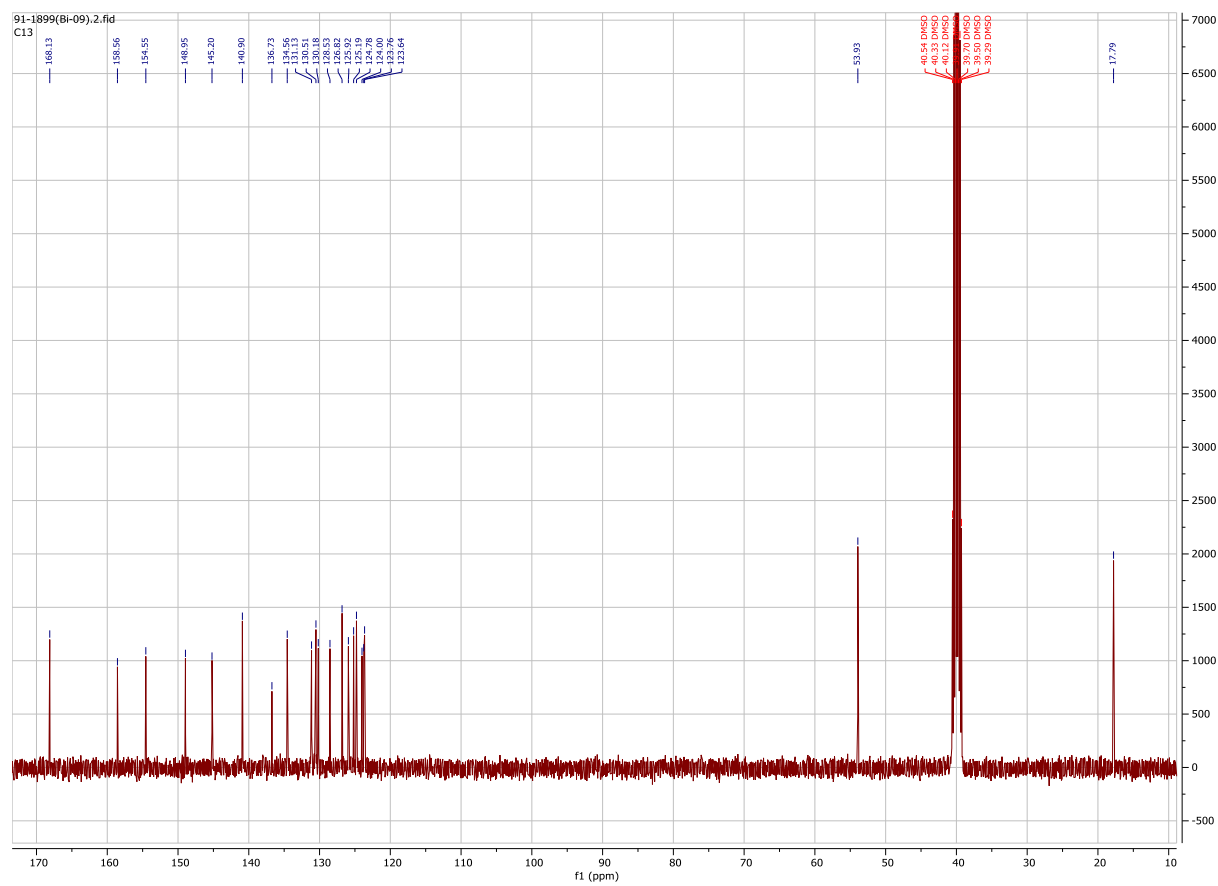
**Figure 4.** The  $^{13}\text{C}$  NMR of 2'-chloro-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (7)



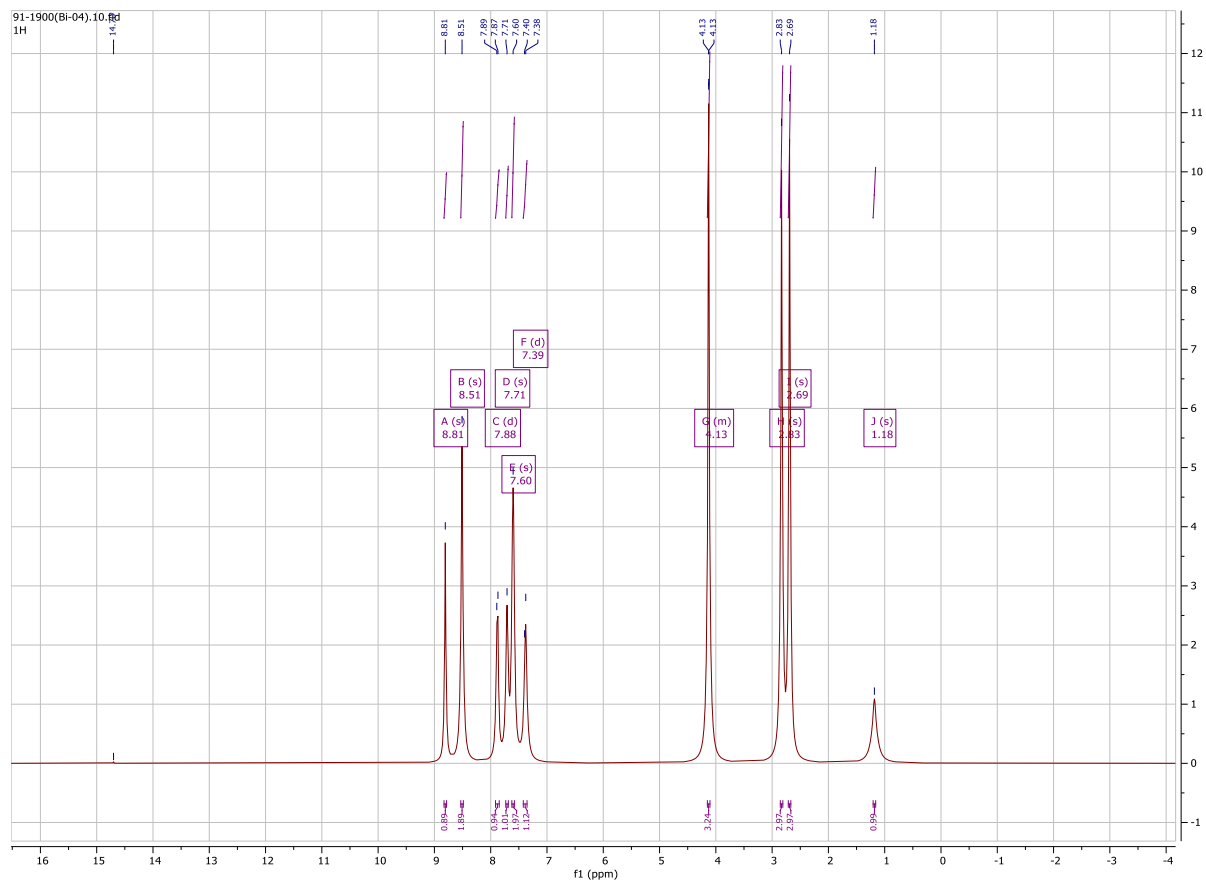
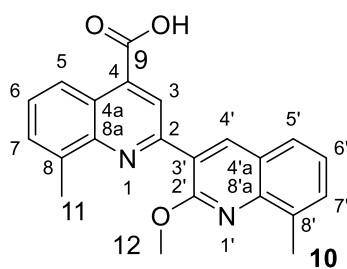
**Figure 5.**  $^1\text{H}$  NMR of 2'-methoxy-8'-methyl-[2,3'-biquinoline]-4-carboxylic acid (9)



**Figure 6.**  $^{13}\text{C}$  NMR of 2'-methoxy-8'-methyl-[2,3'-biquinoline]-4-carboxylic acid (**9**)

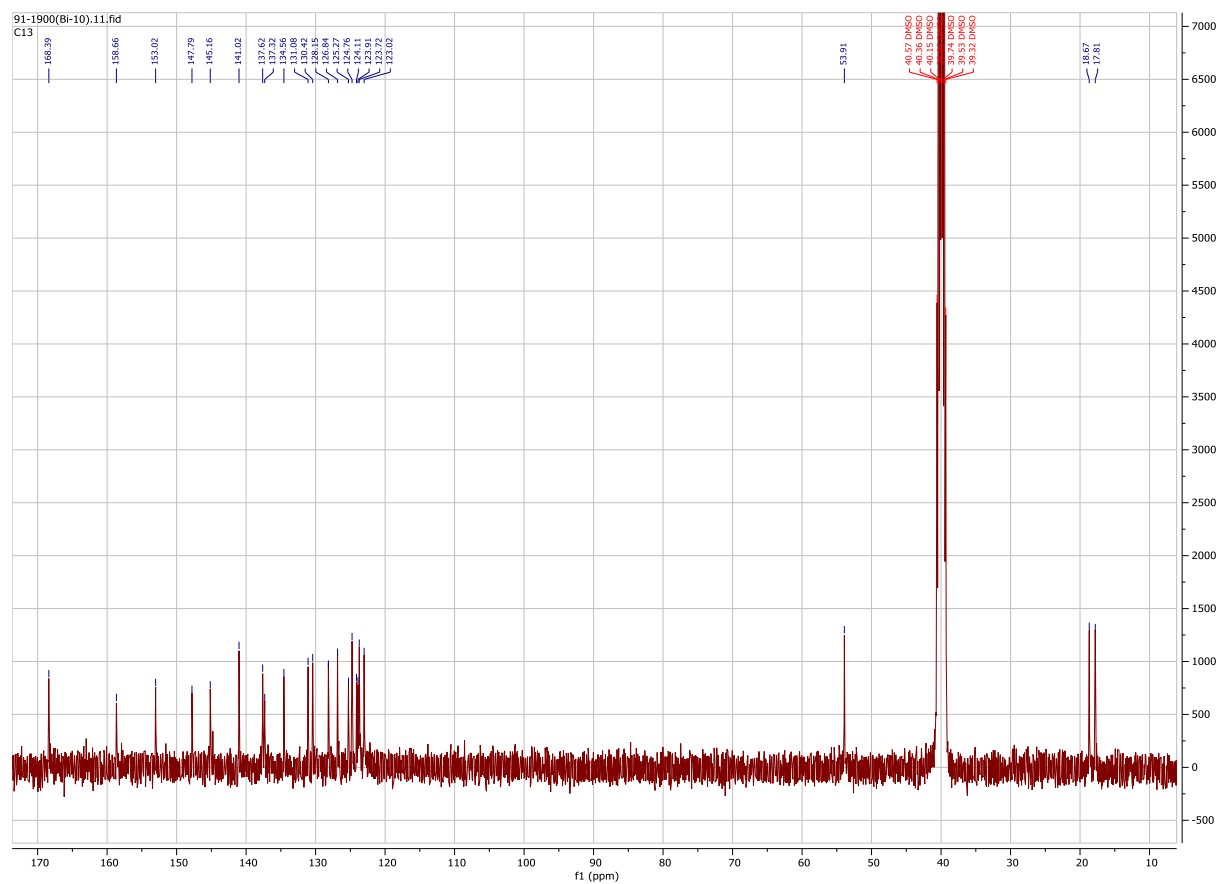


**Figure 7.**  $^1\text{H}$  NMR of 2'-methoxy-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (**10**)

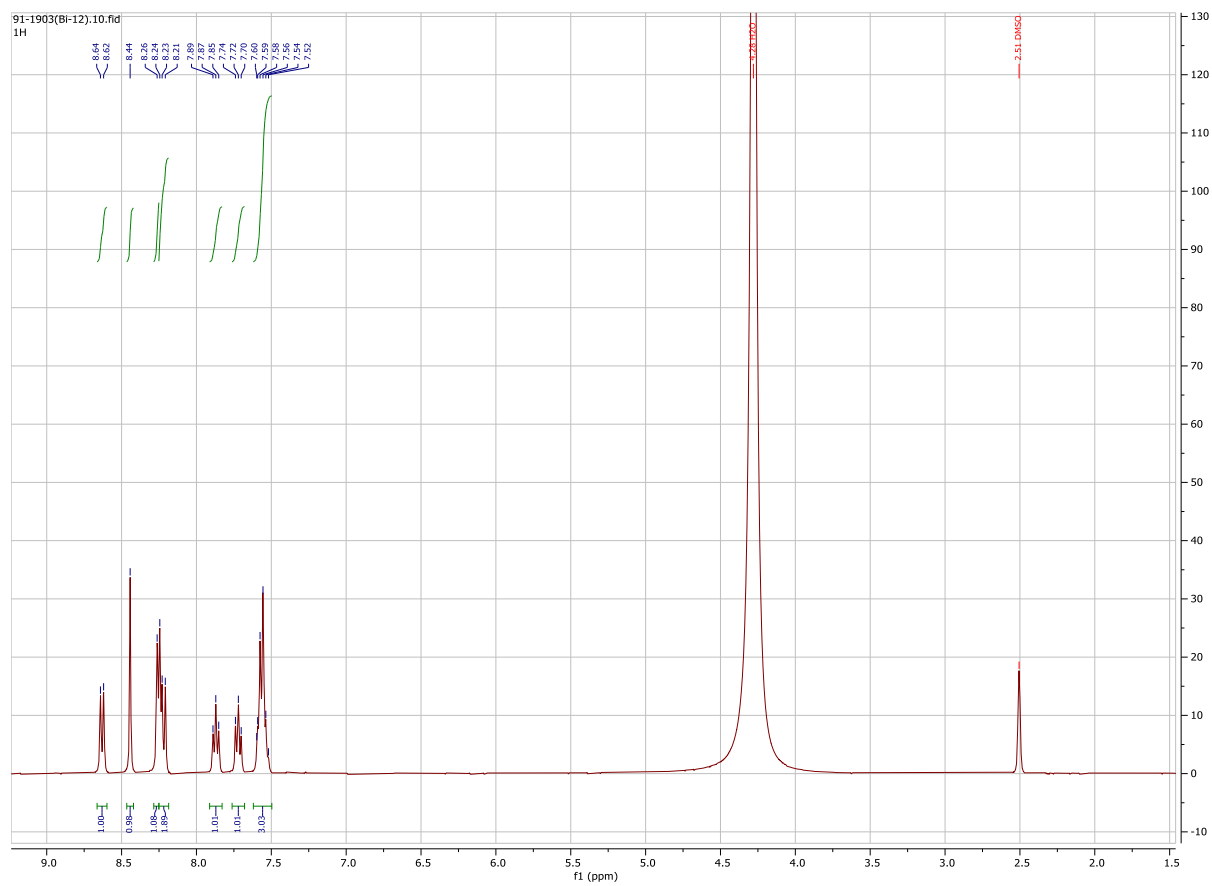
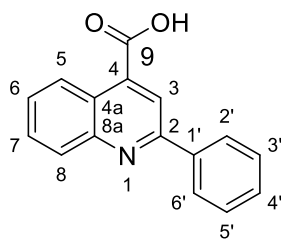




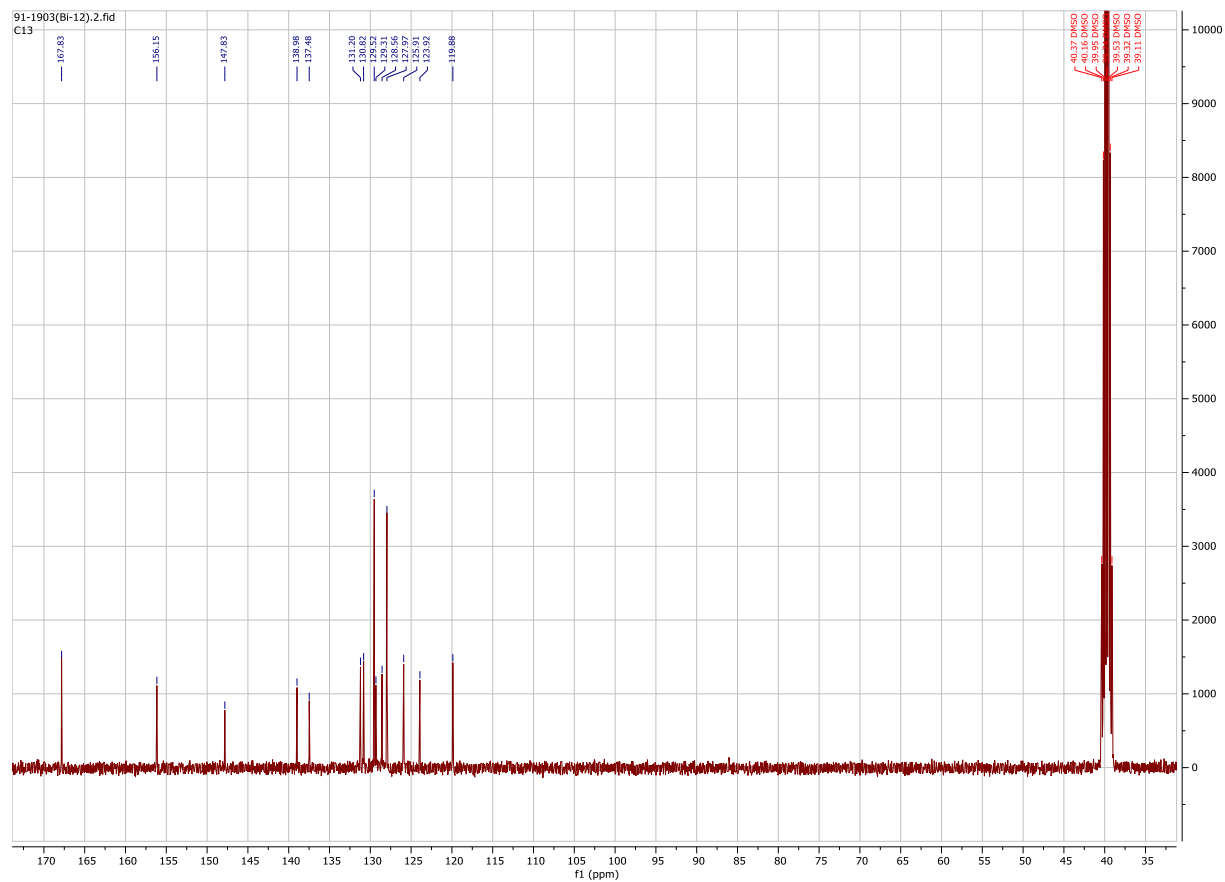
**Figure 8.**  $^{13}\text{C}$  NMR of 2'-methoxy-8,8'-dimethyl-[2,3'-biquinoline]-4-carboxylic acid (**10**)



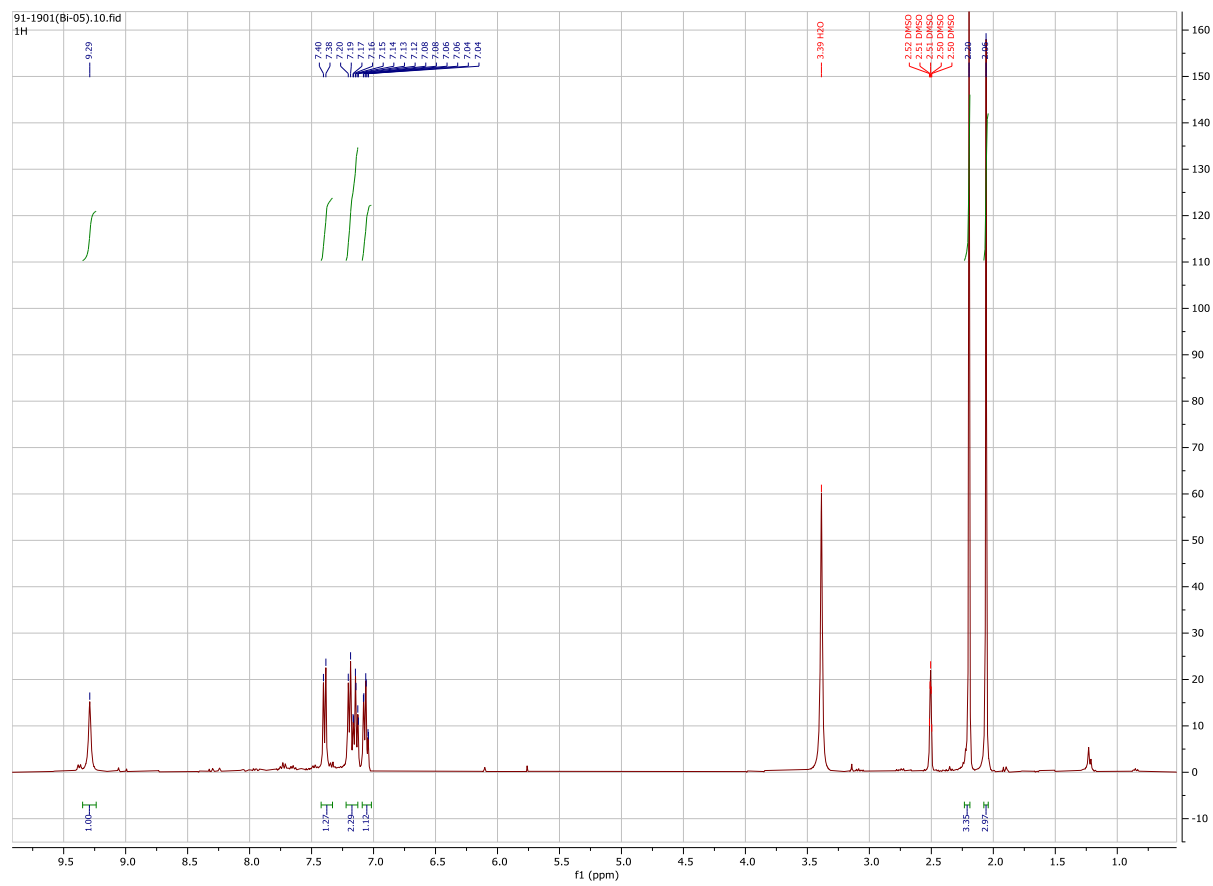
**Figure 9.** The  $^1\text{H}$  NMR of 2-phenylquinoline-4-carboxylic acid (**12**)

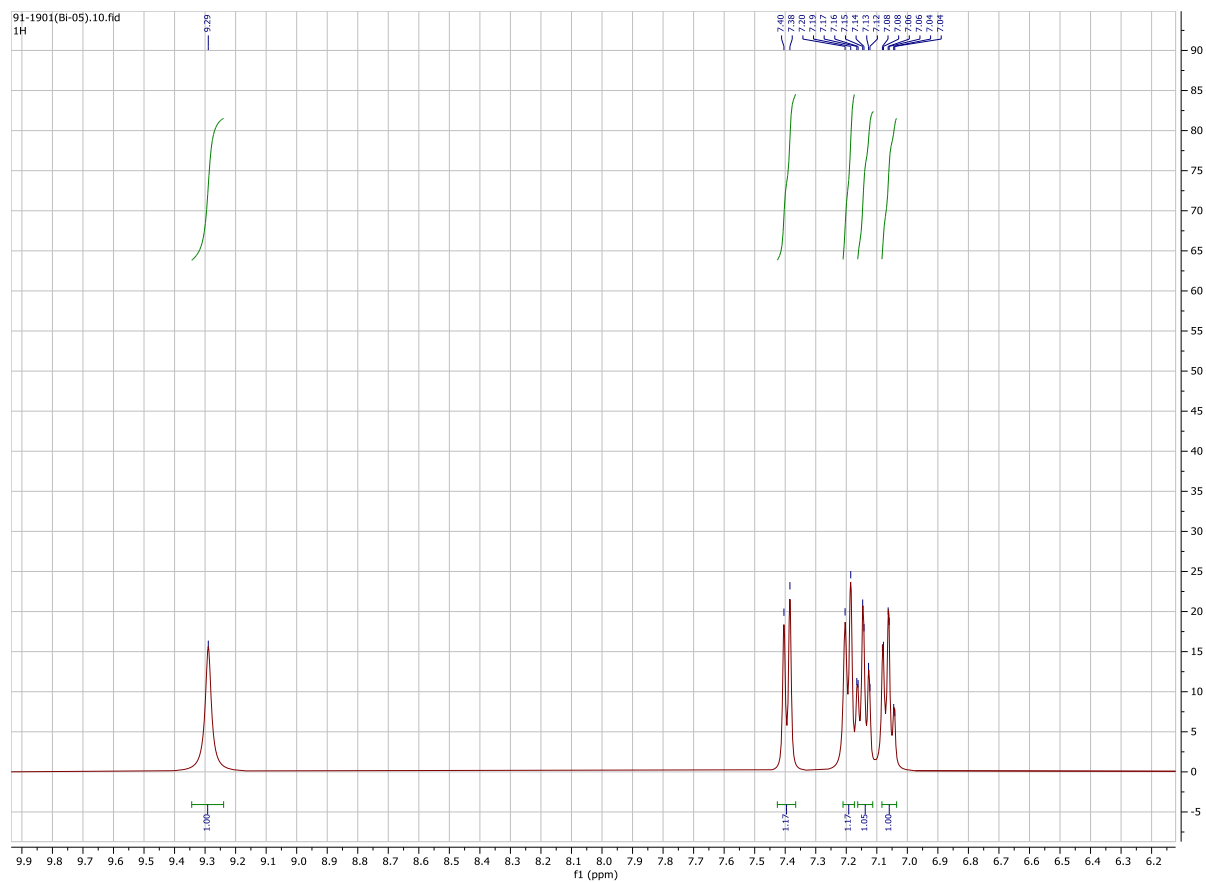


**Figure 10.** The  $^{13}\text{C}$  NMR of 2-phenylquinoline-4-carboxylic acid (**12**)

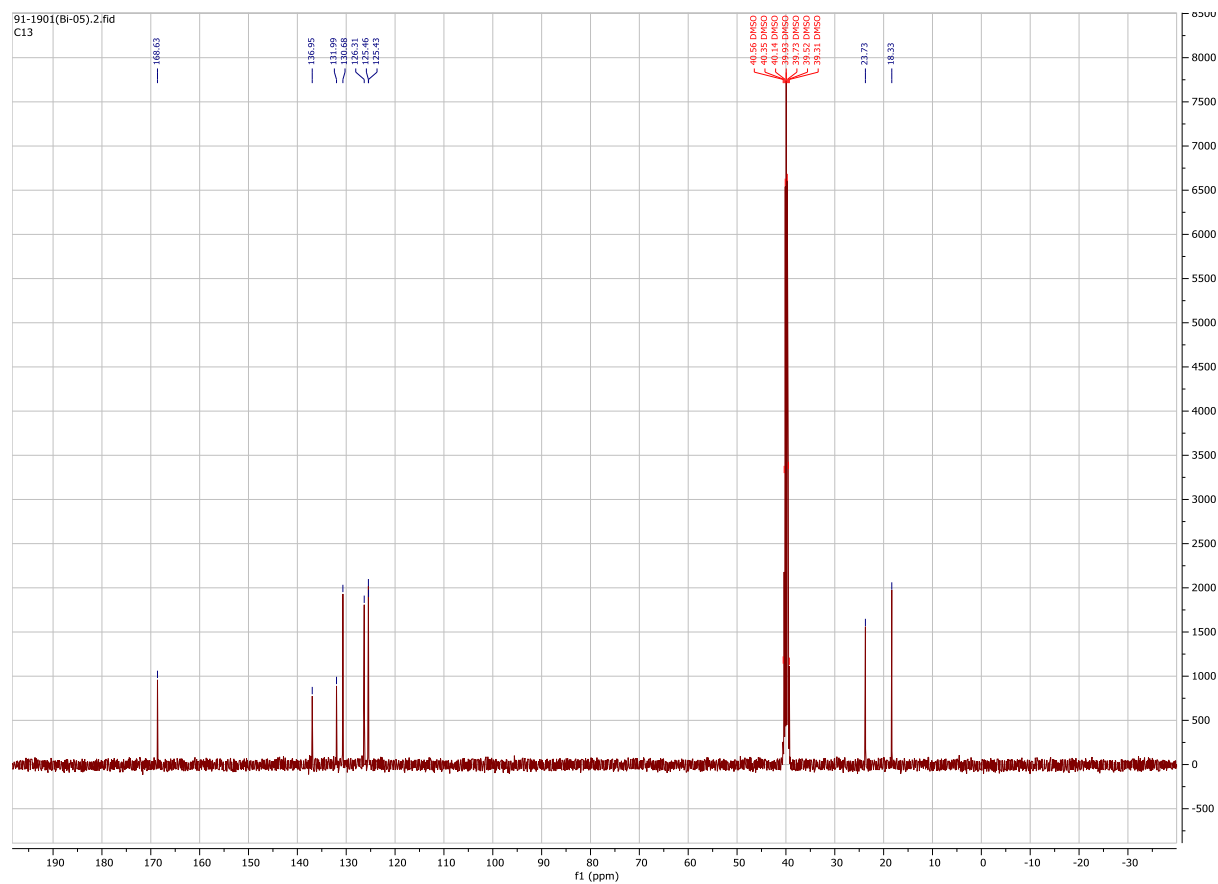


**Figure 11.** The  $^1\text{H}$  NMR spectroscopic of 2-(o-tolylimino)propanoic acid (**15**)

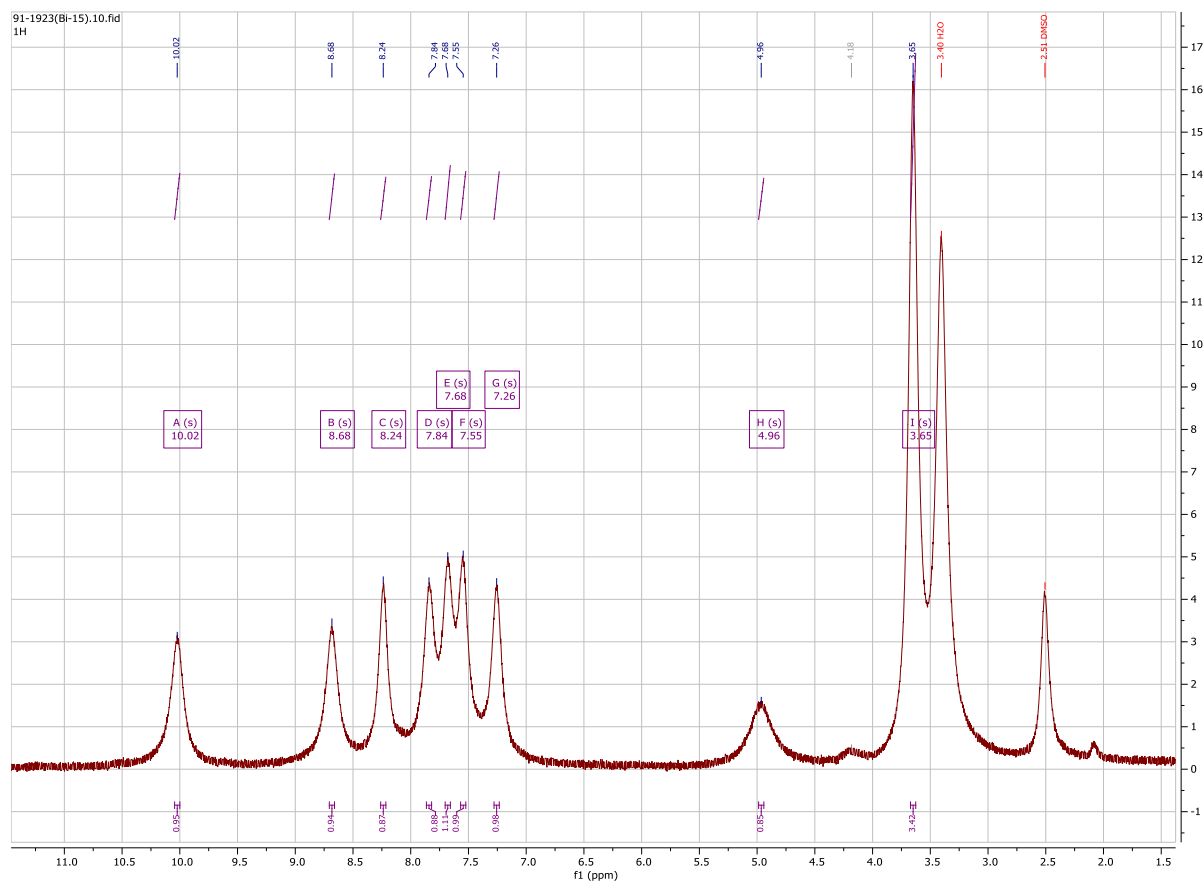
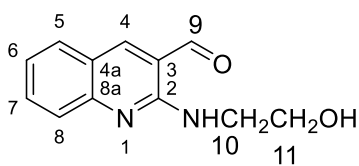




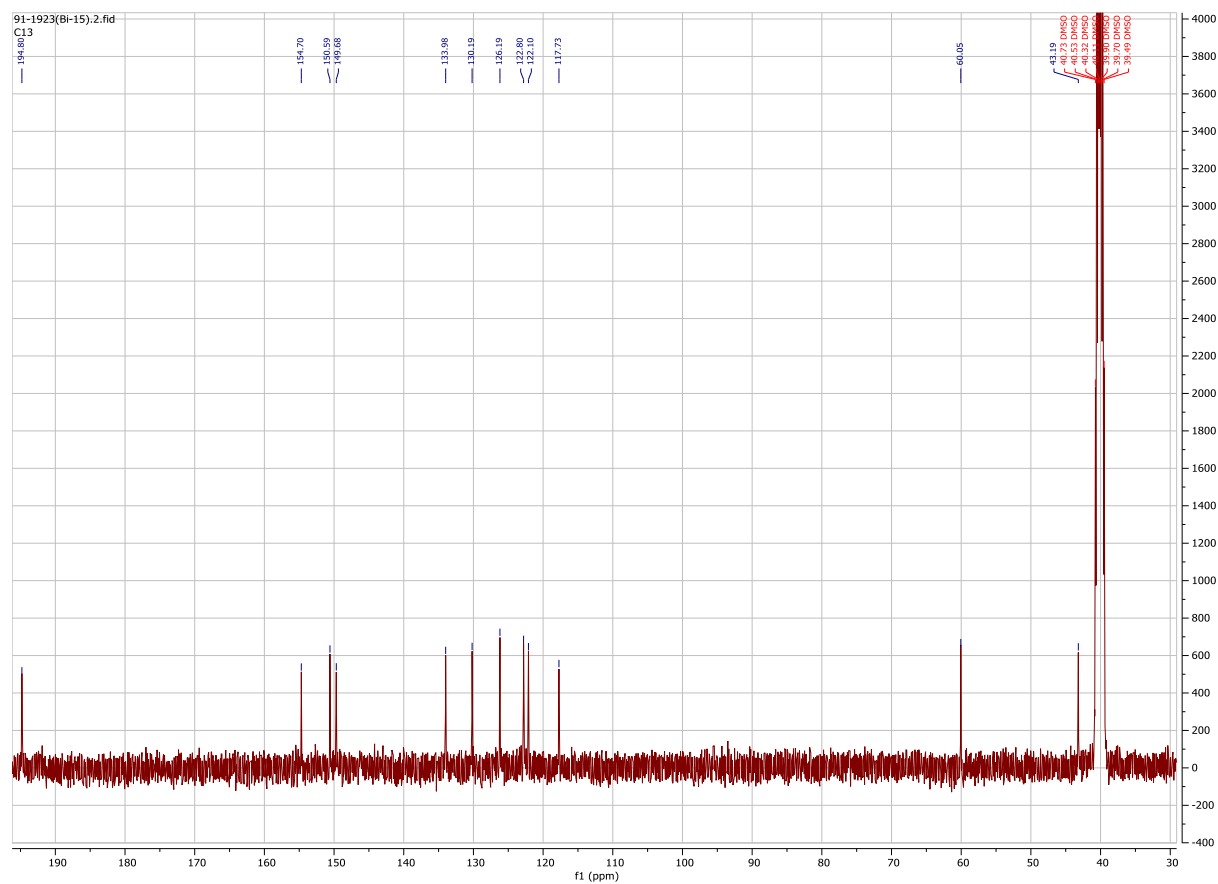
**Figure 12.** The NMR spectroscopic of 2-(o-tolylimino)propanoic acid (**15**)



**Figure 13.**  $^1\text{H}$  NMR of 2-((2-hydroxyethyl)amino)quinoline-3-carbaldehyde (**17**)

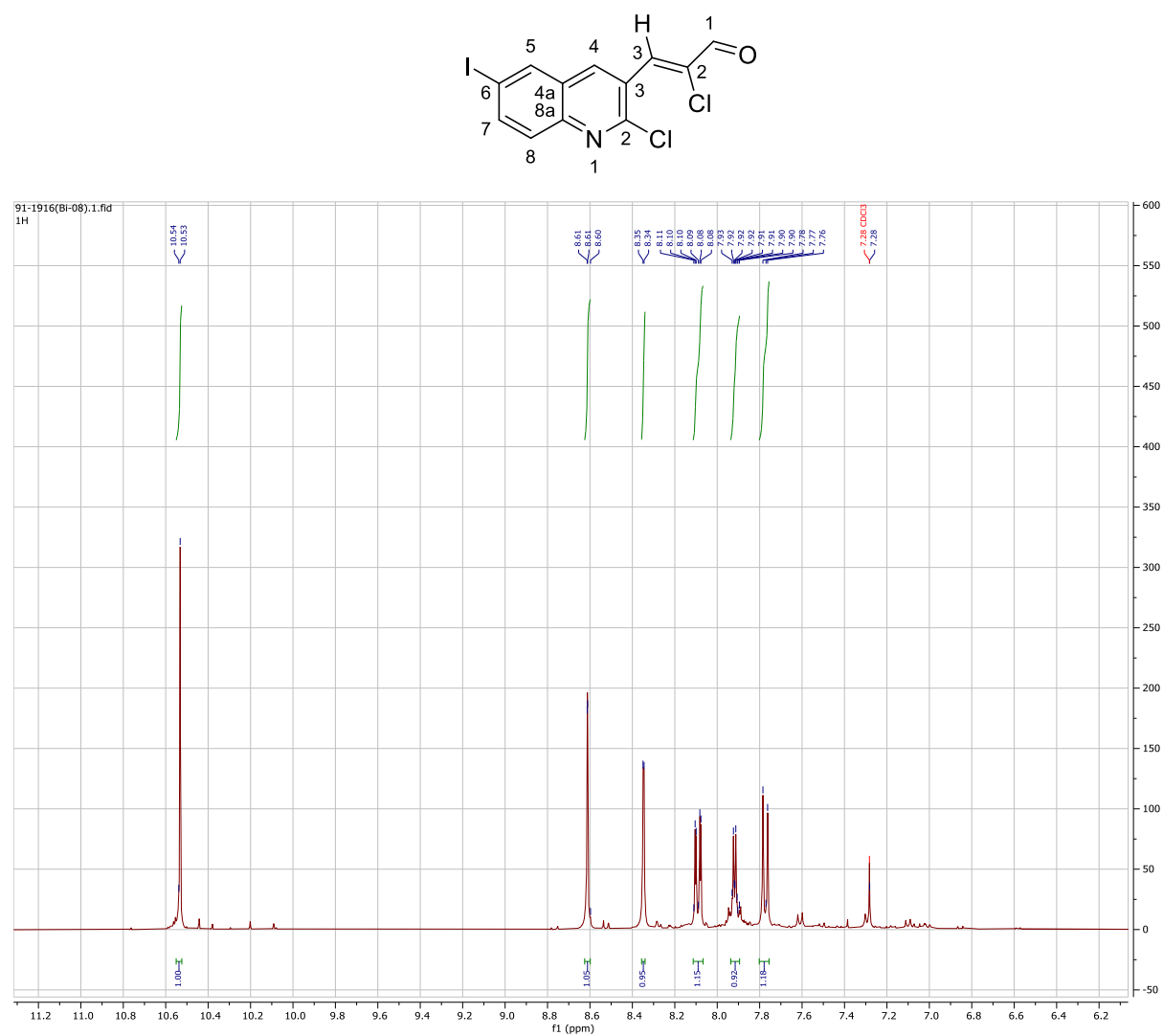


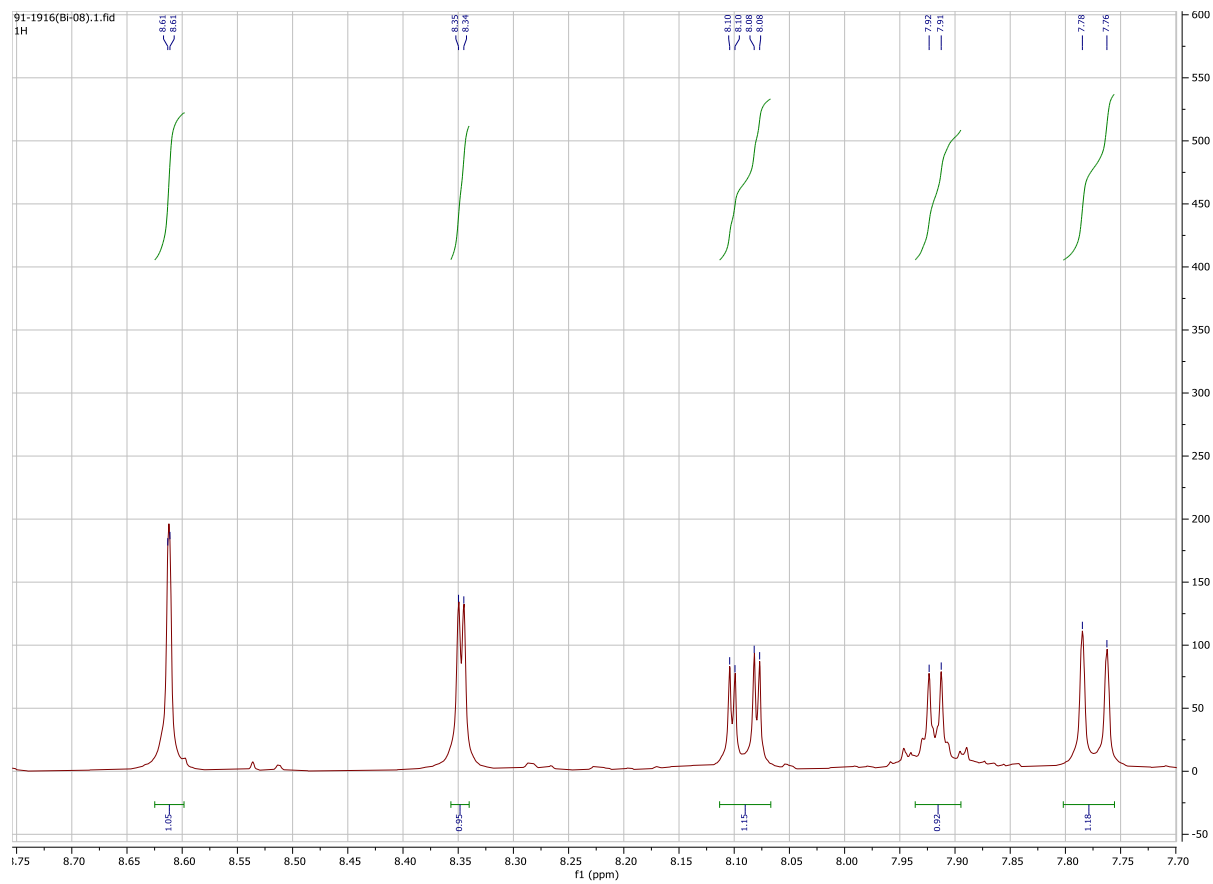
**Figure 14.**  $^{13}\text{C}$  NMR of 2-((2-hydroxyethyl)amino)quinoline-3-carbaldehyde (**17**)



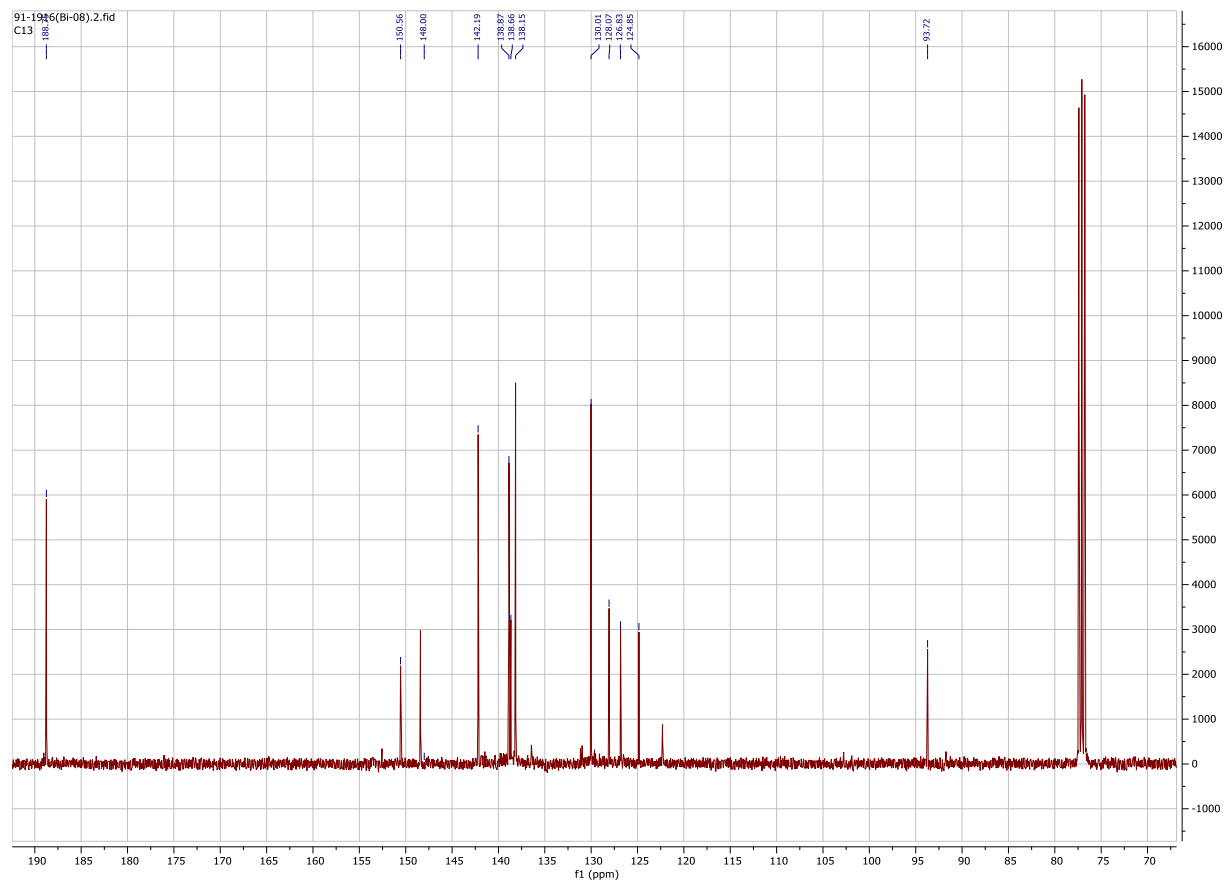


**Figure 15.**  $^1\text{H}$  NMR of 3-chloro-3-(2-chloro-6-iodoquinolin-3-yl)acrylaldehyde (**20**)

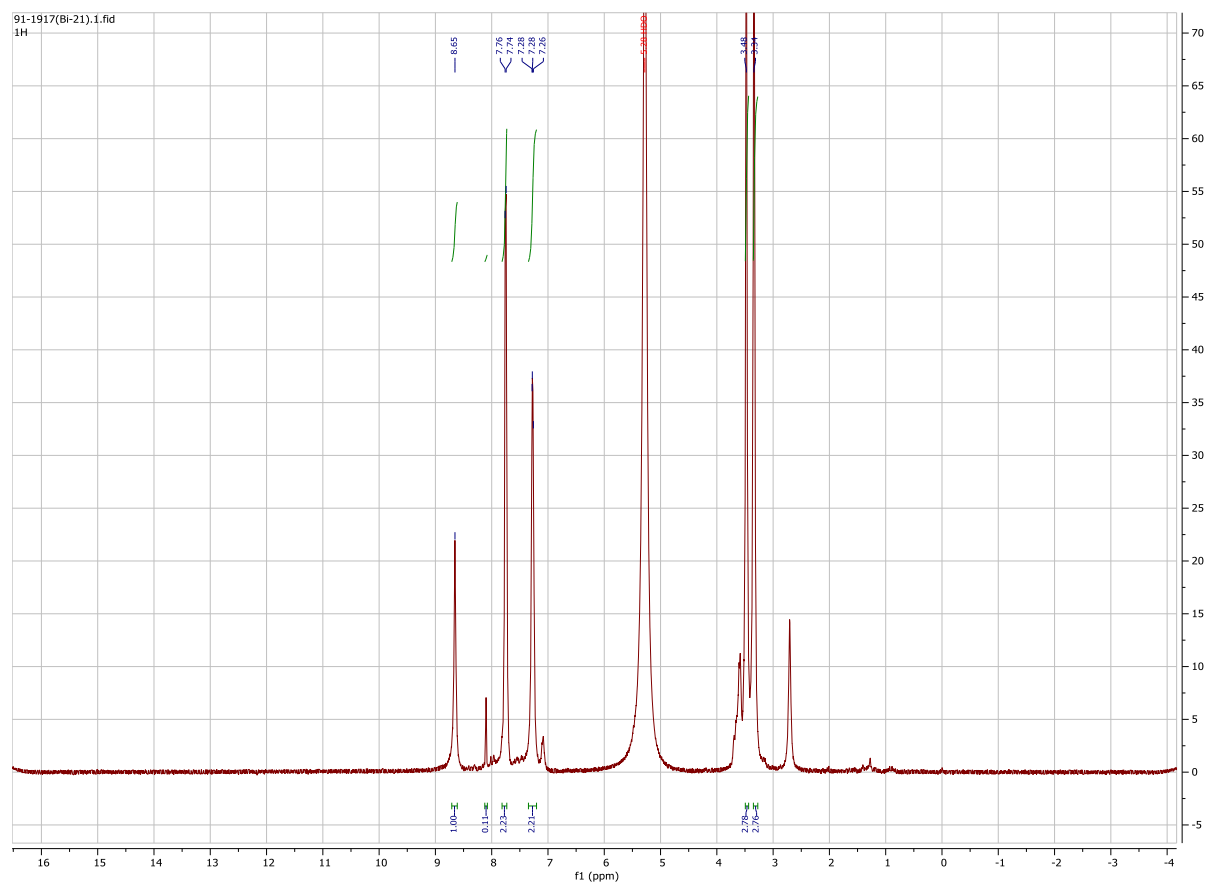




**Figure 16.**  $^{13}\text{C}$  NMR of 3-chloro-3-(2-chloro-6-iodoquinolin-3-yl)acrylaldehyde (**20**)



**Figure 17.**  $^1\text{H}$  NMR of N-(((4-iodophenyl)amino)methylene)-N-methylmethanaminium (**21**)



**Figure 18.**  $^{13}\text{C}$  NMR of N-(((4-iodophenyl)amino)methylene)-N-methylmethanaminium (**21**)

