

## REFERENCES

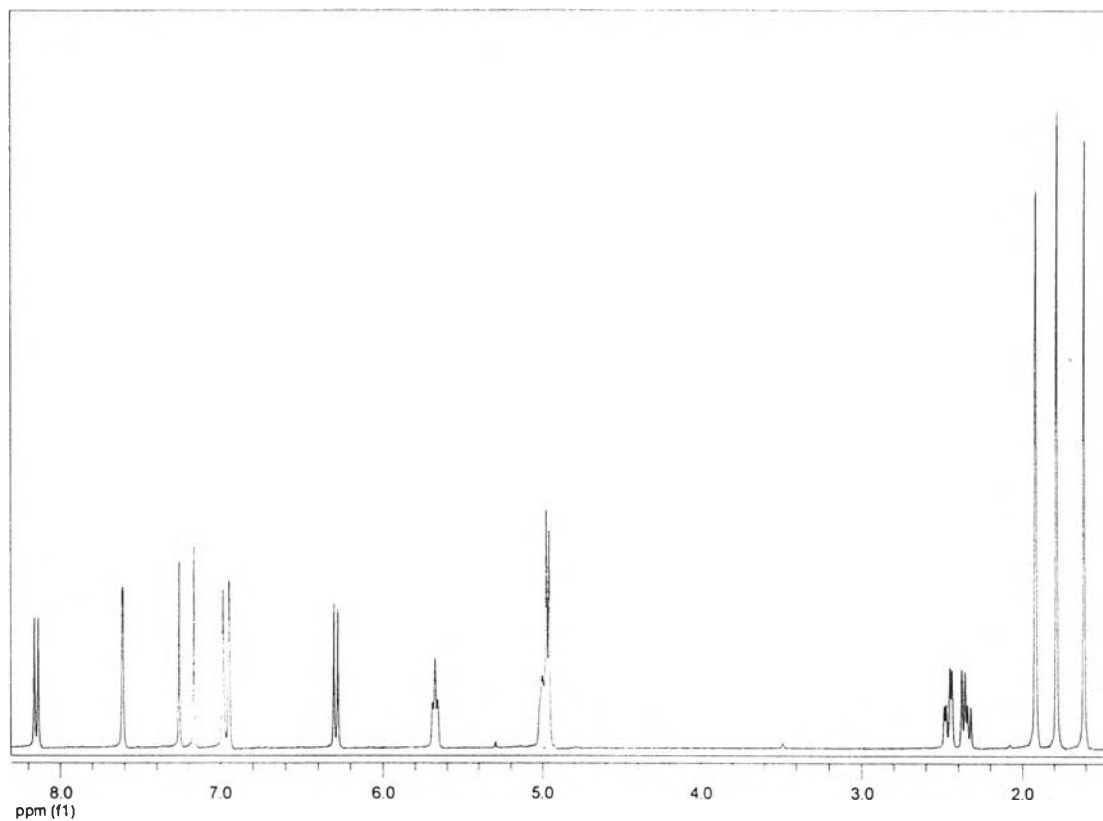
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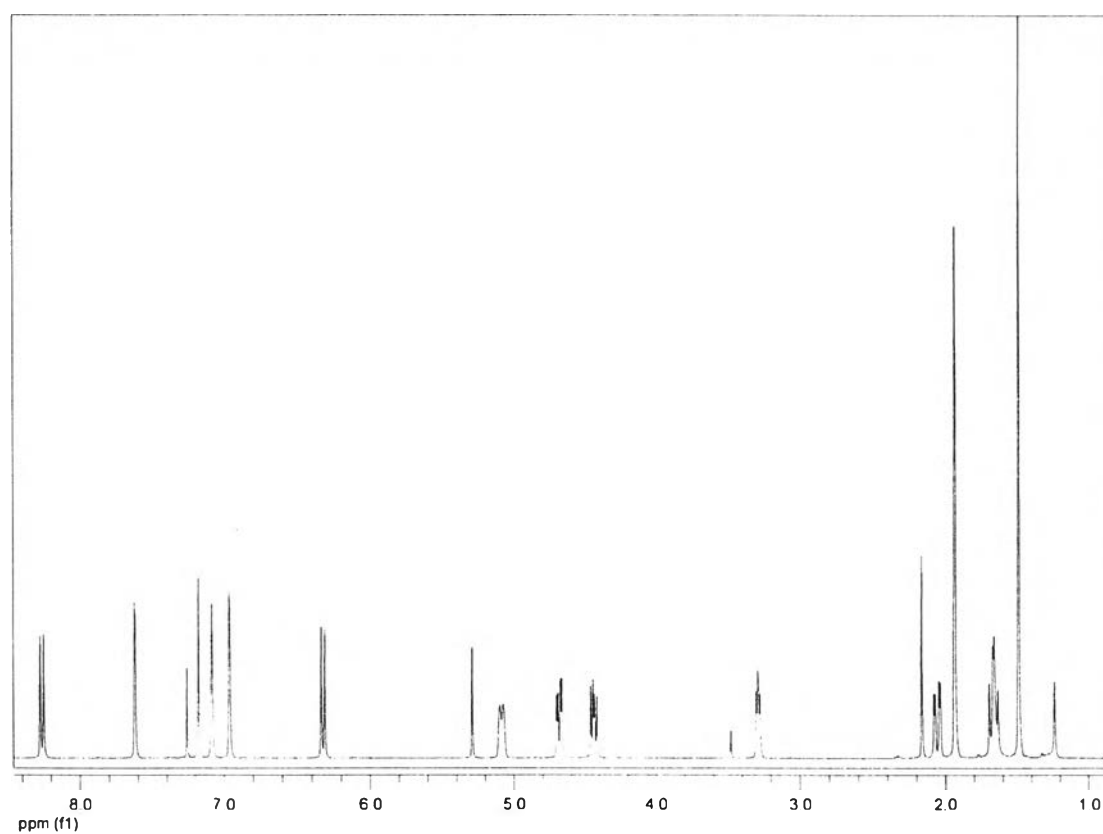
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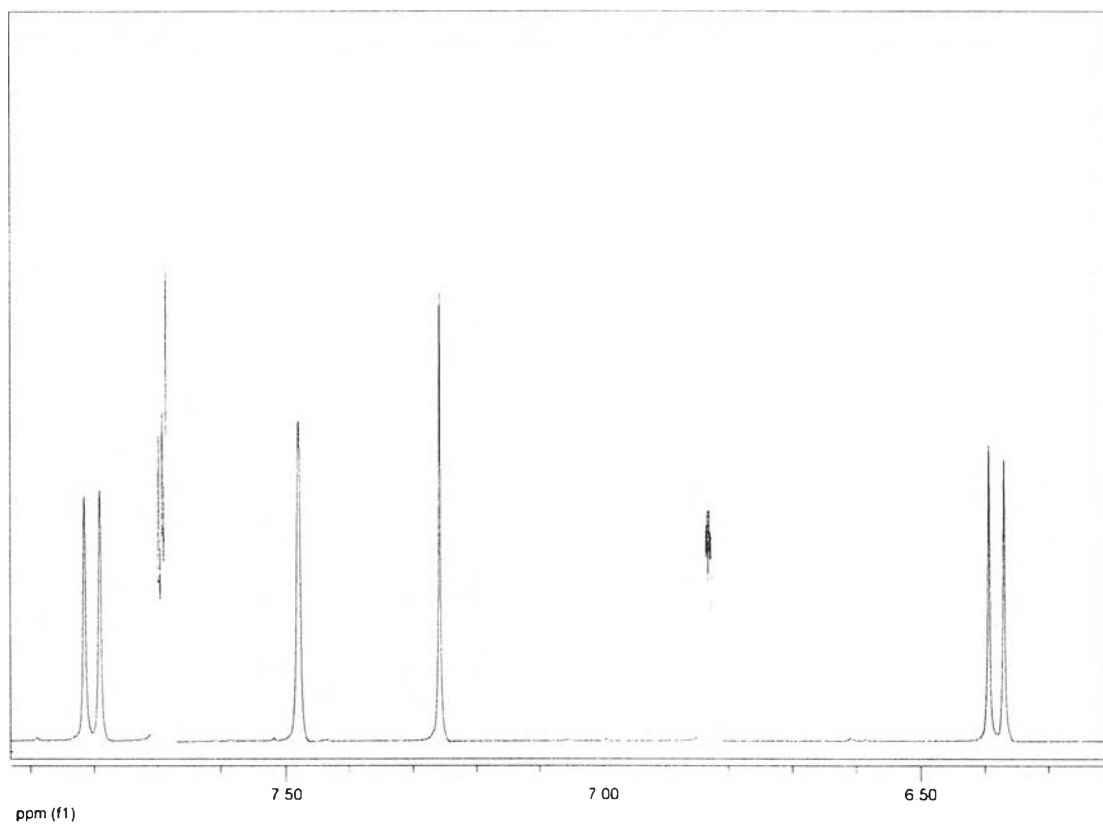
## **APPENDICES**



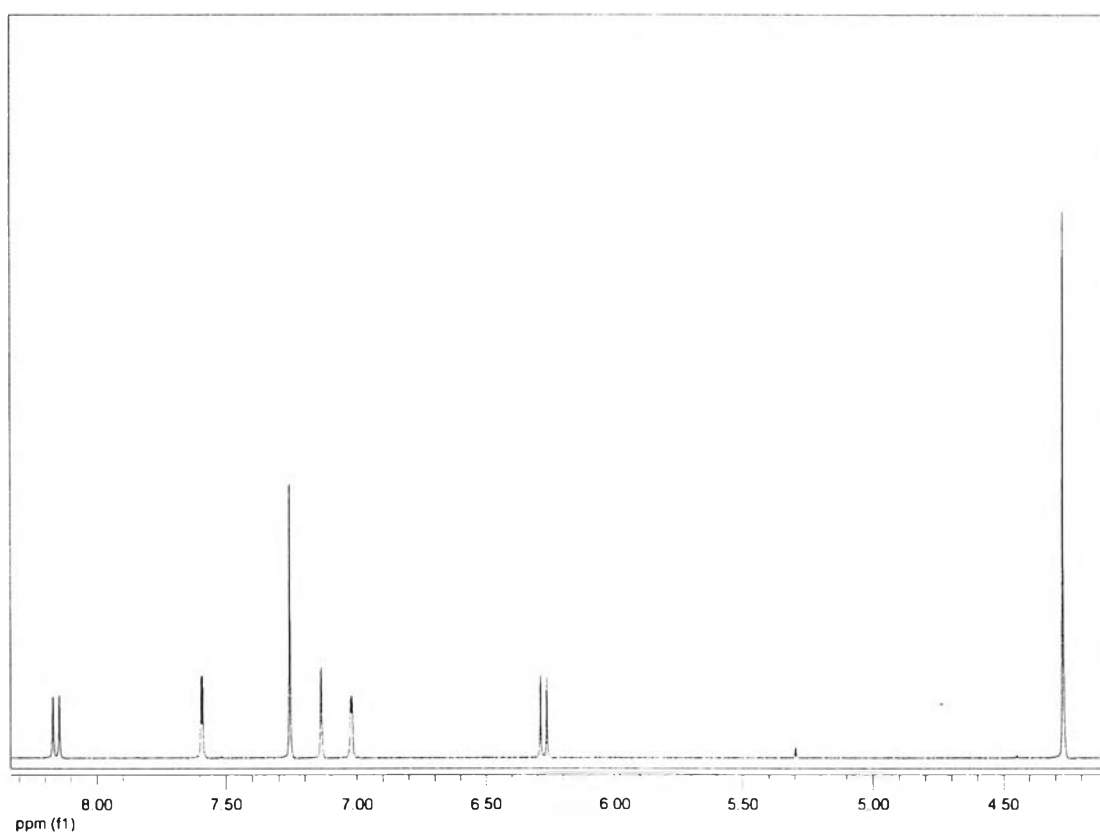
**Figure 1** The  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ ) spectrum of anisolactone (1)



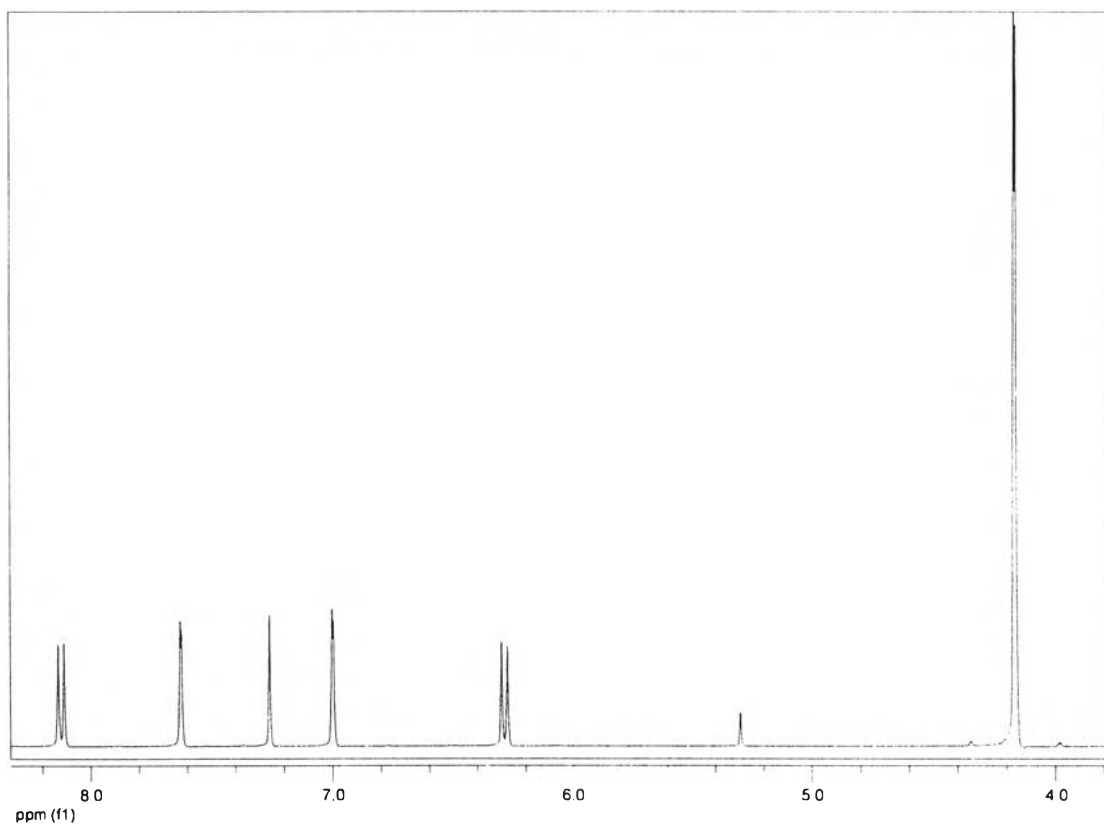
**Figure 2** The  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ ) spectrum of 2'', 3''-epoxyanisylactone (2)



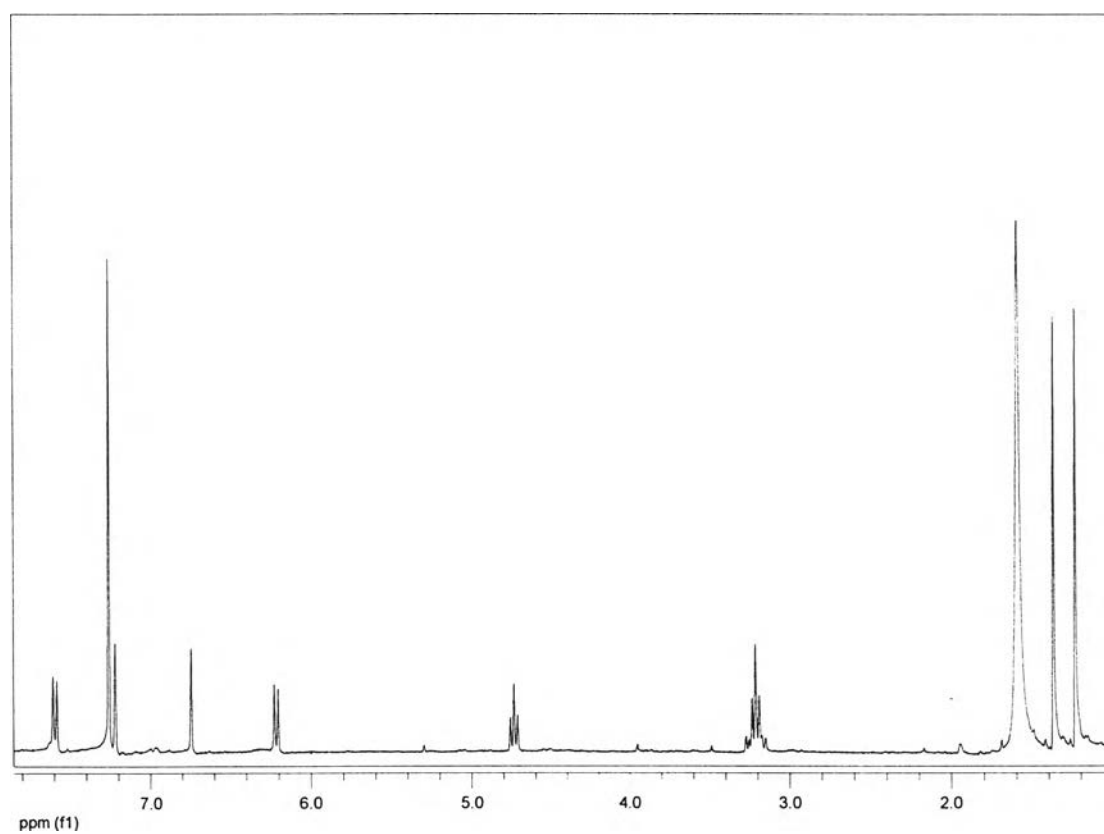
**Figure 3** The <sup>1</sup>H-NMR (CDCl<sub>3</sub>) spectrum of psoralen (3)



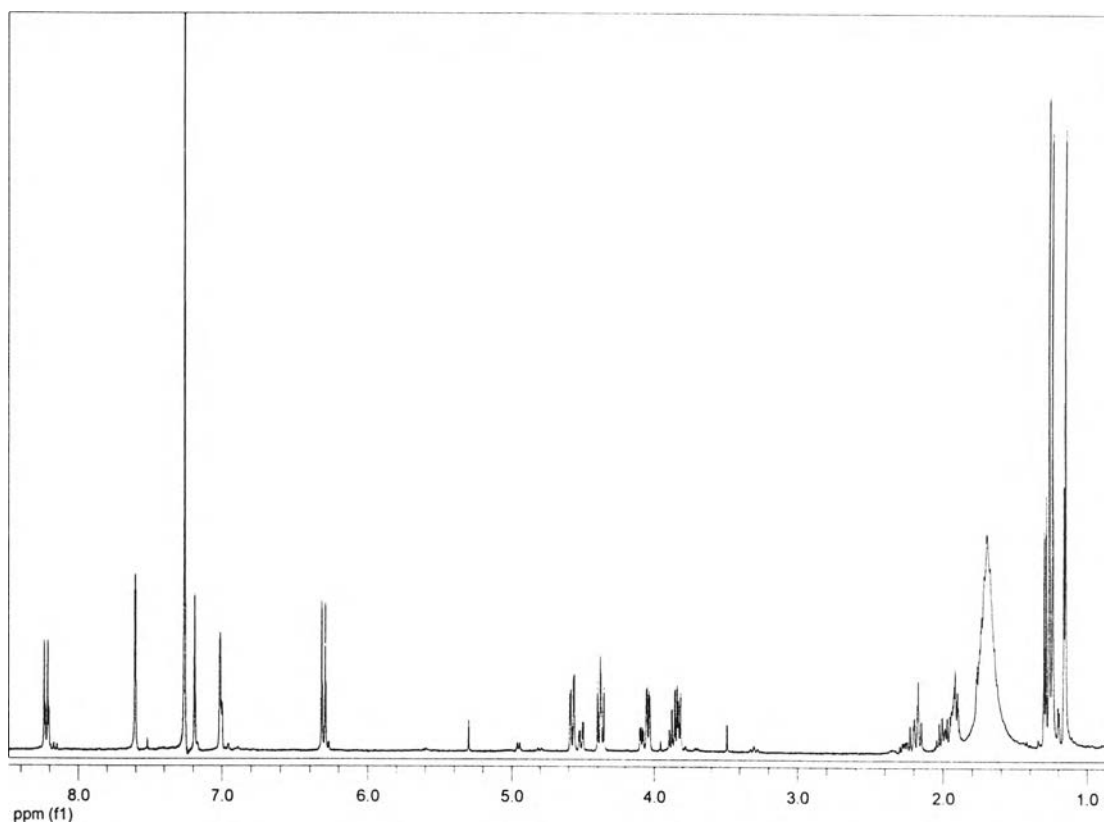
**Figure 4** The <sup>1</sup>H-NMR (CDCl<sub>3</sub>) spectrum of bergapten (4)



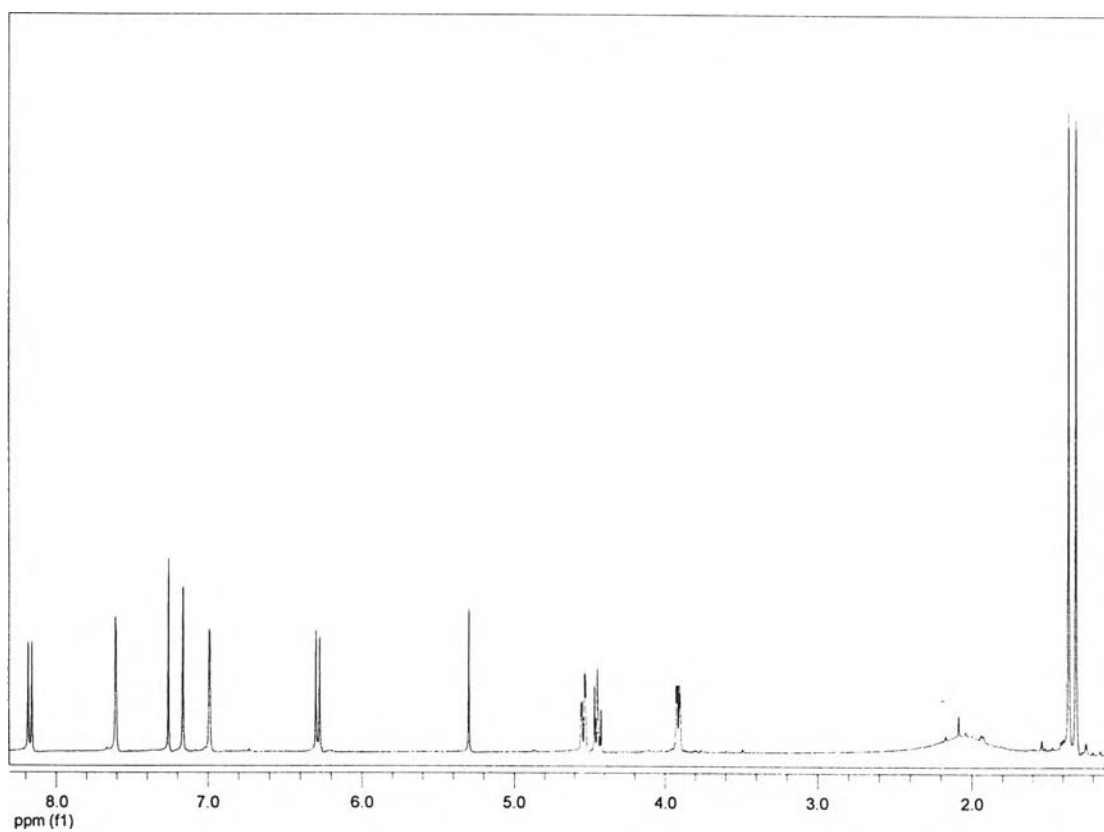
**Figure 5** The <sup>1</sup>H-NMR (CDCl<sub>3</sub>) spectrum of isopimpinellin (**5**)



**Figure 6** The <sup>1</sup>H-NMR (CDCl<sub>3</sub>) spectrum of marmesin (**6**)

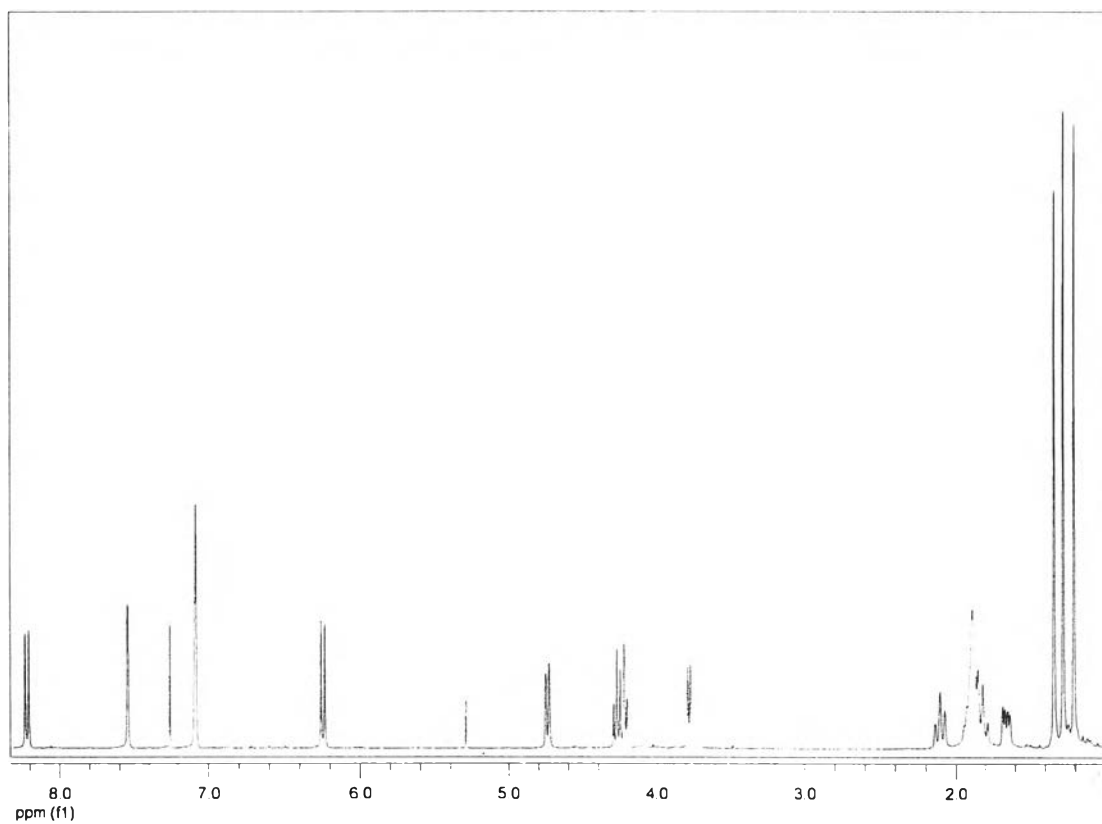


**Figure 7** The  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ ) spectrum of feroniellin A (7)

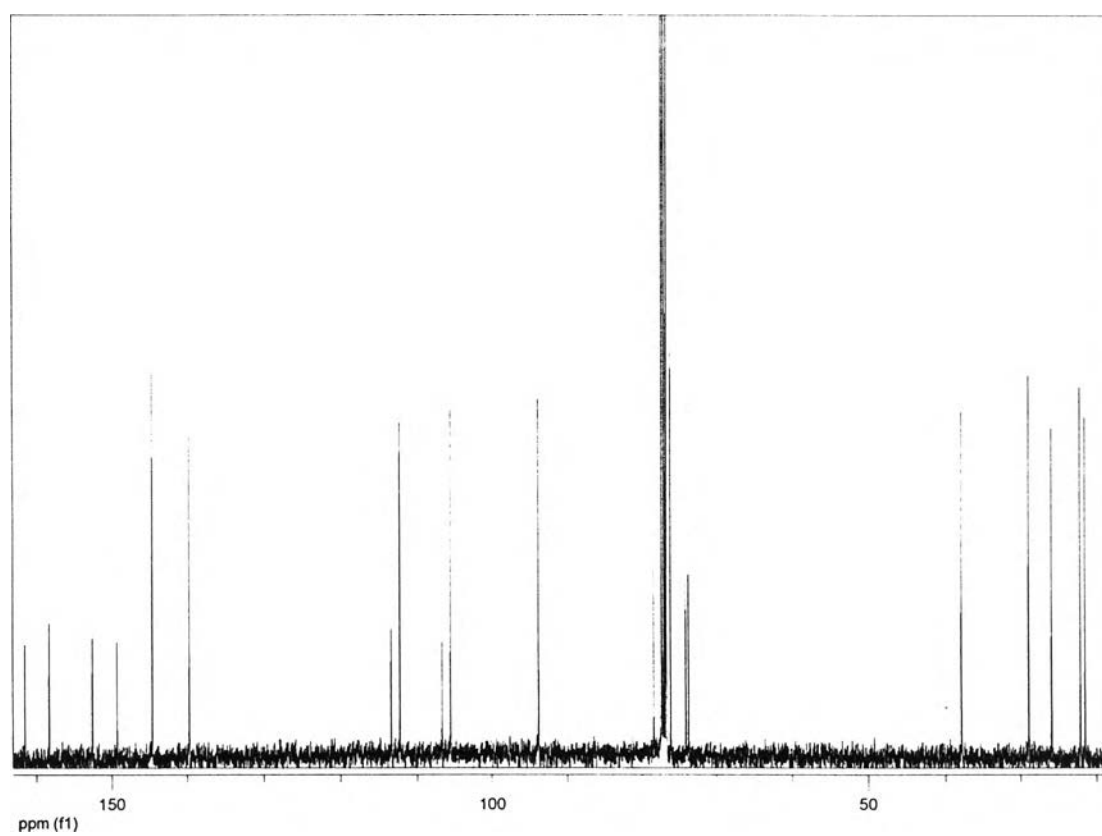


**Figure 8** The  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ ) spectrum of oxypeucedanin hydrate (8)

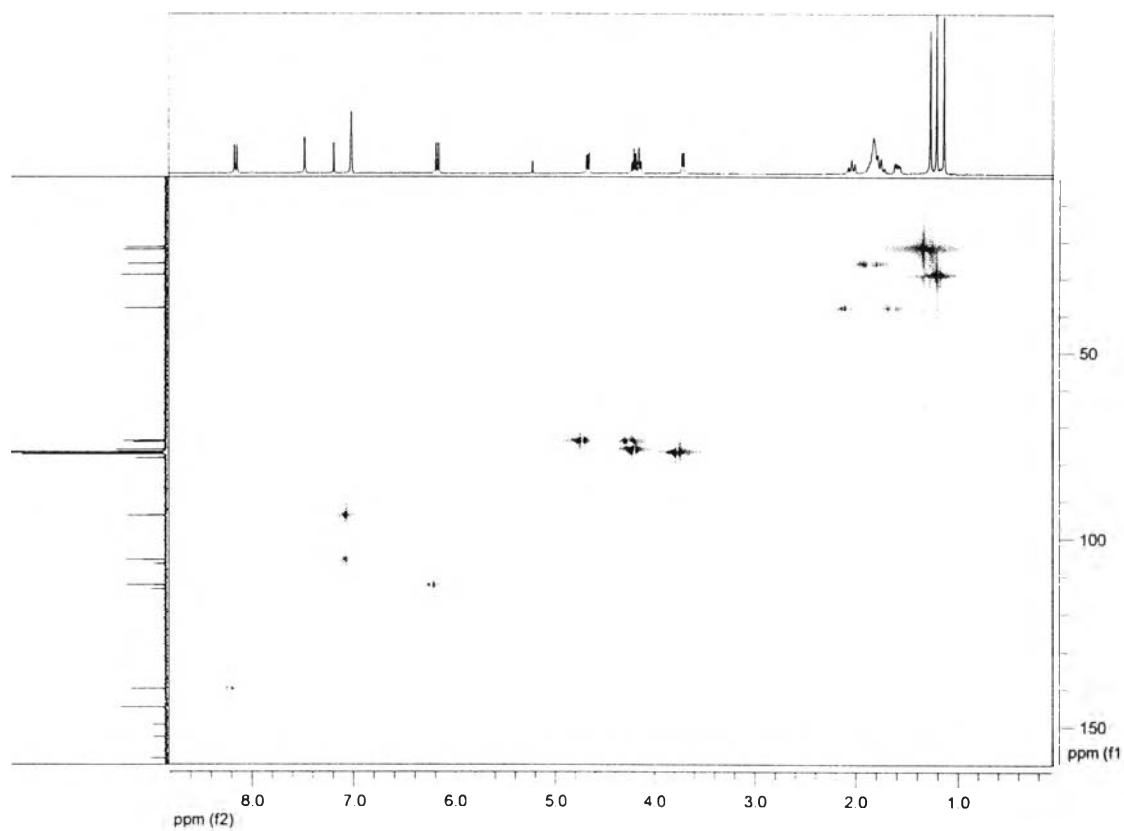




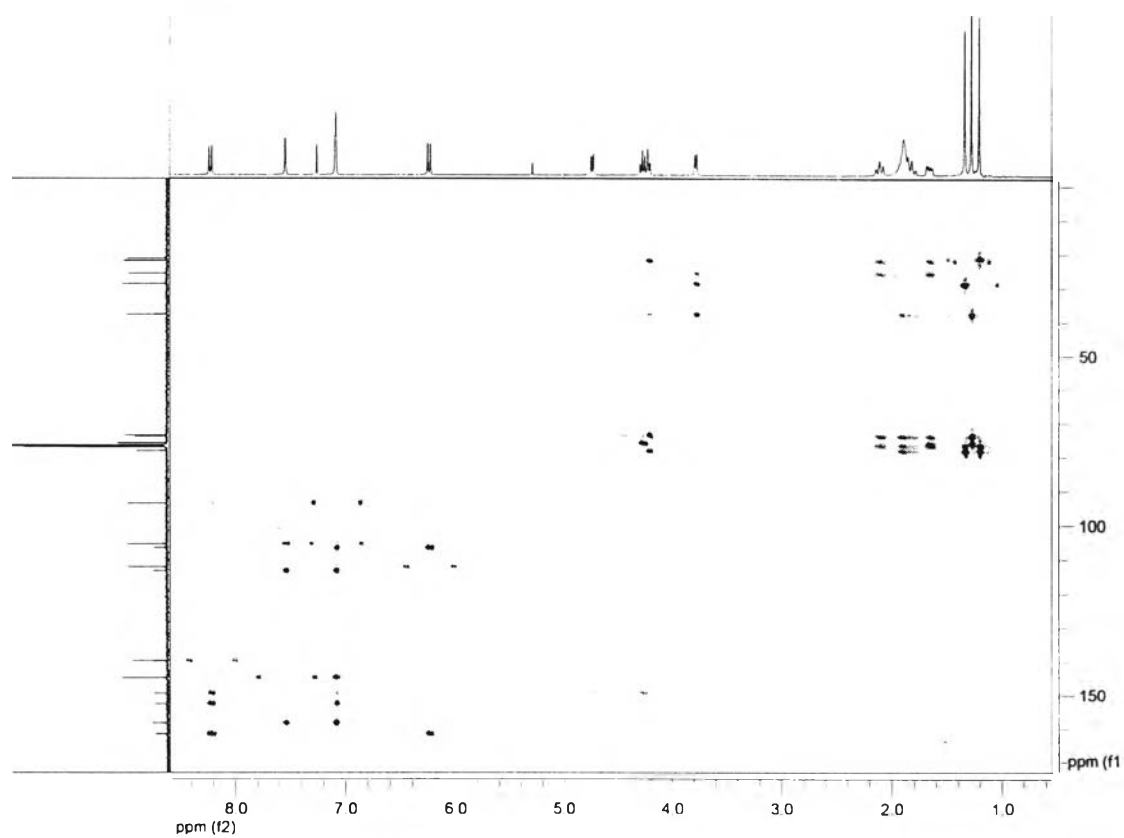
**Figure 9** The  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ ) spectrum of feroniellin C (9)



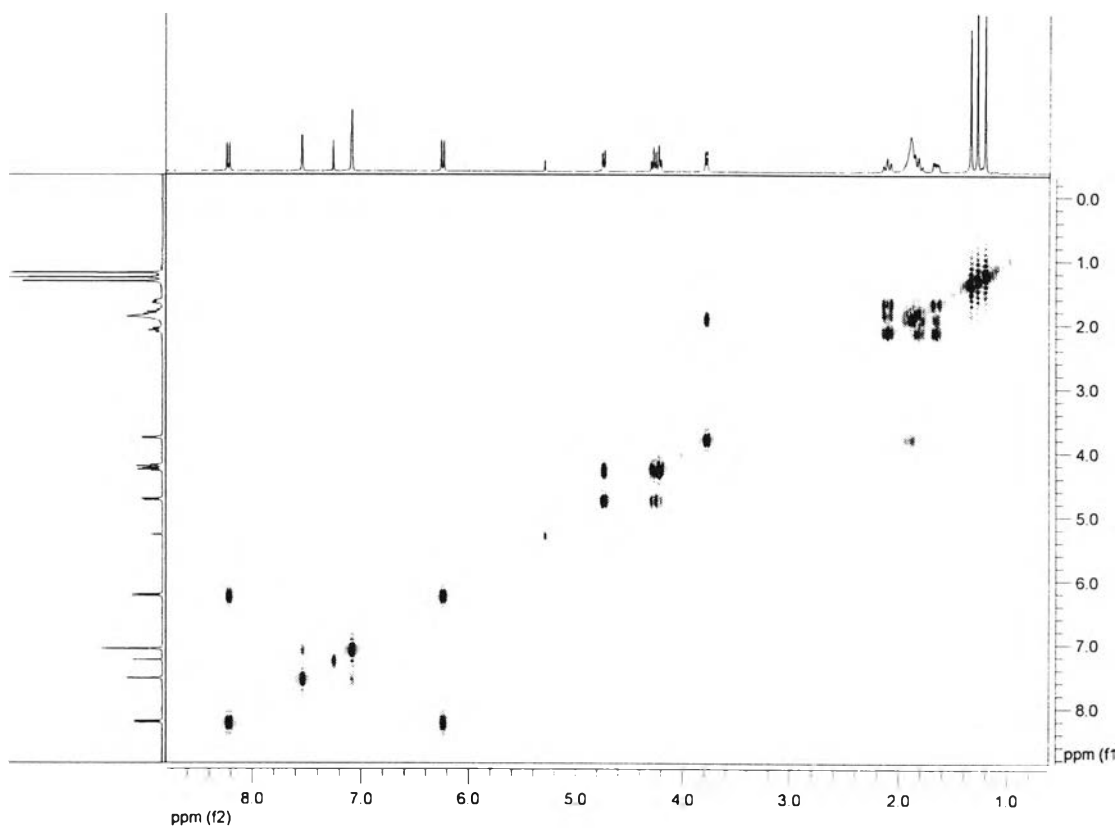
**Figure 10** The  $^{13}\text{C-NMR}$  ( $\text{CDCl}_3$ ) spectrum of feroniellin C (9)



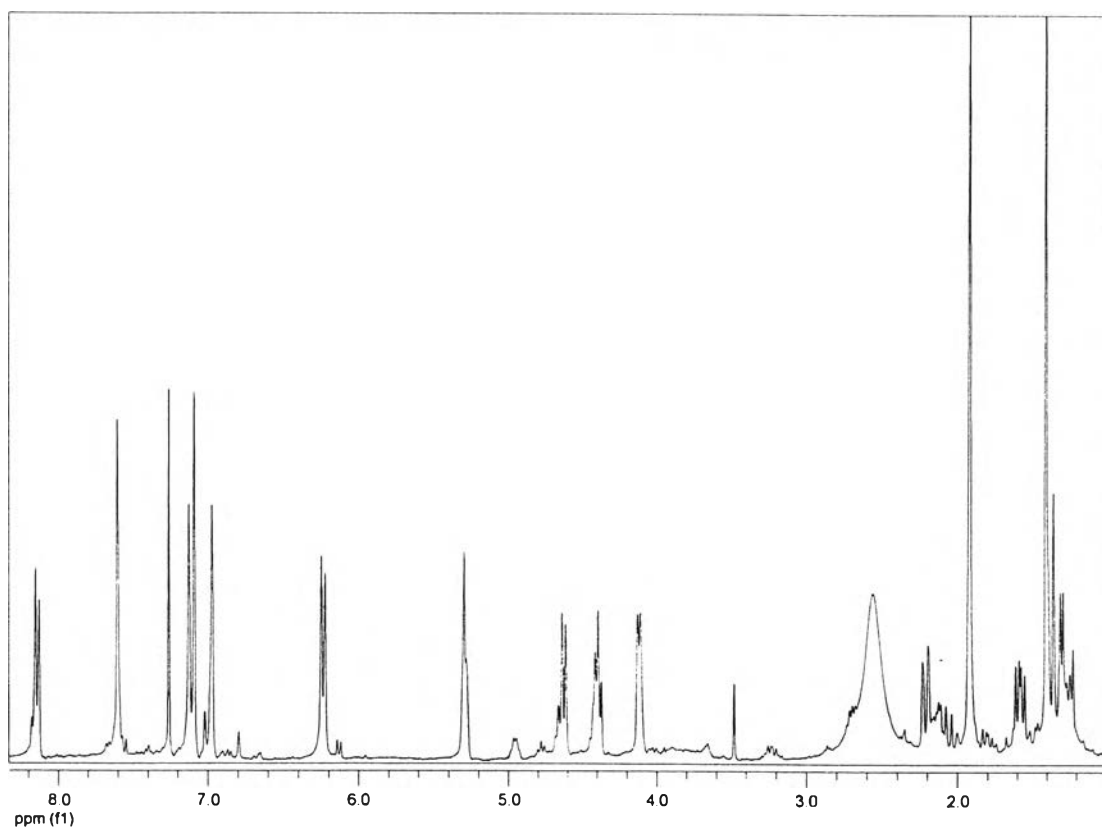
**Figure 11** The HMQC (CDCl<sub>3</sub>) spectrum of feroniellin C (9)



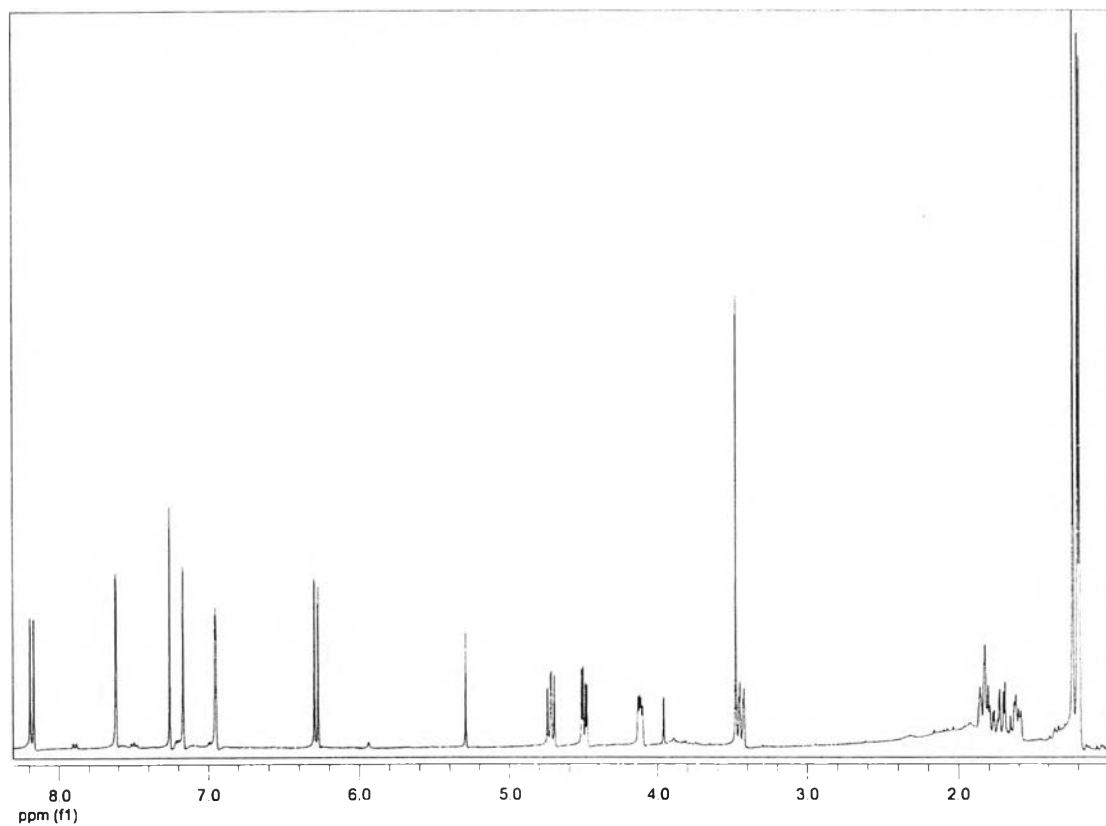
**Figure 12** The HMBC (CDCl<sub>3</sub>) spectrum of feroniellin C (9)



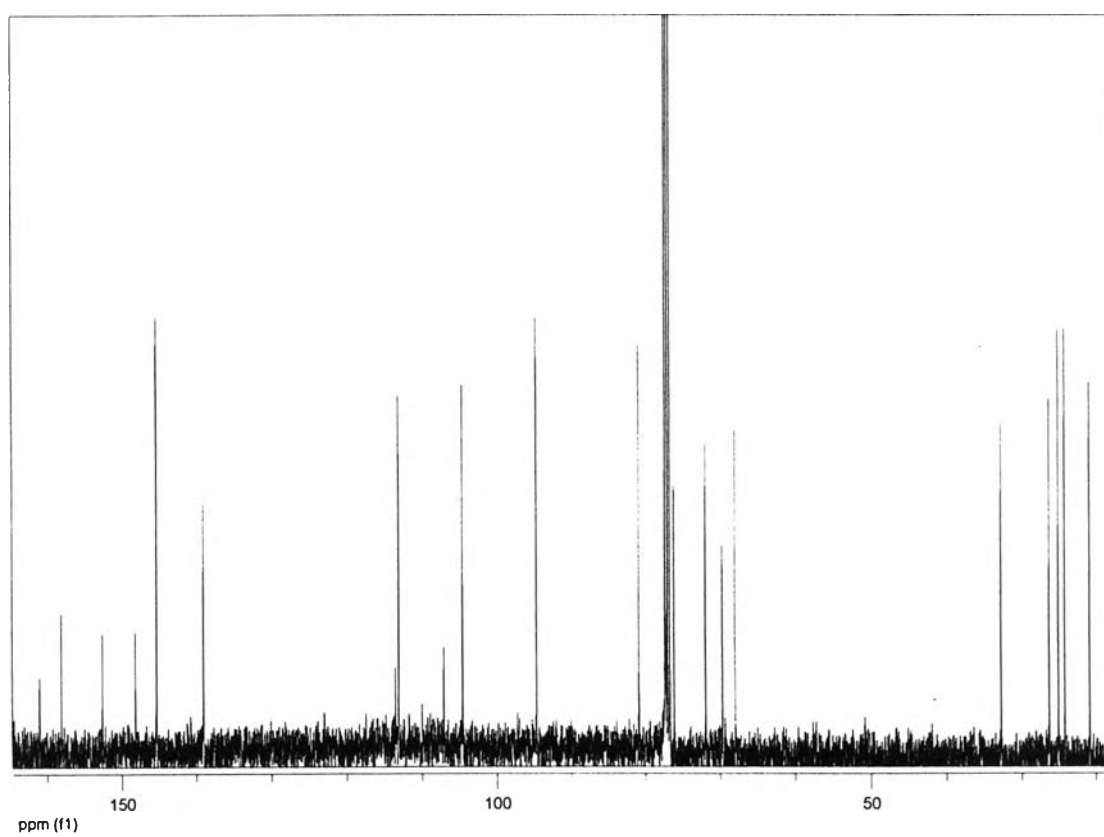
**Figure 13** The COSY (CDCl<sub>3</sub>) spectrum of feroniellin C (9)



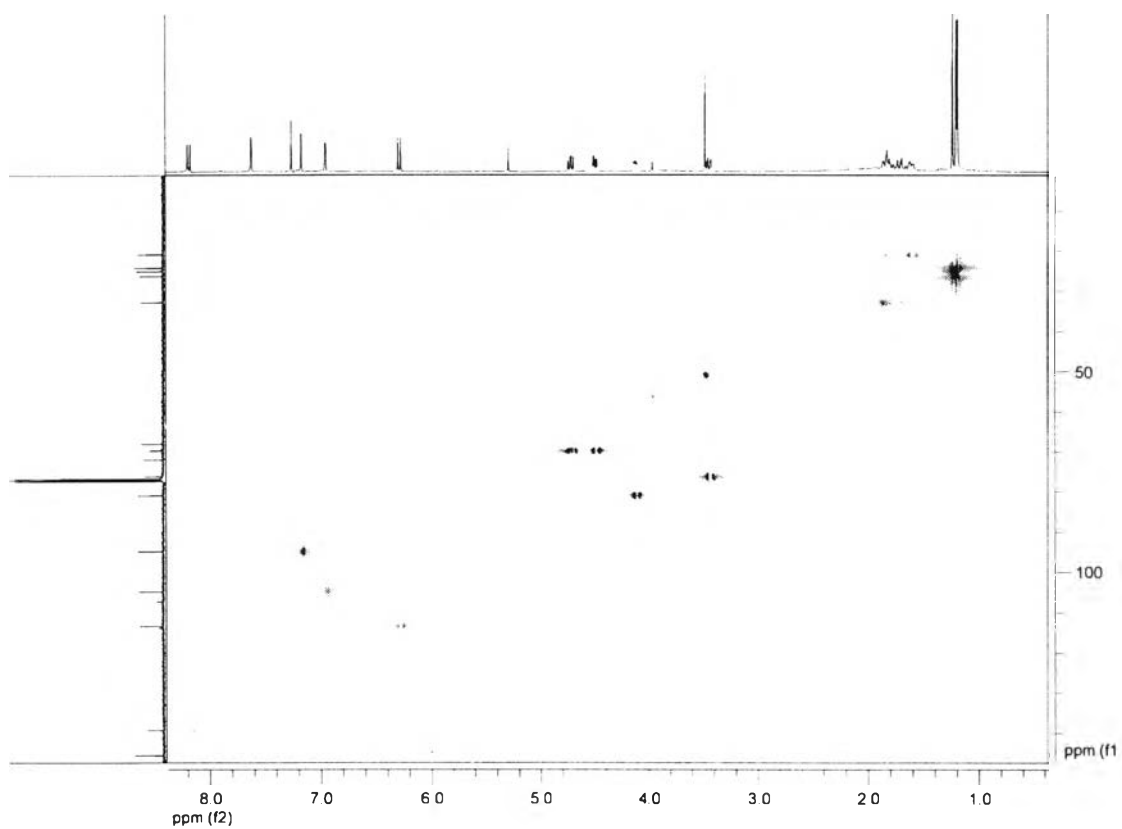
**Figure 14** The <sup>1</sup>H-NMR (CDCl<sub>3</sub>) spectrum of 2'', 3''-dihydroxyanisolactone (10)



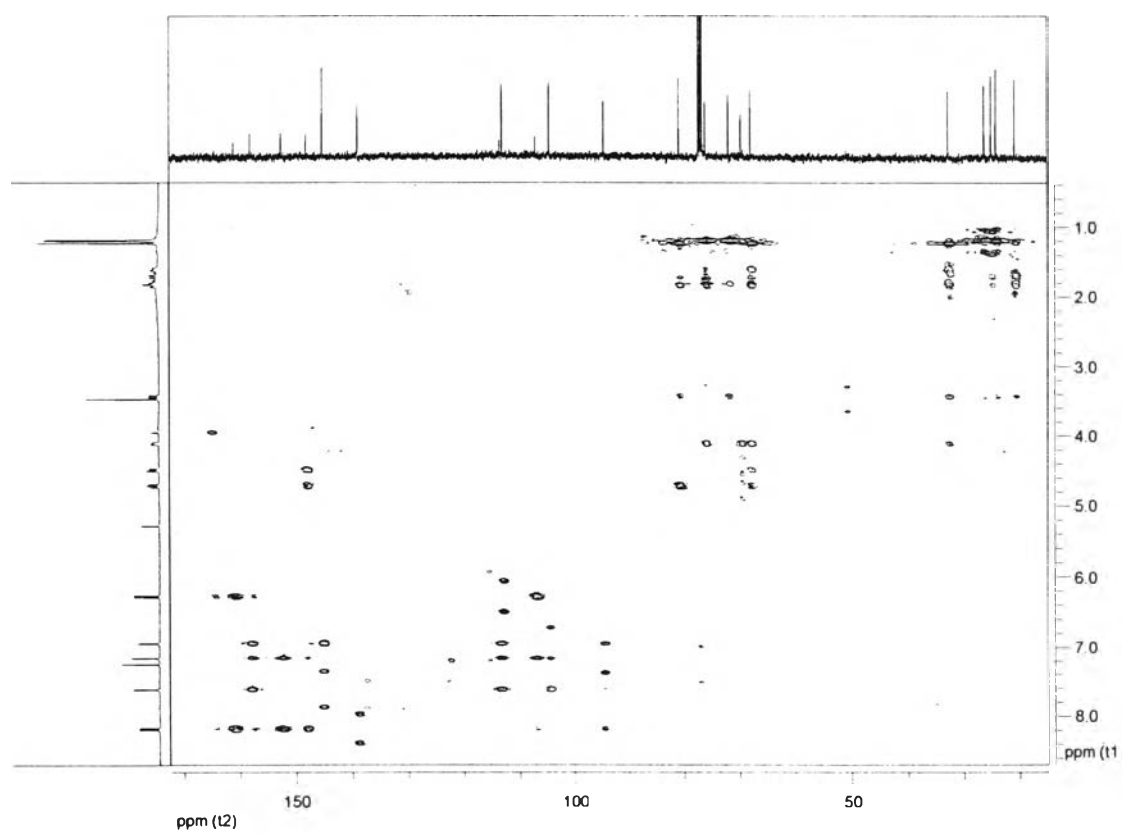
**Figure 15** The  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ ) spectrum of feroniellin B (11)



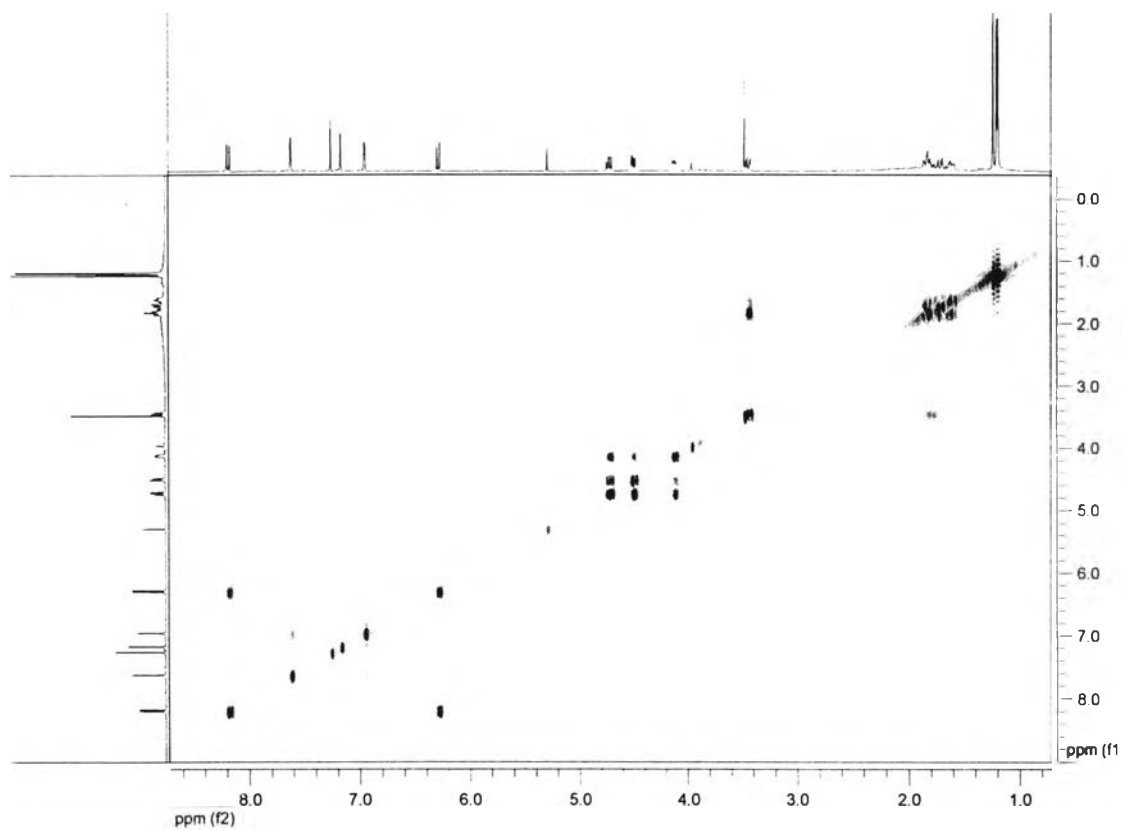
**Figure 16** The  $^{13}\text{C-NMR}$  ( $\text{CDCl}_3$ ) spectrum of feroniellin B (11)



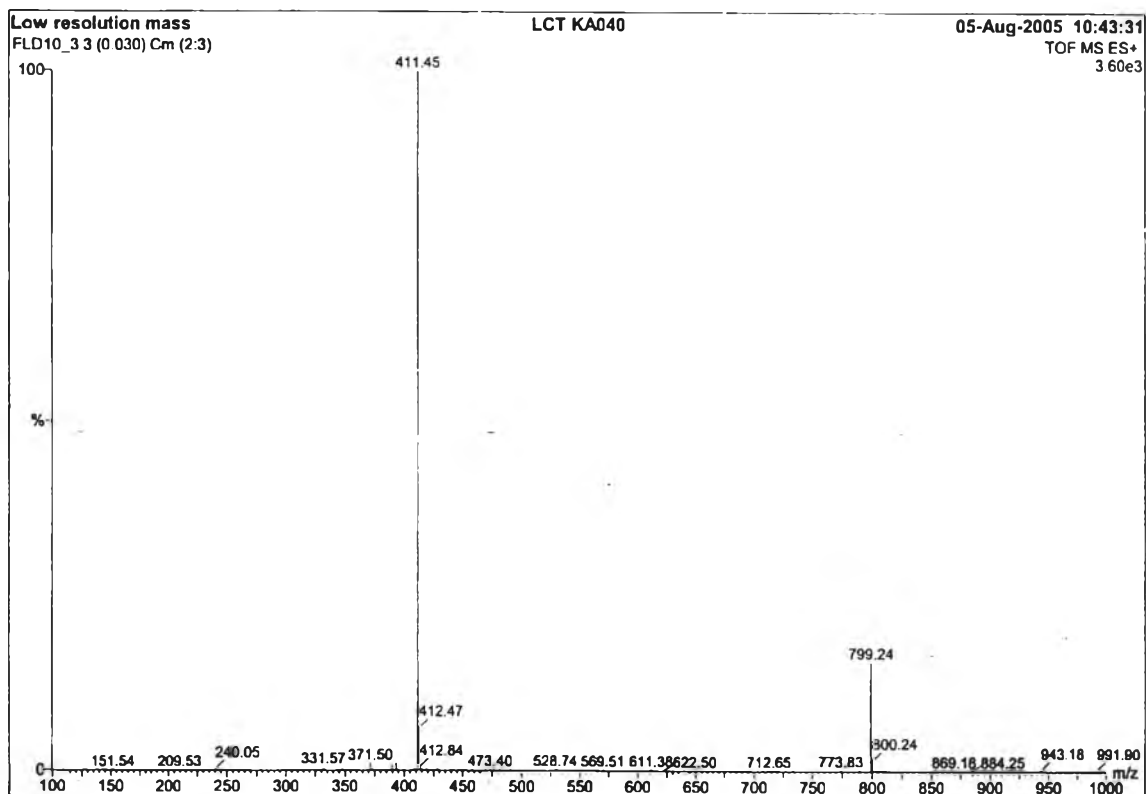
**Figure 17** The HMQC (CDCl<sub>3</sub>) spectrum of feroniellin B (11)



**Figure 18** The HMBC (CDCl<sub>3</sub>) spectrum of feroniellin B (11)



**Figure 19** The COSY (CDCl<sub>3</sub>) spectrum of feroniellin B (11)



**Figure 20** Low resolution mass spectrum of feroniellin A (7)

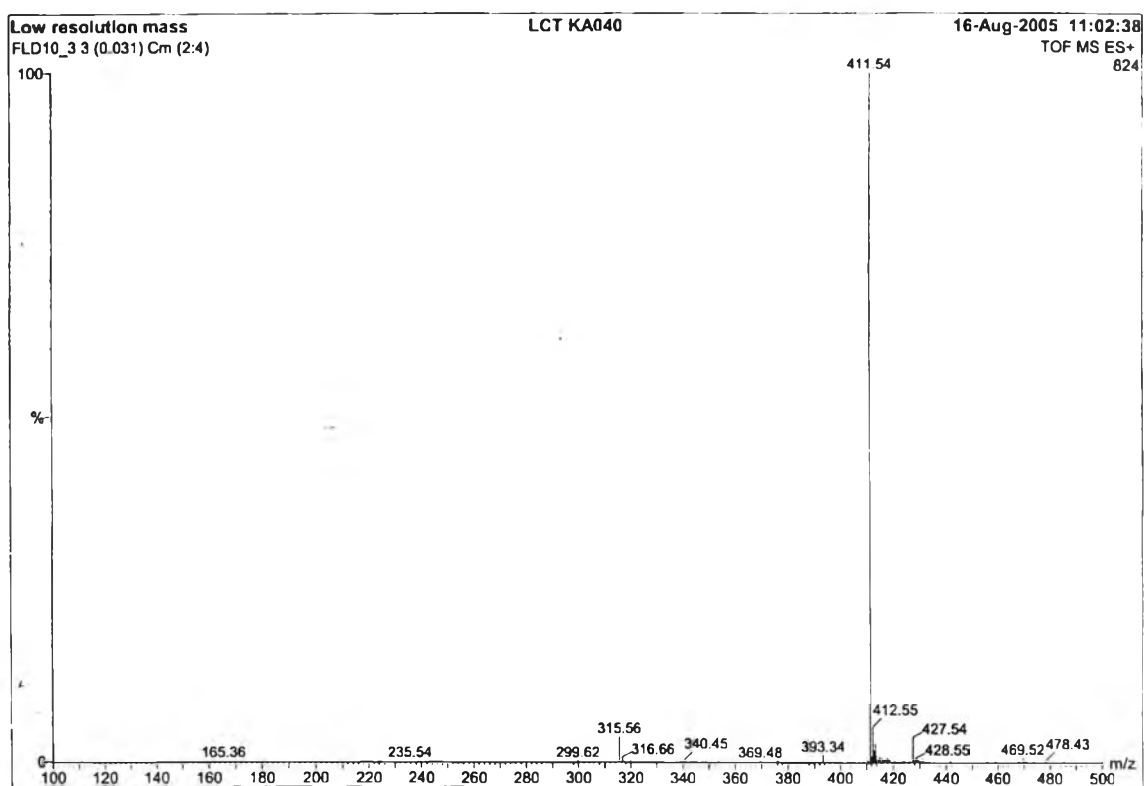


Figure 21 Low resolution mass spectrum of feroniellin B (11)

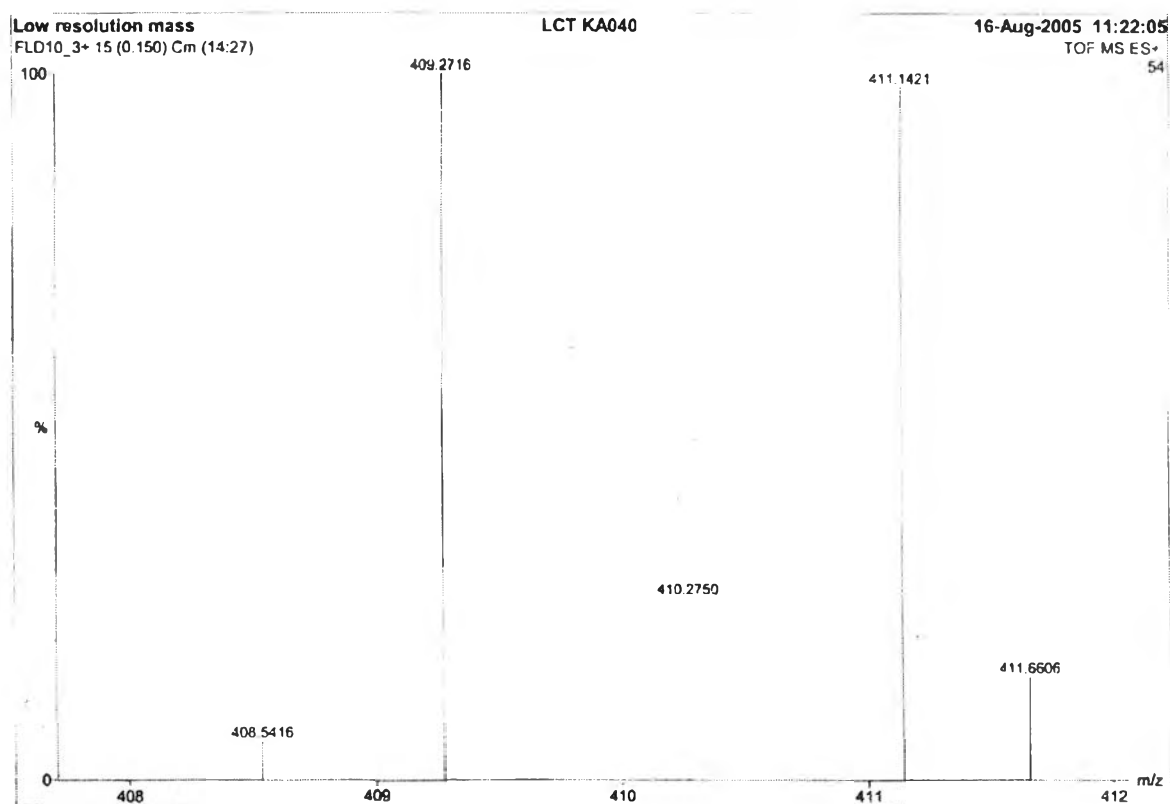


Figure 22 High resolution mass spectrum of feroniellin B (7)

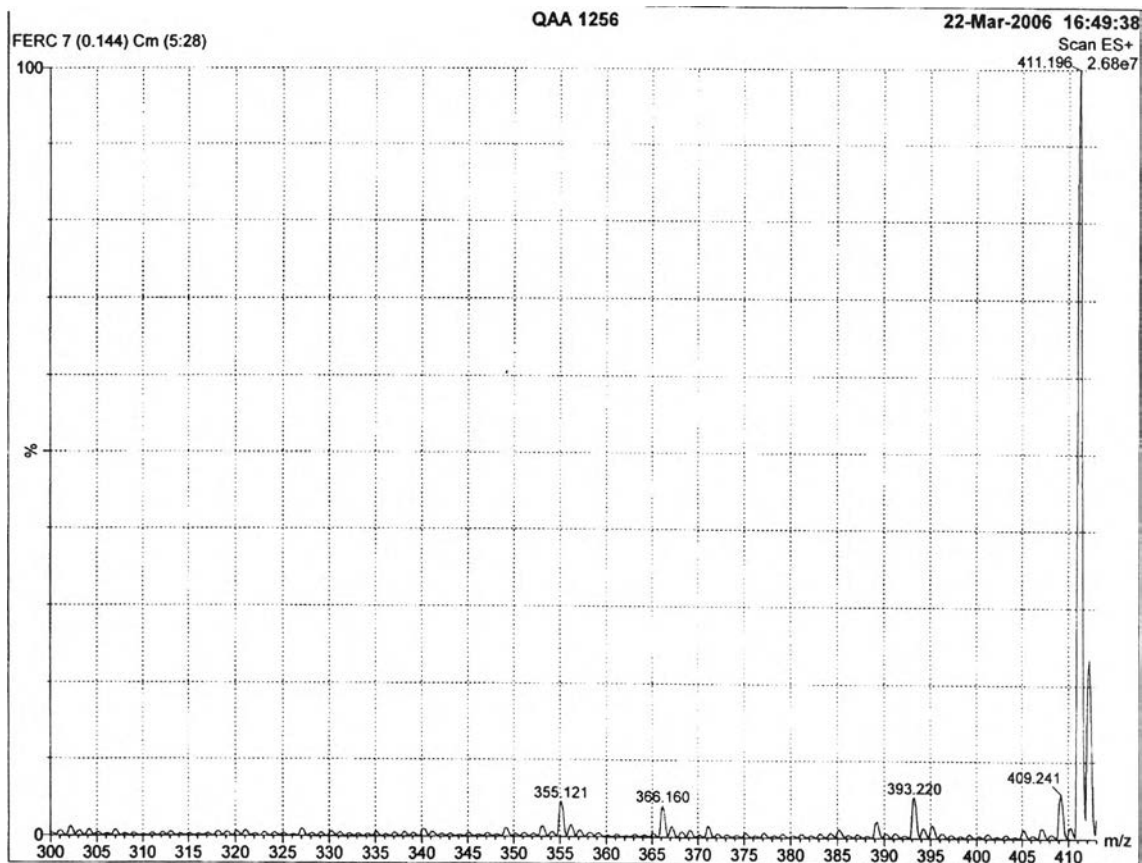


Figure 23 Low resolution mass spectrum of feroniellin C (9)

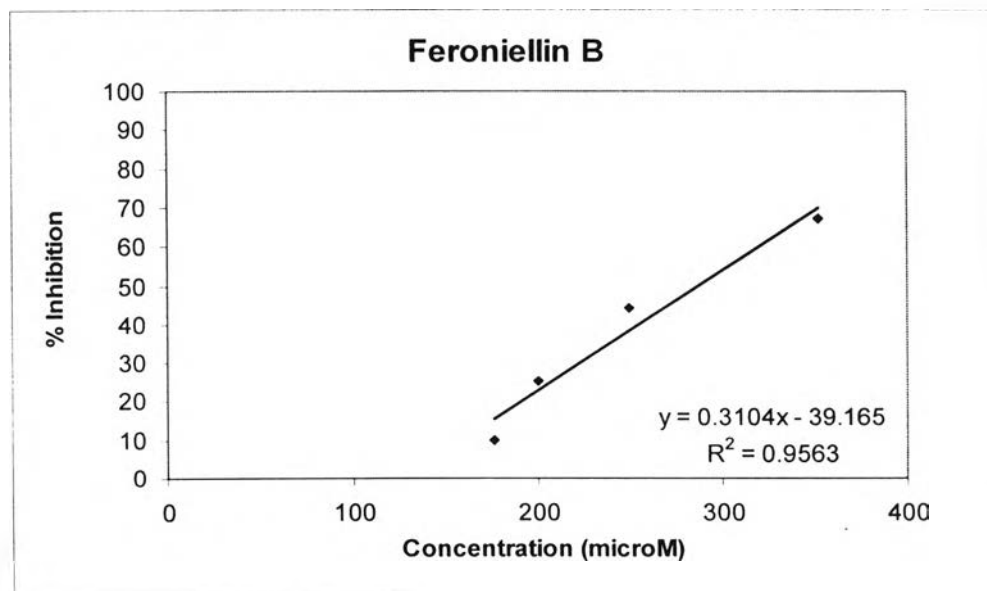
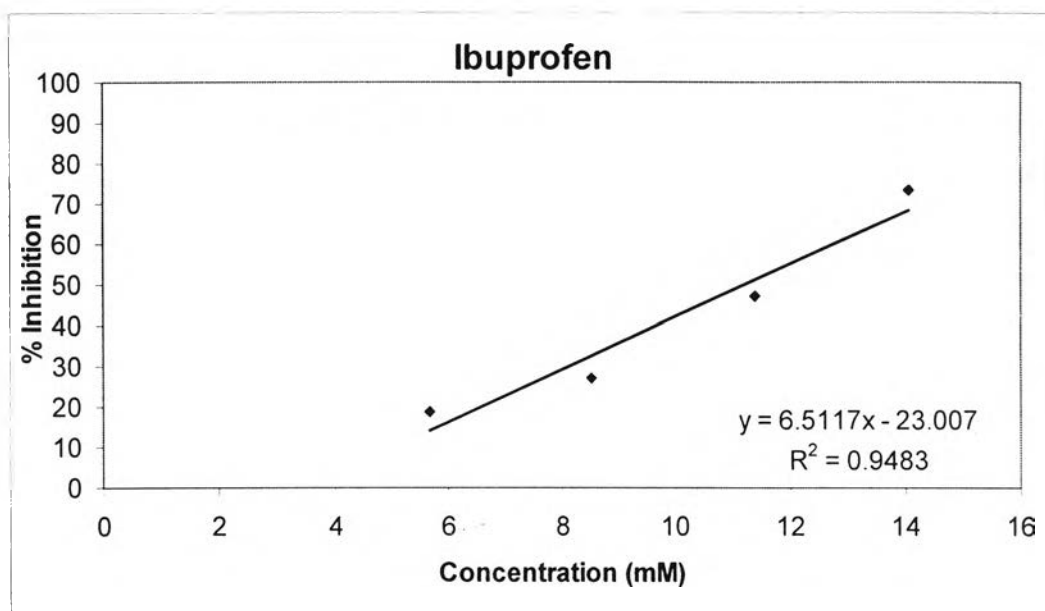


Figure 24 The linear plot between concentration and inhibition percentage of feroniellin B.





**Figure 25** The linear plot between concentration and inhibition percentage of ibuprofen.

## VITA

Mr. Serm Surapinit was born on January 9<sup>th</sup>, 1981. He held Bachelor Degree of Science in Medical Technology from the Faculty of Allied Health Science, Chulalongkorn University in 2004. During he was studying in Master Degree Program, he received financial support from Graduate School, Chulalongkorn University.

