

Supplementary material

Chemical constituents from *Fraxinus hupehensis* and their antifungal and herbicidal activities

Chi-Na Zhao,^{a,b}† Zong-Li Yao,^{a,b}† Dan Yang,^{a, b} Jian Ke,^{a,b} Qing-Lai Wu^{*a,b}, Jun-Kai Li^{*a,b}, Xu-Dong Zhou^{*c}

^a School of Agriculture, Yangtze University, Jingzhou, 434020, *P. R.* China.

^b Institute of Pesticides, Yangtze University, Jingzhou, *P. R.* China.

^c TCM and Ethnomedicine Innovation & Development Laboratory, School of Pharmacy, Hunan University of Chinese Medicine, Changsha, Hunan 410208, *P. R.* China.

† Chi-Na Zhao and Zong-Li Yao contributed equally to this study.

Corresponding author email:

wql106@163.com (Qing-Lai Wu);

junkaili@sina.com (Jun-Kai Li);

xudongzhou999@163.com (Xu-Dong Zhou).

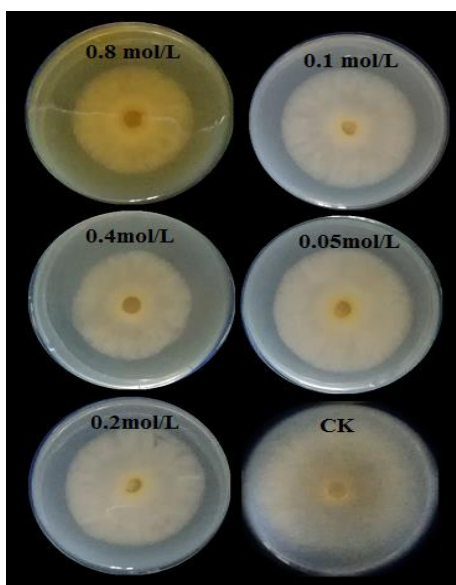


Figure S1. Antifungal activity of **2** against *Bipolaris maydis* evaluated by the mycelium growth rate method

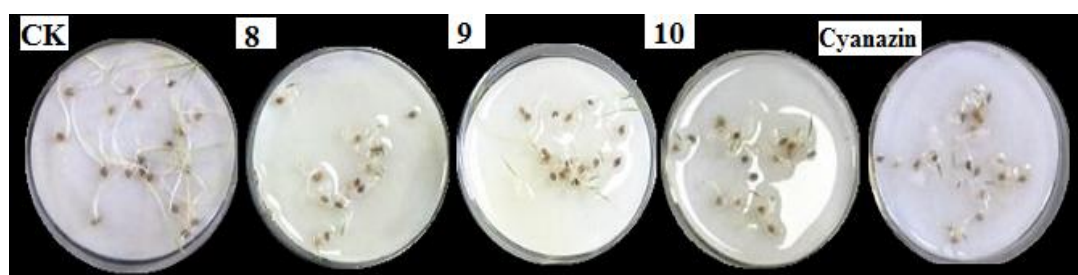
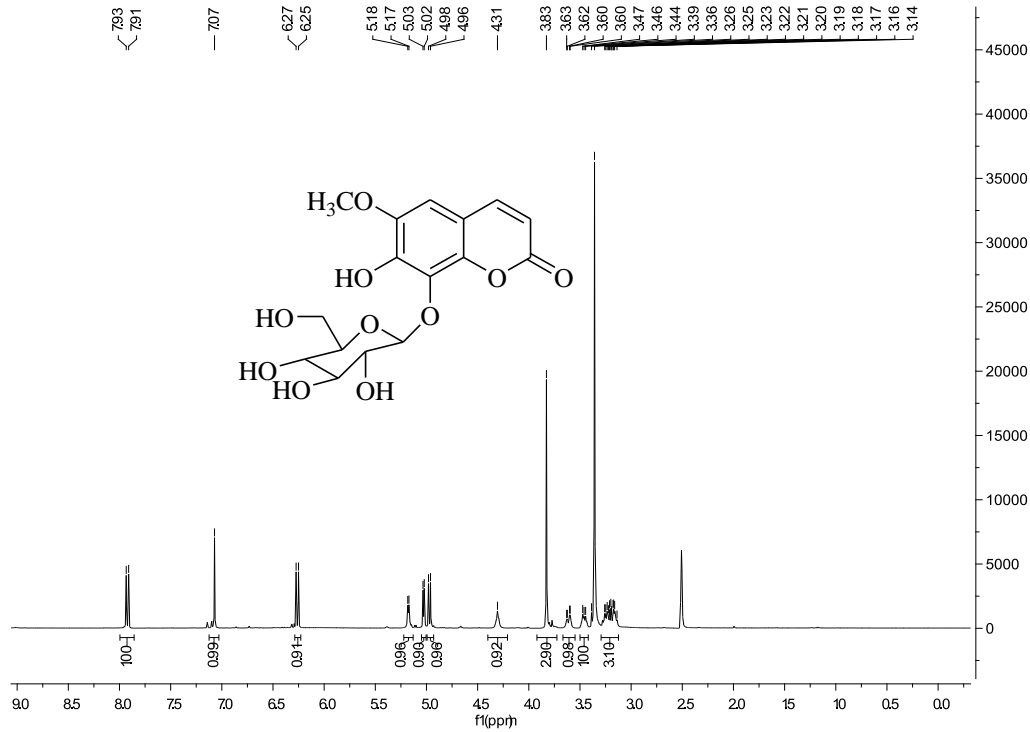


Figure S2. Comparison of the effects of **8–10** and Cyanazine against *Echinochloa crus-galli* growth (CK represents *Echinochloa crus-galli* grown on regular medium.)

Spectra of compounds

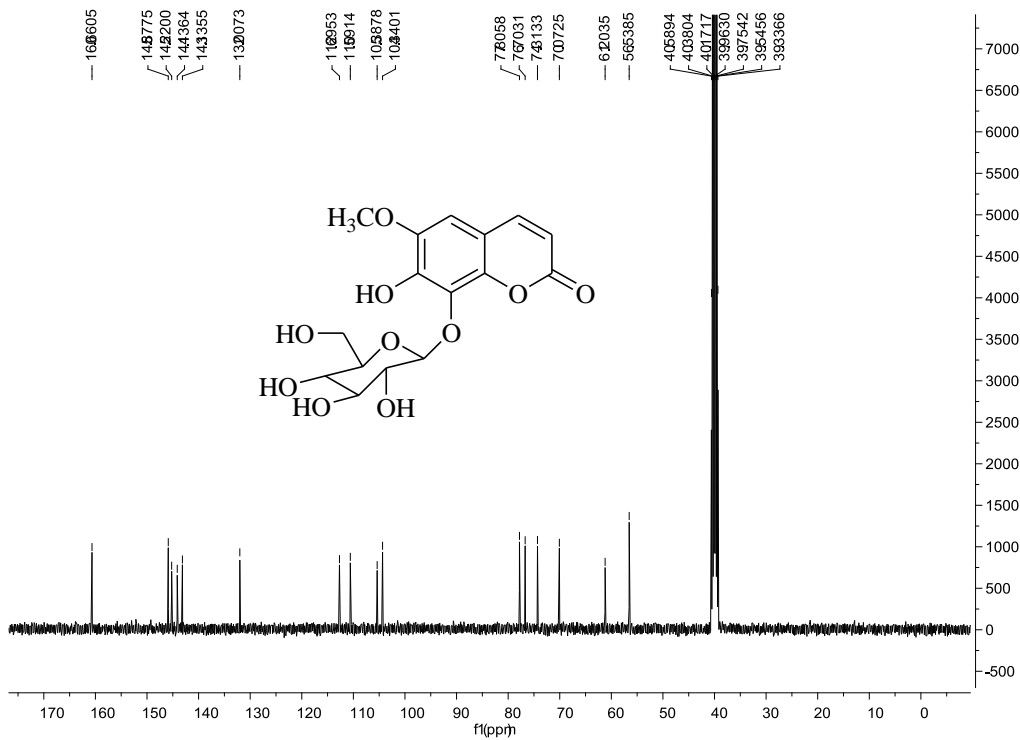
Spectra of compound 1

^1H NMR spectrum



Spectra of compound 1

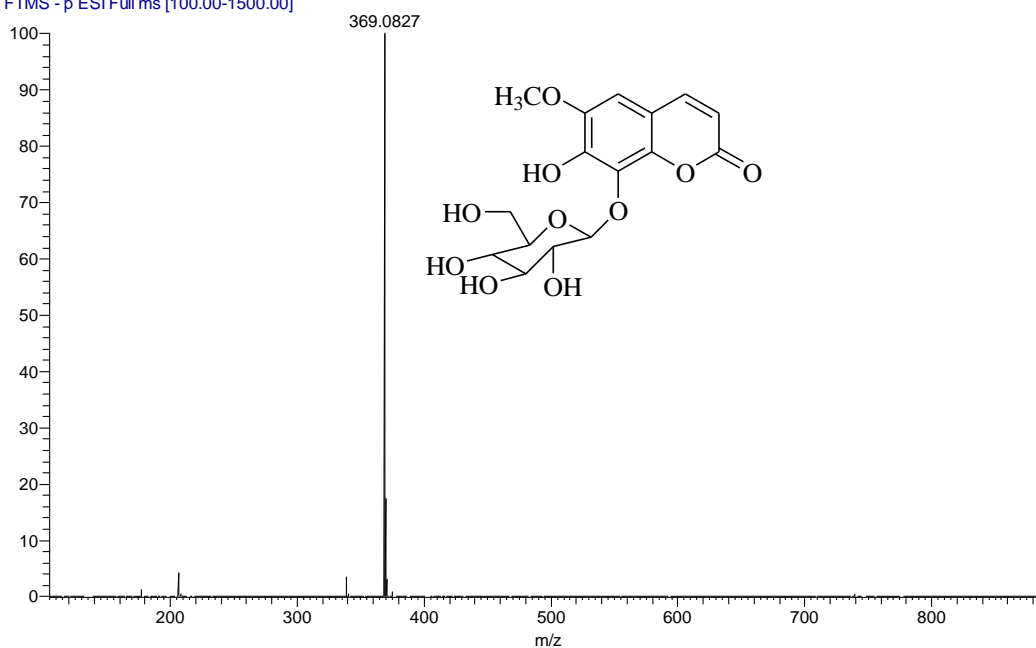
^{13}C NMR spectrum



Spectra of compound 1

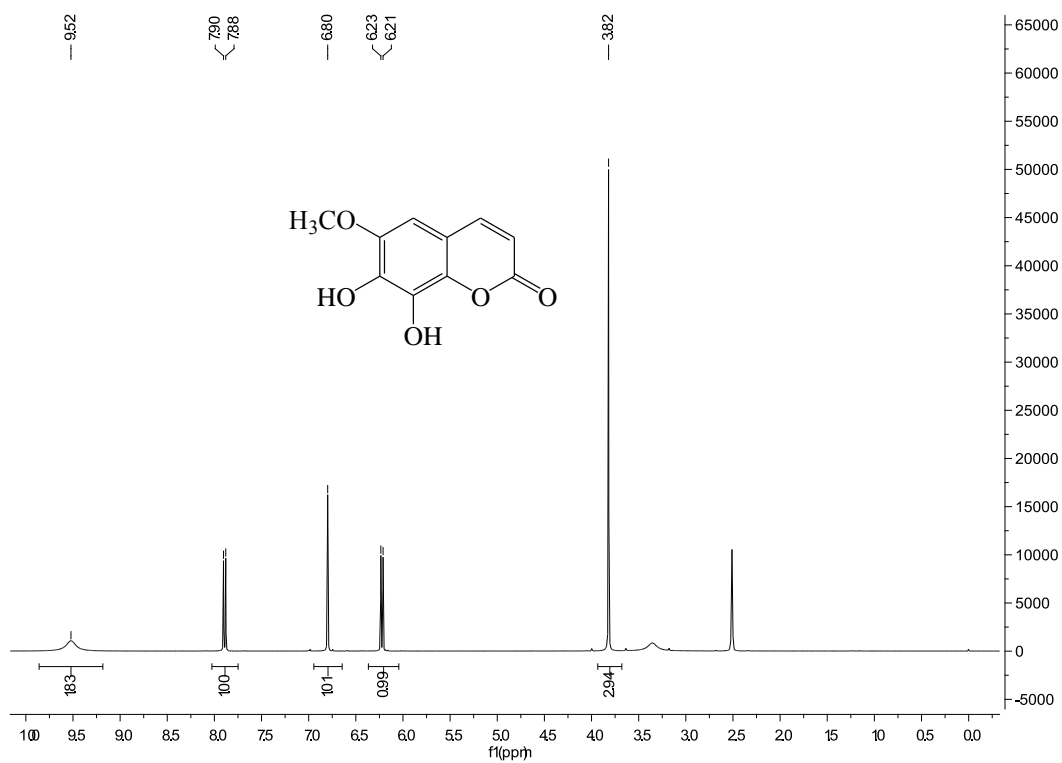
HRMS spectrum

DJBL004_170703112540 #66 RT: 0.71 AV: 1 NL: 8.65E8
T: FTMS - p ESI Full ms [100.00-1500.00]



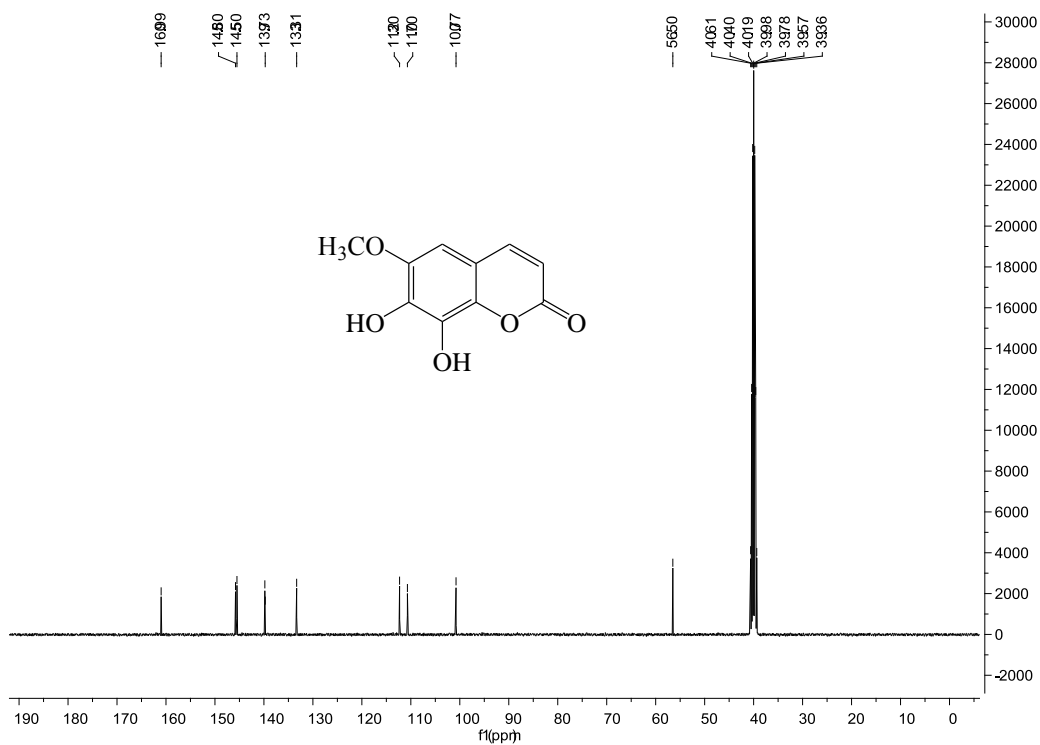
Spectra of compound 2

¹H NMR spectrum



Spectra of compound 2

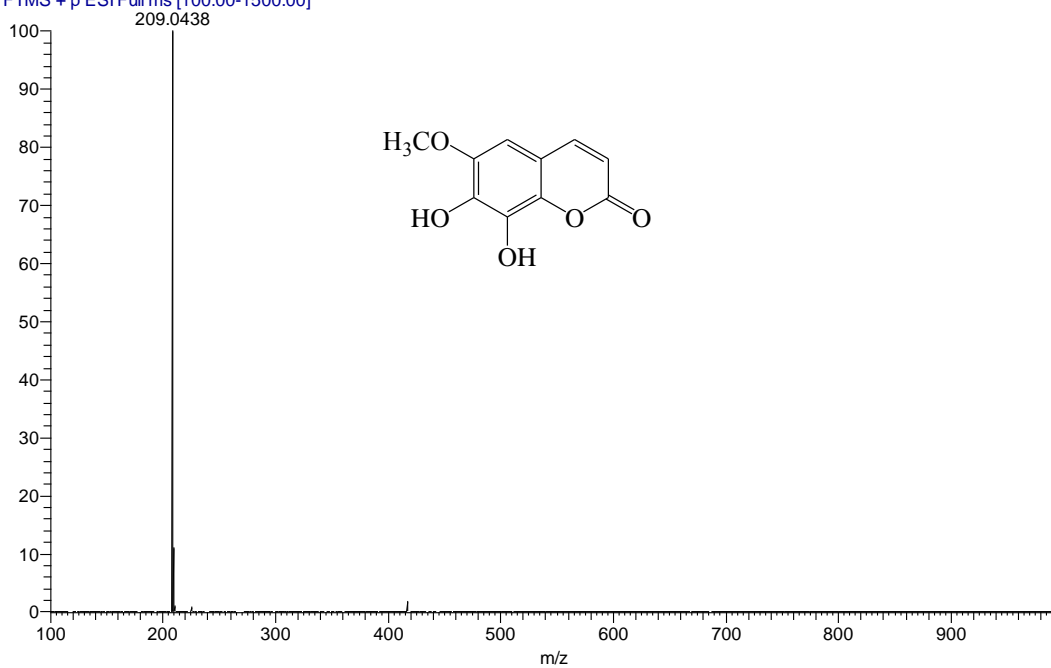
¹³C NMR spectrum



Spectra of compound 2

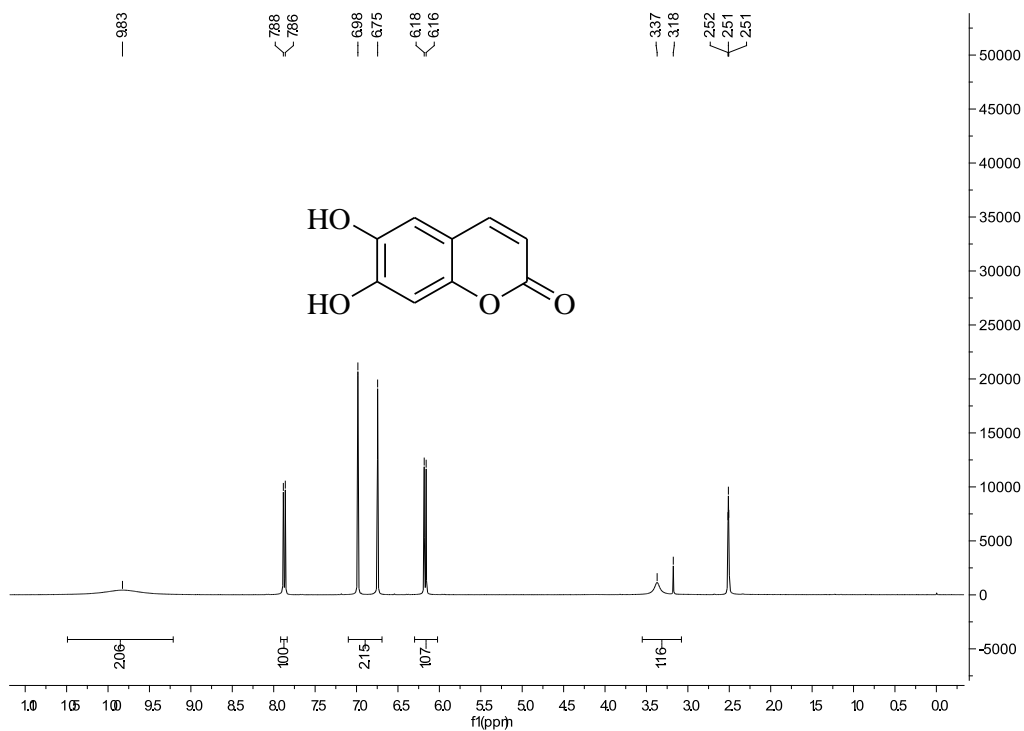
HRMS spectrum

DJBL-G1 #273 RT: 2.63 AV: 1 NL: 2.31E10
T: FTMS + p ESI Full ms [100.00-1500.00]



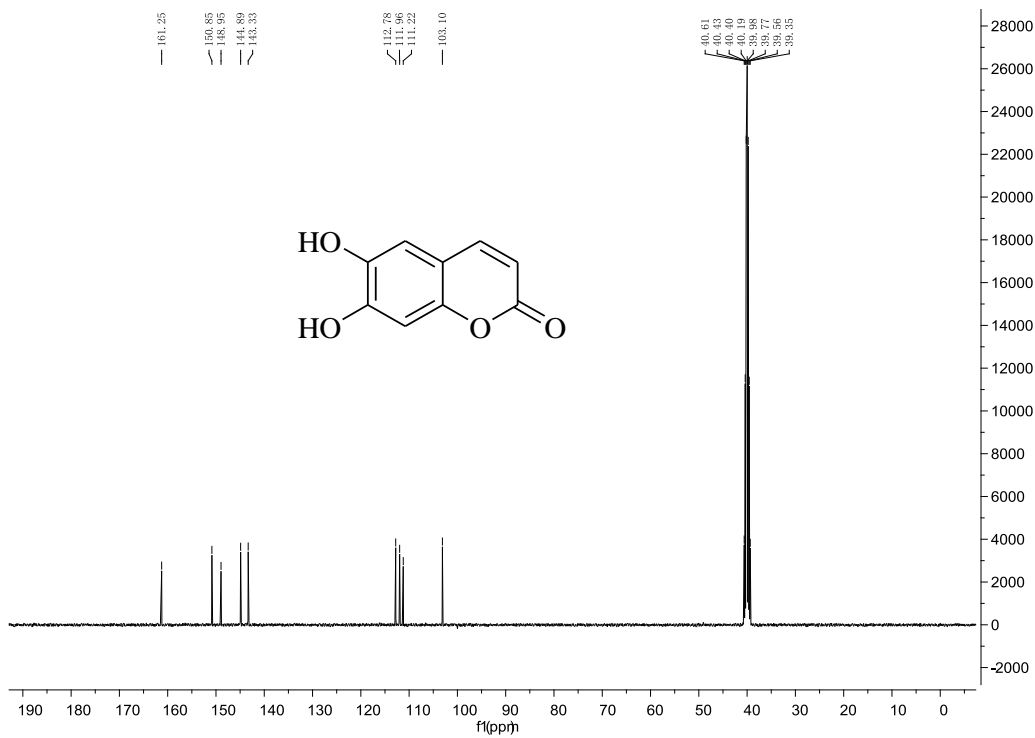
Spectra of compound 3

^1H NMR spectrum



Spectra of compound 3

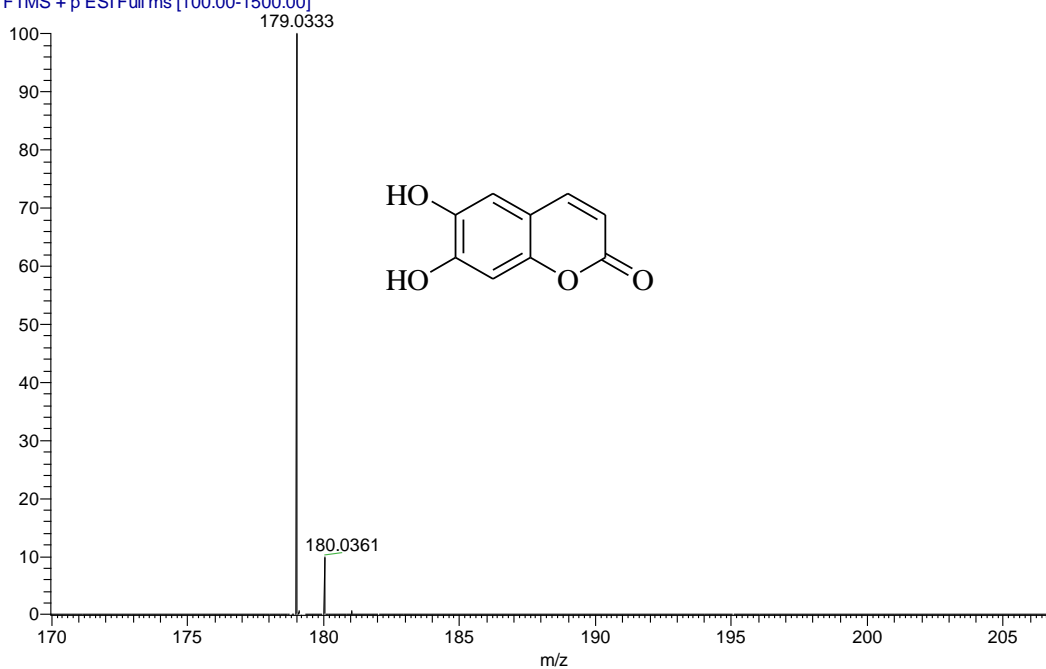
^{13}C NMR spectrum



Spectra of compound 3

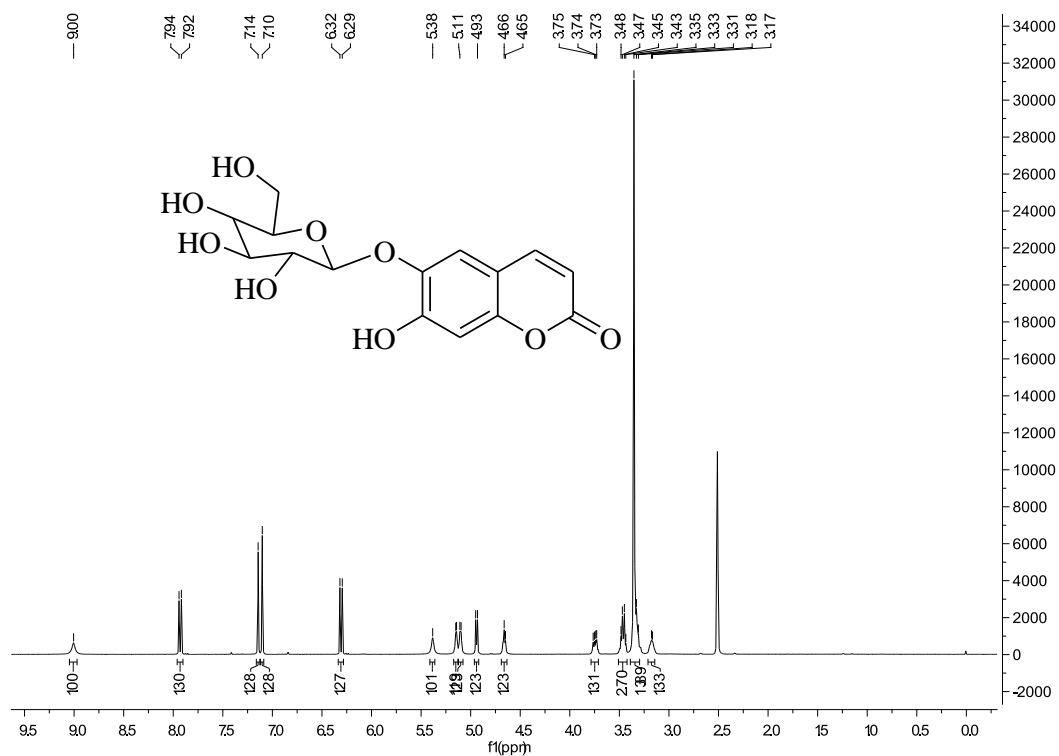
HRMS spectrum

DJBL-G2 #255 RT: 2.44 AV: 1 NL: 1.01E10
T: FTMS + p ESI Full ms [100.00-1500.00]



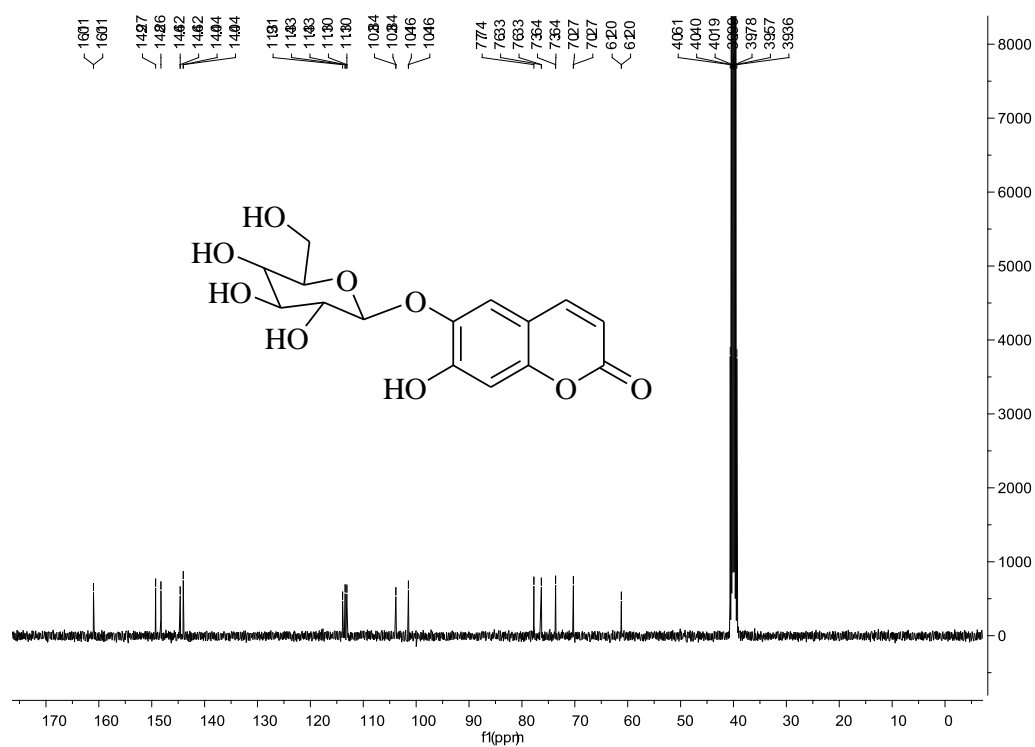
Spectra of compound 4

¹H NMR spectrum



Spectra of compound 4

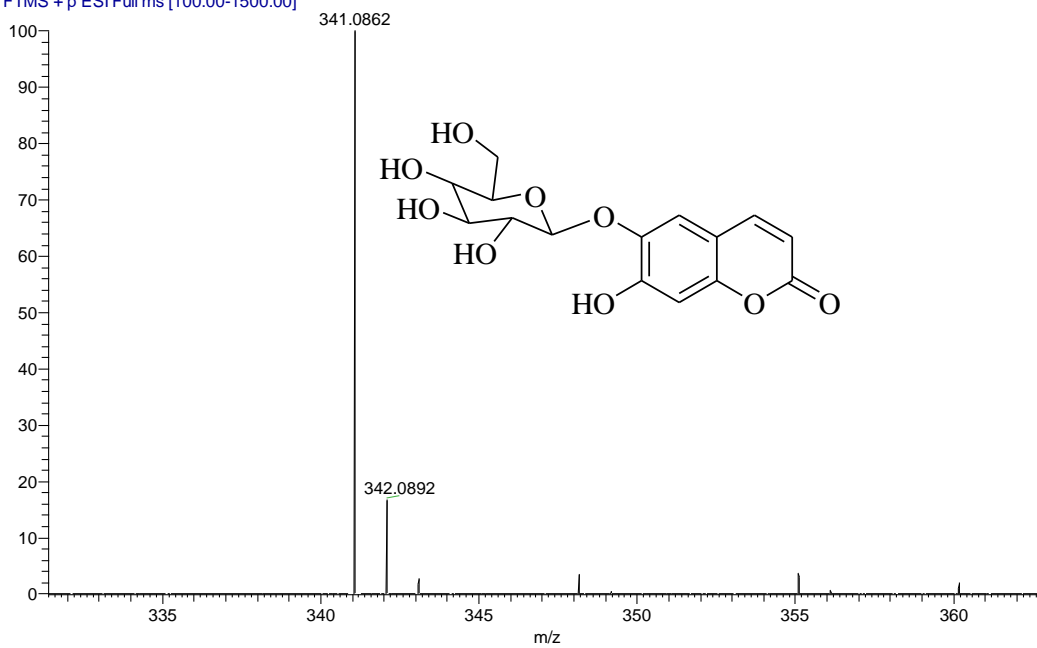
¹³C NMR spectrum



Spectra of compound 4

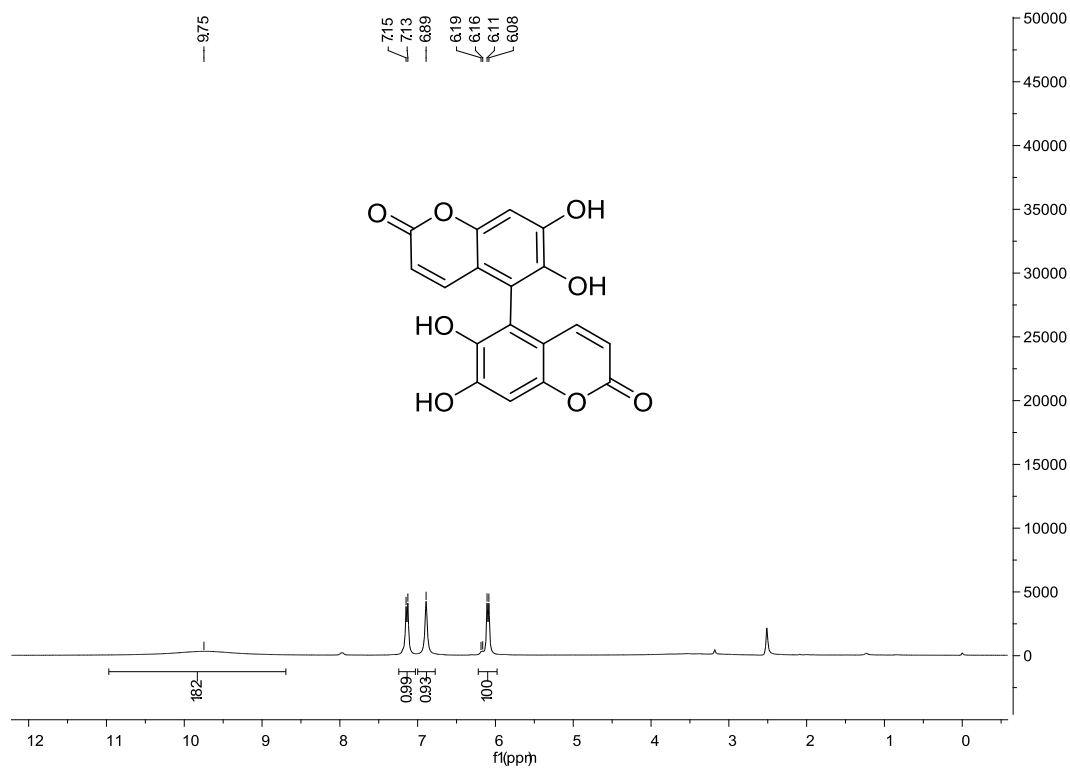
HRMS spectrum

DJBL002_170703111847 #63 RT: 0.69 AV: 1 NL: 1.69E8
T: FTMS + p ESI Full ms [100.00-1500.00]



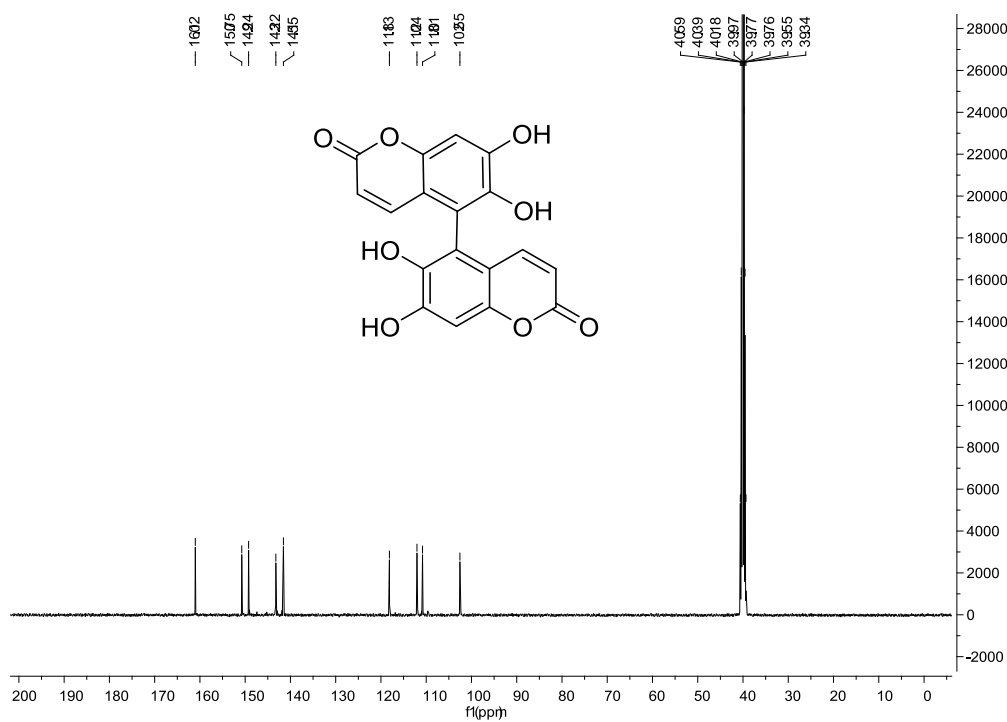
Spectra of compound 5

^1H NMR spectrum

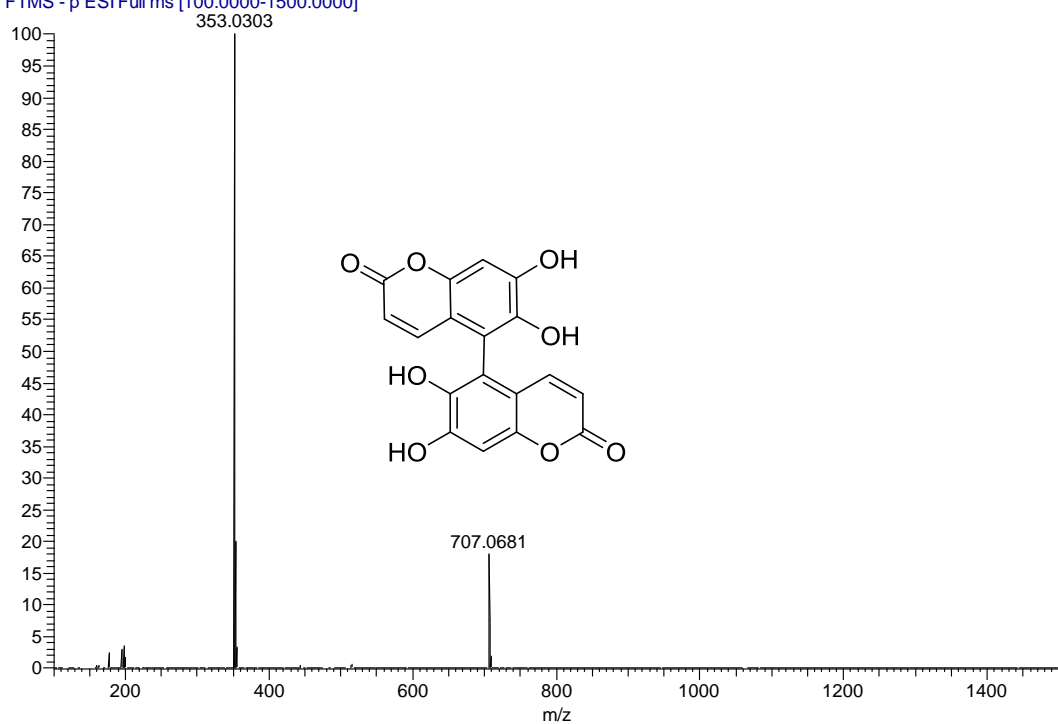


Spectra of compound 5

^{13}C NMR spectrum

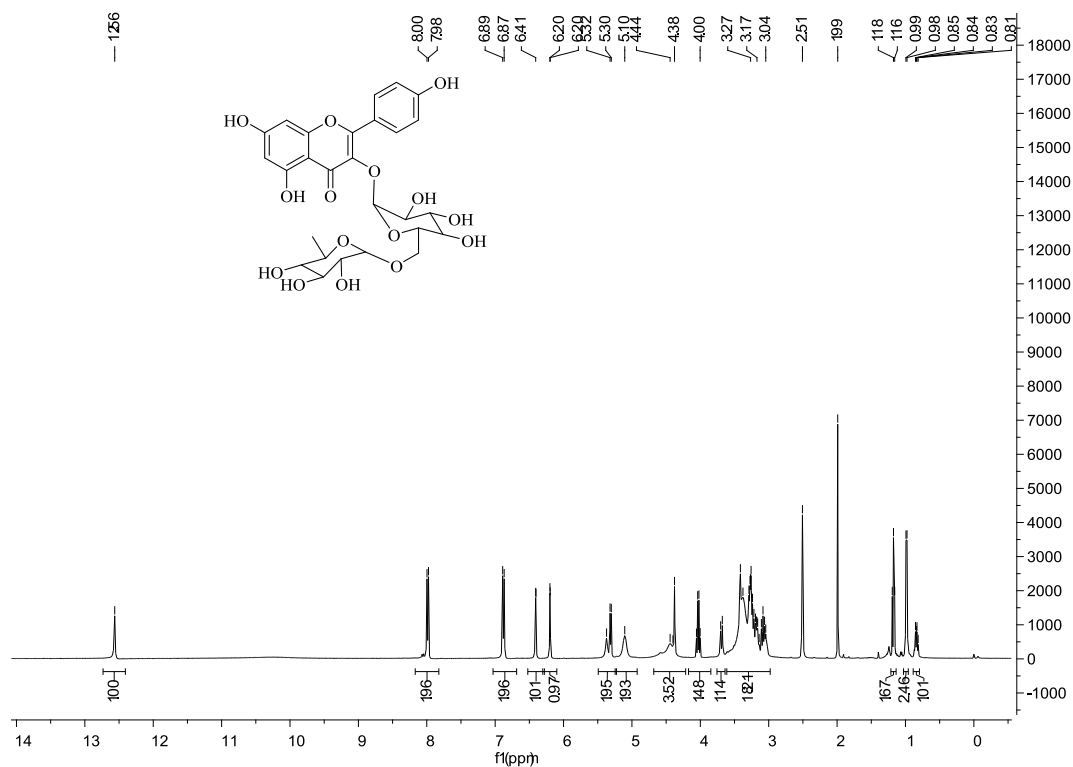


DJBL-R1 #300 RT: 2.92 AV: 1 NL: 2.59E9
T: FTMS - p ESI Full ms [100.0000-1500.0000]



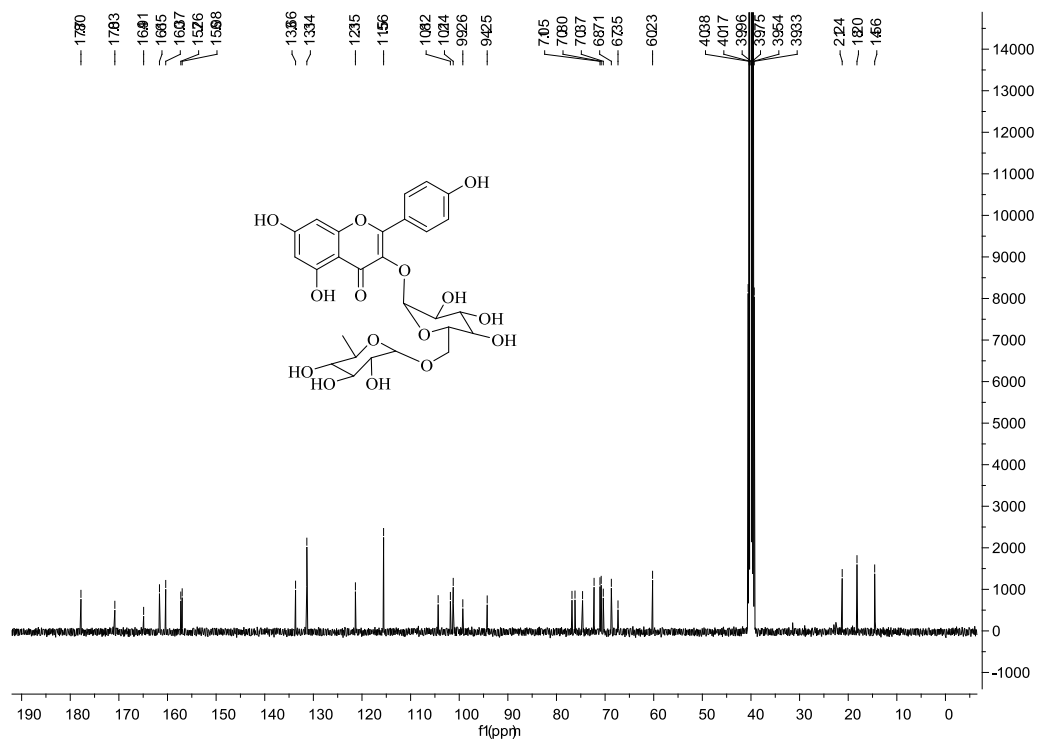
Spectra of compound 6

¹H NMR spectrum



Spectra of compound 6

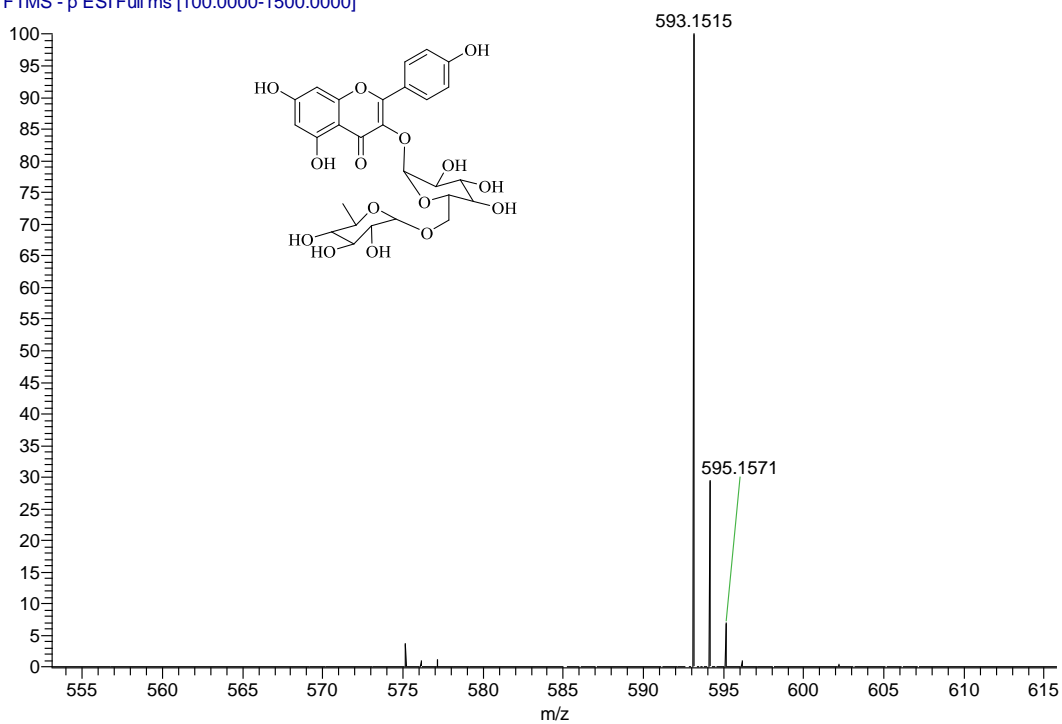
¹³C NMR spectrum



Spectra of compound 6

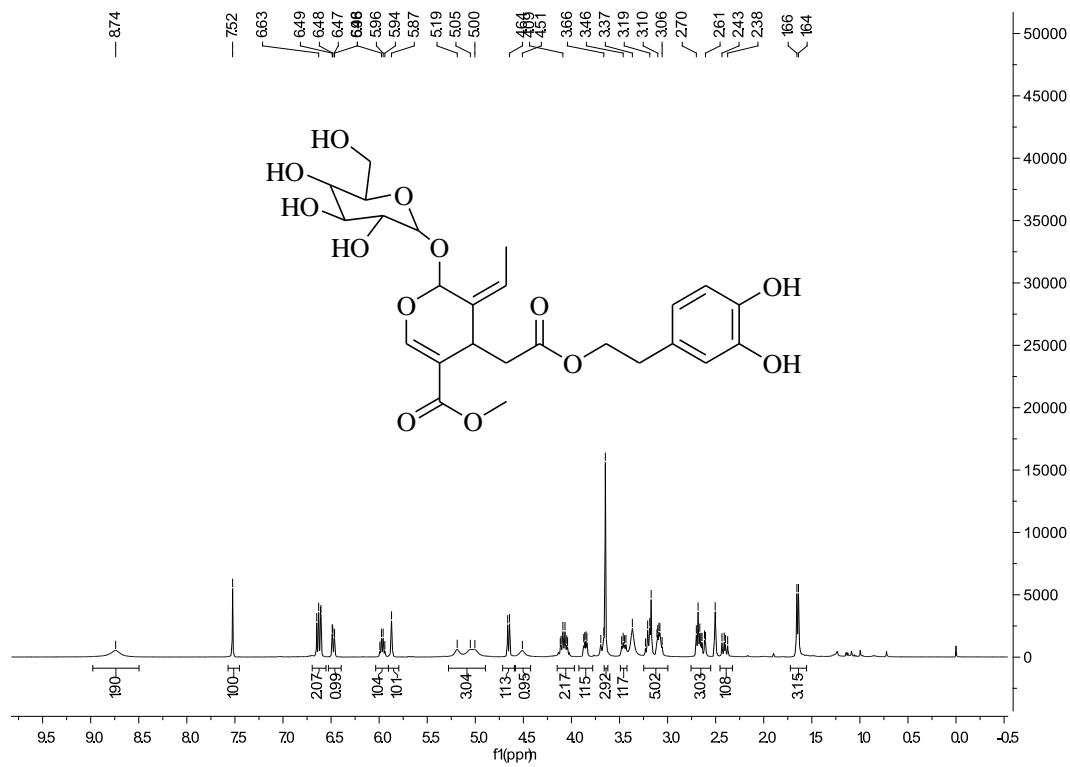
HRMS spectrum

DJBL-P2 #296 RT: 2.88 AV: 1 NL: 1.54E8
T: FTMS - p ESI Full ms [100.0000-1500.0000]



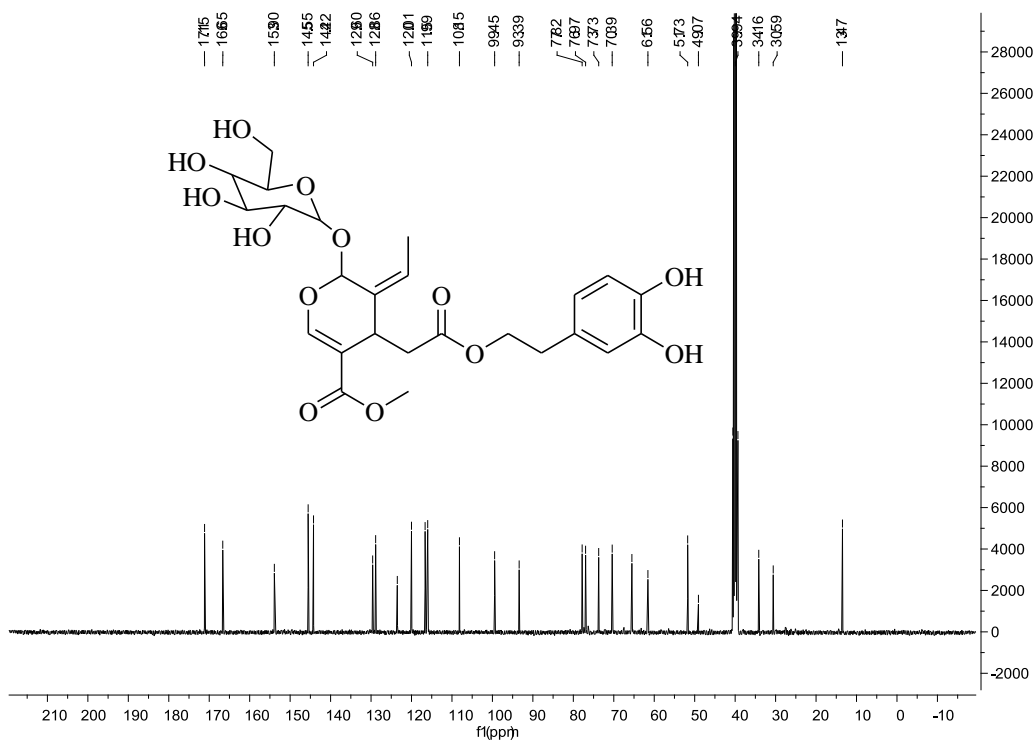
Spectra of compound 7

^1H NMR spectrum



Spectra of compound 7

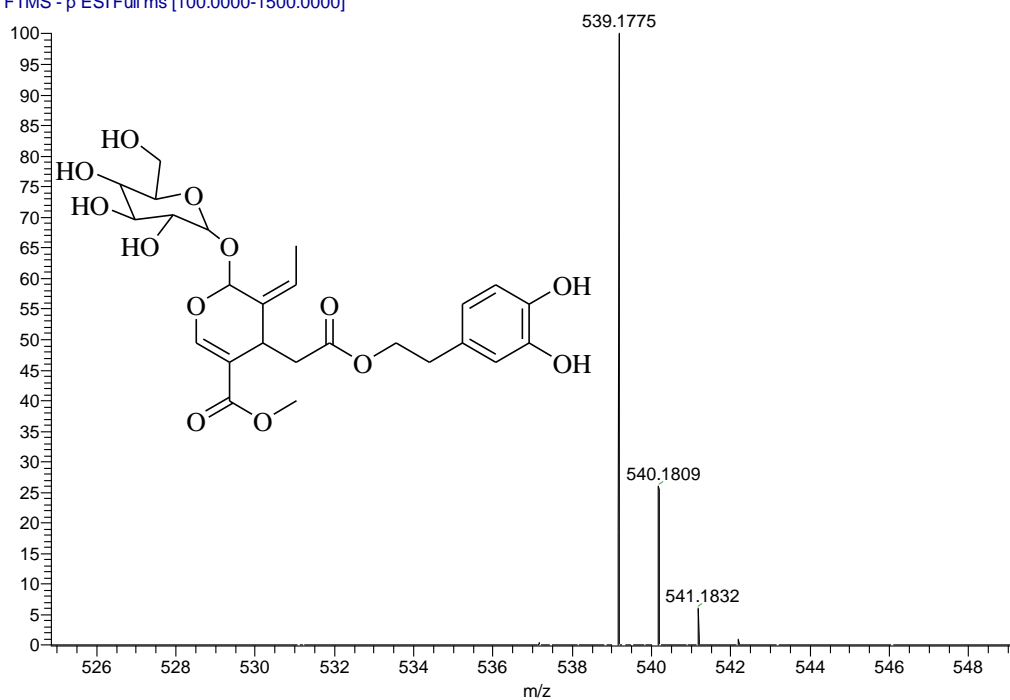
^{13}C NMR spectrum



Spectra of compound 7

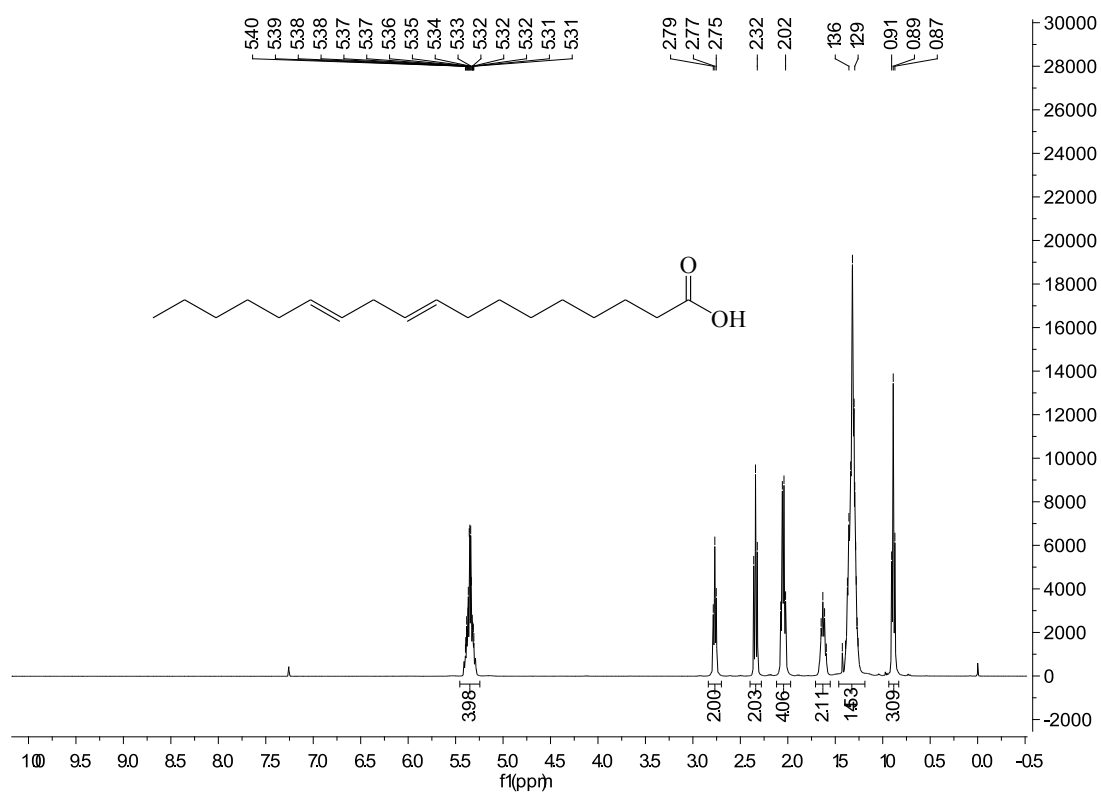
HRMS spectrum

DJBL-L2 #316 RT: 3.08 AV: 1 NL: 2.78E7
 T: FTMS - p ESI Full ms [100.0000-1500.0000]



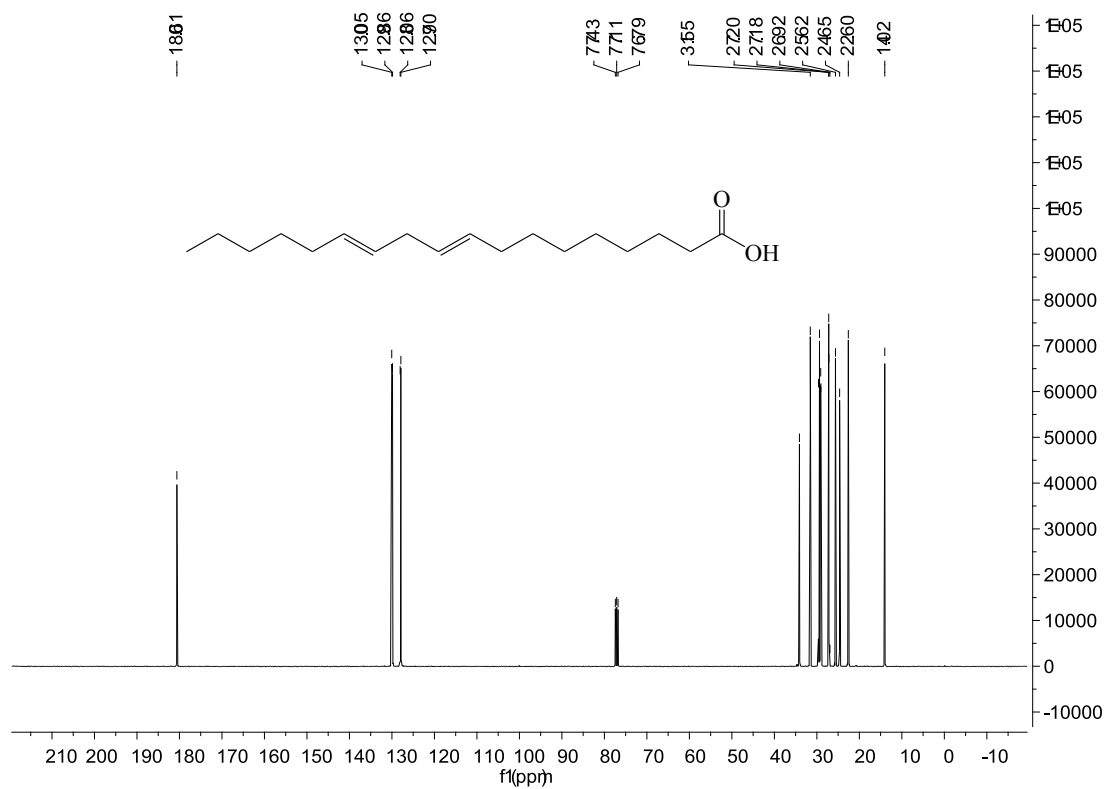
Spectra of compound 8

¹H NMR spectrum



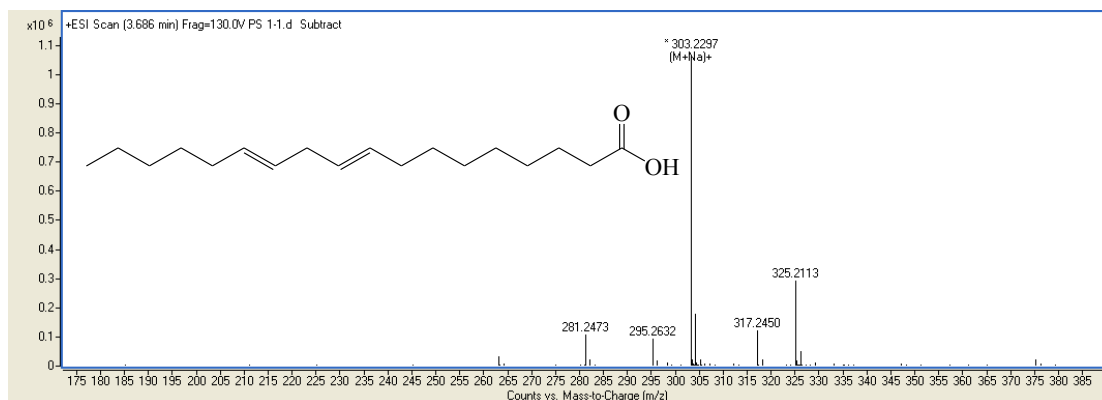
Spectra of compound 8

¹³C NMR spectrum



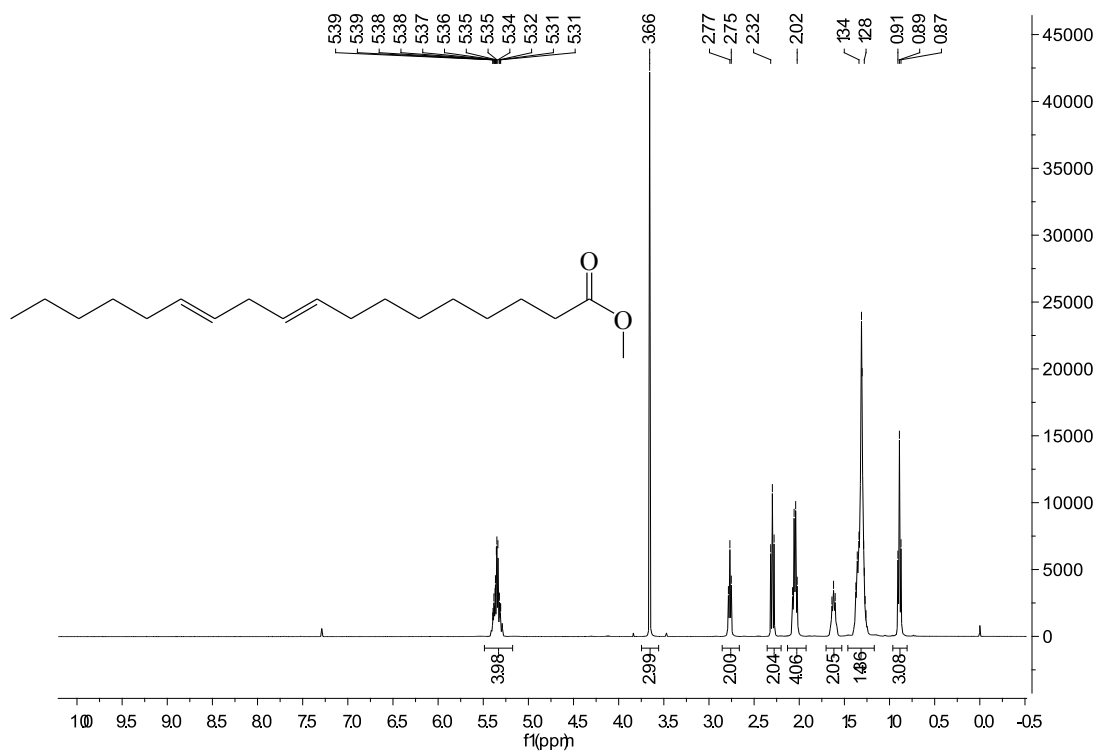
Spectra of compound 8

HRMS spectrum



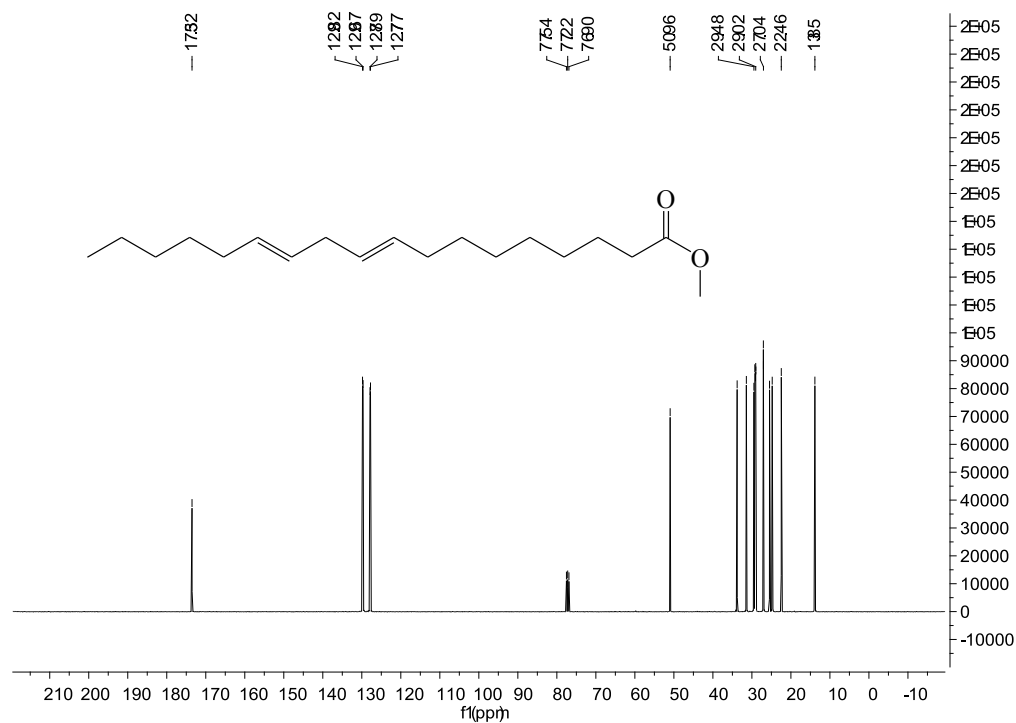
Spectra of compound 9

¹H NMR spectrum



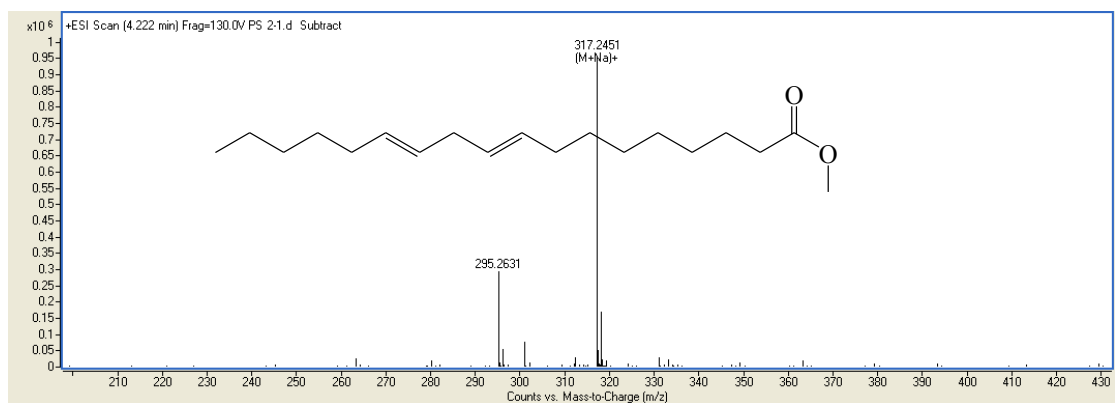
Spectra of compound 9

^{13}C NMR spectrum



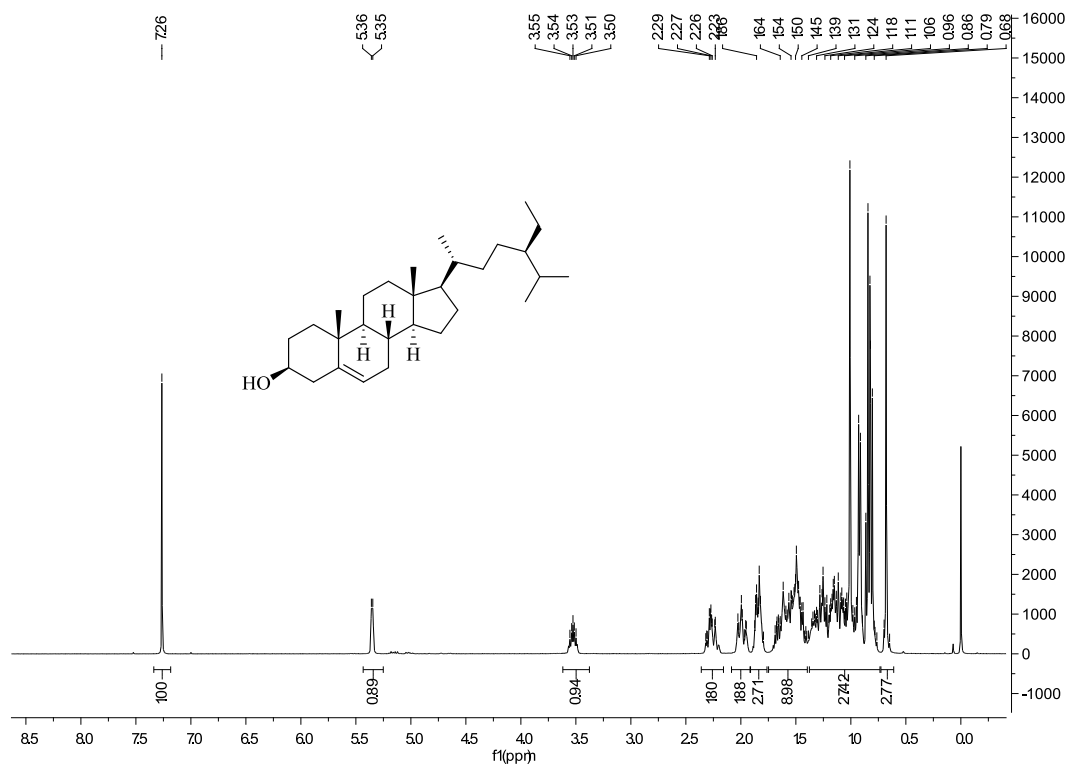
Spectra of compound 9

HRMS spectrum



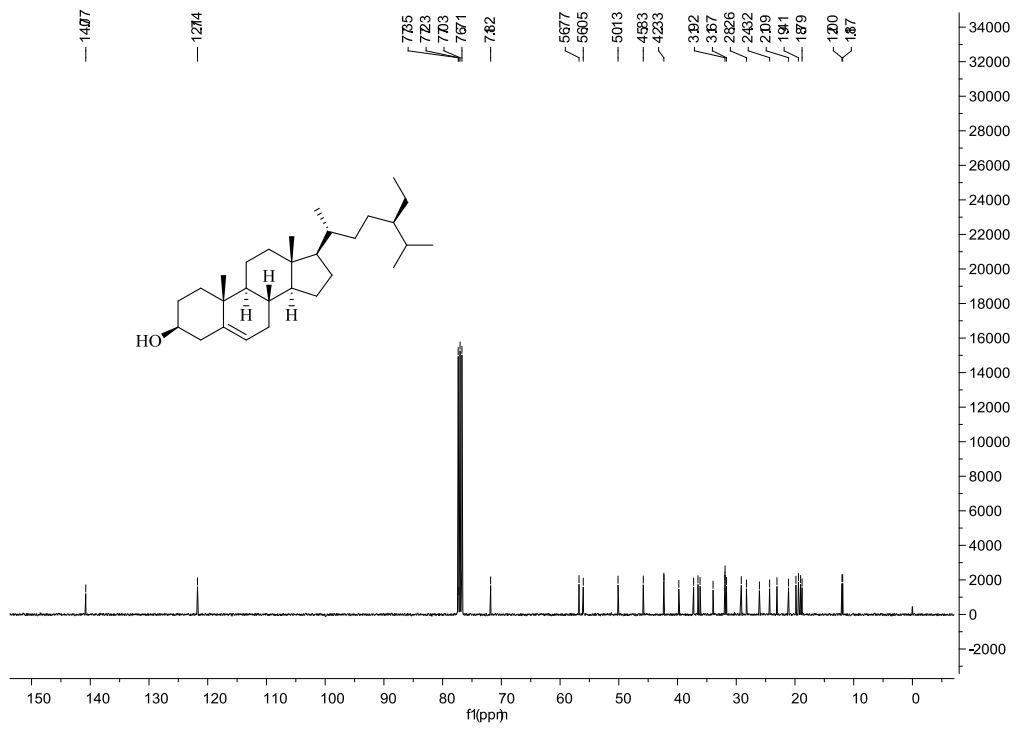
Spectra of compound 10

^1H NMR spectrum



Spectra of compound 10

¹³C NMR spectrum



Spectra of compound 10

HRMS spectrum

