

Bioassay-guided isolation of triterpenoids as α -glucosidase inhibitors from *Cirsium setosum*

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^b Beijing Key Laboratory of Bioactive Substances and Functional Foods, Beijing Union University, Beijing, 100191, China

^c State Key Laboratory of Bioactive Substance and Function of Natural Medicines, Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100050, China

Electronic Supplementary Information

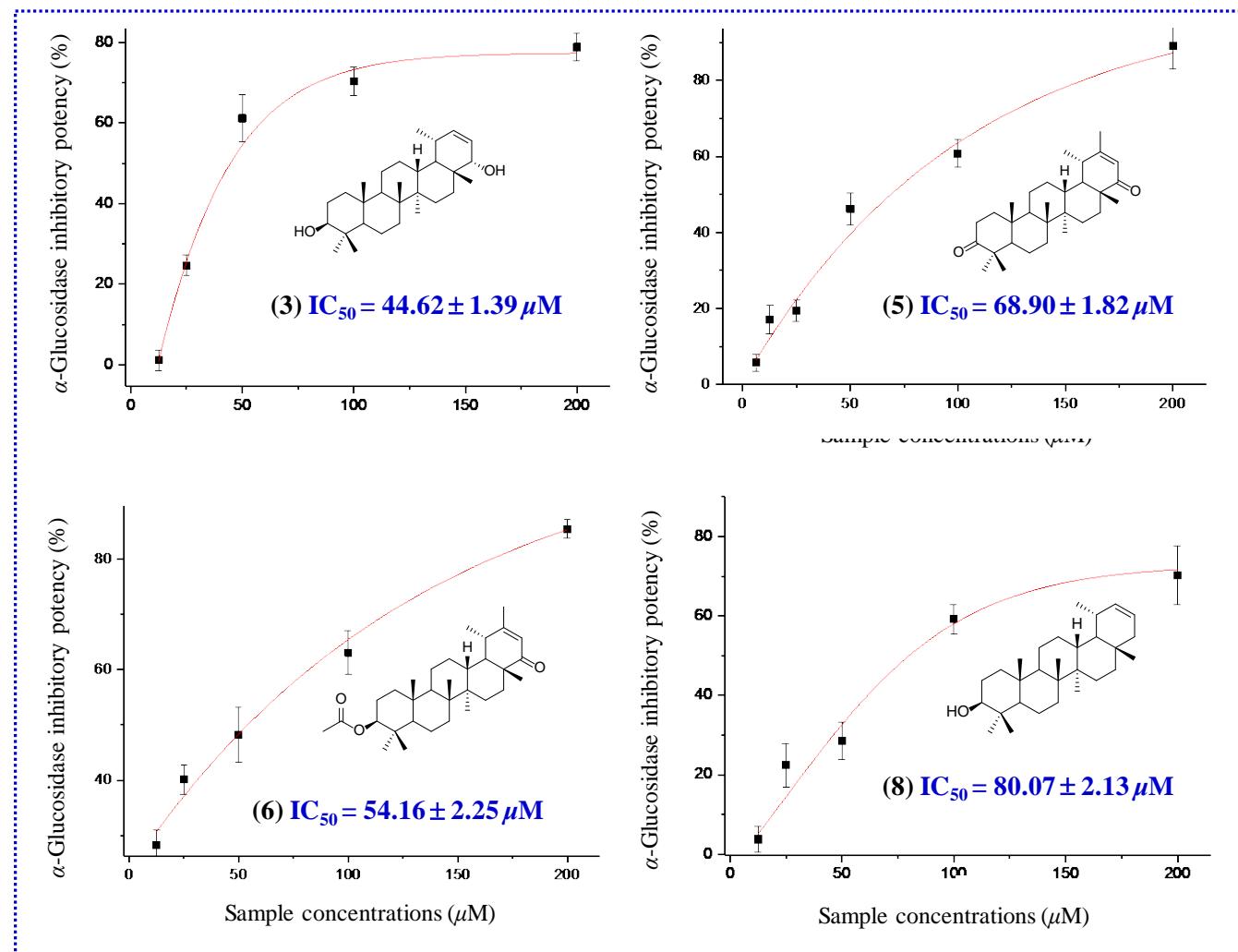
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† These authors contributed equally to this work

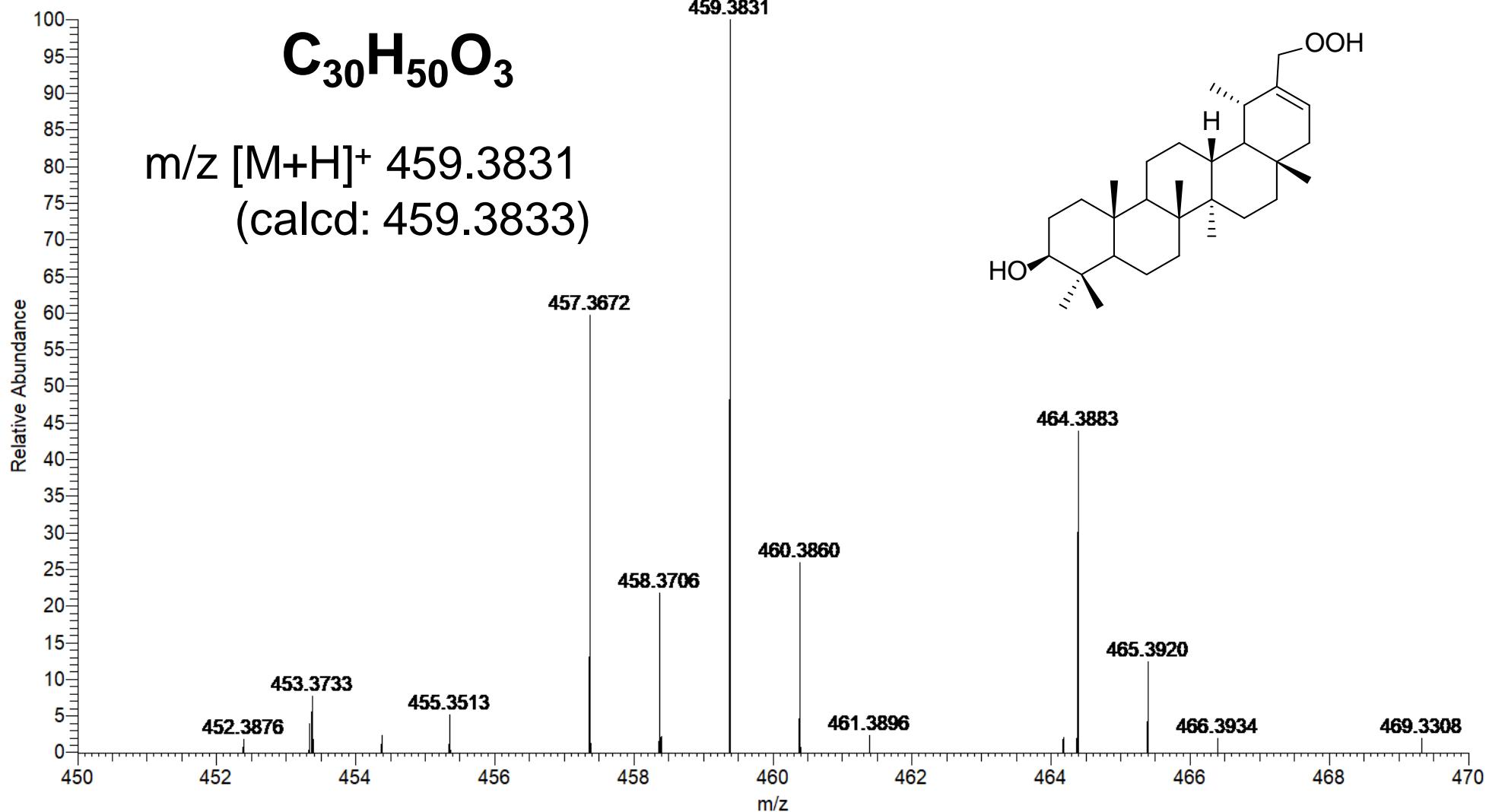
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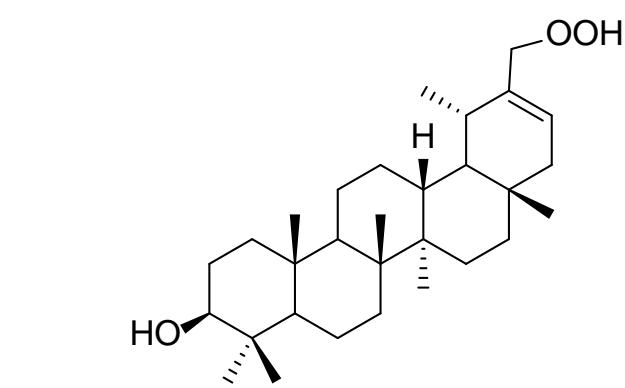
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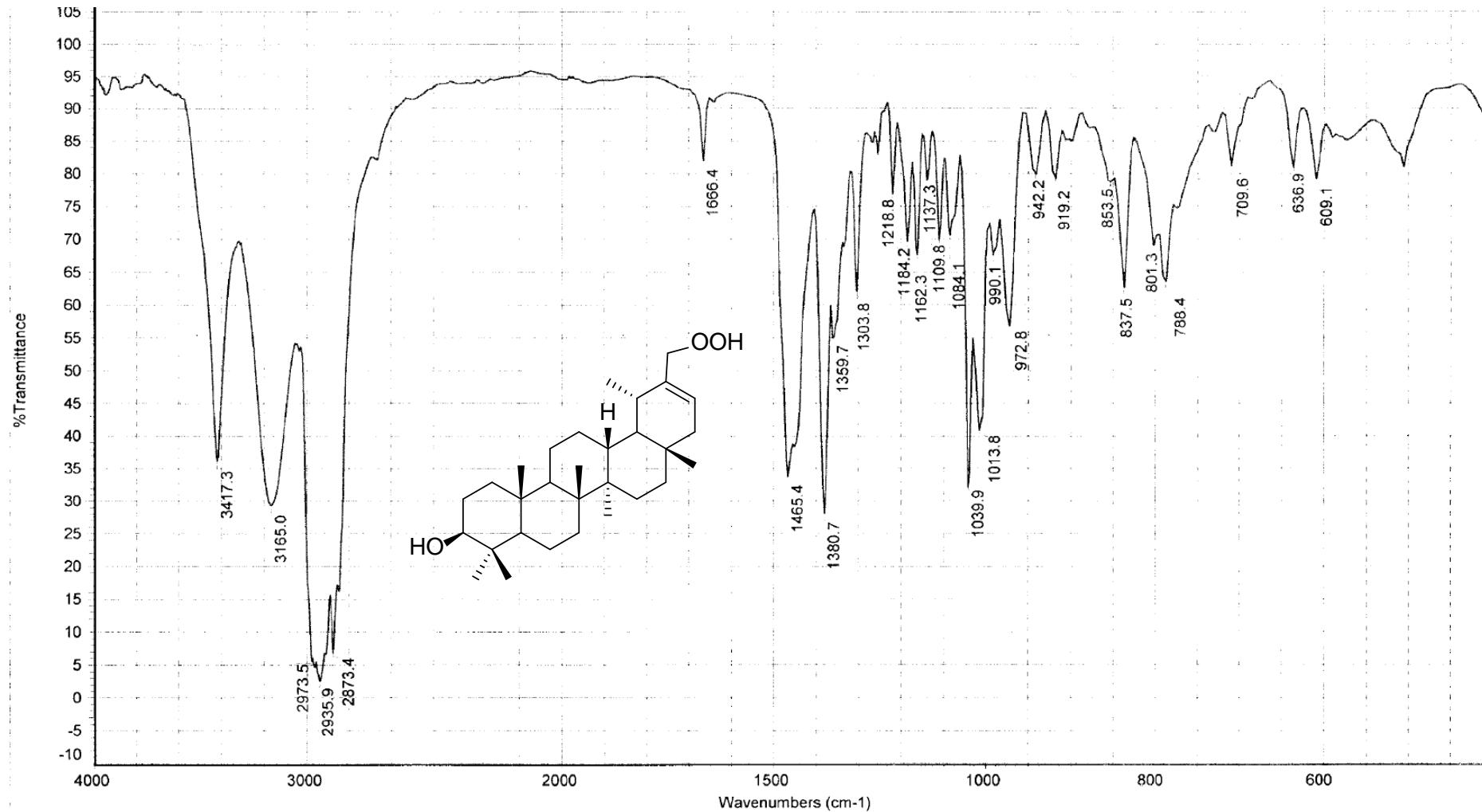


Half-maximal inhibitory concentrations (IC_{50}) of compounds 3, 5, 6 and 8 the positive control acarbose on α -glucosidase *in vitro*.



The HRESIMS Spectrum of Compound 1





日期: 星期五 5月 03 09:17:49 2013 (GMT+08:00) Sample Name : XT - 24

(显微镜透射法 FT- IR Microscope Transmission)

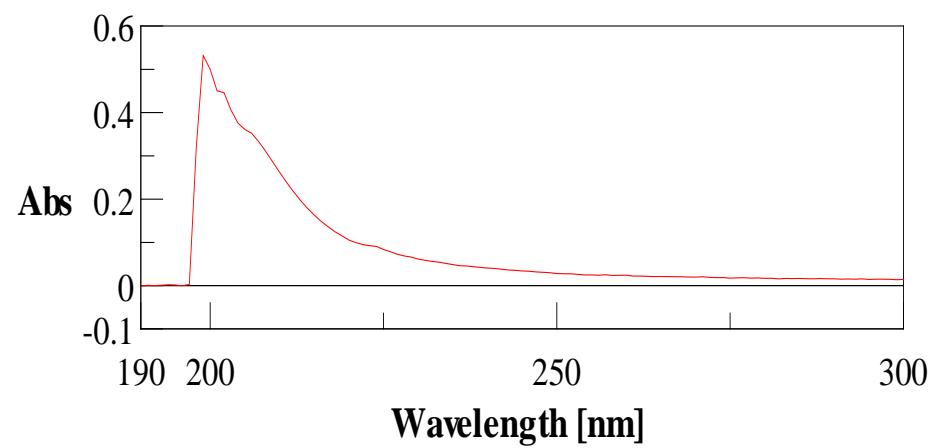
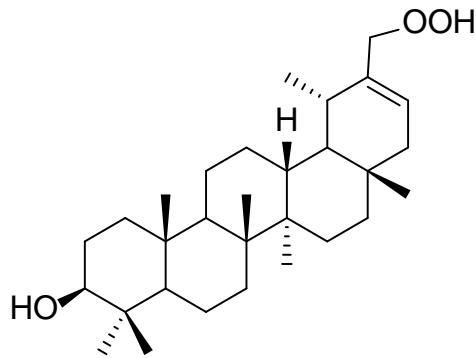
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傅里叶变换显微镜红外(FT-IR Microscope): Centaurus

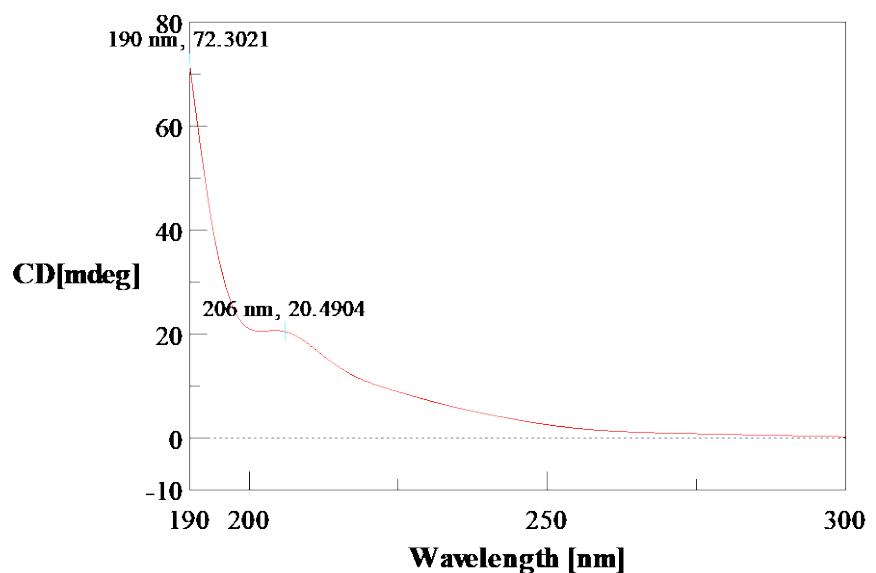
分辨率: 8.000

美国热电公司(Thermo)傅里叶变换红外光谱仪:Nicolet 5700

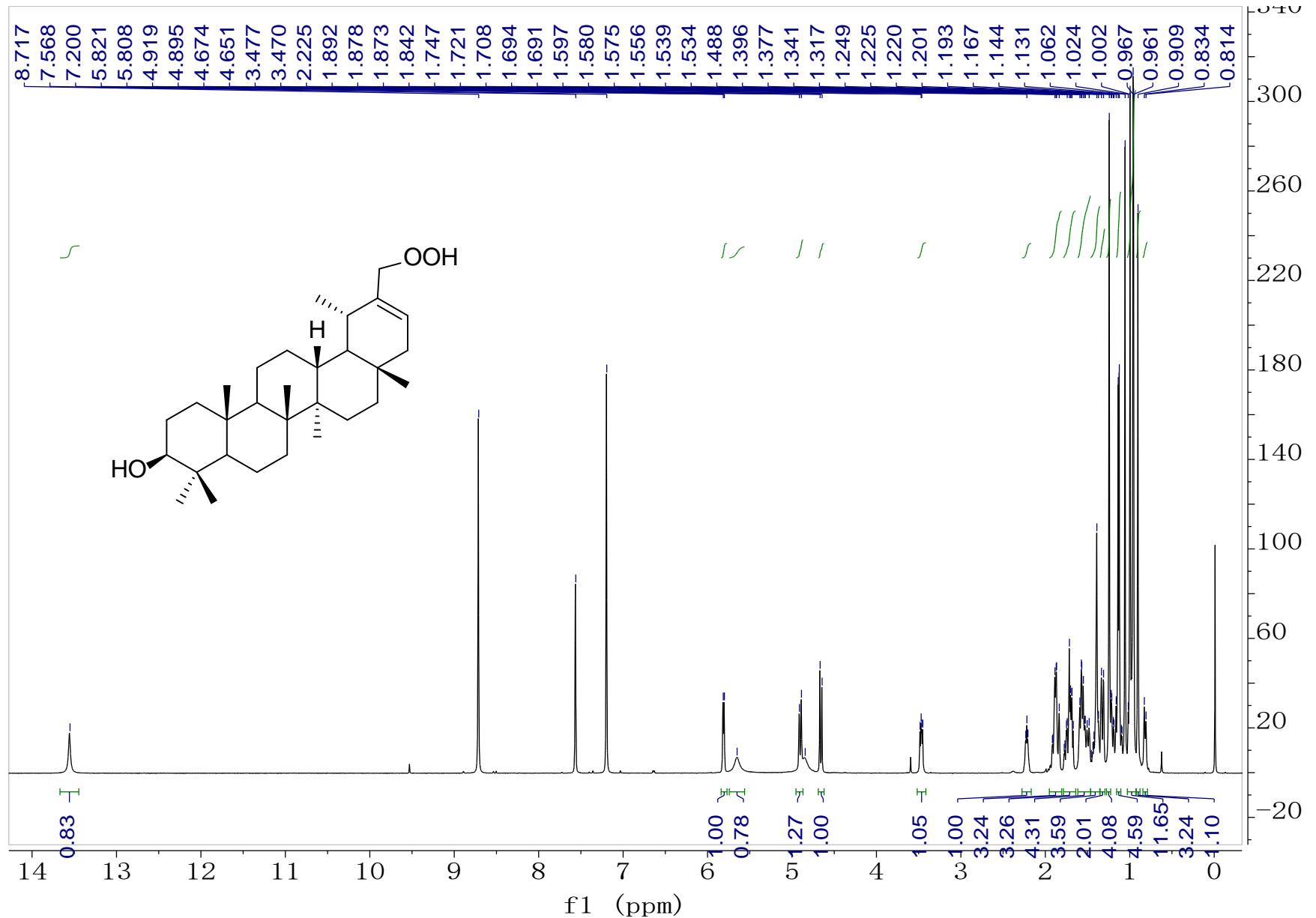
The IR Spectrum of Compound 1



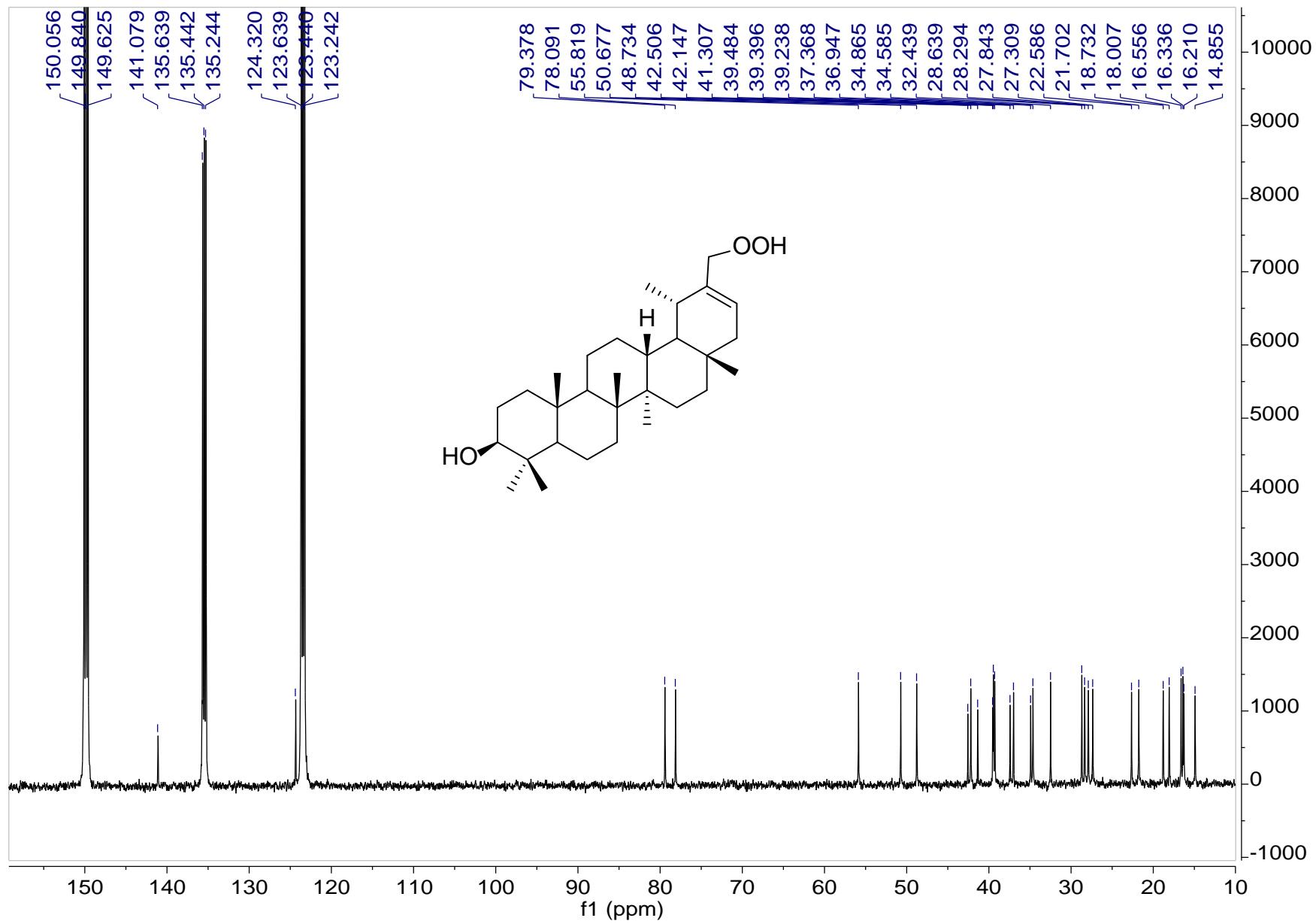
The UV Spectrum of Compound 1



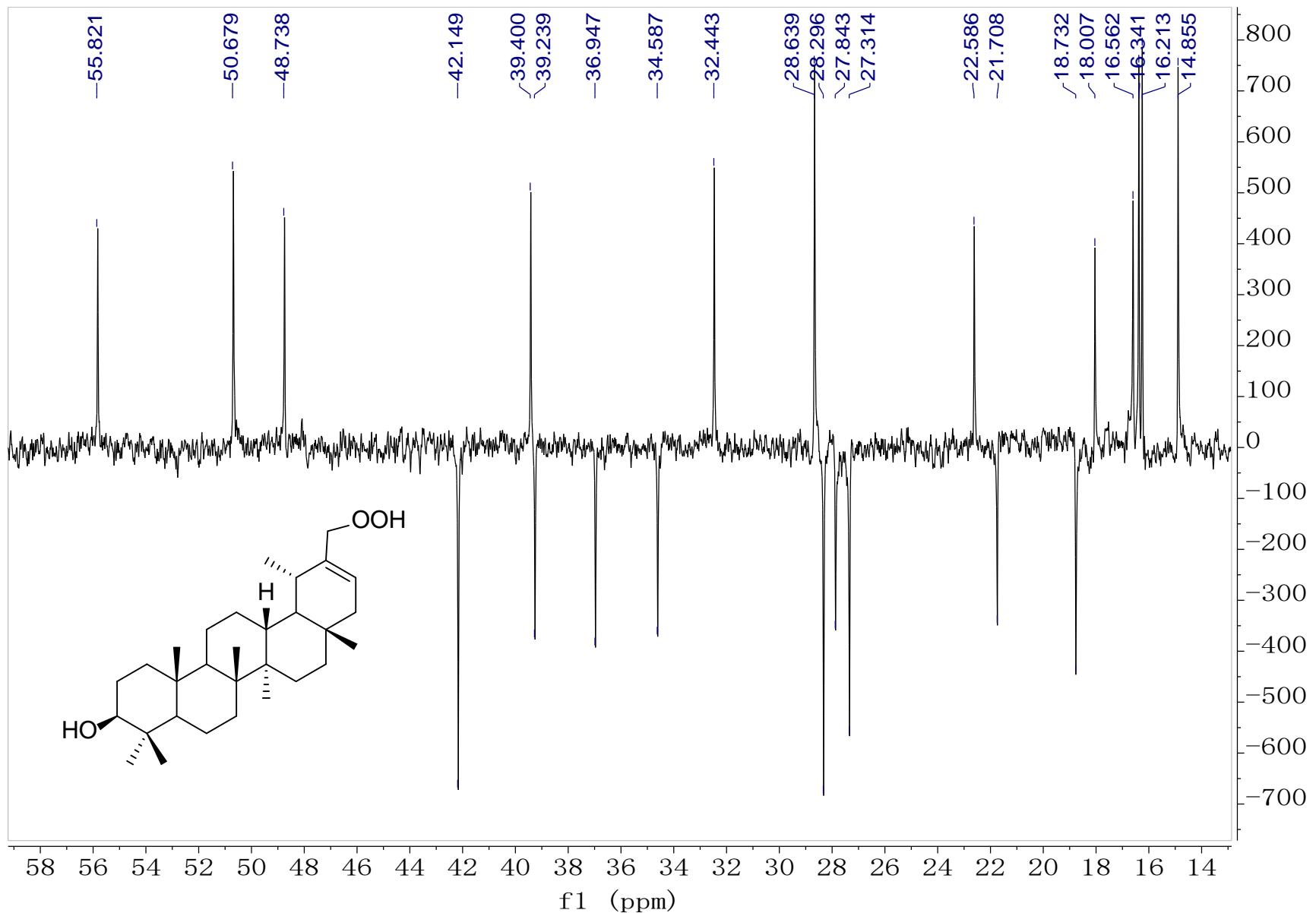
The CD Spectrum of Compound 1



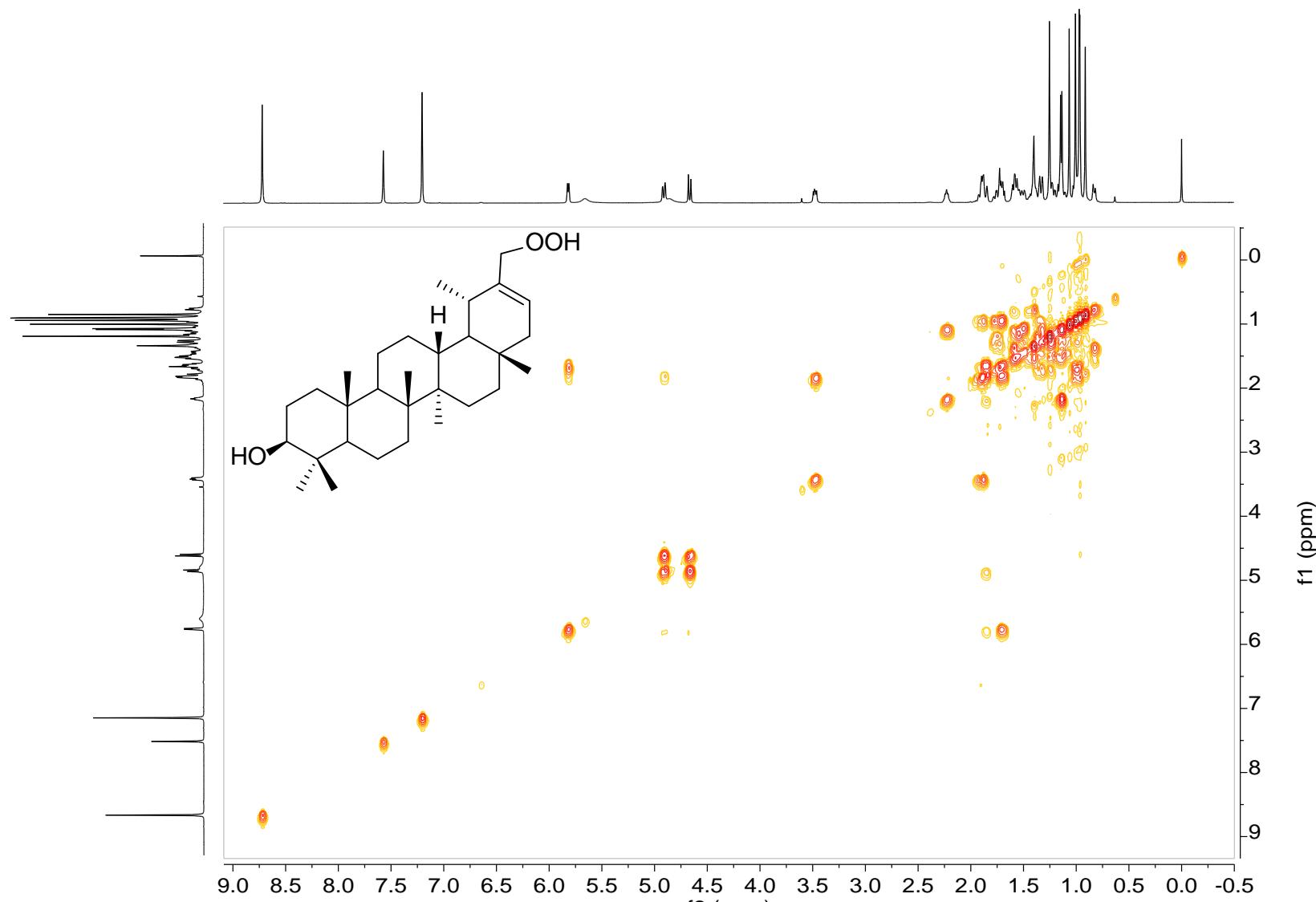
The ^1H NMR Spectrum of Compound 1



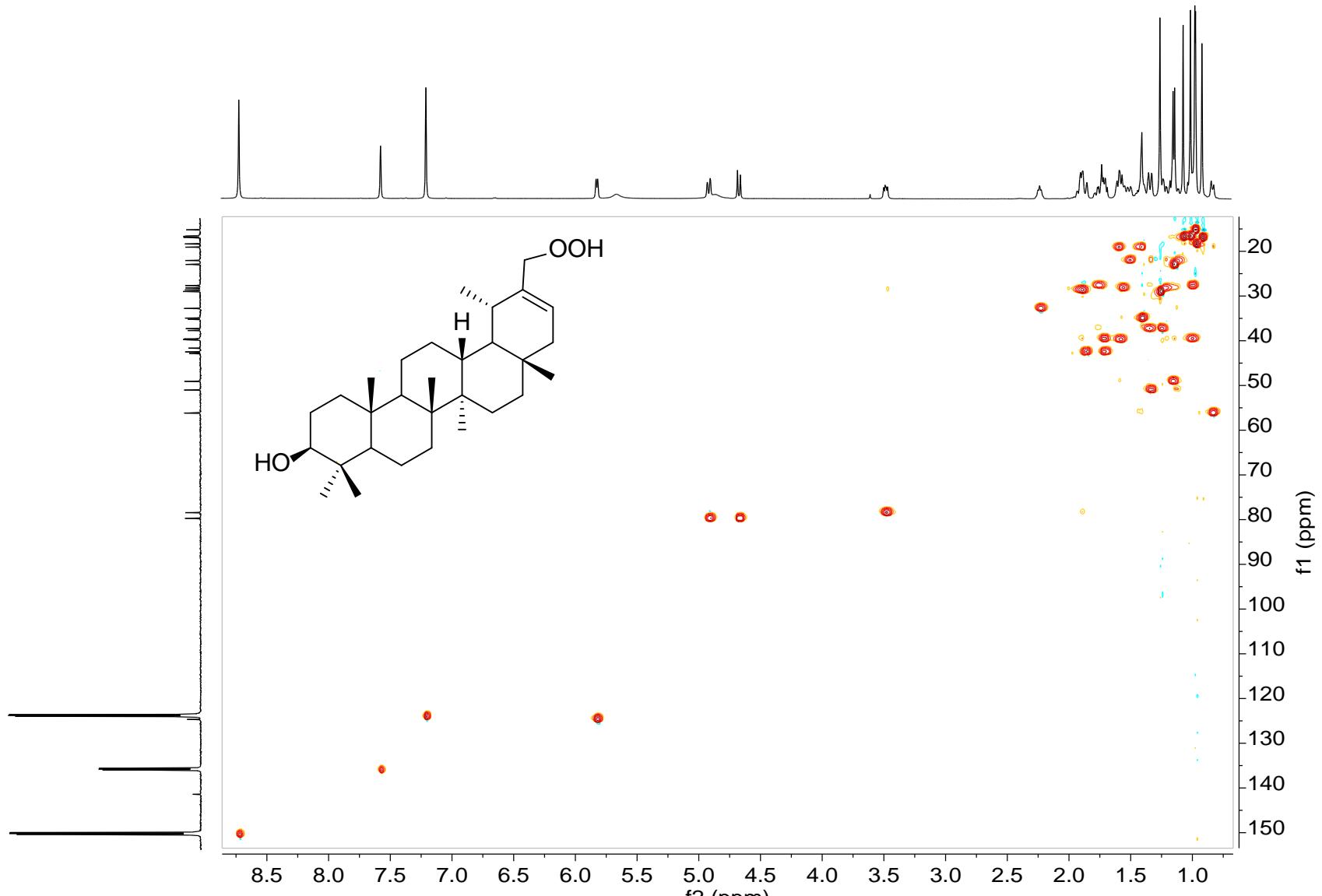
The ^{13}C NMR Spectrum of Compound 1



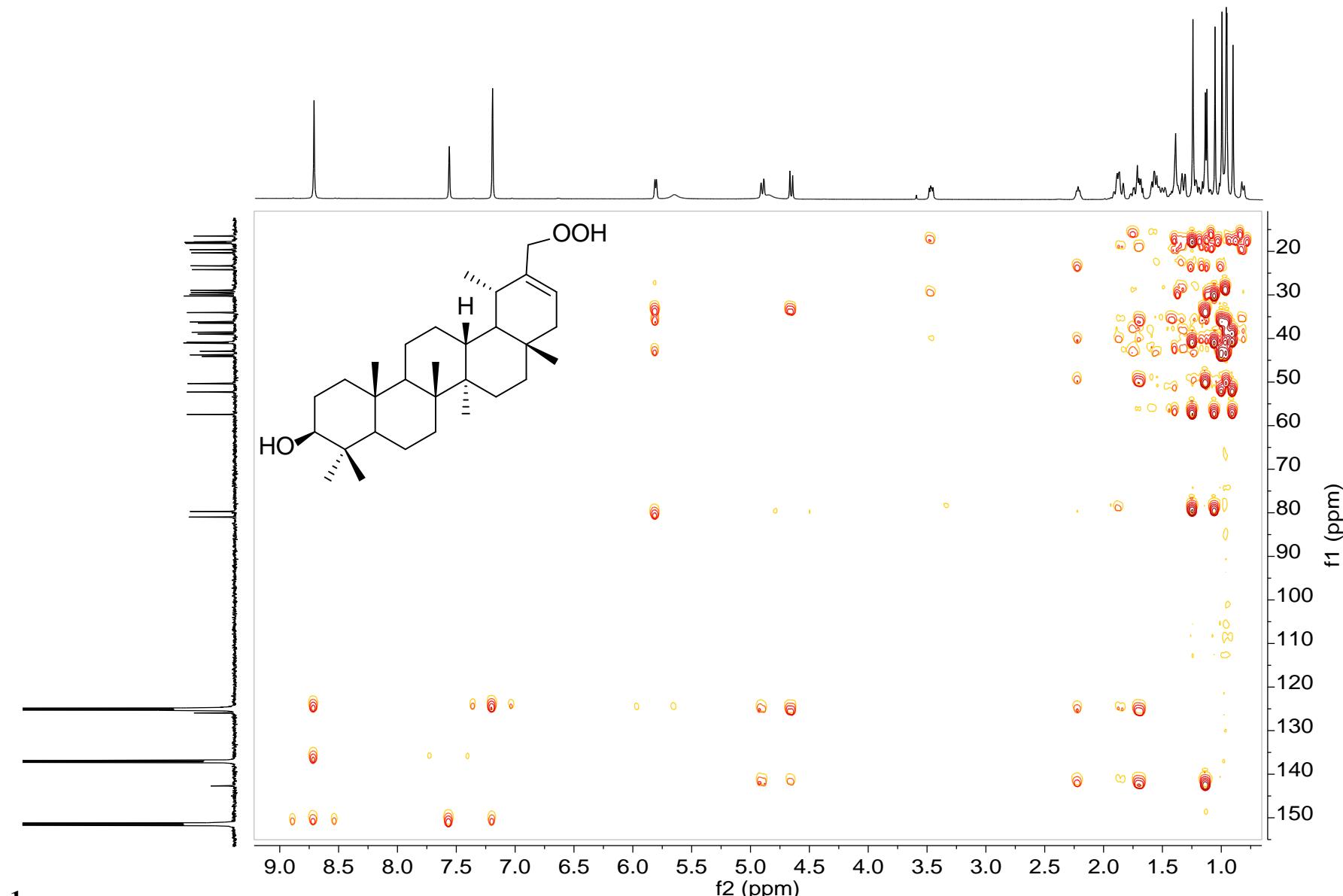
The DEPT-135° Spectrum of Compound 1



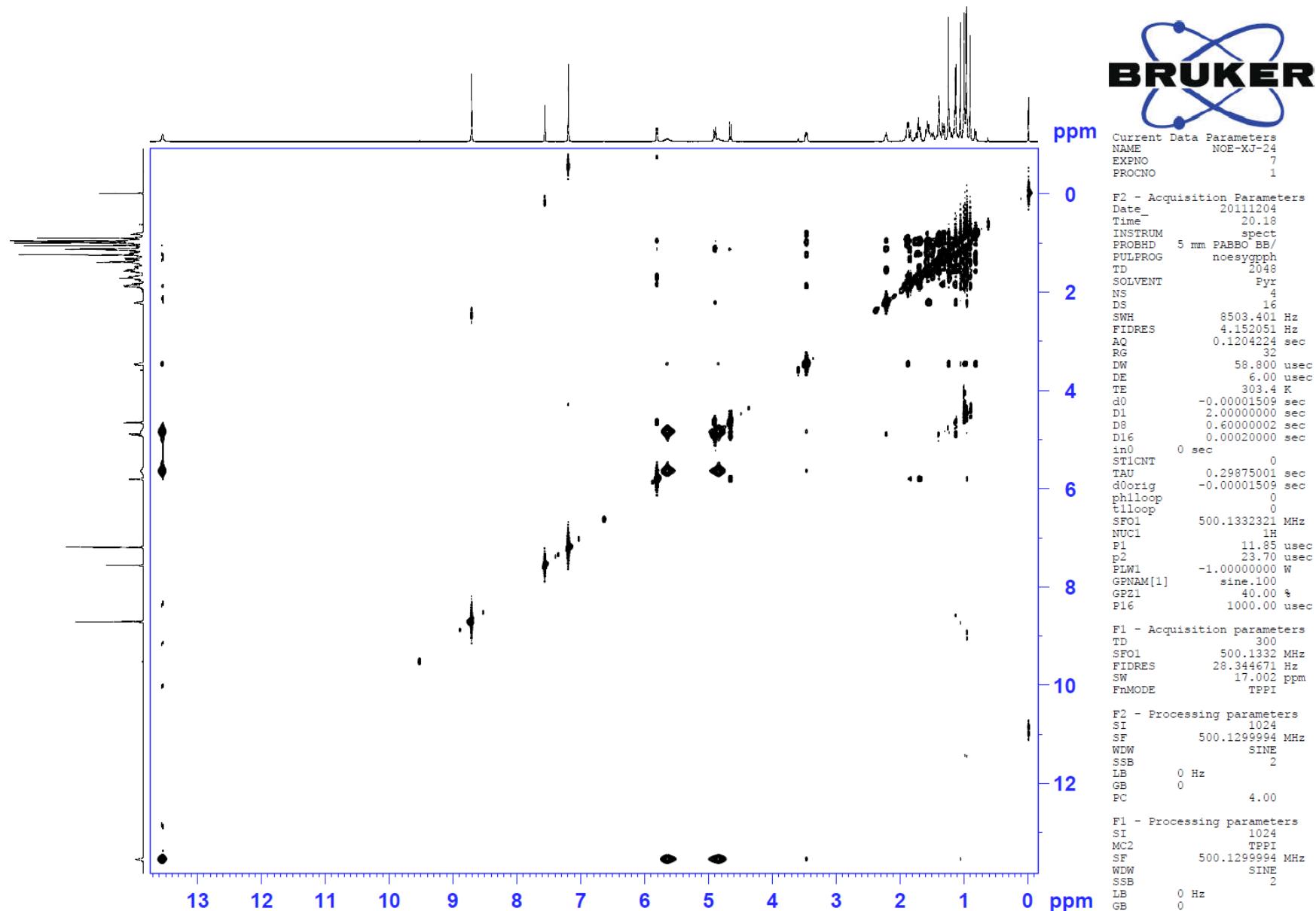
The ^1H - ^1H COSY Spectrum of Compound 1



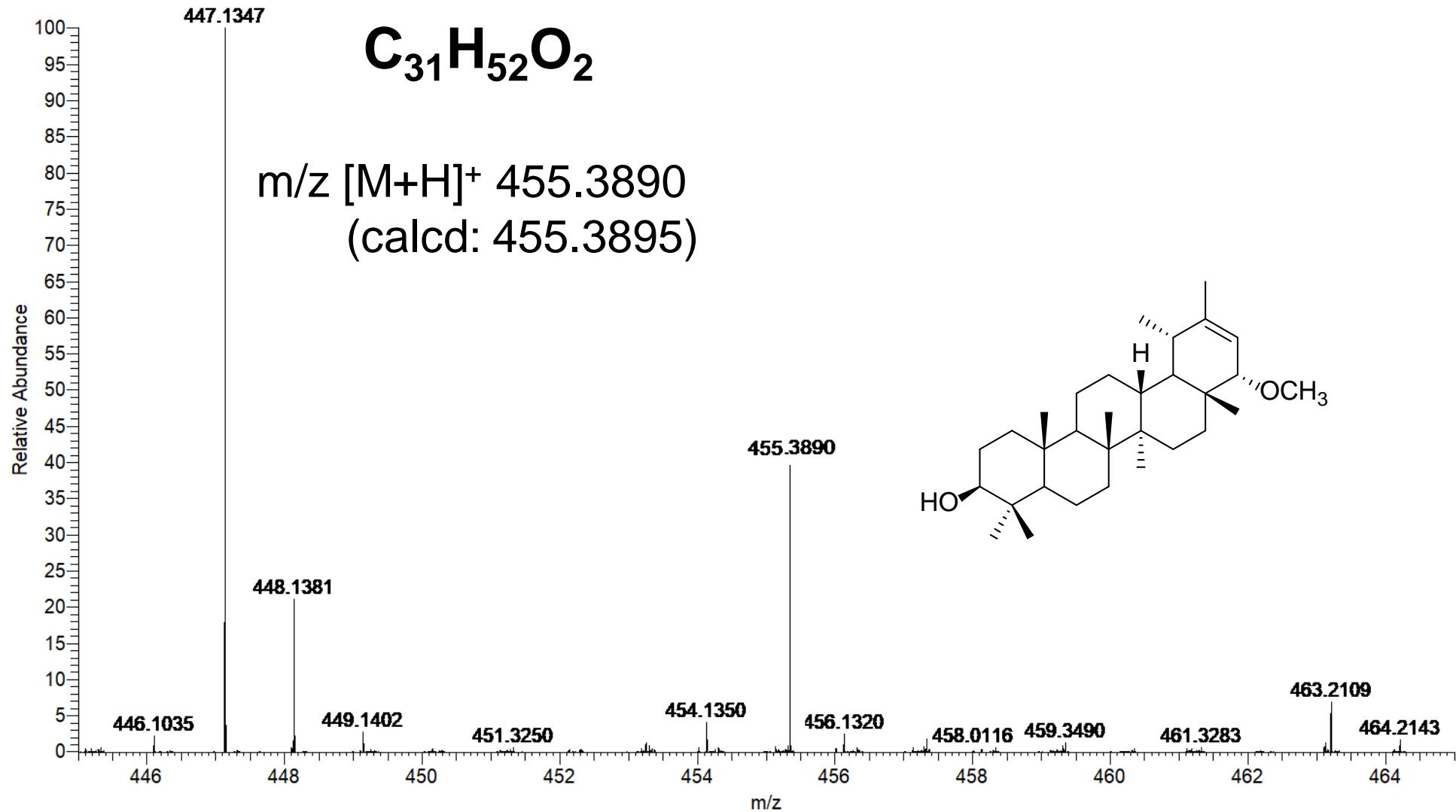
The HSQC Spectrum of Compound



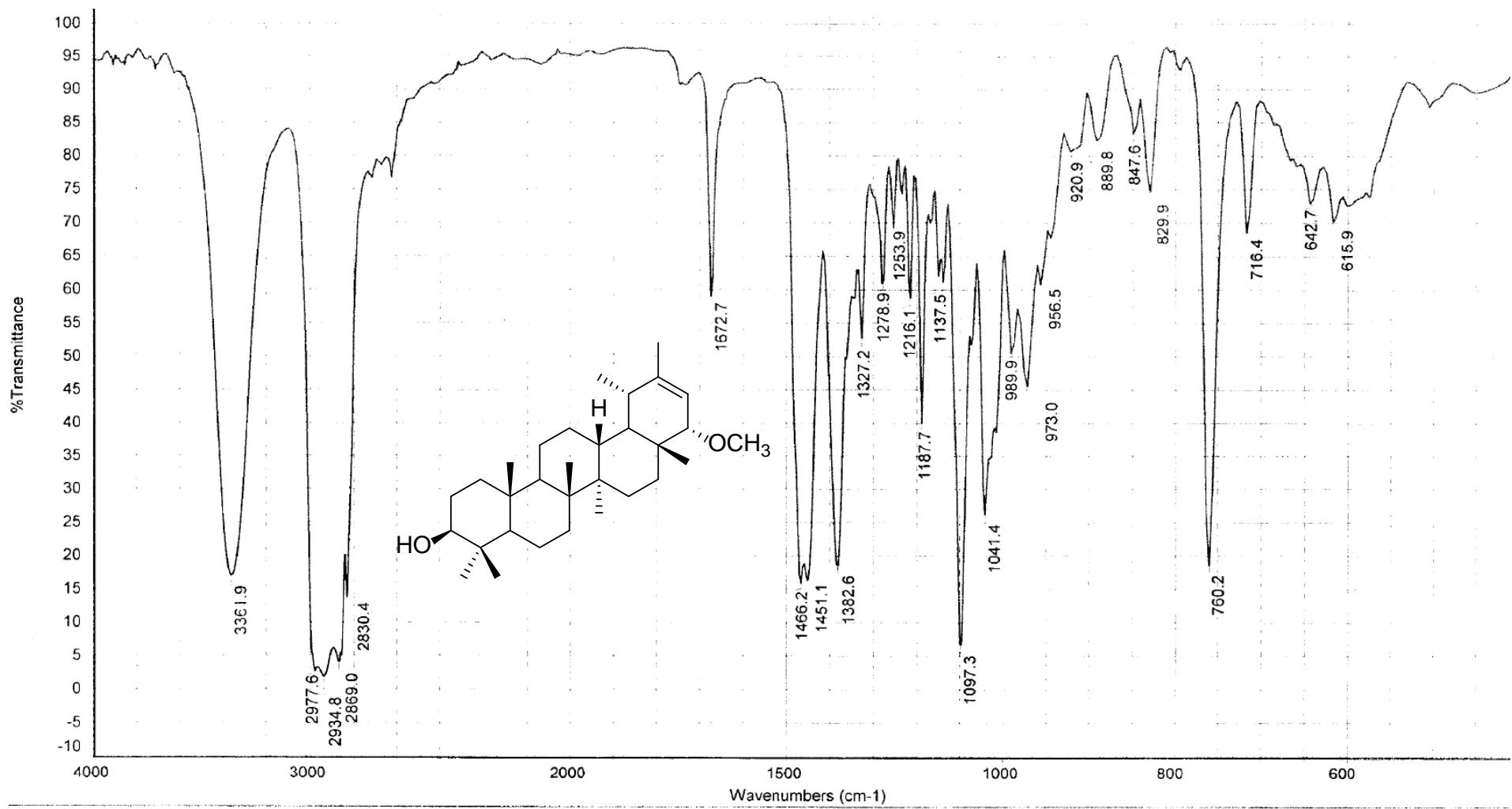
The HMBC Spectrum of compound 1



The NOESY Spectrum of compound 1



The HRESIMS Spectrum of Compound 2



日期: 星期五 5月 03 10:05:29 2013 (GMT+08:00) Sample Name : XT - 27

(显微镜透射法 FT- IR Microscope Transmission)

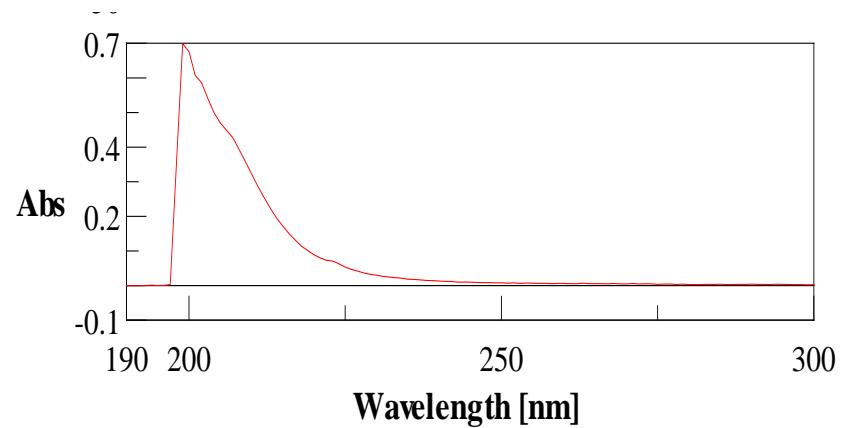
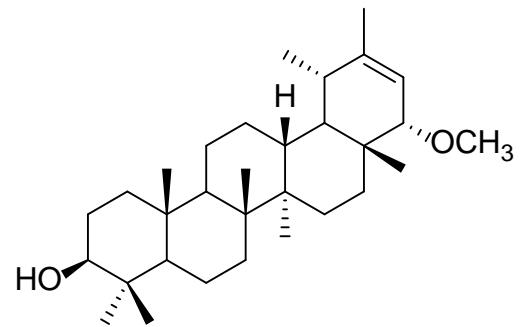
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傅里叶变换显微镜红外(FT-IR Microscope): Centaurus

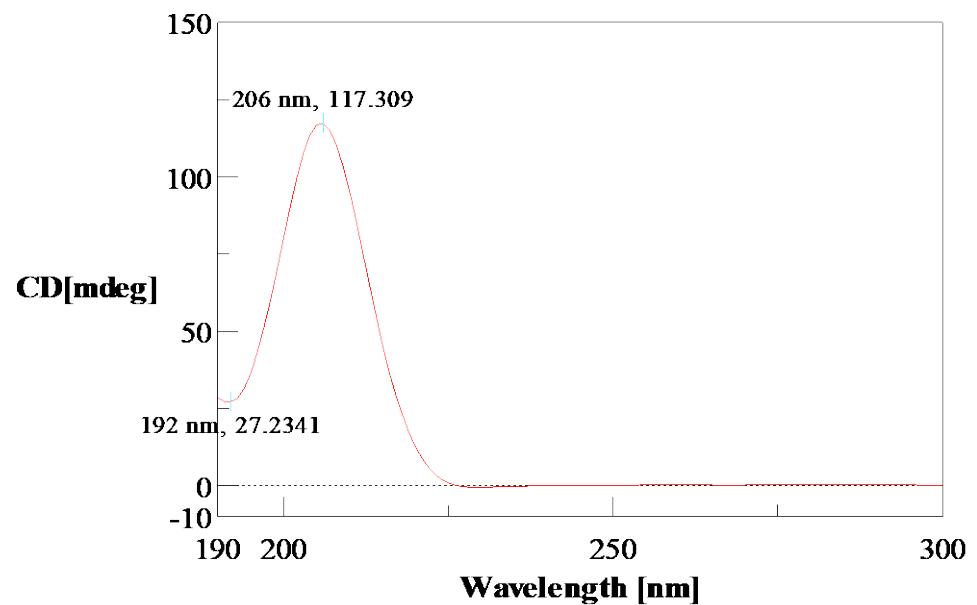
分辨率: 8.000

美国热电公司(Thermo)傅里叶变换红外光谱仪:Nicolet 5700

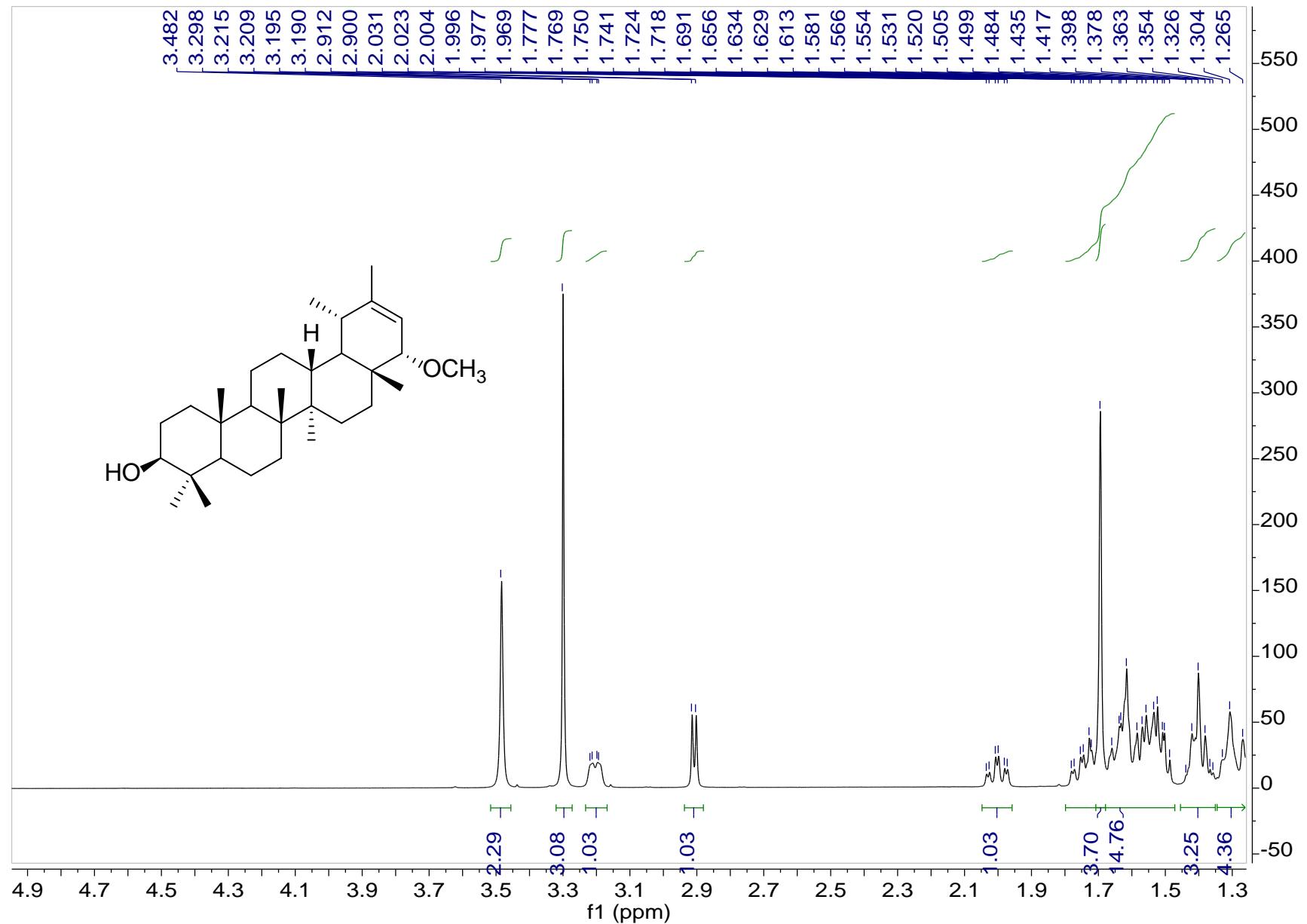
The IR Spectrum of Compound 2



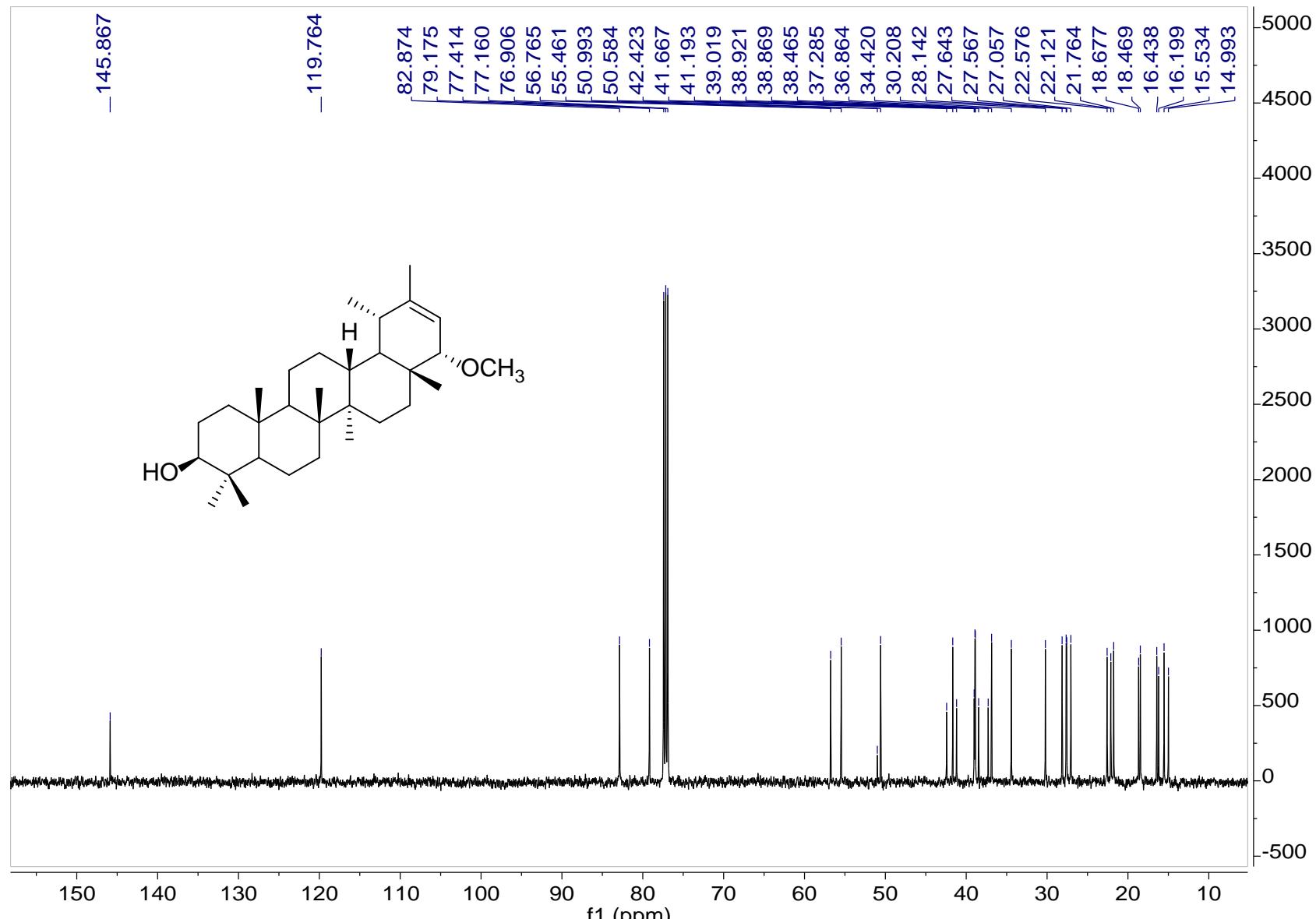
The UV Spectrum of Compound 2



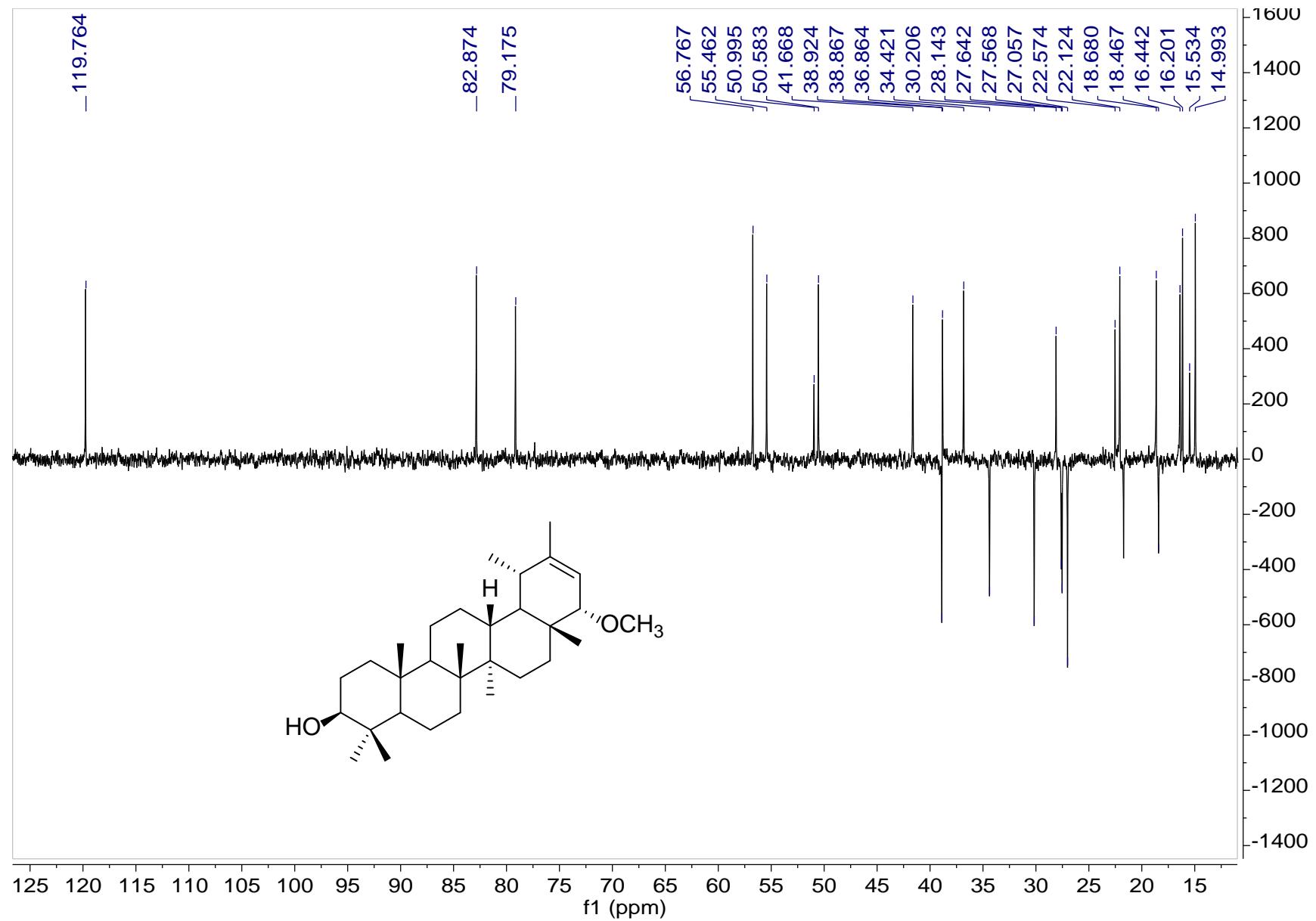
The CD Spectrum of Compound 2



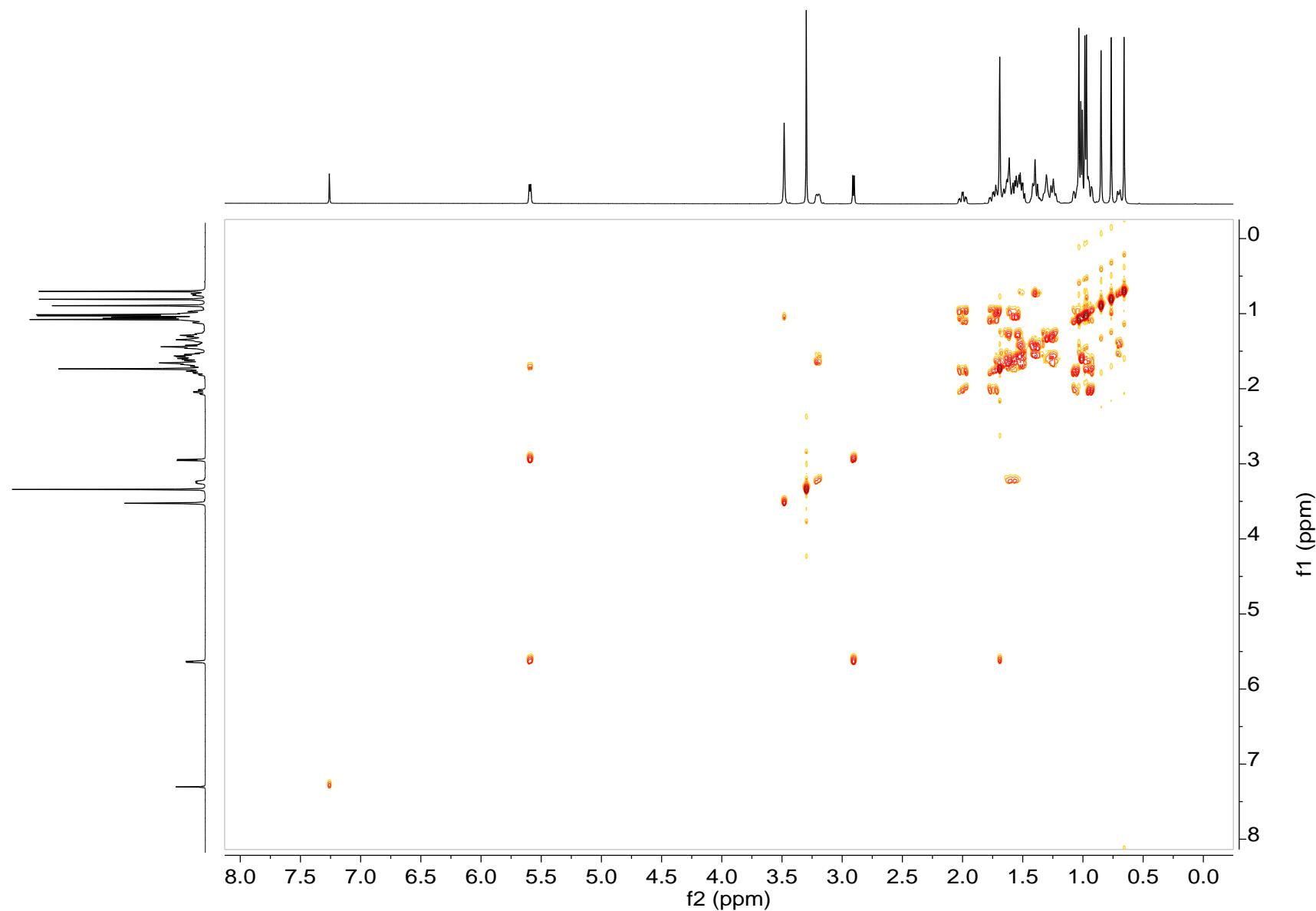
The ^1H NMR Spectrum of Compound 2



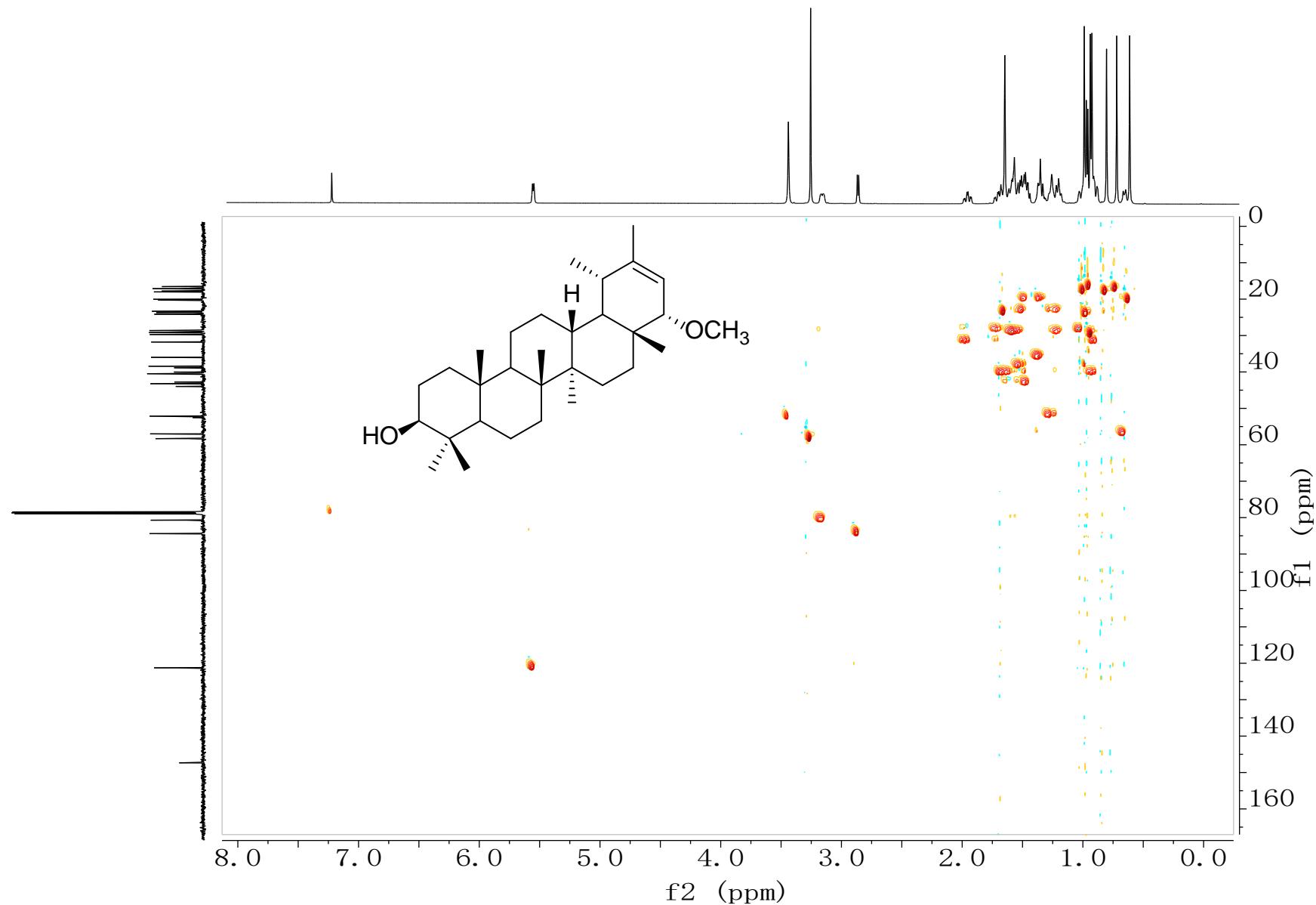
The ^{13}C NMR Spectrum of Compound 2



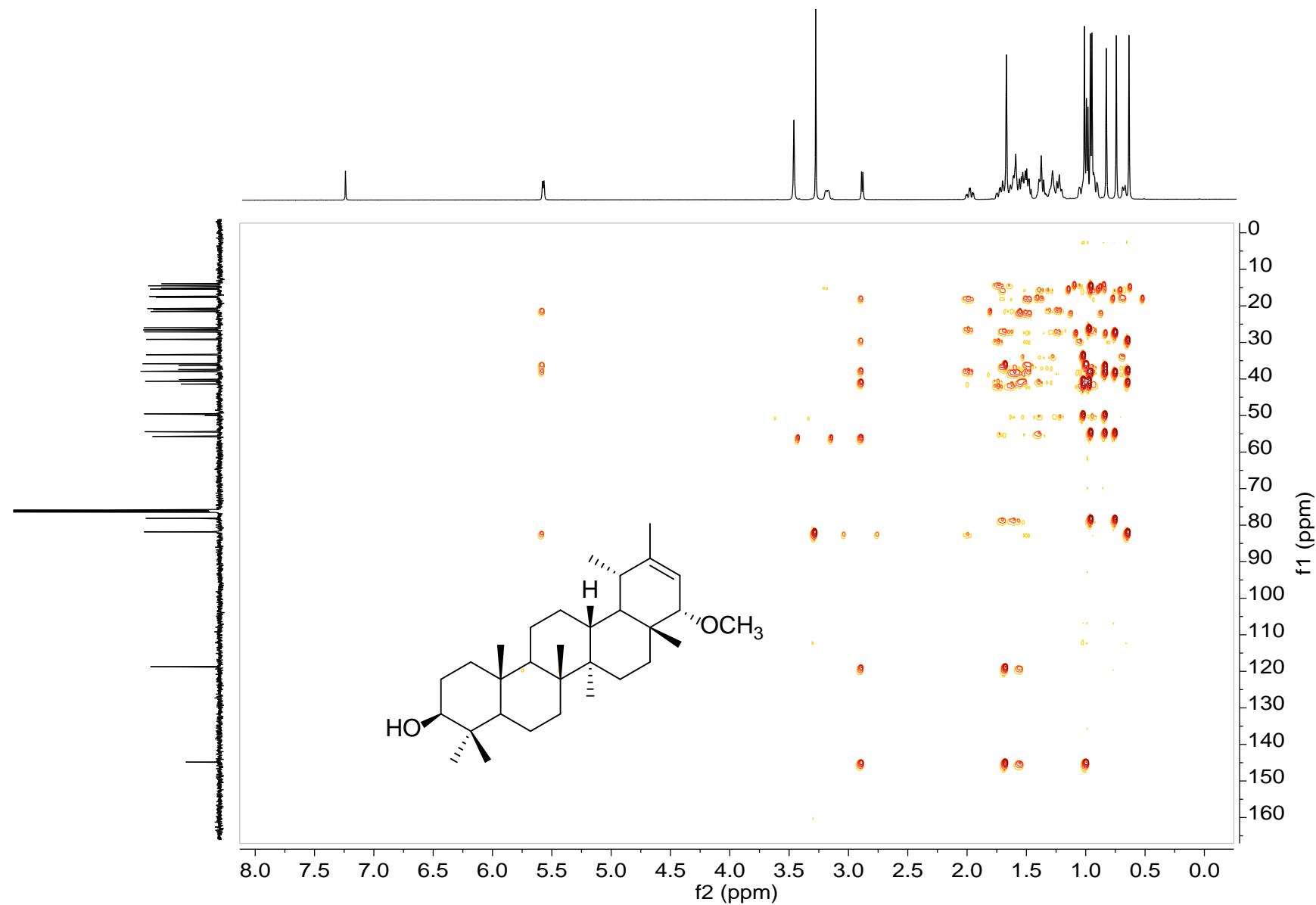
The DEPT Spectrum of Compound 2



The ^1H - ^1H COSY Spectrum of Compound 2



The HSQC Spectrum of Compound 2



The HMBC Spectrum of Compound 2

ROESYPHSW CDCl₃ D:\\ shangxiaoya 6



ppm Current Data Parameters
NAME 20190422-XJ-27
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20190423
Time 1.10
INSTRUM spect
PROBHD 5 mm CPPTCI 1H
PULPROG roesyphpp.2
TD 2048
SOLVENT CDCl₃
NS 32
DS 32
SWH 4000.000 Hz
FIDRES 1.953125 Hz
AQ 0.2560000 sec
RG 64
DW 125.000 usec
DE 10.00 usec
TE 297.3 K
D0 0.00011591 sec
D1 1.0000000 sec
D11 0.03000000 sec
D12 0.00002000 sec
INO 0.00025000 sec
L4 1000
P15 200000.00 usec

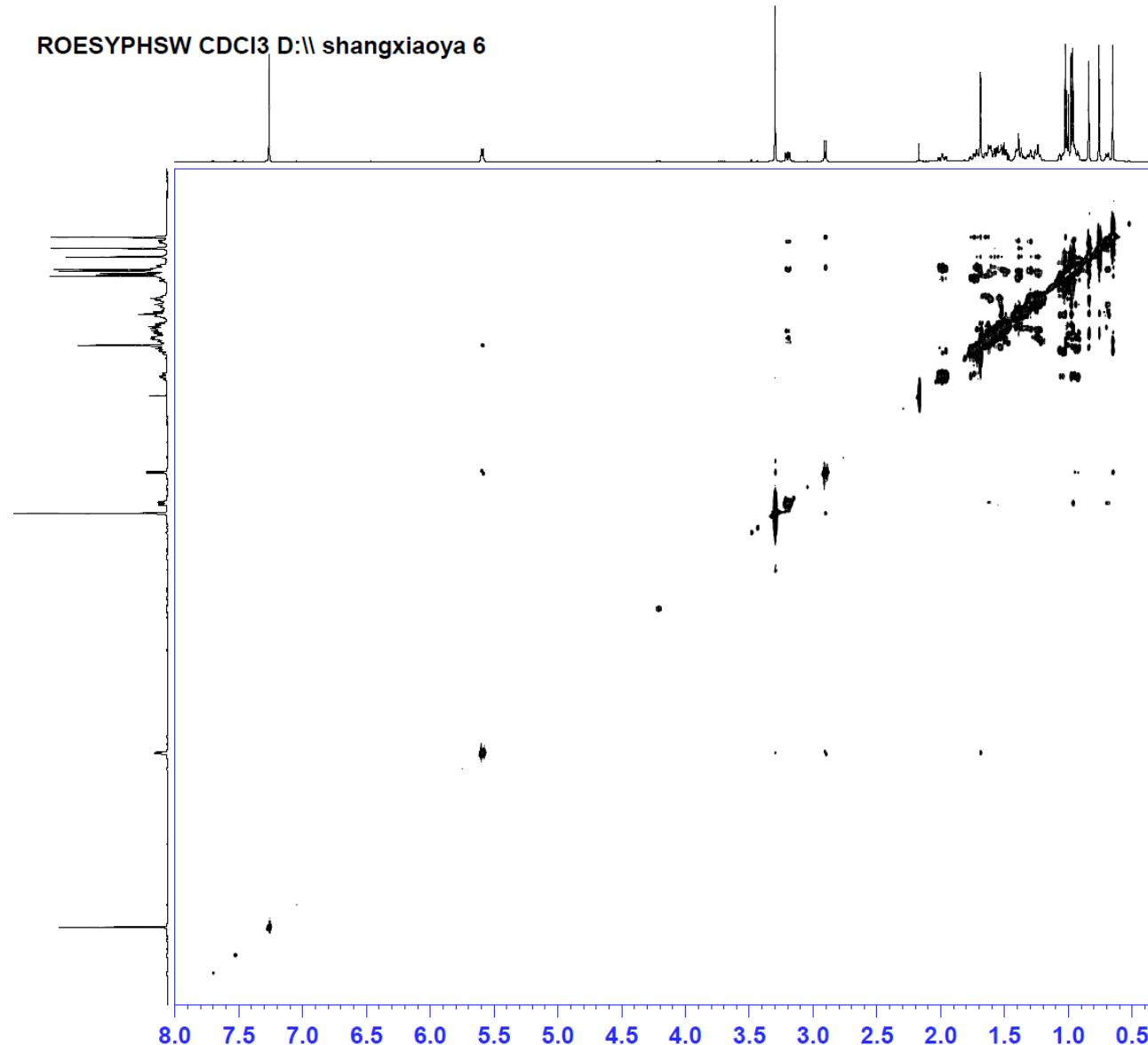
===== CHANNEL f1 ======

4 SFO1 500.0619002 MHz
NUC1 1H
P1 8.00 usec
PL7 2500.00 usec
P25 100.00 usec
PLW1 8.6999981 W
PLW10 0.61866599 W
PLW27 0.22272000 W

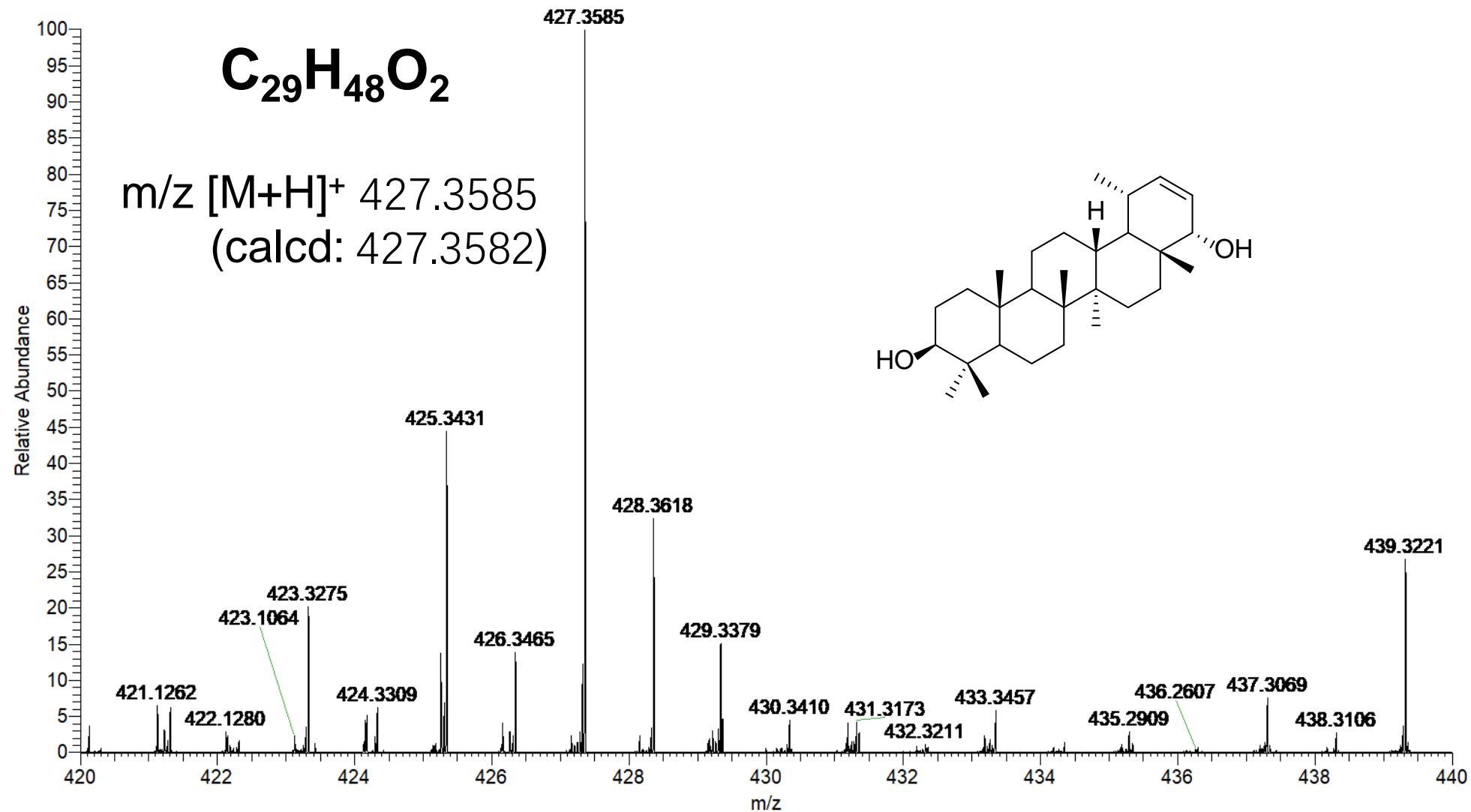
5 F1 - Acquisition parameters
TD 256
SFO1 500.0619 MHz
FIDRES 15.625000 Hz
SW 7.999 ppm
PmODE States-TPPI

6 F2 - Processing parameters
SI 1024
SF 500.0600124 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0
PC 1.00

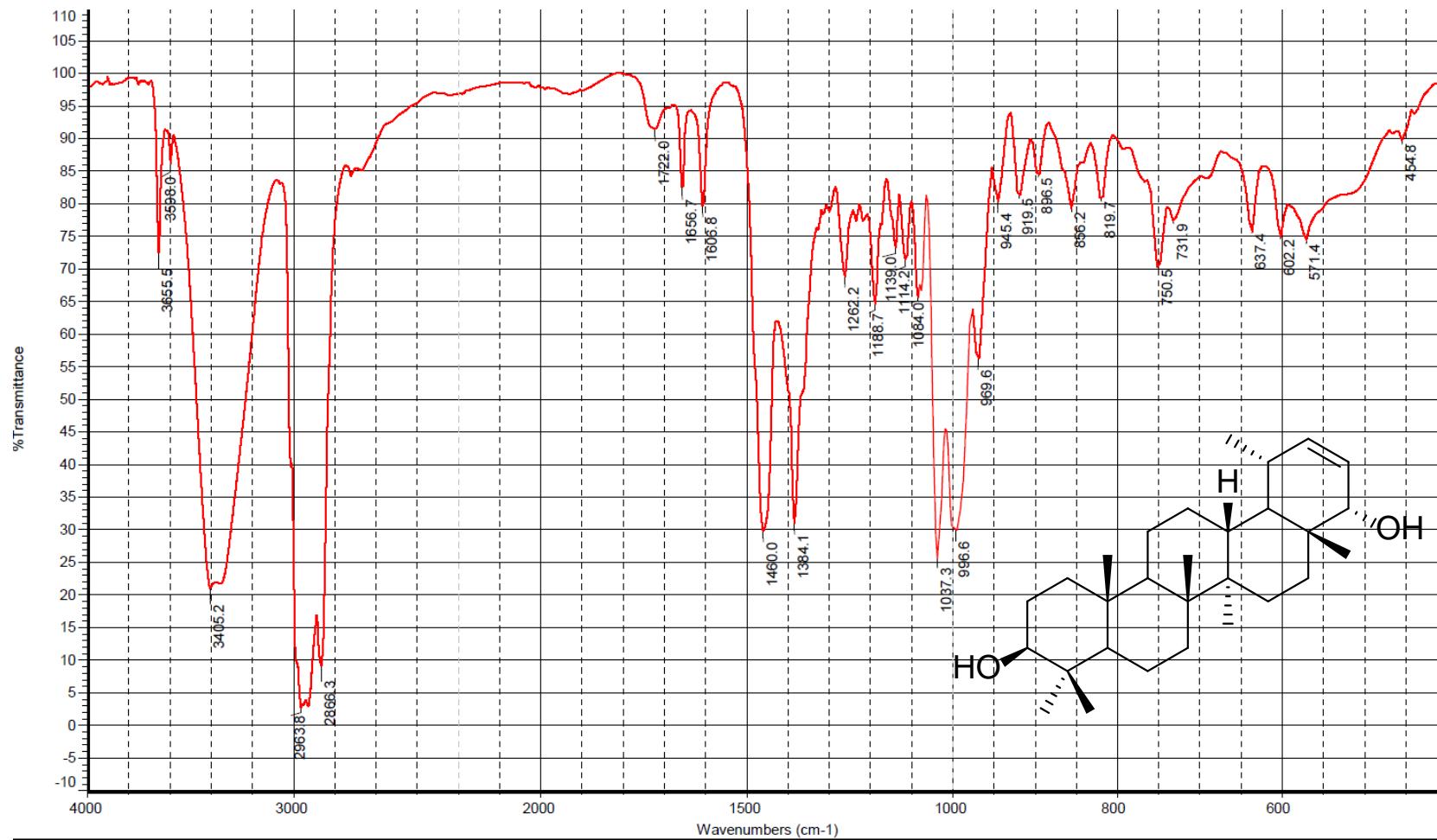
7 F1 - Processing parameters
SI 1024
MC2 States-TPPI
SF 500.0600124 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0



The NOESY Spectrum of Compound 2



The HRESIMS Spectrum of Compound 3



日期: 星期二 12月 11 10:31:02 2018 (GMT+08:00)

Sample Name : XJ-52 (显微镜透射法FT- IR Microscope Transmission)

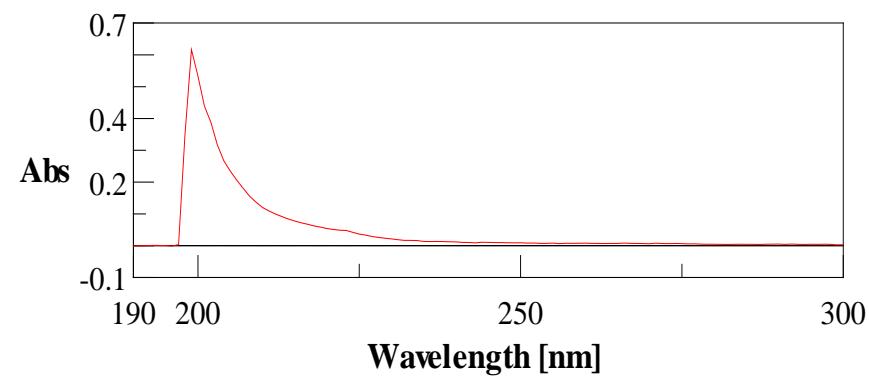
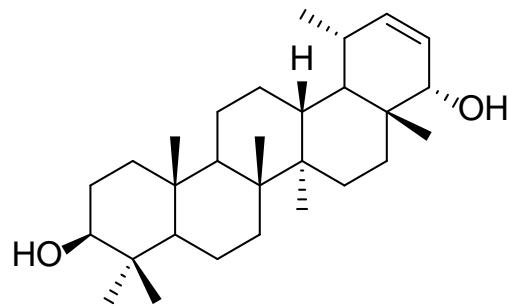
扫描次数: 100

傅立叶变换显微镜红外(FT-IR Microscope): Centaurus

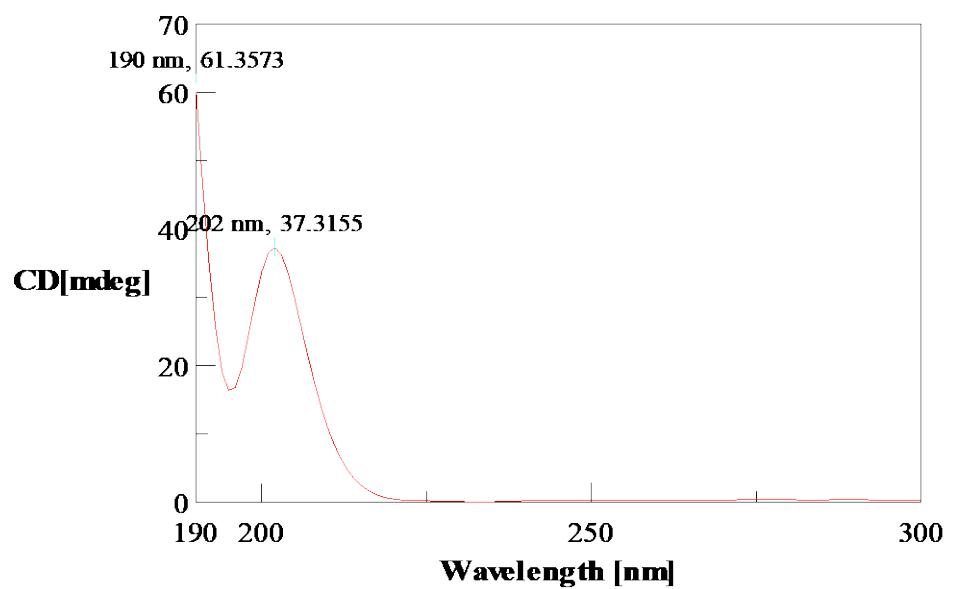
分辨率: 8.000

美国热电公司(Thermo)傅立叶变换红外光谱仪:Nicolet 5700

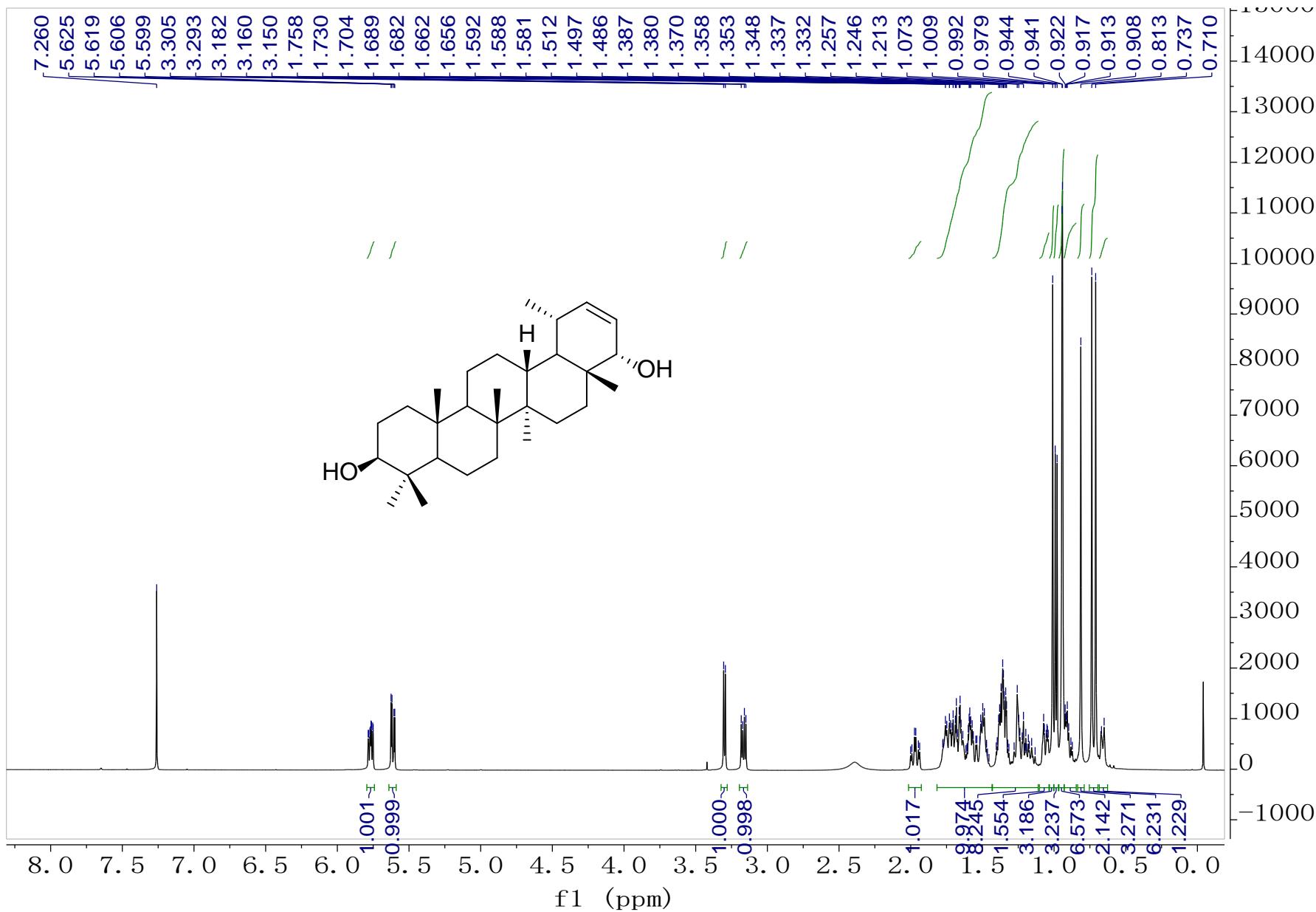
The IR Spectrum of Compound 3



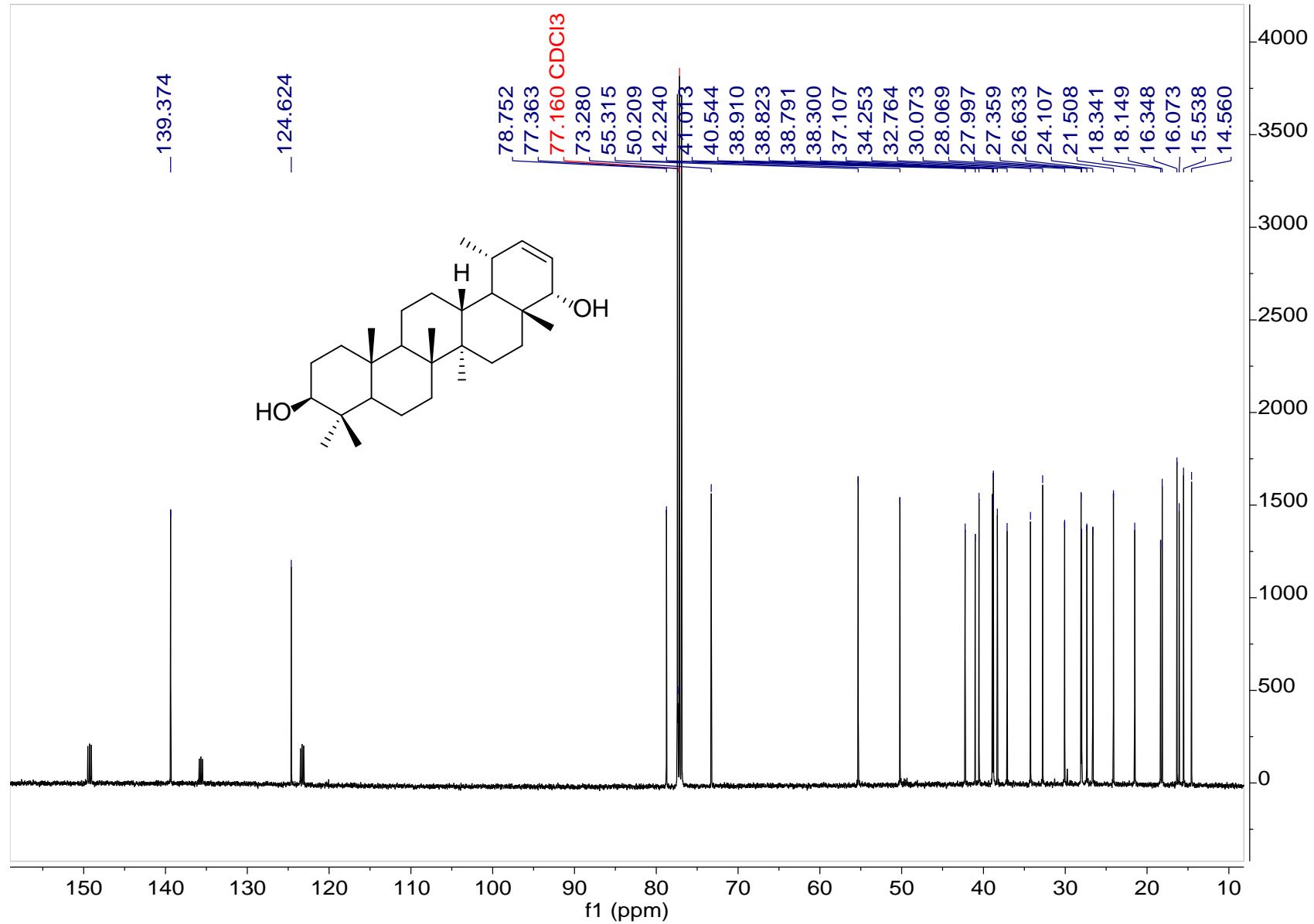
The UV Spectrum of Compound 3



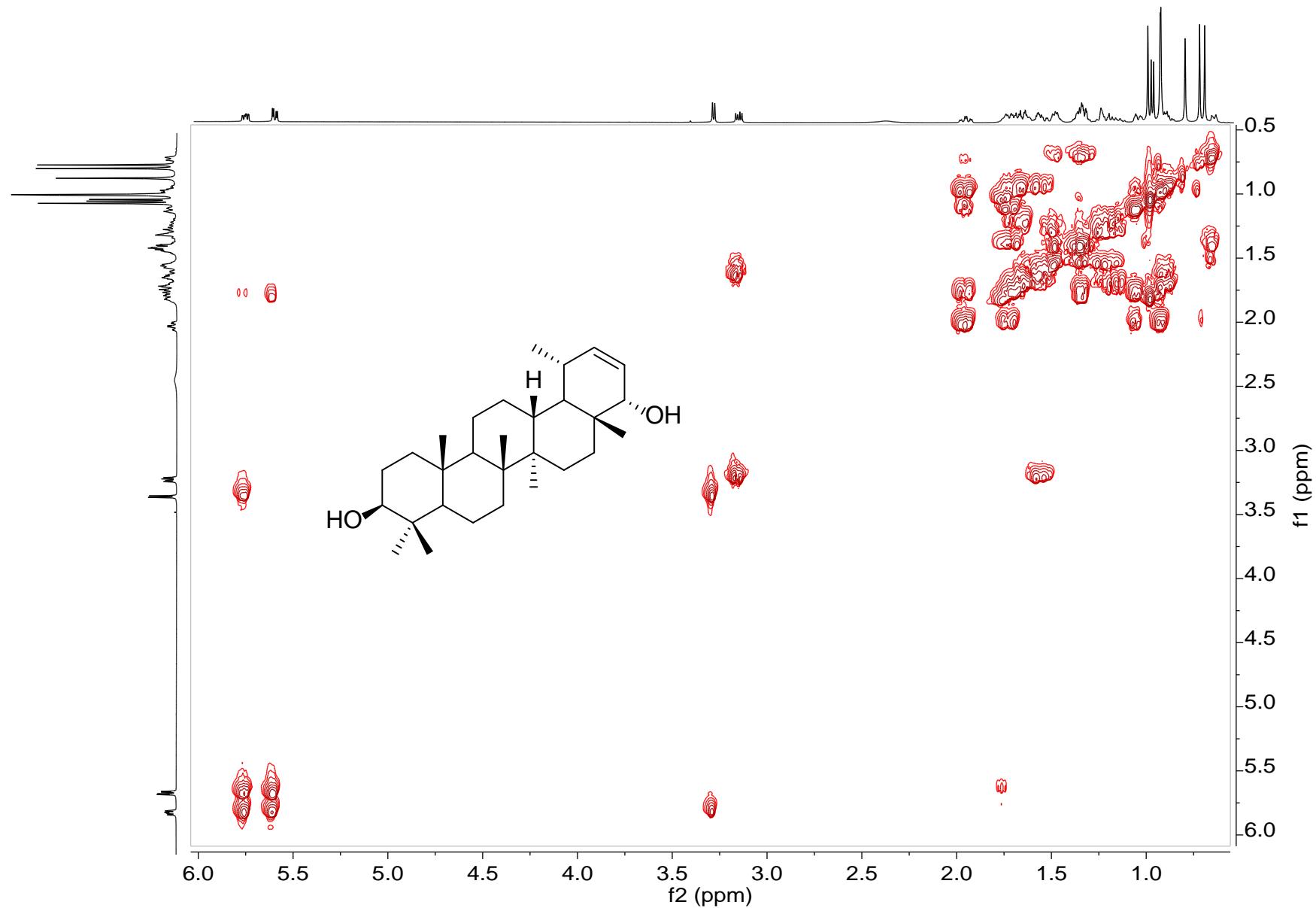
The CD Spectrum of Compound 3



The ^1H NMR Spectrum of Compound 3

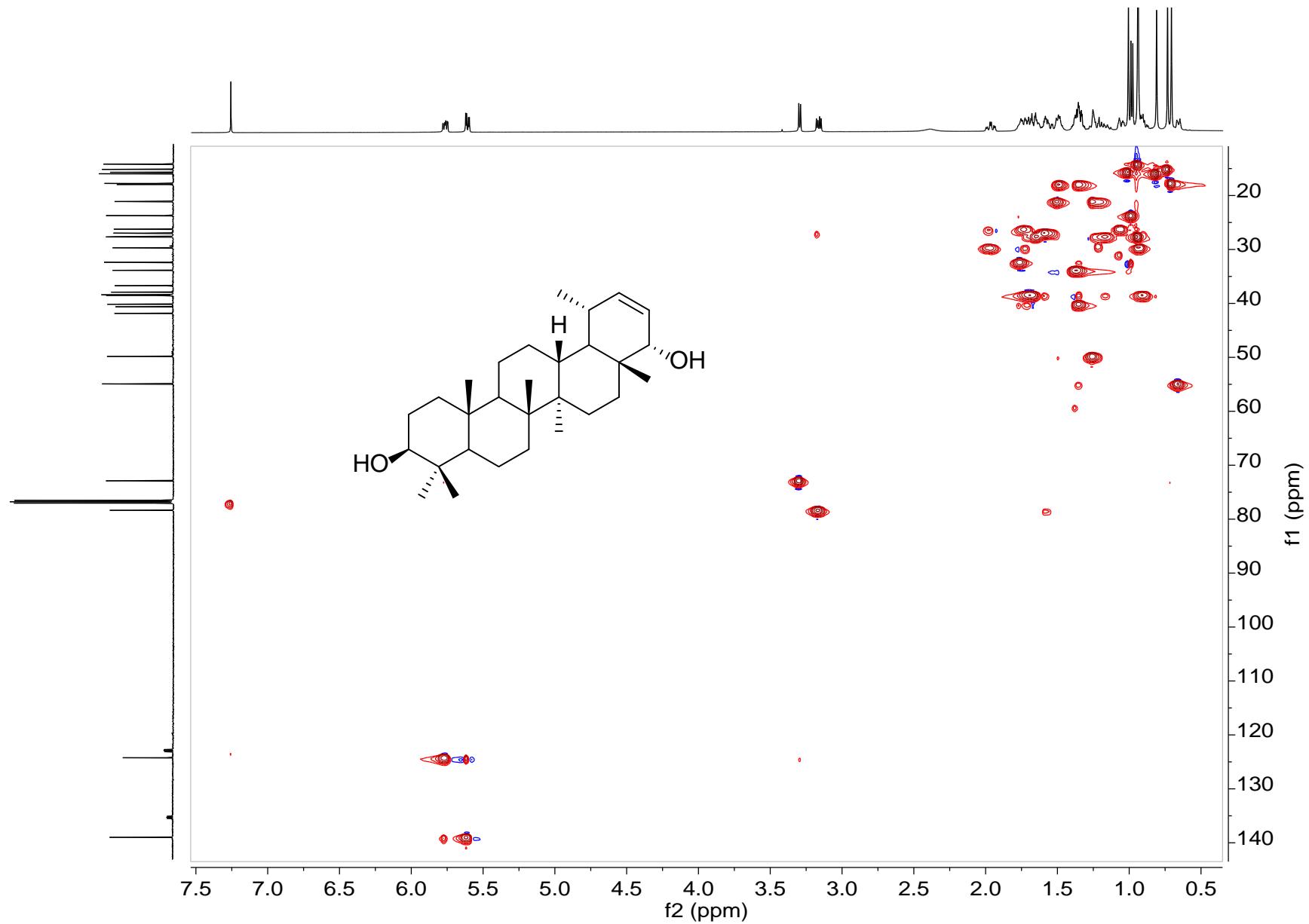


The ^{13}C NMR Spectrum of Compound 3



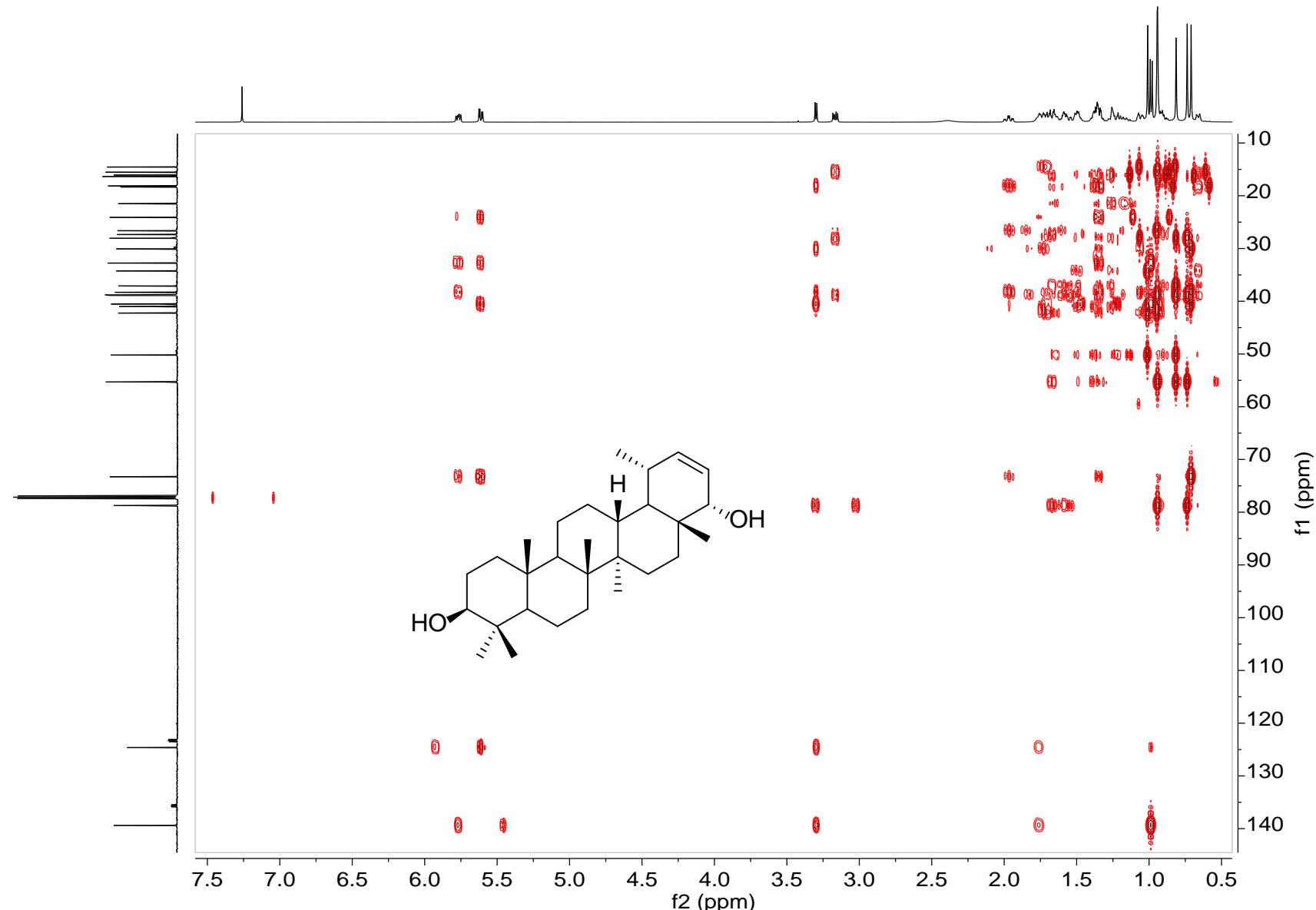
The ^1H - ^1H COSY Spectrum of Compound 3

S30



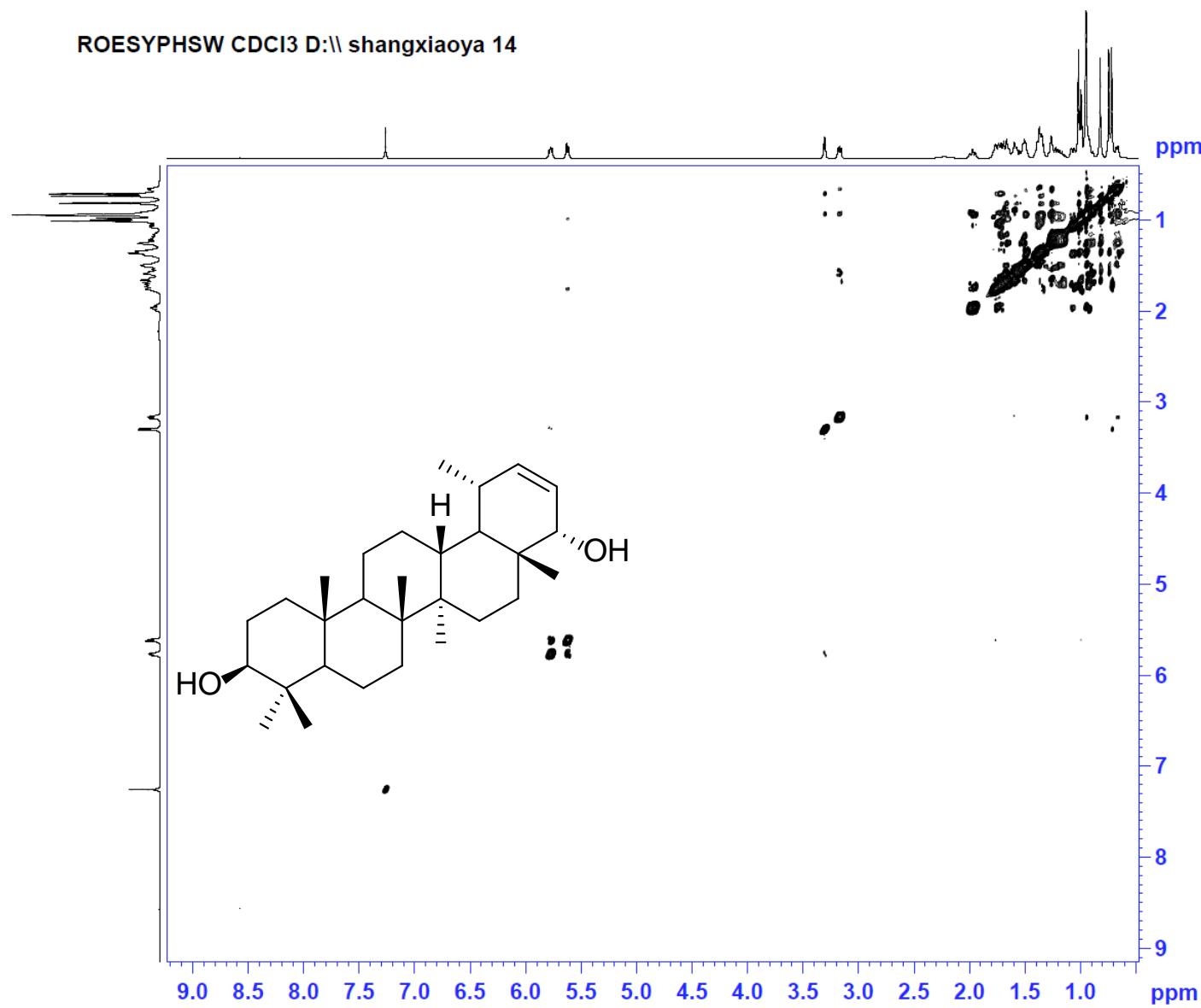
The HSQC Spectrum of Compound 3

S31



The HMBC Spectrum of compound 3

ROESYPHSW CDCI3 D:\ shangxiao ya 14



The ROESY Spectrum of Compound 3

S33