

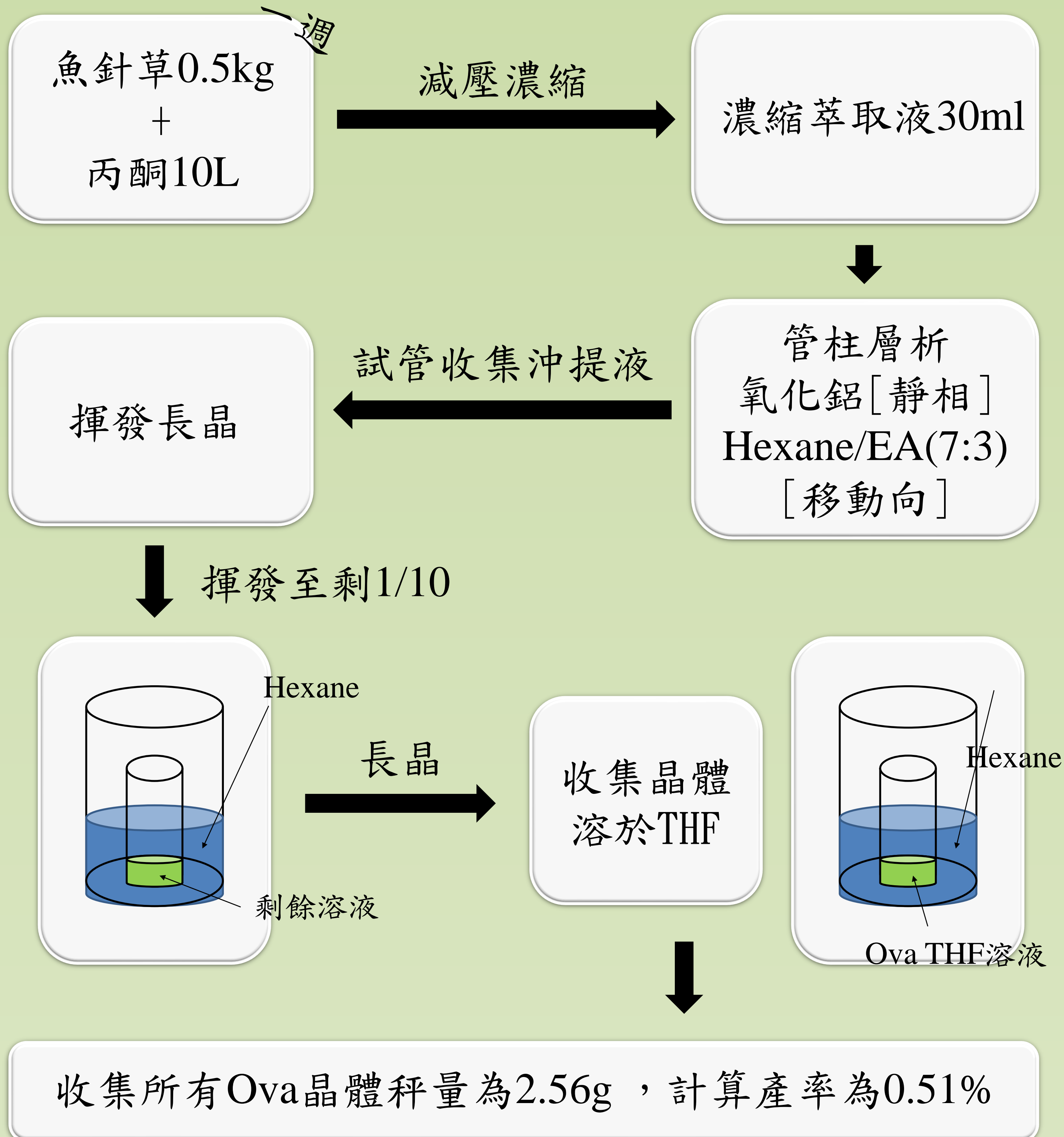
# 魚針草內酯(ovatodiolide)之萃取分離 純化技術與光譜鑑定

## 摘要：

本實驗將天然物魚針草(*Anisomeles indica*)萃取含魚針草內酯(ovatodiolide)之濃縮萃取液，並將濃縮萃取液以管柱層析後將各層長晶進行分離純化，完成長晶後將晶體以FT-IR、<sup>1</sup>H-NMR光譜儀、氣相層析質譜儀及X-ray晶體結構鑑定其結構。

## 實驗與結果：

### 魚針草內酯(ovatodiolide)之萃取純化分離



## 光譜鑑定

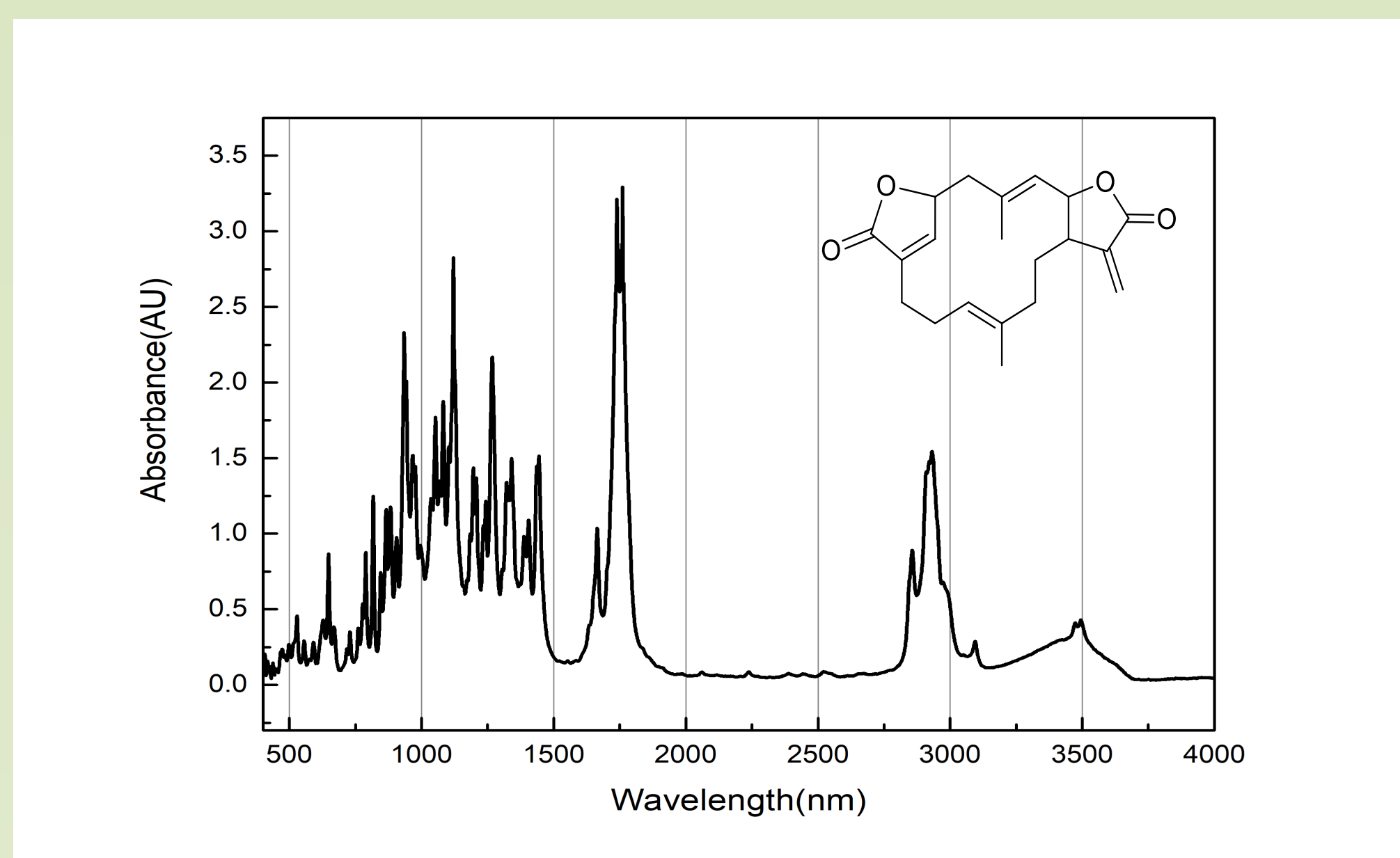


圖1 FT-IR in KBr

## 參考文獻：

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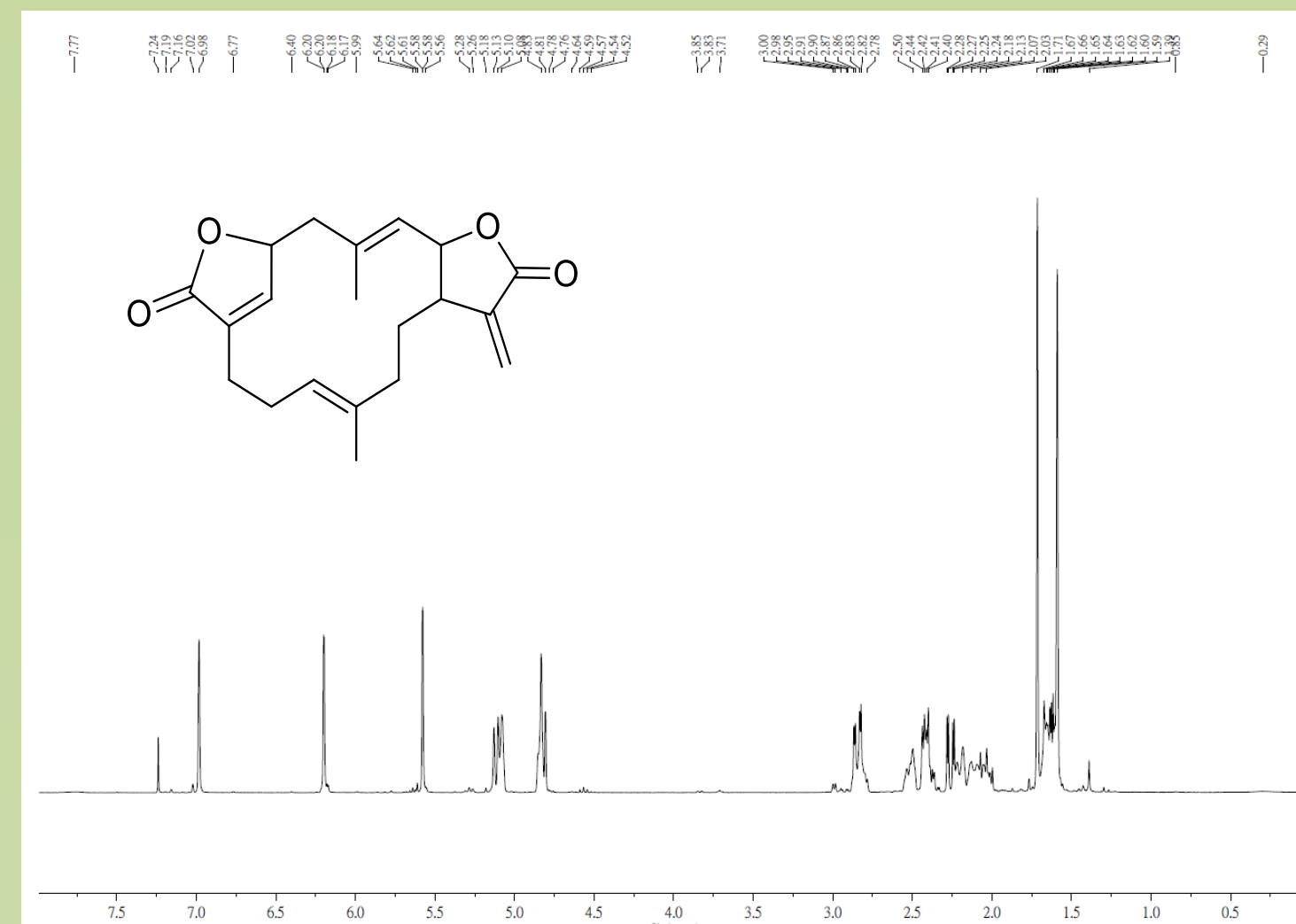


圖2 <sup>1</sup>H-NMR Ovatodiolide in CDCl<sub>3</sub>

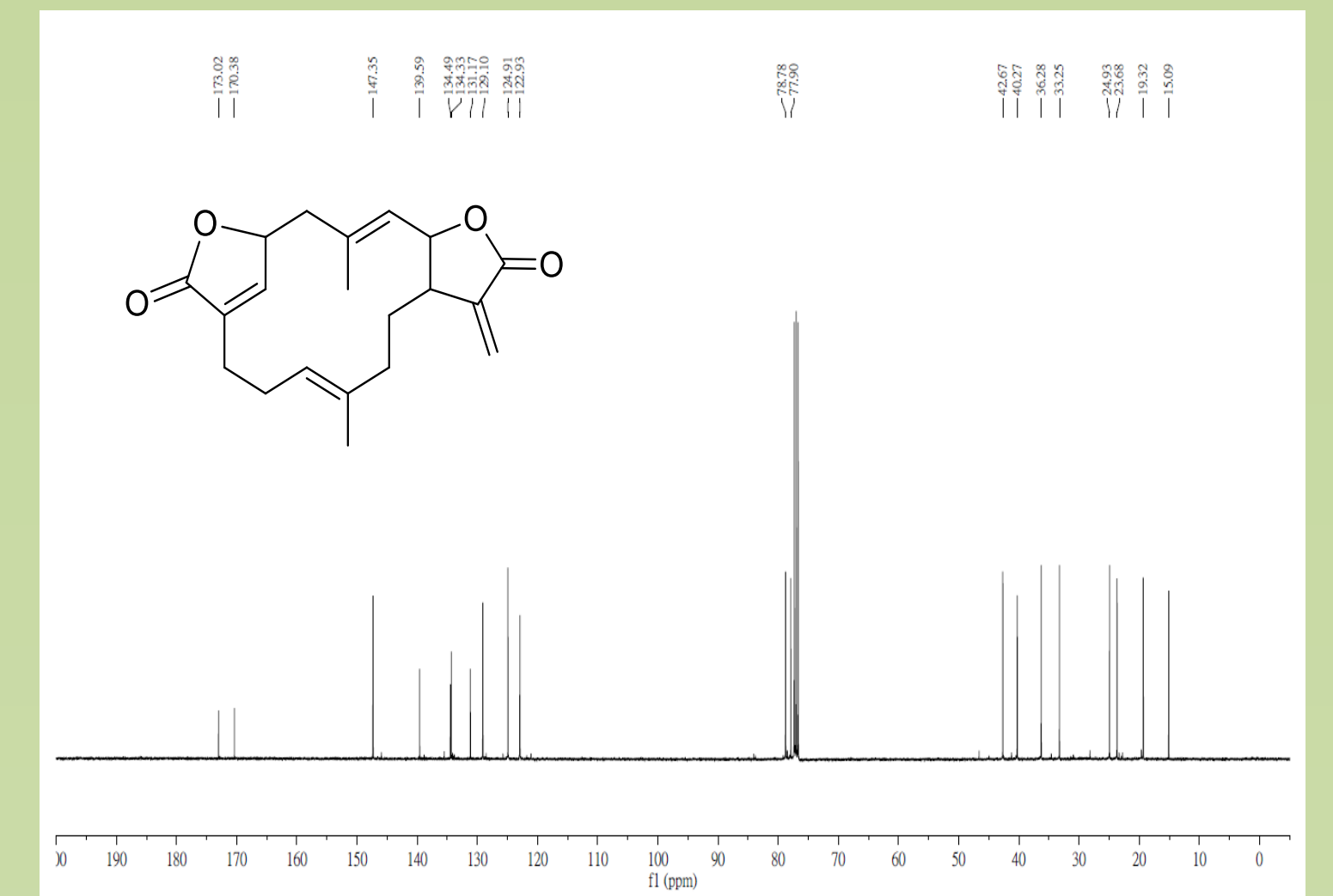


圖3 <sup>13</sup>C-NMR Ovatodiolide in CDCl<sub>3</sub>

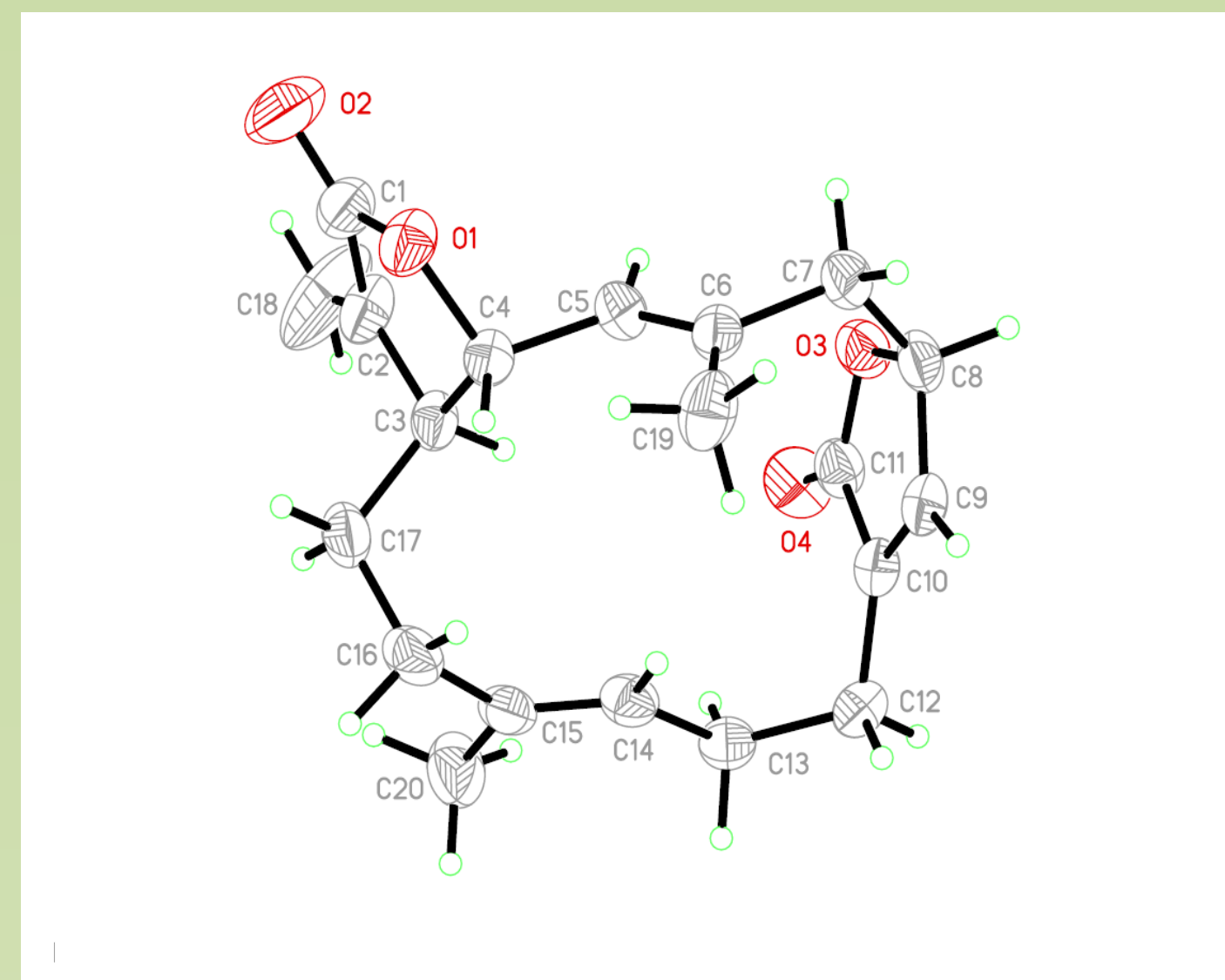


圖4 X-ray 晶體結構圖 Ovatodiolide

	鍵長[Å]
O(2)-C(1)	1.200(3)
O(4)-C(11)	1.199(2)
O(1)-C(1)	1.349(3)
O(3)-C(11)	1.361(2)

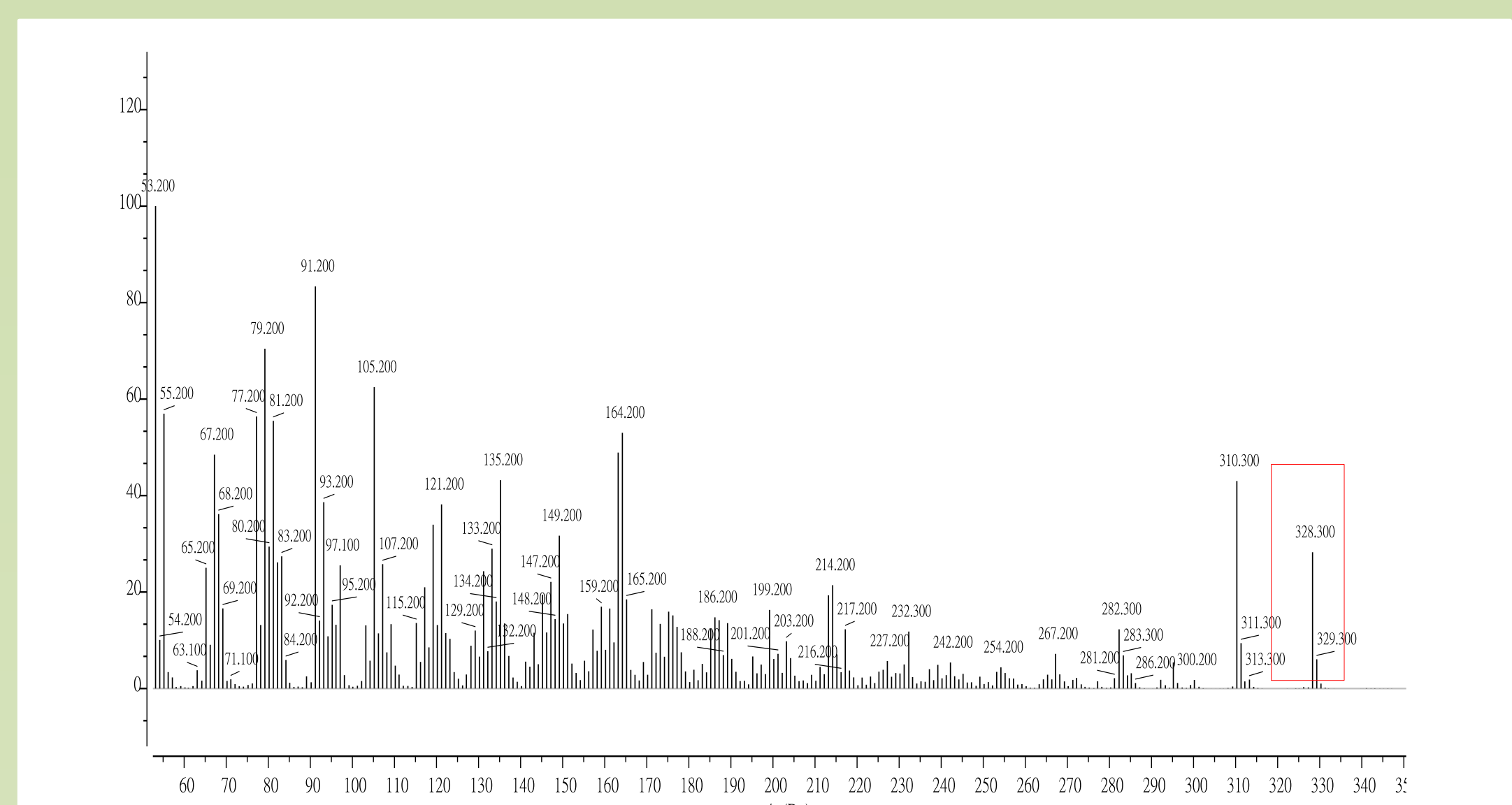


圖5 GC-MS Ovatodiolide in EA

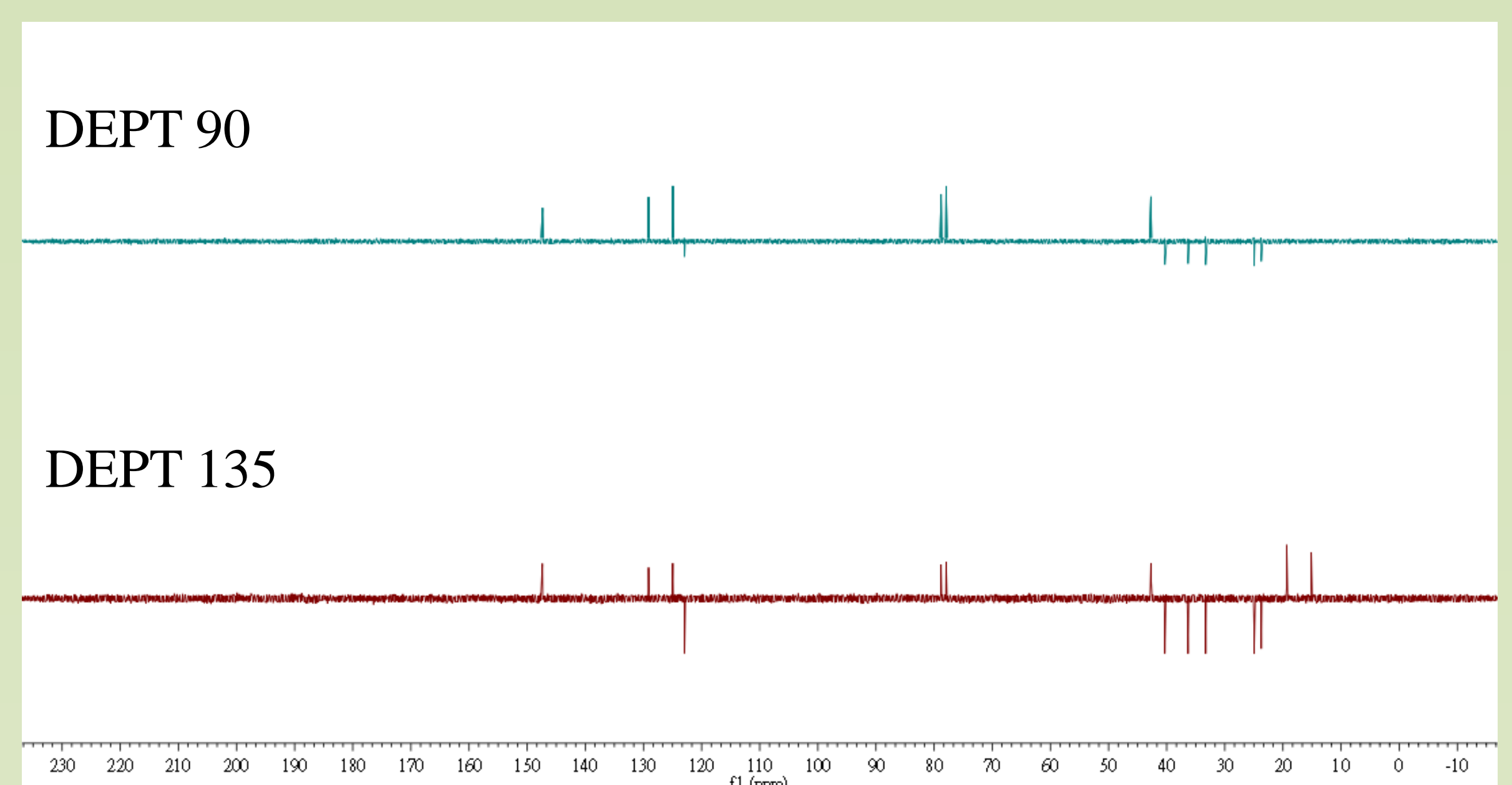


圖6 DEPT Ovatodiolide in CDCl<sub>3</sub>

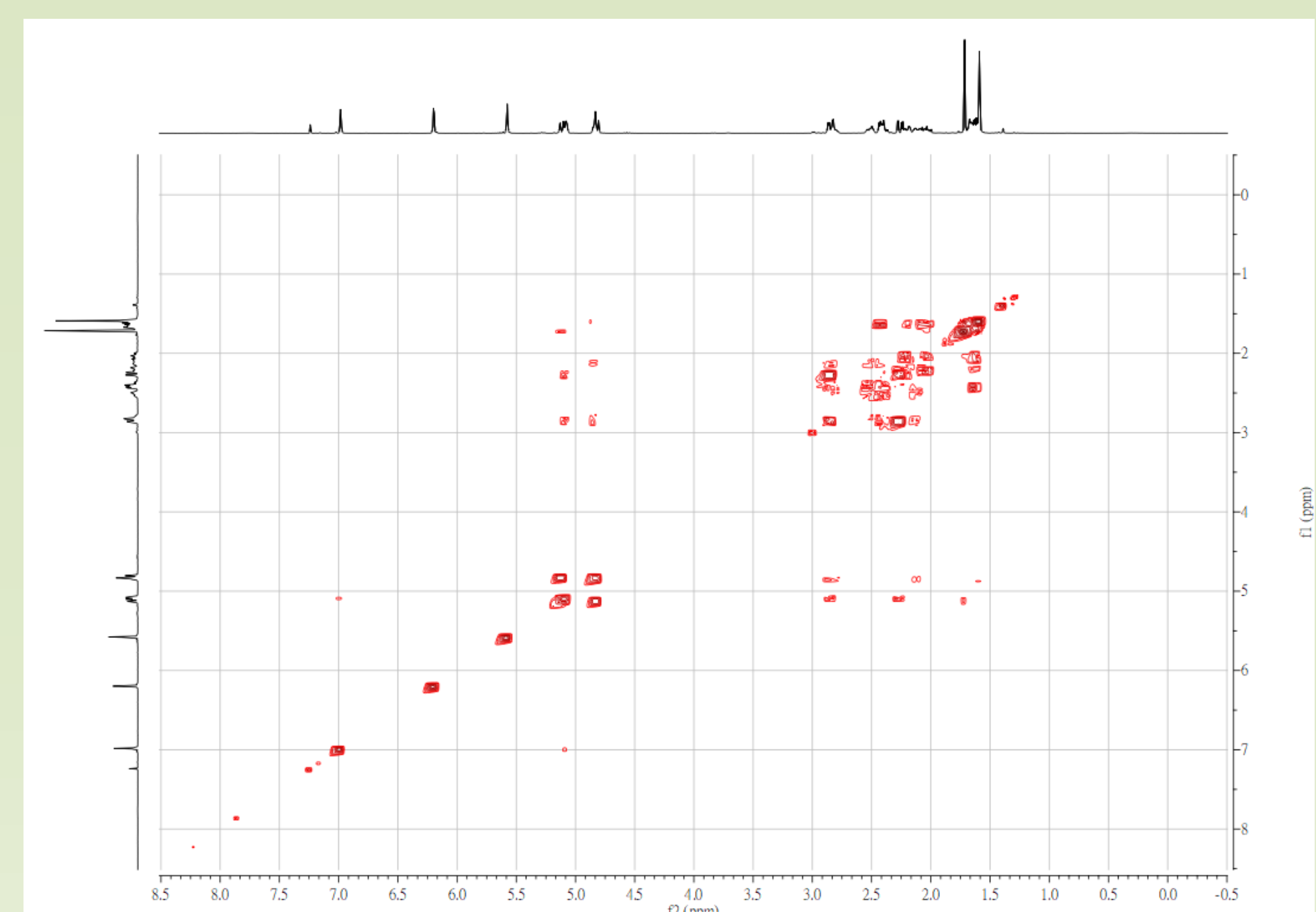


圖7 gCOSY Ovatodiolide in CDCl<sub>3</sub>

## 結論：

本實驗將文獻中提到之魚針草內酯(ovatodiolide)萃取分離純化技術改良，並將所得之產物結晶以FT-IR、<sup>1</sup>H-NMR光譜儀、氣相層析質譜儀及X-ray晶體結構鑑定，確認為是我們要的魚針草內酯(ovatodiolide)，計算產率與產量後與文獻中比較，皆高於文獻中所提到。未來將繼續改良本次成果，設法以環保為改良方向進行實驗。