

SUPPLEMENTARY MATERIALS

## **Alpha-Glucosidase and Alpha-Amylase Inhibitory Activities of Novel Abietane Diterpenes from *Salvia africana-lutea***

Ninon G.E.R. Etsassala <sup>1</sup>, Jelili A. Badmus <sup>2</sup>, Tesfaye T. Waryo <sup>1</sup>, Jeanine L. Marnewick <sup>2</sup>, Christopher N Cupido <sup>3</sup>, Ahmed A. Hussein <sup>4,\*</sup> and Emmanuel I. Iwuoha <sup>1</sup>

Author to whom correspondence should be addressed;

E-mail: [mohammedam@cput.ac.za](mailto:mohammedam@cput.ac.za) (A.H.); Tel.: +27-21-959-6193; Fax: +27-21-959-3055.

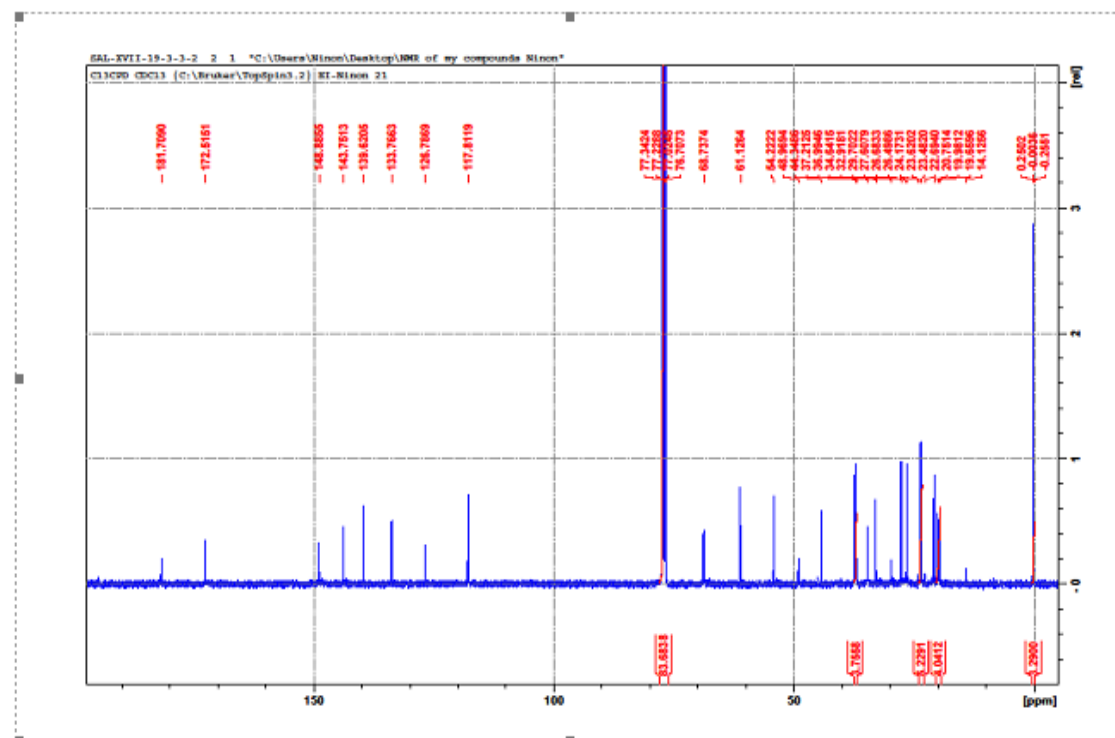
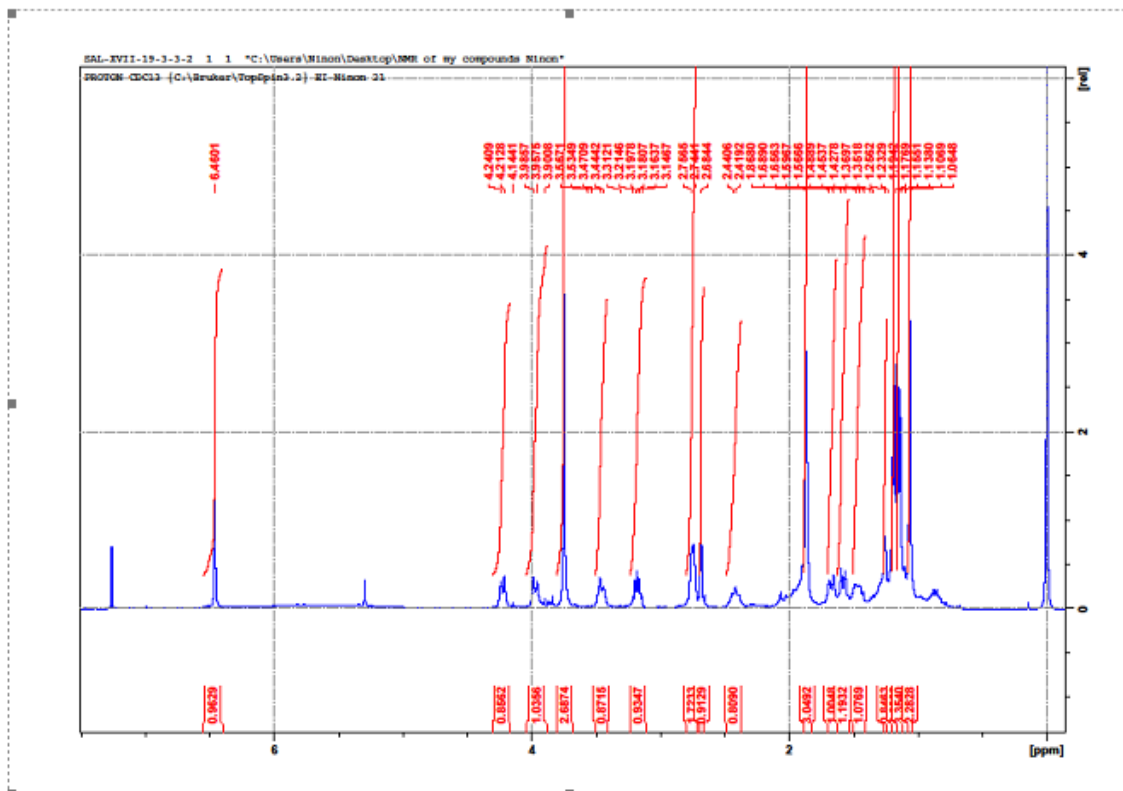
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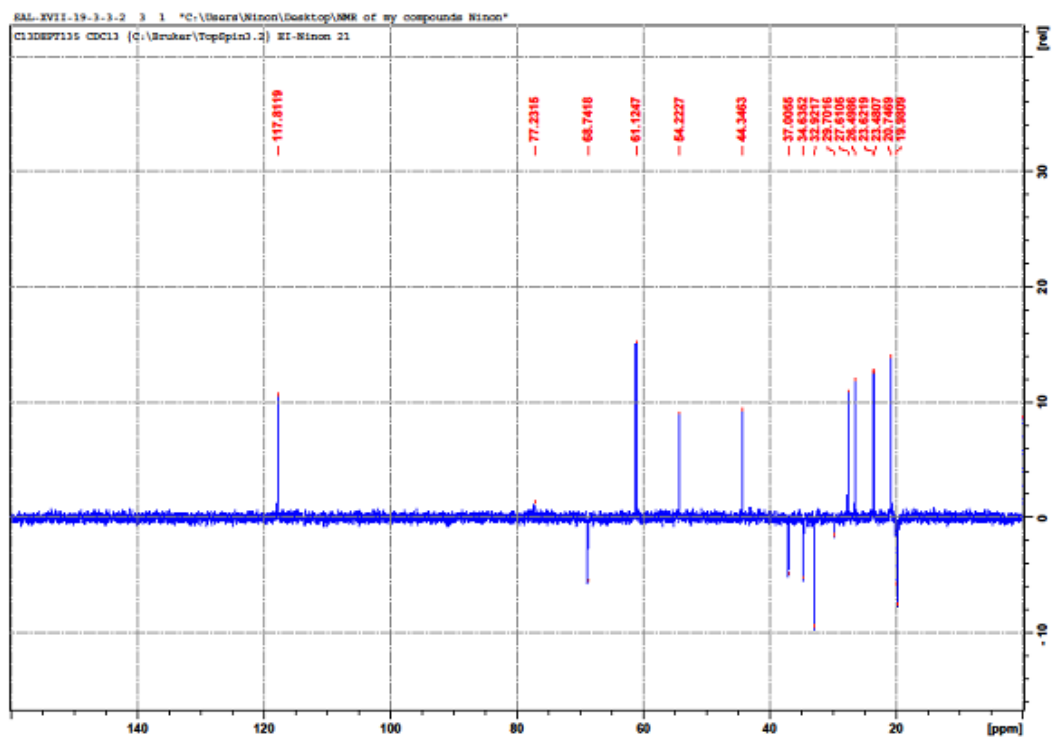


Figure 3: DEPT-NMR (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 1

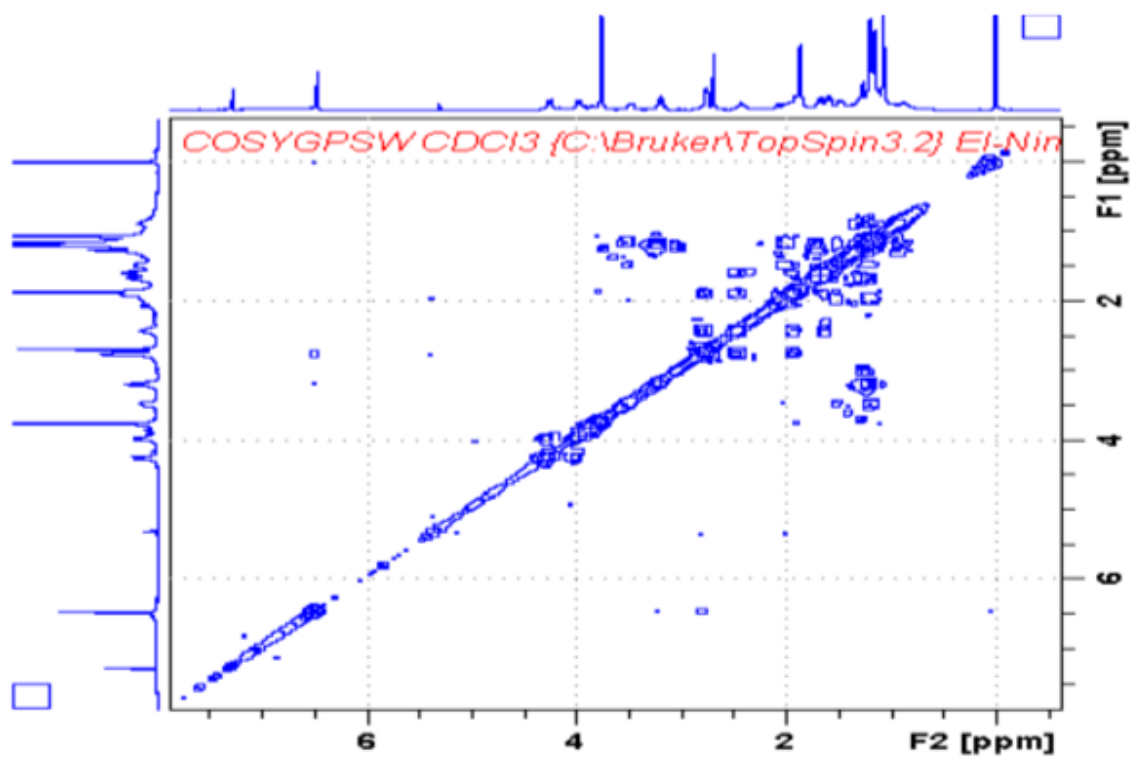


Figure 4: COSY (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 1

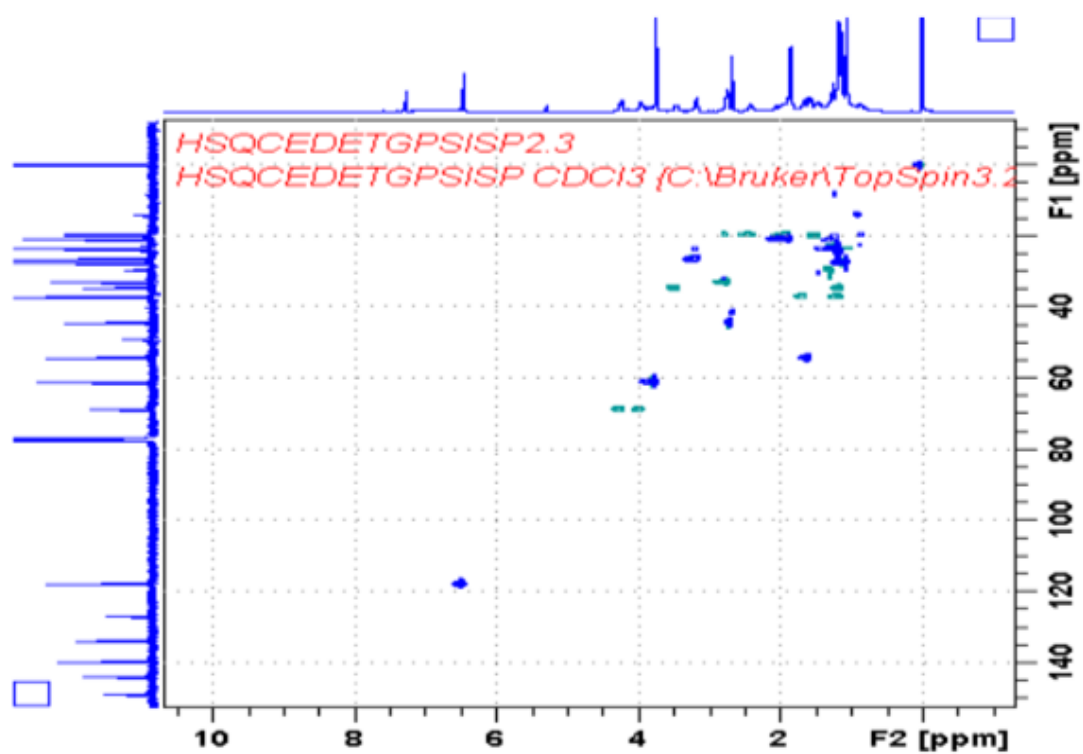


Figure 5: HSQC (400 MHz, CDCI3) Spectrum of Compound 1

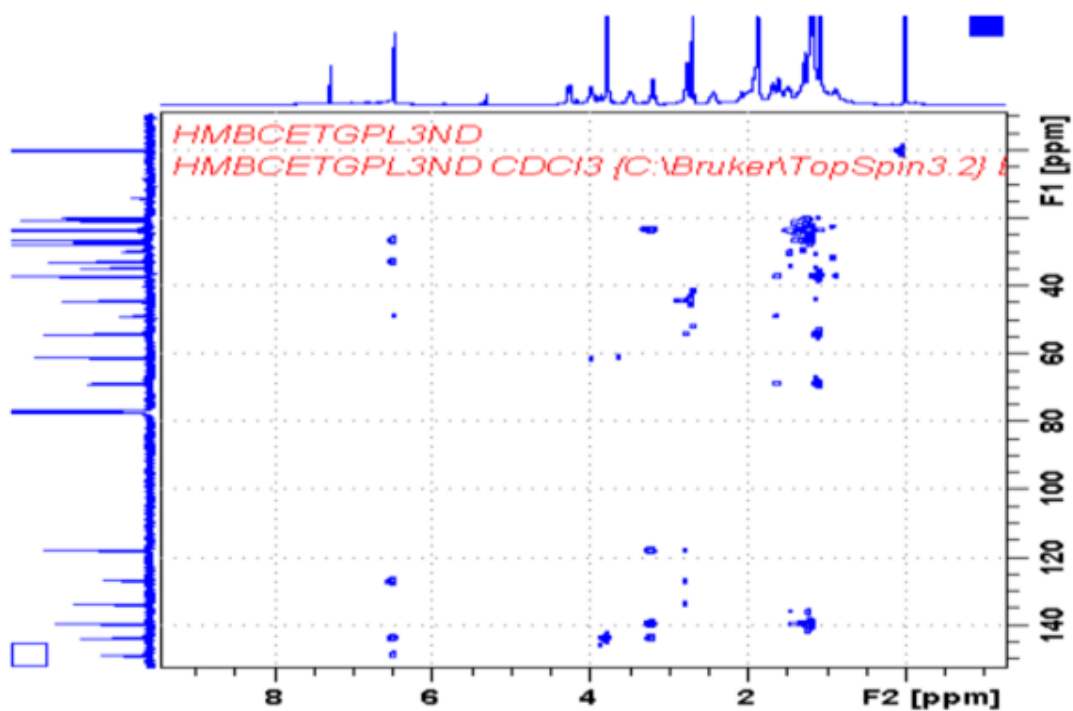
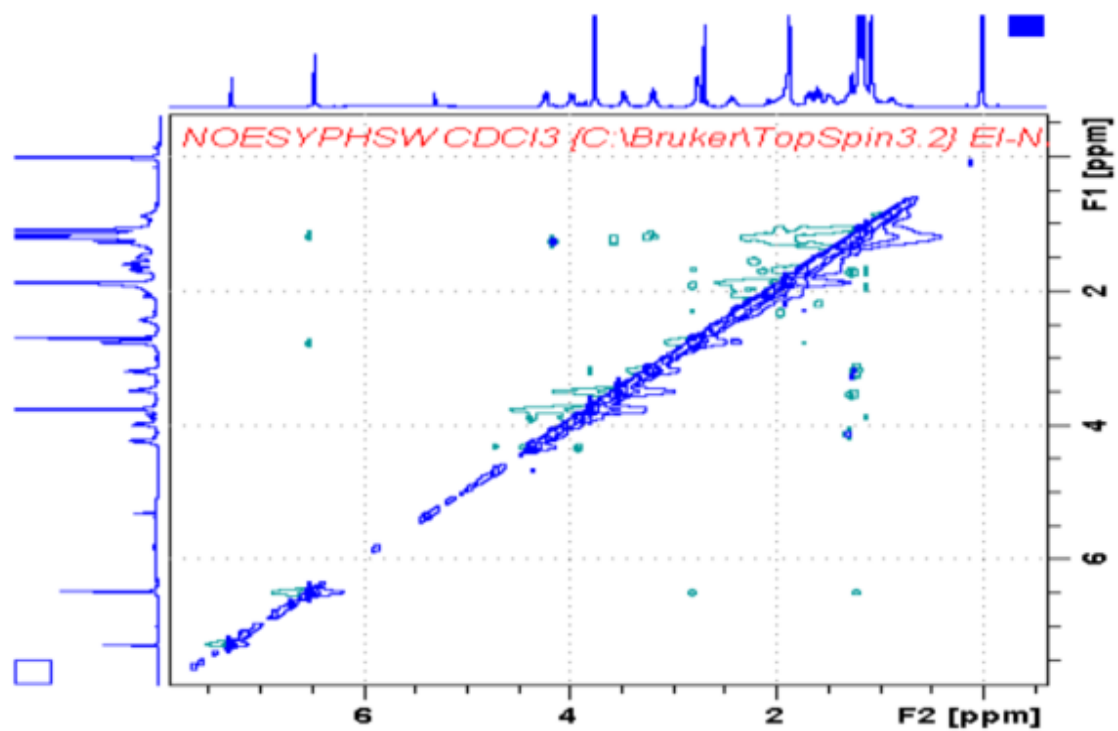
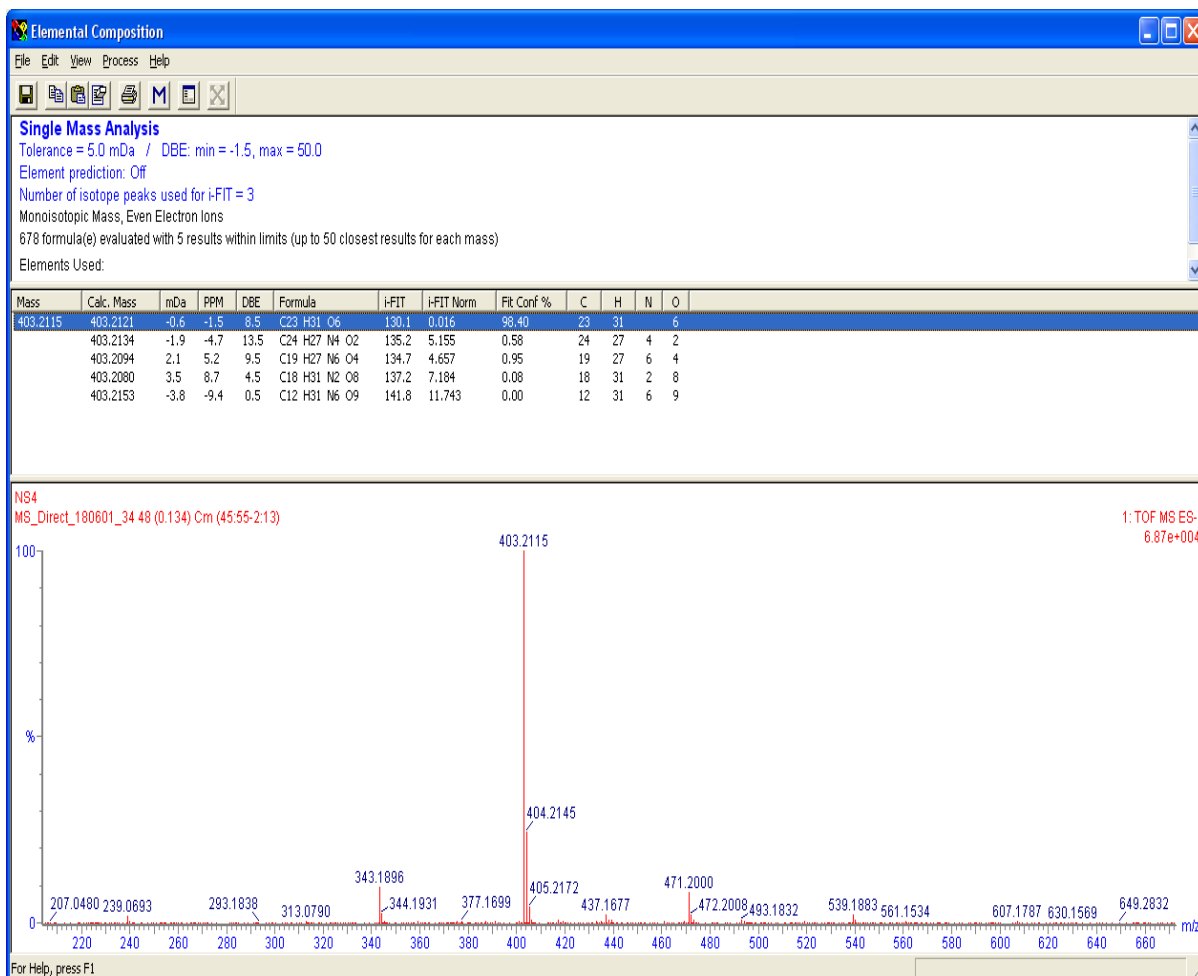


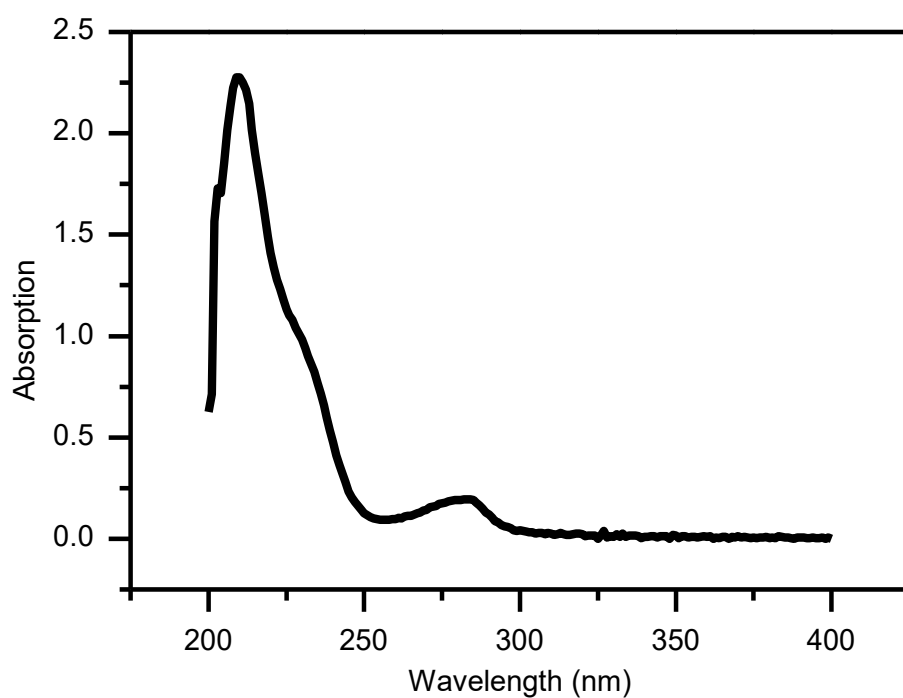
Figure 6: HMBC (400 MHz, CDCI3) Spectrum of Compound 1



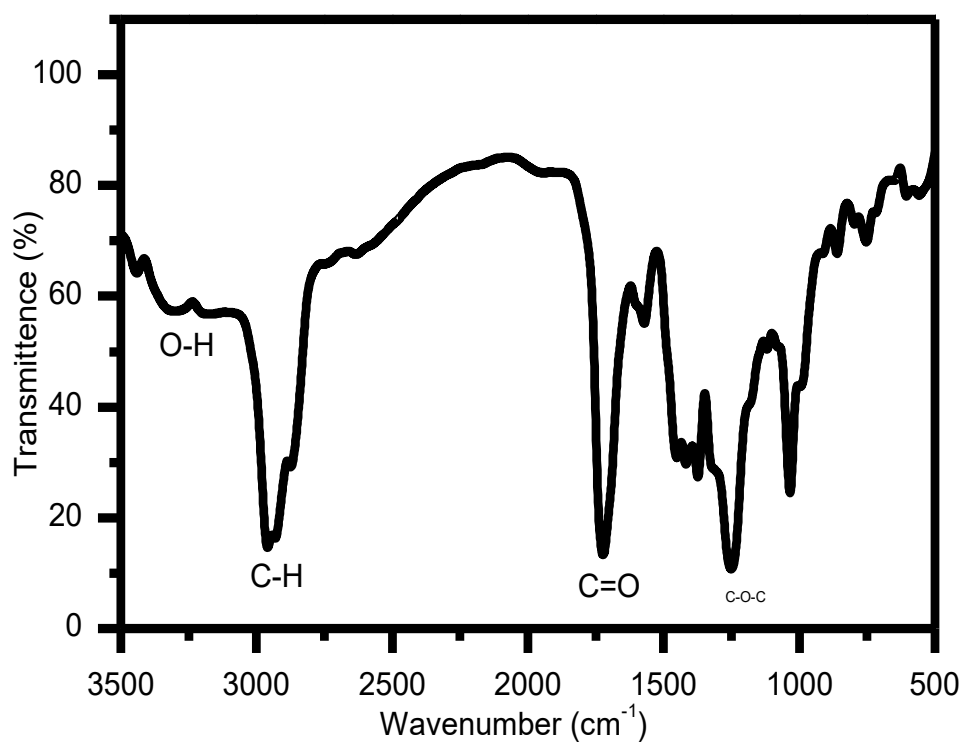
**Figure 7:** NOESY(400 MHz, CDC13) Spectrum of Compound 1



**Figure 8:** HR-MS spectrum of Compound 1



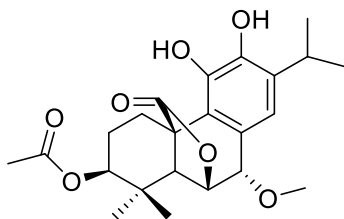
**Figure 9:** UV spectrum of Compound 1



**Figure 10:** FTIR spectrum of Compound 1



## Compound 2



3β-acetoxy-7-methoxy rosmanol

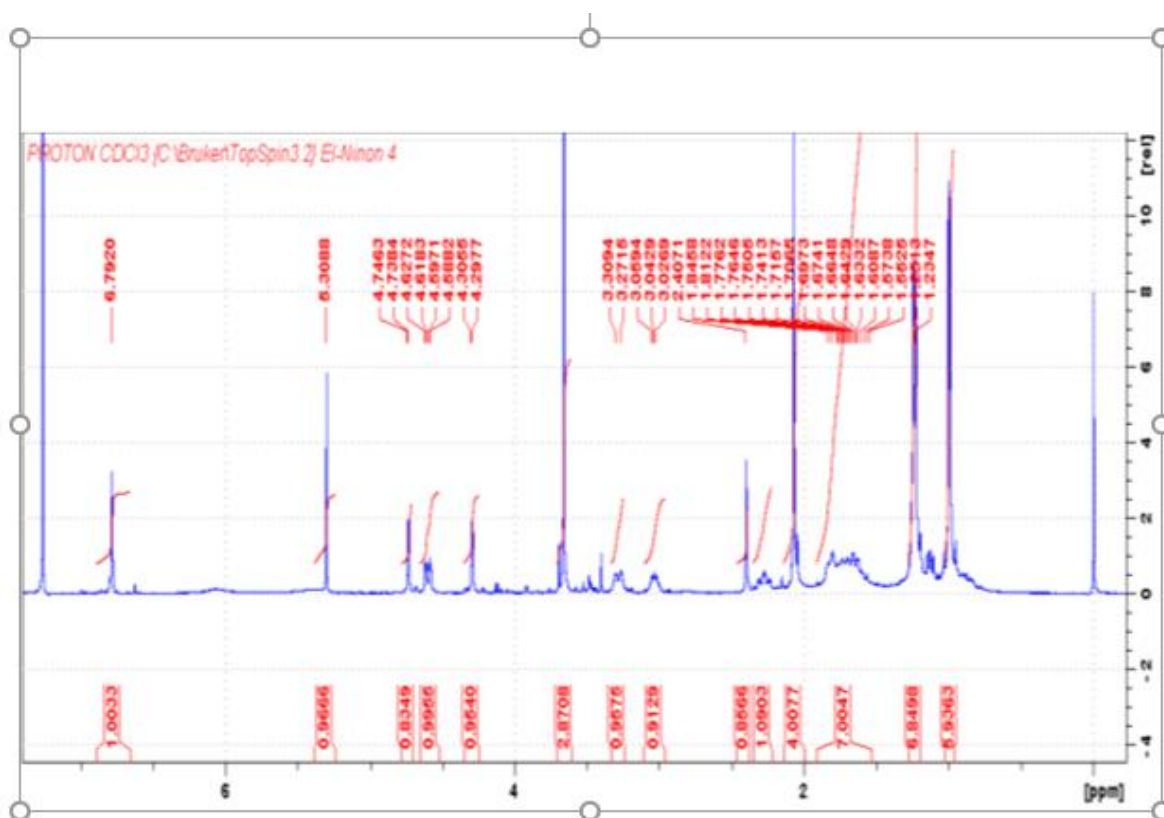


Figure 11: <sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 2

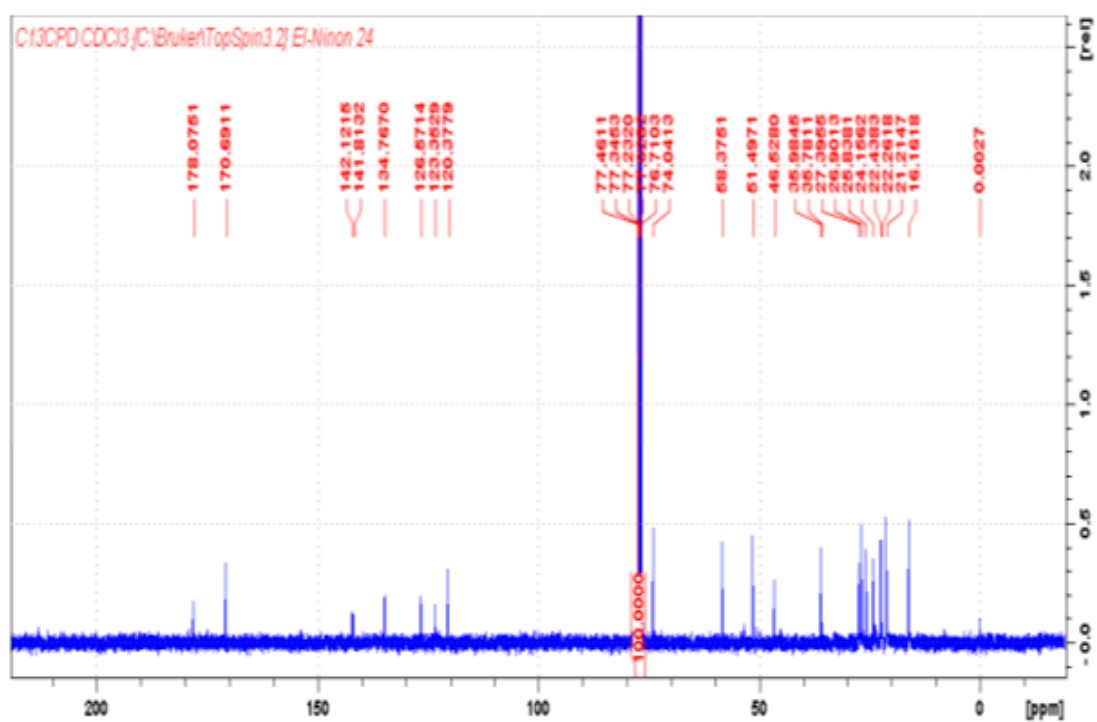


Figure 12:  $^{13}\text{C}$ -NMR (400 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 2

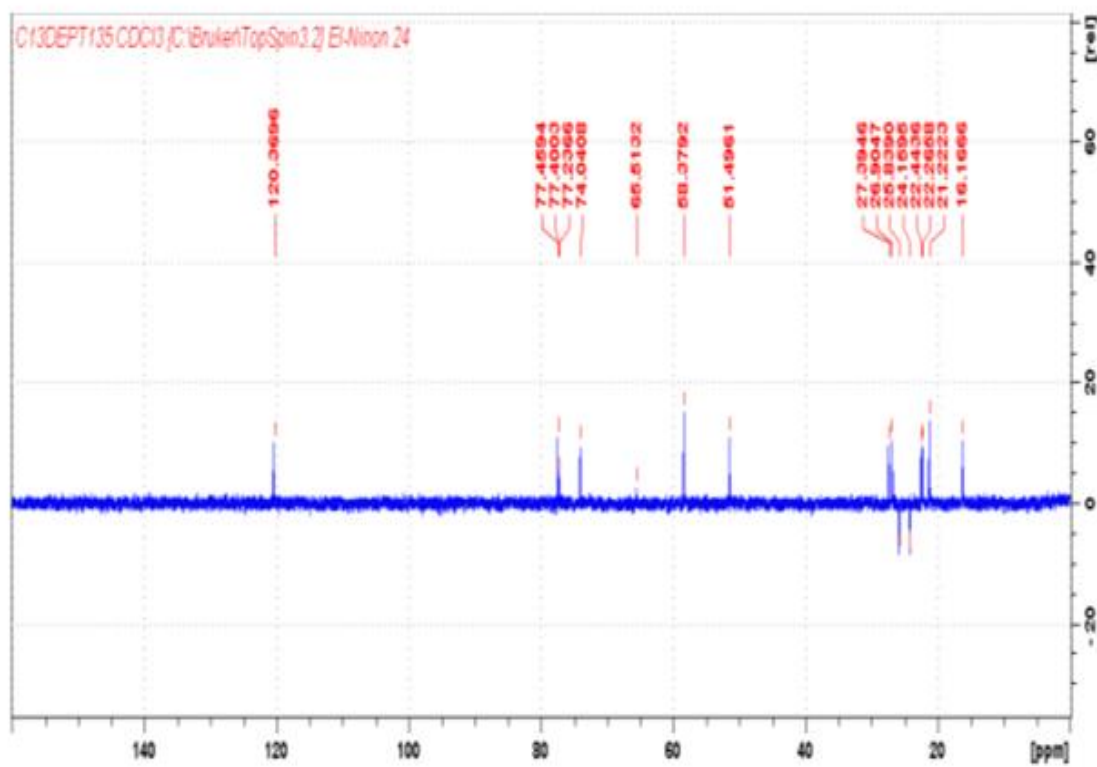


Figure 13: DEPT-NMR (400 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 2

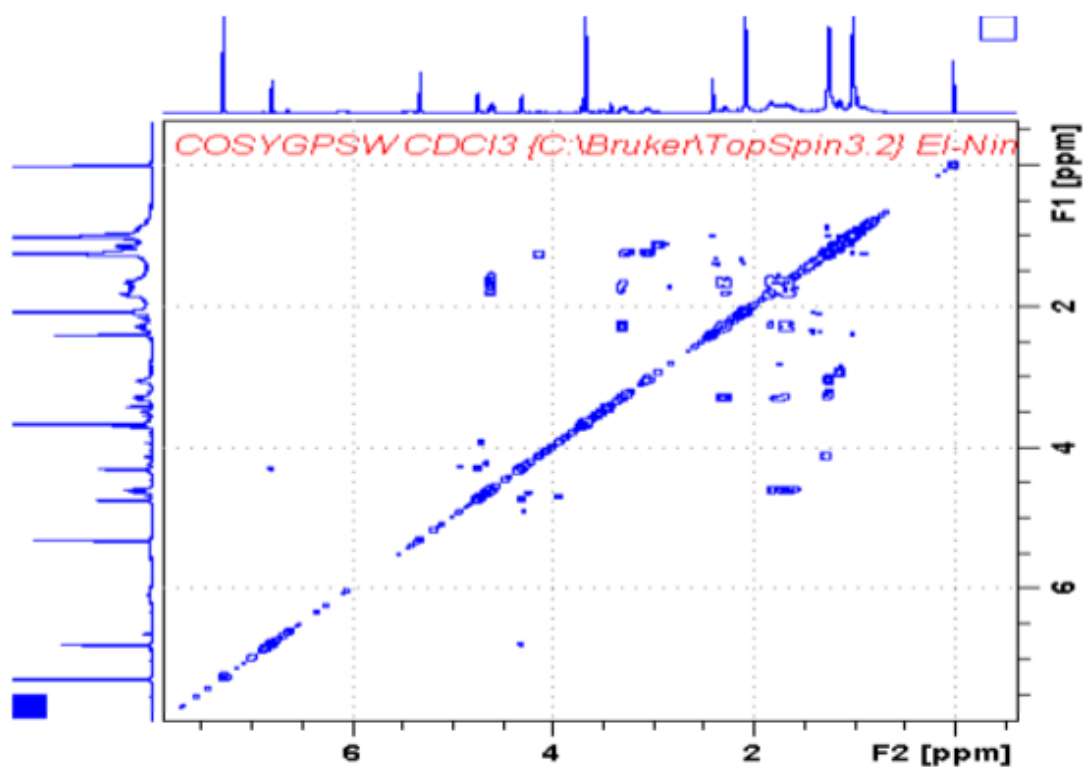


Figure 14: COSY (400 MHz, CDCI<sub>3</sub>) Spectrum of Compound 2

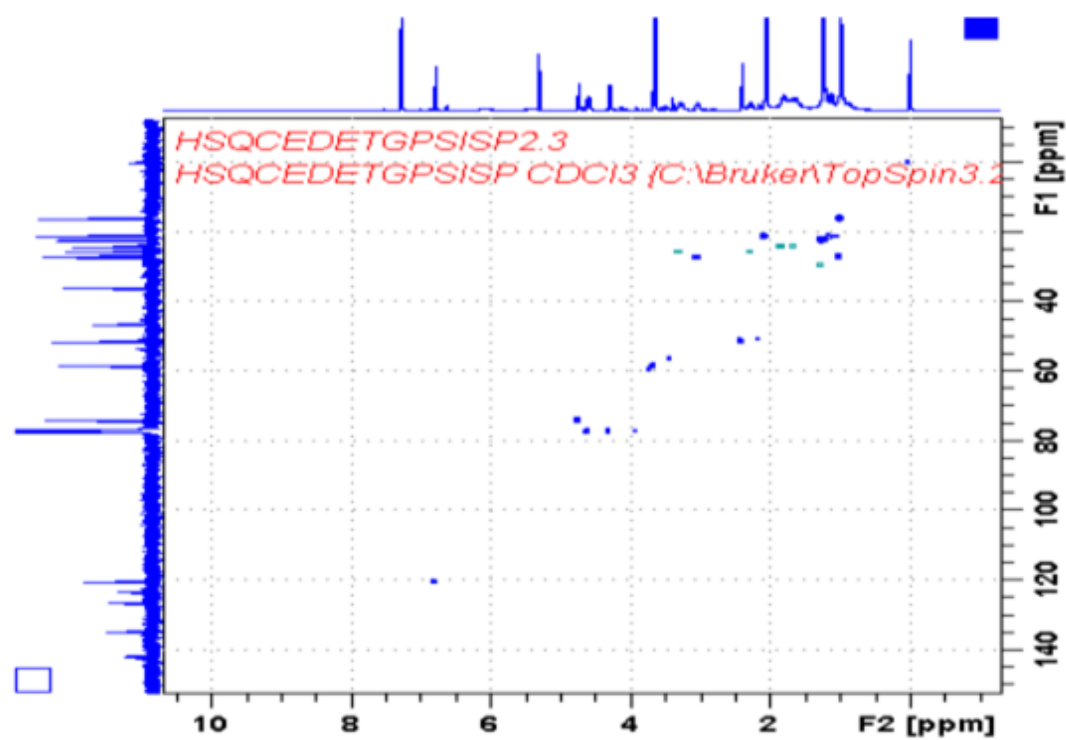
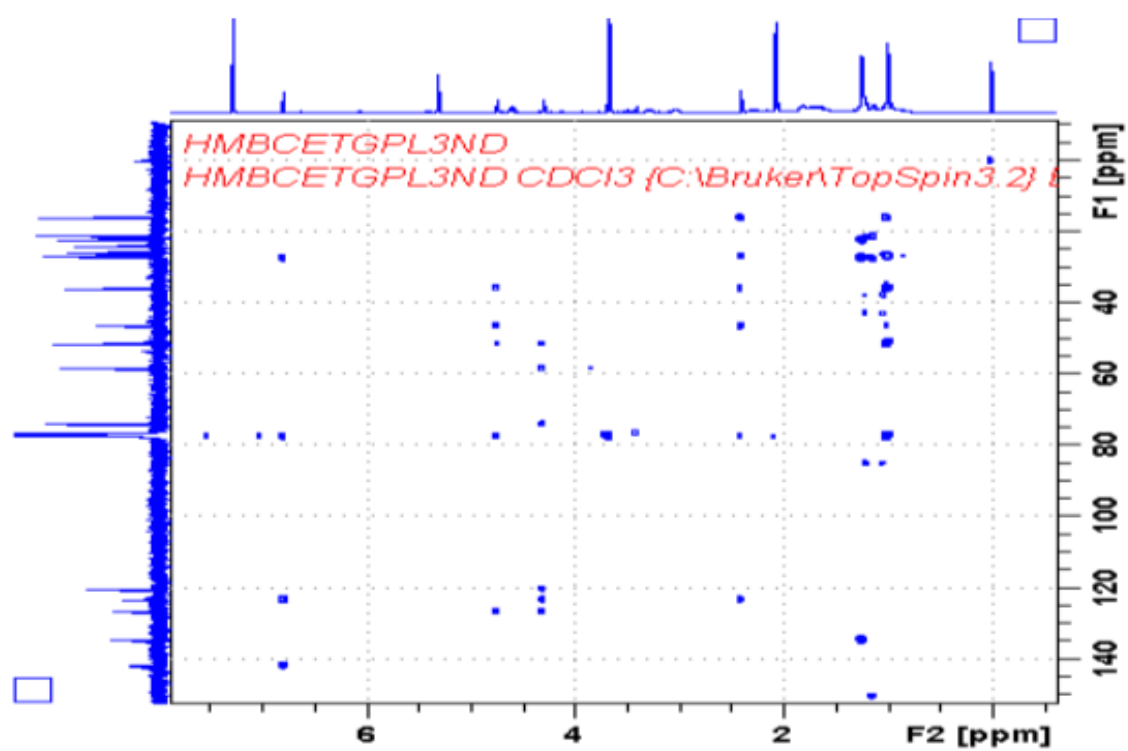
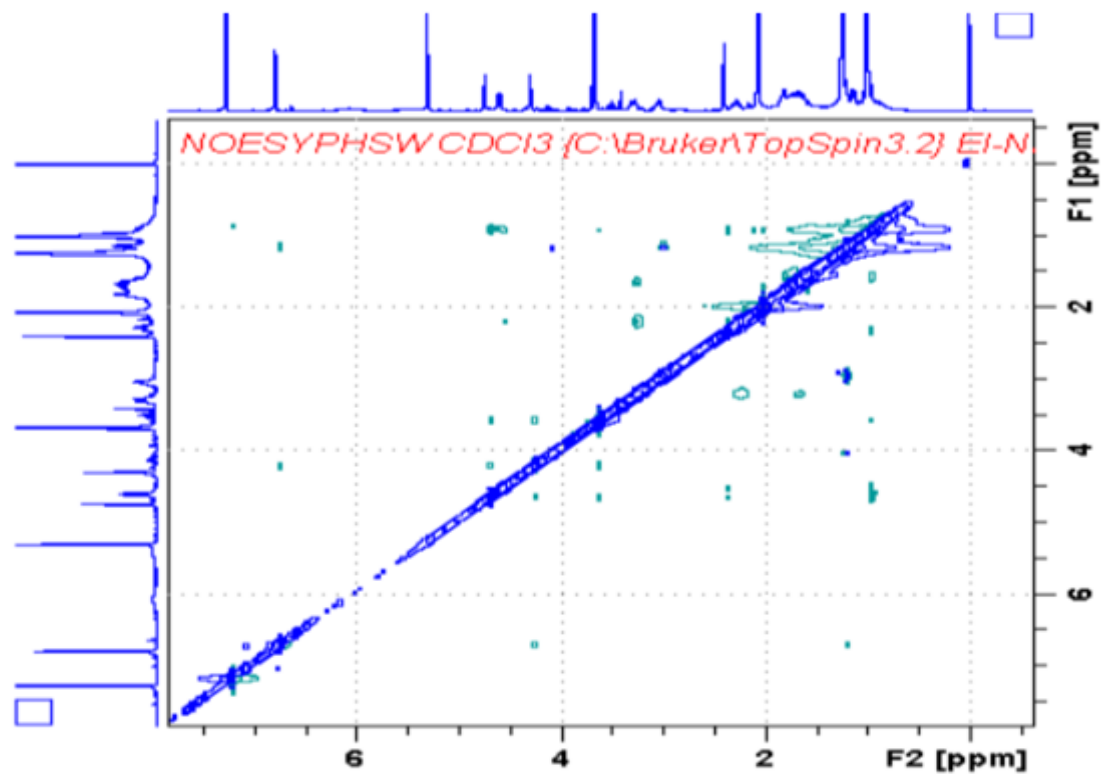


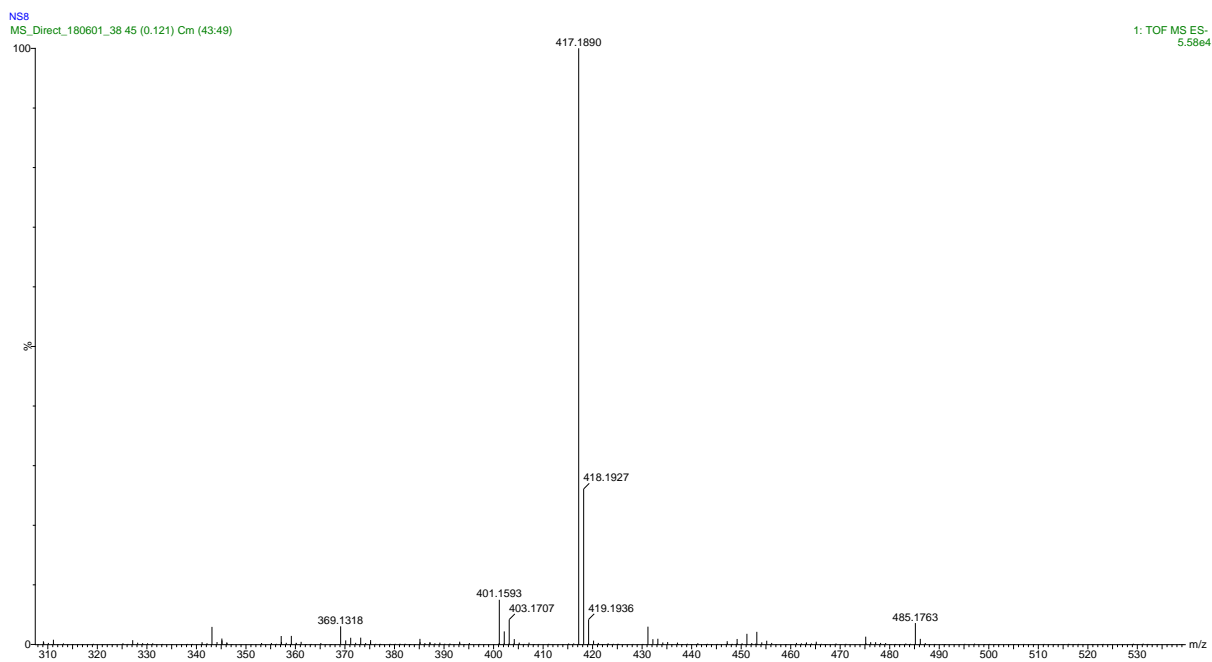
Figure 15: HSQC (400 MHz, CDCI<sub>3</sub>) Spectrum of Compound 2



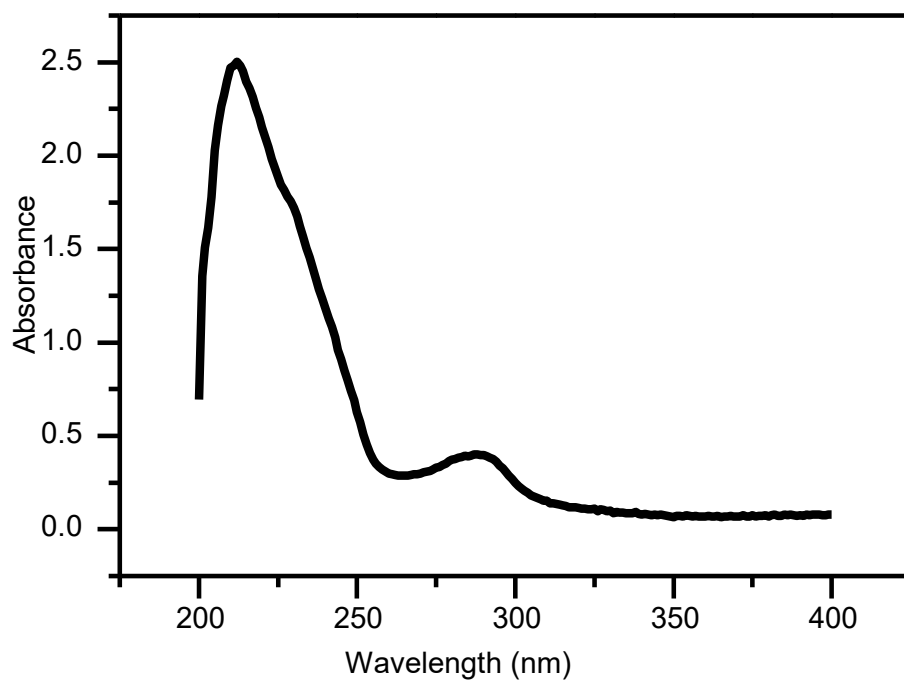
**Figure 16:** HMBC (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 2



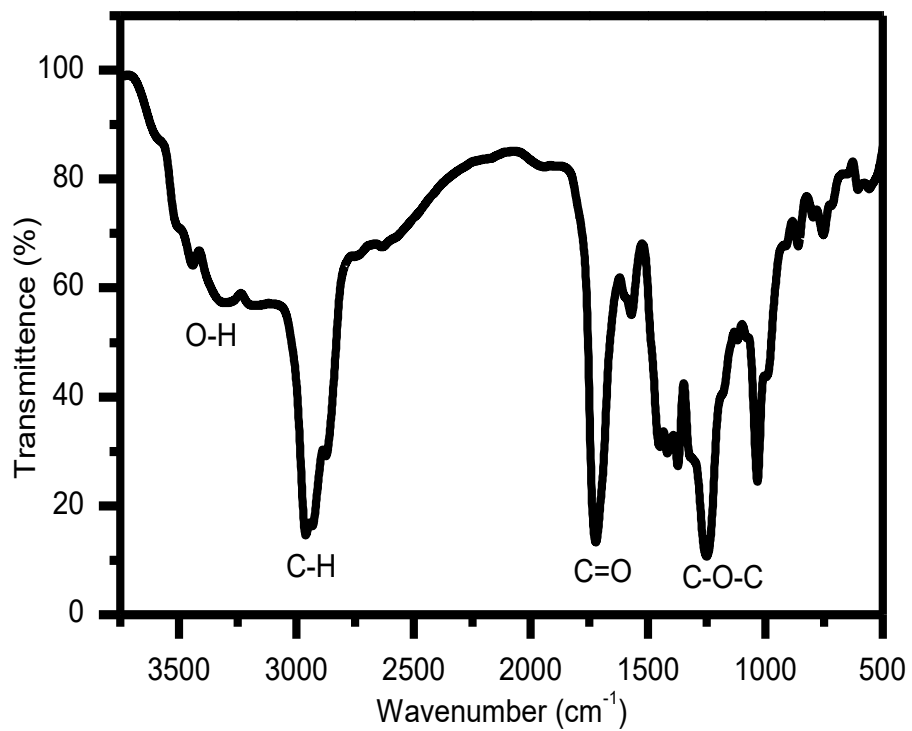
**Figure 17:** NOESY (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 2



**Figure 18:** HR-MS spectrum of Compound 2

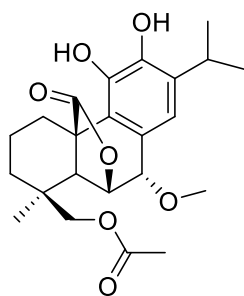


**Figure 19:** UV spectrum of Compound 2



**Figure 20:** FTIR spectrum of Compound 2

**Compound 3**



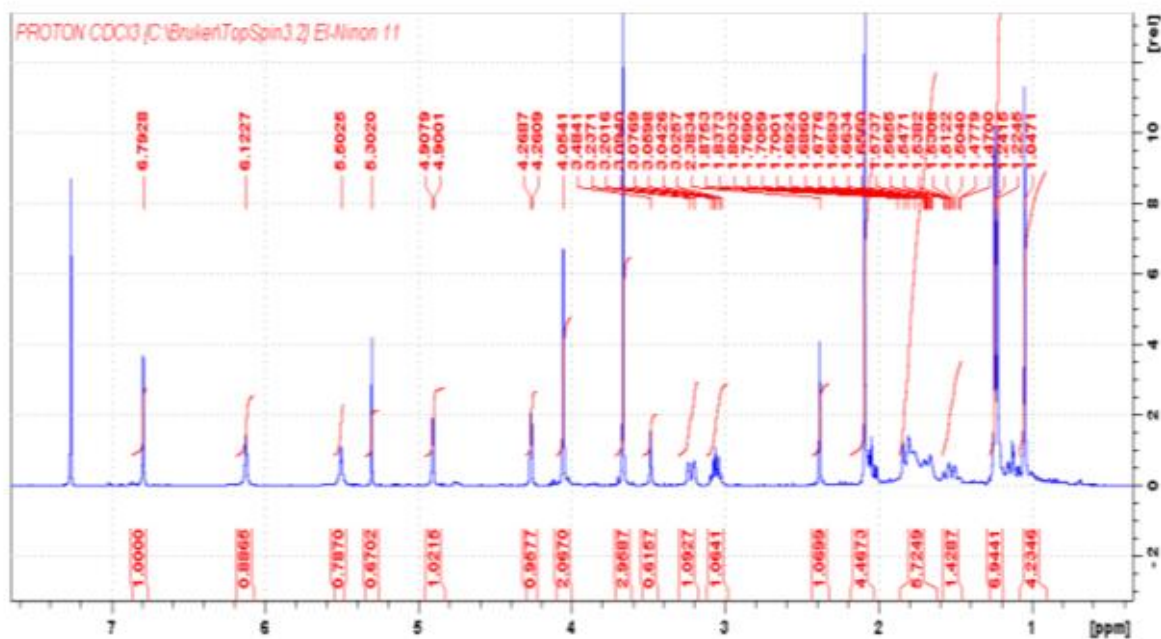


Figure 21:  $^1\text{H}$ -NMR (400 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 3

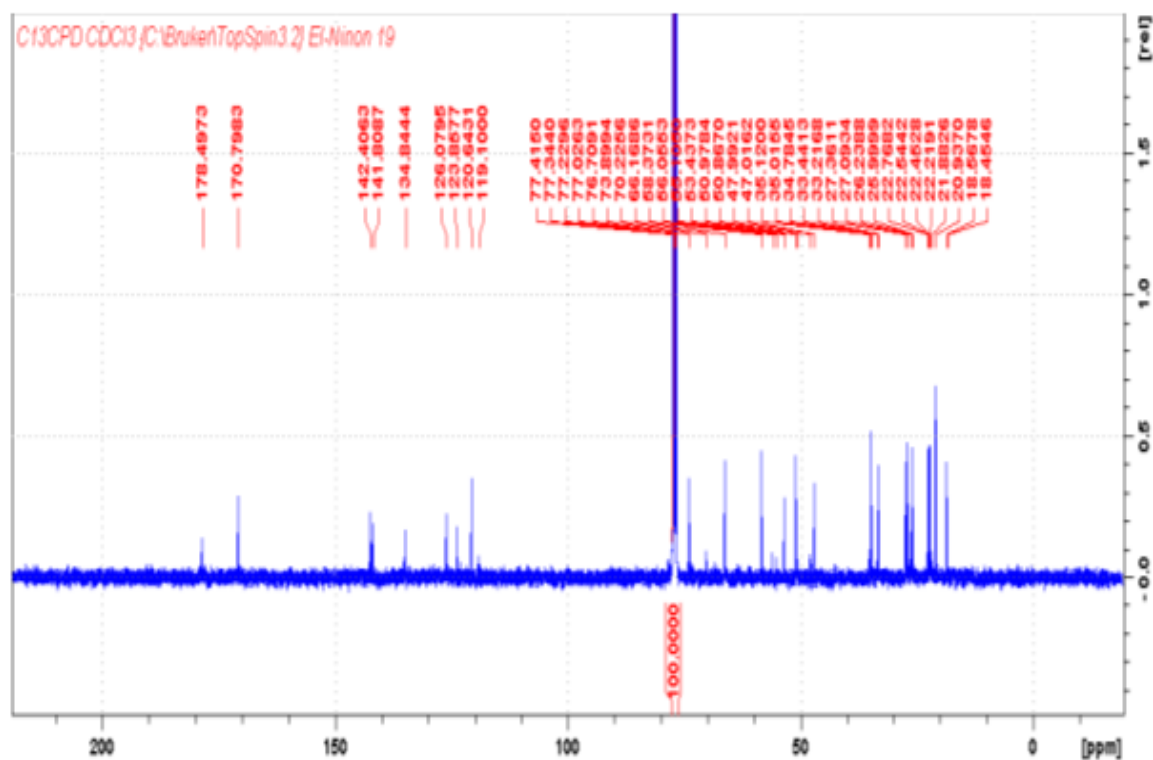


Figure 22:  $^{13}\text{C}$ -NMR (400 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 3

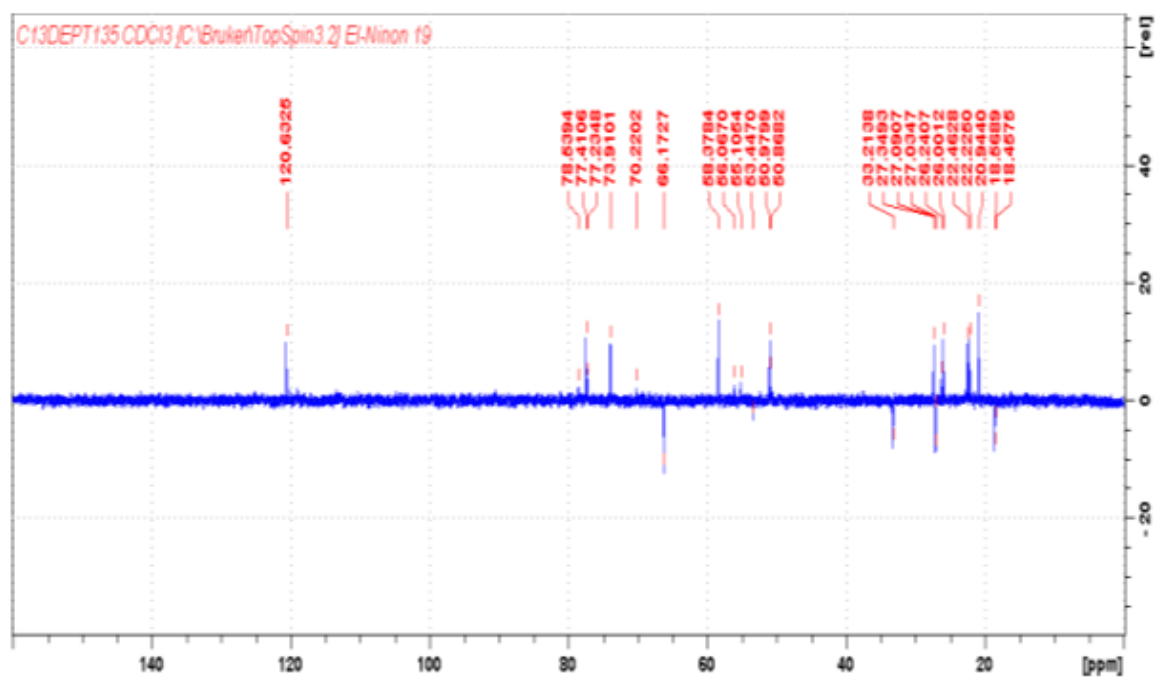


Figure 23: DEPT-NMR (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 3

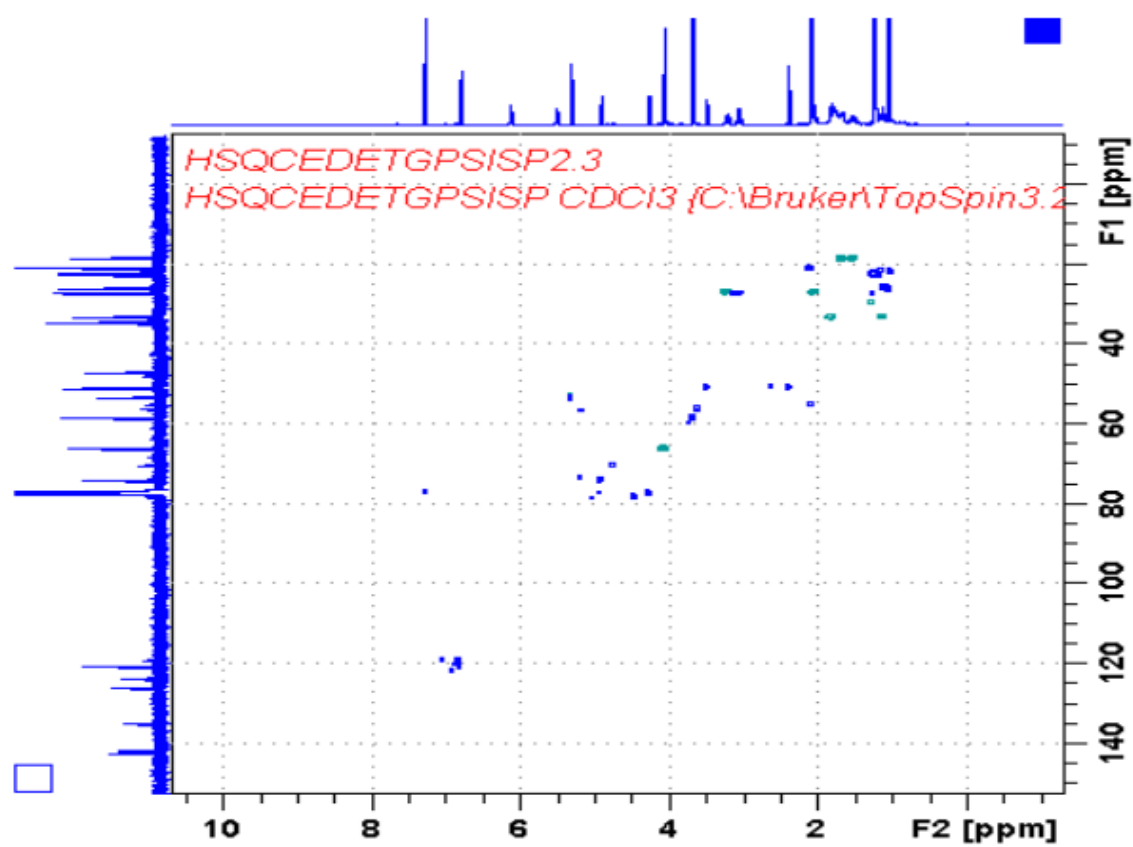


Figure 24: HSQC (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 3



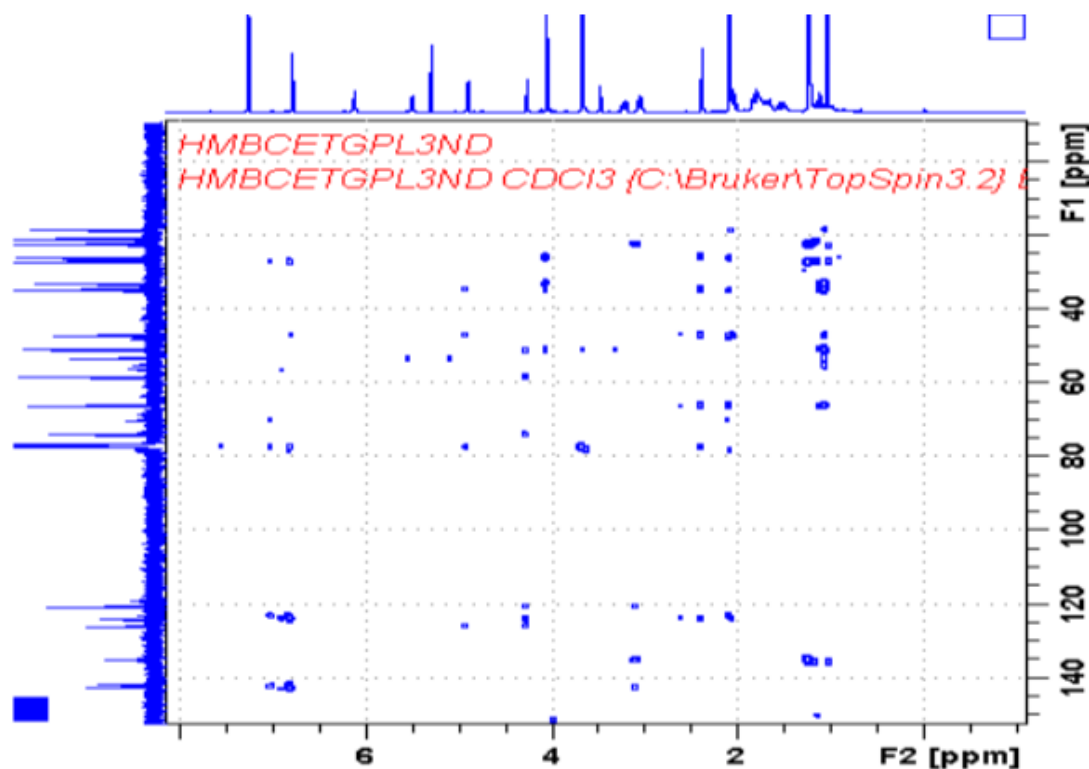


Figure 25: HMBC (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 3

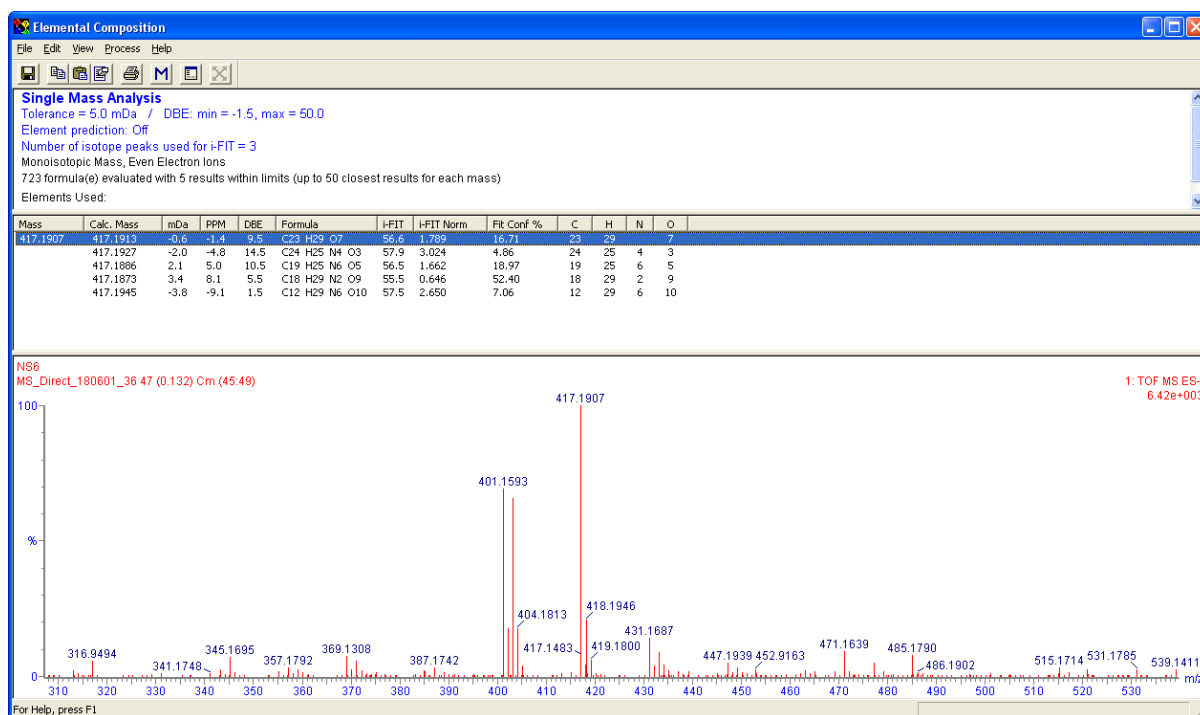
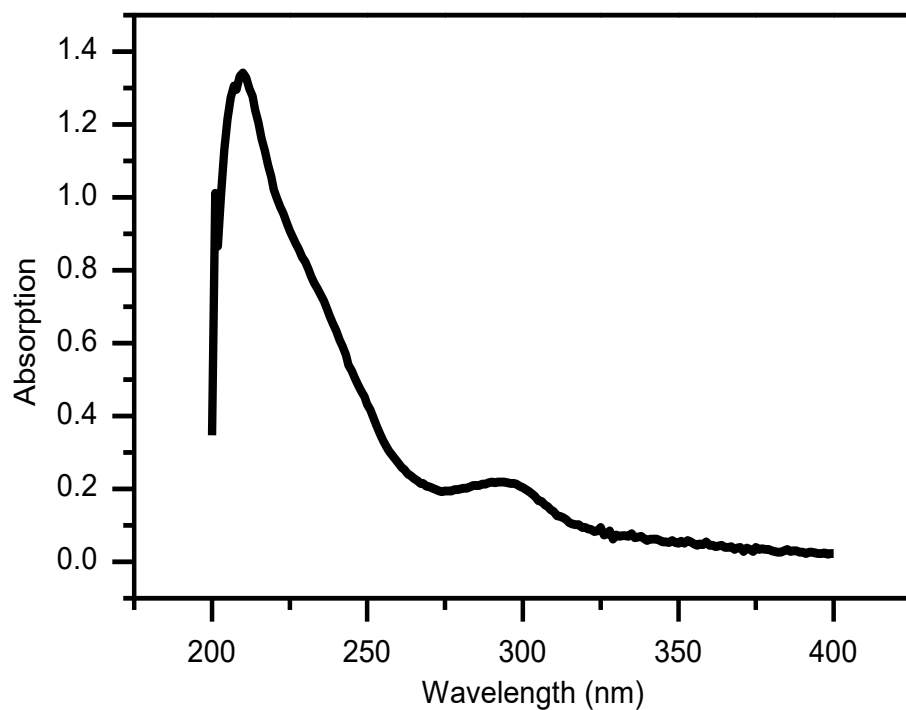
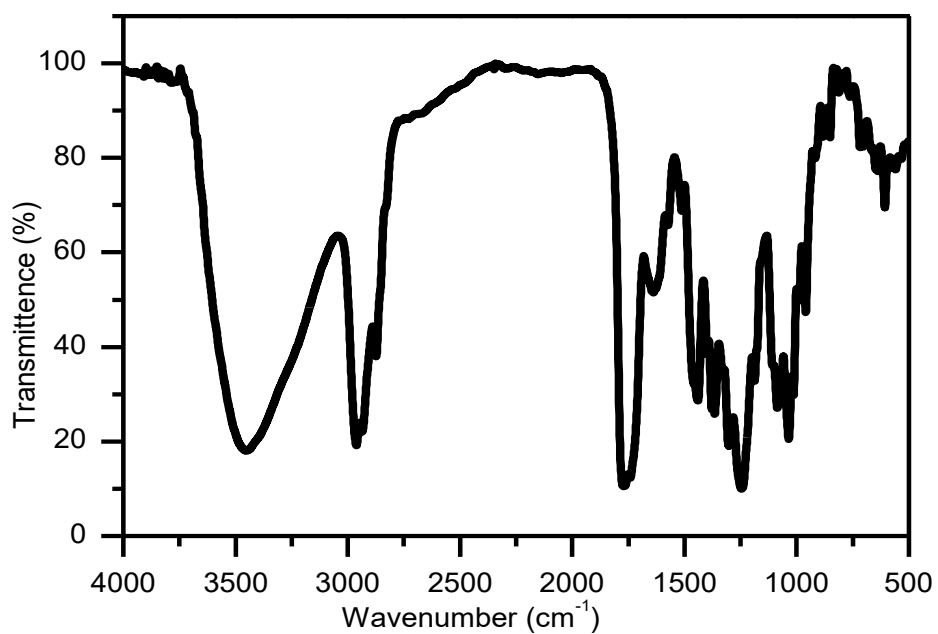


Figure 26: HR-MS spectrum of Compound 3



**Figure 27:** UV (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 3



**Figure 28:** FTIR spectrum of Compound 3

**Compound 4**

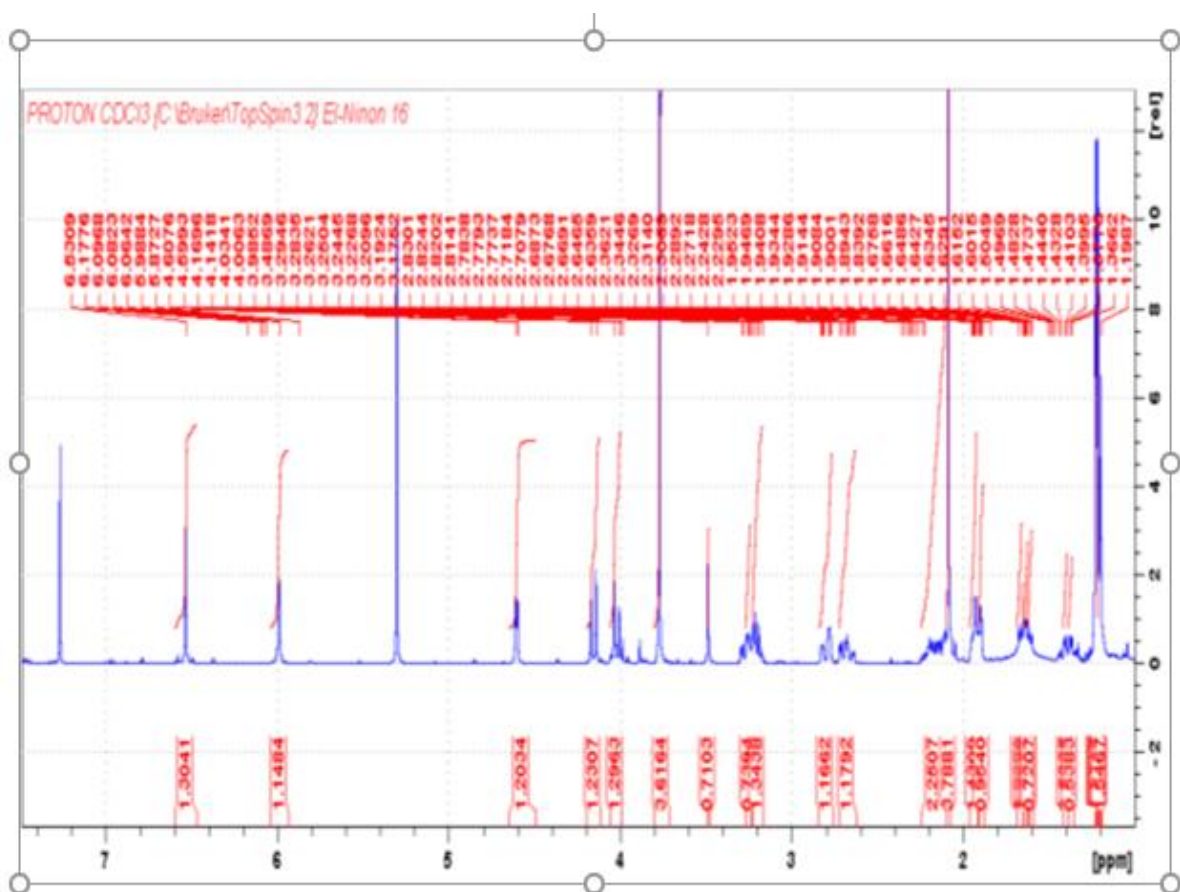
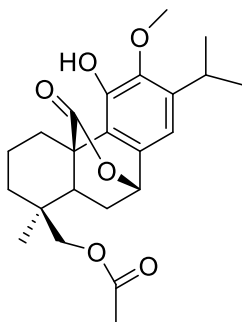


Figure 29: <sup>1</sup>H-NMR (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 4

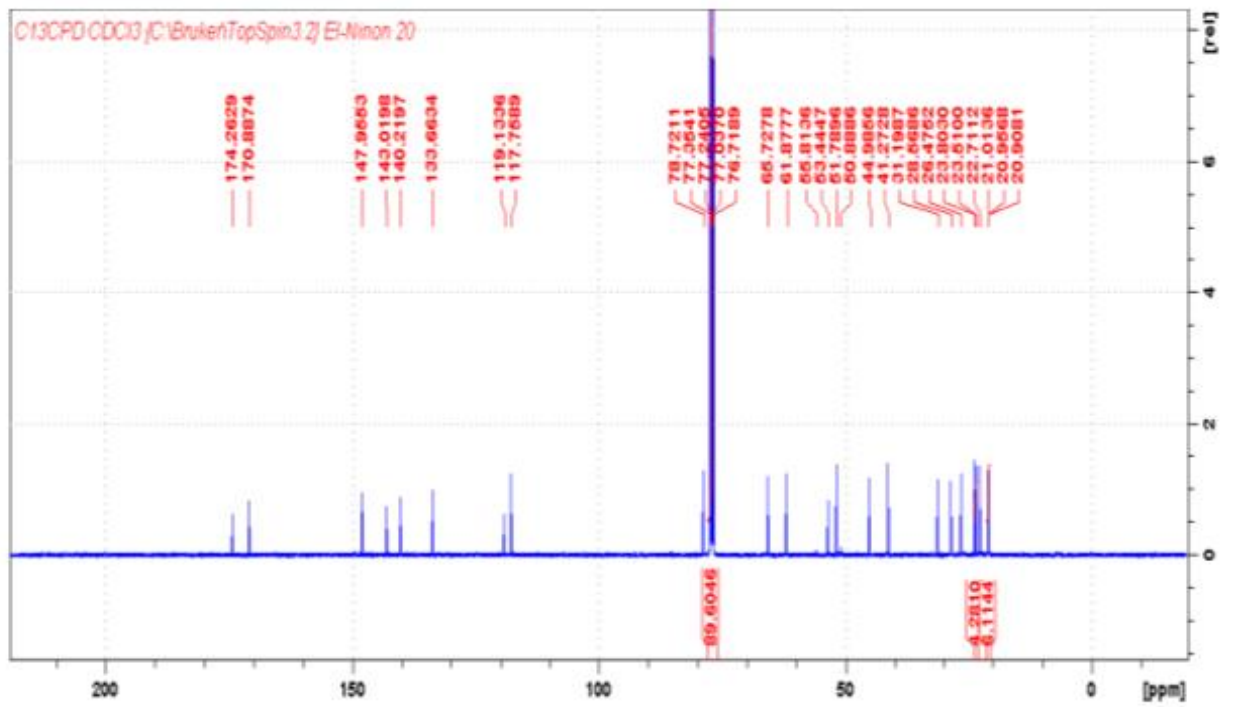


Figure 30:  $^{13}\text{C}$ -NMR (400 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 4

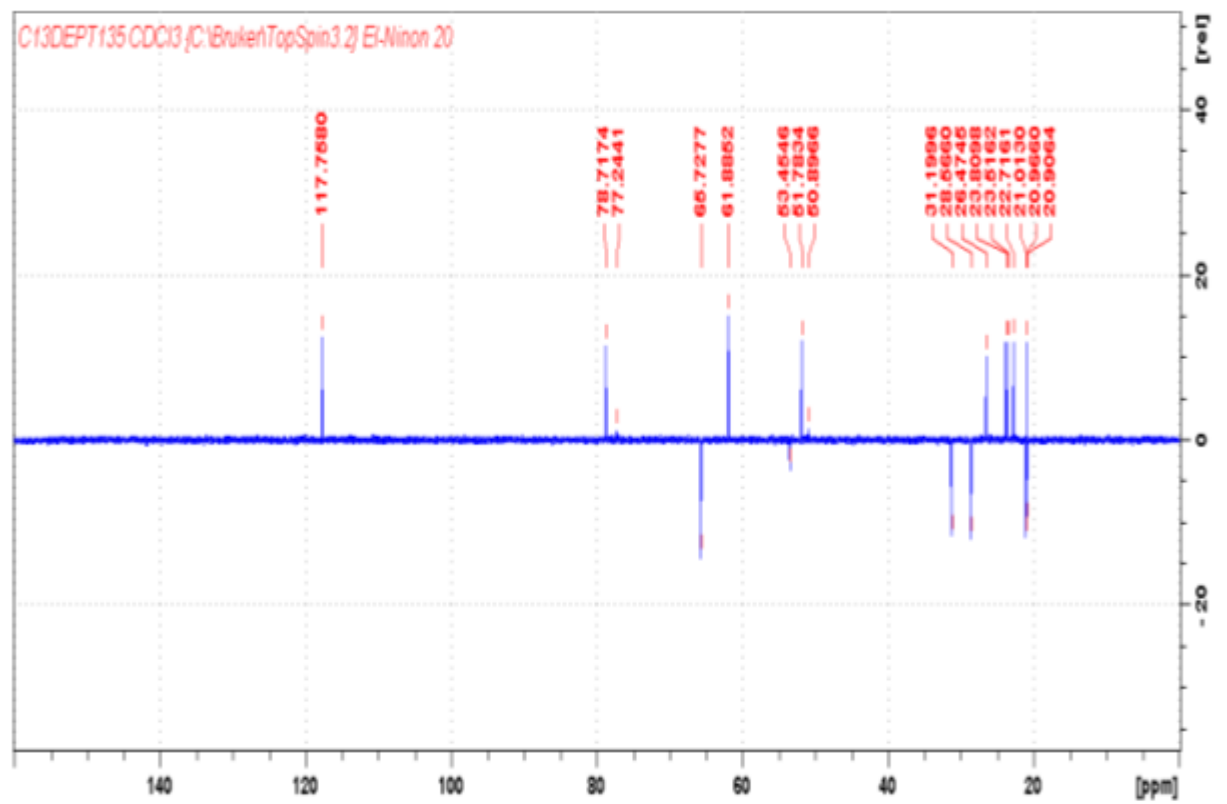


Figure 31: DEPT-NMR (400 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 4

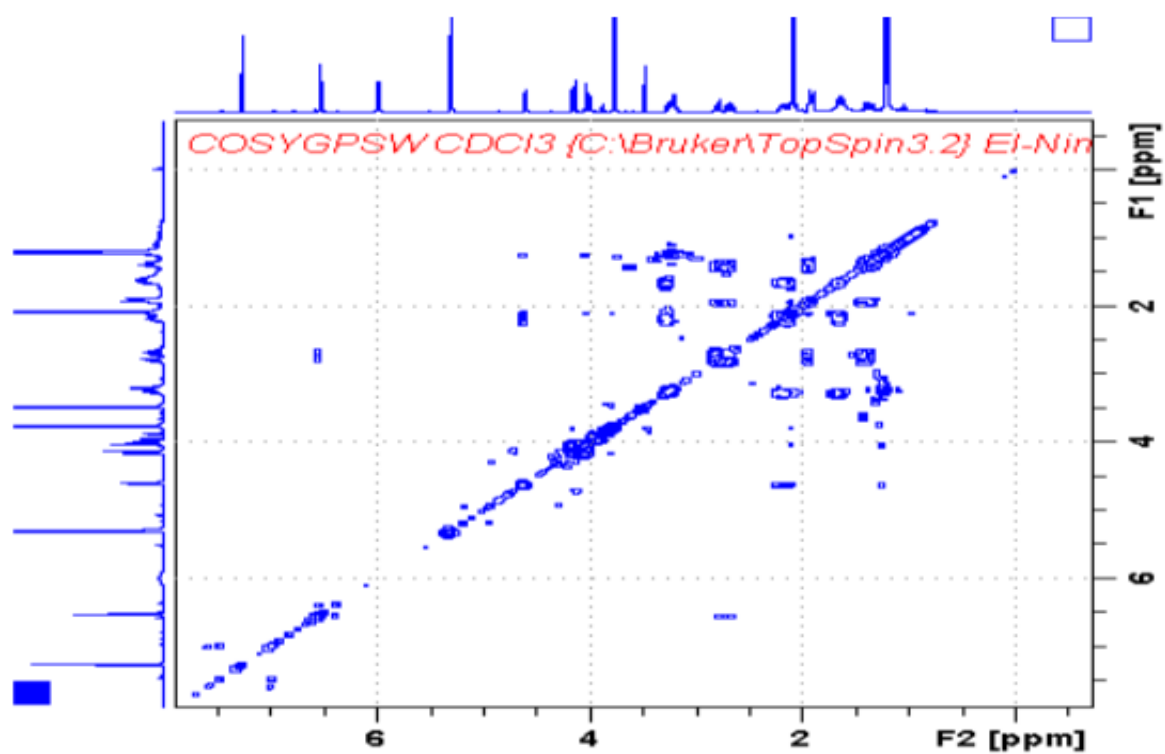


Figure 32: COSY (400 MHz, CDCI3) Spectrum of Compound 4

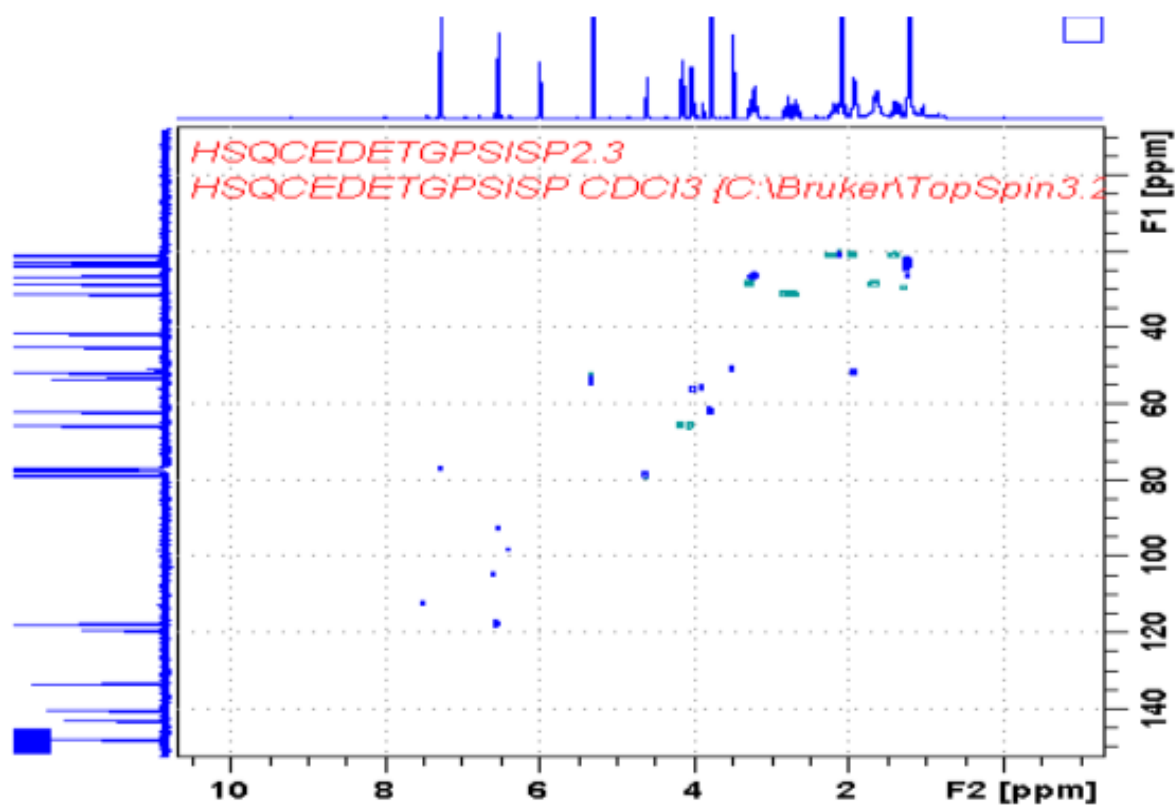
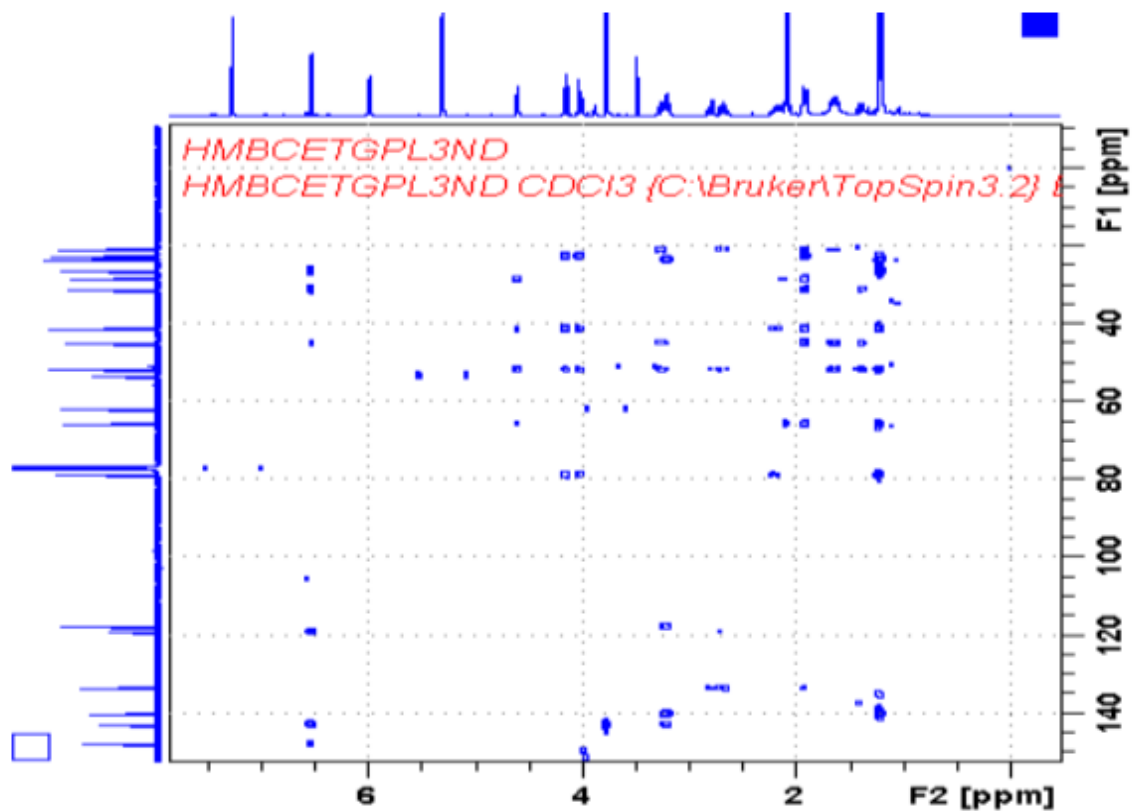
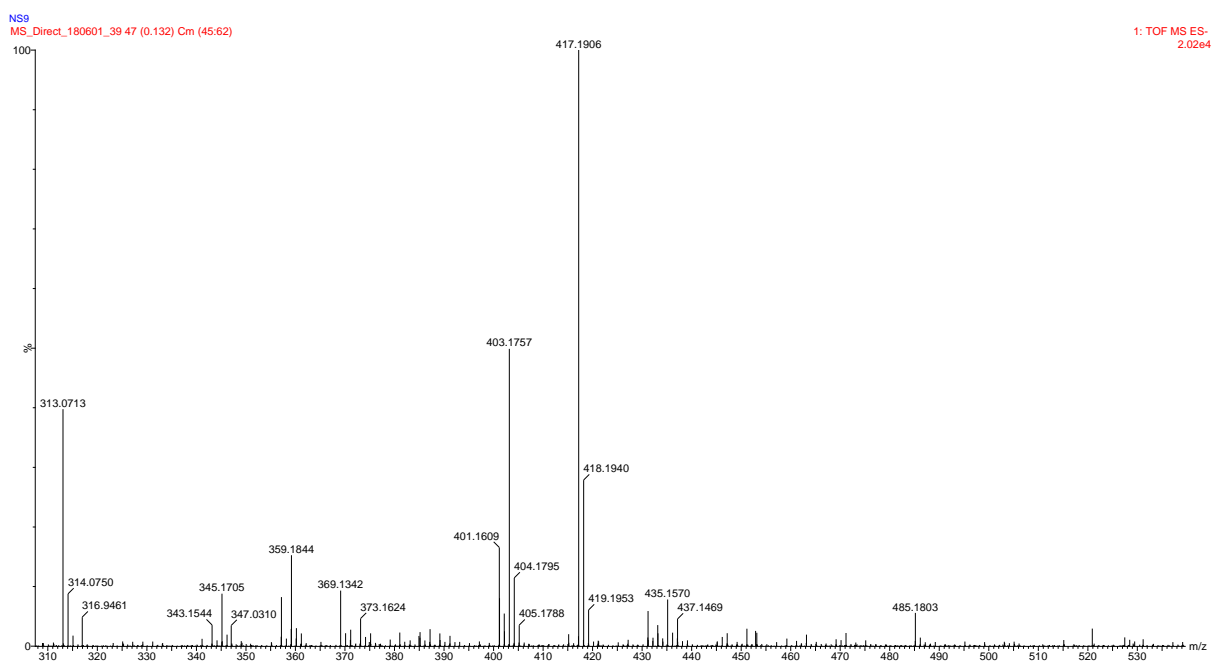


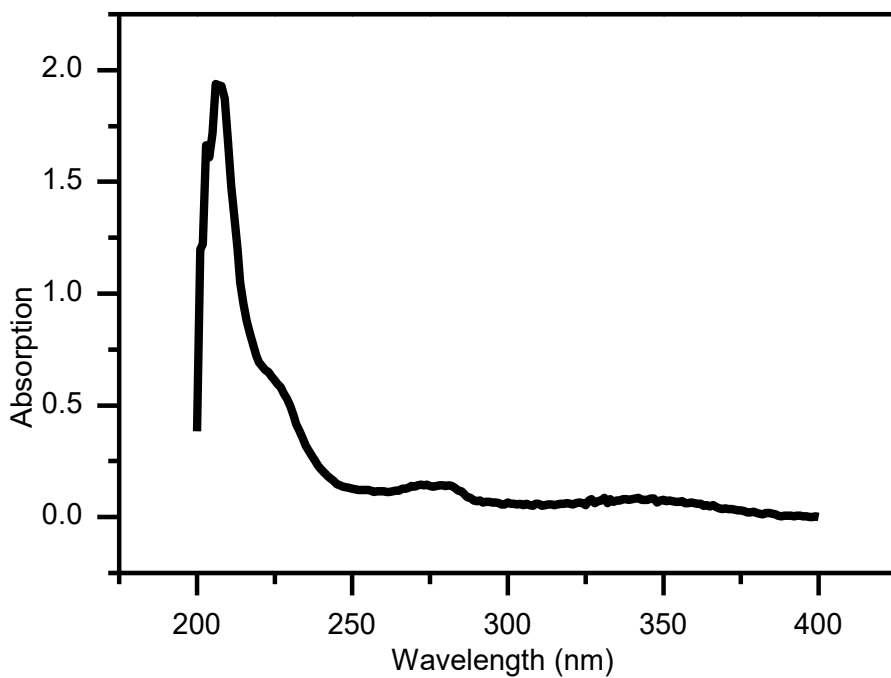
Figure 33: HSQC (400 MHz, CDCI3) Spectrum of Compound 4



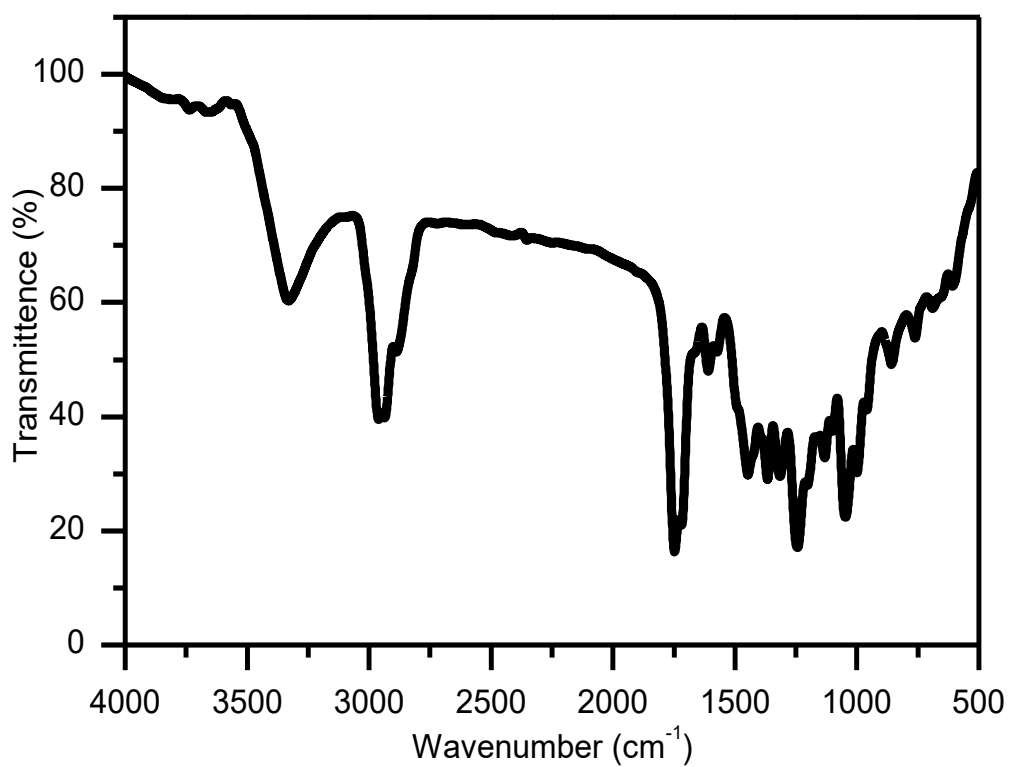
**Figure 34:** HMBC (400 MHz, CDCl<sub>3</sub>) Spectrum of Compound 4



**Figure 35:** HR-MS spectrum of Compound 4



**Figure 36:** UV spectrum of Compound 4



**Figure 37:** FTIR spectrum of Compound 4