

## Supplementary Material

### Asphodosides A-E, Anti-MRSA Metabolites from *Asphodelus microcarpus*

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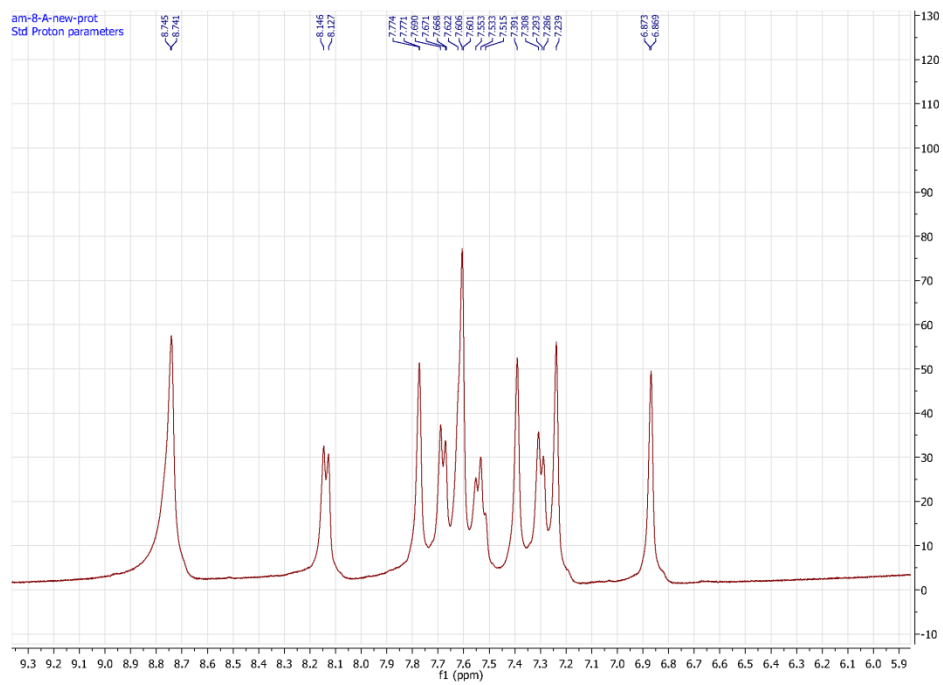
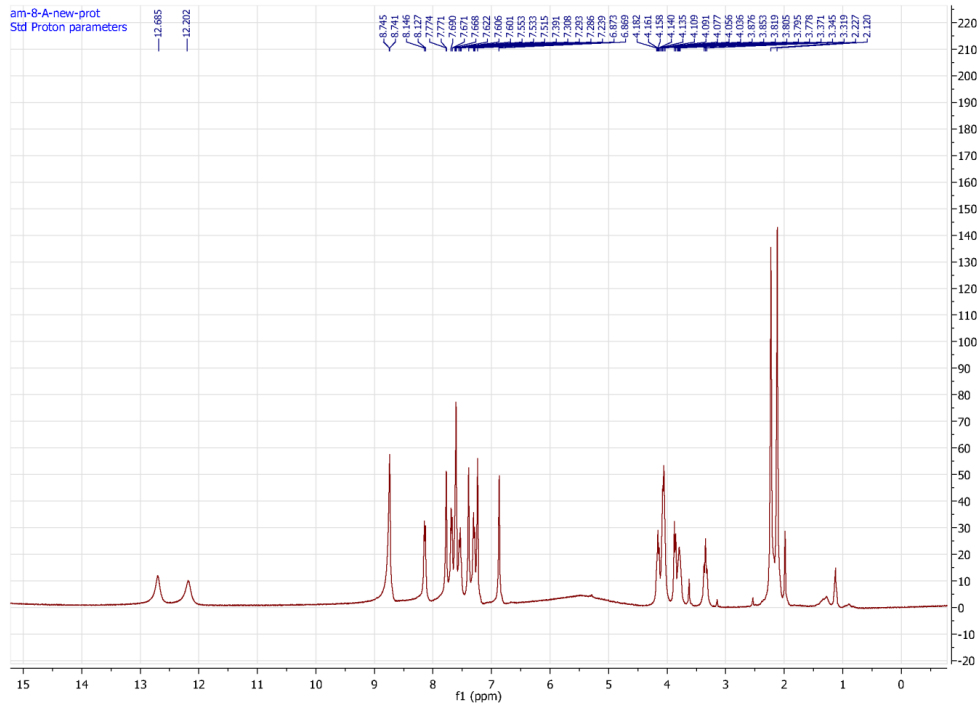
*Department of Pharmacognosy, Faculty of Pharmacy, The University of Alexandria, Alexandria 21521, Egypt.*

*Department of Medicinal Chemistry, School of Pharmacy, The University of Mississippi, University, MS 38677, USA.*

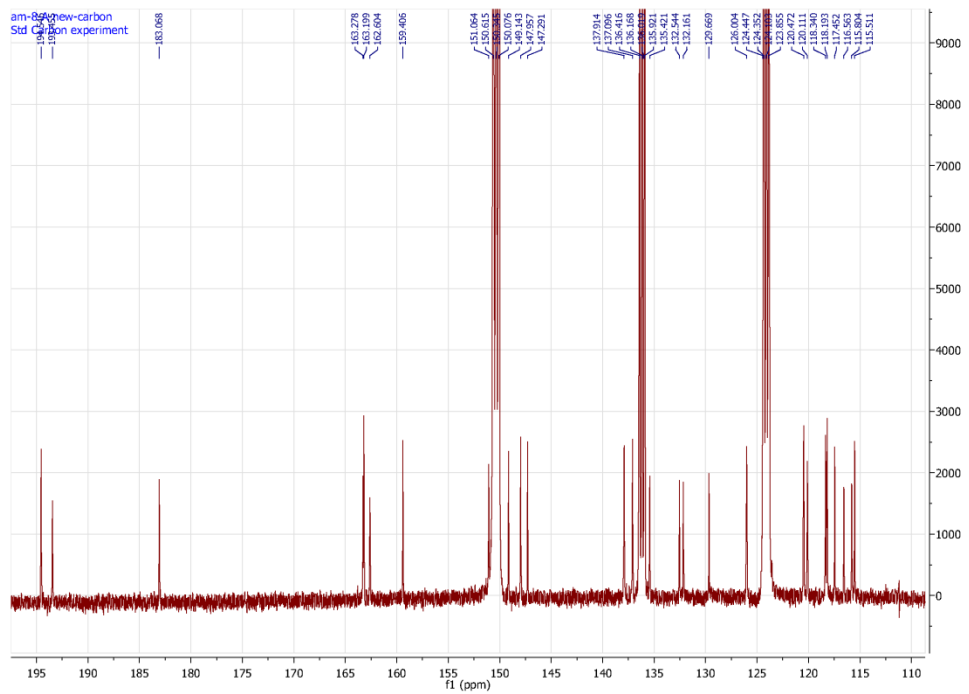
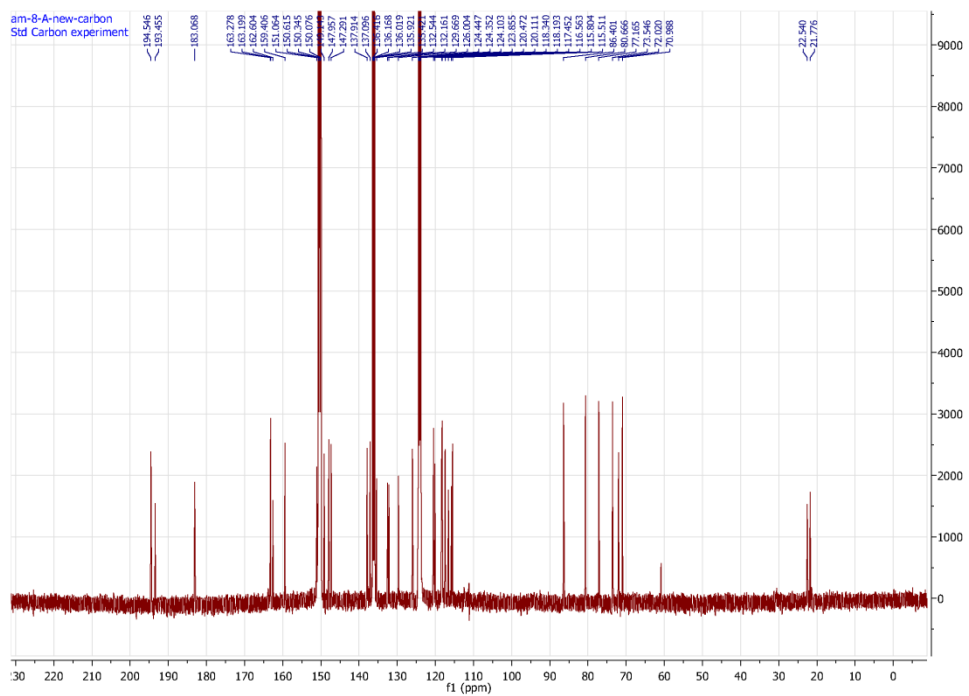
*Department of Pharmacognosy, School of Pharmacy, The University of Mississippi, University, MS 38677, USA*

# Compound 1: Asphodoside A.

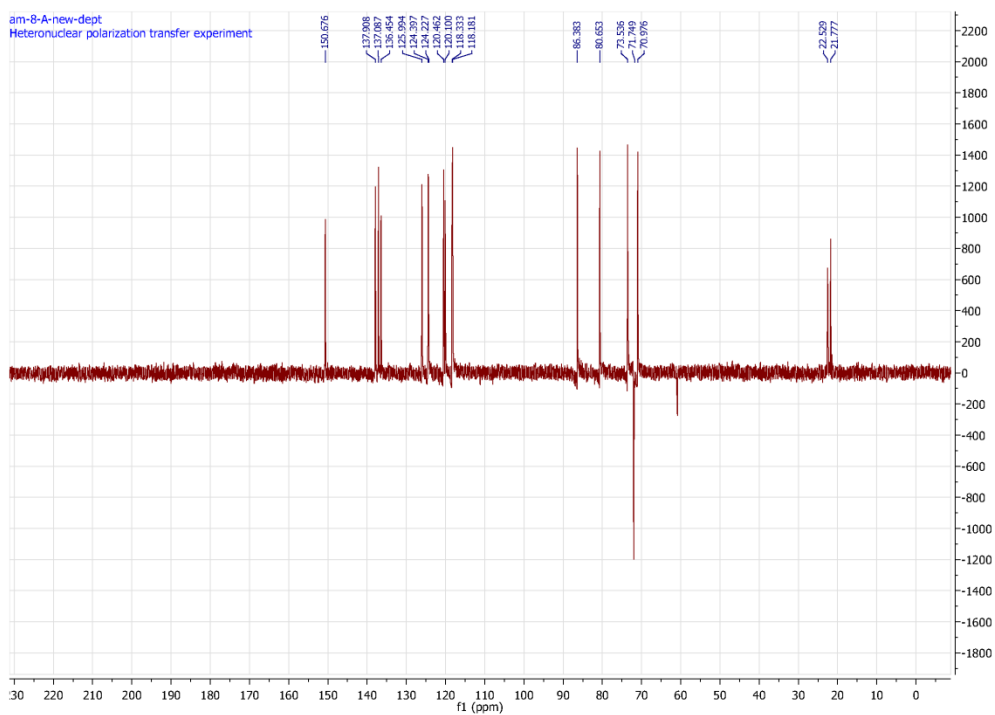
$^1\text{H}$  NMR for compound 1 in pyridin- $d_5$



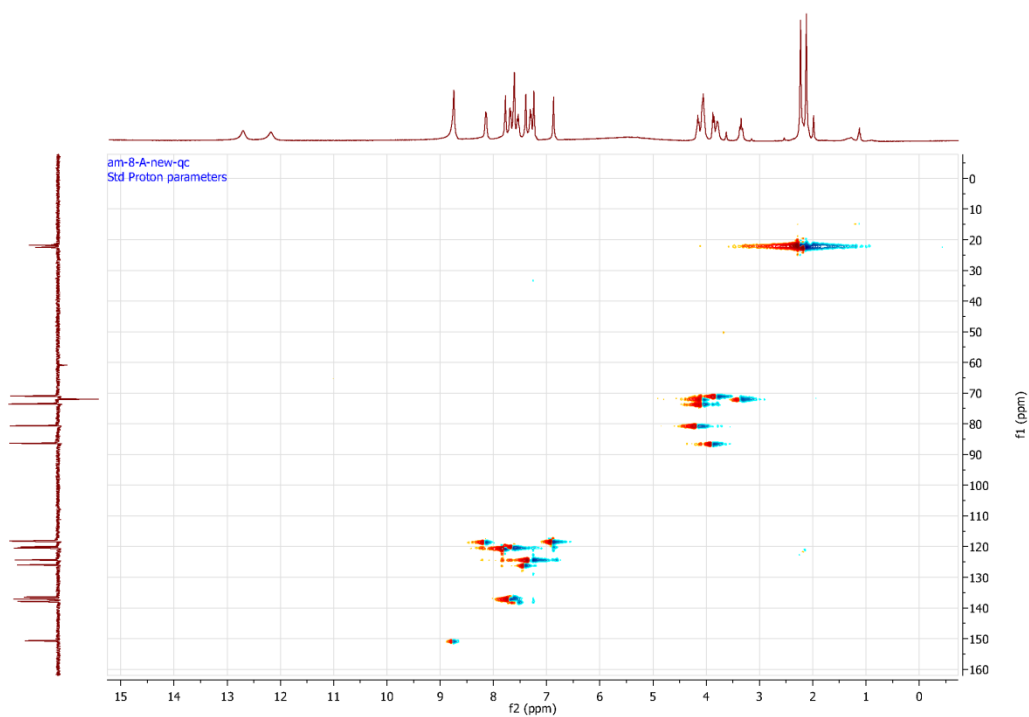
$^{13}\text{C}$  NMR for compound **1** in pyridin- $d_5$



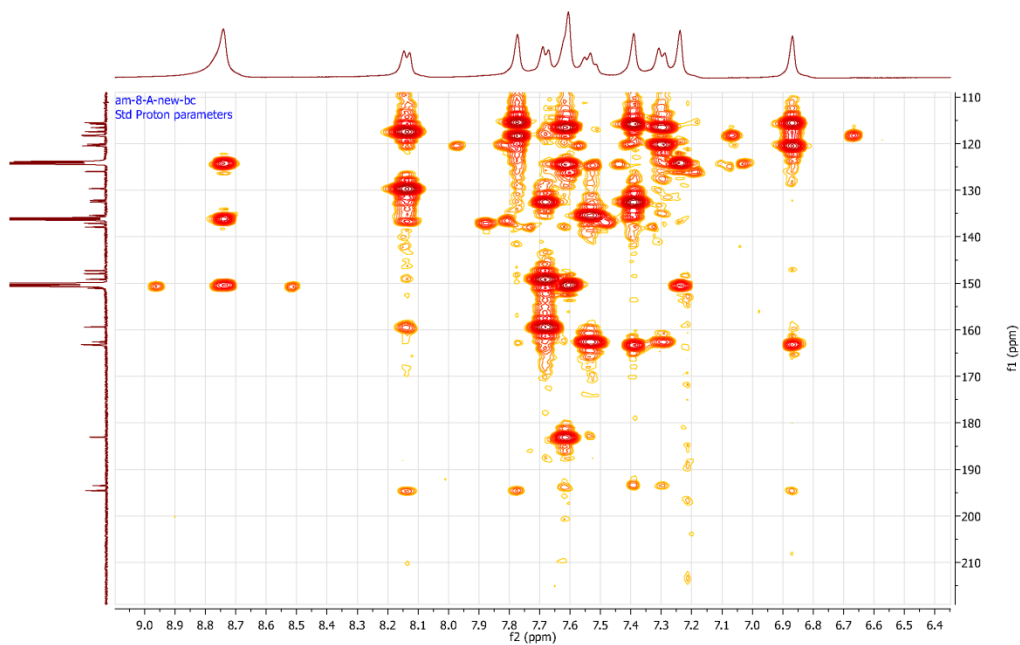
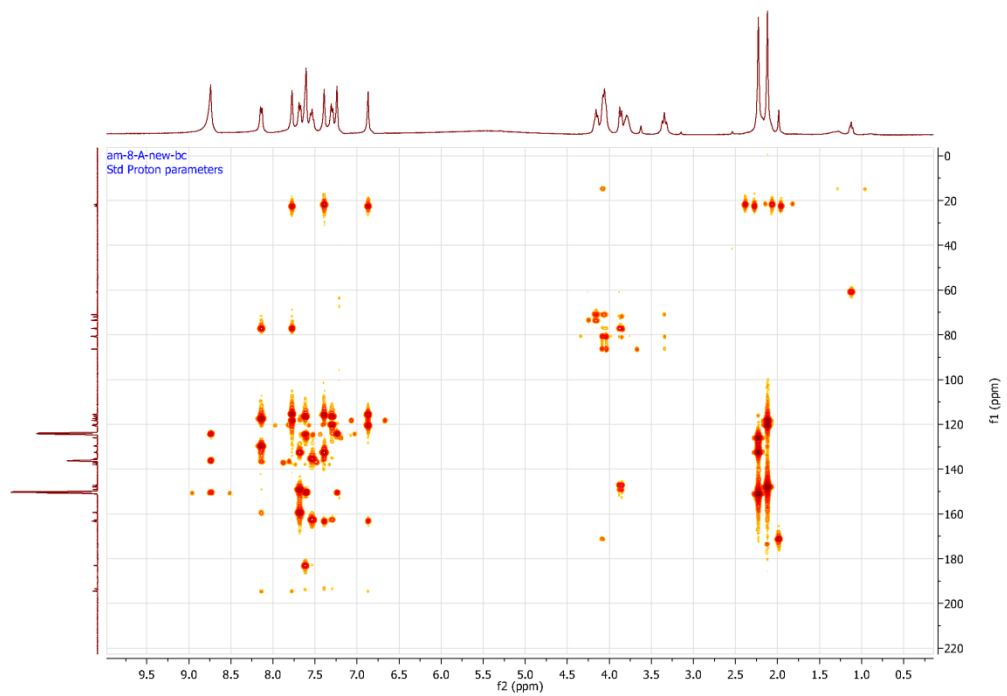
DEPT for compound **1** in pyridin-*d*<sub>5</sub>



HMQC for compound **1** in pyridin-*d*<sub>5</sub>

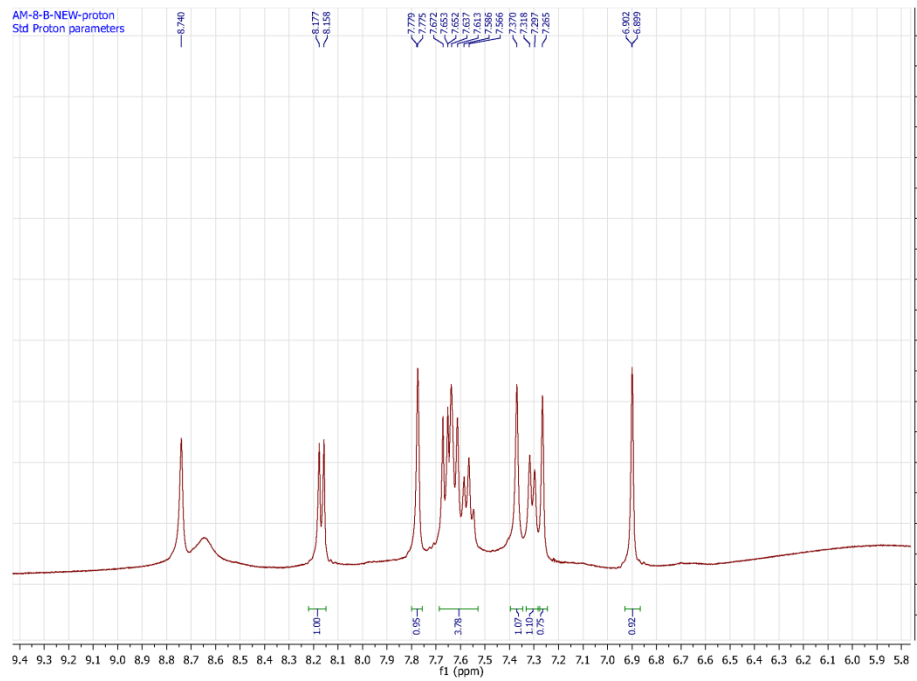
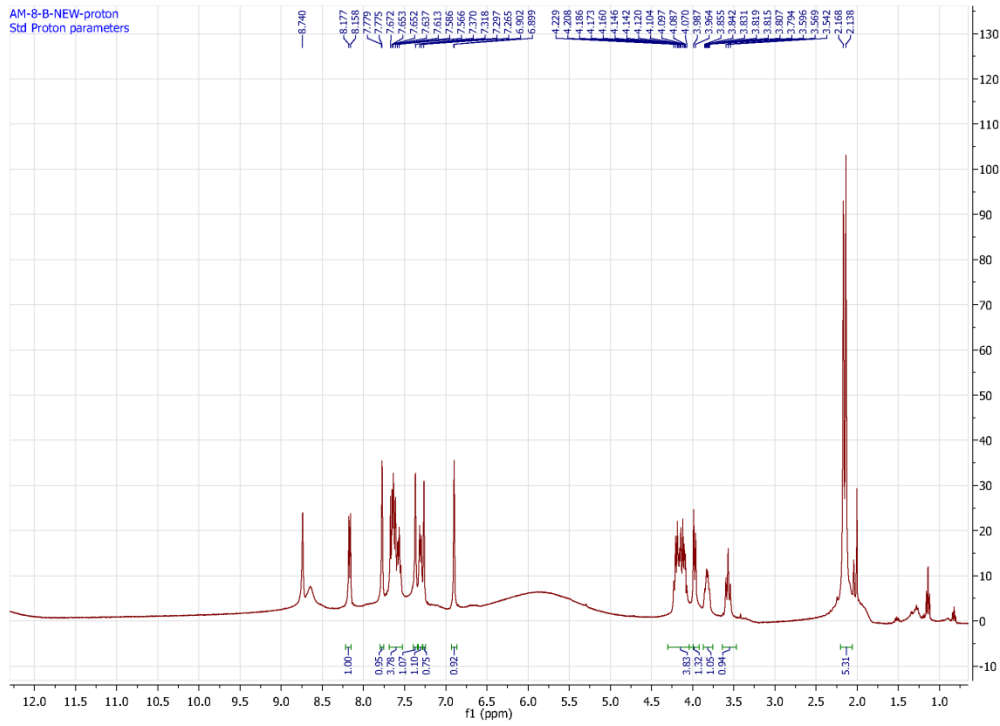


HMBC for compound **1** in pyridin-*d*<sub>5</sub>

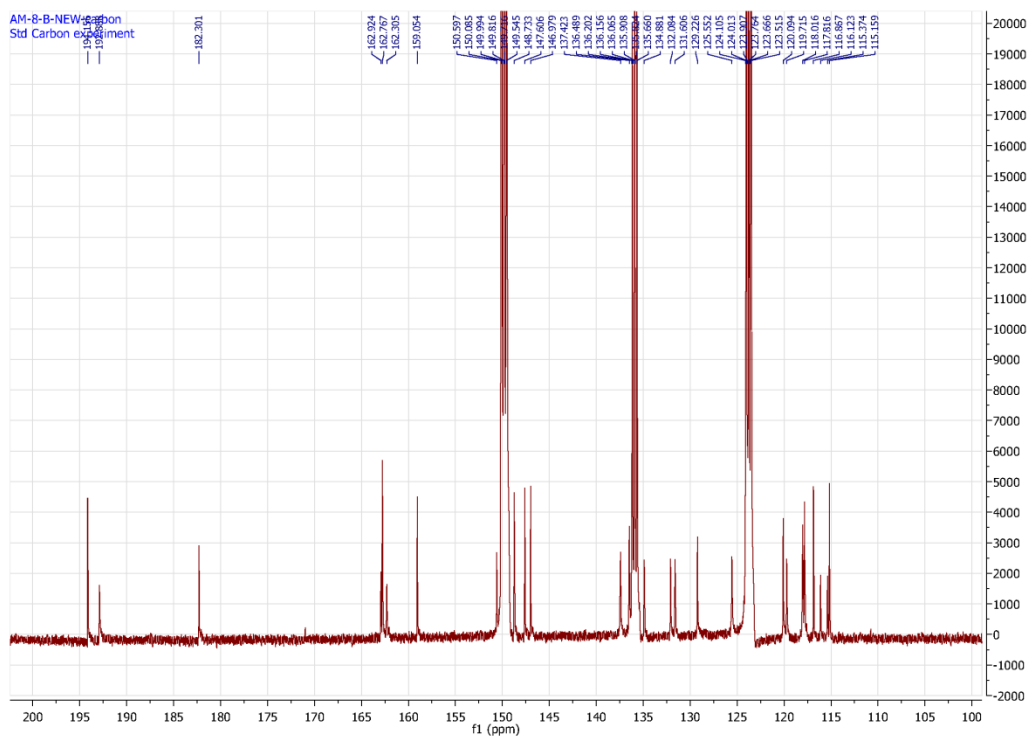
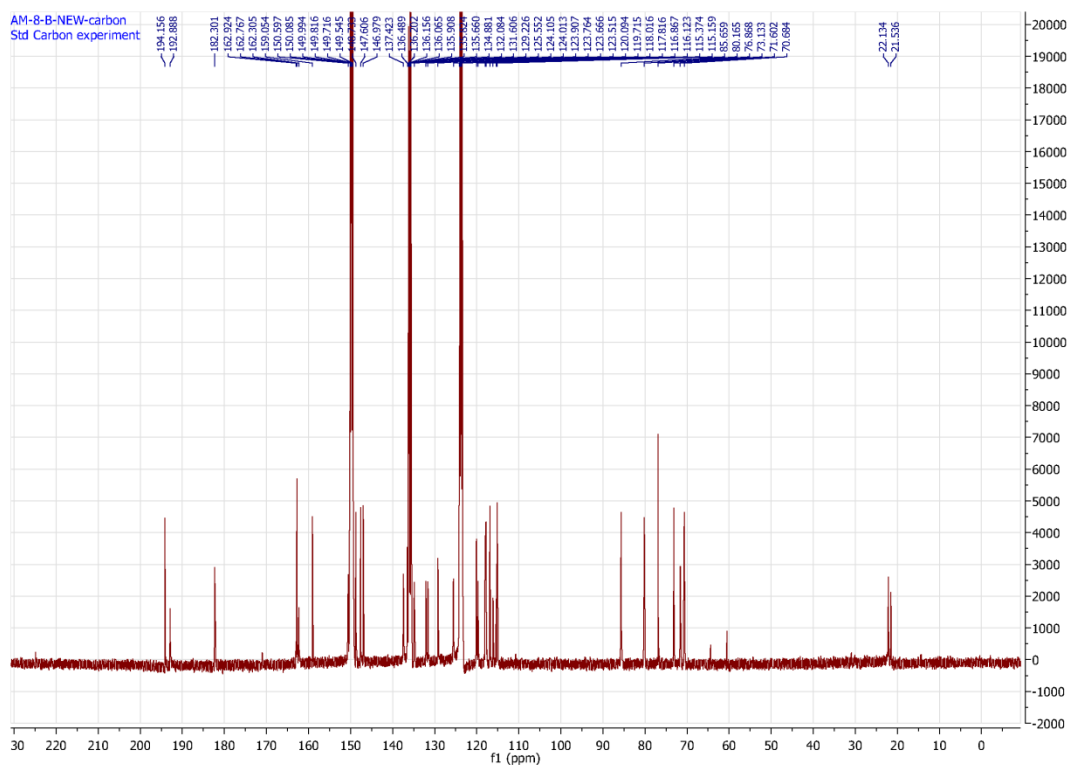


# Compound 2: Asphodoside B

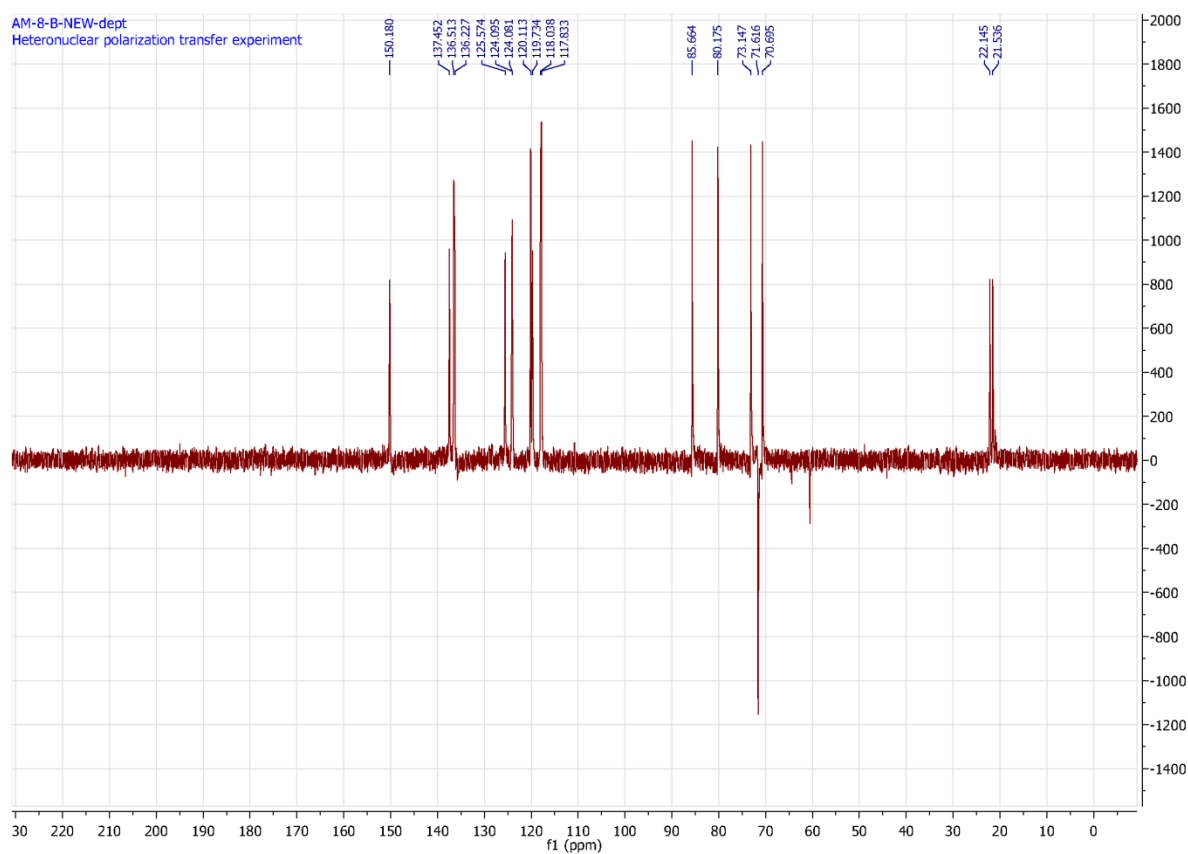
$^1\text{H-NMR}$  spectrum of compound **2** in pyridin- $d_5$



$^{13}\text{C}$ -NMR spectrum of compound **2** in pyridin- $d_5$

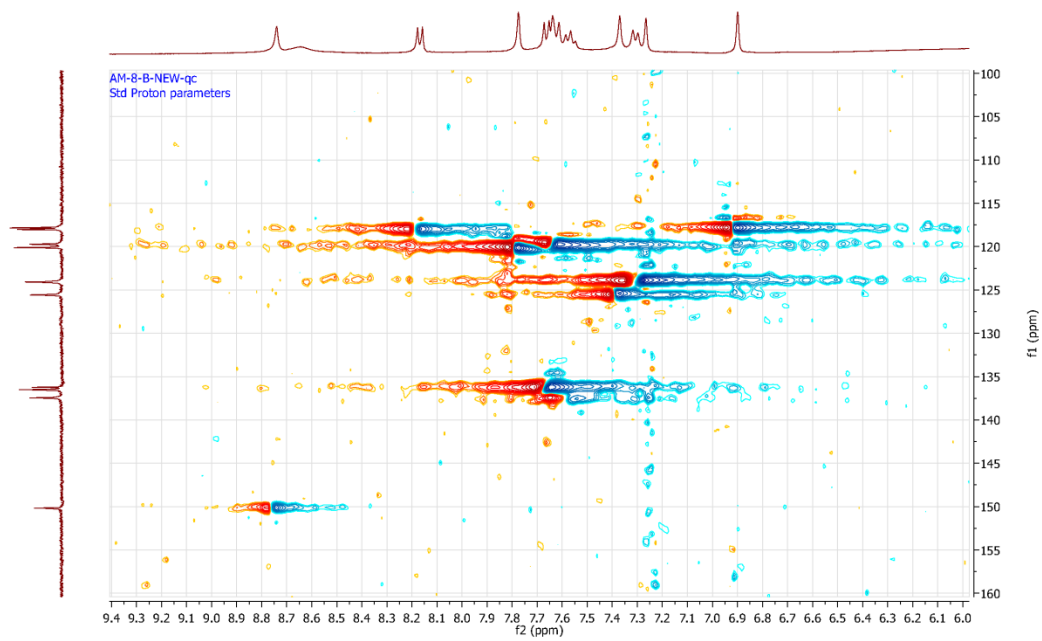
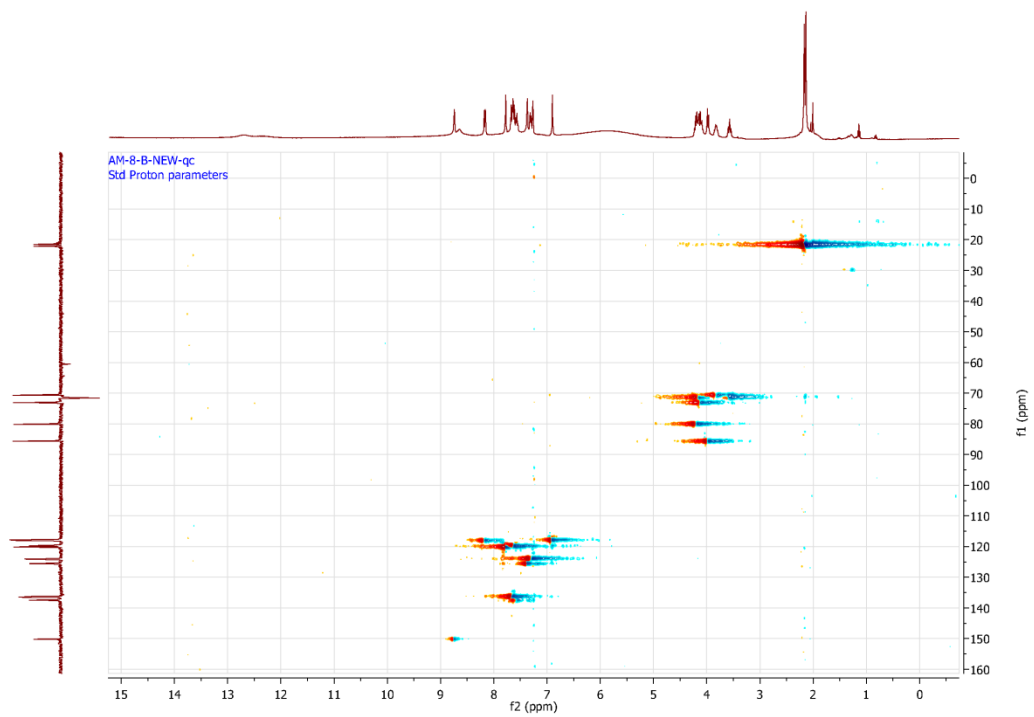


DEPT spectrum of compound **2** in pyridin-*d*<sub>5</sub>

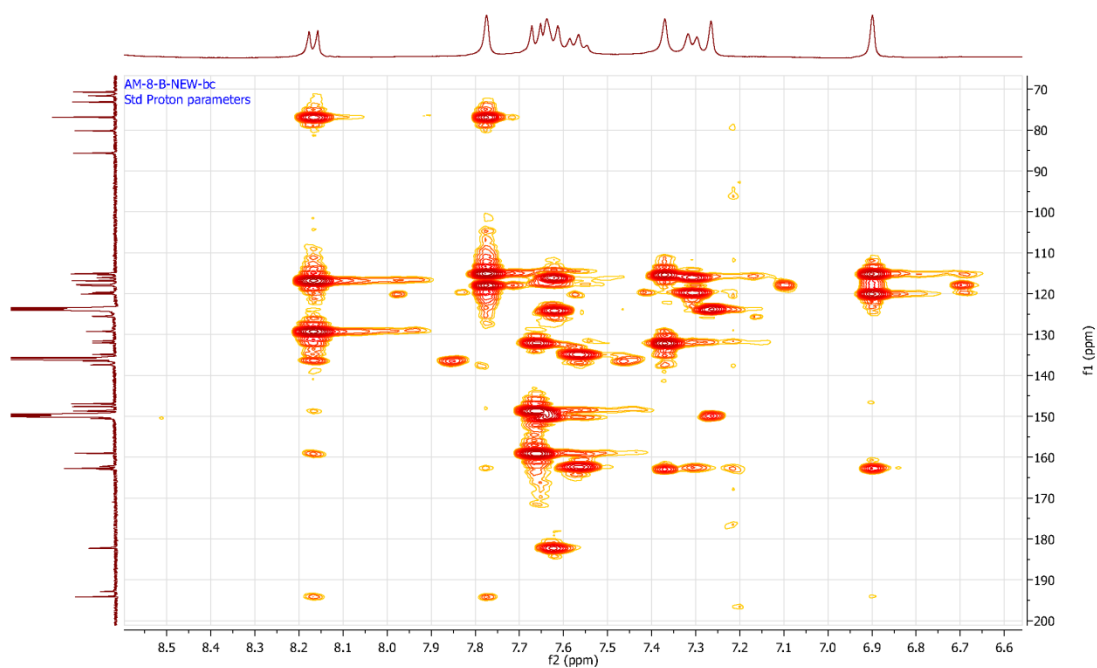
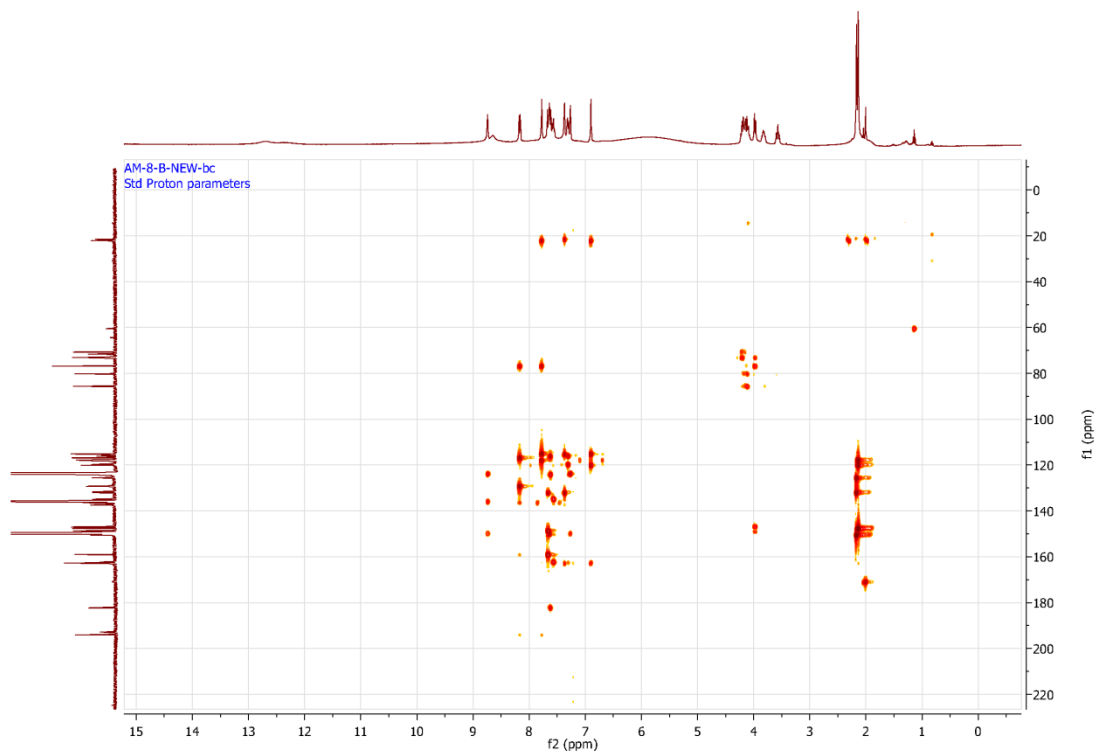




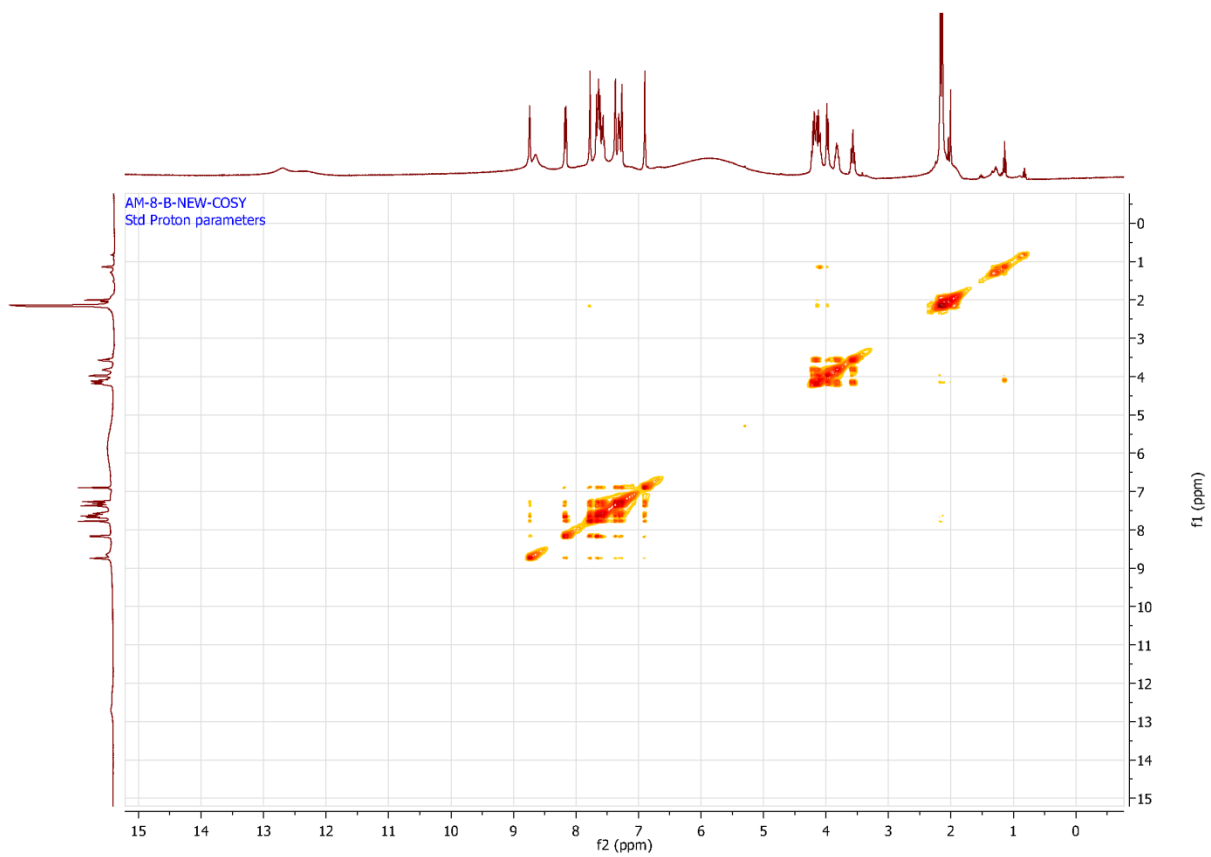
HMQC spectrum of compound **2** in pyridin- $d_5$



HMBC spectrum of compound **2** in pyridin-*d*<sub>5</sub>

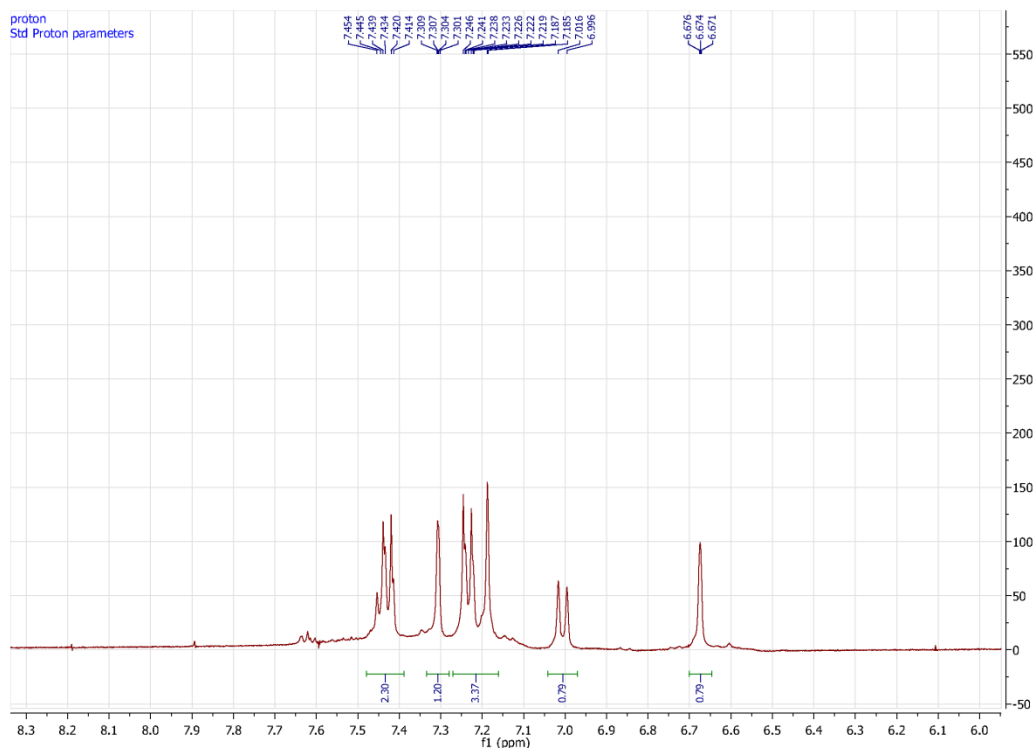
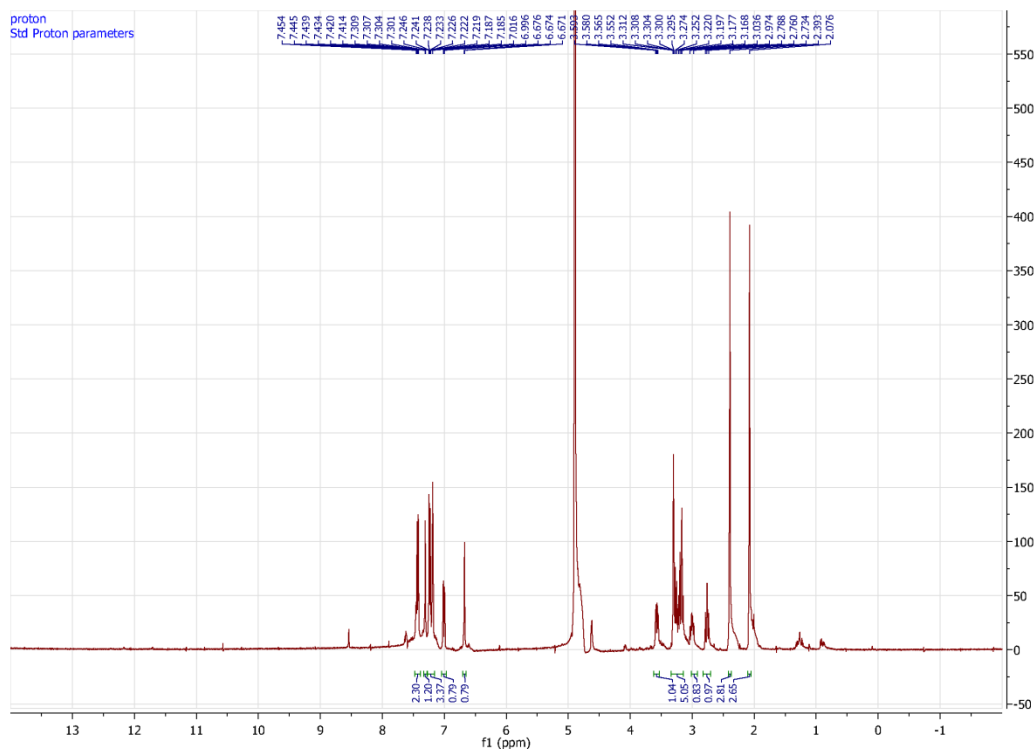


COSY spectrum of compound **2** in pyridin-*d*<sub>5</sub>

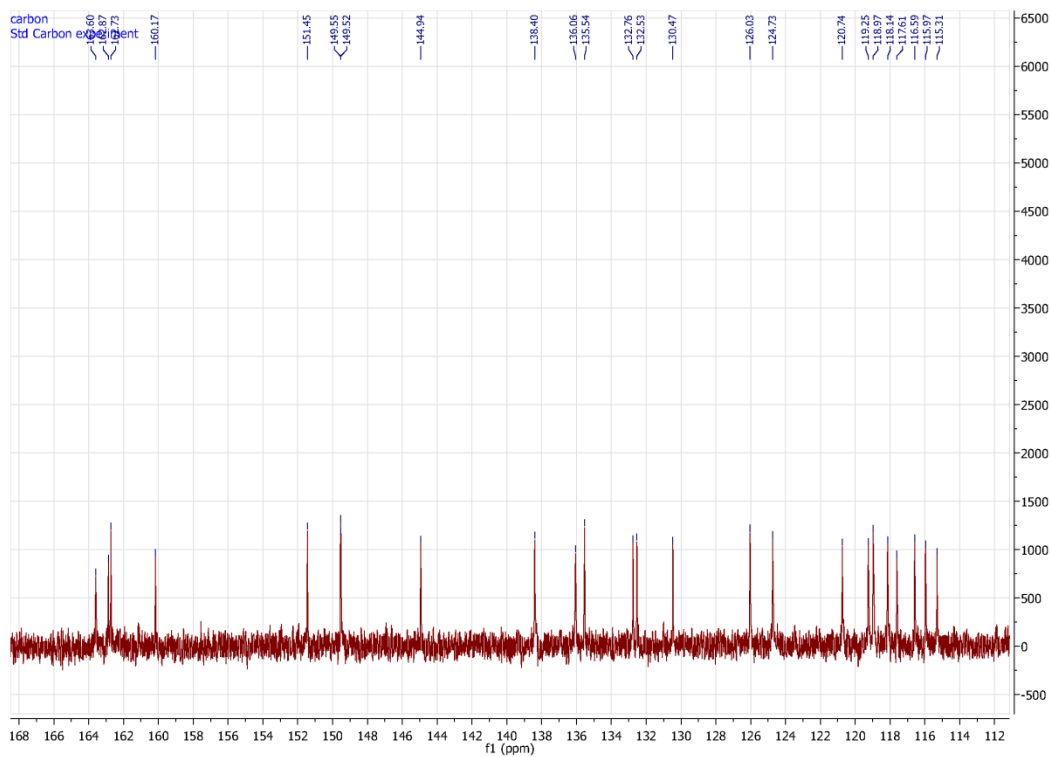
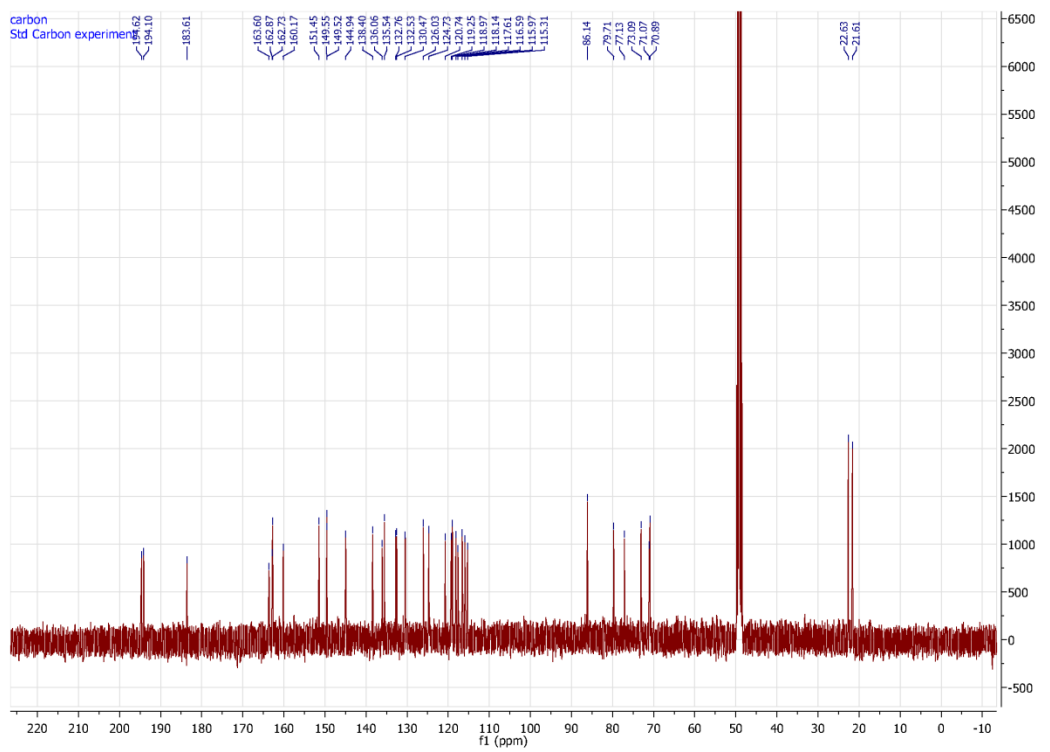


# Compound 3: Asphodaside C

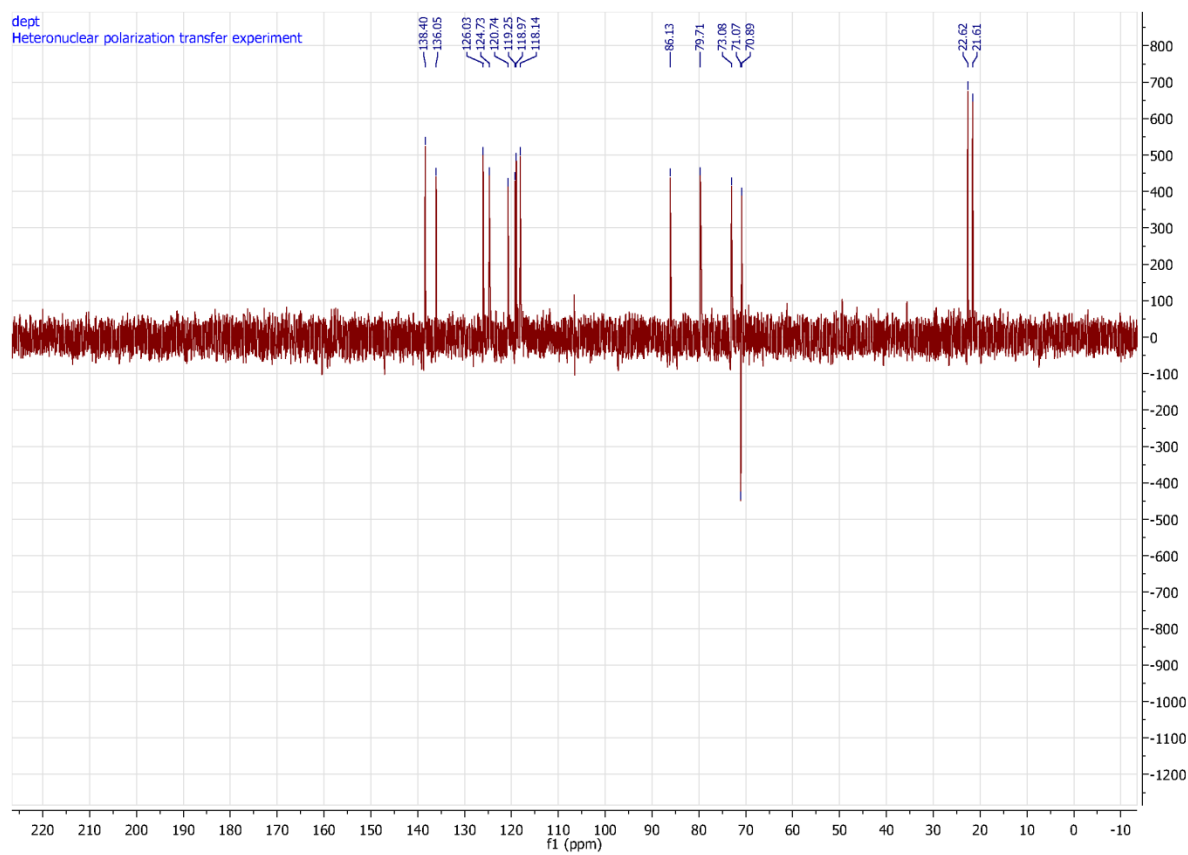
<sup>1</sup>H-NMR spectrum of compound 3 in CD<sub>3</sub>OD-d<sub>4</sub>



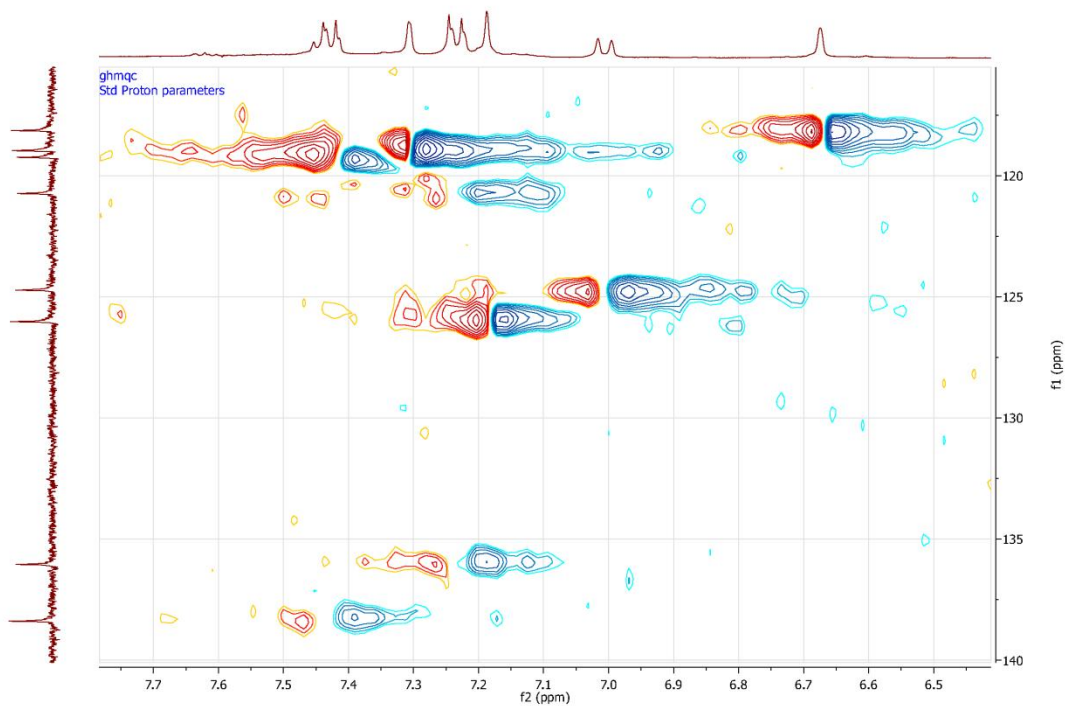
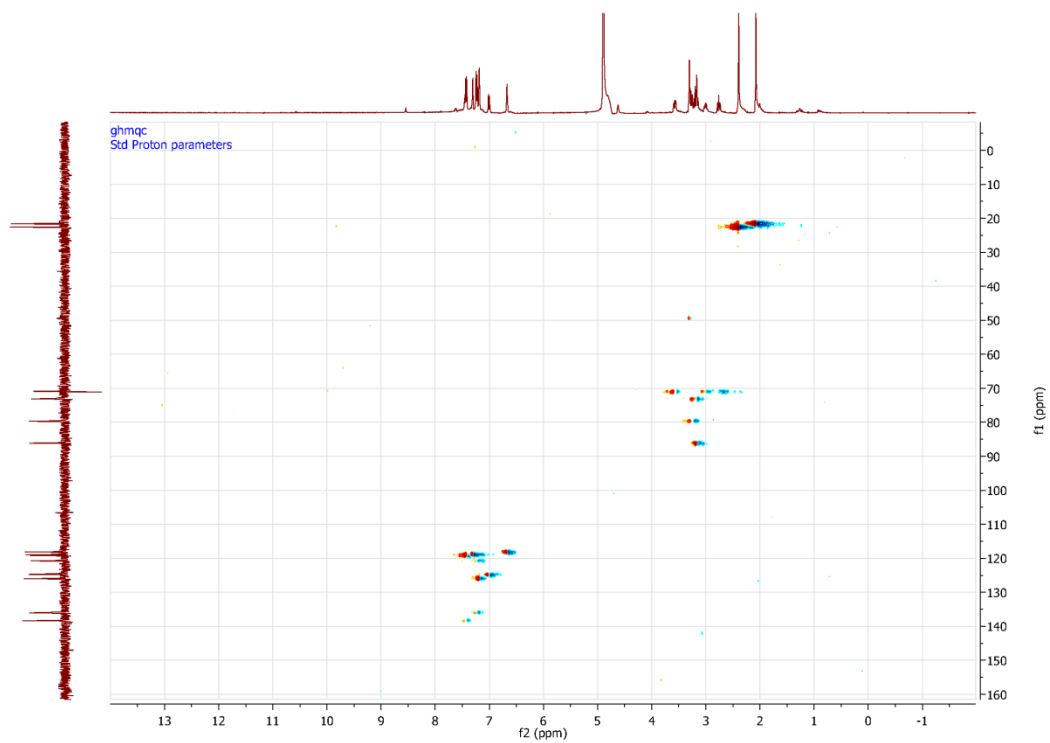
$^{13}\text{C}$ -NMR spectrum of compound **3** in  $\text{CD}_3\text{OD}-d_4$



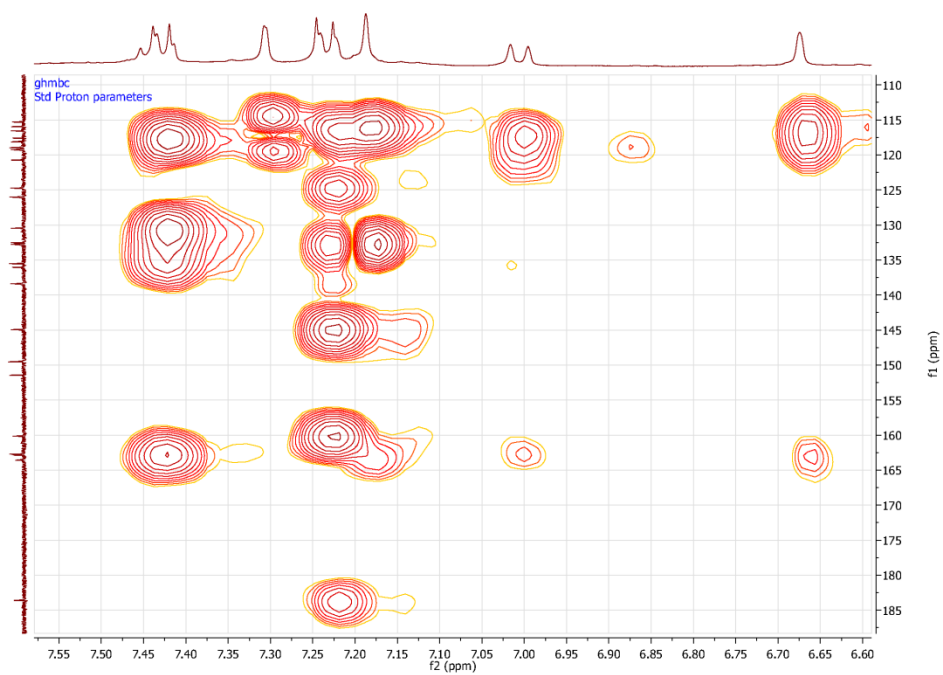
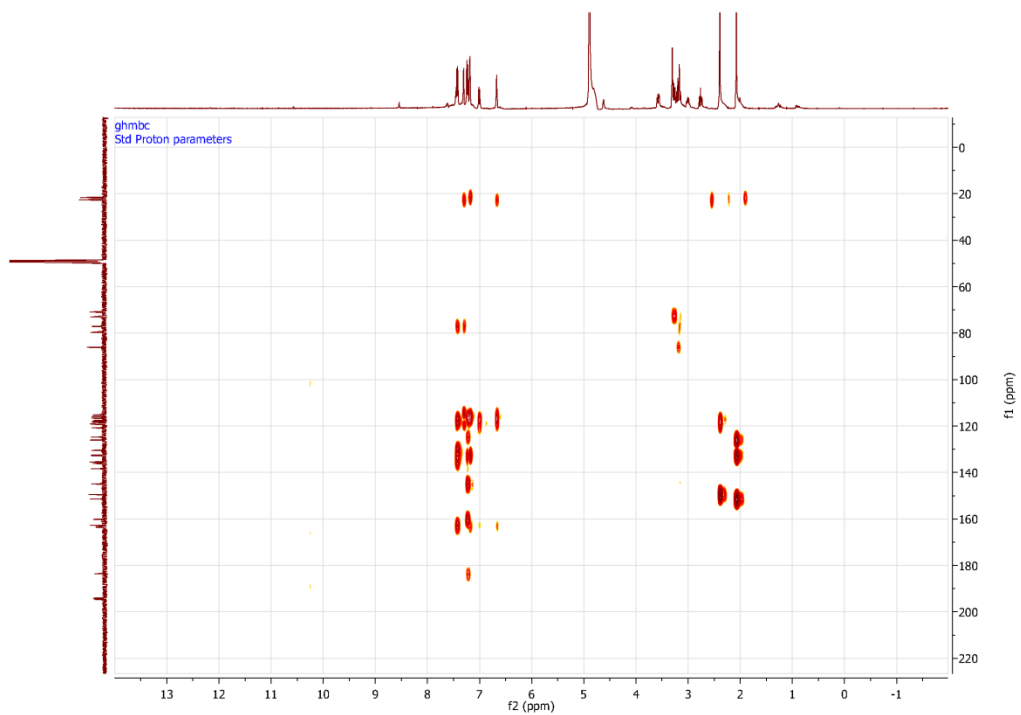
DEPT spectrum of compound **3** in CD<sub>3</sub>OD-*d*<sub>4</sub>



HMQC spectrum of compound **3** in CD<sub>3</sub>OD-*d*<sub>4</sub>



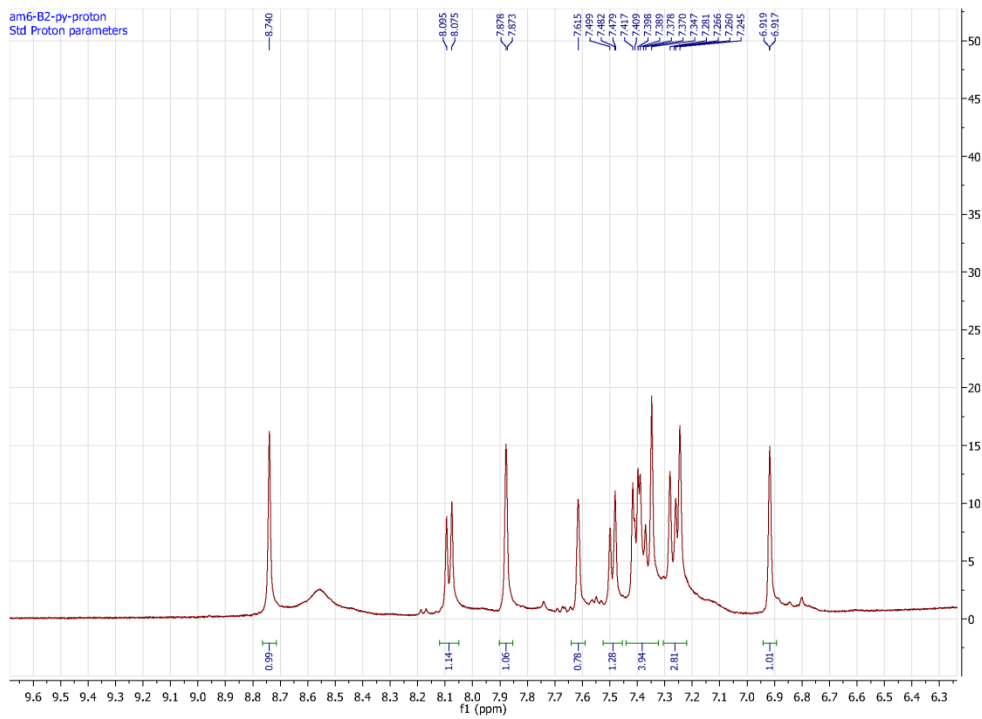
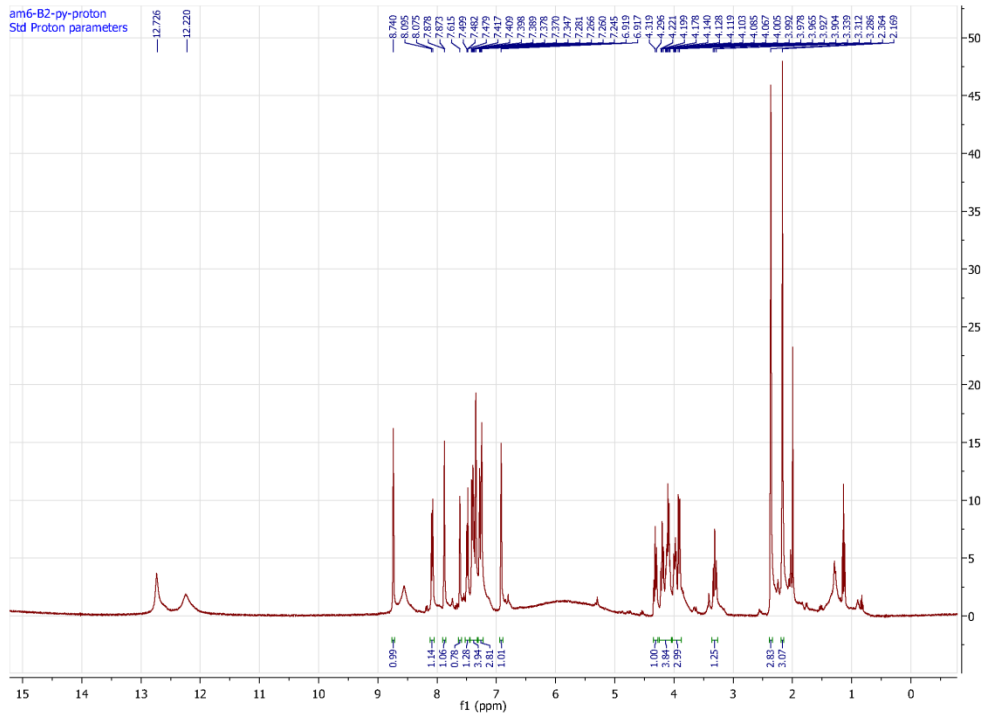
HMBC spectrum of compound **3** in CD<sub>3</sub>OD-*d*<sub>4</sub>



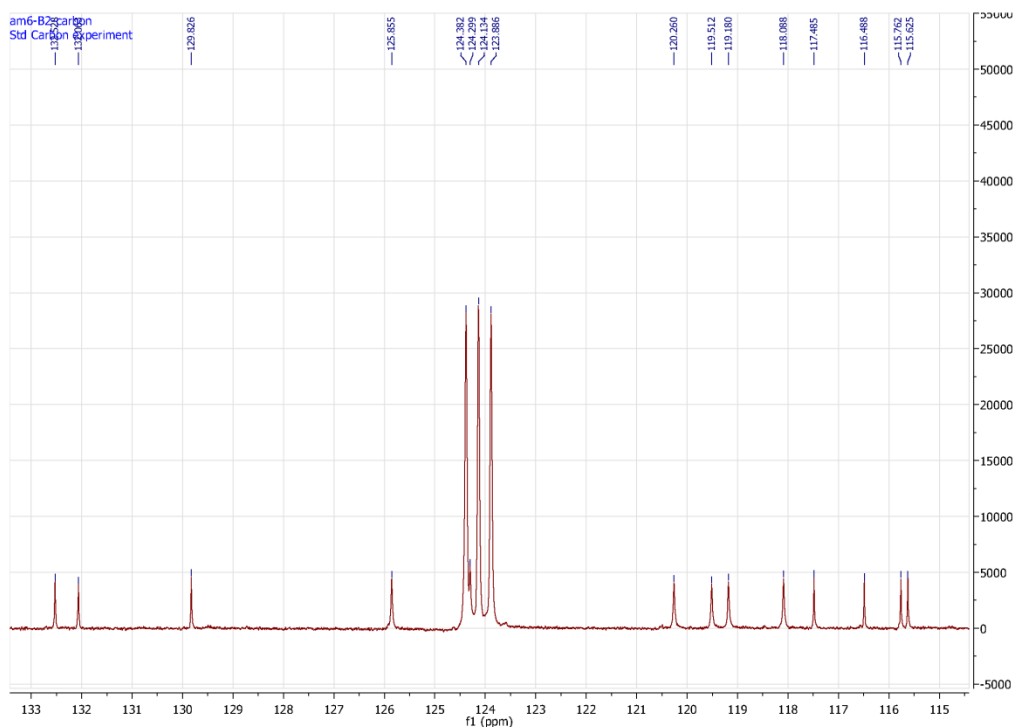
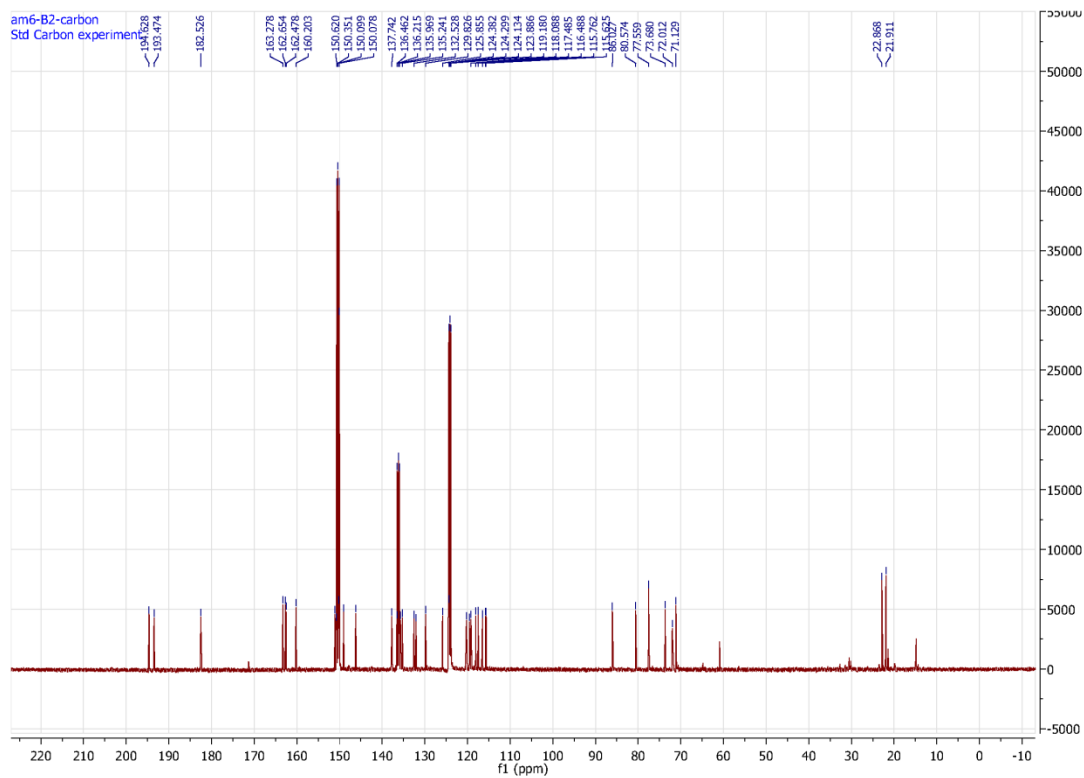


# Compound 4: Asphodoside D

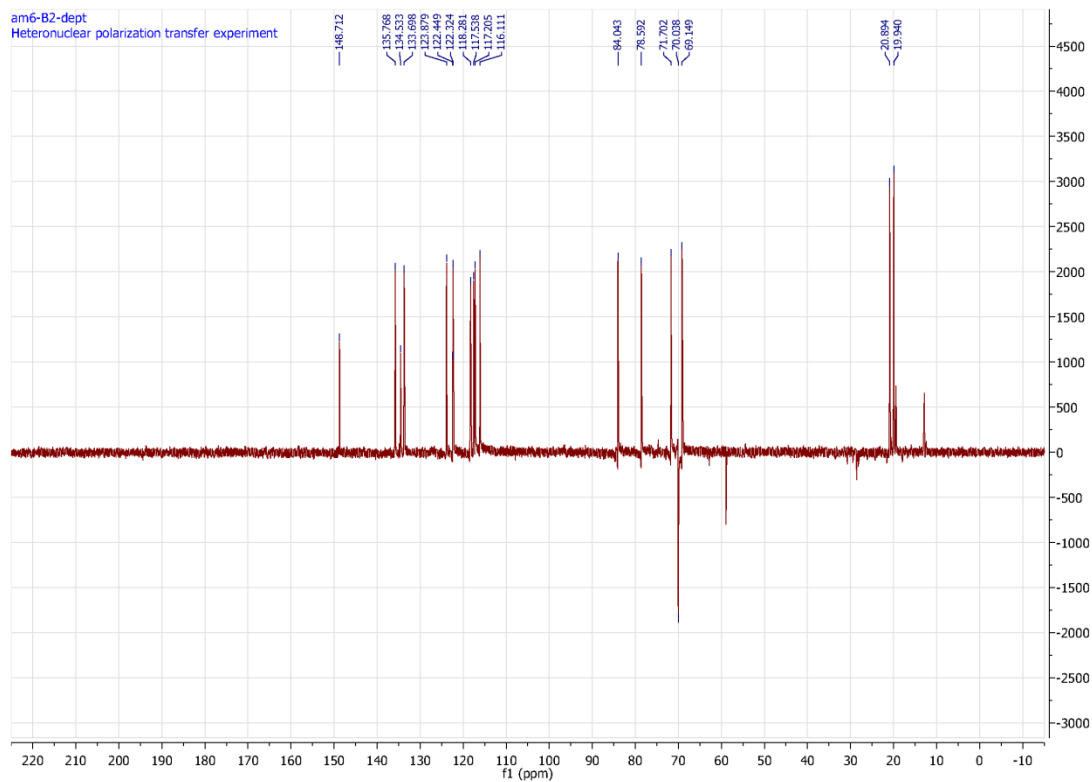
<sup>1</sup>H-NMR spectrum of compound 4 in pyridin-d<sub>5</sub>



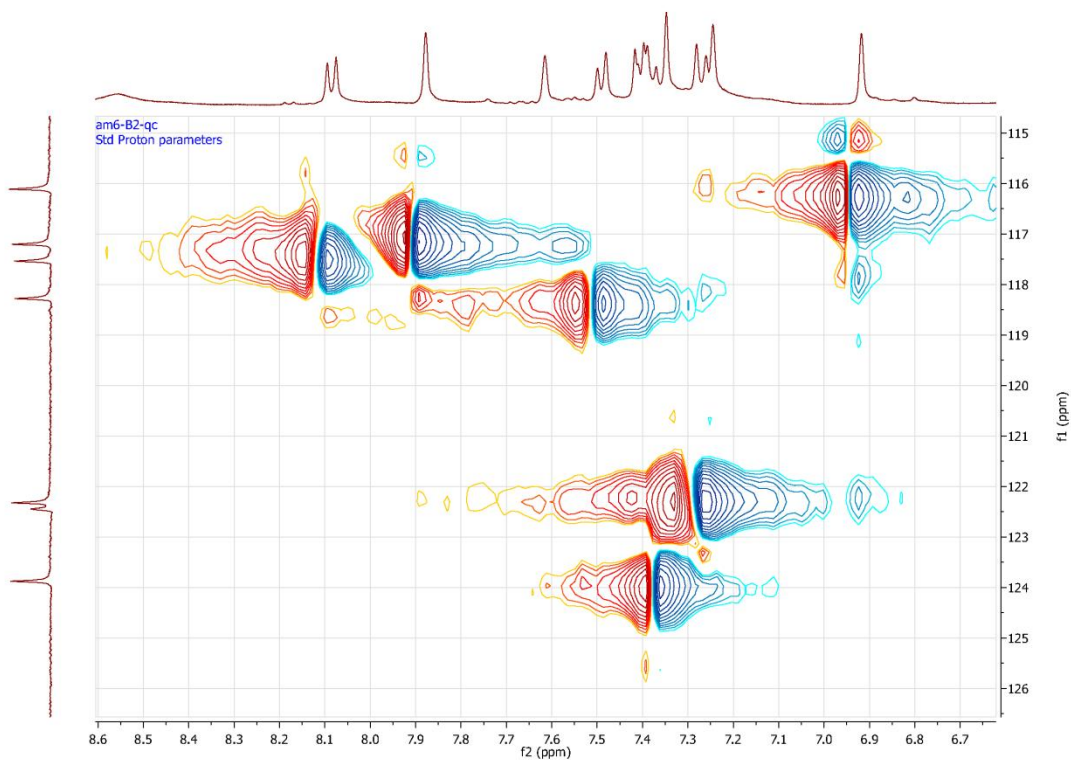
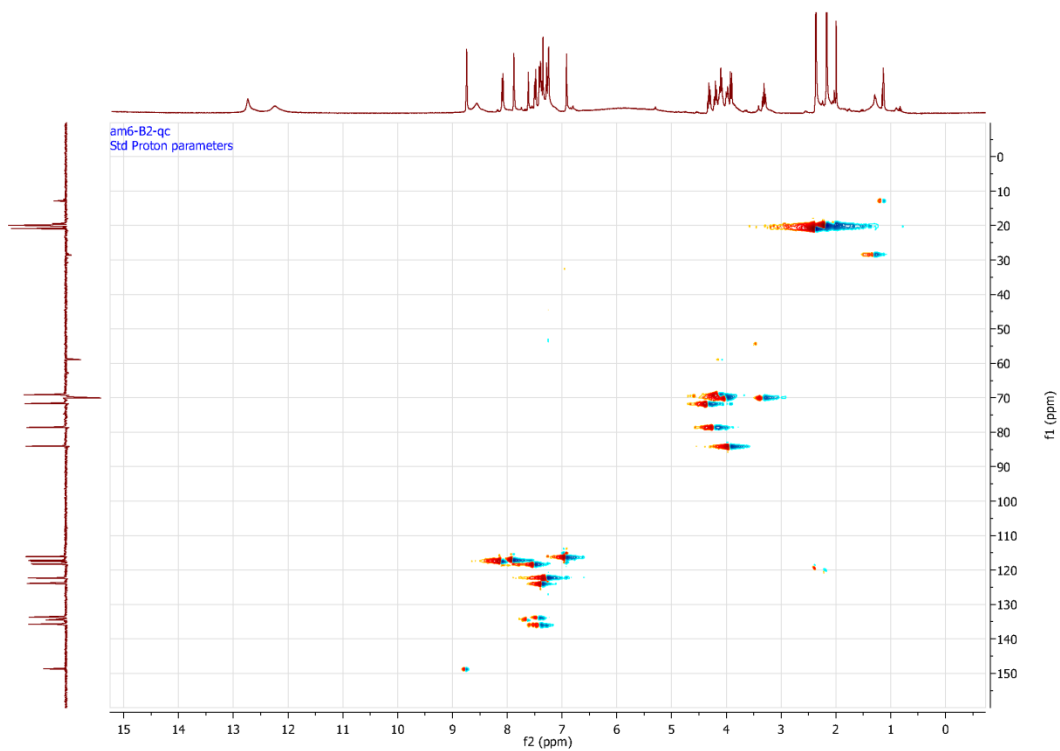
$^{13}\text{C}$ -NMR spectrum of compound **4** in pyridin- $d_5$



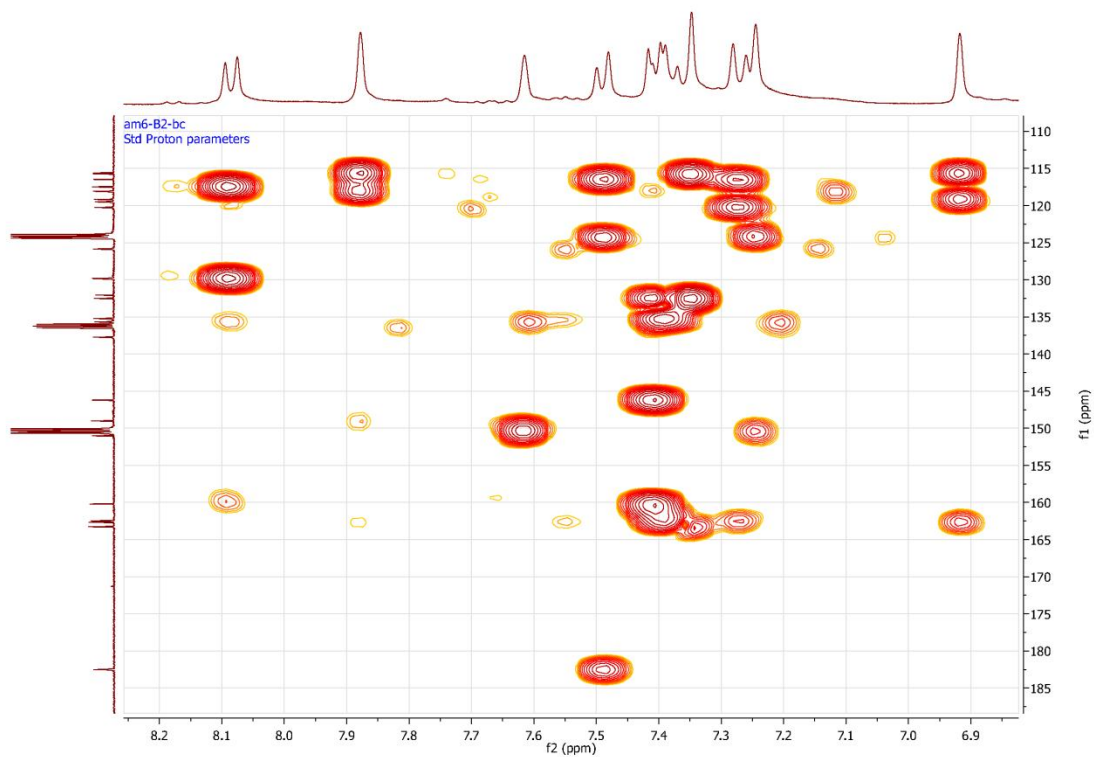
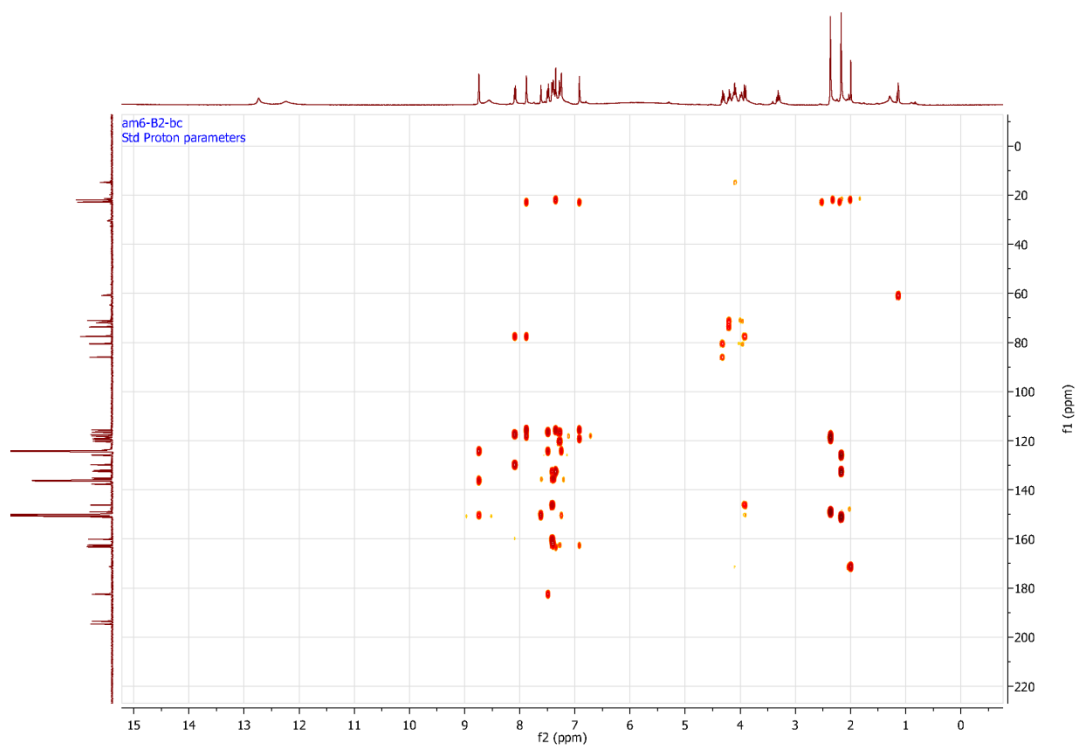
DEPT spectrum of compound **4** in pyridin-*d*<sub>5</sub>



HMQC spectrum of compound **4** in pyridin-*d*<sub>5</sub>

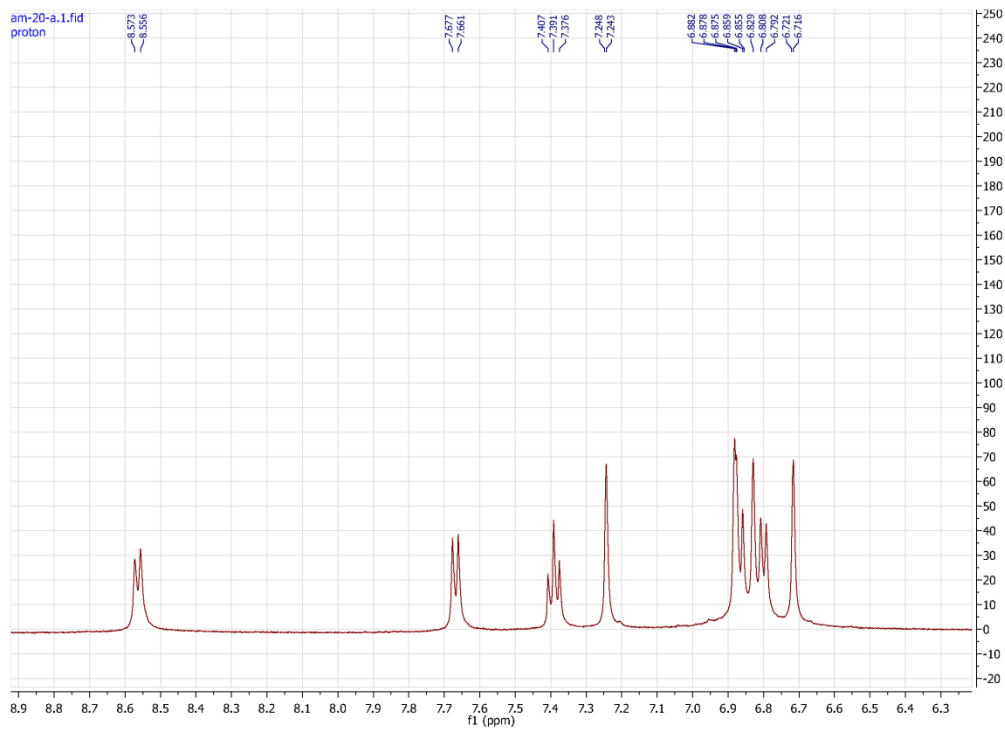
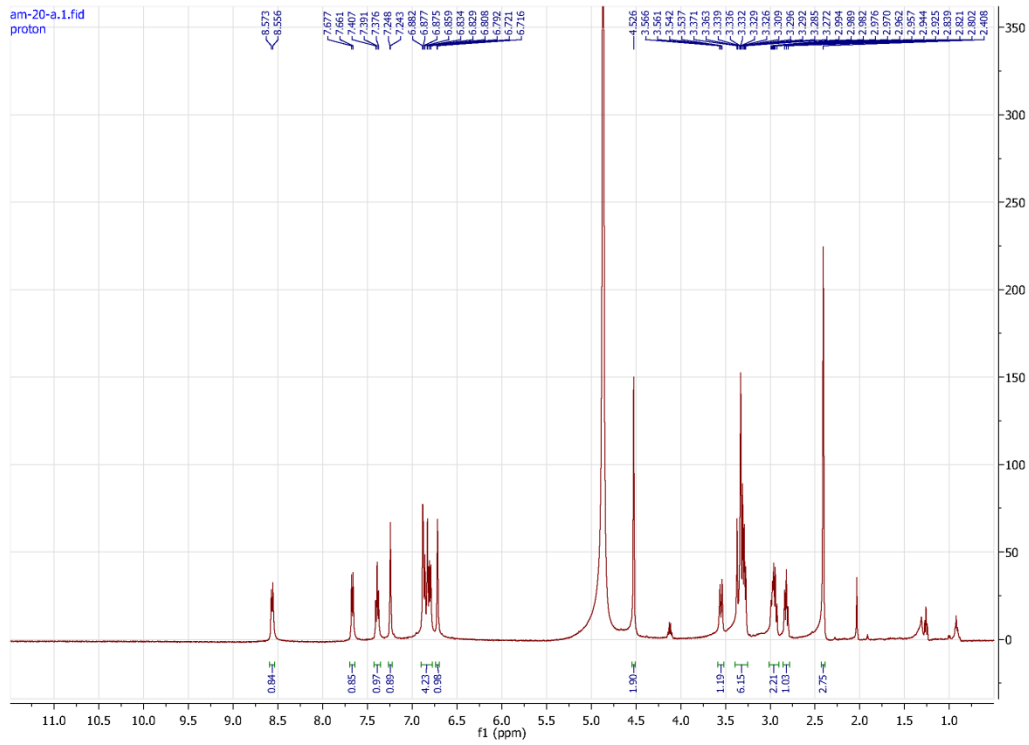


HMBC for compound **4** in pyridin-*d*<sub>5</sub>

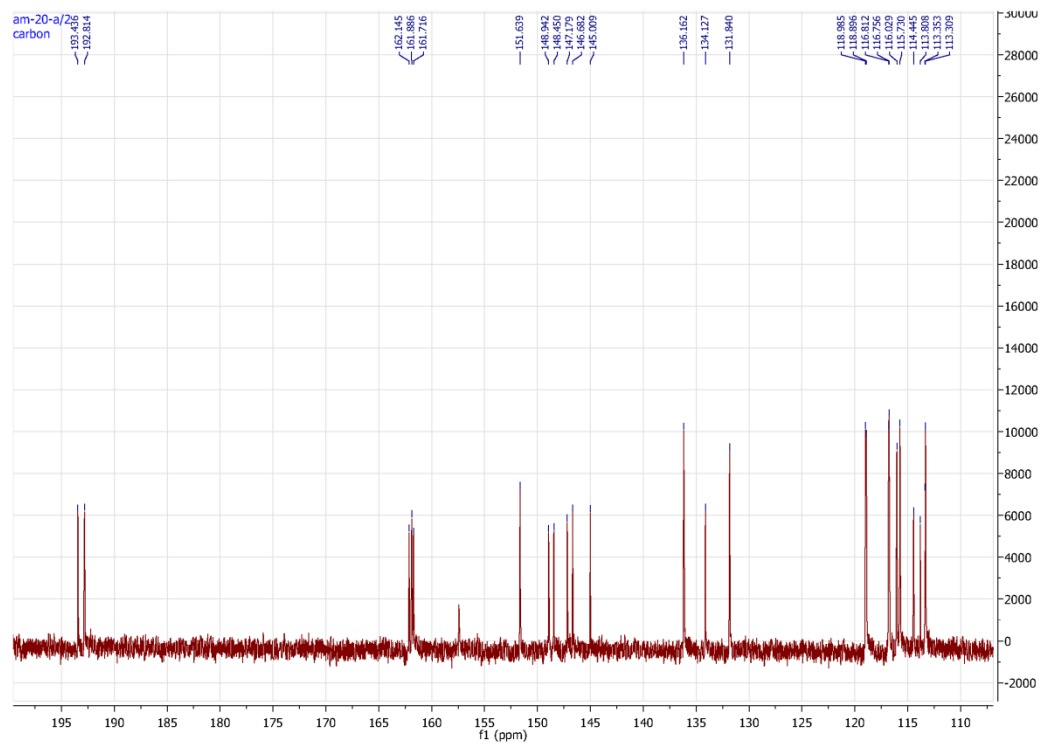
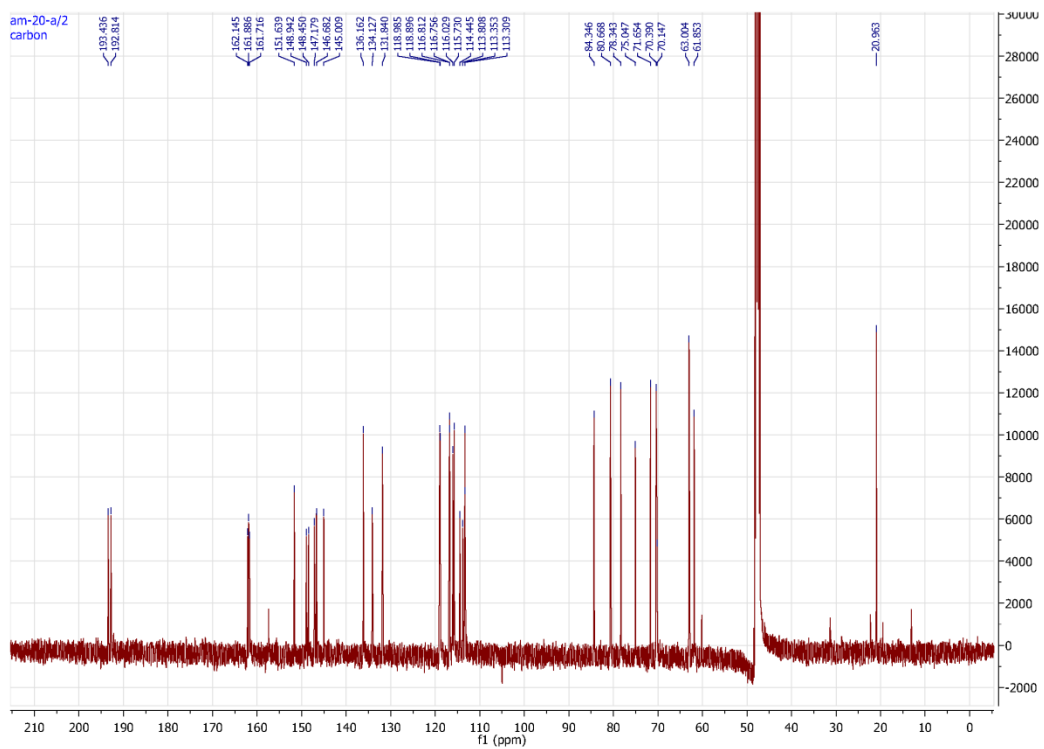


# Compound 5: Asphodoside E

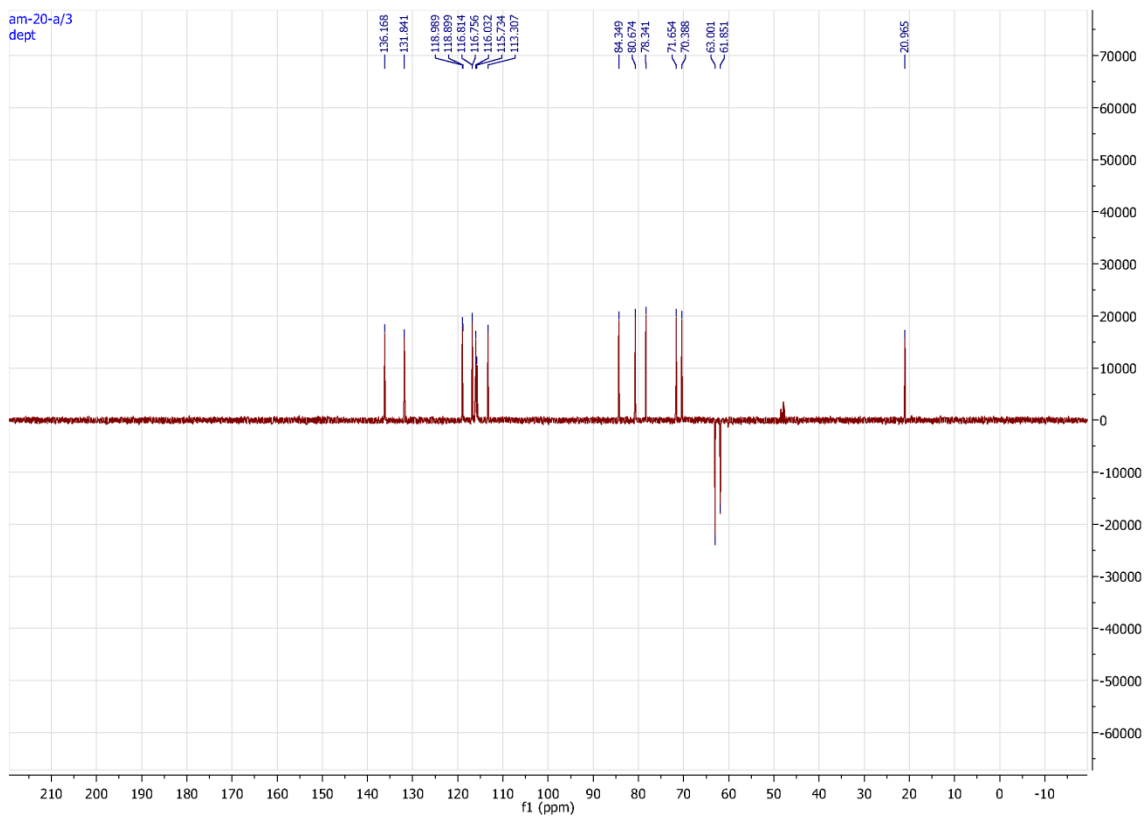
$^1\text{H-NMR}$  spectrum of compound 5 in  $\text{CD}_3\text{OD-}d_4$



$^{13}\text{C}$ -NMR spectrum of compound **3** in  $\text{CD}_3\text{OD}-d_4$

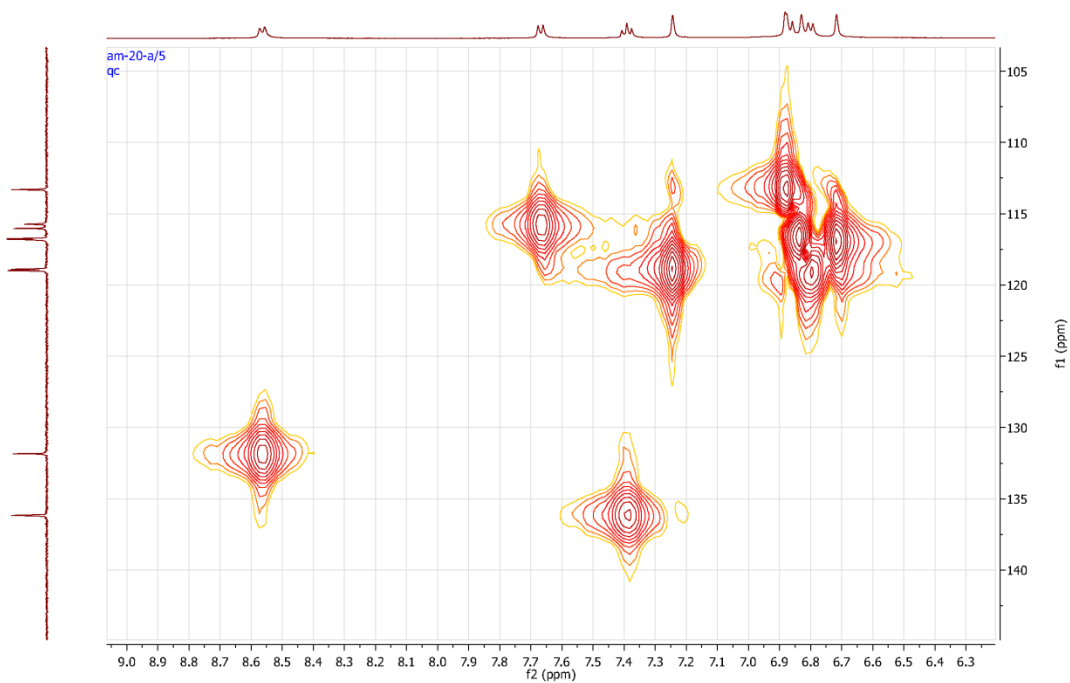
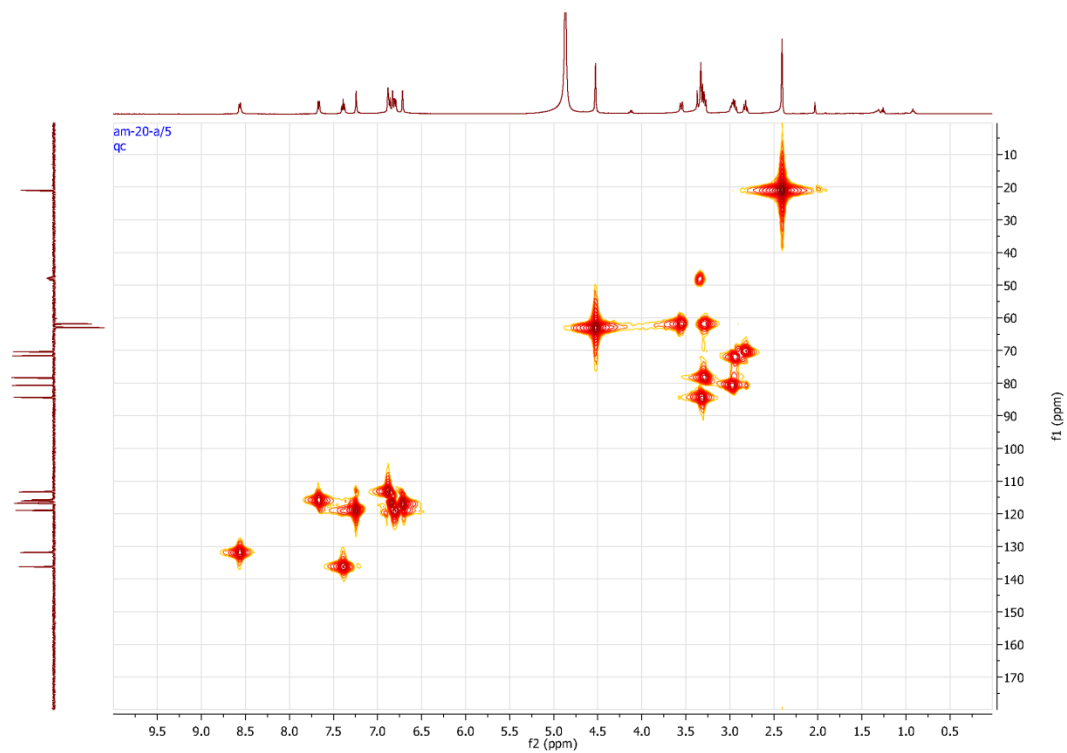


DEPT spectrum of compound **5** in CD<sub>3</sub>OD-*d*<sub>4</sub>





HMQC spectrum of compound **5** in CD<sub>3</sub>OD-*d*<sub>4</sub>



HMBC spectrum of compound **5** in CD<sub>3</sub>OD-*d*<sub>4</sub>

