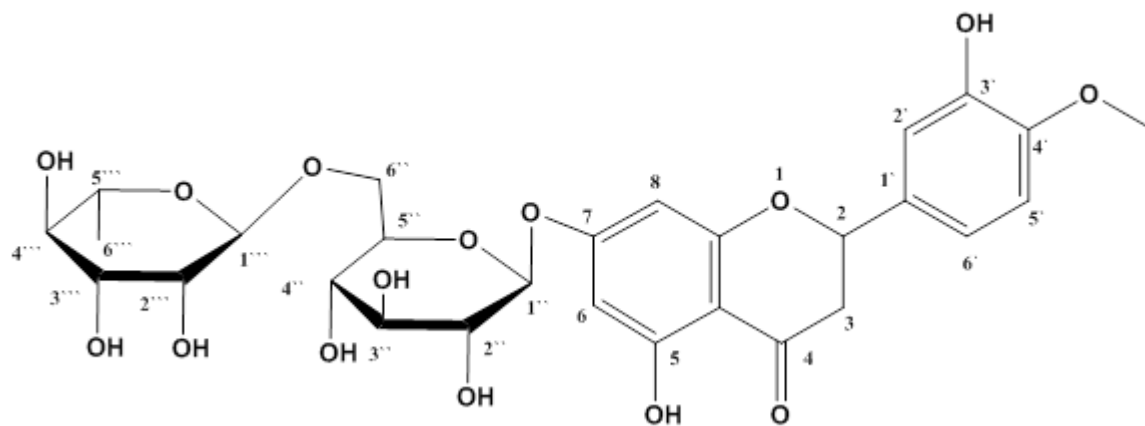
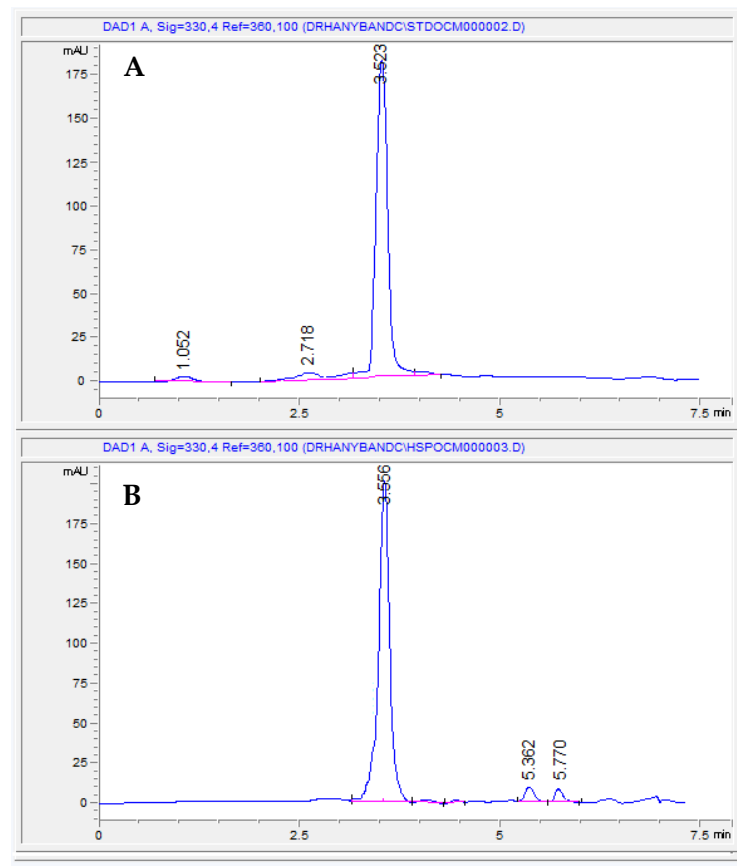


**Supplementary-S1: 1D- and 2D- NMR  
spectroscopic data of Hesperidin**

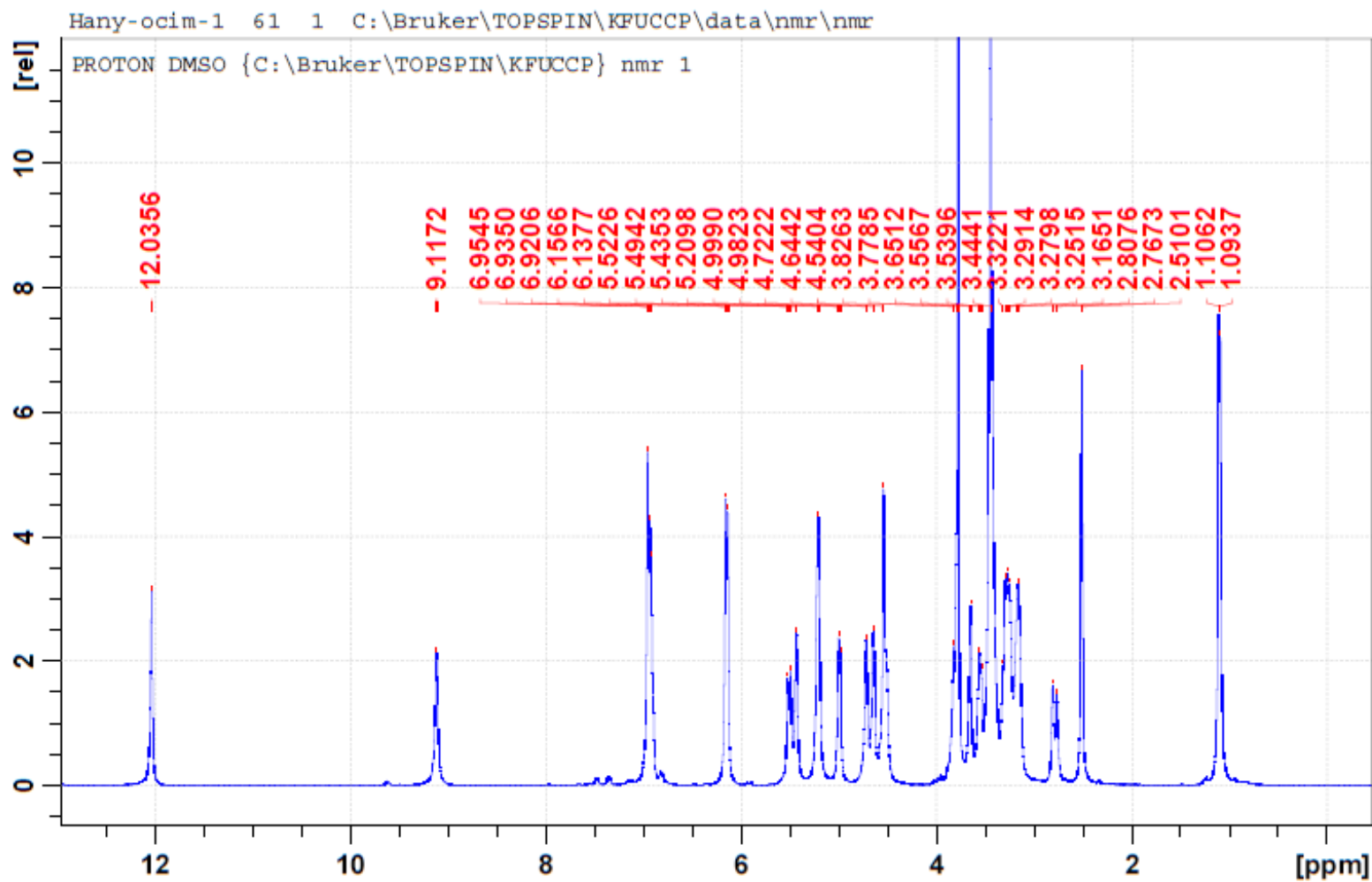


Structure of Hesperidin

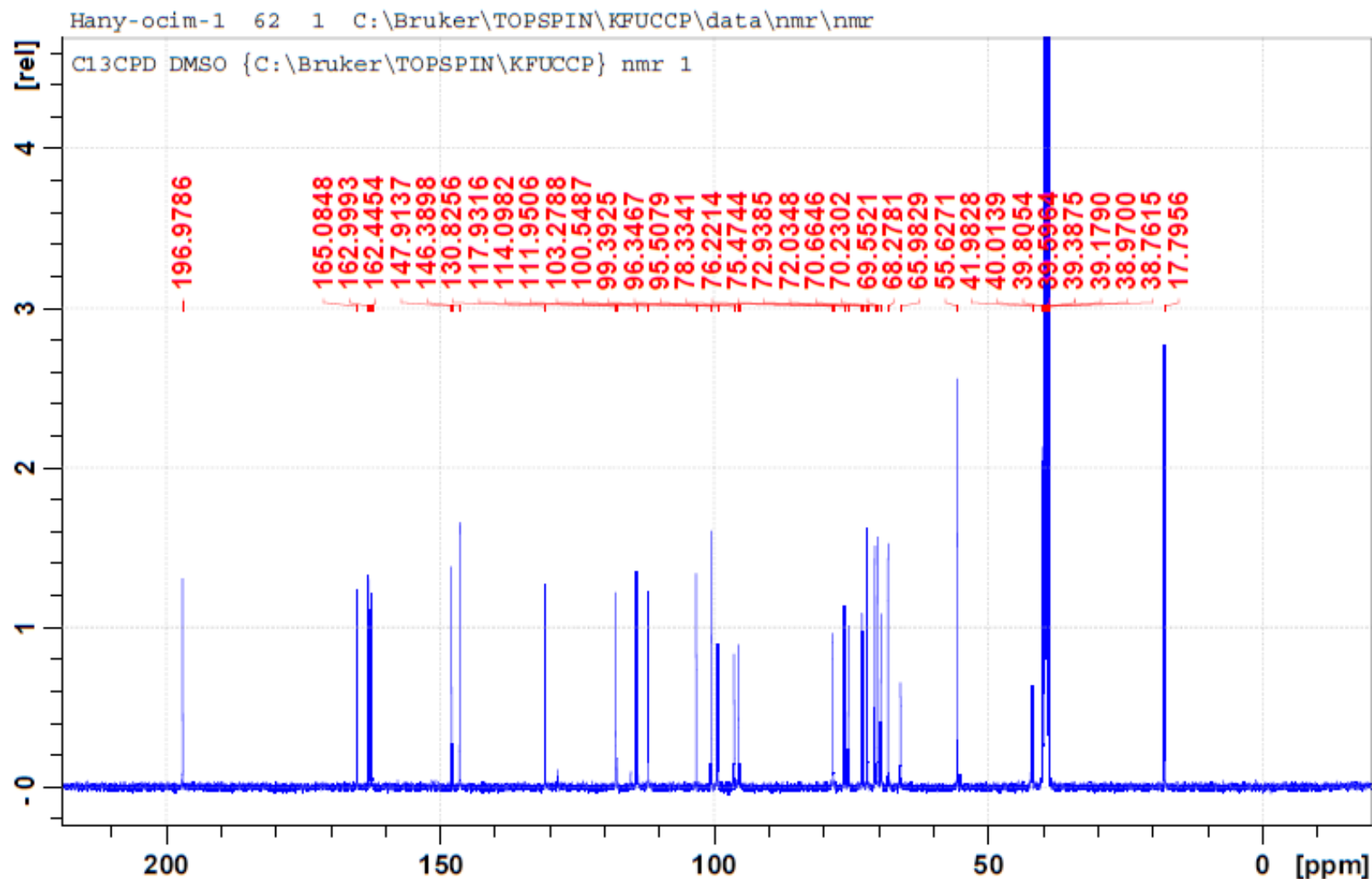


## **HPLC chromatograms of authentic hesperidin (A) and isolated hesperidin (B)**

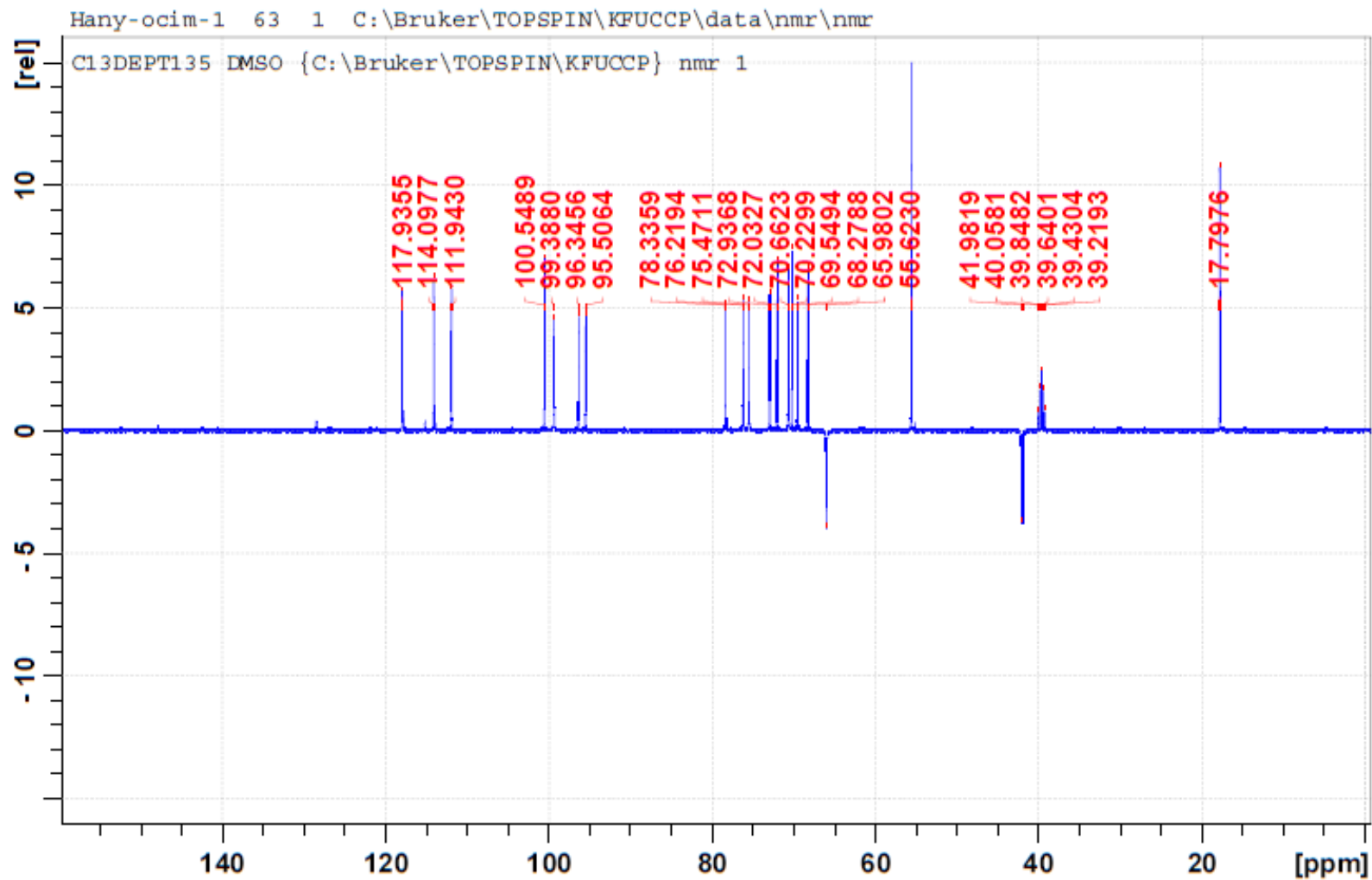
High performance liquid chromatography (HPLC) apparatus type (Agilent, 1200 series, Germany) equipped with PDA detector and Discovery® C18 (5 Cm x 4.6 mm x 5 µm) column (supelco, USA). An isocratic mode elution equipped with Acetonitrile: water blend (75:25 v/v) with flow rate 1mL/min. injection volume was 10 µL (from 5 mg/mL, samples in methanol(. The chromatogram was monitored using Agilent Chemstation software (Version B.2.4.1)



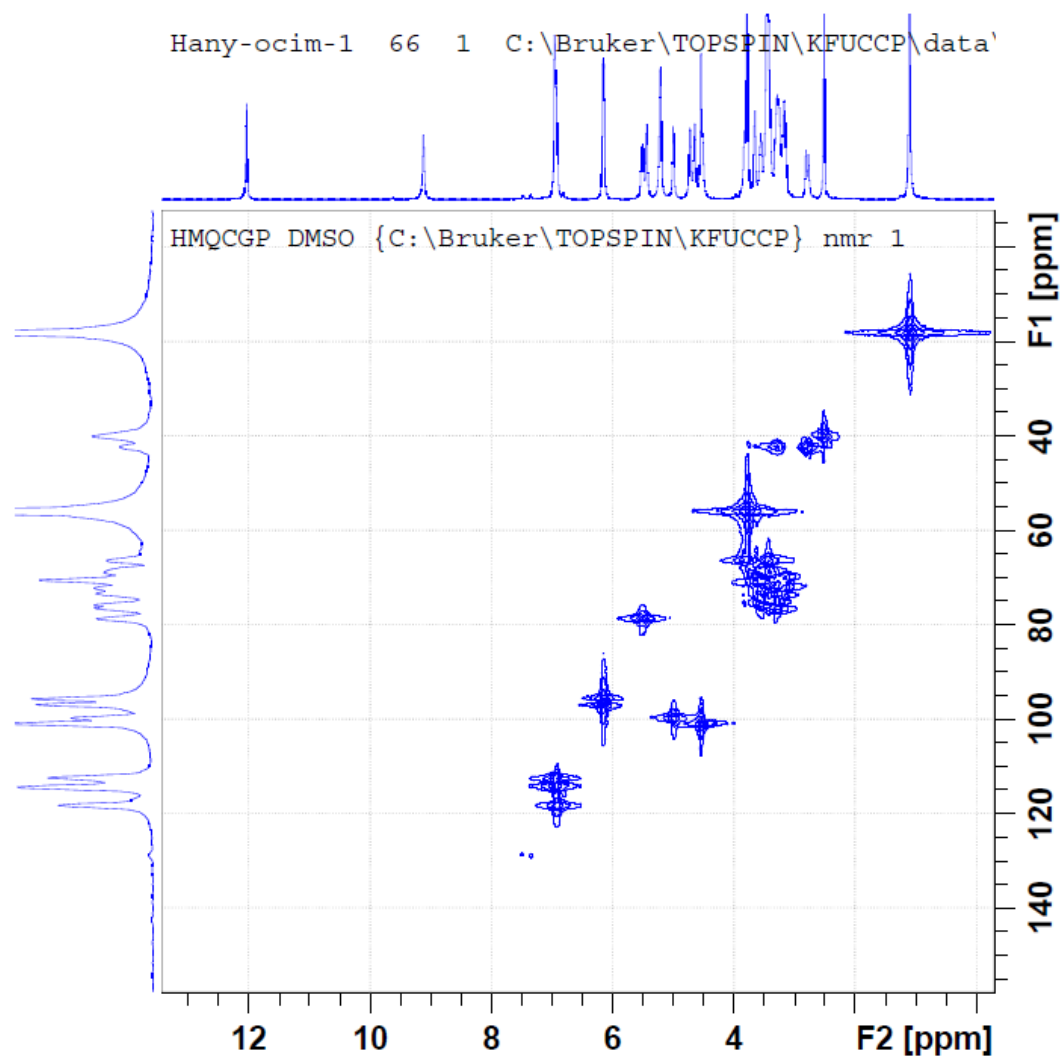
**$^1\text{H}$ -NMR spectrum of Hesperidin (400 MHz, DMSO- $d_6$ )**



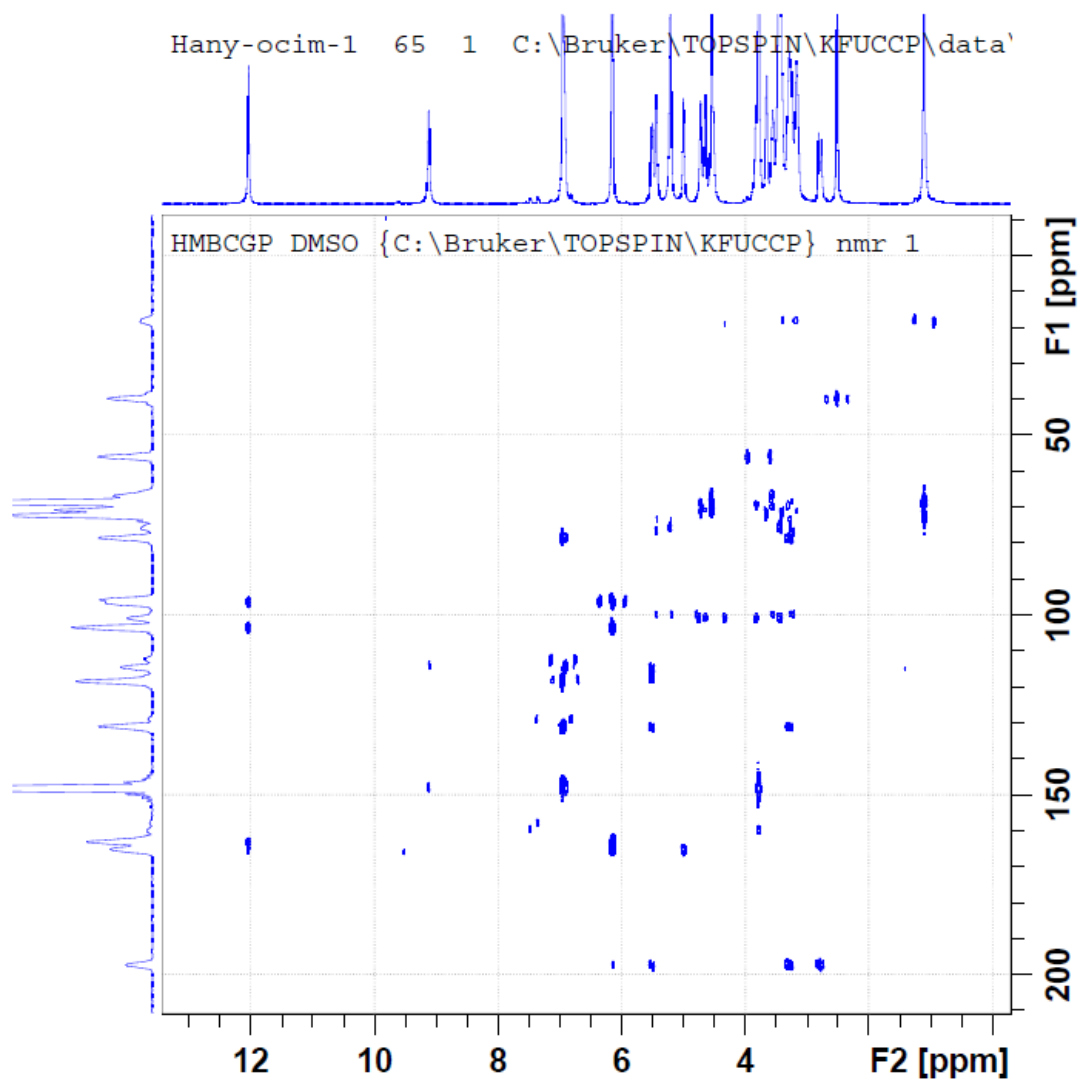
2-  $^{13}\text{C}$ -NMR spectrum of Hesperidin (100 MHz, DMSO- $d_6$ )



**3- DEPT spectrum of Hesperidin (100 MHz, DMSO-*d*6)**



4- HMQC spectrum of Hesperidin



5- HMBC spectrum of Hesperidin