

# Antimicrobial Activity and Molecular Docking Studies of the Biotransformation of Diterpene Acanthoic Acid Using the Fungus *Xylaria* sp.

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**Figure S1.** <sup>1</sup>H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of compound **S1**. A) full spectrum; B) Expansion 2.00 to 6.00 ppm; C) Expansion 0.00 to 3.00 ppm

**Figure S2.** <sup>13</sup>C NMR spectrum (100 MHz, CDCl<sub>3</sub>) of compound **S1**. A) full spectrum; B) Expansion 10.0 to 75.0 ppm

**Figure S3.** HSQC spectrum of **S1** (CDCl<sub>3</sub>, 400 MHz). A) full spectrum; B) Expansion

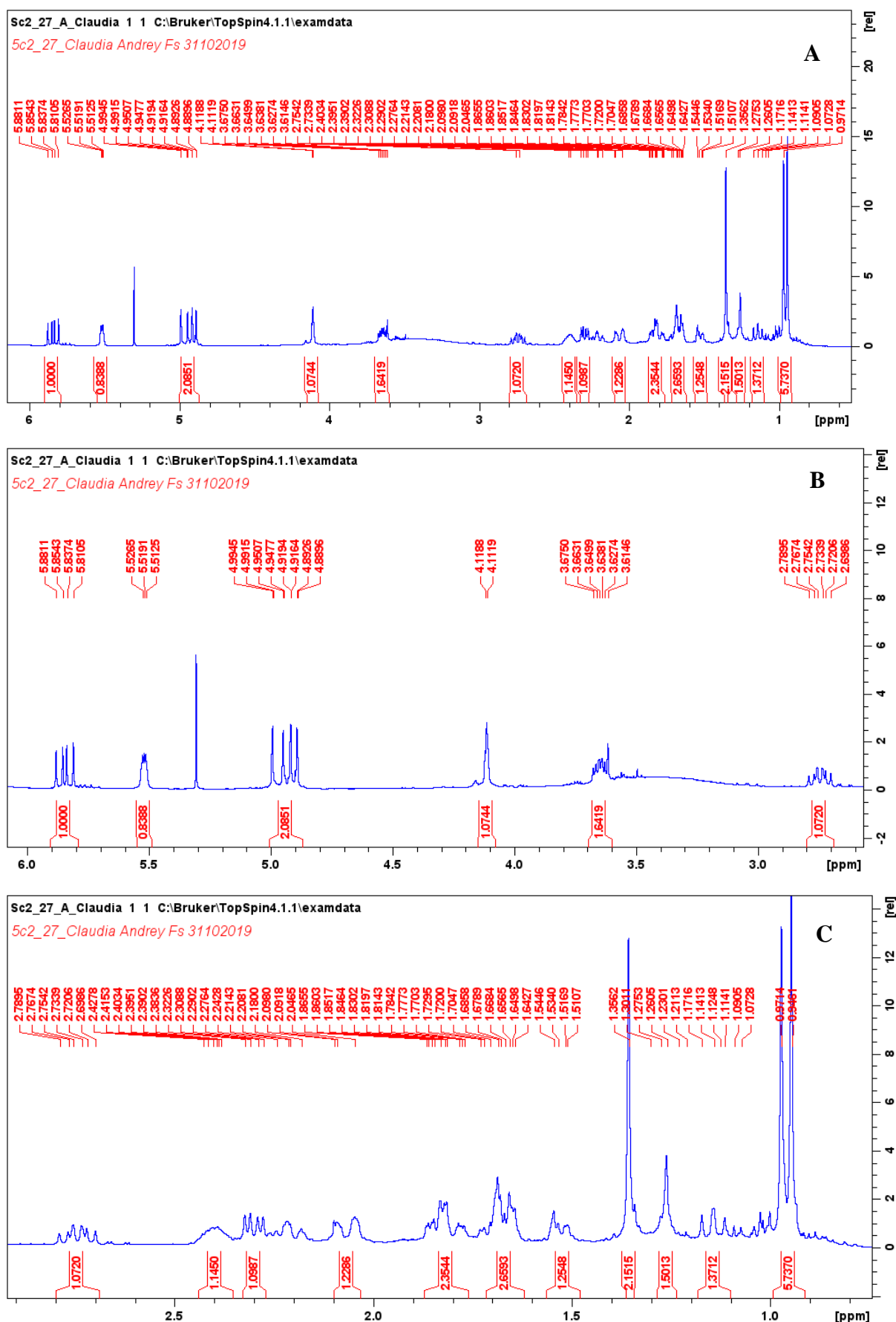
**Figure S4.** HMBC spectrum of **S1** (CDCl<sub>3</sub>, 400 MHz). A) Full spectrum; B) Expansion

**Figure S5.** COSY spectrum of **S1** (CDCl<sub>3</sub>, 400 MHz). A) Full spectrum; B) Expansion

**Figure S6.** Mass spectrum HR(ESI) negative ion mode of compound **S1**.

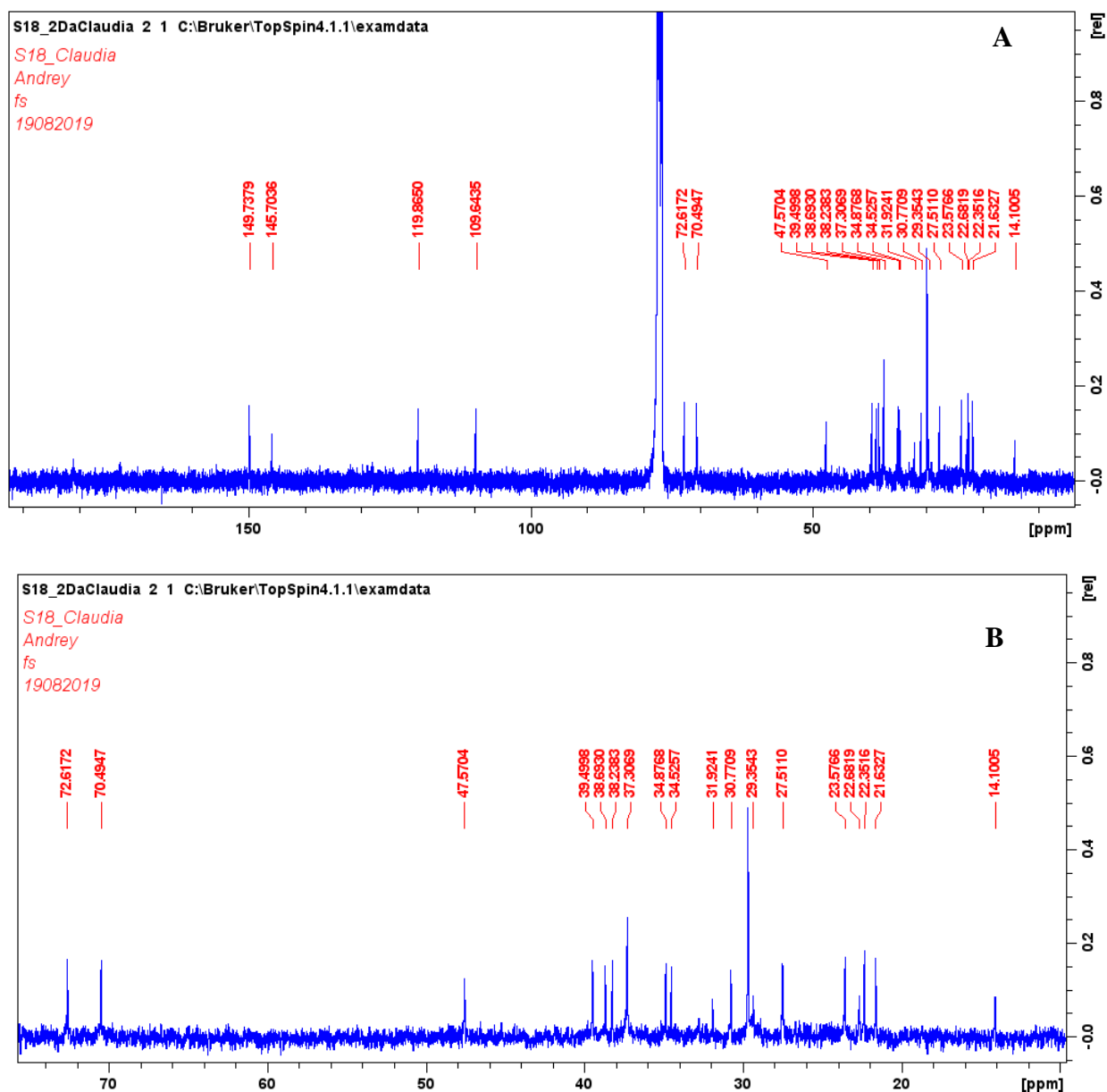
**Figure S7.** IR spectrum of compound **S1**.





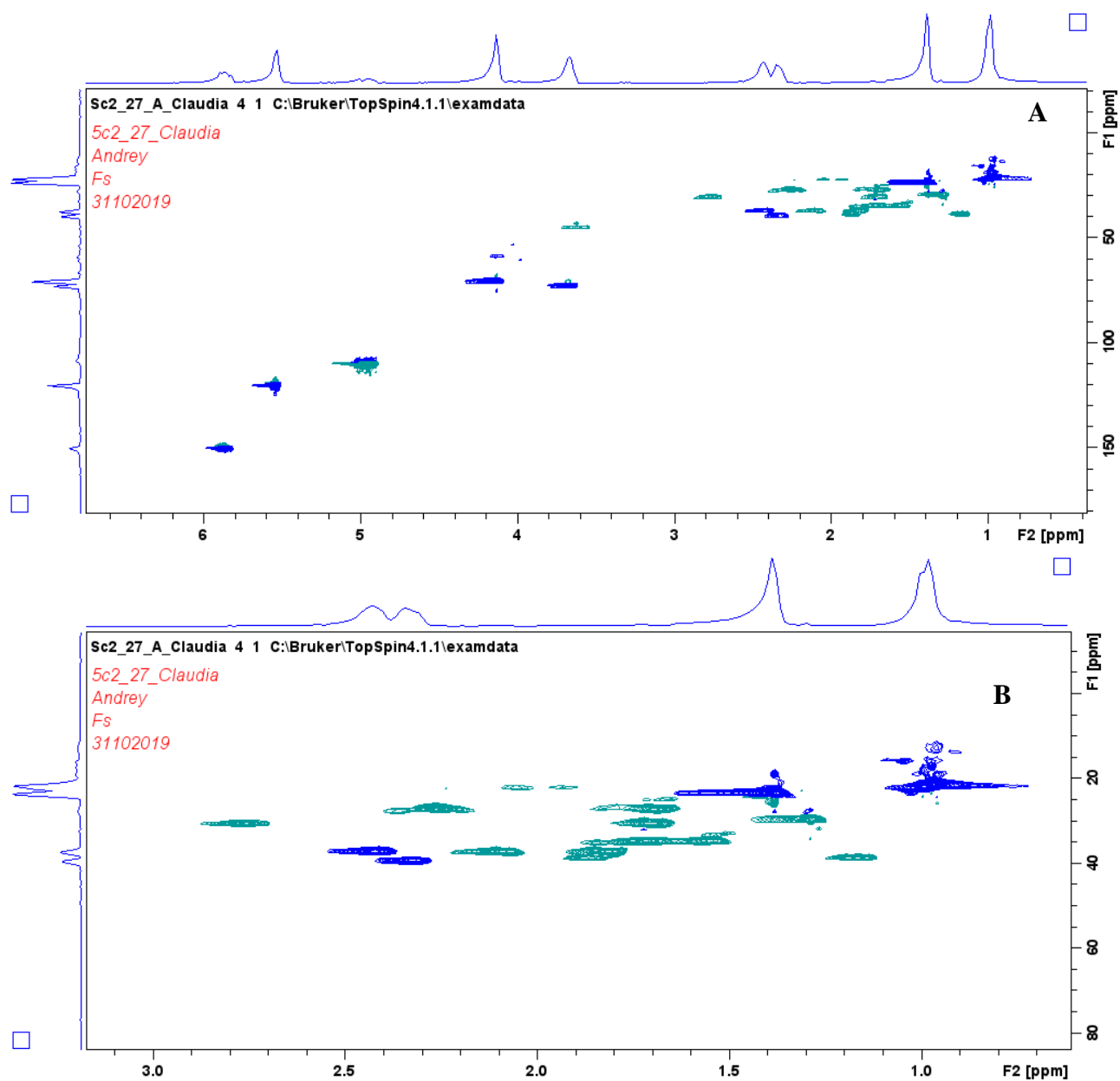
**Figure S1.**  $^1\text{H}$  NMR spectrum (400 MHz,  $\text{CDCl}_3$ ) of compound **S1**. A) full spectrum; B) Expansion 2.00 to 6.00 ppm; C) Expansion 0.00 to 3.00 ppm



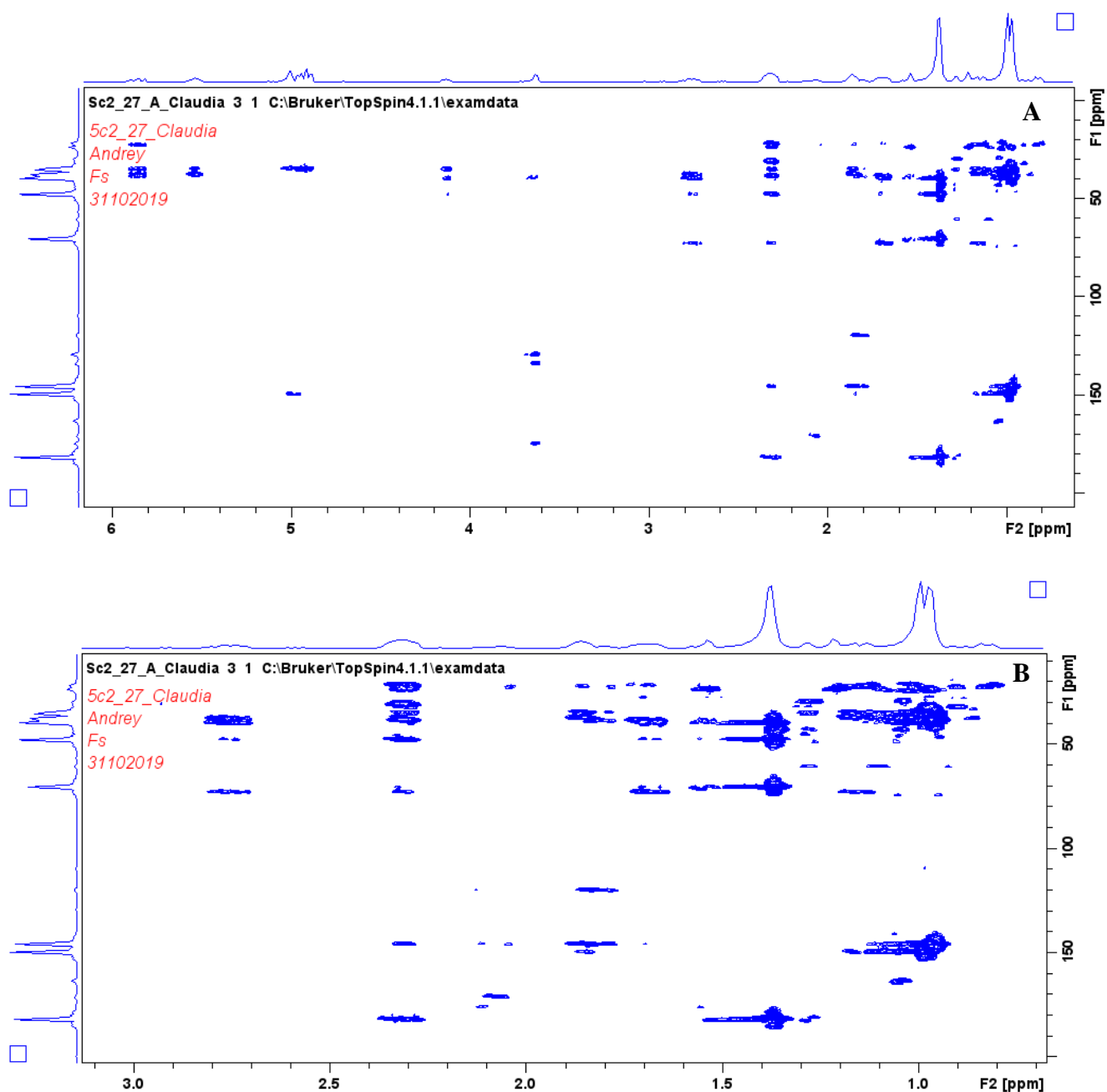


**Figure S2.**  $^{13}\text{C}$  NMR spectrum (100 MHz,  $\text{CDCl}_3$ ) of compound **S1**. A) full spectrum; B) Expansion 10.0 to 75.0 ppm

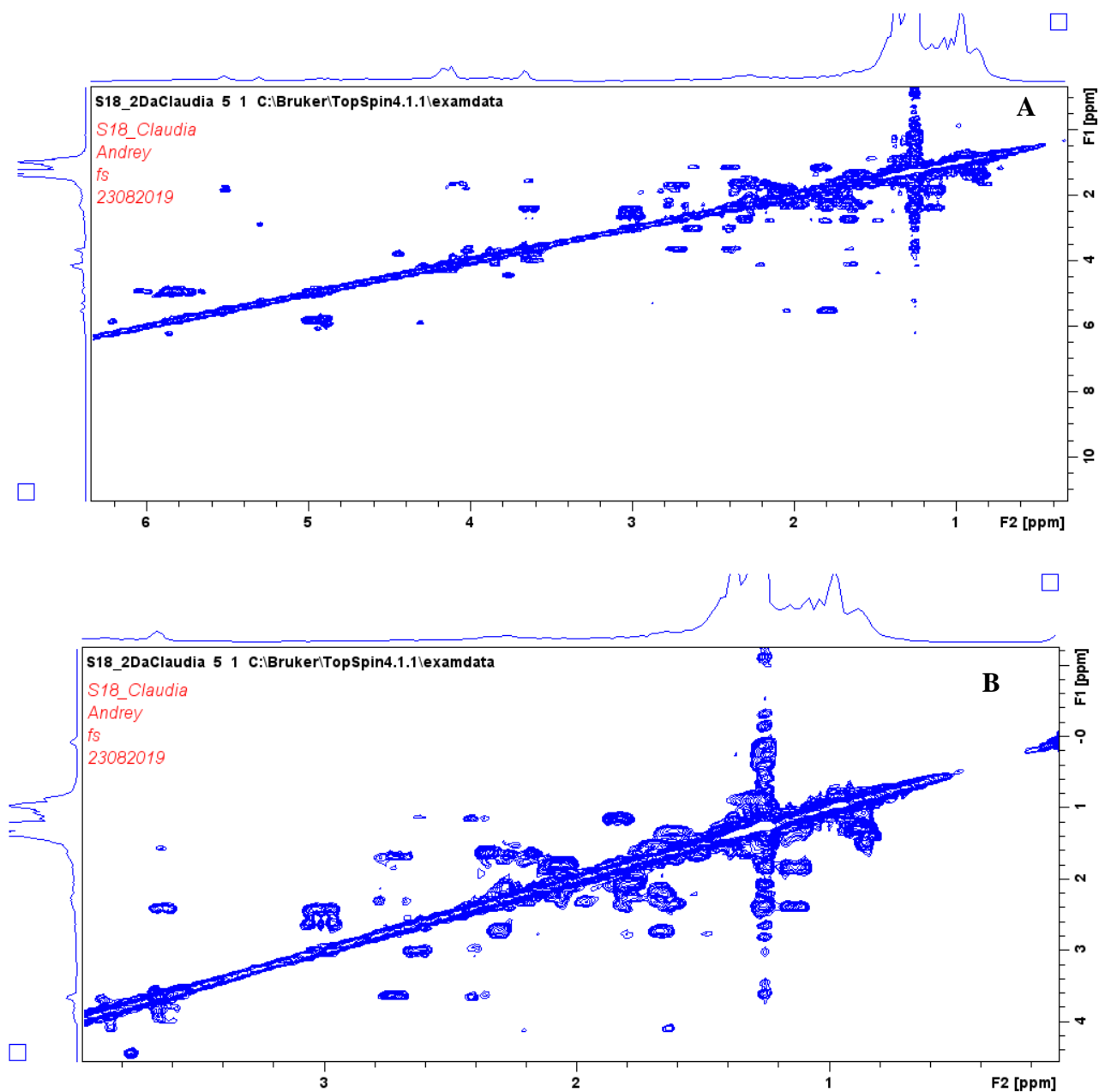




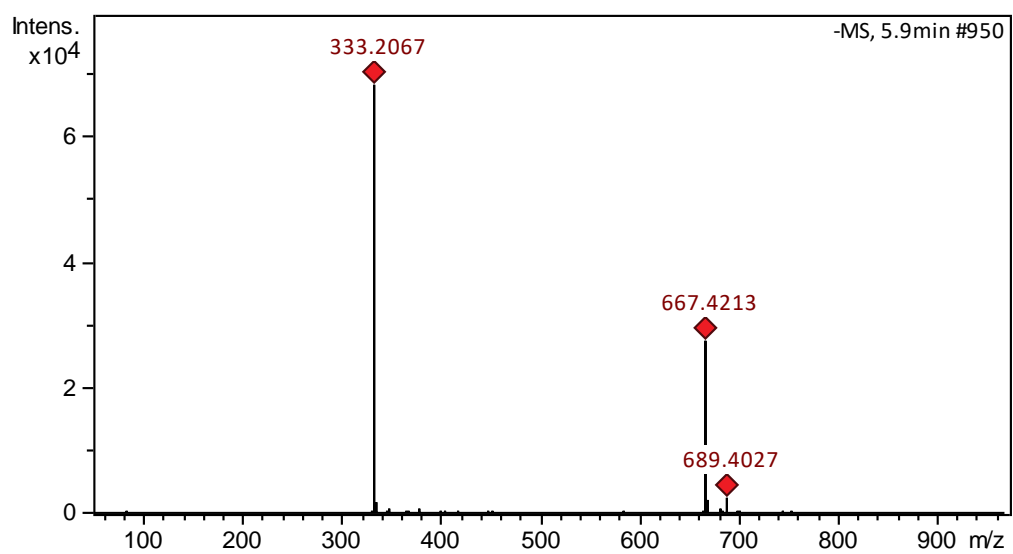
**Figure S3.** HSQC spectrum of **S1** (CDCl<sub>3</sub>, 400 MHz). A) full spectrum; B) Expansion



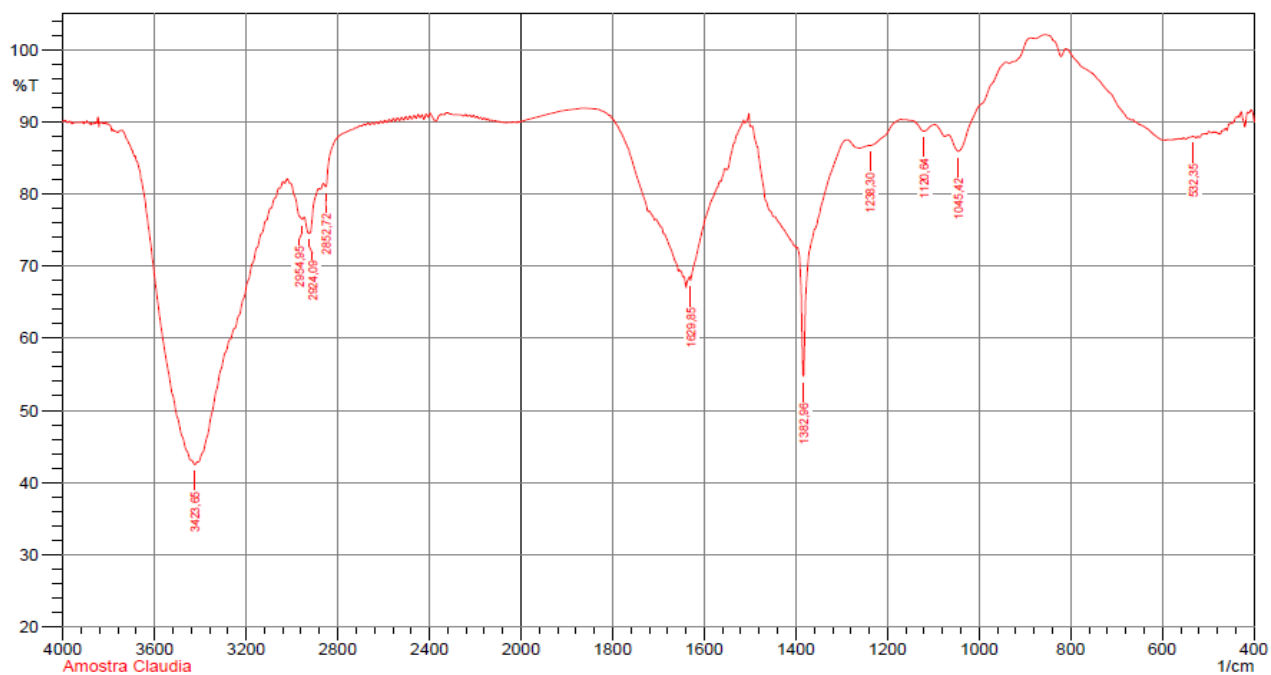
**Figure S4.** HMBC spectrum of **S1** (CDCl<sub>3</sub>, 400 MHz). A) Full spectrum; B) Expansion



**Figure S5.** COSY spectrum of **S1** (CDCl<sub>3</sub>, 400 MHz). A) Full spectrum; B) Expansion



**Figure S6.** Mass spectrum HR(ESI) negative ion mode of compound S1.



**Figure S7.** IR spectrum of compound S1.