

## Supplementary Information for

# Clerodane Diterpenes from the Marine Sponge *Raspailia bouryesnaultae* Collected in South Brazil

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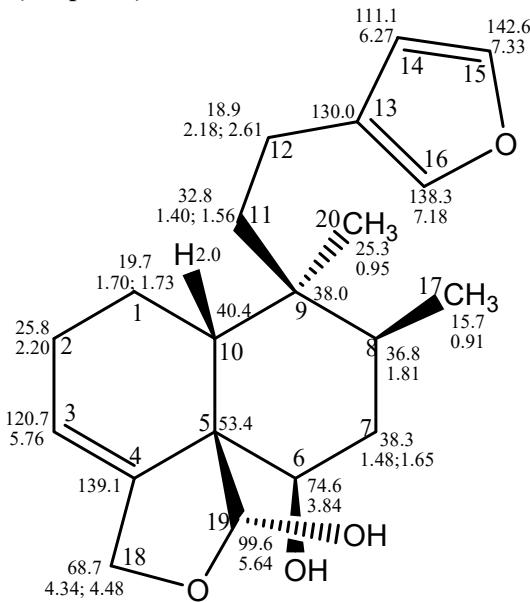
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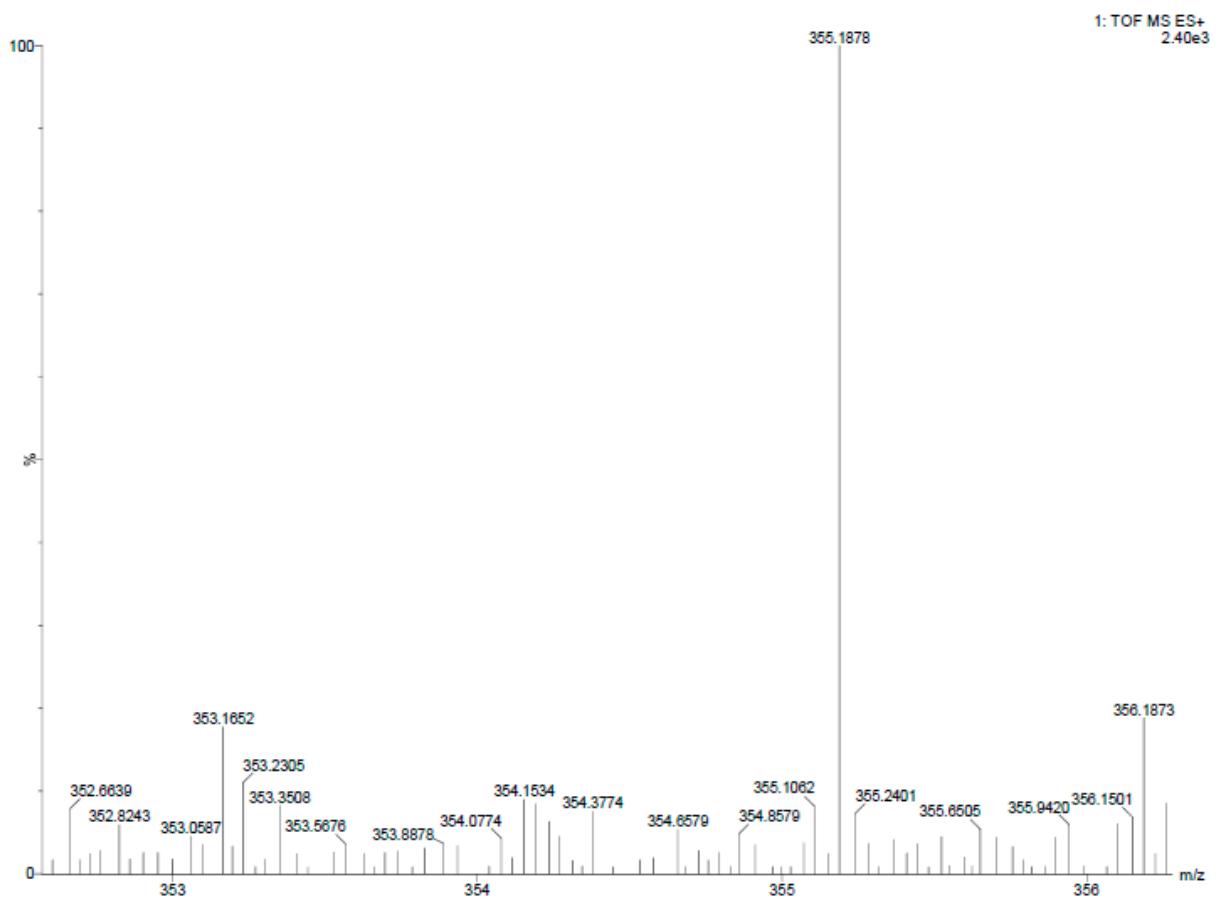
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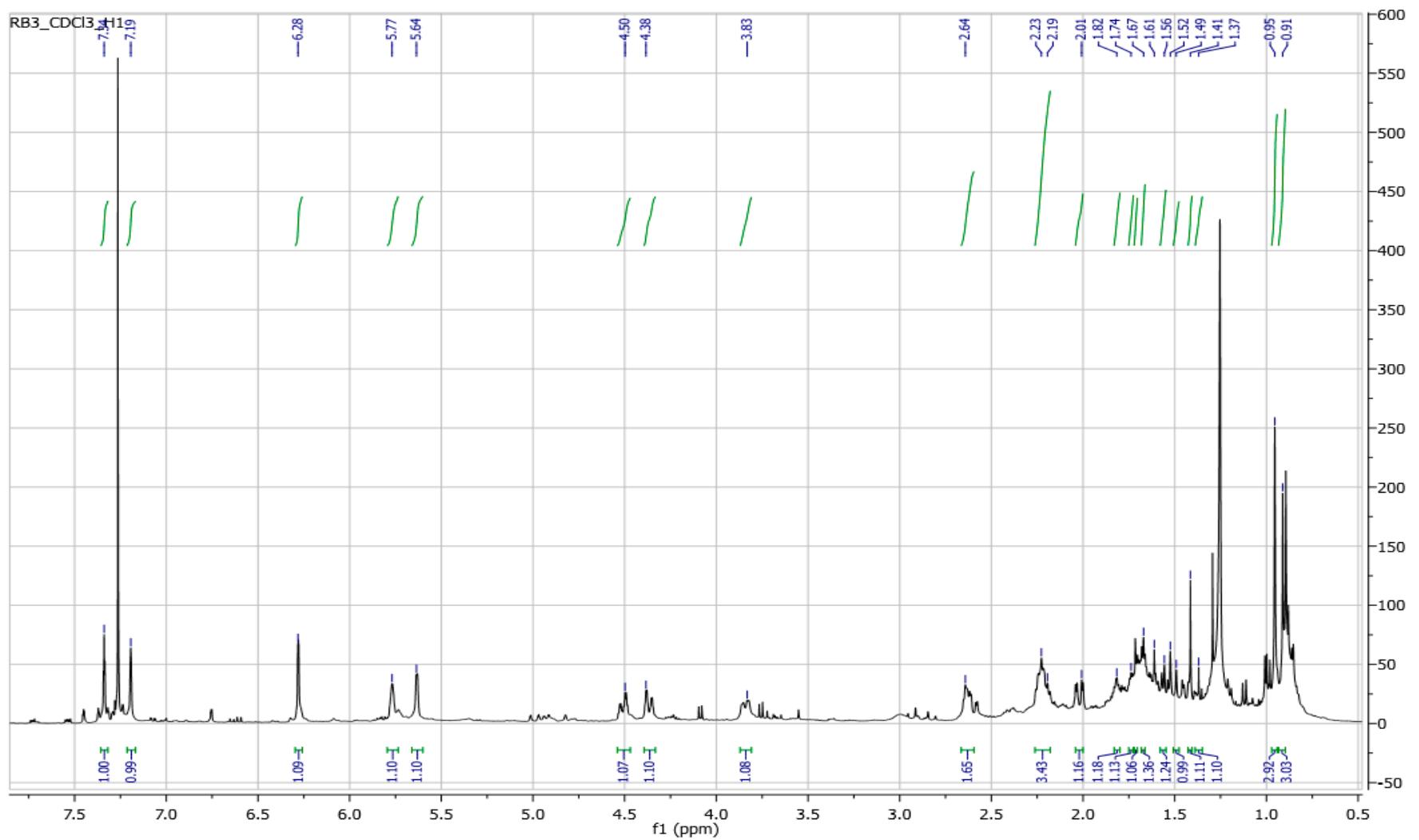
<sup>4</sup>Departamento de Invertebrados, Museu Nacional, Universidade Federal do Rio de Janeiro, CEP 20940-040, Rio de Janeiro, RJ, Brazil; E-Mail: joao.porifera@gmail.com (J.L.C.)

**a) Compound 1 - C<sub>20</sub>H<sub>28</sub>O<sub>4</sub> (Raspailol)**





**Figure S1:** High-resolution mass spectrum of compound 1.



**Figure S2:** <sup>1</sup>H NMR spectrum of compound 1 at 400MHz in CDCl<sub>3</sub>.

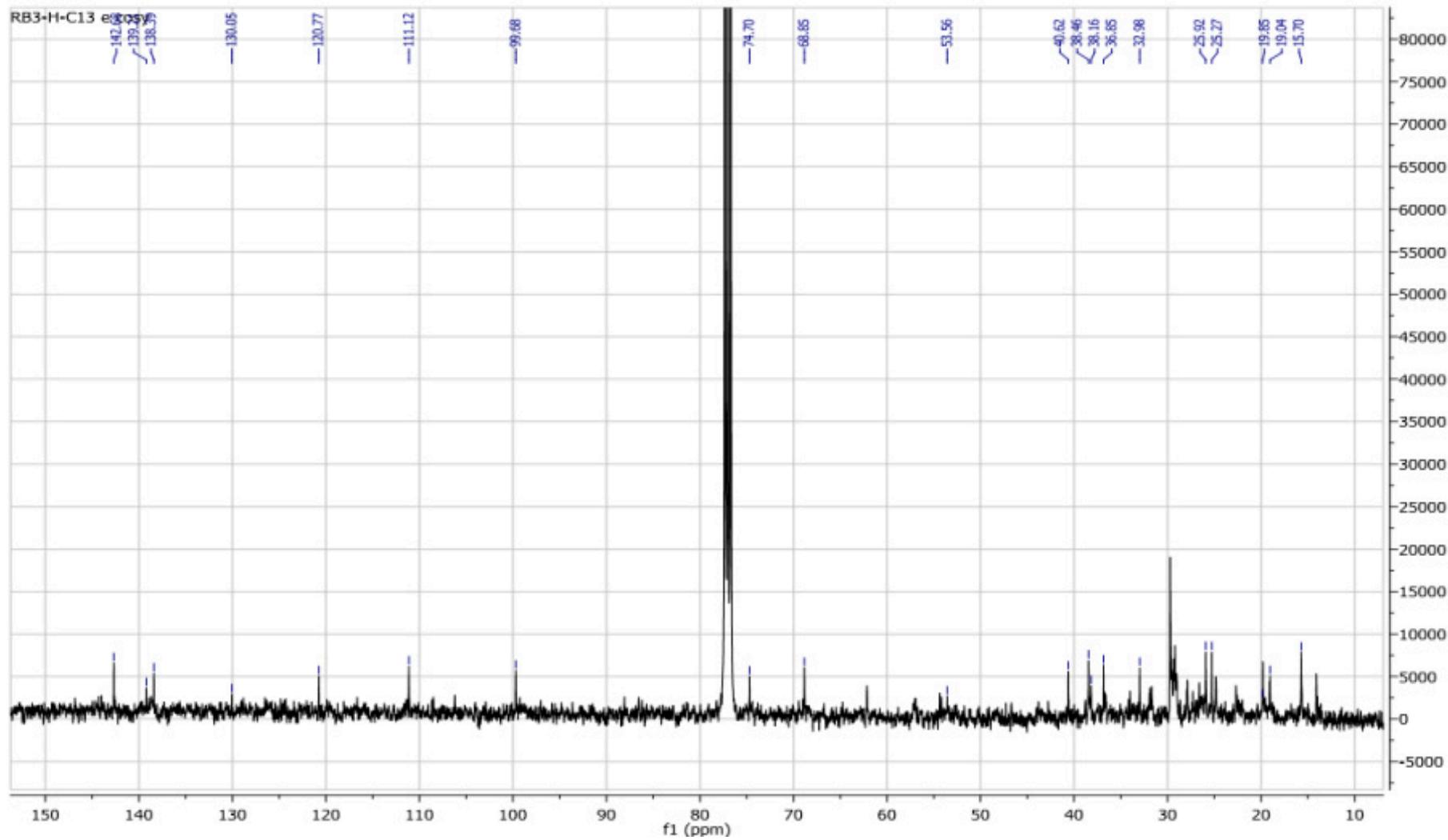
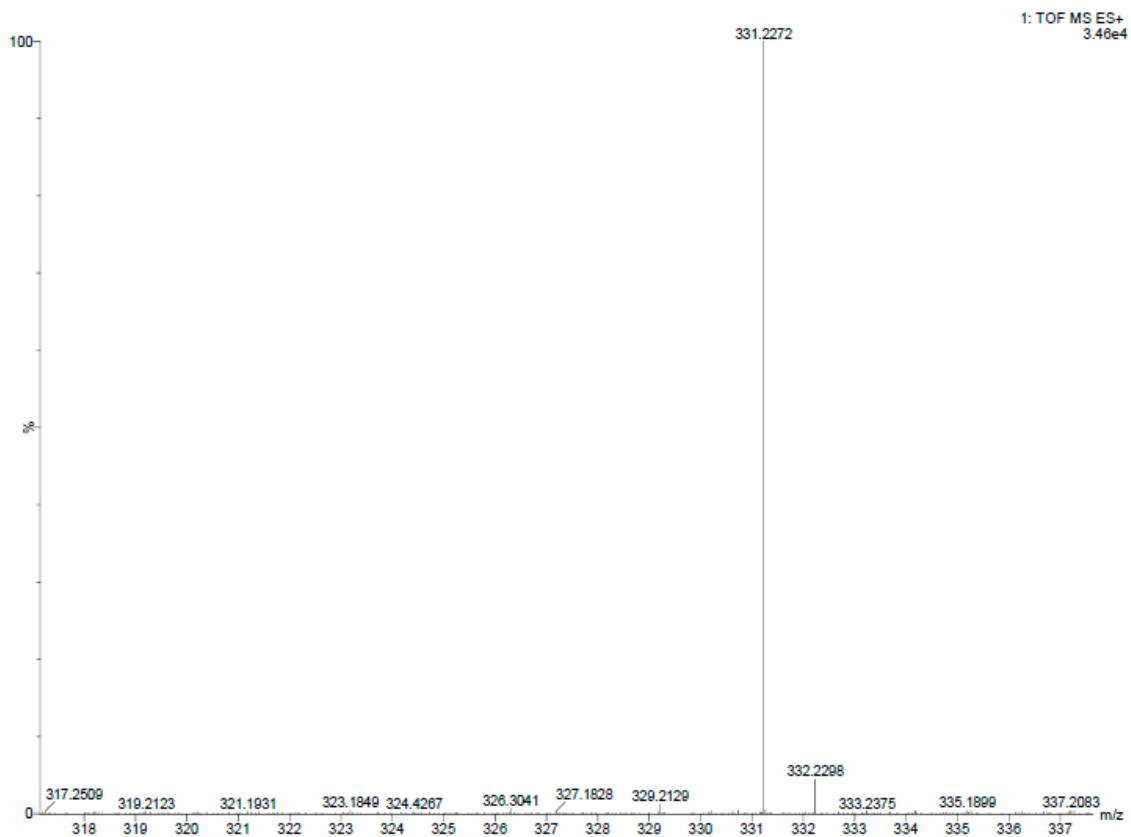
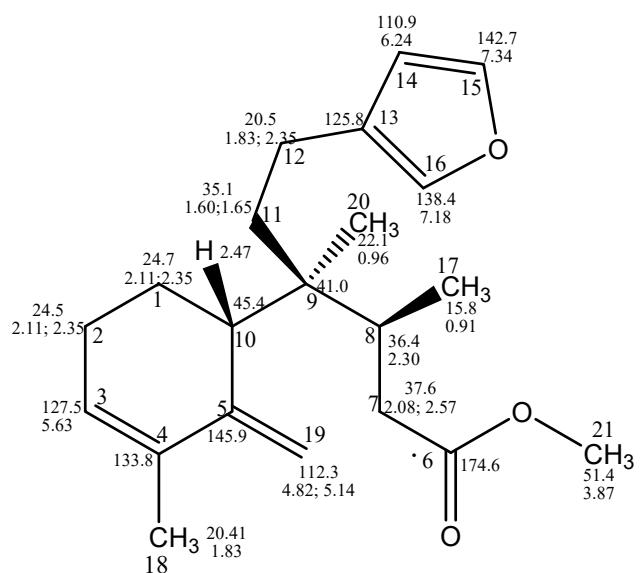


Figure S3:  $^{13}\text{C}$  NMR spectrum of compound **1** at 100MHz in  $\text{CDCl}_3$

**b) Compound 2 – C<sub>21</sub>H<sub>30</sub>O<sub>3</sub>**



**Figure S4:** High-resolution mass spectrum of compound 2.

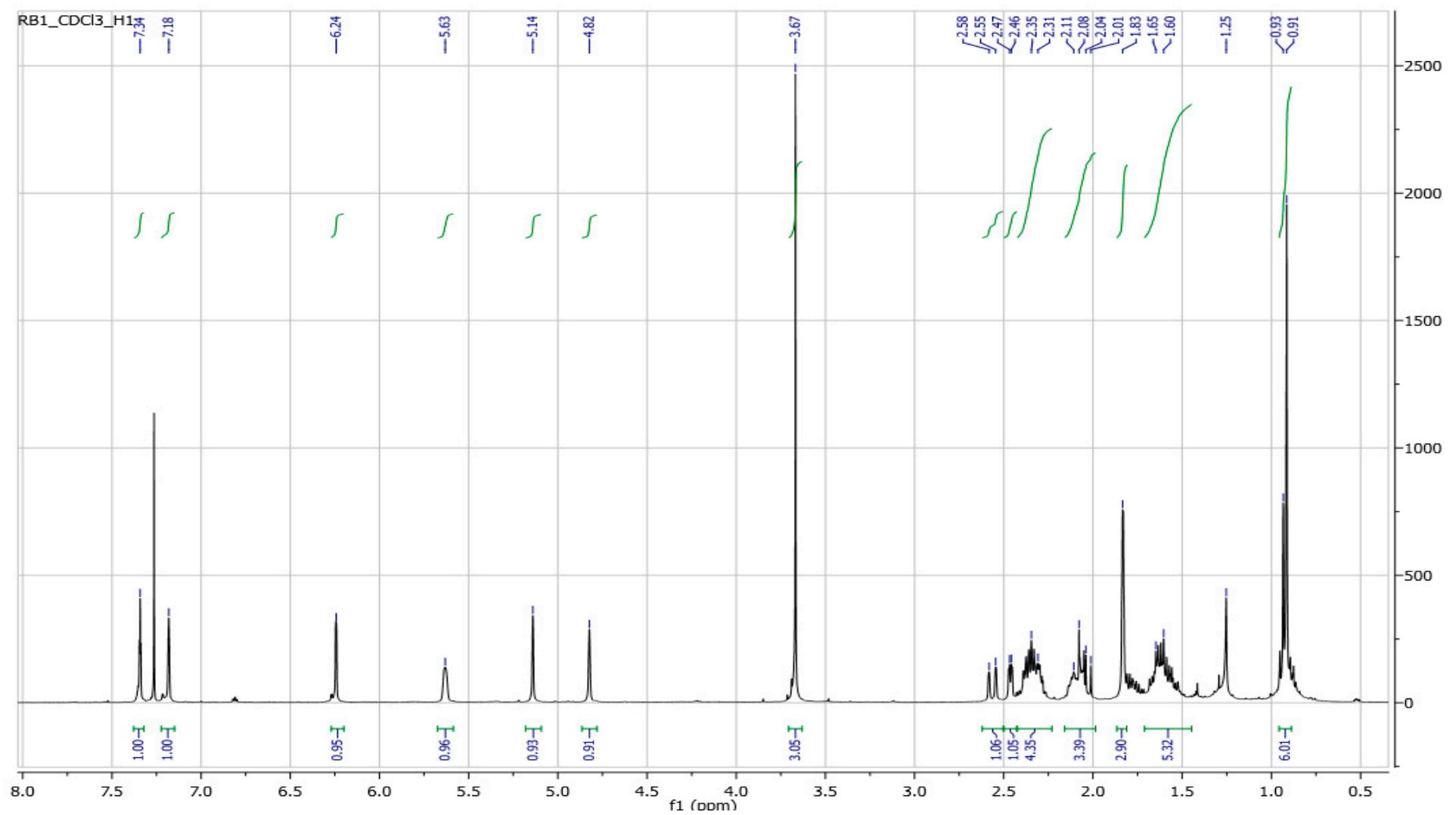


Figure S5: <sup>1</sup>H NMR spectrum of compound 2 at 400MHz in CDCl<sub>3</sub>.

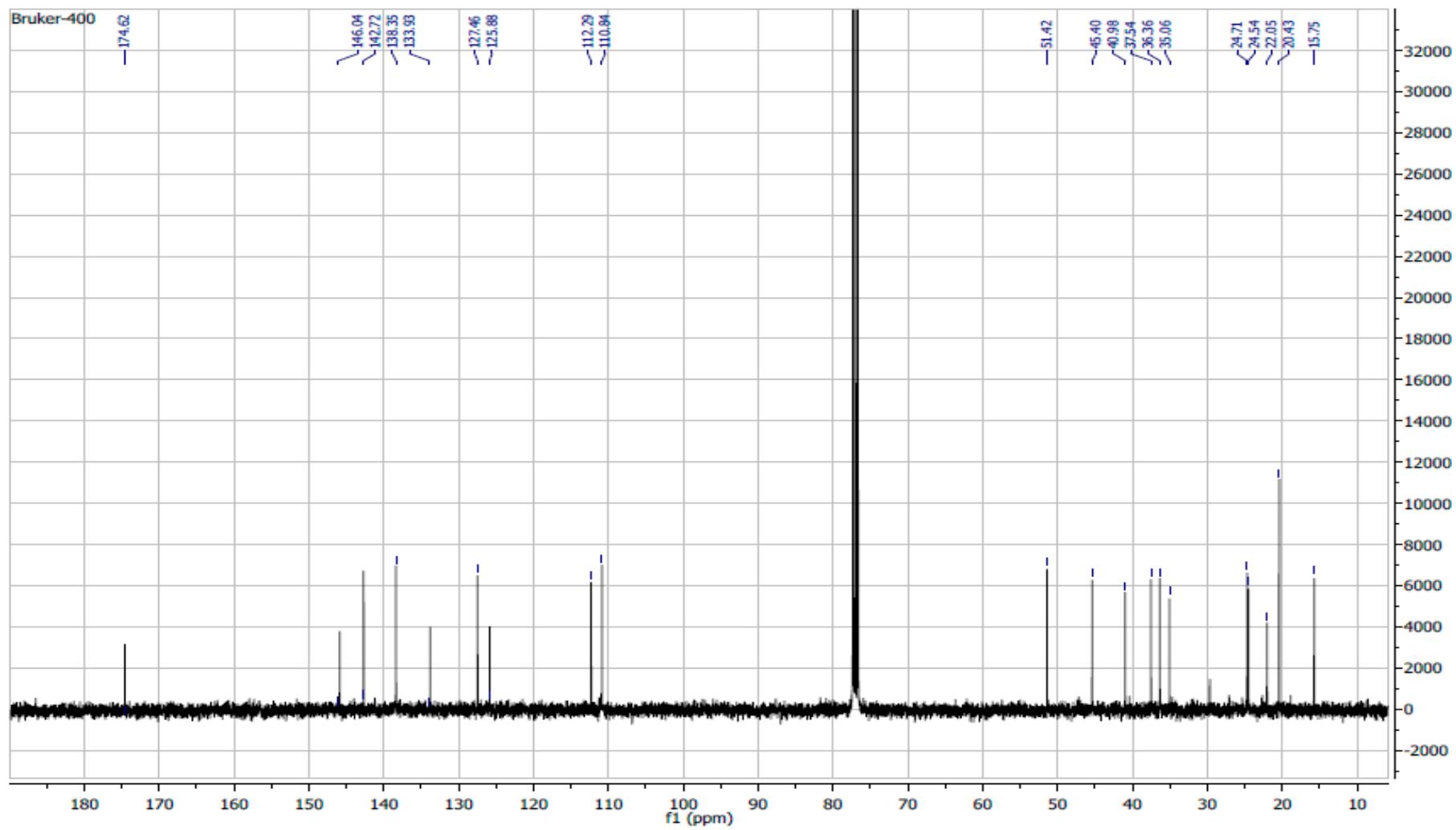
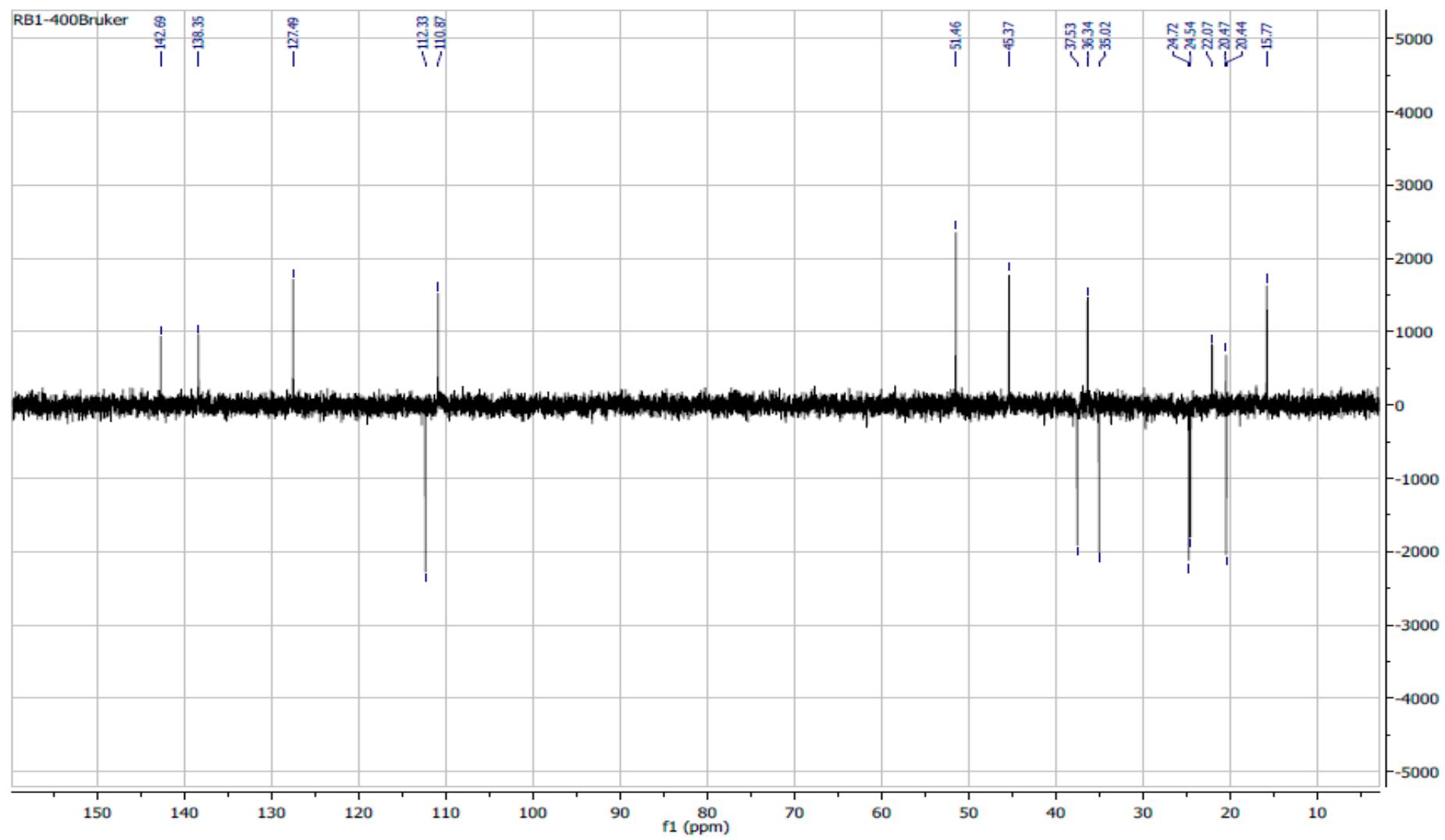


Figure S6:  $^{13}\text{C}$  NMR spectrum of compound 2 at 100MHz in  $\text{CDCl}_3$ .



**Figure S7:** DEPT 135 NMR spectrum of compound **2** at 100MHz in  $\text{CDCl}_3$ .

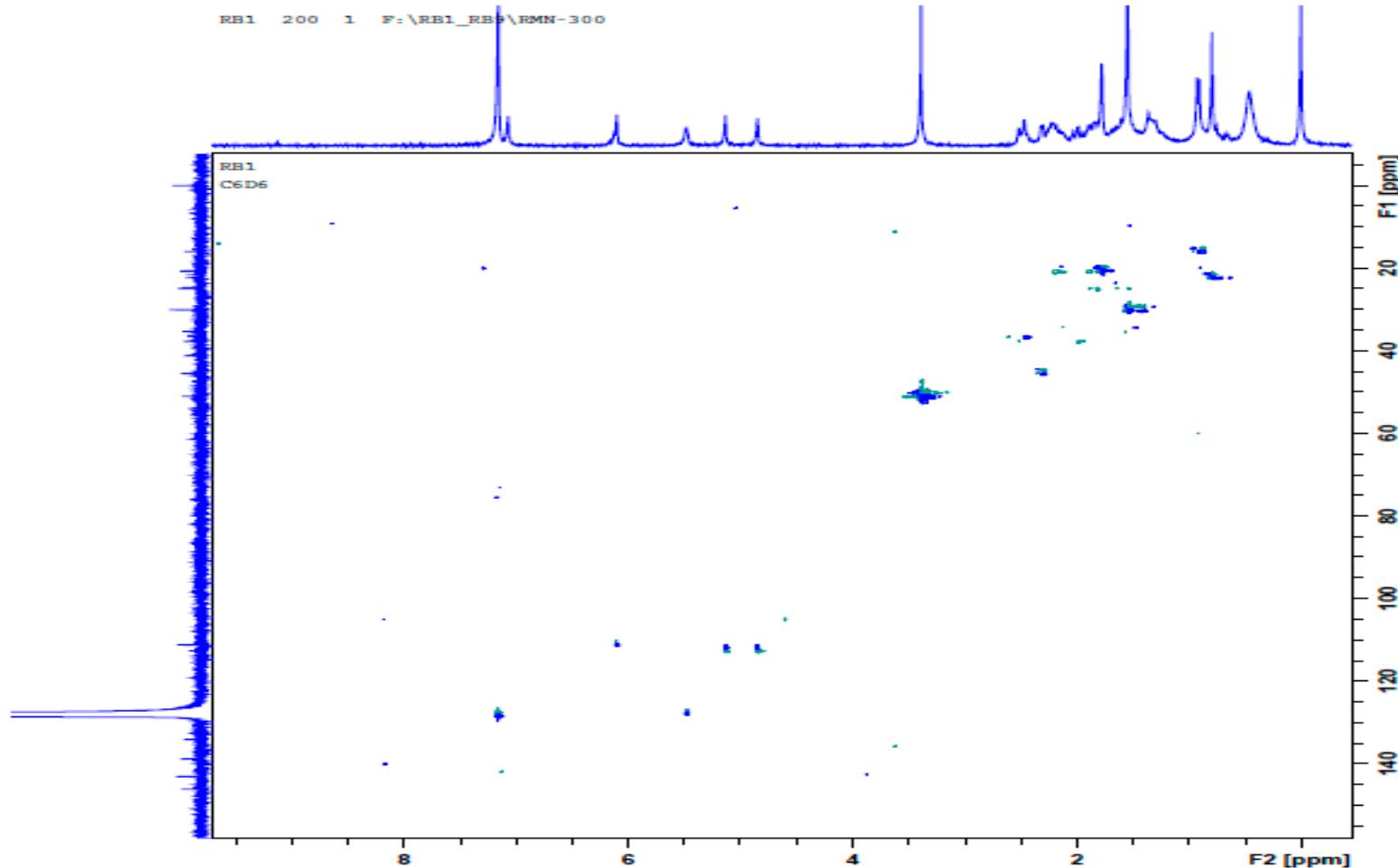


Figure S8: HSQC NMR spectrum of compound 2 at 300MHz in  $\text{CDCl}_3$ .

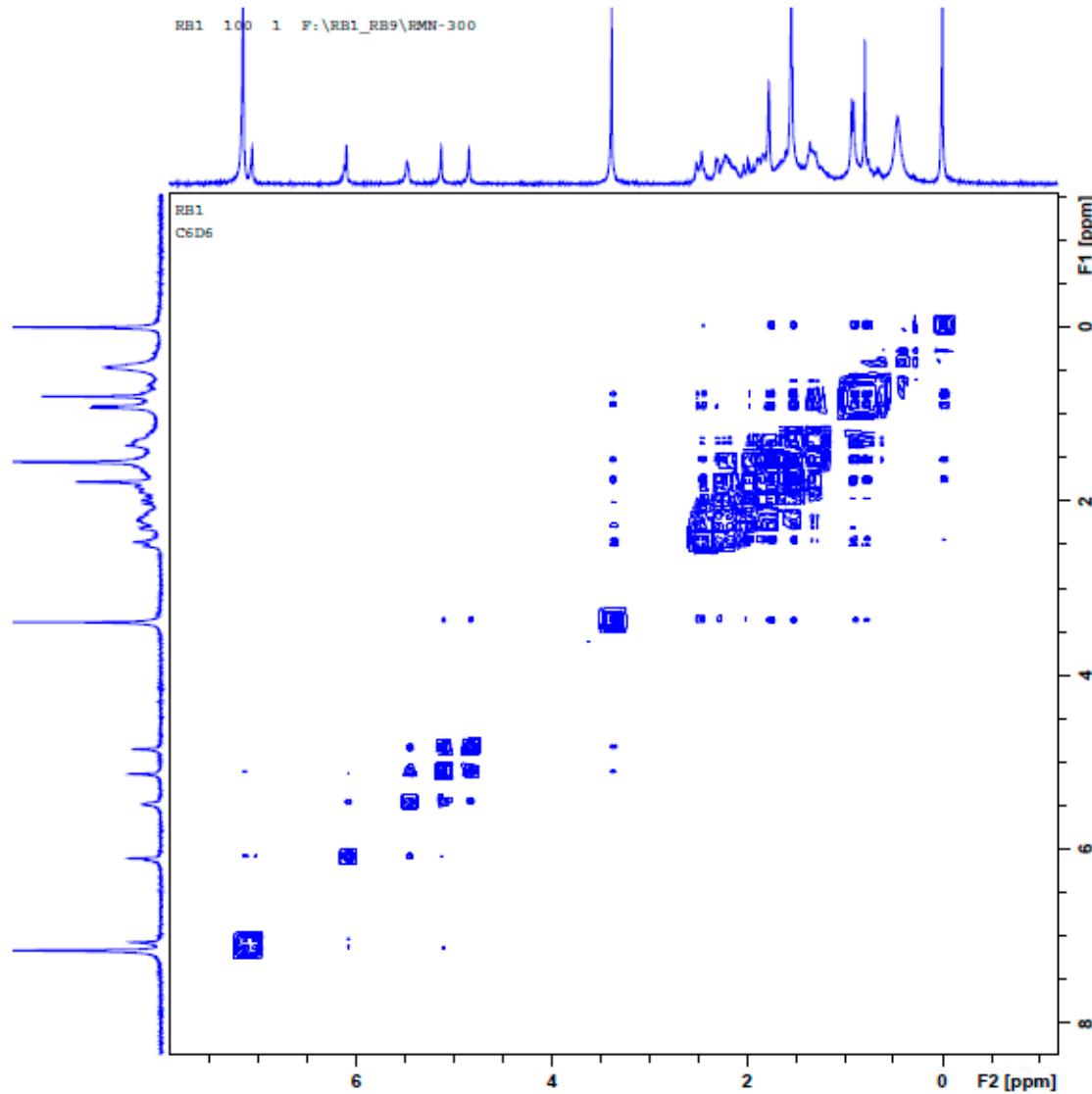
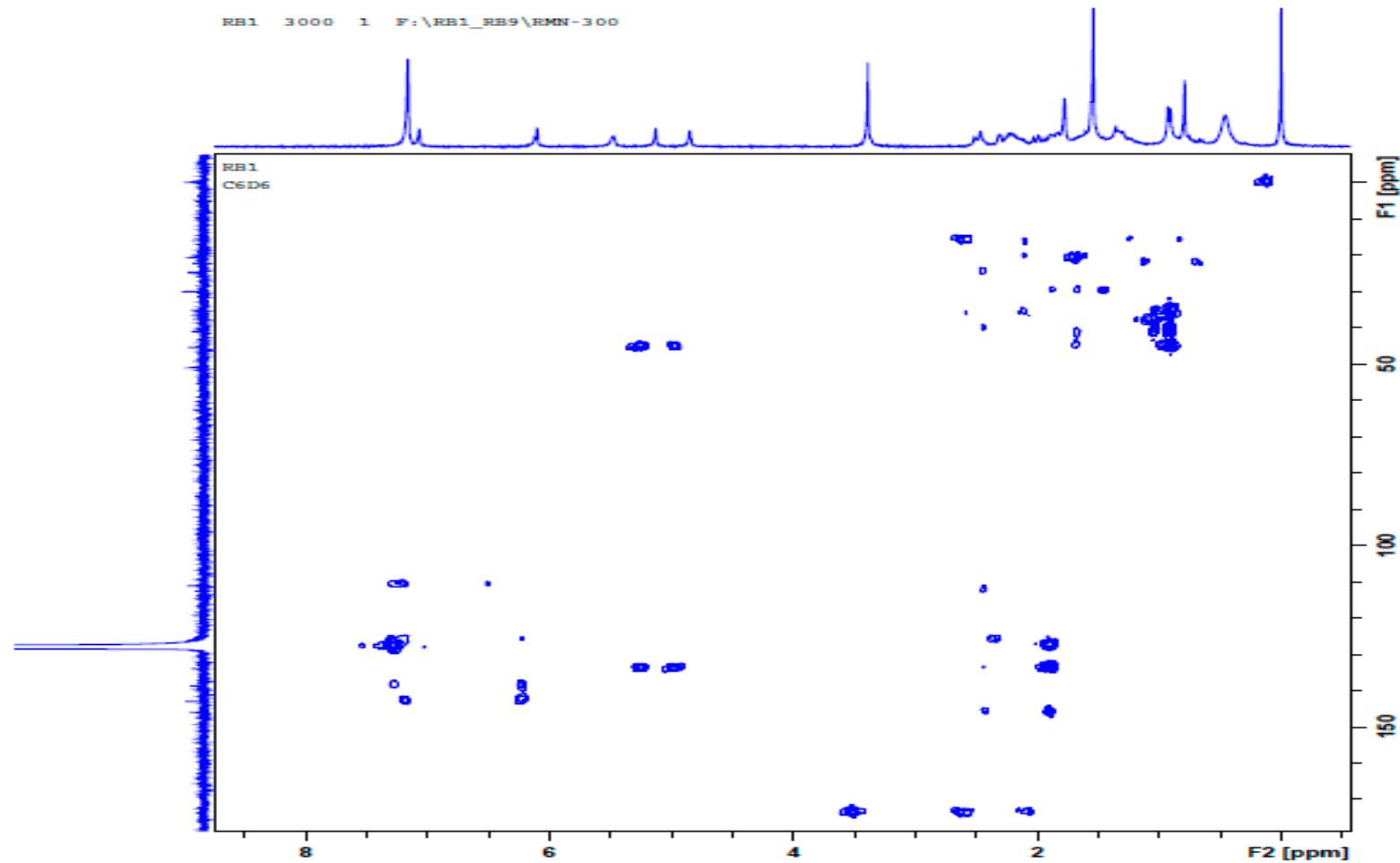


Figure S9:  $^1\text{H}$ - $^1\text{H}$  COSY NMR spectrum of compound **2** at 300 MHz in  $\text{CDCl}_3$ .



**Figure S10:** HMBC NMR spectrum of compound **2** at 300 MHz in  $\text{CDCl}_3$ .

c) Compound 3 – C<sub>20</sub>H<sub>28</sub>O<sub>4</sub>

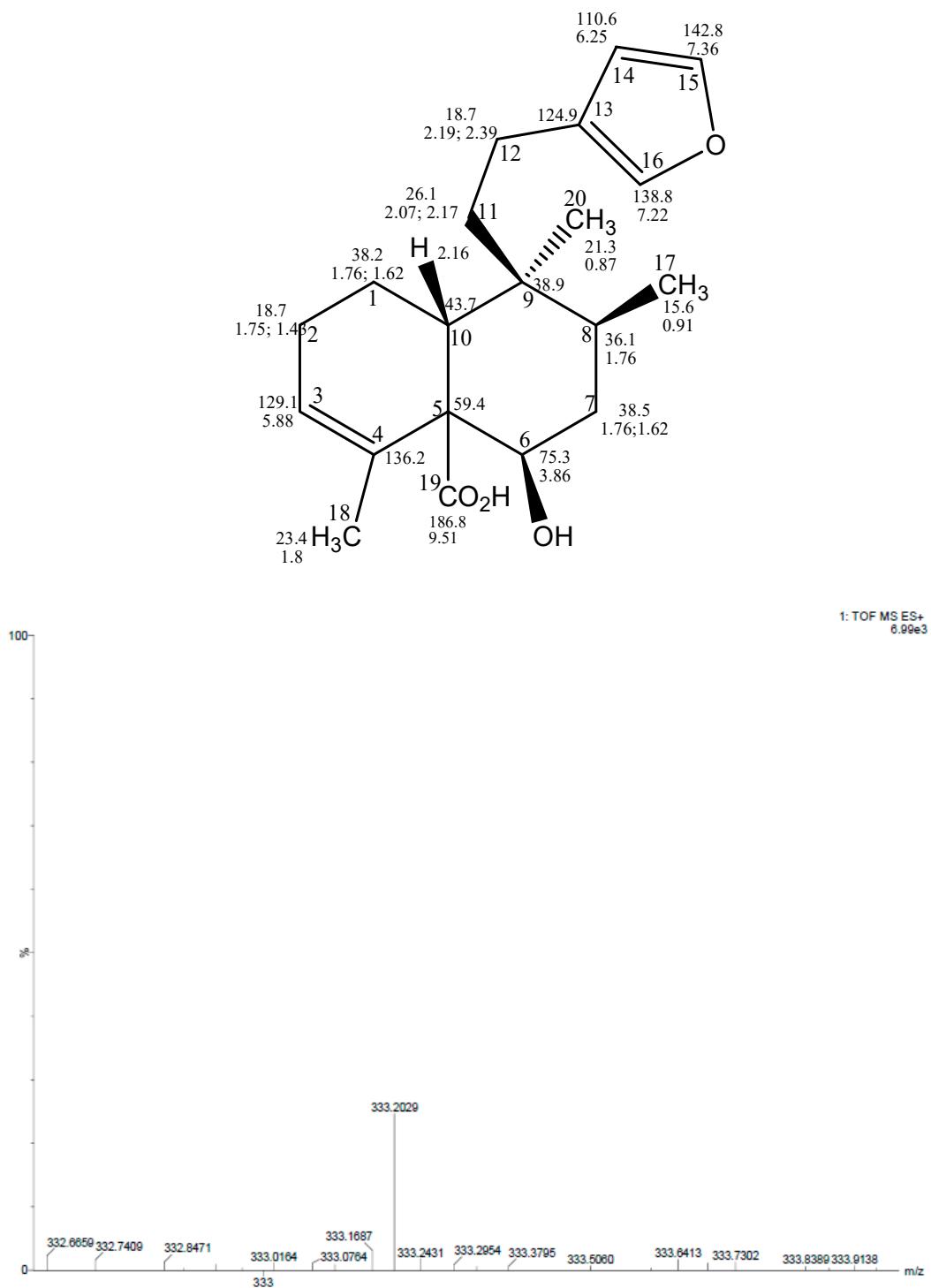


Figure S11 High-resolution mass spectrum of compound 3.

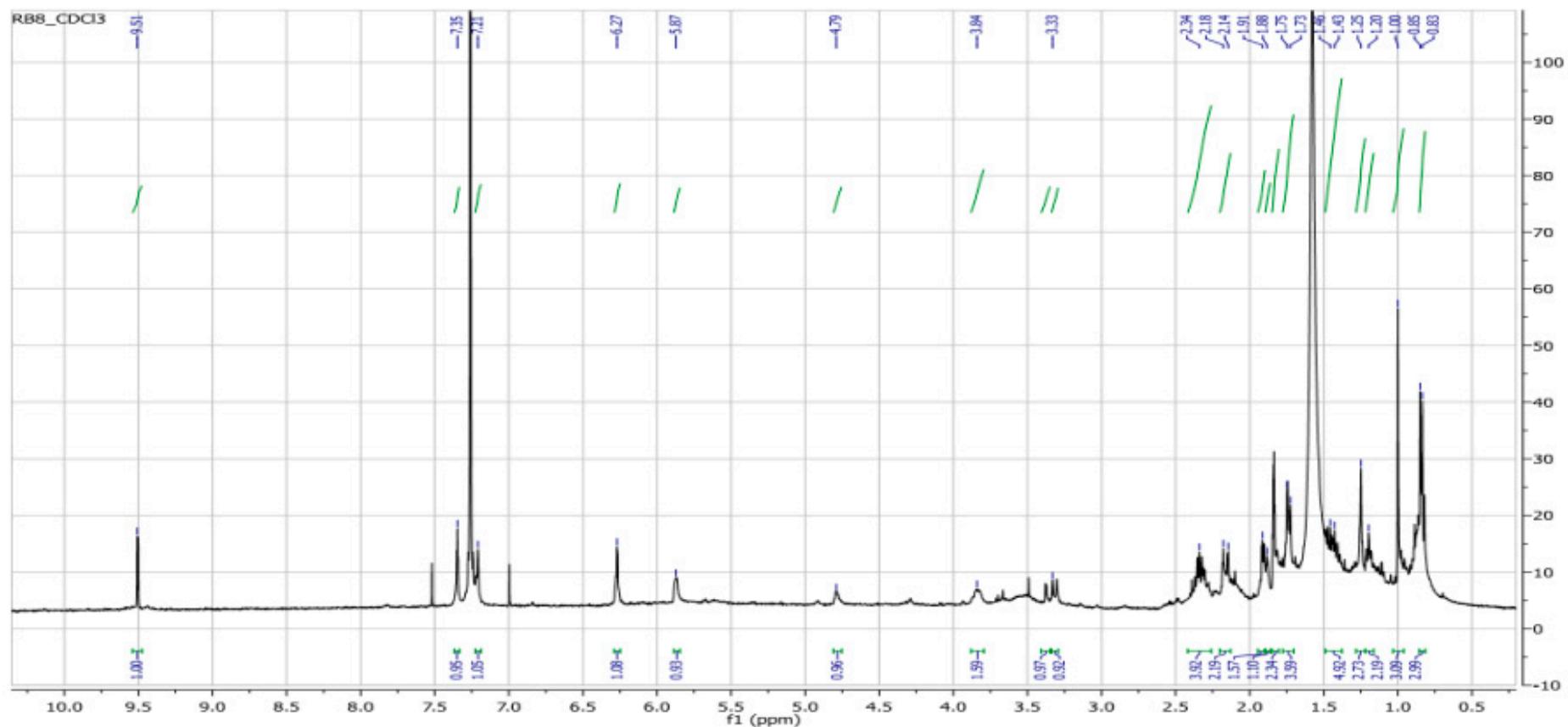


Figure S12: <sup>1</sup>H NMR spectrum of compound 3 at 400MHz in CDCl<sub>3</sub>.

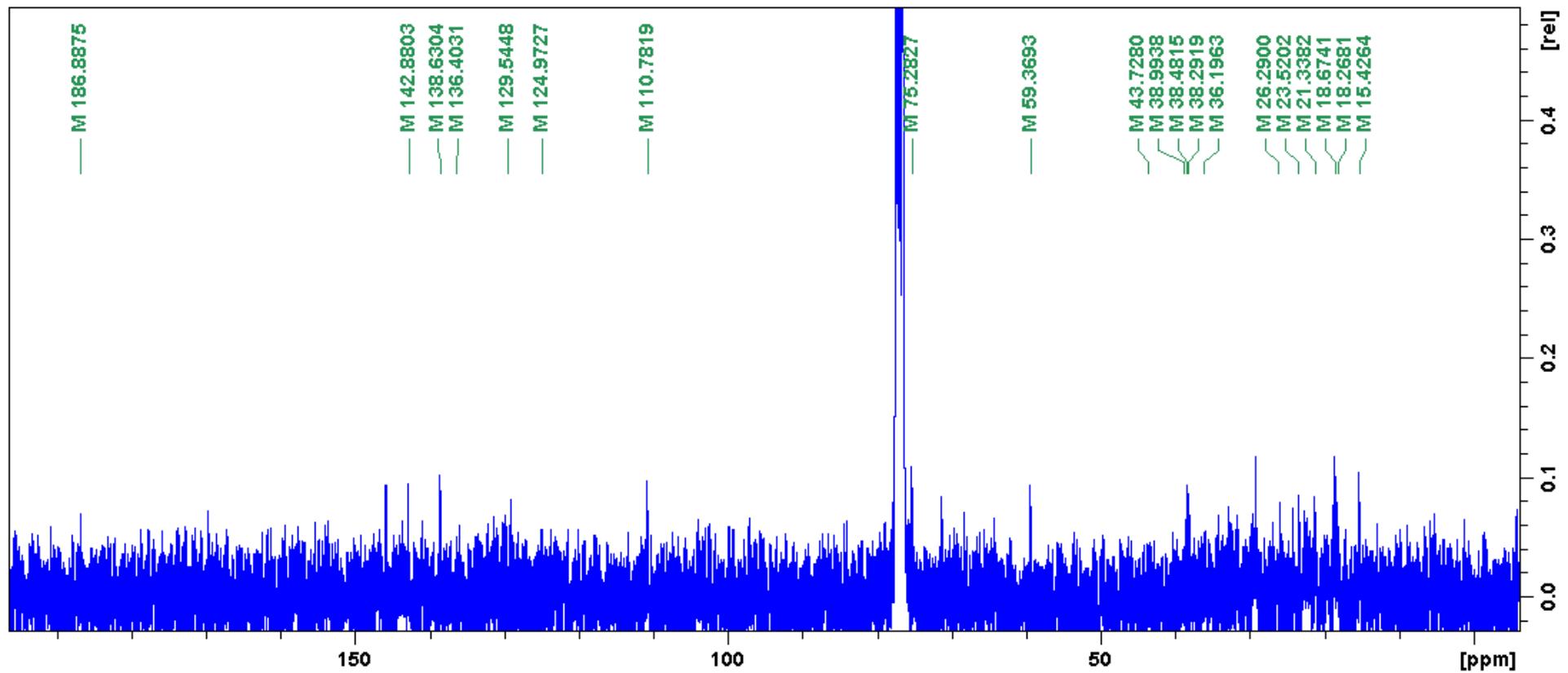


Figure S13:  $^{13}\text{C}$  NMR spectrum of compound 3 at 75MHz in  $\text{CDCl}_3$ .

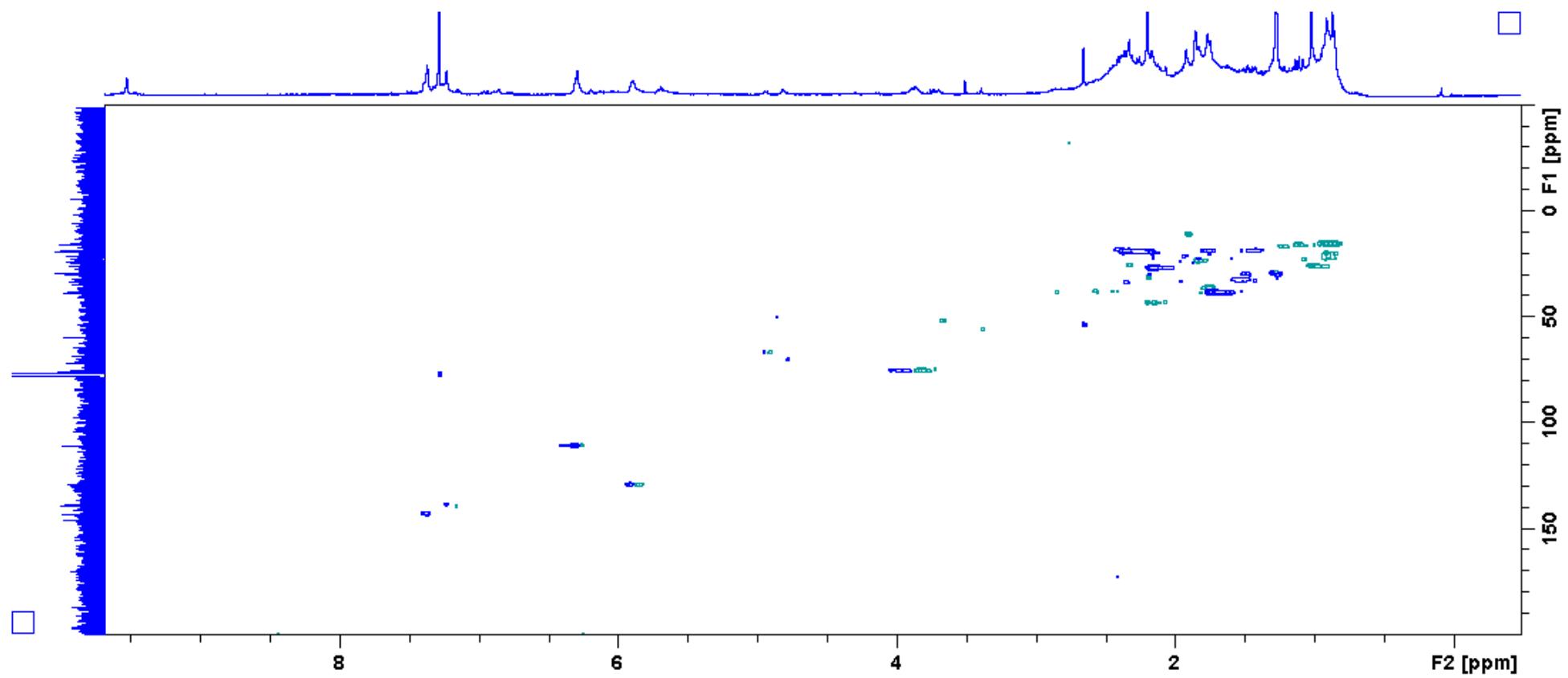


Figure S14: .HSQC NMR spectrum of compound 3 at 300MHz in  $\text{CDCl}_3$ .

d) Compound 4 - C<sub>21</sub>H<sub>30</sub>O<sub>4</sub>

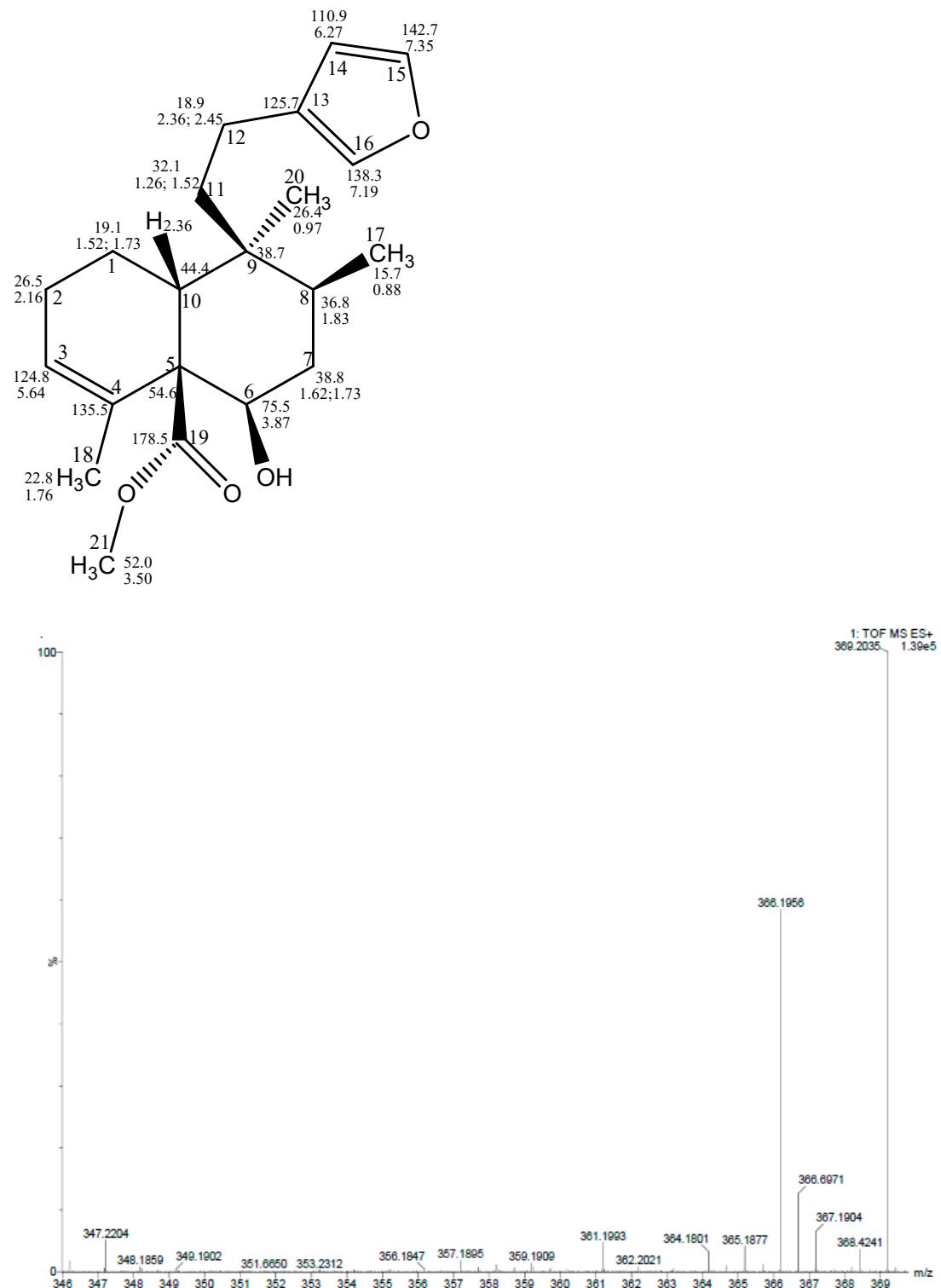


Figure S15: High-resolution mass spectrum of compound 3.

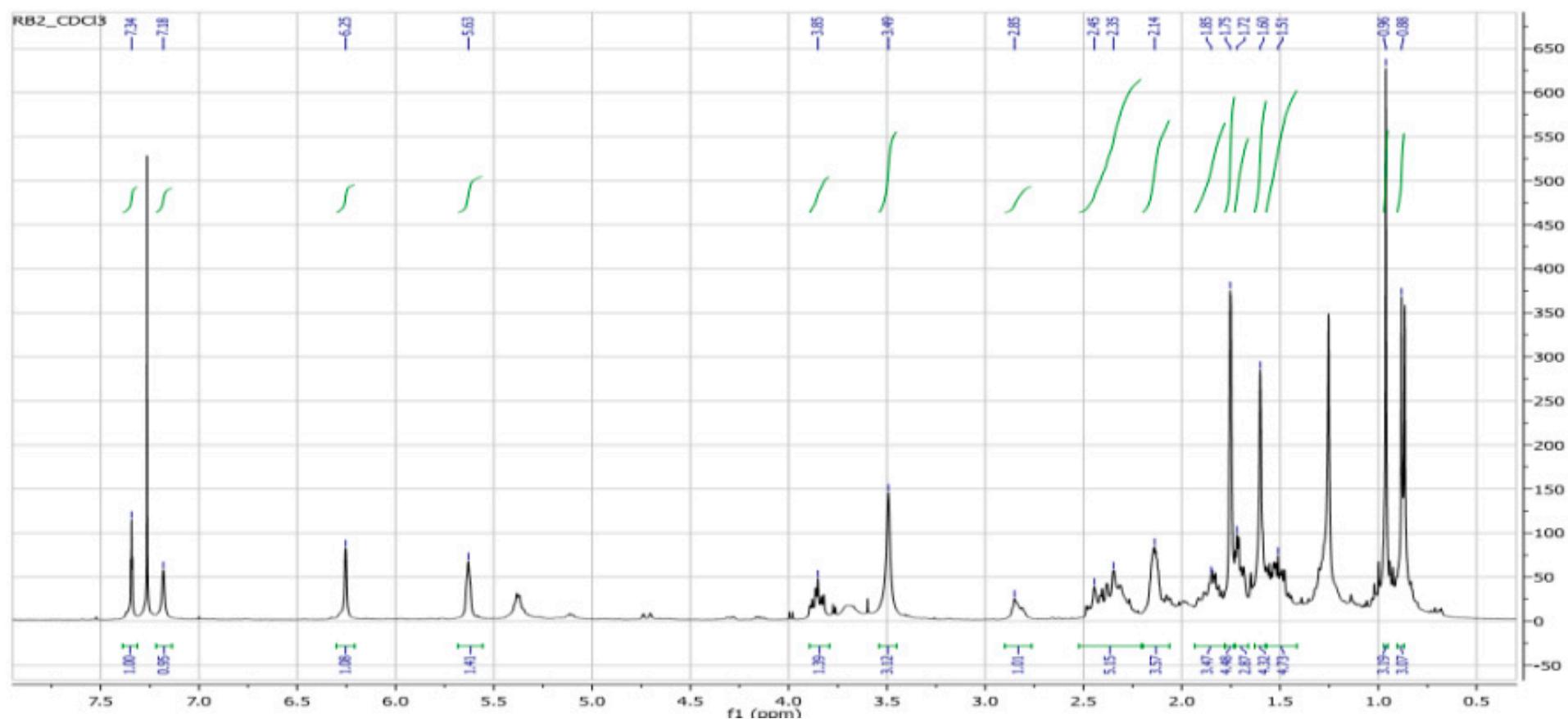


Figure S16:  $^1\text{H}$  NMR spectrum of compound 4 at 400MHz in CDCl<sub>3</sub>.

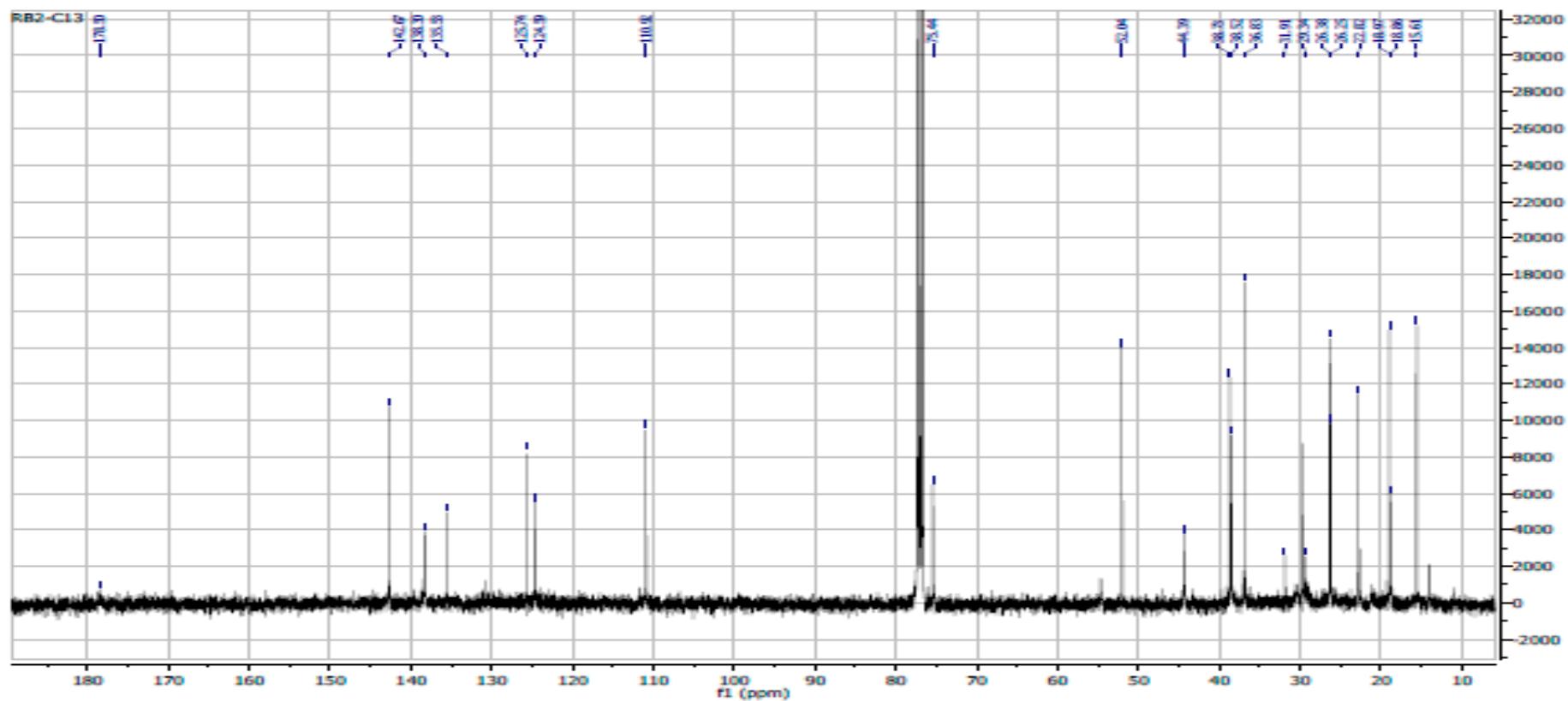


Figure S17:  $^{13}\text{C}$  NMR spectrum of compound 4 at 100MHz in  $\text{CDCl}_3$ .

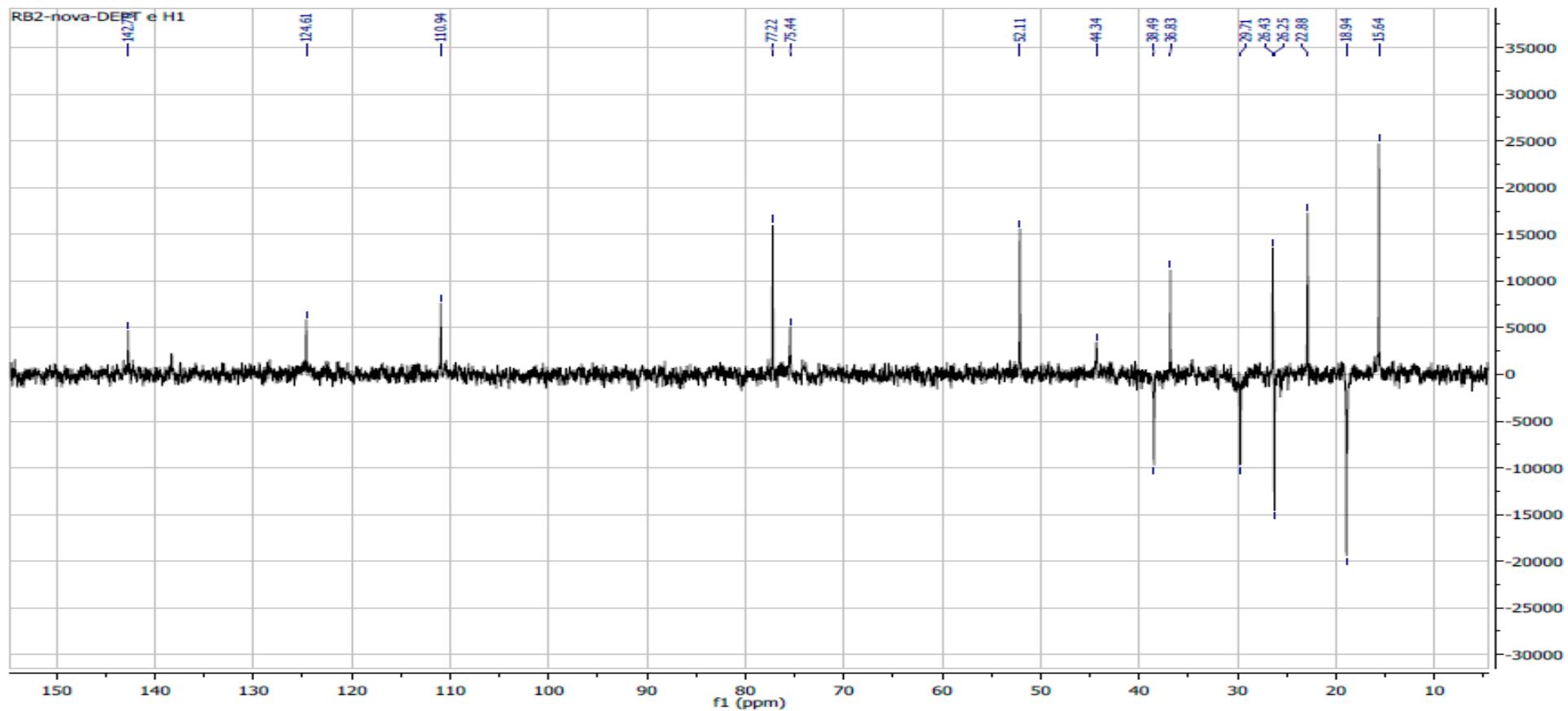


Figure S18: DEPT 135 NMR spectrum of compound 4 at 100MHz in  $\text{CDCl}_3$ .

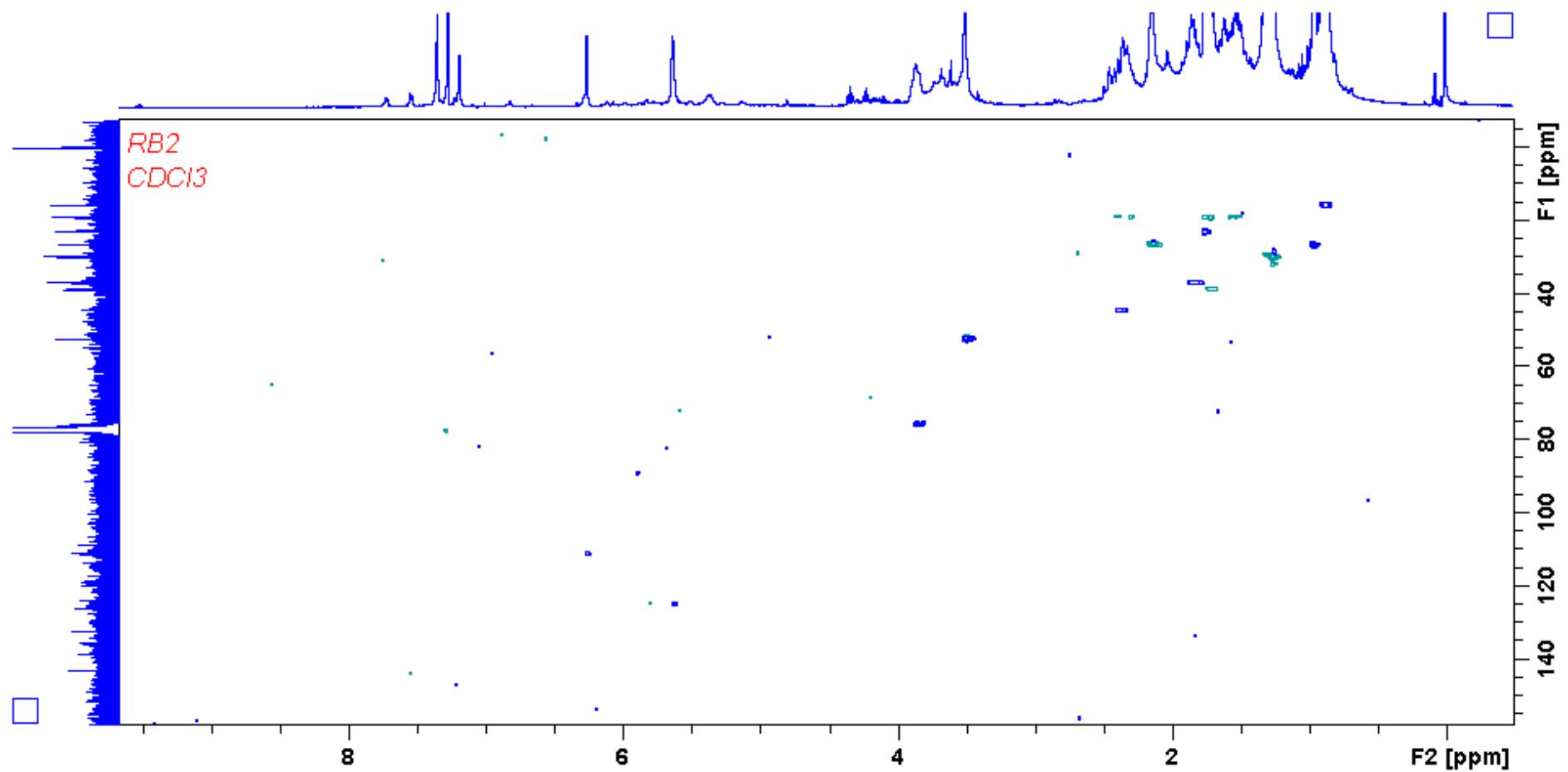


Figure S19: .HSQC NMR spectrum of compound 4 at 300MHz in  $\text{CDCl}_3$ .

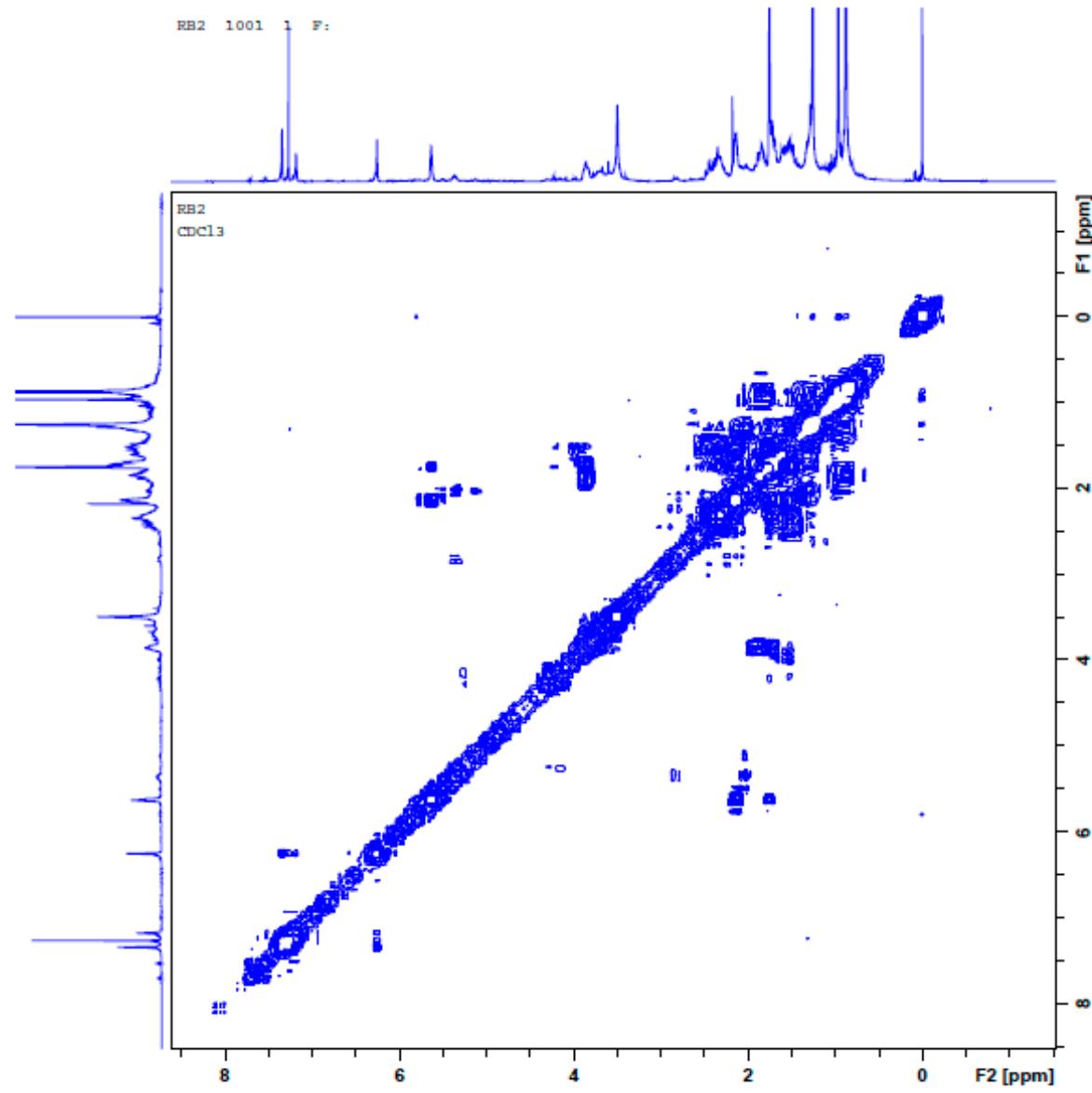


Figure S20:  $^1\text{H}$ - $^1\text{H}$  COSY NMR spectrum of compound **4** at 300 MHz in  $\text{CDCl}_3$ .

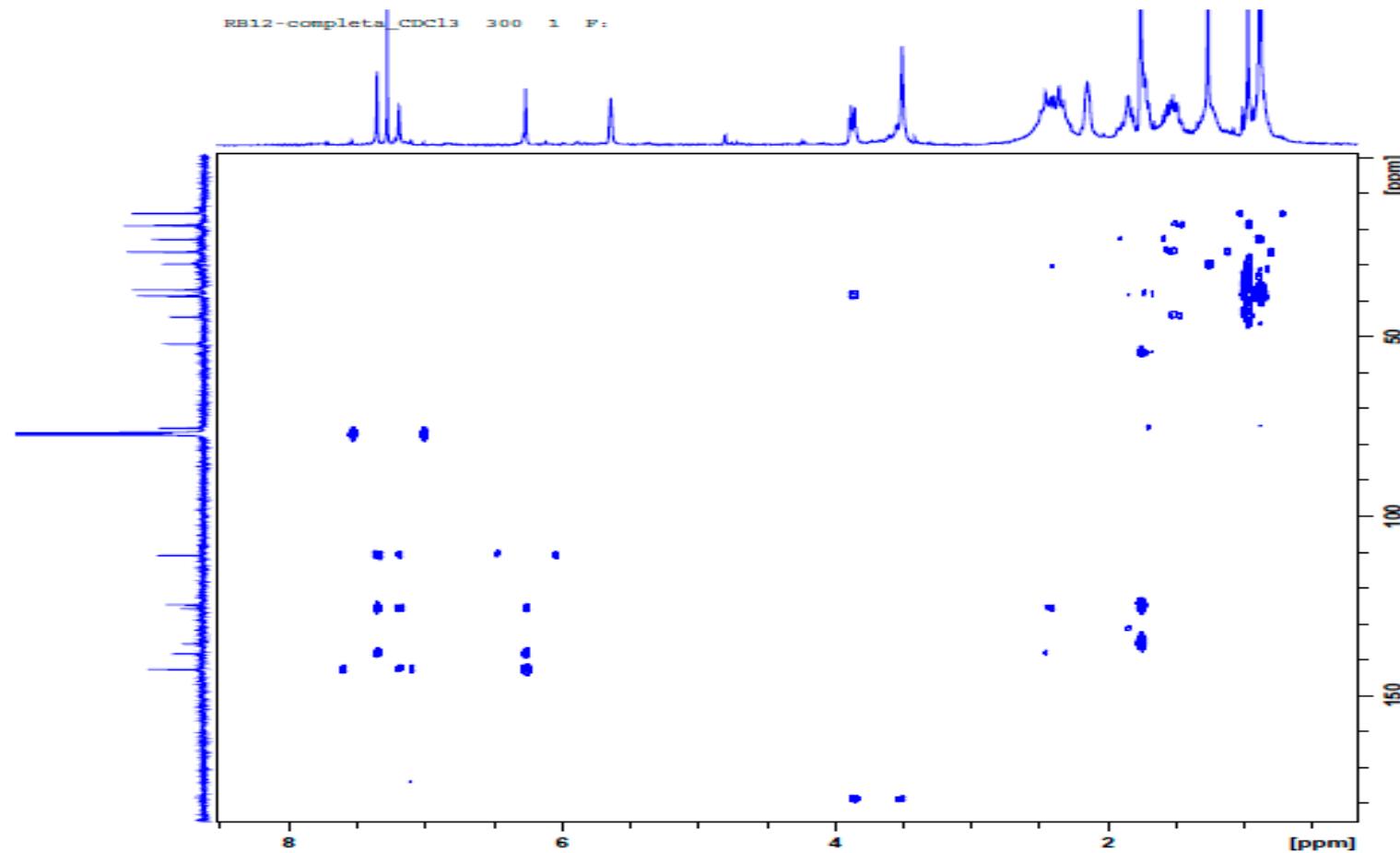
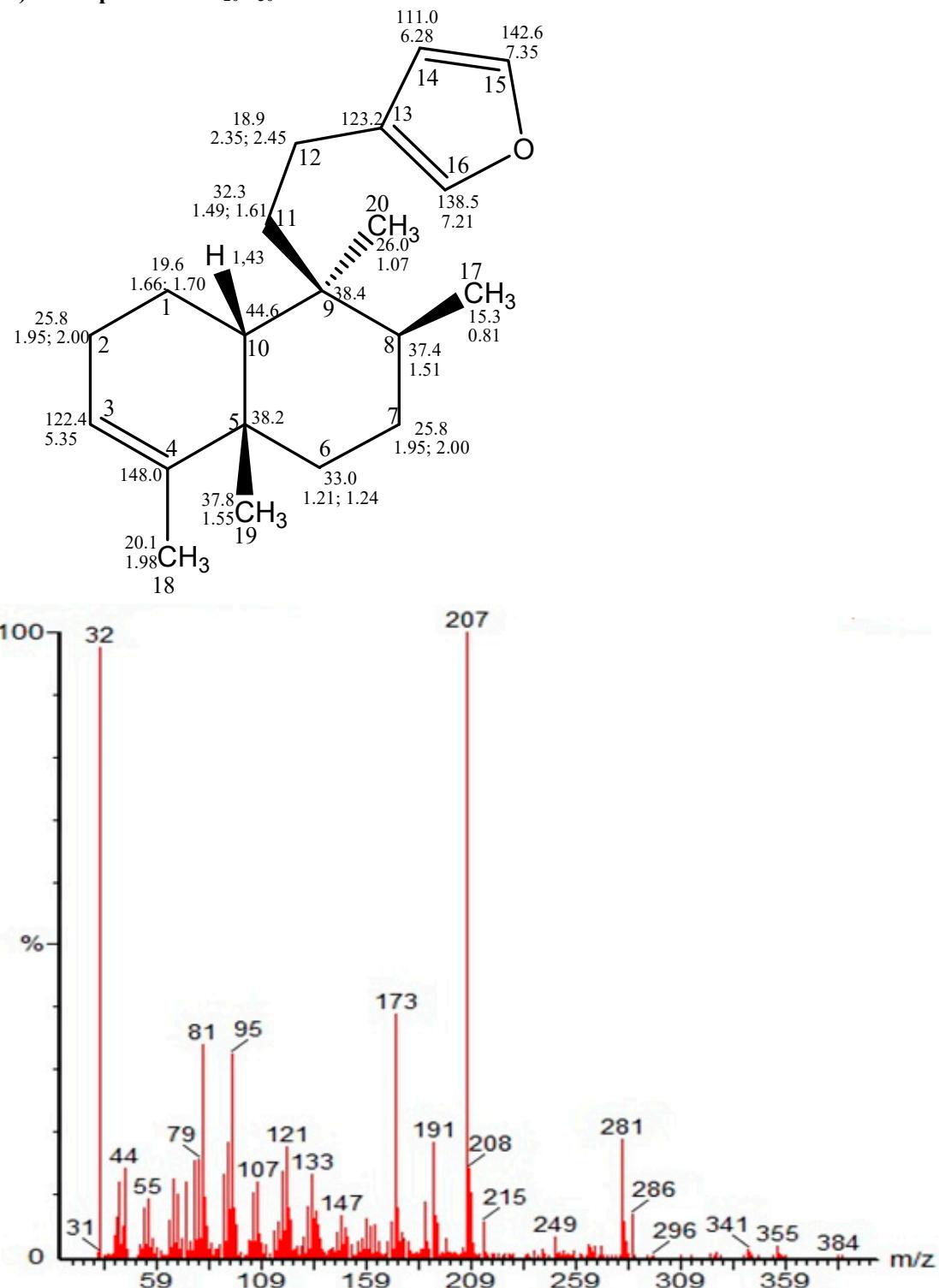


Figure S21: HMBC NMR spectrum of compound 4 at 300 MHz in CDCl<sub>3</sub>

e) Compound 5 – C<sub>20</sub>H<sub>30</sub>O



**Figure S22:** (+)-Electron Impact Mass Spectrum of compound 5

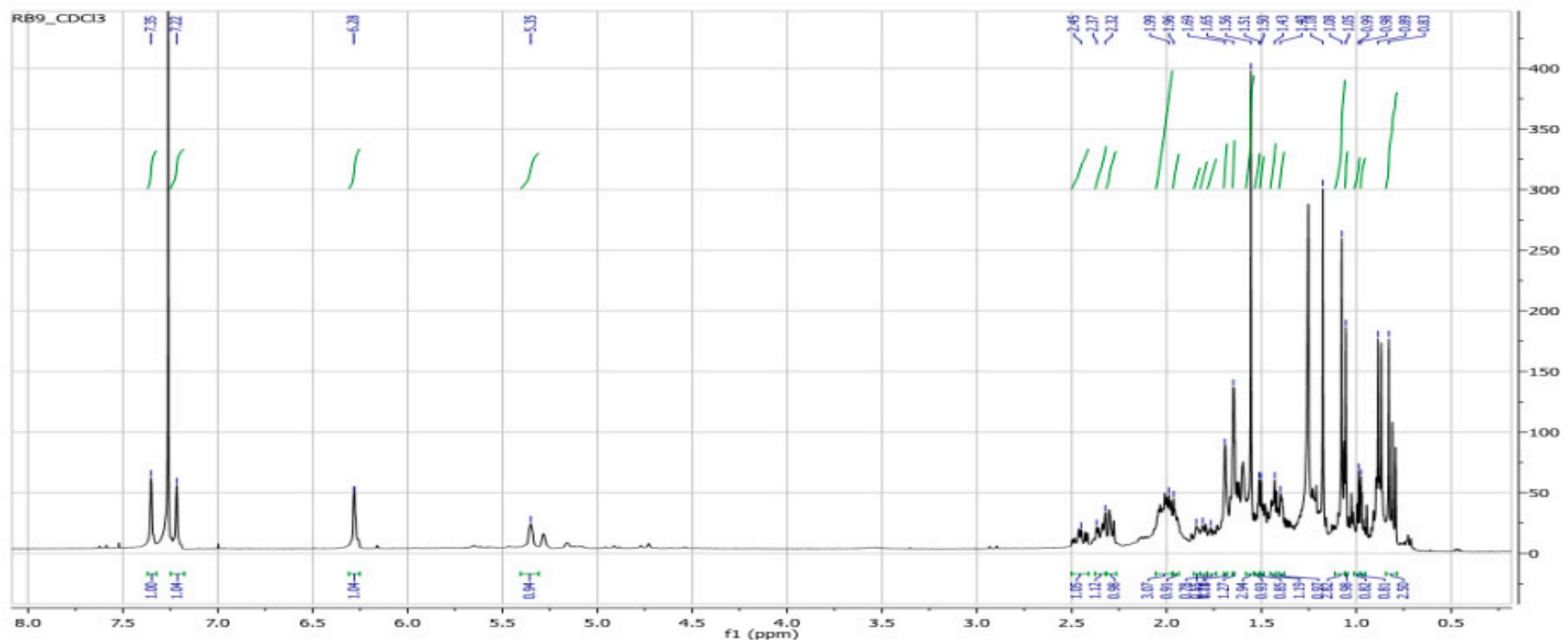


Figure S23:  $^1\text{H}$  NMR spectrum of compound 5 at 400MHz in CDCl<sub>3</sub>.

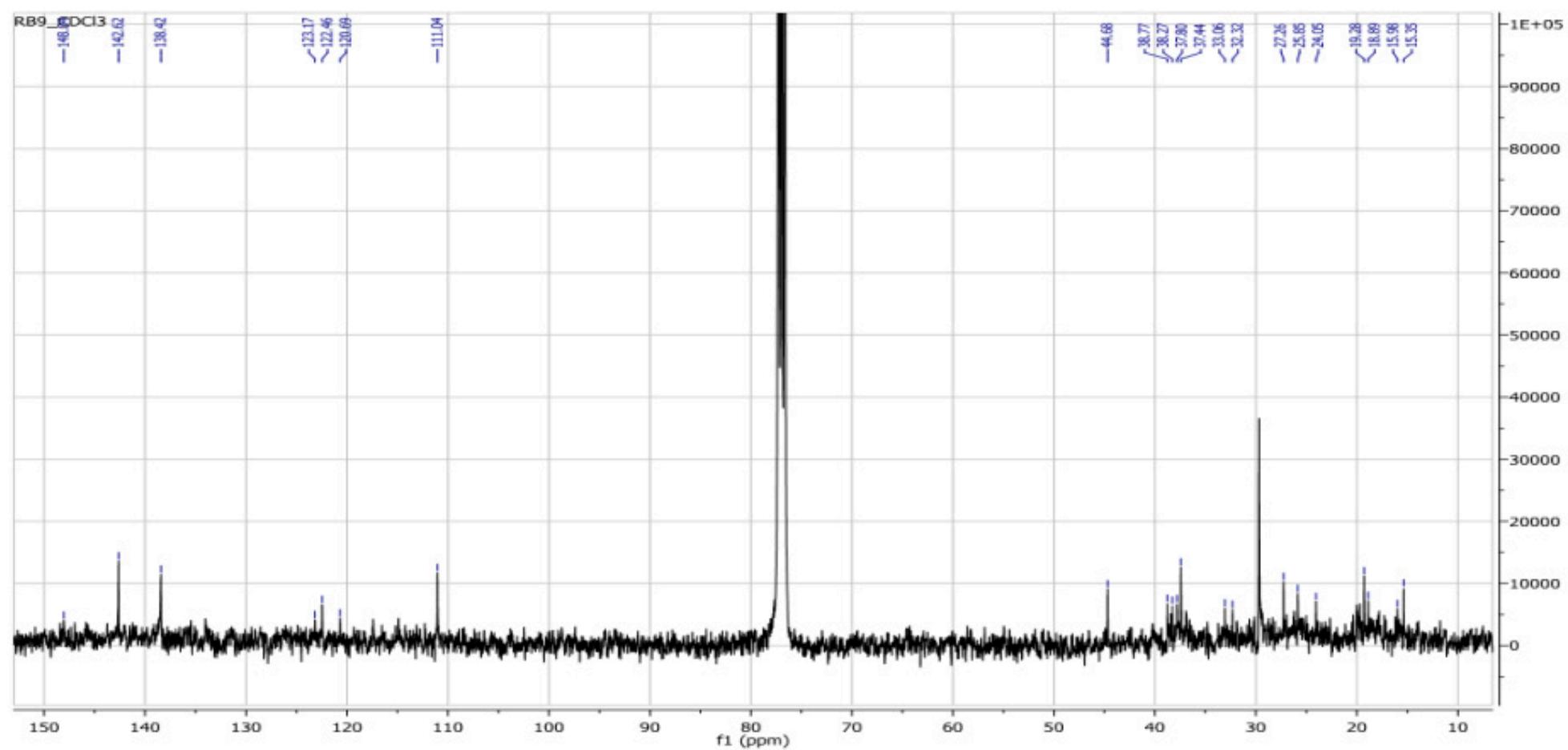
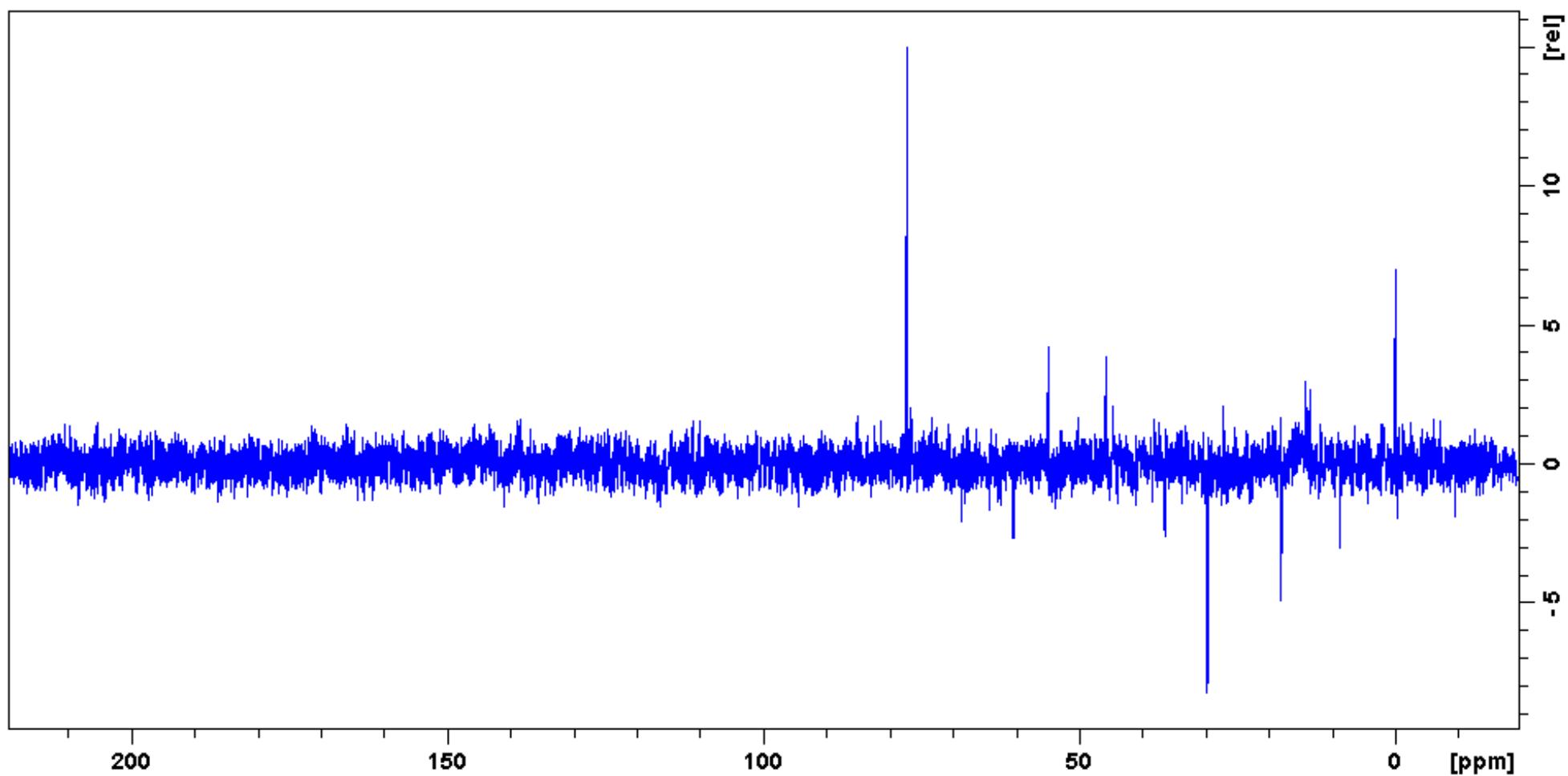


Figure S24:  $^{13}\text{C}$  NMR spectrum of compound 5 at 100 MHz in  $\text{CDCl}_3$



**Figure S25:** DEPT 135 NMR spectrum of compound 5 at 100MHz in  $\text{CDCl}_3$ .

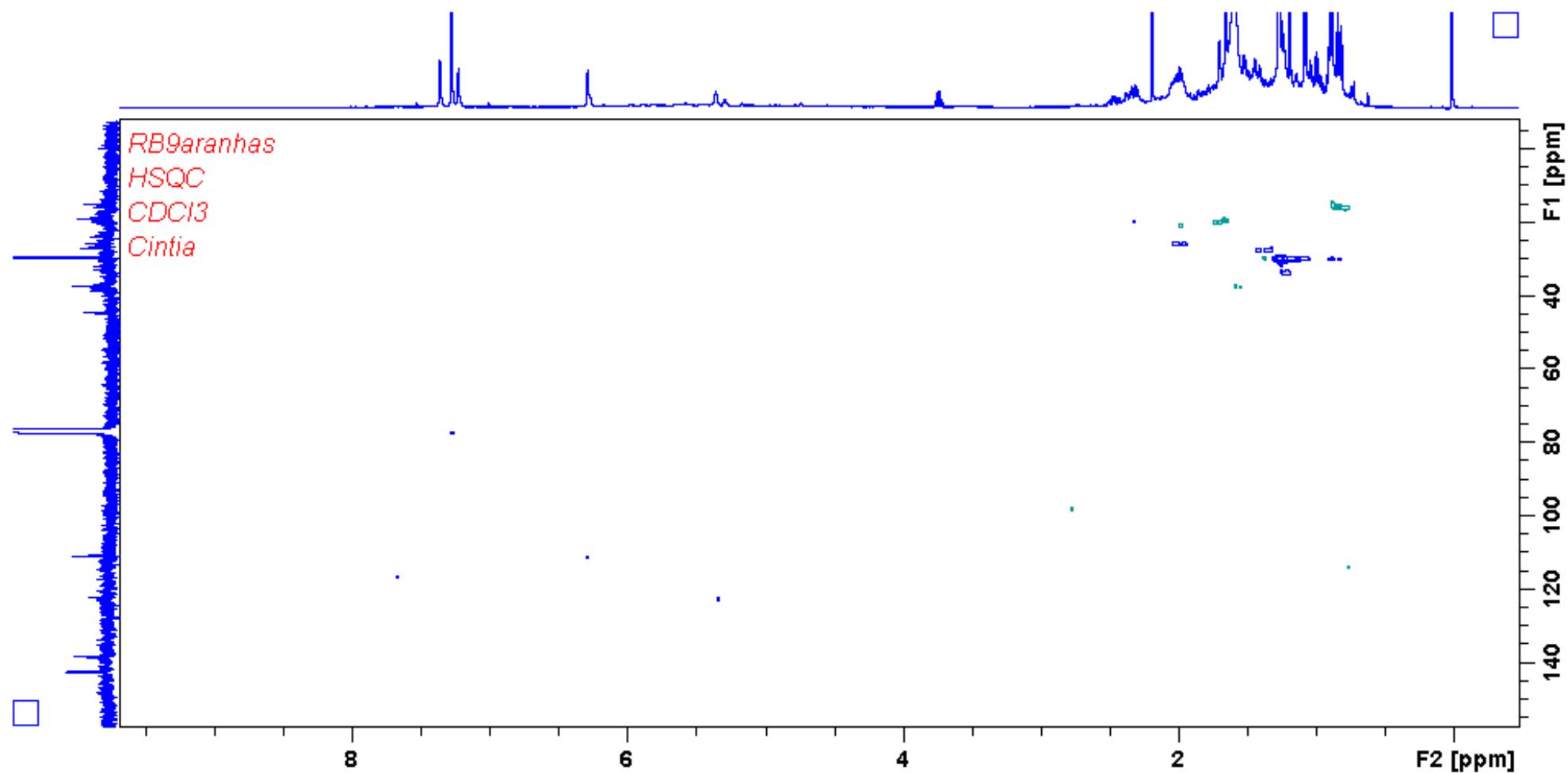


Figure S26: .HSQC NMR spectrum of compound 5 at 300MHz in CDCl<sub>3</sub>.

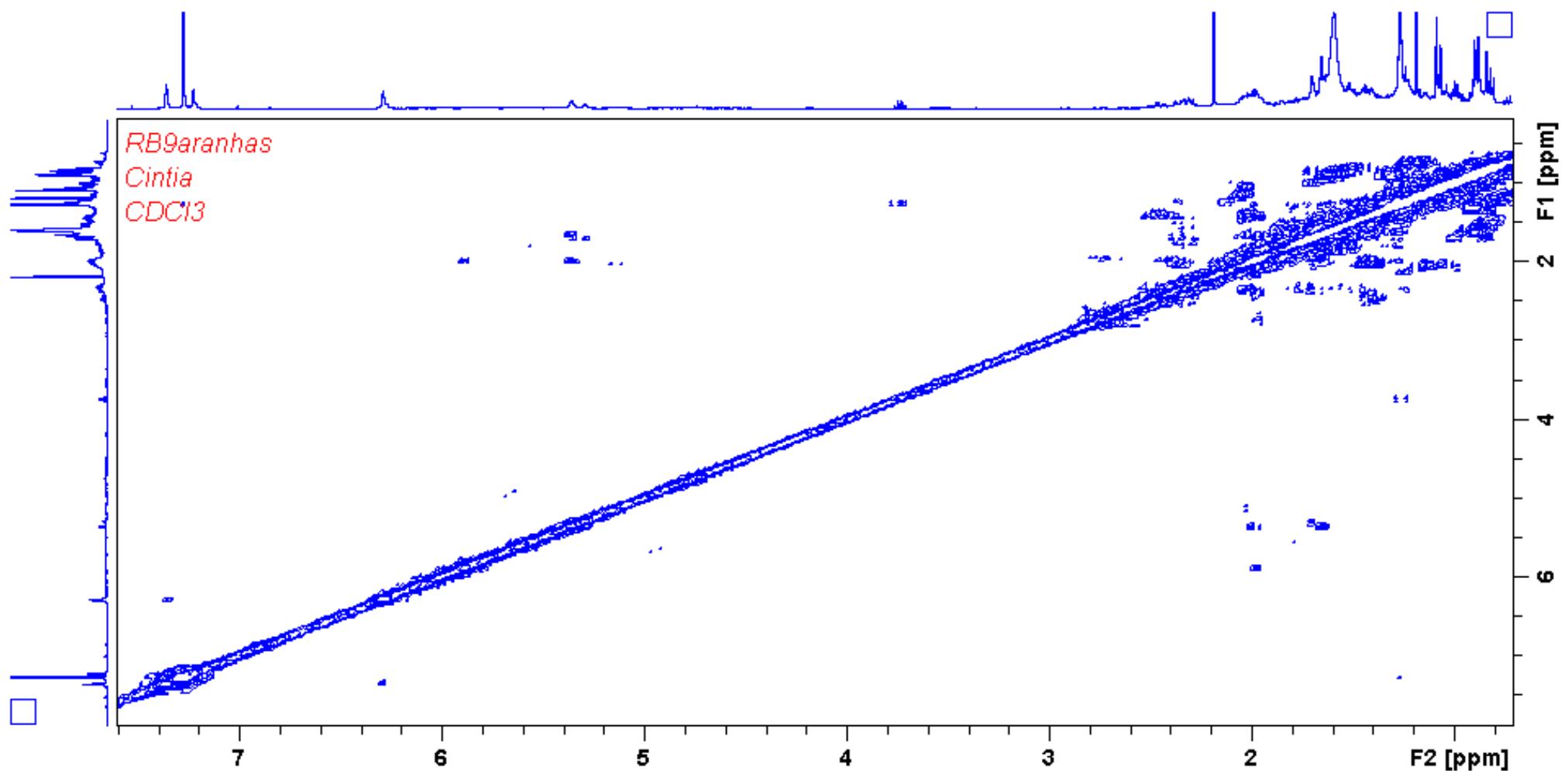


Figure S27:  $^1\text{H}$ - $^1\text{H}$  COSY NMR spectrum of compound 5 at 300 MHz in  $\text{CDCl}_3$ .

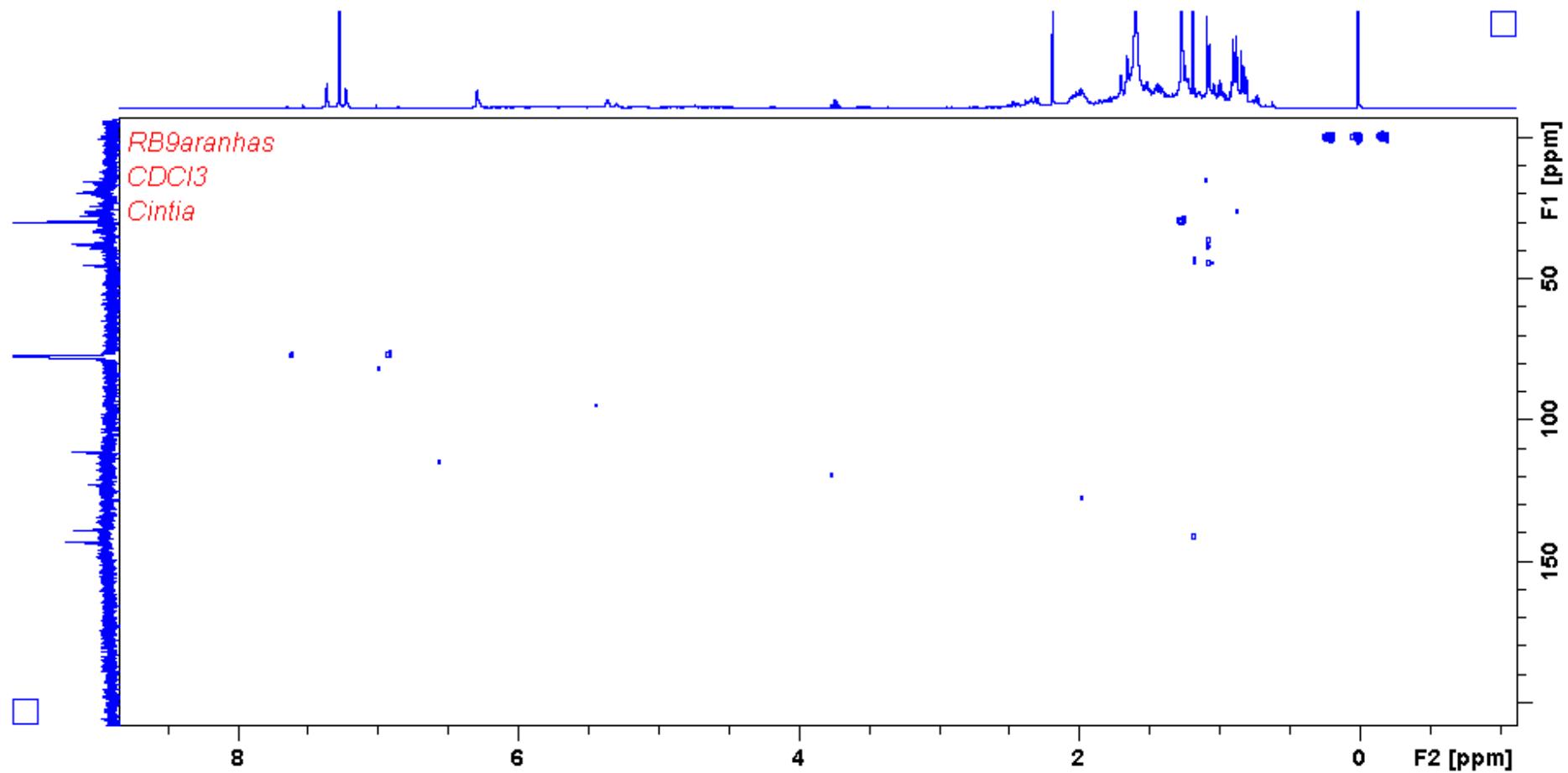
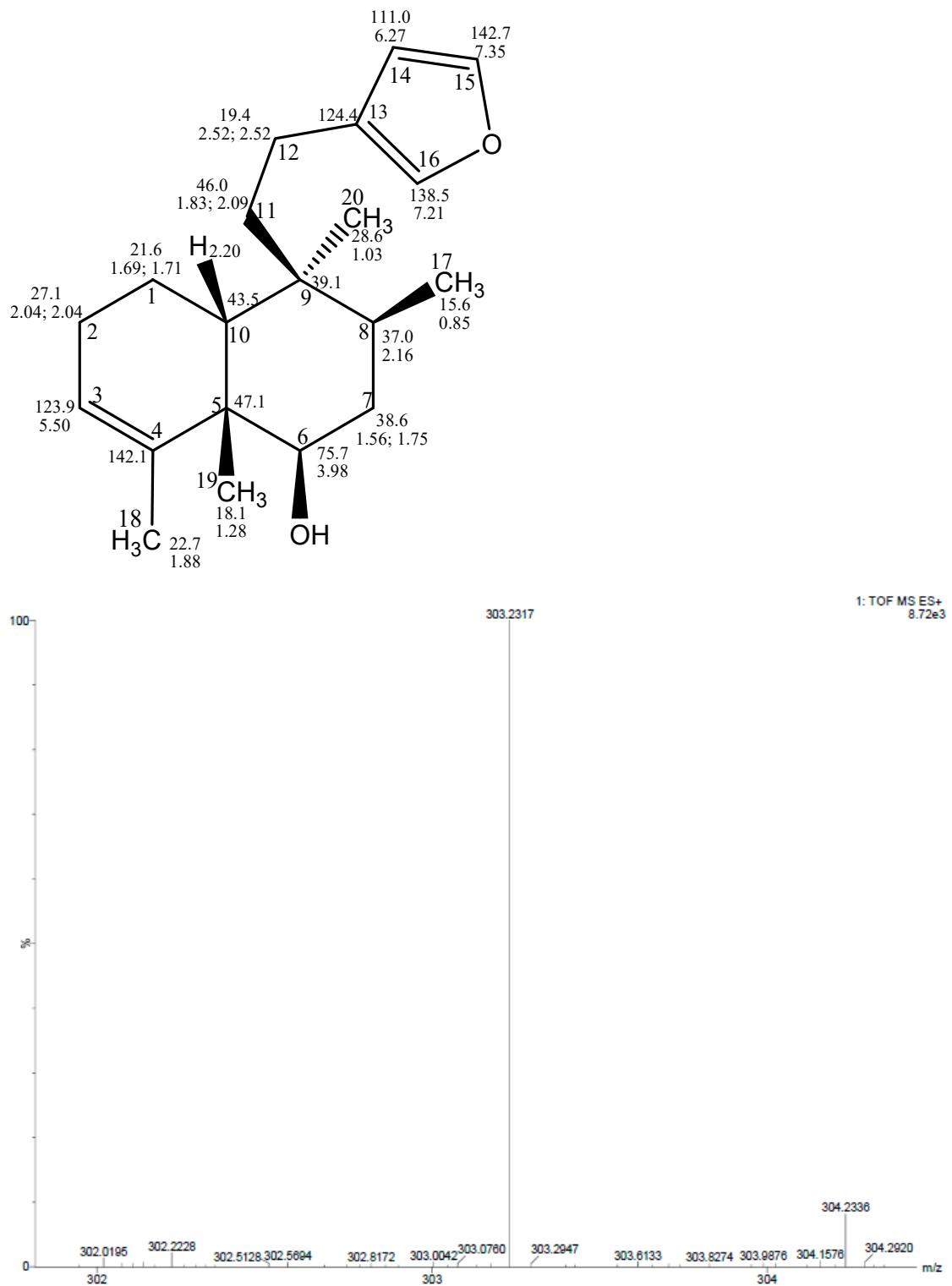


Figure S28: HMBC NMR spectrum of compound 5 at 300 MHz in CDCl<sub>3</sub>.

e) Compound 6 – C<sub>20</sub>H<sub>30</sub>O<sub>2</sub>



**Figure S29:** (+)-high-resolution mass spectrum of compound 6

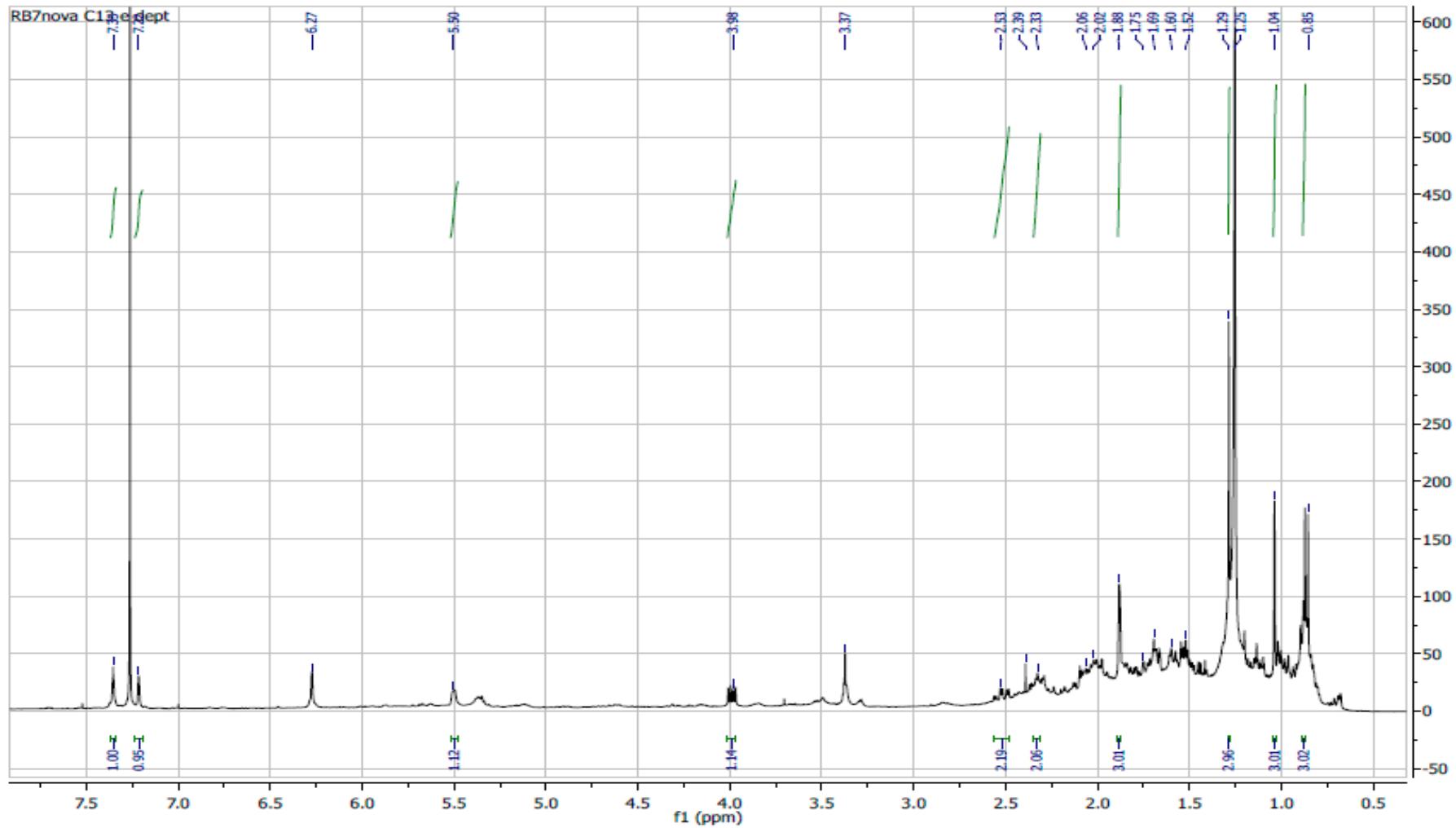


Figure S30:  $^1\text{H}$  NMR spectrum of compound 6 at 400MHz in  $\text{CDCl}_3$ .

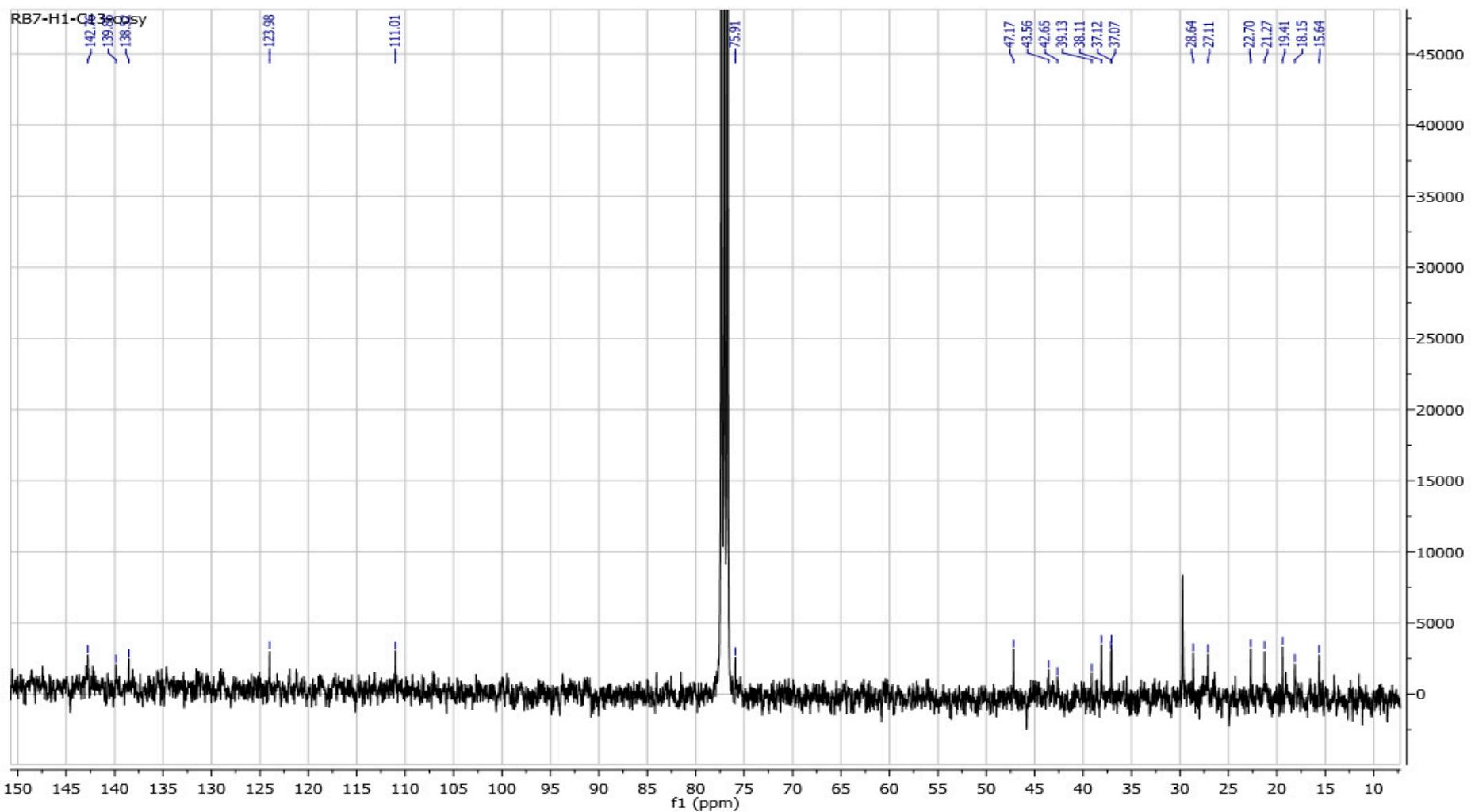


Figure S31:  $^{13}\text{C}$  NMR spectrum of compound 6 at 100MHz in  $\text{CDCl}_3$ .

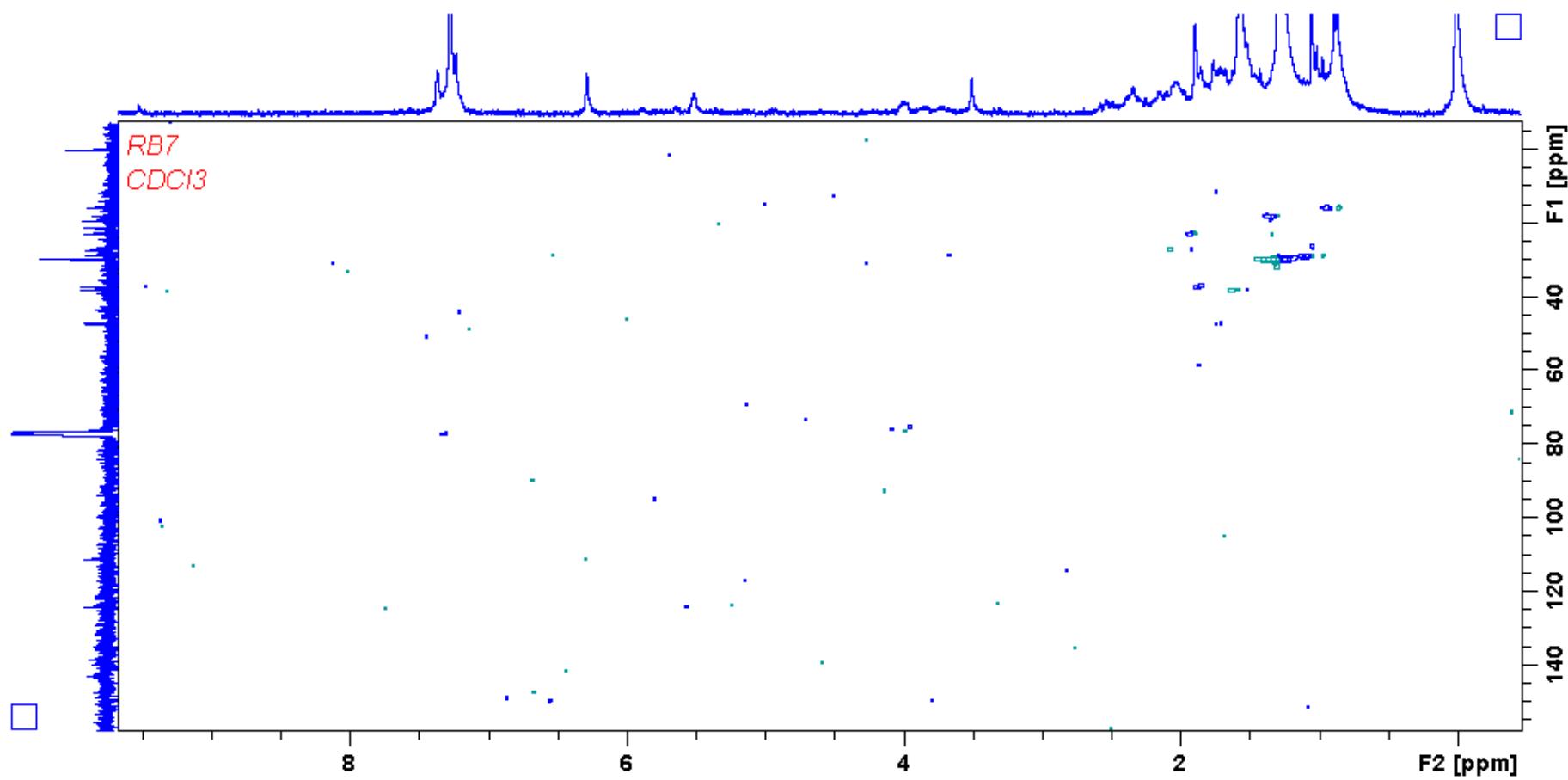


Figure S32: .HSQC NMR spectrum of compound 6 at 300MHz in  $\text{CDCl}_3$ .

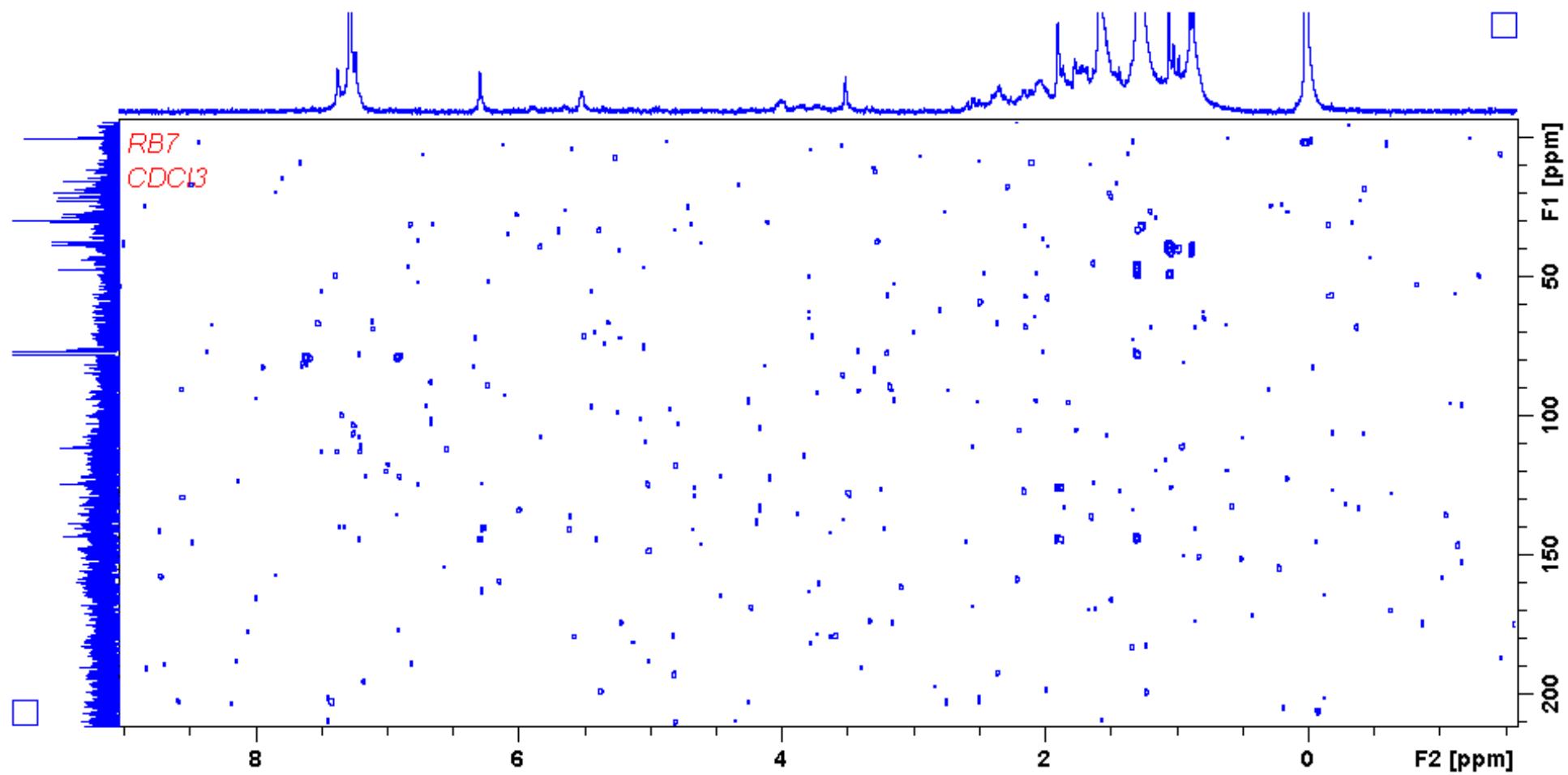


Figure S33: HMBC NMR spectrum of compound 6 at 300 MHz in CDCl<sub>3</sub>.