

# Regioselective Claisen–Schmidt Adduct of 2-Undecanone from *Houttuynia cordata* Thunb as Insecticide/Repellent against *Solenopsis invicta* and Repositioning Plant Fungicides against *Colletotrichum fragariae*

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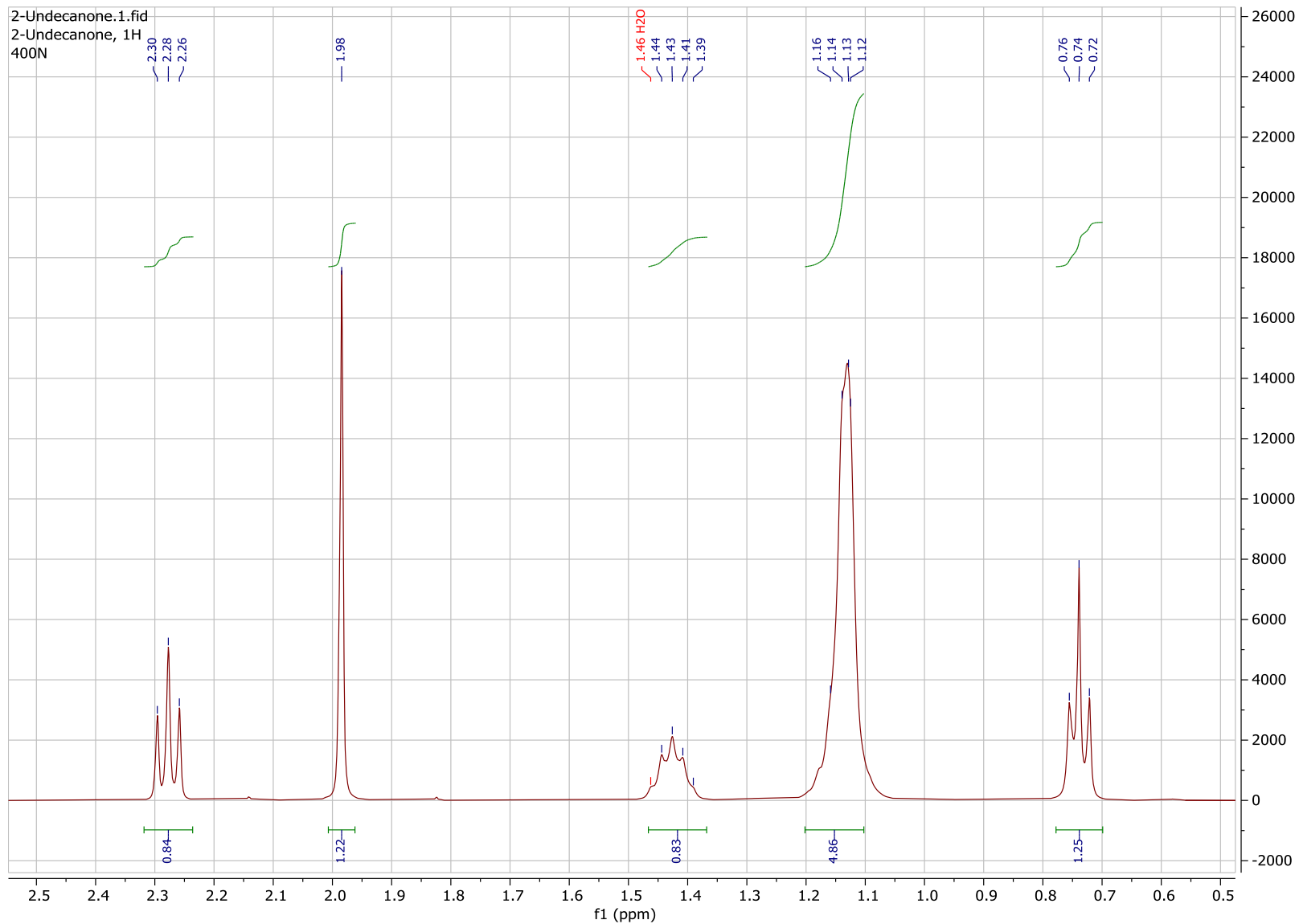
† These authors contributed equally to this work.

# Supplementary Information

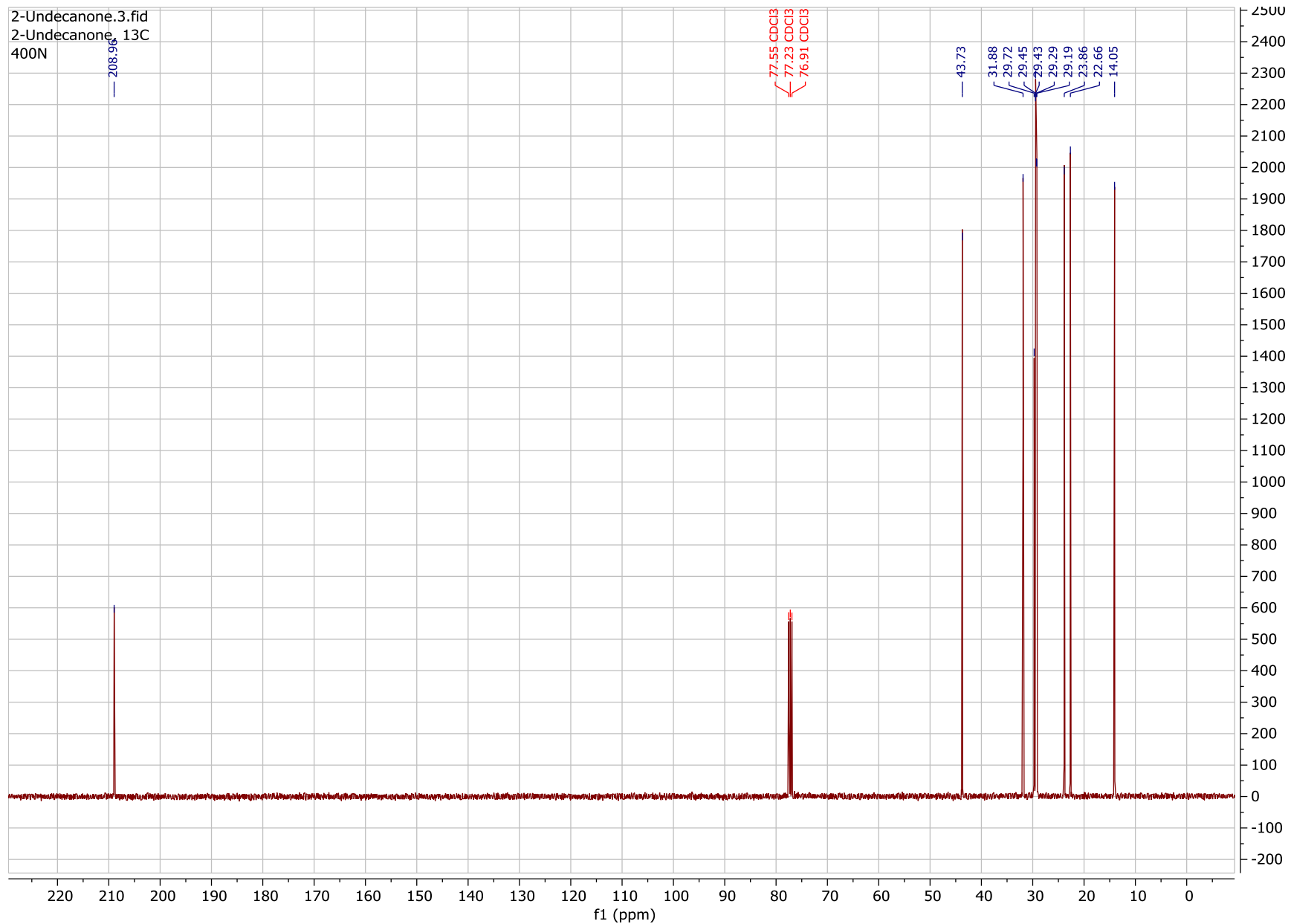
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## Supplementary Information

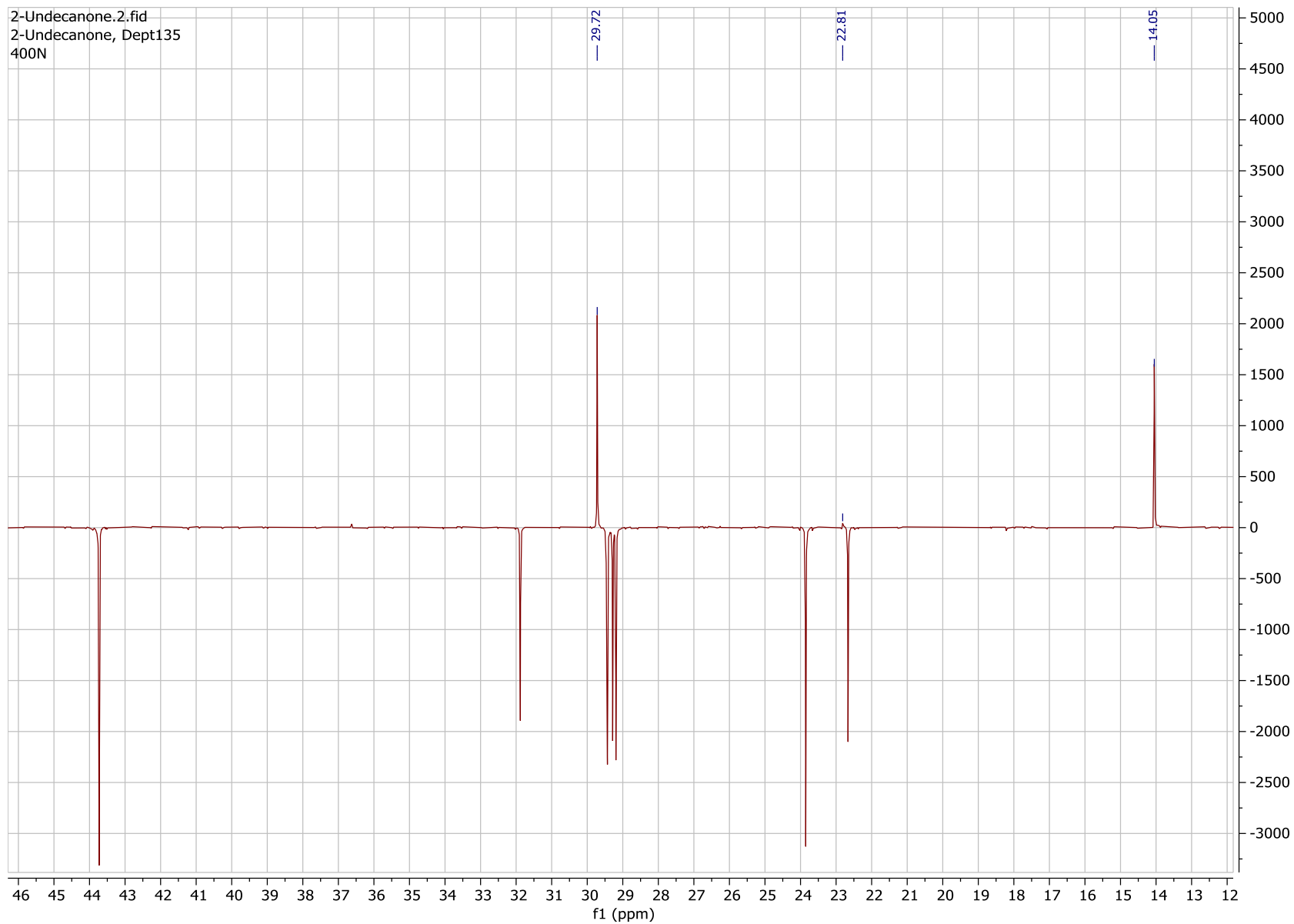
Page Number	Figure
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Figure S25	$^{13}\text{C}$ NMR spectrum of <b>2f</b>
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Figure S27	HRMS of <b>2f</b>



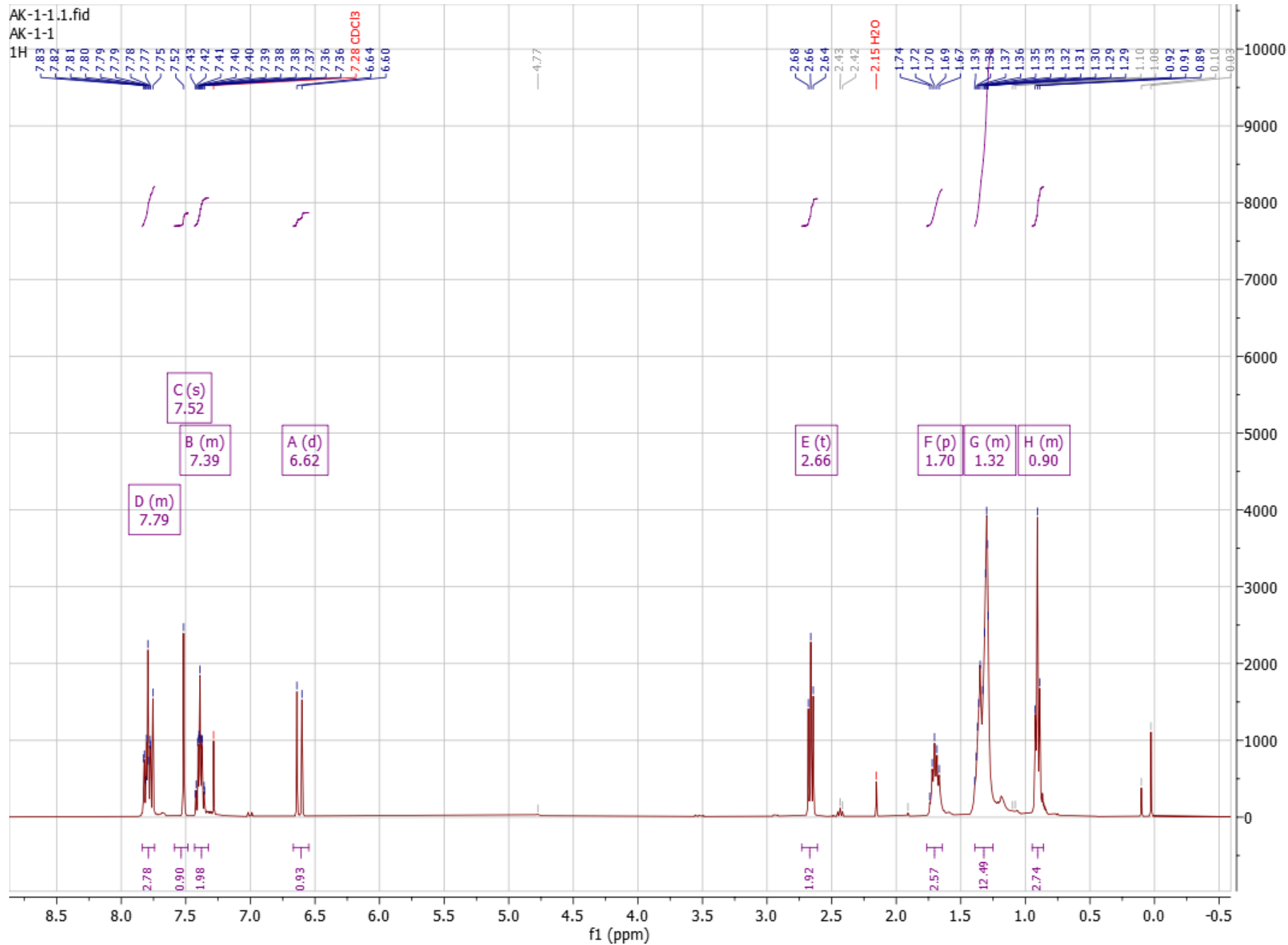
**Figure S1:**  $^1\text{H}$  NMR spectrum of **1** [400 MHz,  $\text{CDCl}_3$ ]



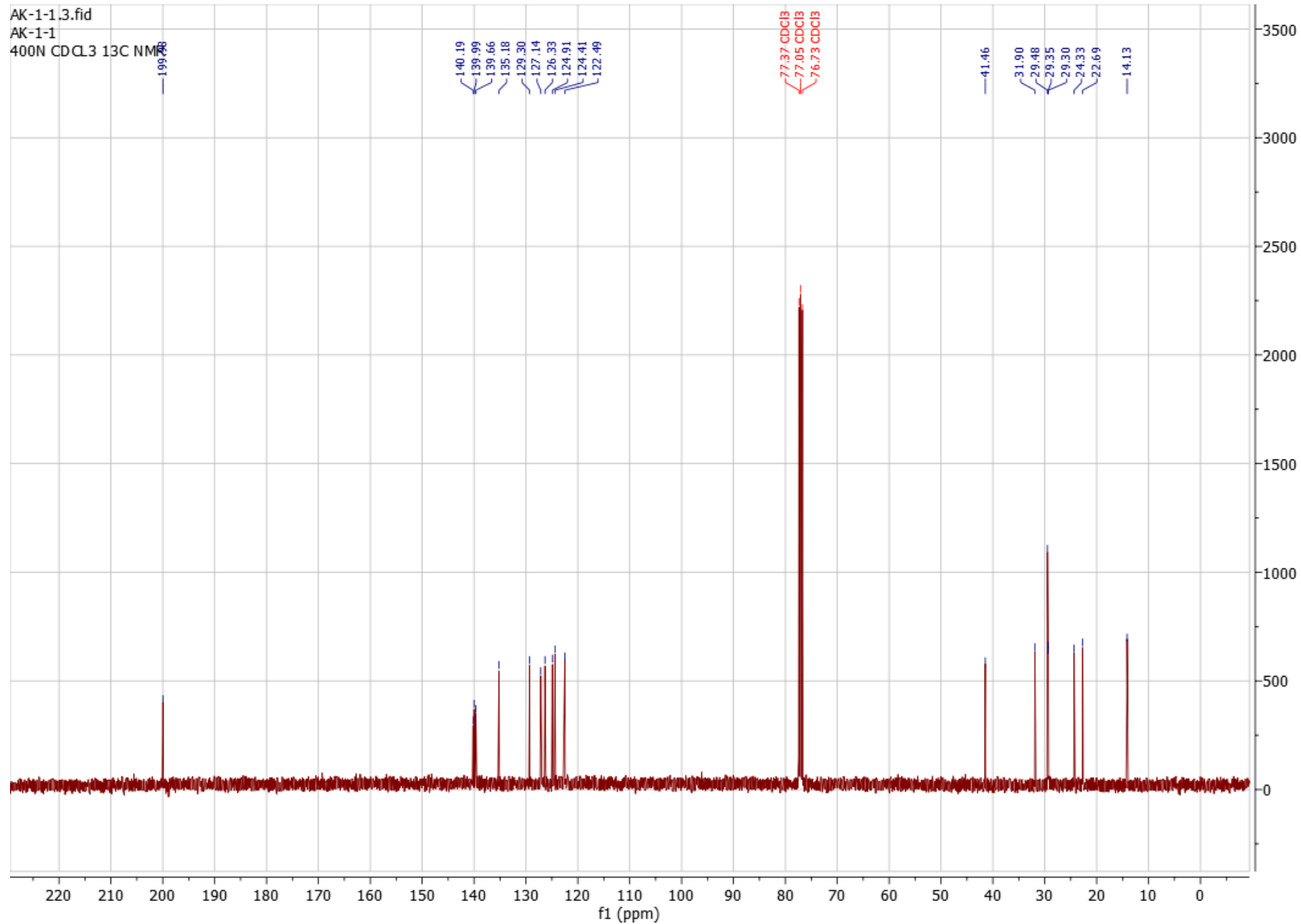
**Figure S2:**  $^{13}\text{C}$  NMR spectrum of **1** [100 MHz,  $\text{CDCl}_3$ ]



**Figure S3:** Dept-135 NMR spectrum of **1** [400 MHz, CDCl<sub>3</sub>]



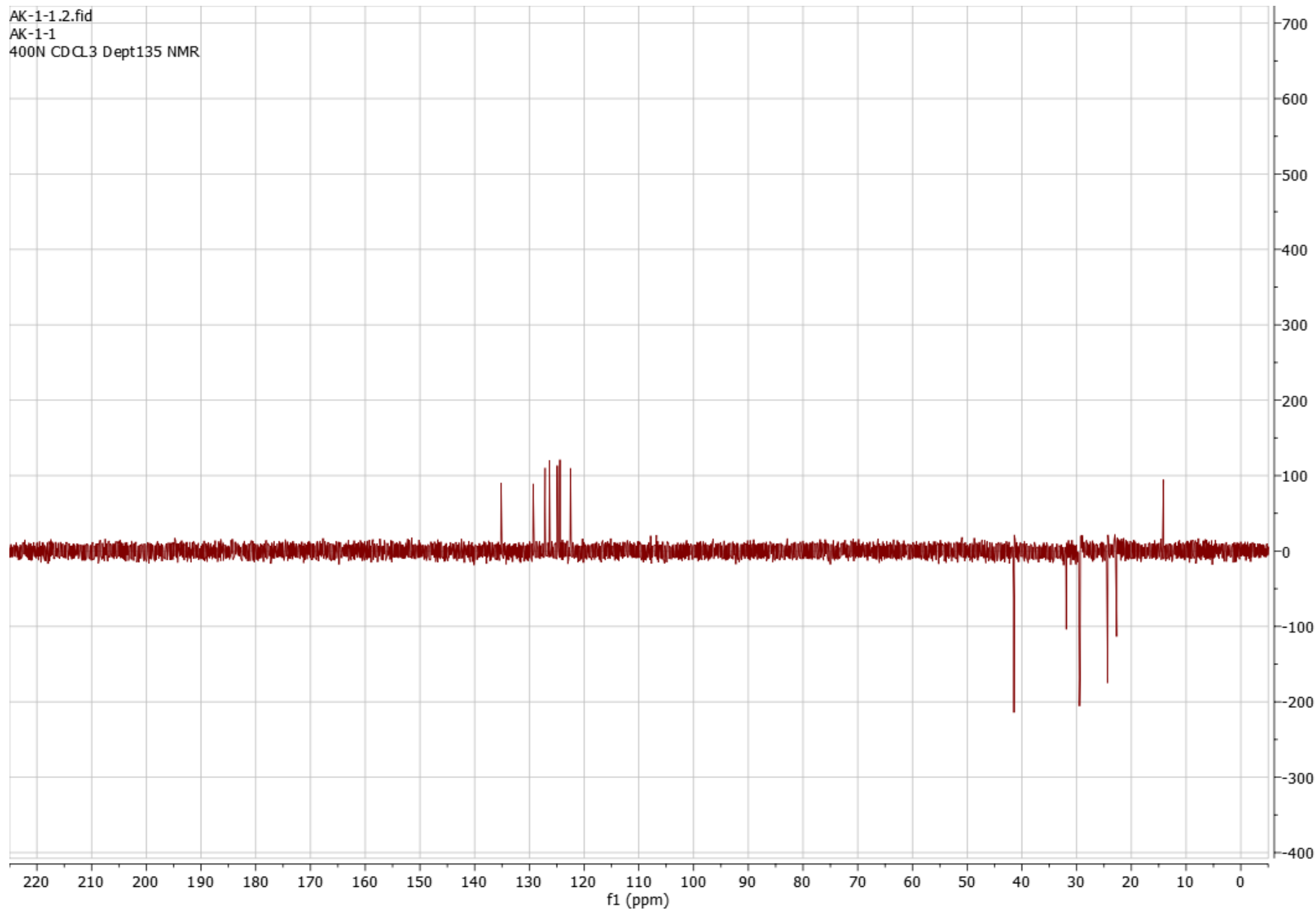
**Figure S4:** <sup>1</sup>H NMR spectrum of **2a** [400 MHz, CDCl<sub>3</sub>]



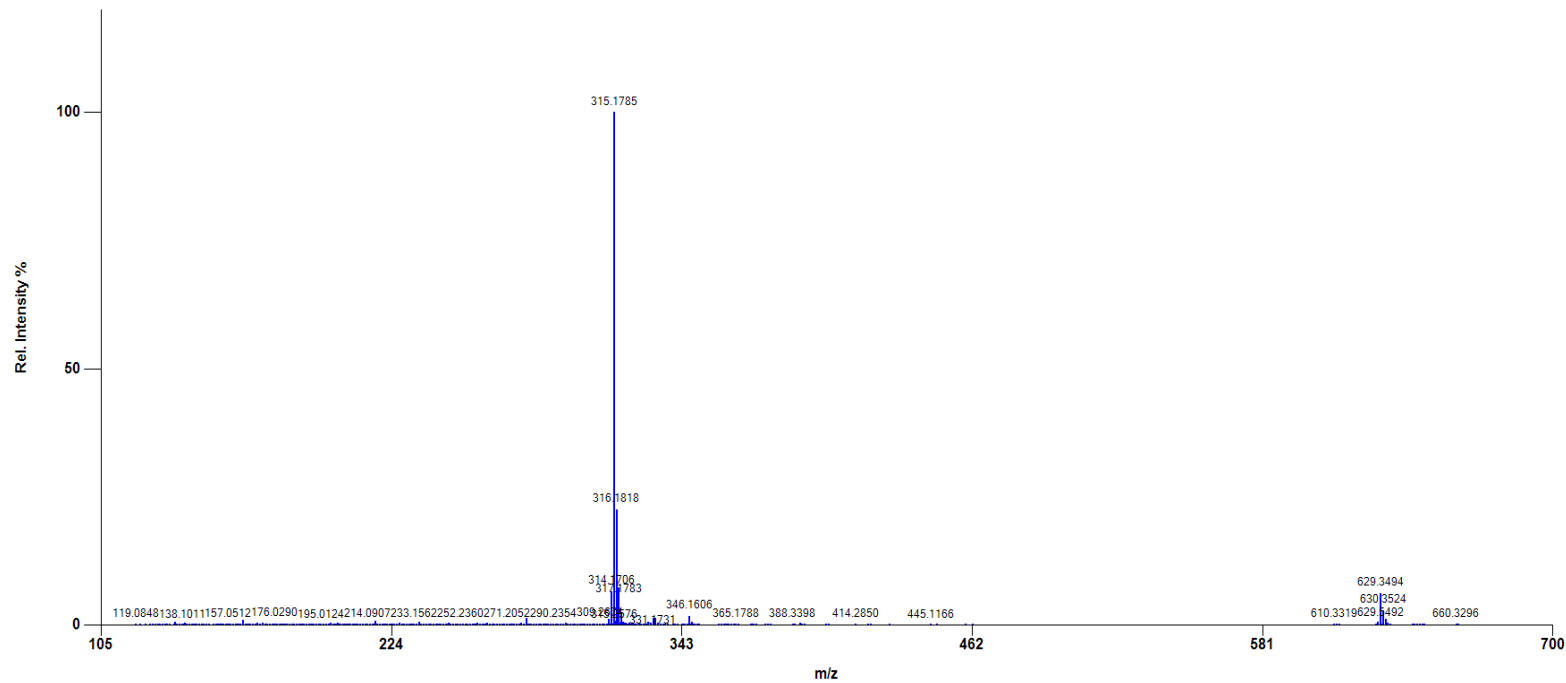
**Figure S5:** <sup>13</sup>C NMR spectrum of **2a** [100 MHz, CDCl<sub>3</sub>]



AK-1-1.2.fid  
AK-1-1  
400N CDCl<sub>3</sub> Dept135 NMR

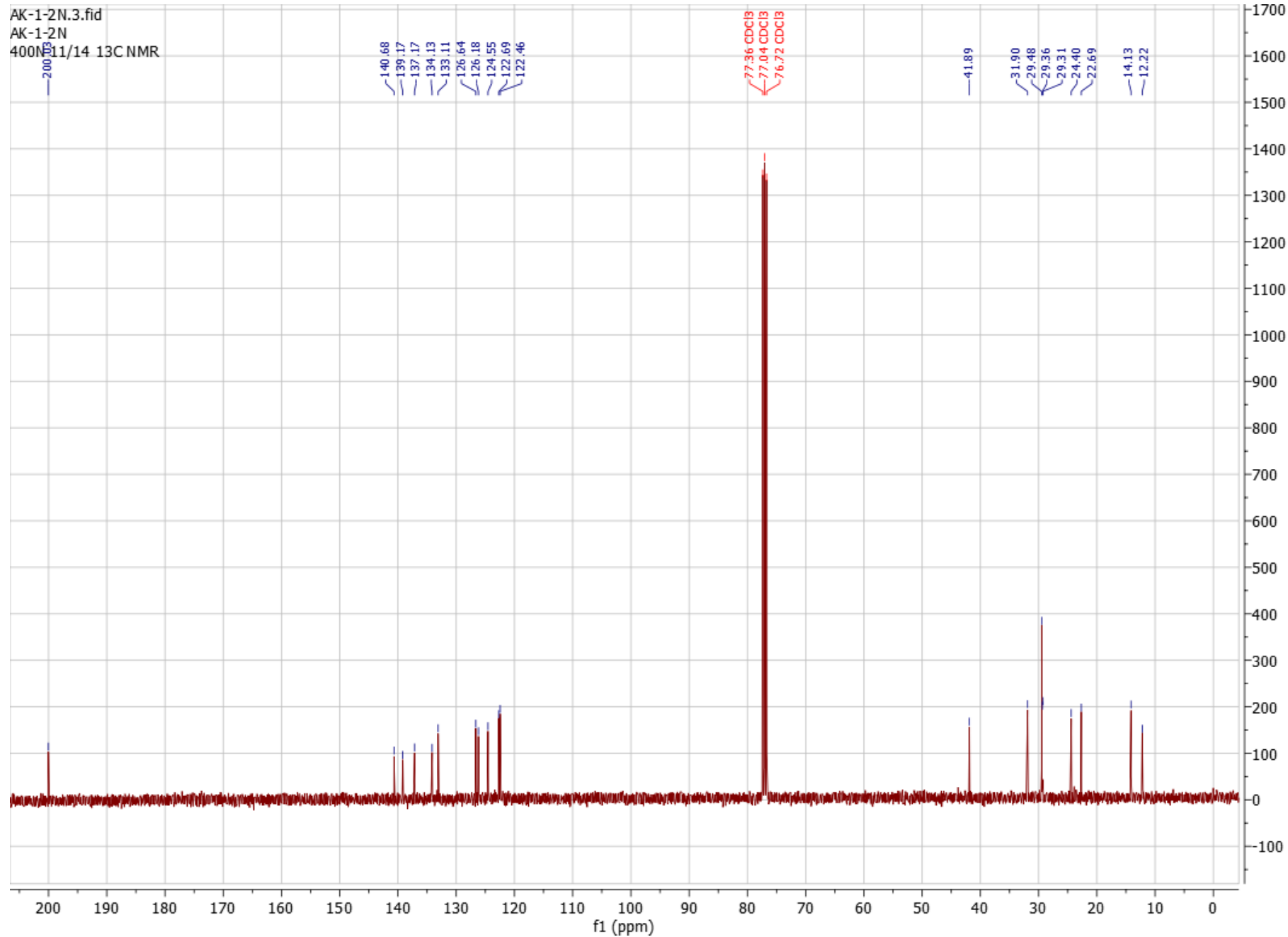


**Figure S6:** Dept-135 NMR spectrum of **2a** [400 MHz, CDCl<sub>3</sub>]

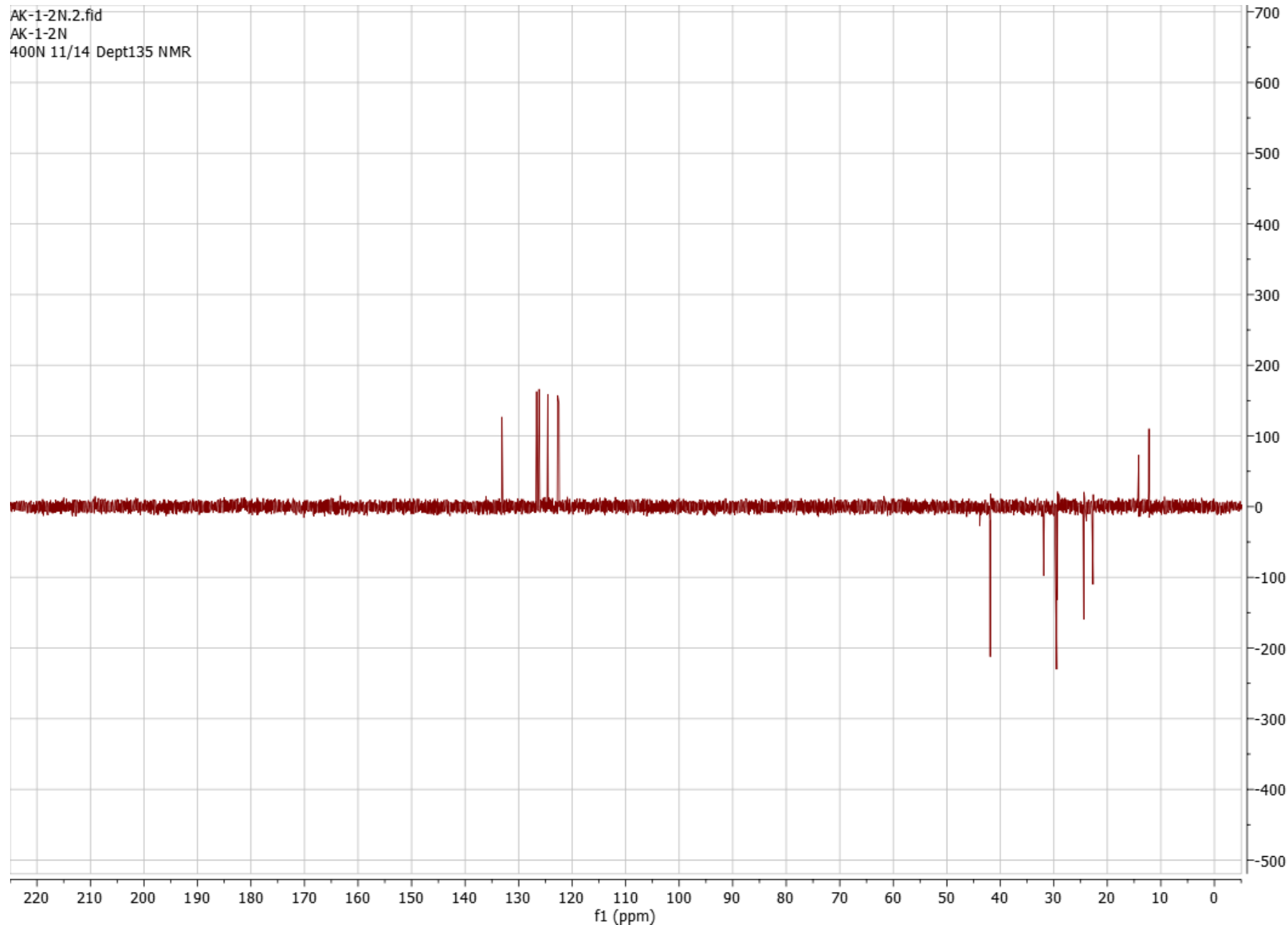


**Figure S7: HRMS of 2a**



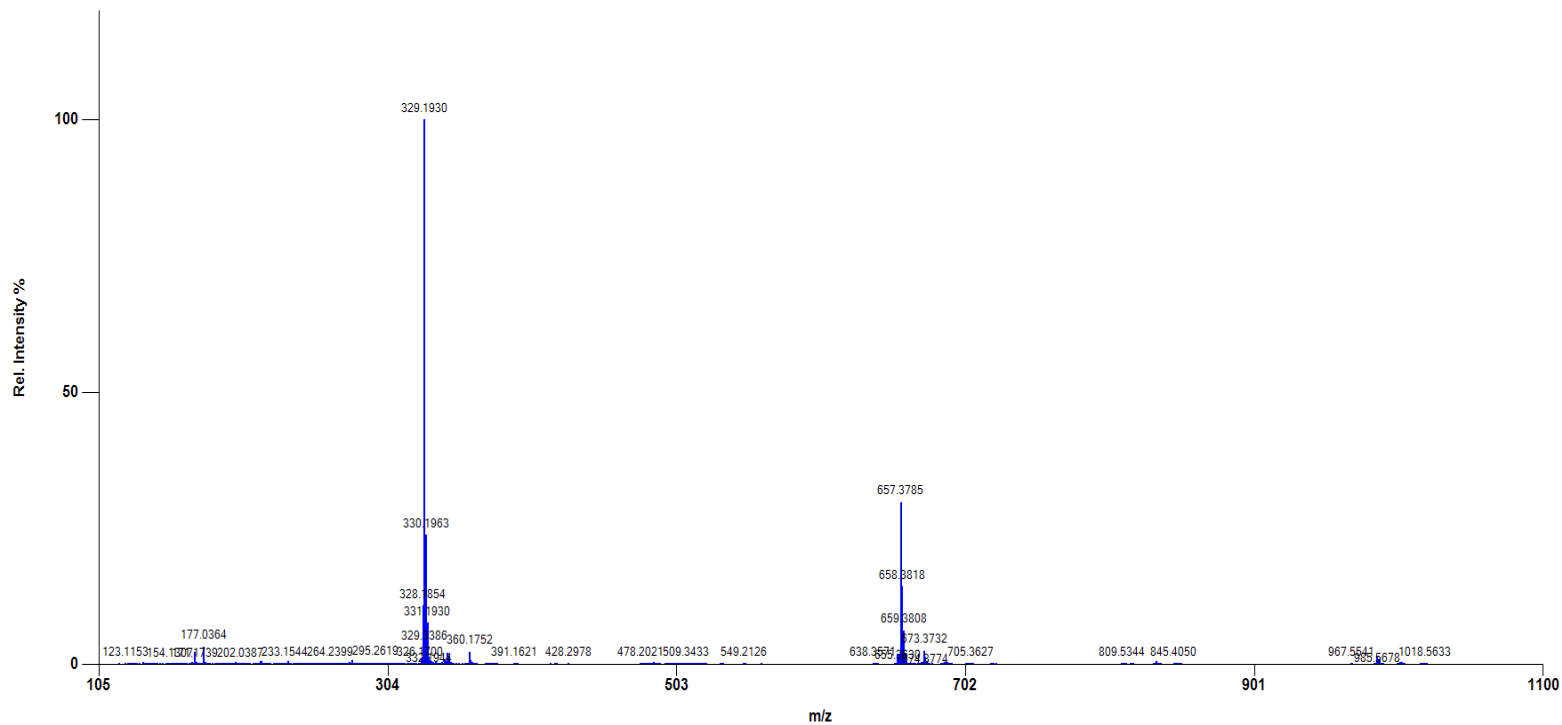


**Figure S9:**  $^{13}\text{C}$  NMR spectrum of **2b** [100 MHz,  $\text{CDCl}_3$ ]



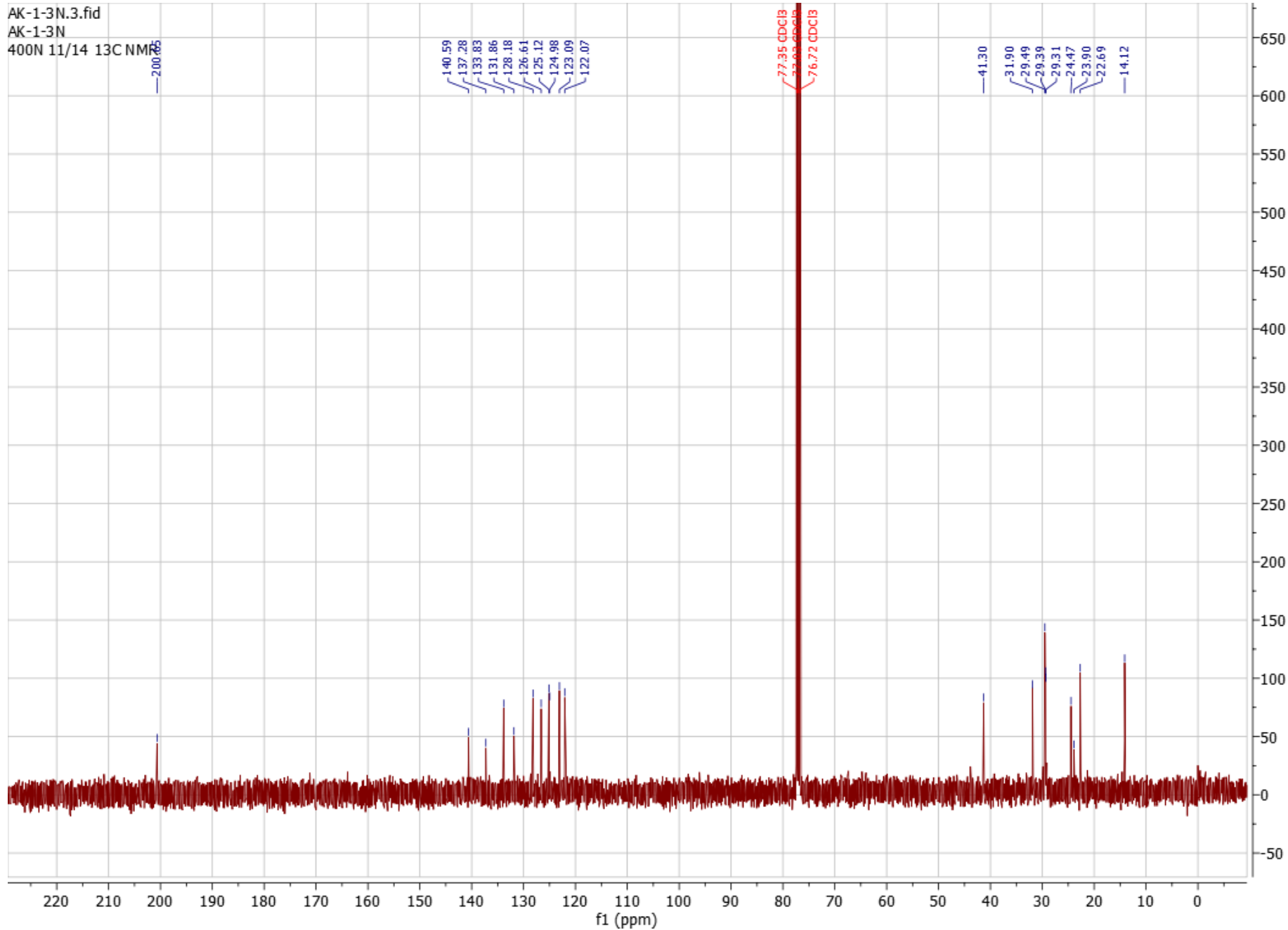
**Figure S10:** Dept-135 NMR spectrum of **2b** [400 MHz,  $\text{CDCl}_3$ ]

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**Figure S11: HRMS of 2b**

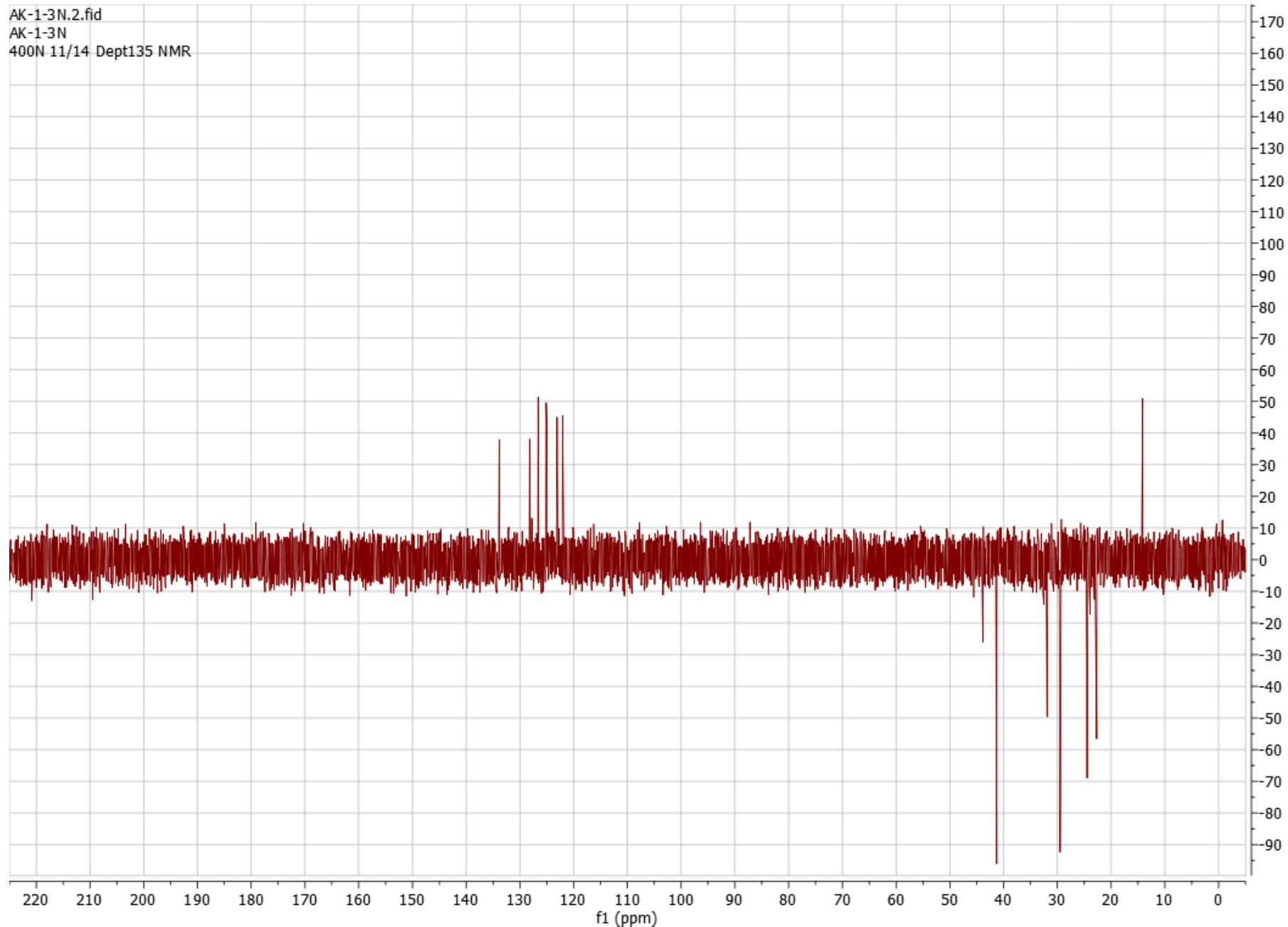




**Figure S13:**  $^{13}\text{C}$  NMR spectrum of **2c** [100 MHz,  $\text{CDCl}_3$ ]

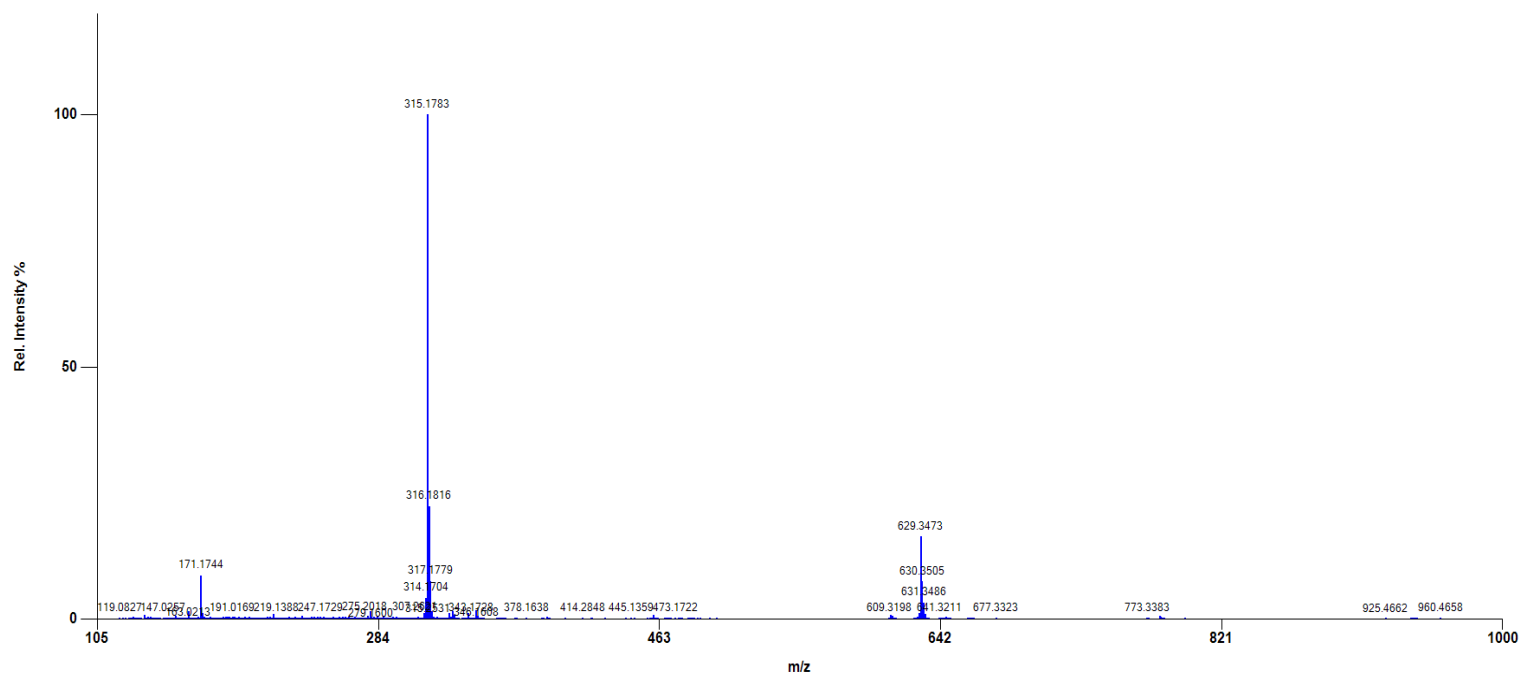


AK-1-3N.2.fid  
AK-1-3N  
400N 11/14 Dept135 NMR

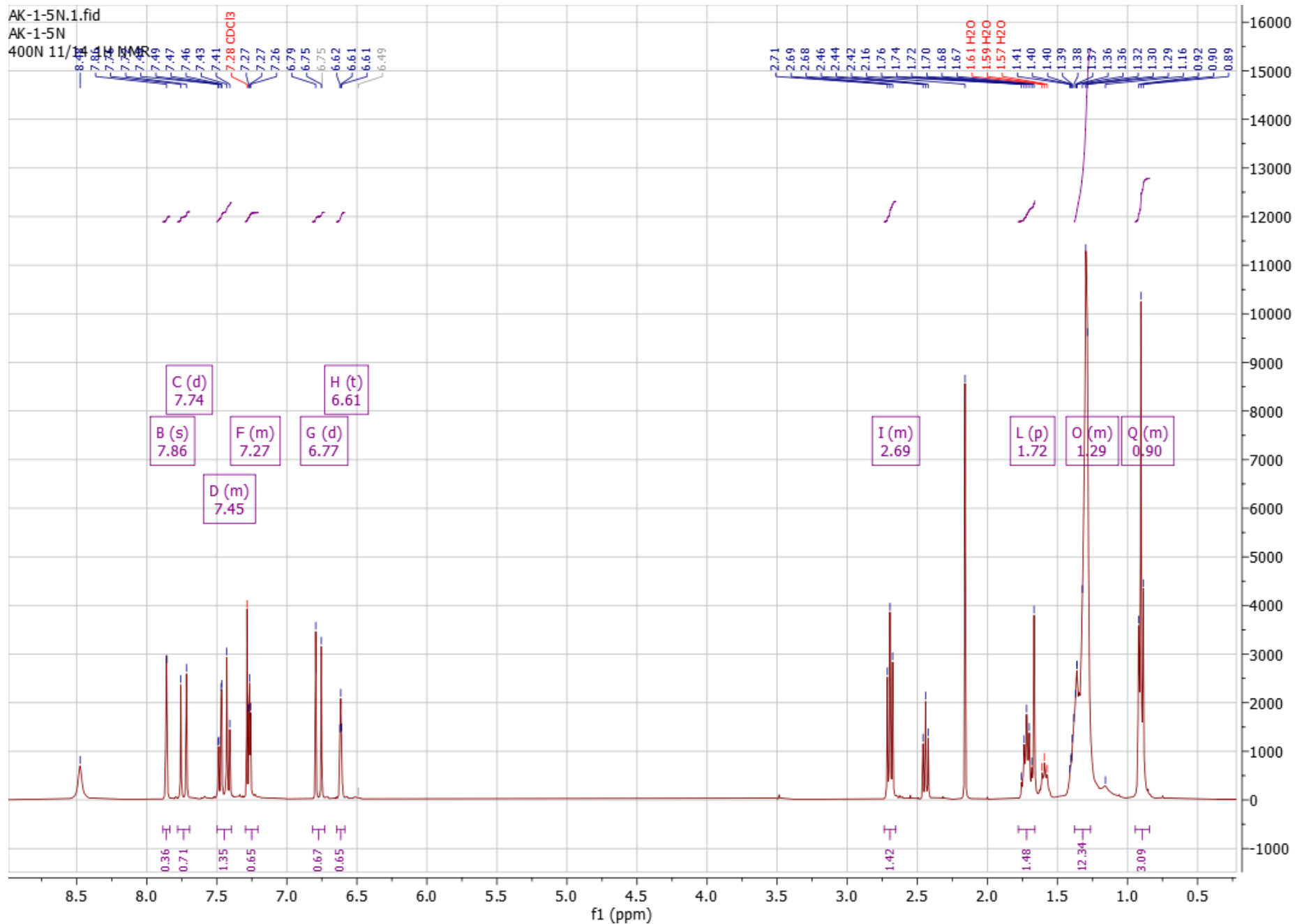


**Figure S14:** Dept-135 NMR spectrum of **2c** [400 MHz,  $\text{CDCl}_3$ ]

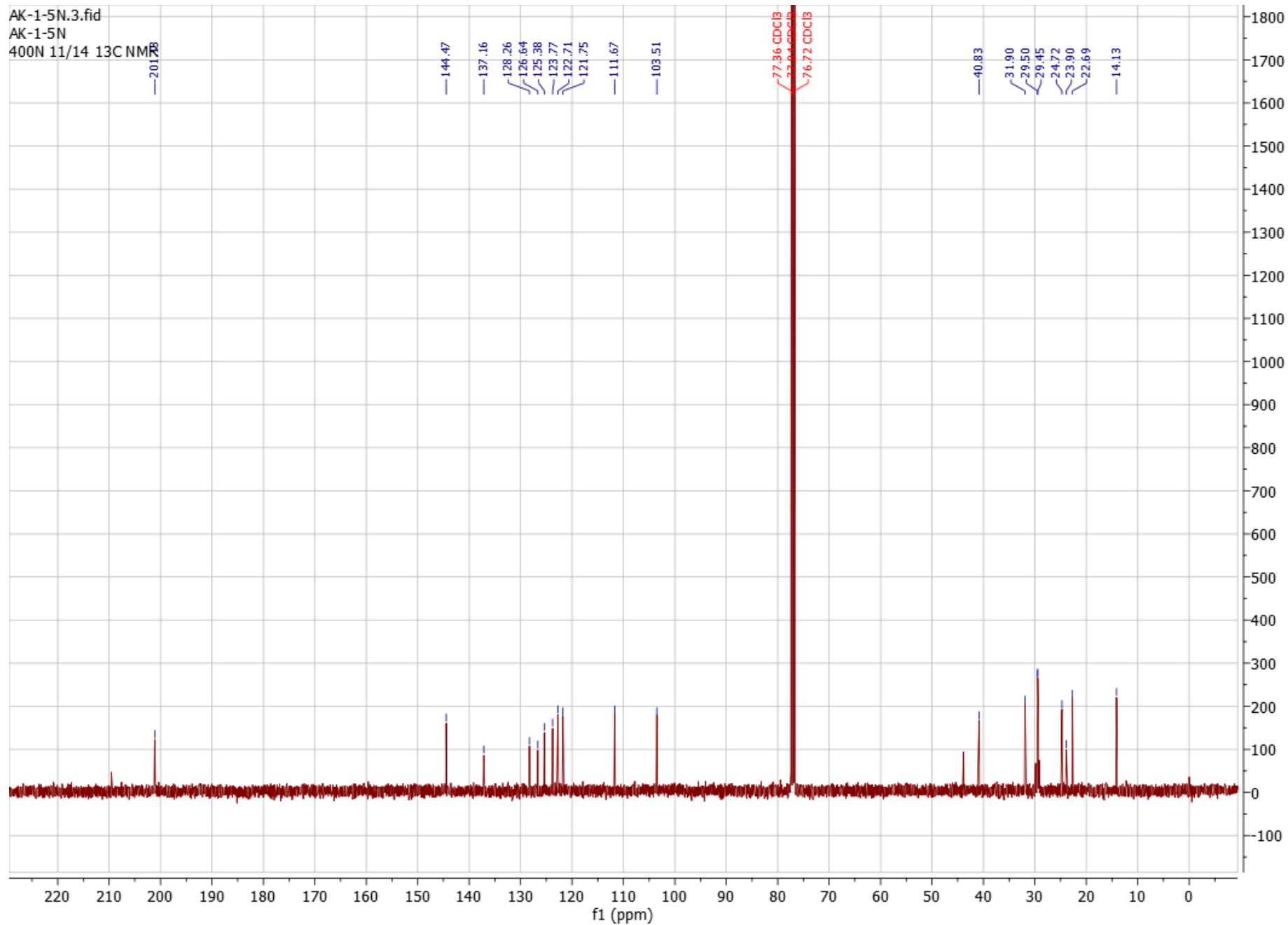
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**Figure S15: HRMS of 2c**

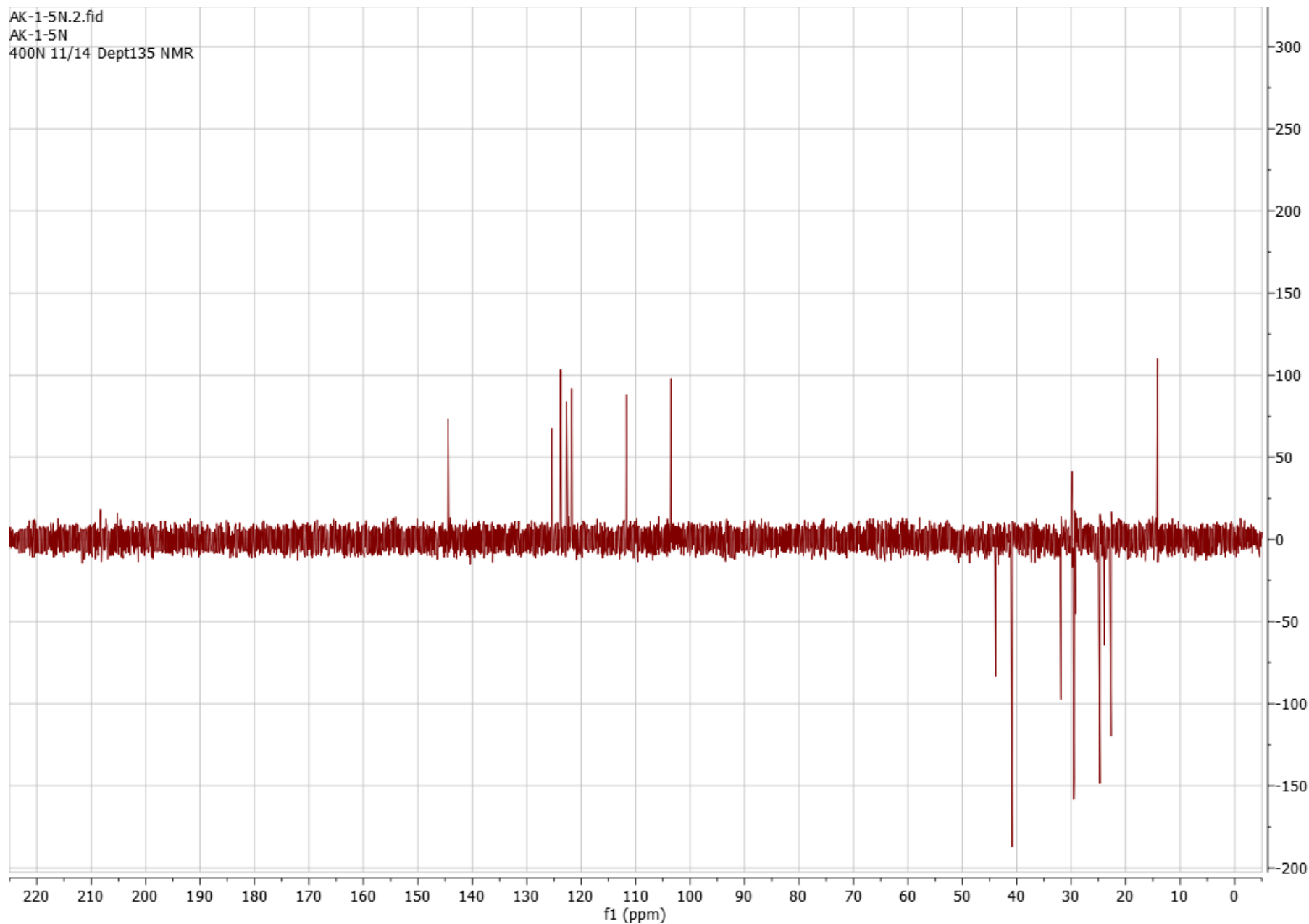


**Figure S16:**  $^1\text{H}$  NMR spectrum of **2d** [400 MHz,  $\text{CDCl}_3$ ]



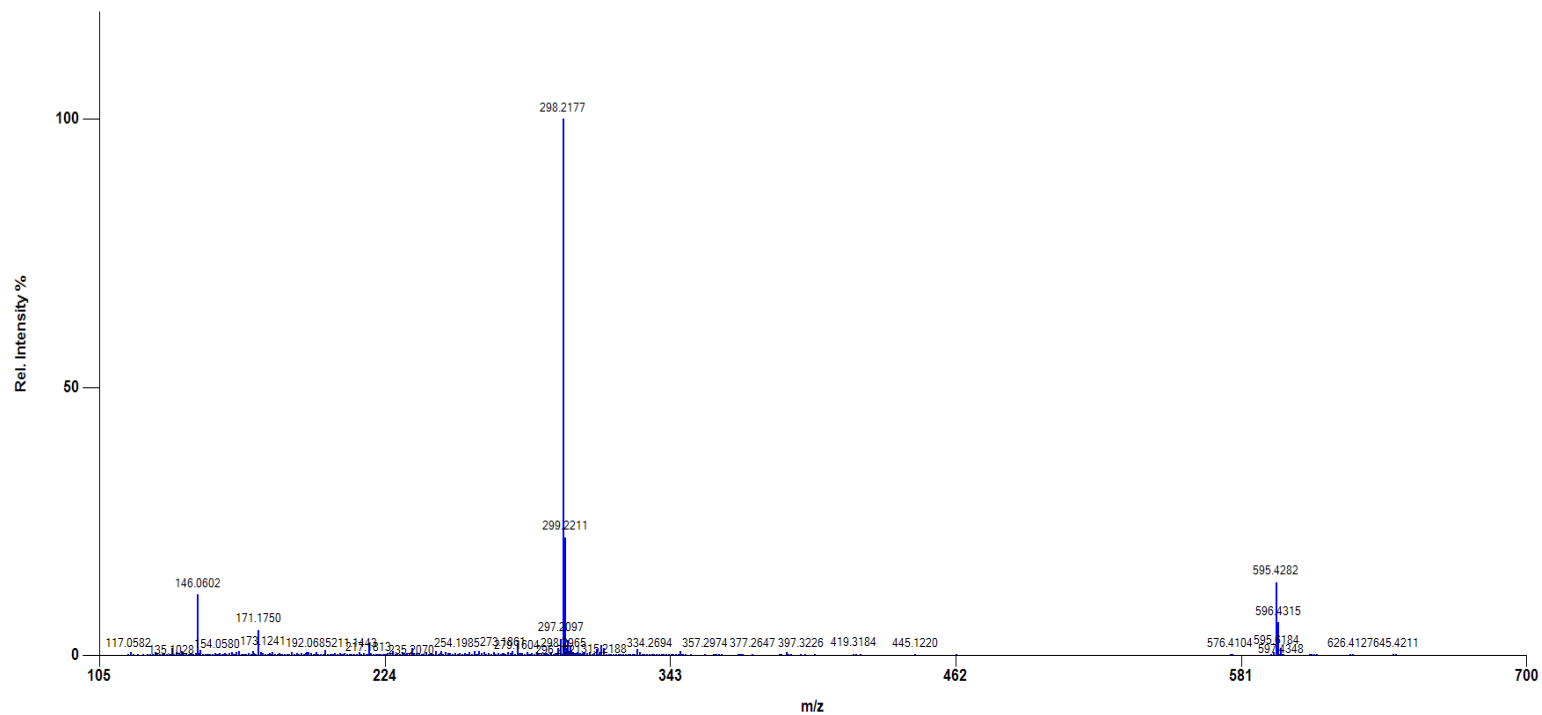
**Figure S17:**  $^{13}\text{C}$  NMR spectrum of **2d** [100 MHz,  $\text{CDCl}_3$ ]

AK-1-5N.2.fid  
AK-1-5N  
400N 11/14 Dept135 NMR

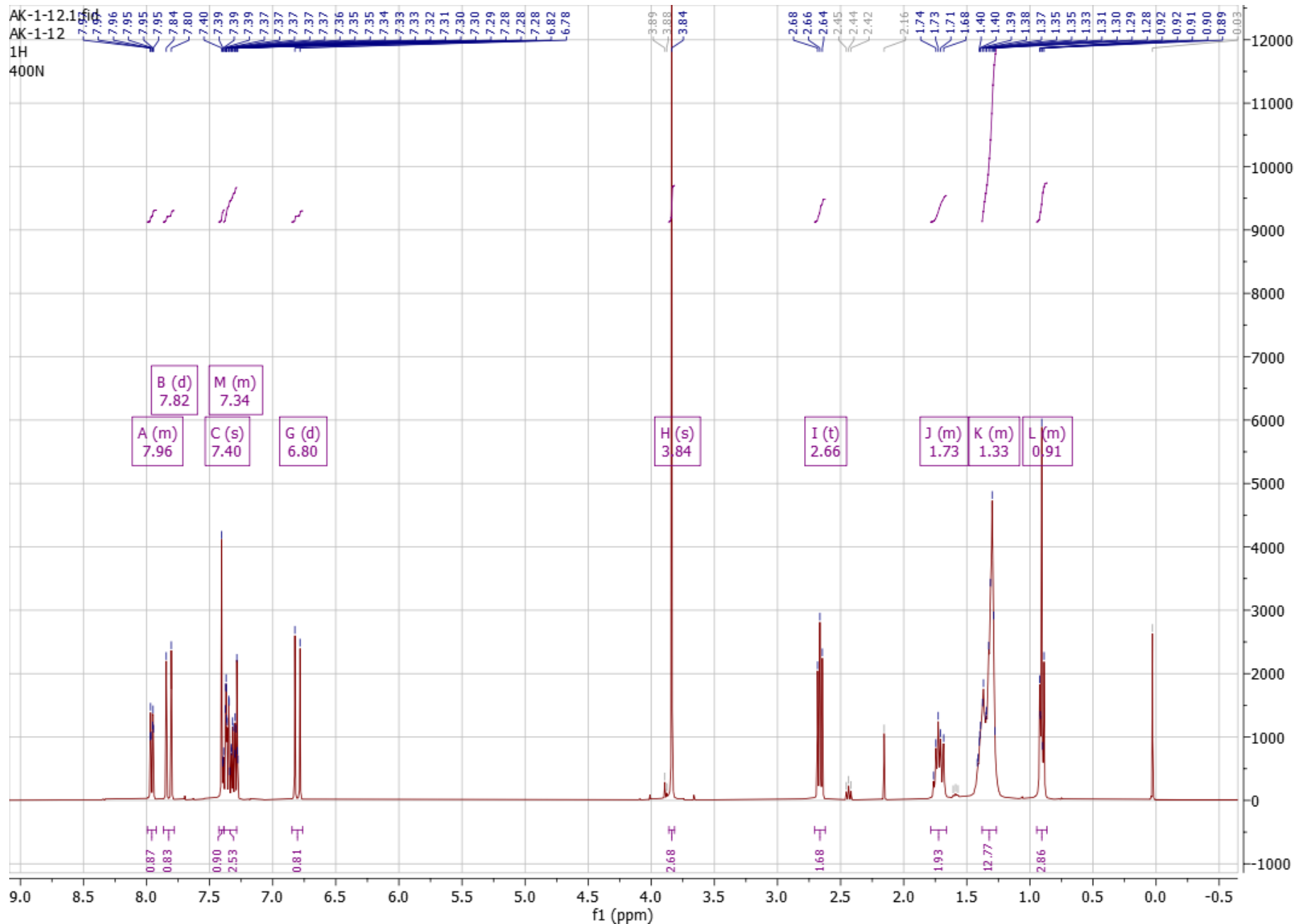


**Figure S18:** Dept-135 NMR spectrum of **2d** [400 MHz,  $\text{CDCl}_3$ ]

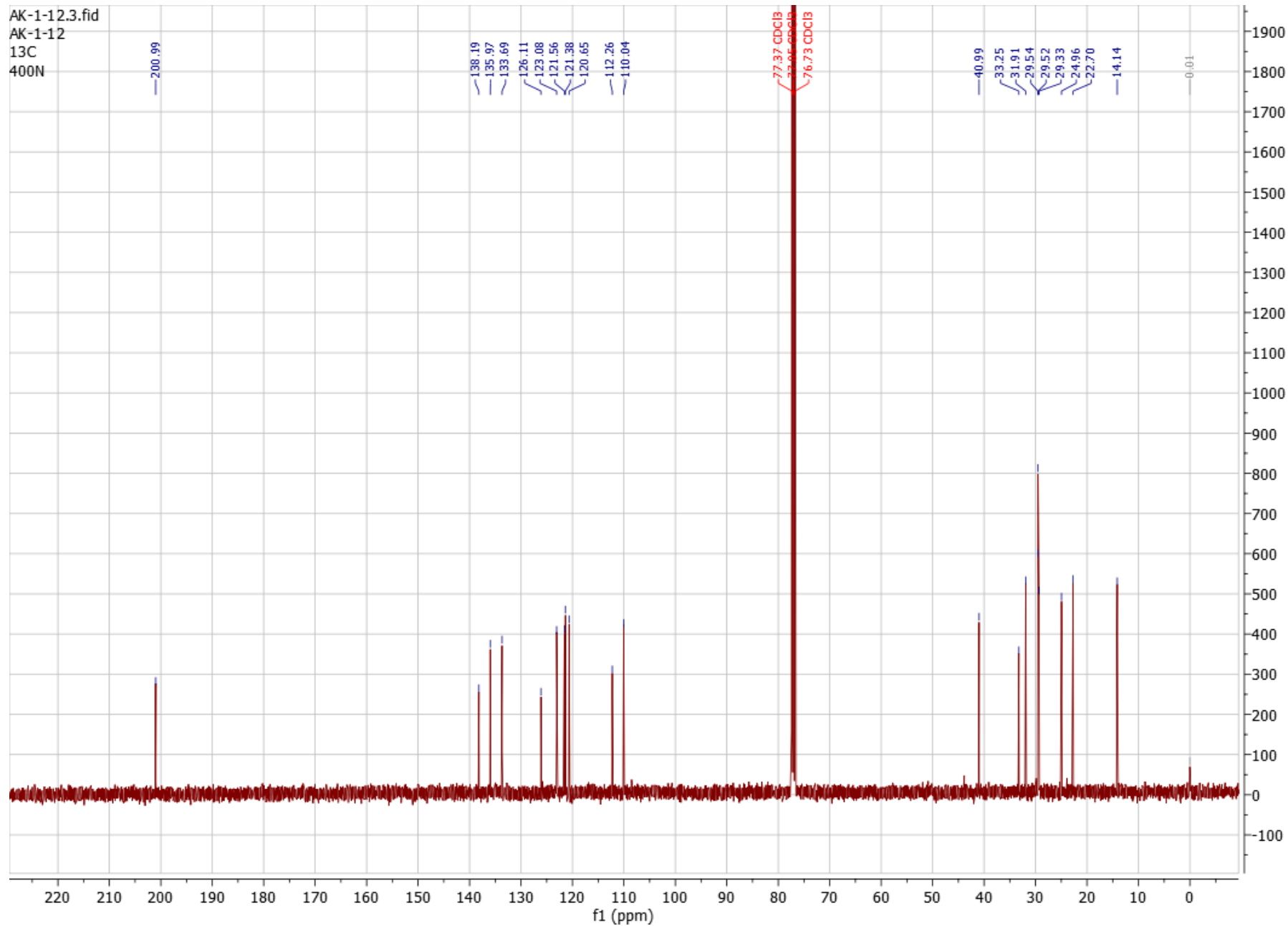
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**Figure S19: HRMS of 2d**

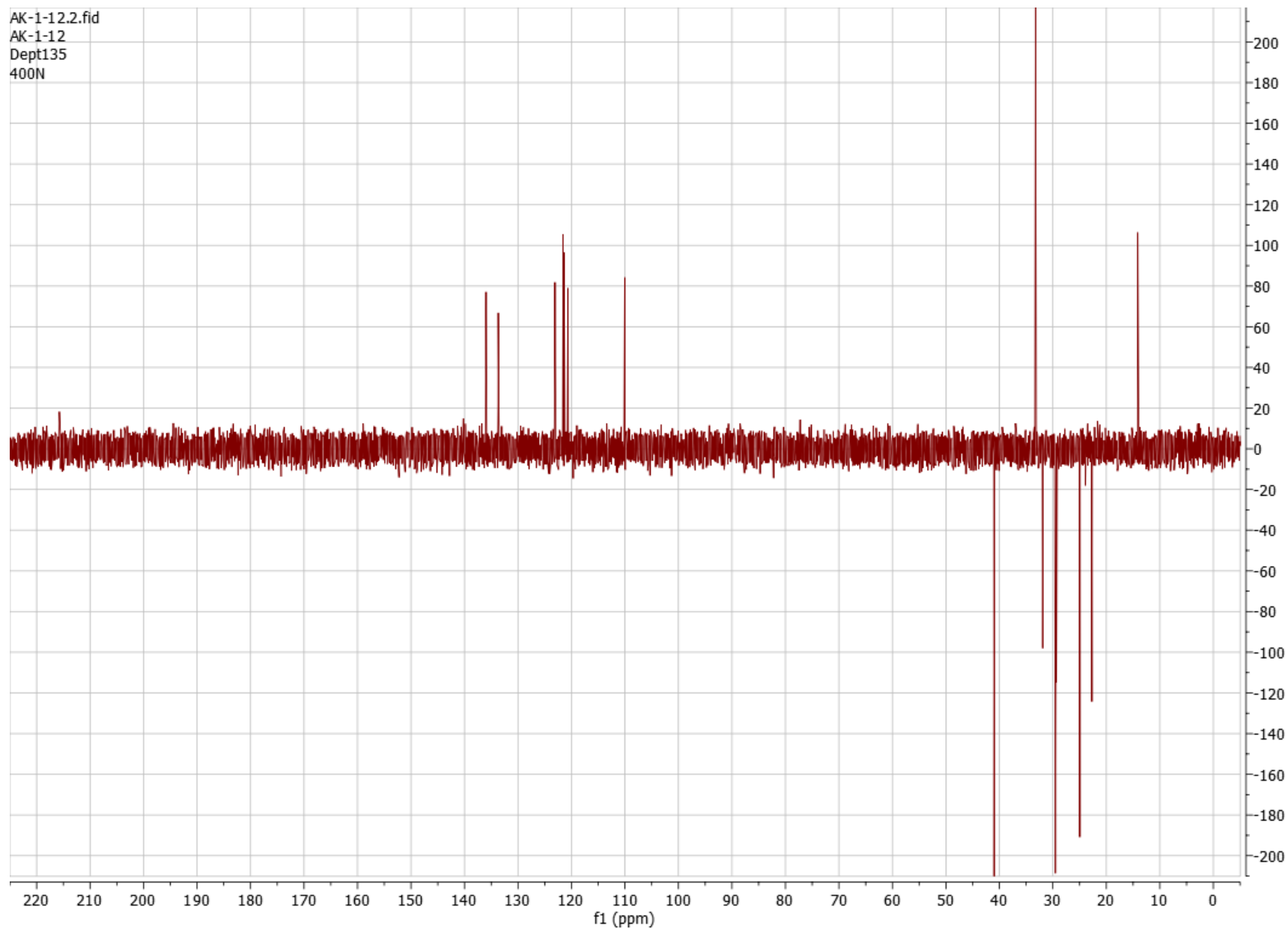


**Figure S20:**  $^1\text{H}$  NMR spectrum of **2e** [400 MHz,  $\text{CDCl}_3$ ]

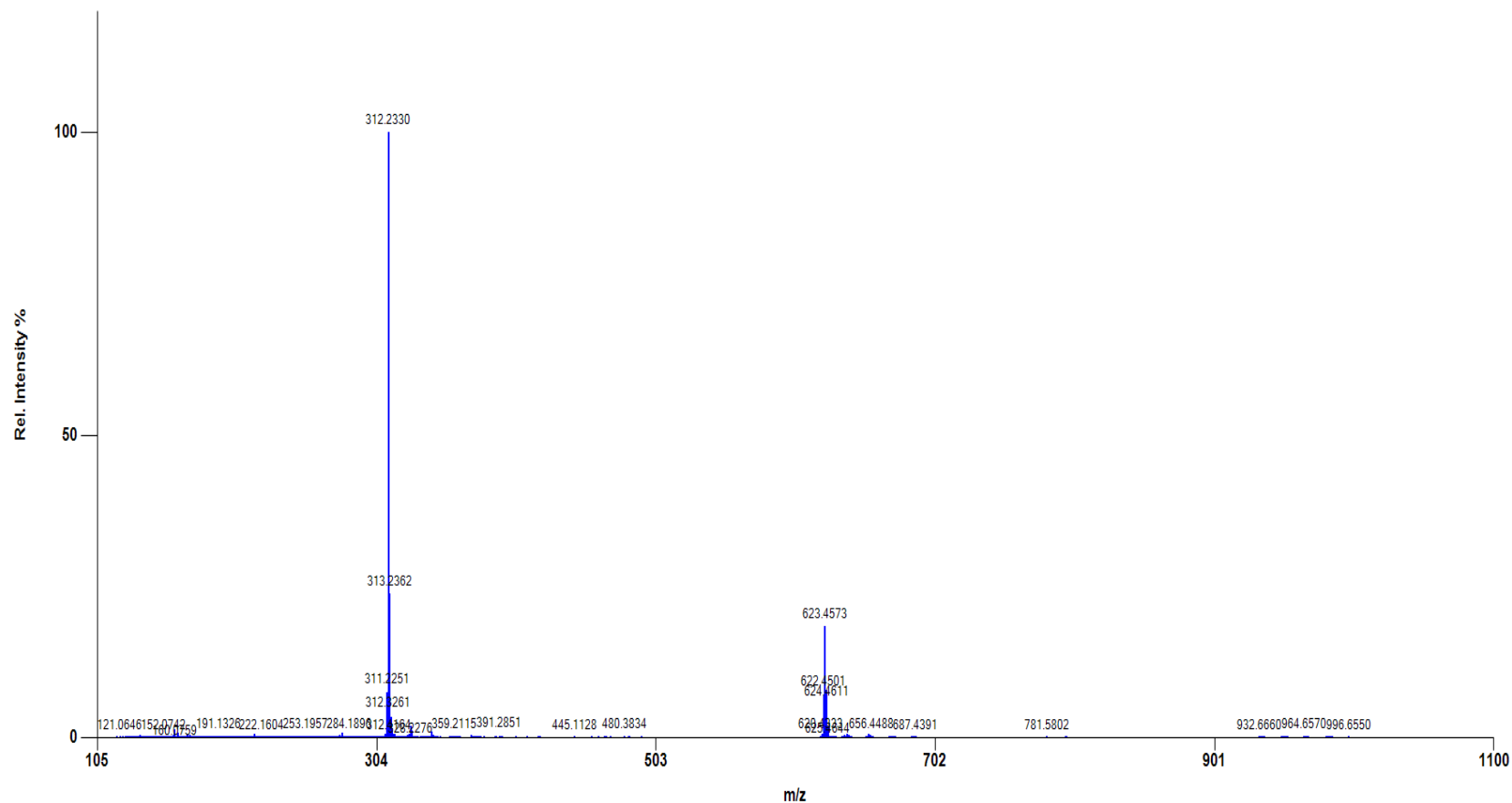


**Figure S21:** <sup>13</sup>C NMR spectrum of **2e** [100 MHz, CDCl<sub>3</sub>]

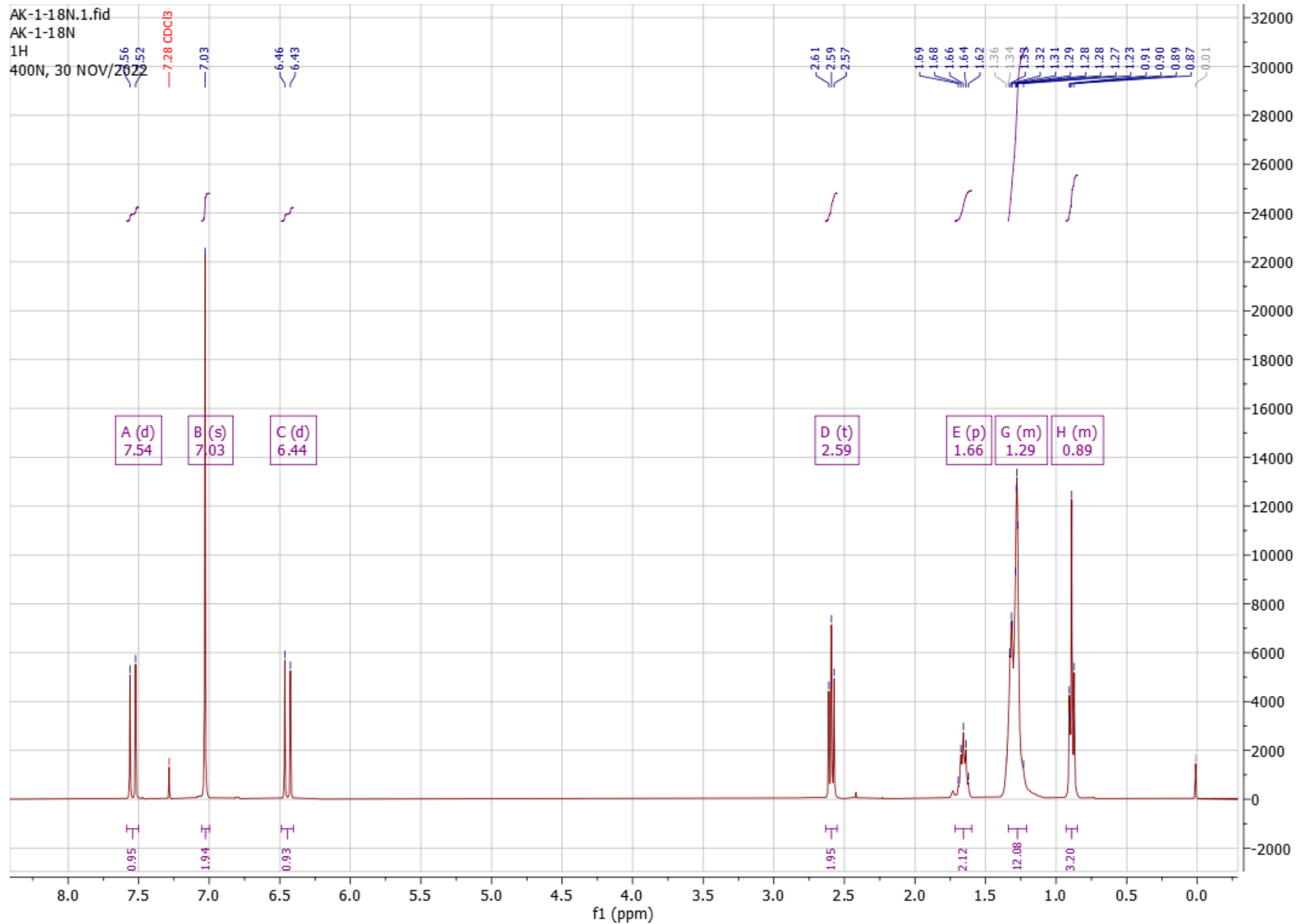




**Figure S22:** Dept-135 NMR spectrum of **2e** [400 MHz,  $\text{CDCl}_3$ ]

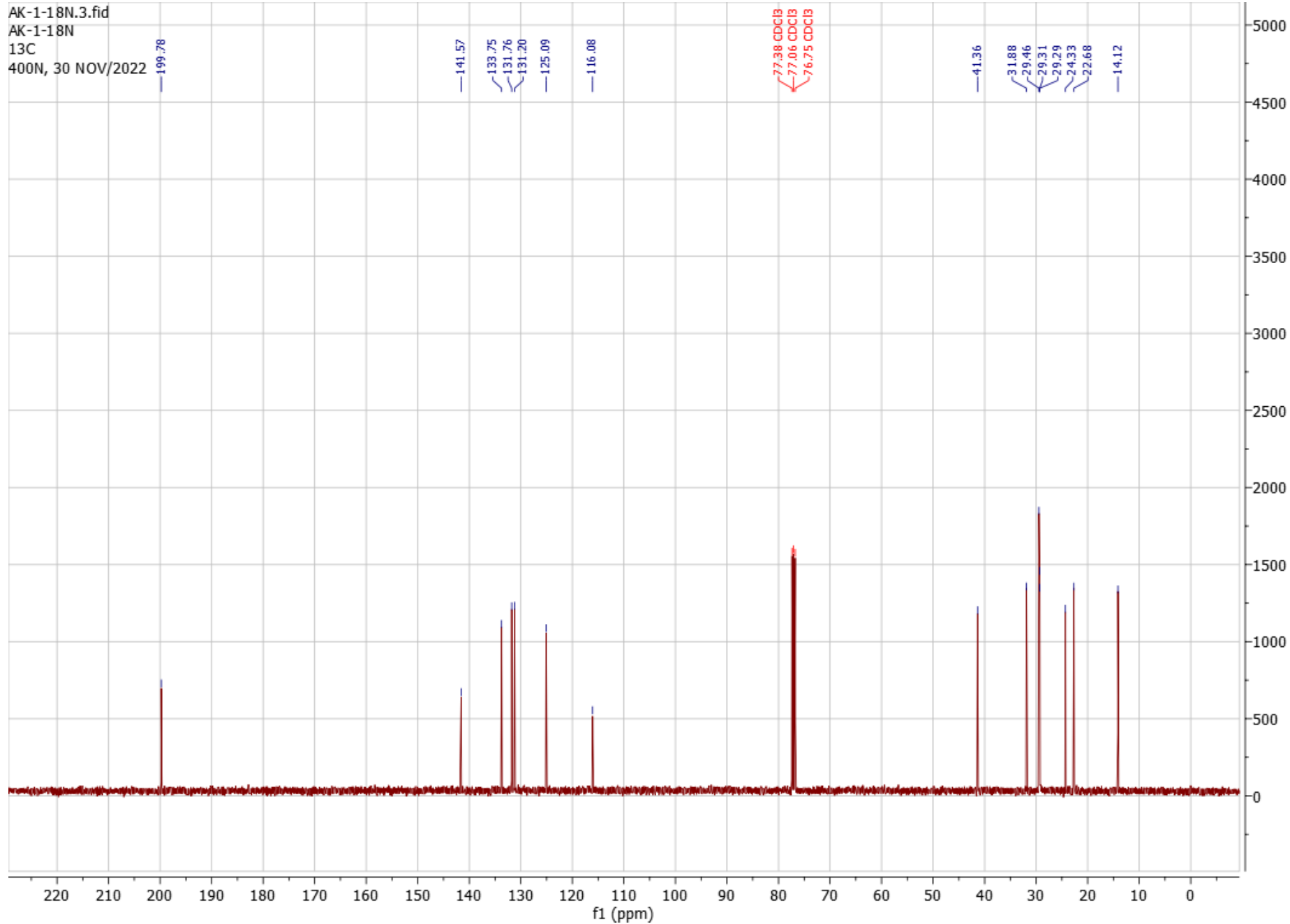


**Figure S23: HRMS of 2e**

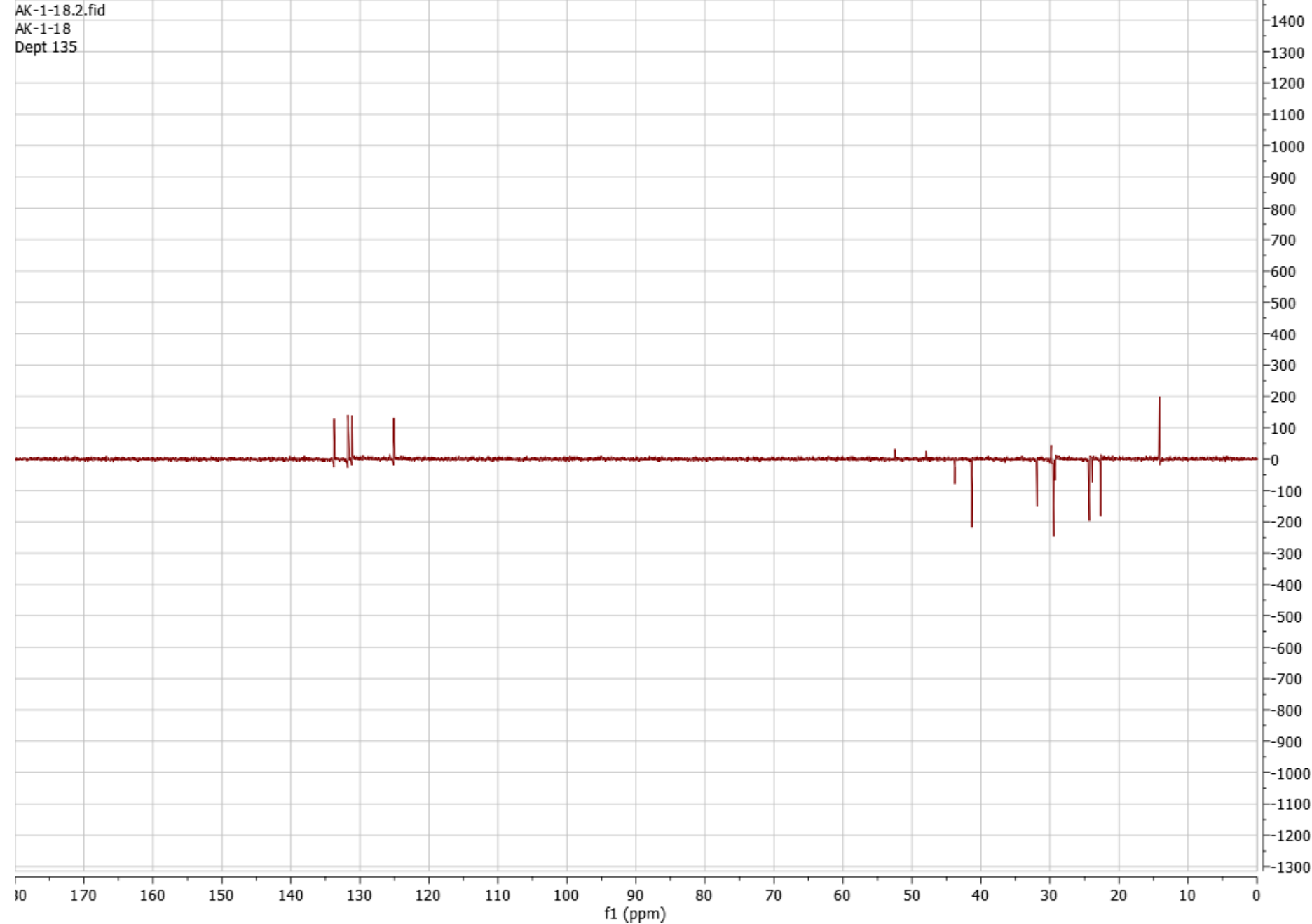


**Figure S24:** <sup>1</sup>H NMR spectrum of **2f** [400 MHz, CDCl<sub>3</sub>]

AK-1-18N.3.fid  
AK-1-18N  
13C  
400N, 30 NOV/2022

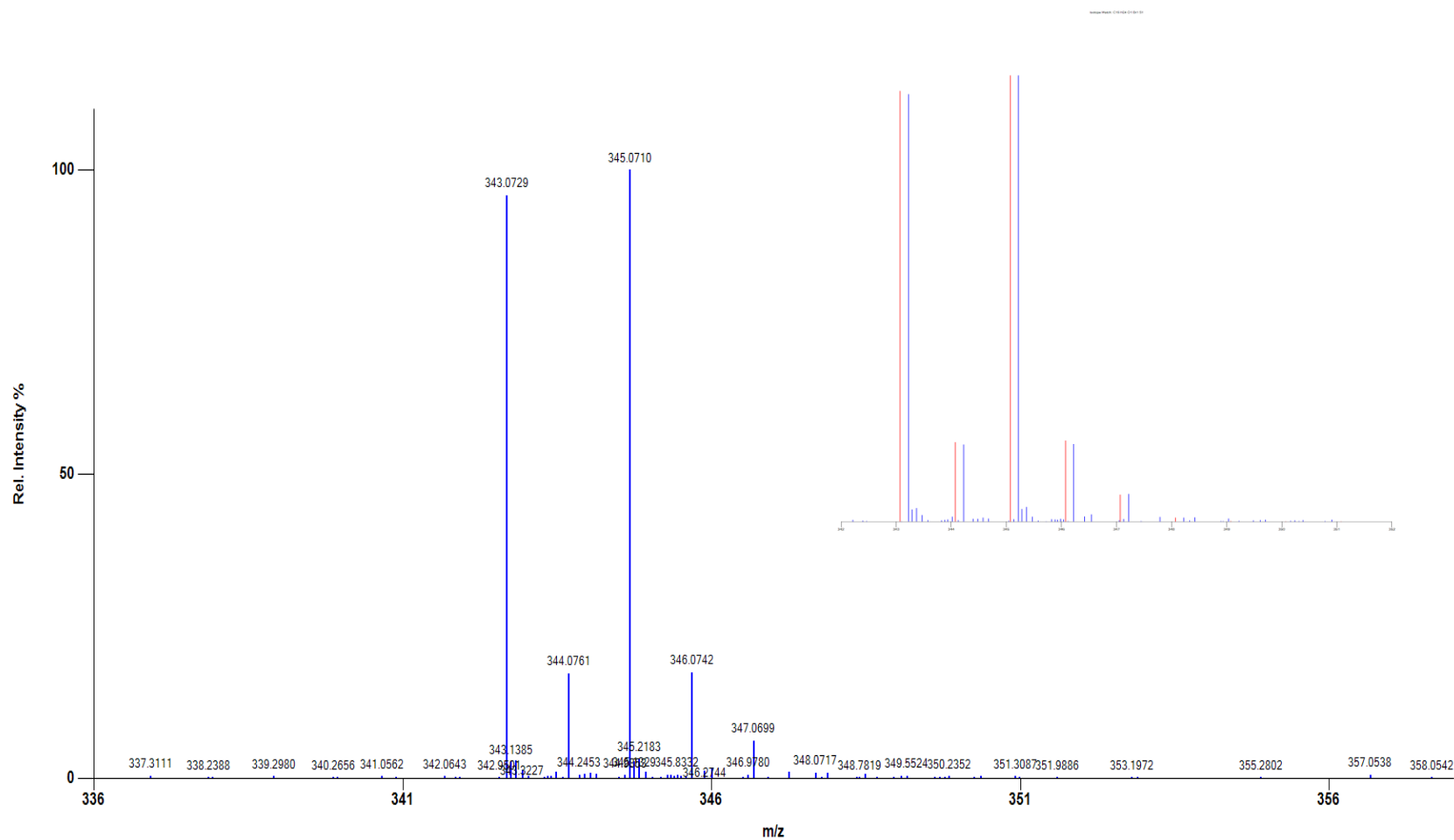


**Figure S25:** <sup>13</sup>C NMR spectrum of **2f** [100 MHz, CDCl<sub>3</sub>]



**Figure S26:** Dep-135 NMR spectrum of **2f** [400 MHz, CDCl<sub>3</sub>]

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**Figure S27: HRMS of 2f**