

# ROESY NMR to distinguish between D- and L-Rhamnose in $\alpha$ -D-Manp-(1 $\rightarrow$ 4)- $\beta$ -Rhap-(1 $\rightarrow$ 3)] motif.

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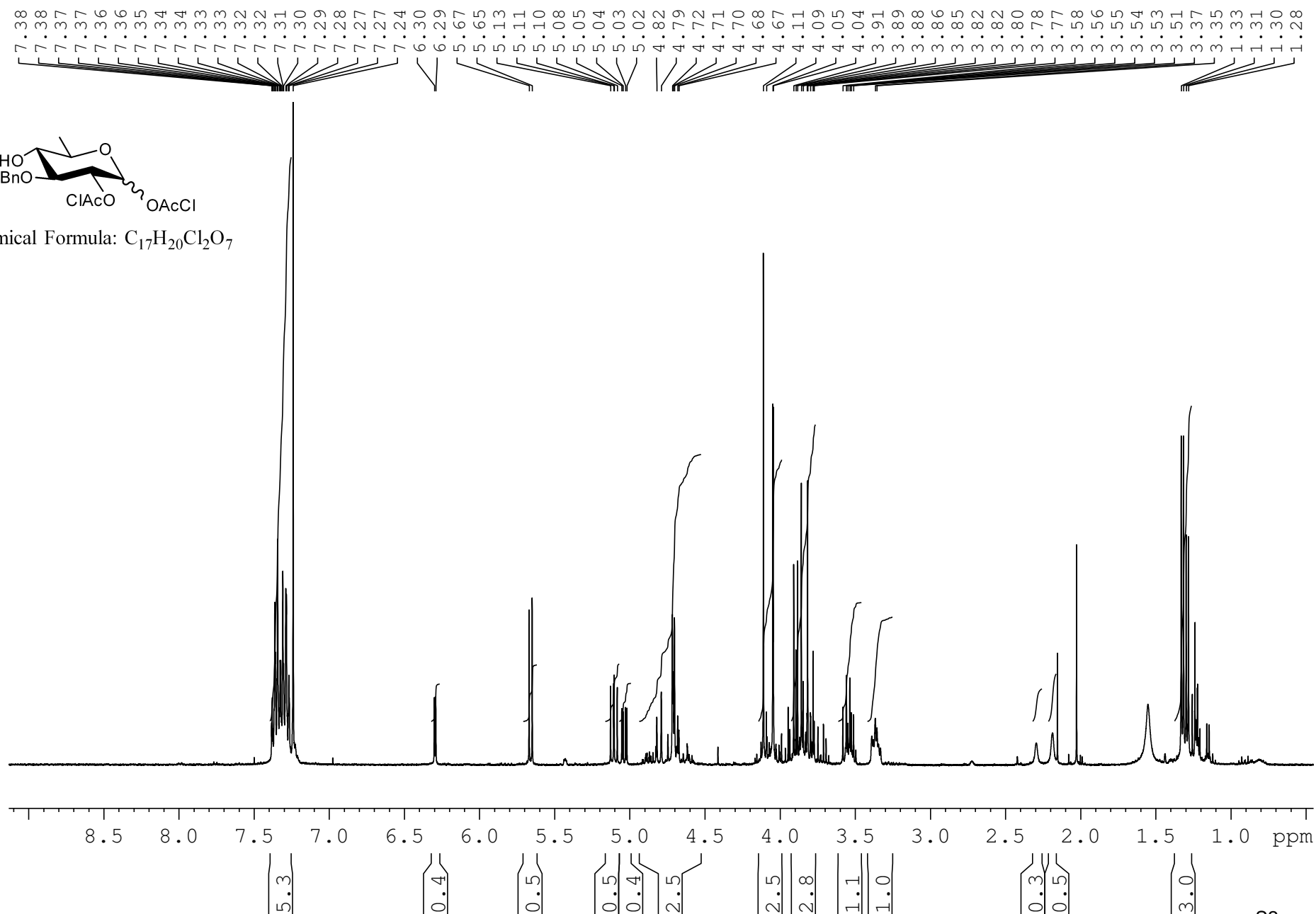
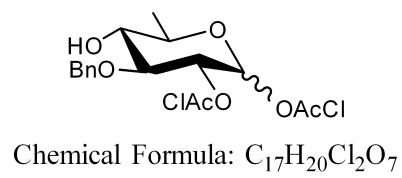
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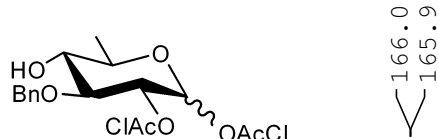
## Supporting Information

S2-S69 : <sup>1</sup>H NMR, COSY, HSQC, <sup>13</sup>C spectra for compounds **6-10**, **12-18**, **20**, **1**, **23**, **24**, **2**  
S70 : Rotamer distributions about the C5-C6 bonds in mannose residues.

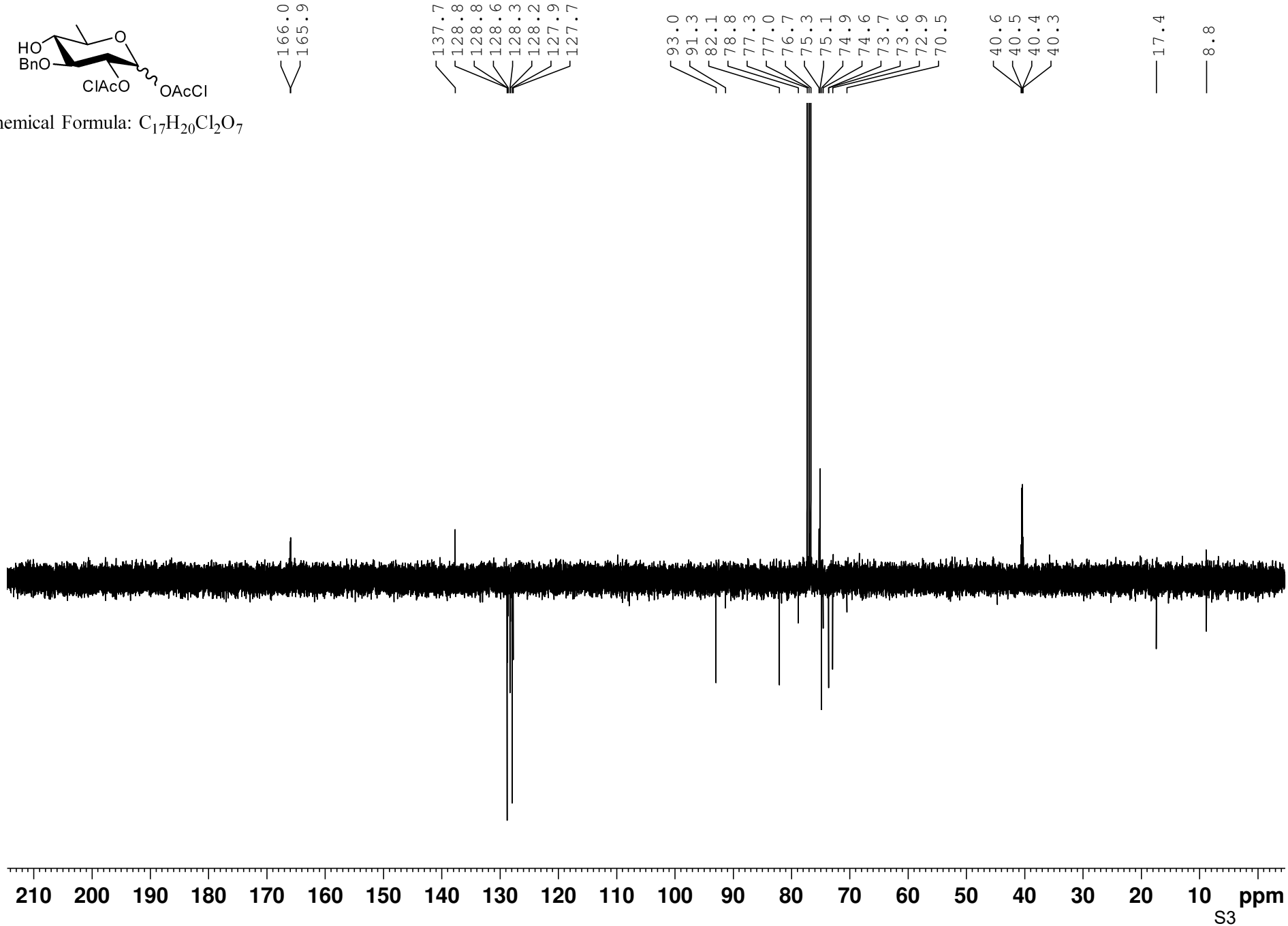
# Compound 6, 400 MHz, CDCl<sub>3</sub>



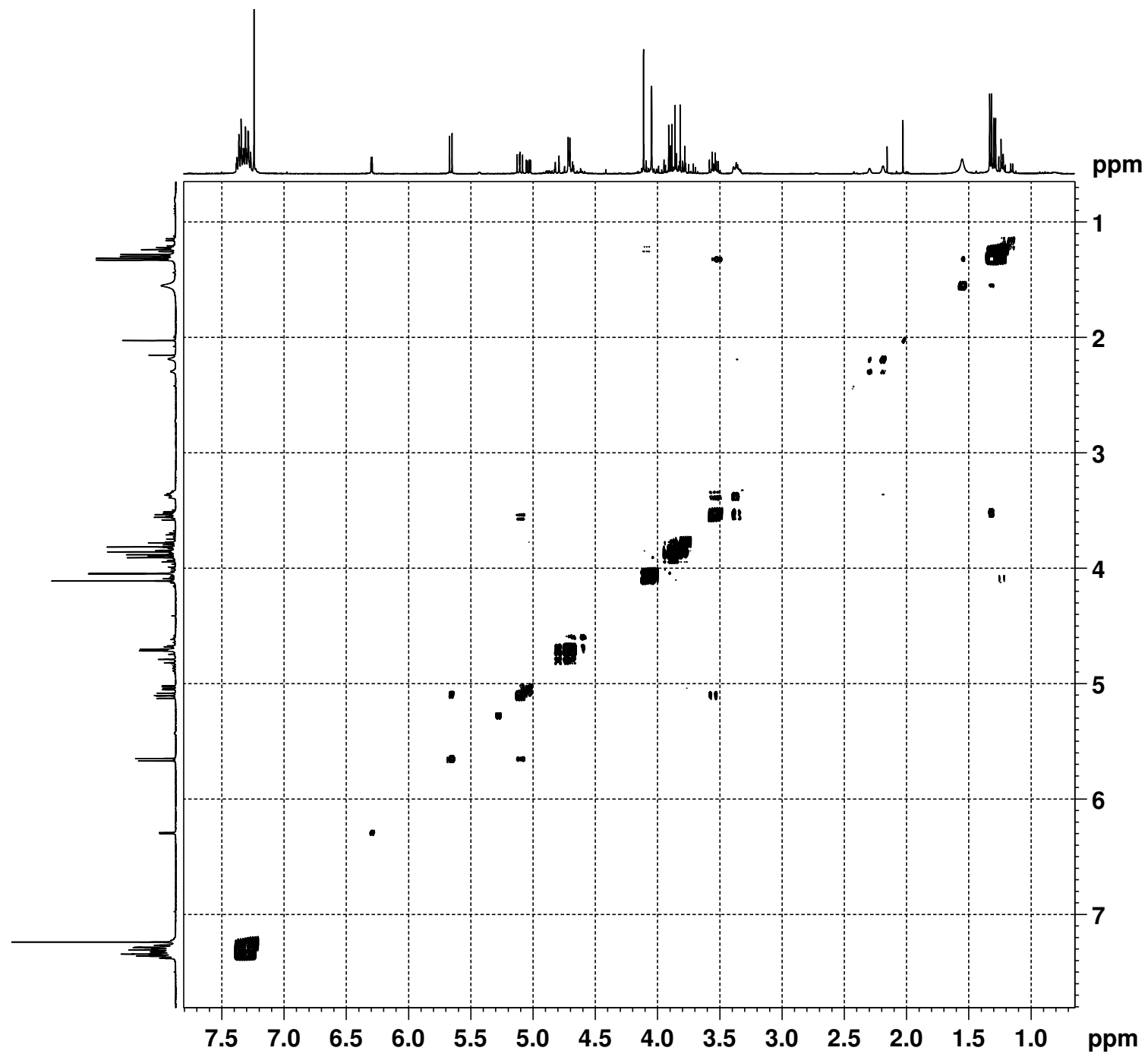
Compound **6**, 101 MHz, CDCl<sub>3</sub>



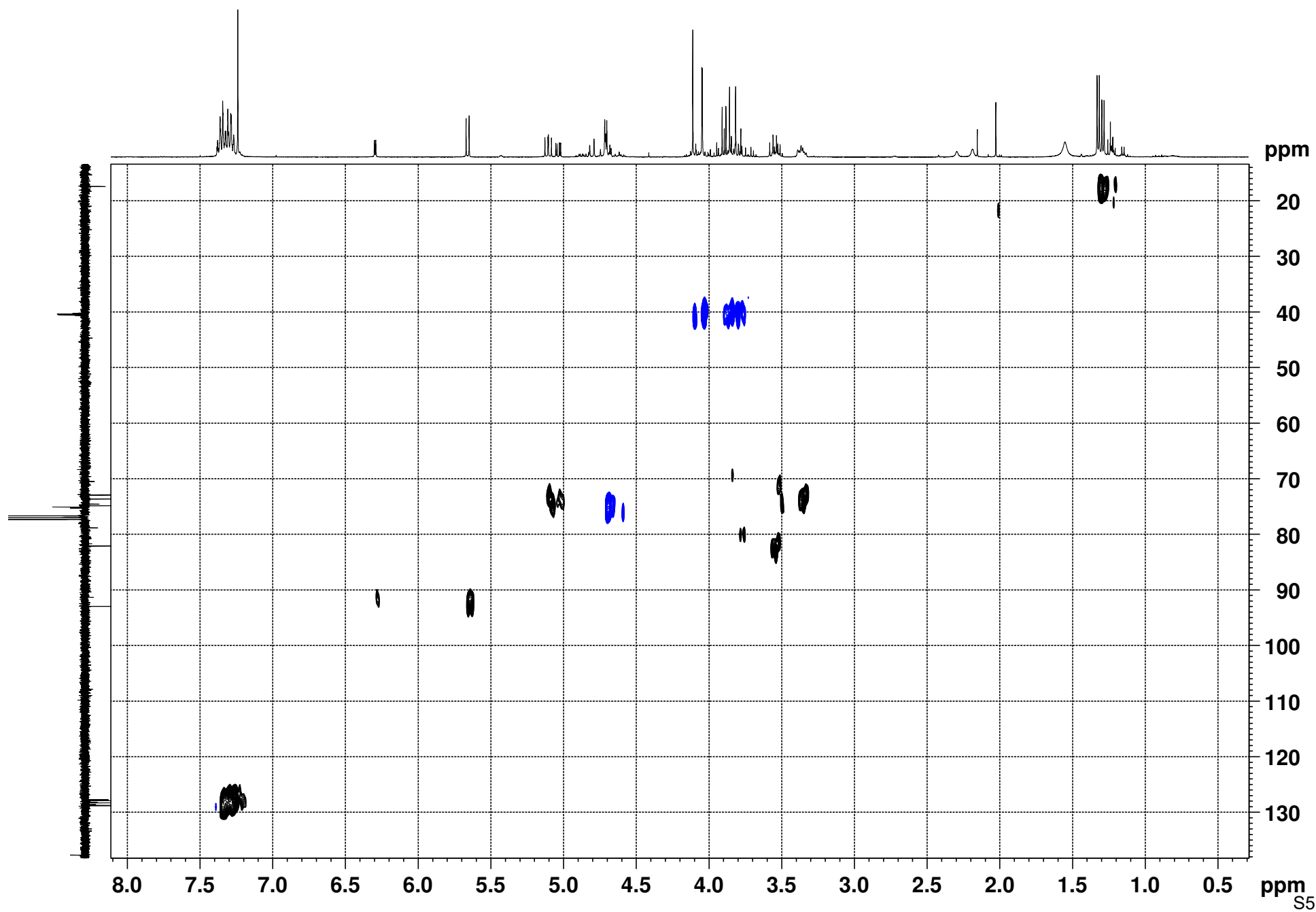
Chemical Formula: C<sub>17</sub>H<sub>20</sub>Cl<sub>2</sub>O<sub>7</sub>



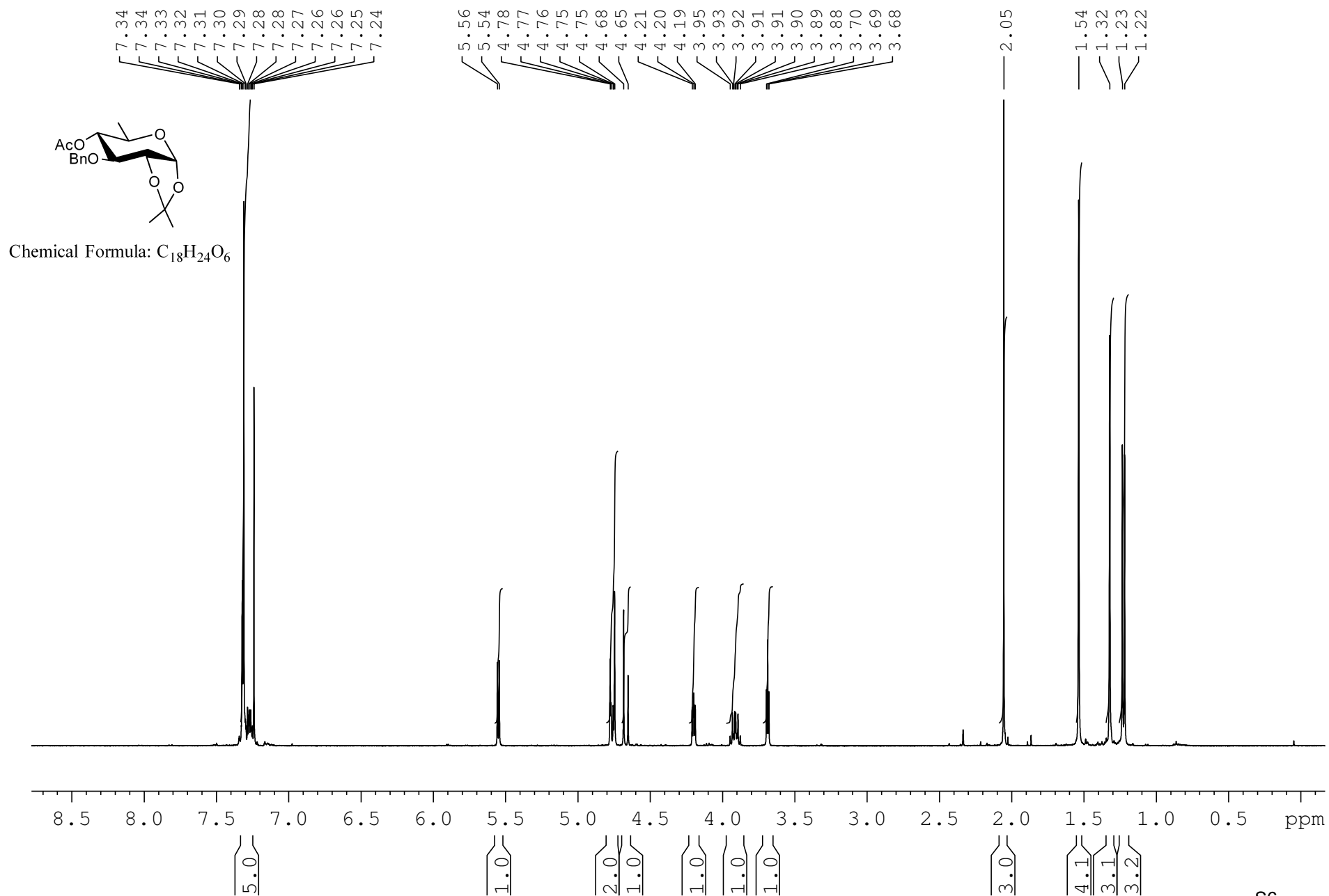
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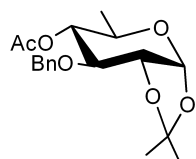
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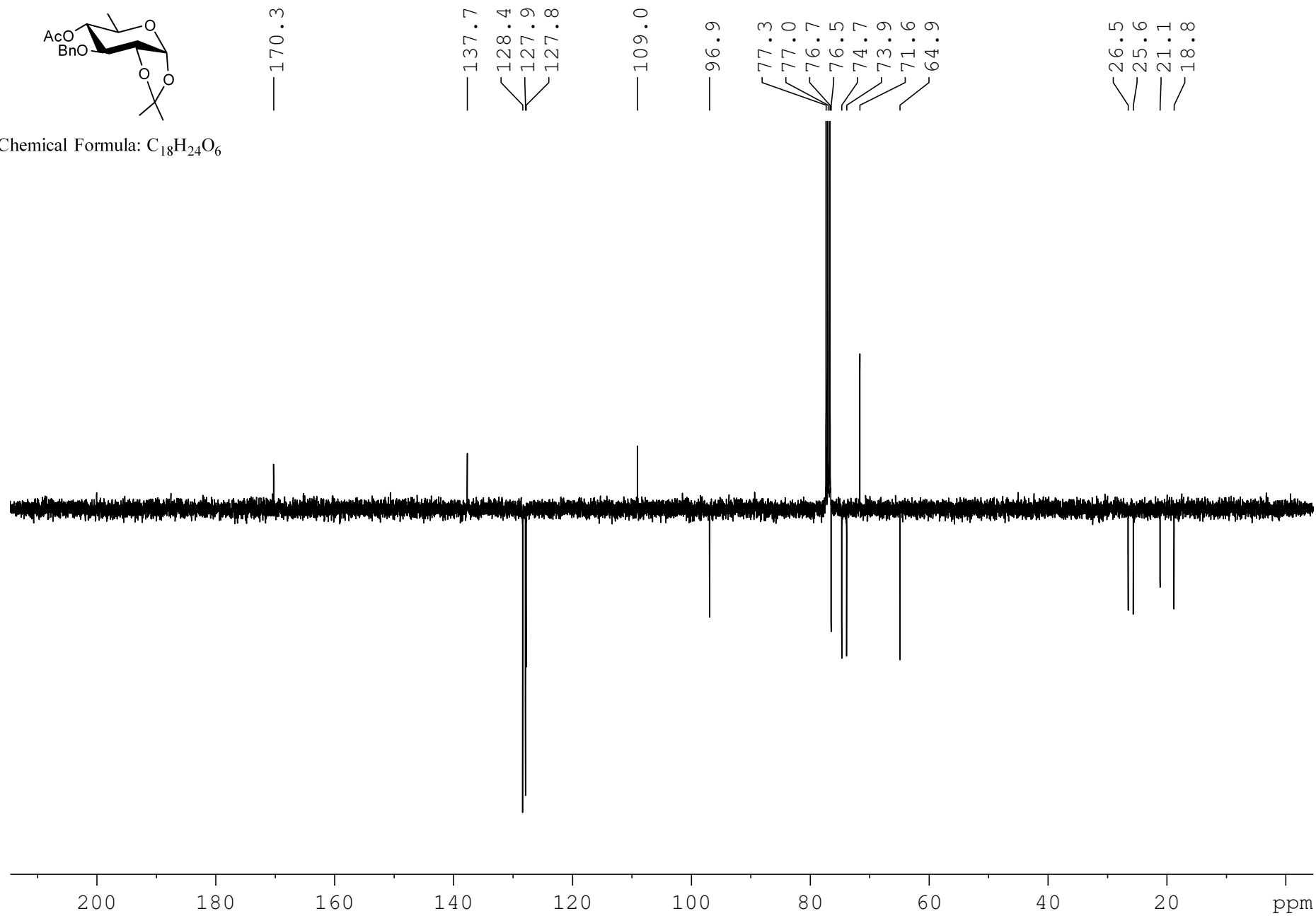
Compound **7**, 400 MHz, CDCl<sub>3</sub>



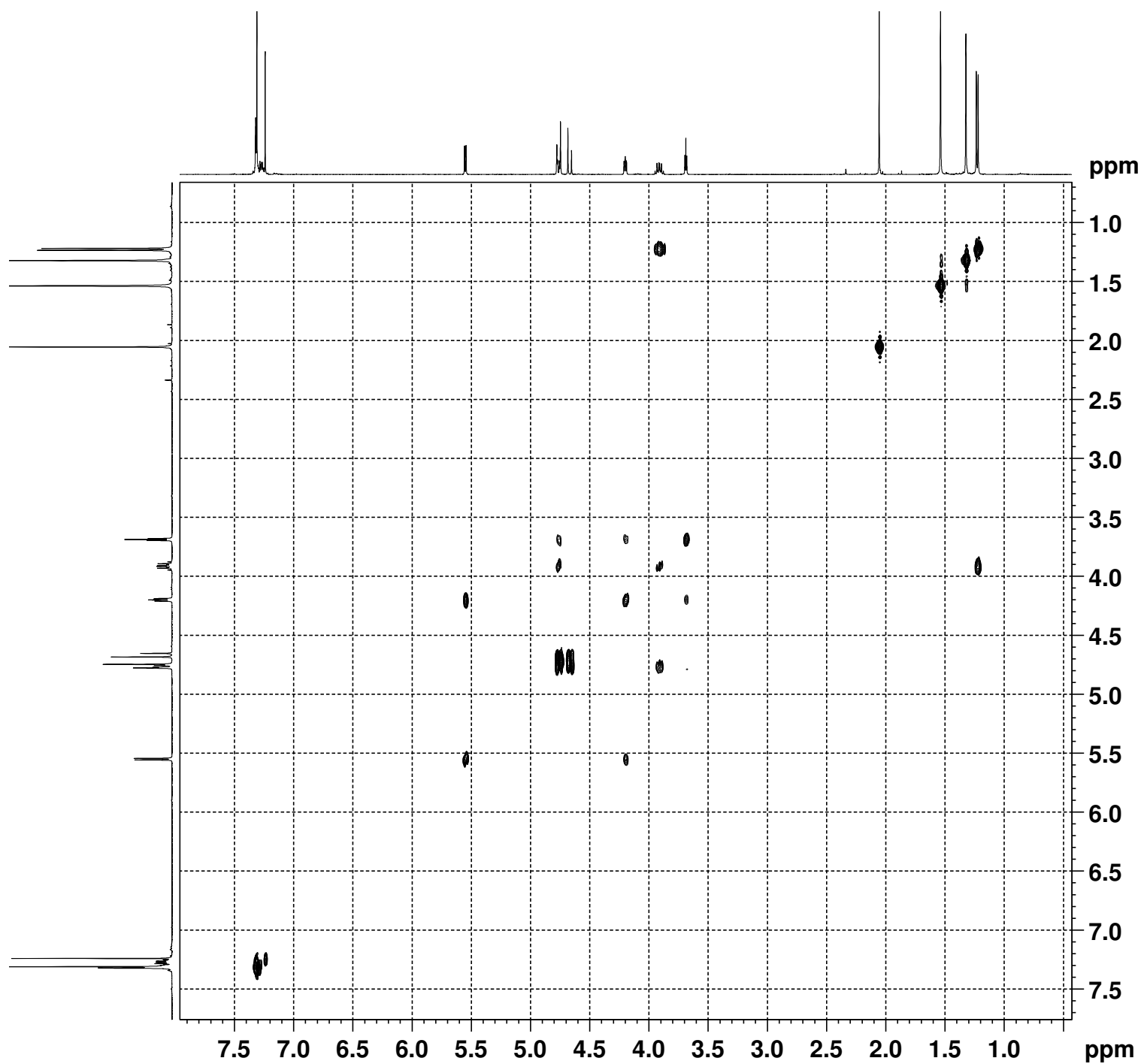
# Compound **7**, 101 MHz, CDCl<sub>3</sub>



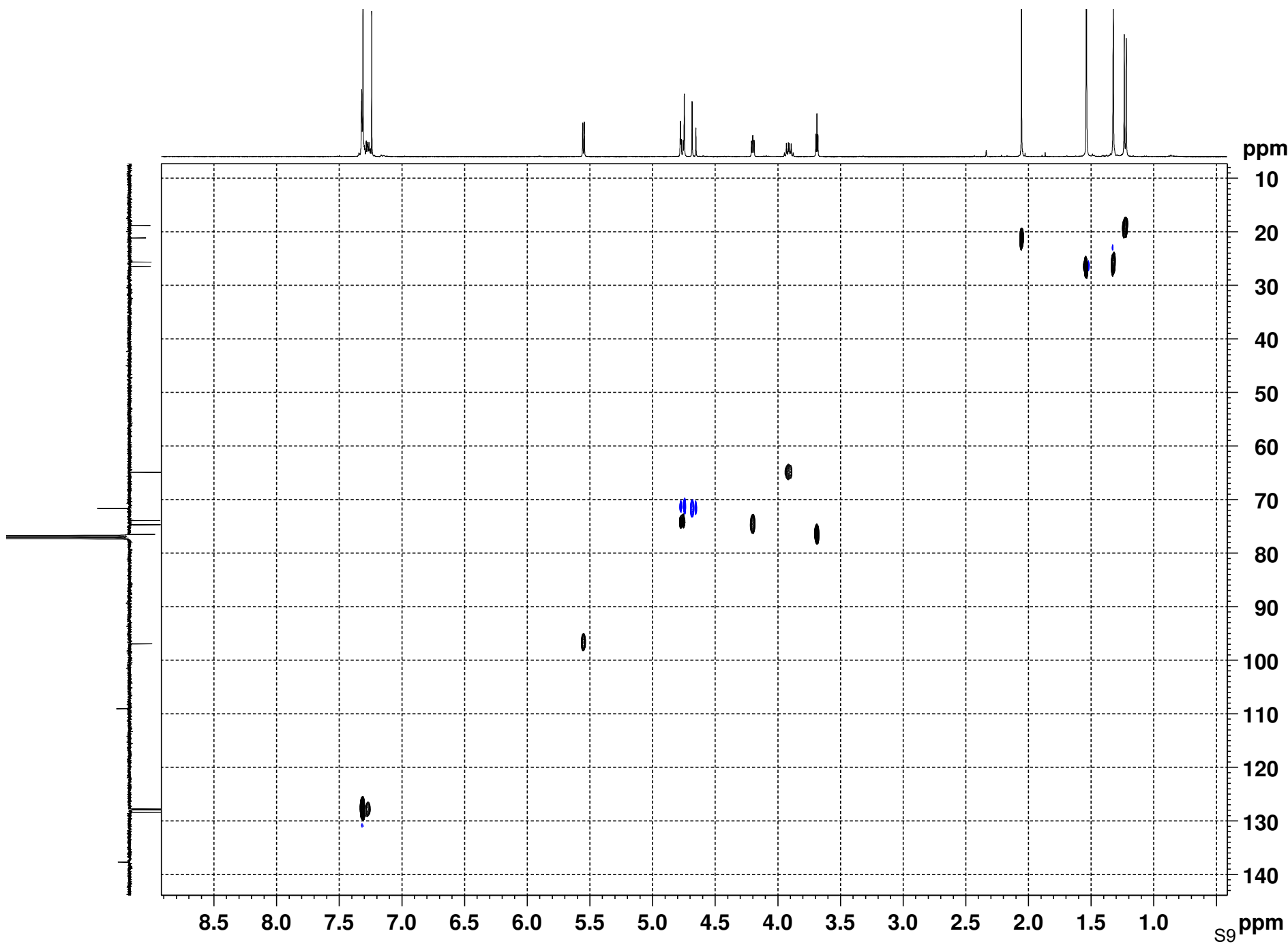
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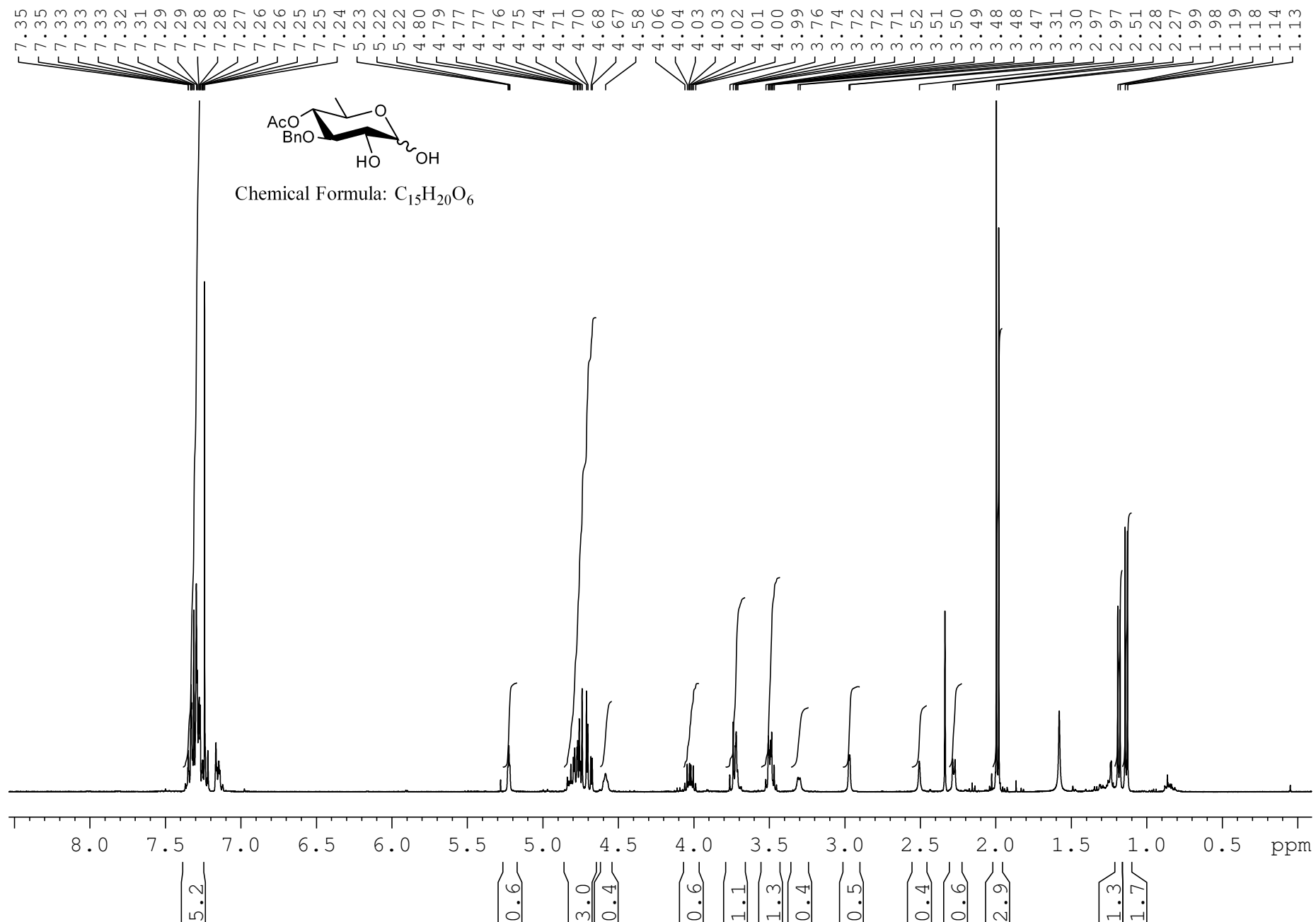
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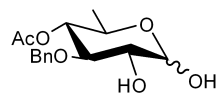
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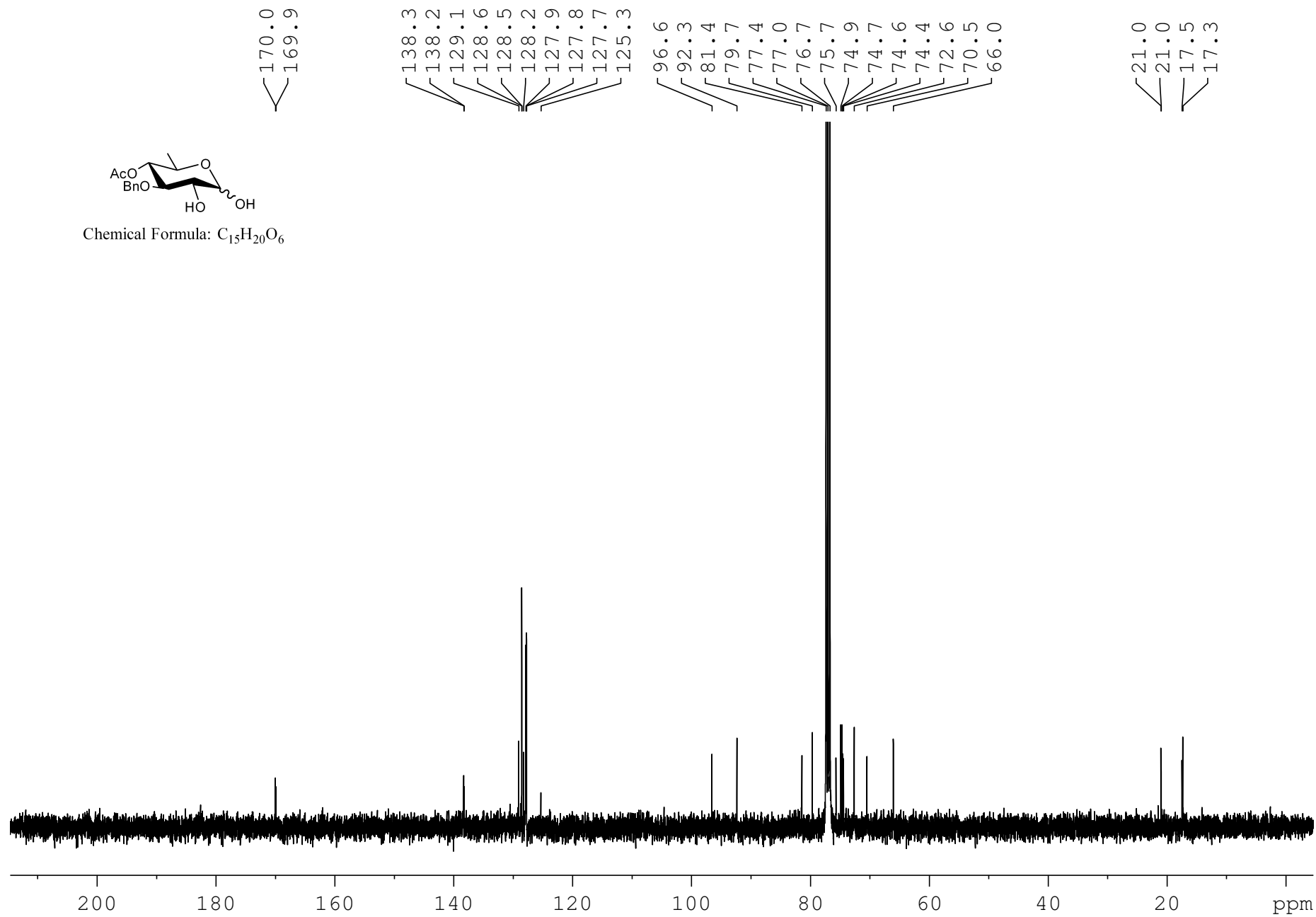
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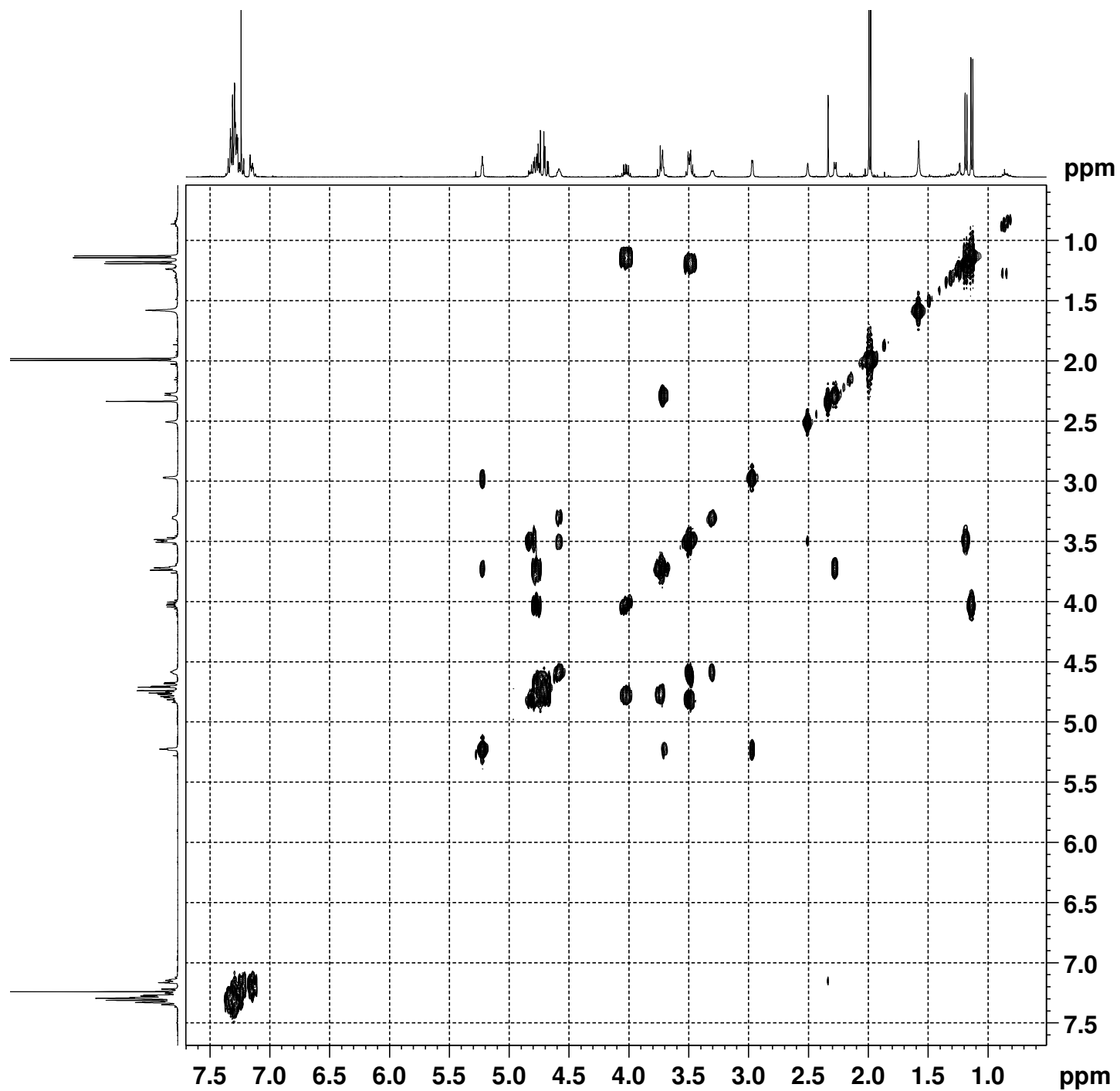


Compound **8**, 101 MHz, CDCl<sub>3</sub>

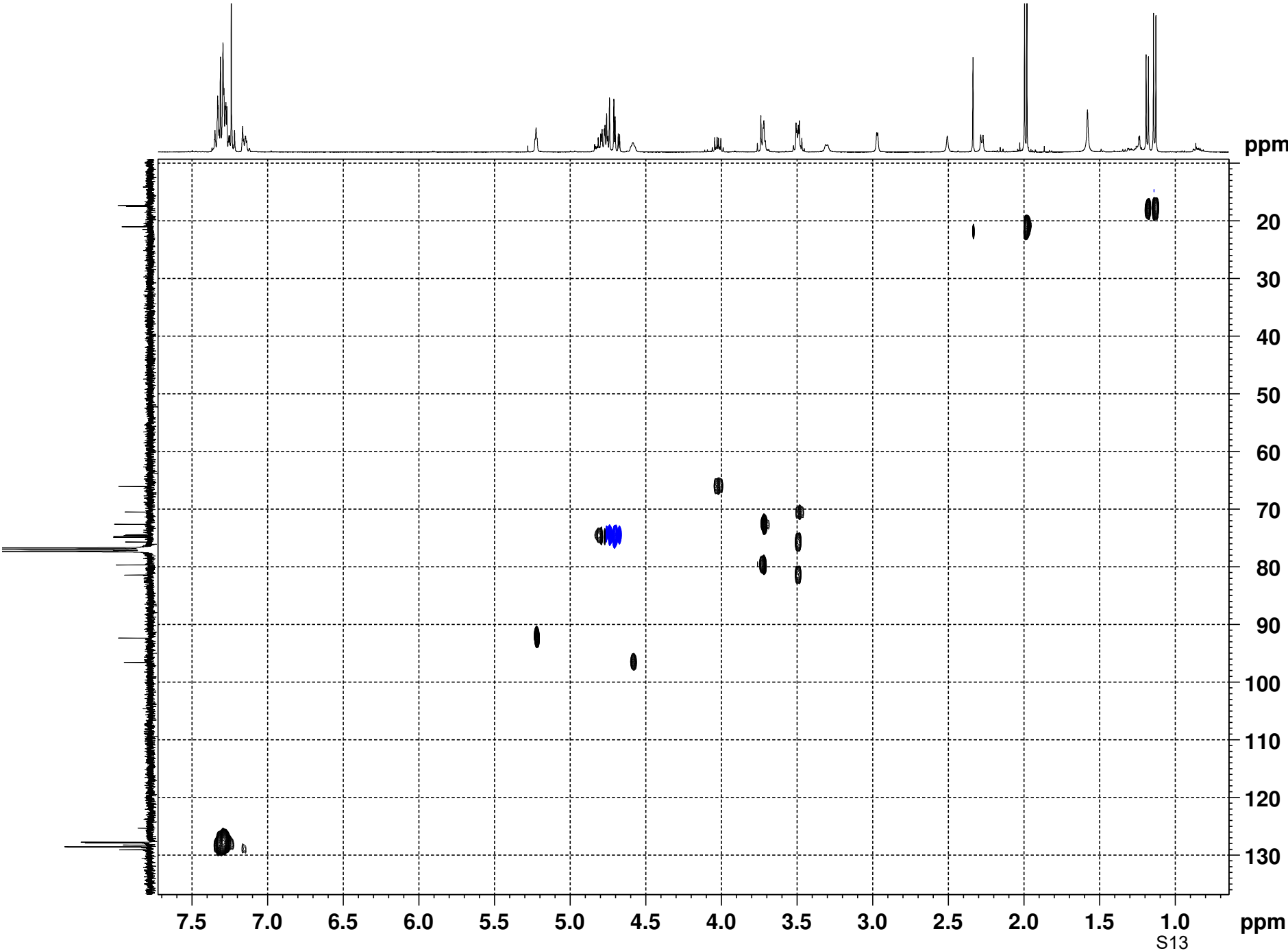


Chemical Formula: C<sub>15</sub>H<sub>20</sub>O<sub>6</sub>

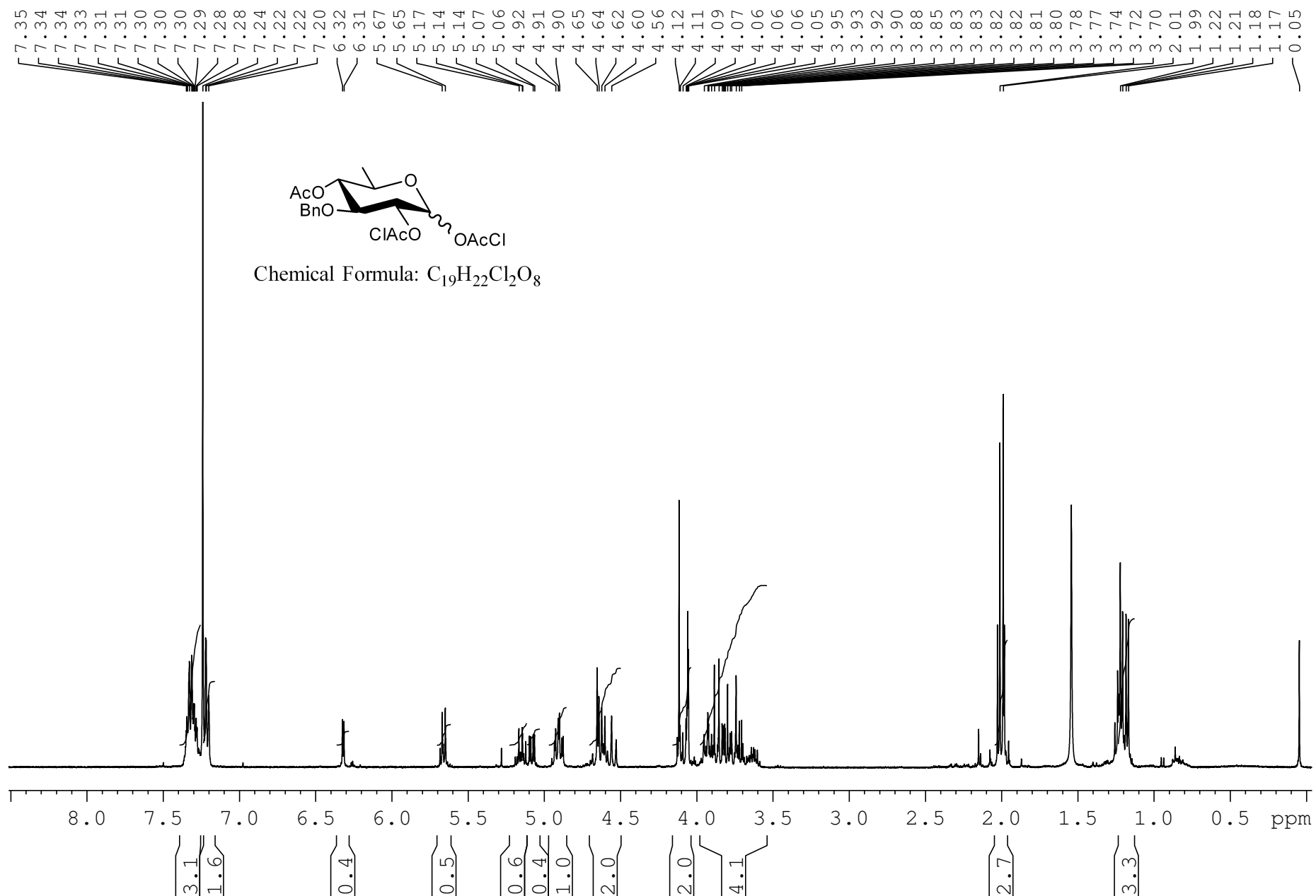




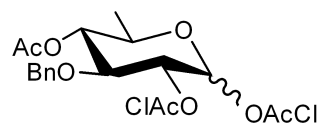
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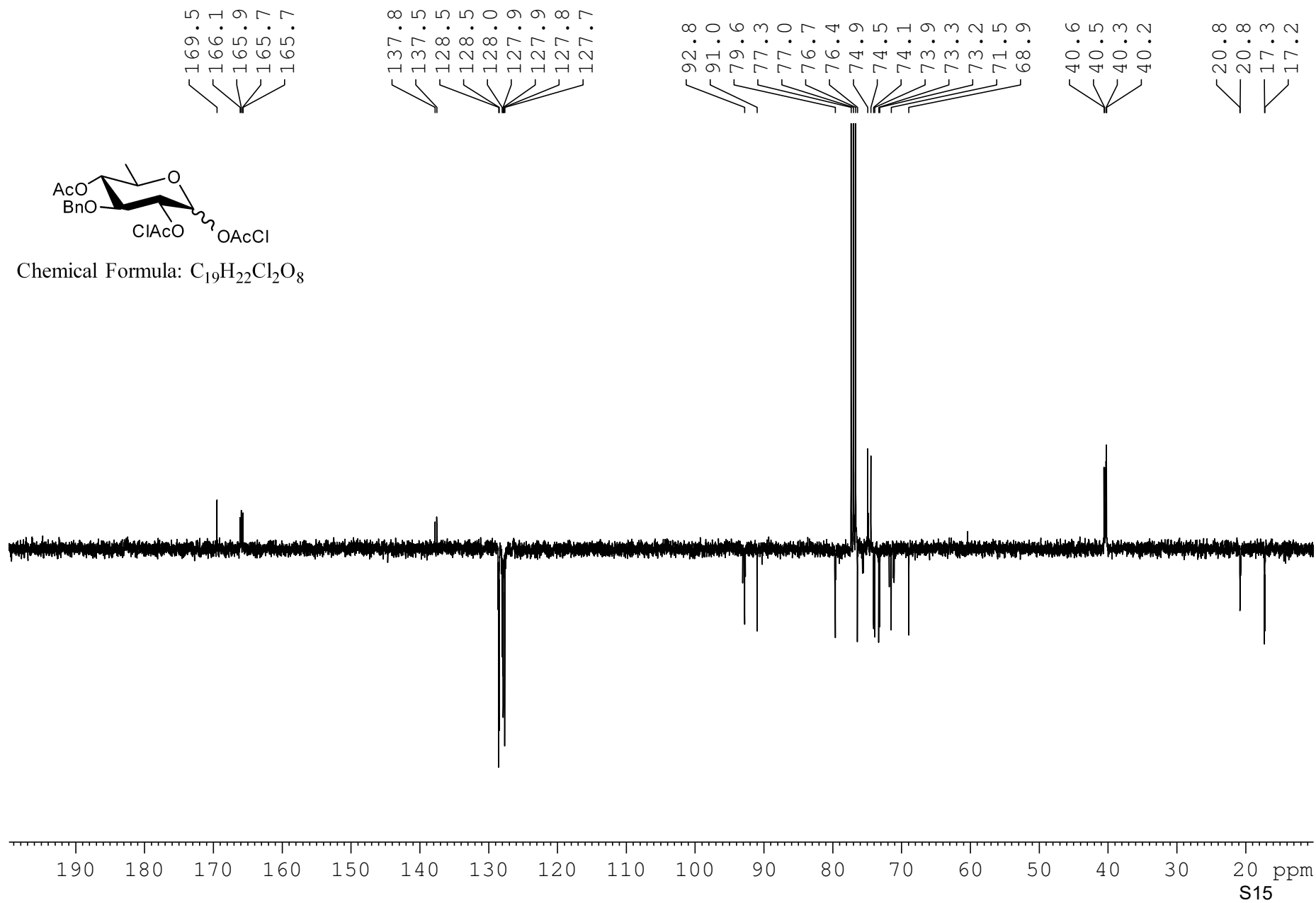
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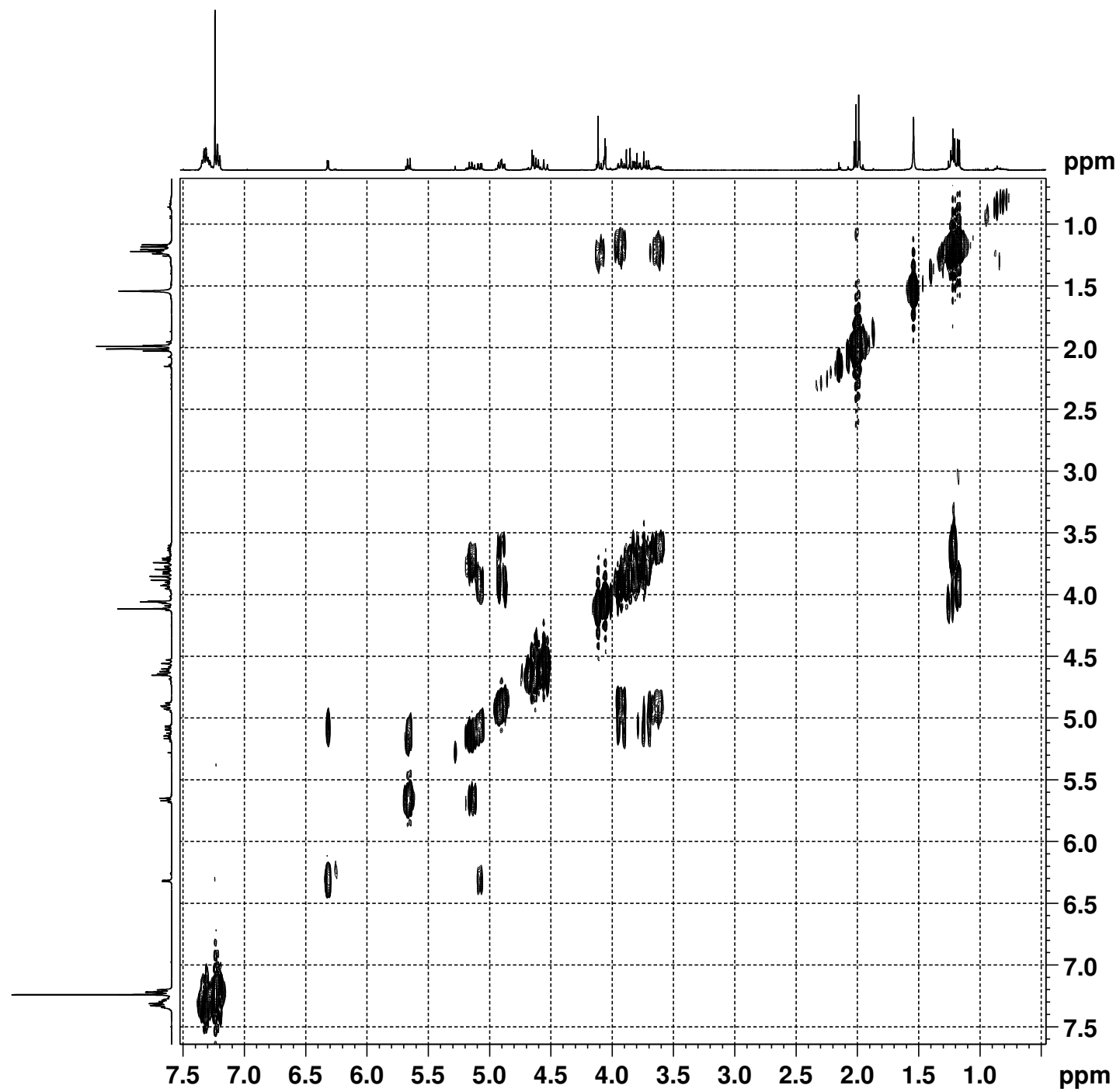
Compound **9**, 101 MHz, CDCl<sub>3</sub>



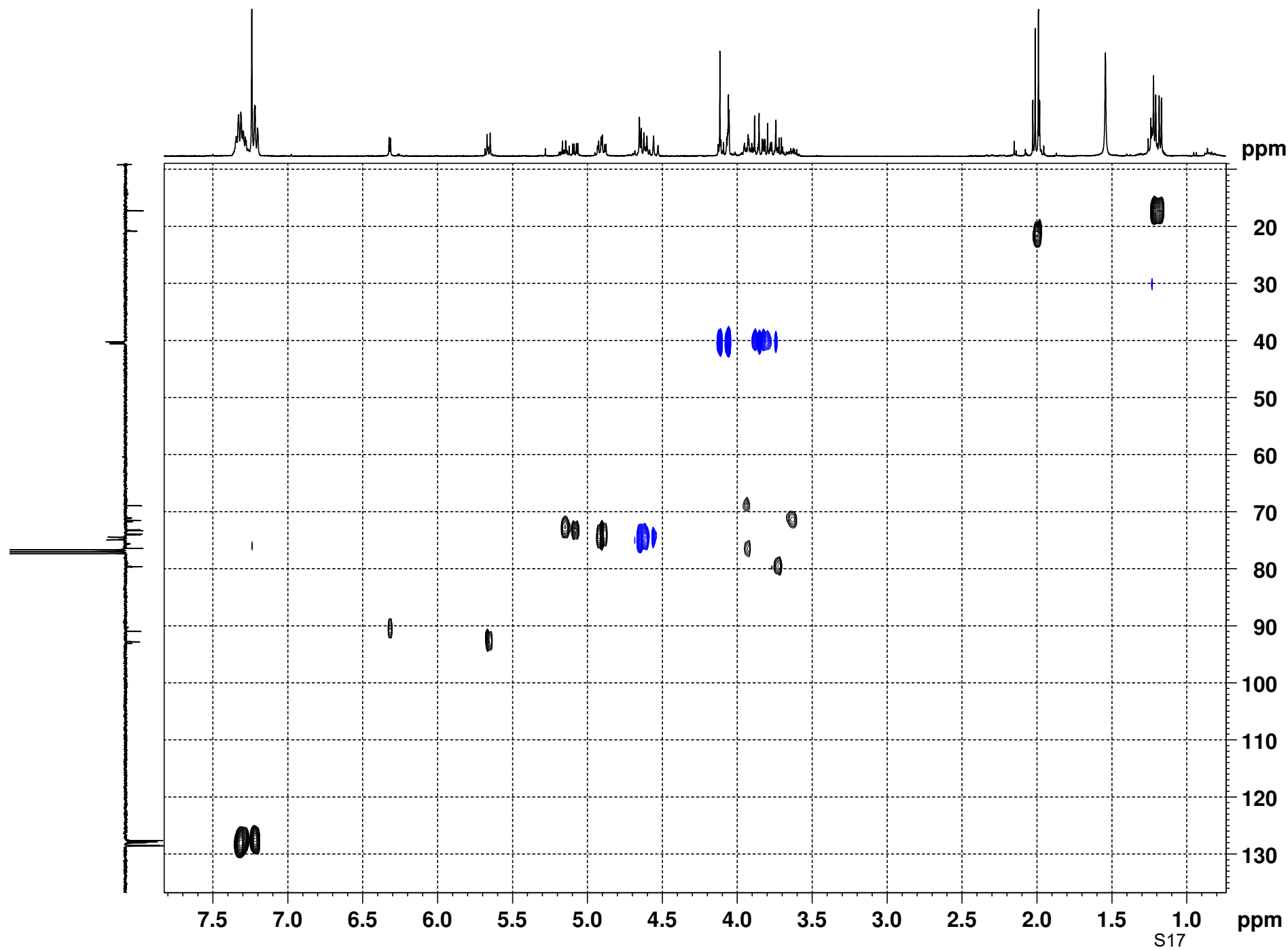
Chemical Formula: C<sub>19</sub>H<sub>22</sub>Cl<sub>2</sub>O<sub>8</sub>



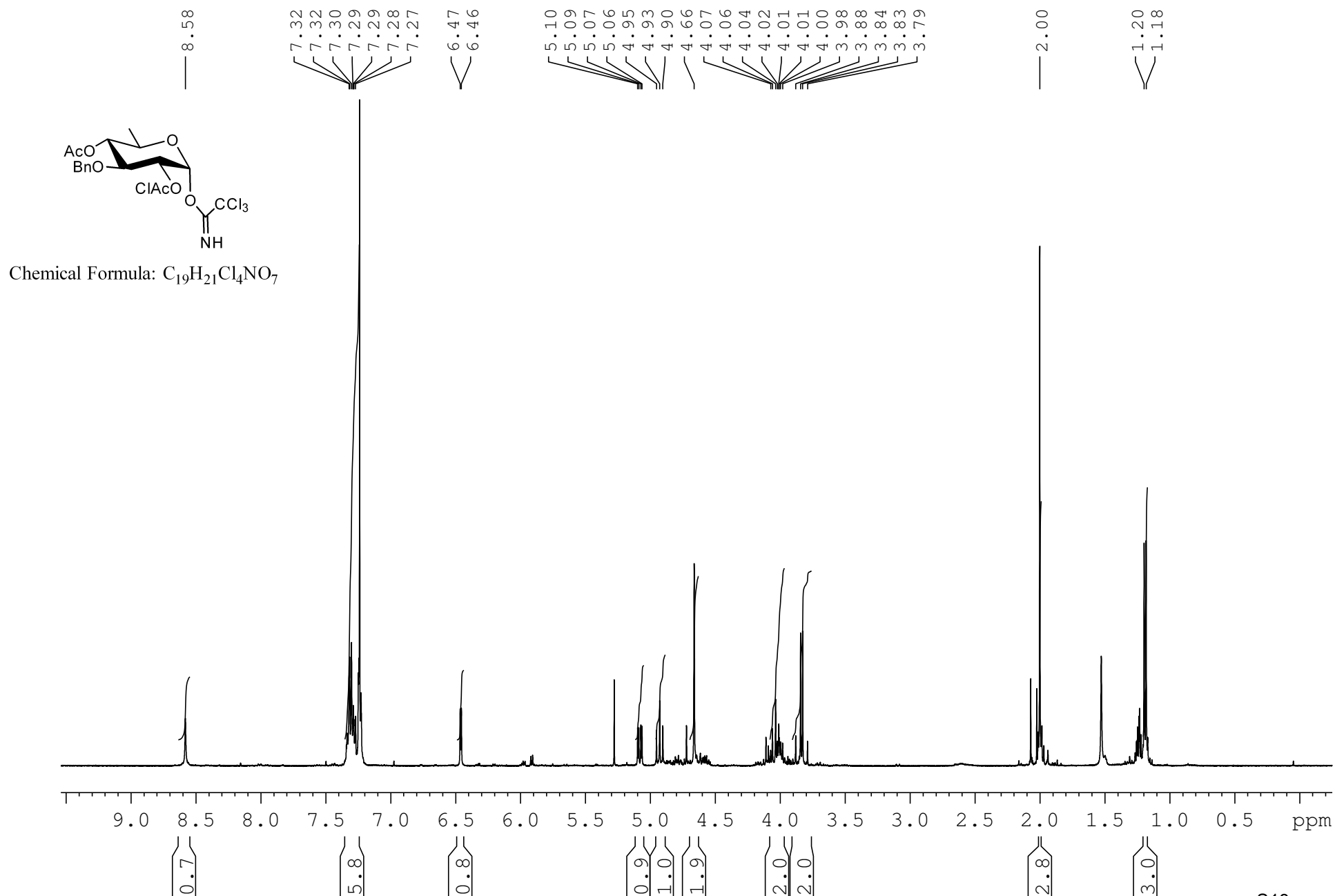
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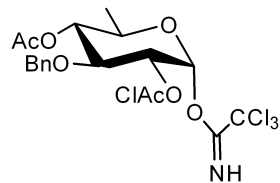
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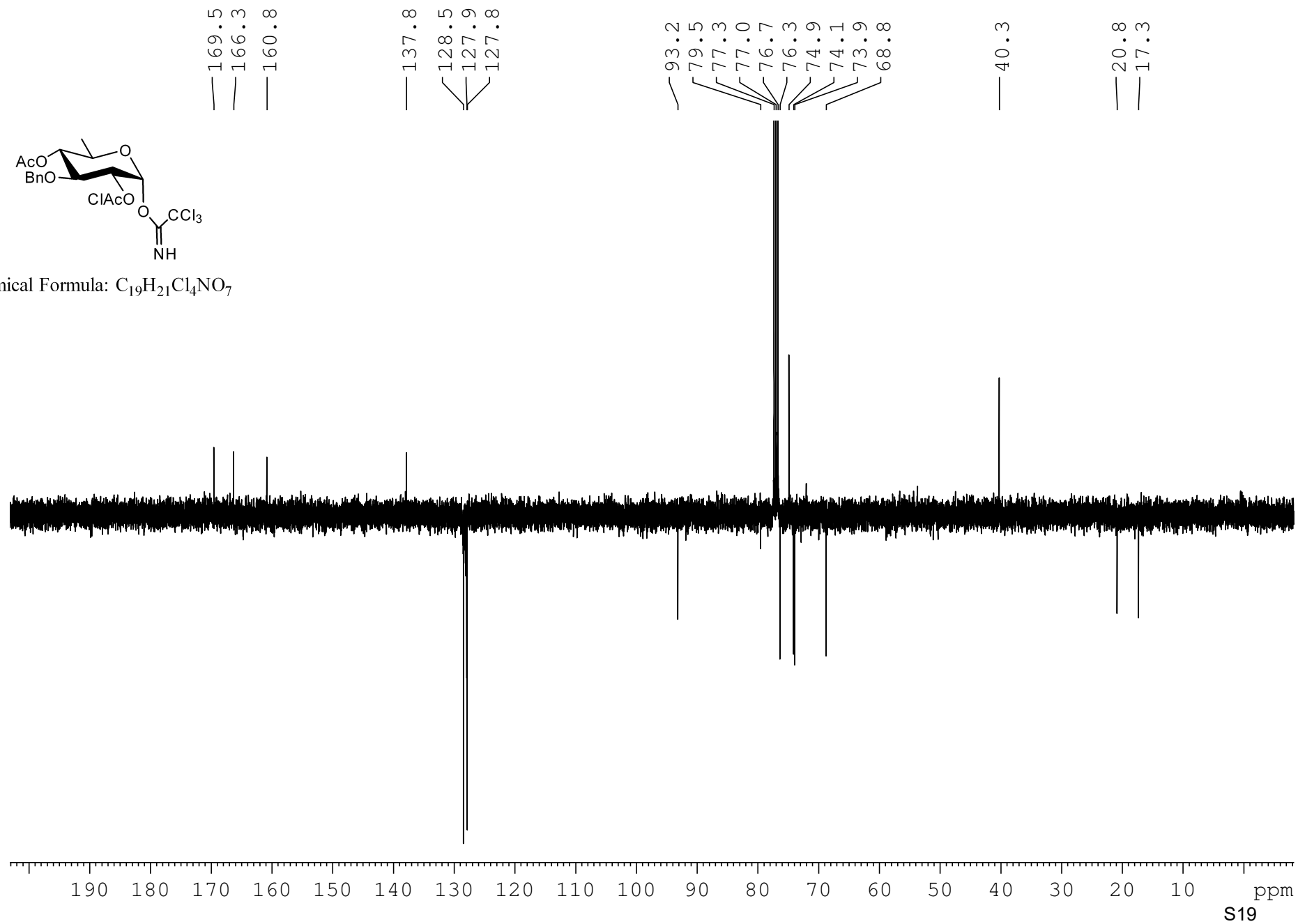
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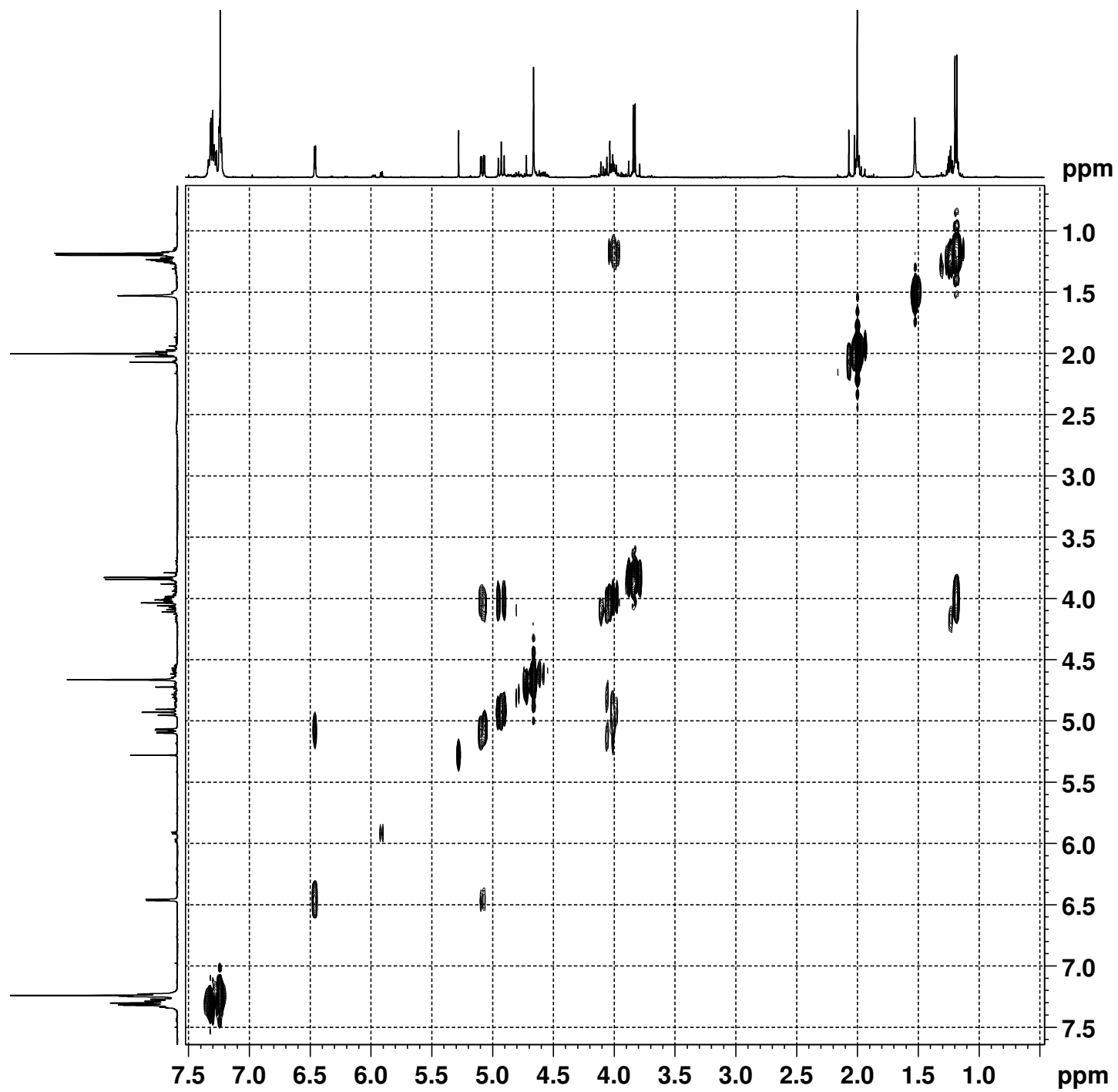
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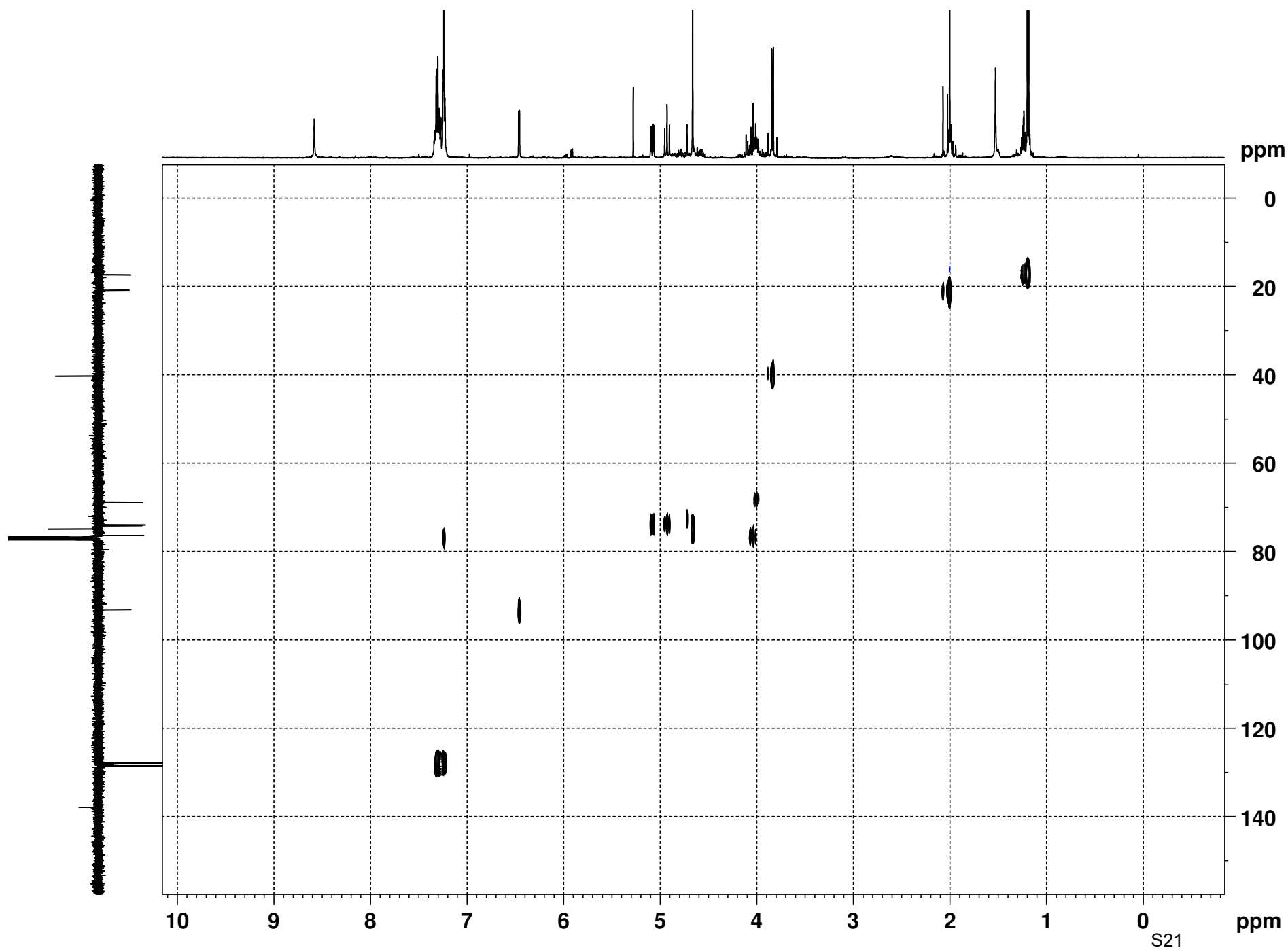
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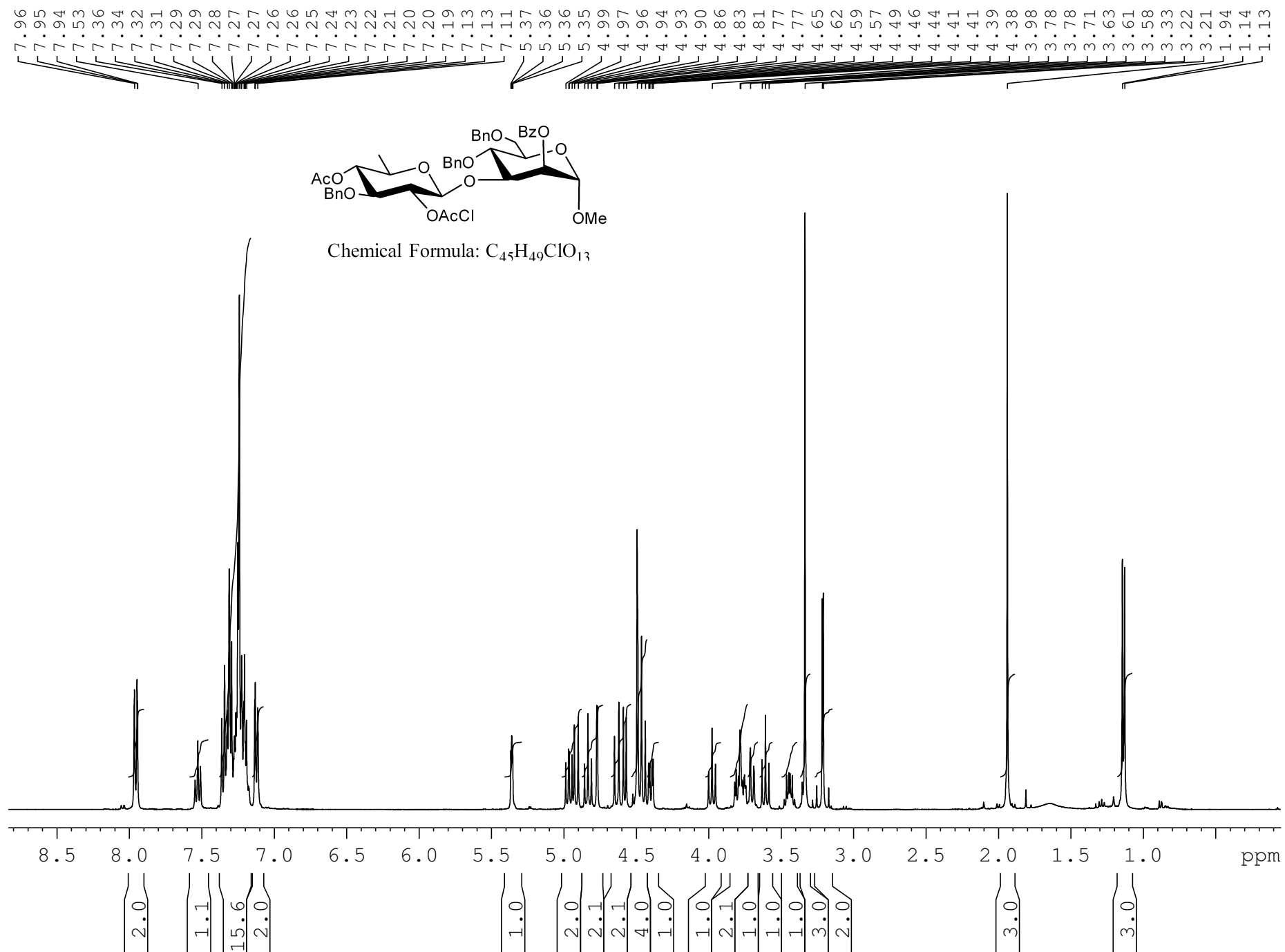
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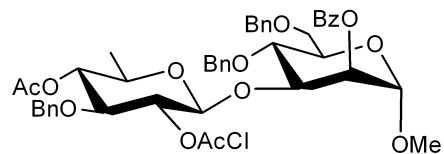
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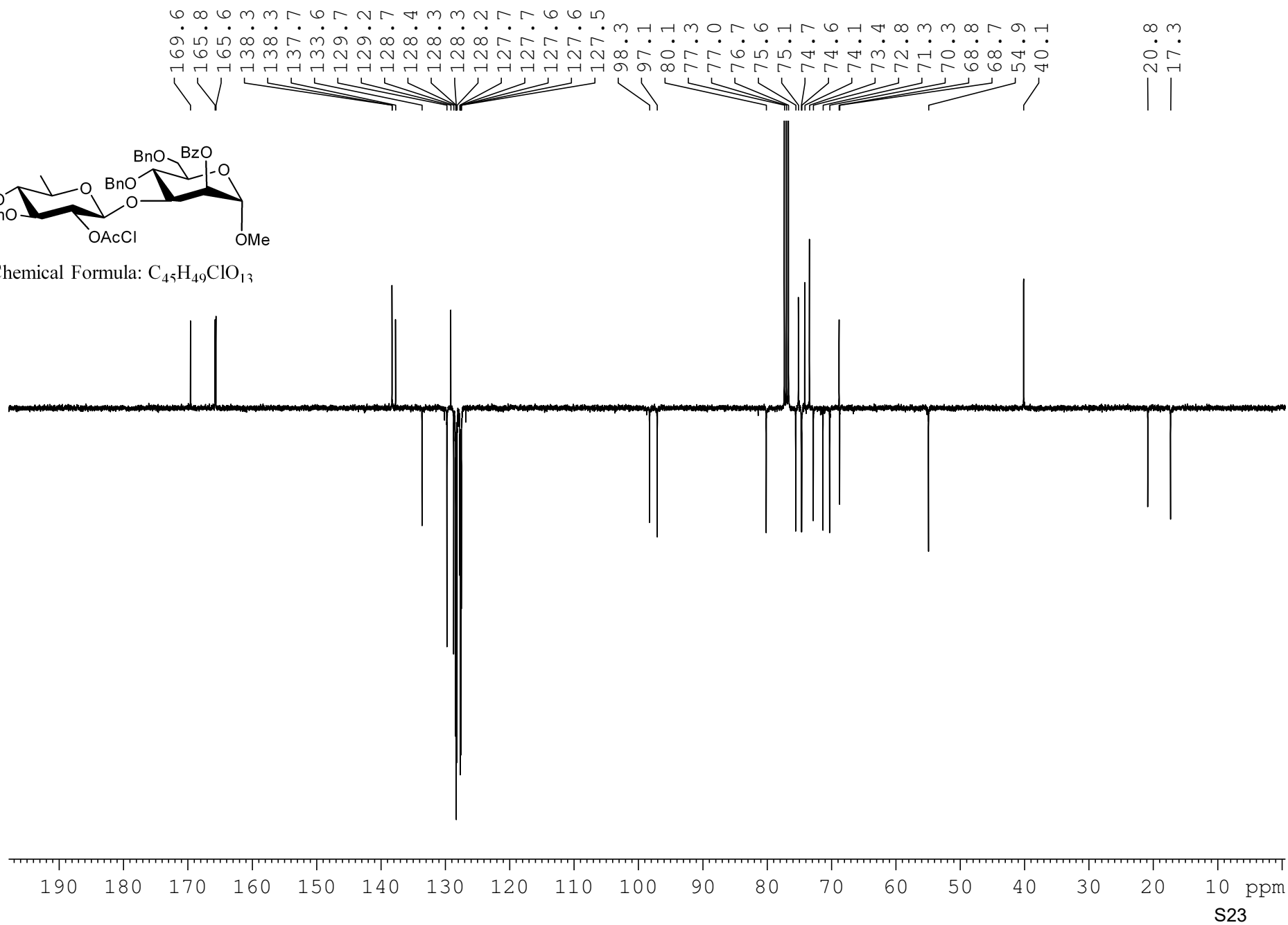
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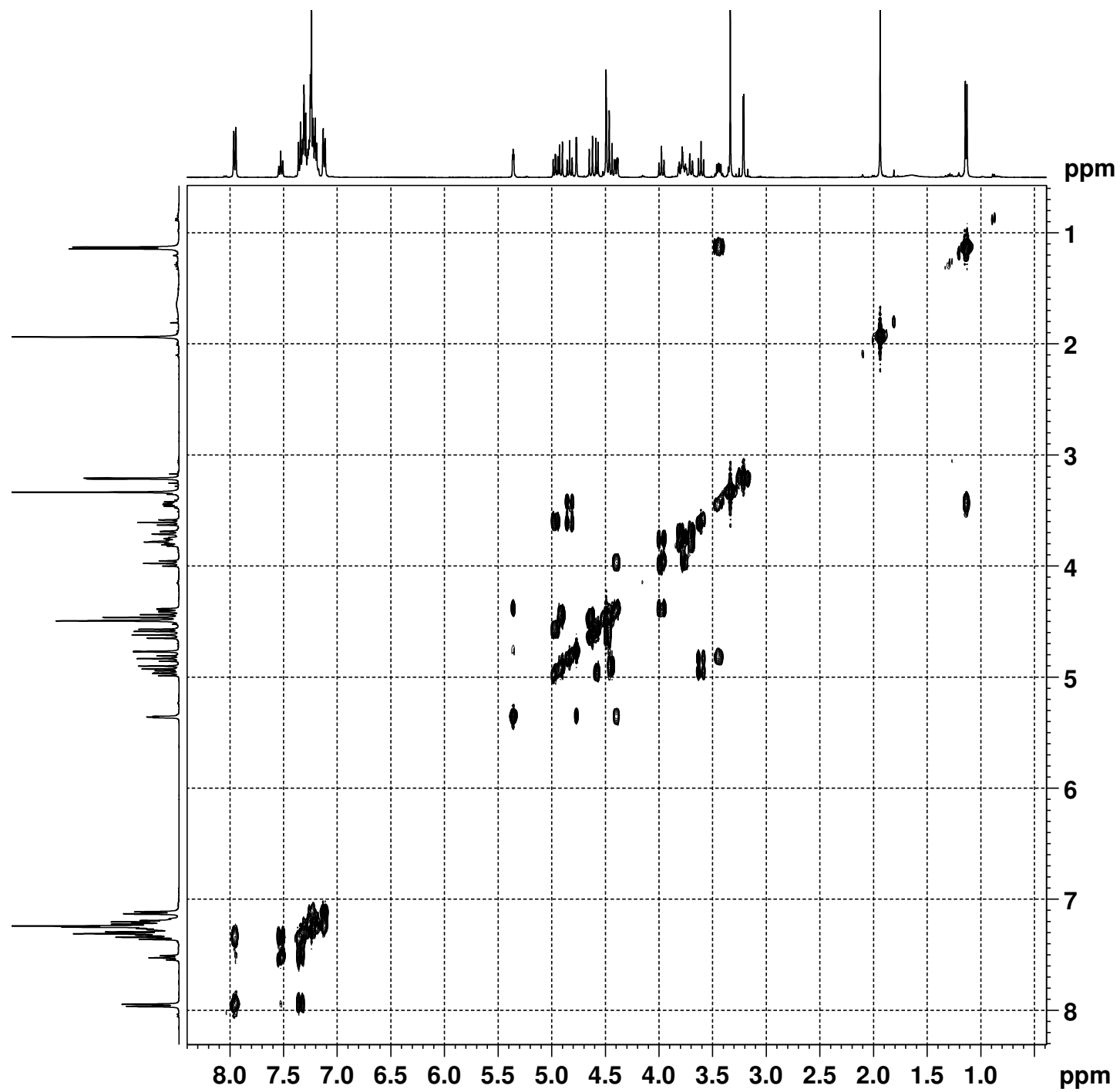
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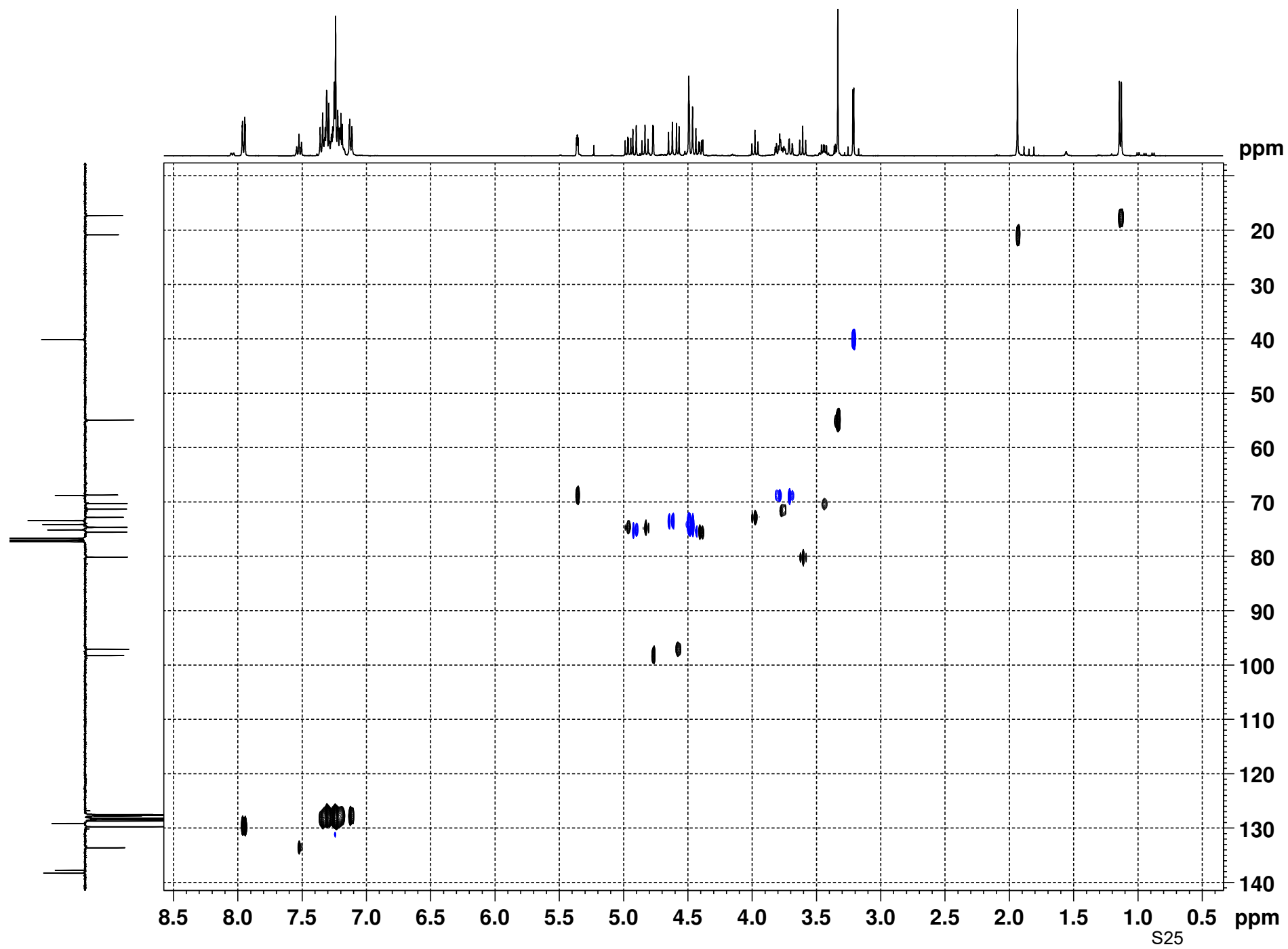
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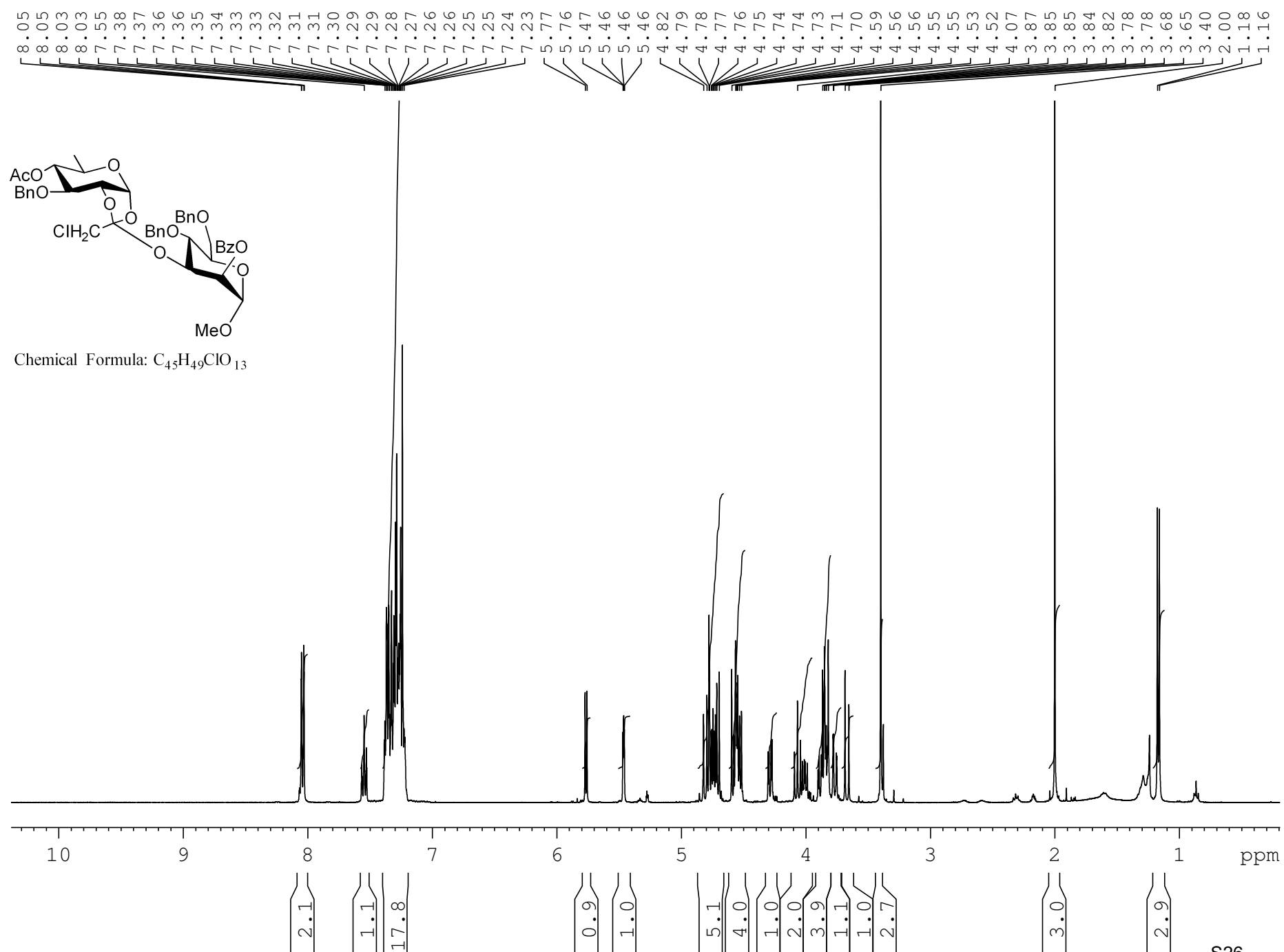
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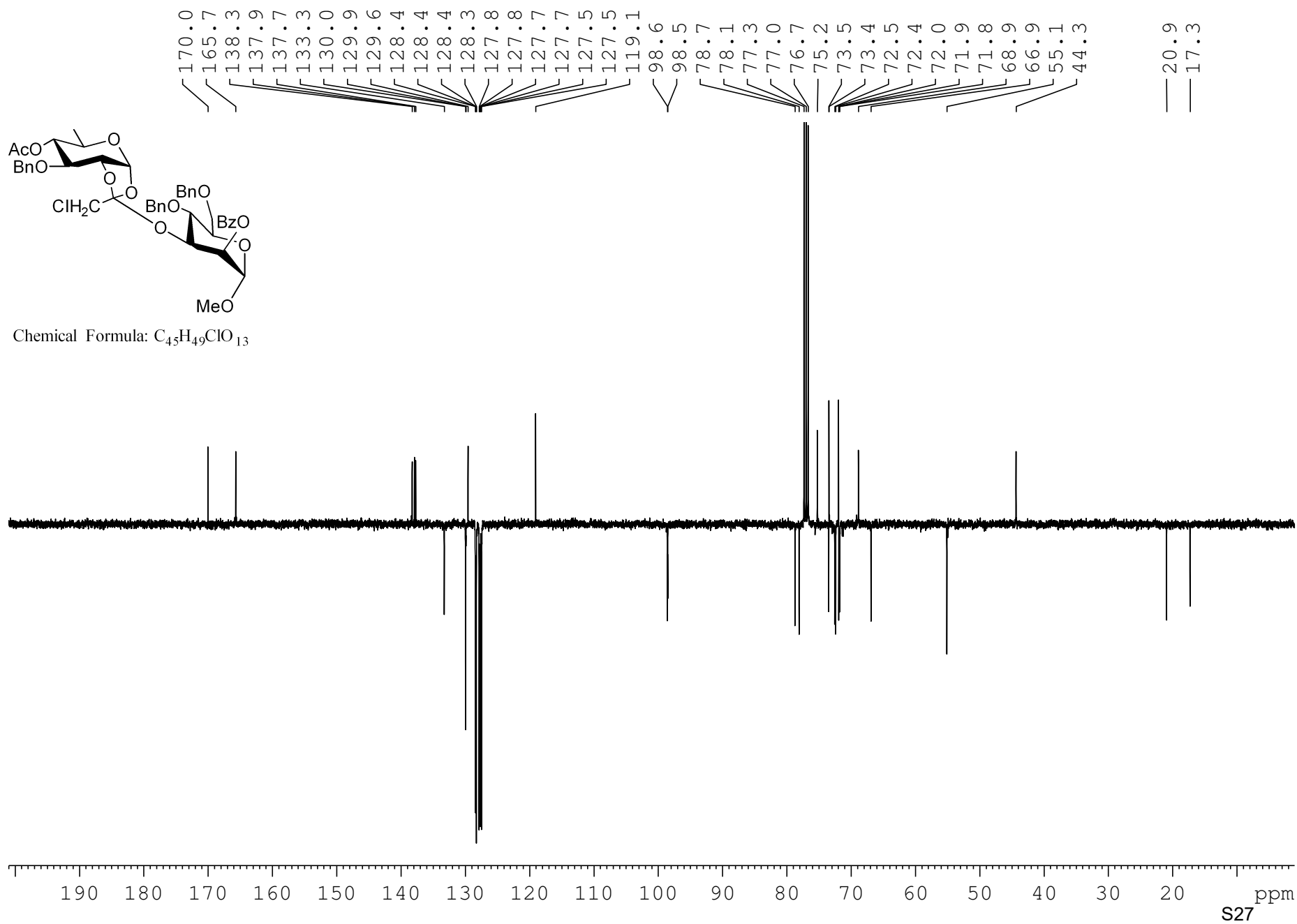
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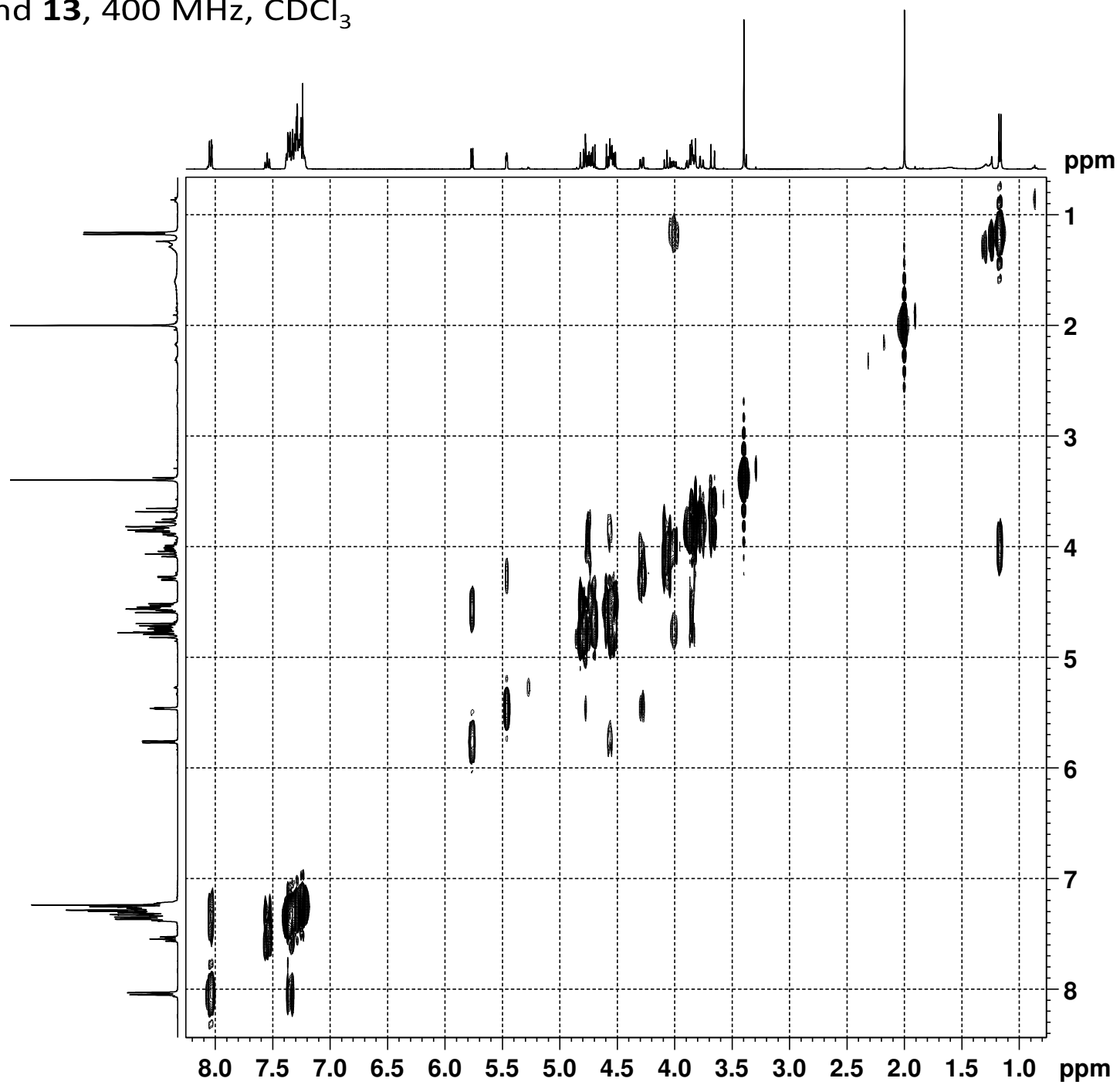
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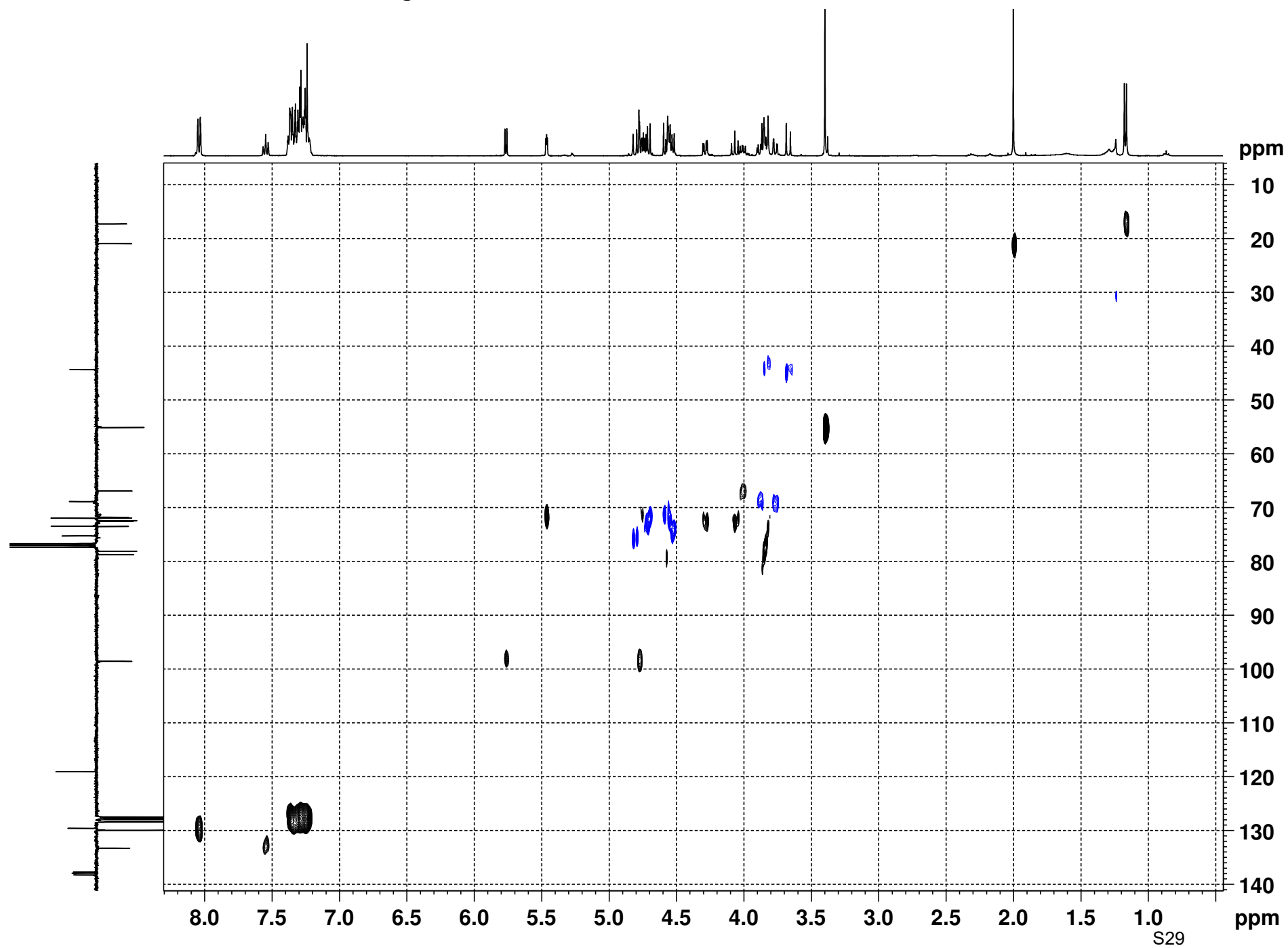
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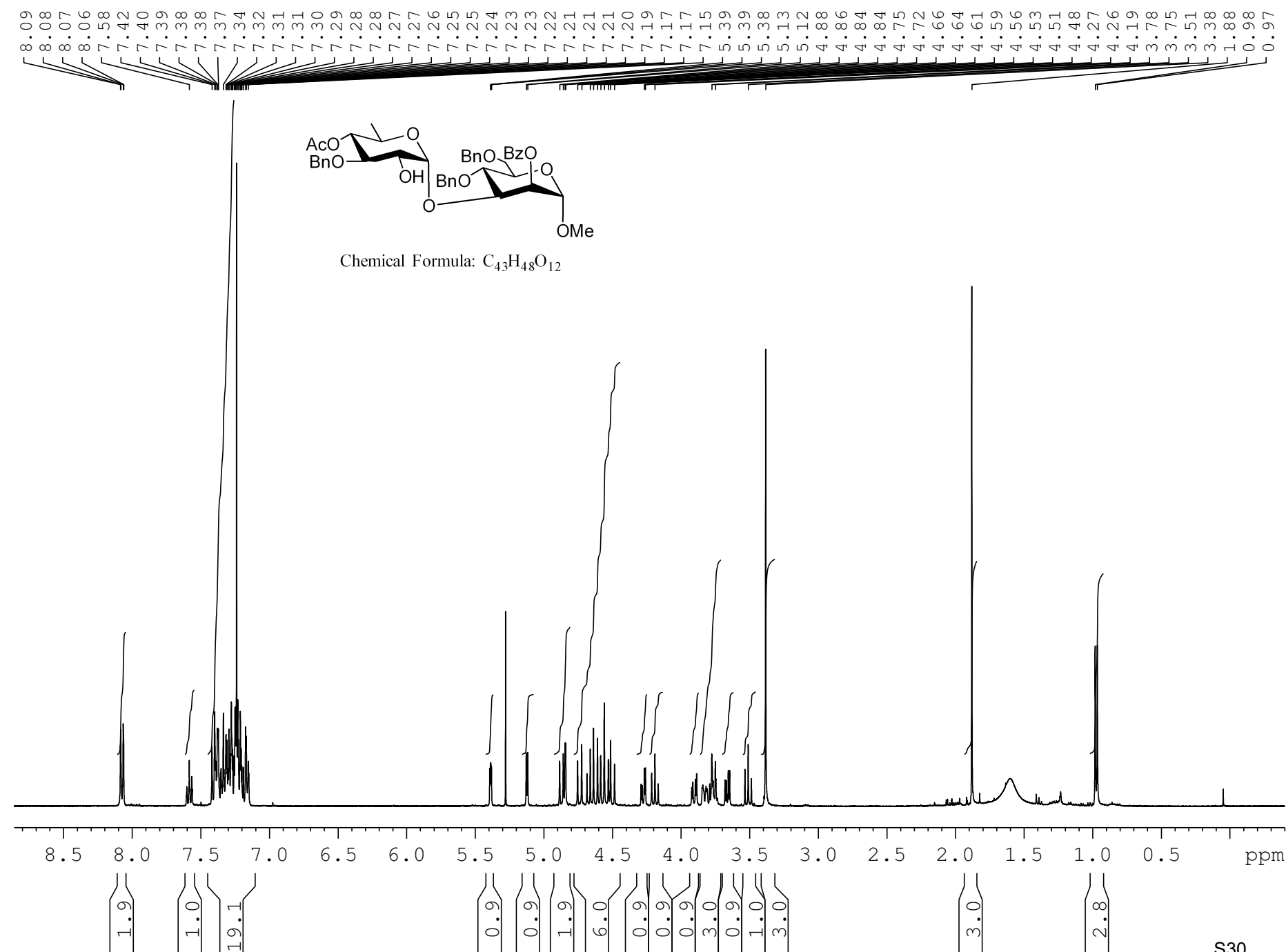
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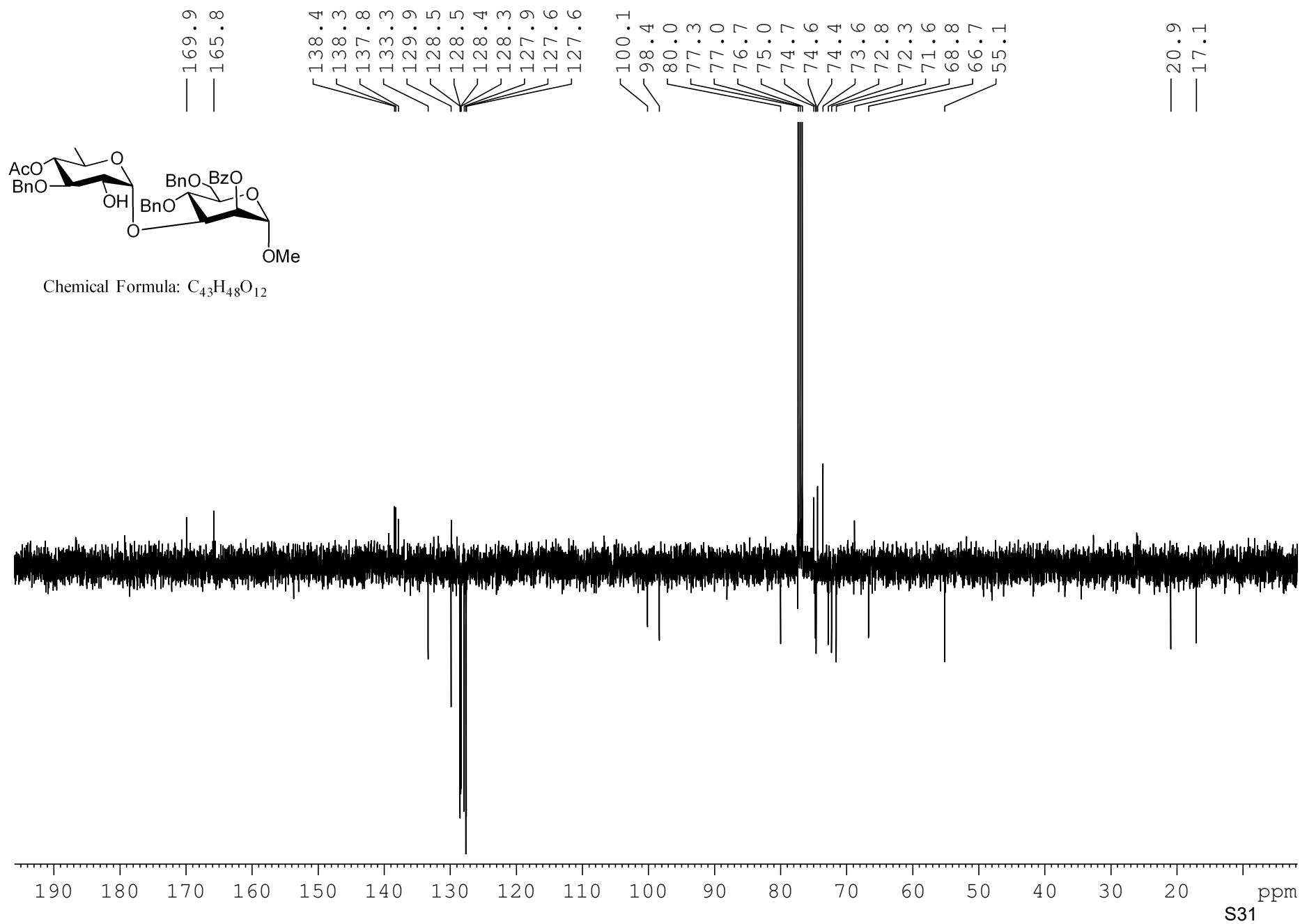
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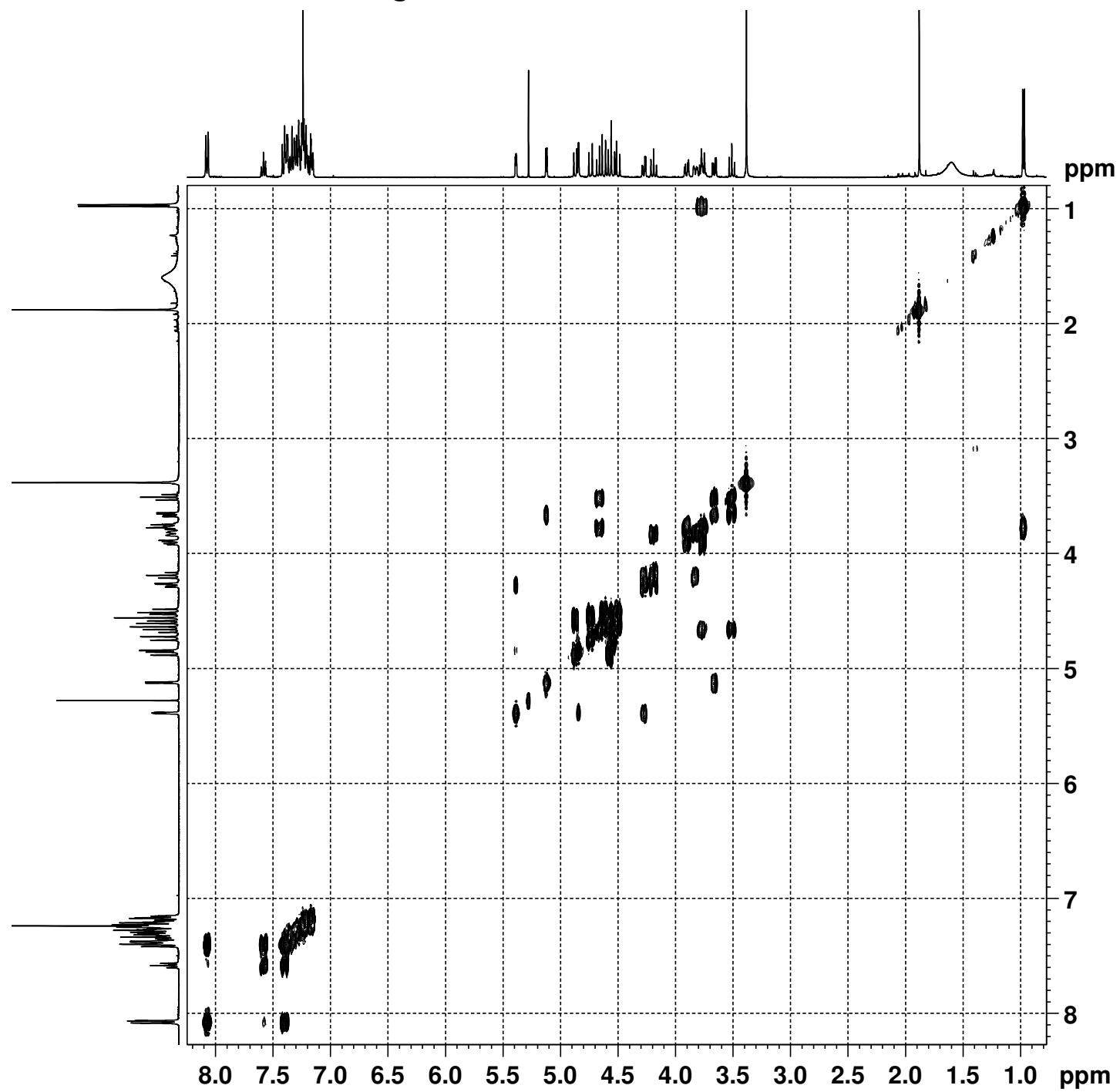
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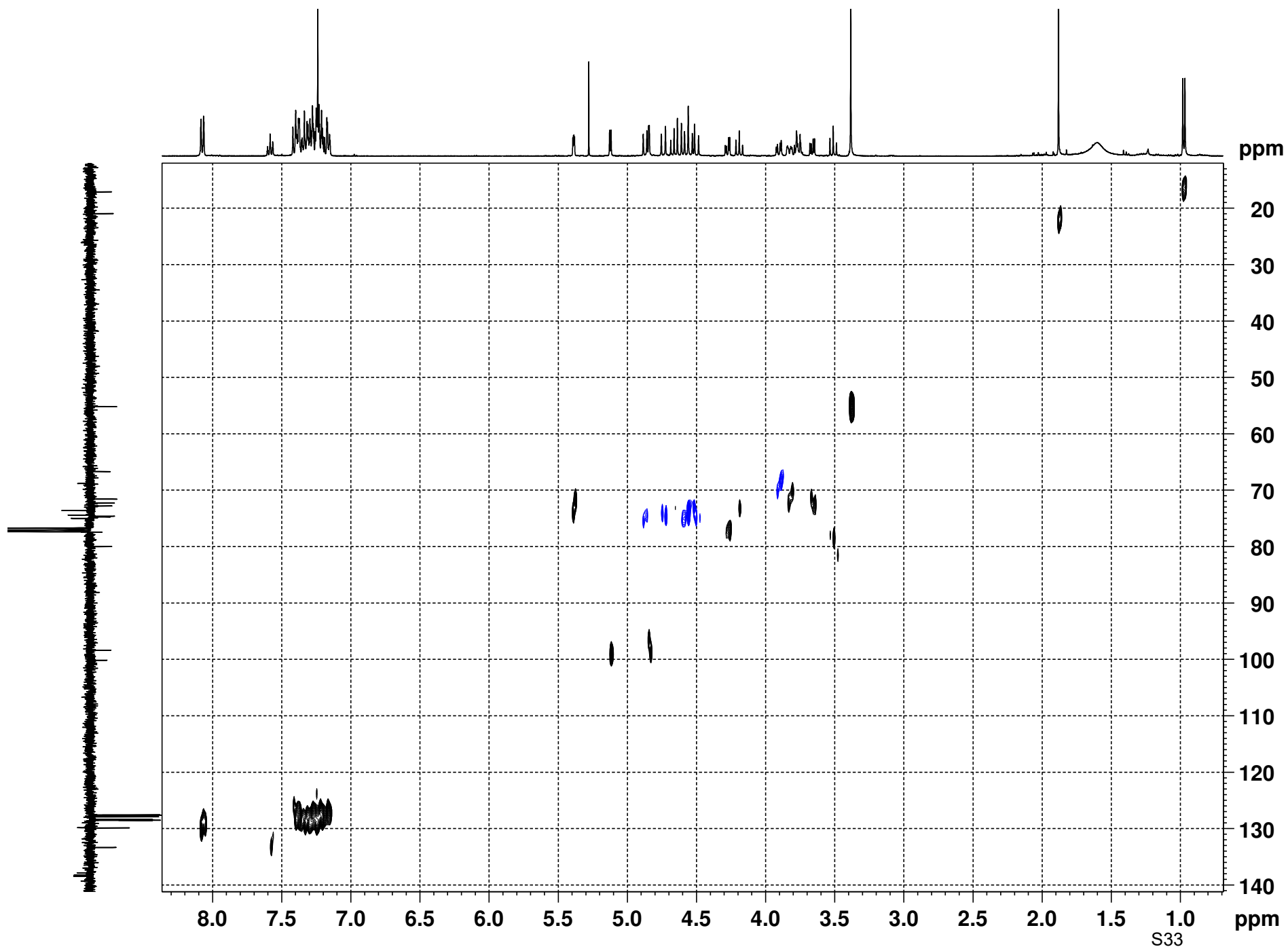
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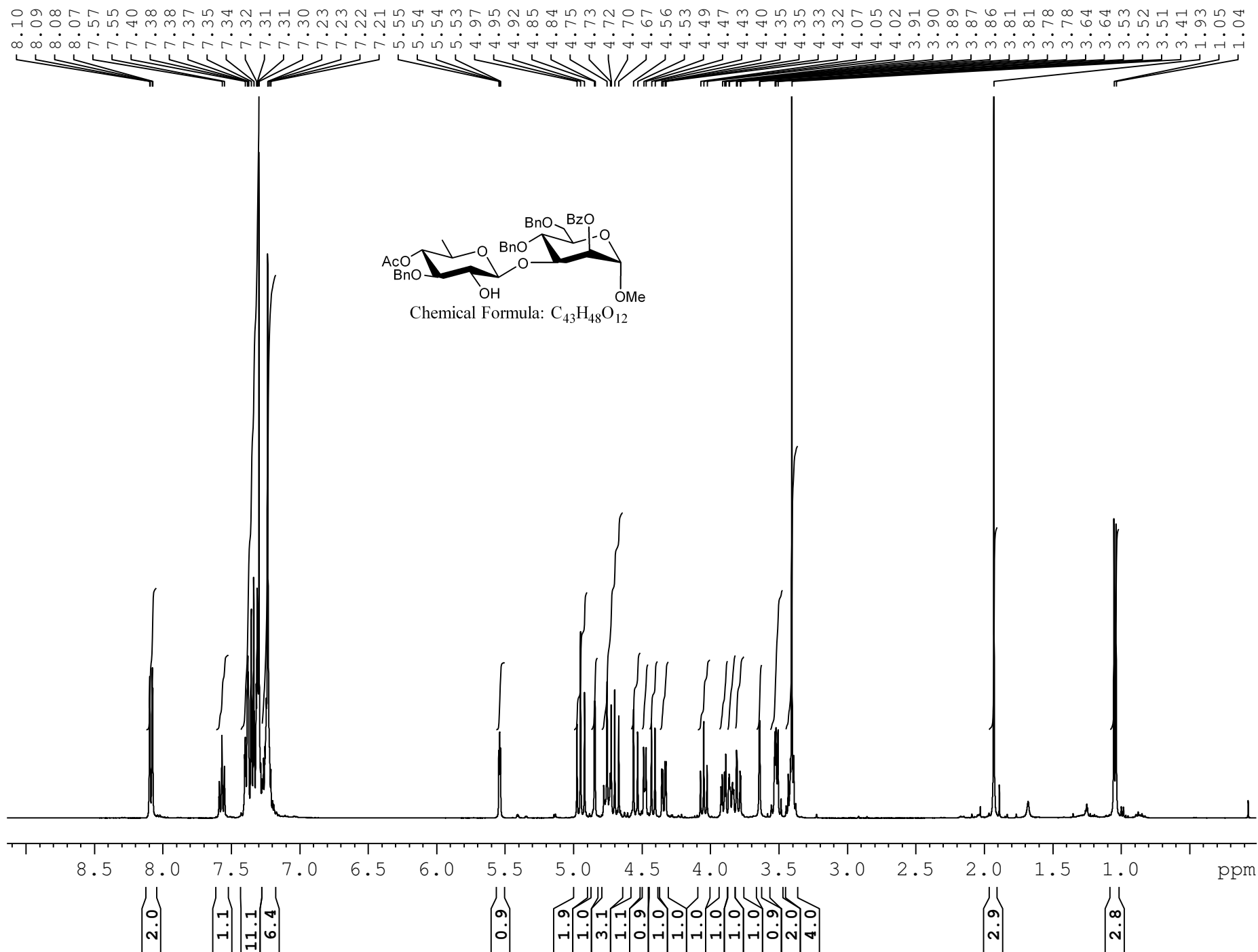
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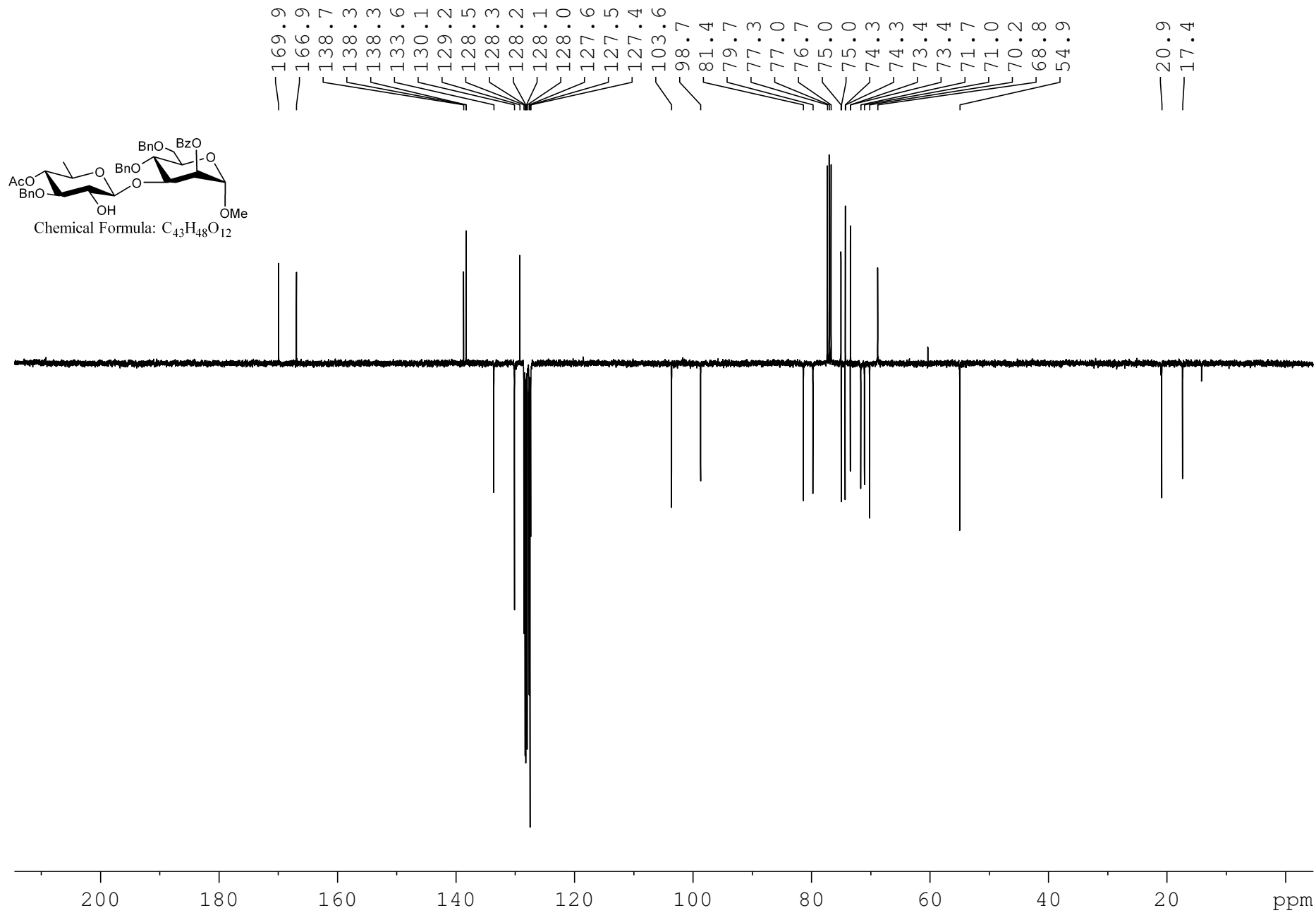
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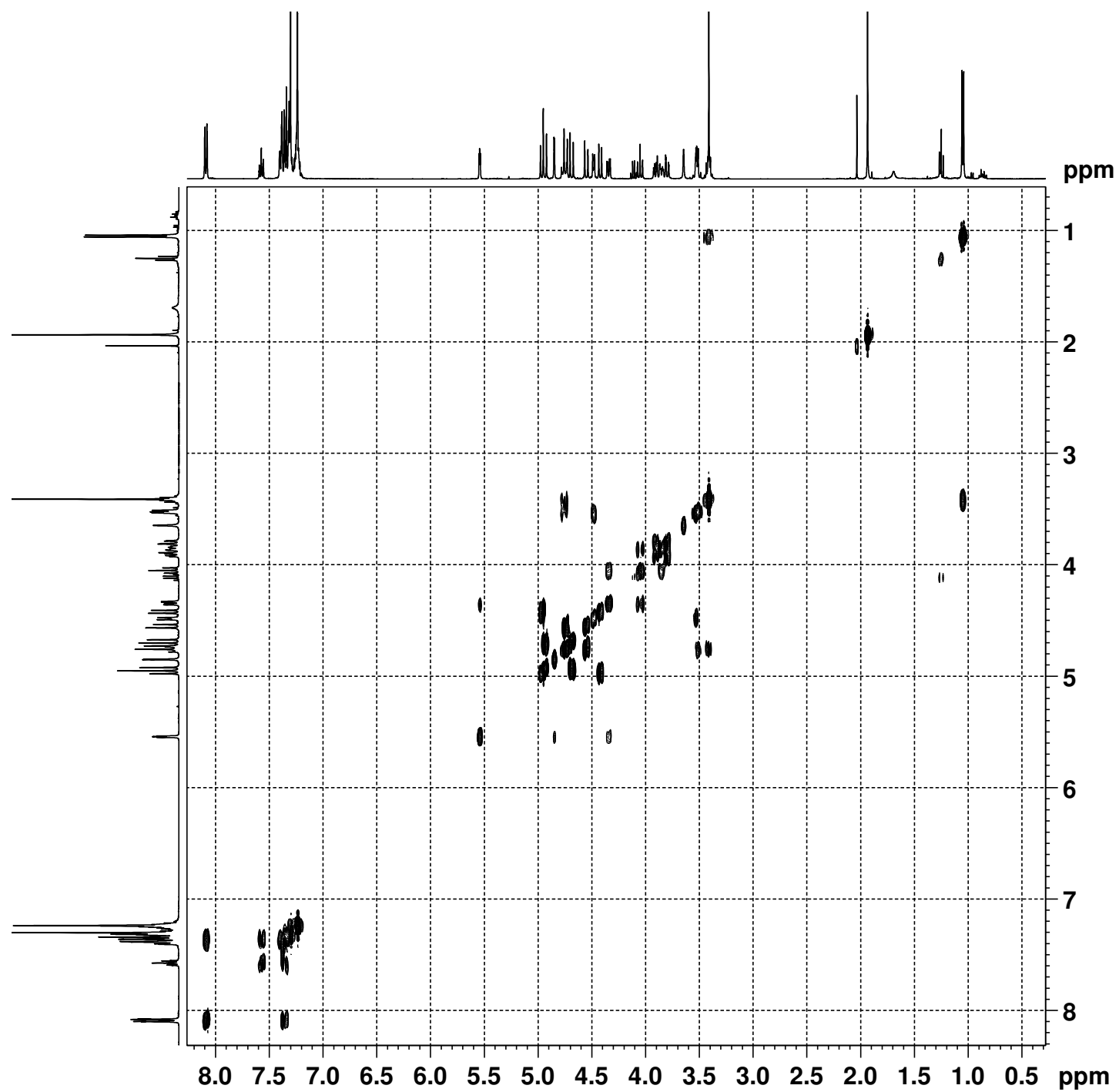
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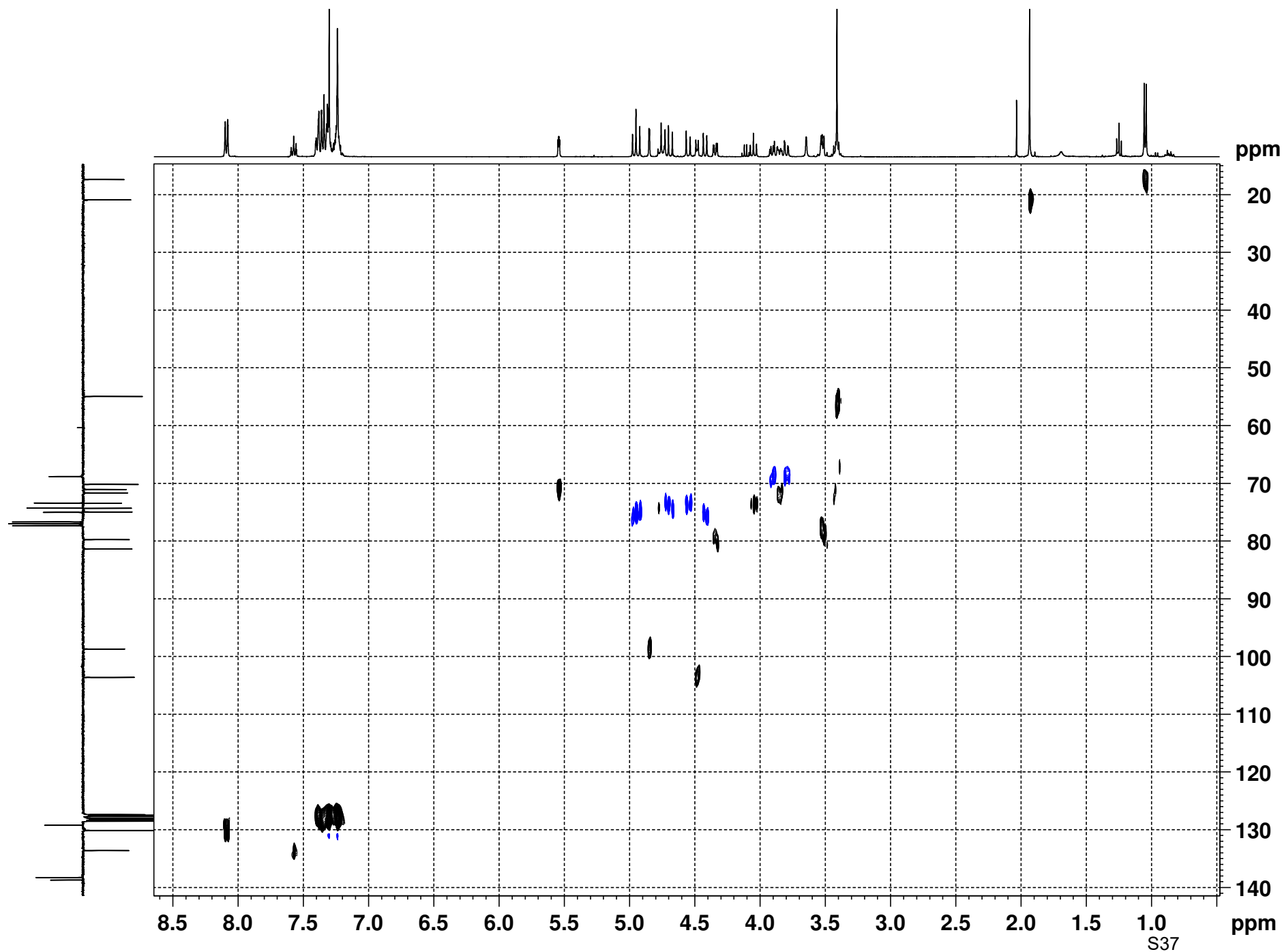
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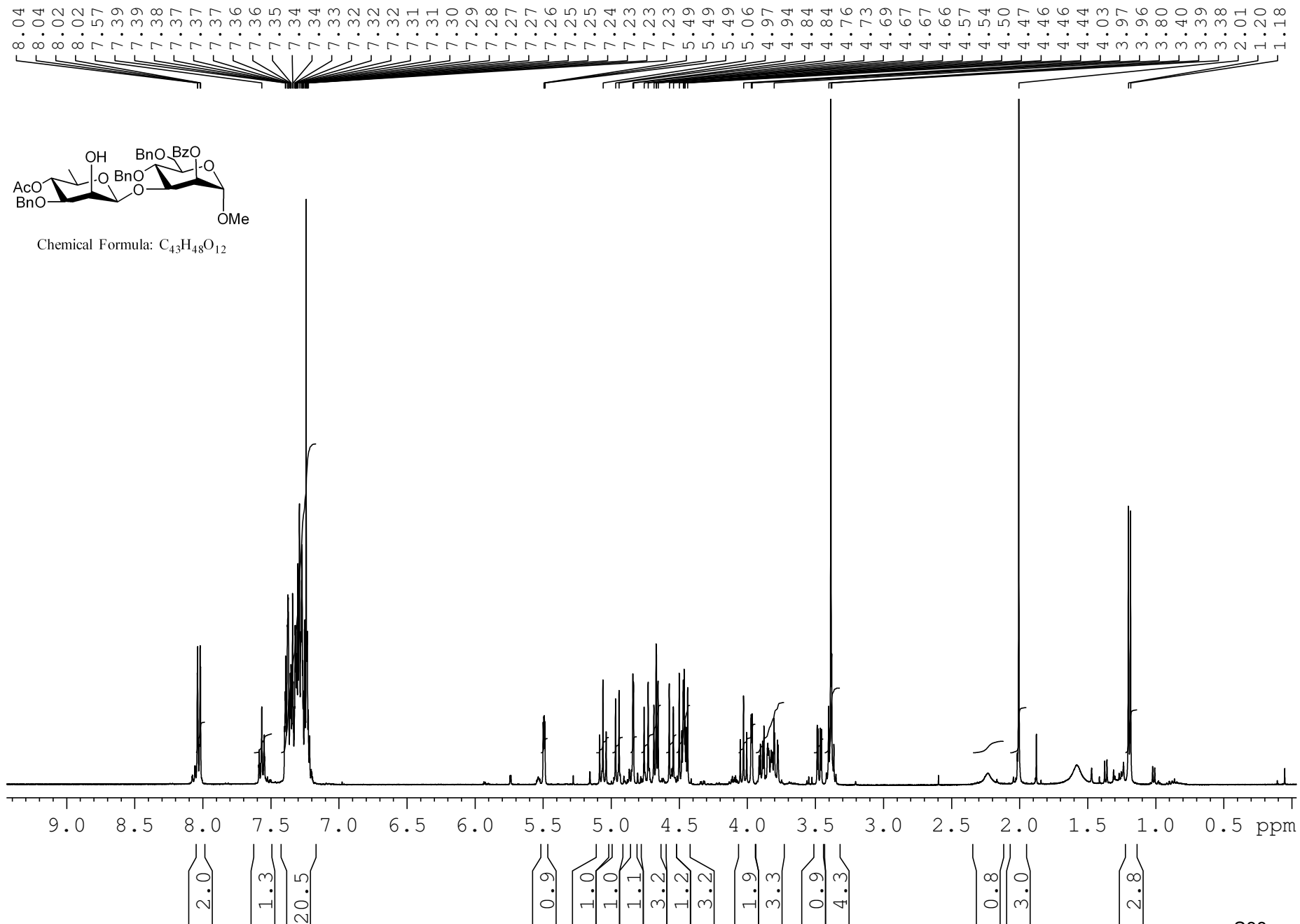
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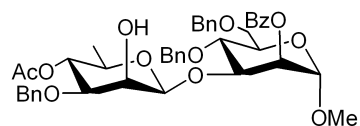
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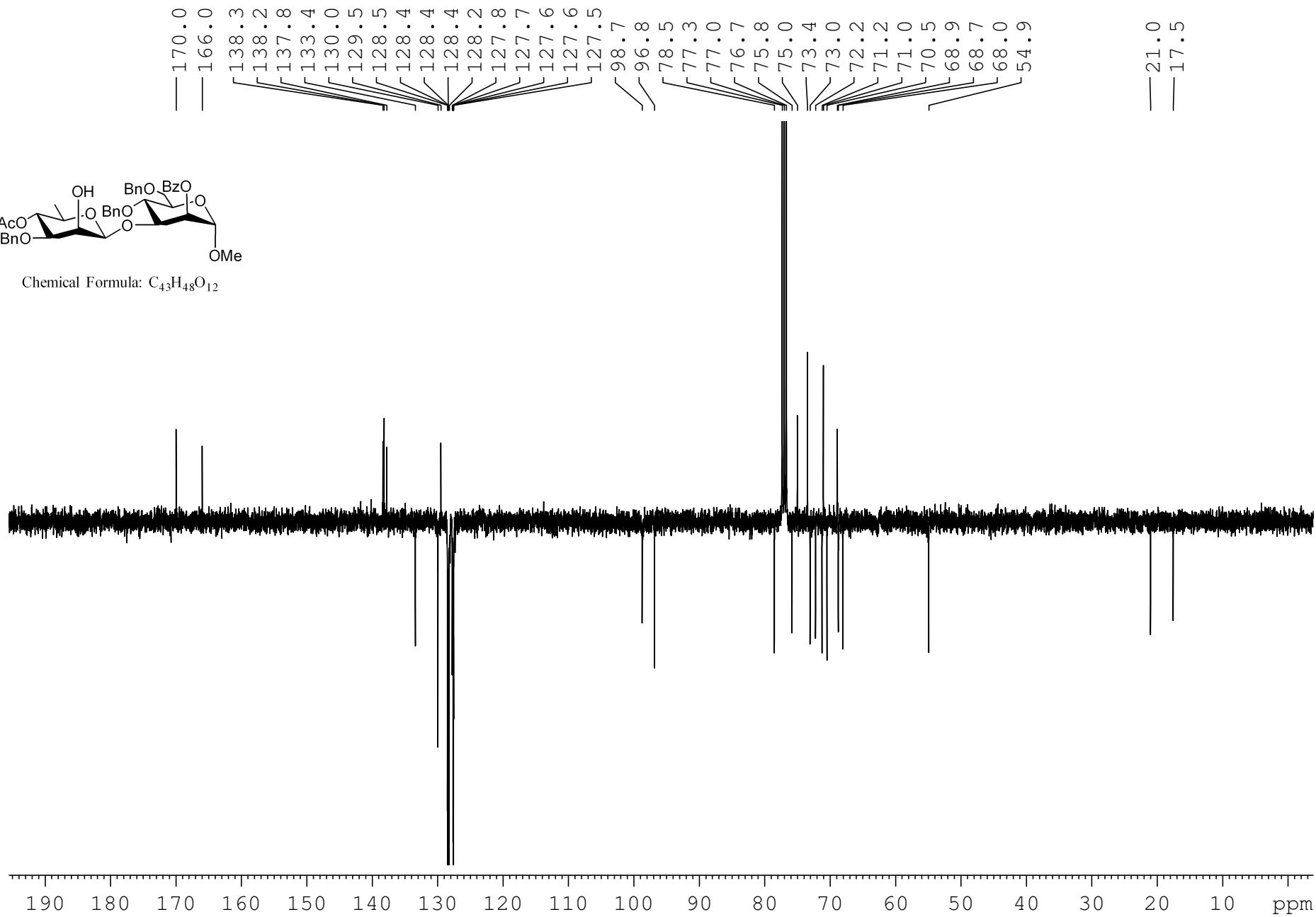
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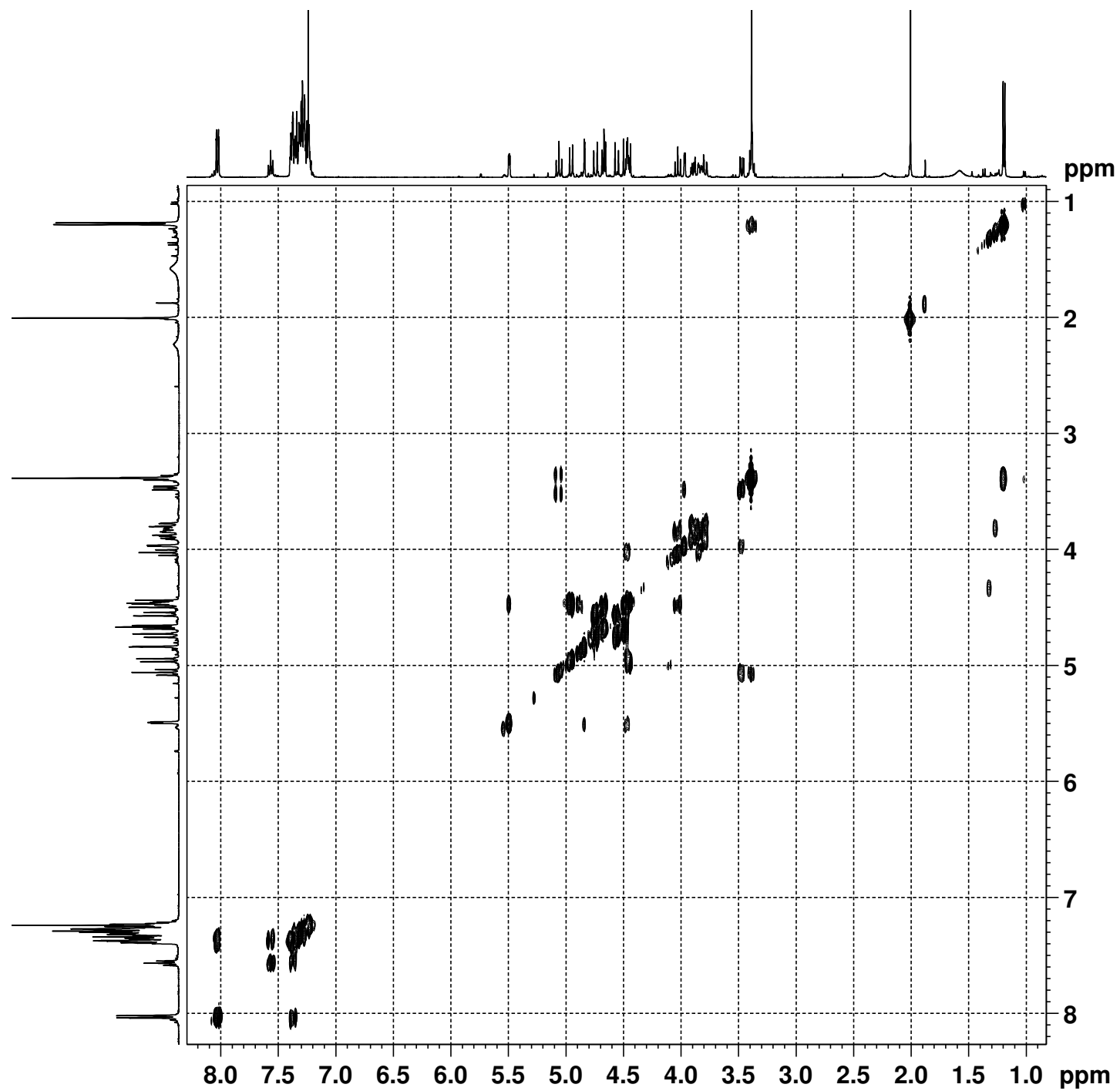
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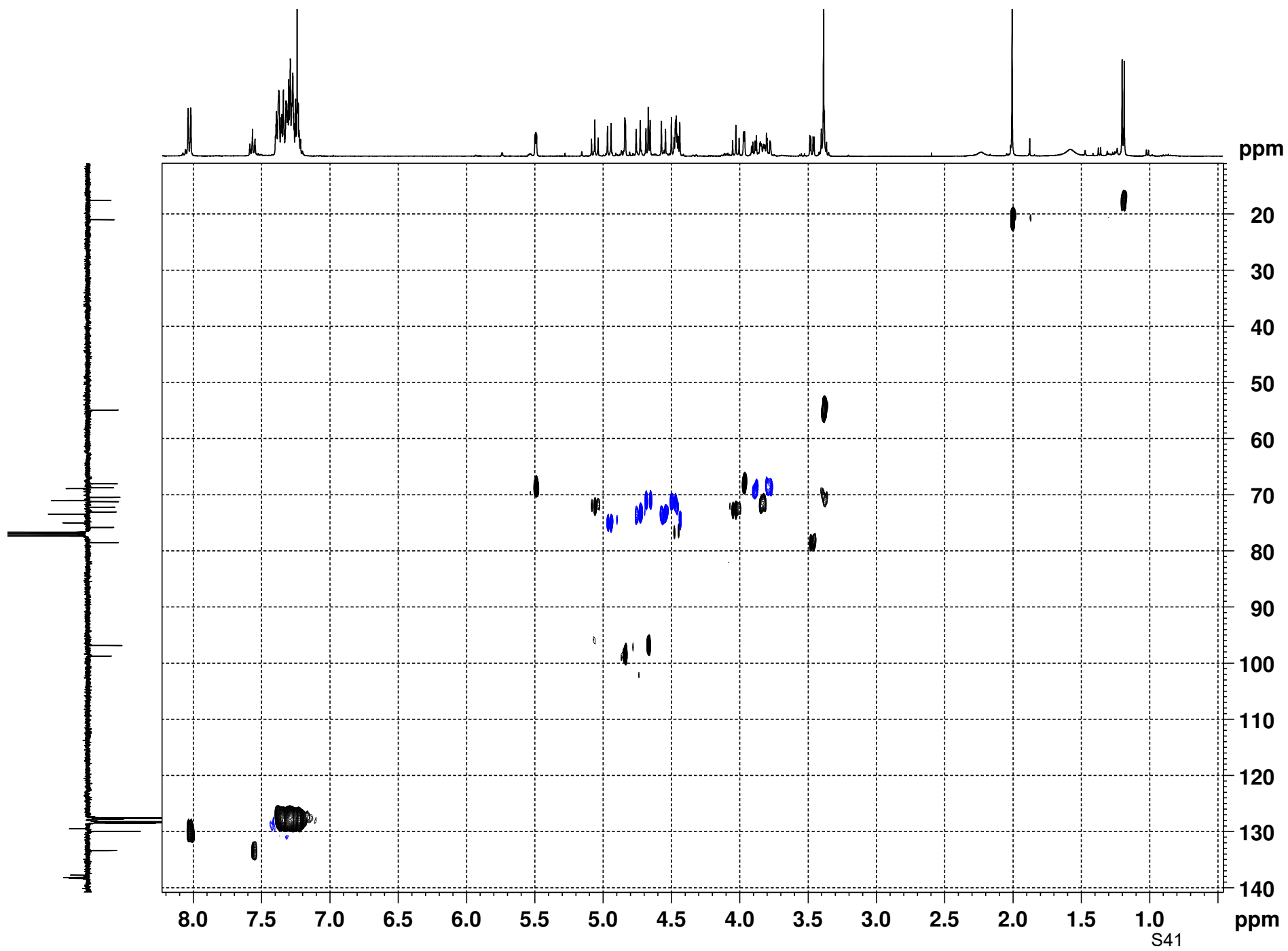
Chemical Formula: C<sub>43</sub>H<sub>48</sub>O<sub>12</sub>



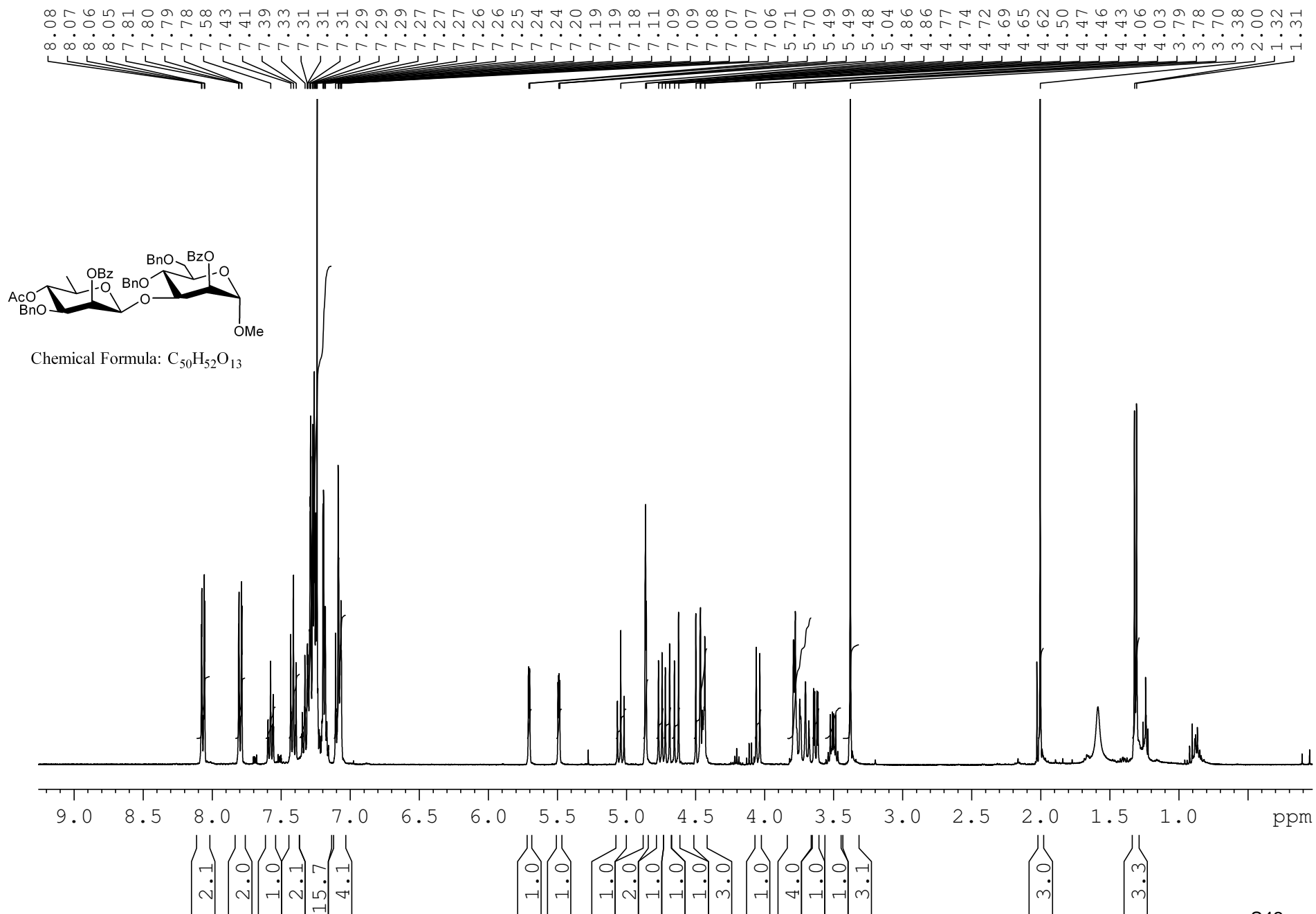
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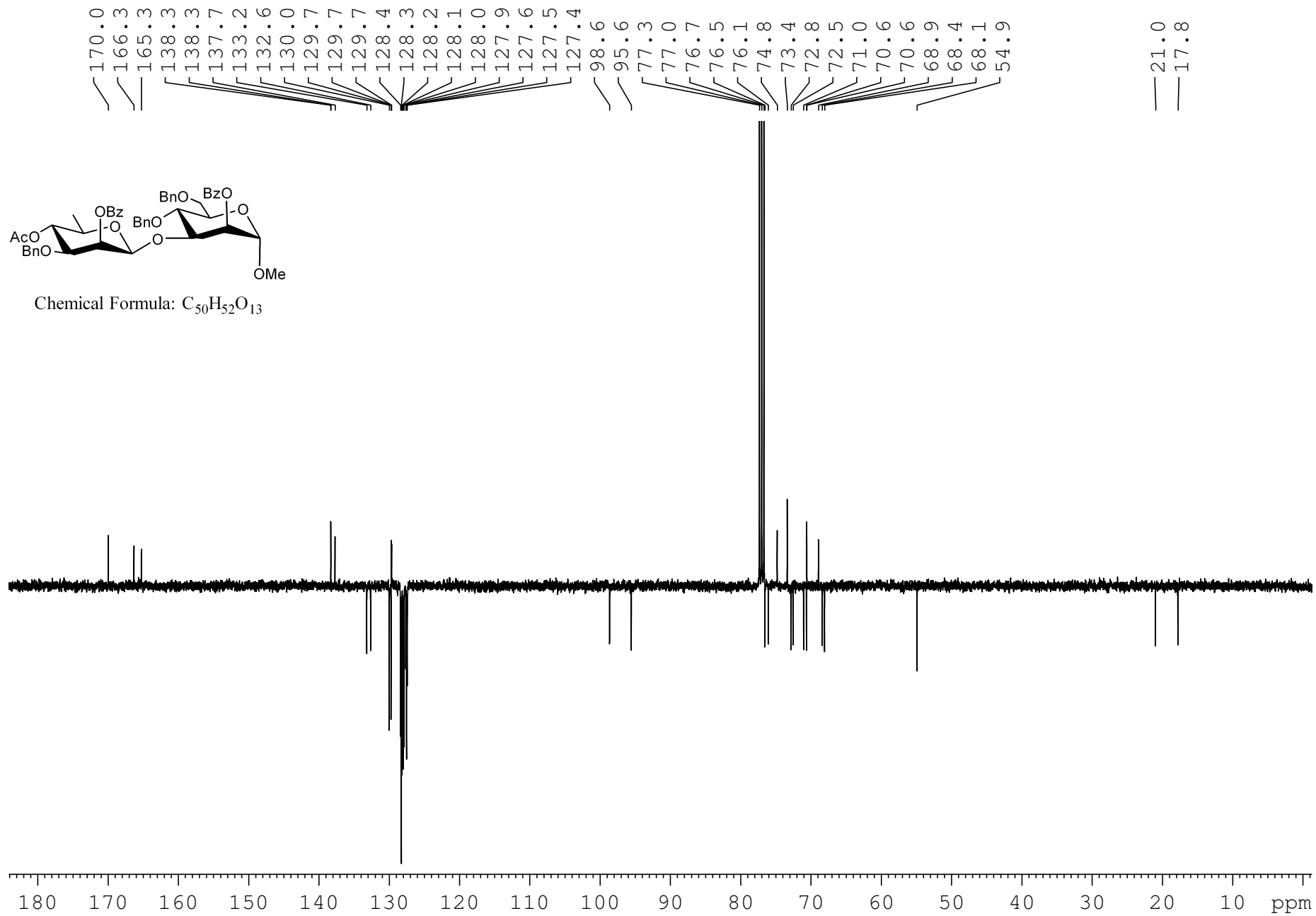
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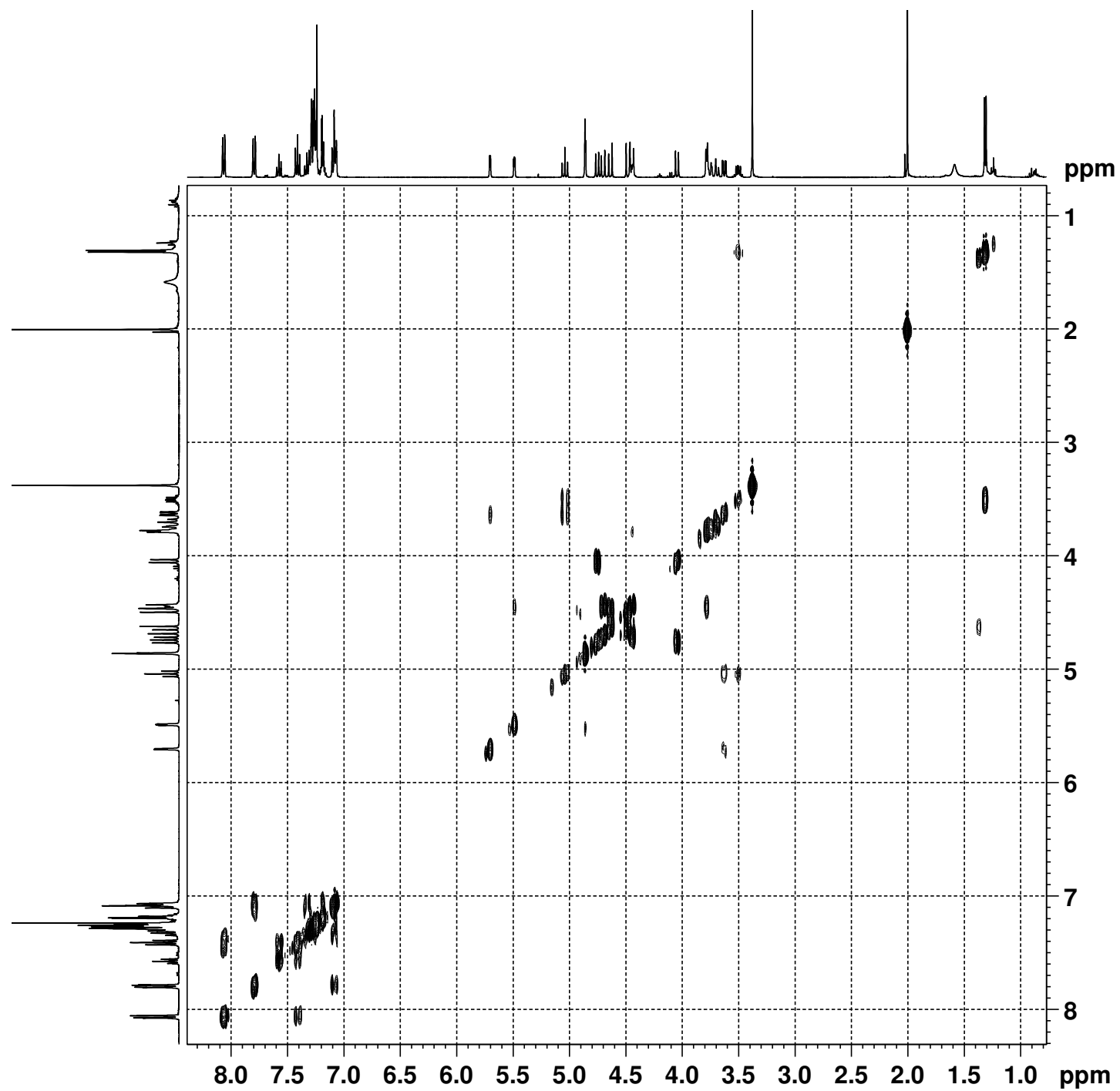
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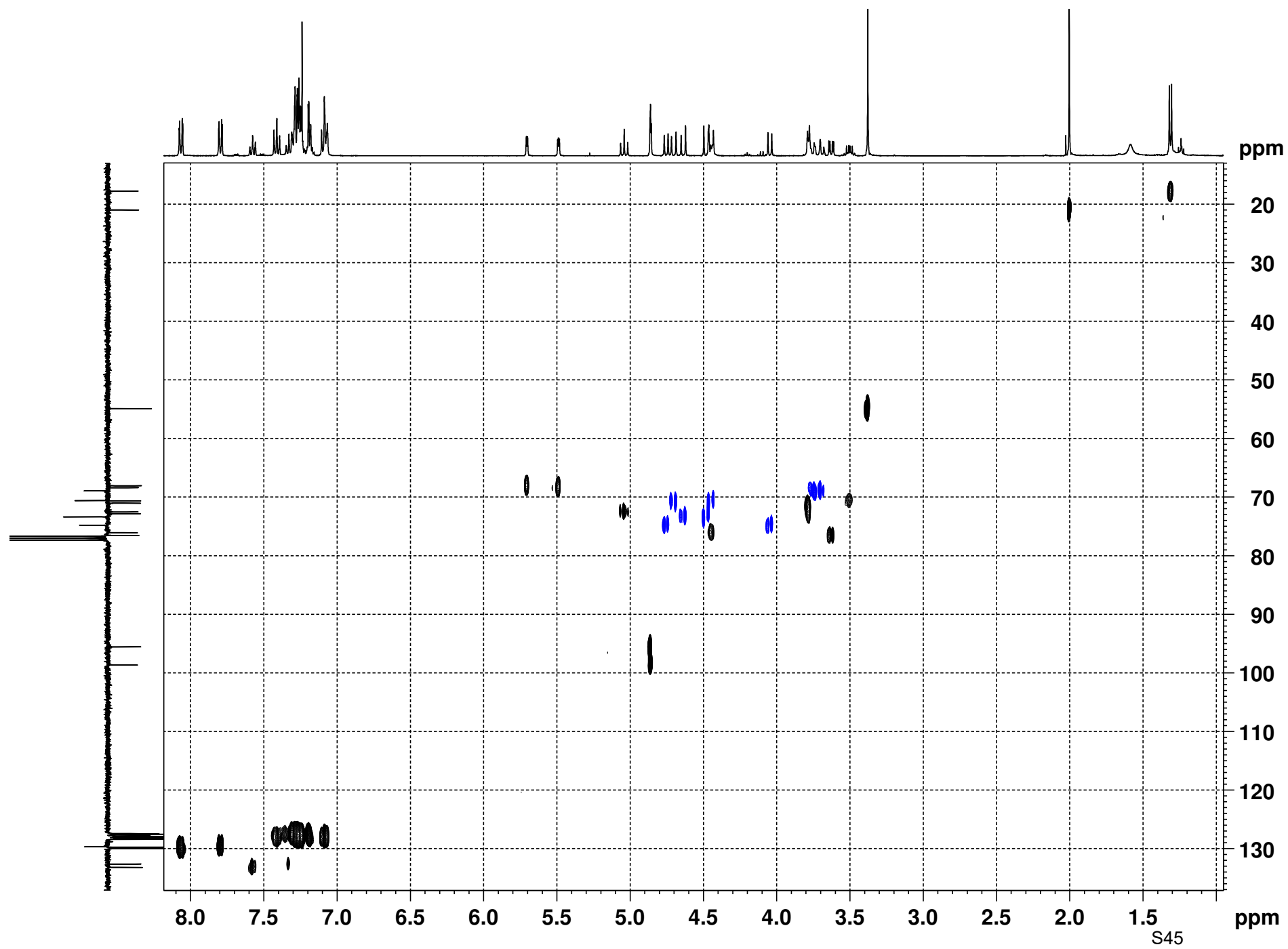
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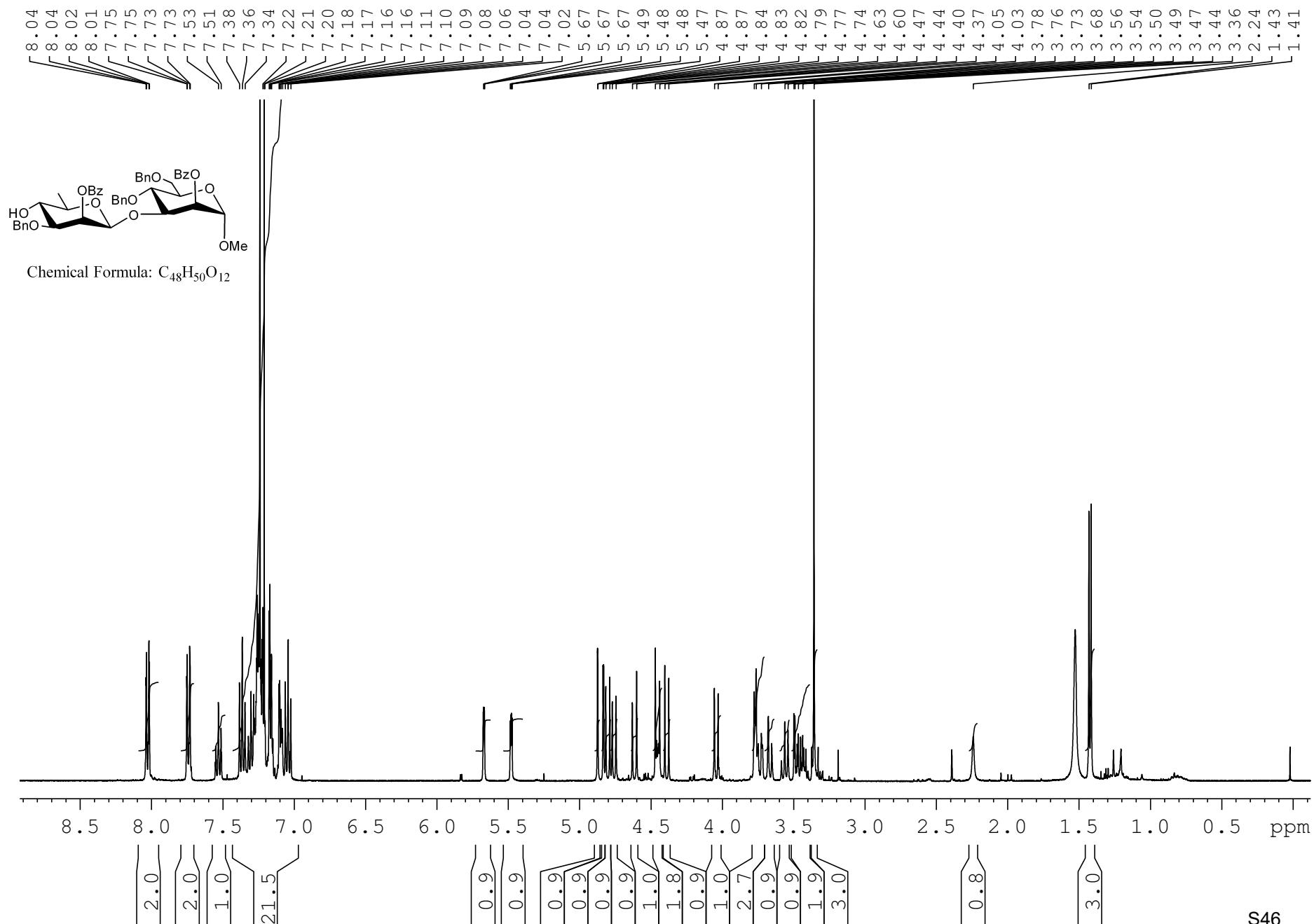
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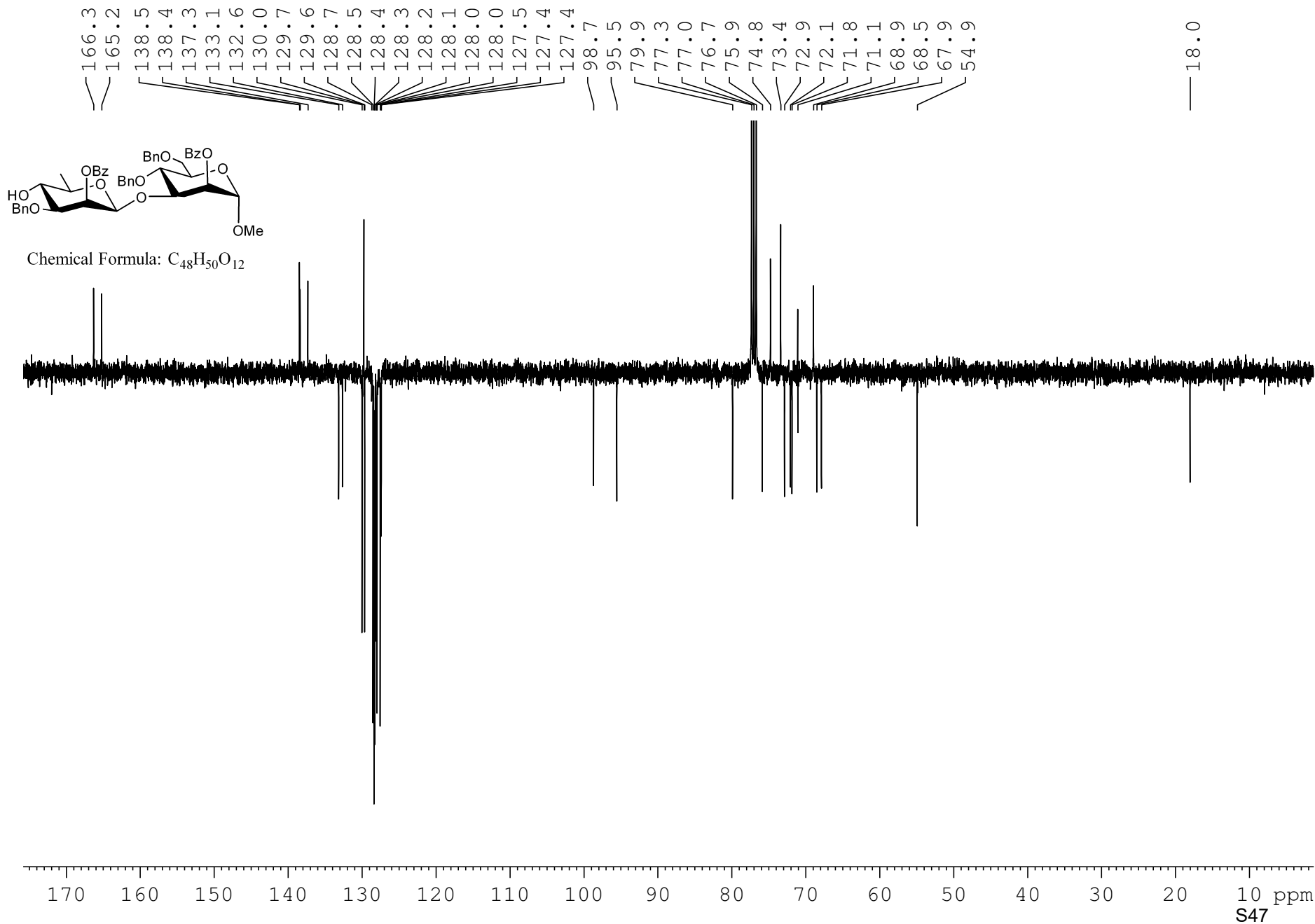
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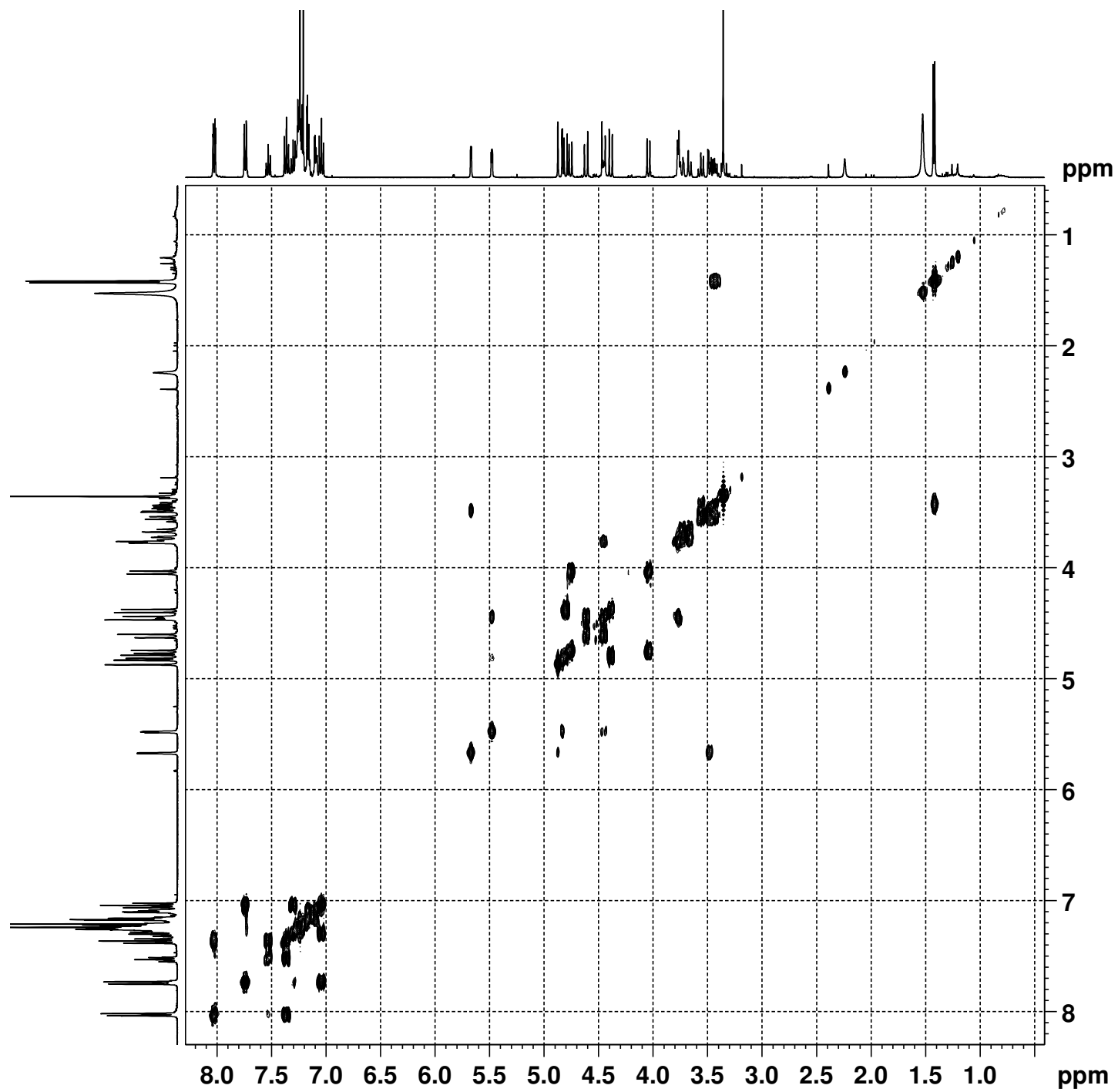
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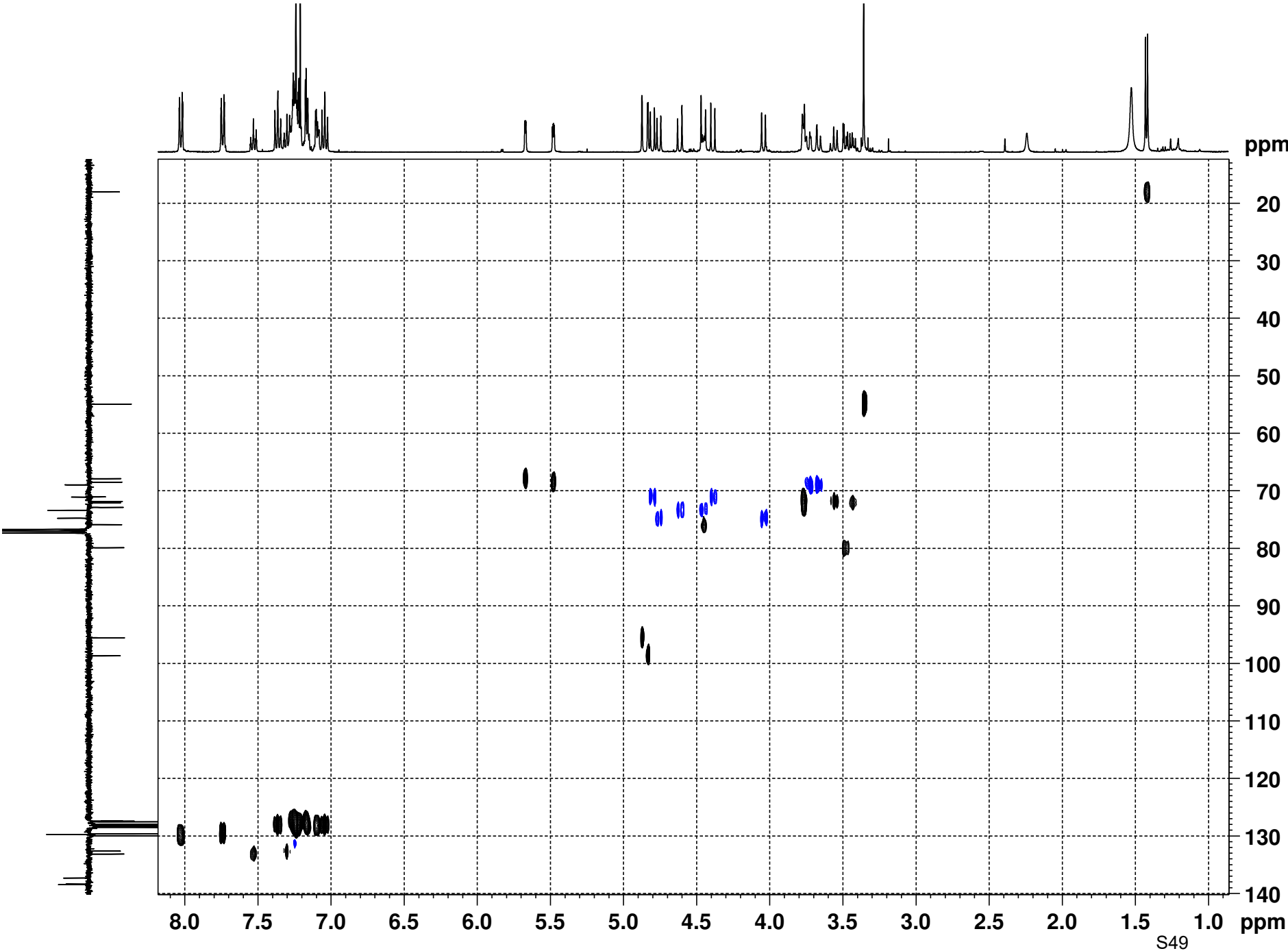
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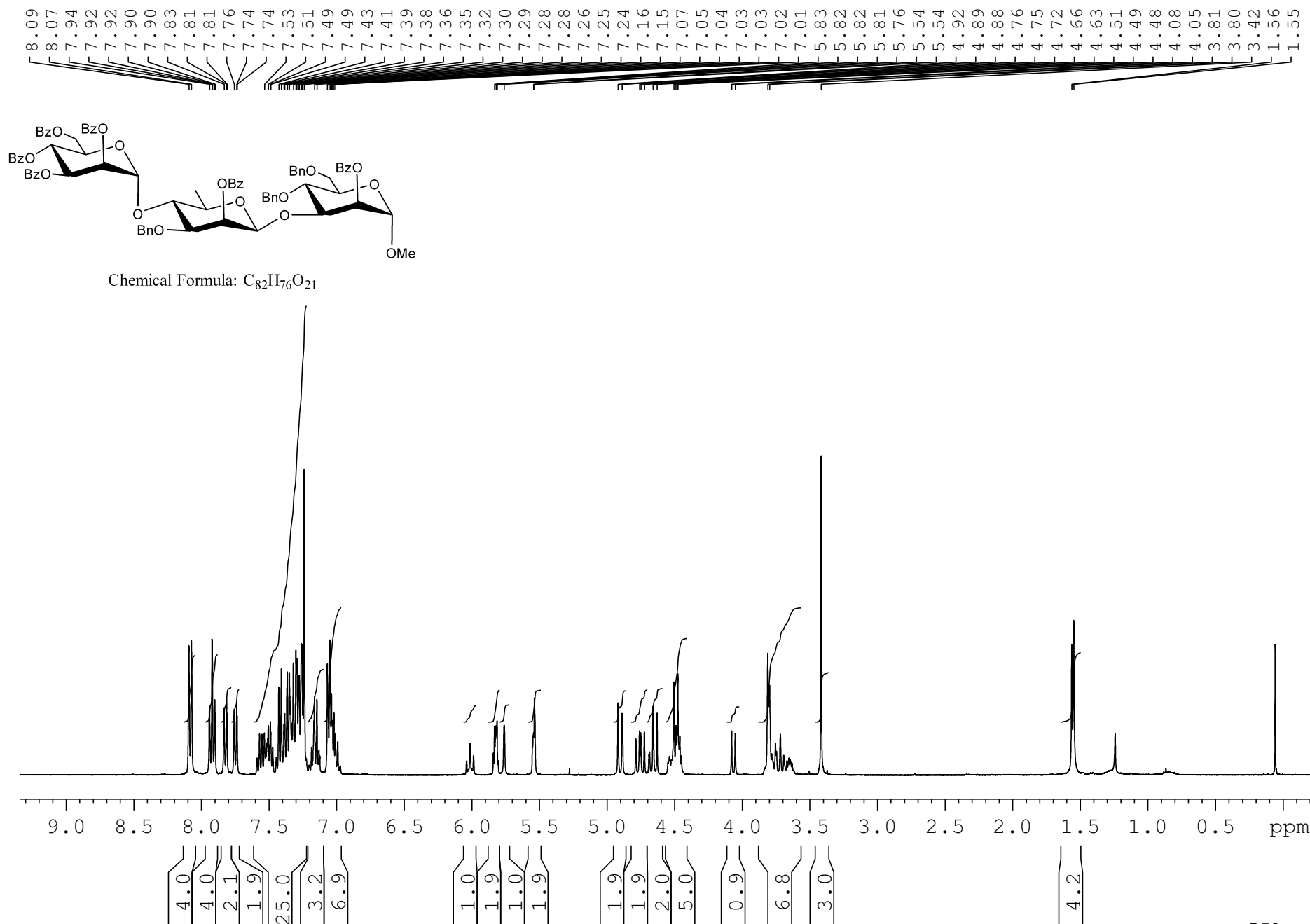
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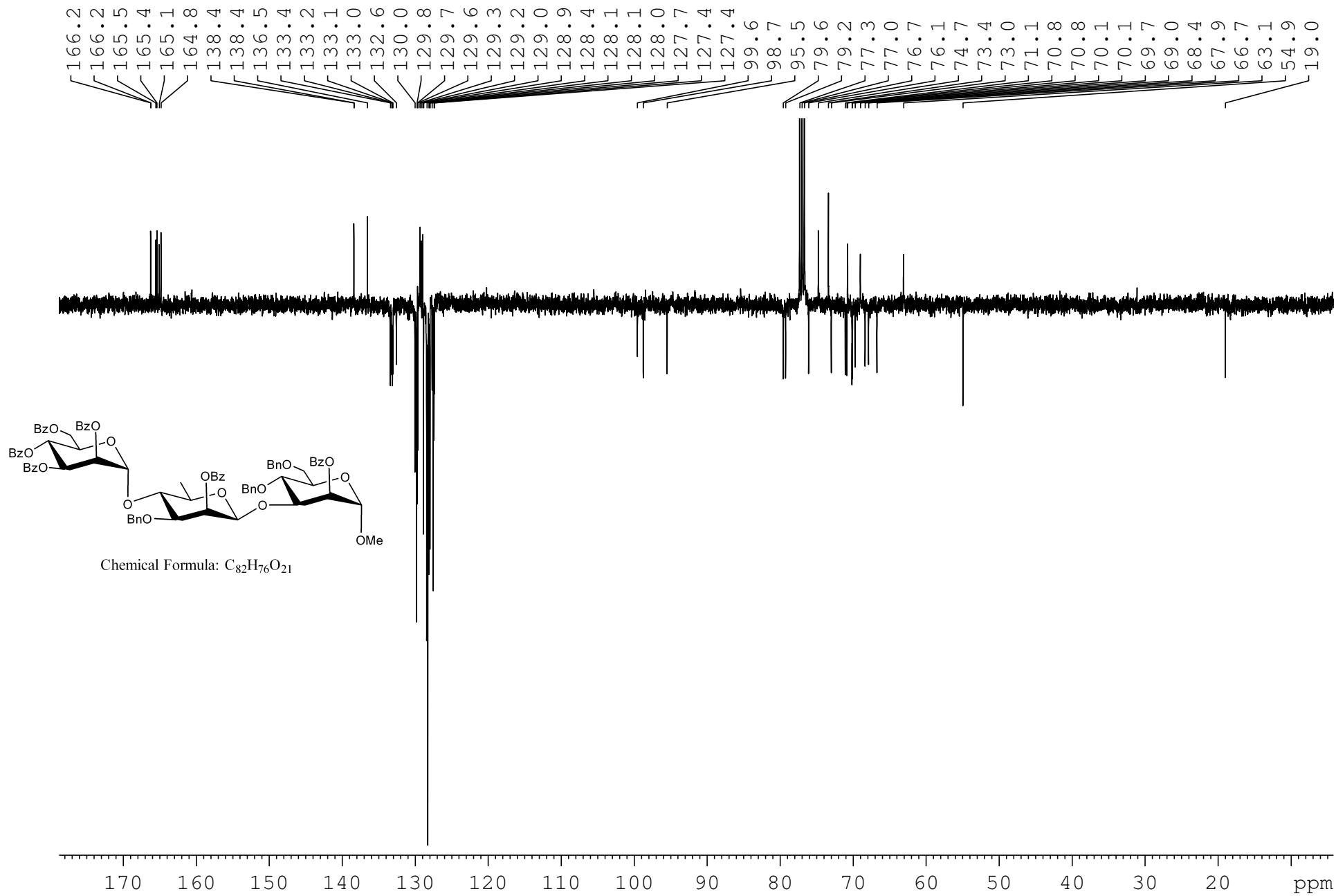
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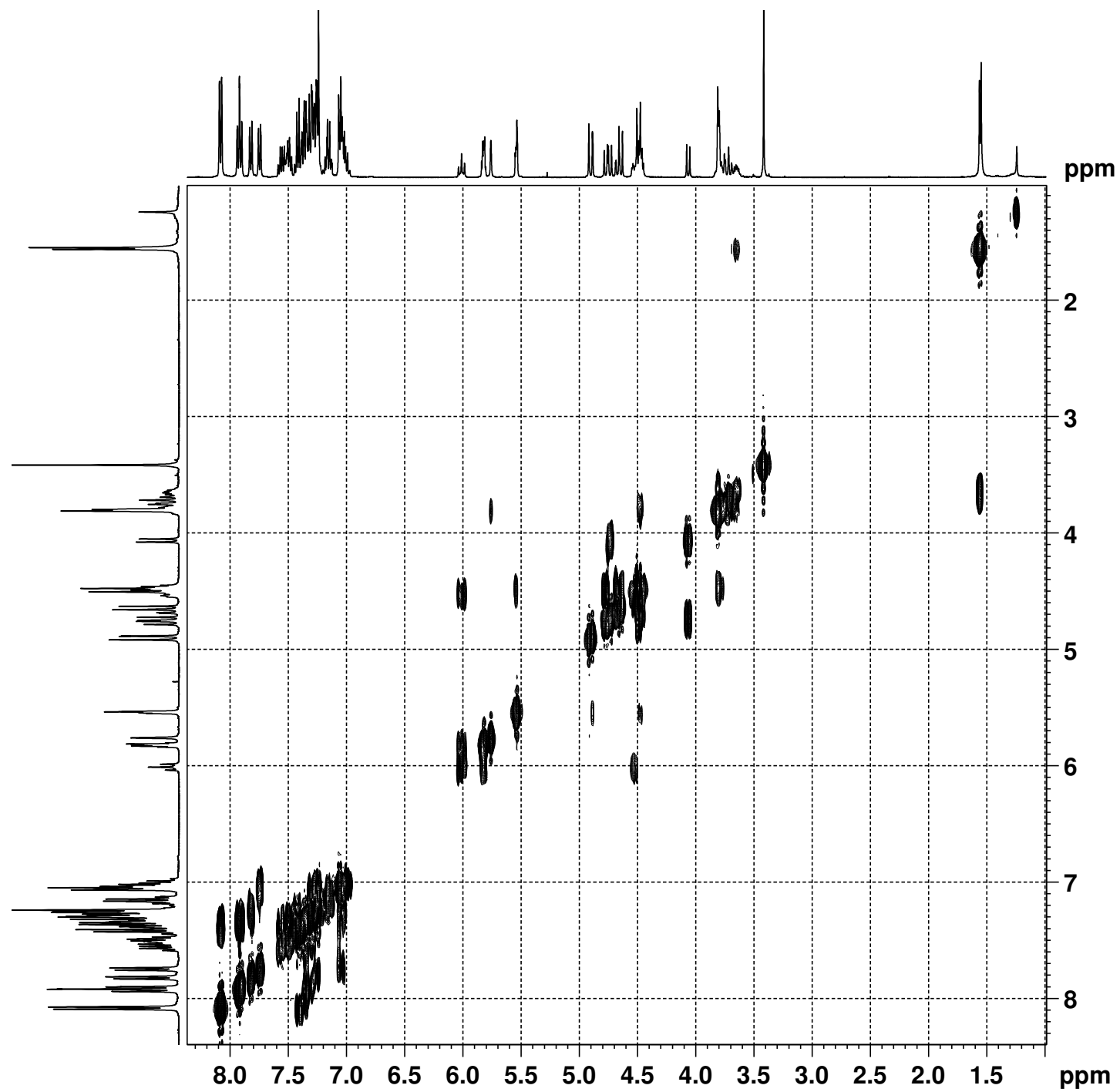
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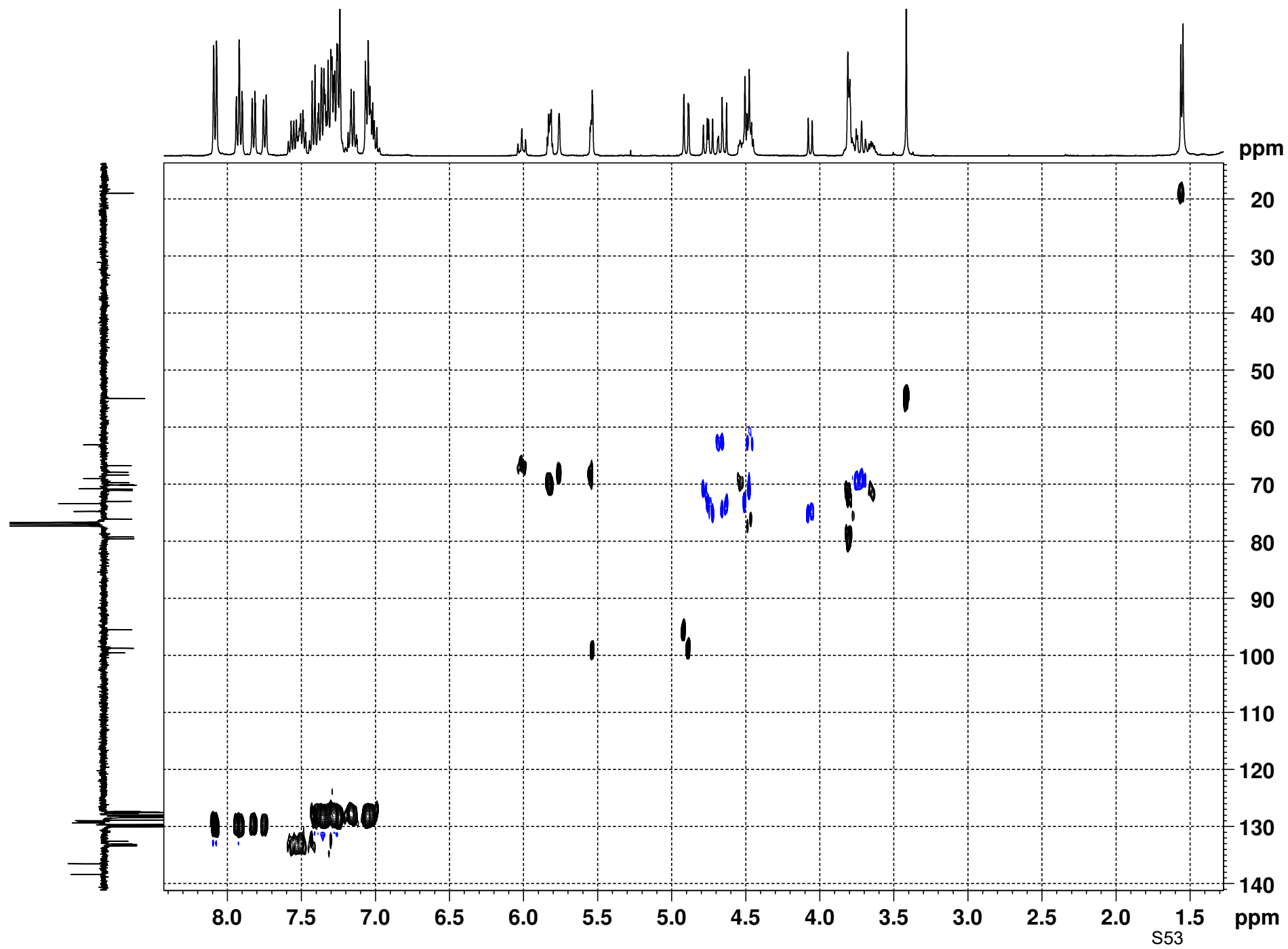
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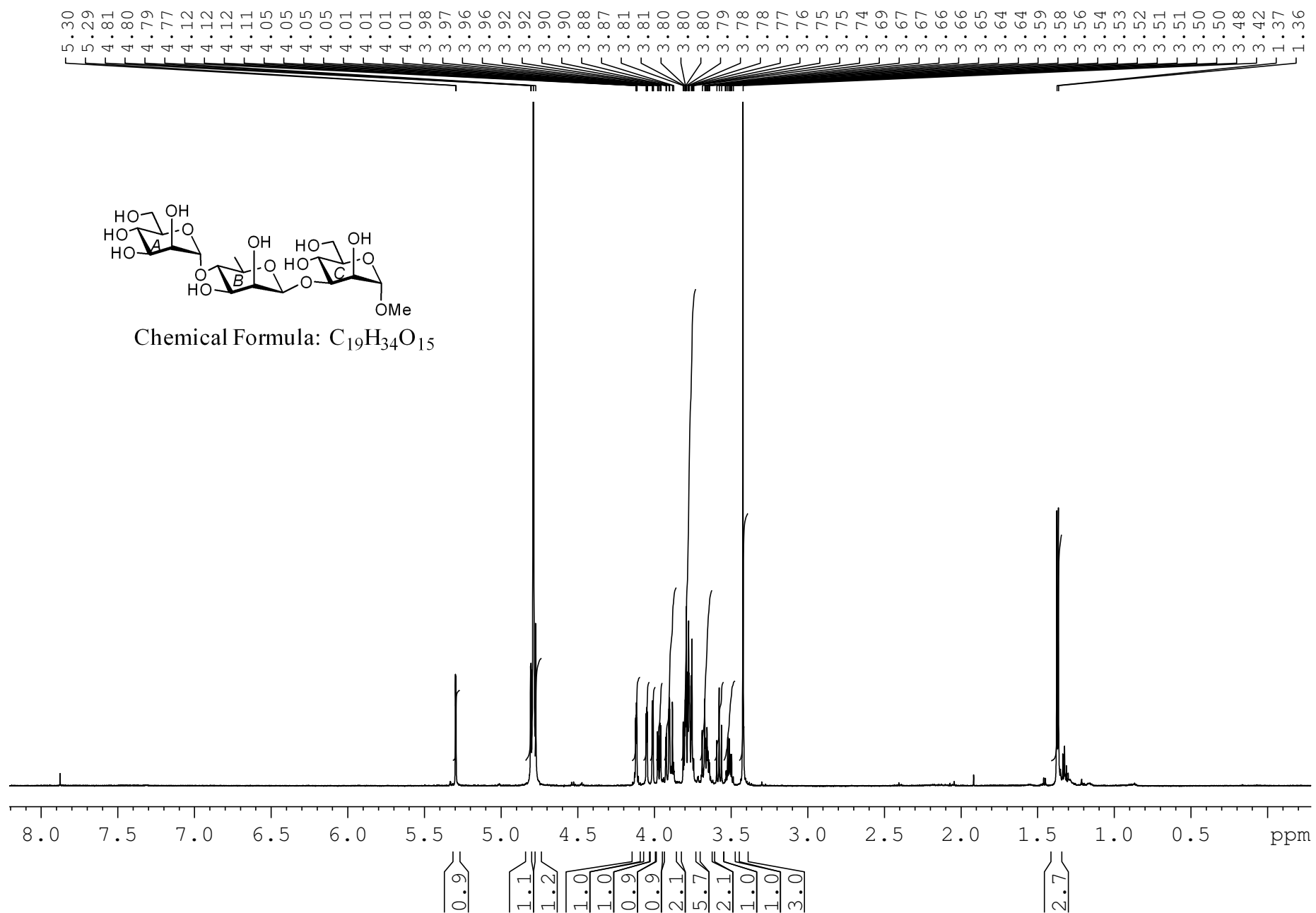
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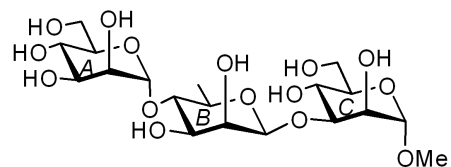
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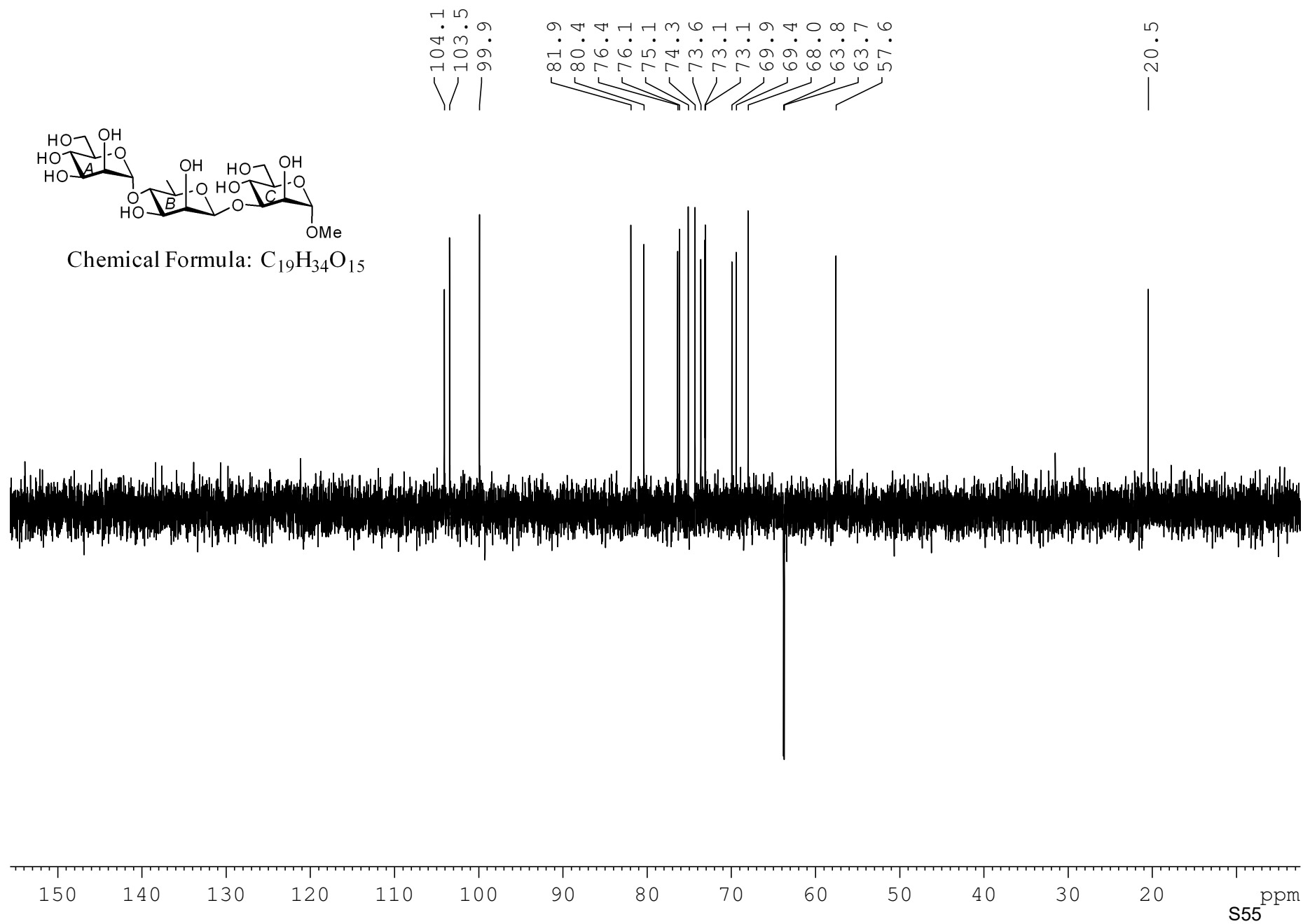
Compound **1**, 600 MHz, D<sub>2</sub>O, 298 K



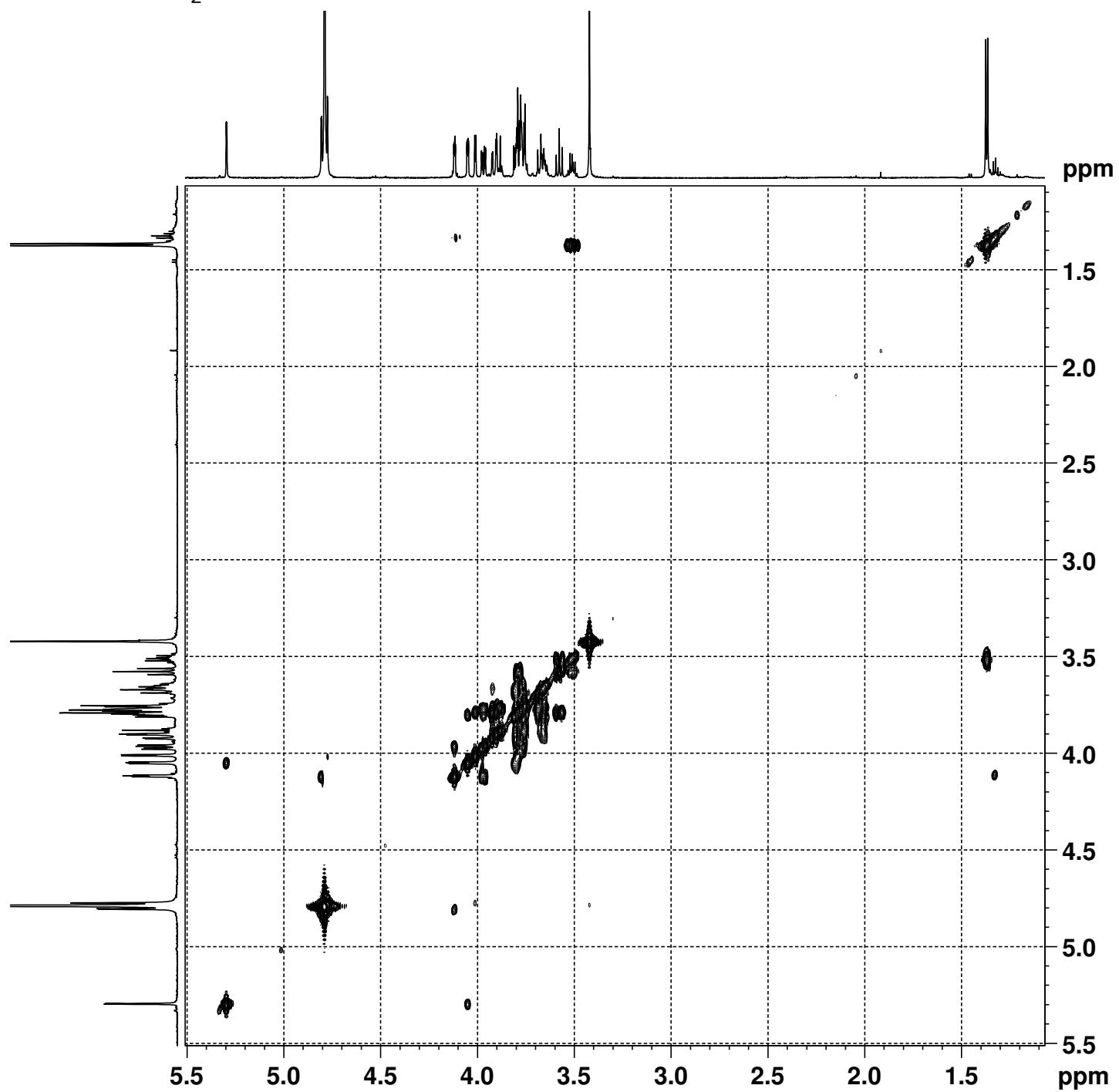
Compound **1**, 151 MHz, D<sub>2</sub>O, 298 K



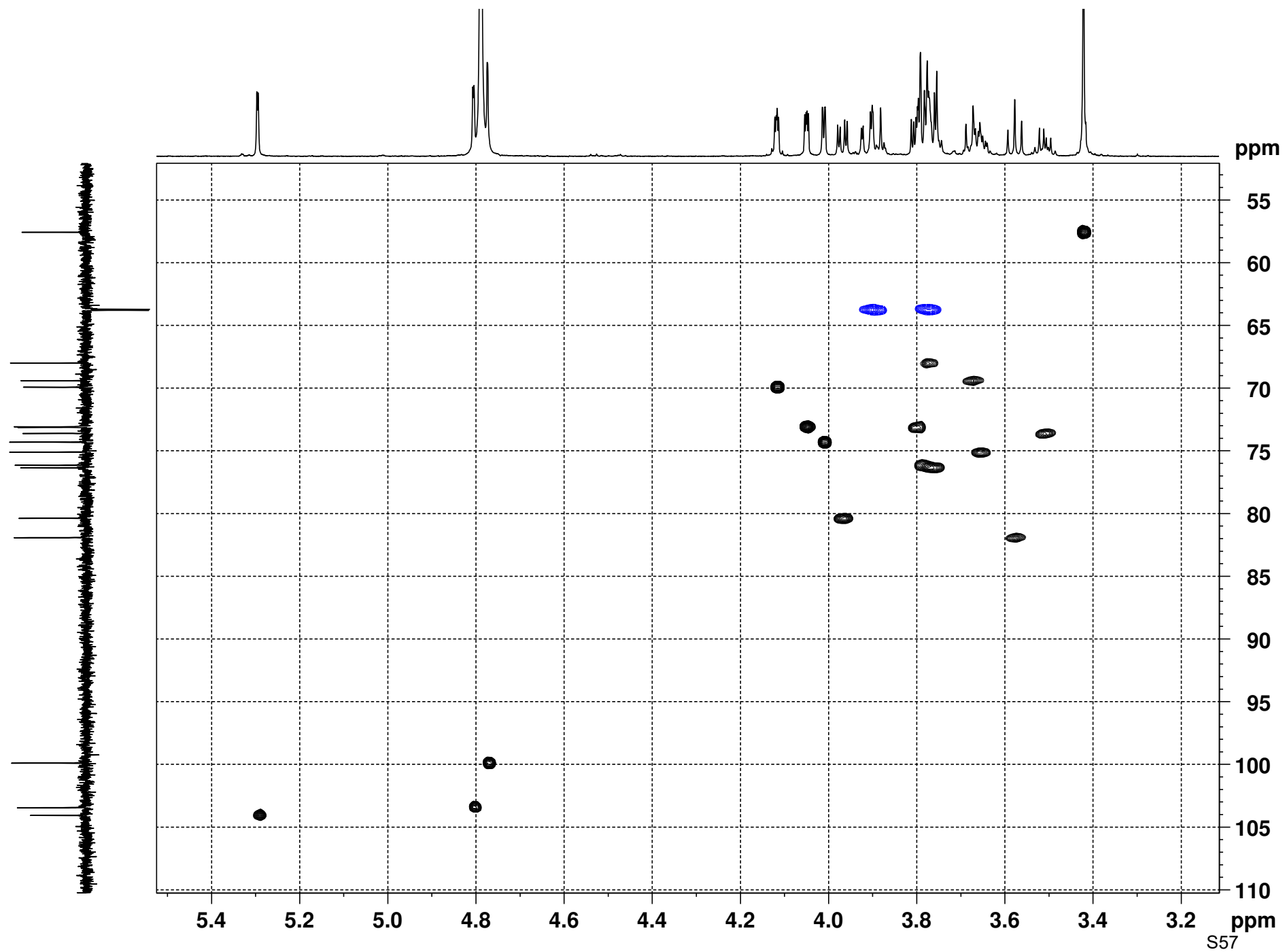
Chemical Formula: C<sub>19</sub>H<sub>34</sub>O<sub>15</sub>



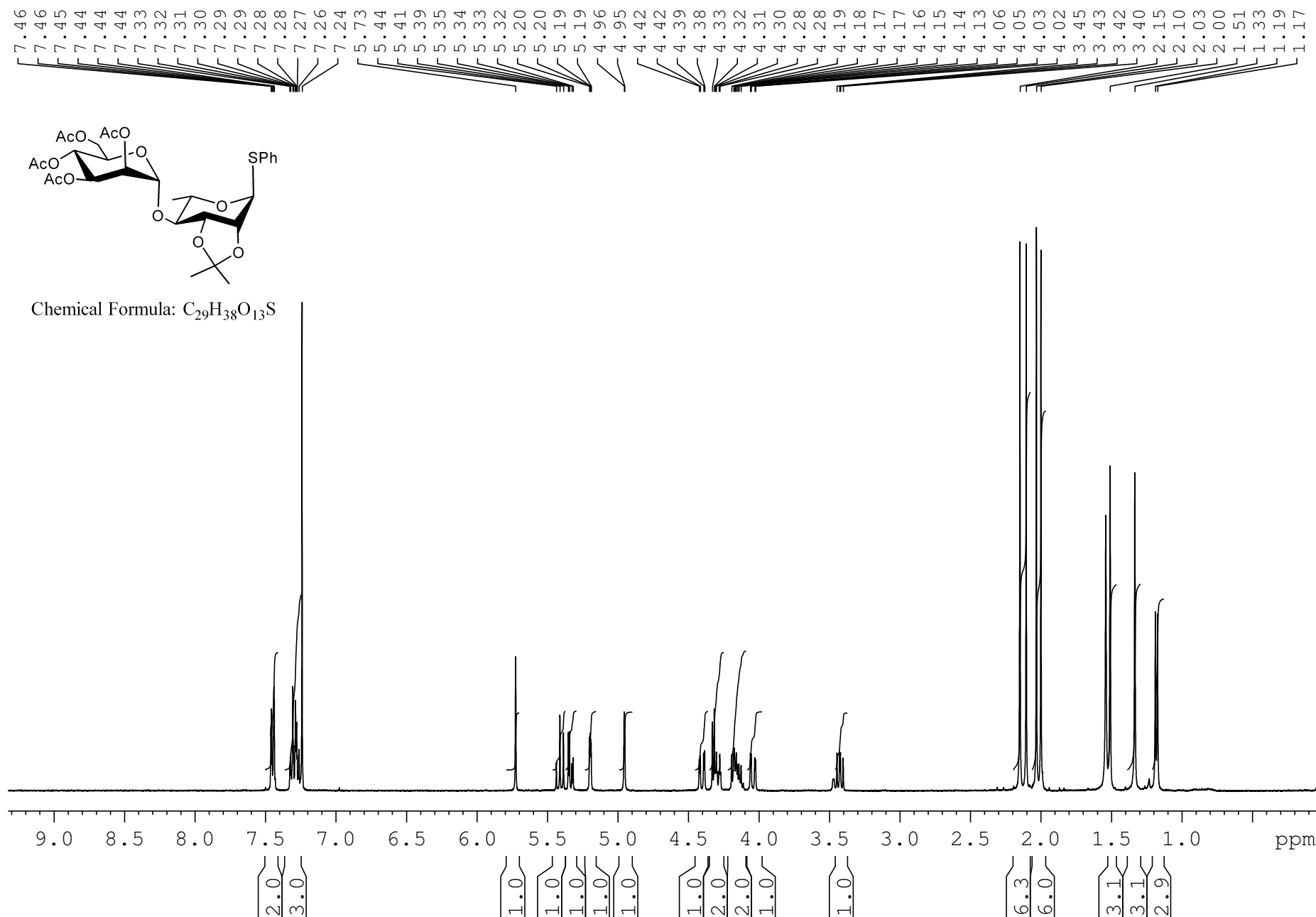
Compound 1, 600 MHz, D<sub>2</sub>O, 298 K



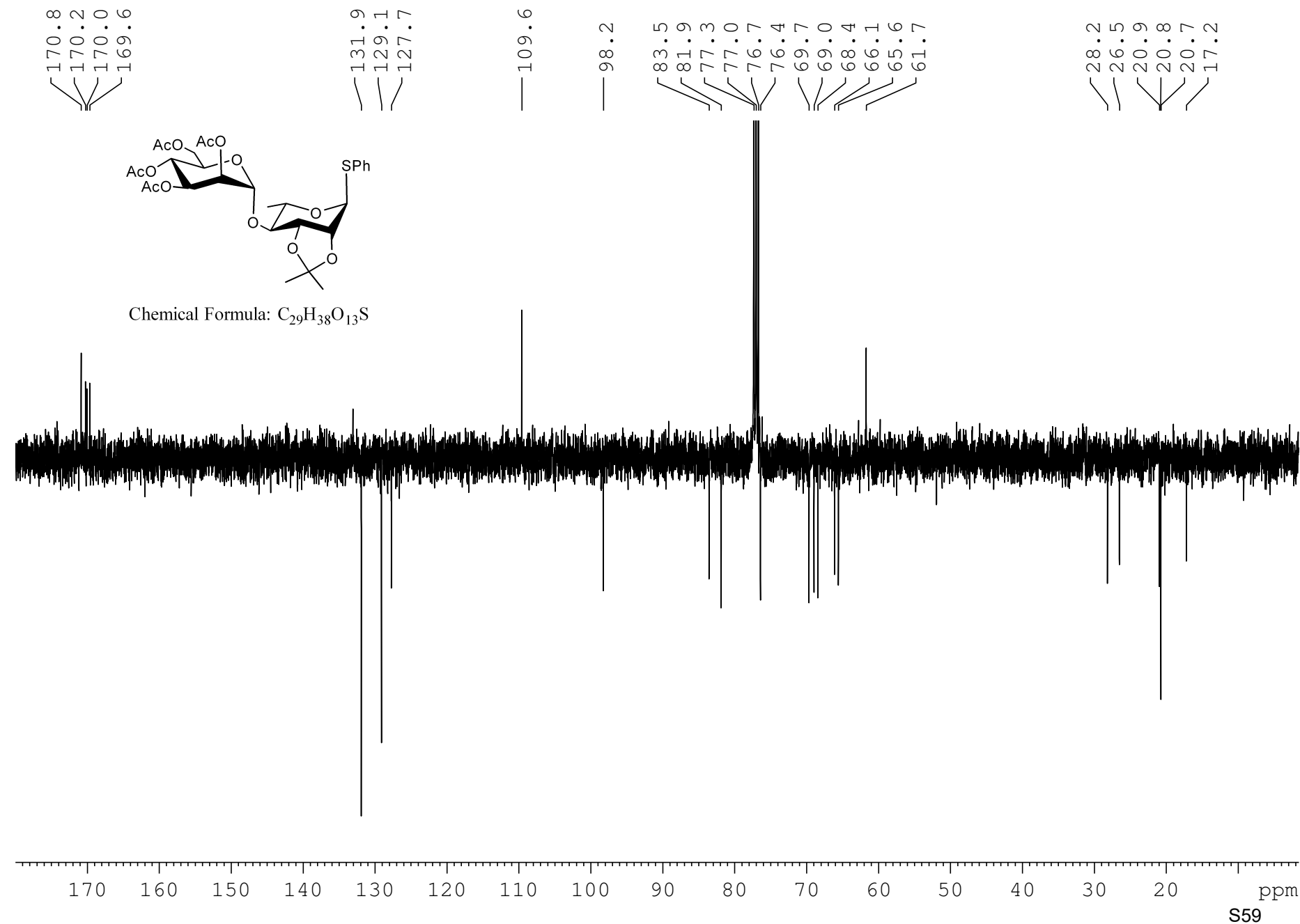
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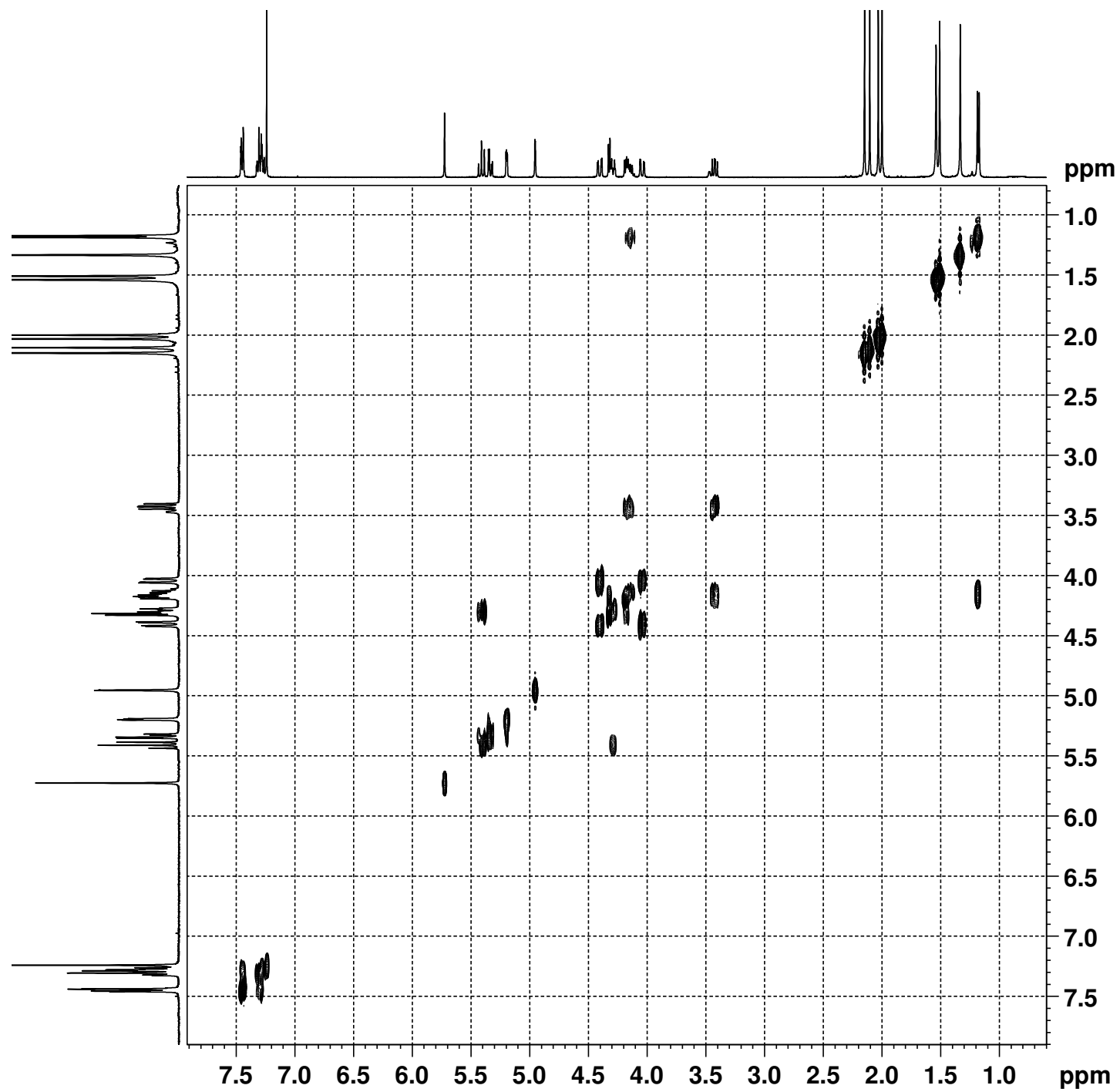
Compound **23**, 400 MHz, CDCl<sub>3</sub>



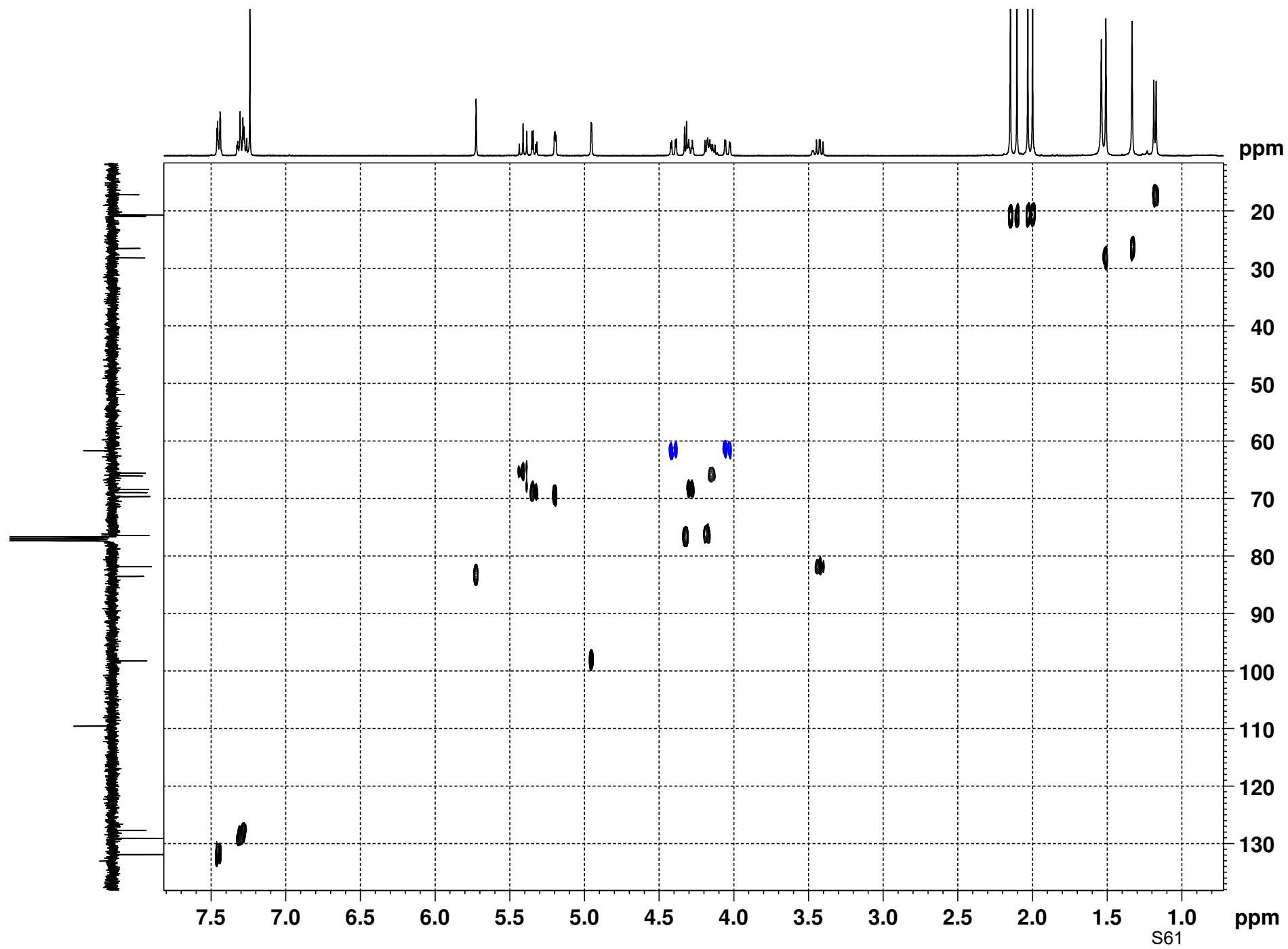
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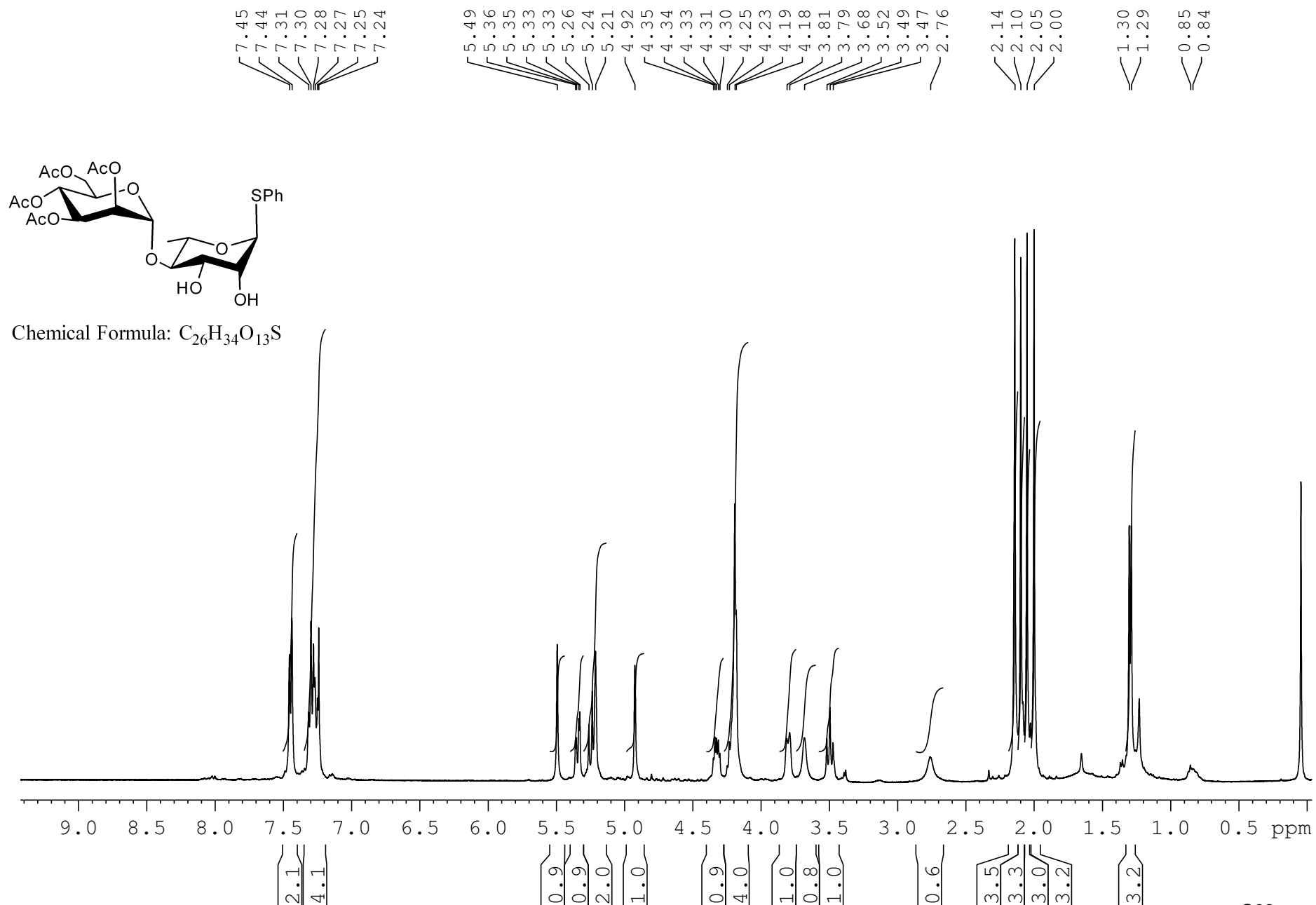
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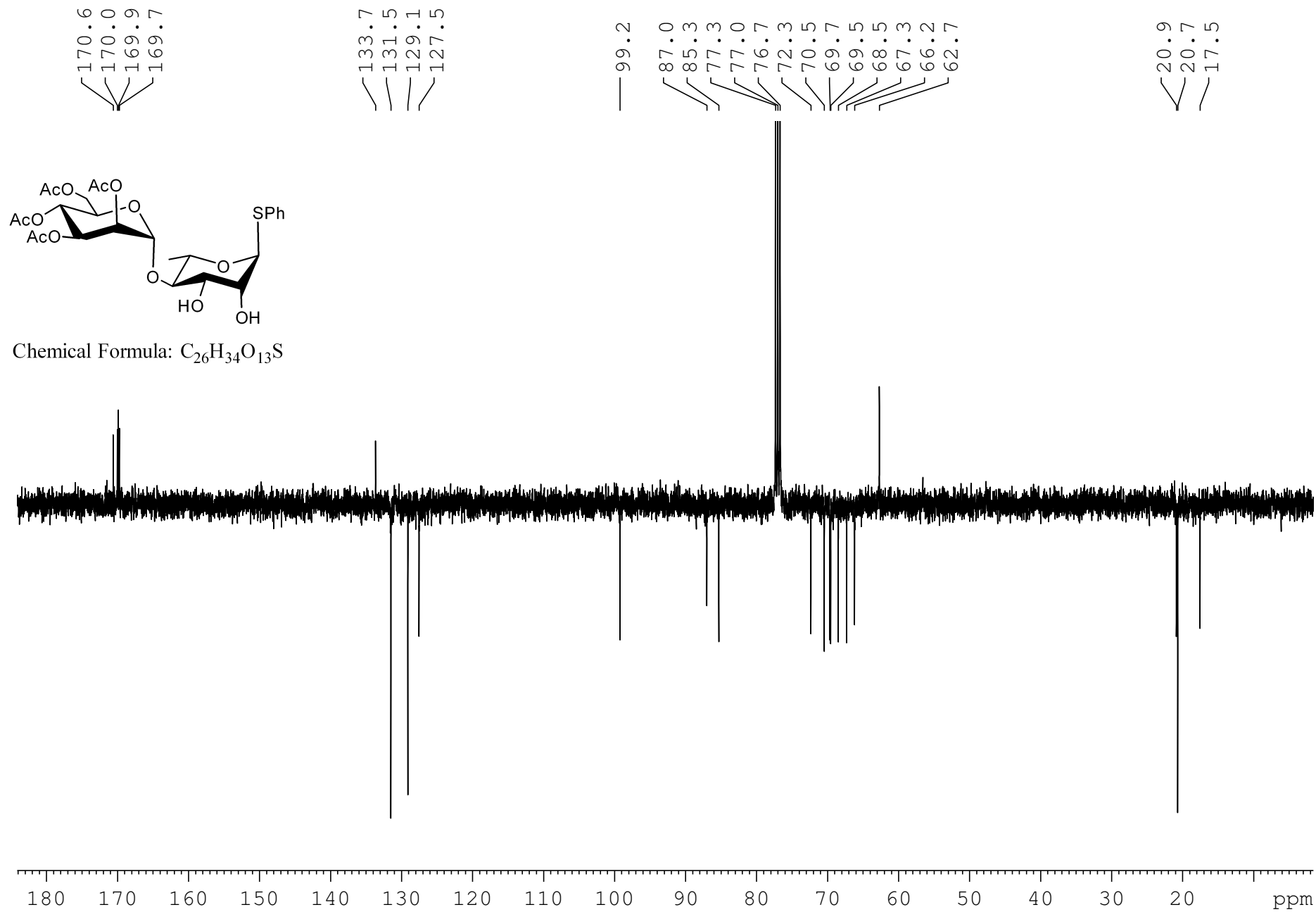
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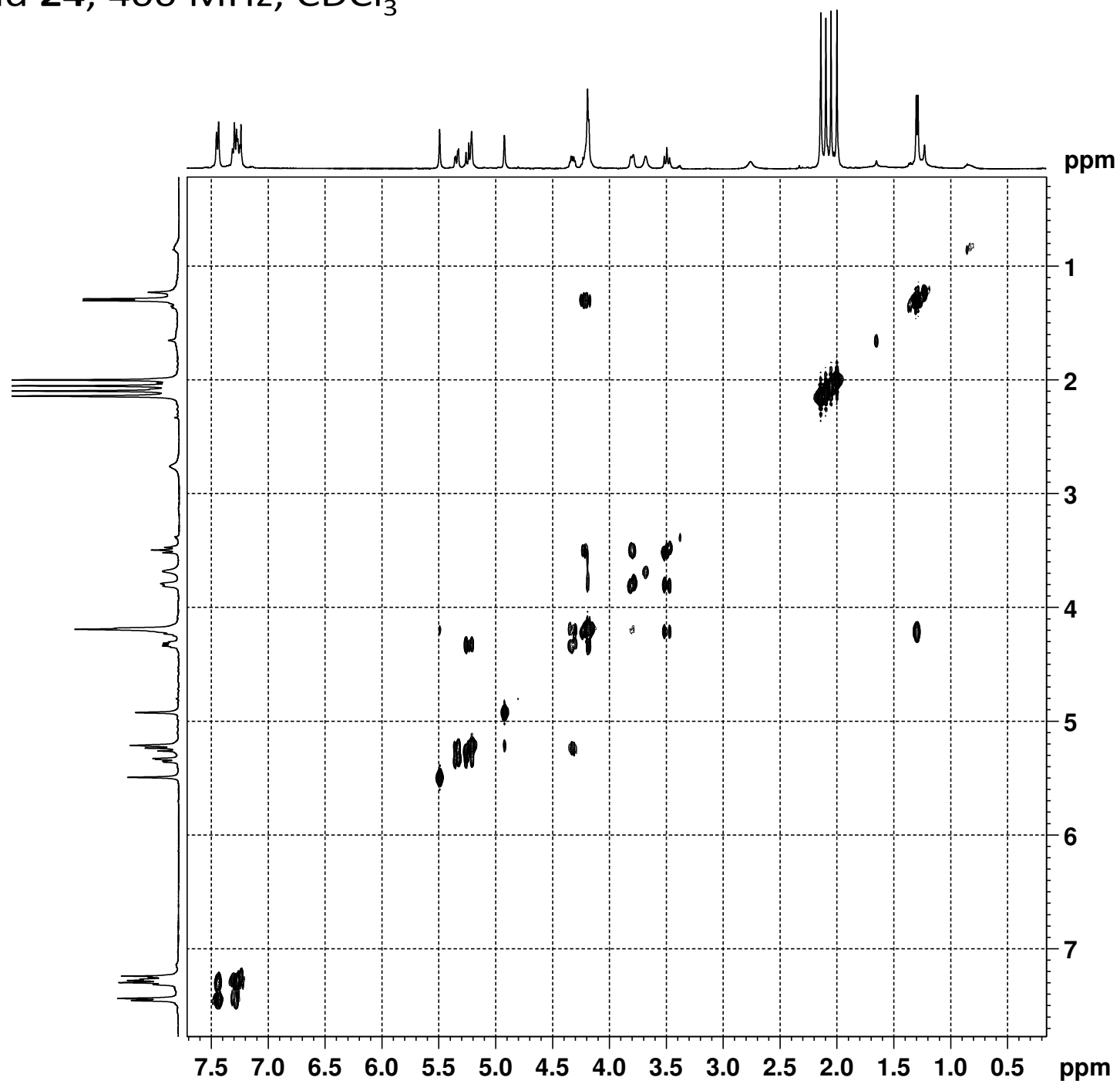
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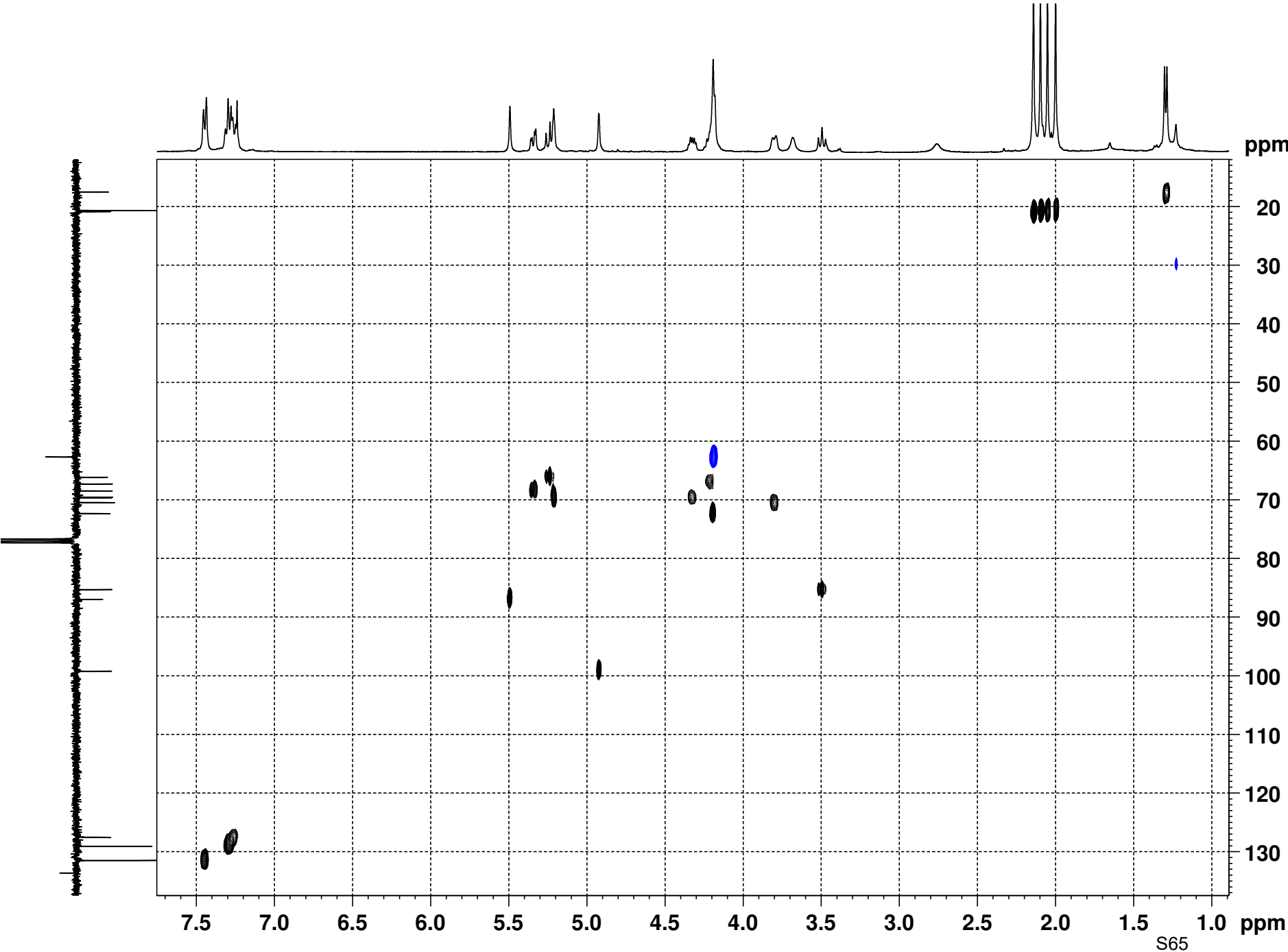
Compound **24**, 101 MHz, CDCl<sub>3</sub>



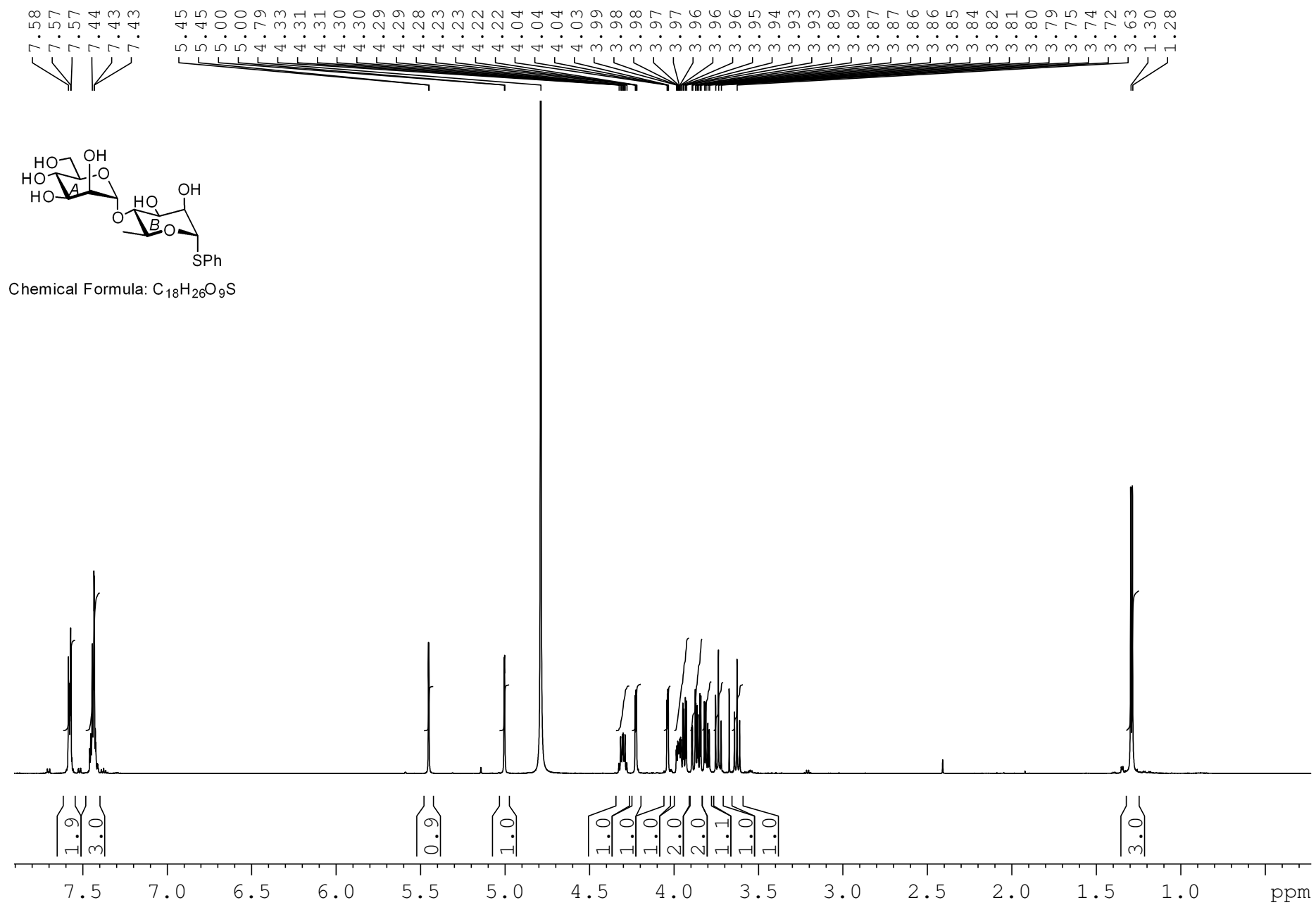
Compound **24**, 400 MHz, CDCl<sub>3</sub>



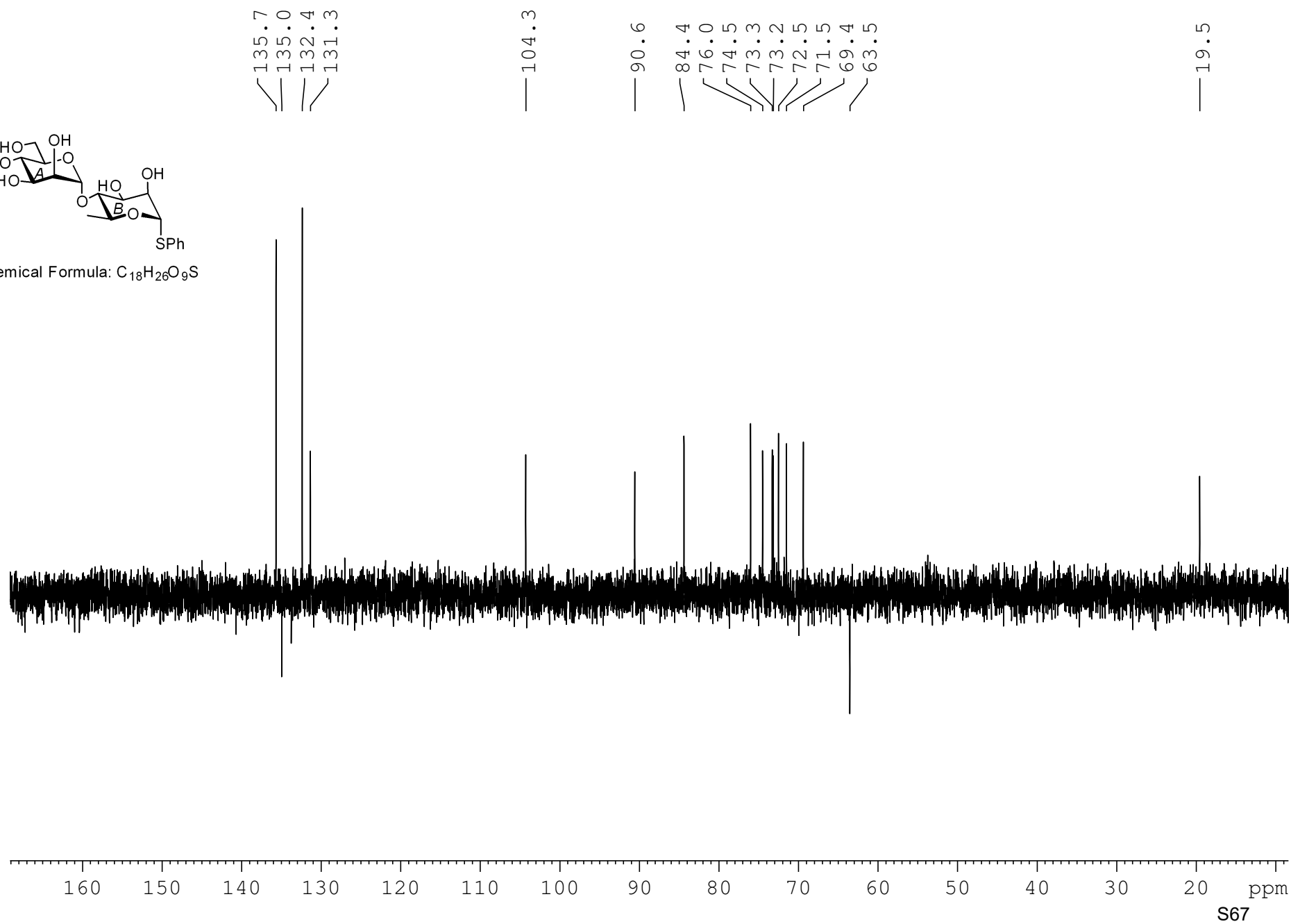
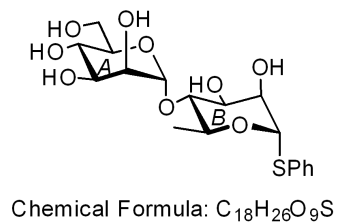
Compound **24**, 400 MHz, CDCl<sub>3</sub>



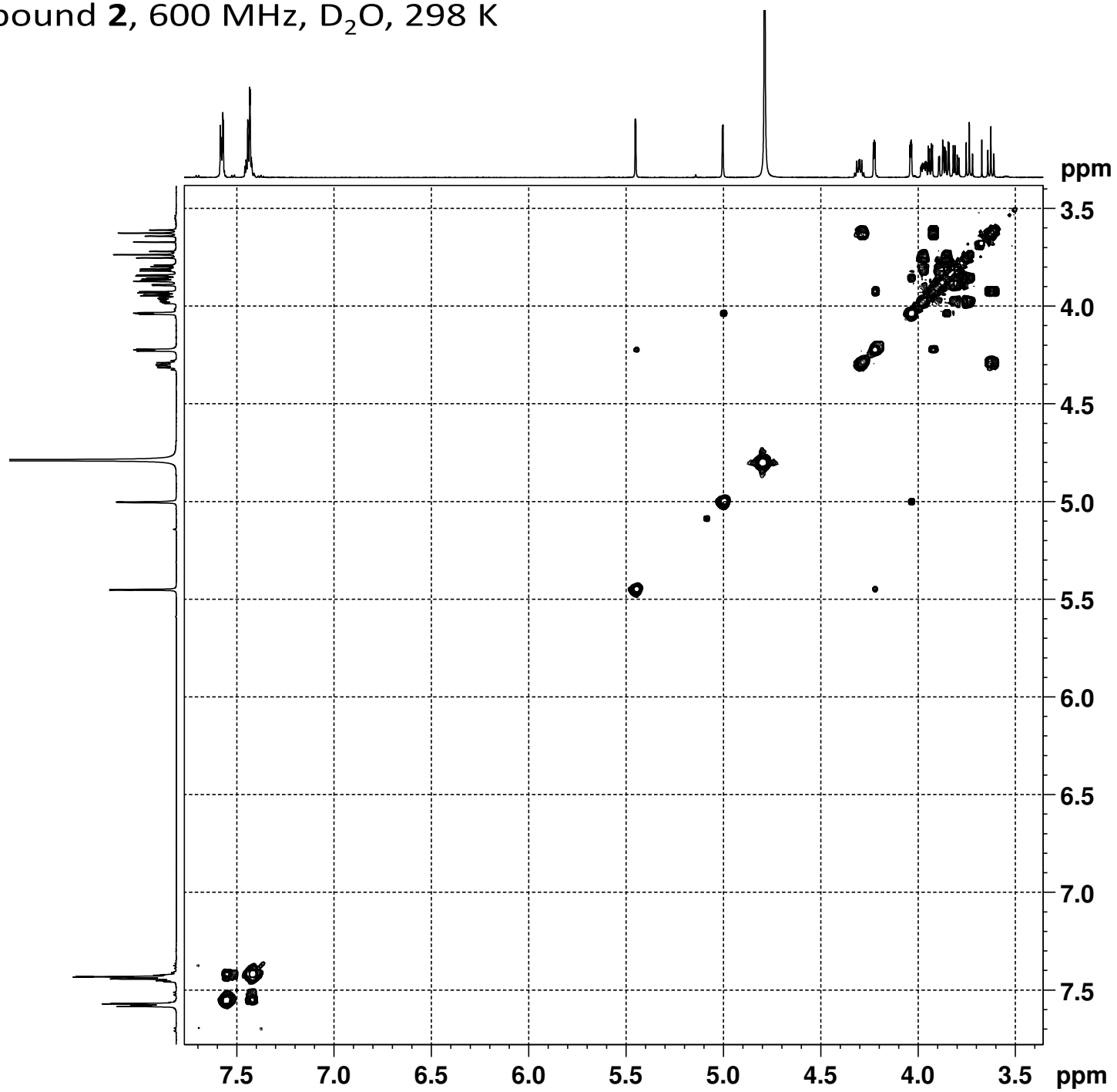
# Compound **2**, 600 MHz, D<sub>2</sub>O, 298 K



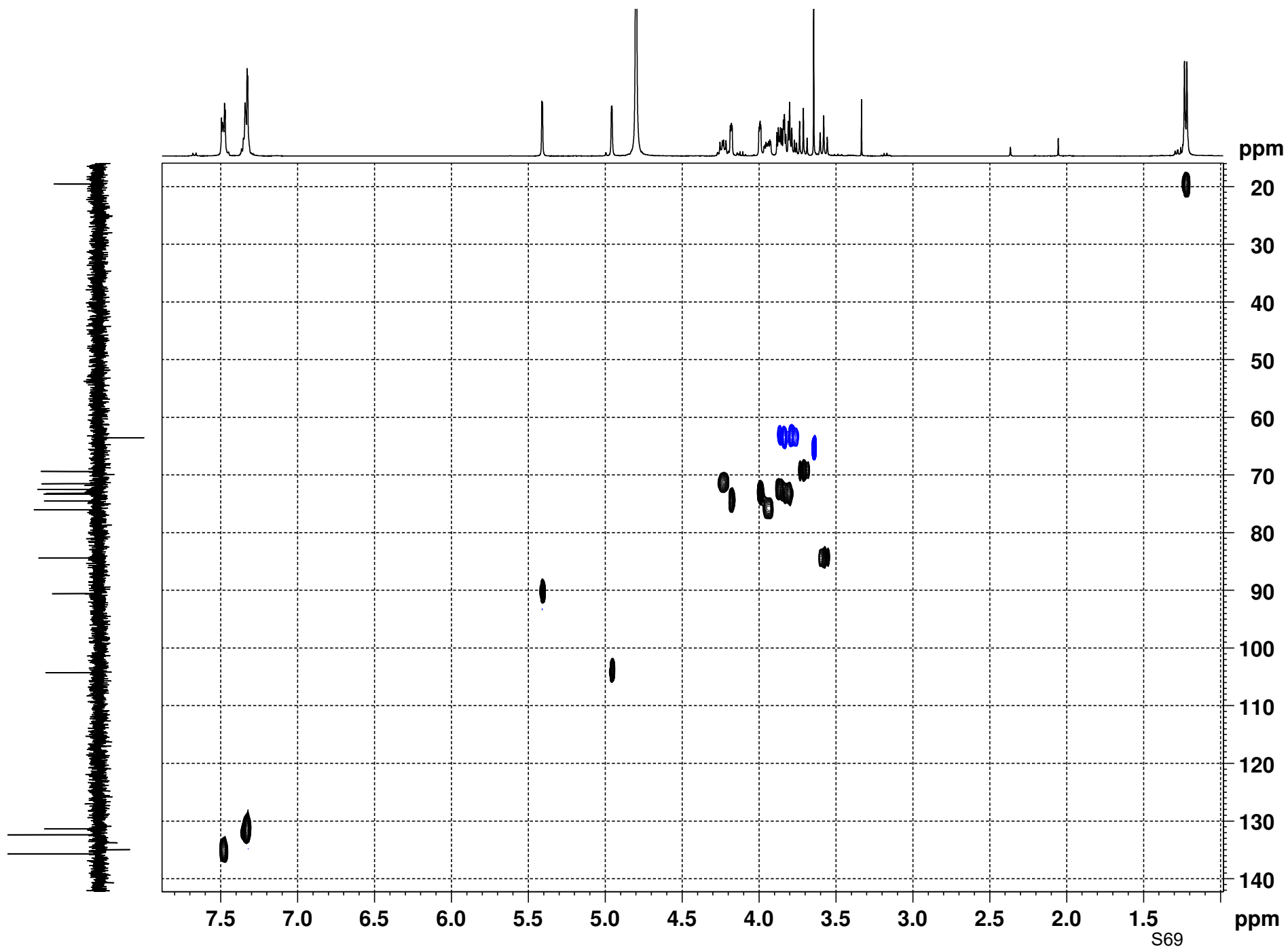
# Compound **2**, 101 MHz, D<sub>2</sub>O, 295 K



Compound **2**, 600 MHz, D<sub>2</sub>O, 298 K



Compound **2**, 400 MHz, D<sub>2</sub>O, 295 K



**Rotamer distributions about the C5-C6 bonds in mannose residues.**

