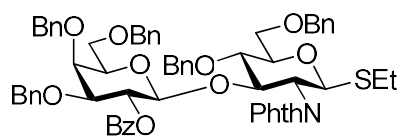


**Supporting Information**

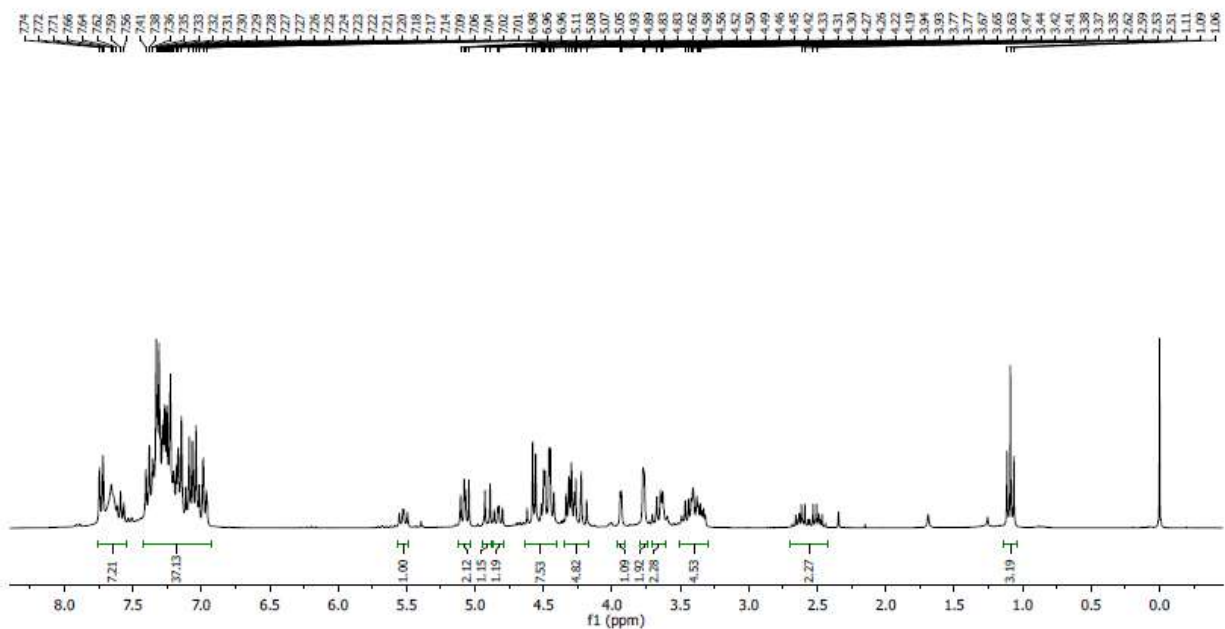
**The chemical synthesis of human milk oligosaccharides: lacto-*N*-tetraose (Gal $\beta$ 1 $\rightarrow$ 3GlcNAc $\beta$ 1 $\rightarrow$ 3Gal $\beta$ 1 $\rightarrow$ 4Glc)**

Mithila D. Bandara, Keith J. Stine, and Alexei V. Demchenko\*

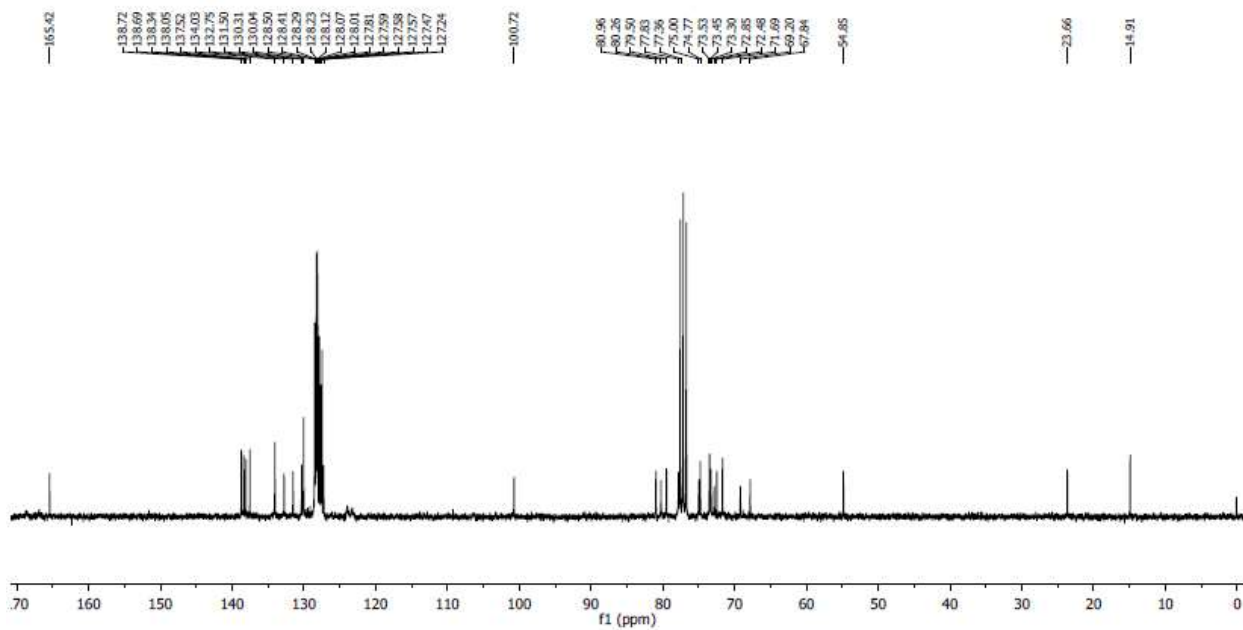
*Department of Chemistry and Biochemistry, University of Missouri – St. Louis, One University Boulevard, St. Louis, Missouri 63121, USA*



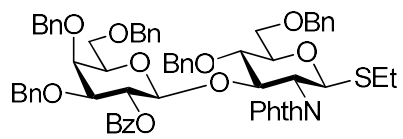
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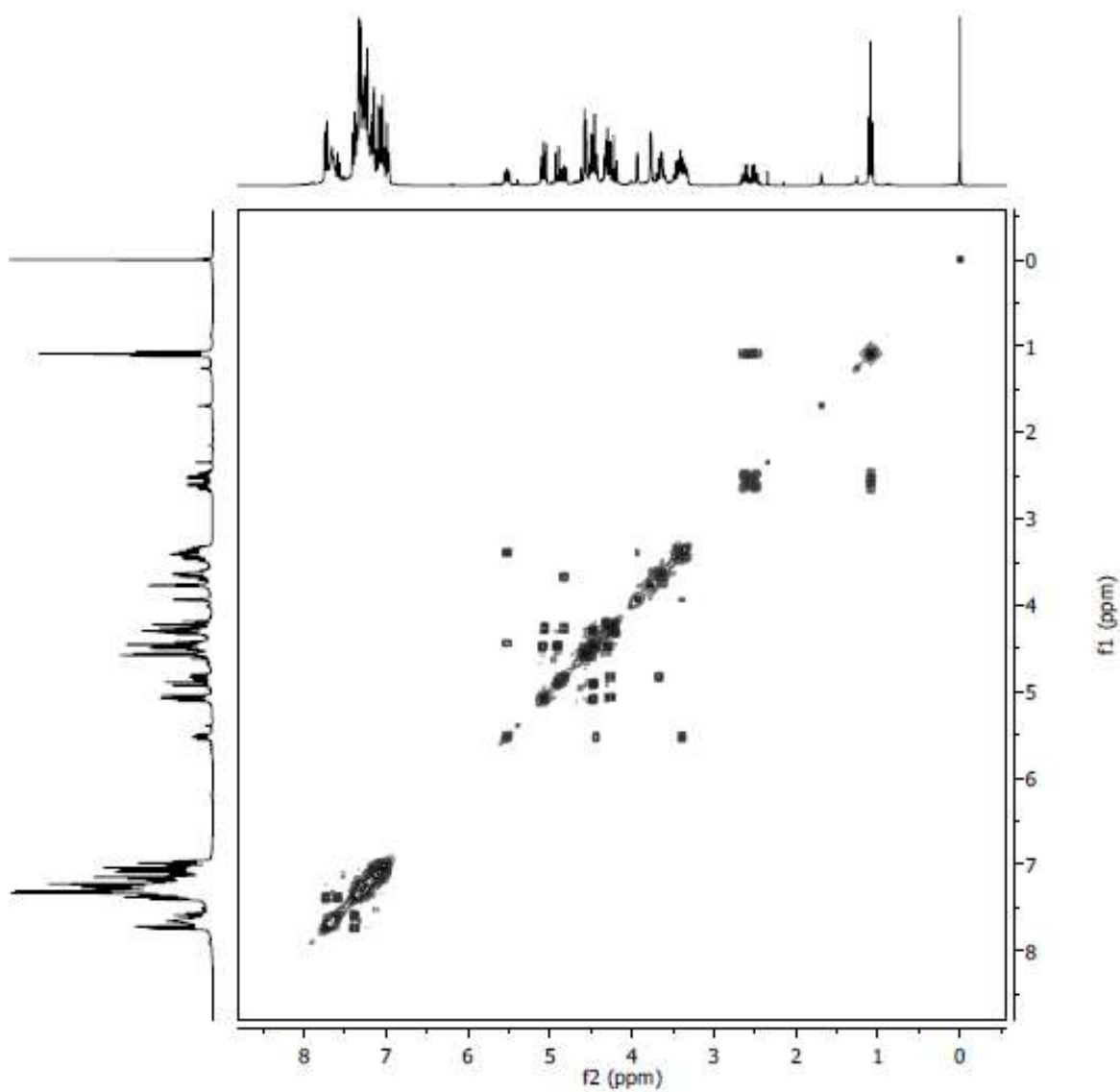
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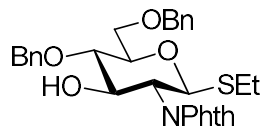
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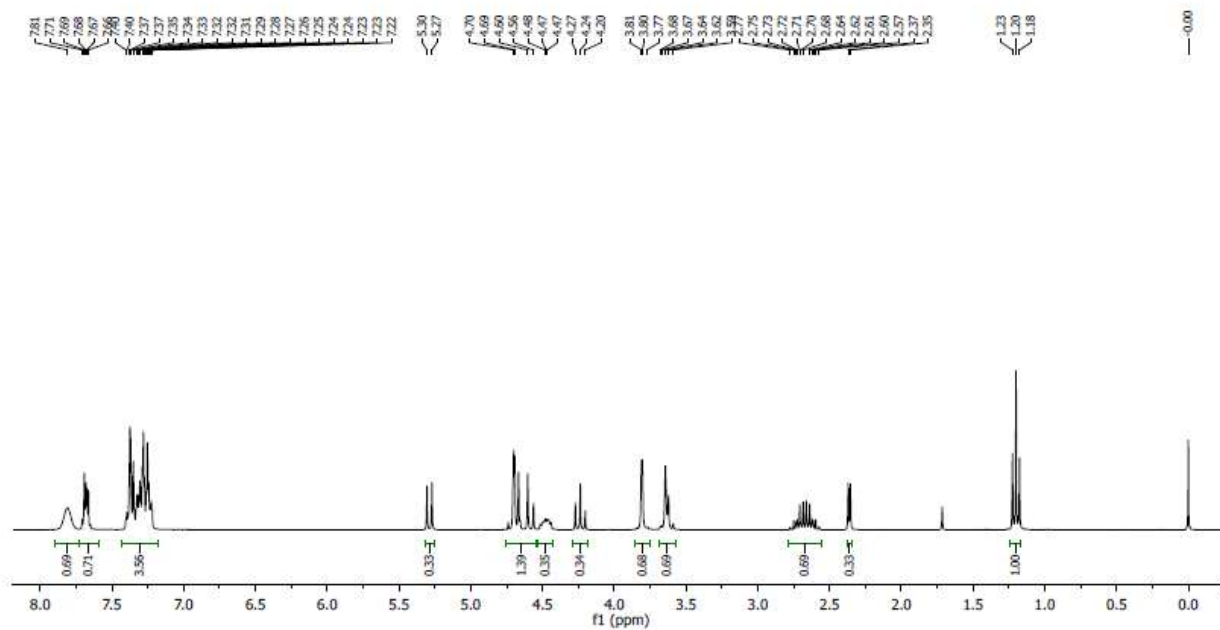
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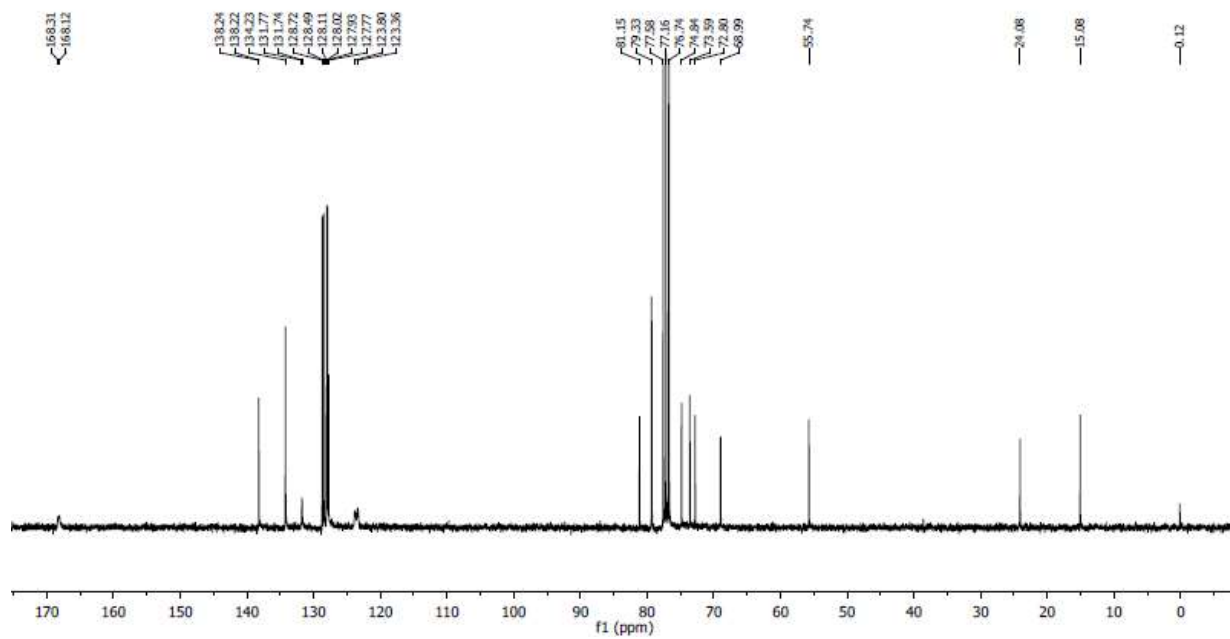
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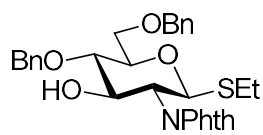
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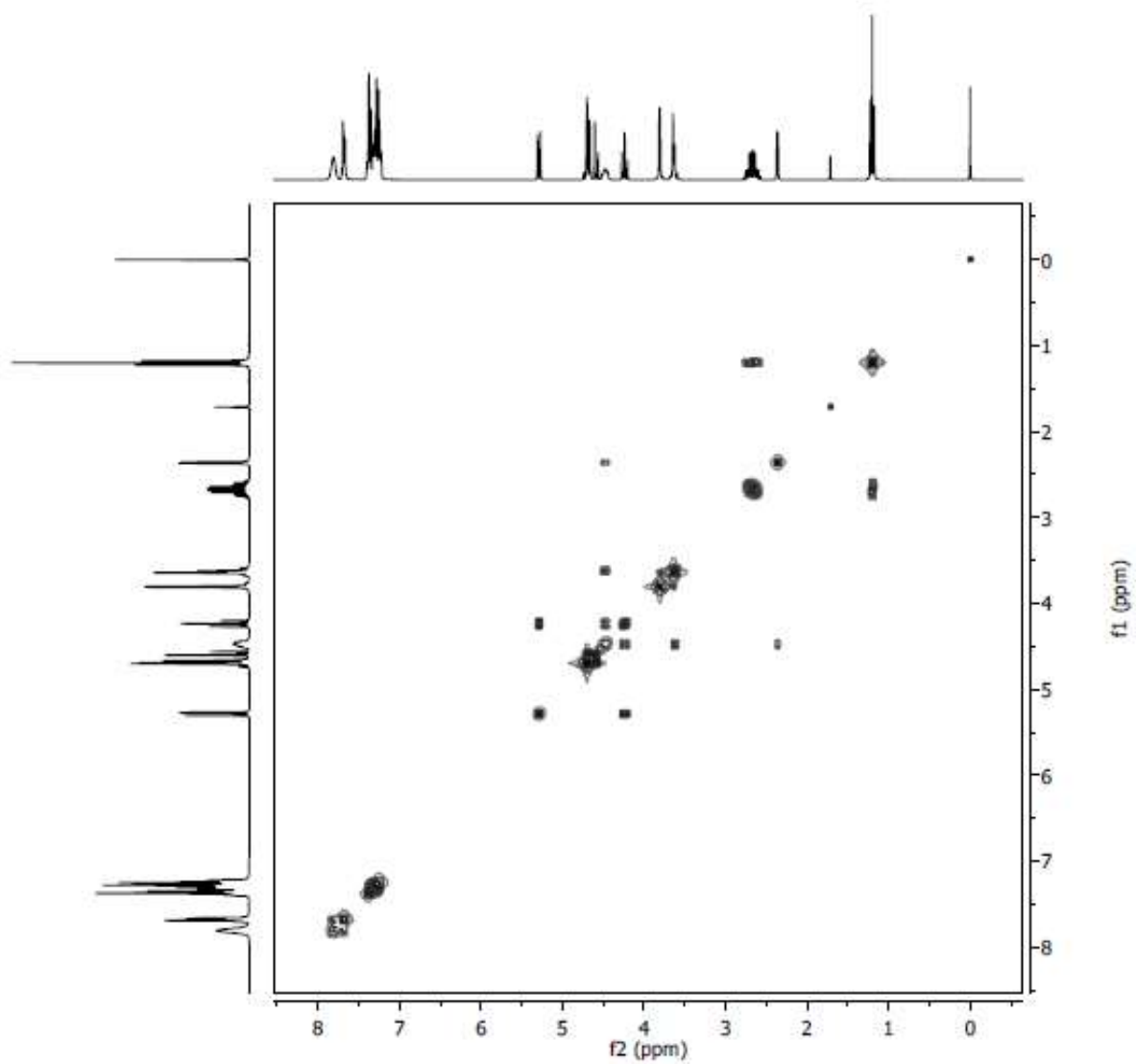
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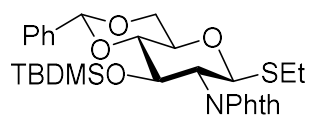
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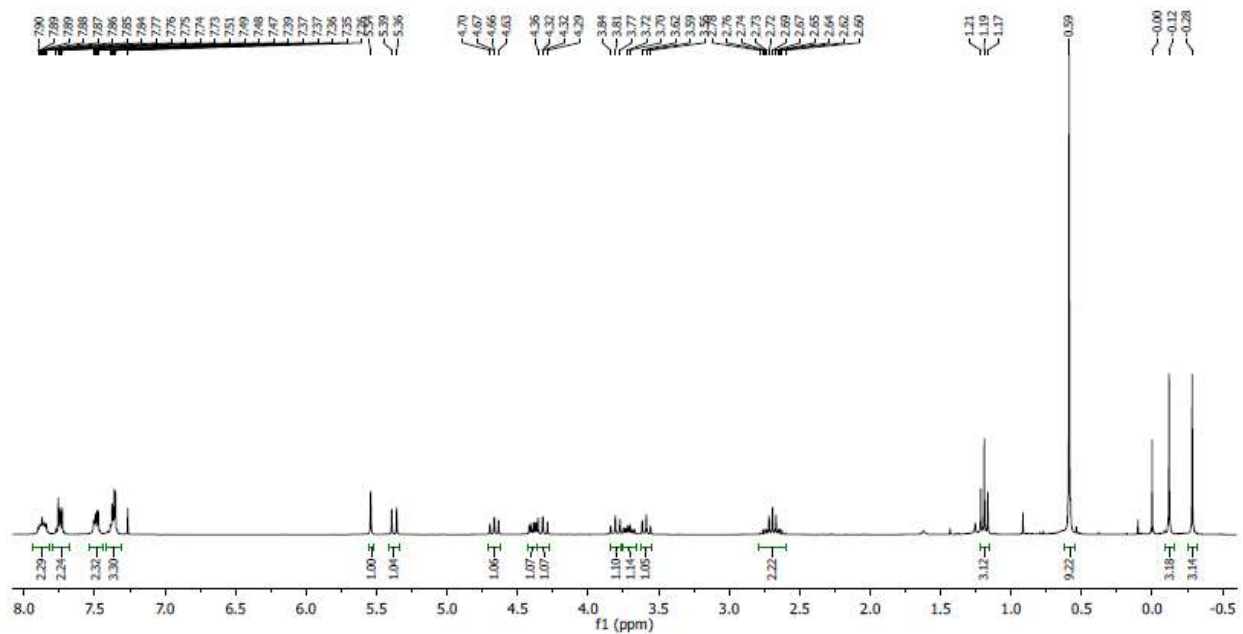
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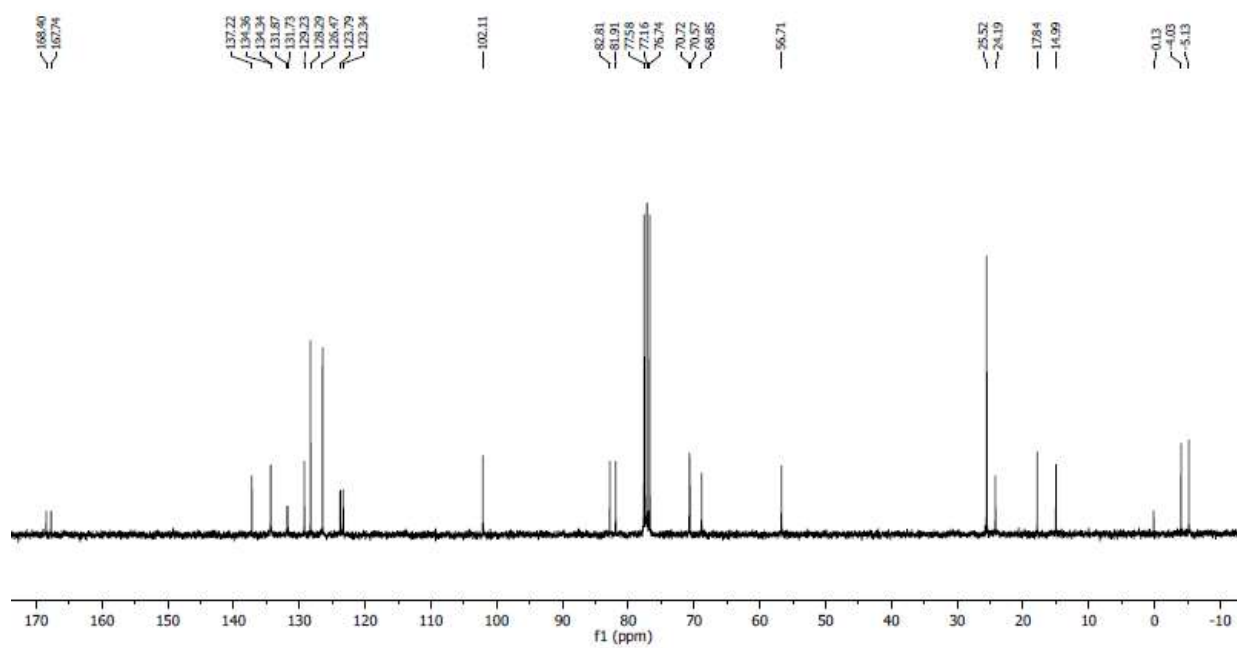
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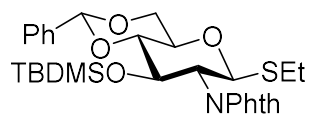
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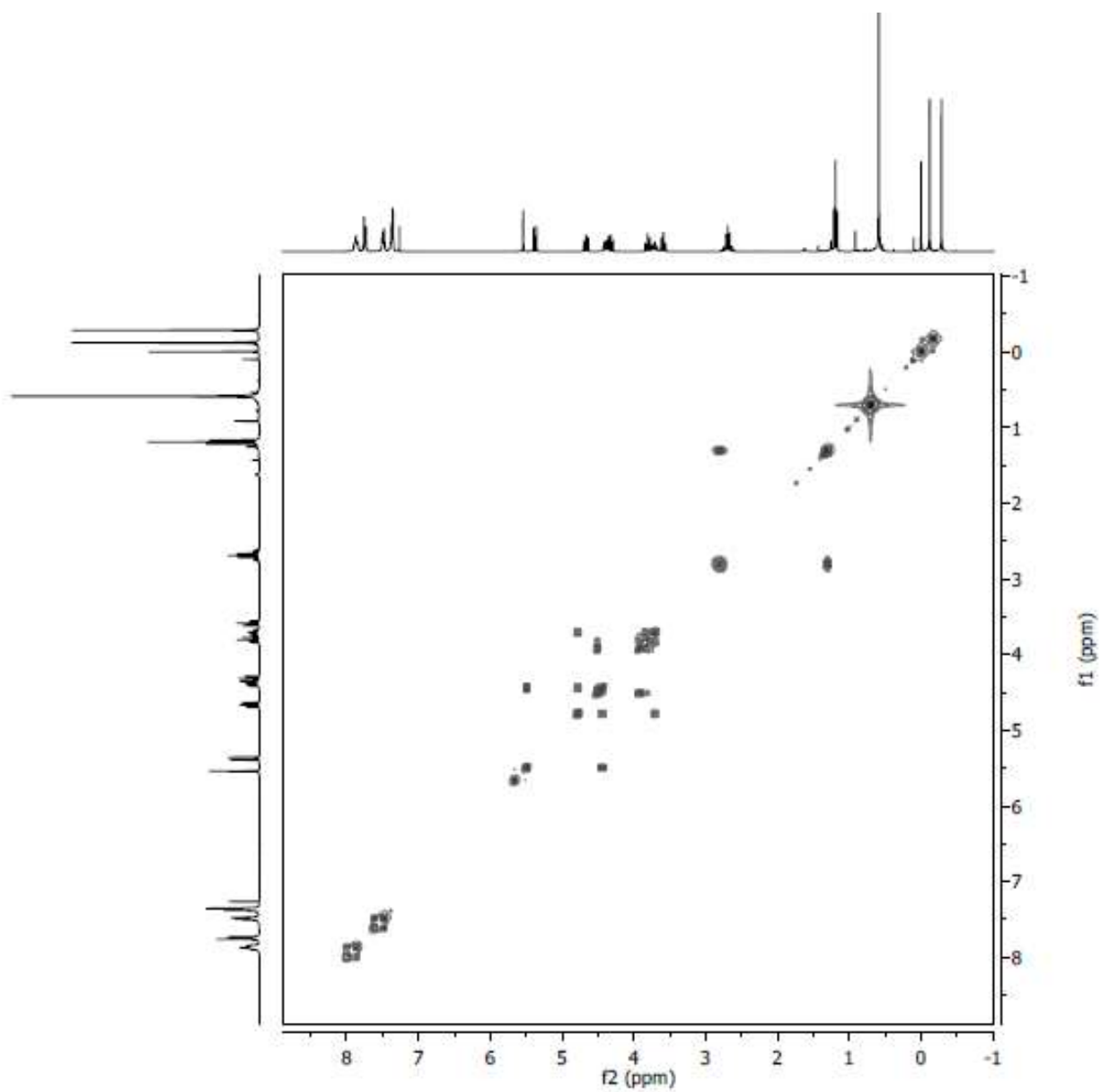
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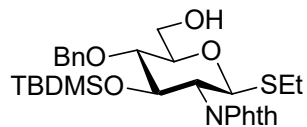
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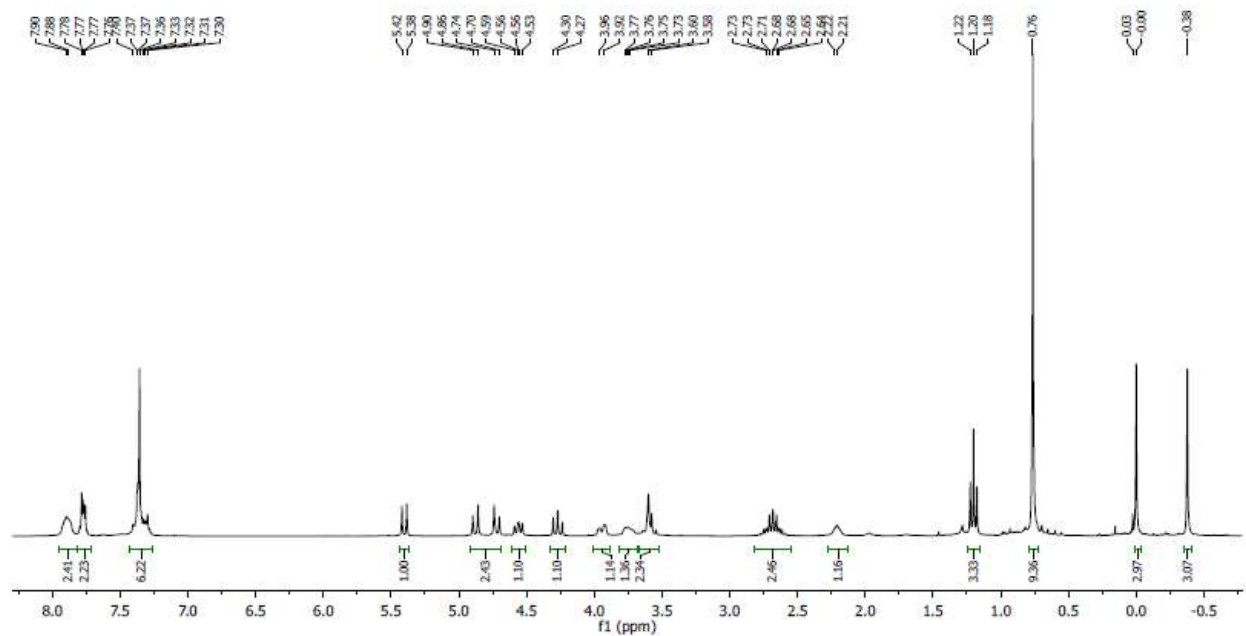
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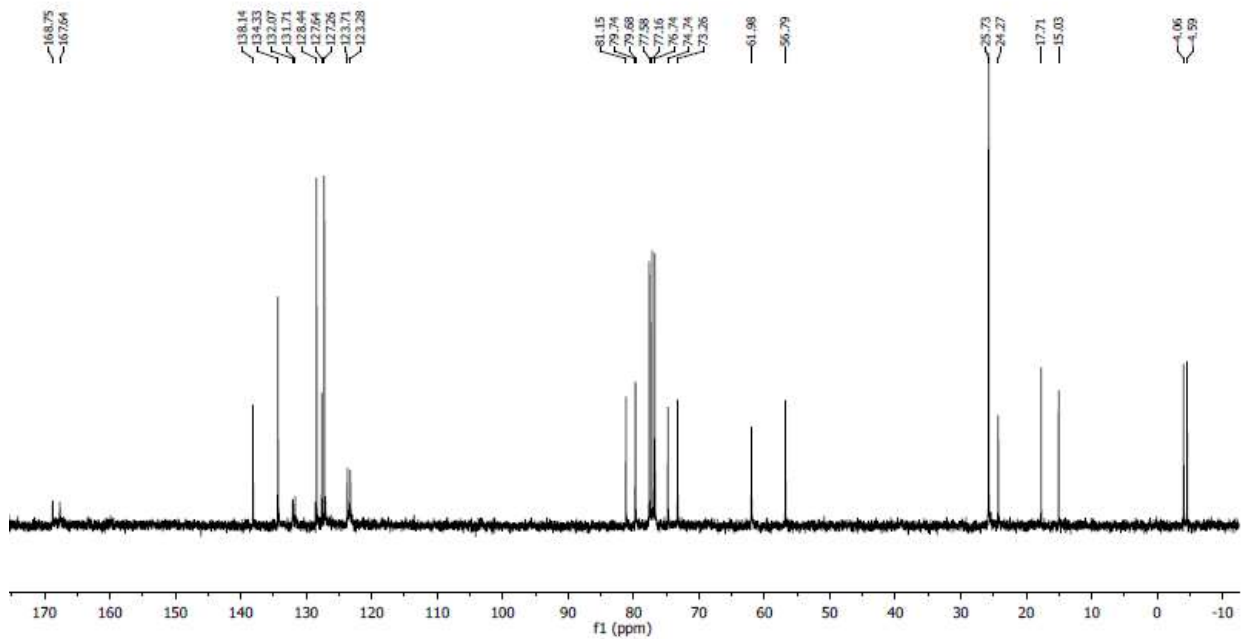
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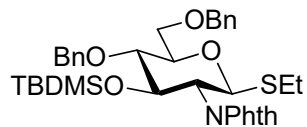
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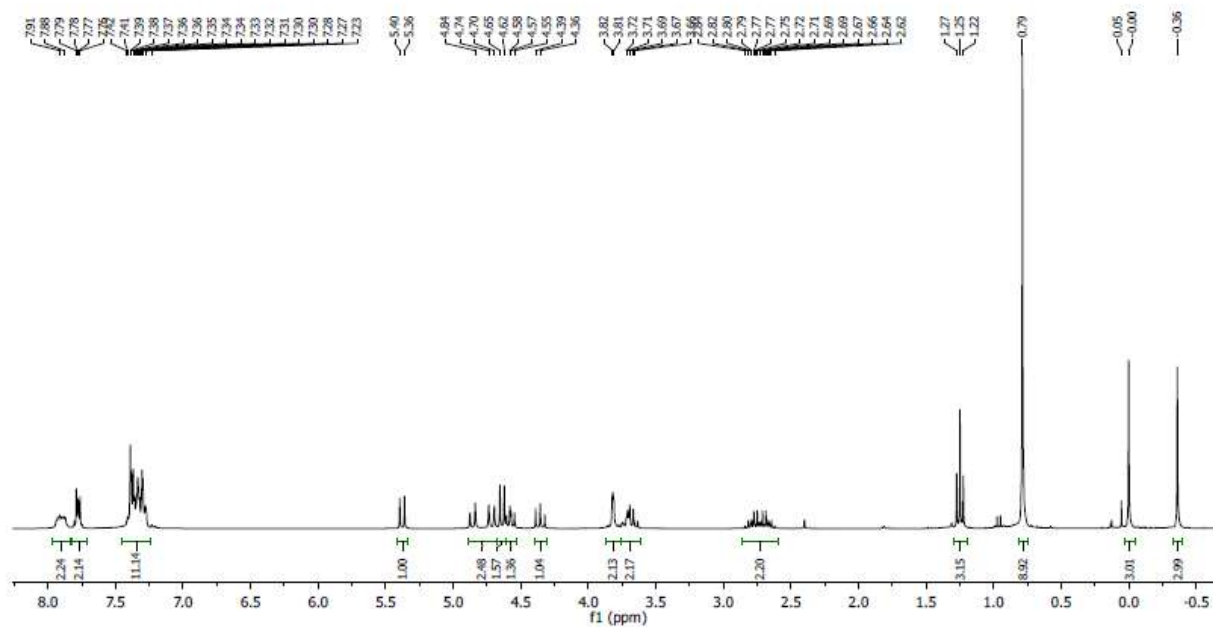
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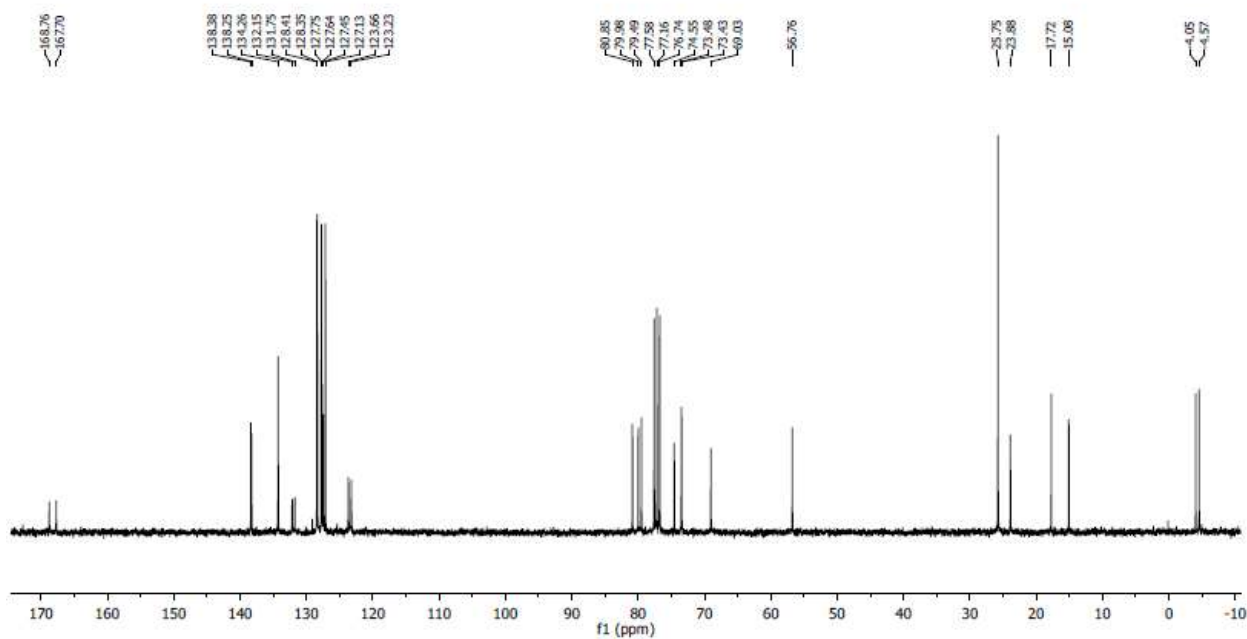




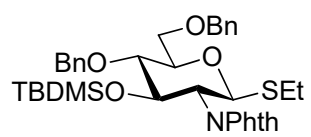
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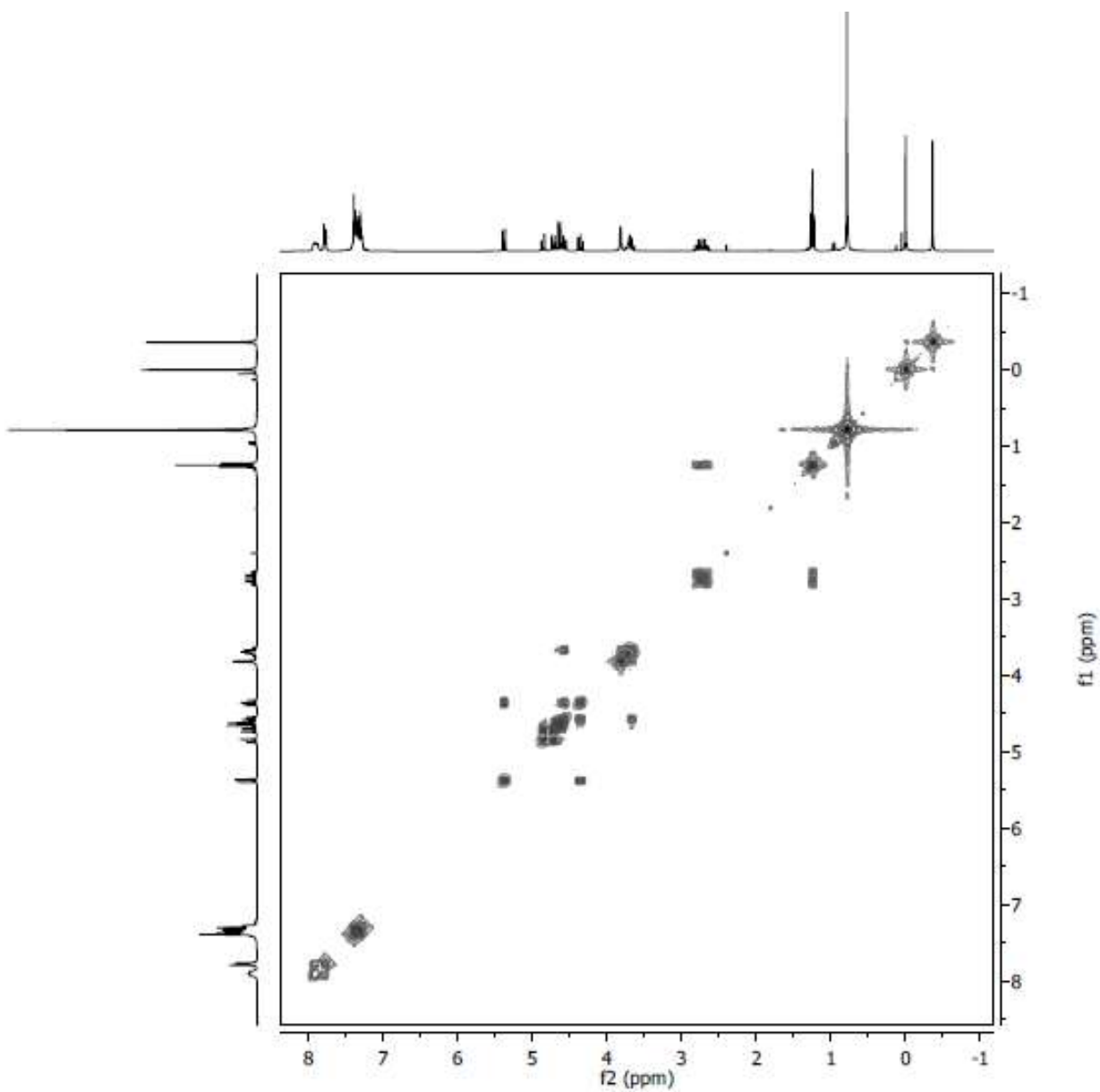
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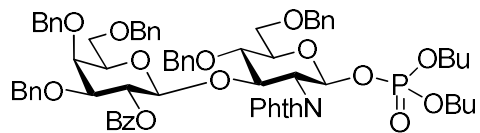
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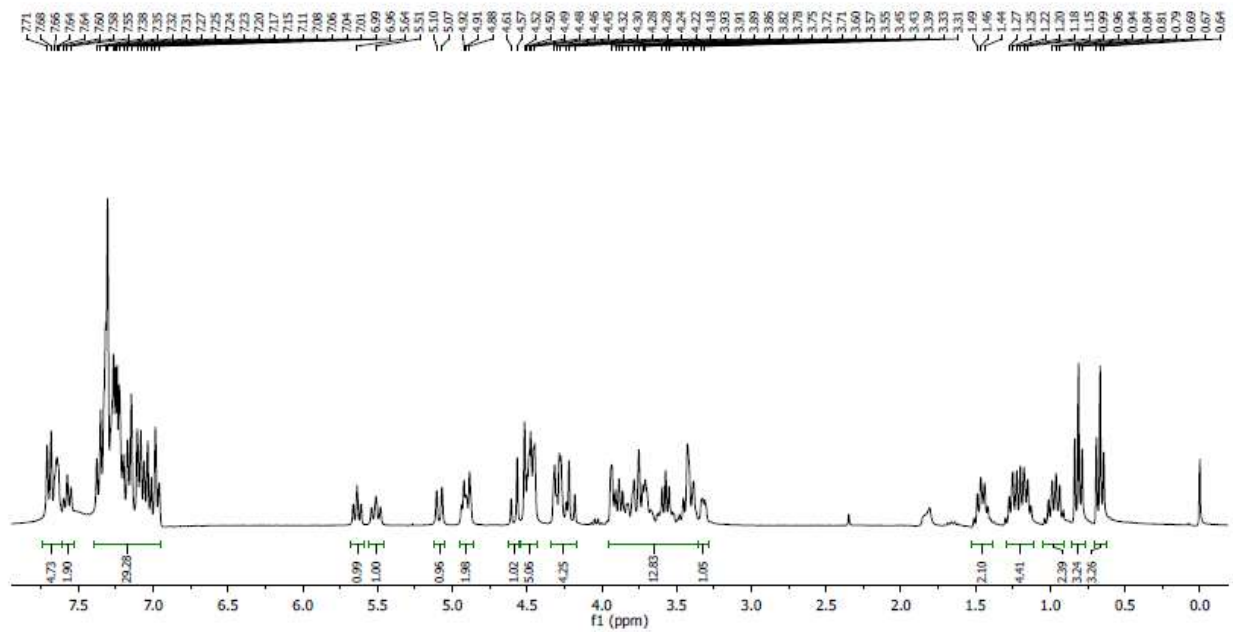
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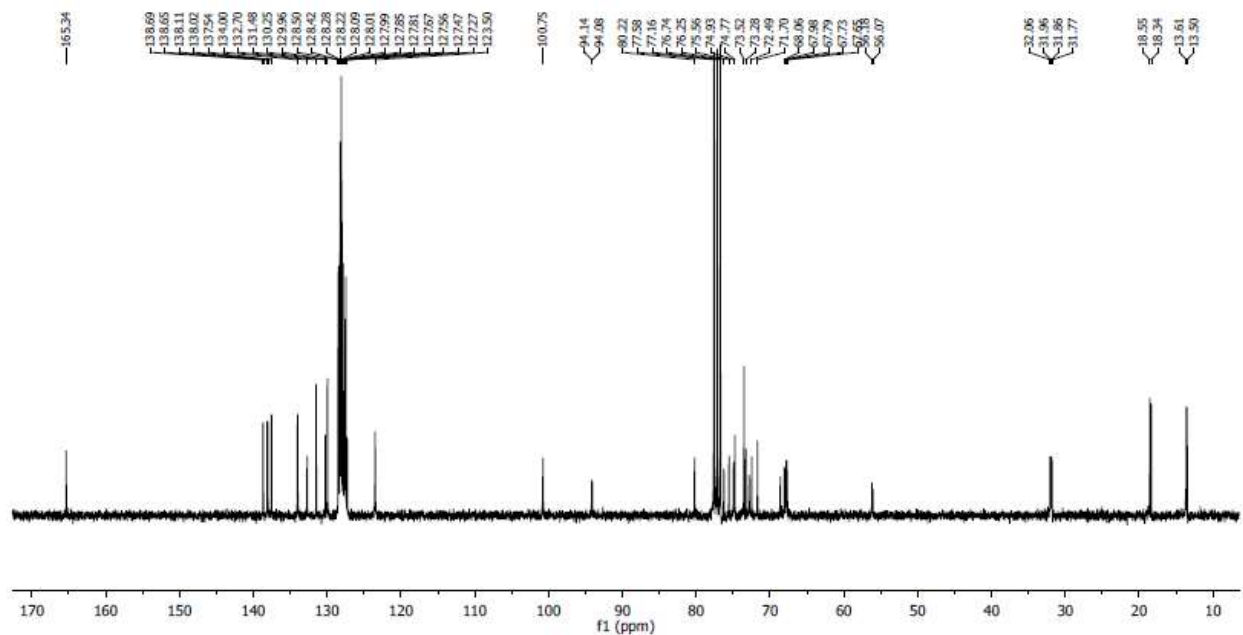
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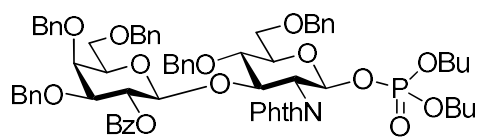
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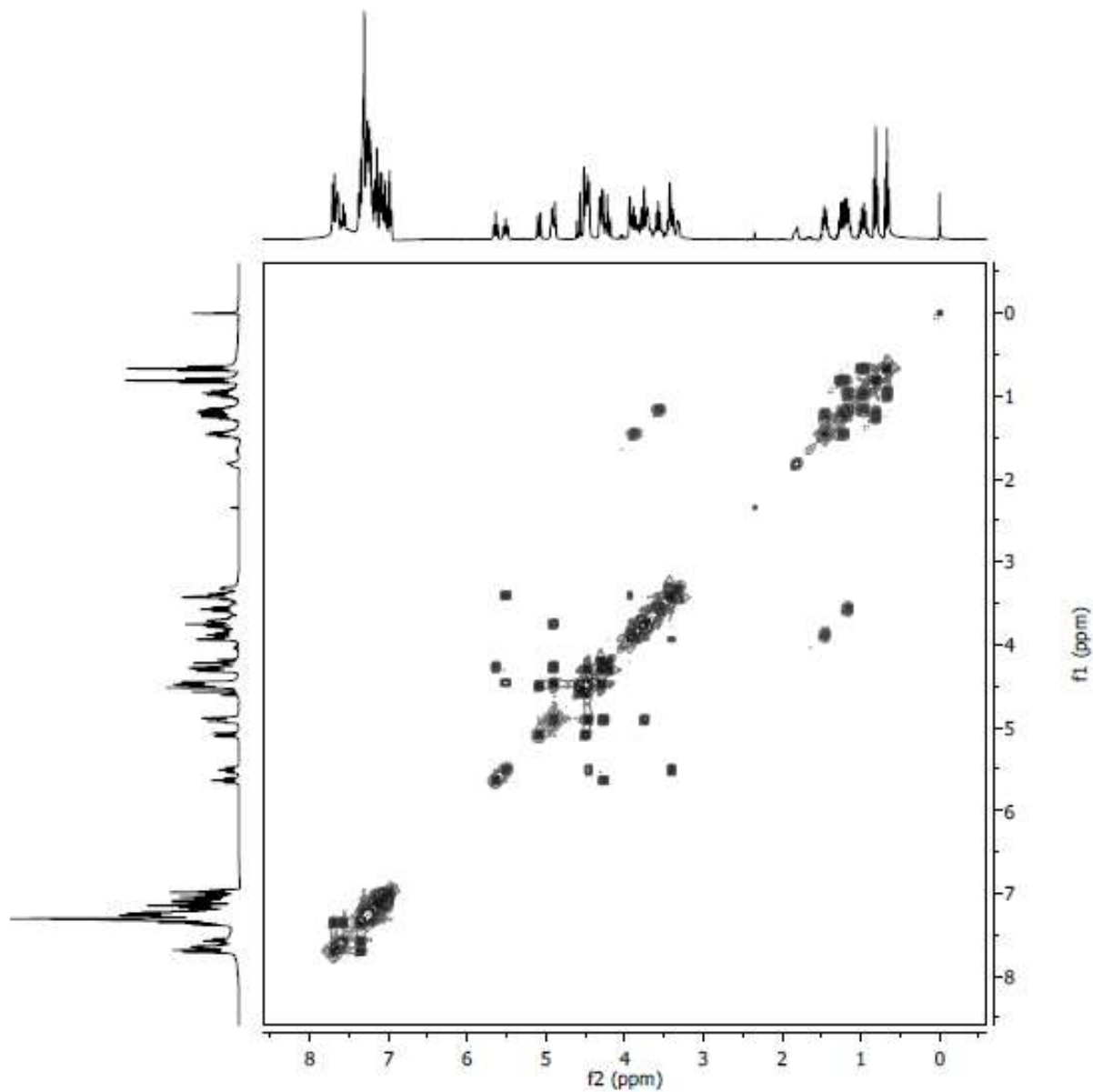
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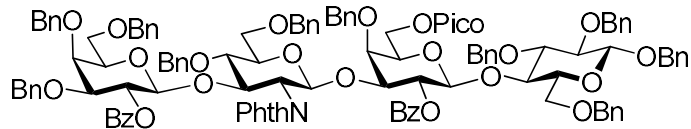
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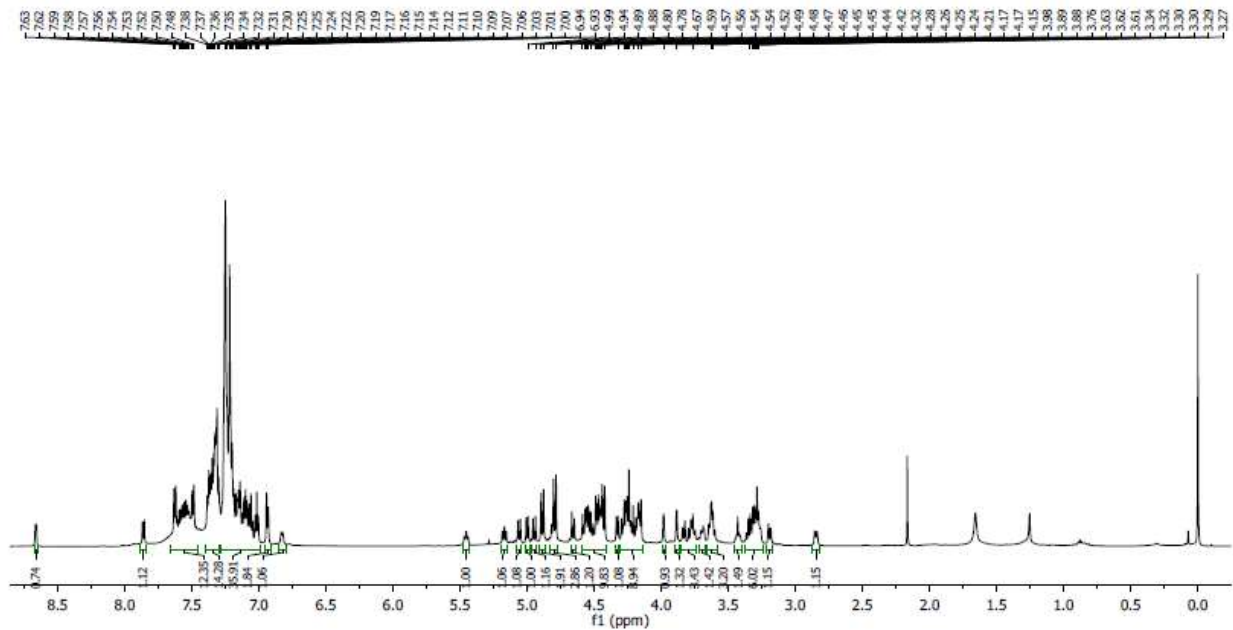
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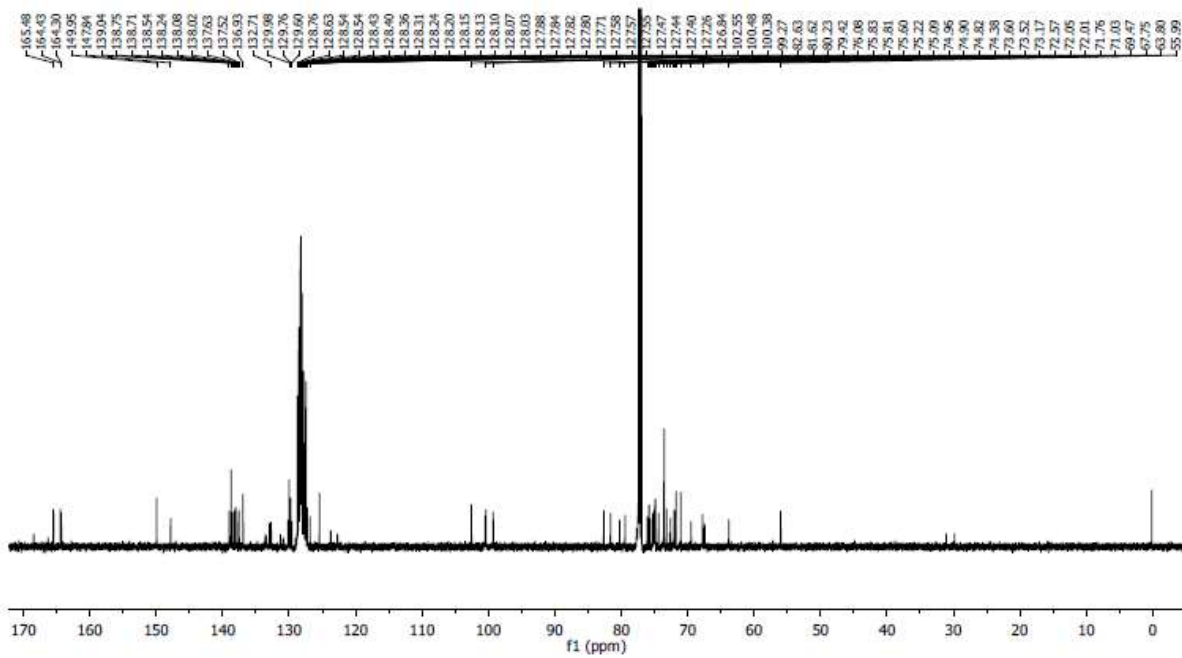
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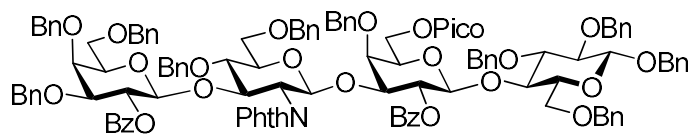
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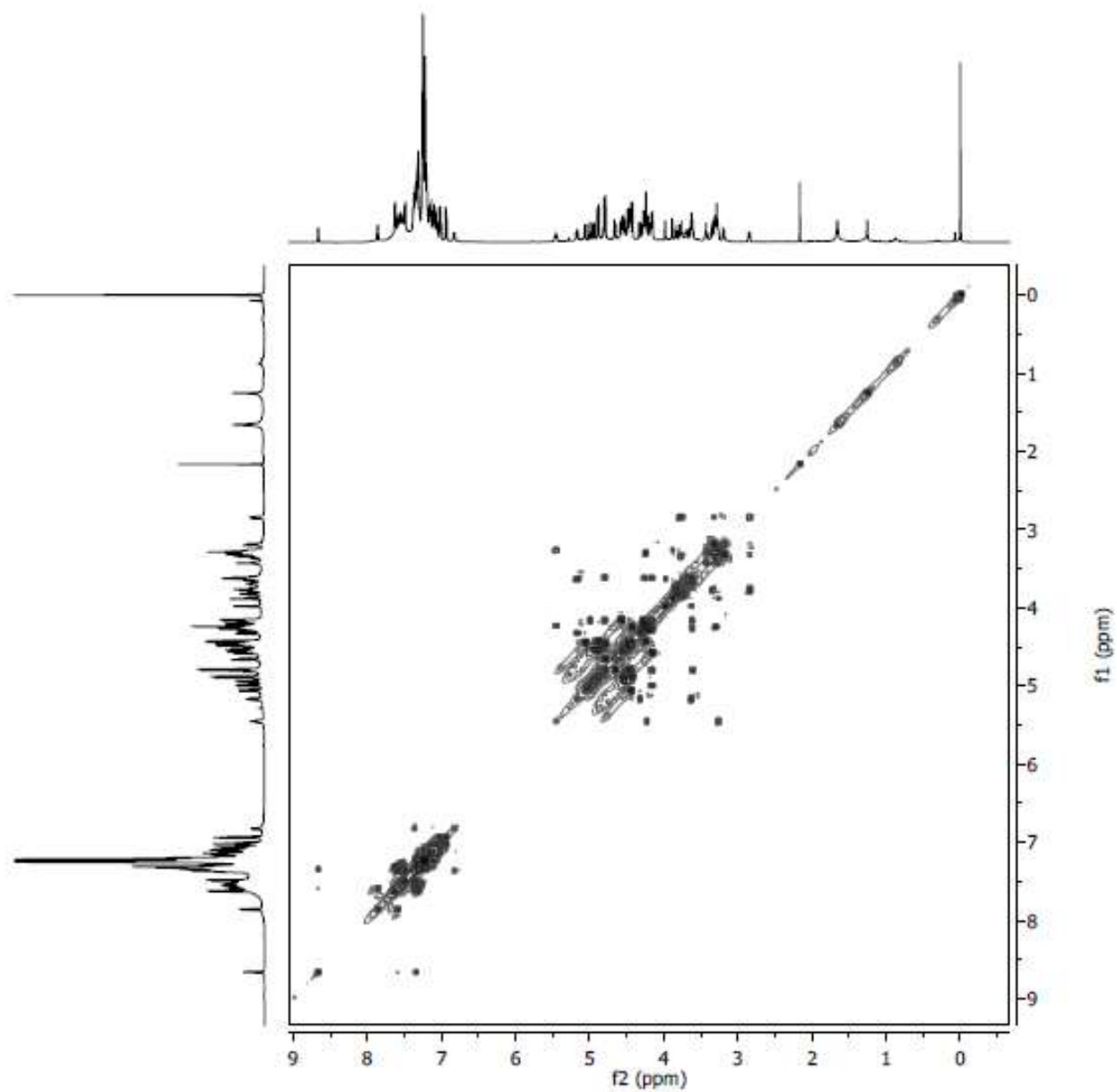
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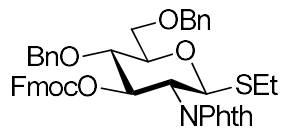
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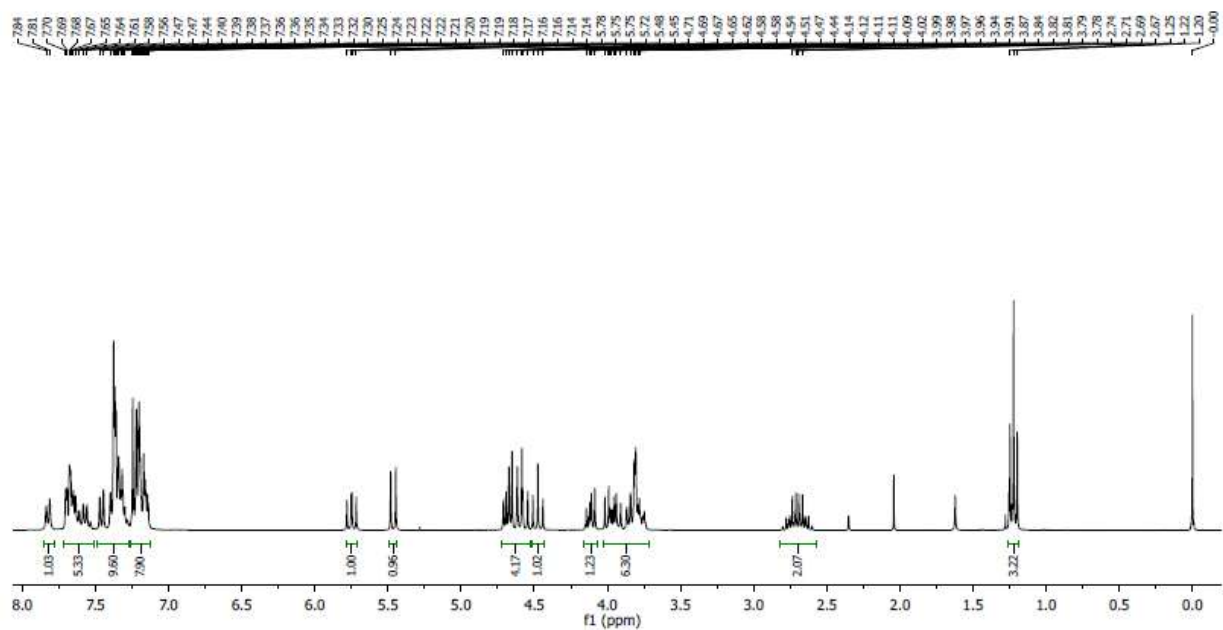
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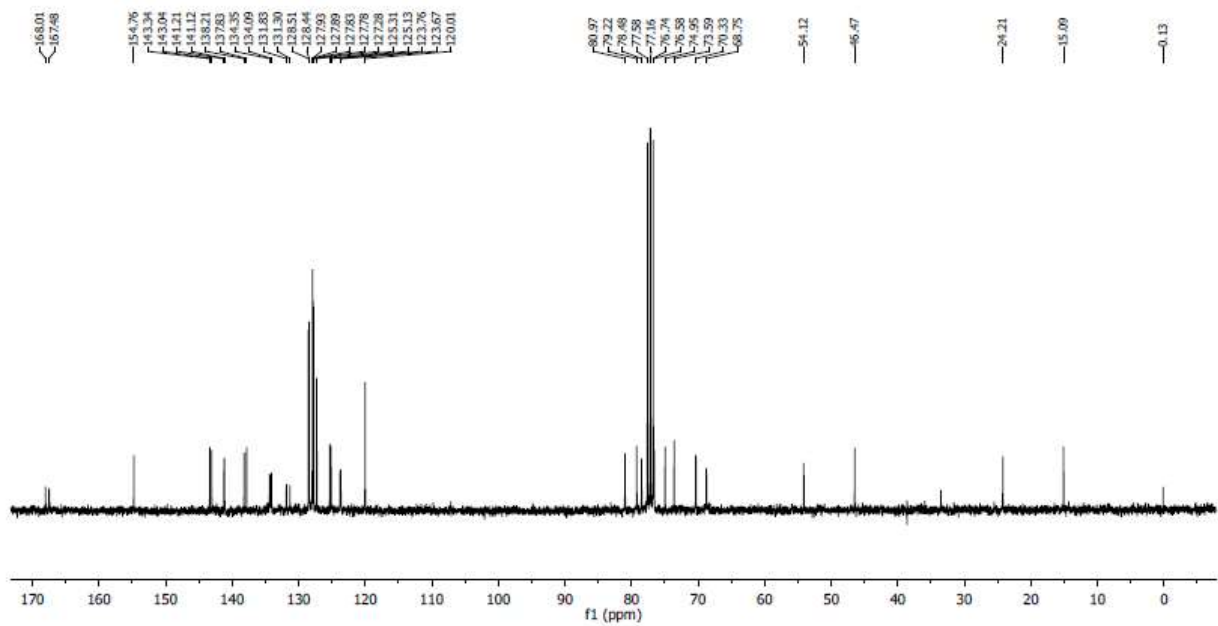
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12

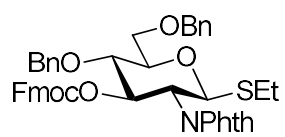


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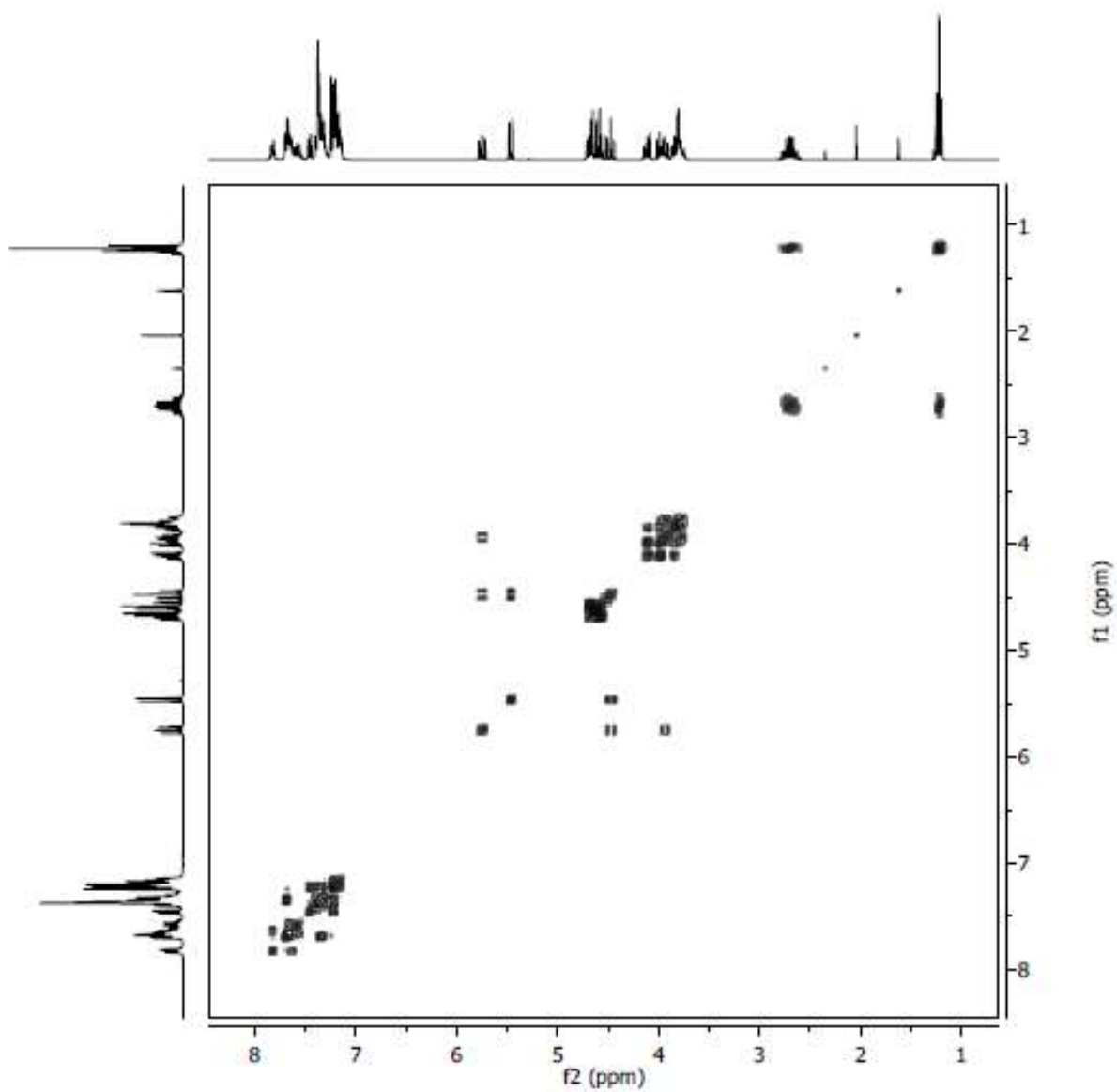


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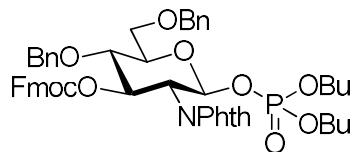




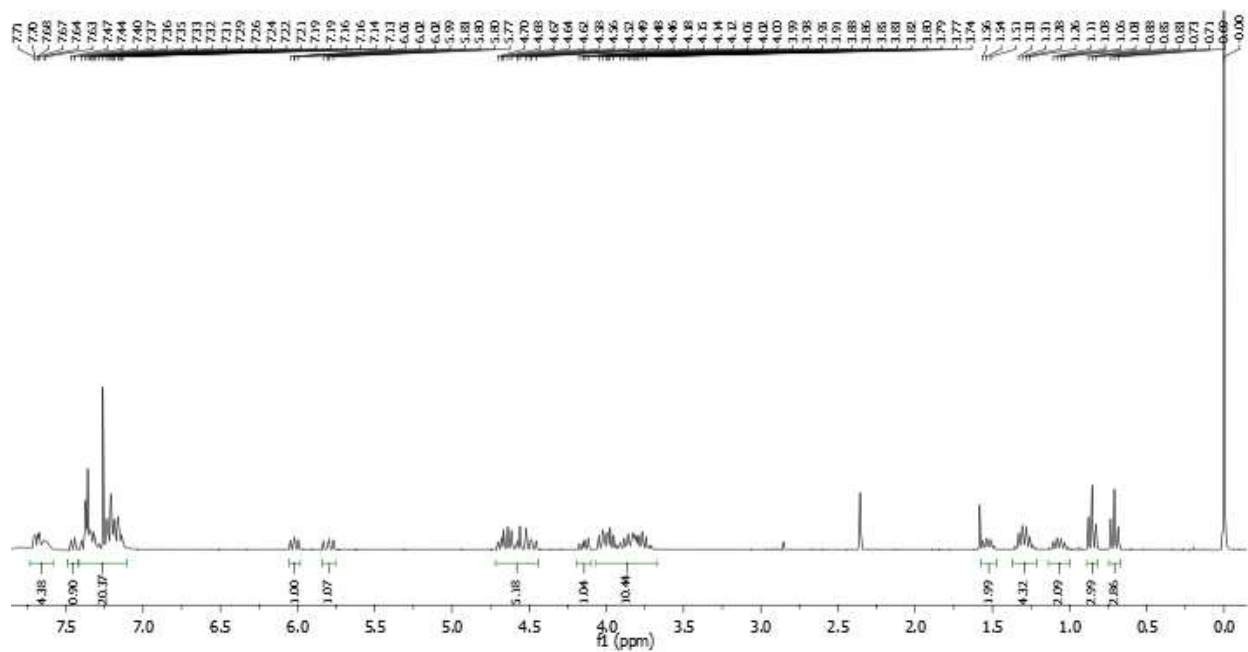
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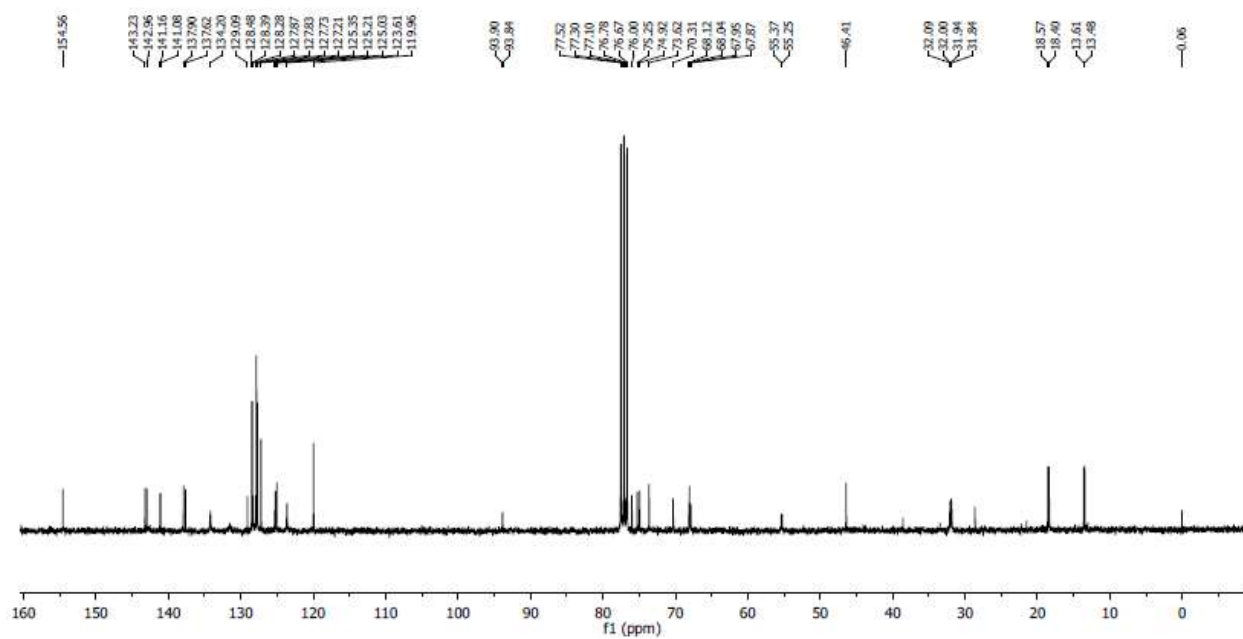
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13

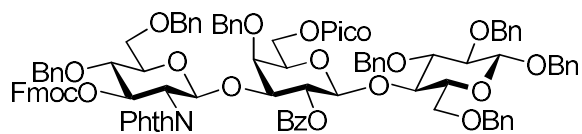


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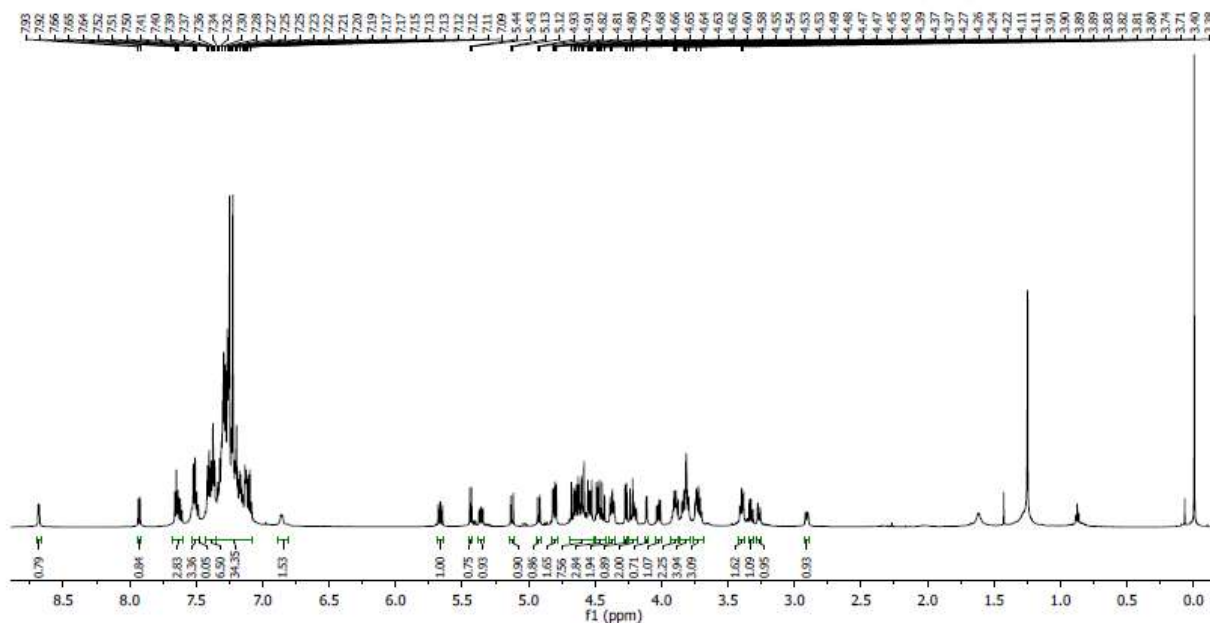


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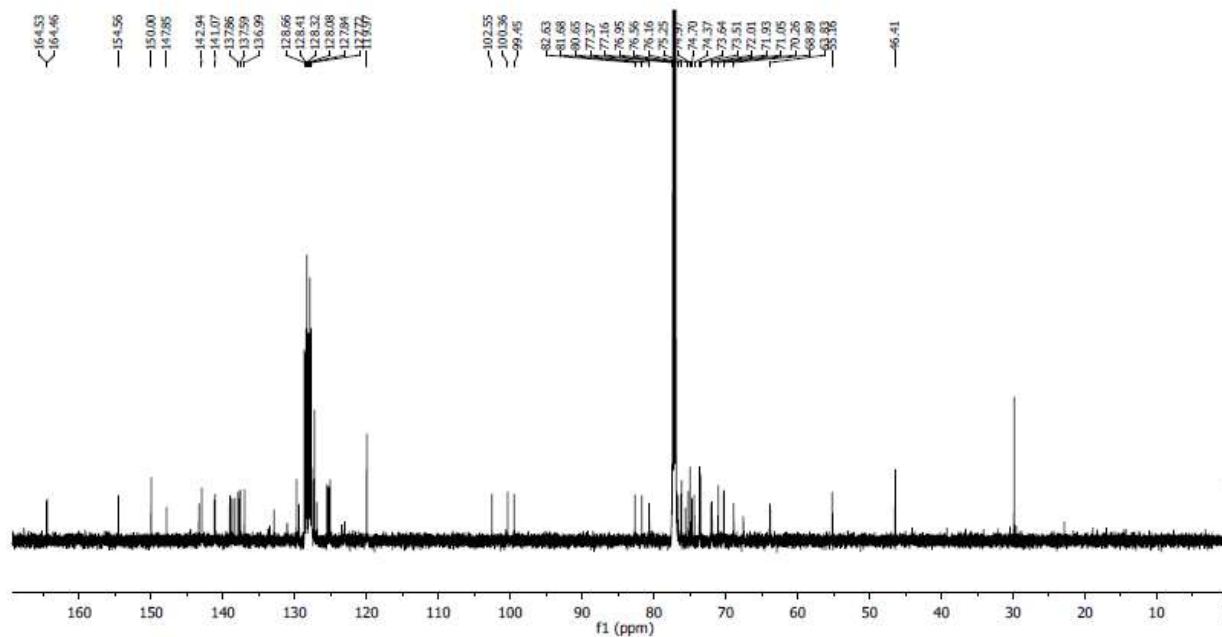




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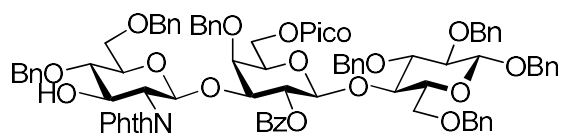


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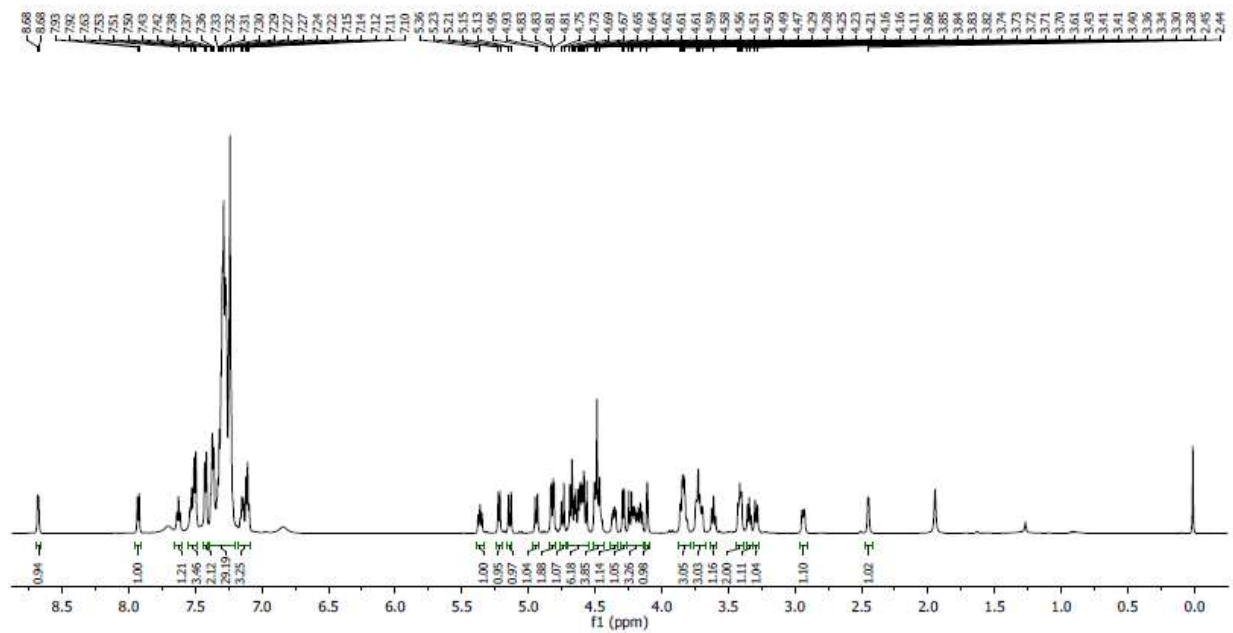


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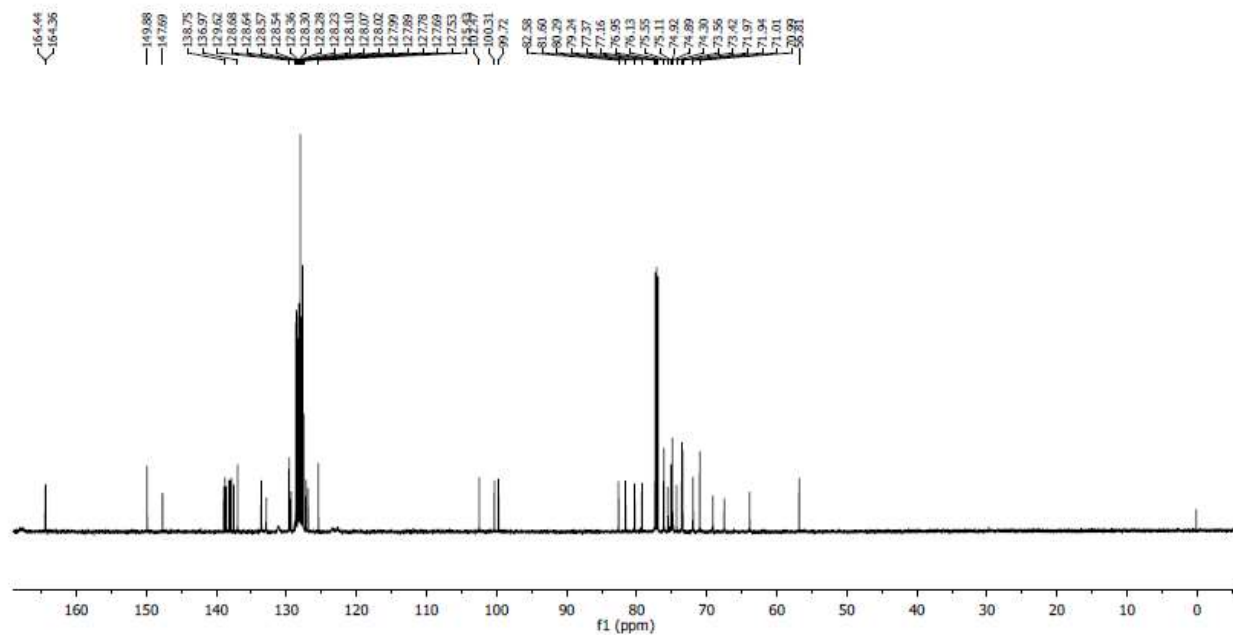




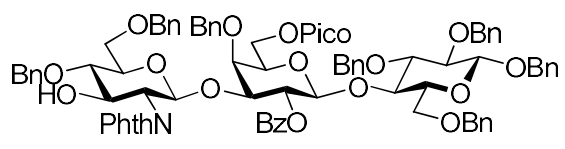
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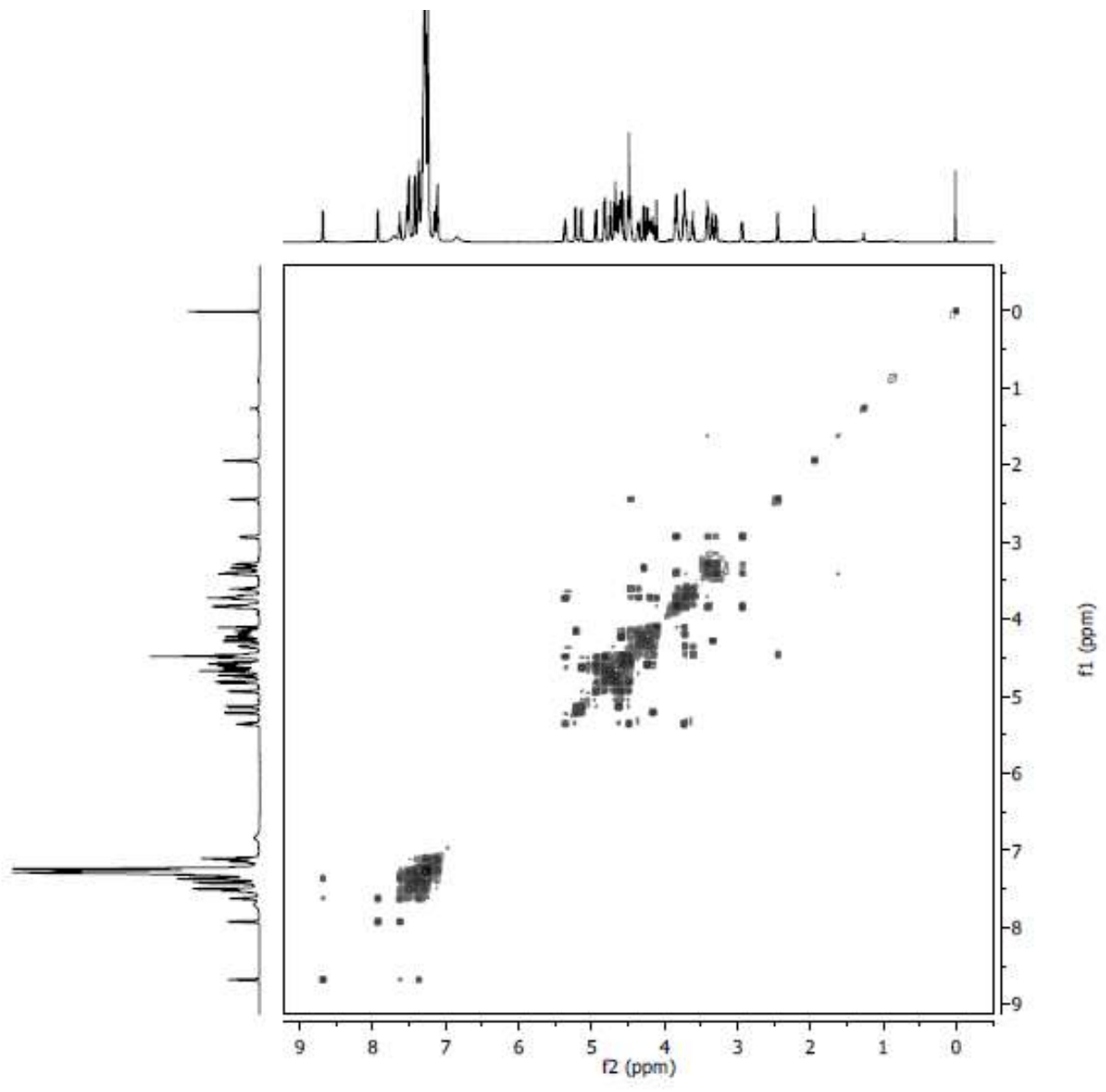
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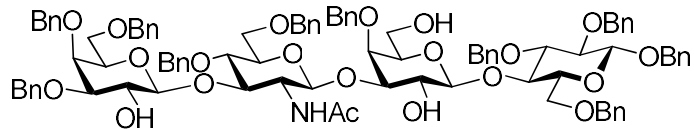
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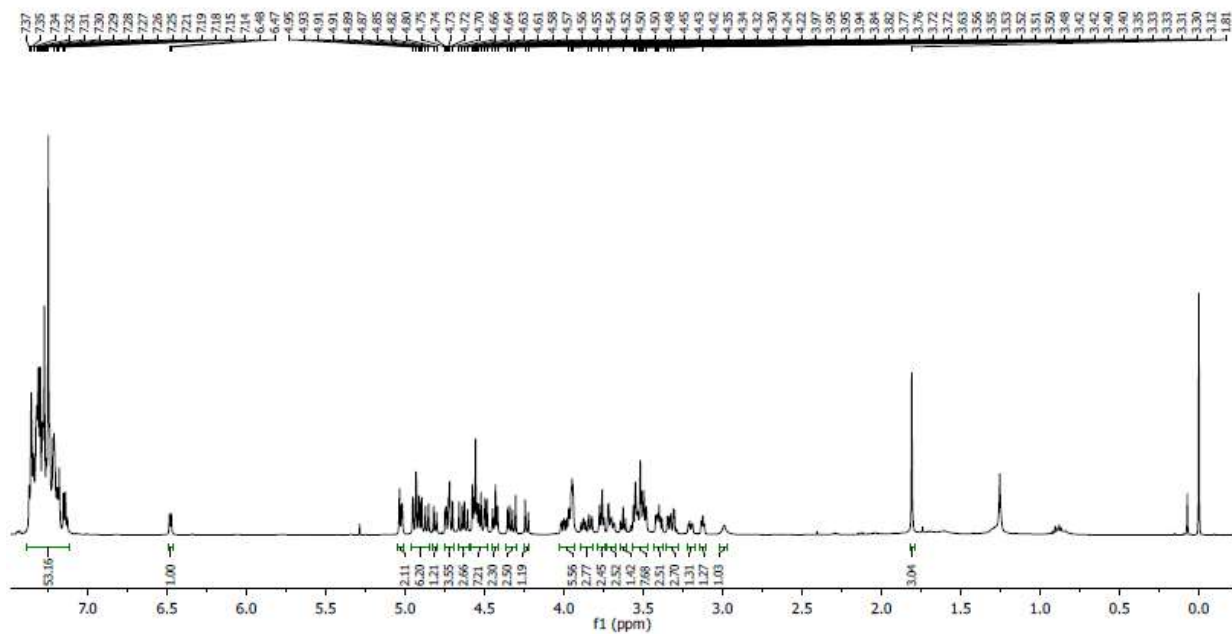
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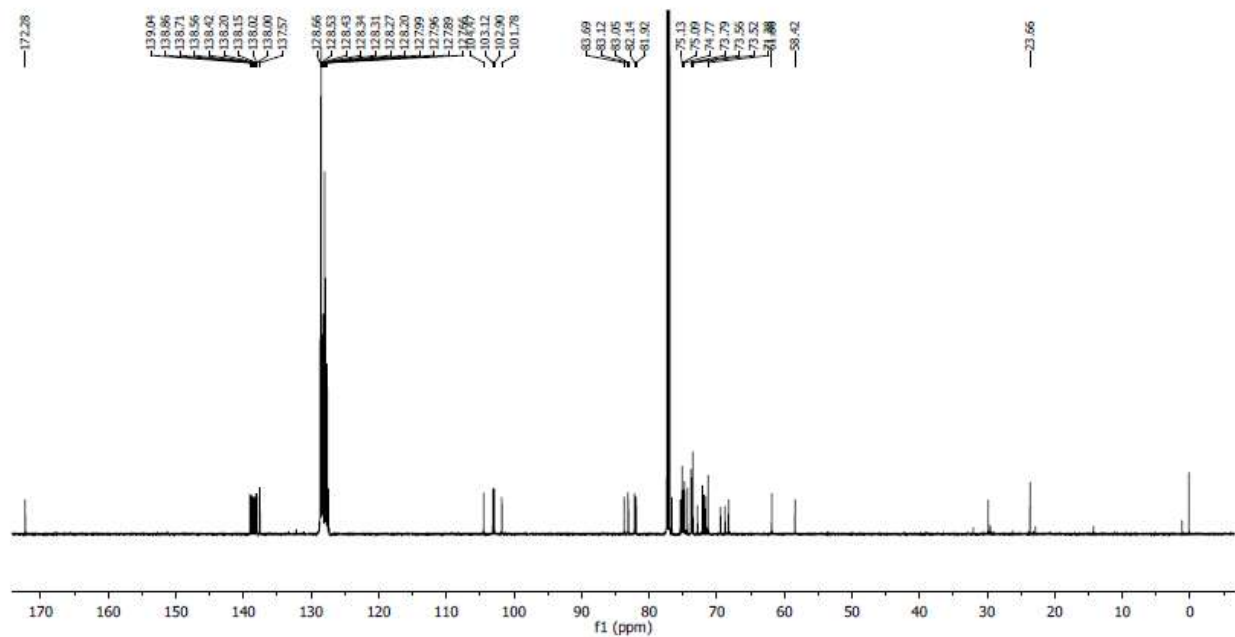
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16



CDCl<sub>3</sub> 600 MHz

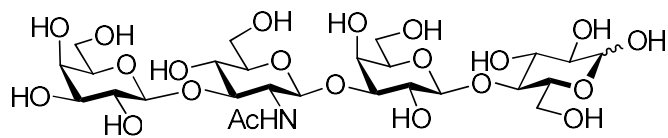


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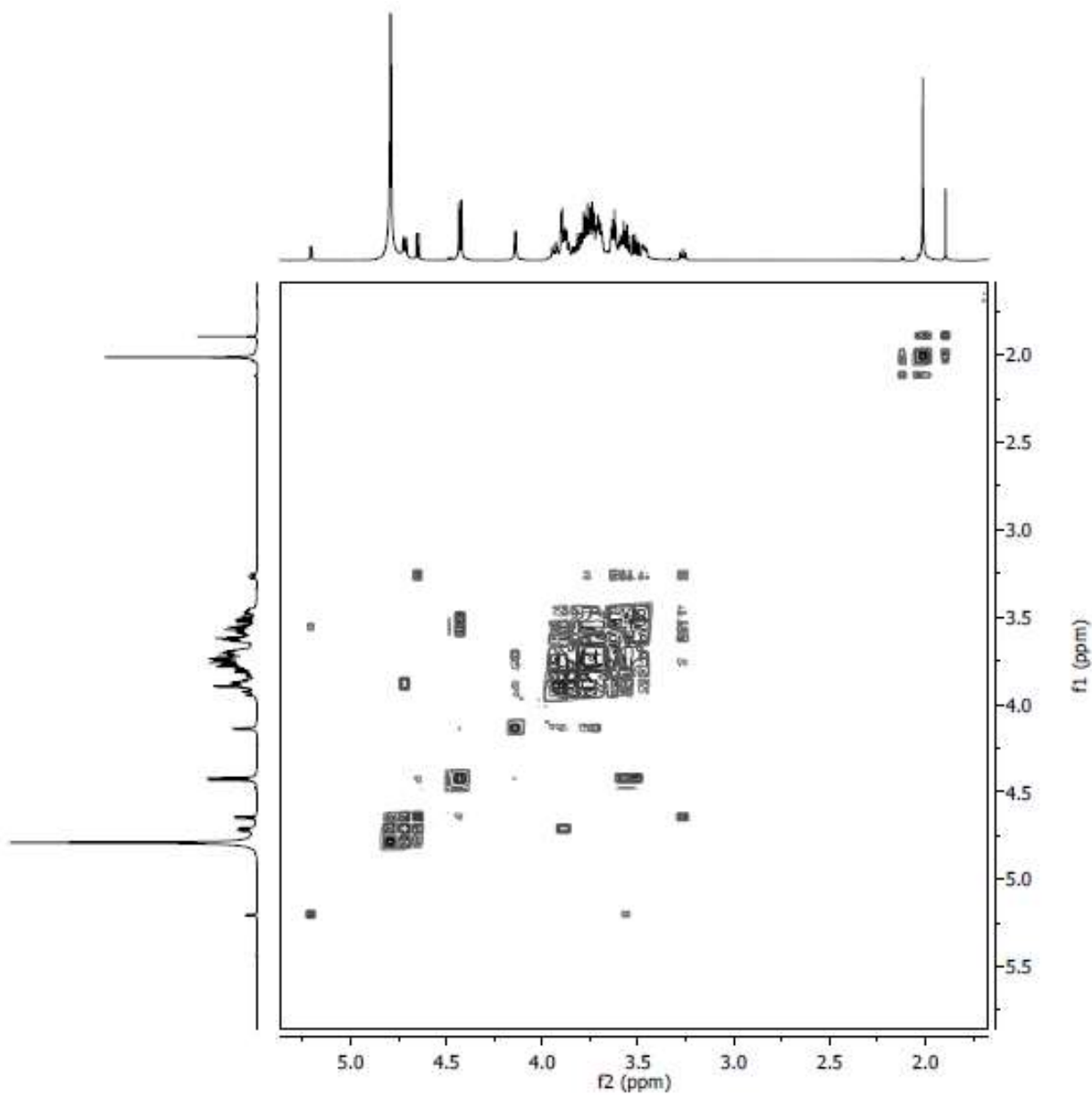








1



D<sub>2</sub>O 600 MHz