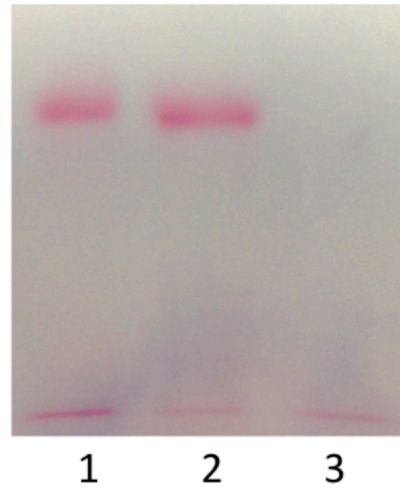


## Cyclic acetals as cleavable linkers for affinity capture

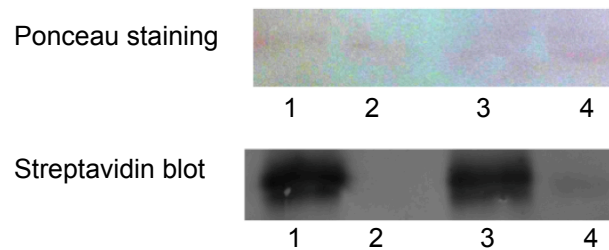
Siyeon Lee,<sup>a</sup> Wei Wang,<sup>a</sup> Younjoo Lee,<sup>a</sup> and Nicole S. Sampson<sup>\*,a</sup>

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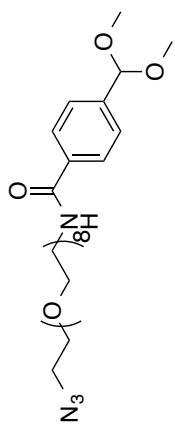
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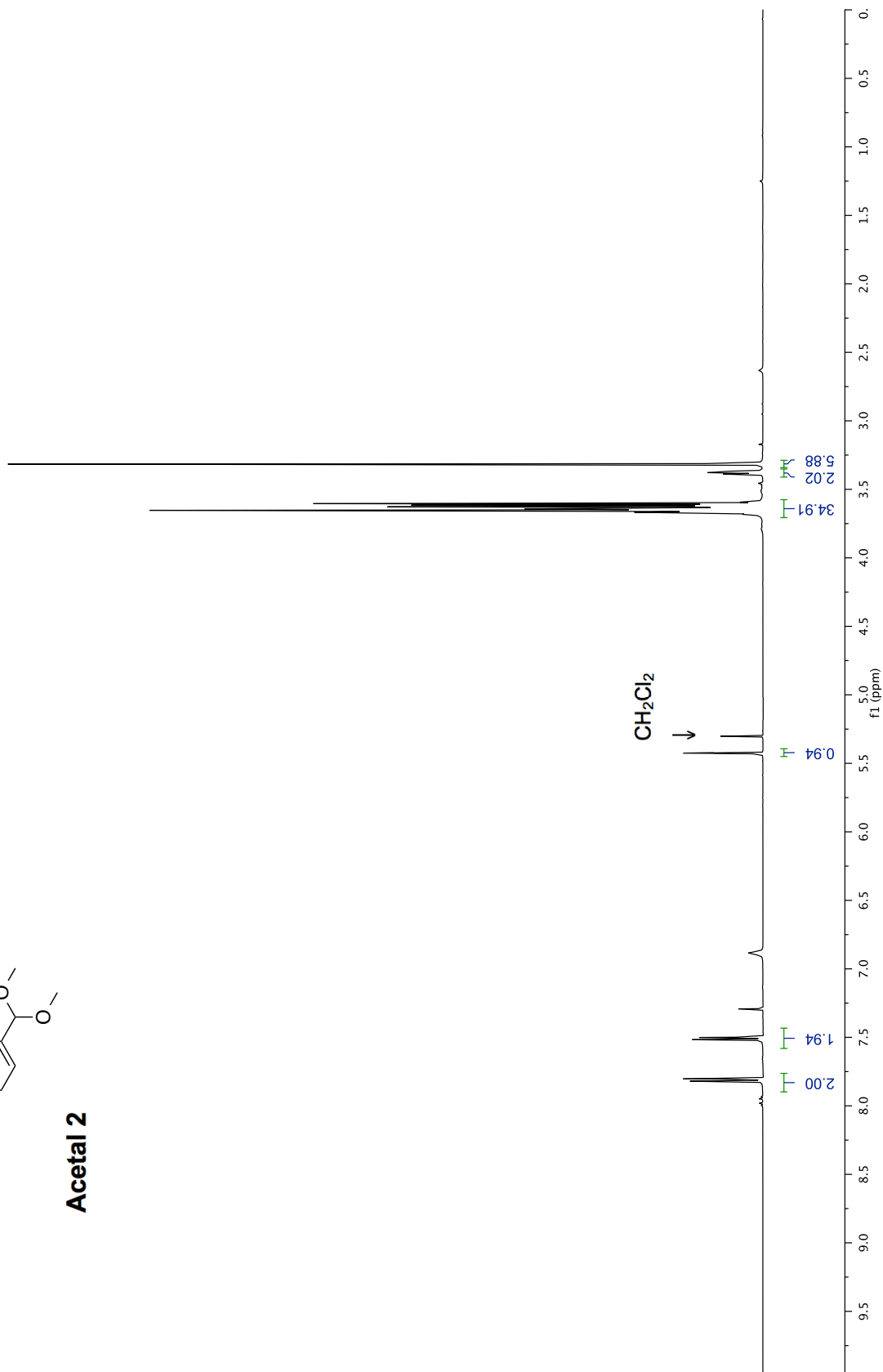
**Figure S1.** Cleavage of BSA-7c in the presence of 1M guanidine. Lane 1, BSA-7c captured on streptavidin-agarose beads; lane 2, supernatant from BSA-7c incubated in 1M guanidine/1% TFA at 37 °C for 1 hour; lane 3, streptavidin-agarose beads with captured BSA-7c after 1M guanidine/TFA incubation.



**Figure S2.** Further modification of the RNase aldehyde tag. Lane 1, RNase A-7c captured on streptavidin-agarose beads; lane 2, supernatant from RNase A-7c incubated in 1% TFA at 37 °C for 1 hour; lane 3, RNase A aldehyde after reaction with alkoxyamine-PEG-biotin at pH 5, 37 °C for 4 hours; lane 4, native RNase A subjected to the same alkoxyamine-PEG-biotin labeling reaction.

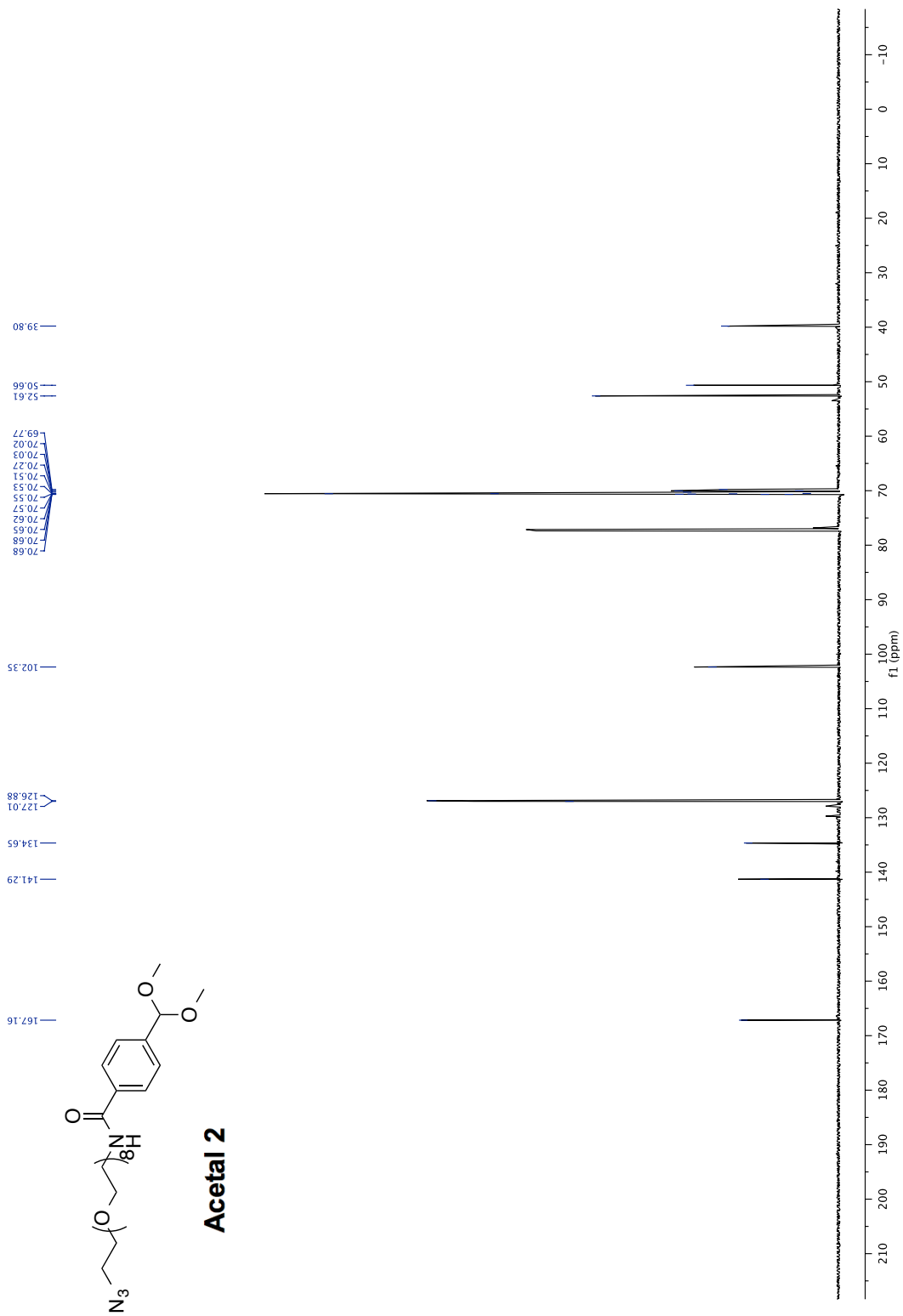


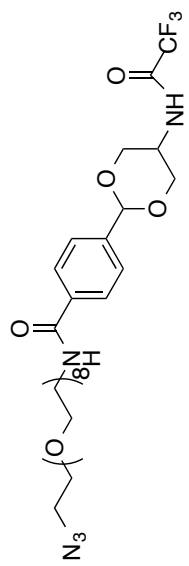
**Acetal 2**



$^1\text{H}$  NMR spectrum of **acetal 2**

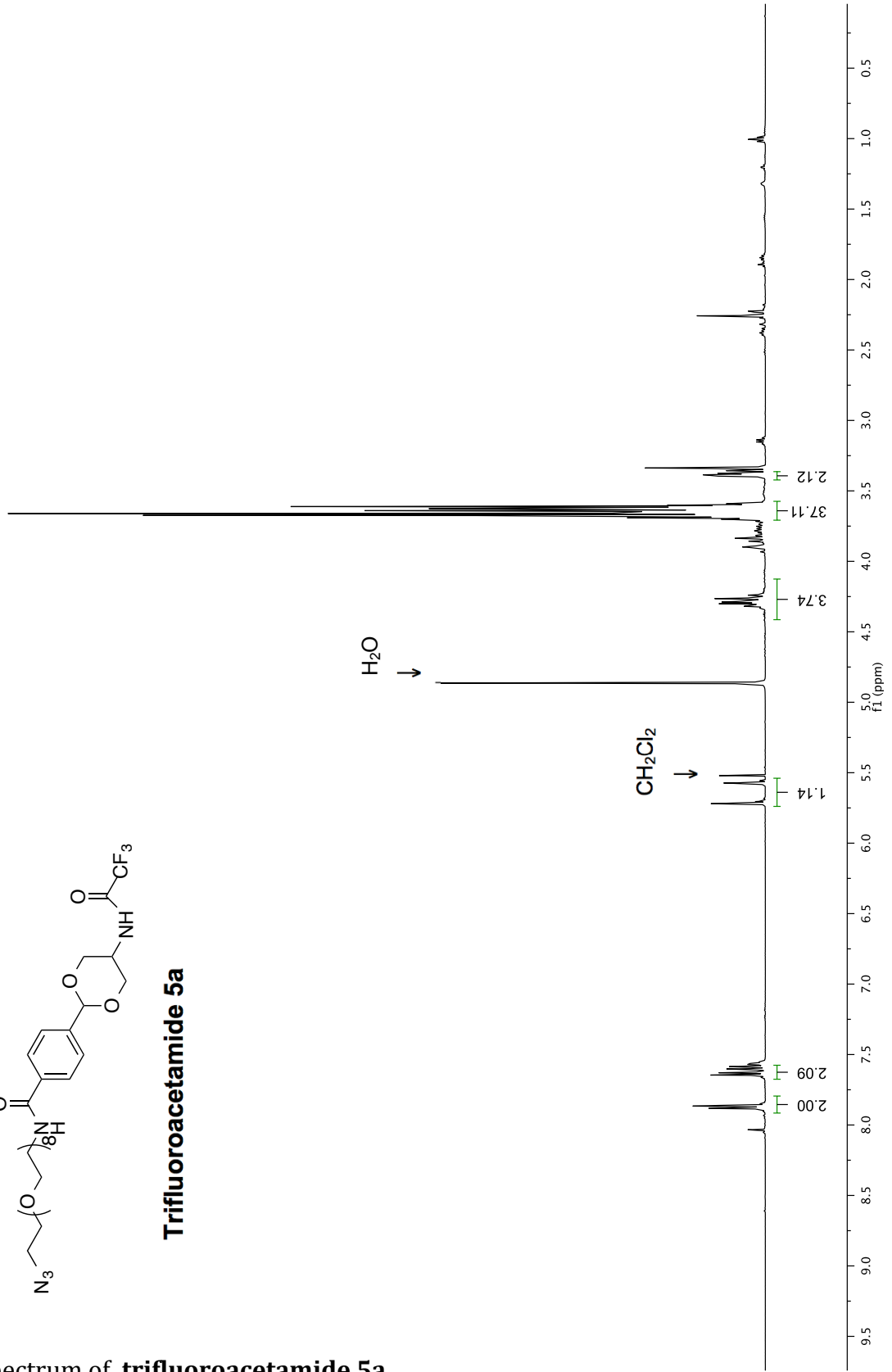
<sup>13</sup>C NMR Spectrum of acetal 2

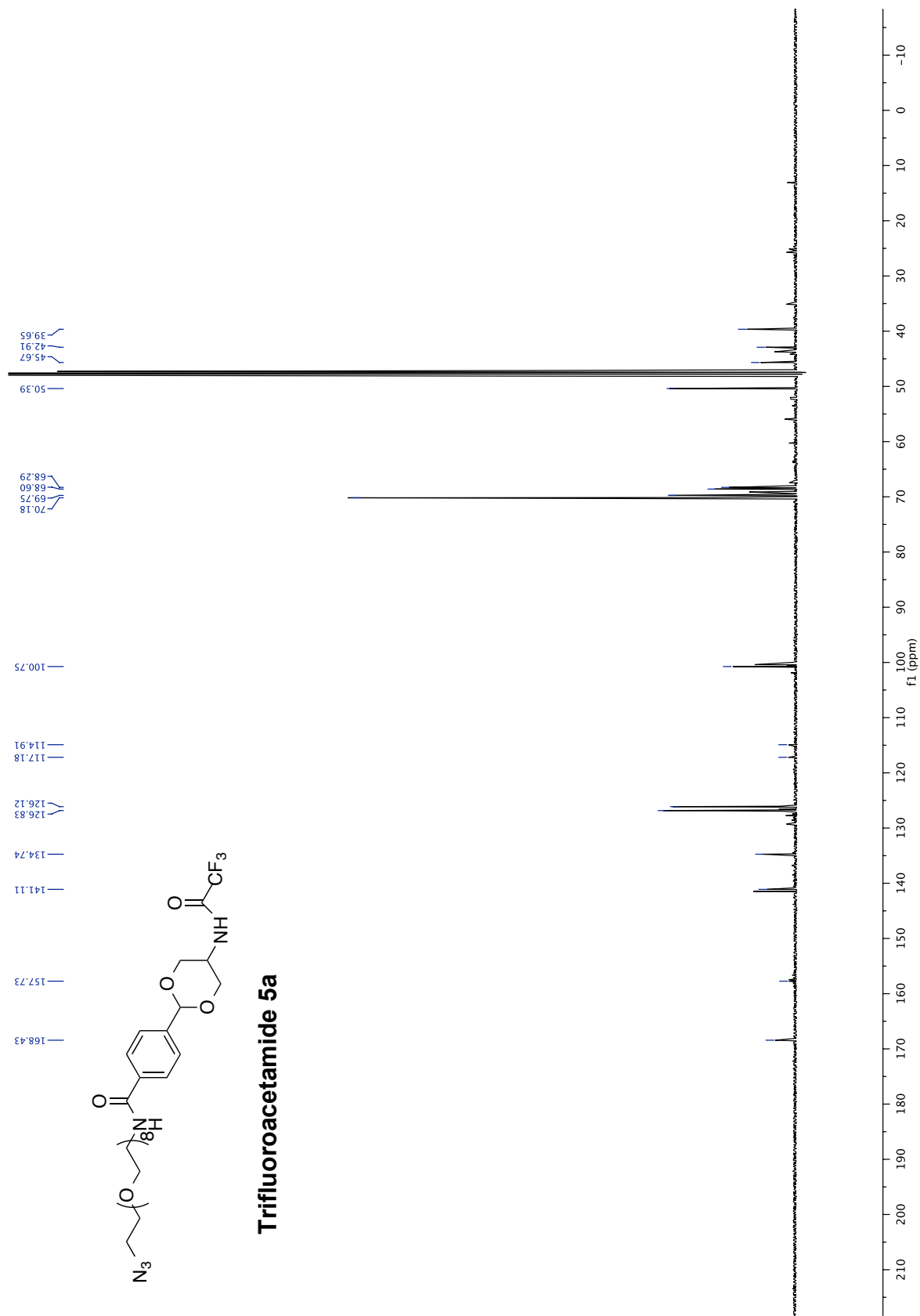




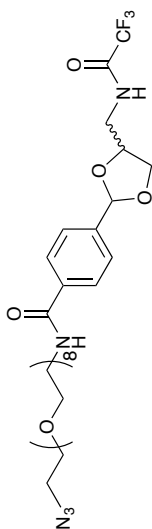
**Trifluoroacetamide 5a**

$^1\text{H}$  NMR Spectrum of **trifluoroacetamide 5a**

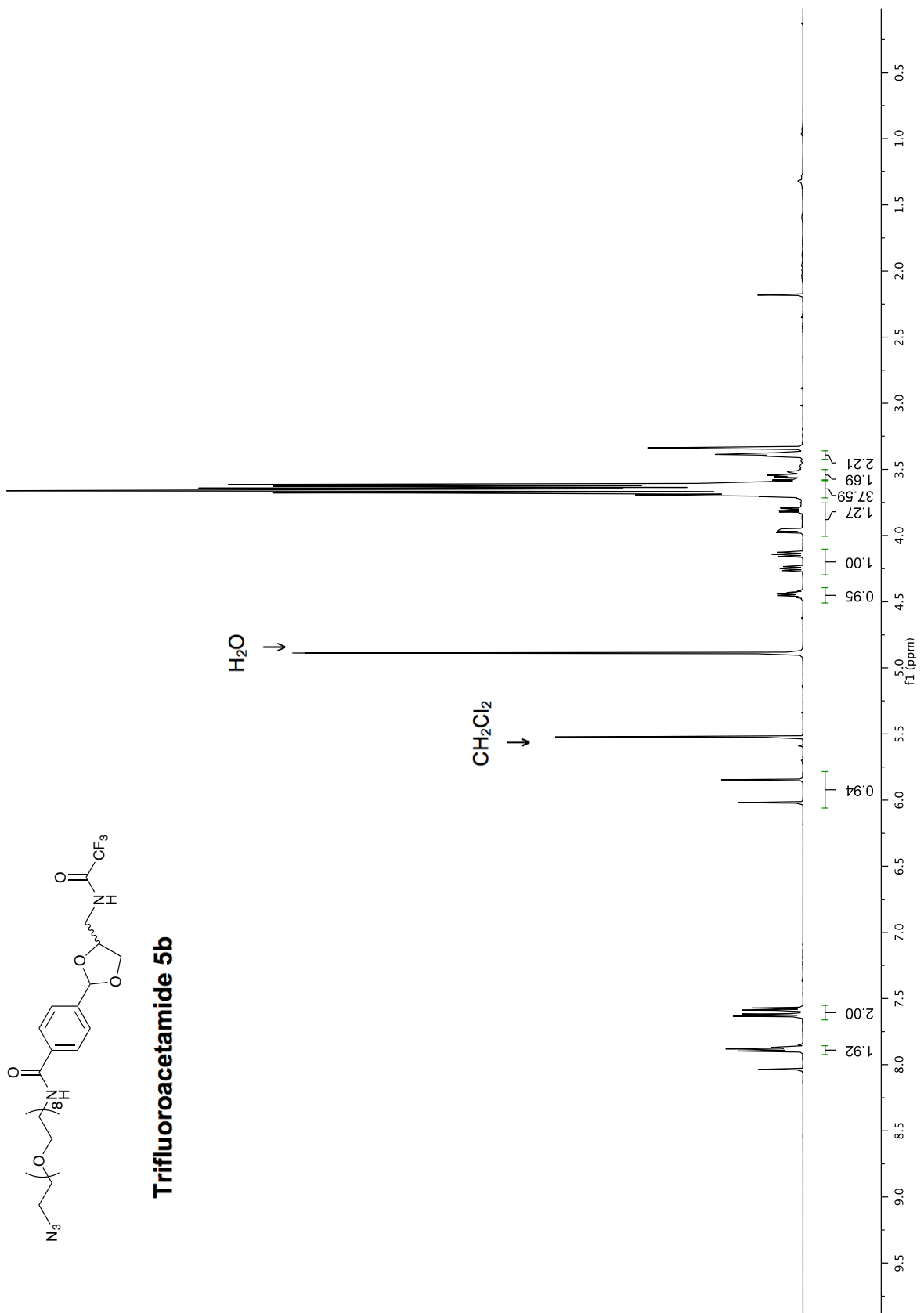




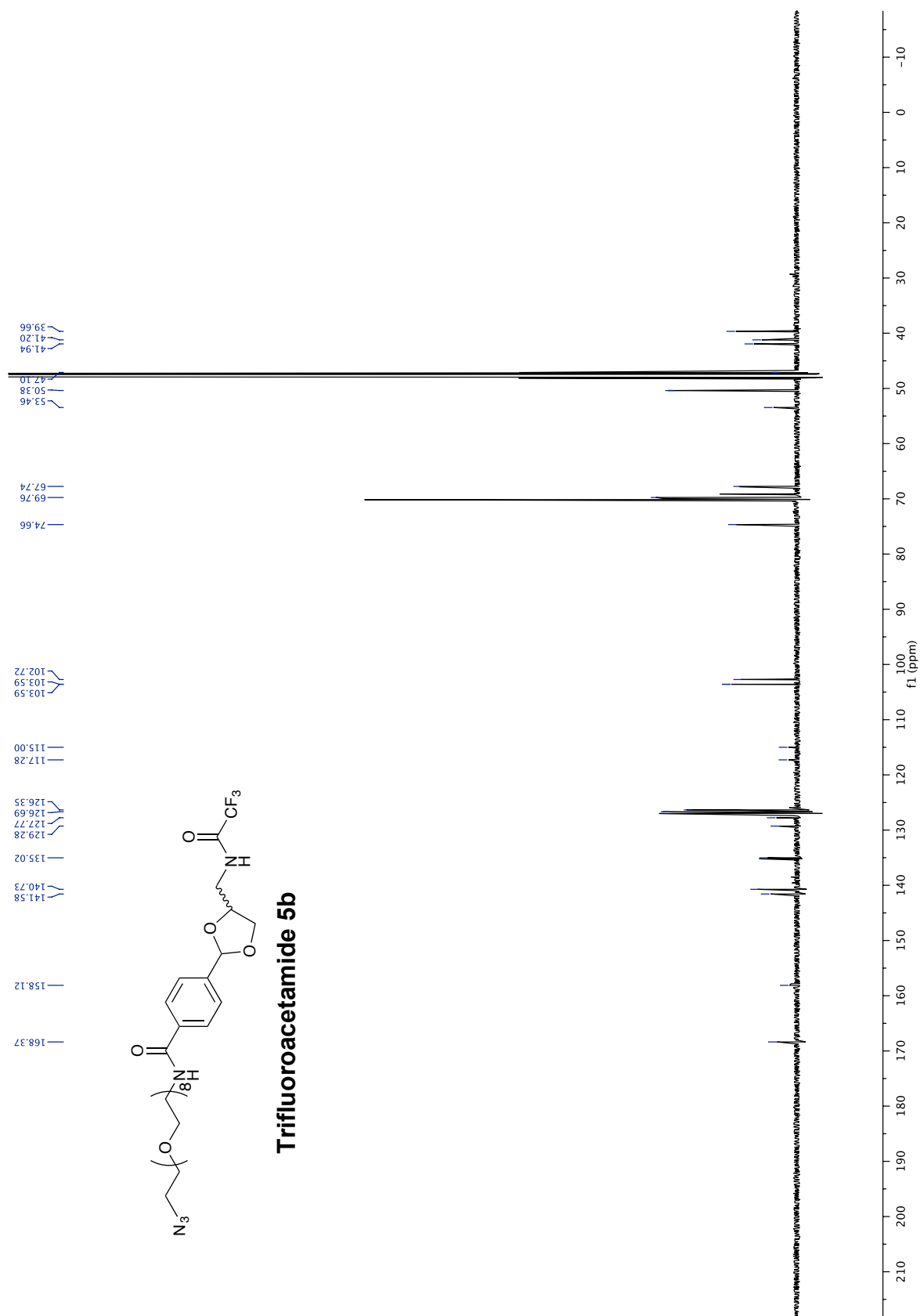
<sup>13</sup>C NMR Spectrum of trifluoroacetamide 5a



**Trifluoroacetamide 5b**

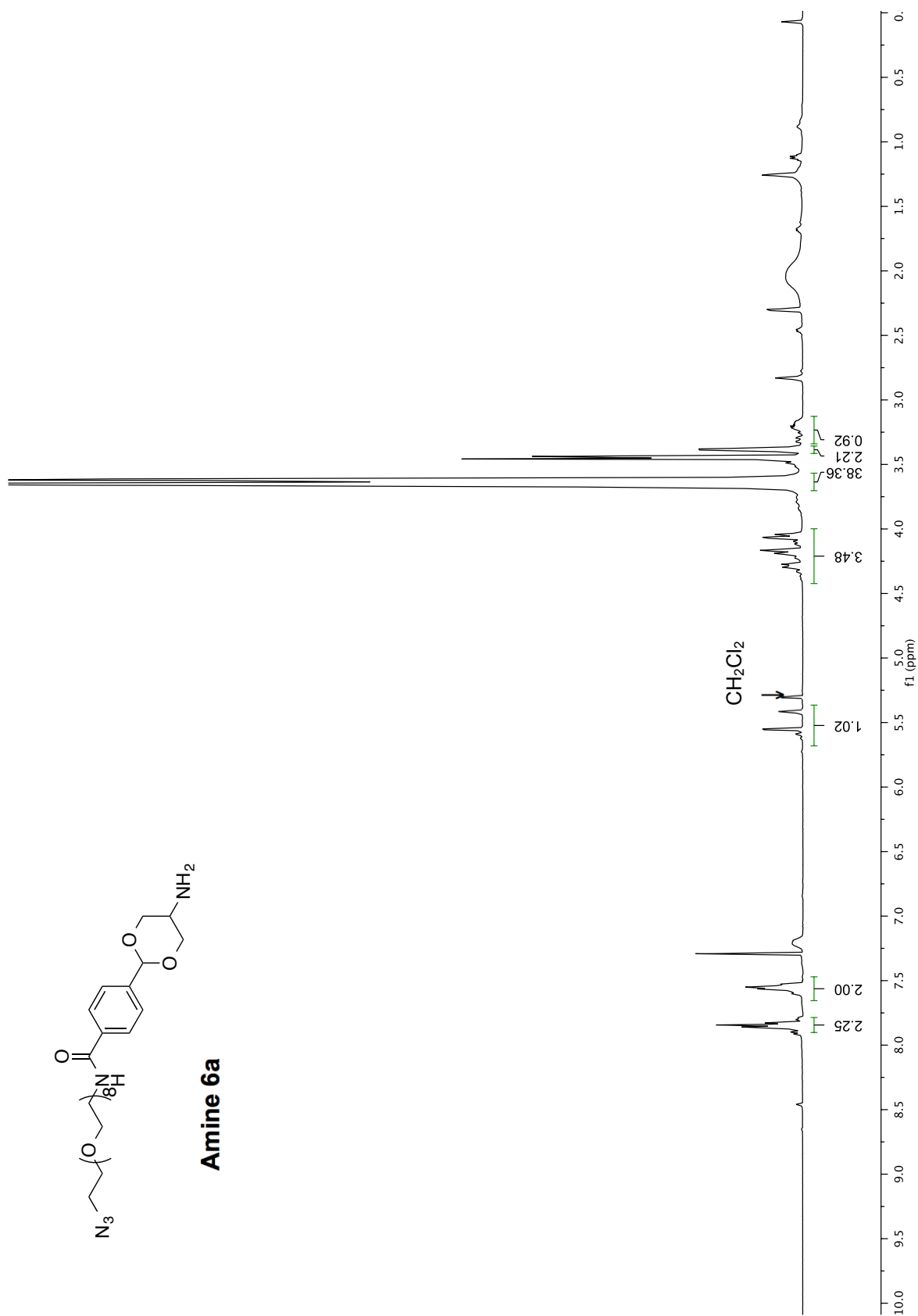
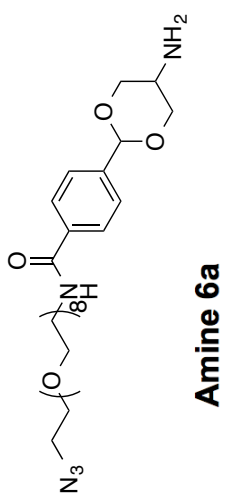


$^1\text{H}$  NMR Spectrum of **trifluoroacetamide 5b**



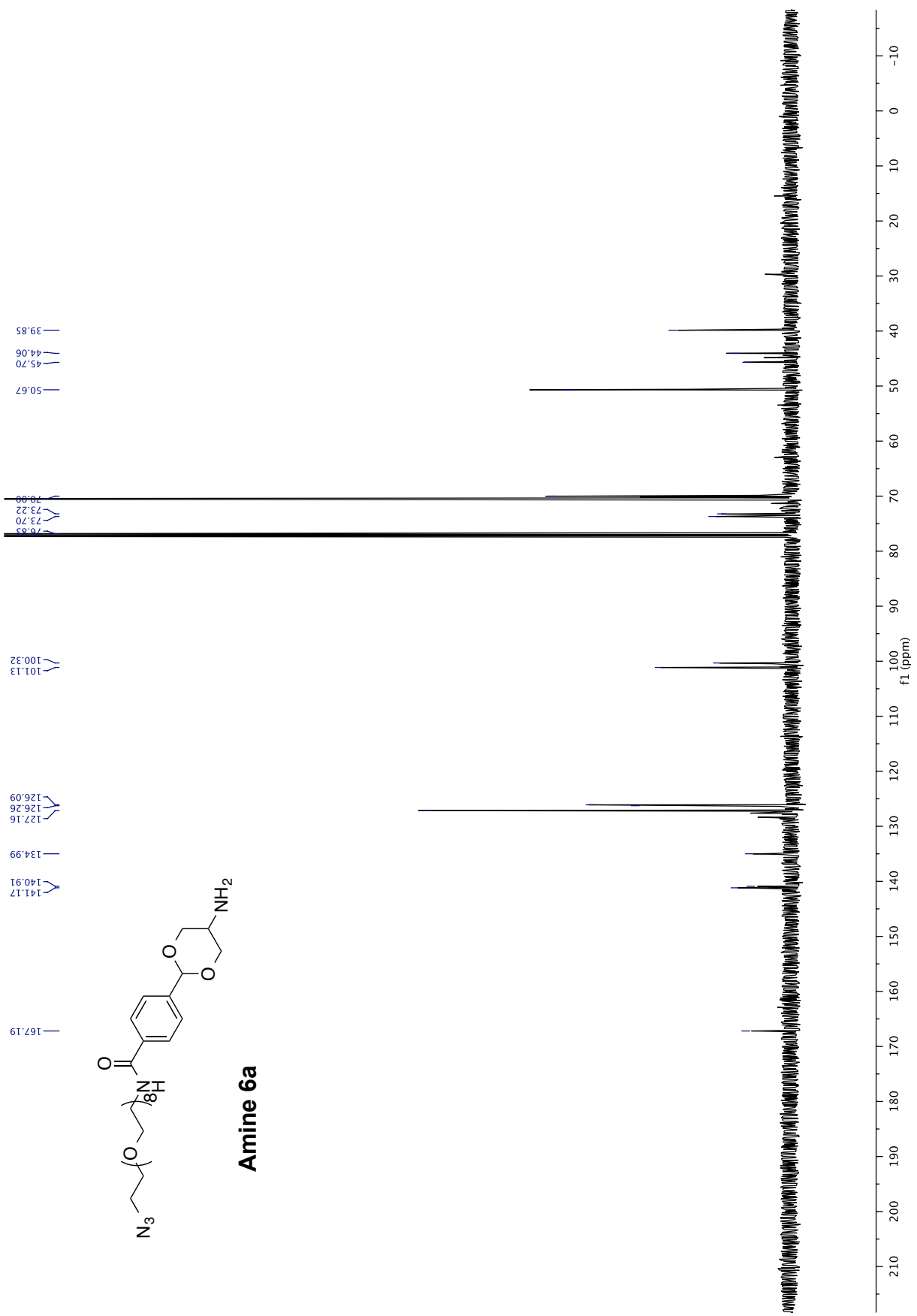
<sup>13</sup>C NMR Spectrum of trifluoroacetamide 5b

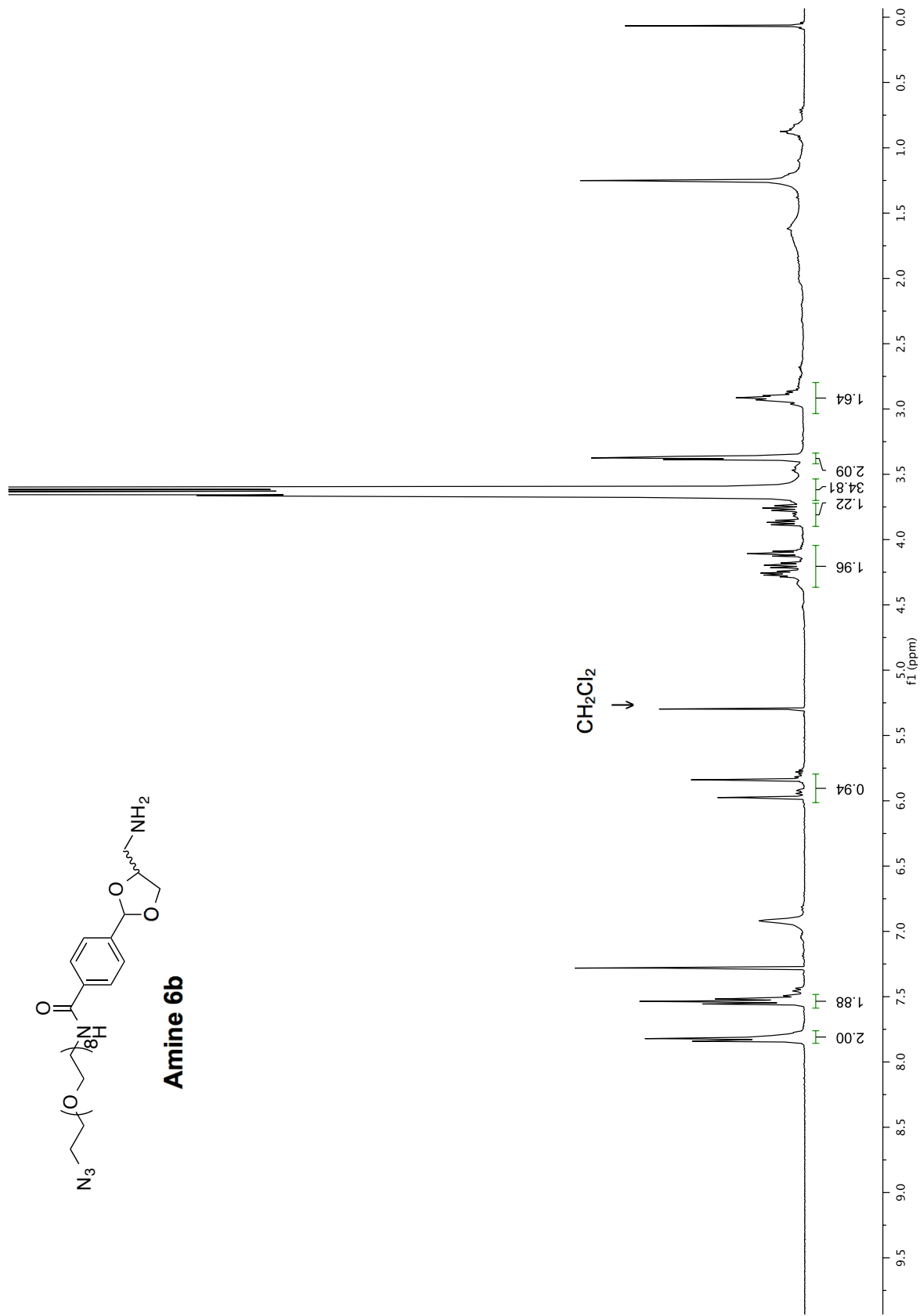




$^1\text{H}$  NMR Spectrum of **amine 6a**

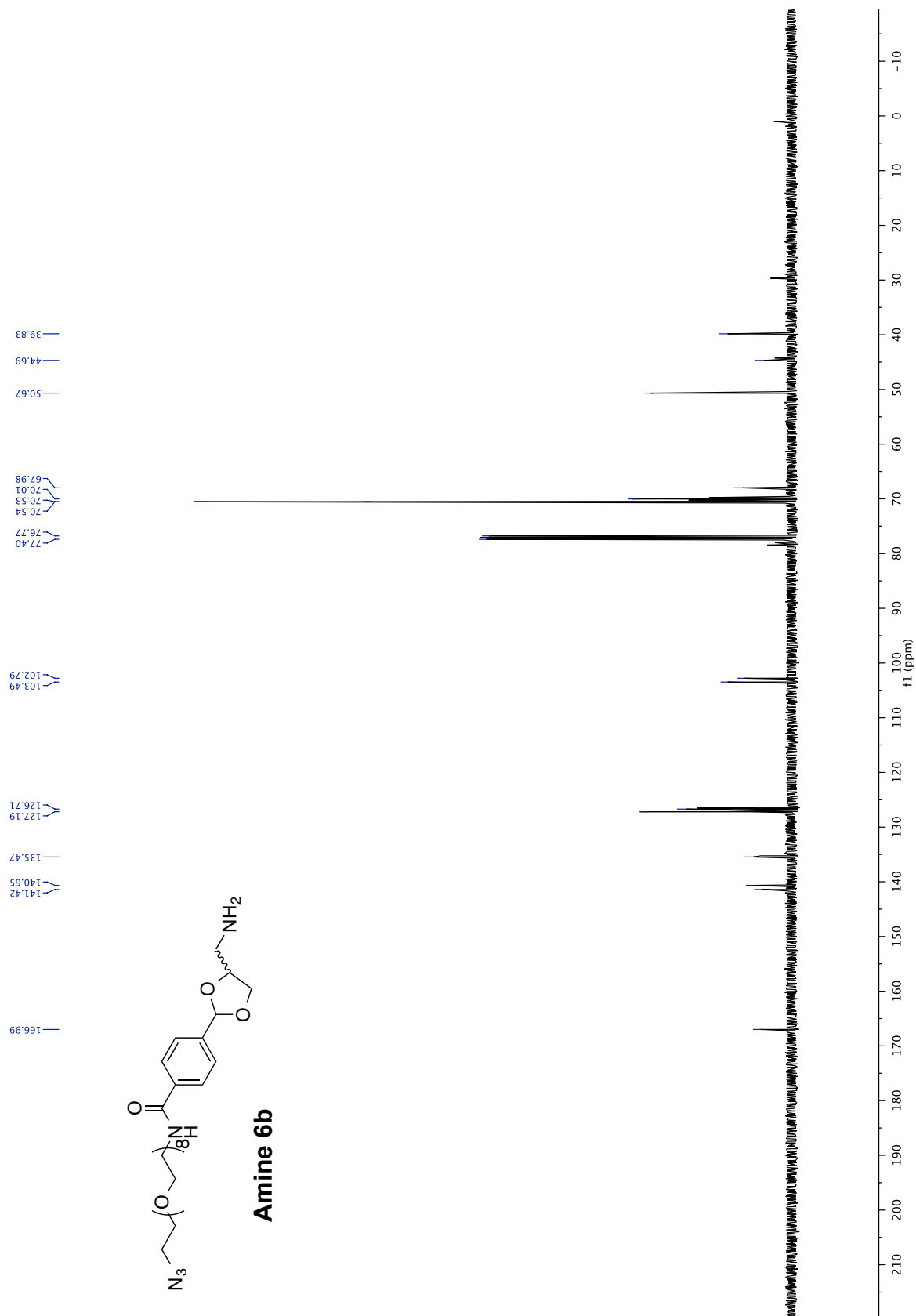
<sup>13</sup>C NMR Spectrum of amine 6a

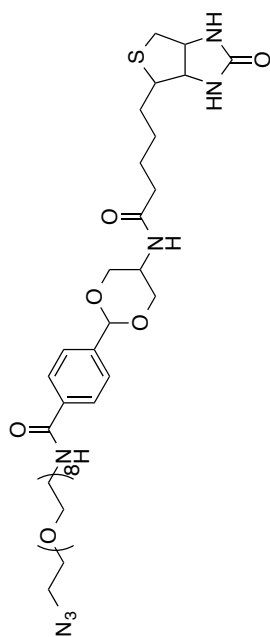




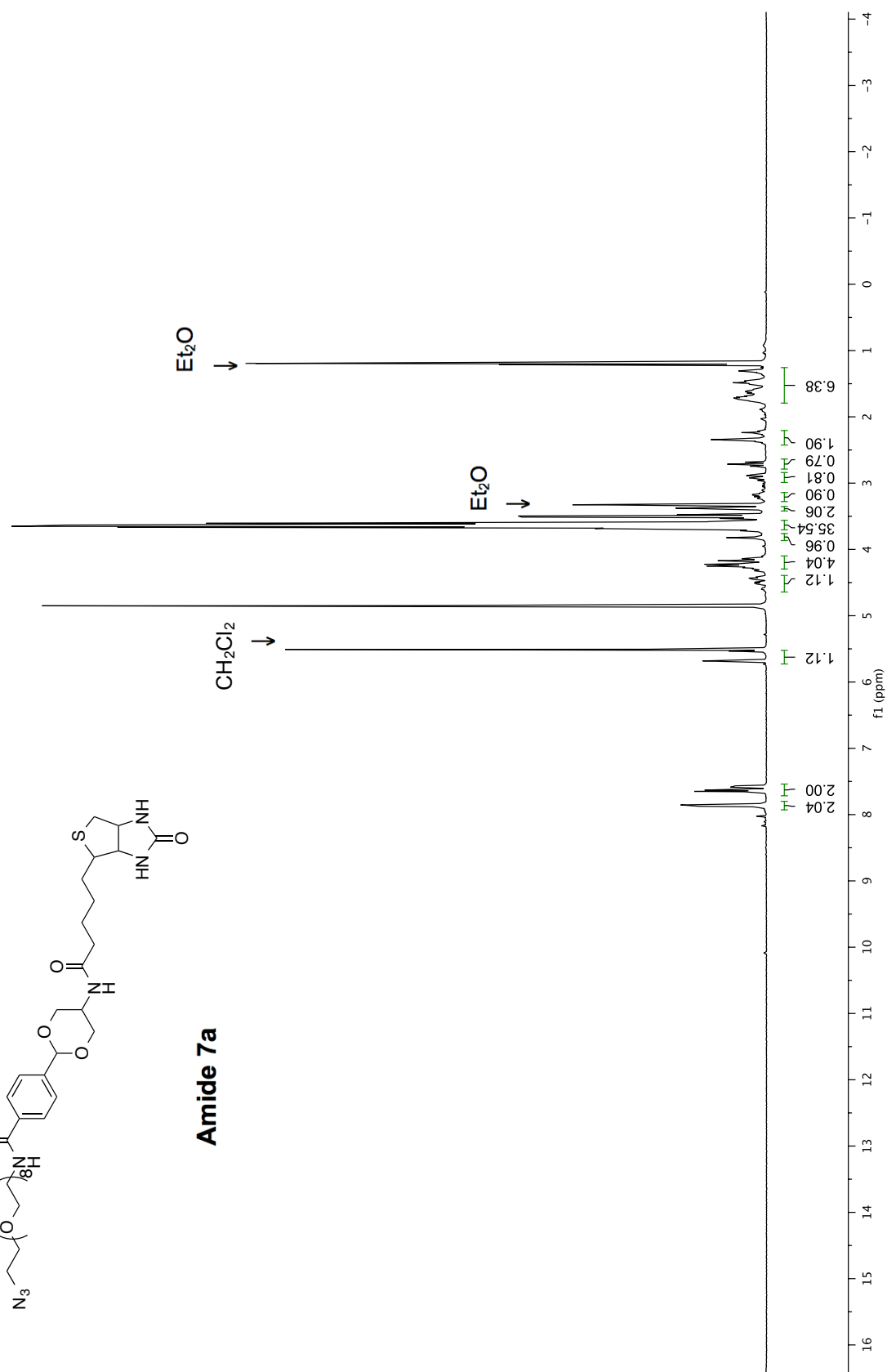
<sup>1</sup>H NMR Spectrum of **amine 6b**

<sup>13</sup>C NMR Spectrum of amine 6b

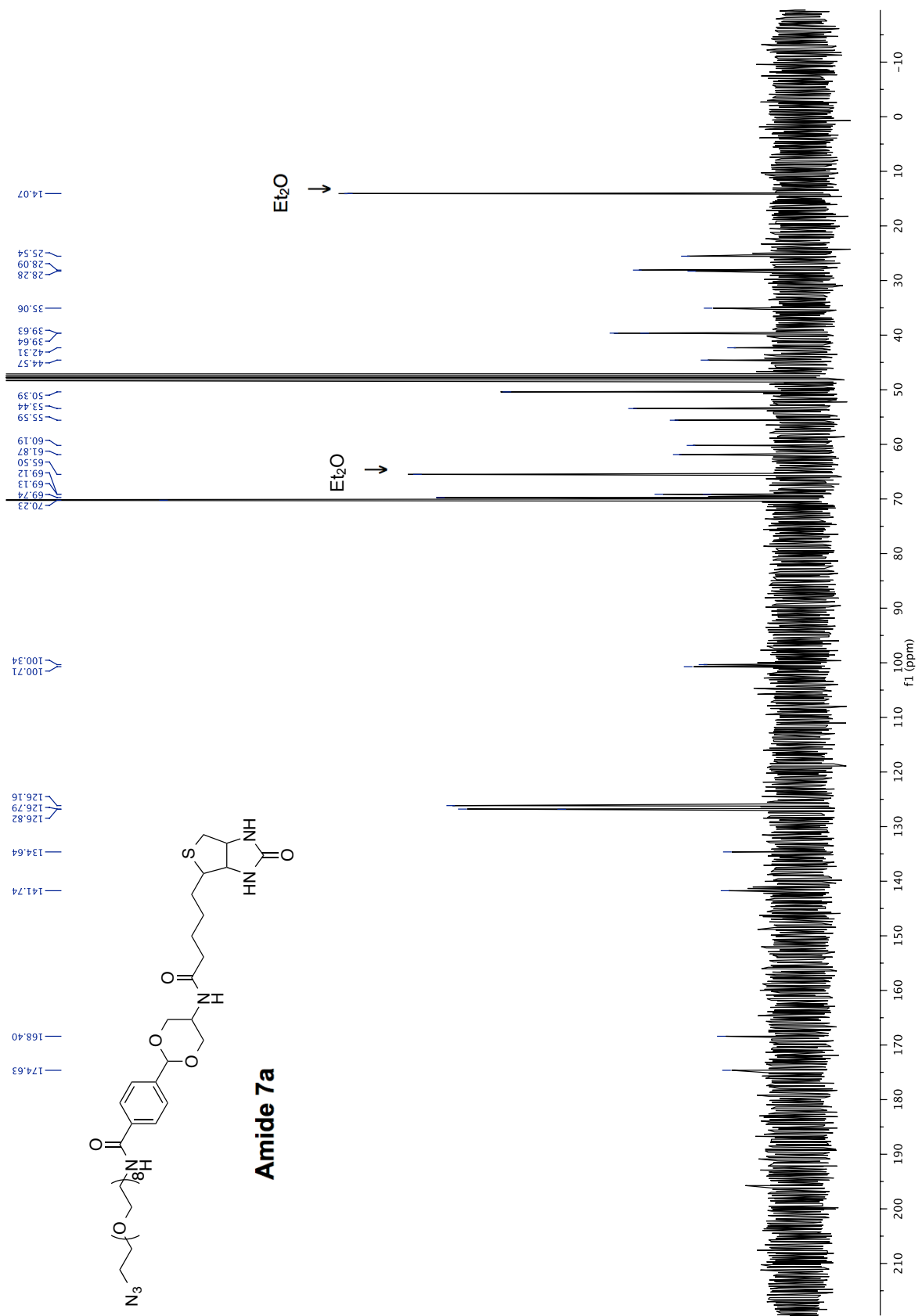




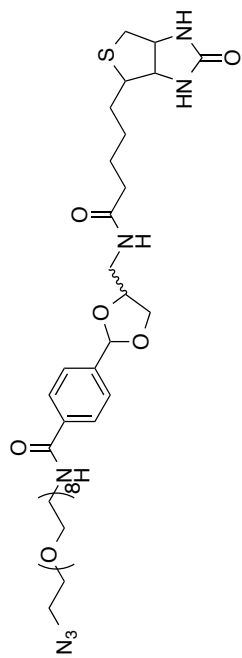
**Amide 7a**



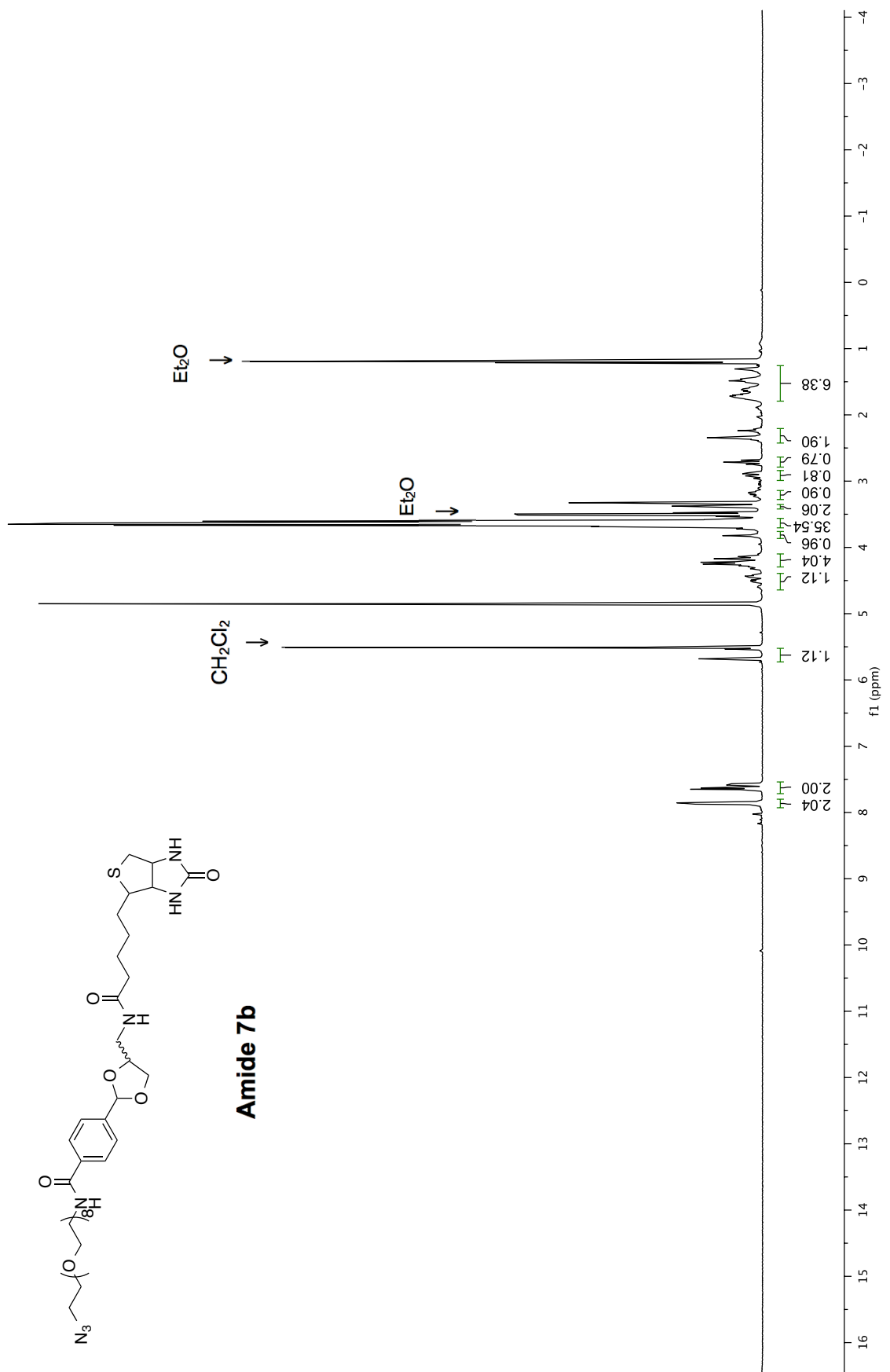
$^1\text{H}$  NMR Spectrum of **amide 7a**



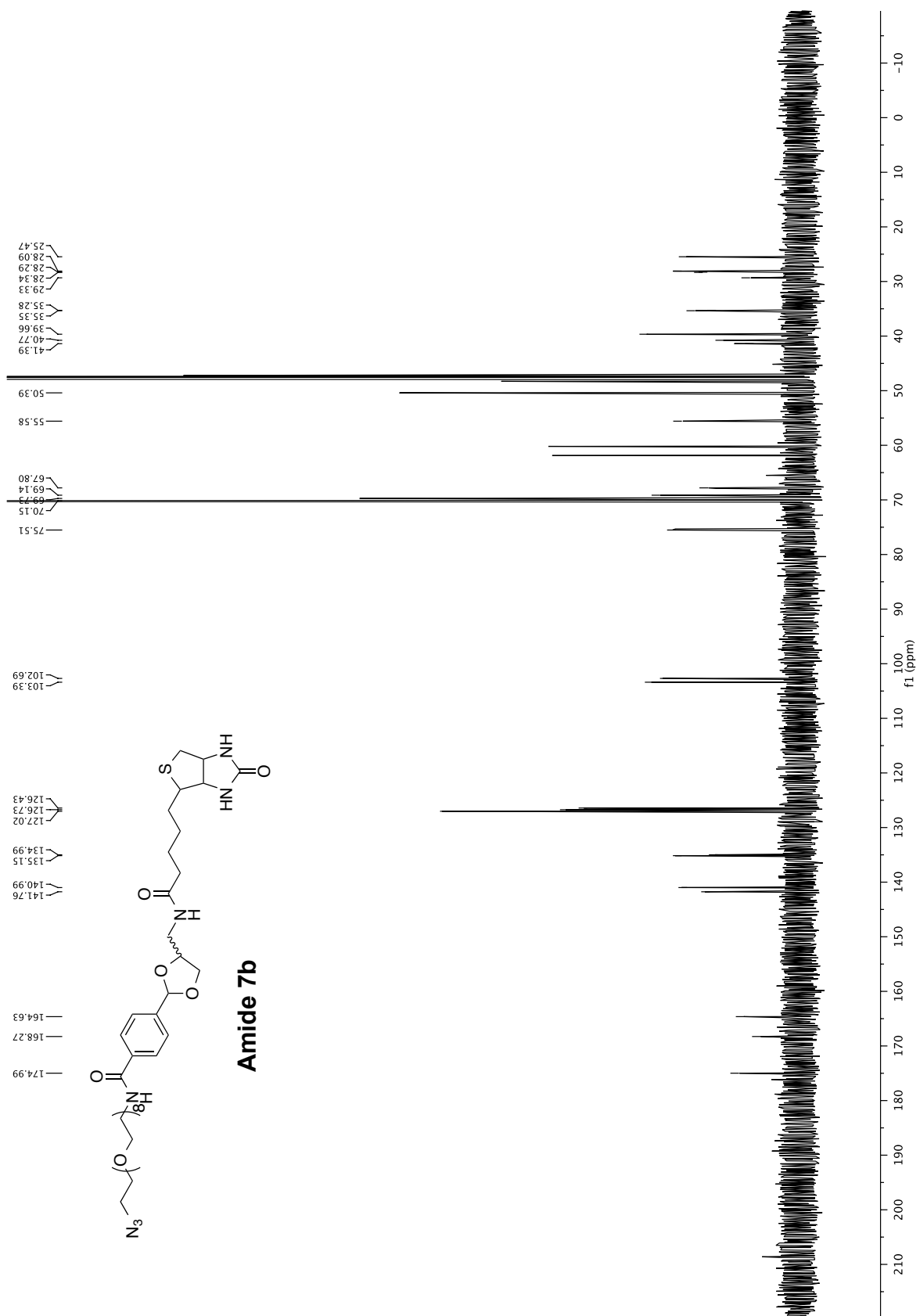
<sup>13</sup>C NMR Spectrum of **amide 7a**



**Amide 7b**



**<sup>1</sup>H NMR Spectrum of Amide 7b**



<sup>13</sup>C NMR Spectrum of **amide 7b**



<sup>1</sup>H NMR Spectrum of **amide 7c**

