

Supplementary information

Silica Precipitation with Synthetic Silaffin Peptides

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Supporting information content

Silica precipitation assays	S11
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General information

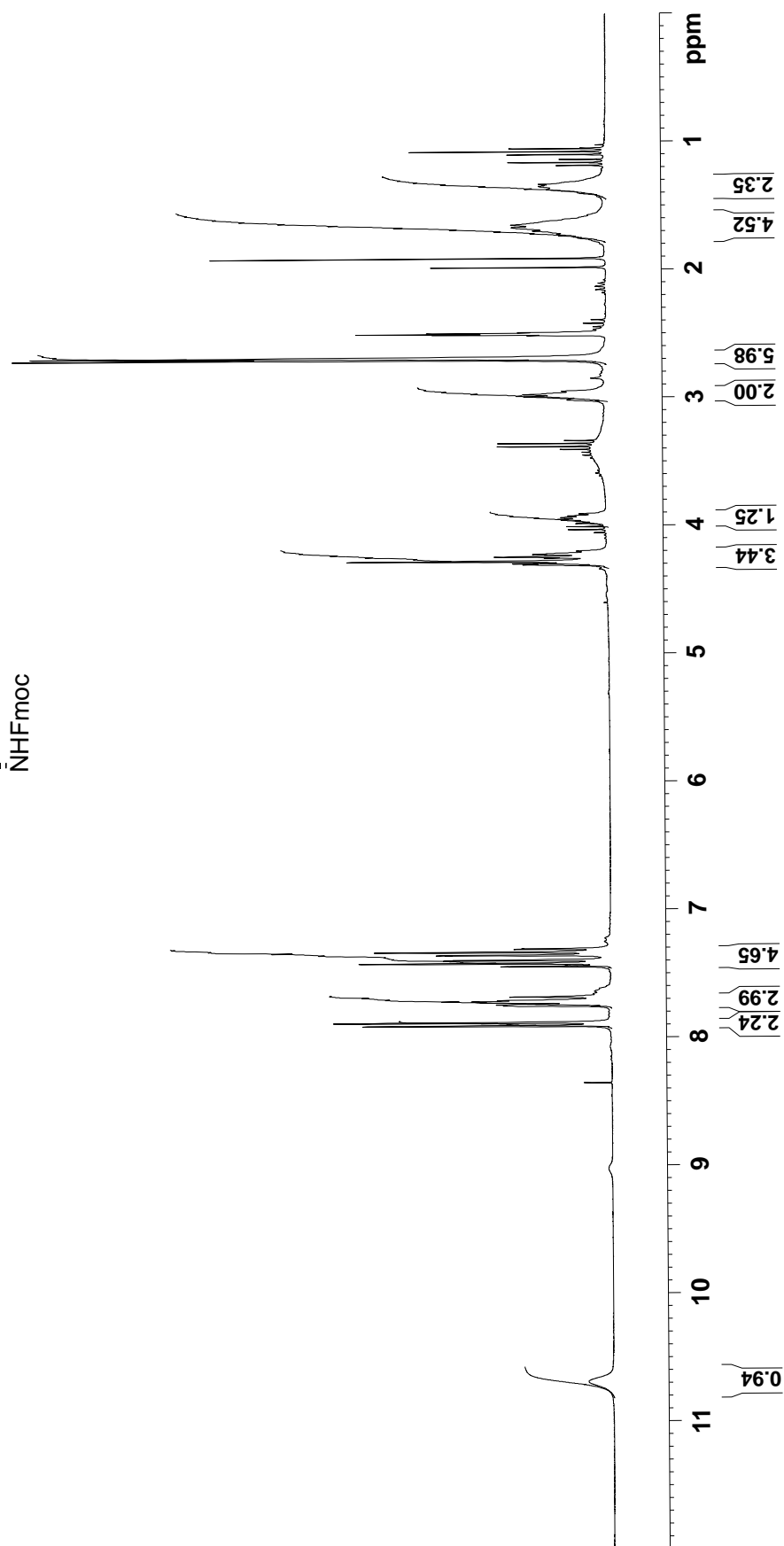
Characterization: NMR spectra were recorded on a Bruker Avance 300, Bruker DRX 400, Bruker DRX 500 or Bruker Avance 600 spectrometers. For ¹H NMR (300, 400, 500 or 600 MHz) spectra, δ values were referenced to CDCl₃ (7.26 ppm) or DMSO-d₆ (2.49 ppm), and for ¹³C (75, 100, 125 or 150 MHz) spectra, δ values were referenced to CDCl₃ (77.1 ppm) or DMSO-d₆ (39.5 ppm) as the solvents. Mass spectra (MS) were recorded on Finnigan MAT 95, Finnigan TSQ 7000 or Finnigan LTQ-FT (ES) instruments or on a Bruker Biflex III MALDI-TOF using either hydroxy-α-cyanocinnamic acid (HCCA) or 2,5-dihydroxybenzoic acid (DHB) as matrices. Optical rotations were measured on a Perkin-Elmer 241 polarimeter with a microcell (10 cm, 1 mL) at ambient temperatures.

Reagents and solvents: All commercially available reagents and protected amino acids were purchased and used without further purification. All the solvents used for reactions were distilled over appropriate drying reagents prior to use. Commercially available ACS grade solvents were used for column chromatography and HPLC grade solvents for peptide synthesis without any further purification.

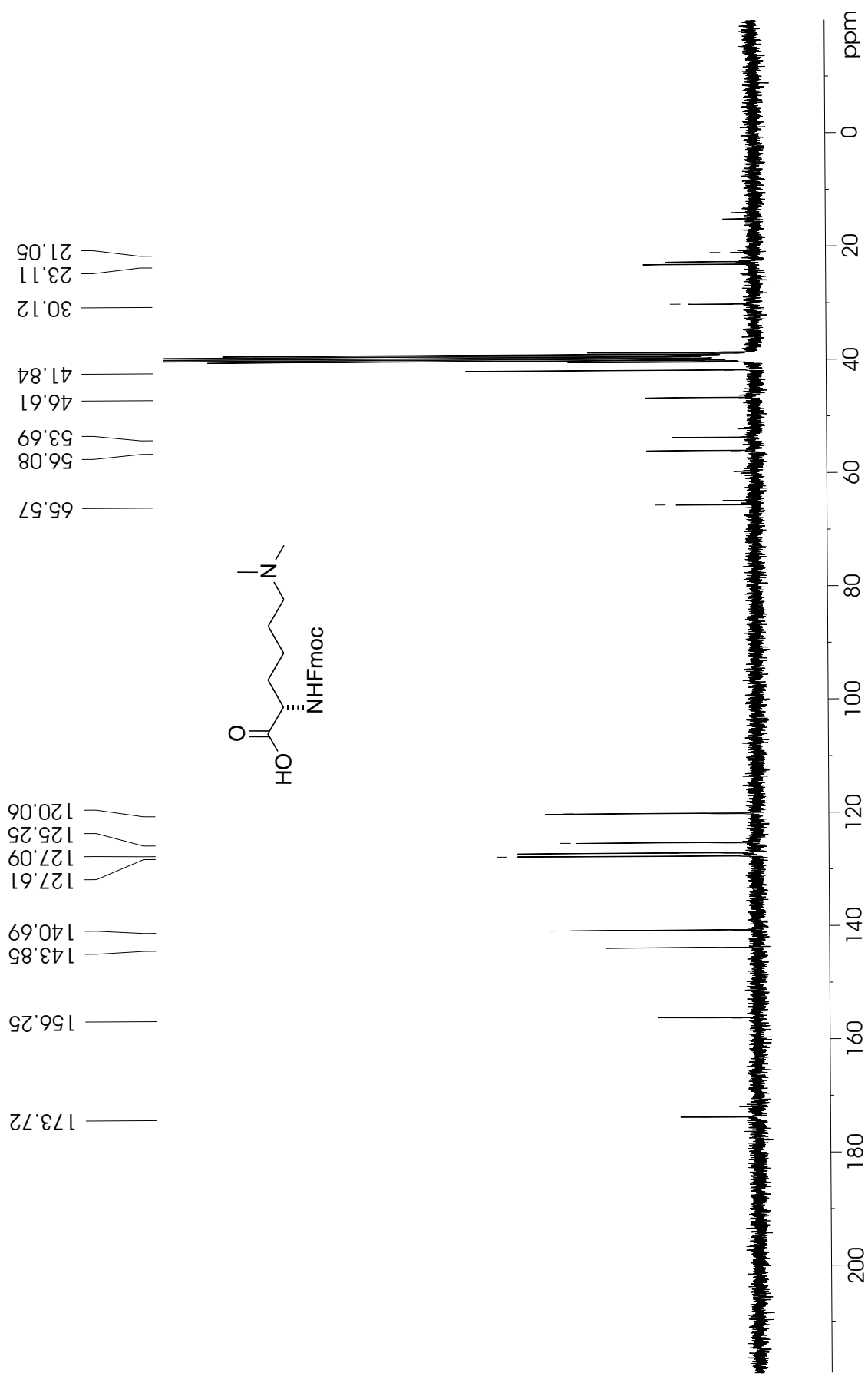
Reactions and purifications: All reactions were monitored by thin layer chromatography (TLC) using aluminium plates with a UV fluorescent indicator (normal SiO₂, Merck 60 F254). The following methods were used for visualization: UV absorption by fluorescence quenching; Ninhydrin spray (1.0 g in 100 mL EtOH). Flash chromatography was performed using Merck type 60, 0.040-0.063 mm mesh silica gel.

High performance liquid chromatography (HPLC) was performed on a Dionex chromatograph equipped with a UVD 340 variable wavelength UV detector and a ASI 100 injector. The column used was steel walled Dionex Acclaim 120 C18, 5 μm, 4.6 x 150 mm.

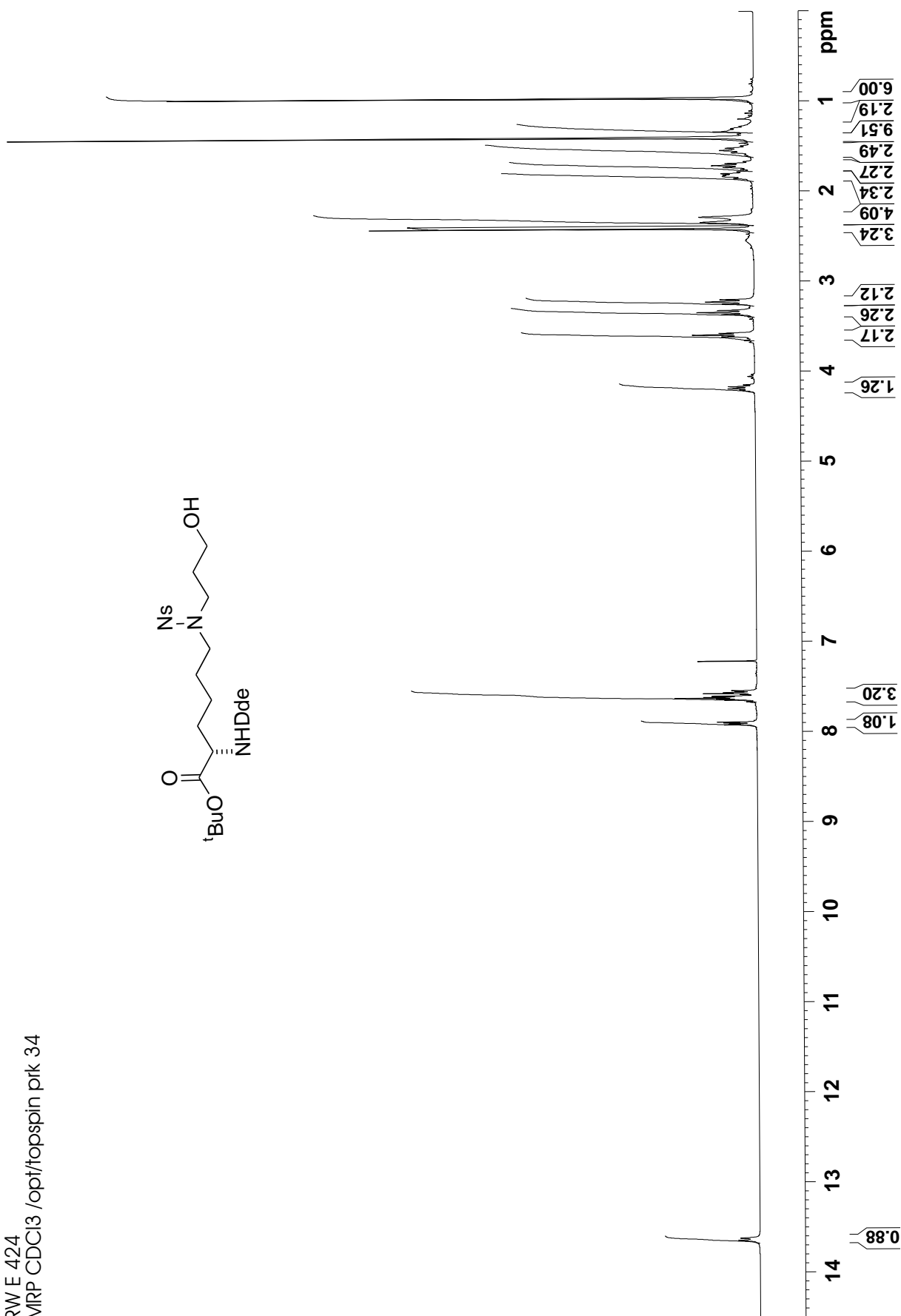
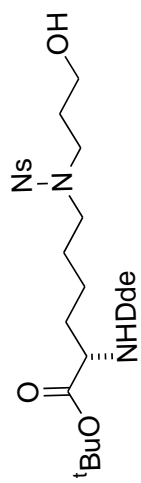
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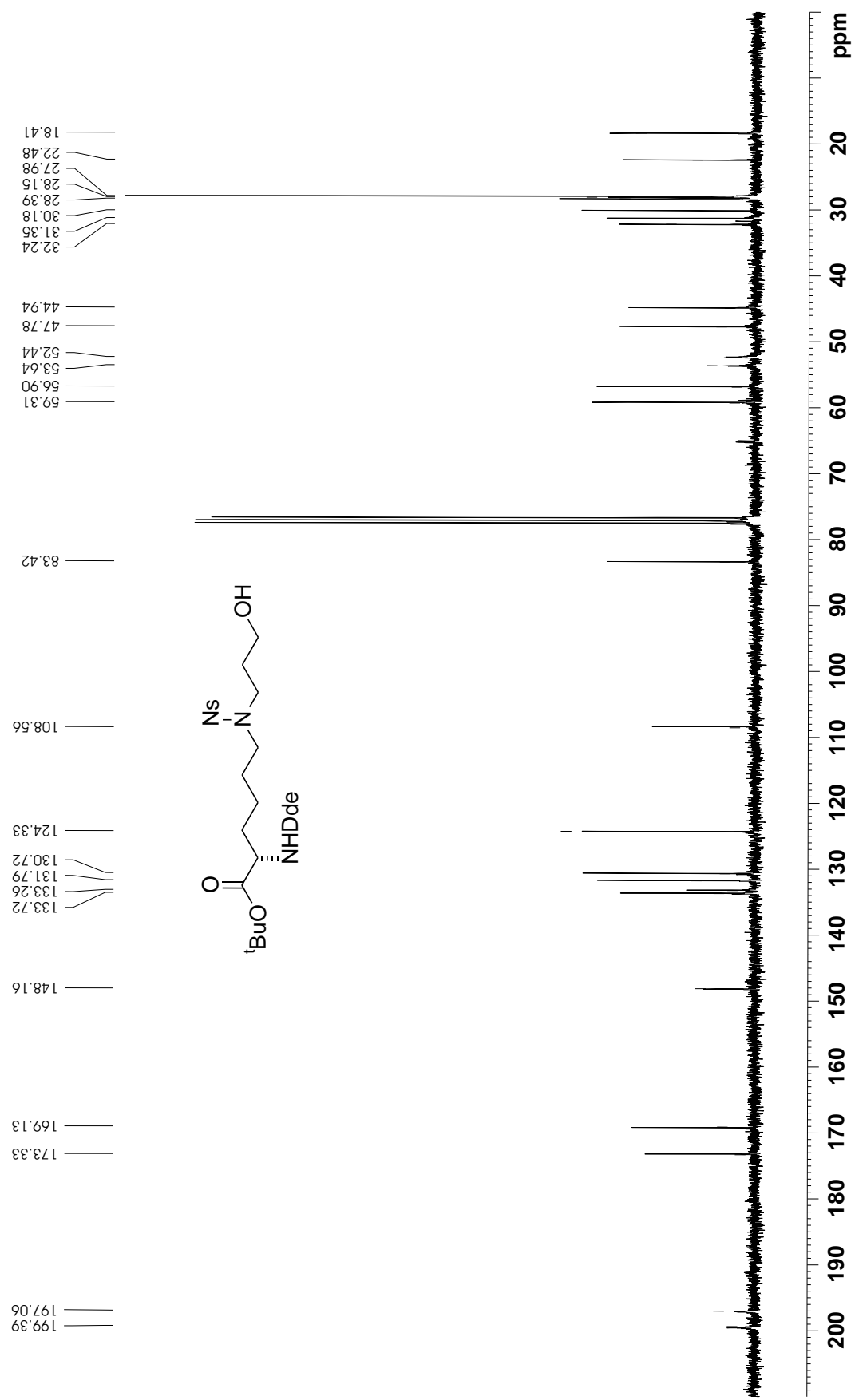
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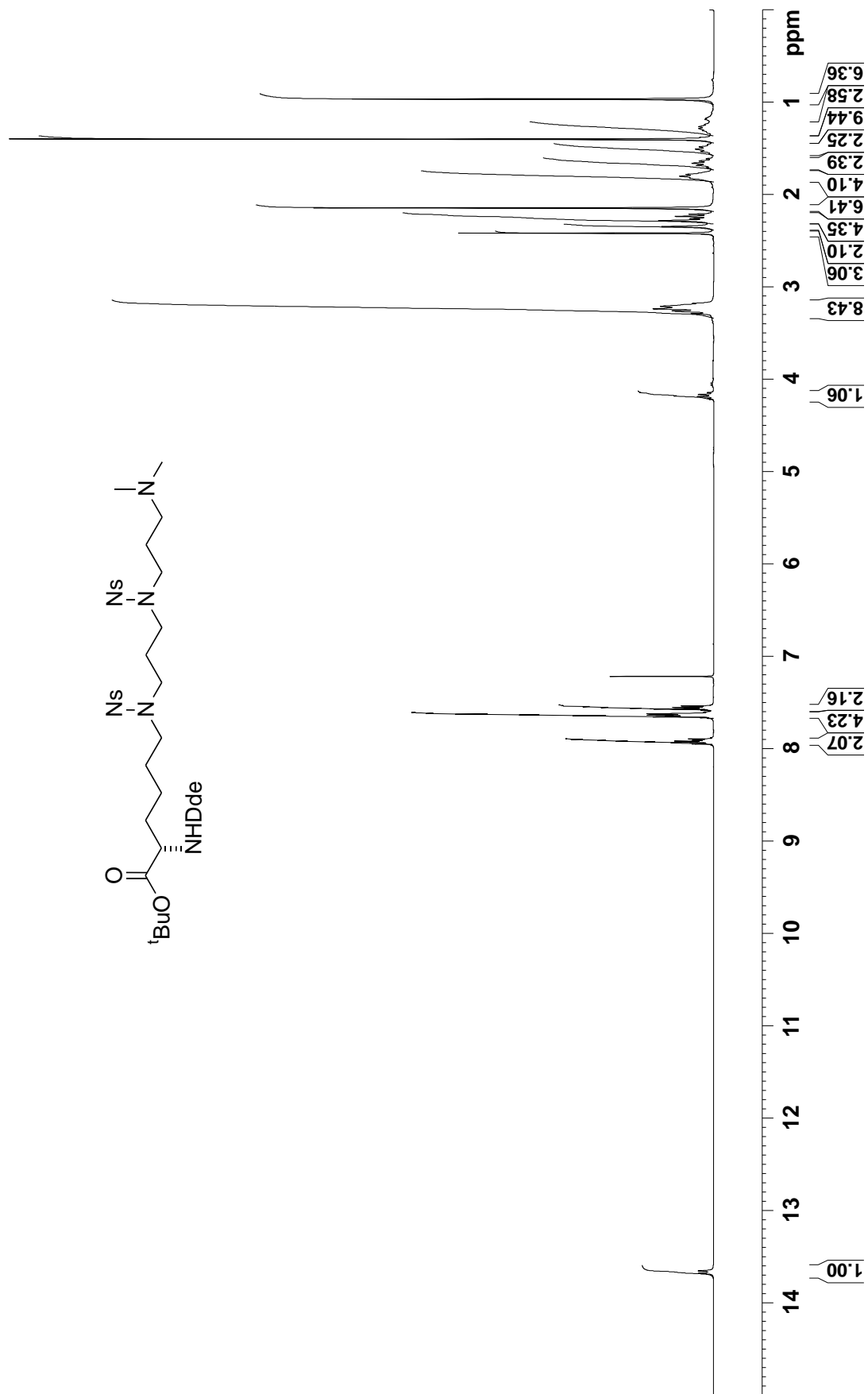
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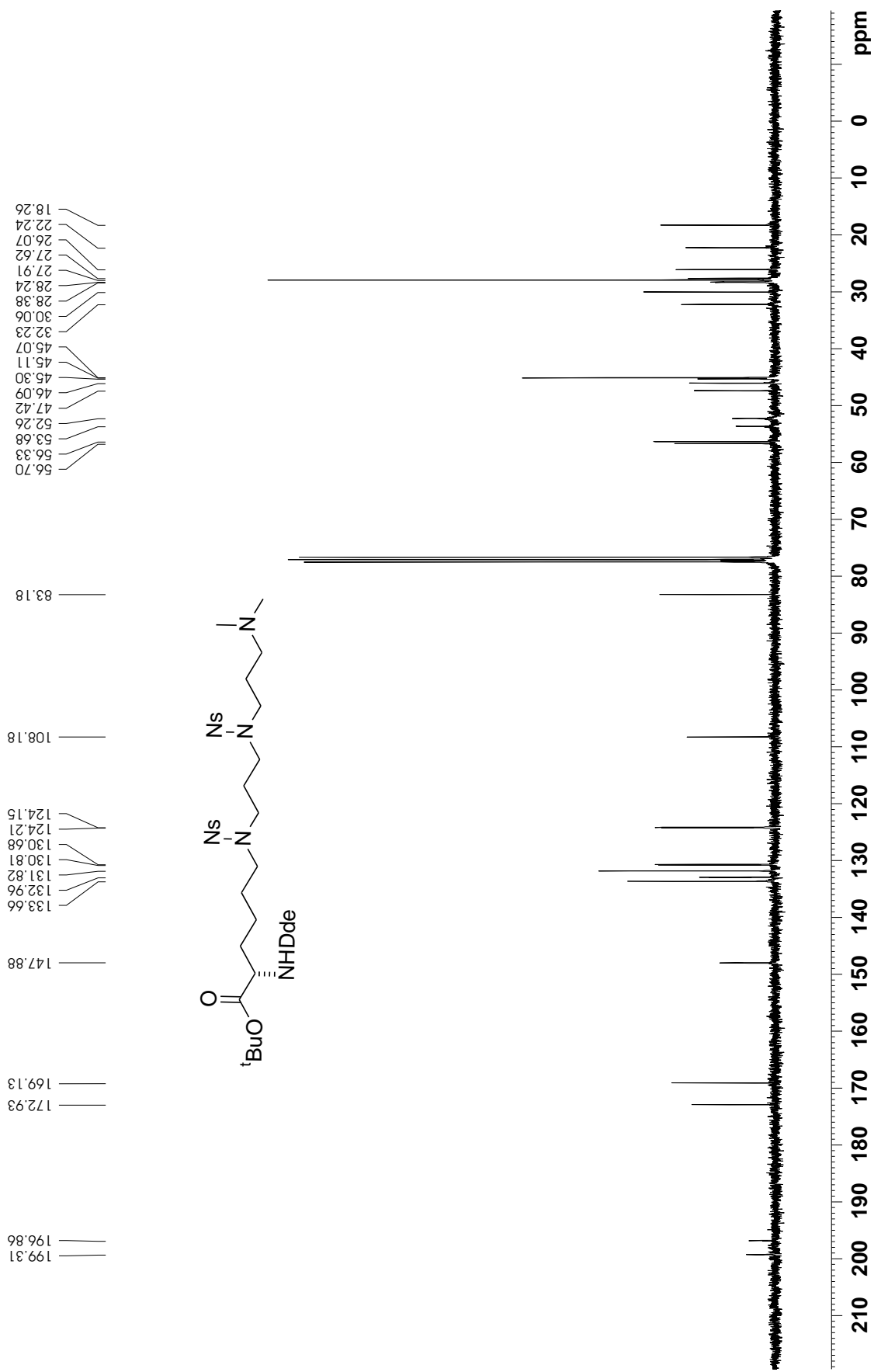
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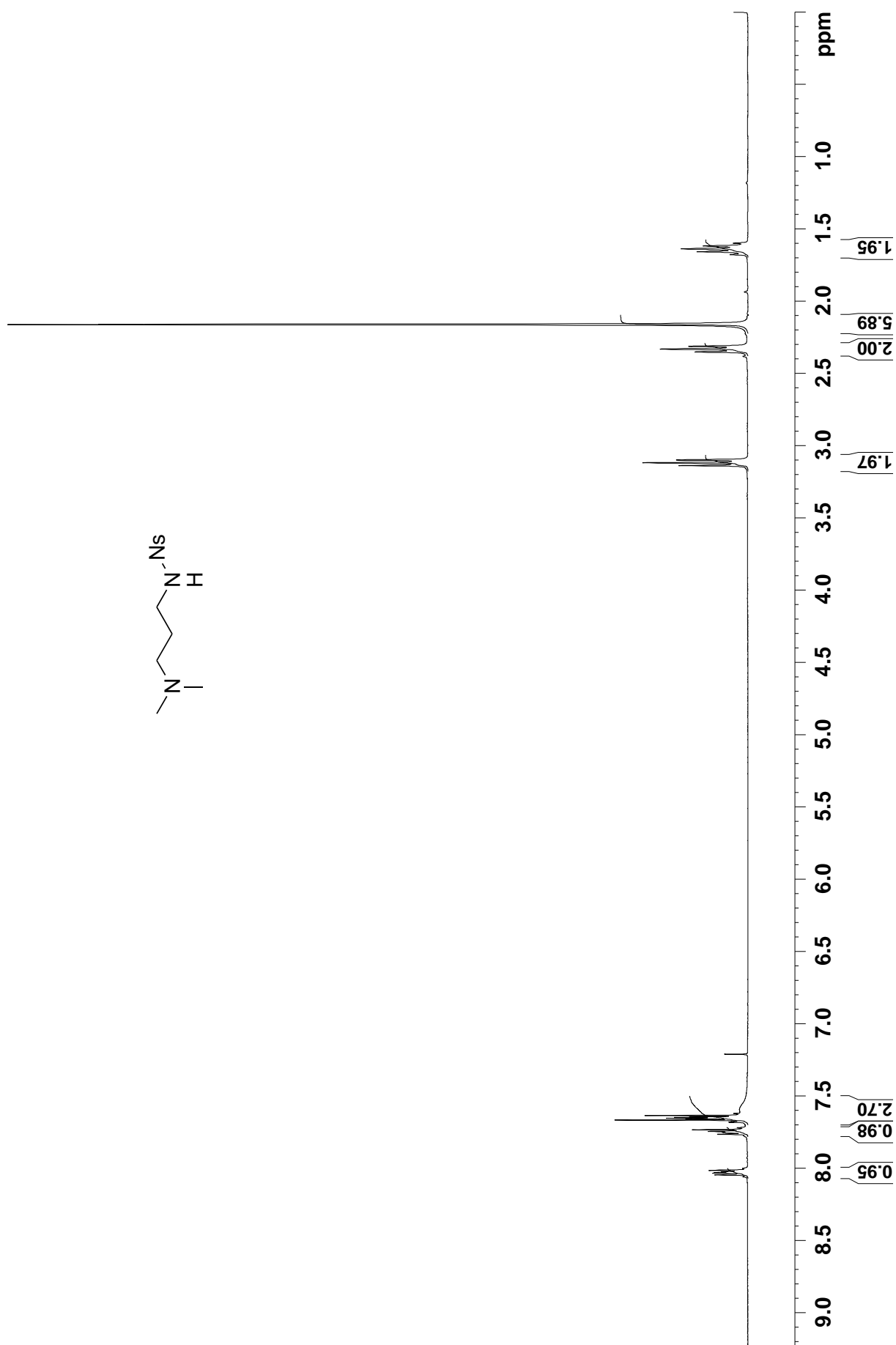


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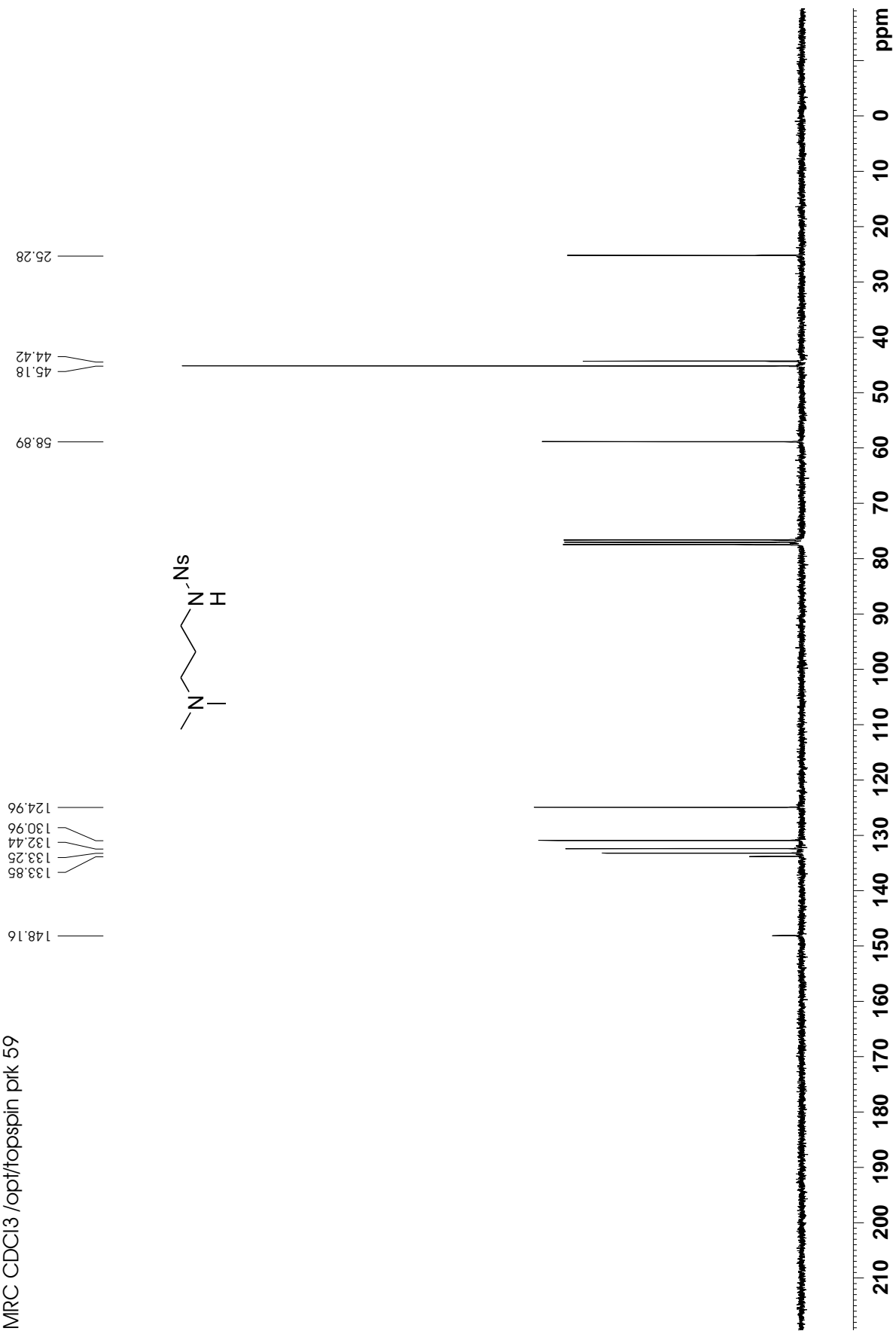


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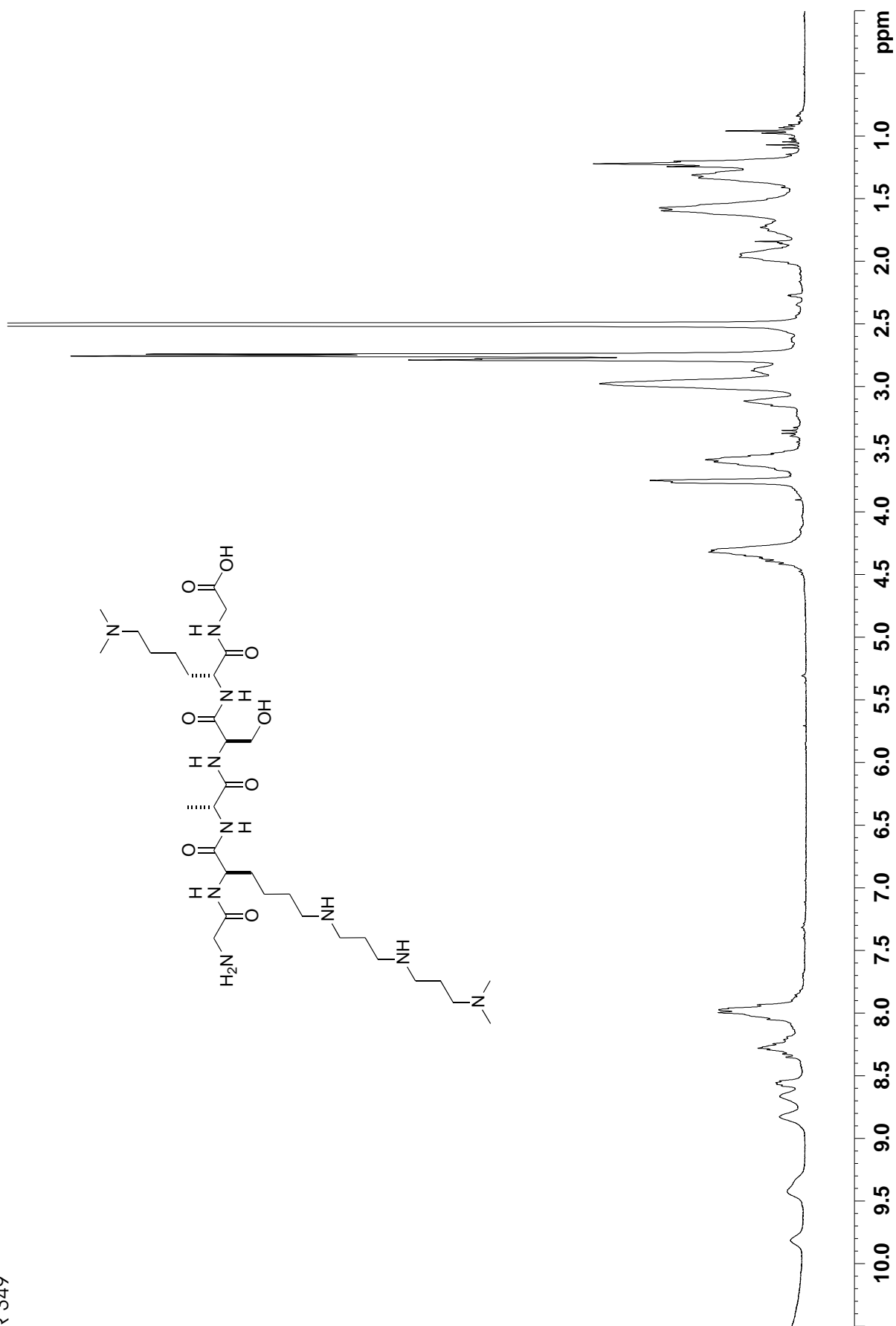




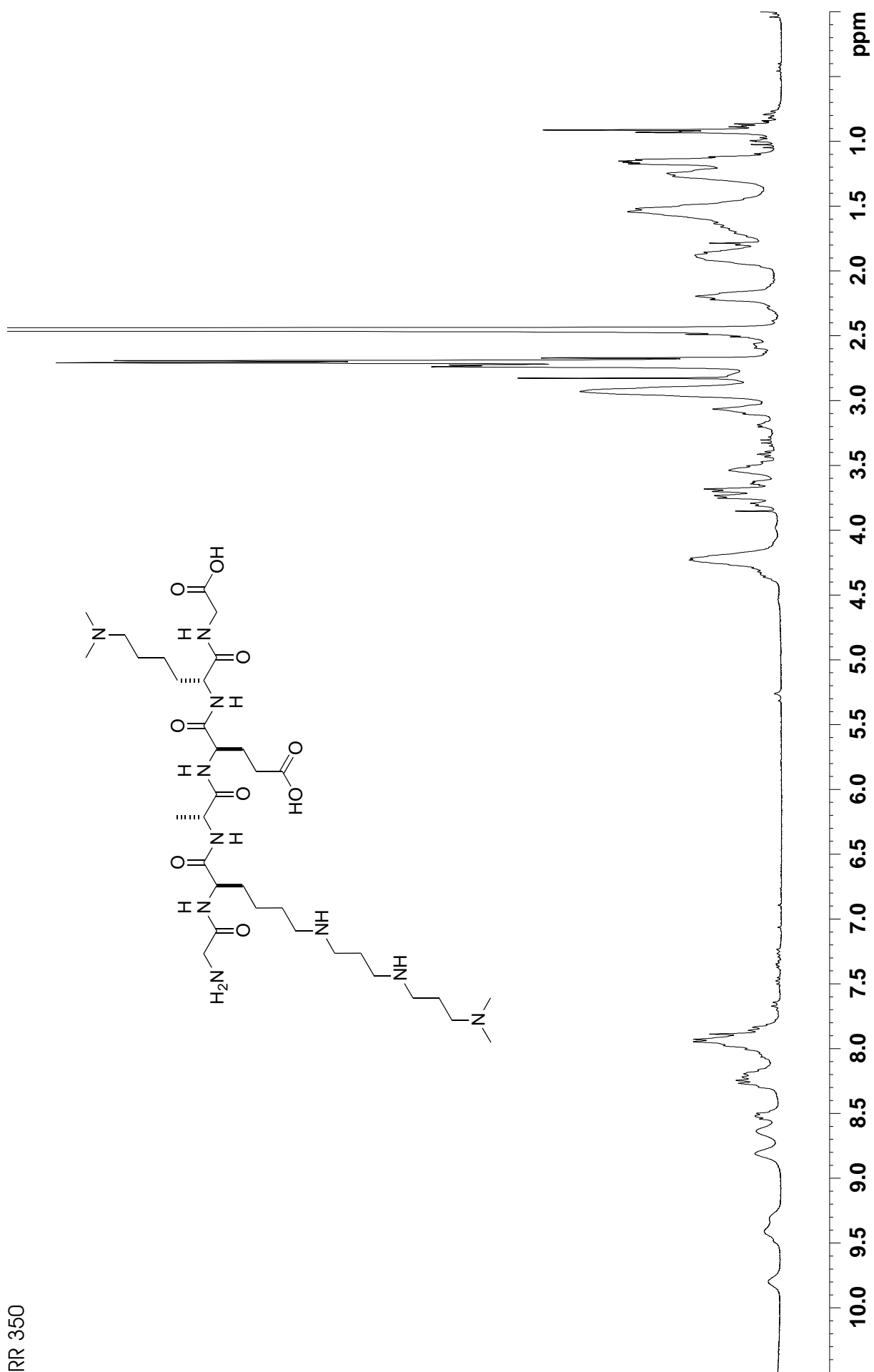
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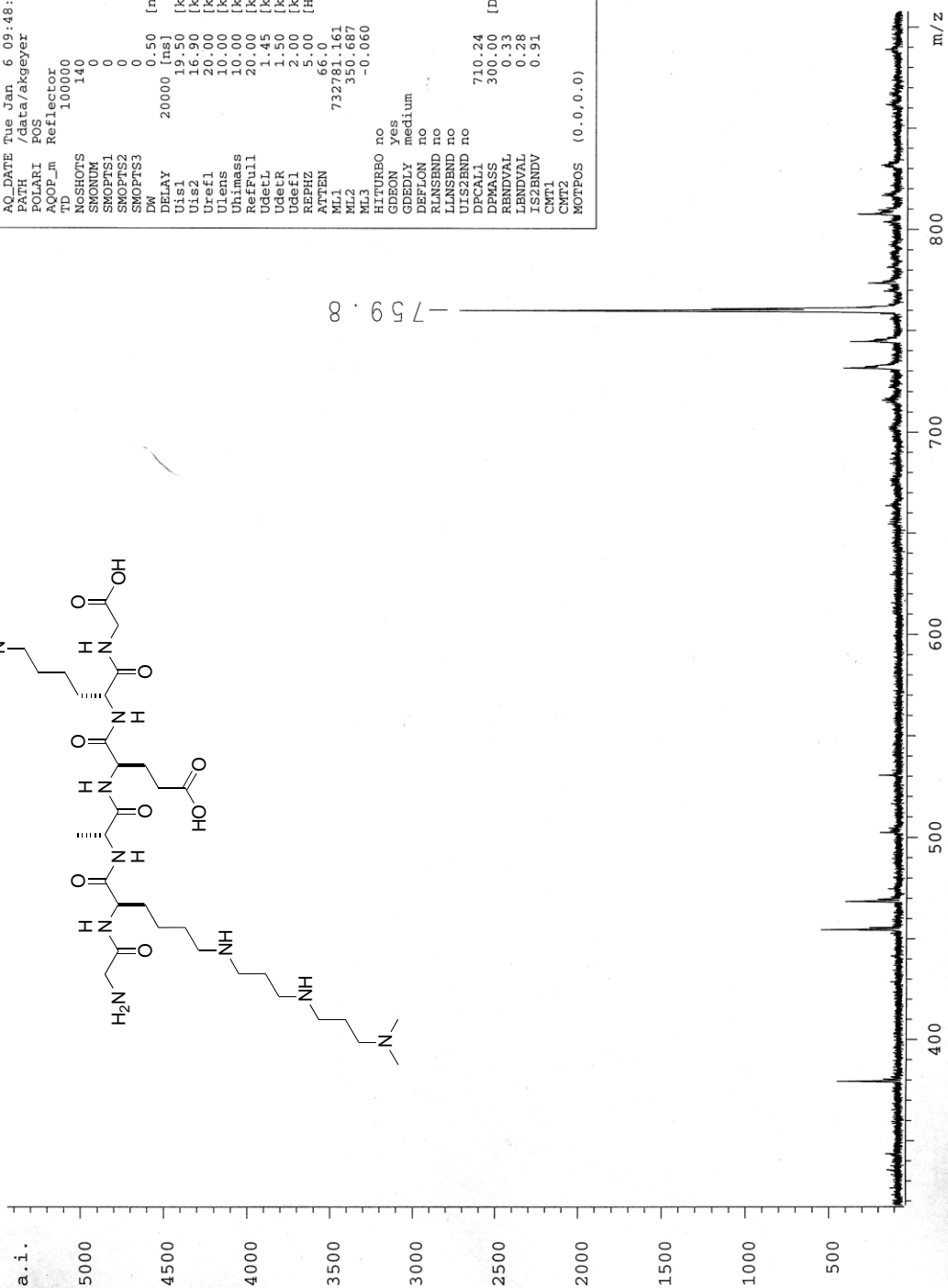
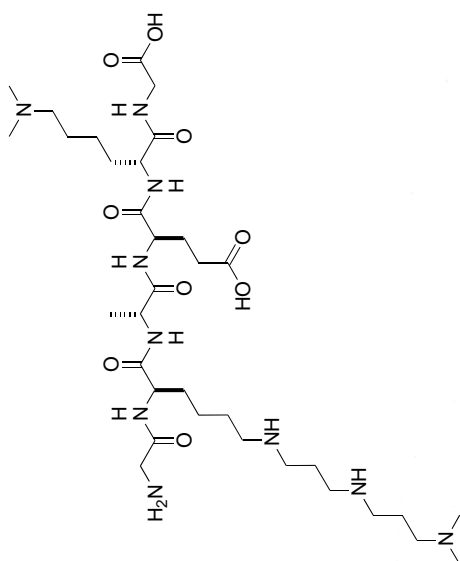


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