

## Supporting Information

### “Diazaspiro-iminosugars and Polyhydroxylated Spiro-bislactams: Synthesis, Glycosidase Inhibitory and Molecular Docking Studies”

Vijay Singh Parihar<sup>a</sup>, Nitin J. Pawar<sup>a</sup>, Sougata Ghosh<sup>b</sup>, Balu A. Chopade<sup>b</sup>, Navanath Kumbhar<sup>a</sup>  
and Dilip D. Dhavale<sup>a\*</sup>

<sup>a</sup>*Department of Chemistry, Garware Research Centre, Savitribai Phule Pune University, Pune -  
411 007, India*

<sup>b</sup>*Department of Microbiology, Savitribai Phule Pune University, Pune - 411 007, India*

*ddd@chem.unipune.ac.in*

### INDEX

| Sr. No. | Content  | Page no. |
|---------|--|----------|
| 1       | <sup>1</sup> H and <sup>13</sup> C NMR spectrum for compounds <b>6, 7, 8, 9, 10, 11, 12, 1, 13, 14, 15, 2, 3 and 4</b> | 2-15     |

# 1. Spectra of new compounds ( $^1\text{H-NMR}$ and $^{13}\text{C-NMR}$ )

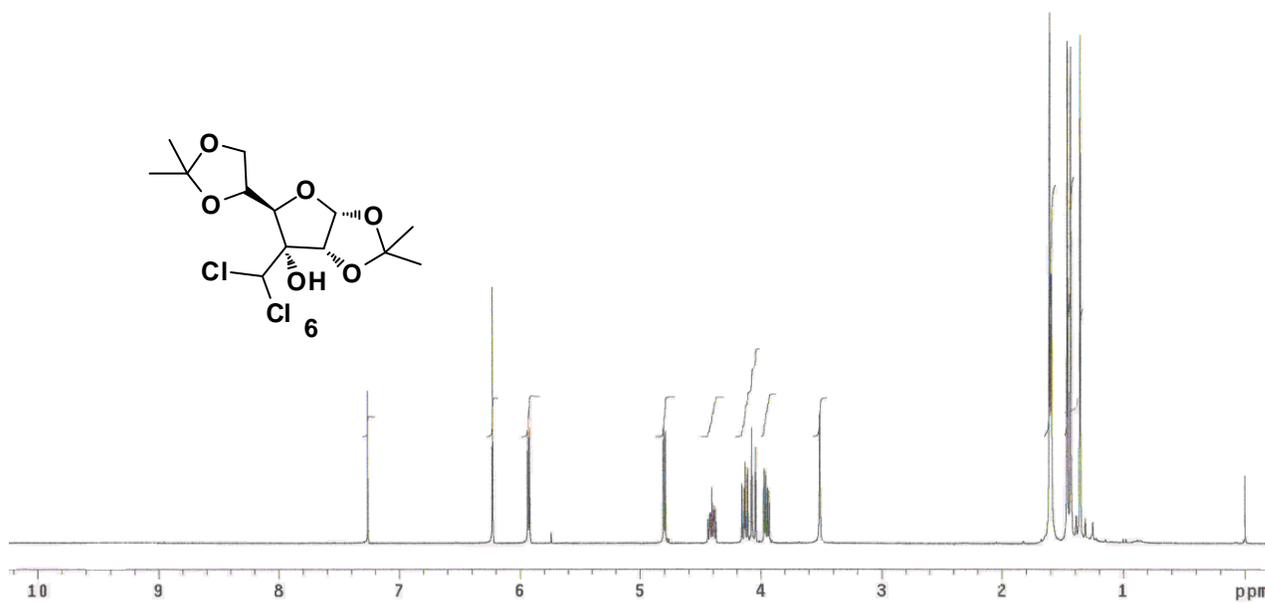


Figure 1:  $^1\text{H-NMR}$  (300 MHz,  $\text{CDCl}_3$  Spectrum of compound 6)

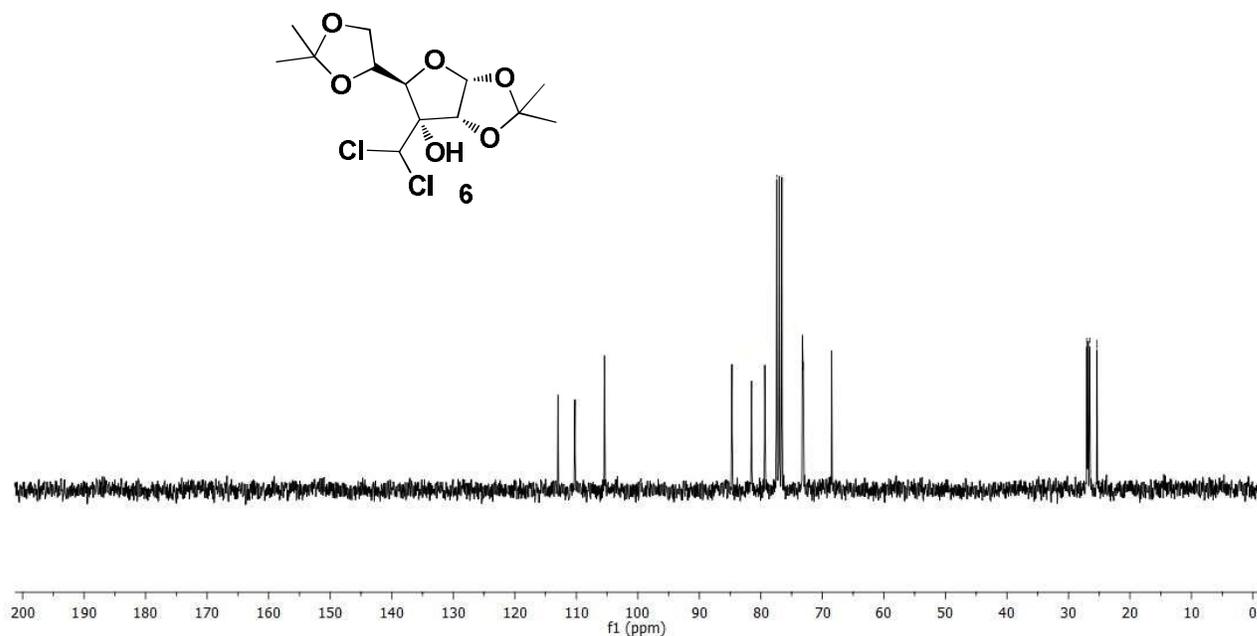


Figure 2:  $^{13}\text{C}$  NMR (300 MHz,  $\text{CDCl}_3$  Spectrum of compound **6**)

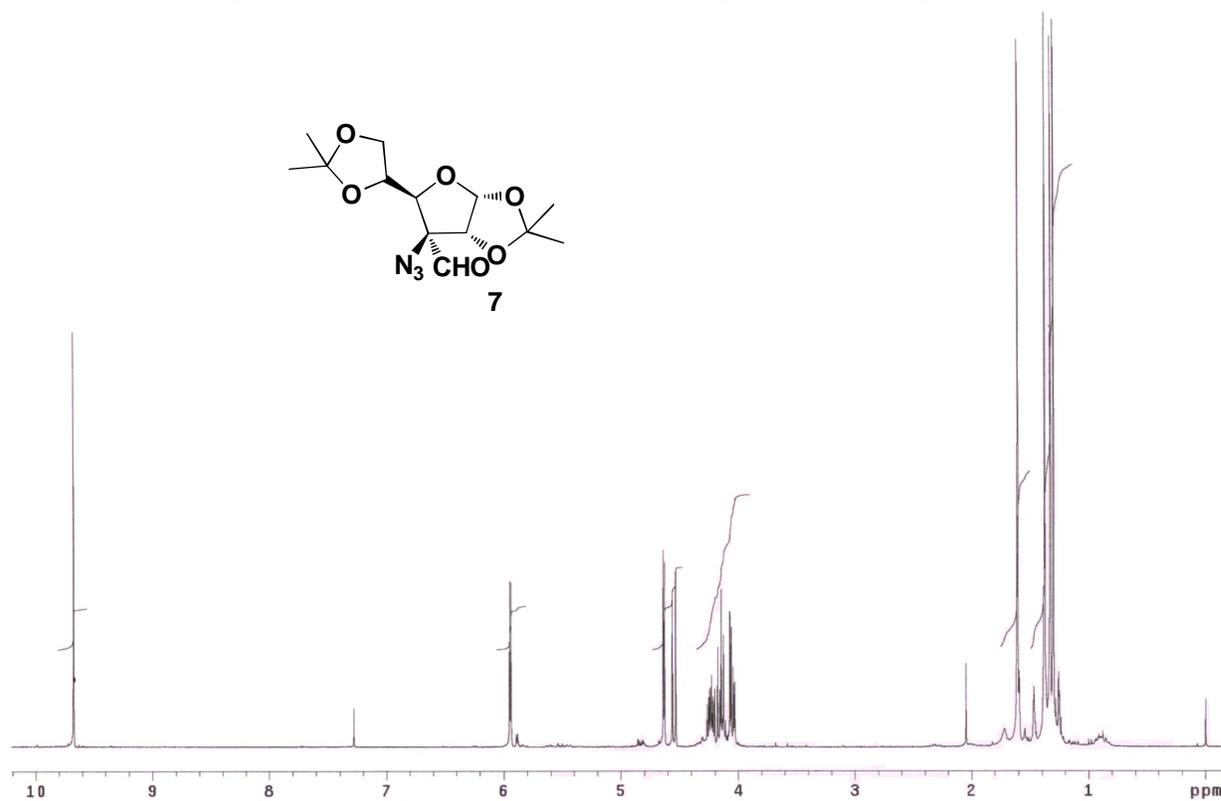


Figure 3:  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$  Spectrum of compound **7**)

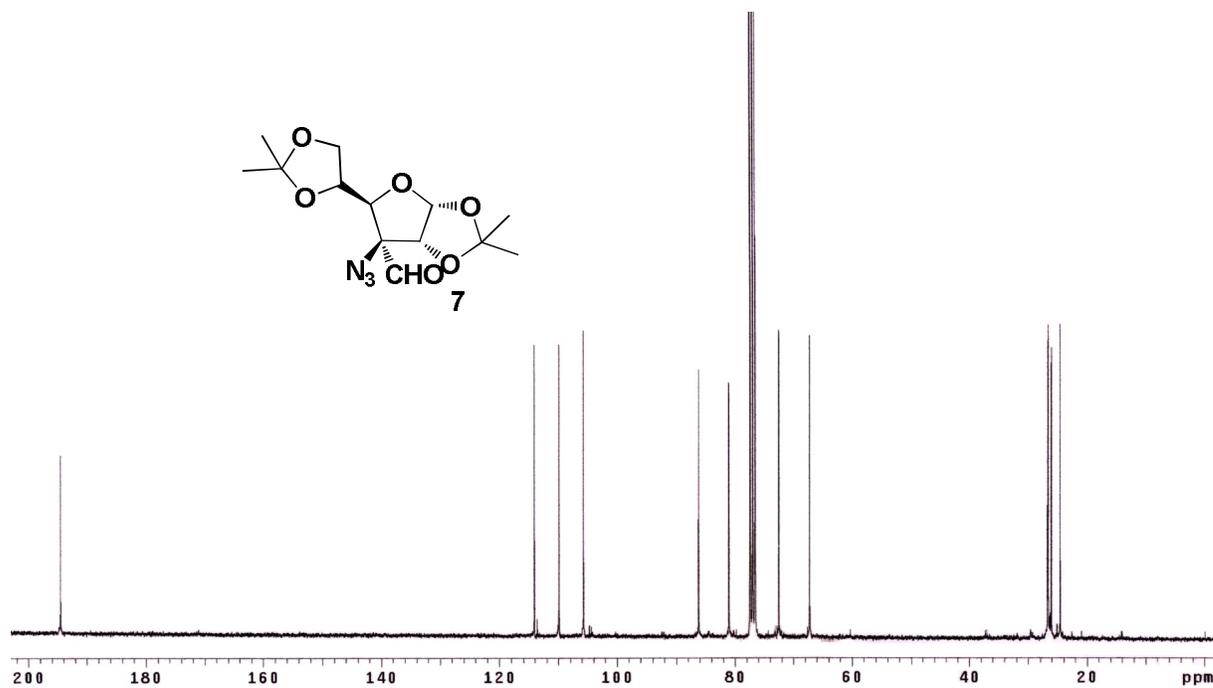


Figure 4:  $^{13}\text{C}$  NMR (300 MHz,  $\text{CDCl}_3$  Spectrum of compound **7**)

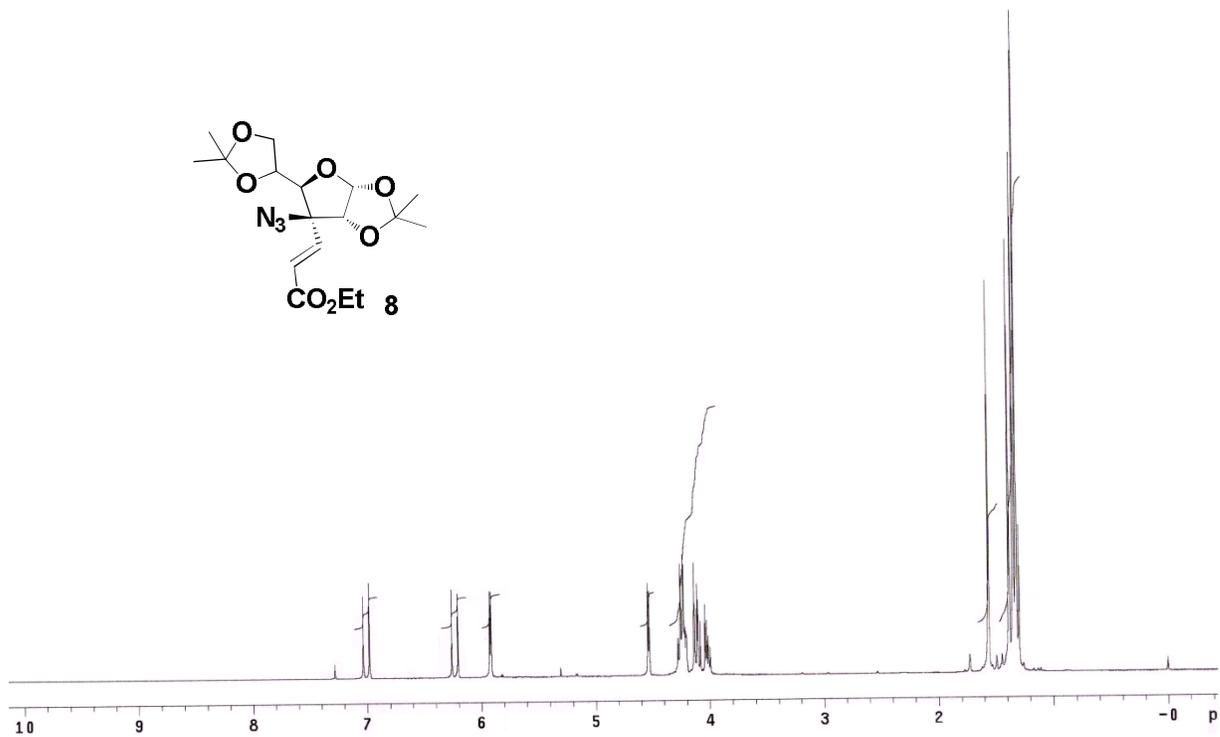


Figure 5: <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub> Spectrum of compound **8**)

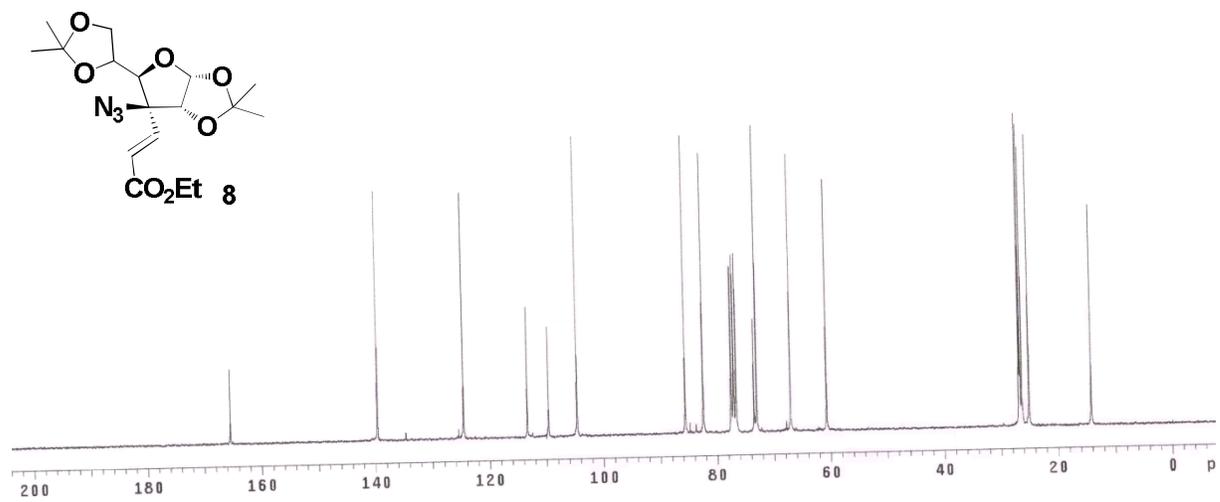


Figure 6: <sup>13</sup>C NMR (300 MHz, CDCl<sub>3</sub> Spectrum of compound **8**)

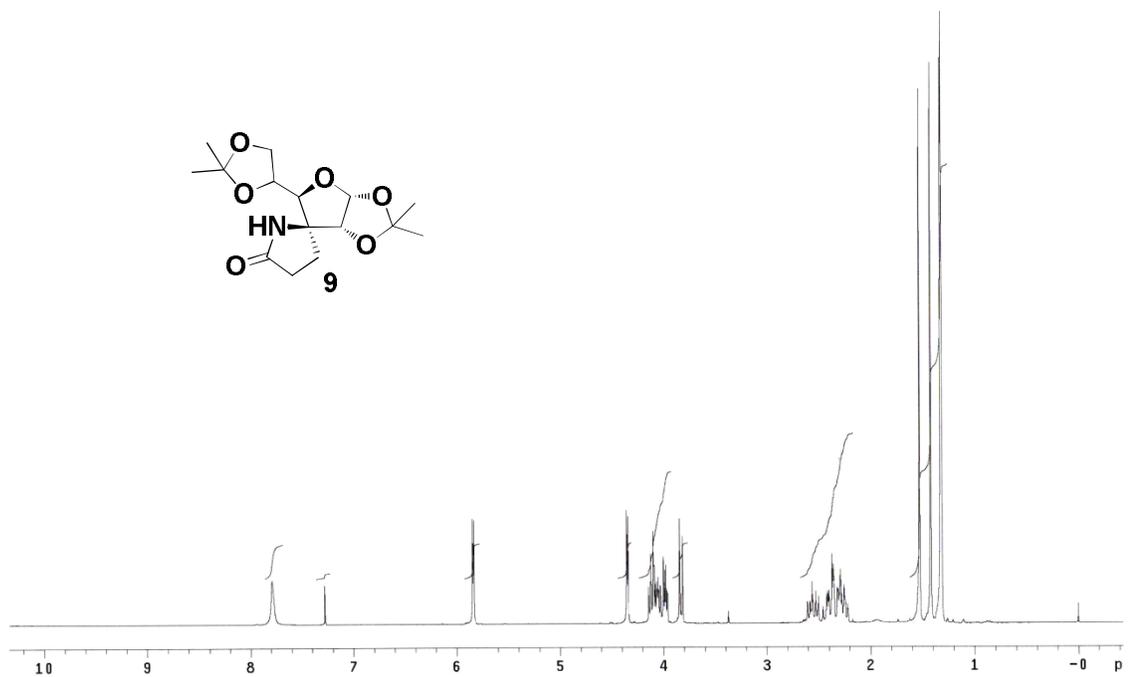


Figure 7:  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$  Spectrum of compound **9**)

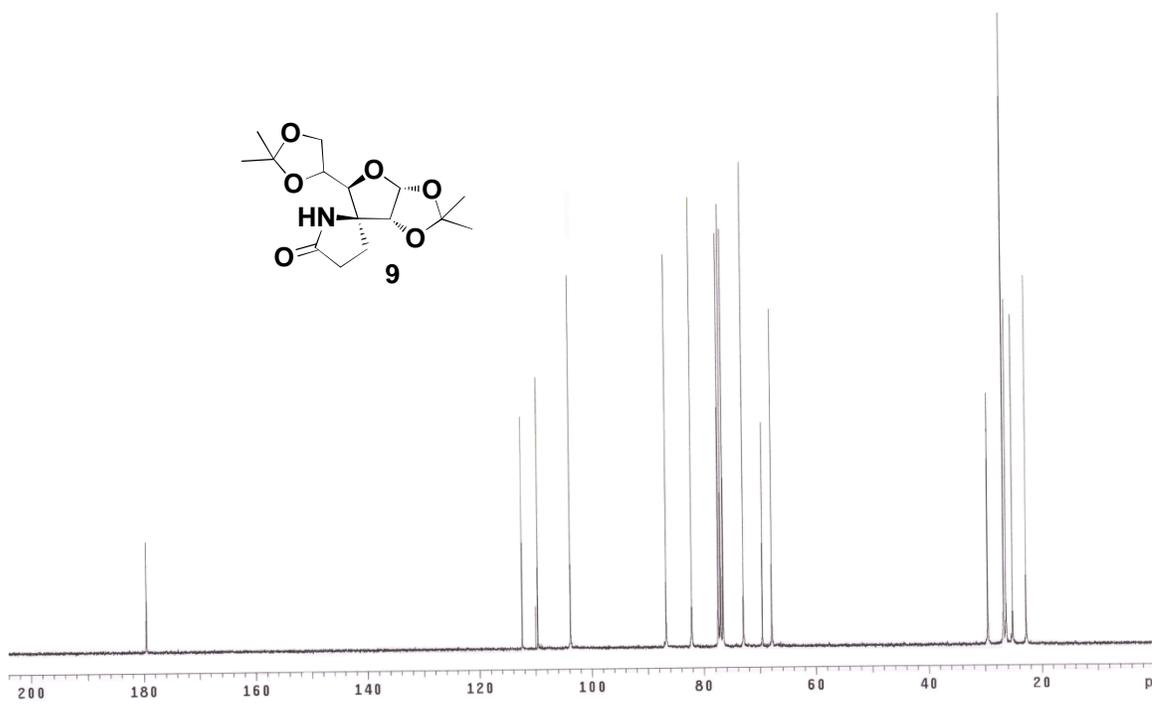


Figure 8:  $^{13}\text{C}$  NMR (300 MHz,  $\text{CDCl}_3$  Spectrum of compound **9**)

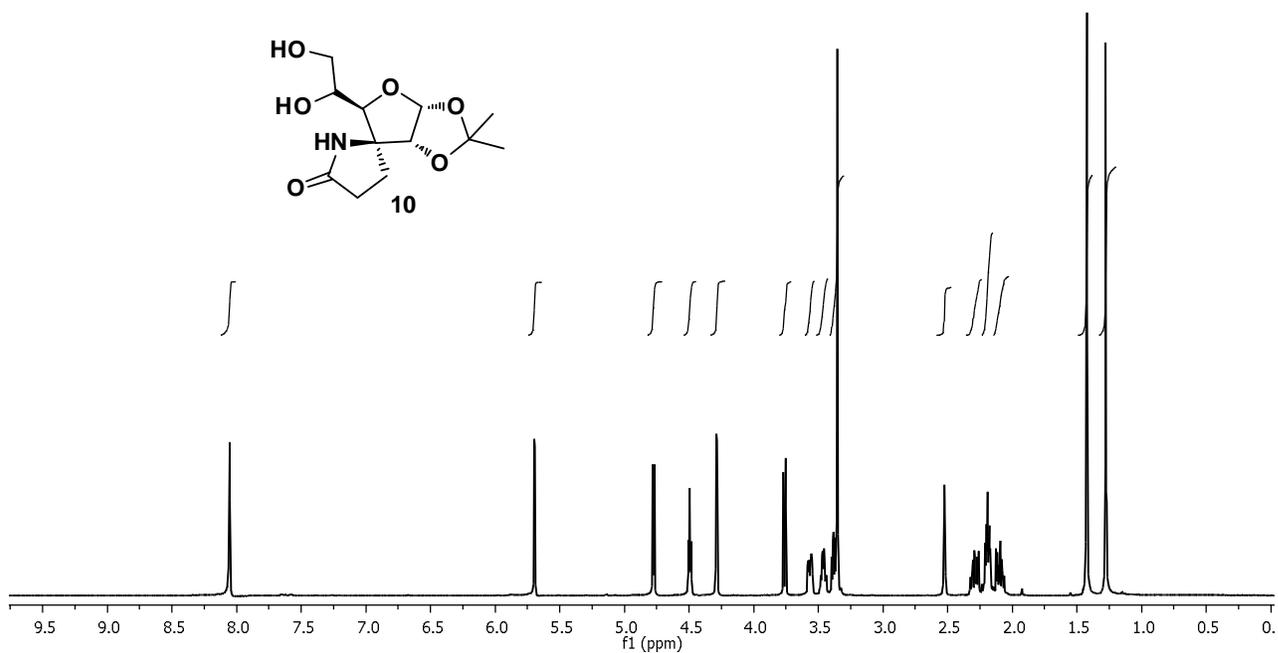


Figure 9:  $^1\text{H}$  NMR (500 MHz, DMSO Spectrum of compound **10**)

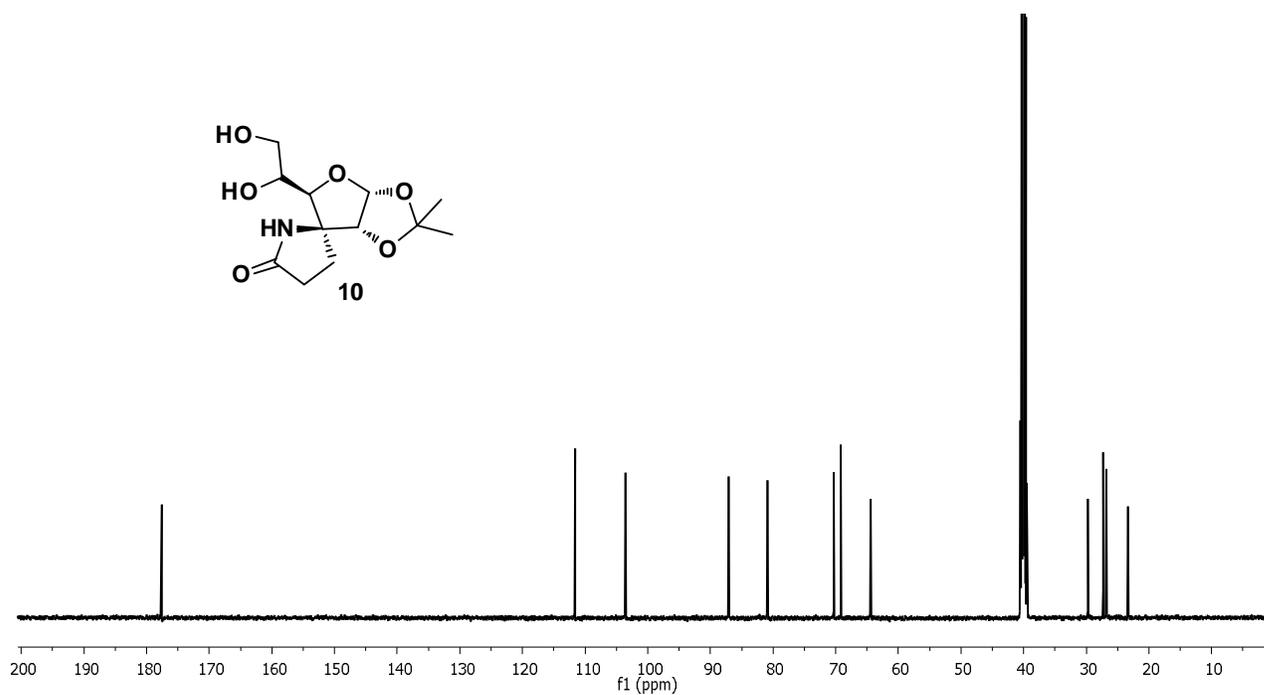


Figure 10:  $^{13}\text{C}$  NMR (125 MHz, DMSO Spectrum of compound **10**)

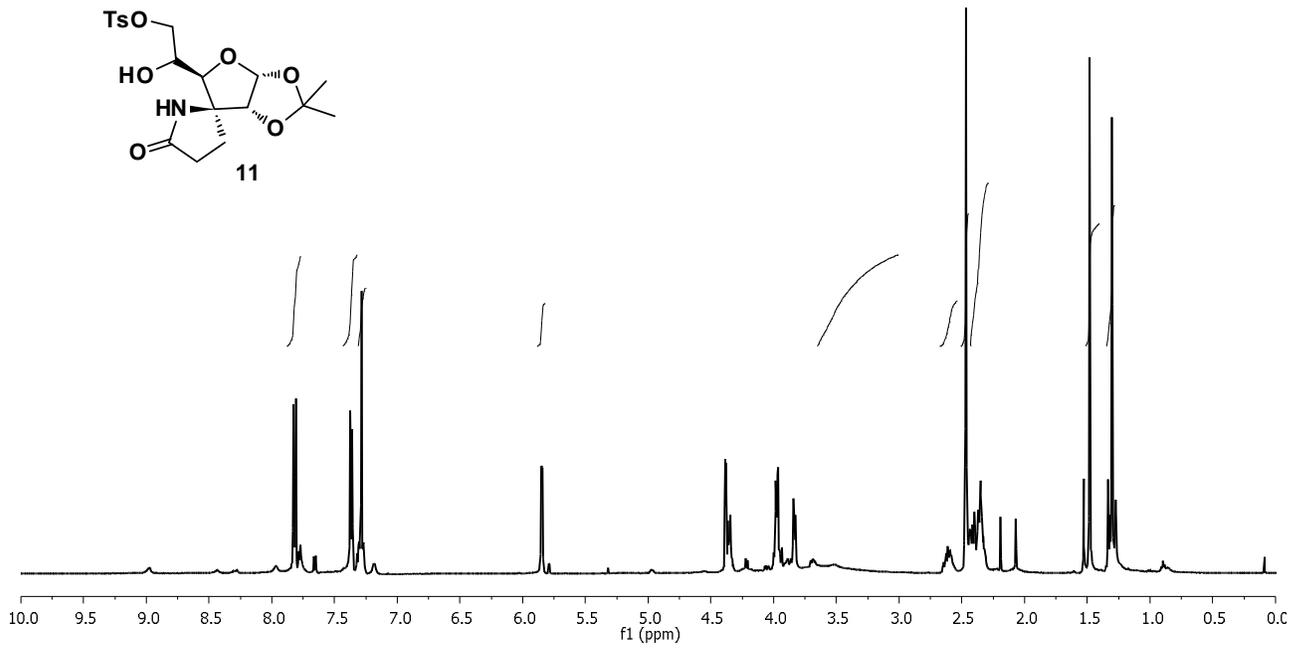


Figure 11:  $^1\text{H}$  NMR (500 MHz,  $\text{CDCl}_3$  Spectrum of compound **11**)

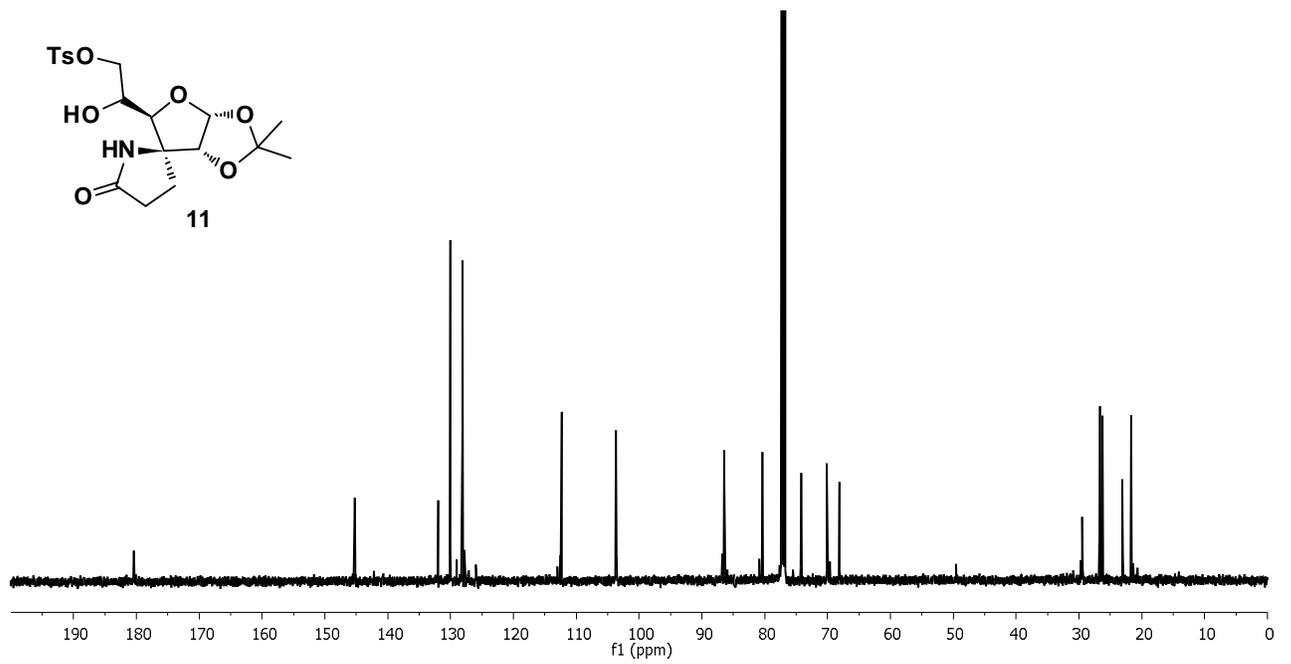
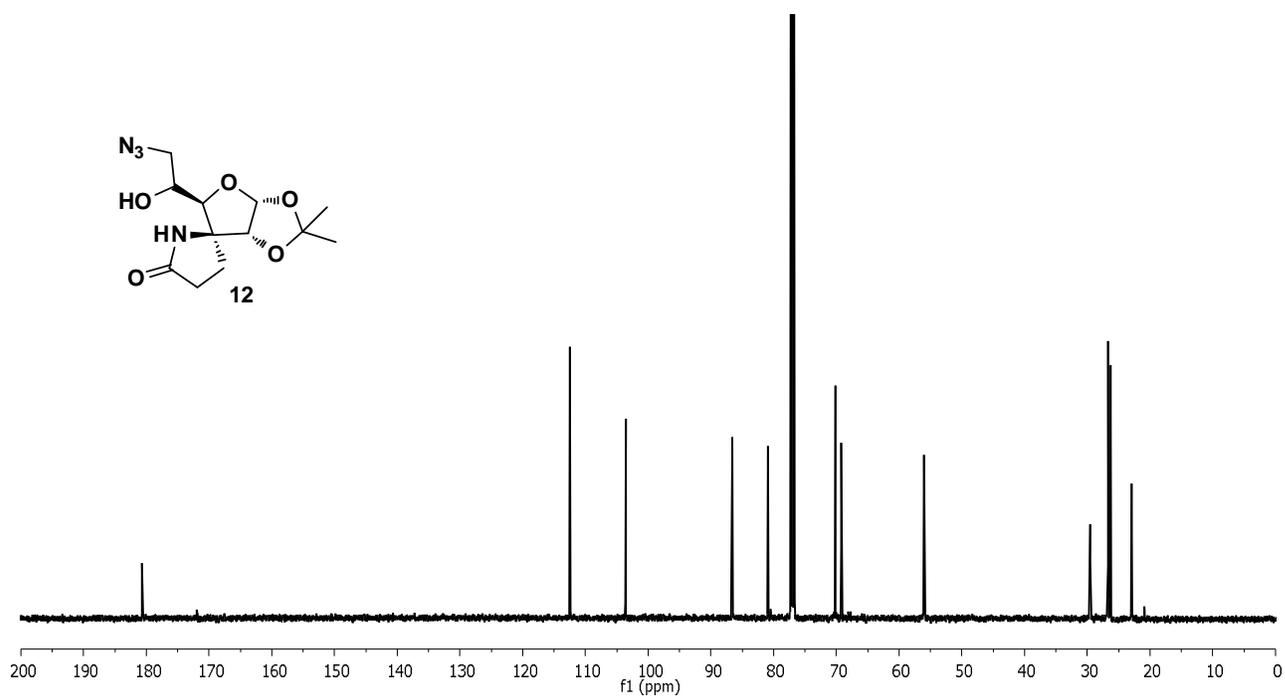
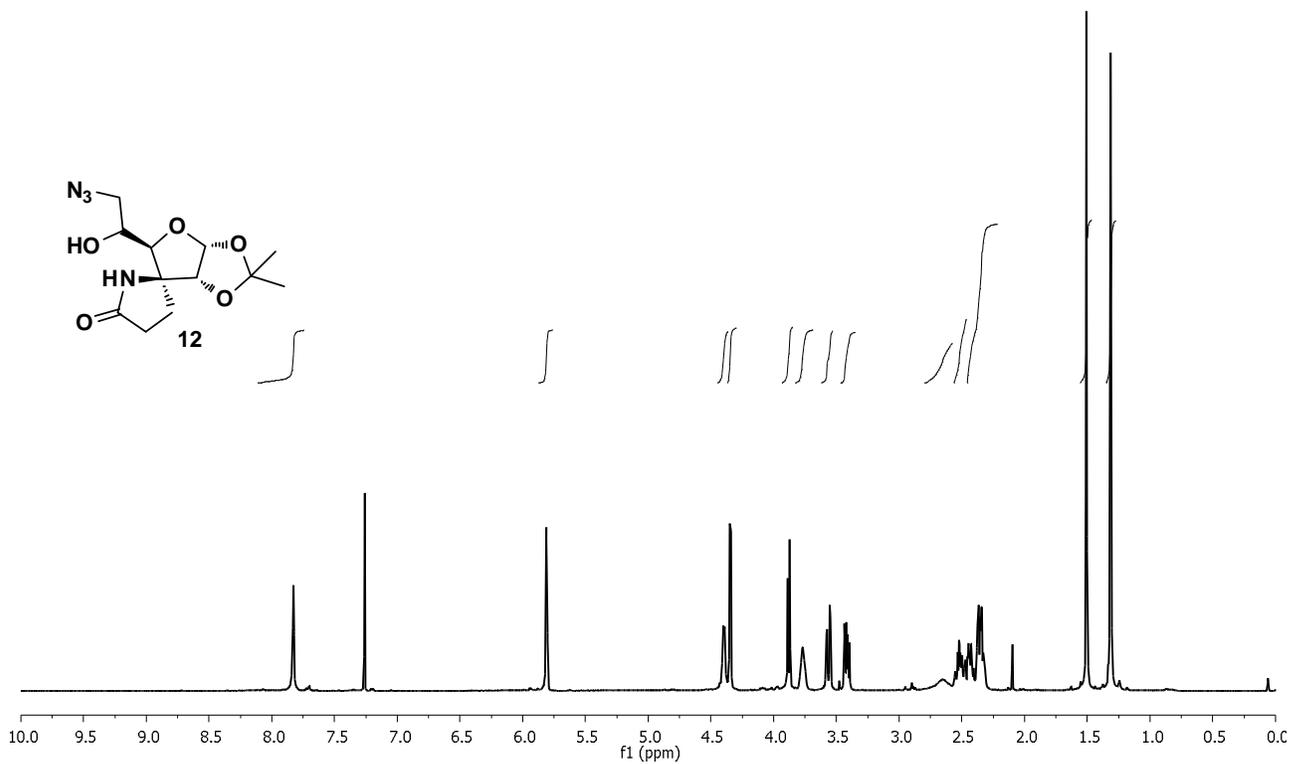


Figure 12:  $^{13}\text{C}$  NMR (125 MHz,  $\text{CDCl}_3$  Spectrum of compound **11**)



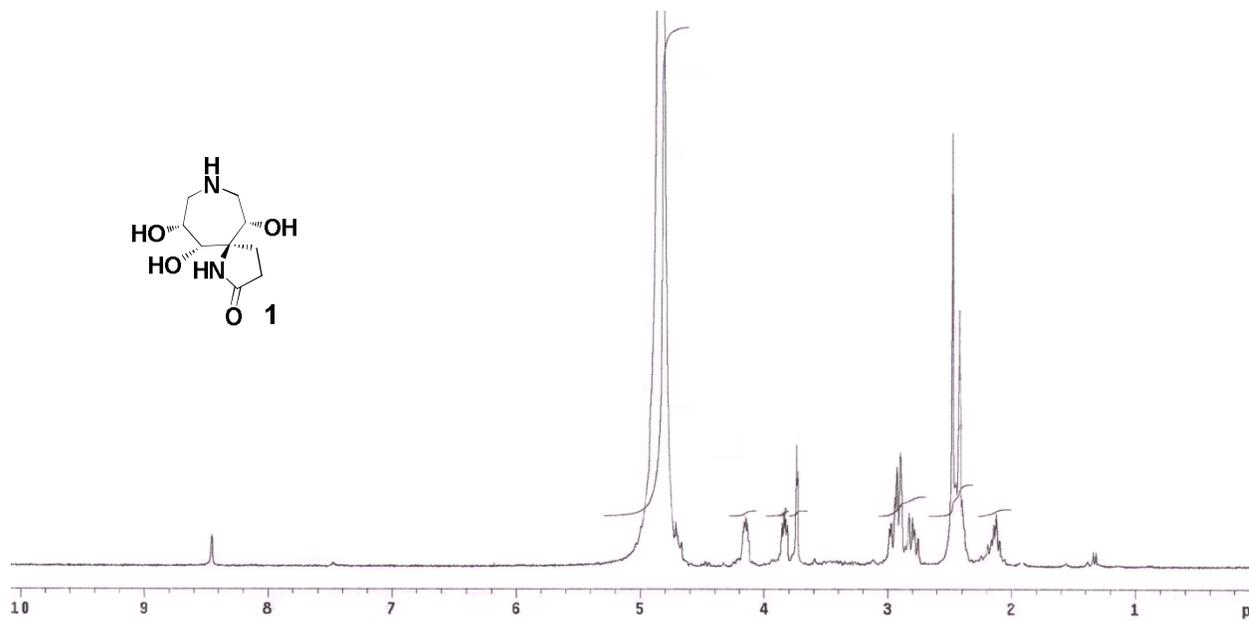


Figure 15: <sup>1</sup>H NMR (300 MHz, D<sub>2</sub>O Spectrum of compound 1)

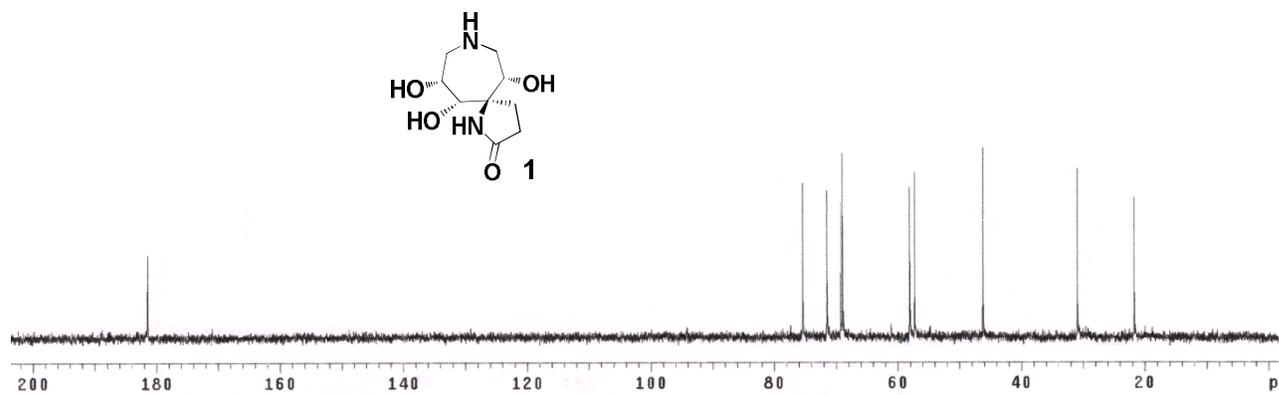


Figure 16: <sup>13</sup>C NMR (125 MHz, D<sub>2</sub>O Spectrum of compound 1)

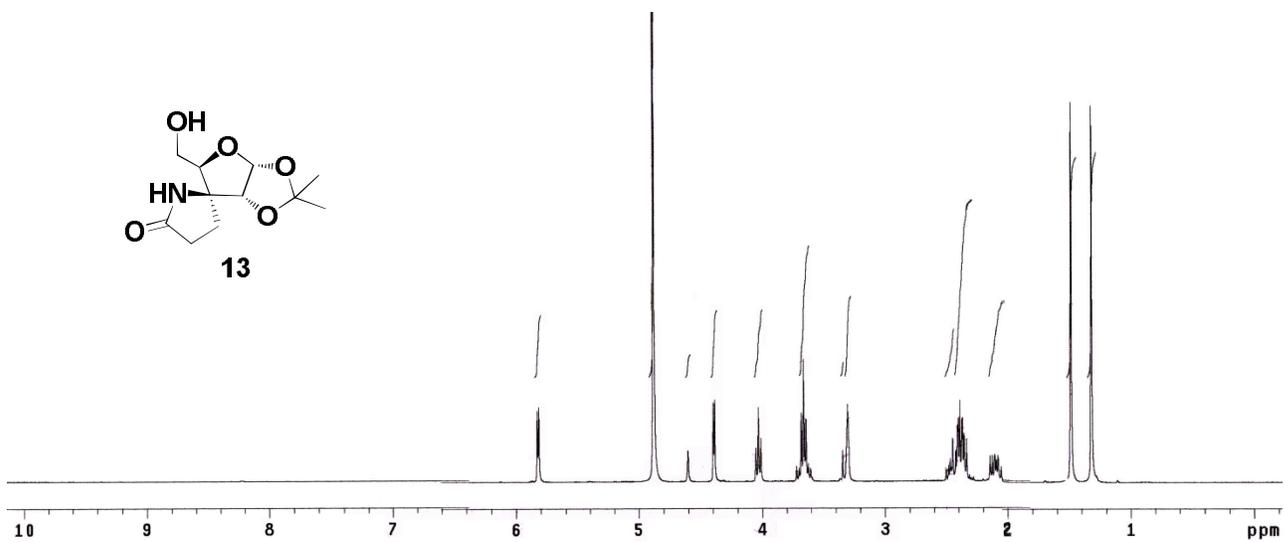


Figure 17:  $^1\text{H}$  NMR (300 MHz,  $\text{D}_2\text{O}+\text{DMSO}$  Spectrum of compound **13**)

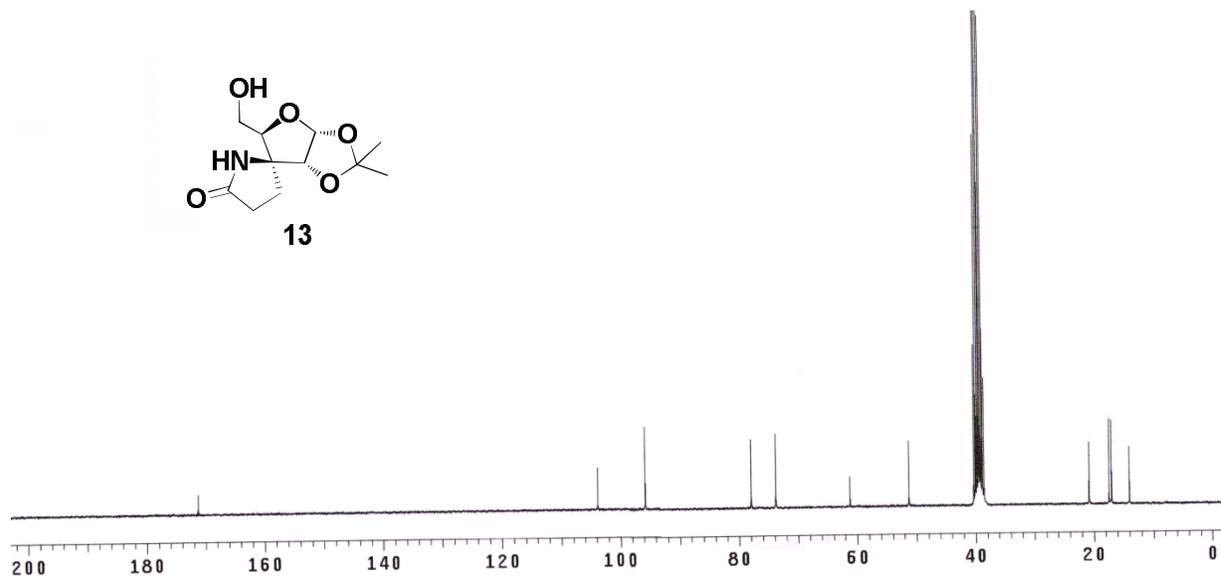


Figure 18:  $^{13}\text{C}$  NMR (75 MHz,  $\text{D}_2\text{O}+\text{DMSO}$  Spectrum of compound **13**)

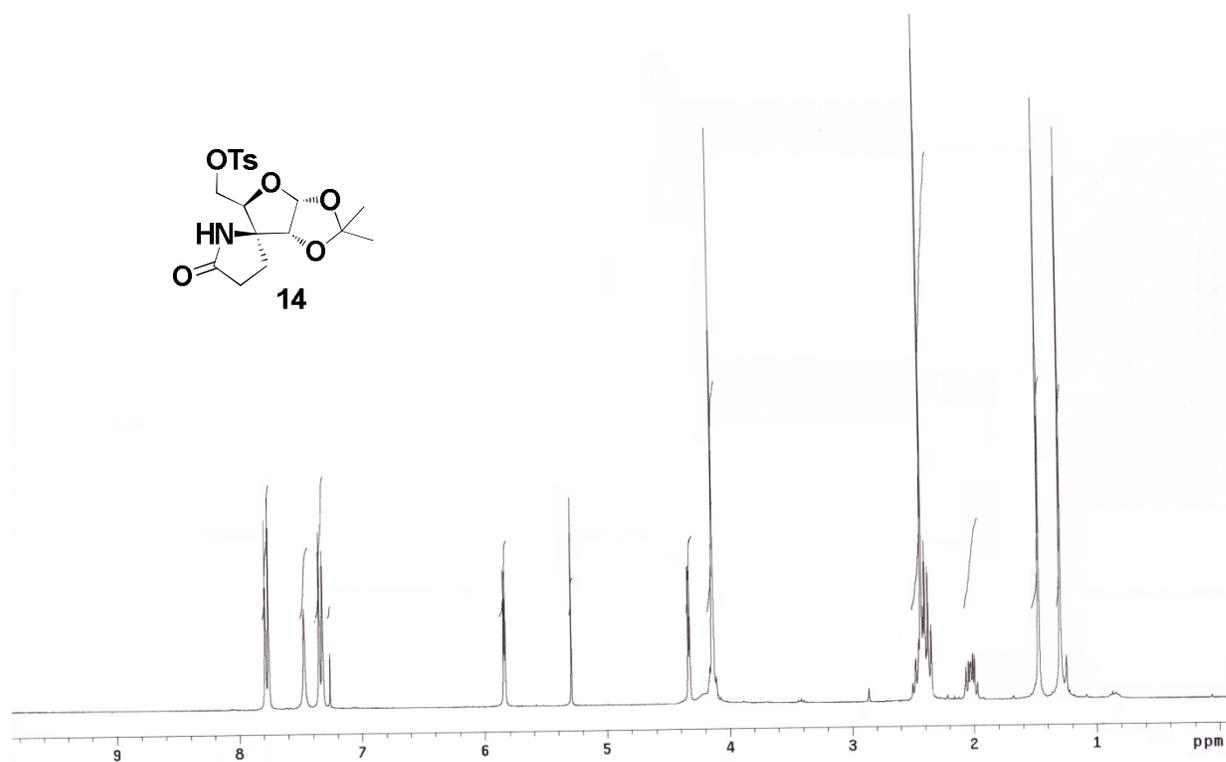


Figure 19: <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub> Spectrum of compound **14**)

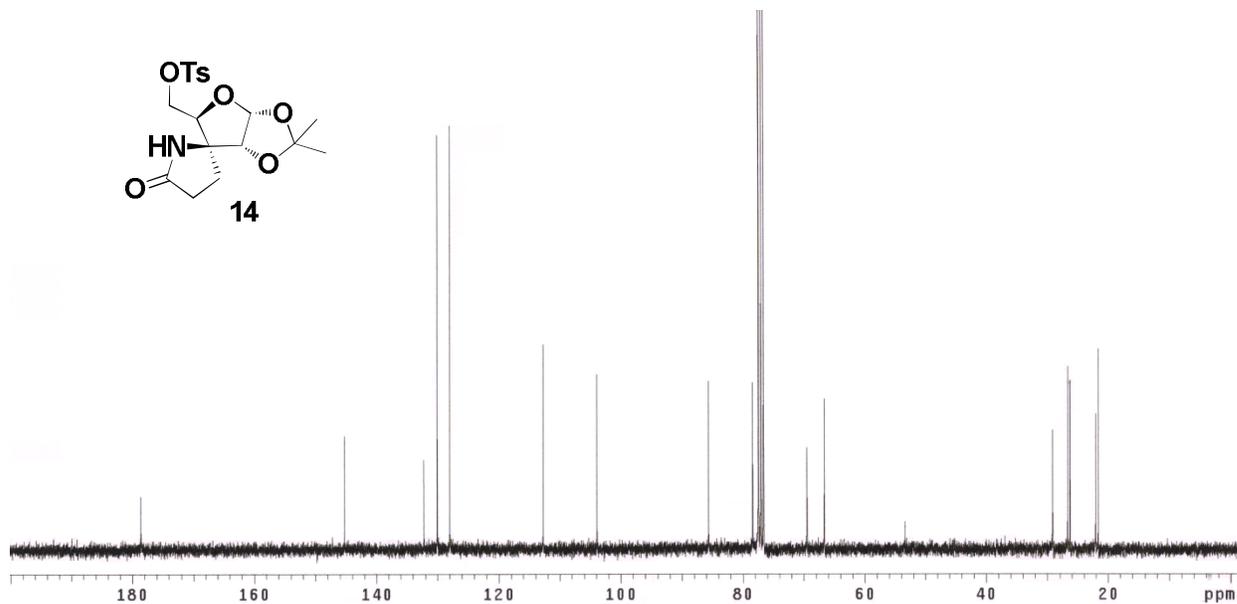


Figure 20: <sup>13</sup>C NMR (75 MHz, CDCl<sub>3</sub> Spectrum of compound **14**)

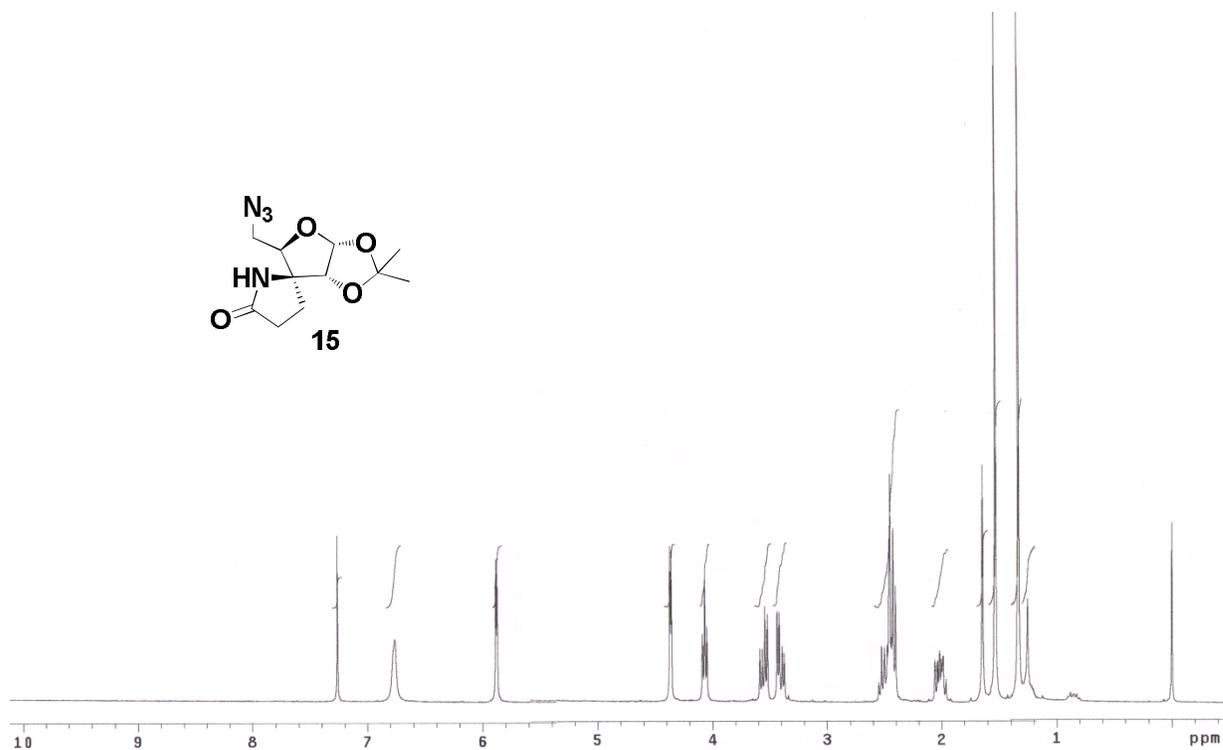
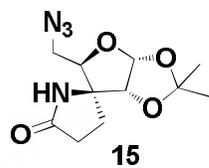


Figure 21: <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub> Spectrum of compound **15**)

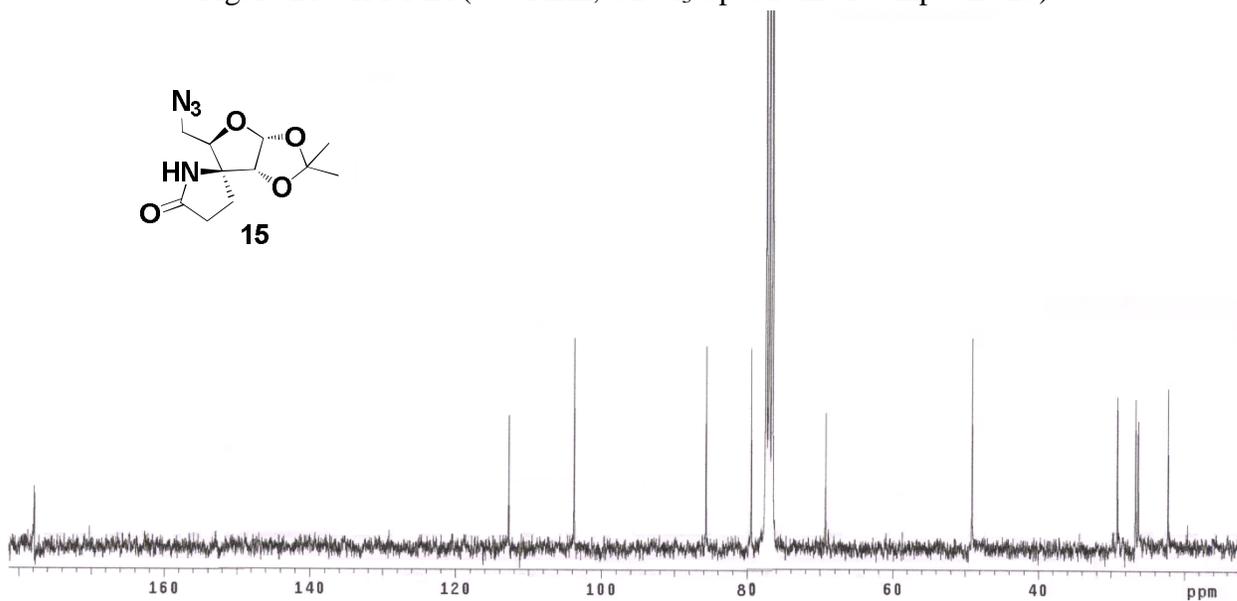
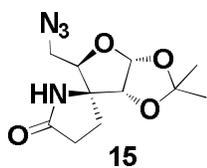
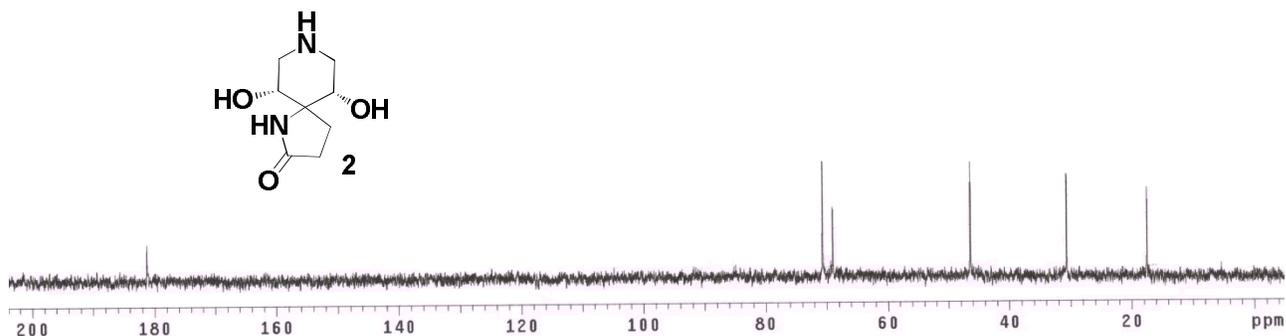
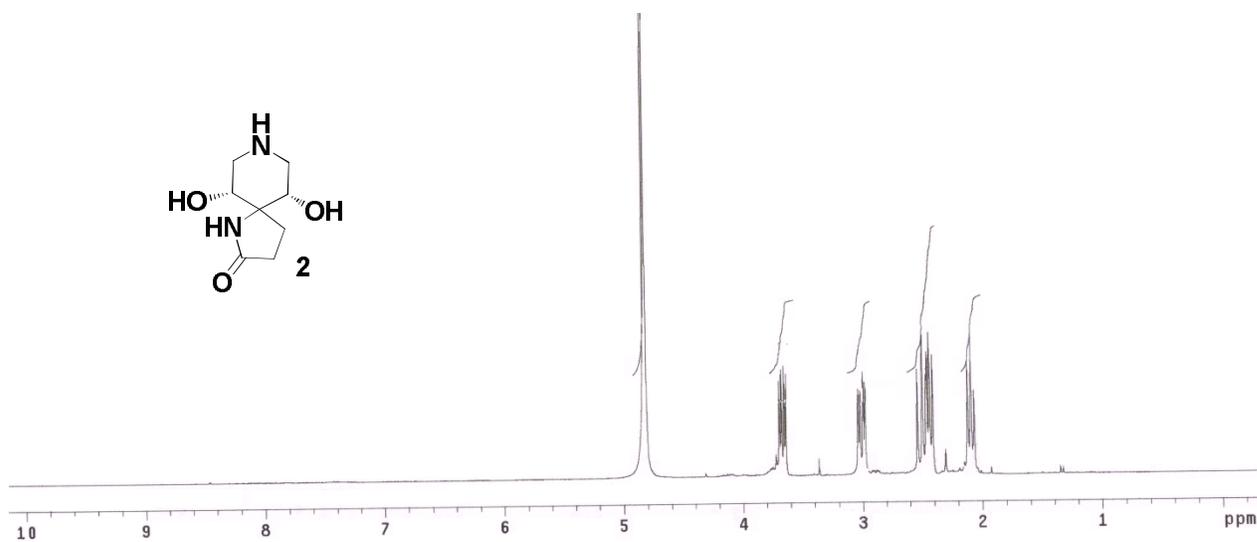


Figure 22: <sup>13</sup>C NMR (75 MHz, CDCl<sub>3</sub> Spectrum of compound **15**)



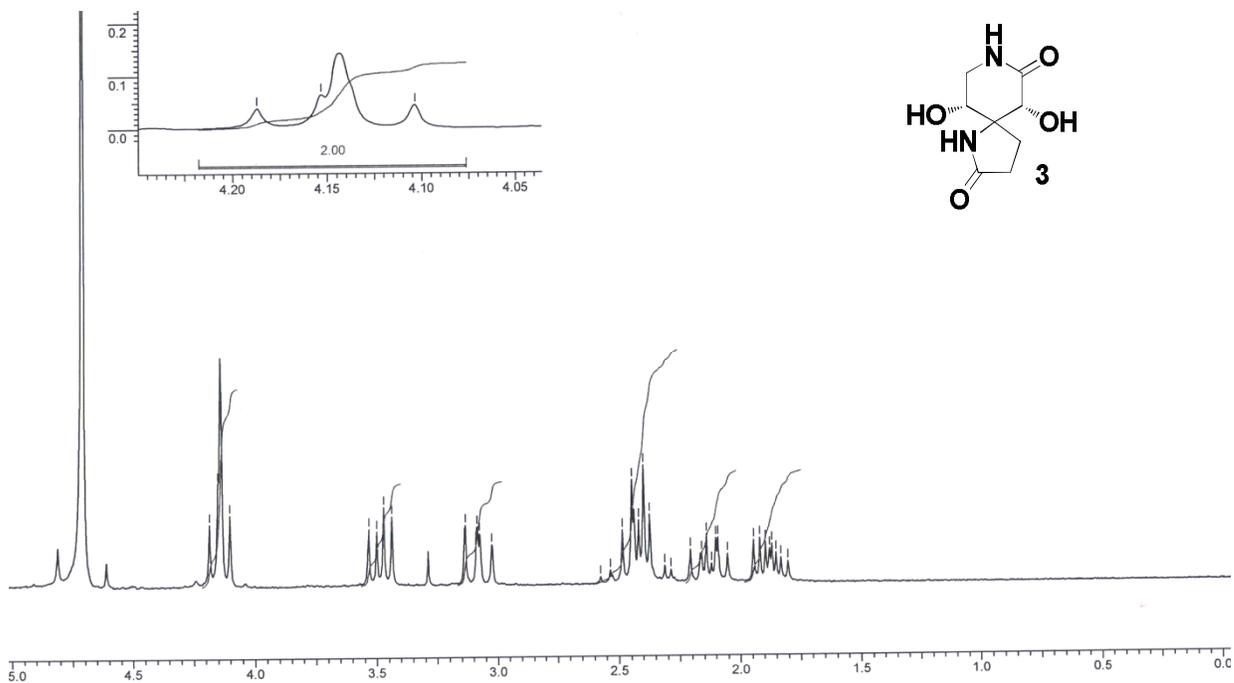


Figure 25: <sup>1</sup>H NMR (200 MHz, D<sub>2</sub>O Spectrum of compound 3)

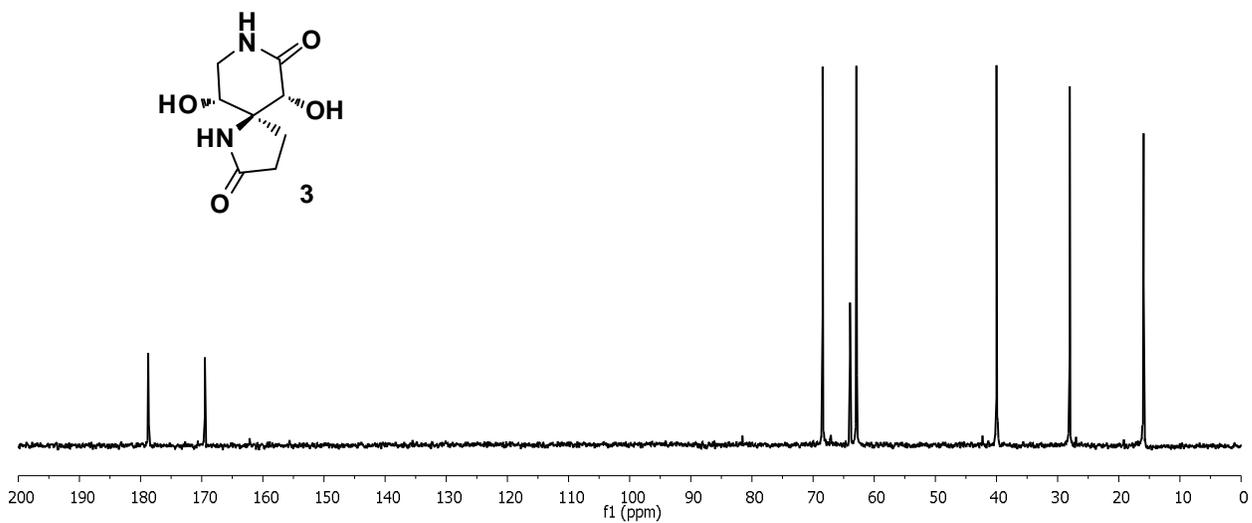


Figure 26: <sup>13</sup>C NMR (75 MHz, D<sub>2</sub>O Spectrum of compound 3)

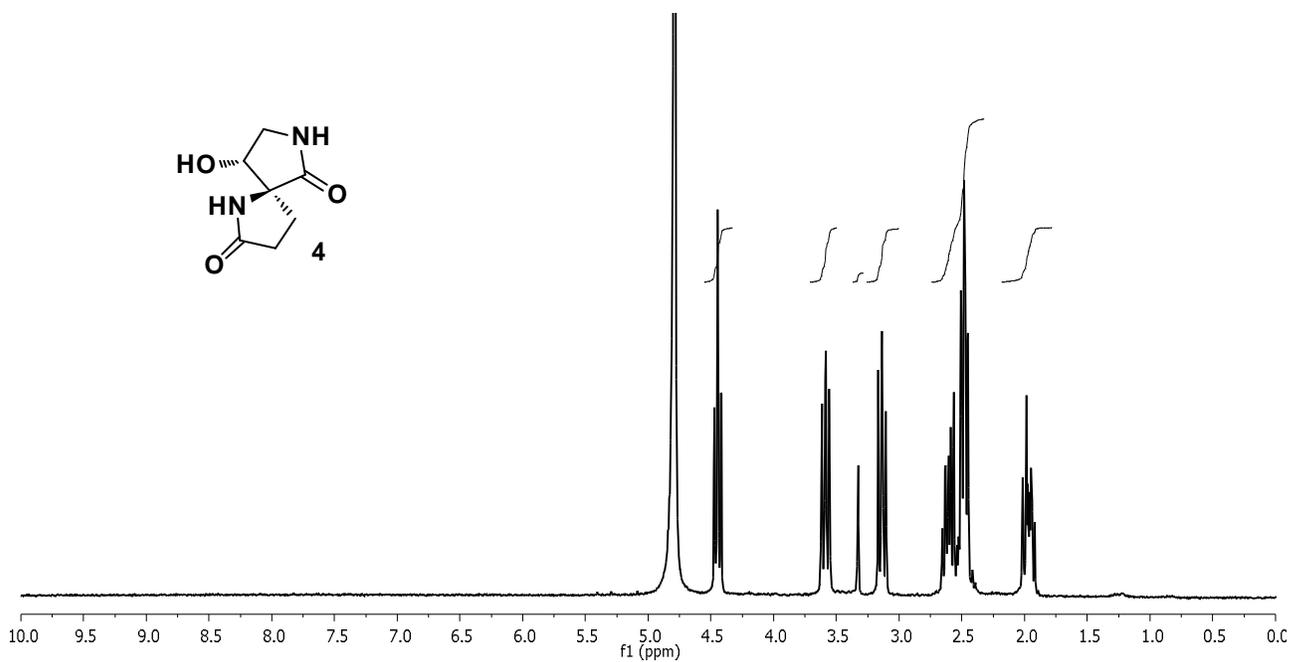


Figure 27:  $^1\text{H}$  NMR (500 MHz,  $\text{D}_2\text{O}$  Spectrum of compound 4)

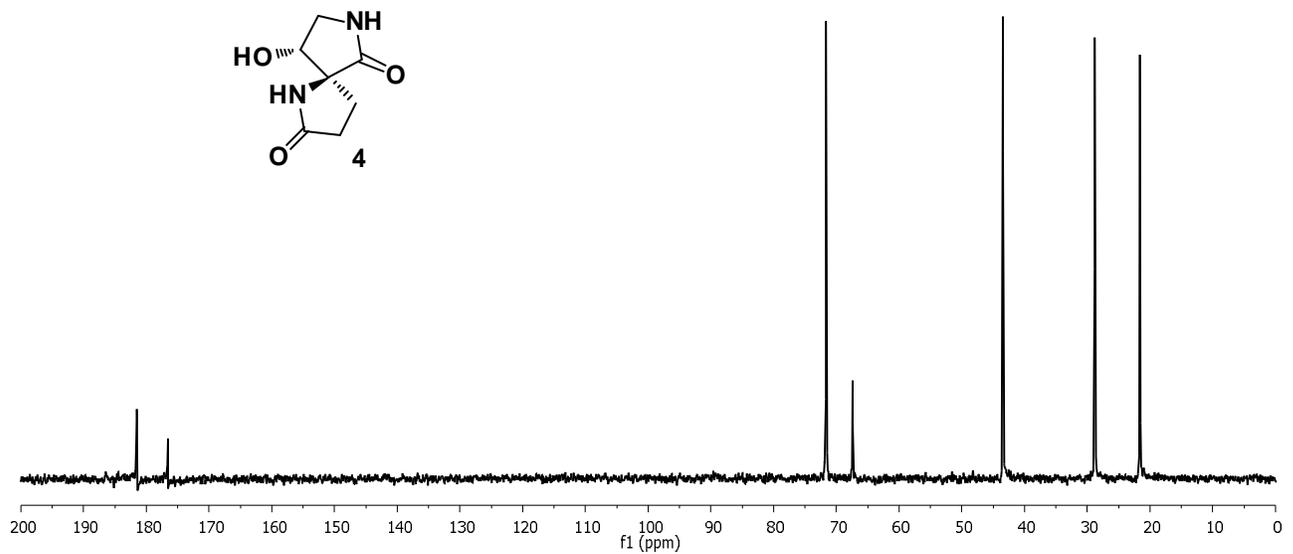


Figure 28:  $^{13}\text{C}$  NMR (125 MHz,  $\text{D}_2\text{O}$  Spectrum of compound 4)