

# Phidianidine A and Synthetic Analogs as Naturally Inspired Marine Antifoulants

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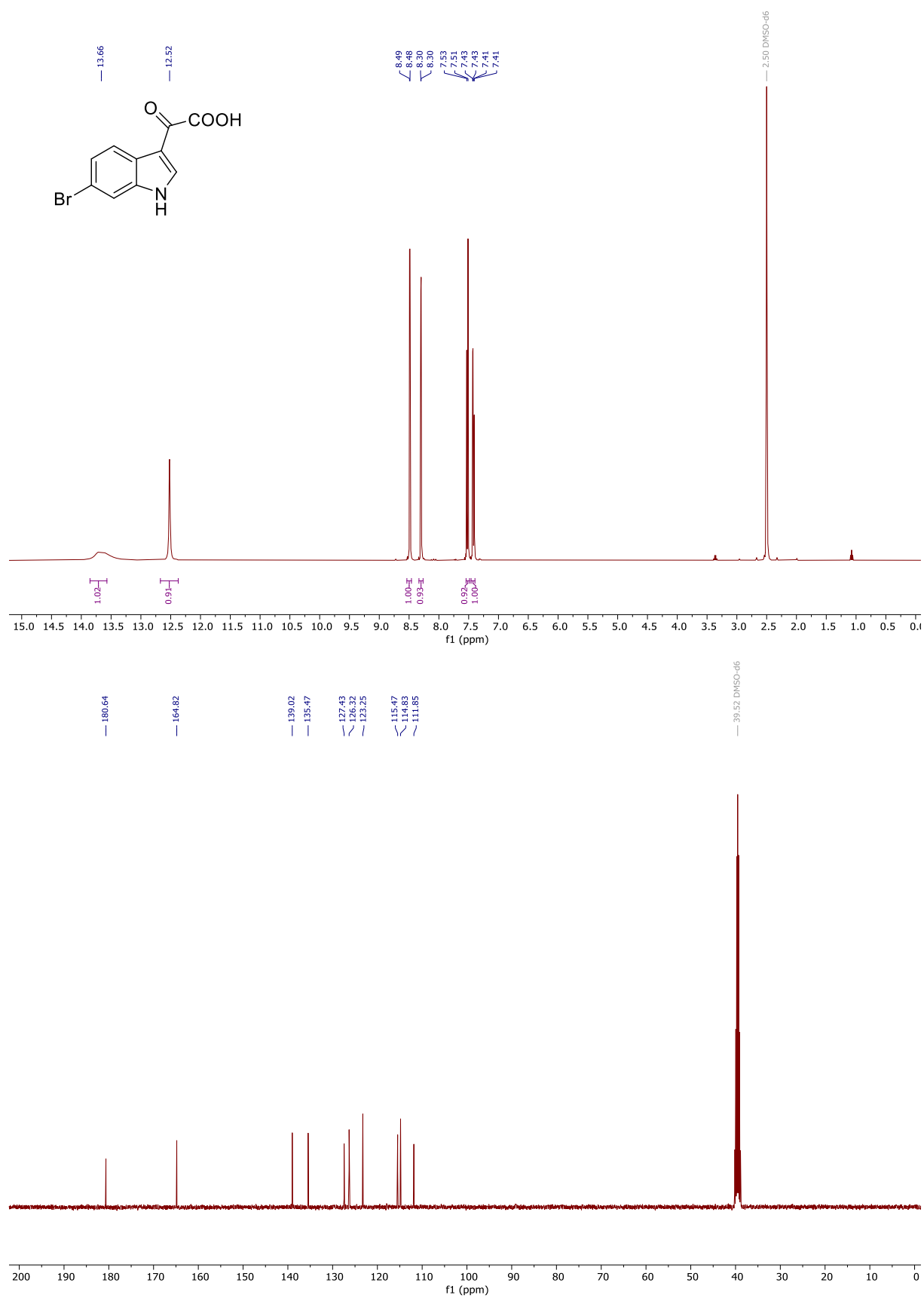
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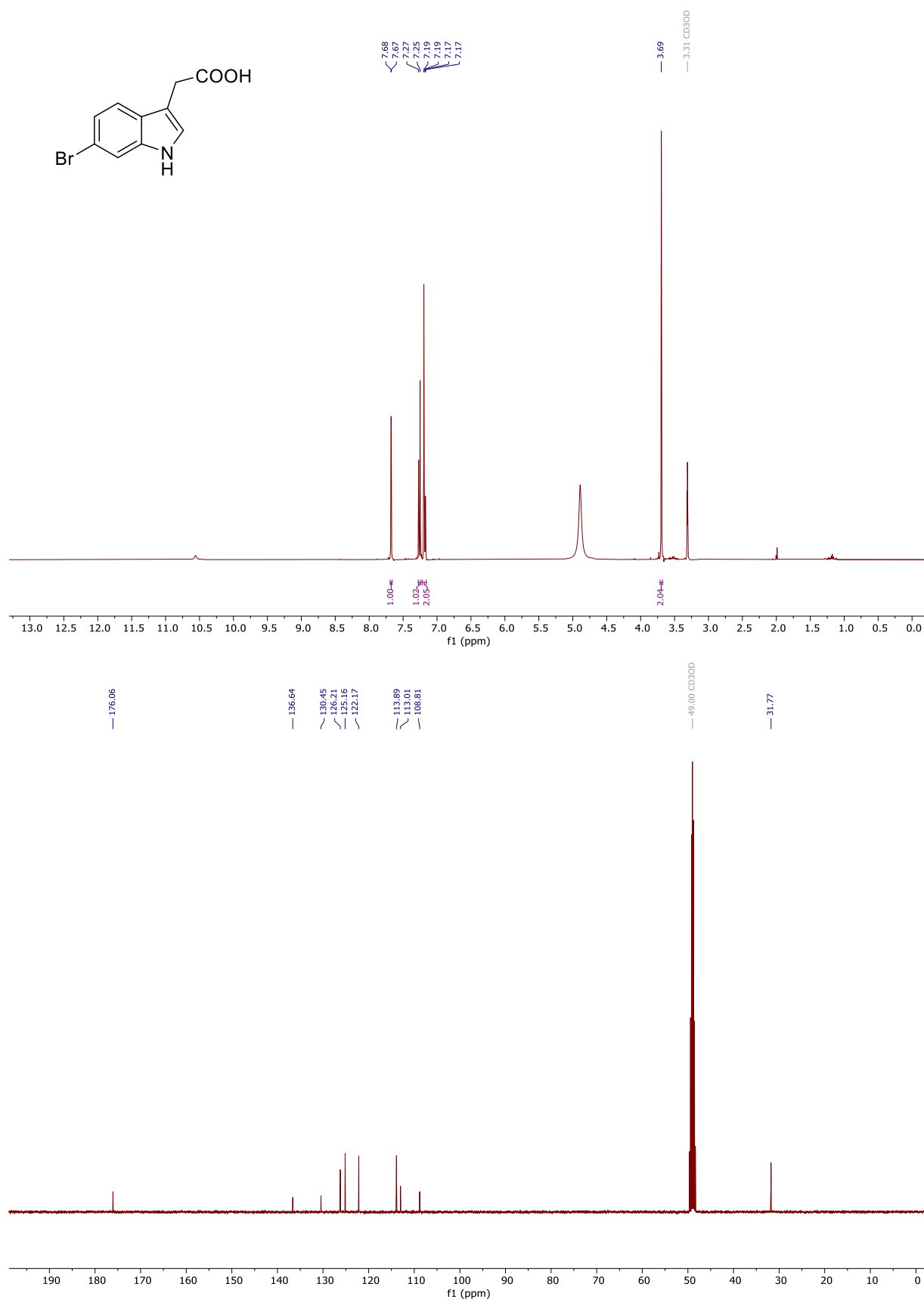
Figure S1. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectrum of **1** in Methanol-*d*<sub>4</sub>



Figure S2.  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectrum of **3** in DMSO



**Figure S3.**  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectrum of **4** in Methanol- $d_4$



**Figure S4.**  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectrum of **6d** in  $\text{CDCl}_3$

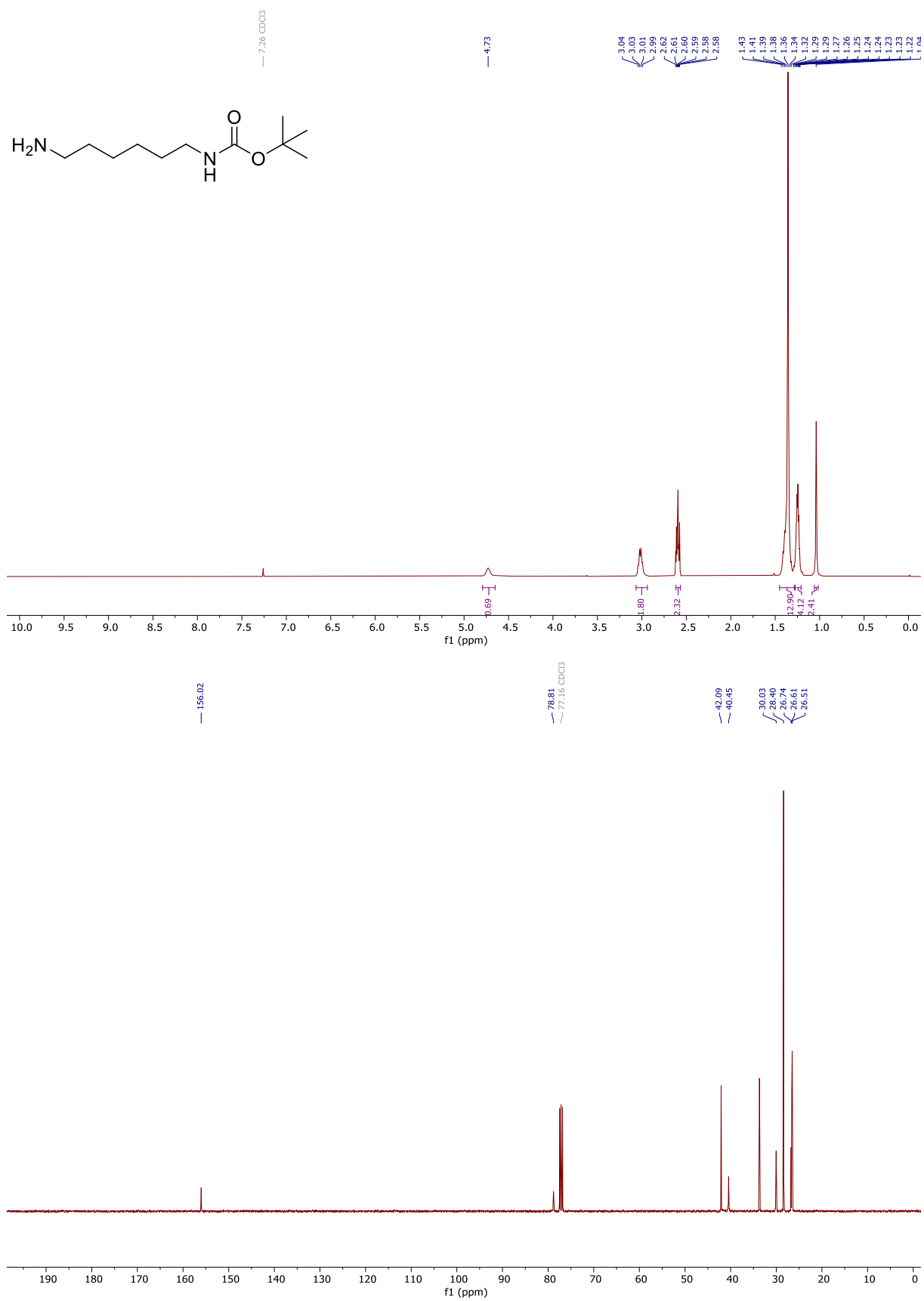


Figure S5.  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  spectrum of **7** in  $\text{CDCl}_3$

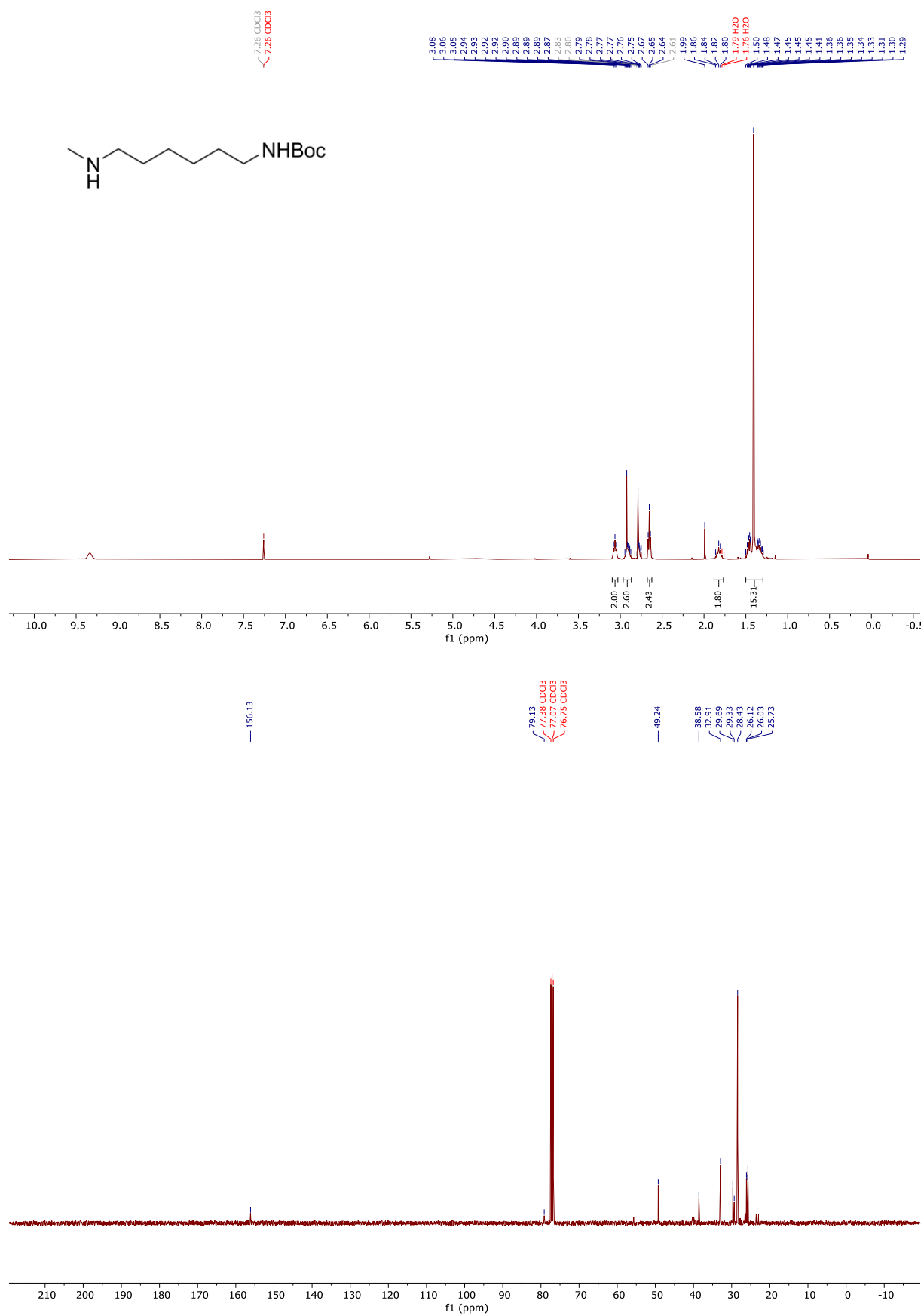
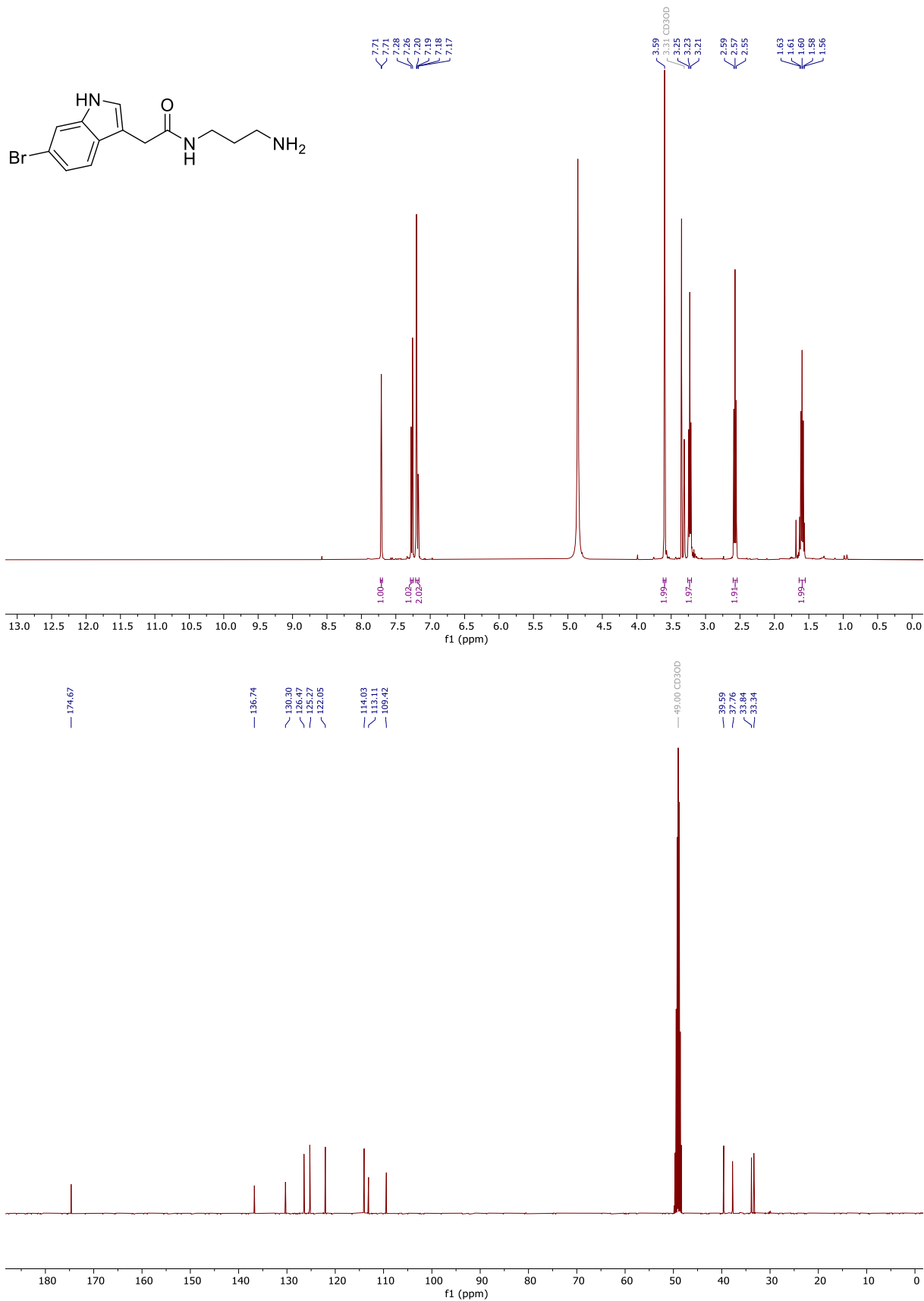
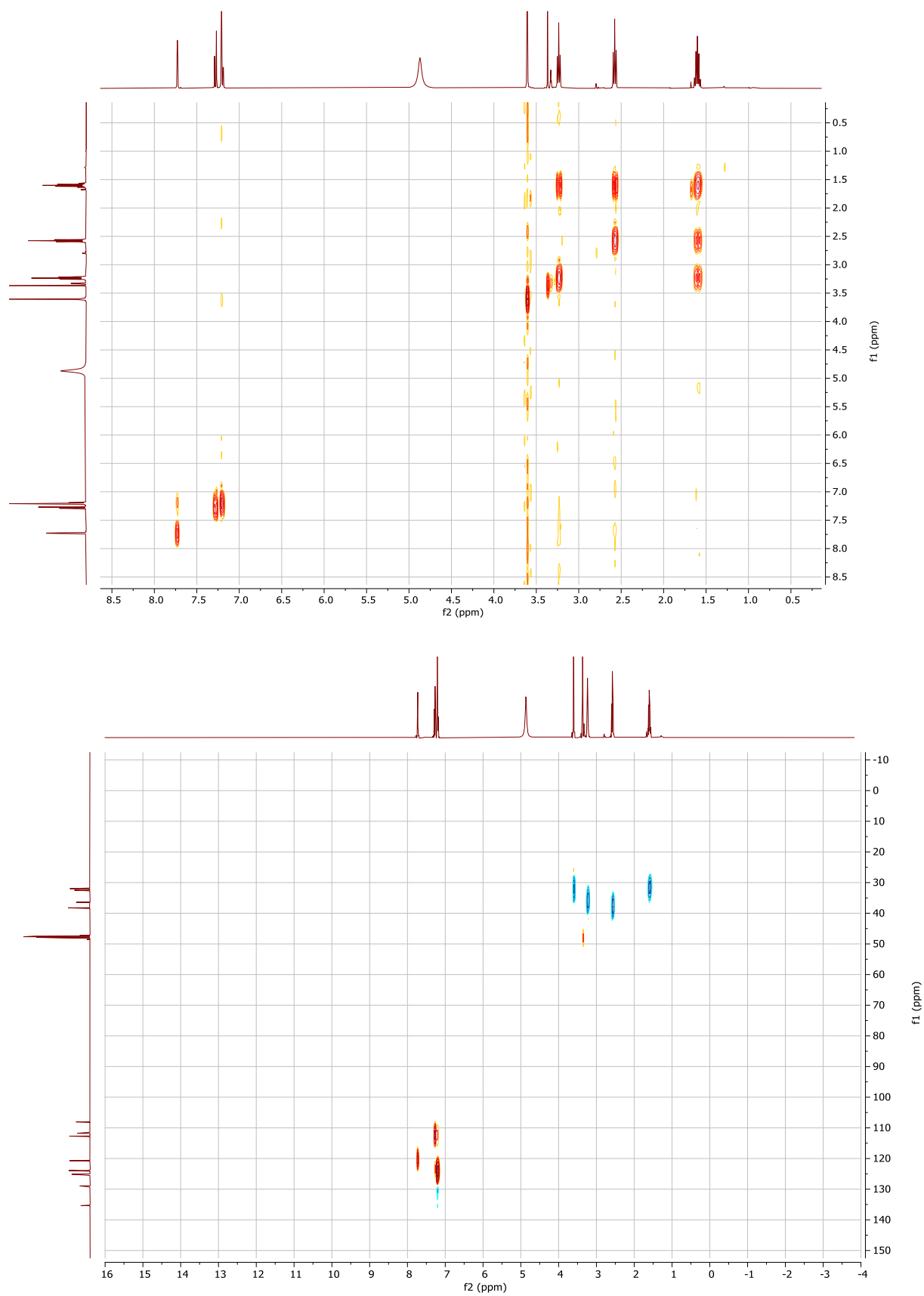




Figure S6.  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectrum of **8a** in Methanol- $d_4$



**Figure S7.** COSY and HSQC spectrum of **8a** in Methanol- $d_4$



**Figure S8.** HMBC spectrum of **8a** in Methanol-*d*<sub>4</sub>

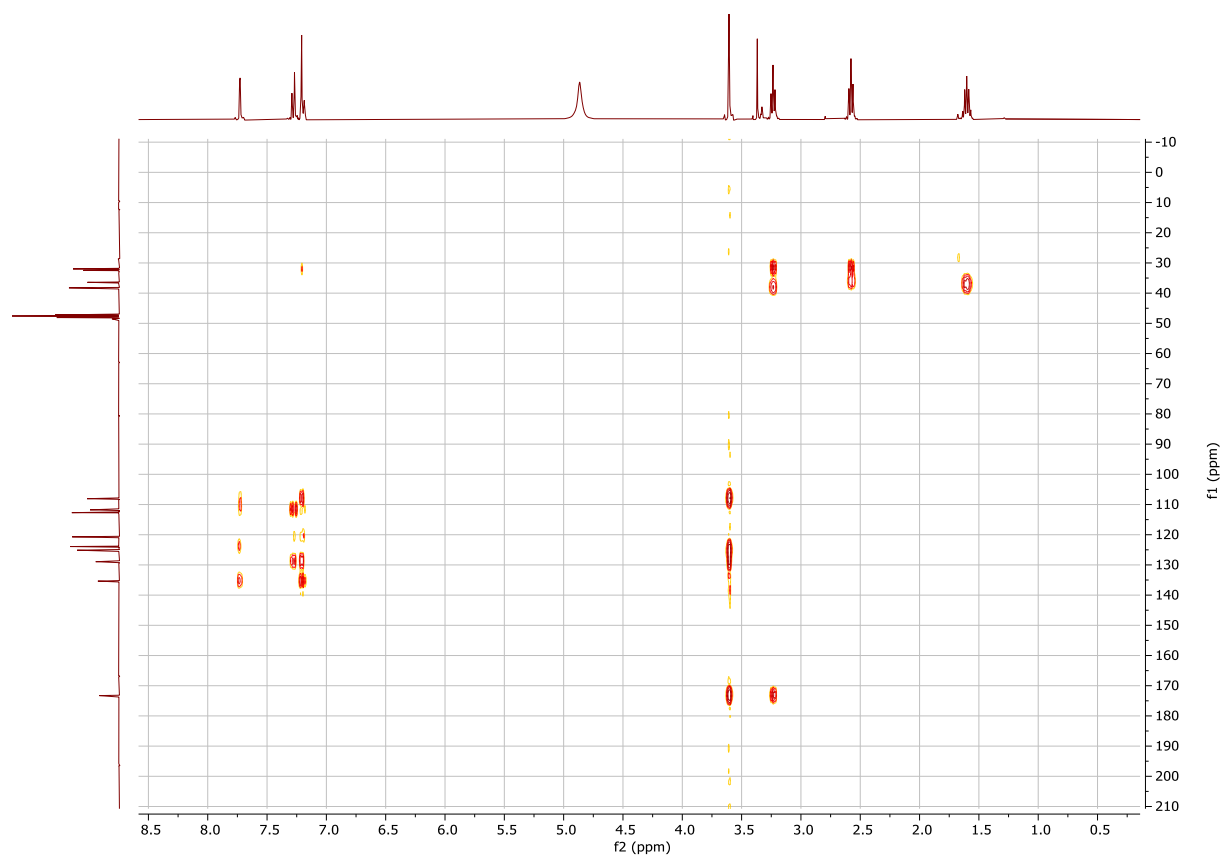
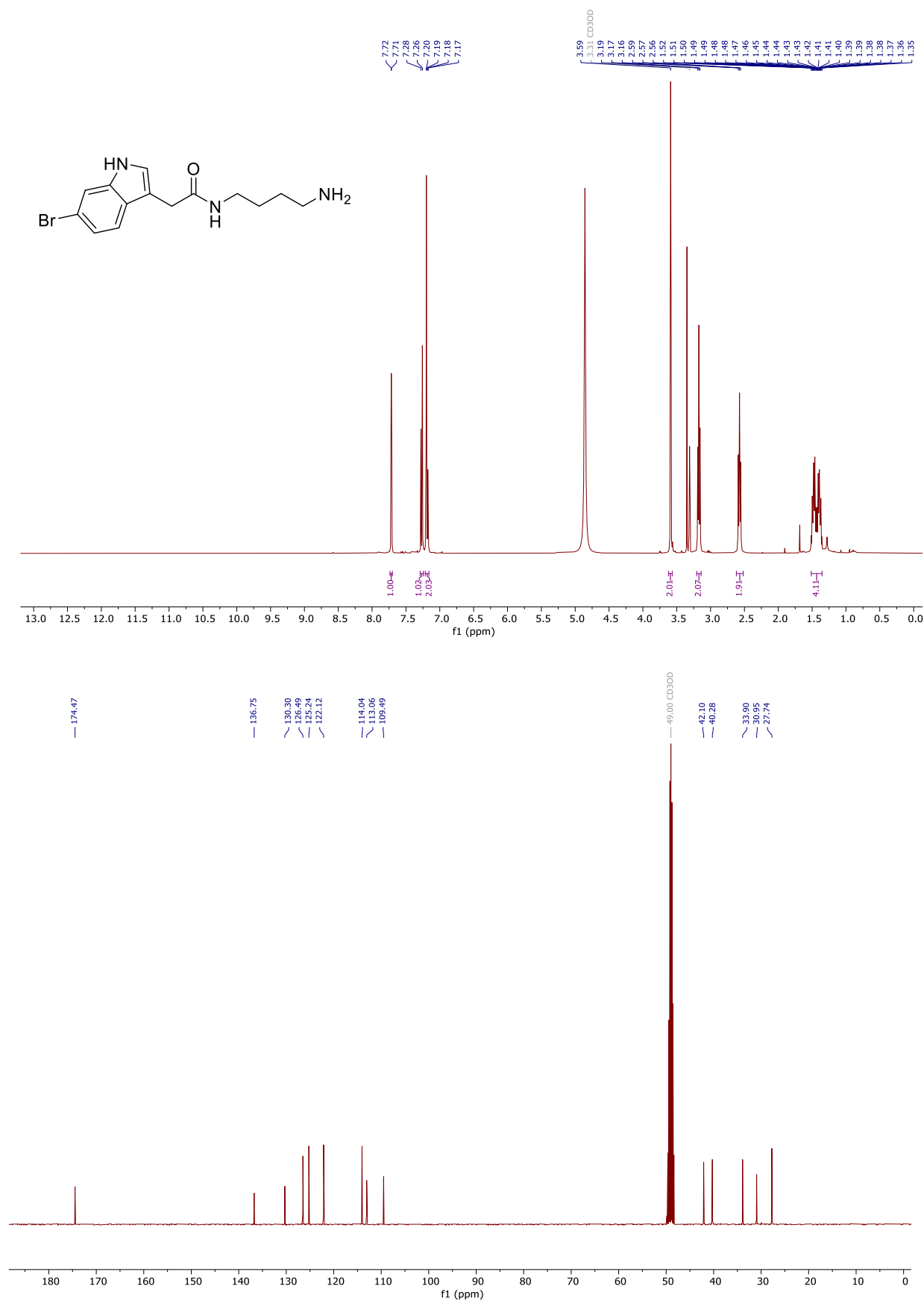
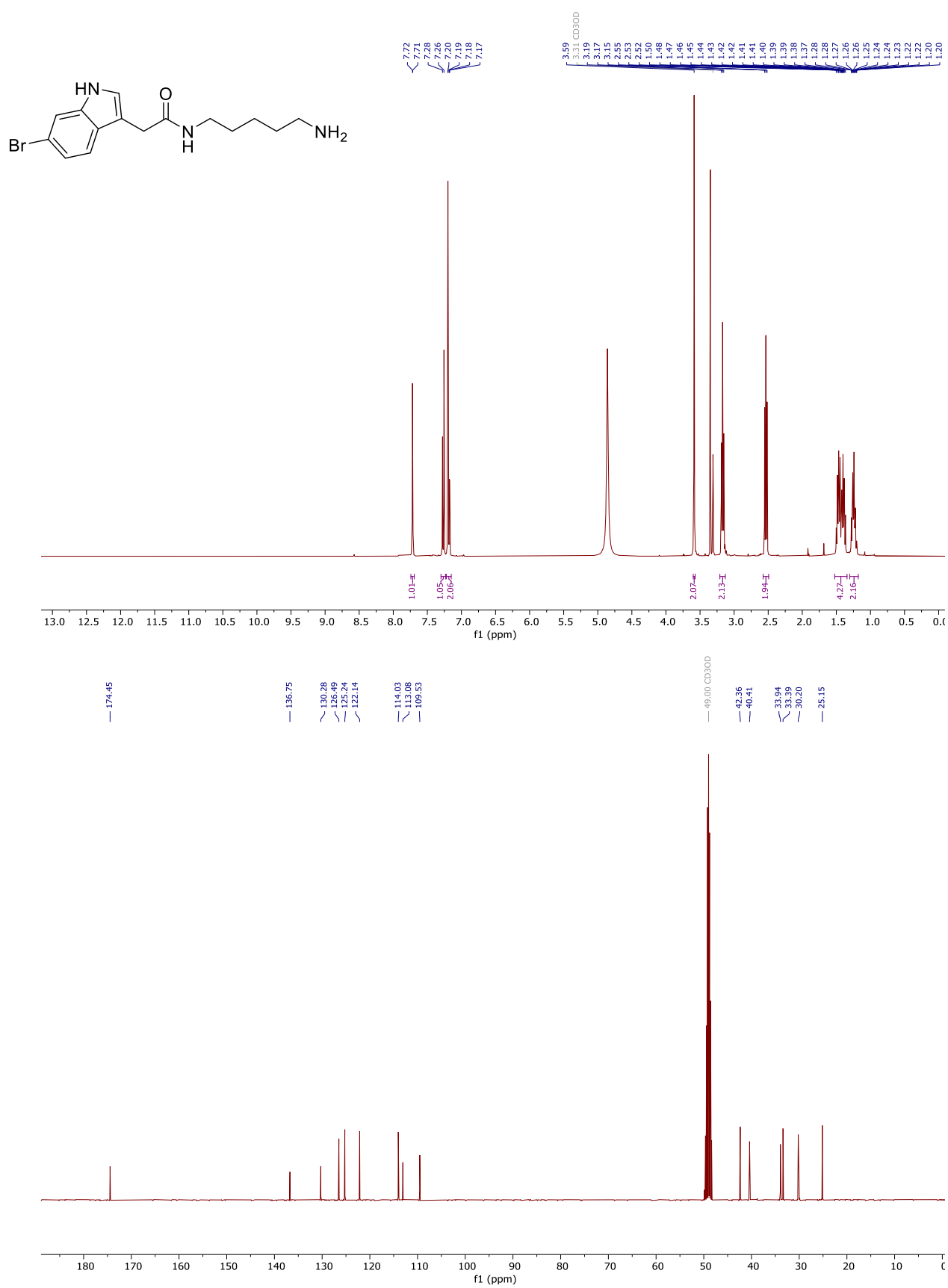


Figure S9.  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectrum of **8b** in Methanol- $d_4$



**Figure S10.**  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  spectrum of **8c** in Methanol- $d_4$



**Figure S11.**  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  spectrum of **8d** in Methanol- $d_4$

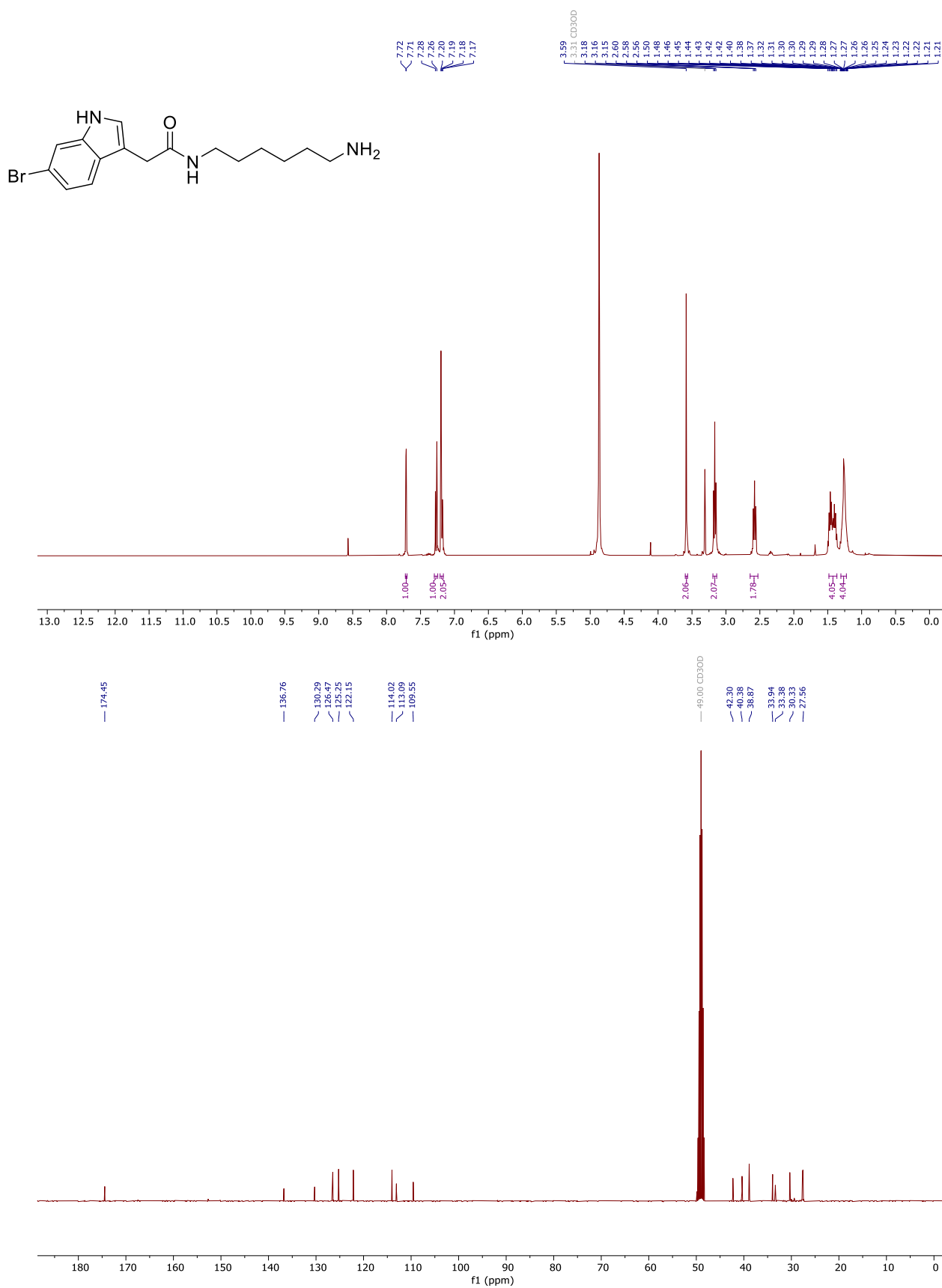
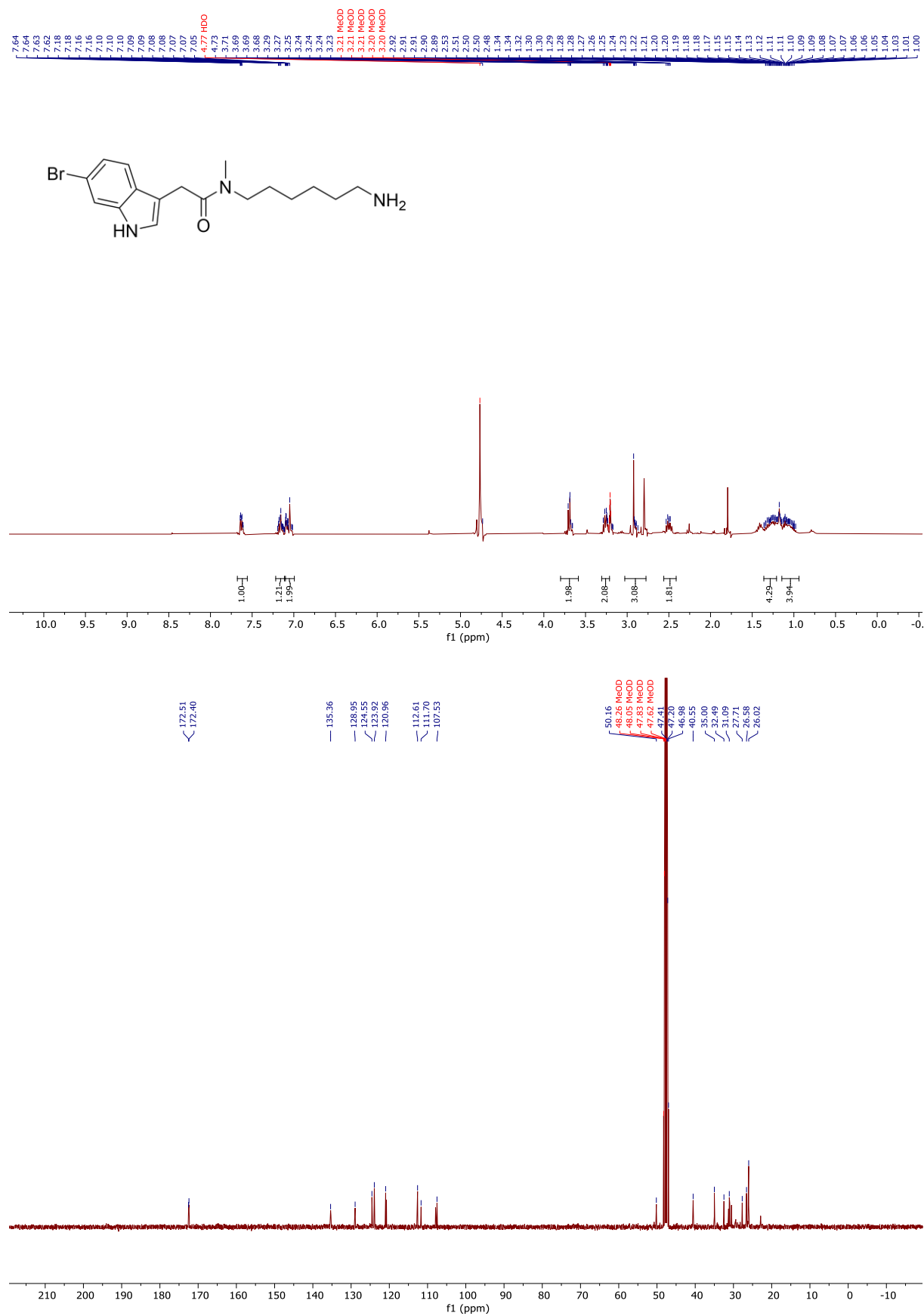
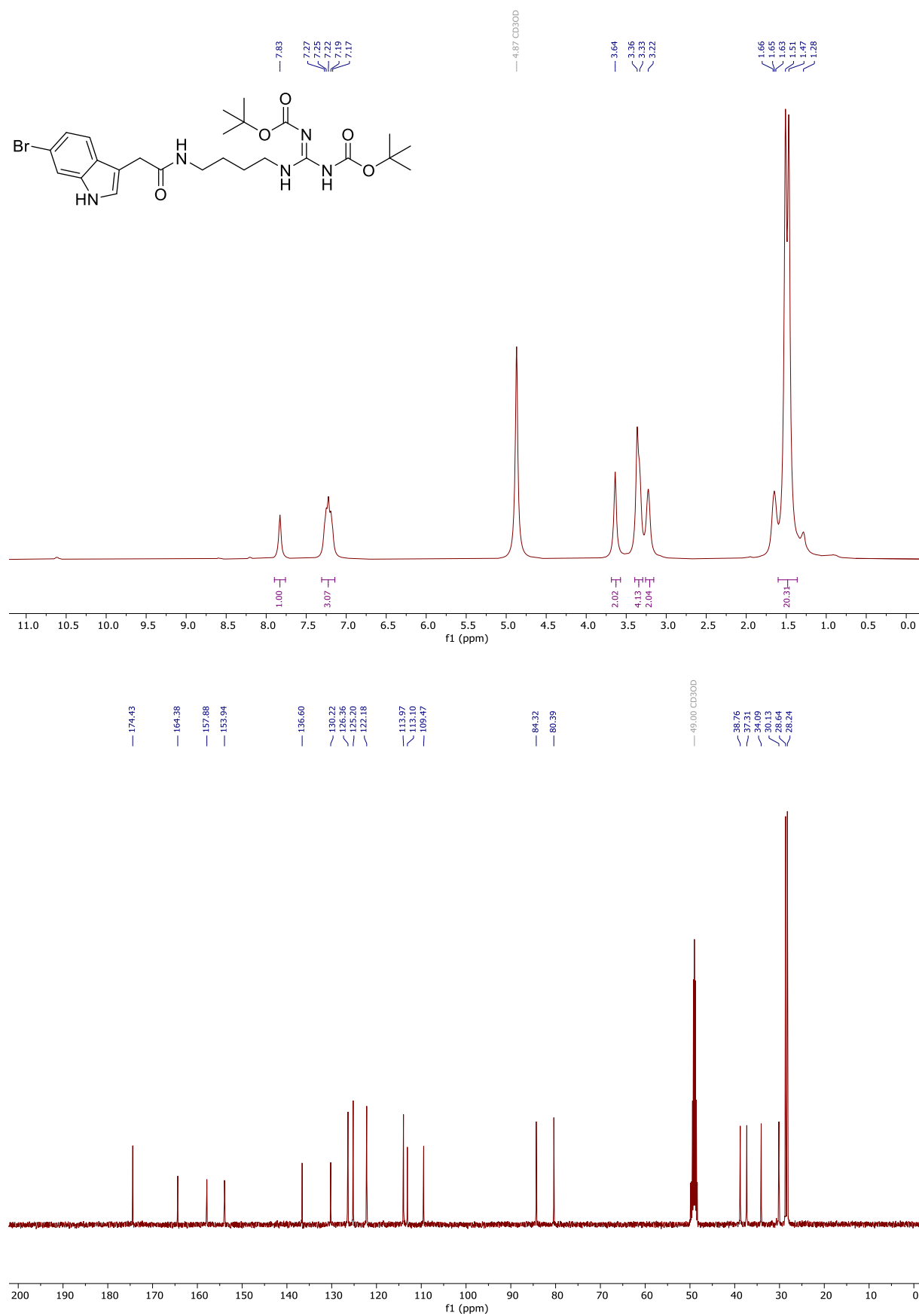


Figure S12. <sup>1</sup>H-NMR and <sup>13</sup>C-NMR spectrum of **8e** in Methanol-*d*<sub>4</sub>

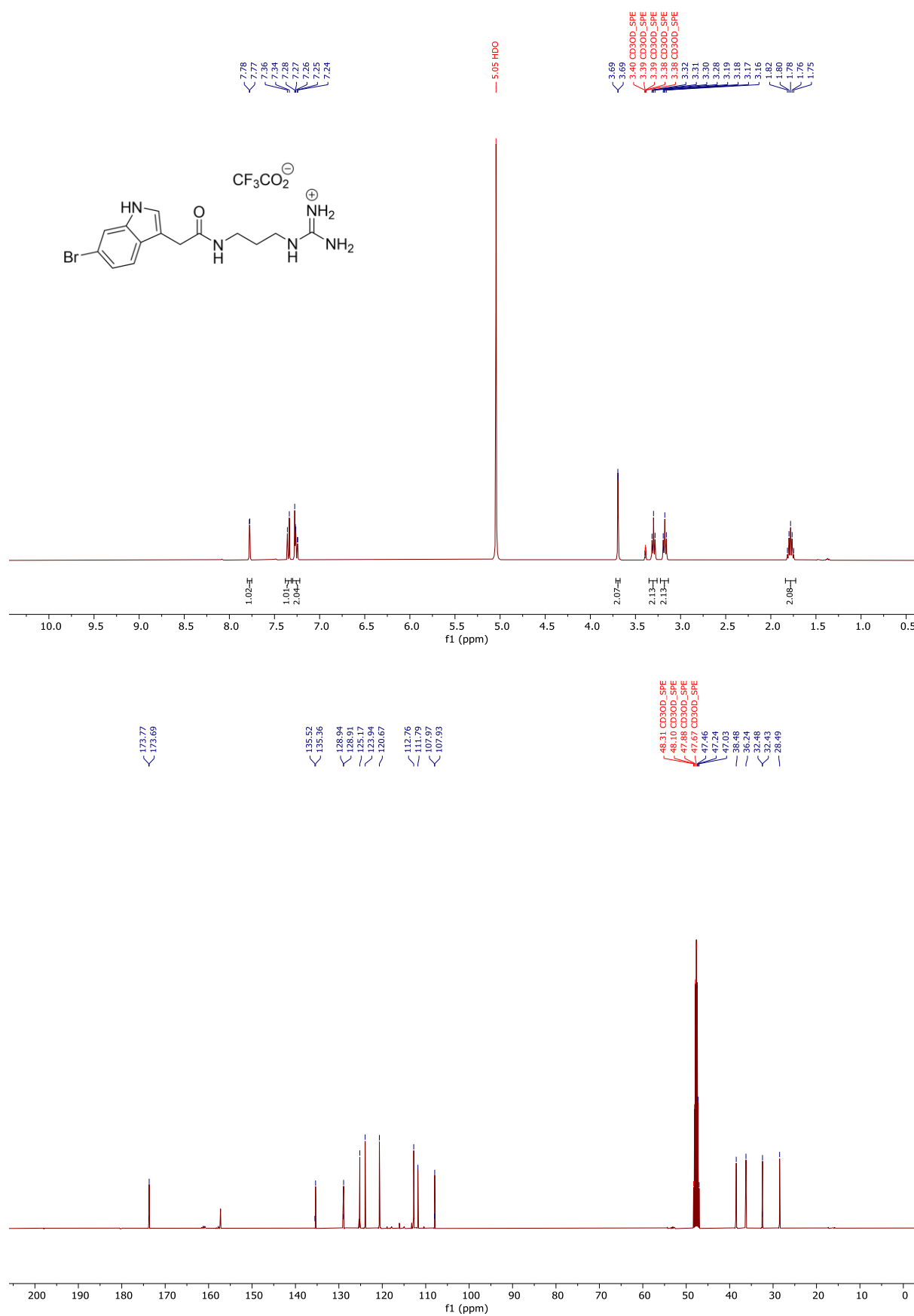


**Figure S13.**  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  spectrum of **9a intermediate** in Methanol- $d_4$

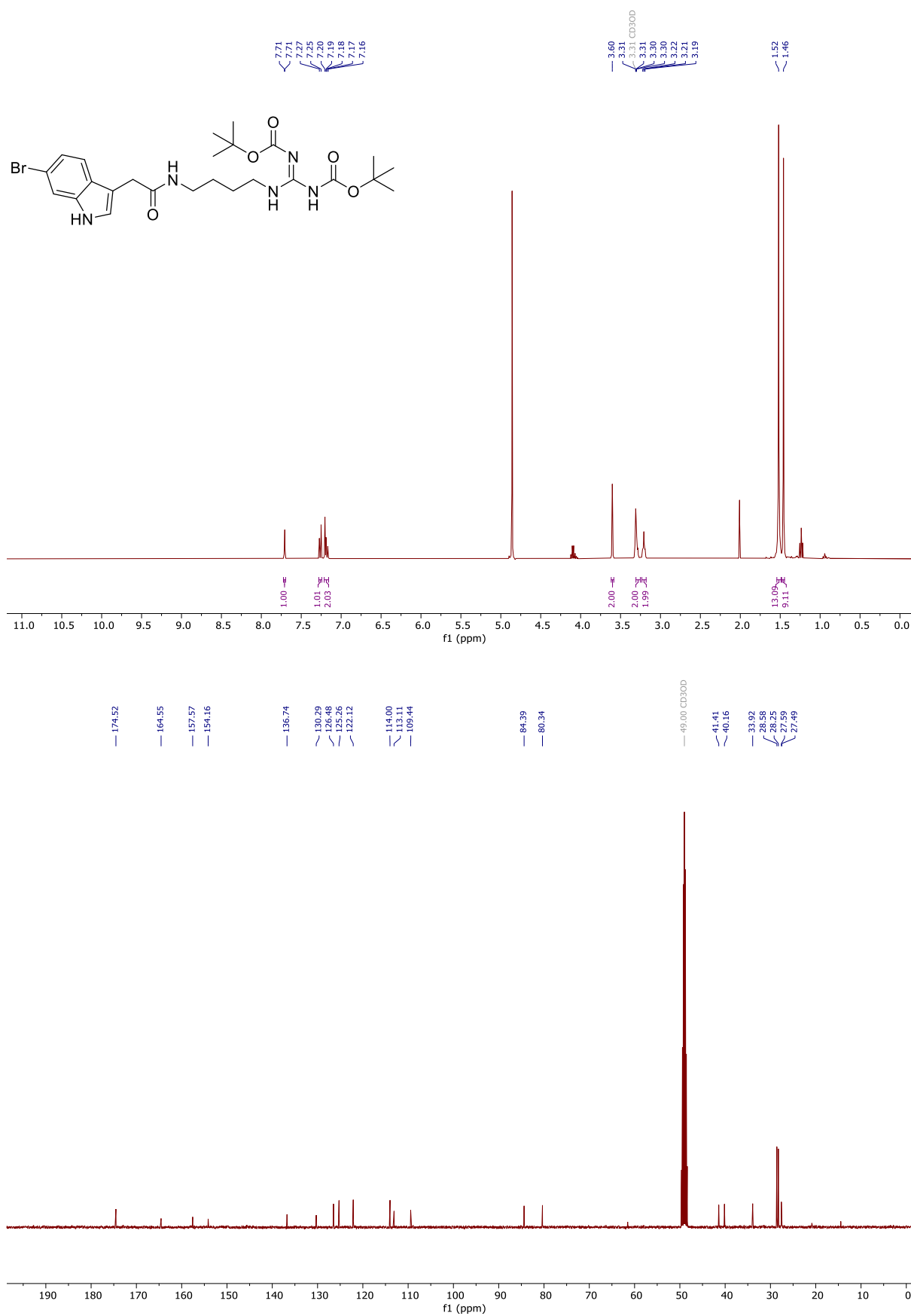




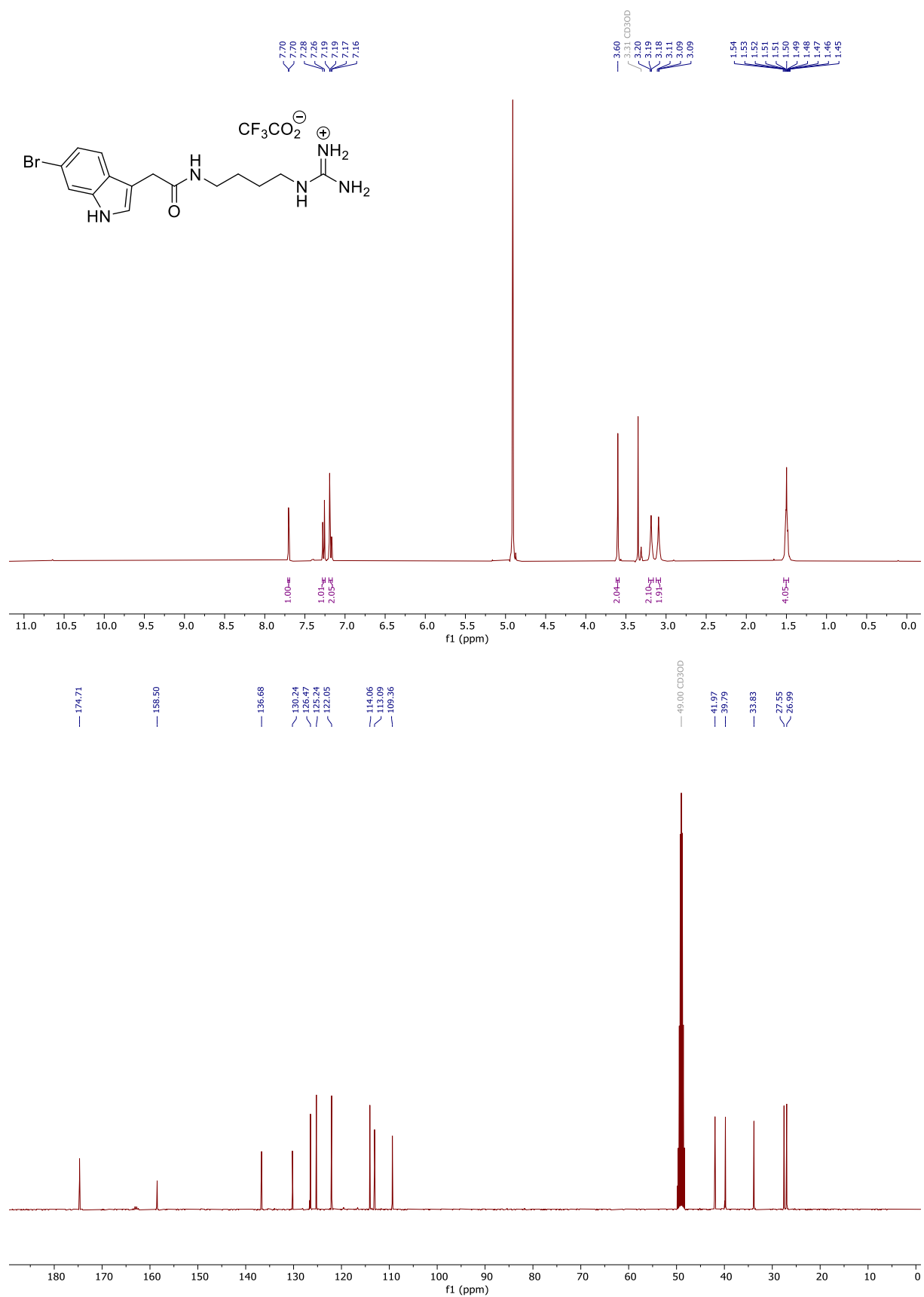
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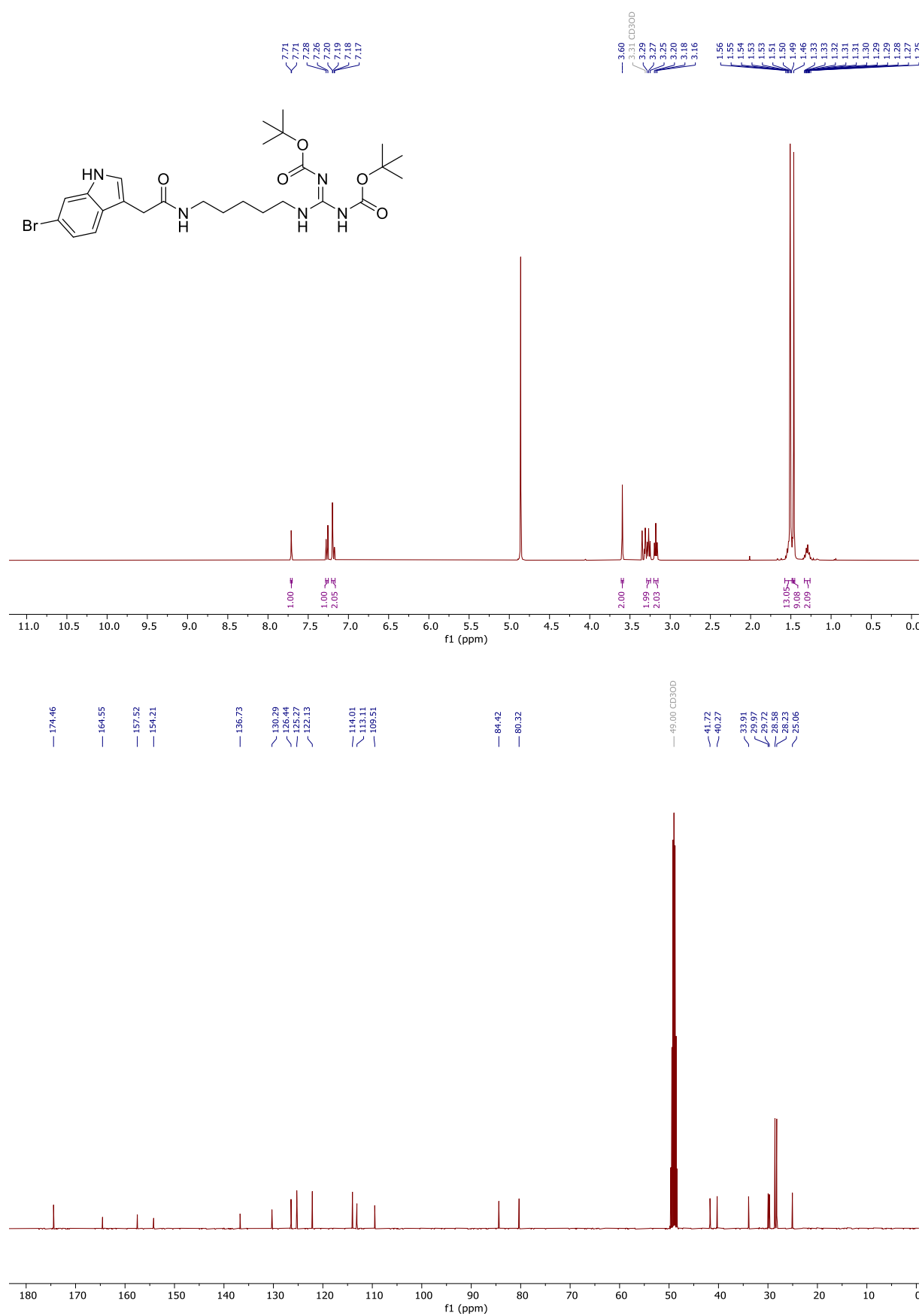
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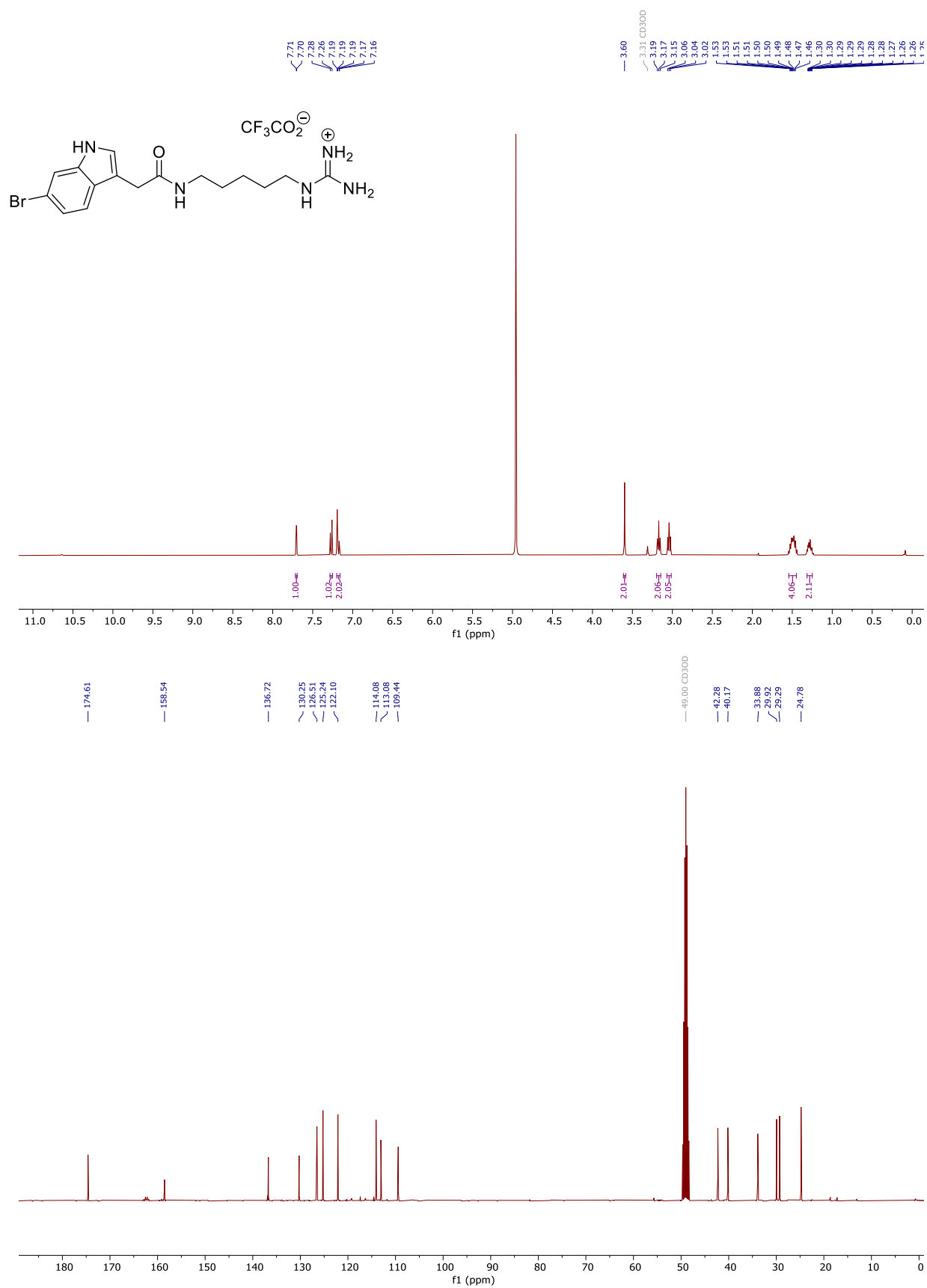
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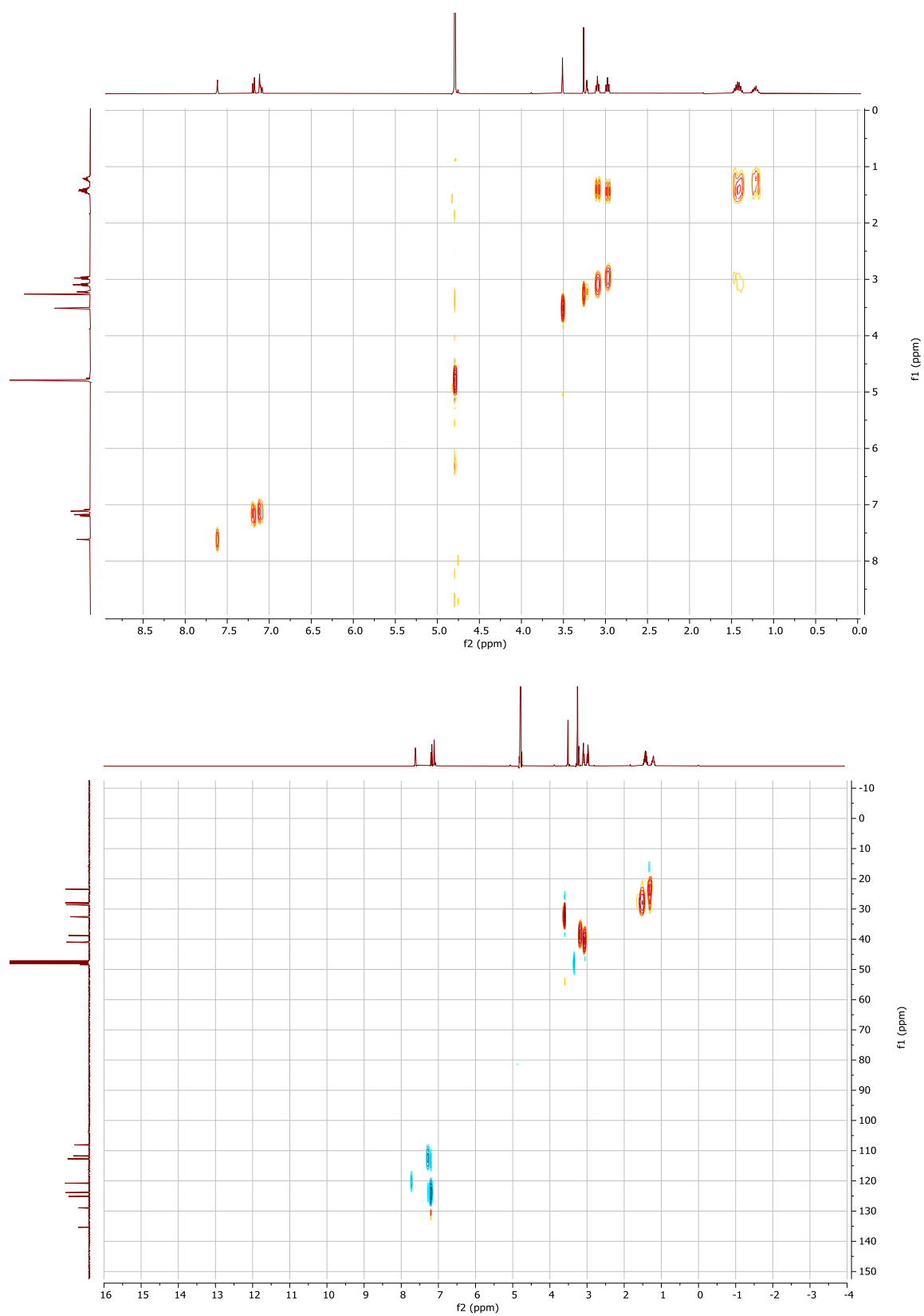
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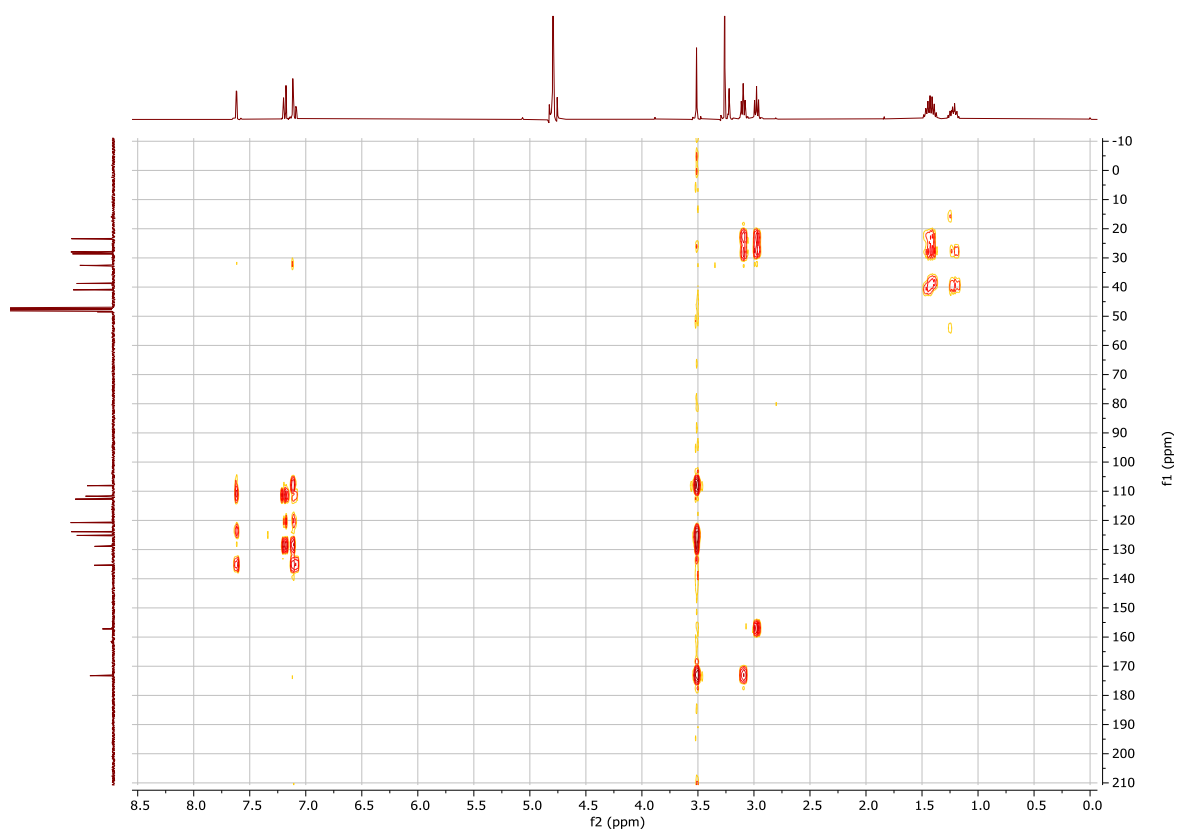
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**Figure S20.** HMBC spectrum of **9c** in Methanol-*d*<sub>4</sub>



**Figure S21.**  $^1\text{H-NMR}$  and  $^{13}\text{C-NMR}$  spectrum of **9d** in Methanol- $d_4$

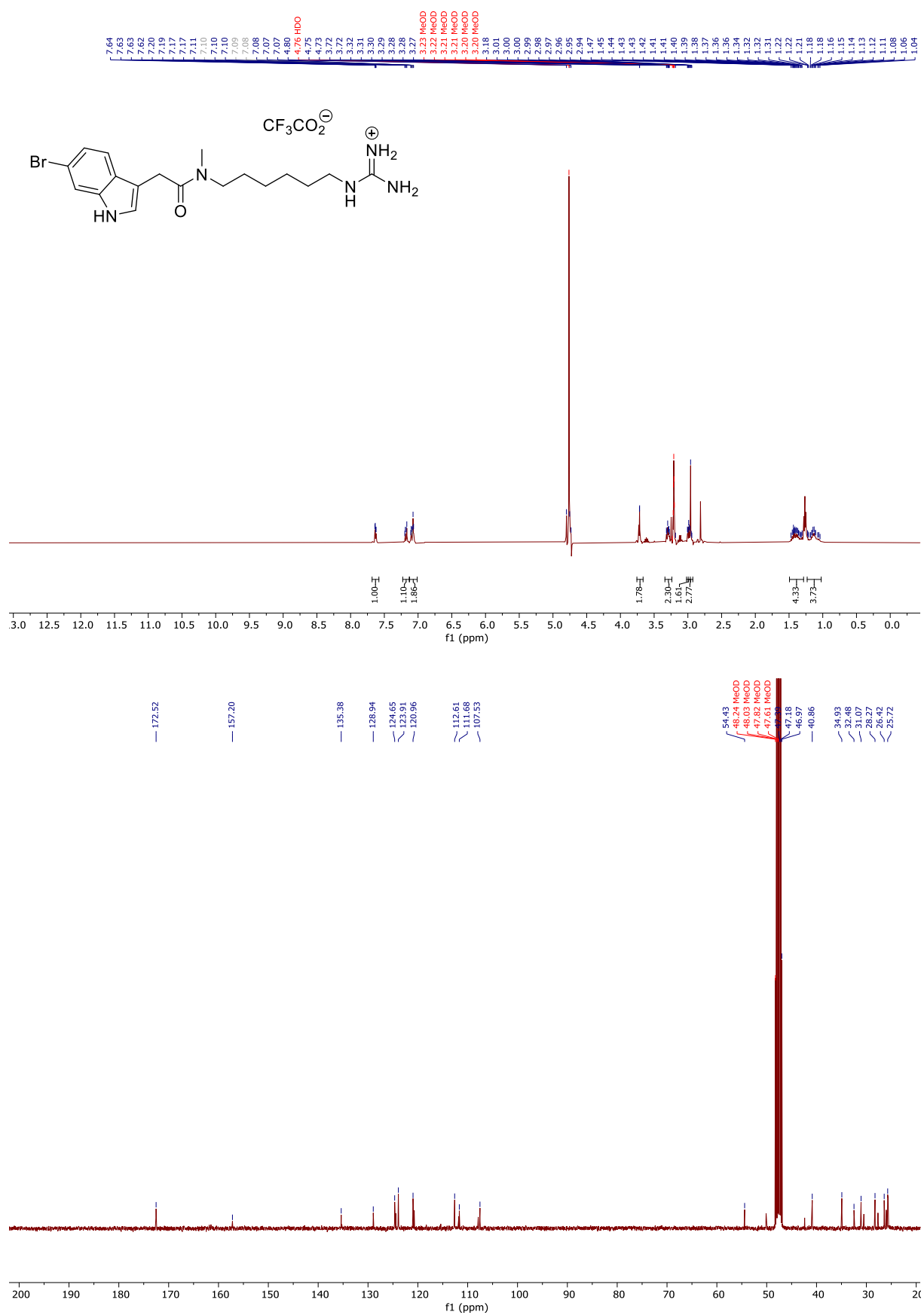
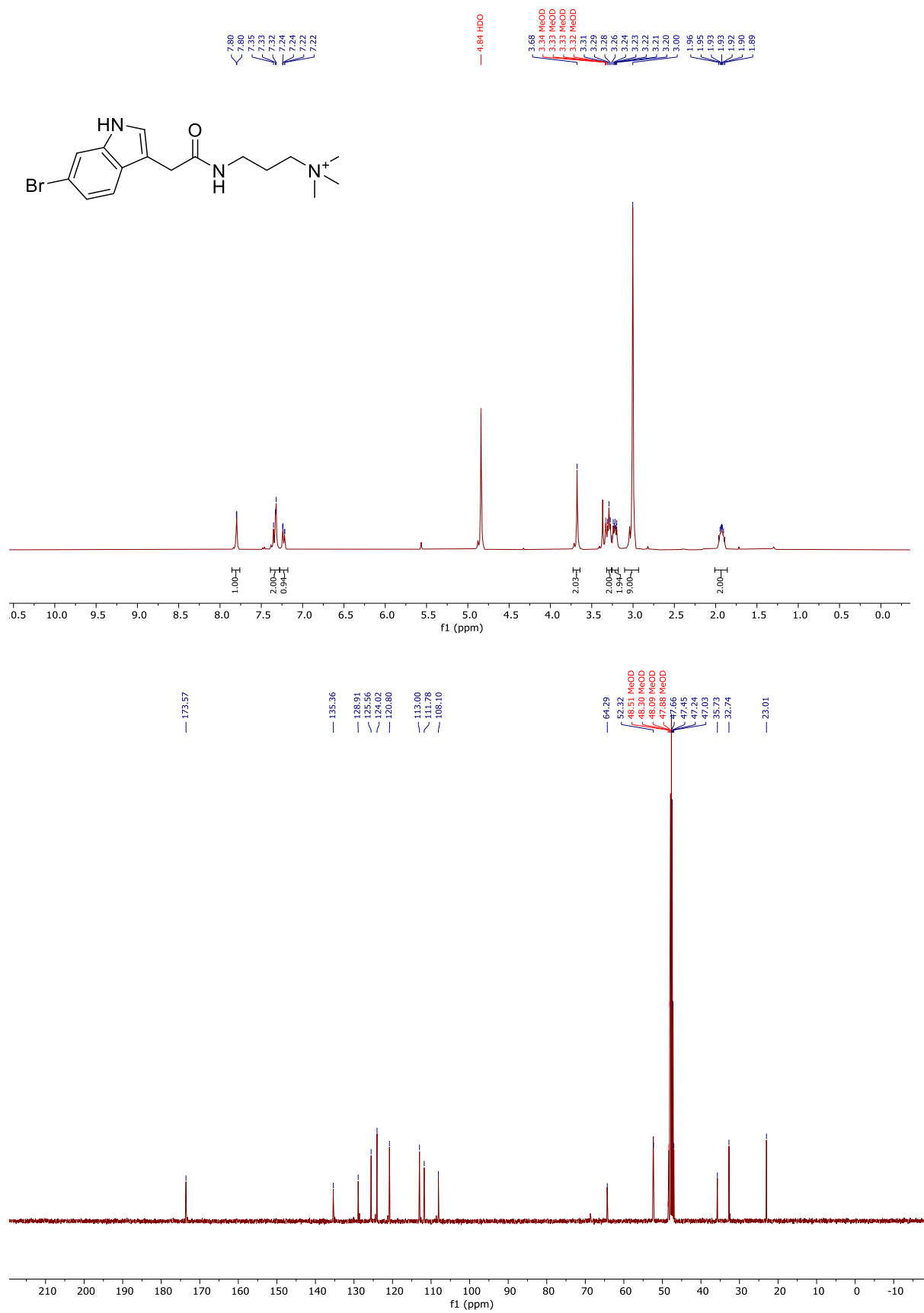
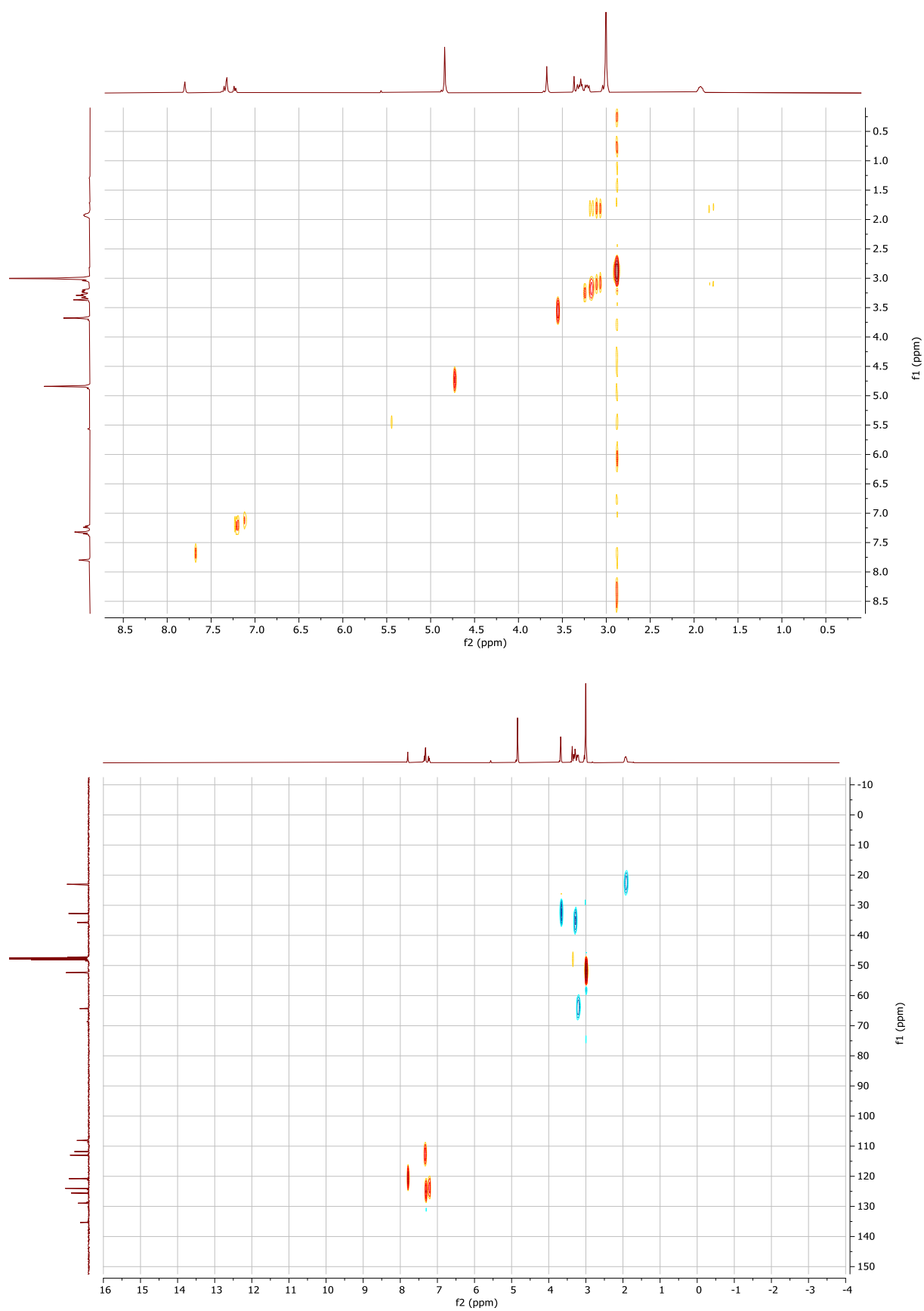




Figure S22.  $^1\text{H}$ -NMR and  $^{13}\text{C}$ -NMR spectrum of **10** in Methanol- $d_4$



**Figure S23.** COSY and HSQC spectrum of **10** in Methanol-*d*<sub>4</sub>



**Figure S24.** HMBC spectrum of **10** in Methanol- $d_4$

