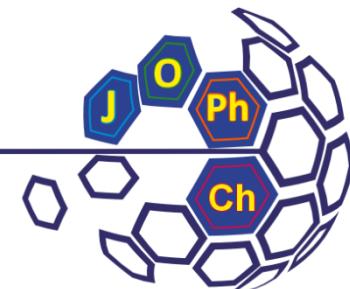


## Supporting Information

<https://doi.org/10.24959/ophcj.24.324406>

Freely available online on  
<http://ophcj.nuph.edu.ua>

*J. Org. Pharm. Chem.* **2024**, 22 (4)



# Safe and Efficient Preparative Approach to Chiral $\alpha$ -Chloroketones Based on In-Flow Generated Diazomethane

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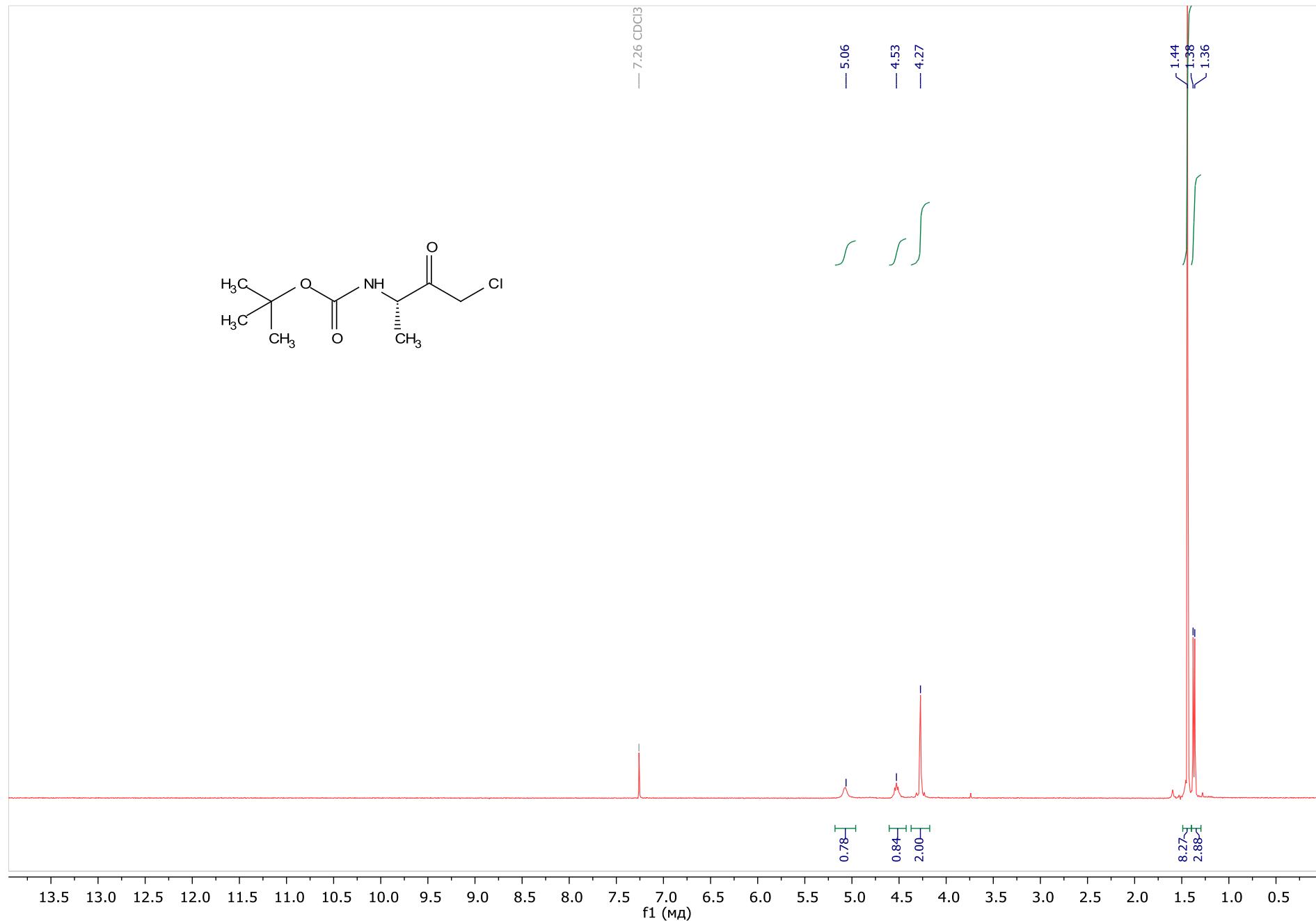


Figure 1. (S)-tert-Butyl (4-Chloro-3-oxobutan-2-yl)carbamate **3a**, <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>).

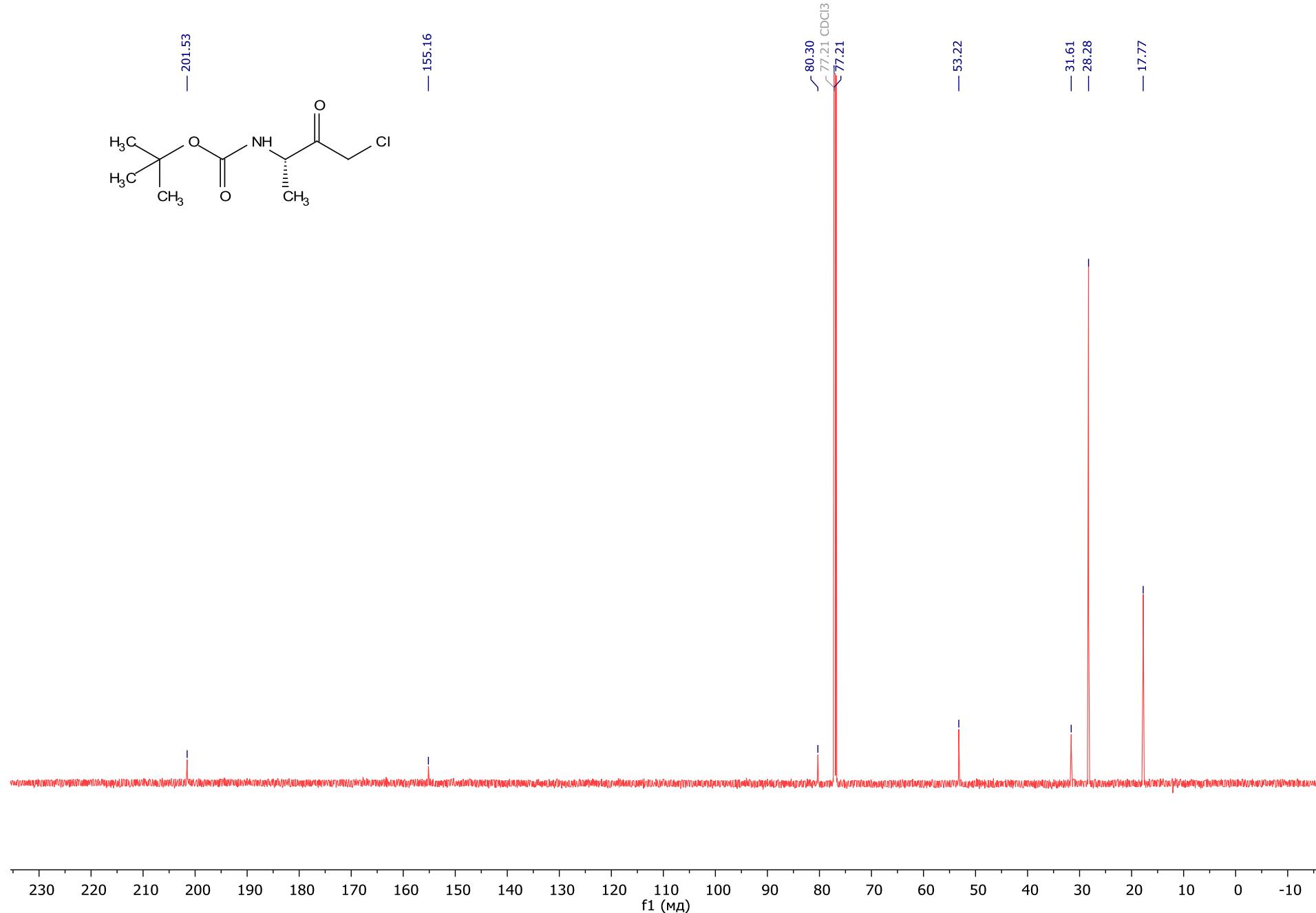


Figure 2. (S)-tert-Butyl (4-Chloro-3-oxobutan-2-yl)carbamate **3a**,  $^{13}\text{C}$  NMR(101MHz, CDCl<sub>3</sub>).

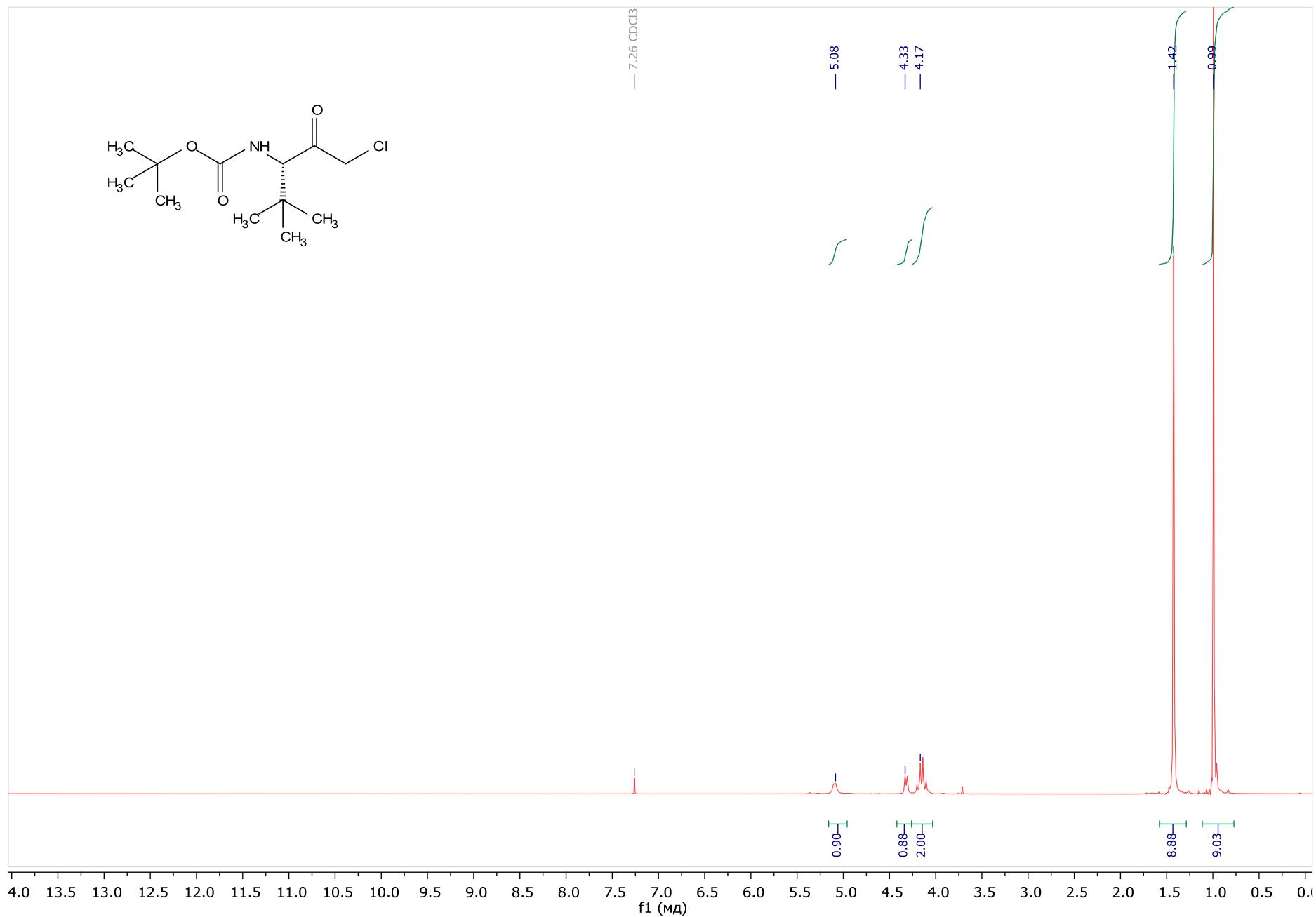


Figure 3. (S)-tert-Butyl (1-Chloro-4,4-dimethyl-2-oxopentan-3-yl)-carbamate **3b**, <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>).

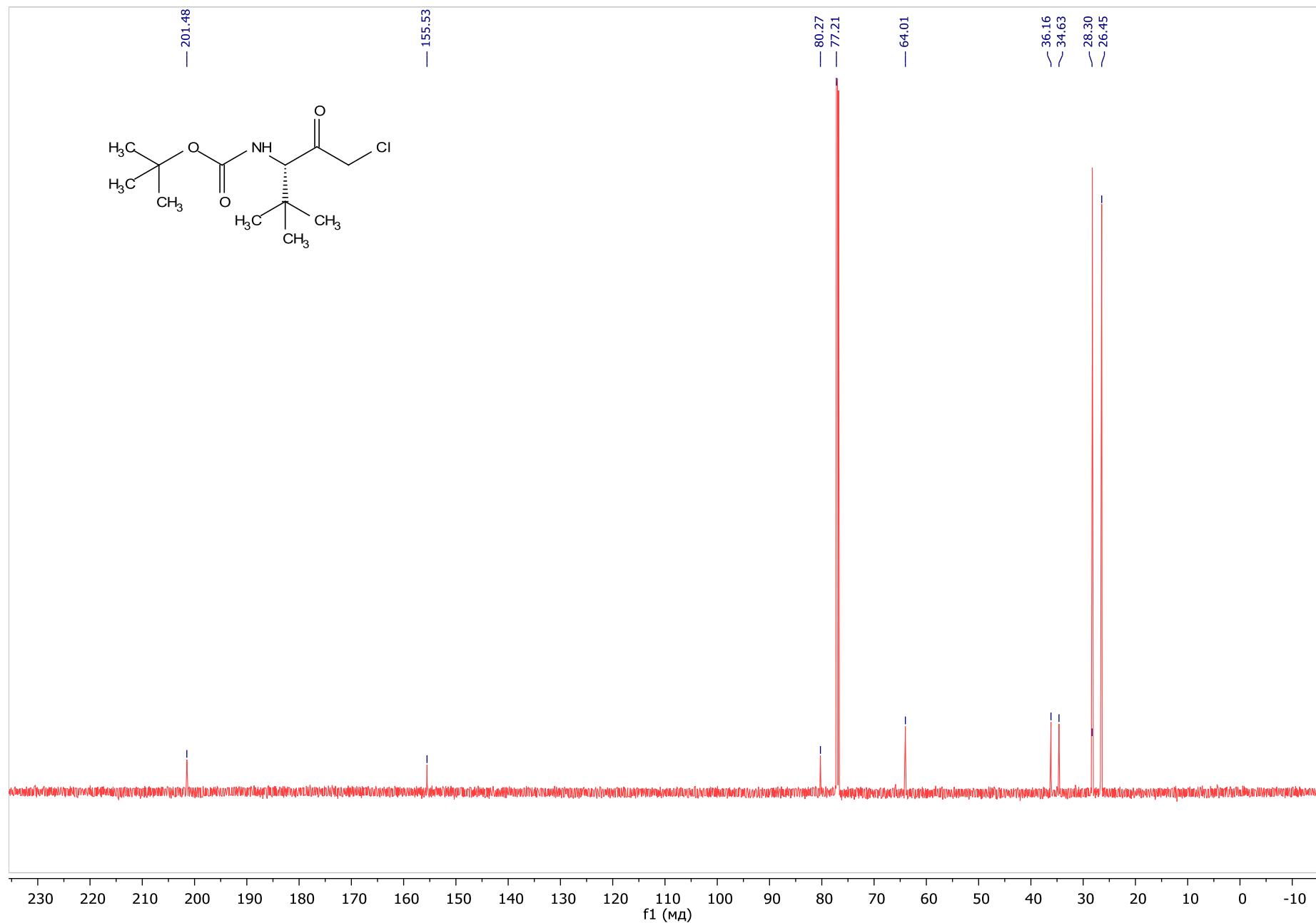


Figure 4. (S)-tert-Butyl (1-Chloro-4,4-dimethyl-2-oxopentan-3-yl)-carbamate **3b**,  $^{13}\text{C}$  NMR(101MHz,  $\text{CDCl}_3$ ).

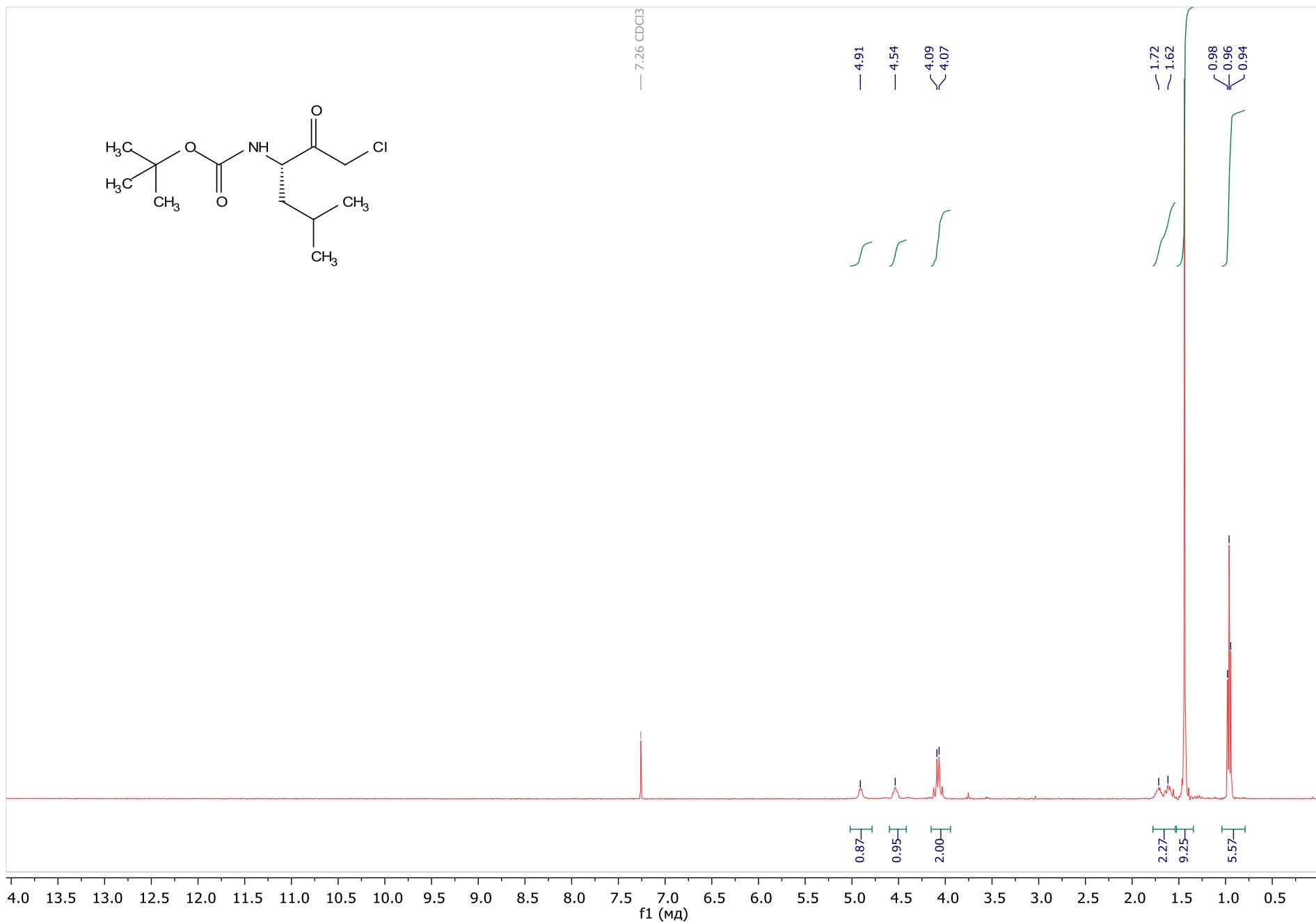


Figure 5. (S)-tert-Butyl (1-Chloro-5-methyl-2-oxohexan-3-yl)-carbamate **3c**,  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ).

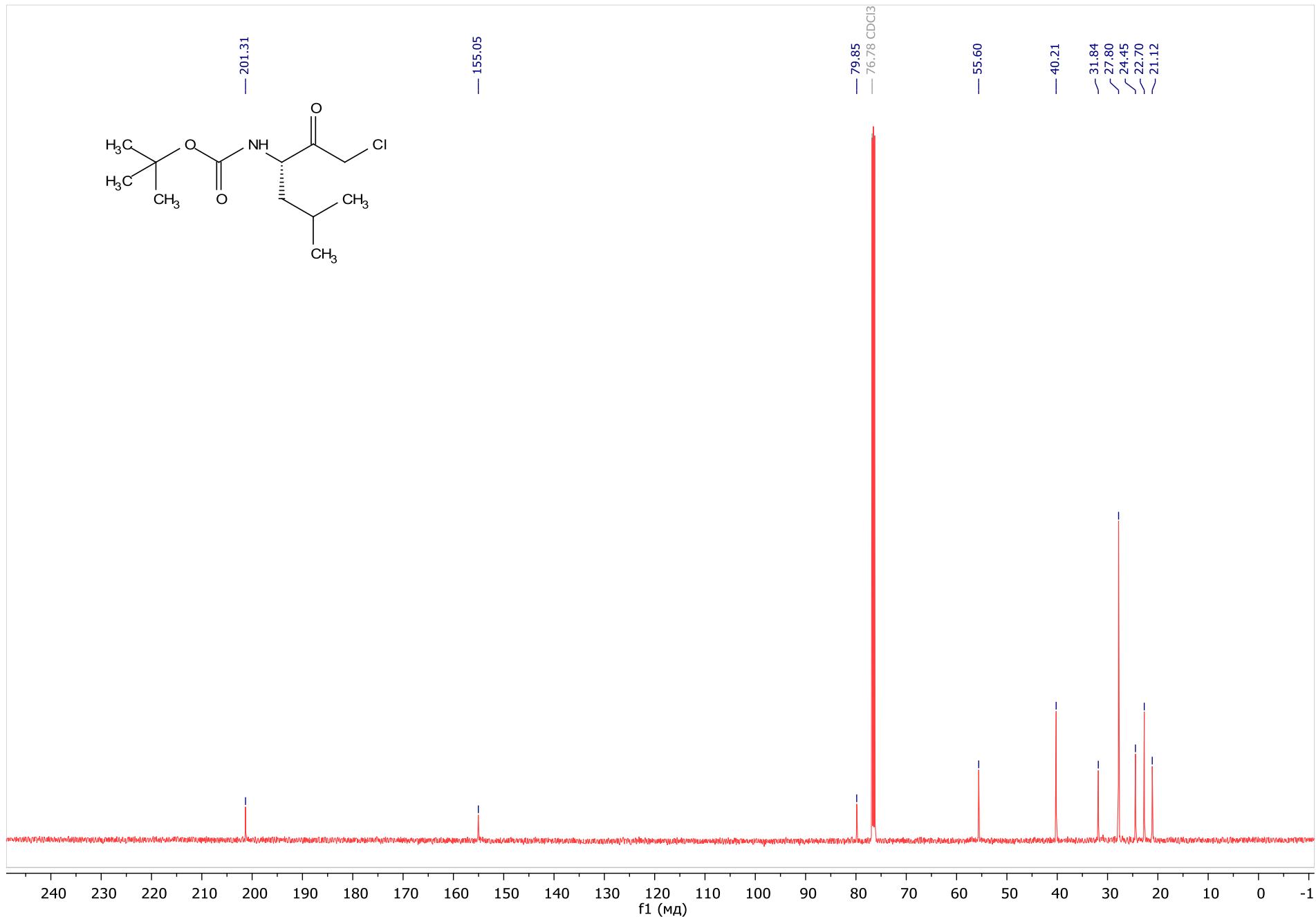


Figure 6. (S)-tert-Butyl (1-Chloro-5-methyl-2-oxohexan-3-yl)-carbamate **3c**,  $^{13}\text{C}$  NMR(101MHz,  $\text{CDCl}_3$ ).

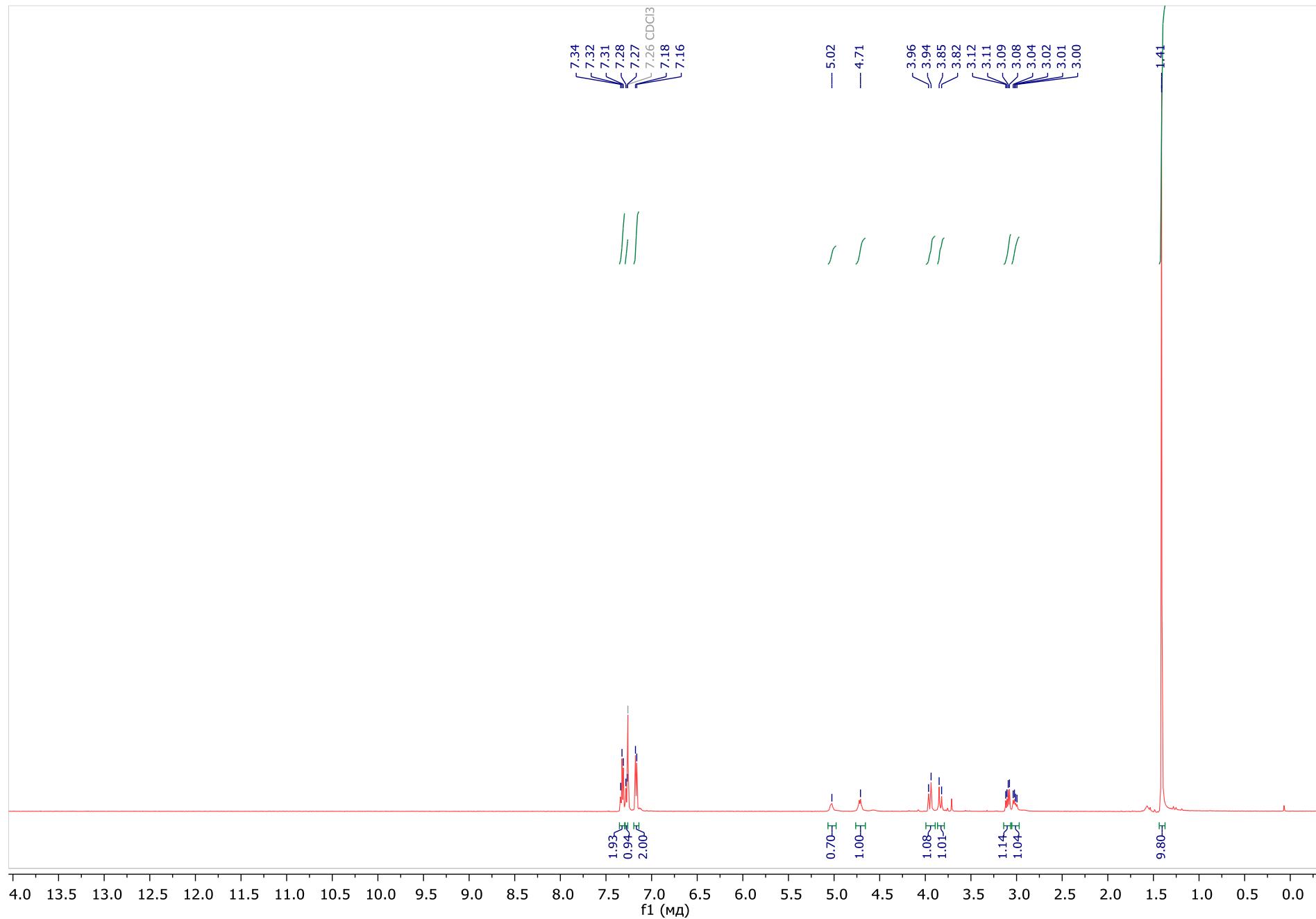


Figure 7. (S)-tert-Butyl (4-Chloro-3-oxo-1-phenylbutan-2-yl)-carbamate **3d**, <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>).

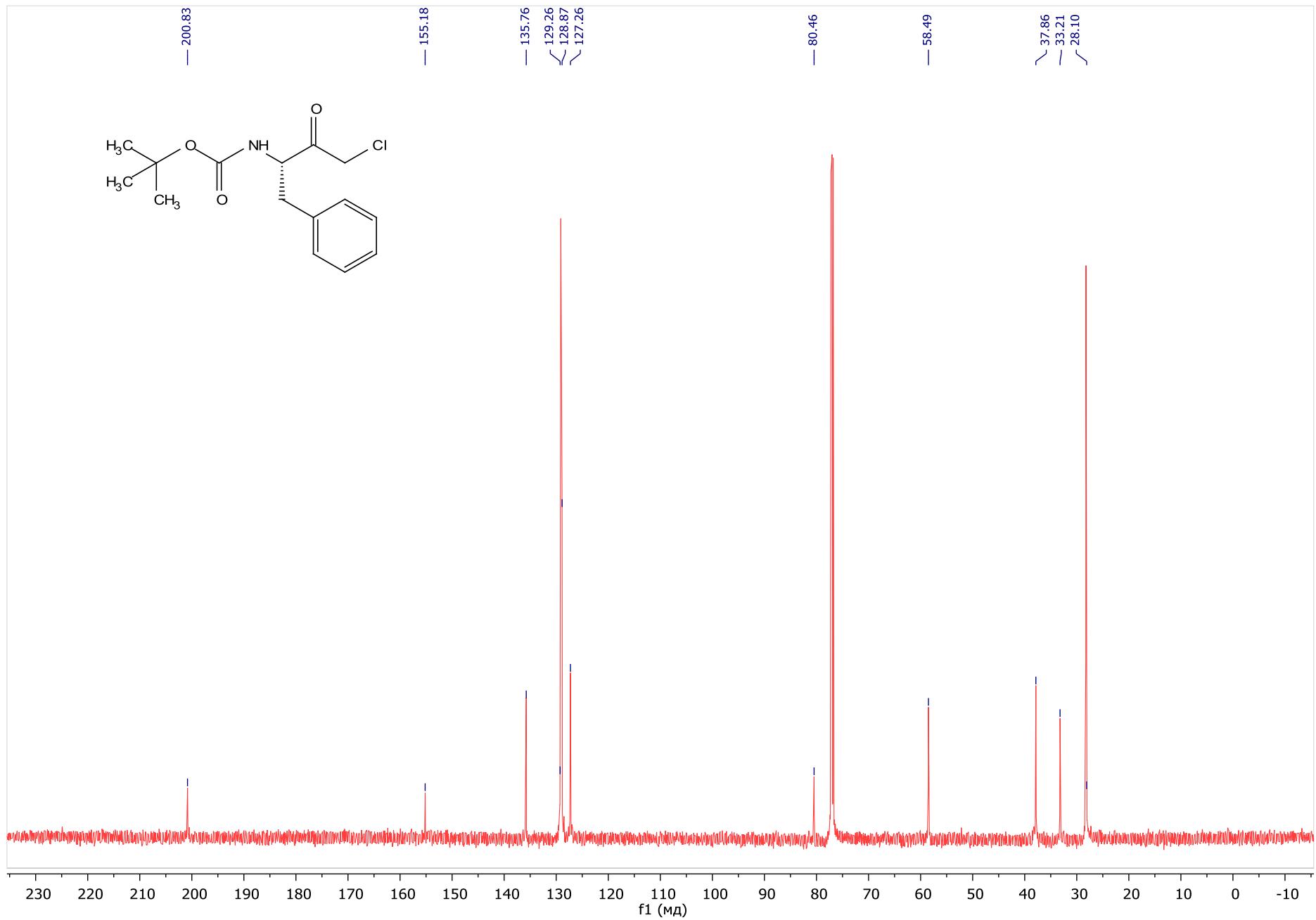


Figure 8. (S)-tert-Butyl (4-Chloro-3-oxo-1-phenylbutan-2-yl)-carbamate **3d**,  $^{13}\text{C}$  NMR(101MHz,  $\text{CDCl}_3$ ).

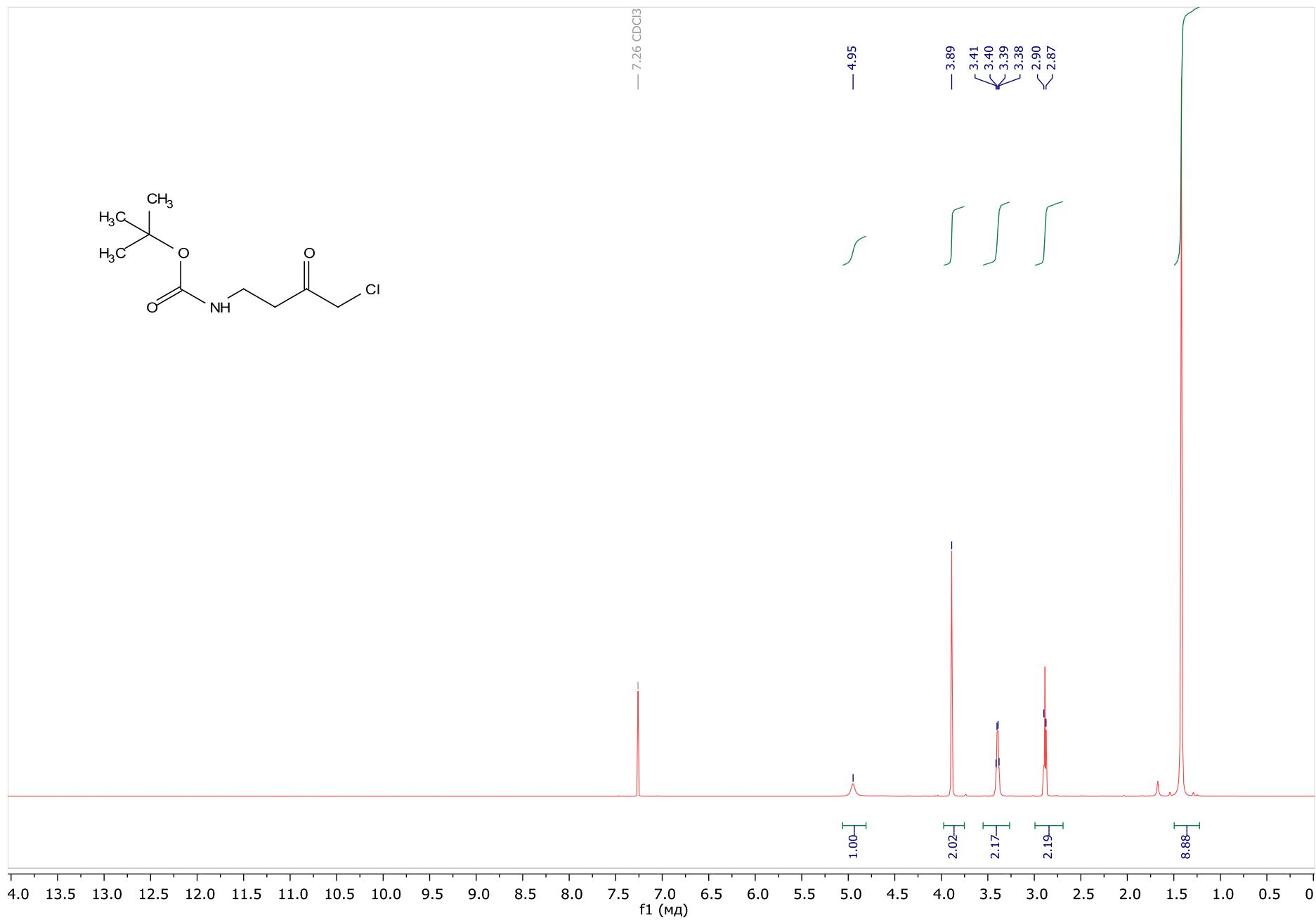


Figure 9. *tert*-Butyl (4-Chloro-3-oxobutyl)carbamate **3e**, <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>).

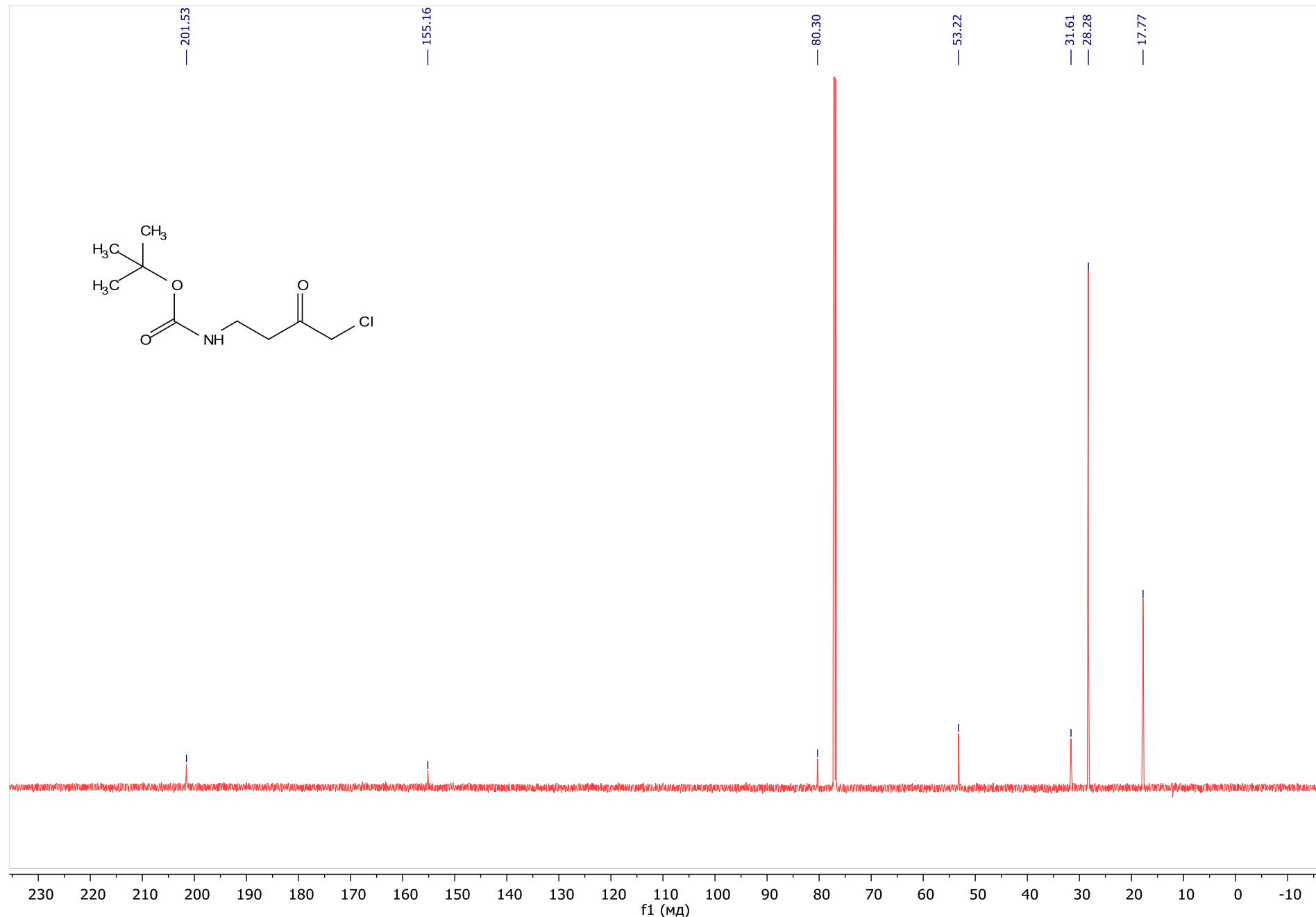


Figure 10. tert-Butyl (4-Chloro-3-oxobutyl)carbamate **3e**,  $^{13}\text{C}$  NMR(101MHz,  $\text{CDCl}_3$ ).

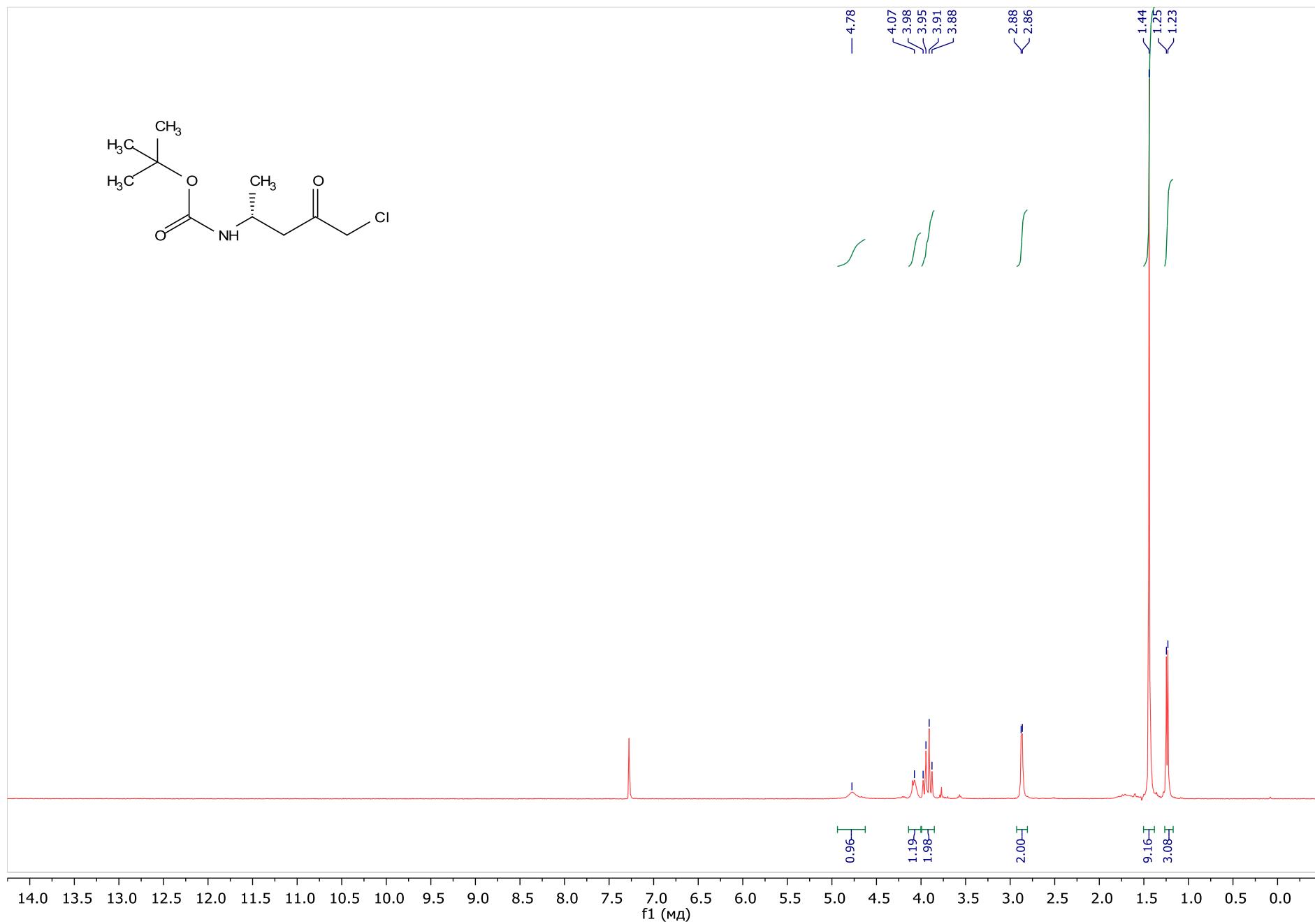


Figure 11. (*S*)-tert-Butyl (5-Chloro-4-oxopentan-2-yl)carbamate **3f**, <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>).

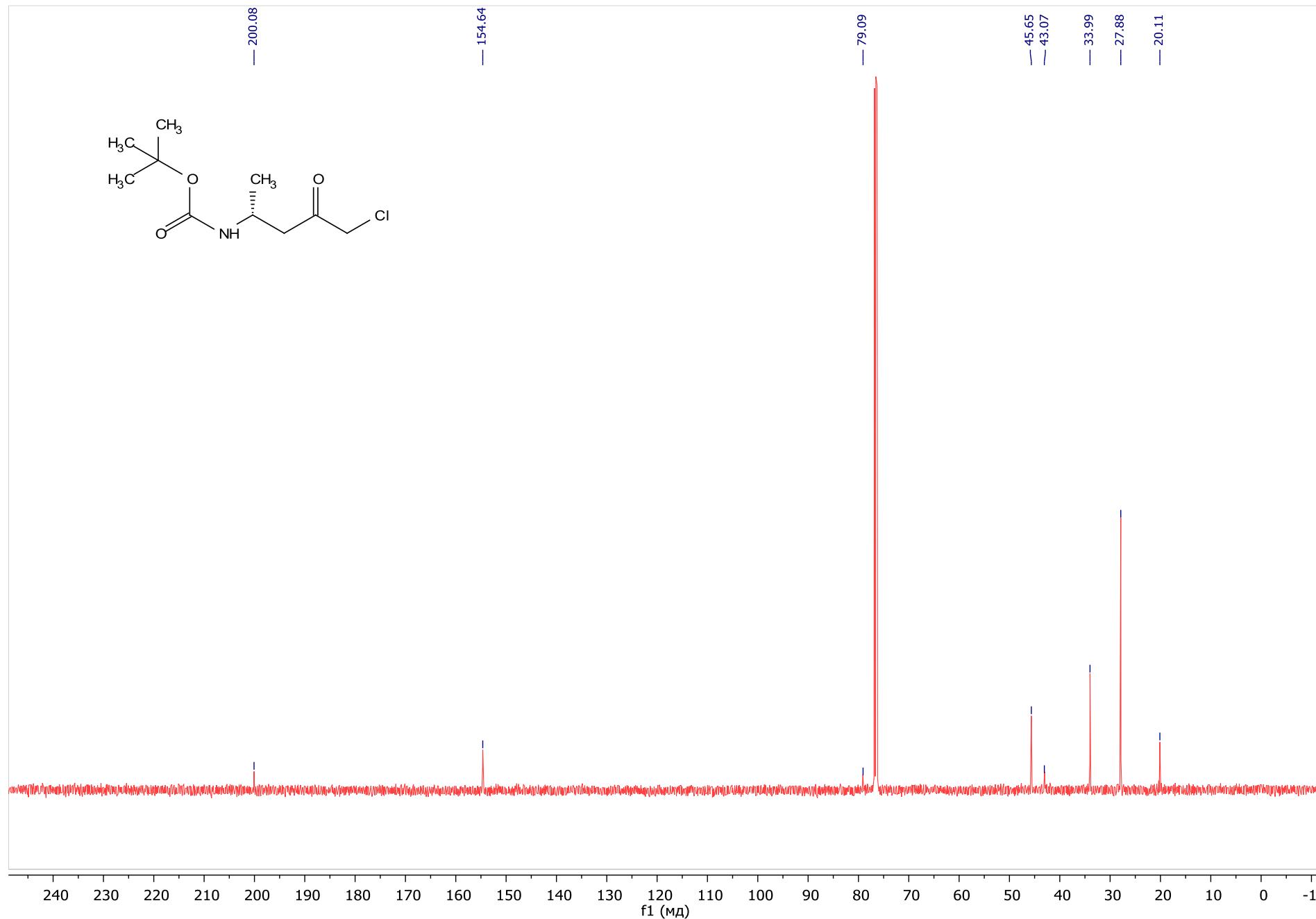


Figure 12. (S)-tert-Butyl (5-Chloro-4-oxopentan-2-yl)carbamate **3f**,  $^{13}\text{C}$  NMR(101MHz,  $\text{CDCl}_3$ ).

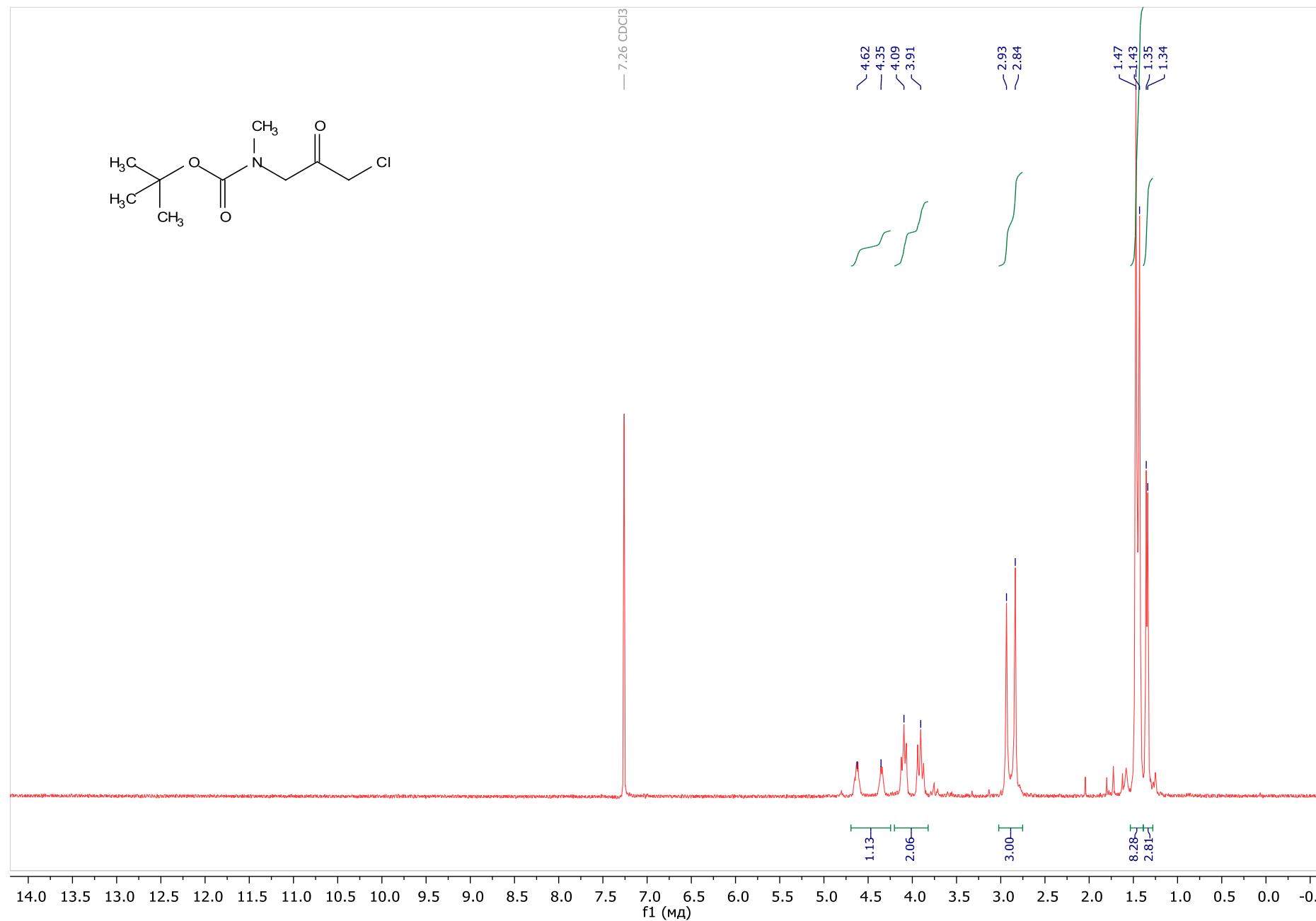


Figure 13. tert-Butyl (3-Chloro-2-oxopropyl)(methyl)carbamate **3g**, <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>).

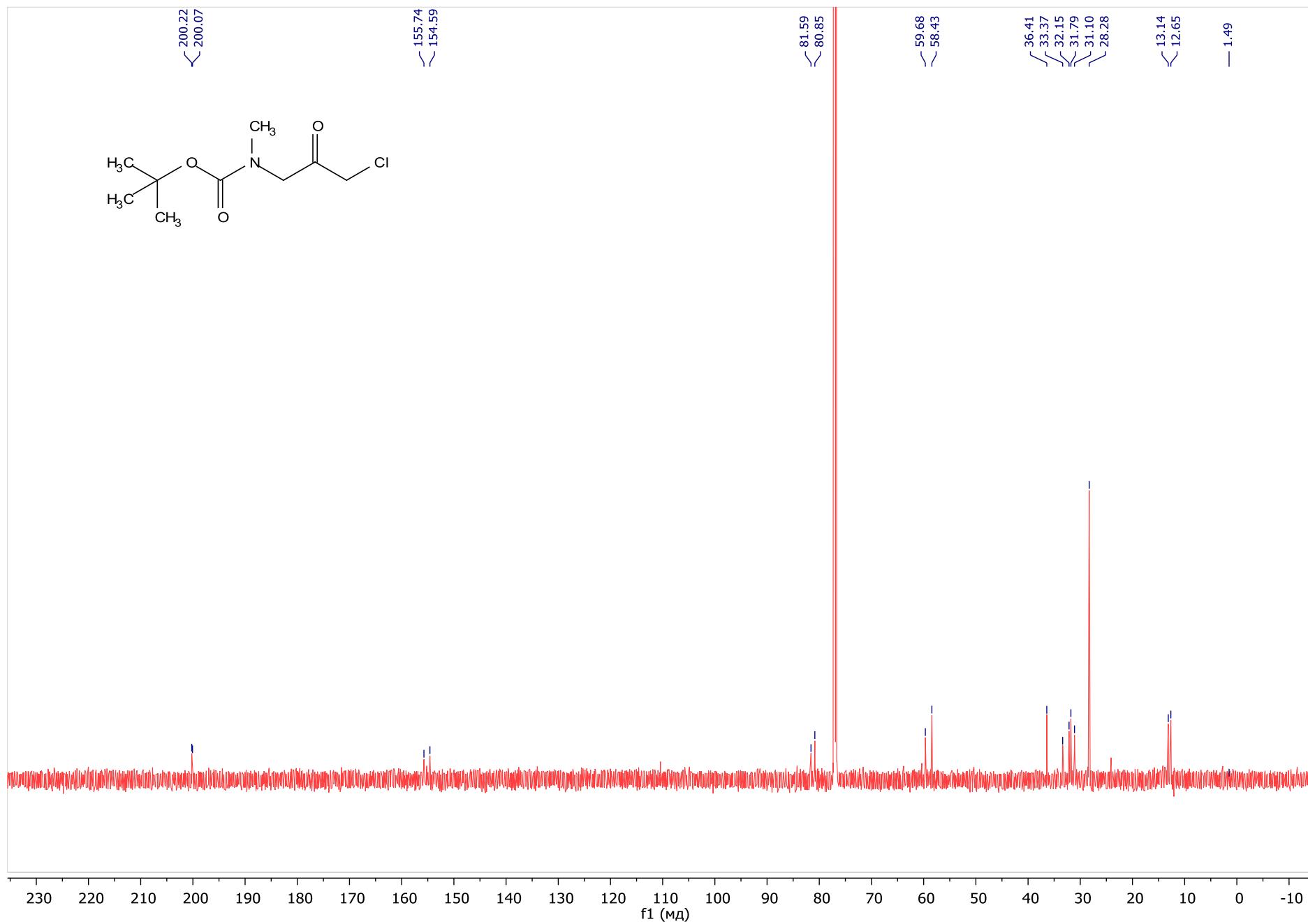


Figure 14. tert-Butyl (3-Chloro-2-oxopropyl)(methyl)carbamate **3g**,  $^{13}\text{C}$  NMR(101MHz,  $\text{CDCl}_3$ ).

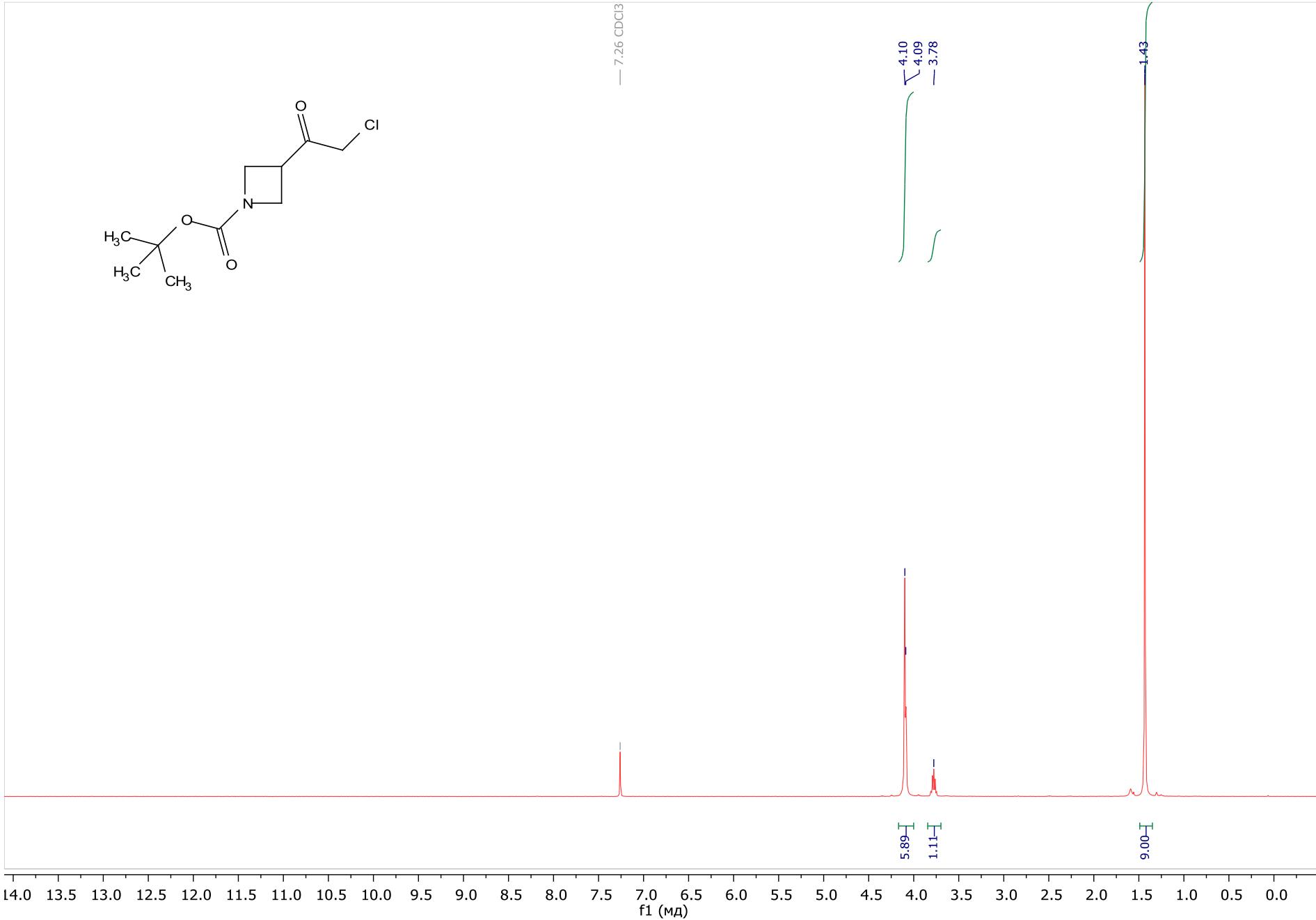


Figure 15. *tert*-Butyl 3-(2-Chloroacetyl)azetidine-1-carboxylate **3h**,  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ).

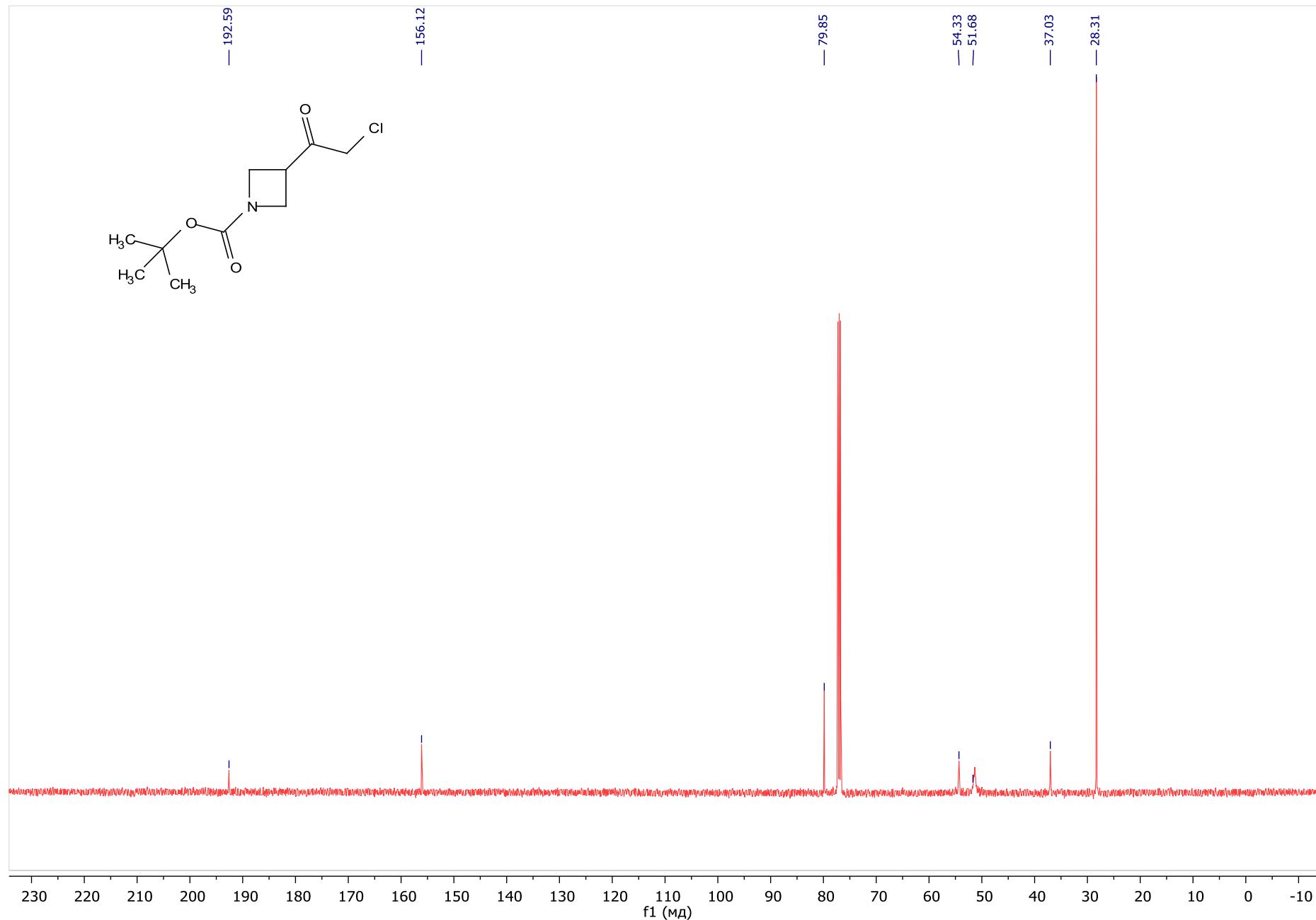


Figure 16. tert-Butyl 3-(2-Chloroacetyl)azetidine-1-carboxylate **3h**,  $^{13}\text{C}$  NMR(101MHz,  $\text{CDCl}_3$ ).