

Enantiopure synthesis of side chain modified α -amino acids and 5-*cis*-alkyl prolines

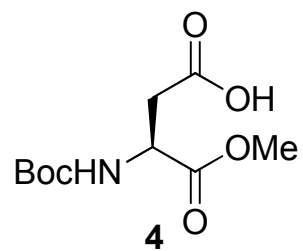
Amar Mohite and Ramakrishna G. Bhat*

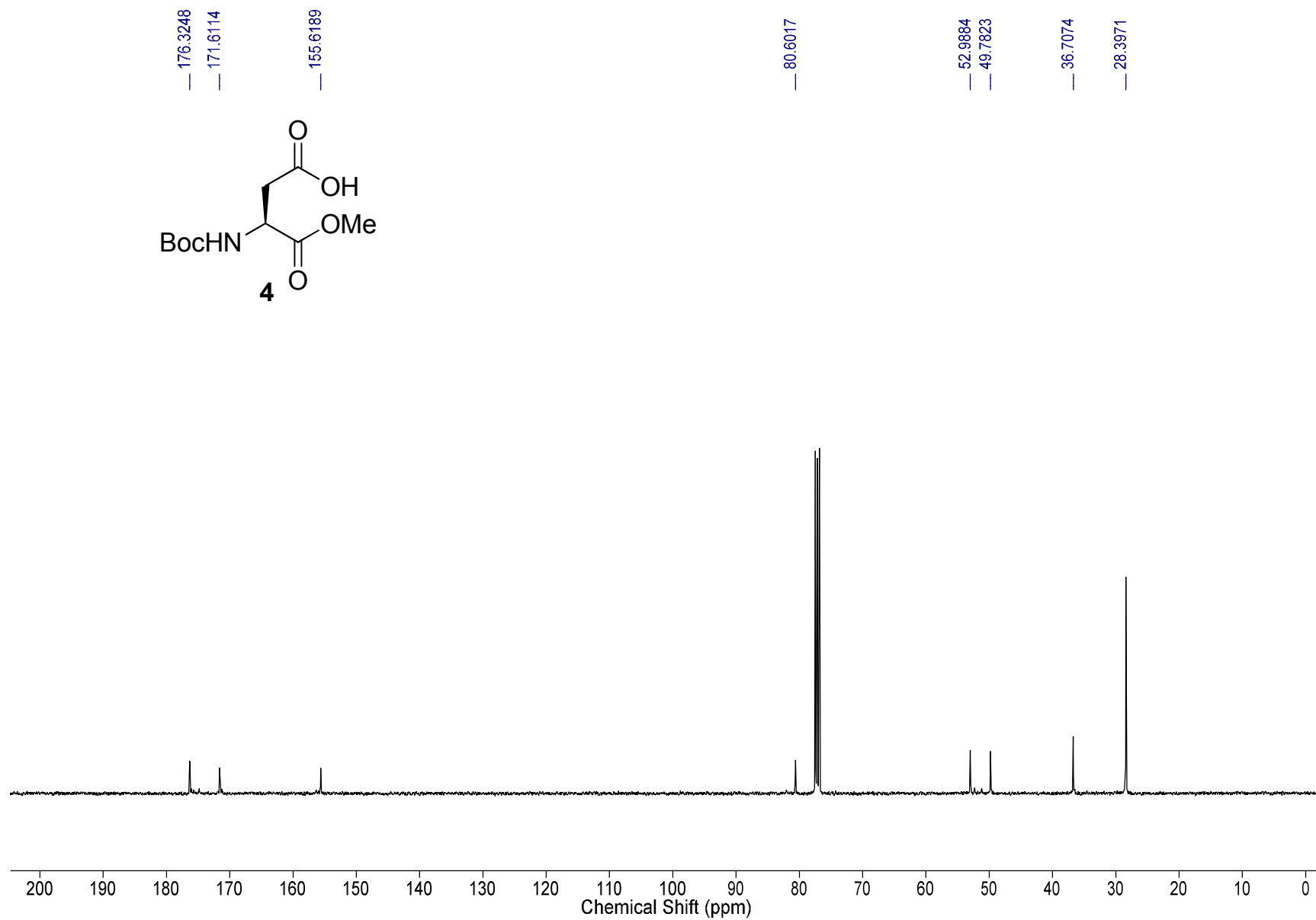
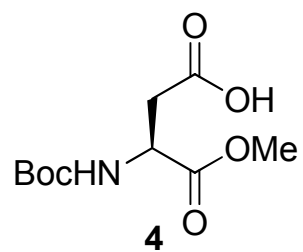
Mendeleev Block, Department of Chemistry, Indian Institute of Science Education and Research (IISER), Pune, Maharashtra, India,

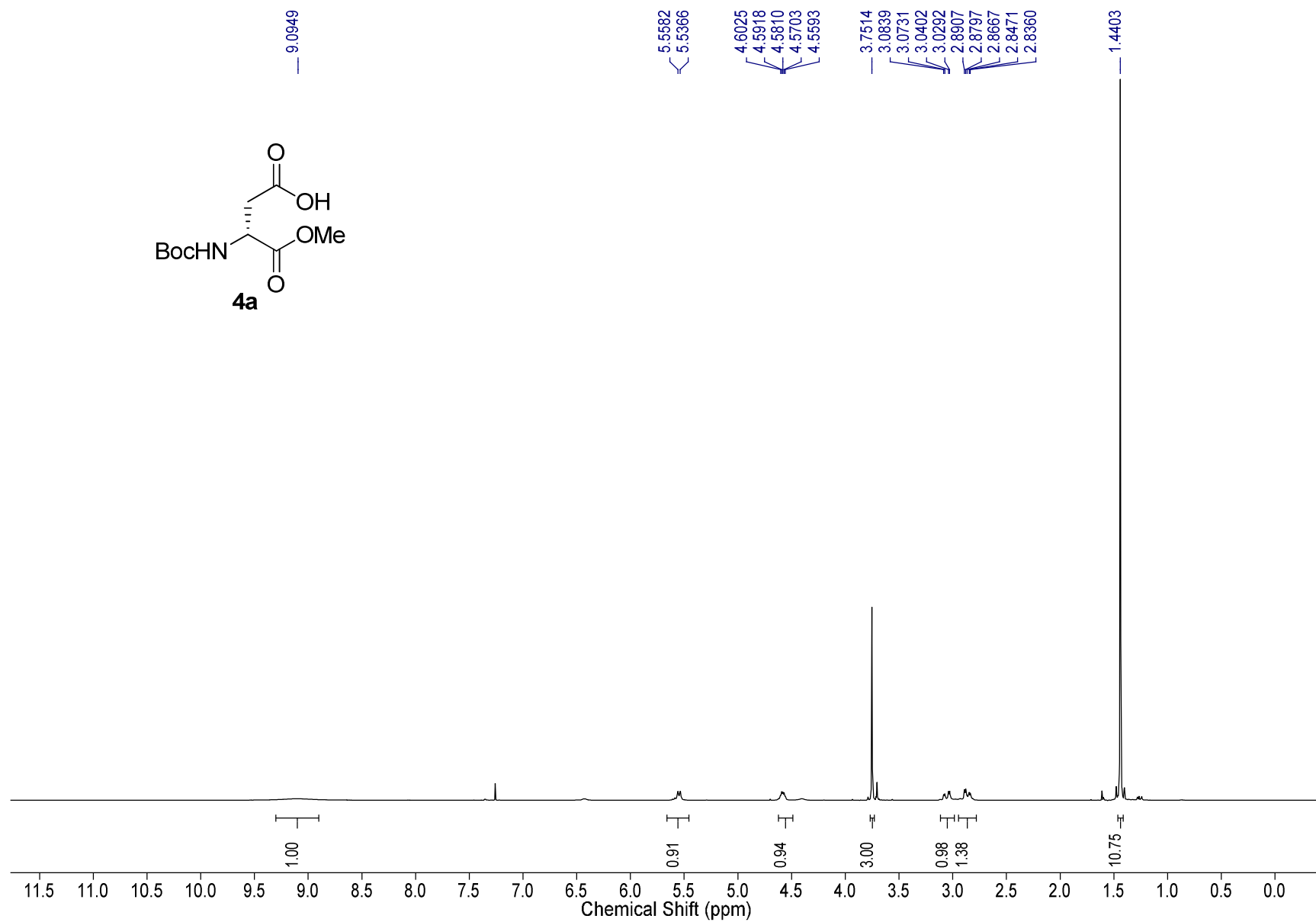
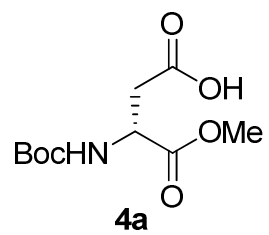
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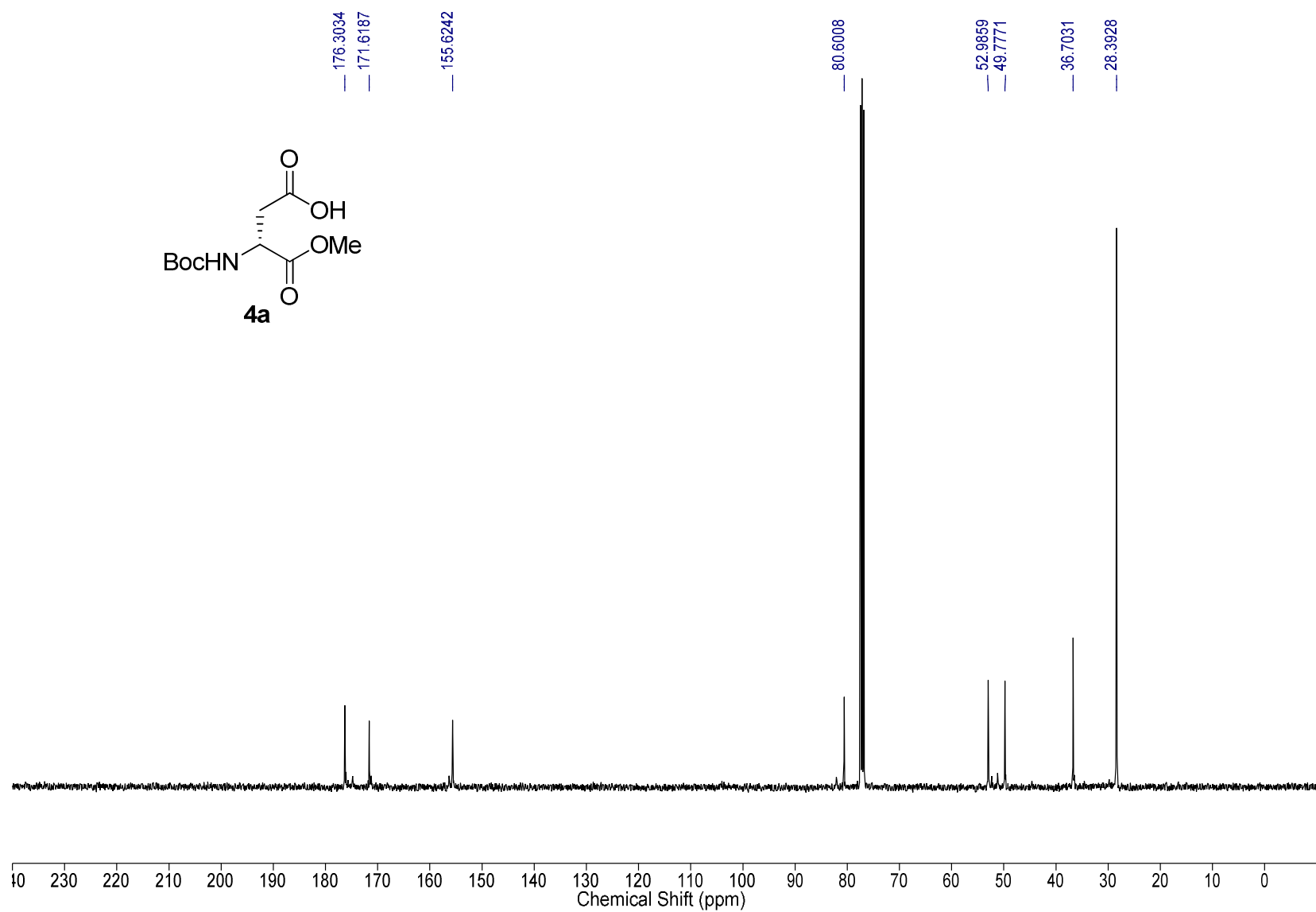
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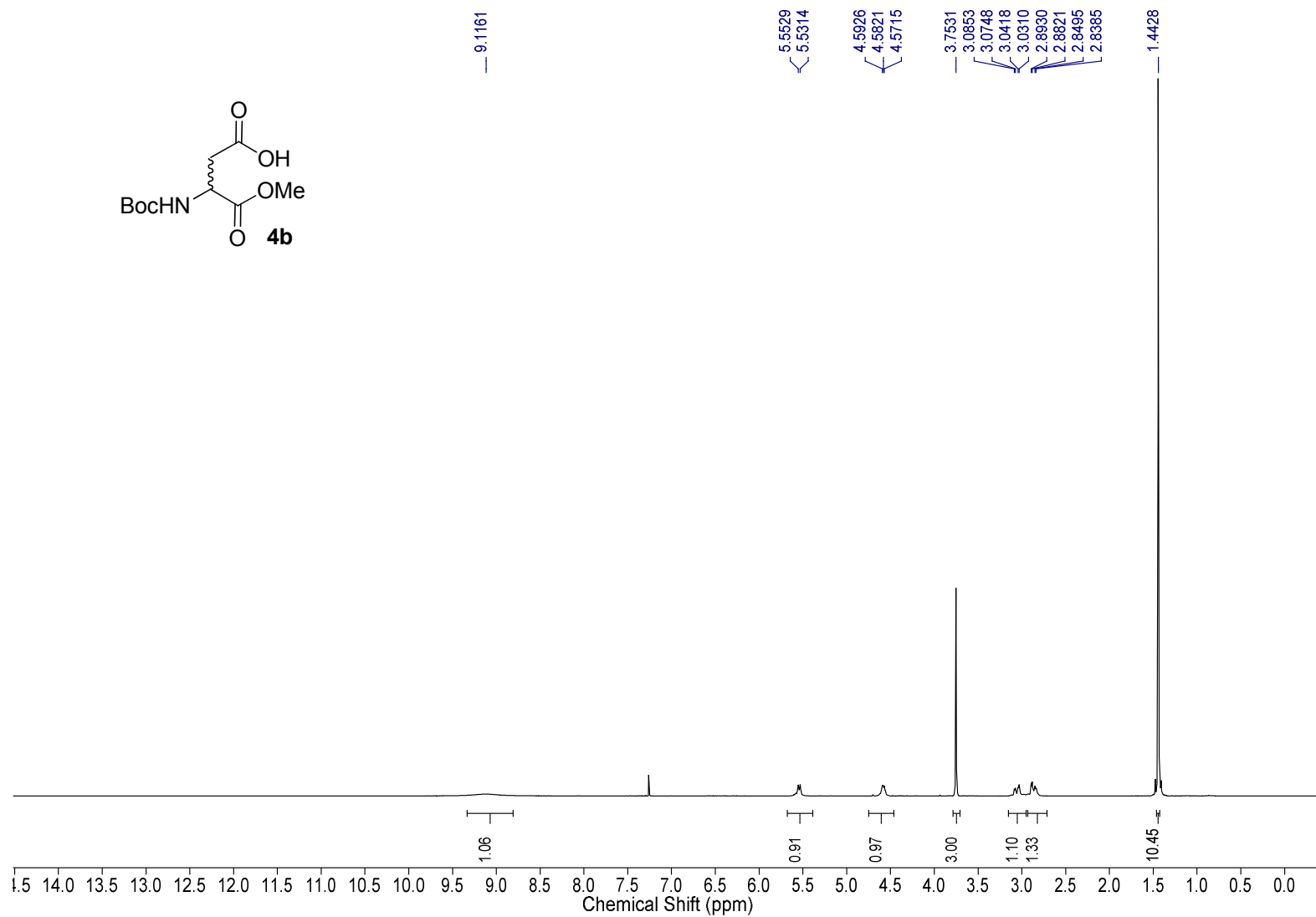
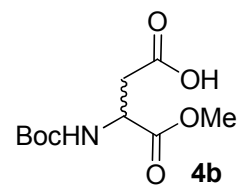
(A) Spectra.....	S2-S46
(B) HMQC Spectra of 11.....	S47
(C) NOE spectra of 11.....	S48-52
(D) HPLC Chromatograms of 1, 1a, 1b.....	S53-S55

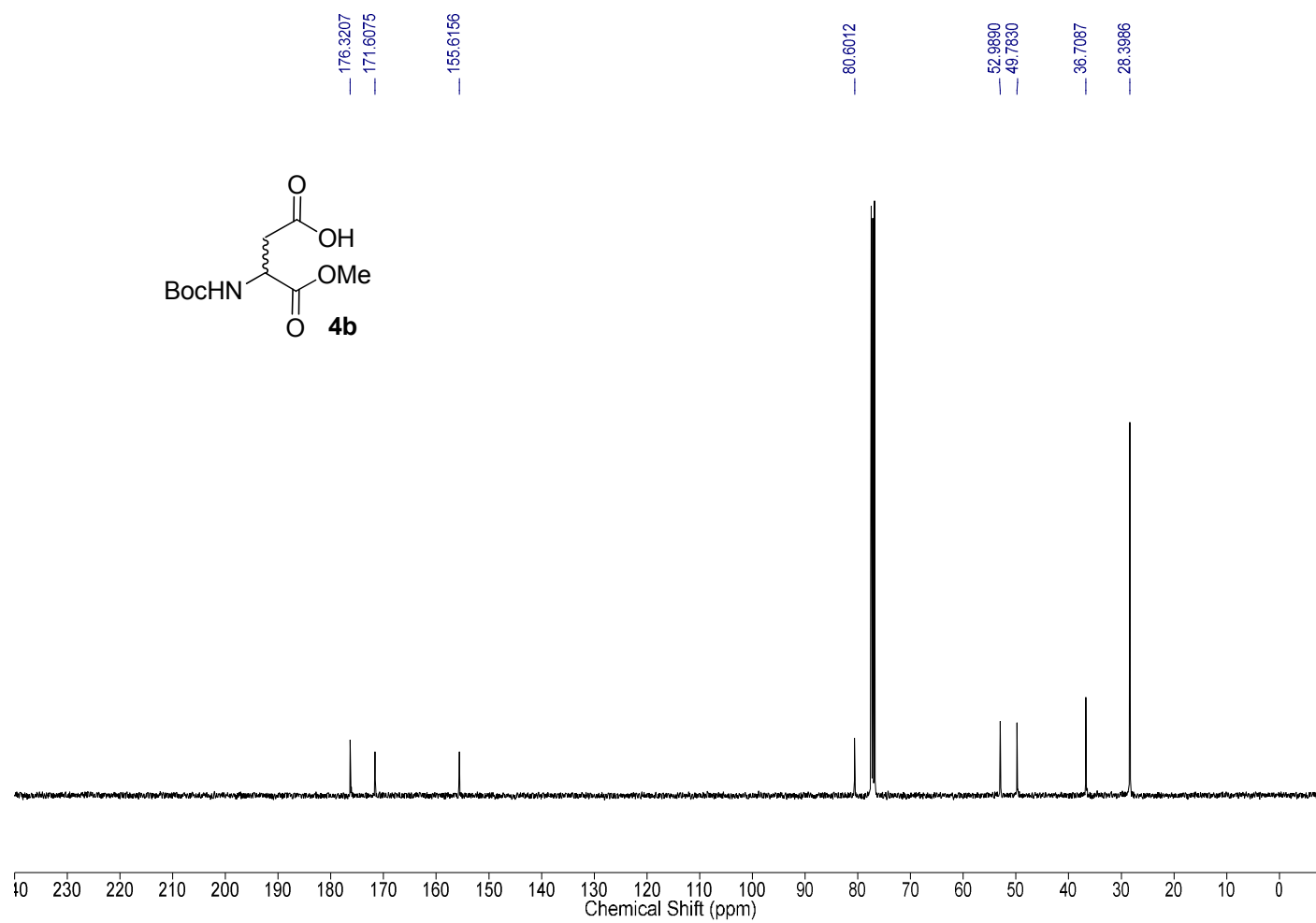


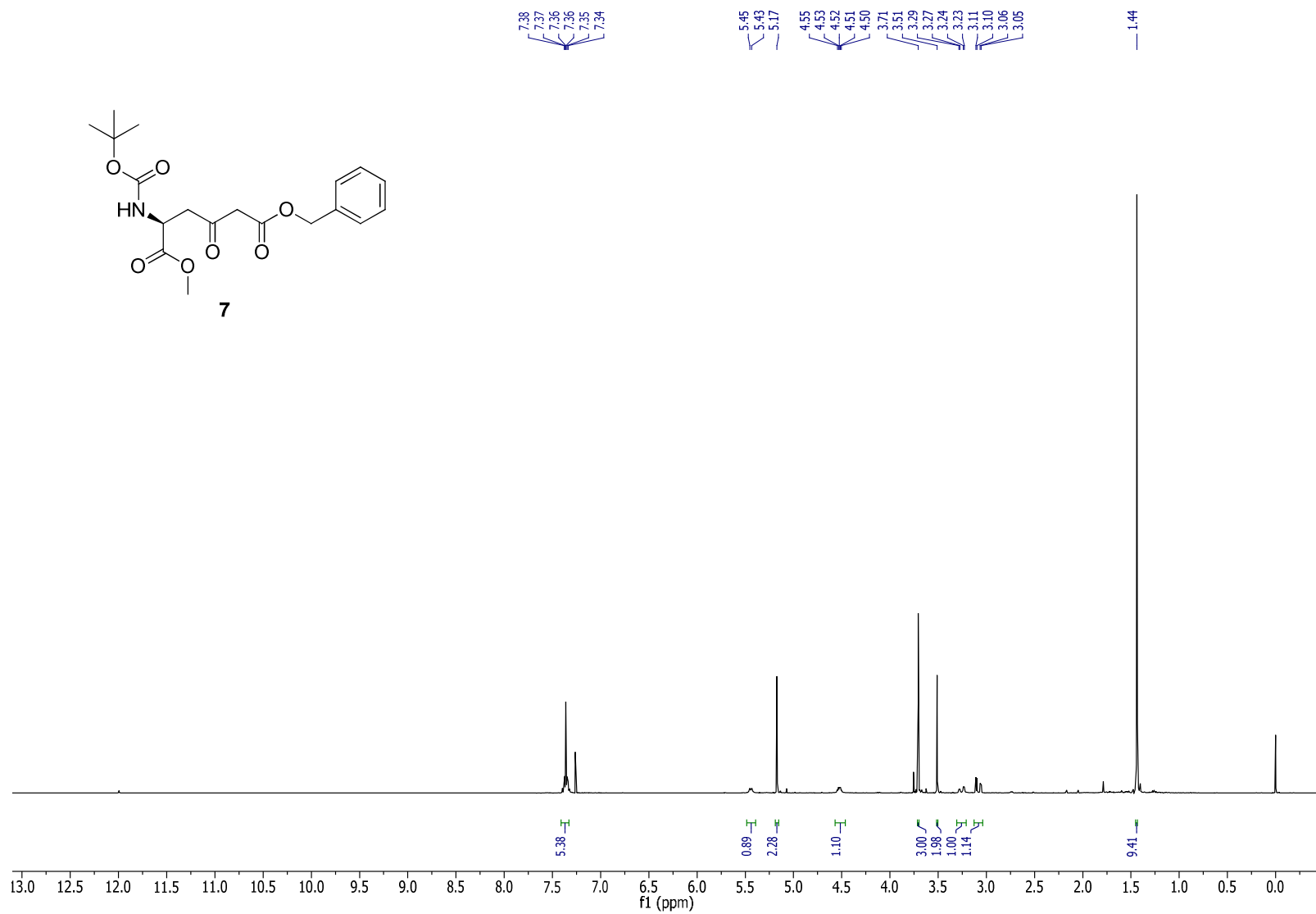


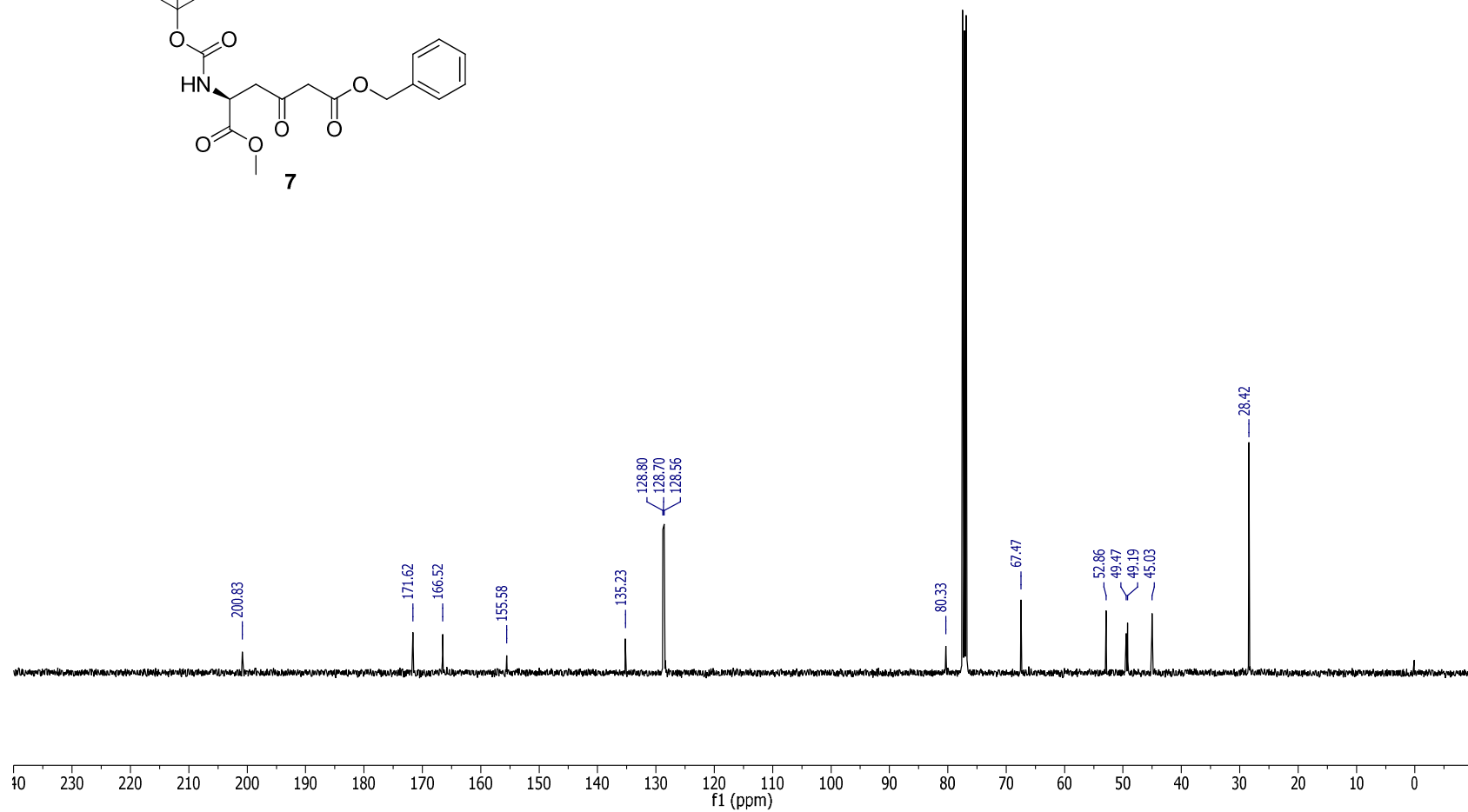
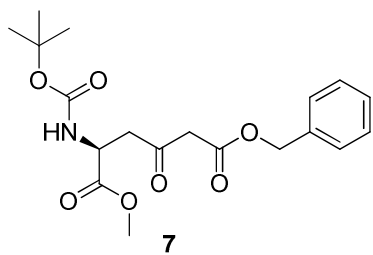


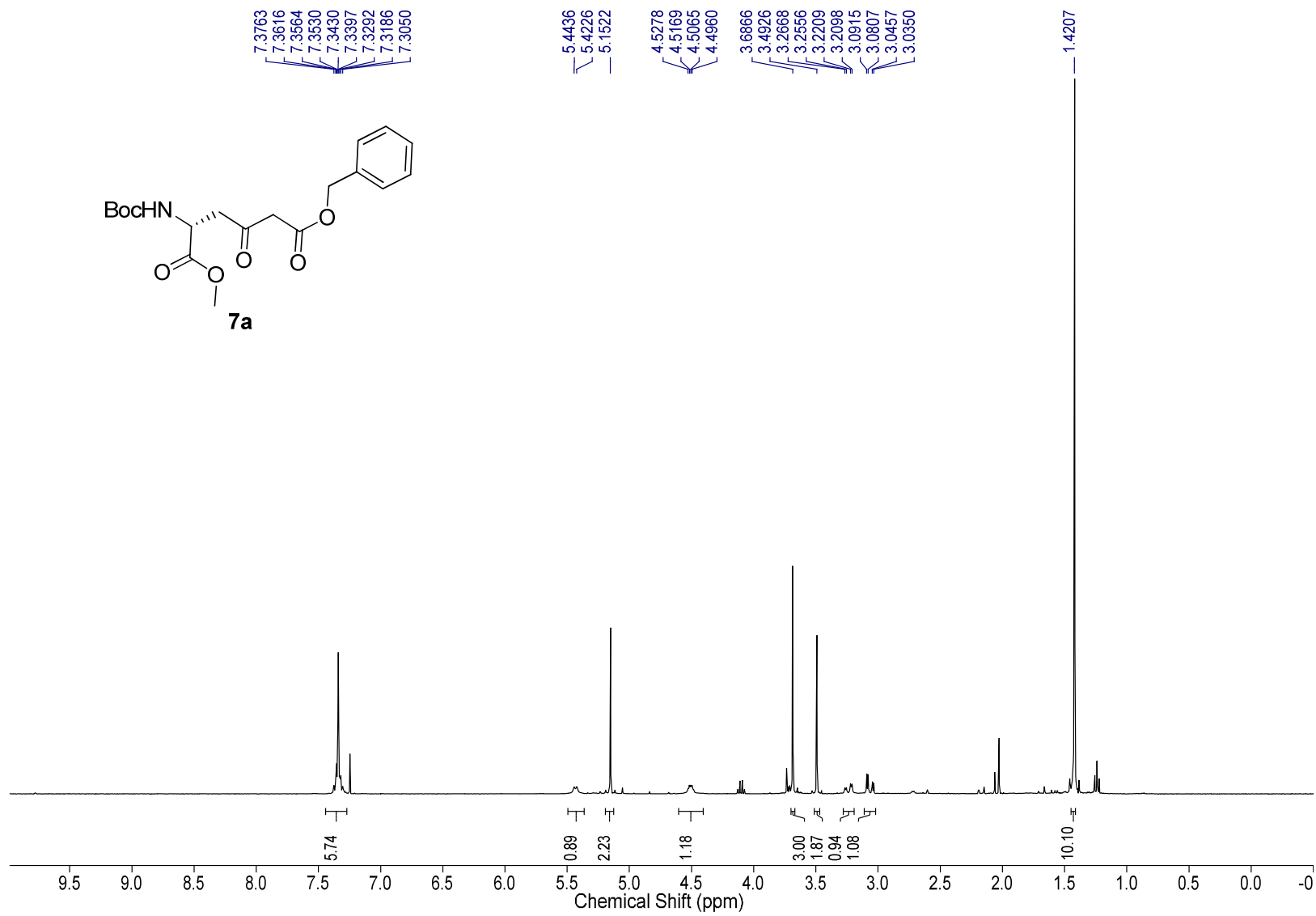


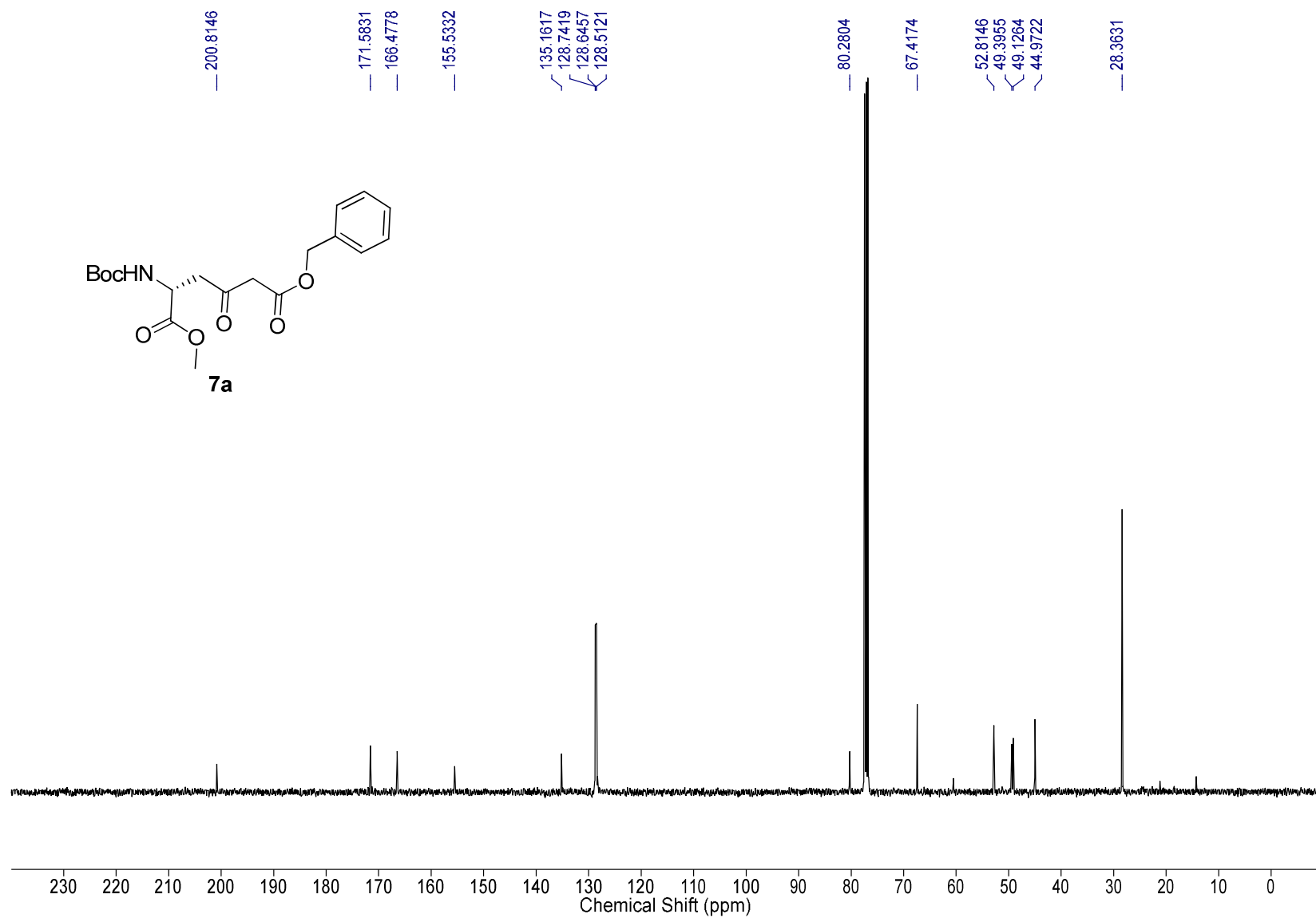


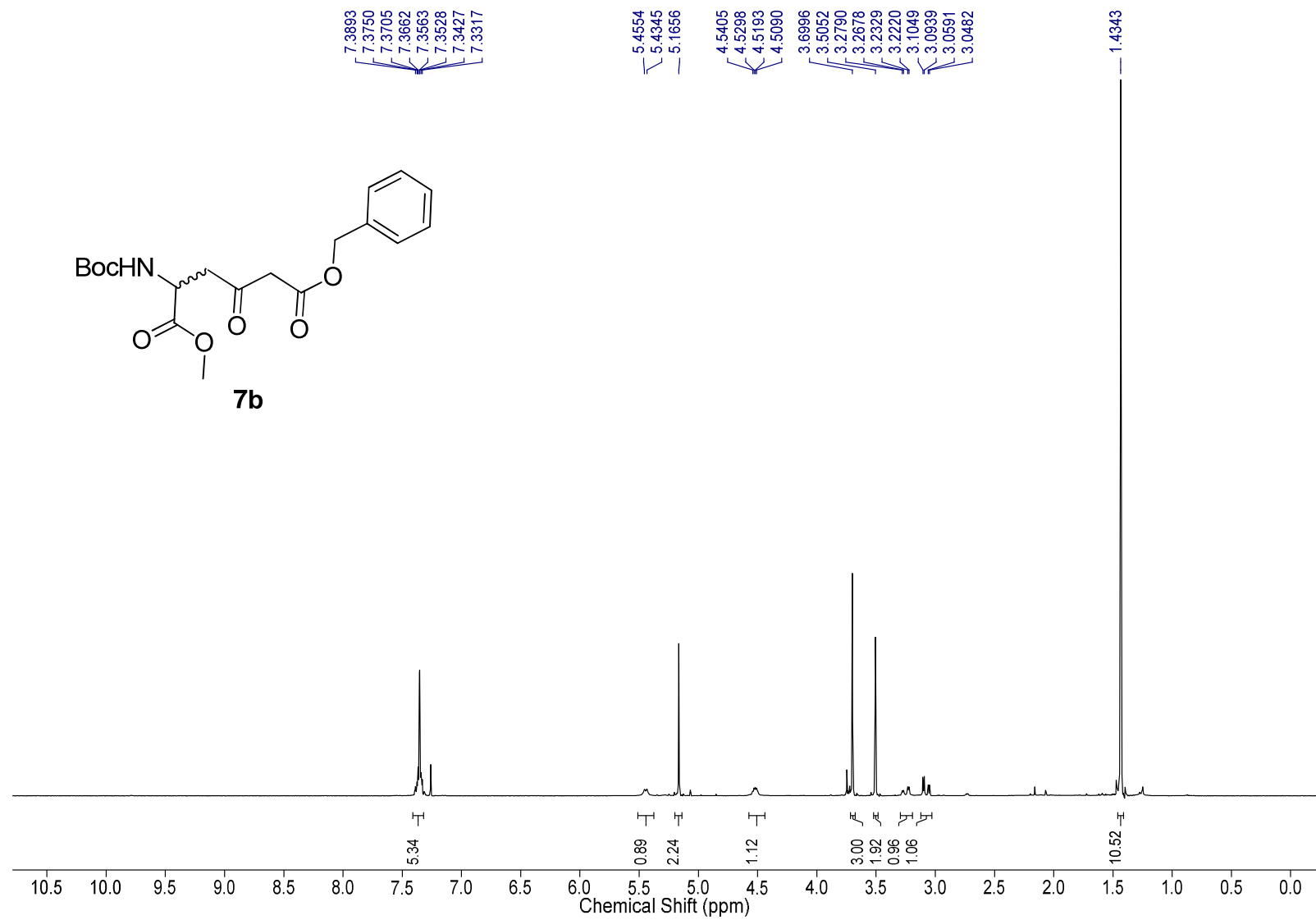


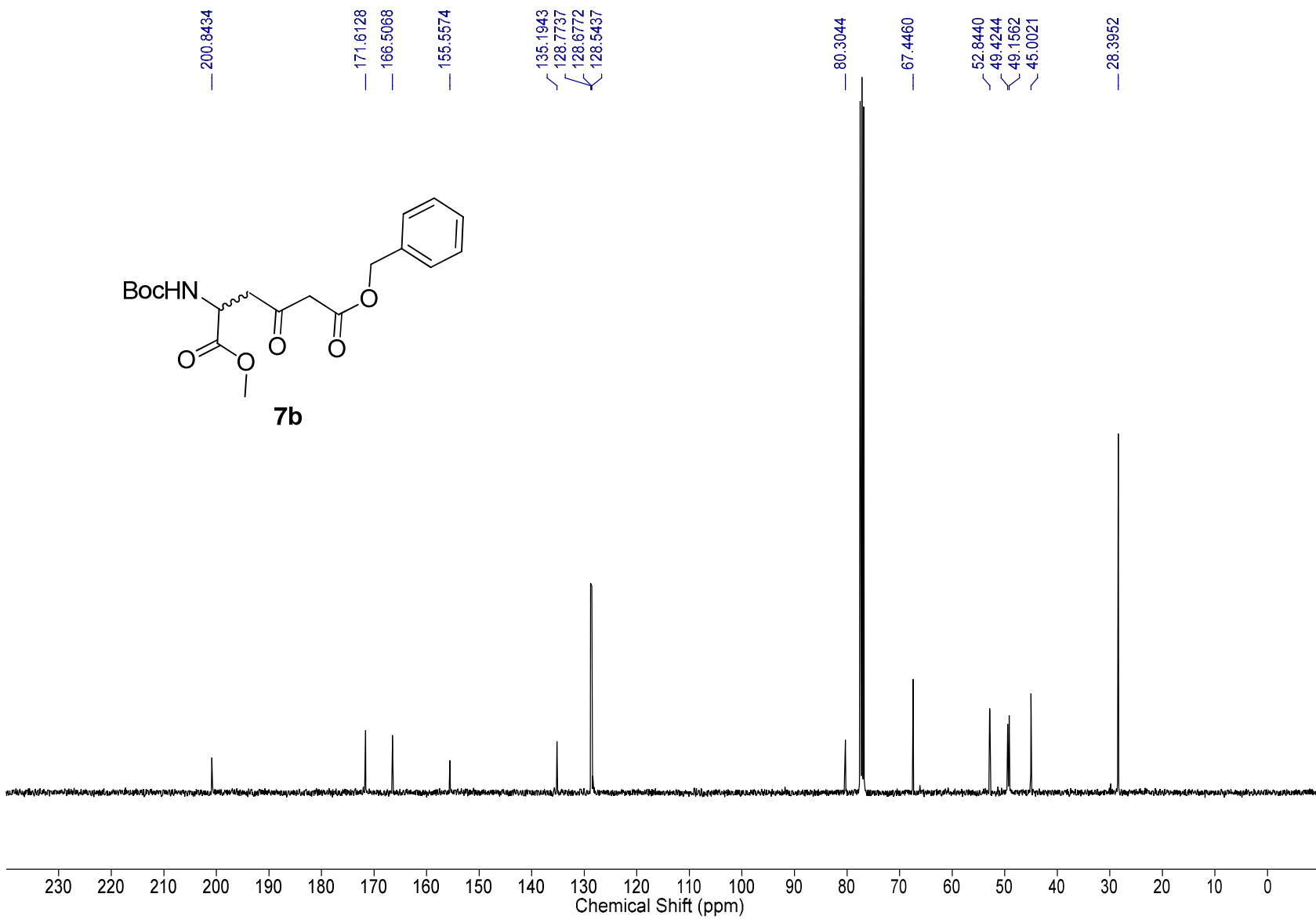




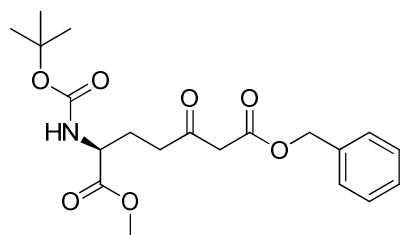




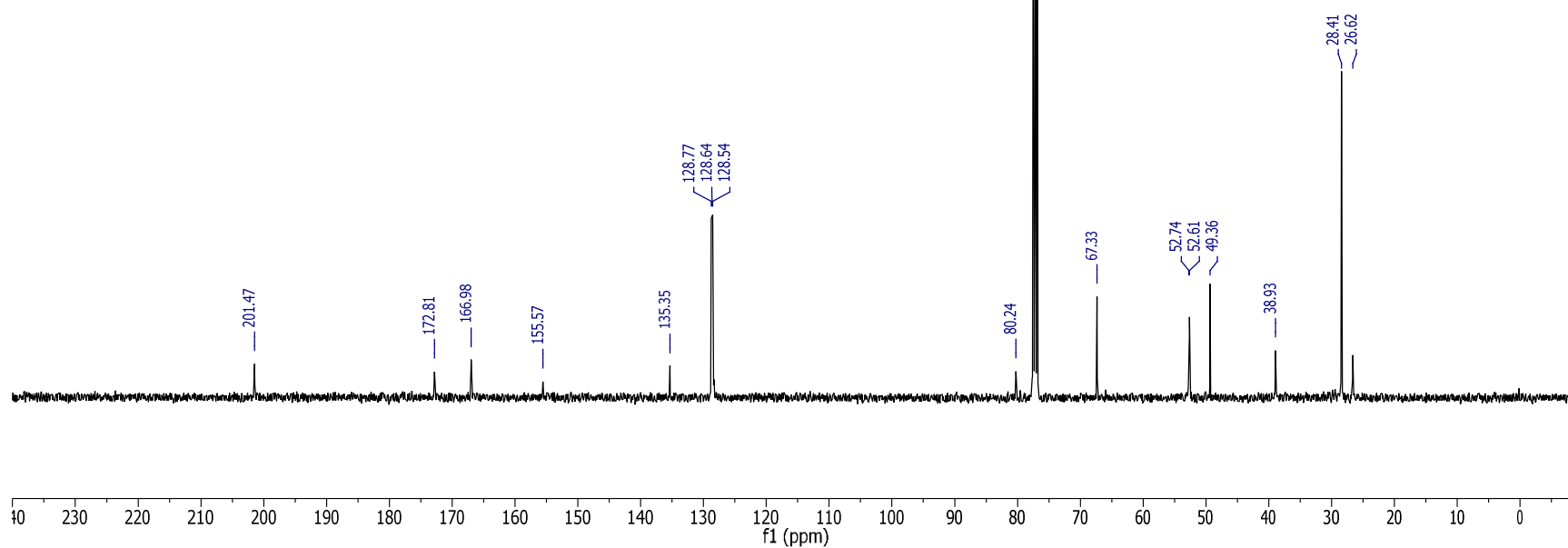


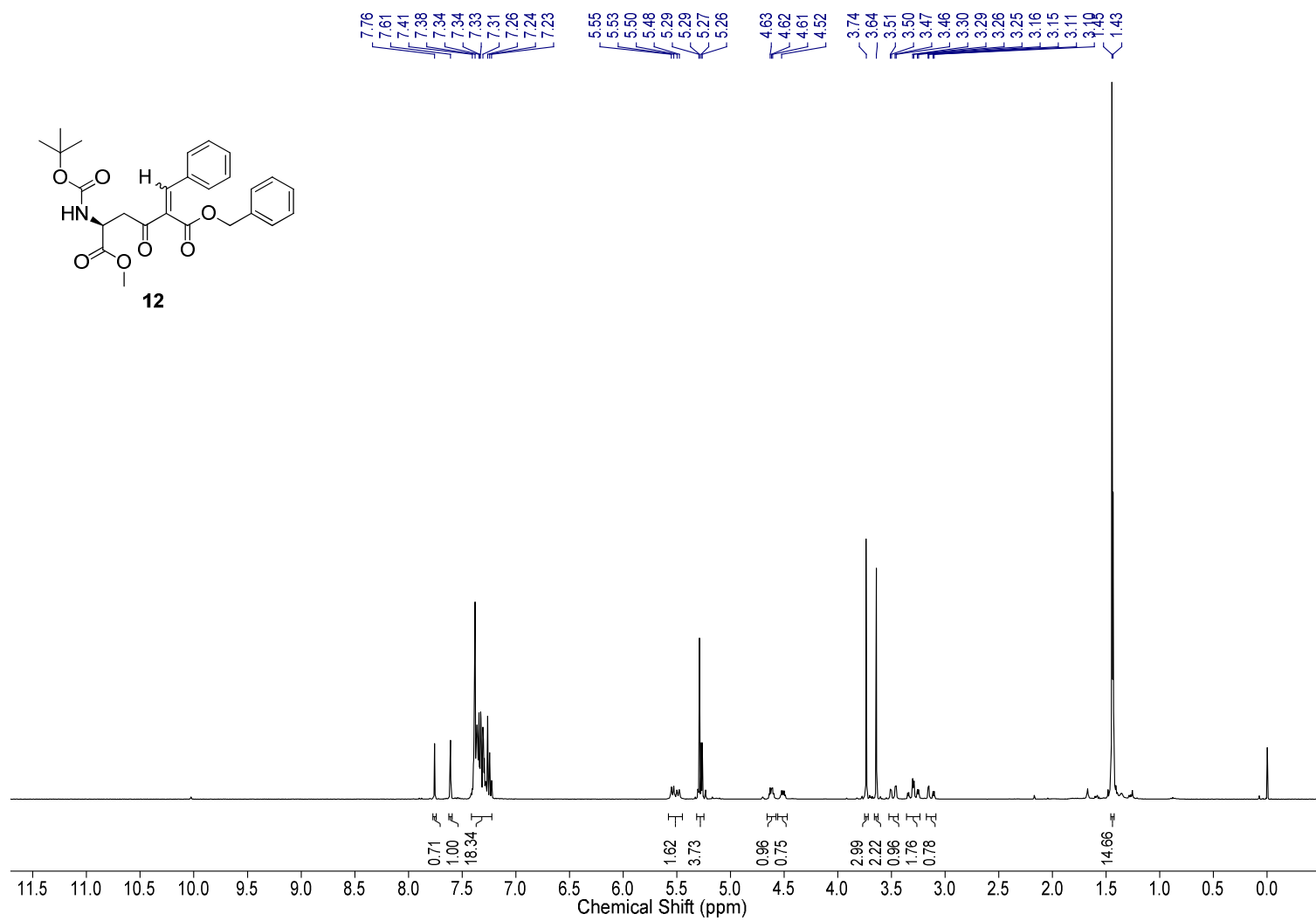


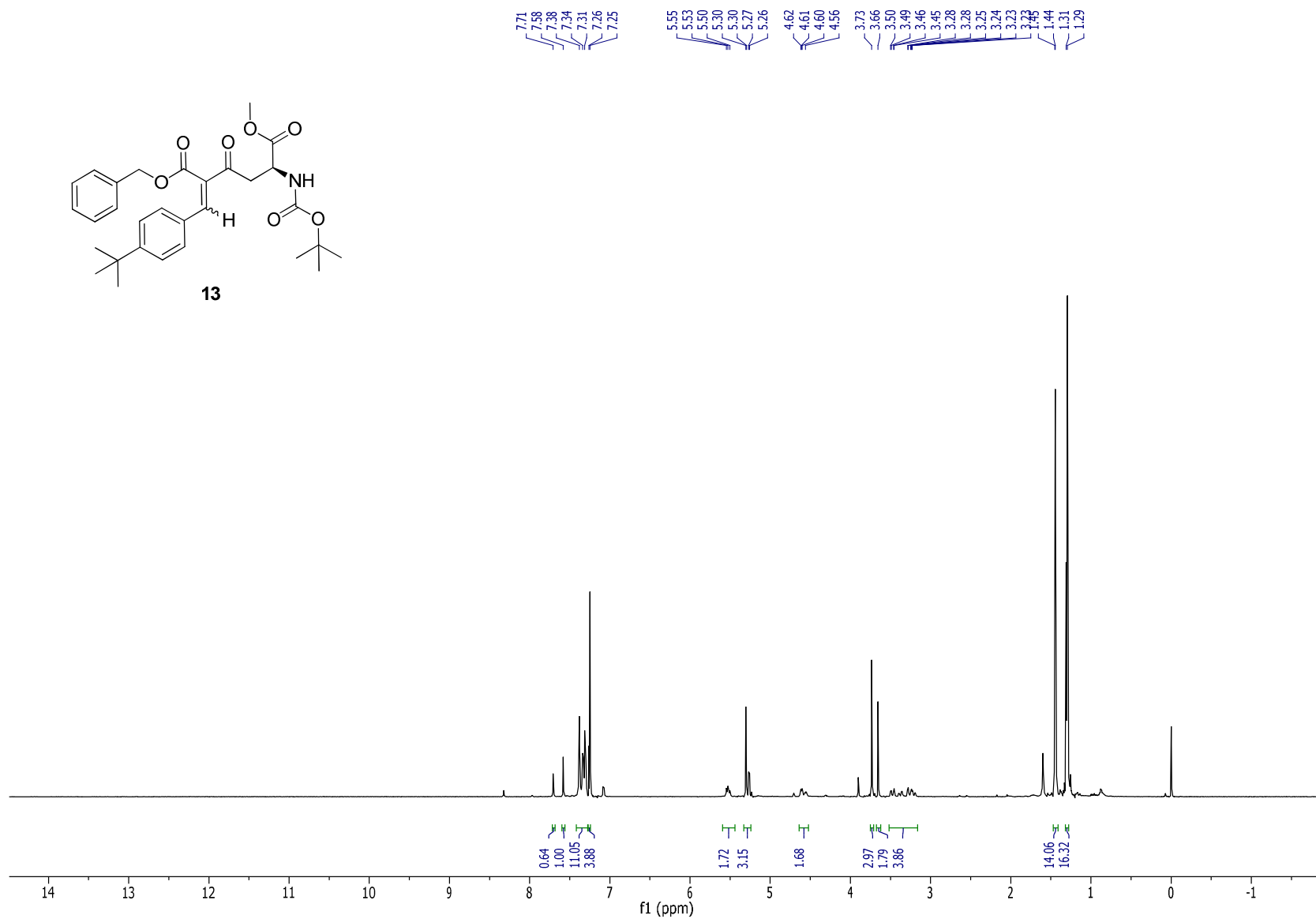
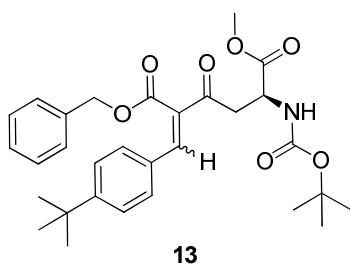


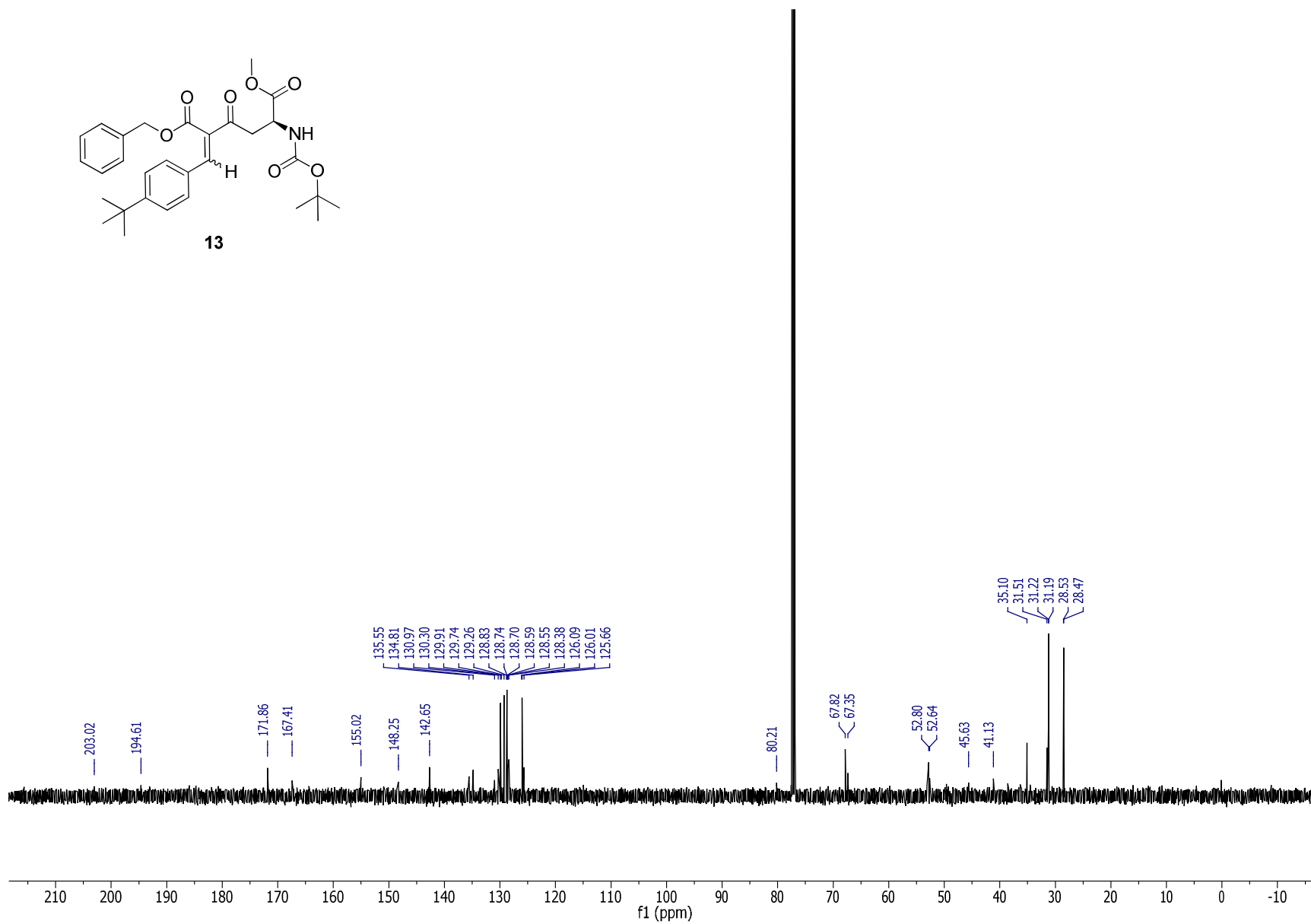
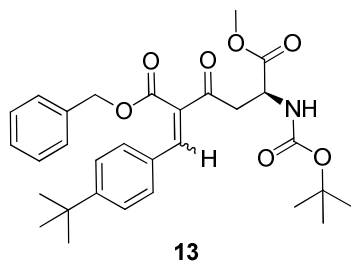


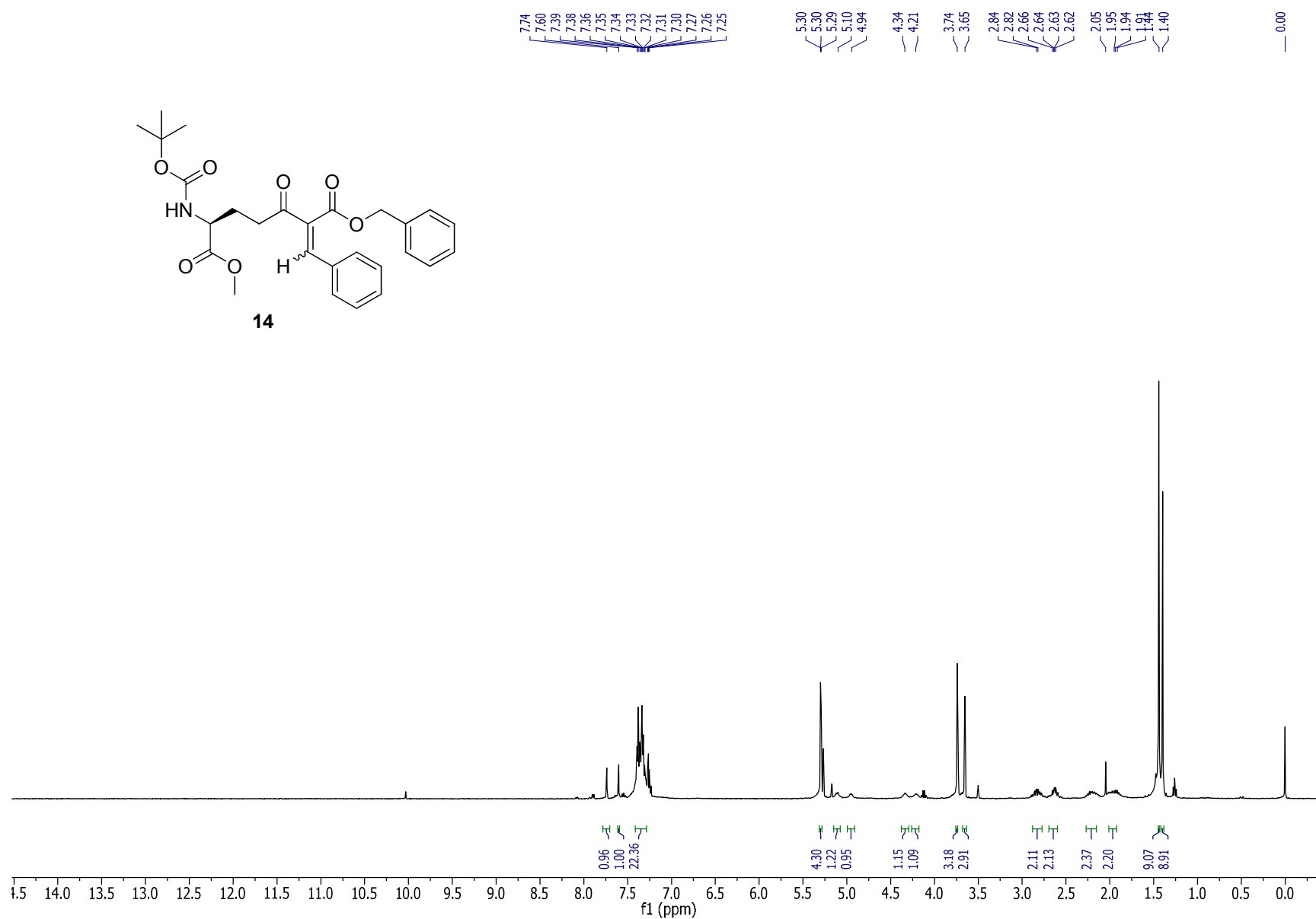
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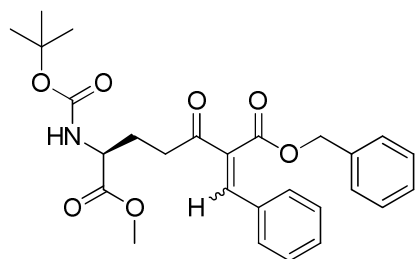




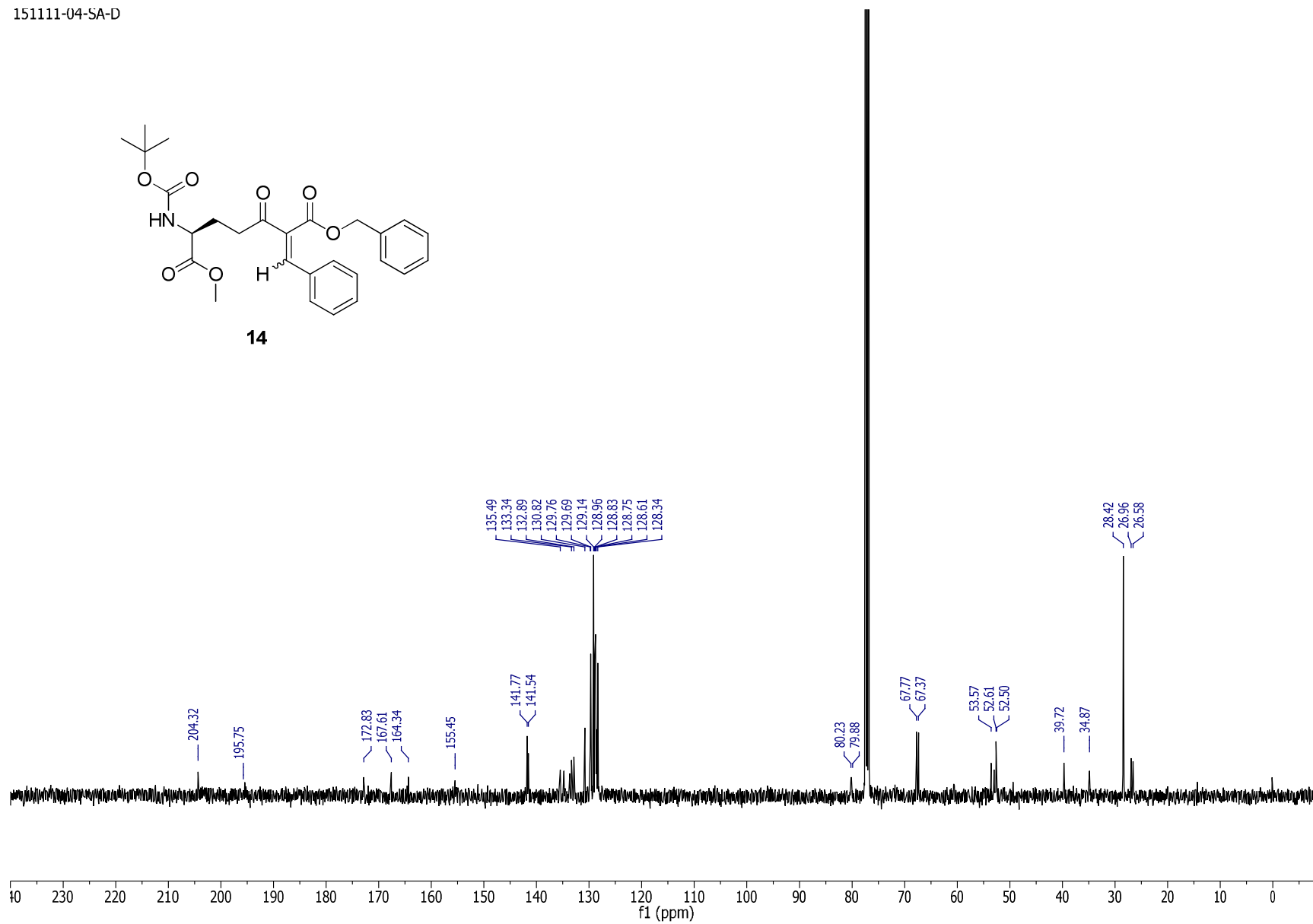


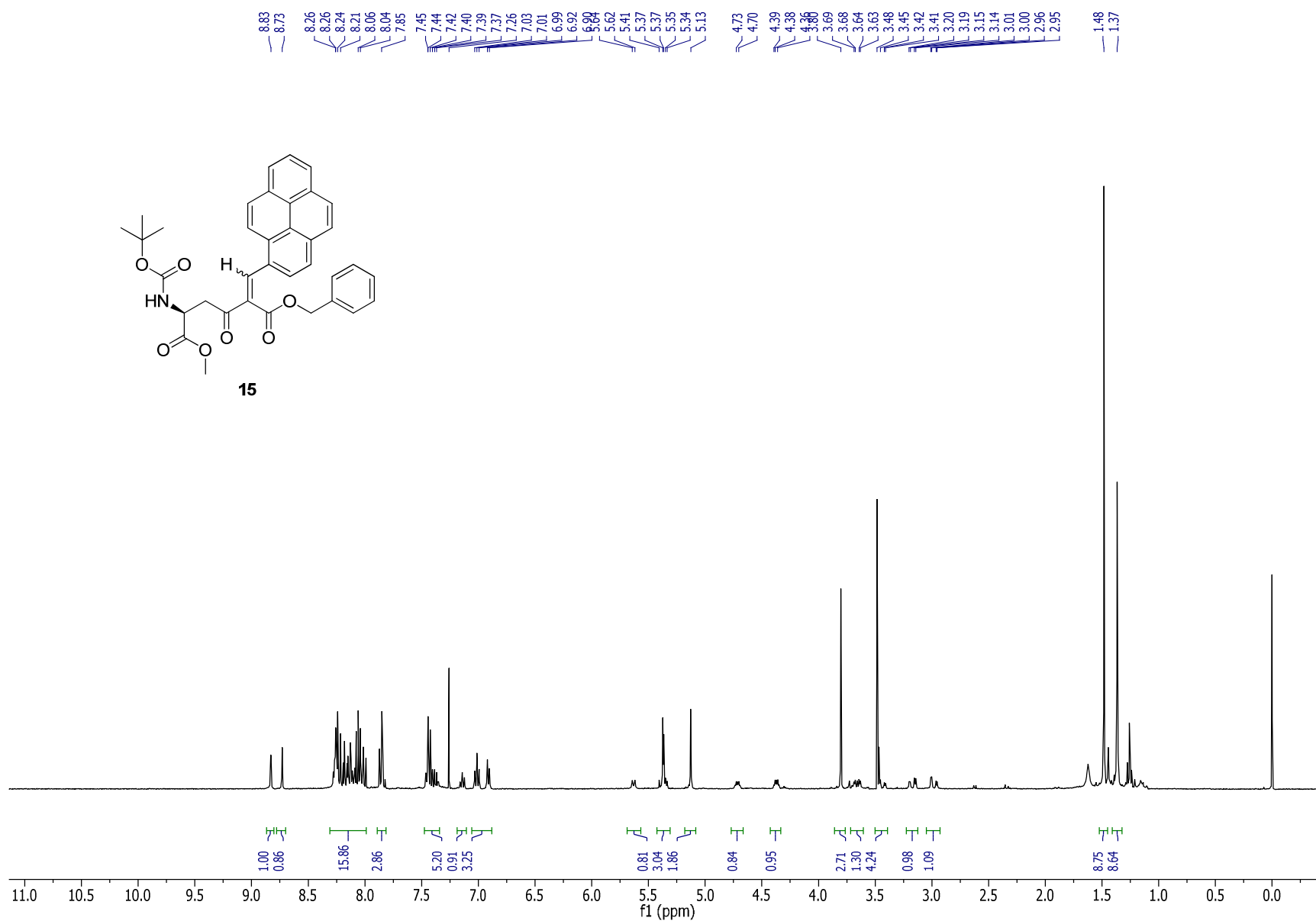


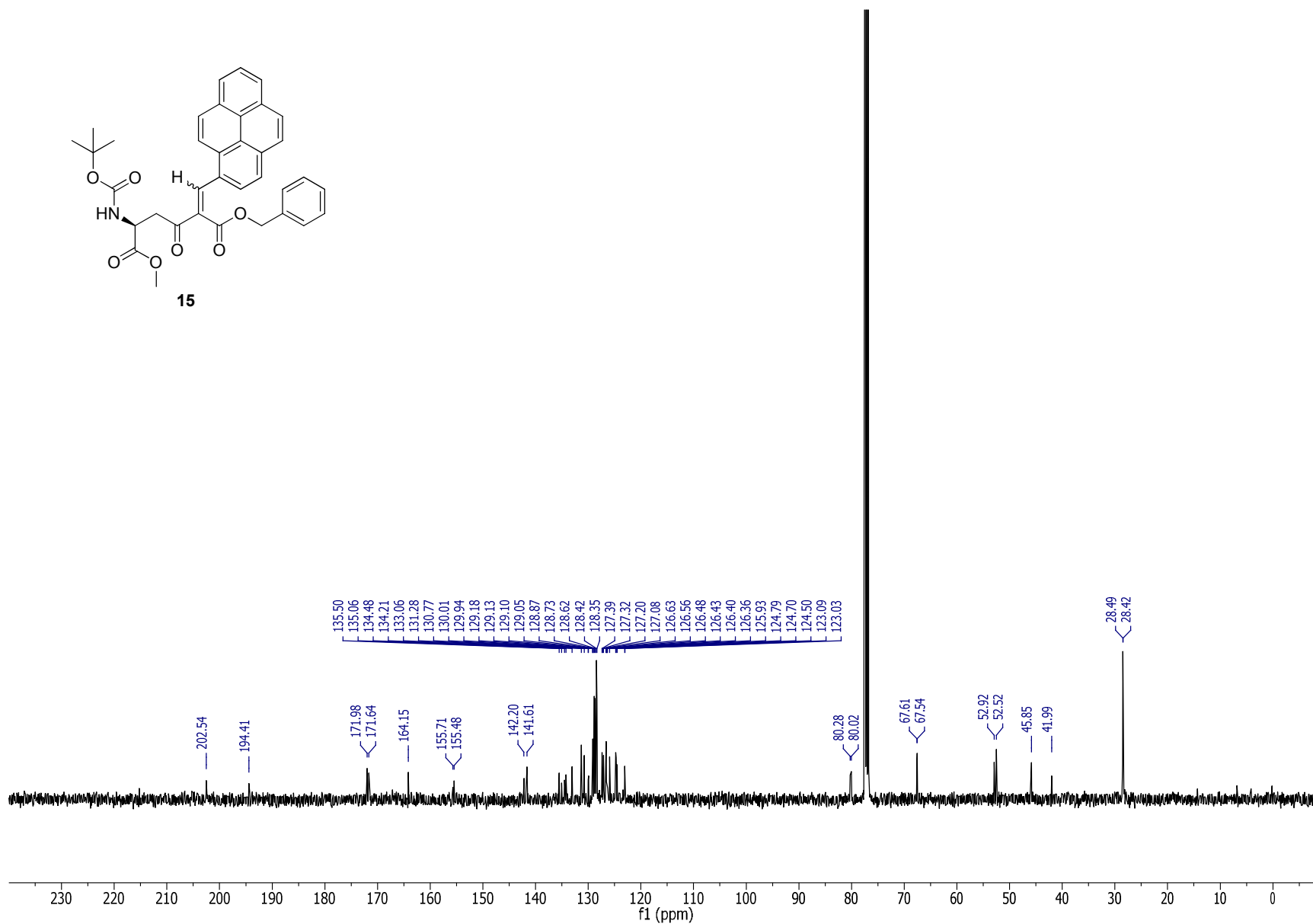
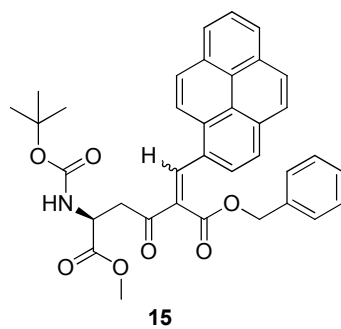
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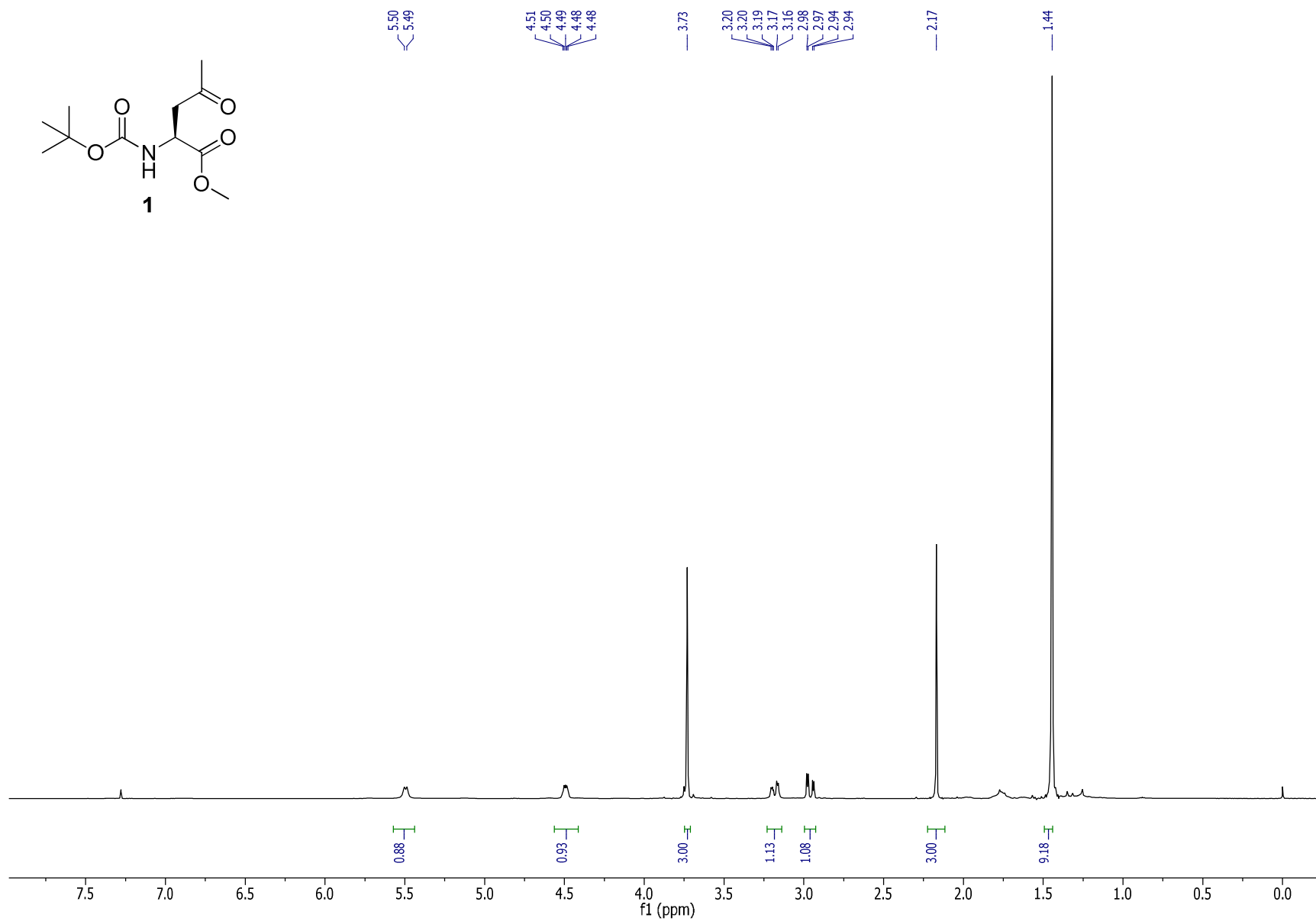
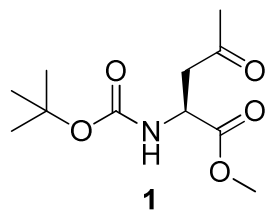


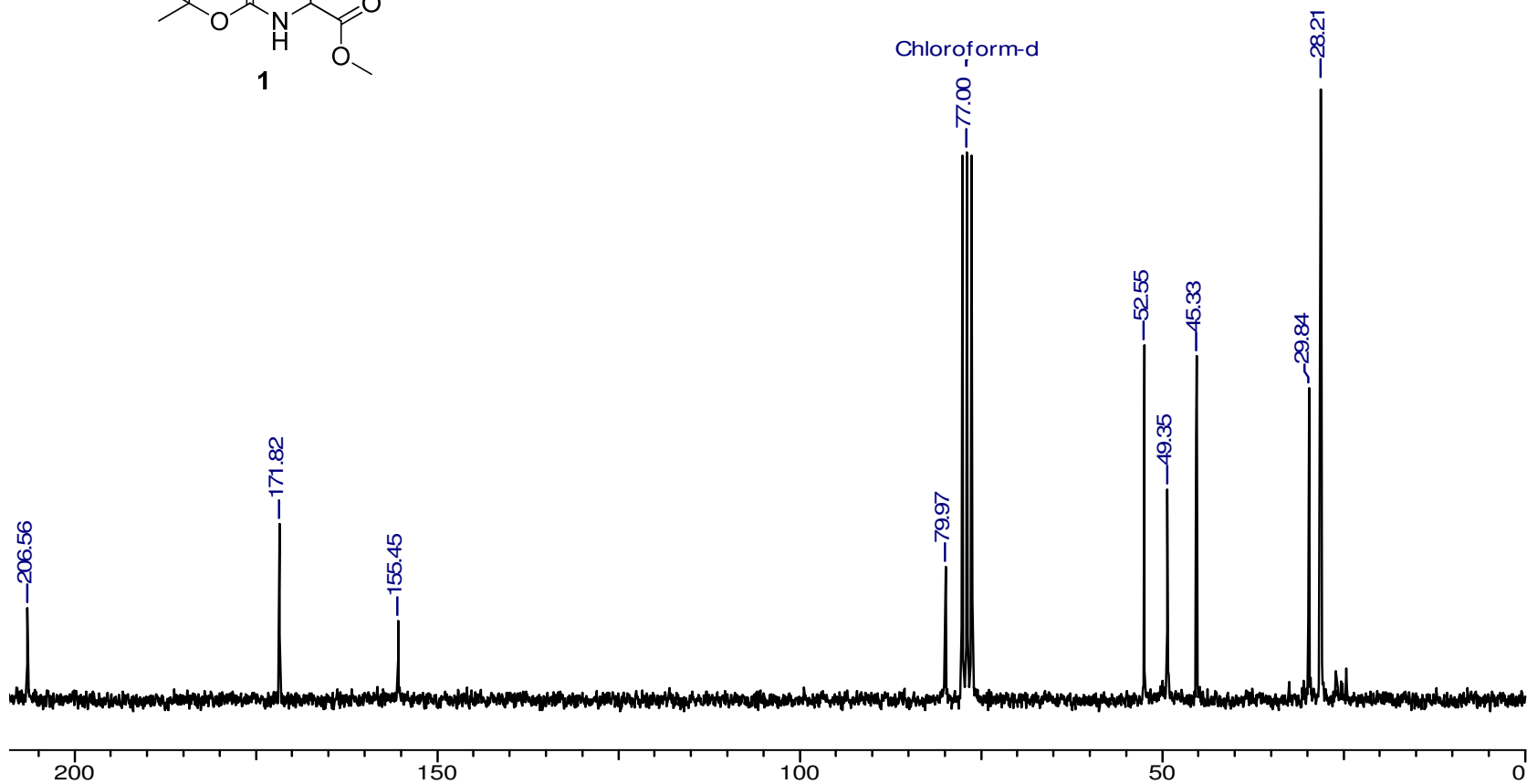
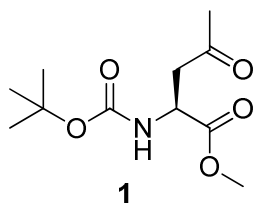
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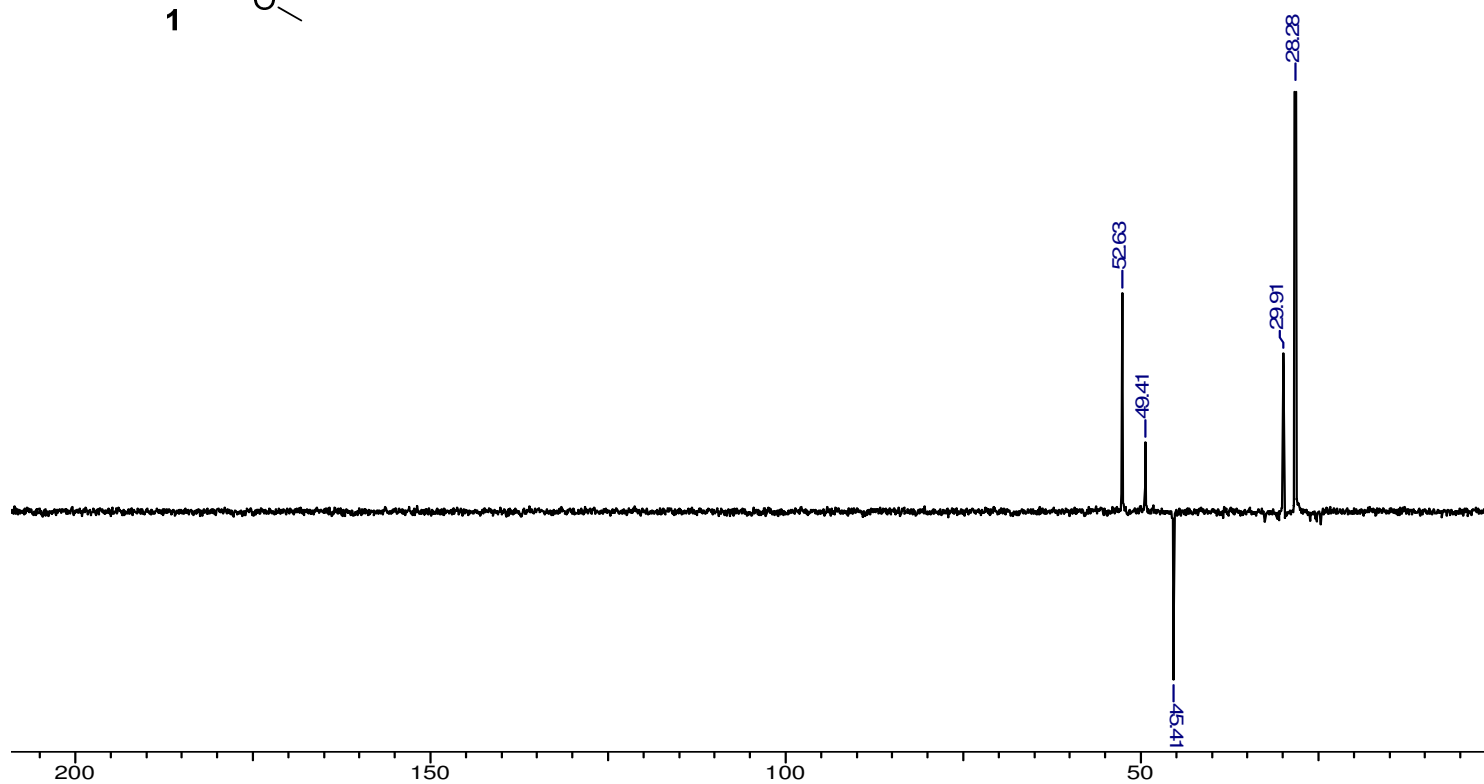
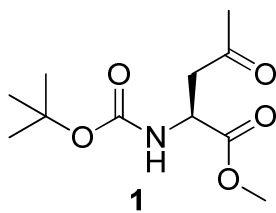




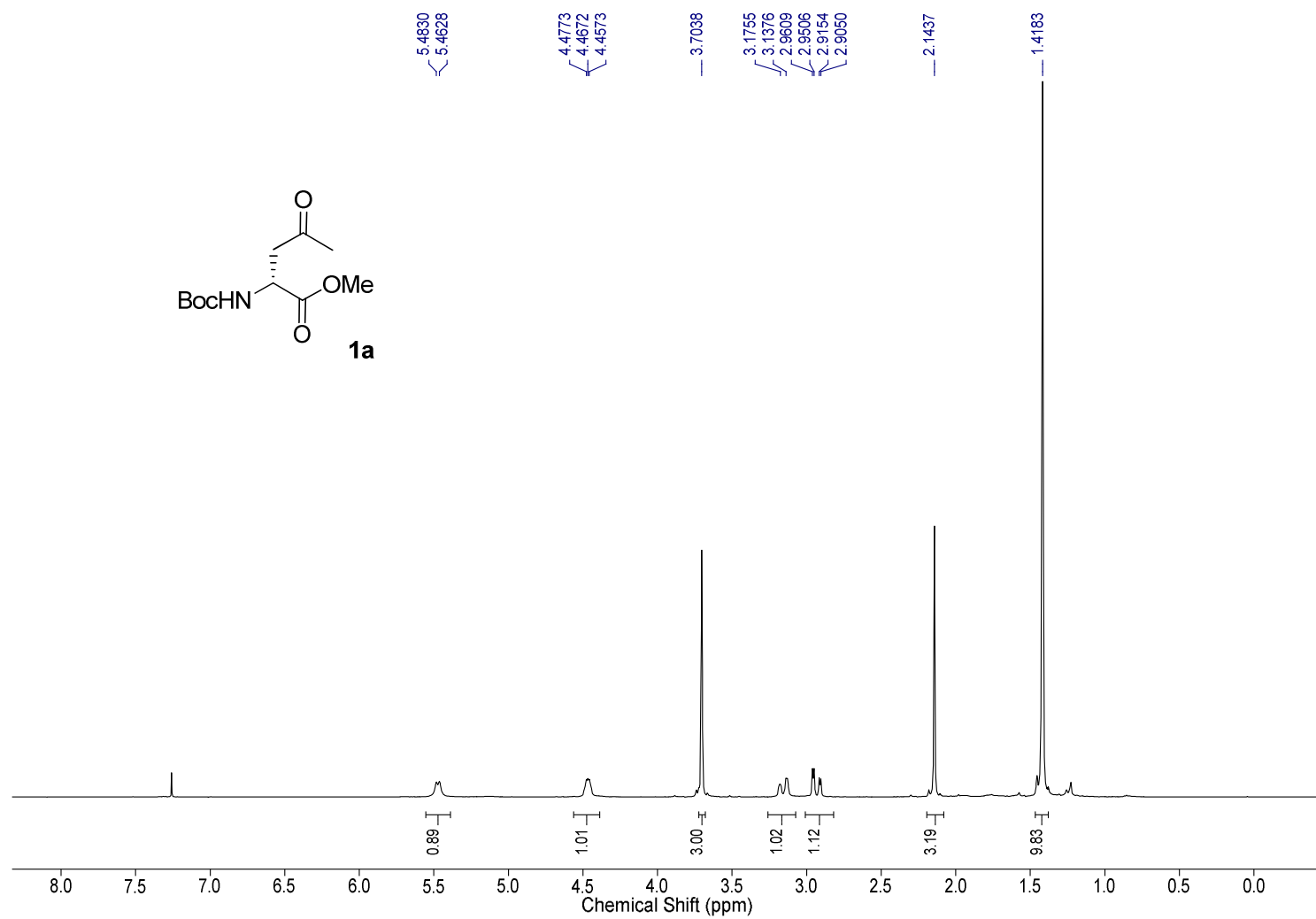


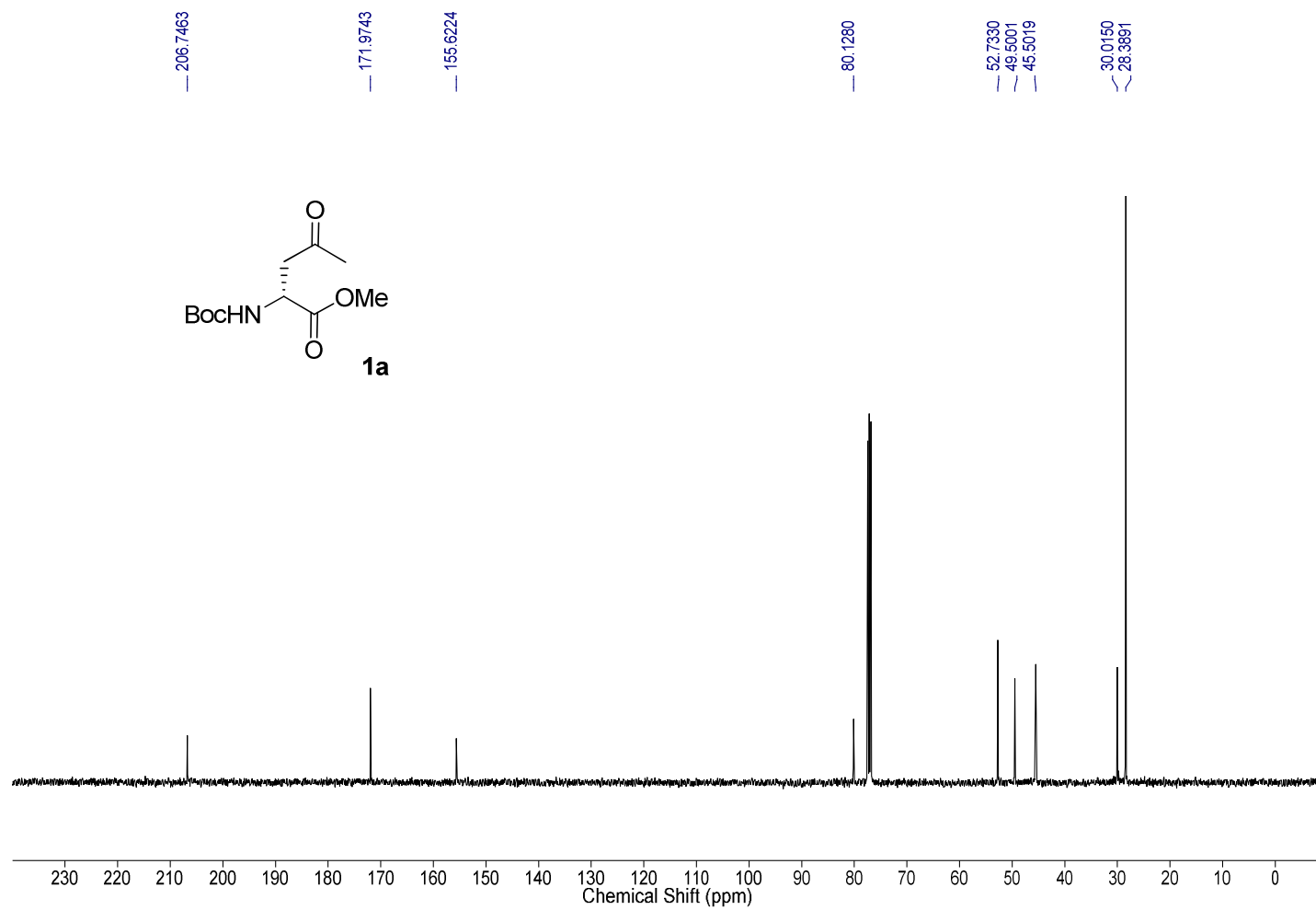


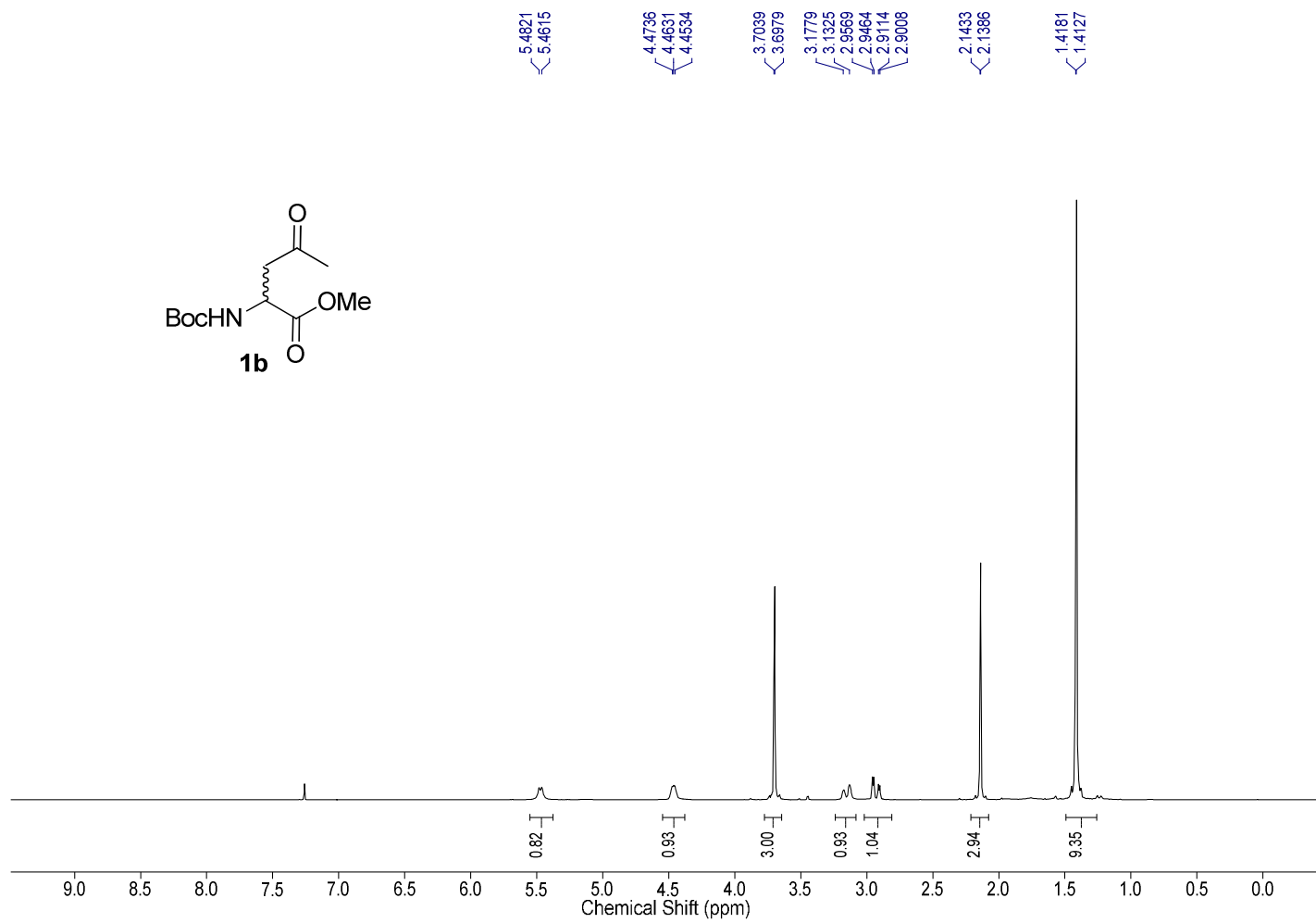
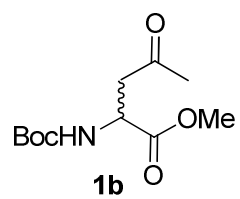


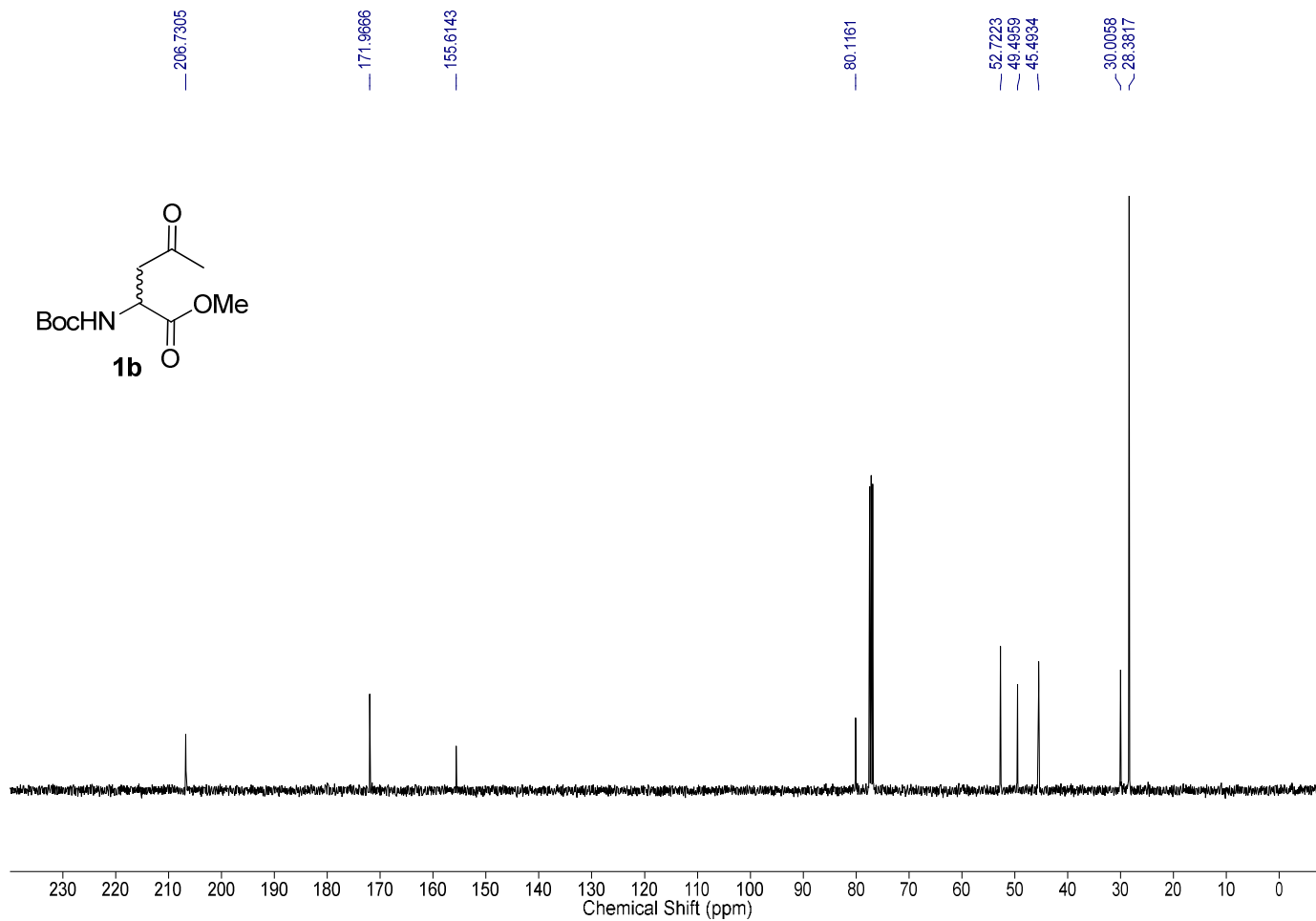


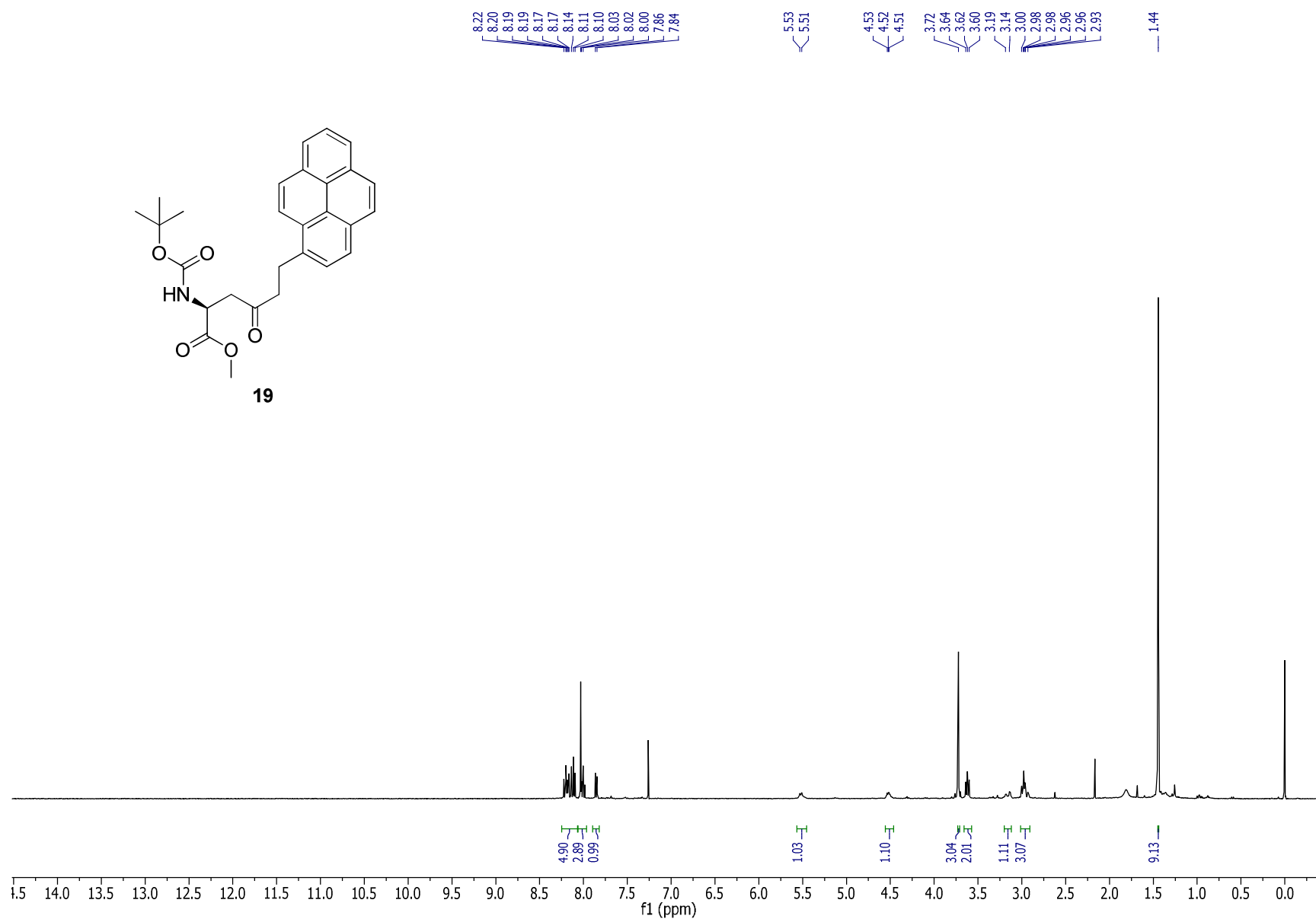
DEPT spectrum of **1**

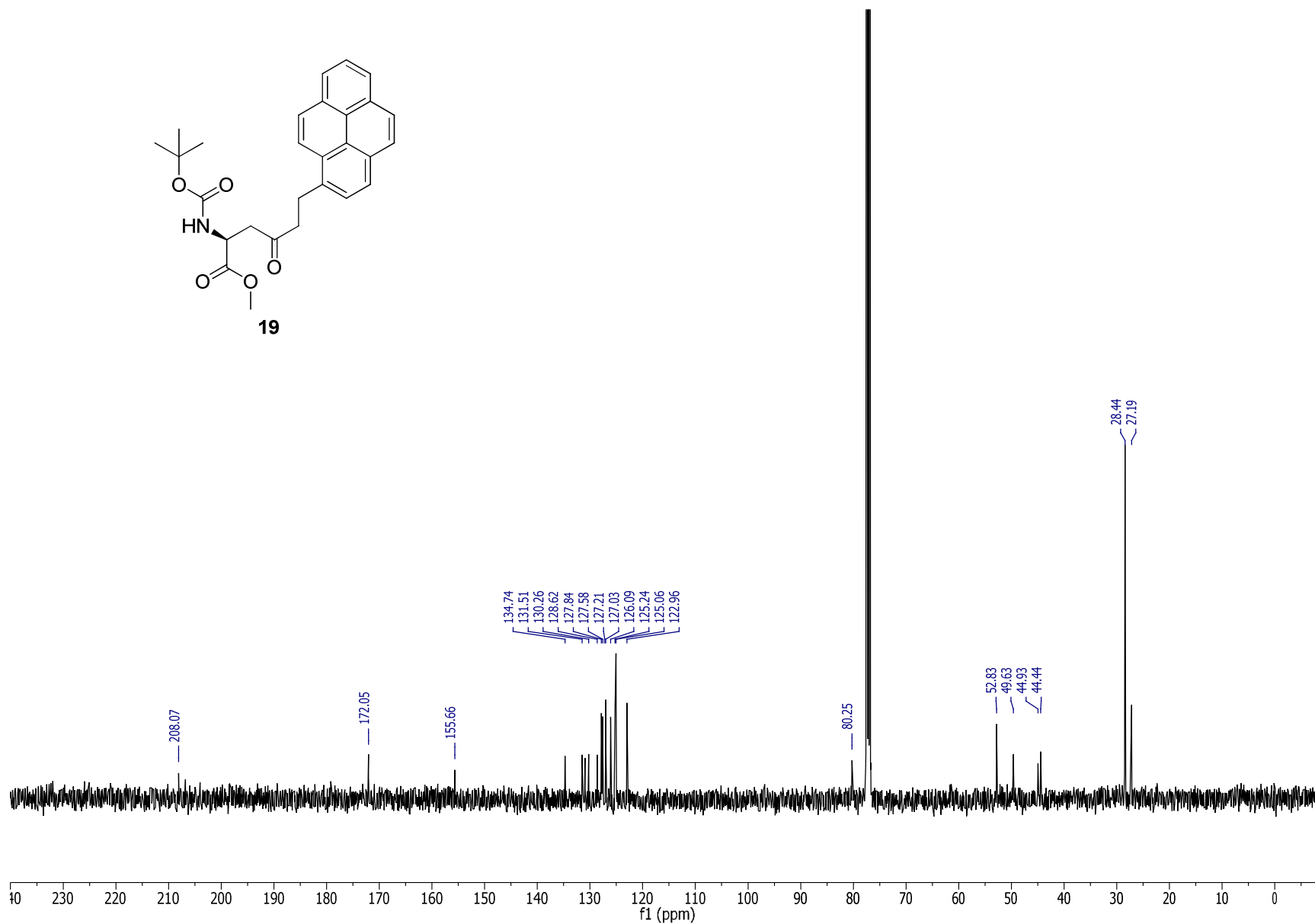
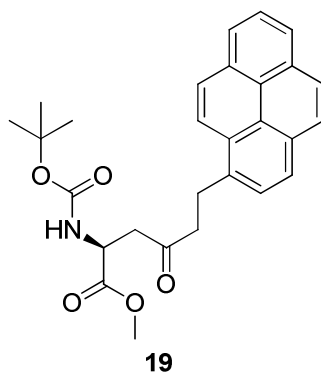


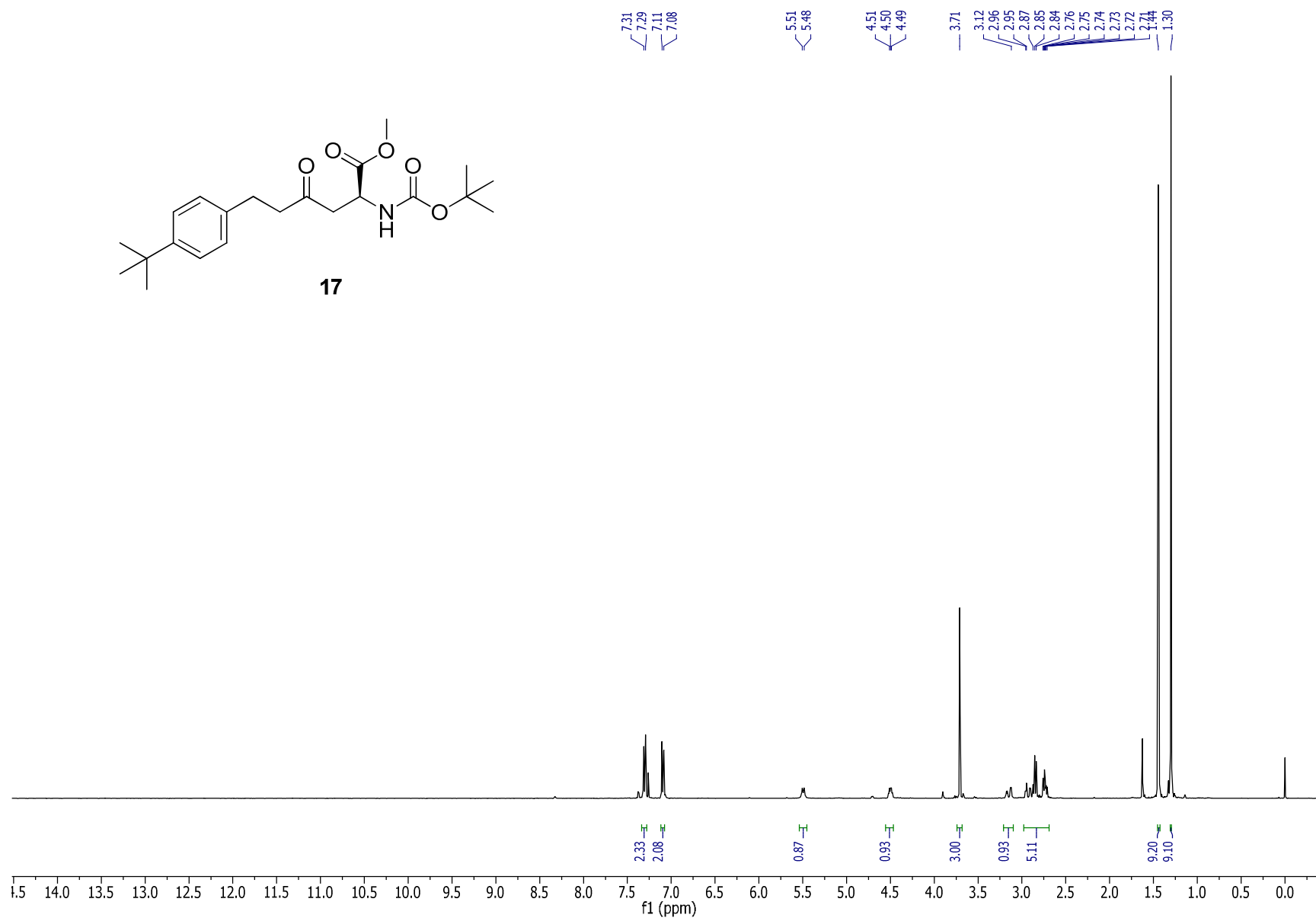
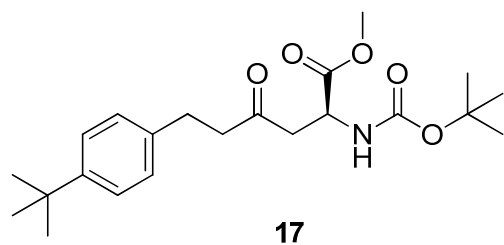


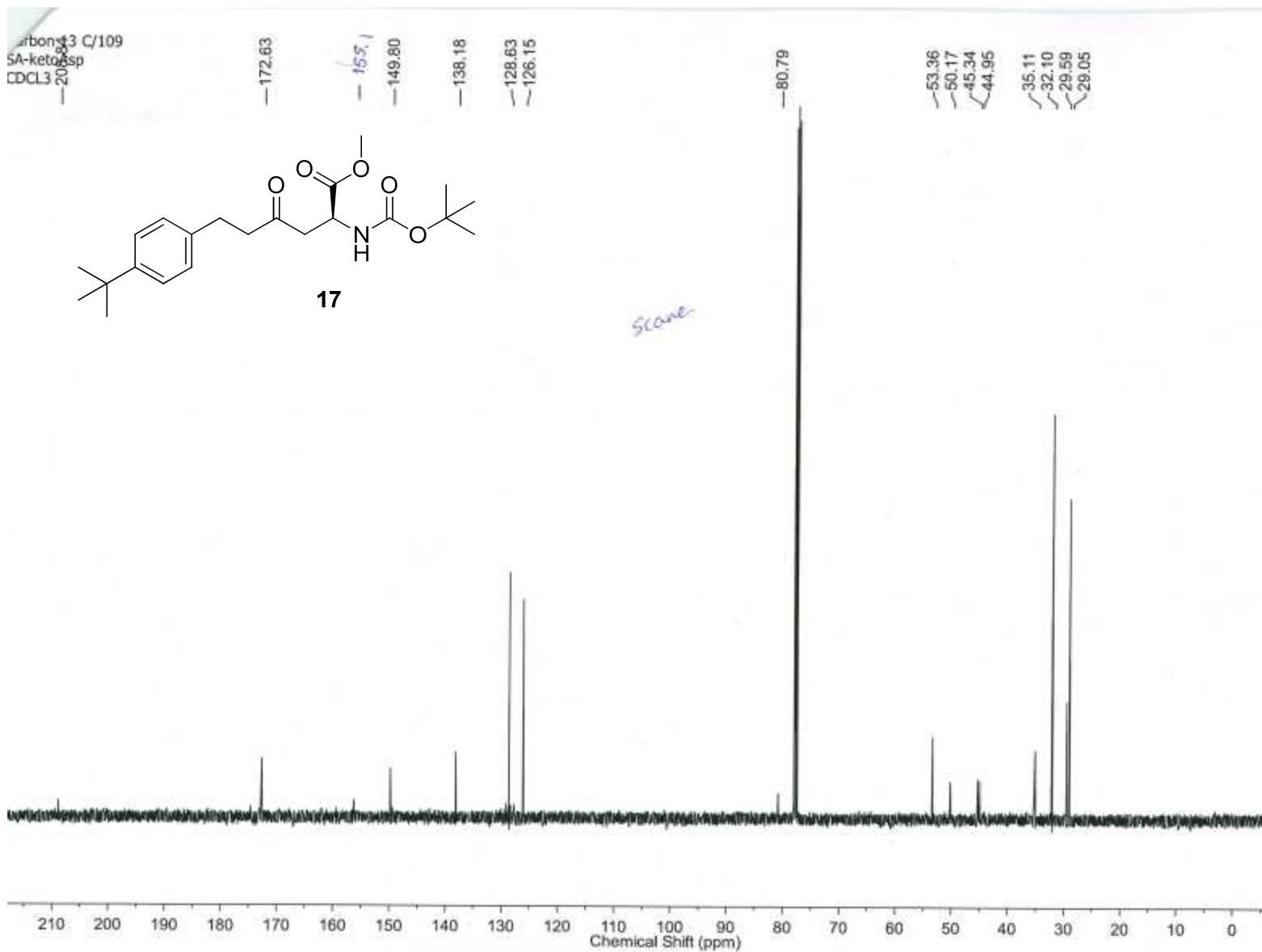


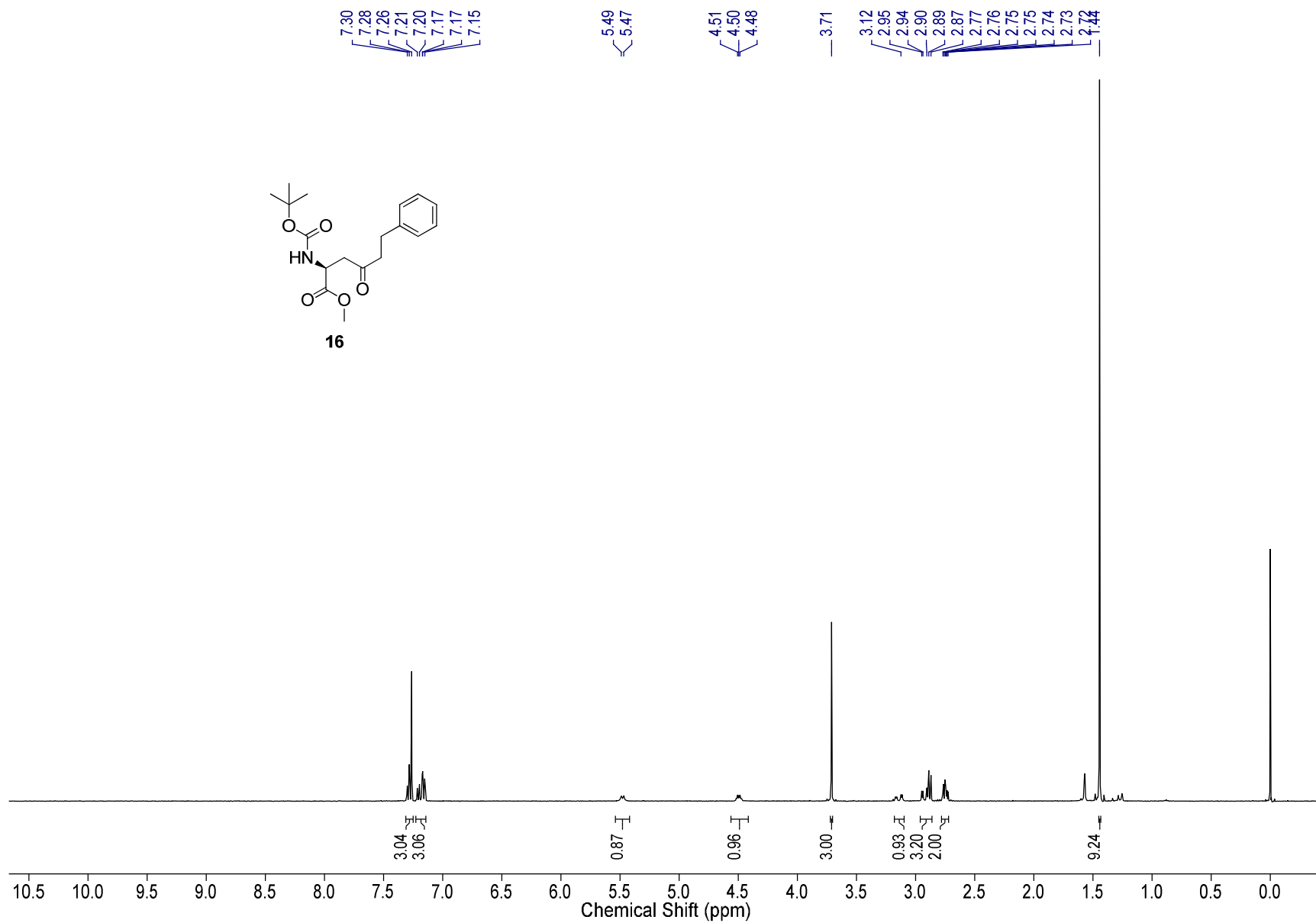


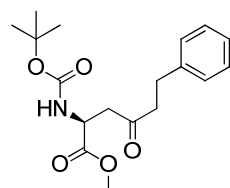




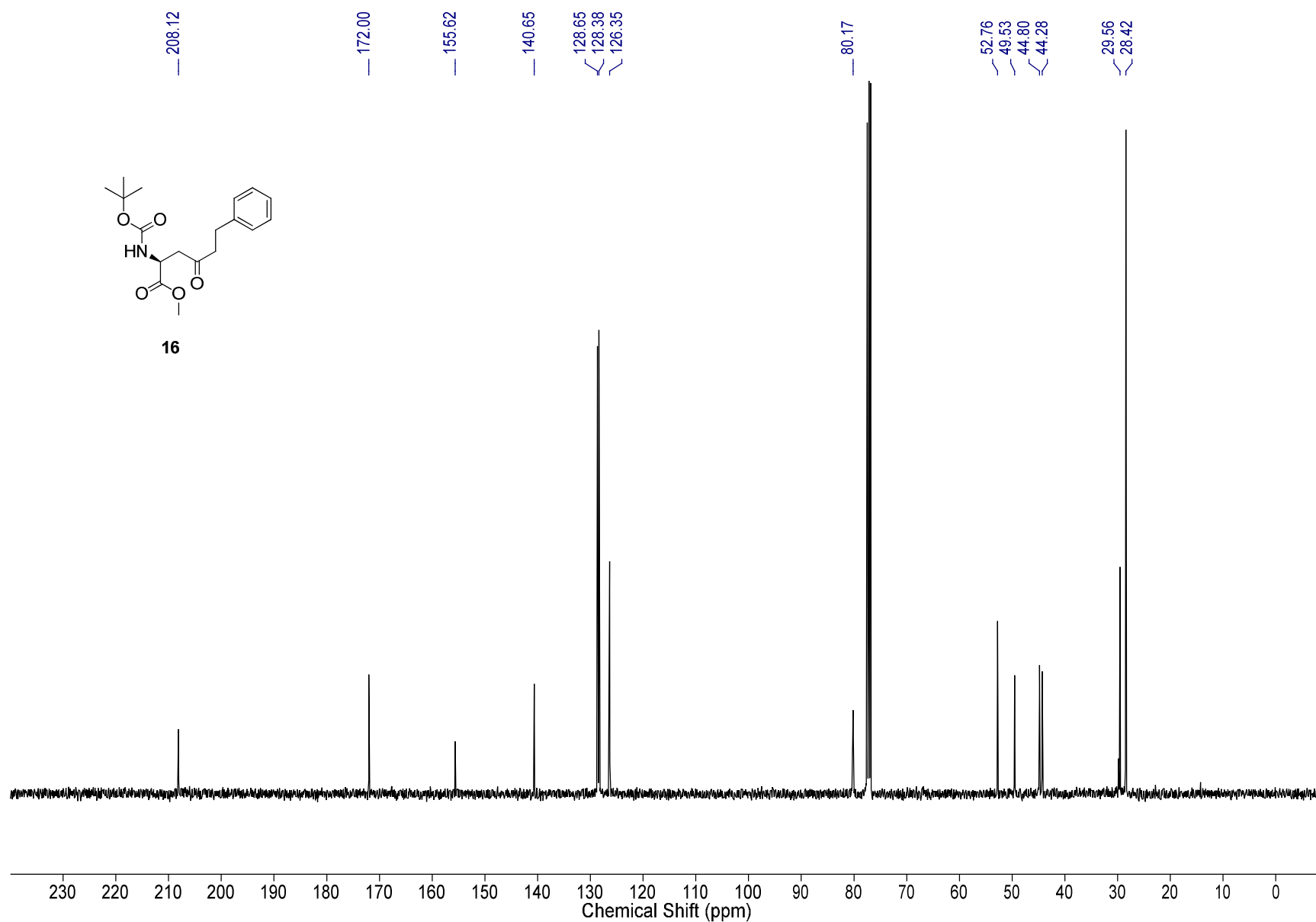


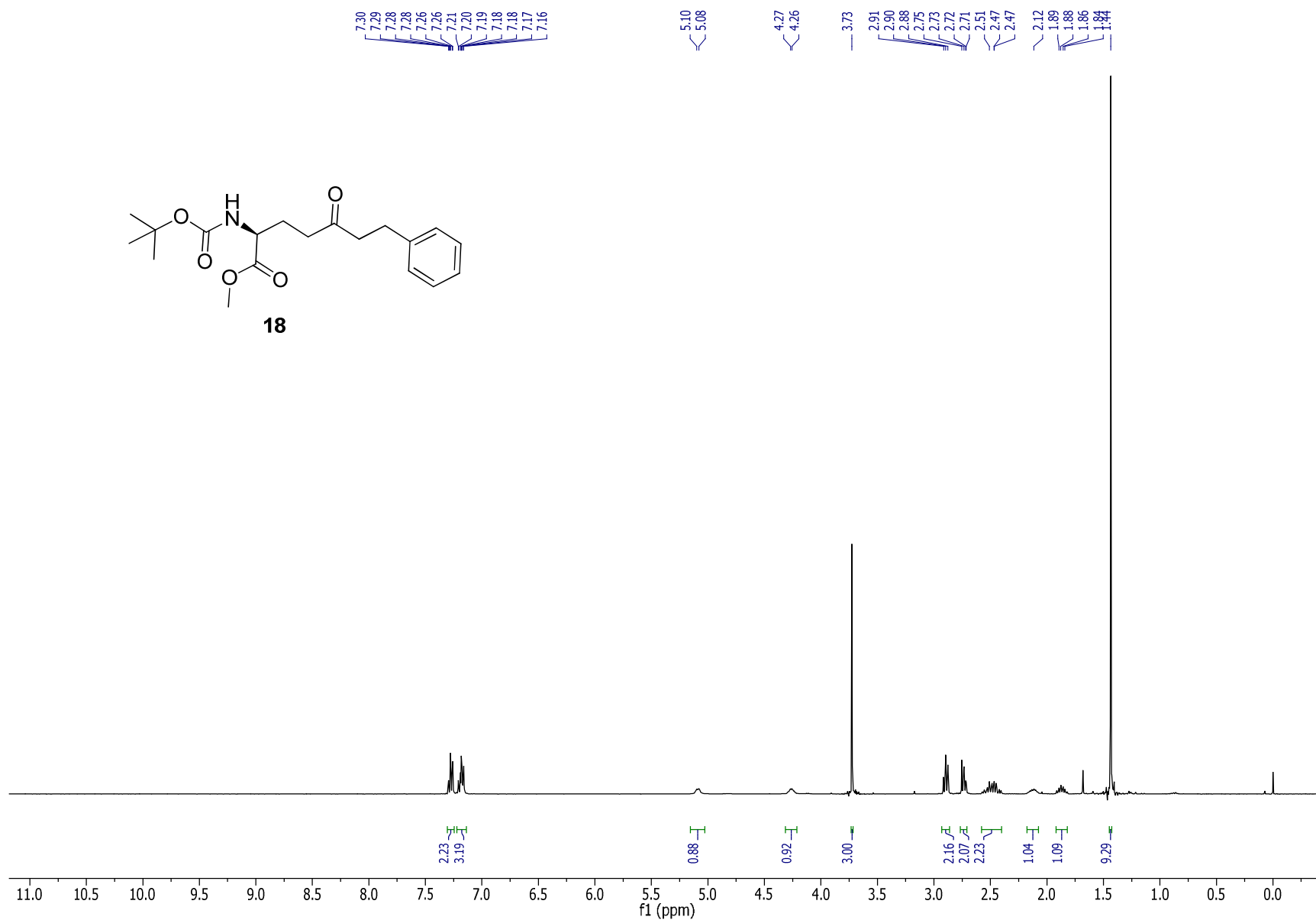


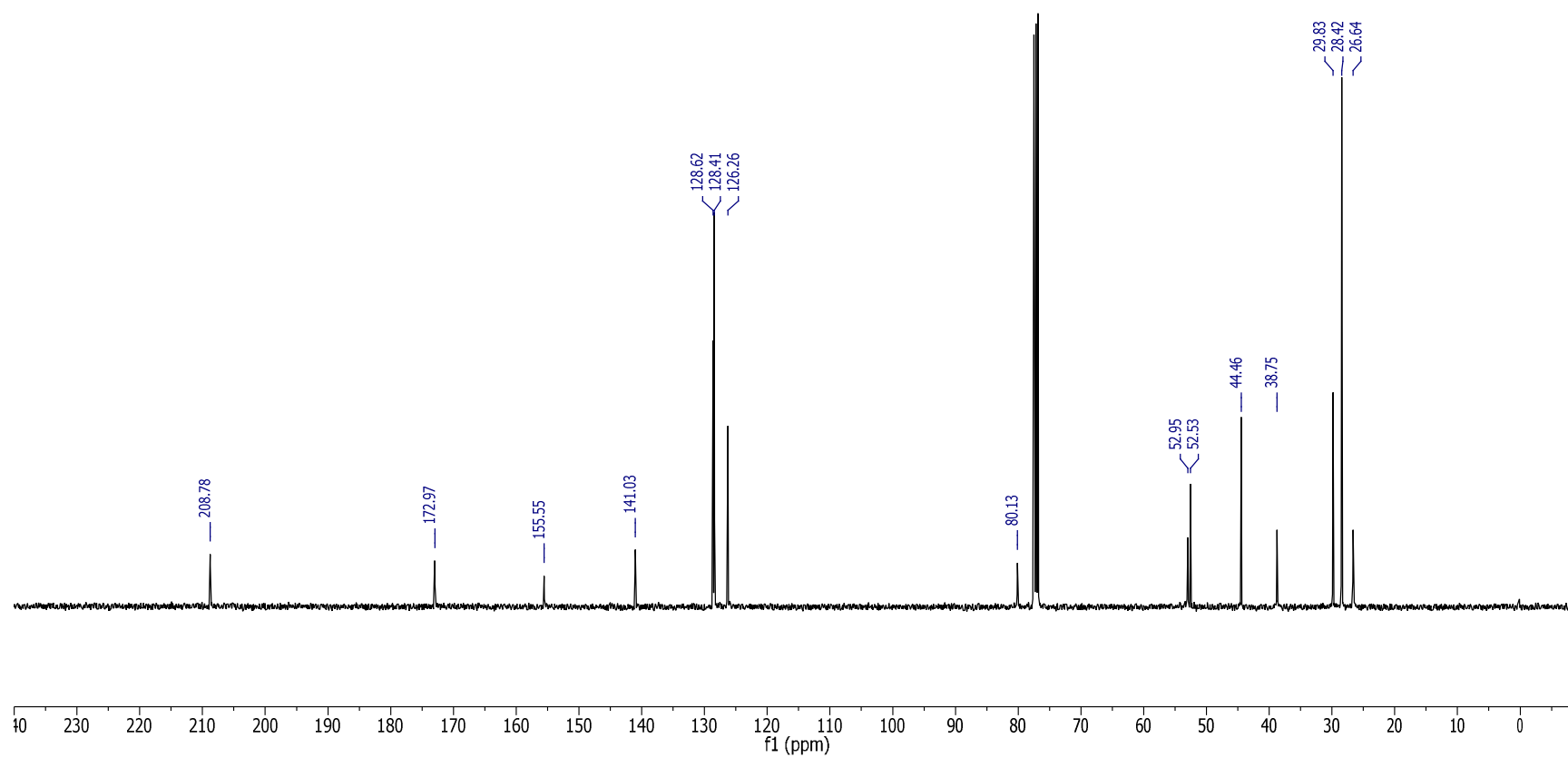
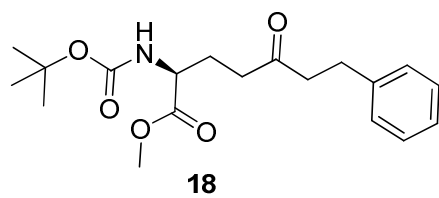


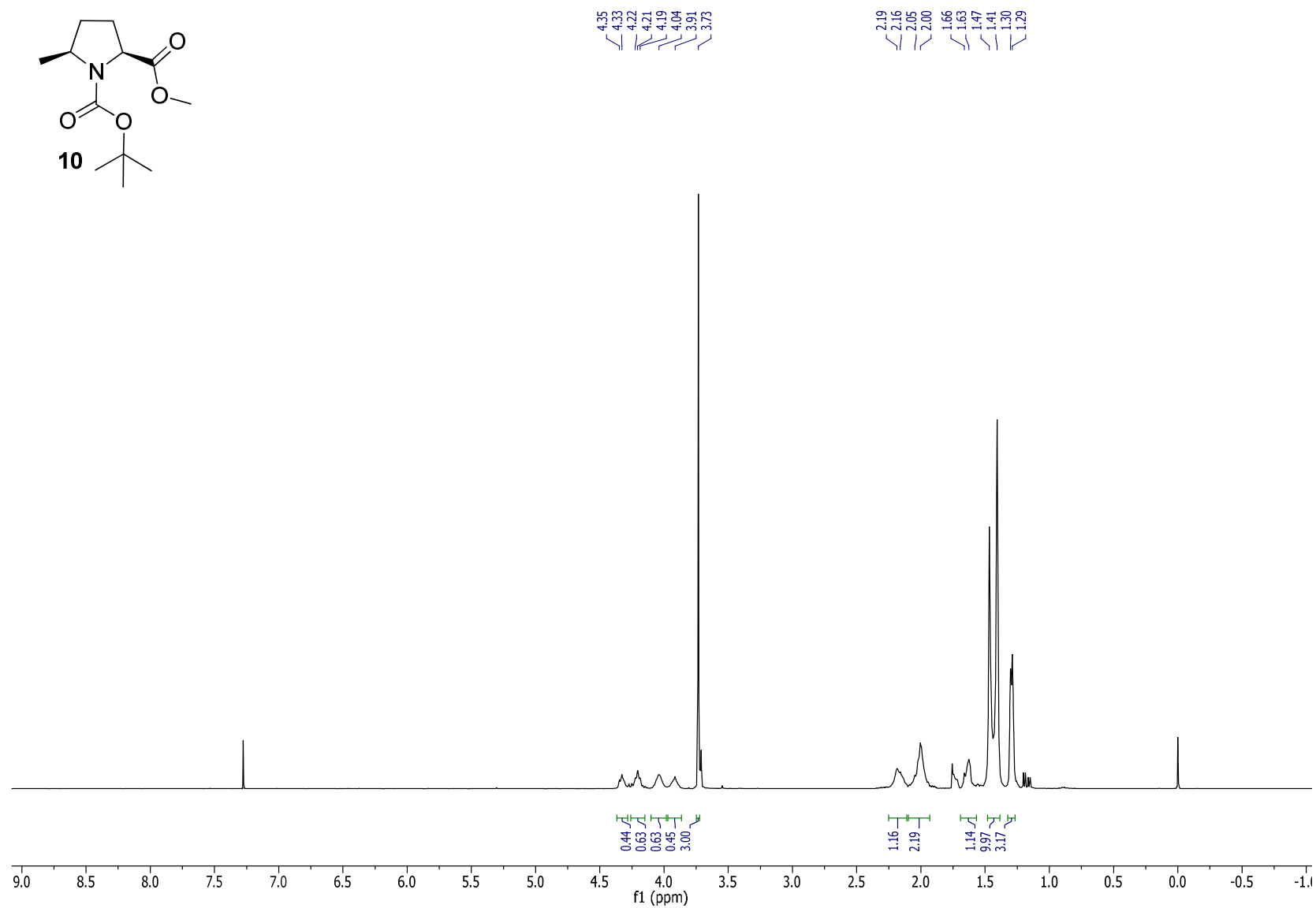
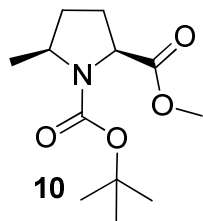


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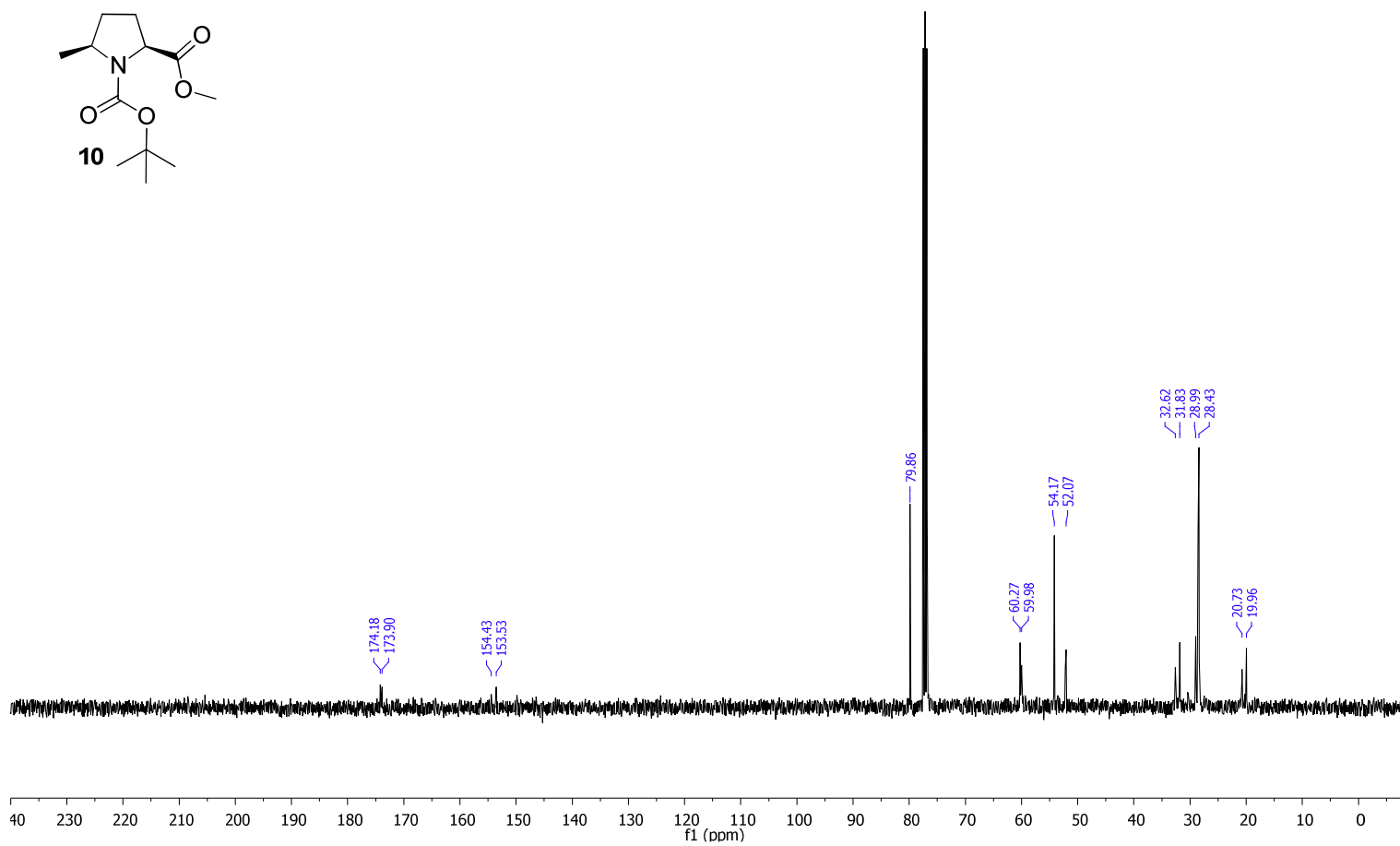
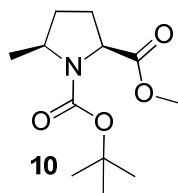


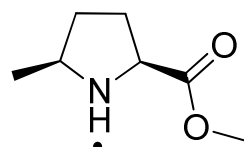




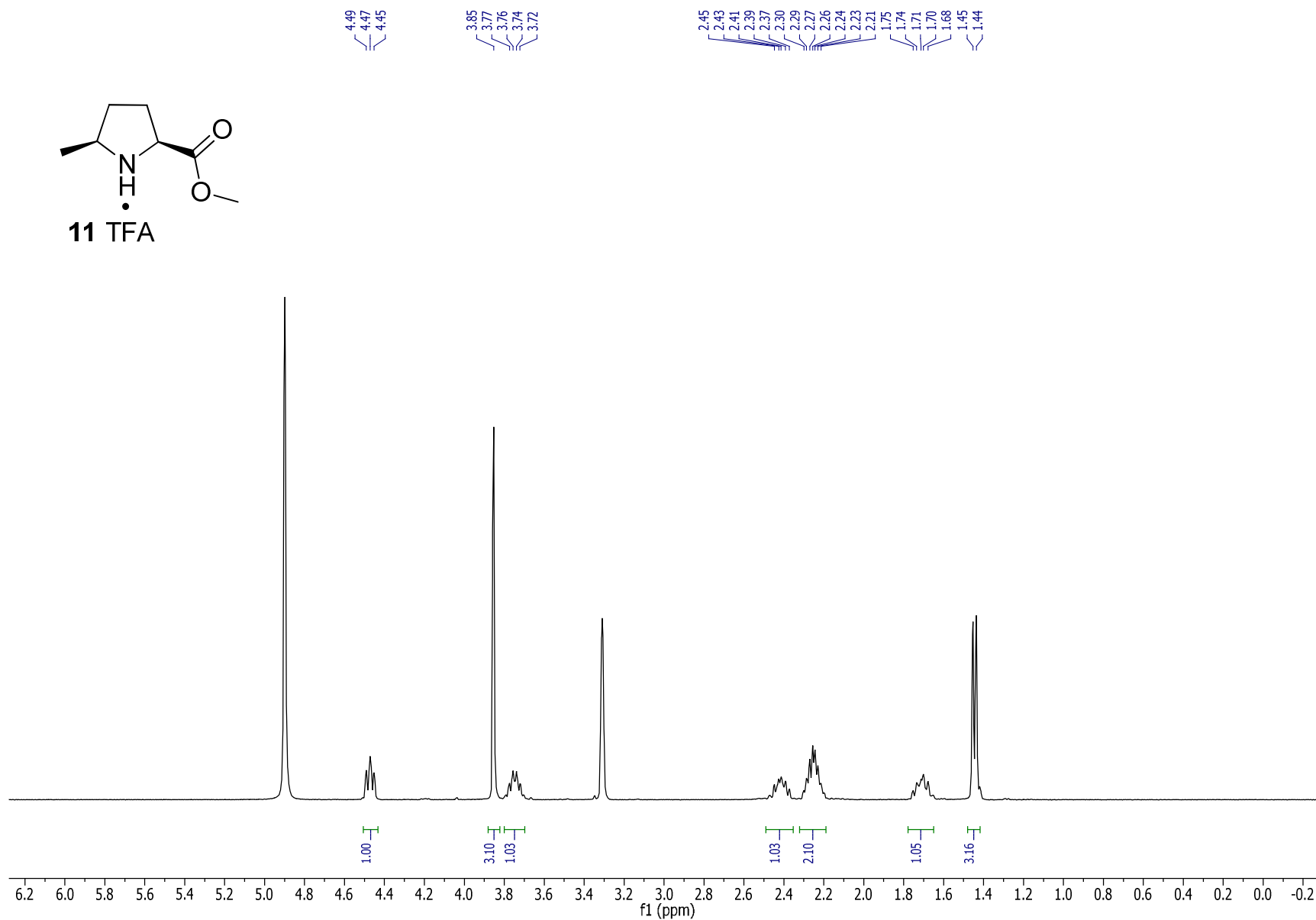


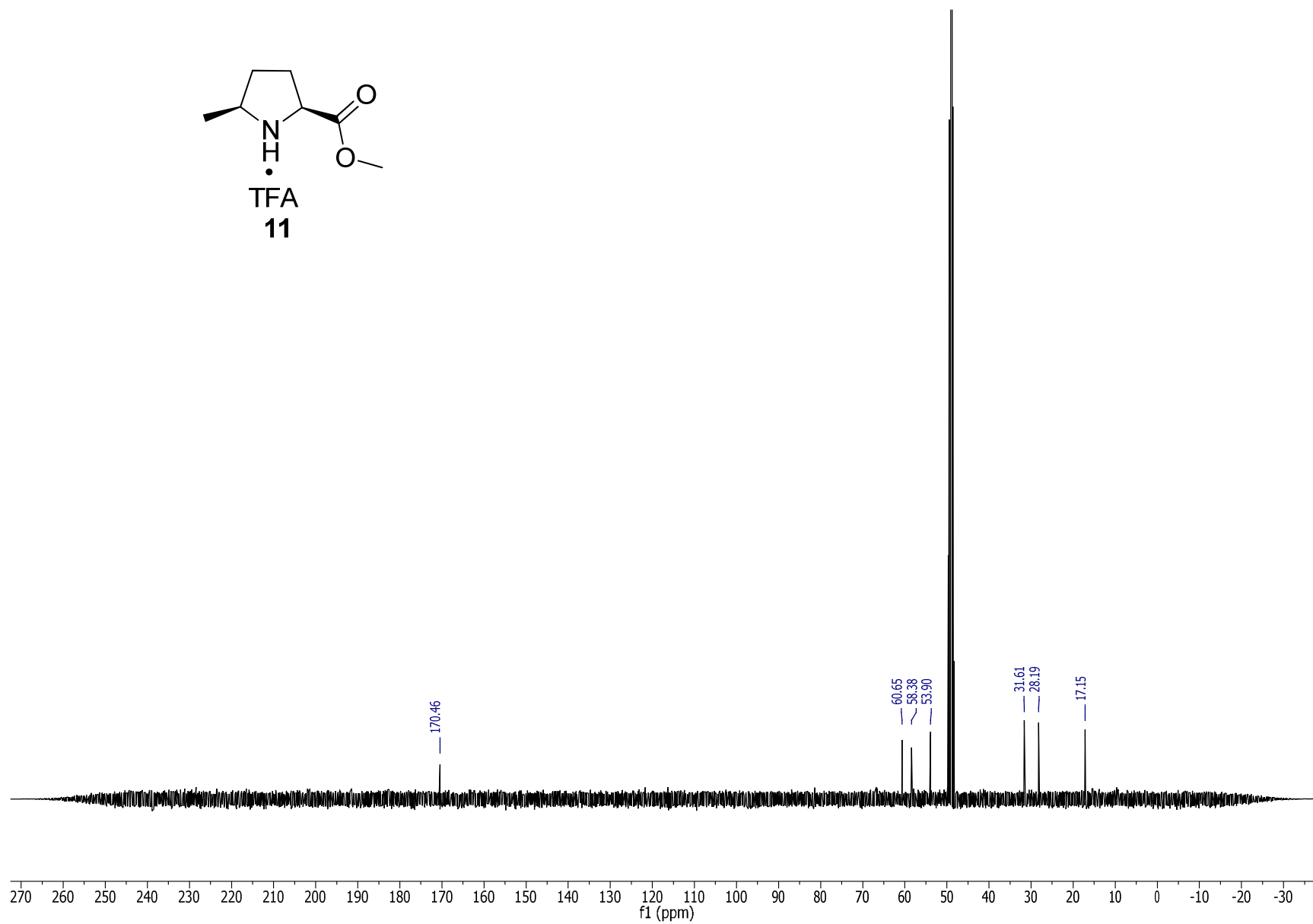
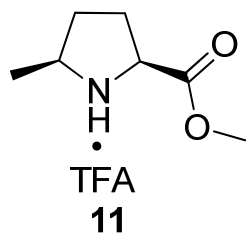
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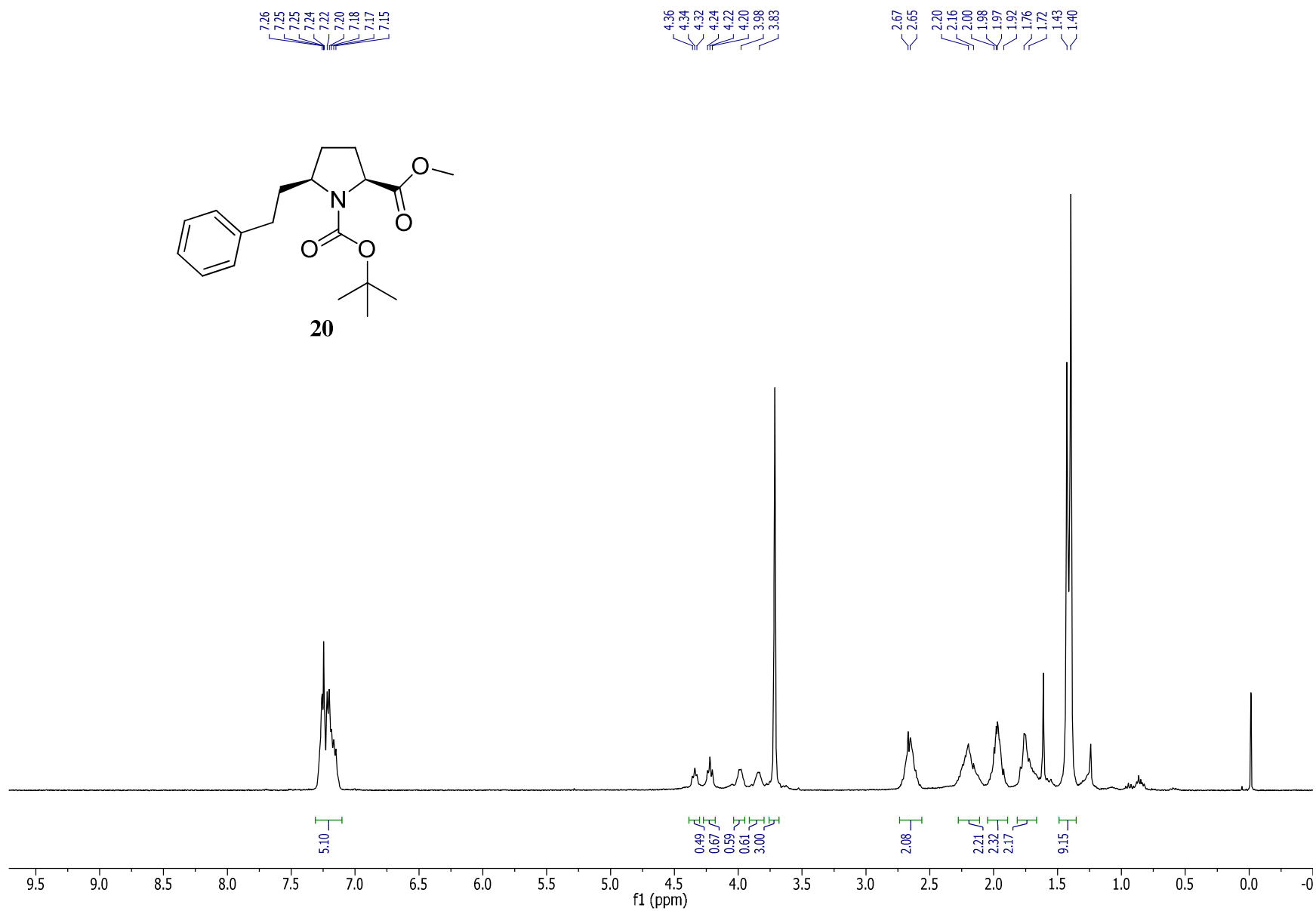
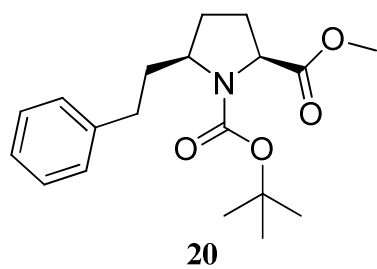


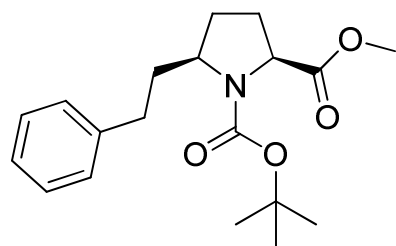


11 TFA

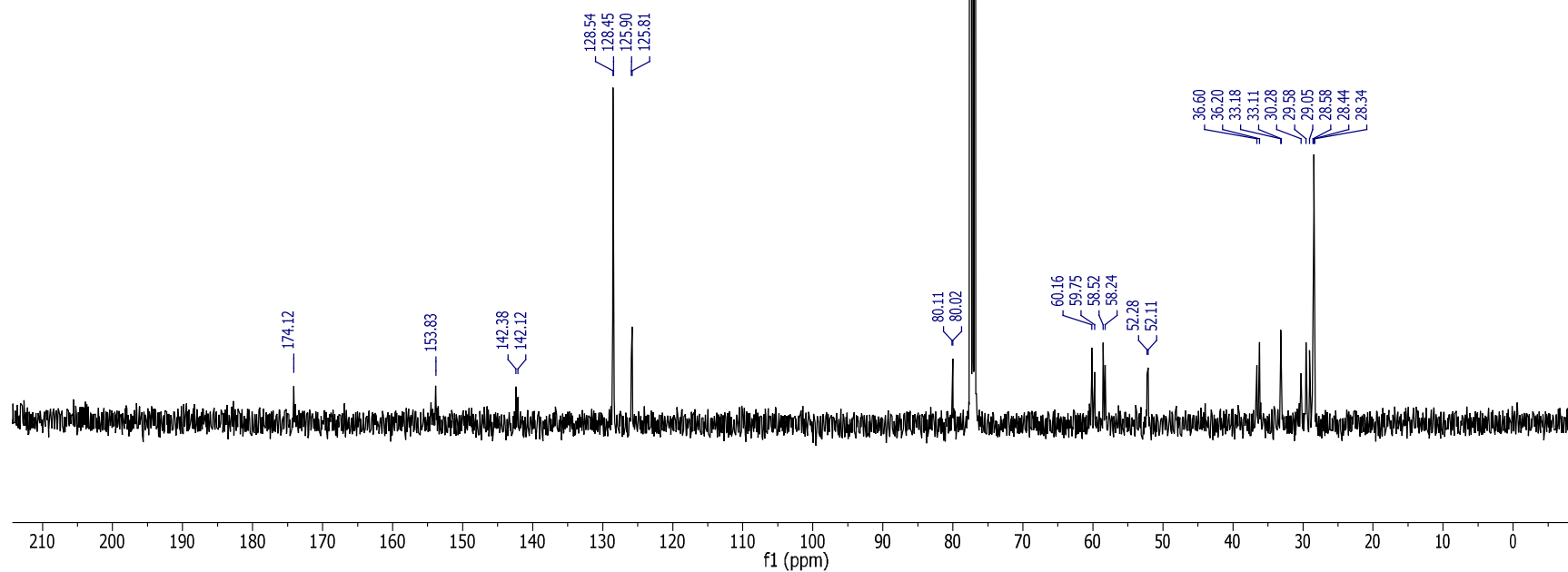


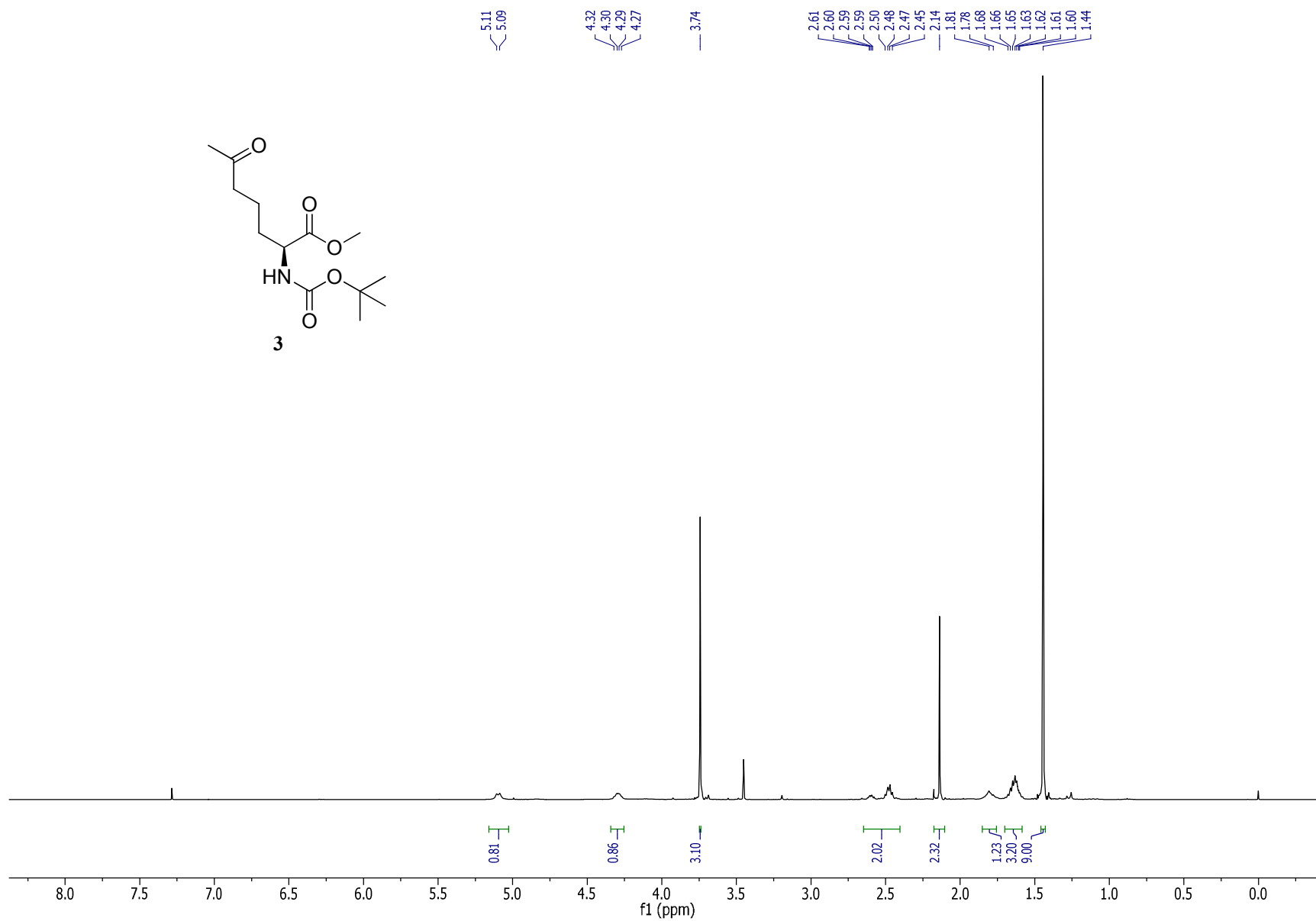
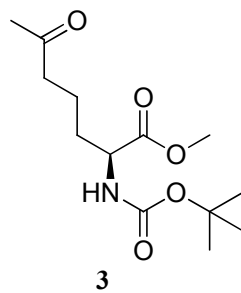


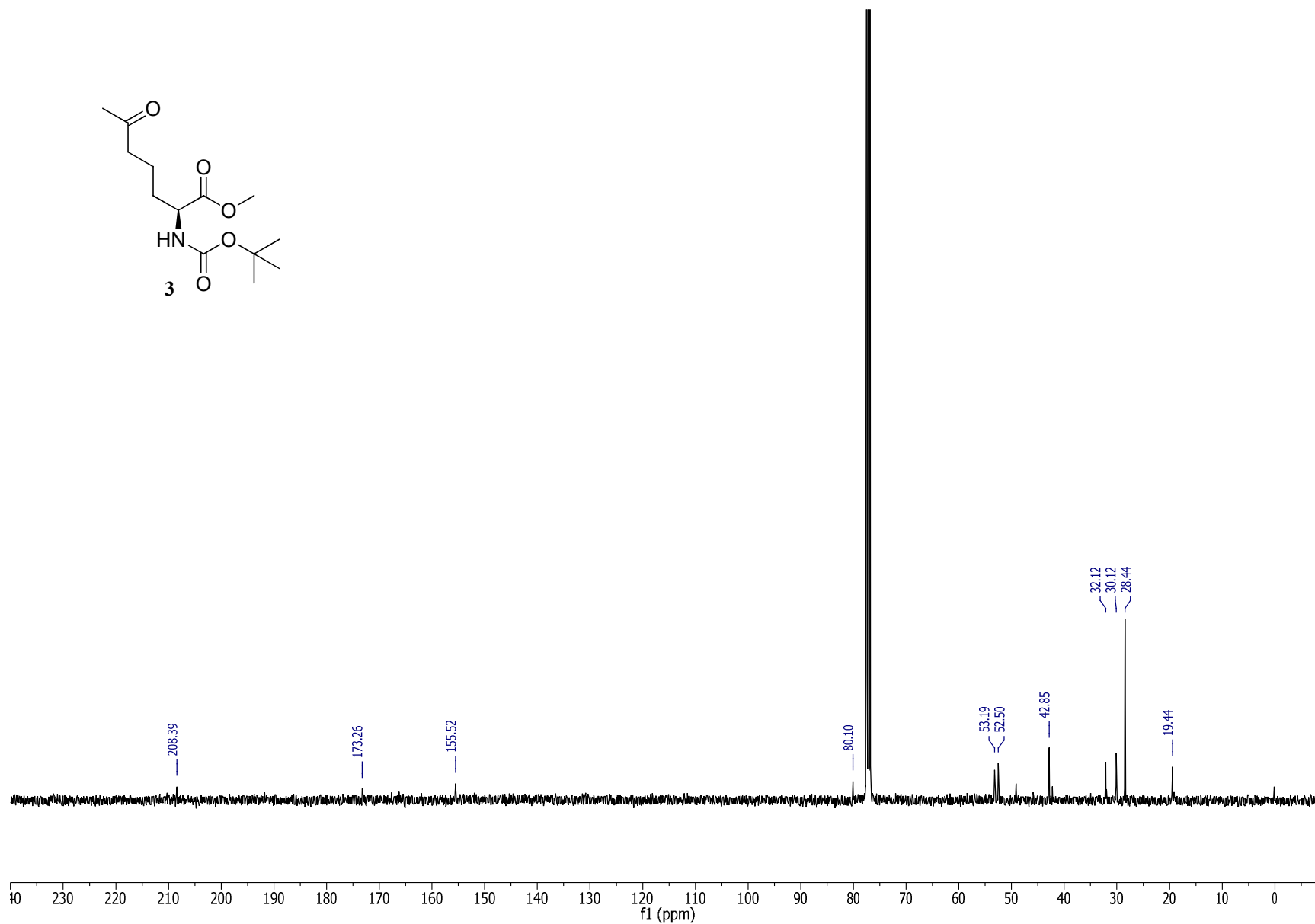
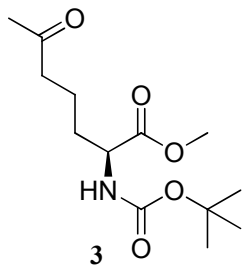


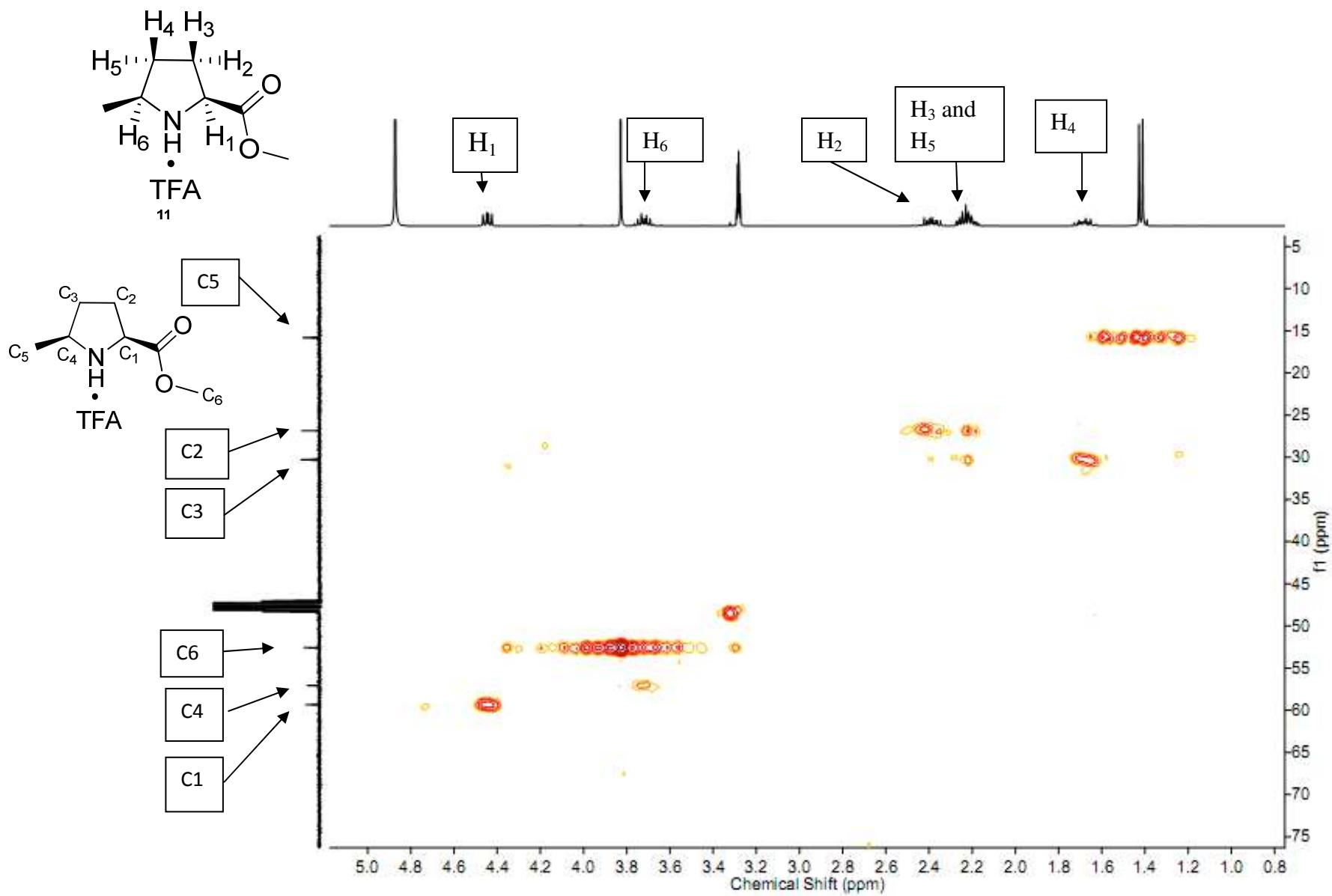


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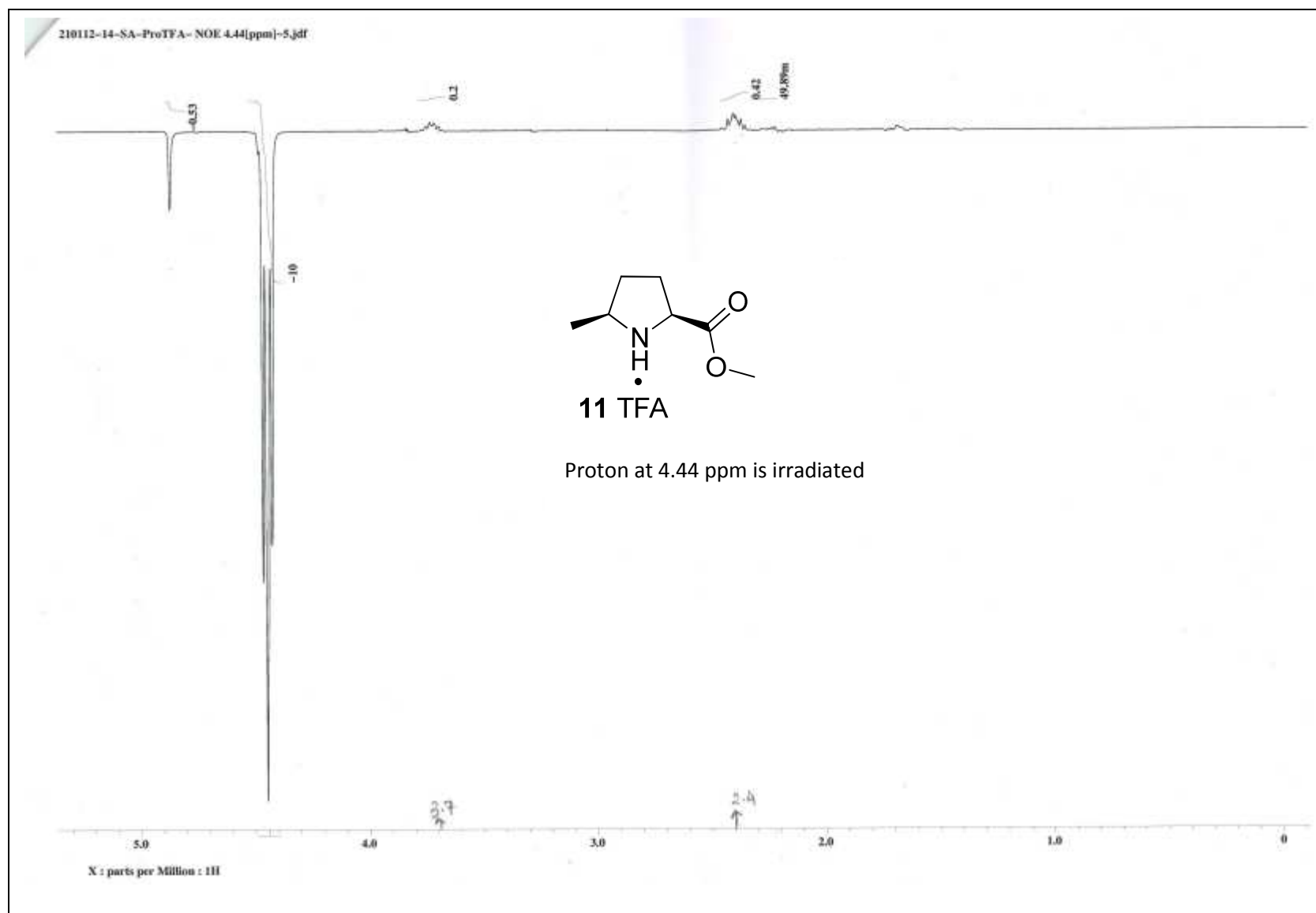






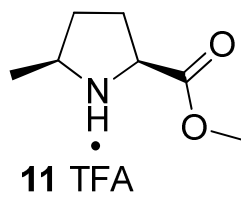


HMQC spectra of **11**

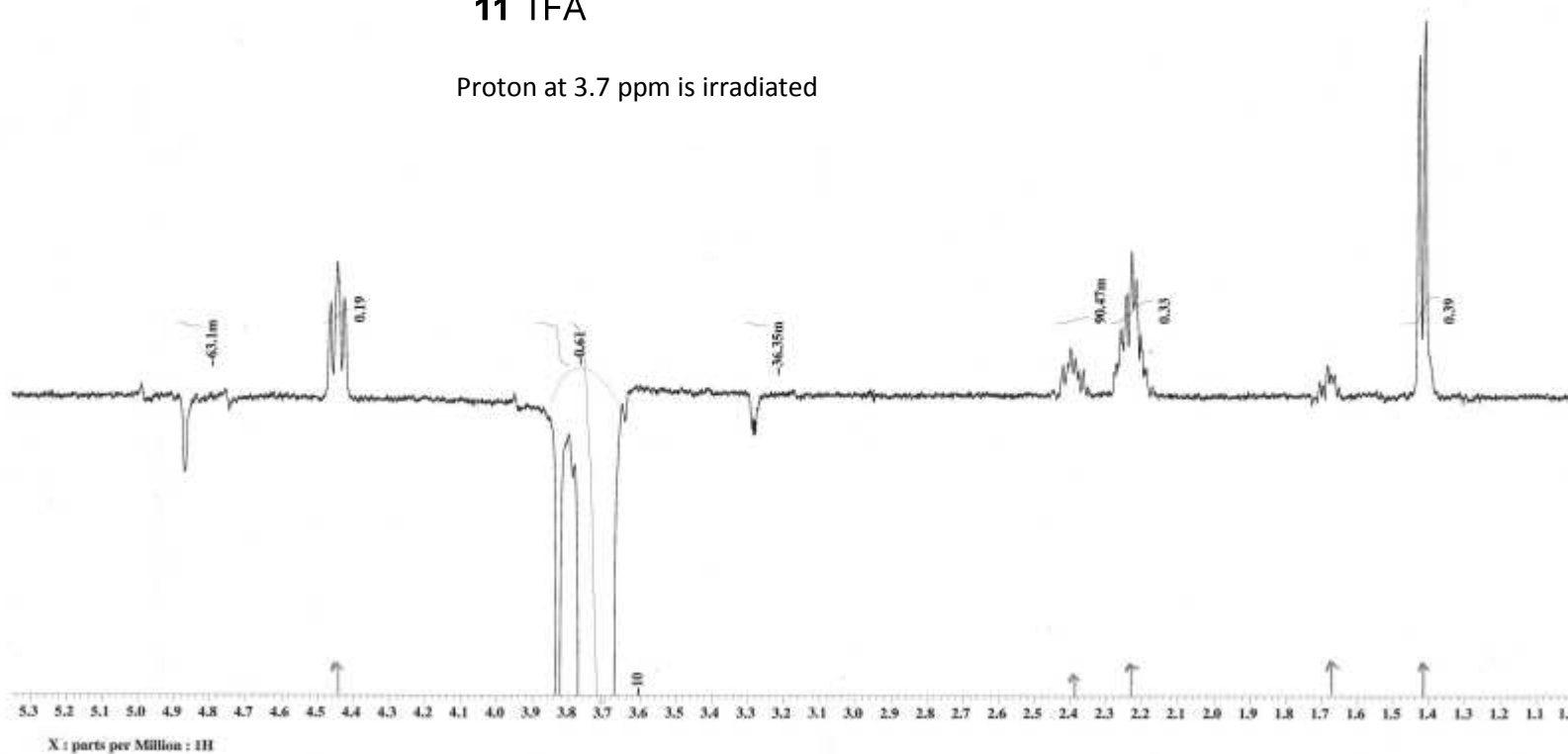


210112-14-SA-ProTFA- NOE 3.8(ppm)-5.jdf

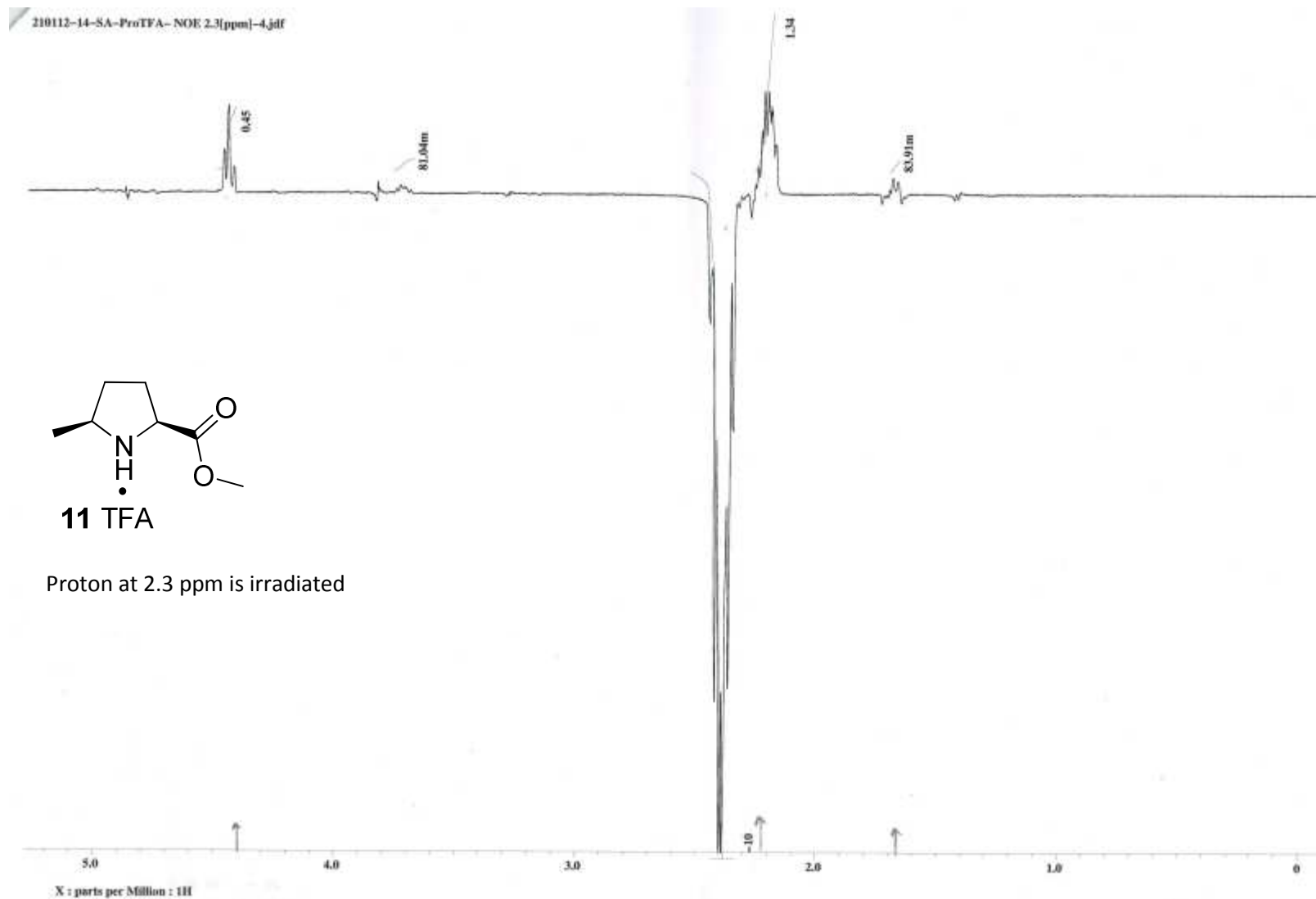
nOe spectrum of **11**



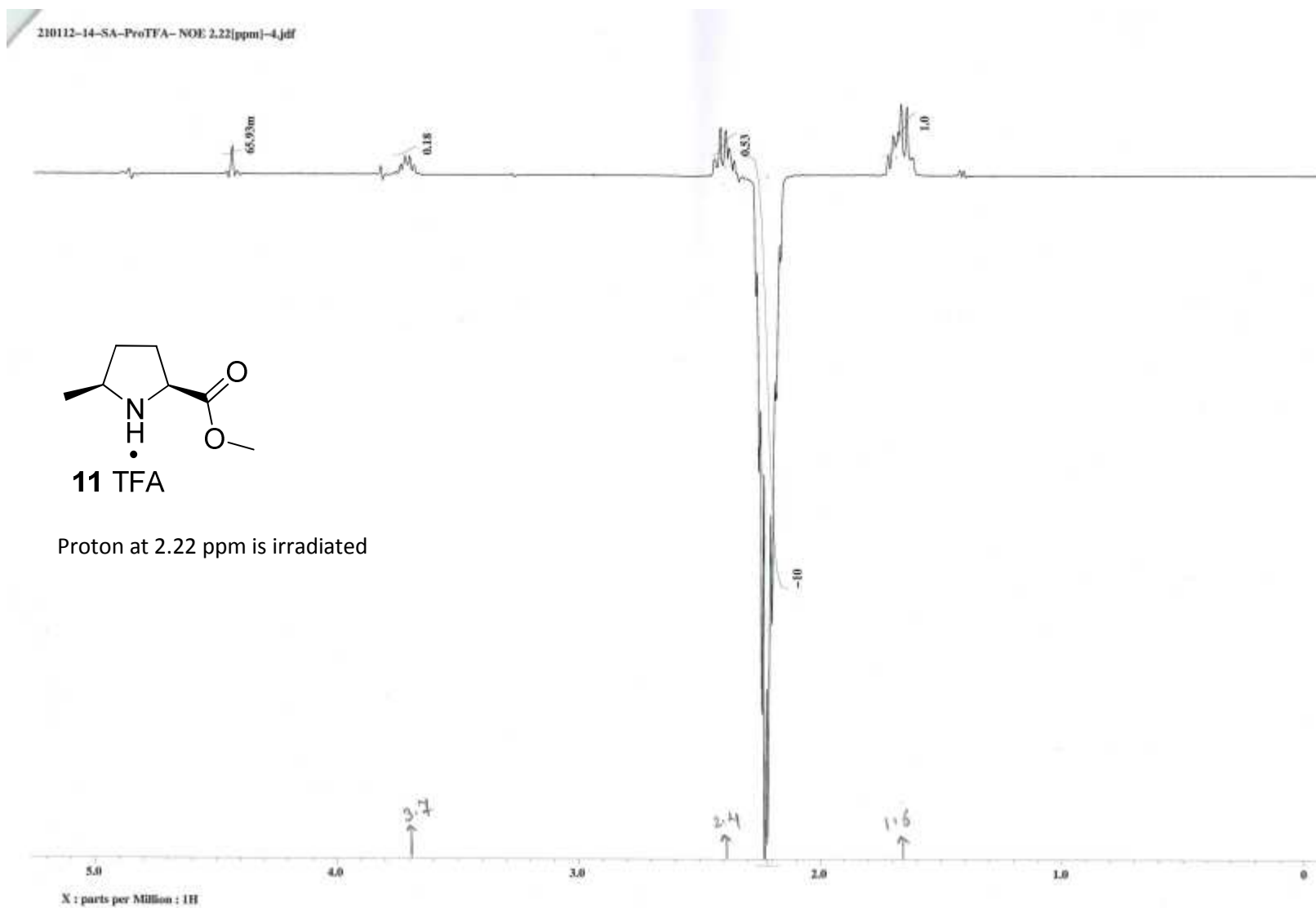
Proton at 3.7 ppm is irradiated



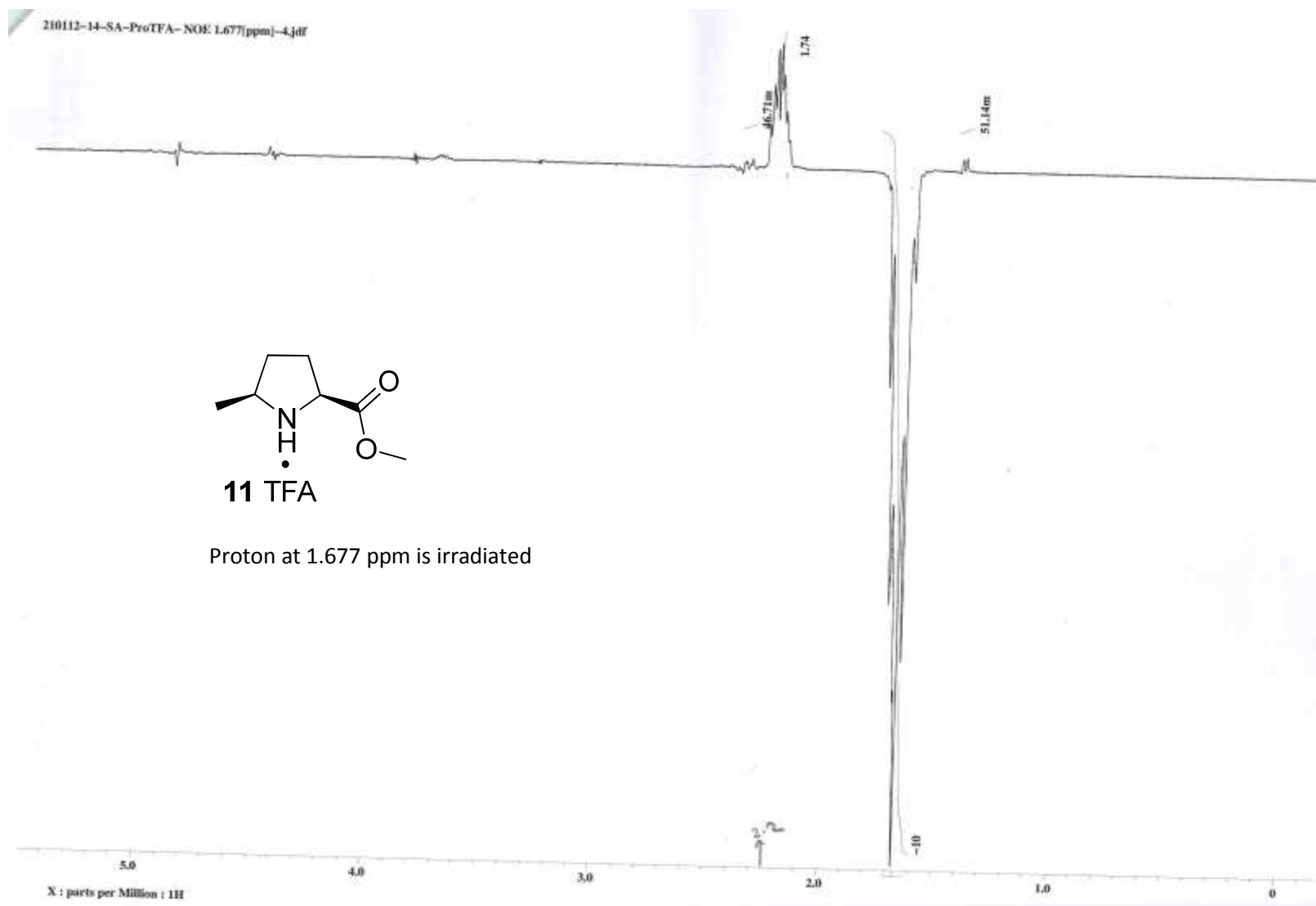
nOe spectrum of **11**



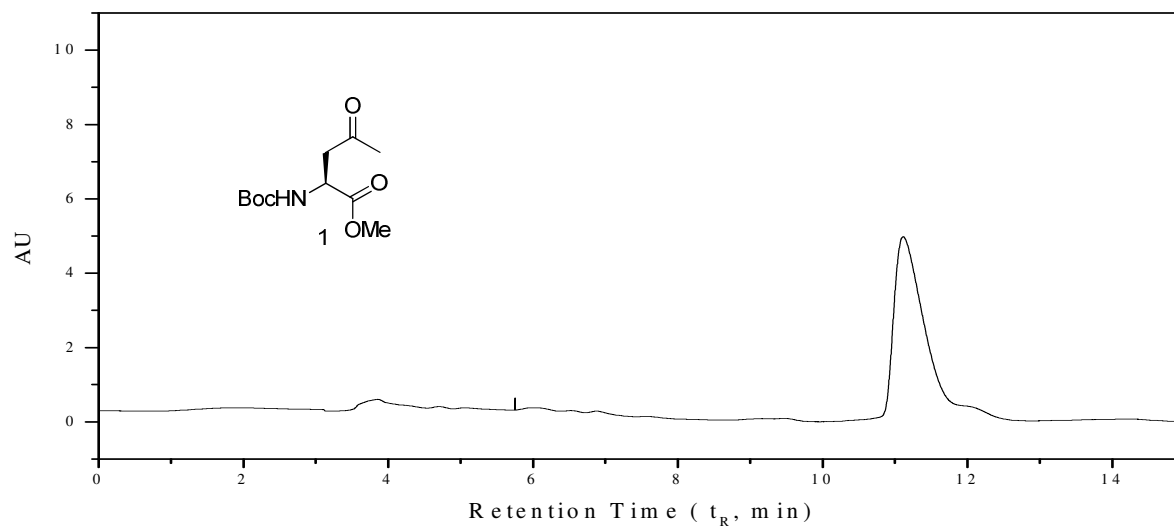
nOe spectrum of **11**



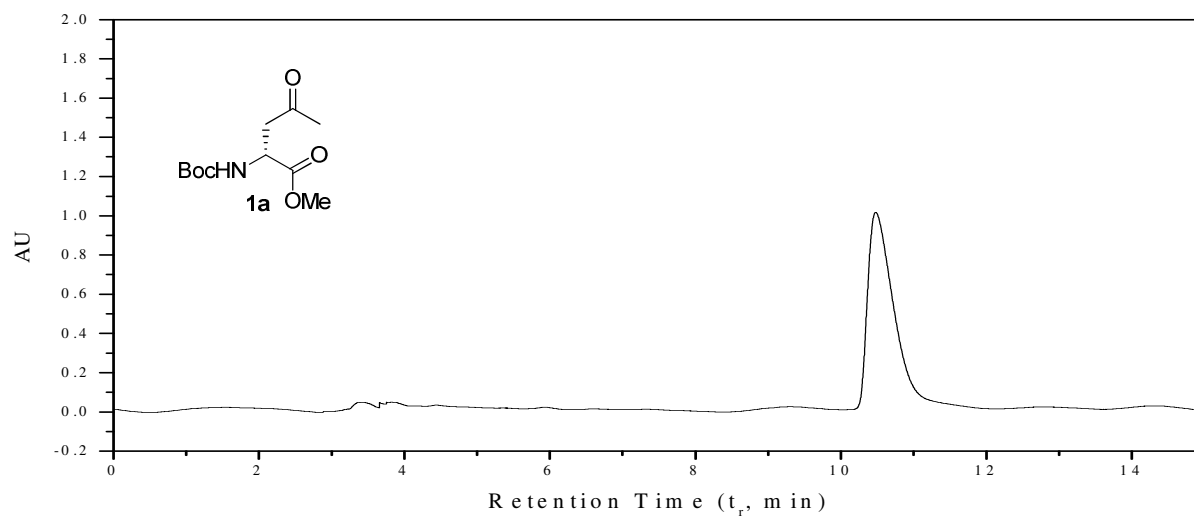
nOe spectrum of **11**



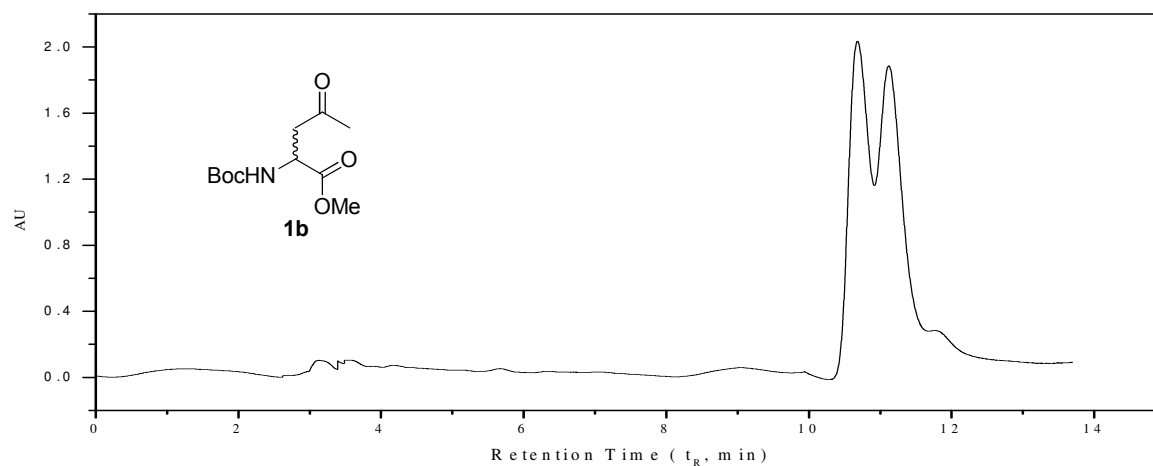
nOe spectrum of **11**



Analytical Normal phase HPLC profile of **1** ($t_r = 11.11$ min); HPLC Conditions: System – isocratic; mobile phase - Hexane: IPA (90:10); column – *Chiralpak* IA (5 μ m, Dim: 4.6 x 250 mm ID) *Waters*, solvent system; Wavelength - 220 nm; column temperature – room temperature.



Analytical Normal phase HPLC profile of **1a** (t_r = 10.48 min); HPLC Conditions: System – isocratic; mobile phase - Hexane: IPA (90:10); column - *Chiralpak* IA (5 μ m, Dim: 4.6 x 250 mm ID) *Waters*, solvent system; Wavelength - 220 nm; column temperature – room temperature.



Analytical Normal phase HPLC profile of **1b** (t_R = 10.68 and 11.12); HPLC Conditions: System – isocratic; mobile phase - Hexane: IPA (90:10); column - *Chiralpak* IA (5 μ m, Dim: 4.6 x 250 mm ID) *Waters*, solvent system; Wavelength - 220 nm; column temperature – room temperature.