

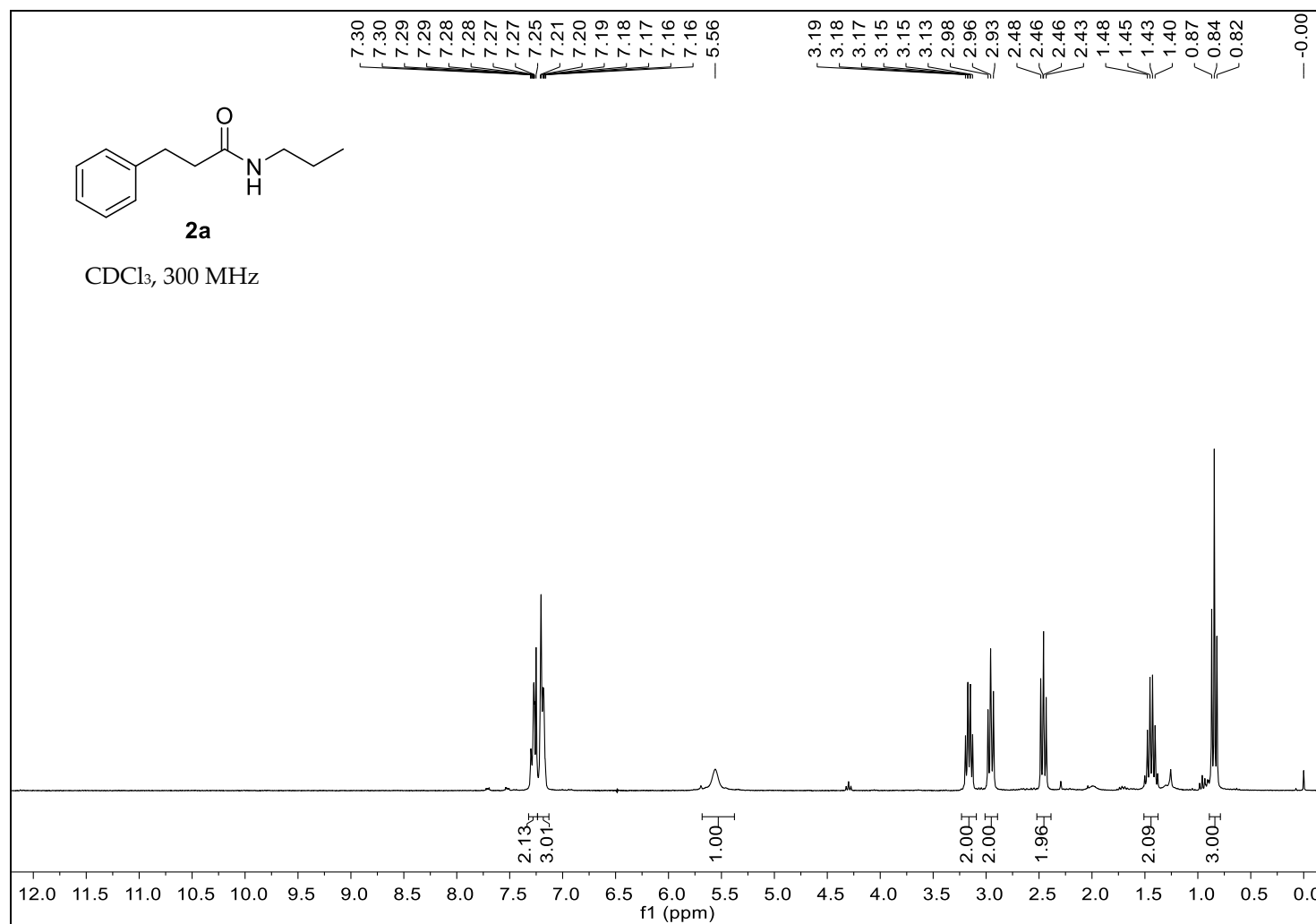
Supplementary Materials

Selective C-N σ Bond Cleavage in Azetidinyll Amides under Transition Metal Free Conditions

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Copies of $^1\text{H-NMR}$, $^{13}\text{C-NMR}$ 2a–2n and HRMS Spectrum of 2g and 2n

Figure S1. ¹H-NMR of 3-Phenyl-N-propylpropanamide (2a).

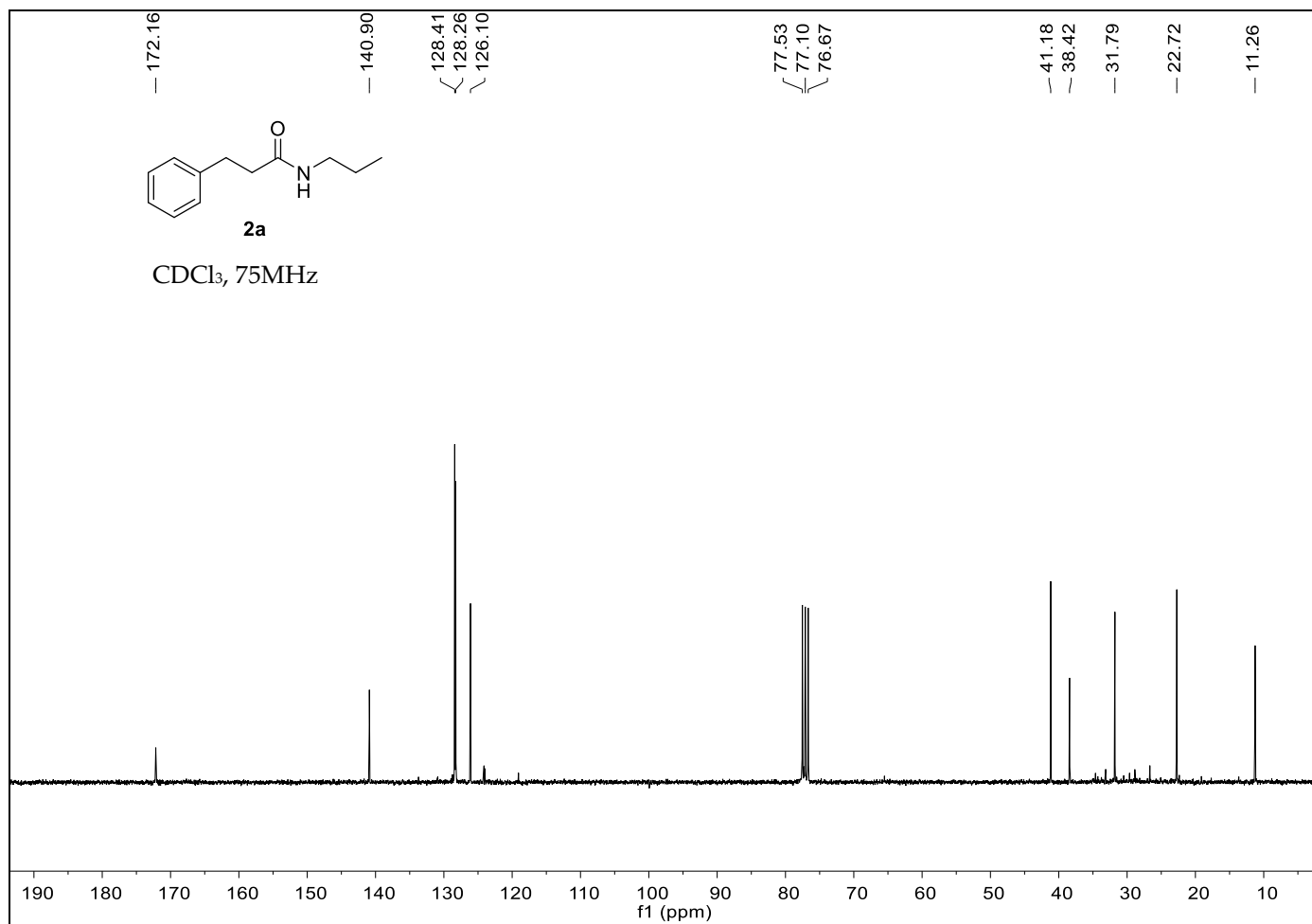
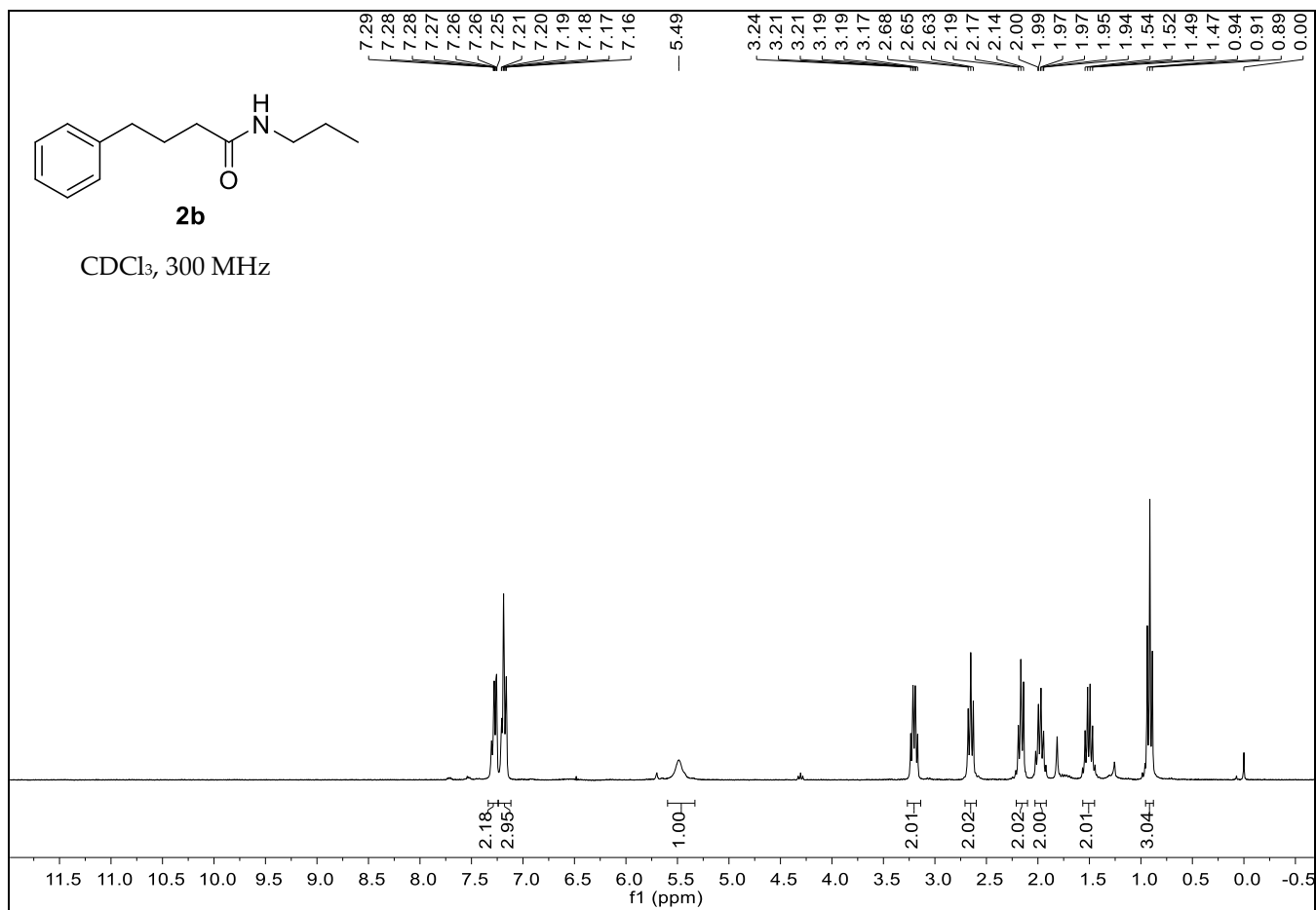
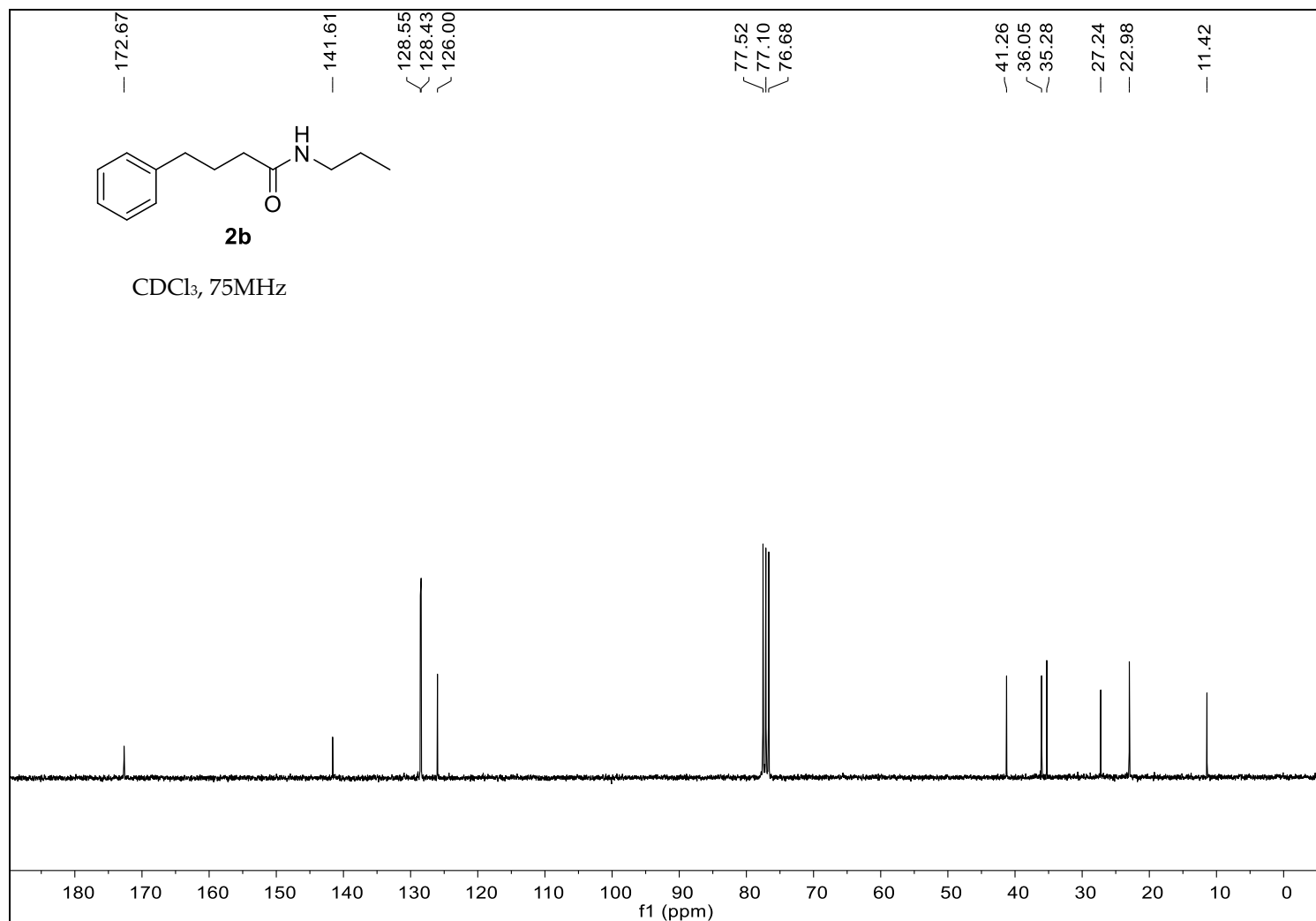
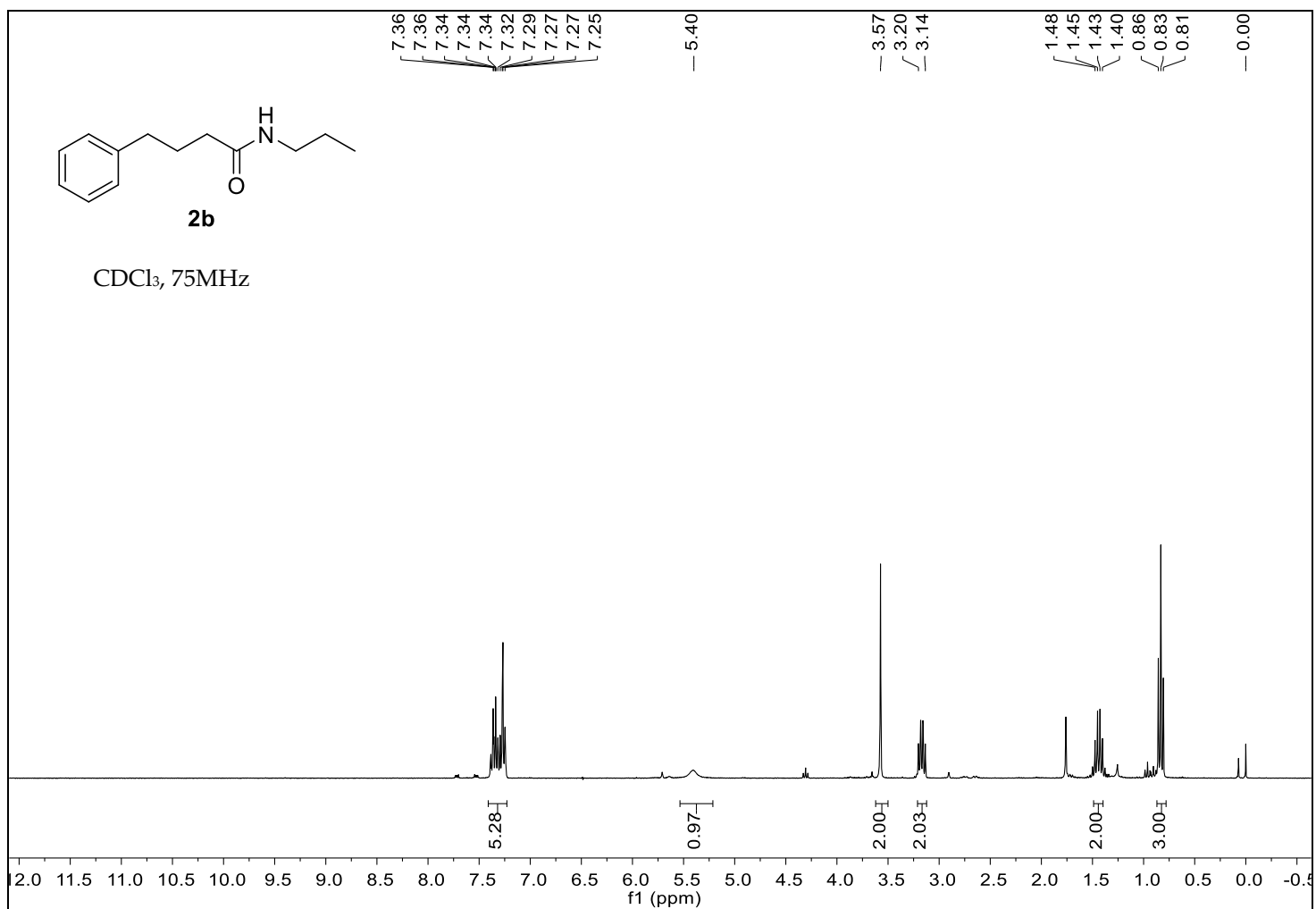
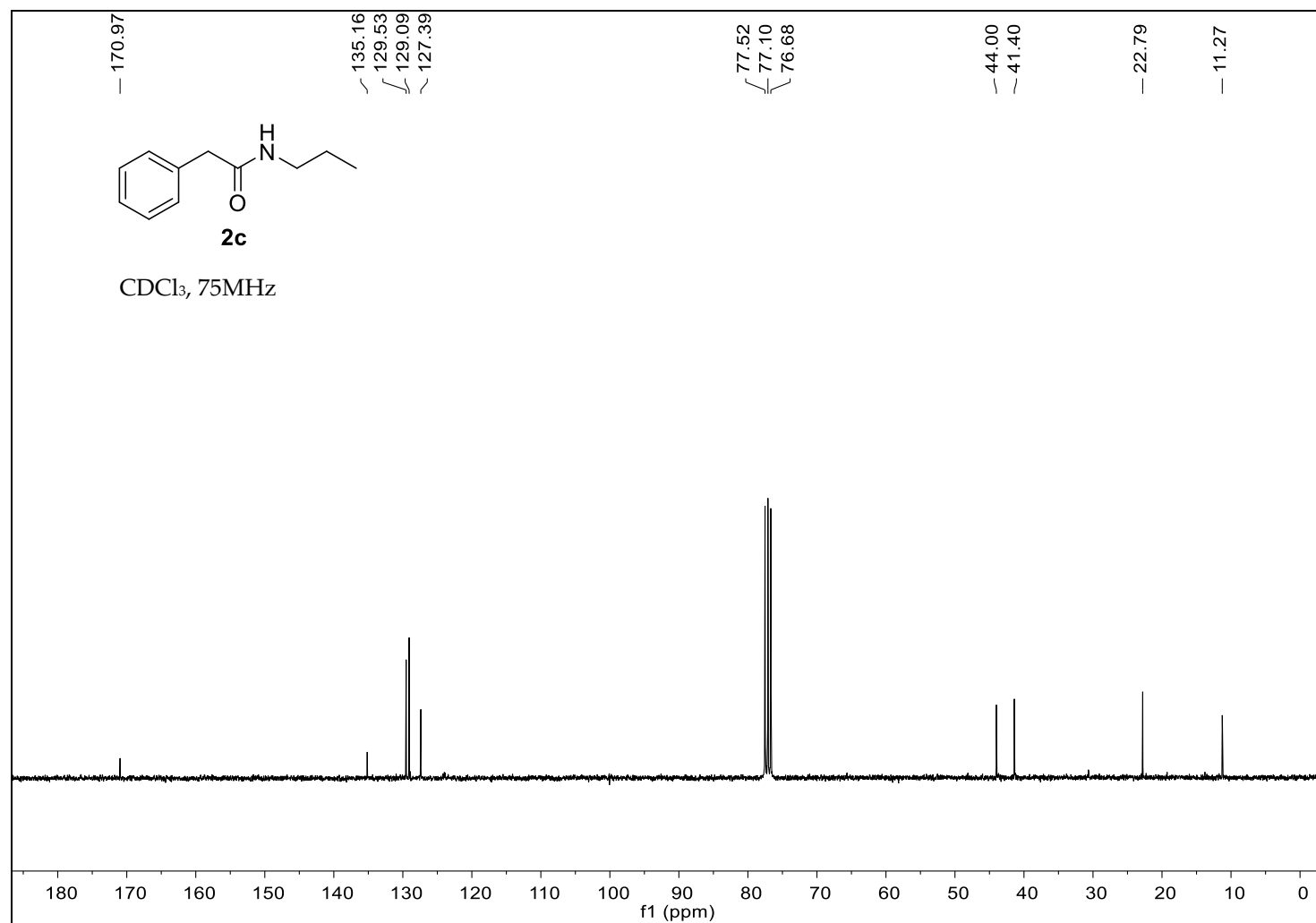


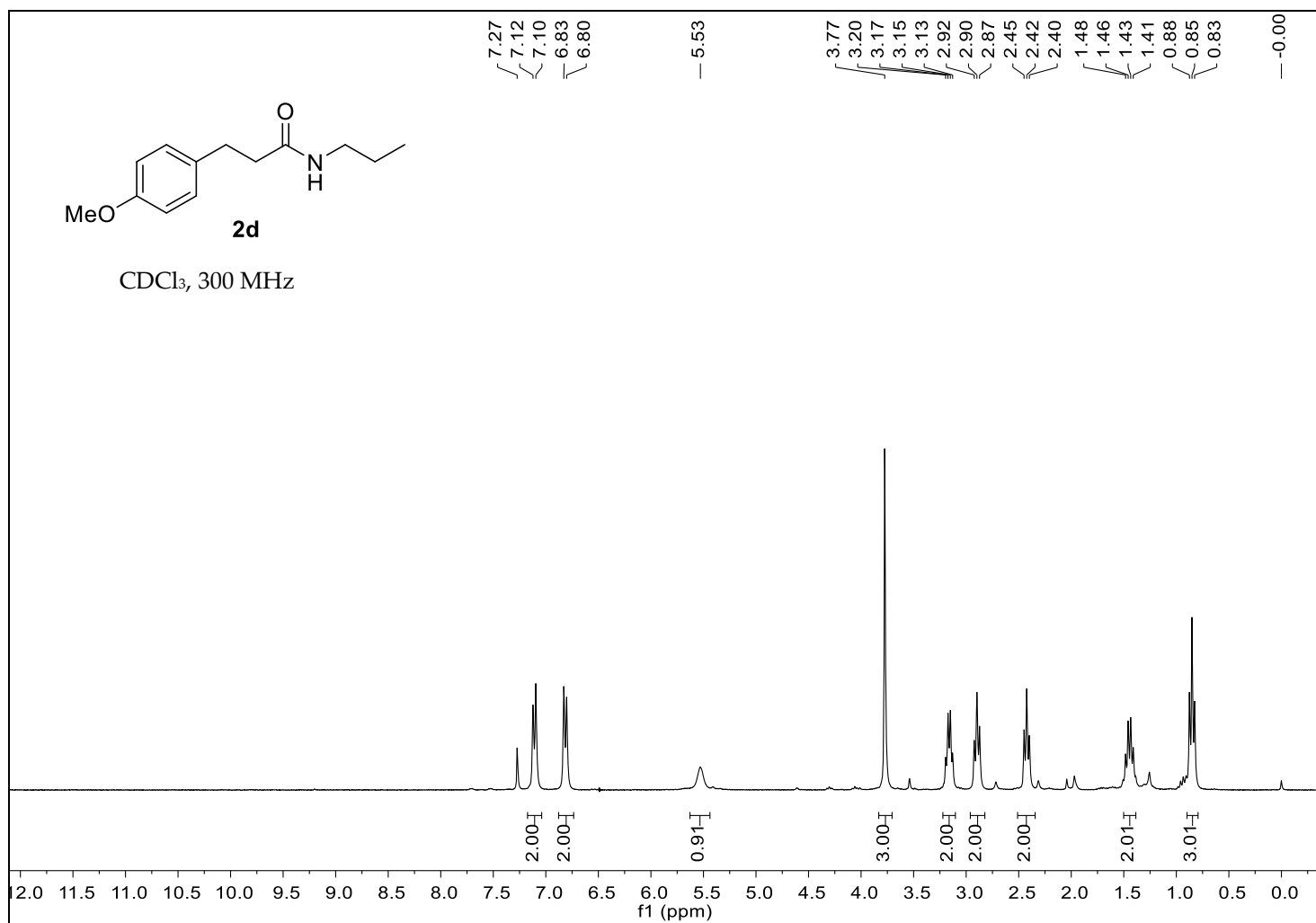
Figure S2. ¹³C-NMR of 3-Phenyl-N-propylpropanamide (2a).

Figure S3. ¹H NMR of 4-Phenyl-N-propylbutanamide (2b).

Figure S4. ¹³C-NMR of 4-Phenyl-N-propylbutanamide (**2b**).

Figure S5. ¹H-NMR of 2-Phenyl-N-propylacetamide (2c).

Figure S6. ¹³C-NMR of 2-Phenyl-N-propylacetamide (2c).

Figure S7. ¹H-NMR of 3-(4-Methoxyphenyl)-N-propylpropanamide (2d).

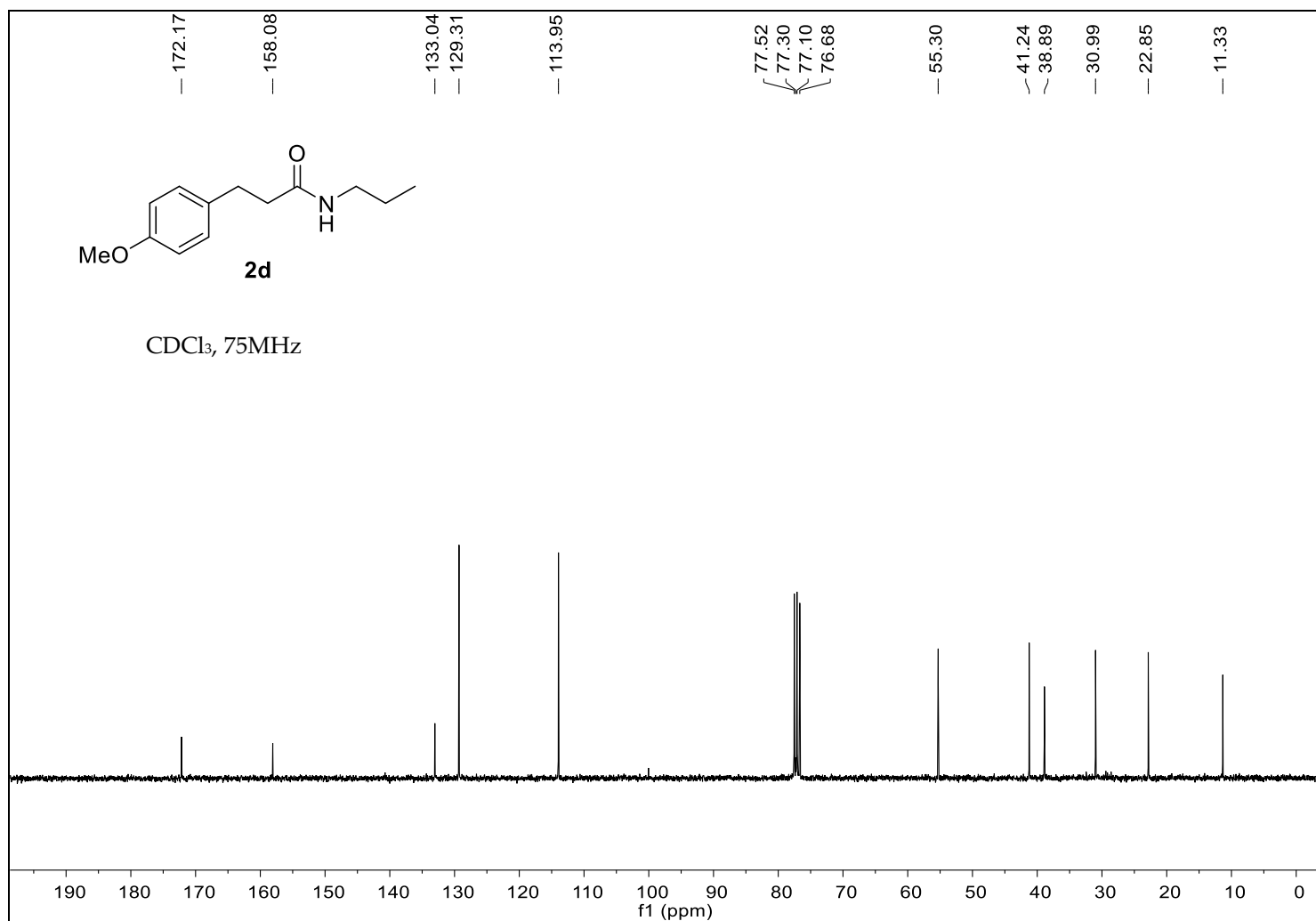
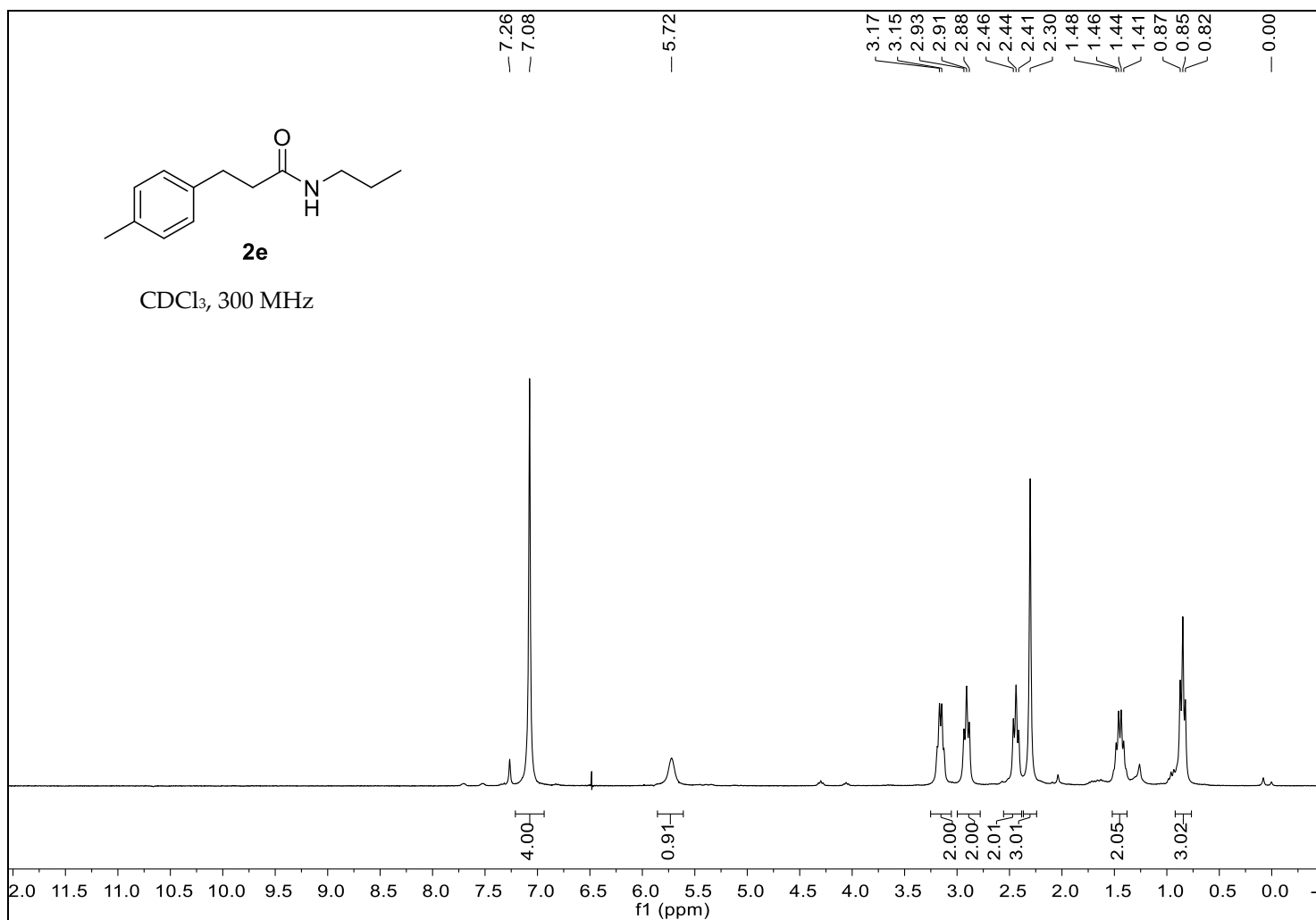
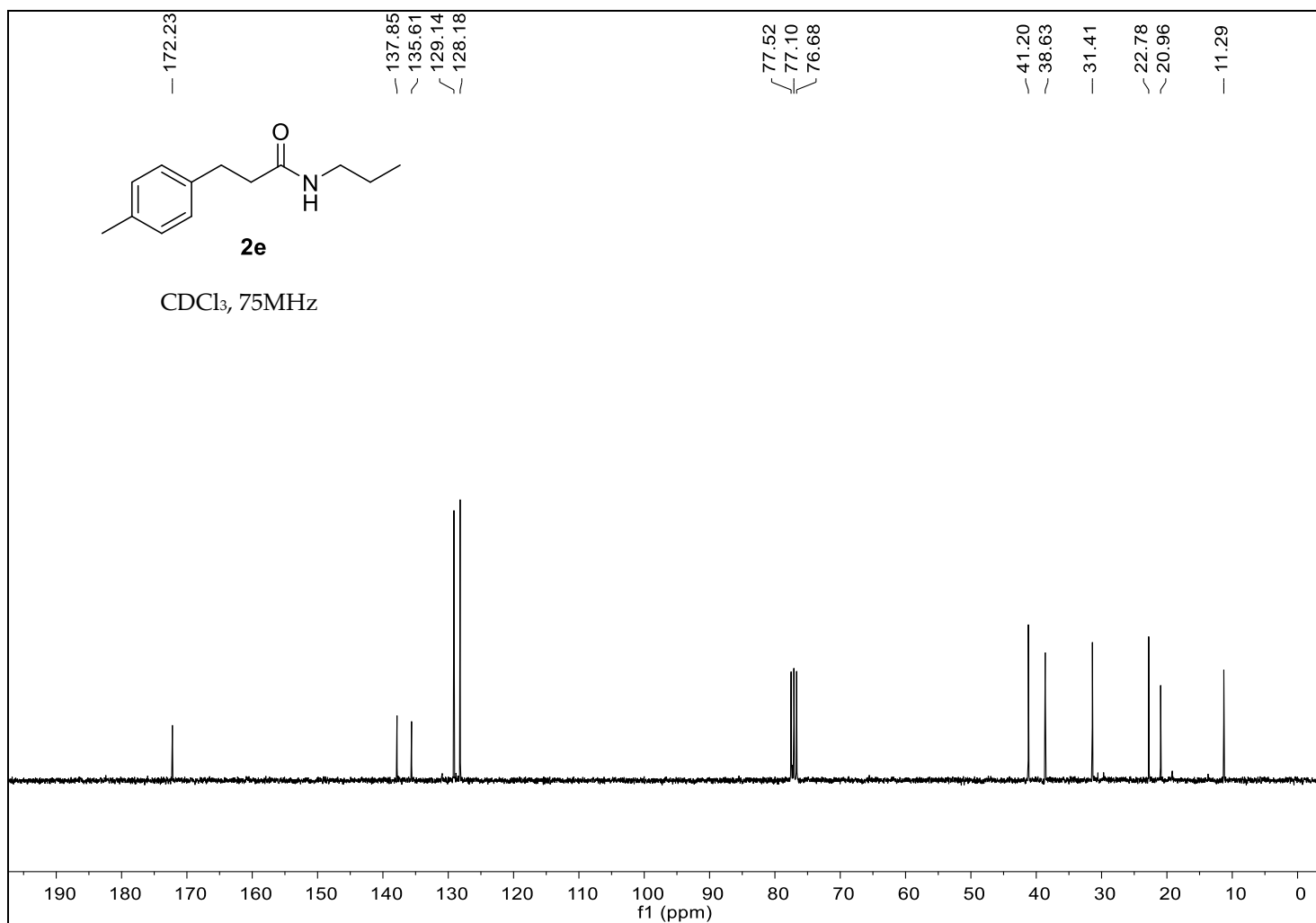


Figure S8. ¹³C-NMR of 3-(4-Methoxyphenyl)-N-propylpropanamide (2d).

Figure S9. ¹H-NMR of *N*-Propyl-3-(*p*-tolyl)propanamide (**2e**).

Figure S10. ^{13}C -NMR of *N*-Propyl-3-(*p*-tolyl)propanamide (**2e**).

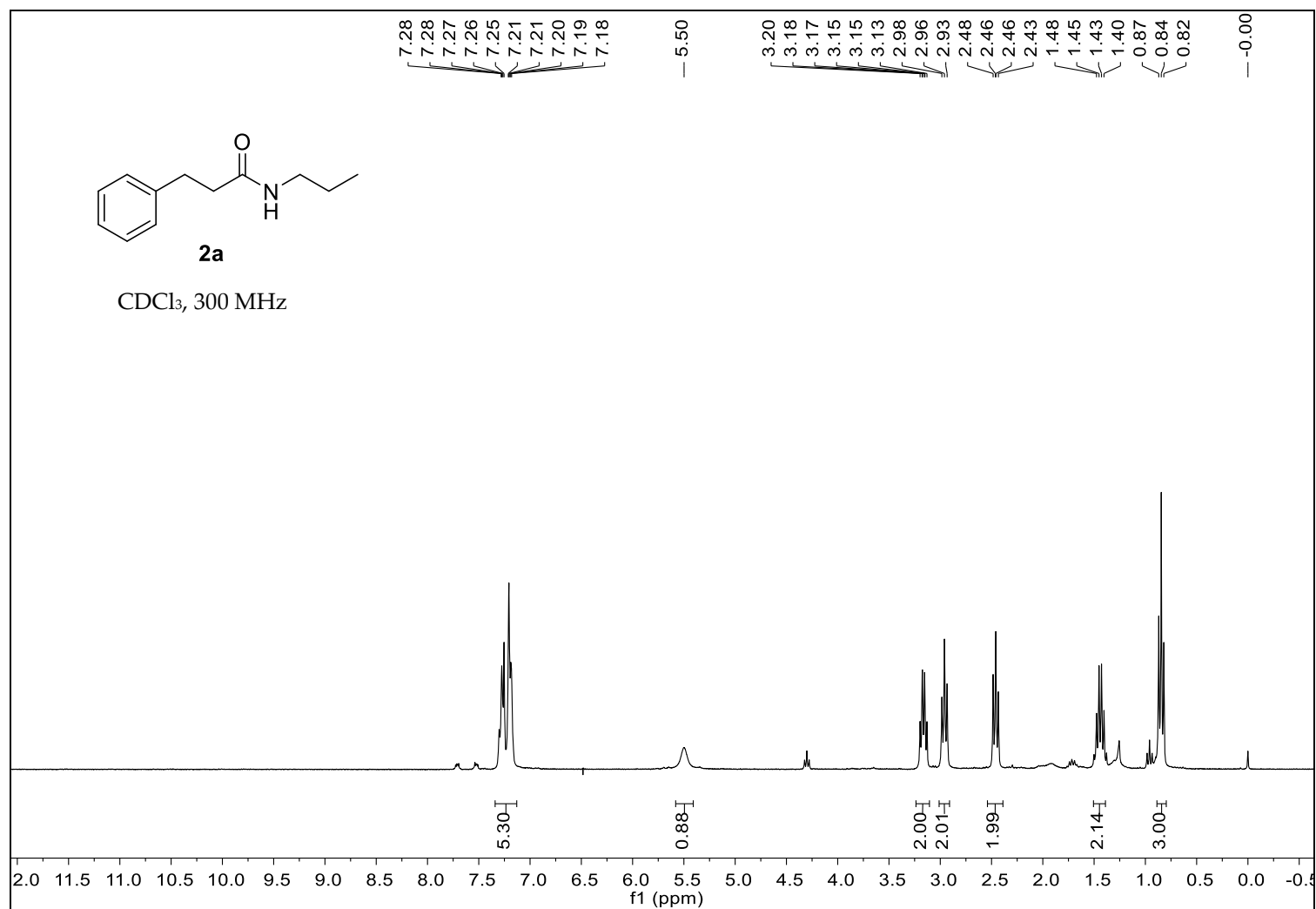


Figure S11. ¹H-NMR of 3-Phenyl-N-propylpropanamide ((2a) (derived from 1f)).

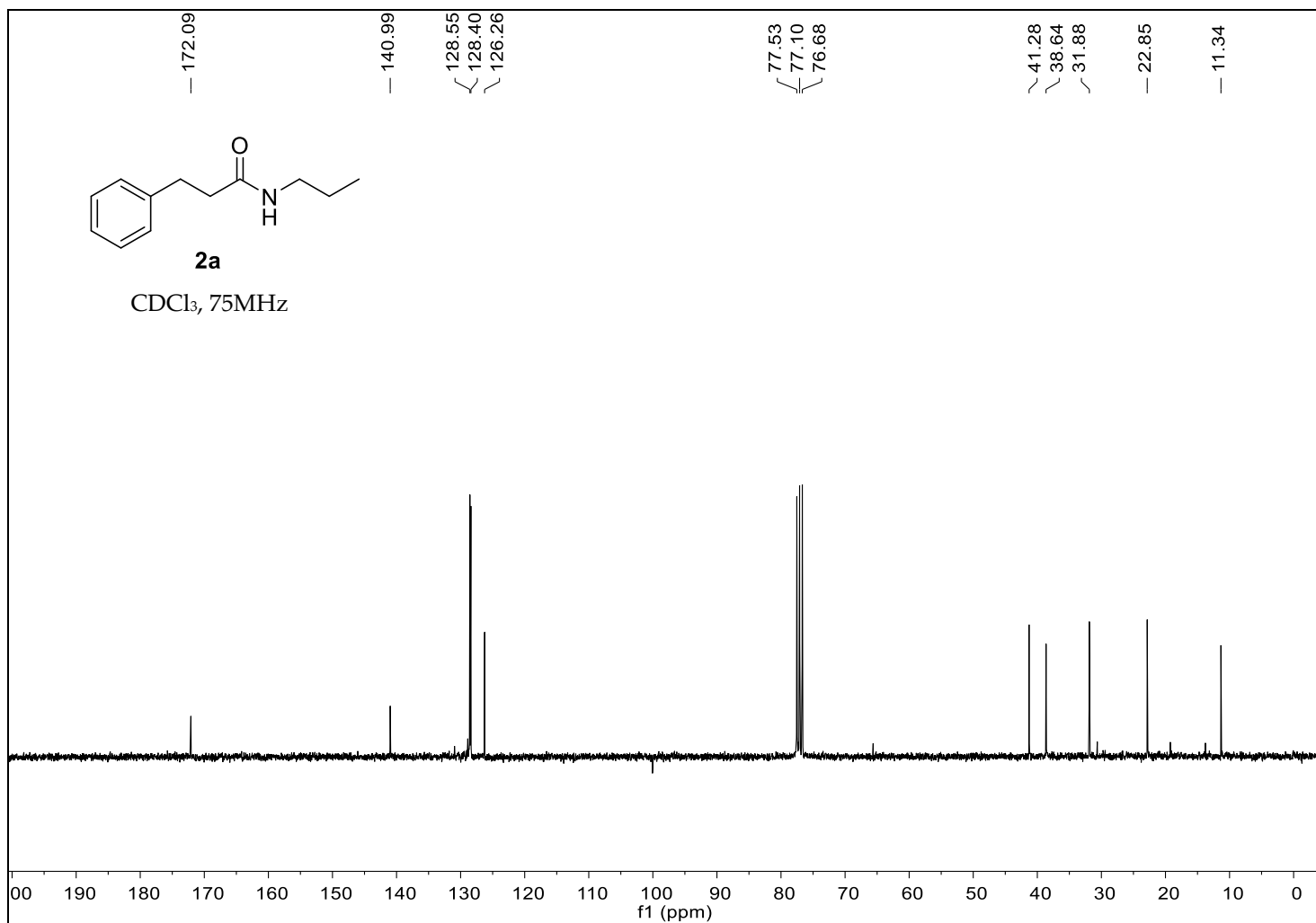
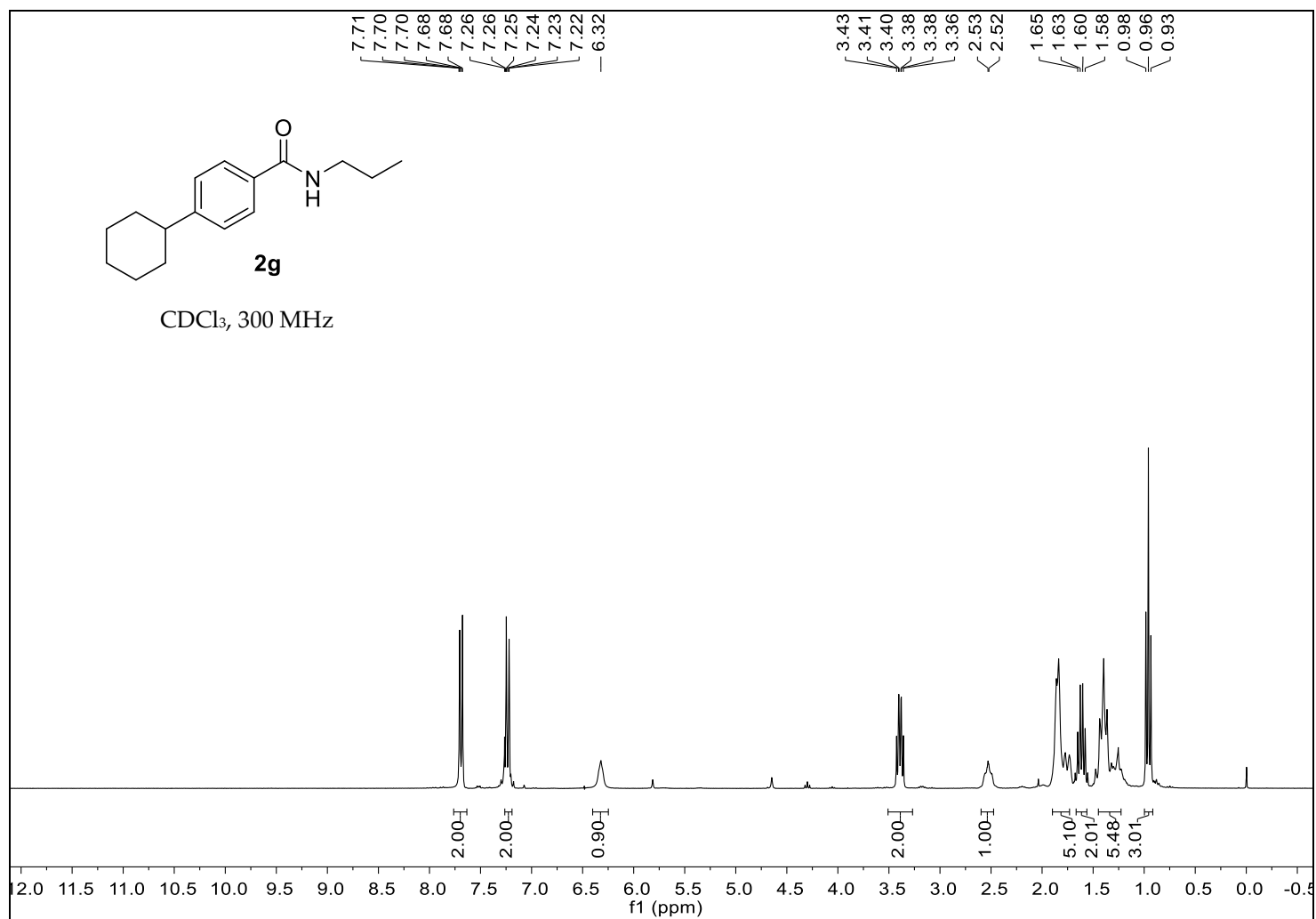


Figure S12. ¹³C-NMR of 3-Phenyl-N-propylpropanamide ((2a) (derived from 1f)).

Figure S13. $^1\text{H-NMR}$ of 4-Cyclohexyl-N-propylbenzamide (2g).

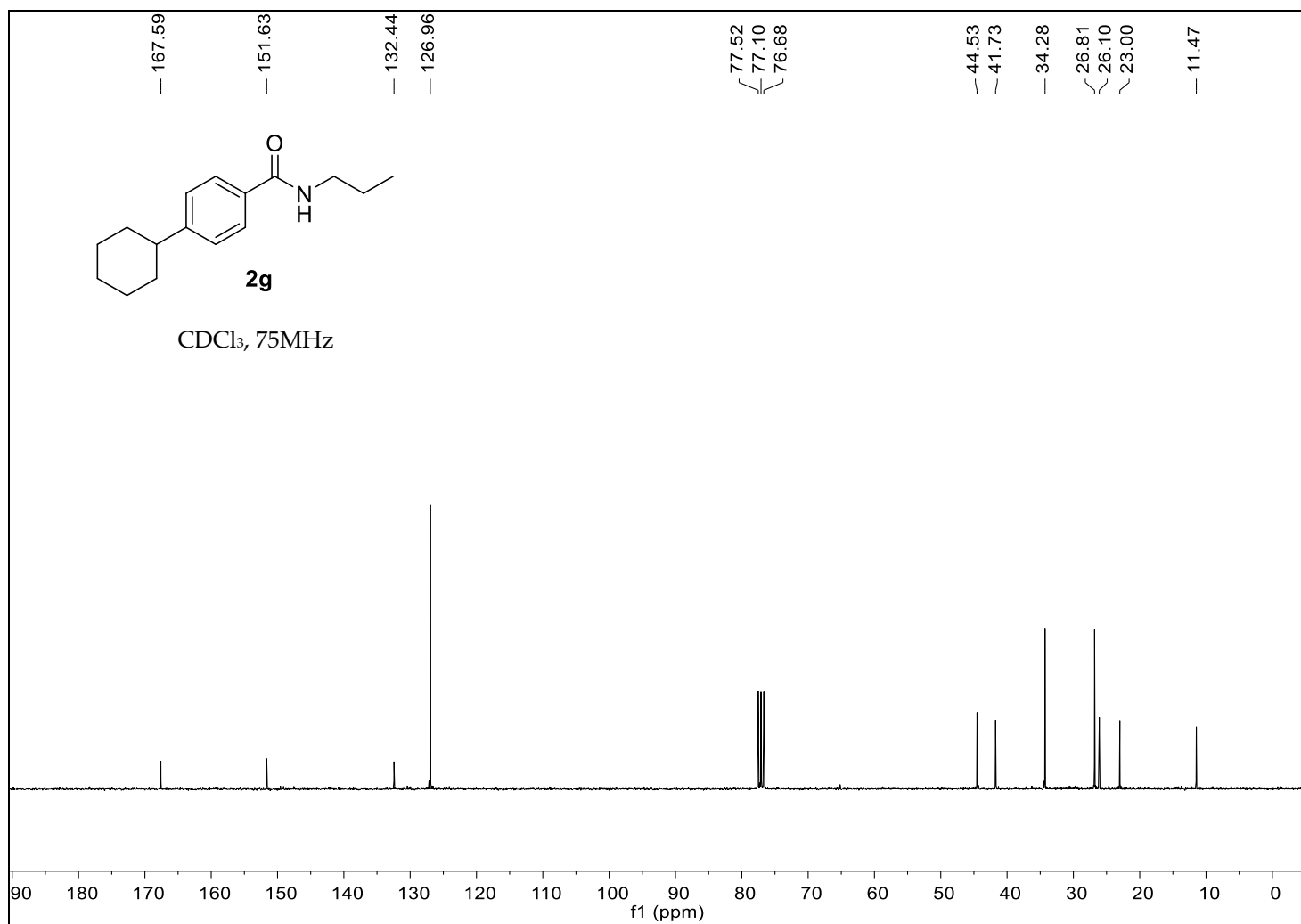
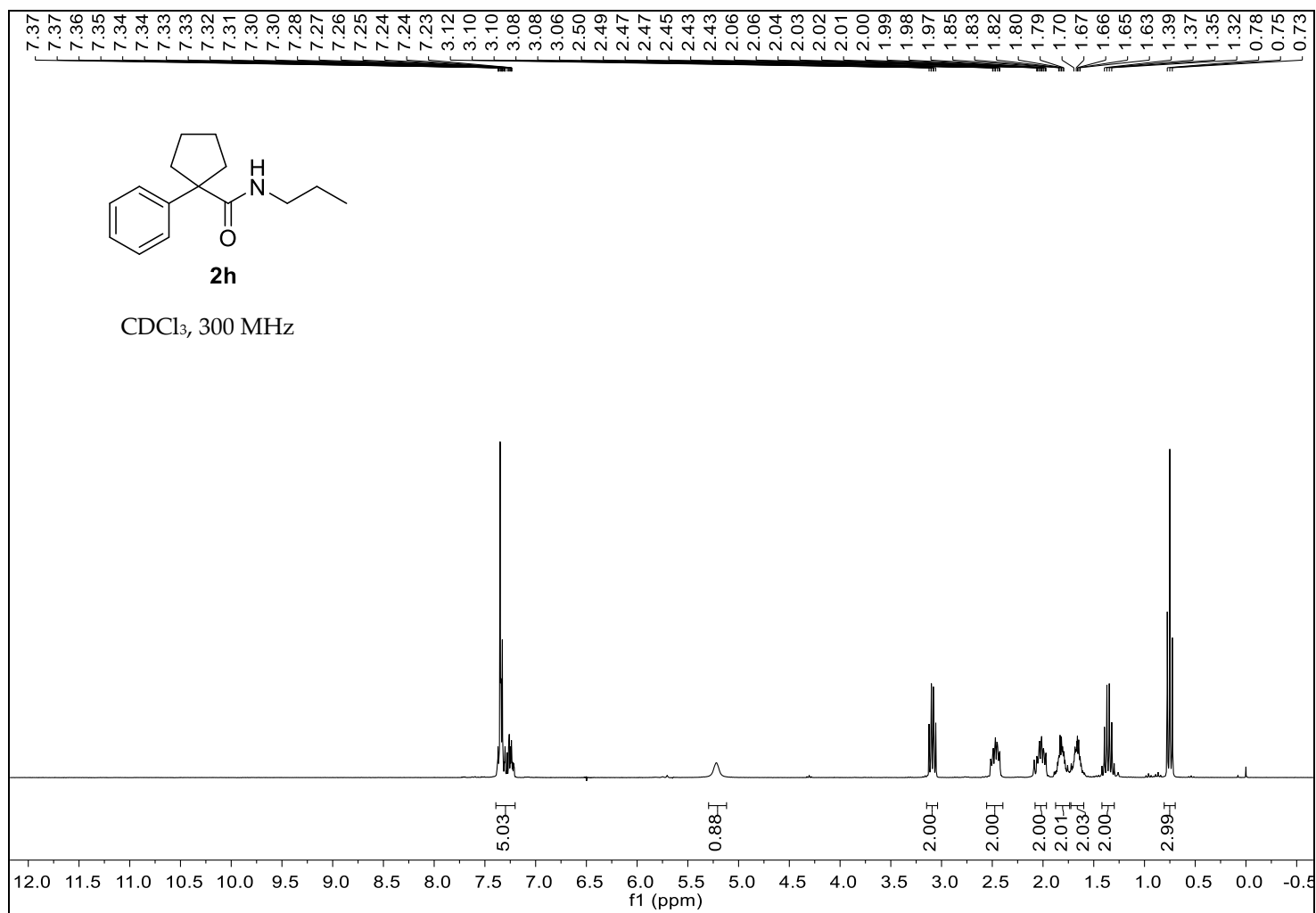


Figure S14. ¹³C-NMR of 4-Cyclohexyl-N-propylbenzamide (2g).

Figure S15. ¹H-NMR of 1-Phenyl-N-propylcyclopentane-1-carboxamide (2h).

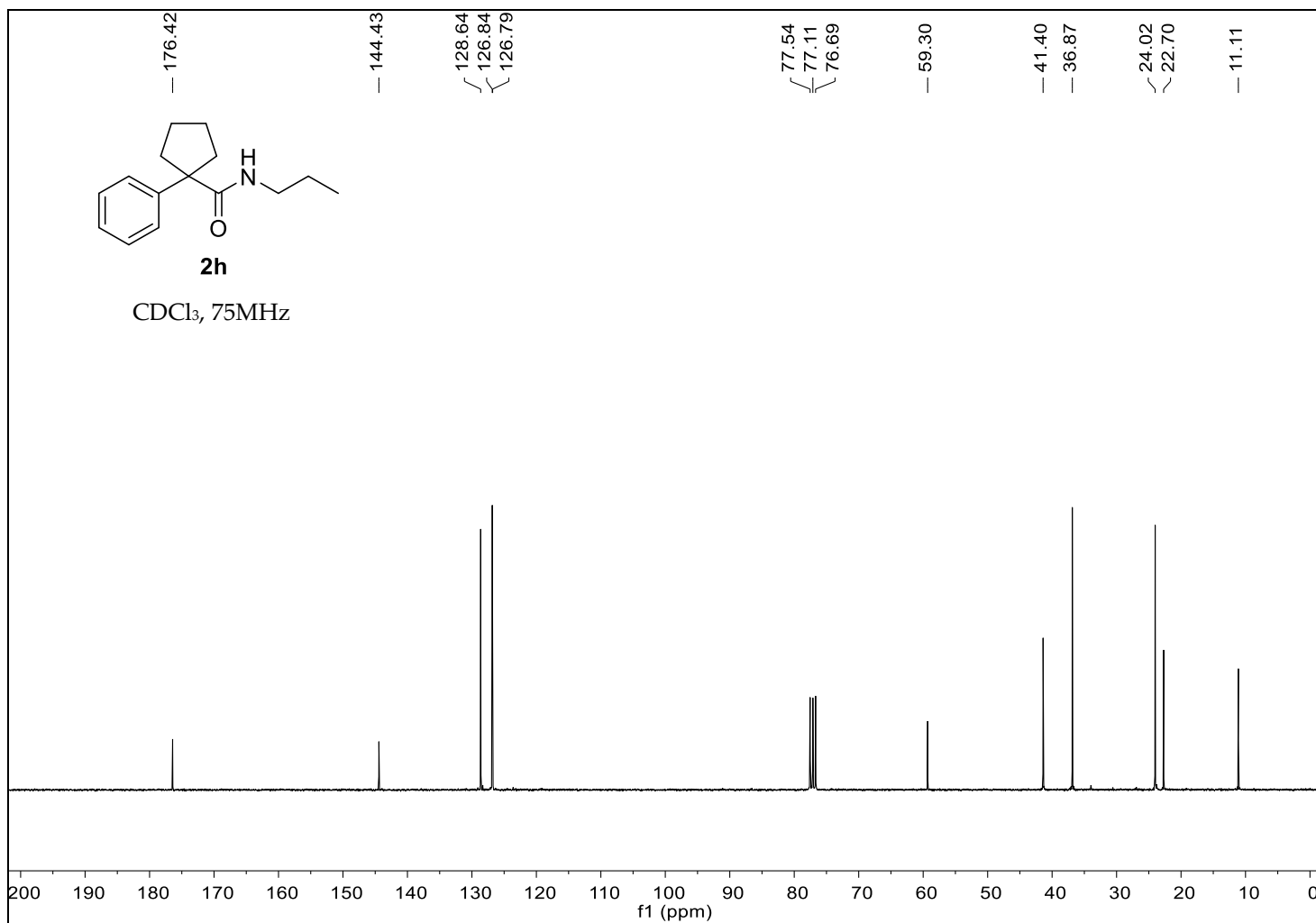


Figure S16. ¹³C-NMR of 1-Phenyl-N-propylcyclopentane-1-carboxamide (2h).

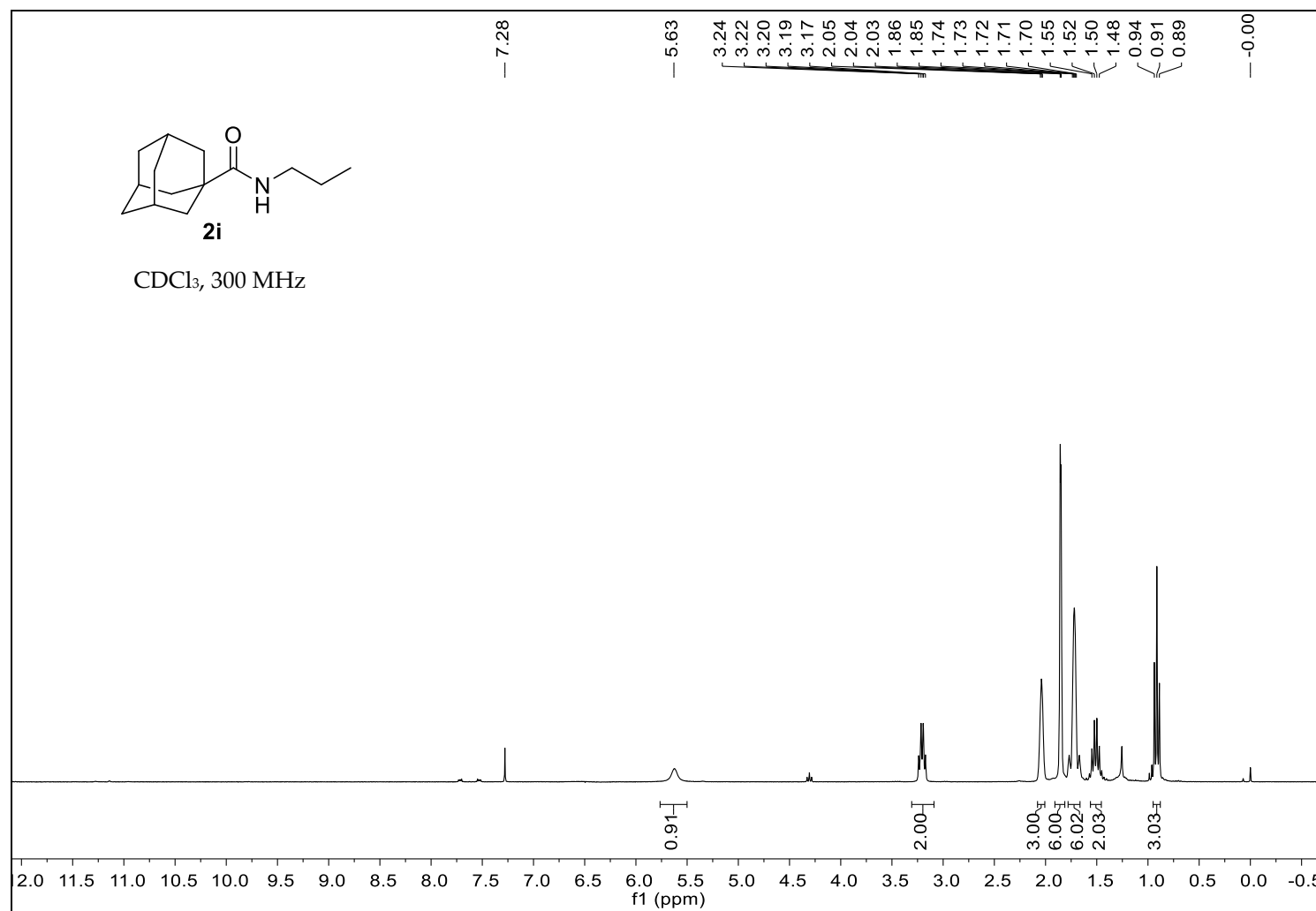


Figure S17. ¹H-NMR of (3r,5r,7r)-N-Propyladamantane-1-carboxamide (**2i**).

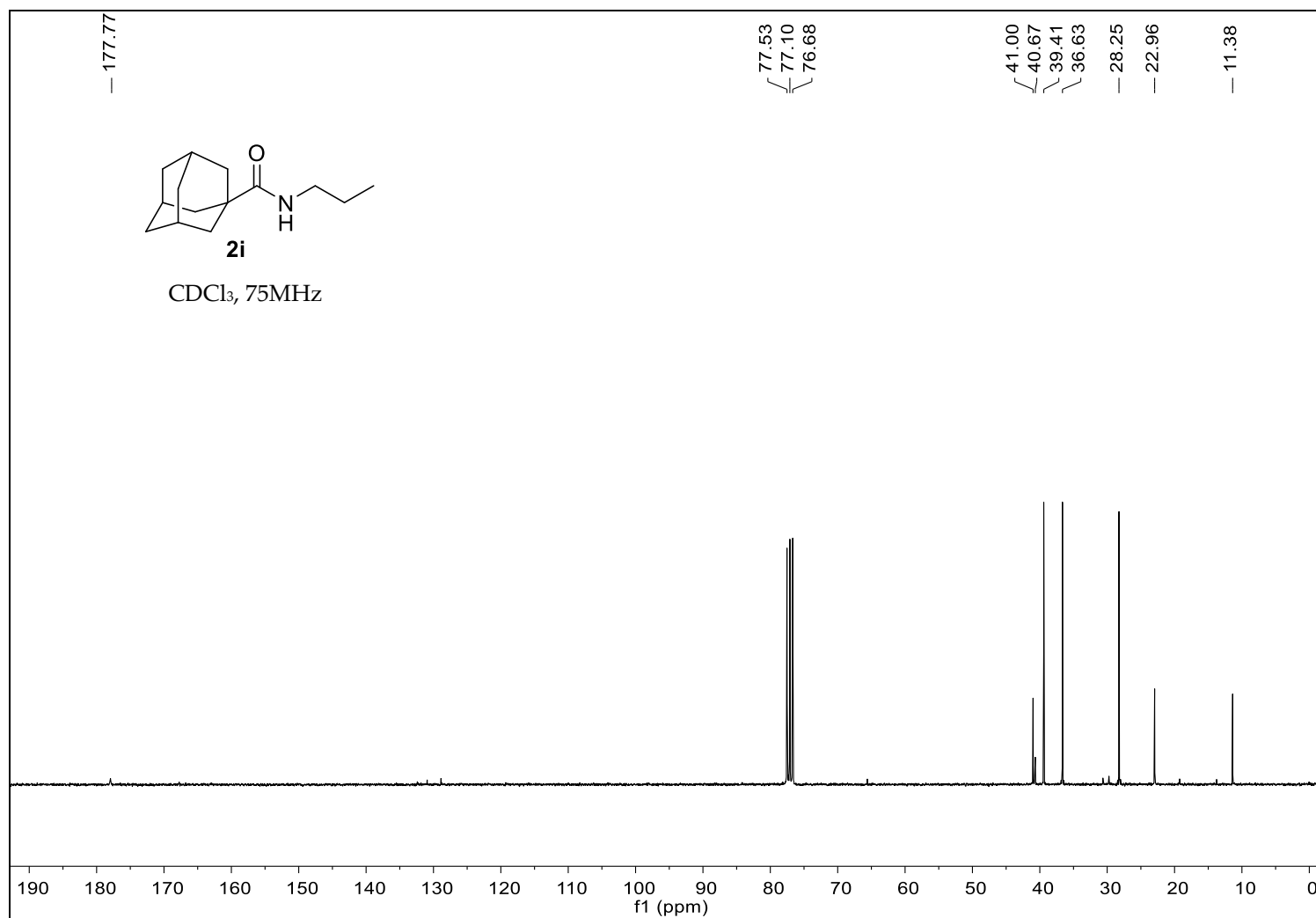
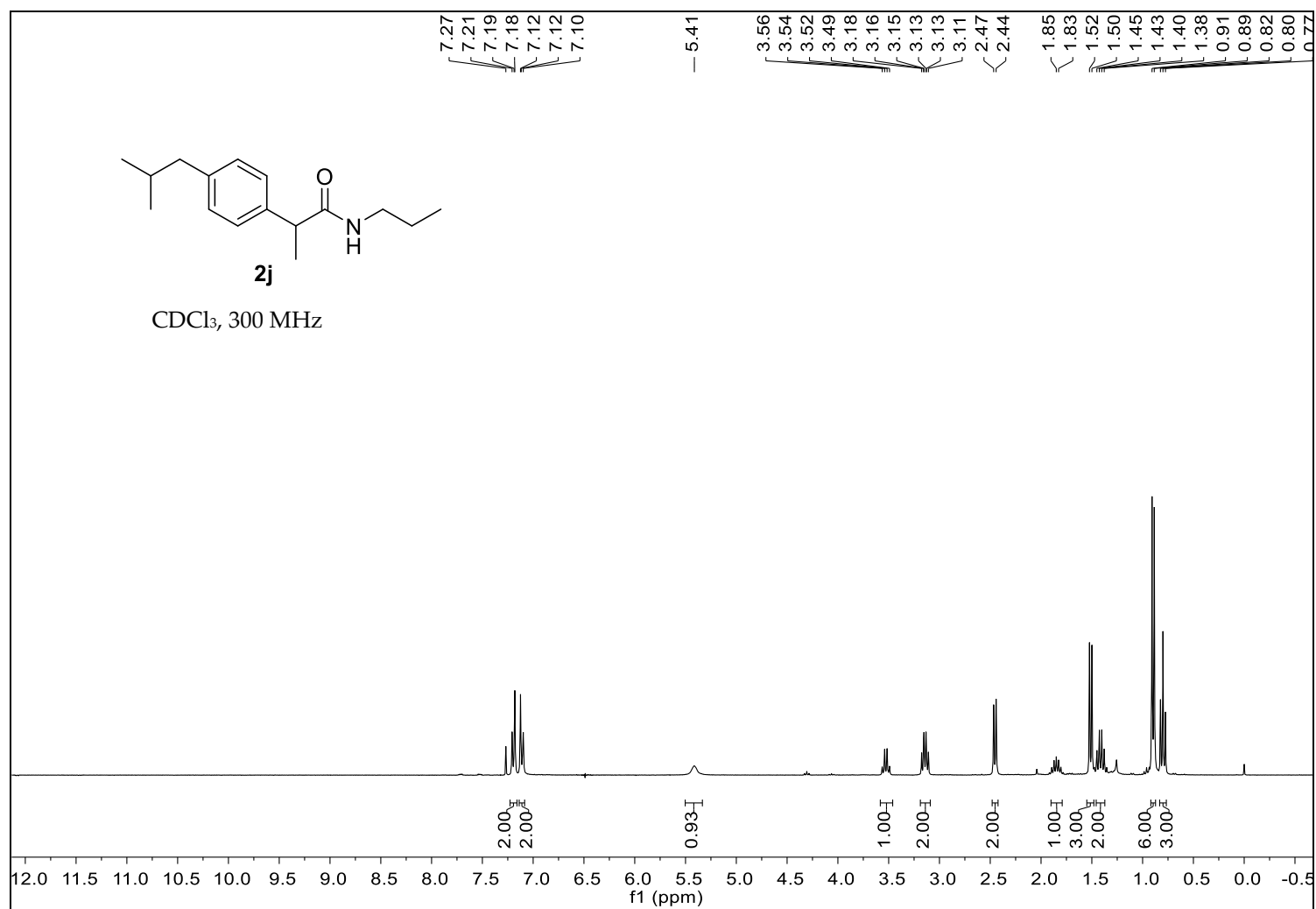


Figure S18. ¹³C-NMR of (3r,5r,7r)-N-Propyladamantane-1-carboxamide (2i).

Figure S19. ¹H-NMR of 2-(4-isobutylphenyl)-N-propylpropanamide (2j).

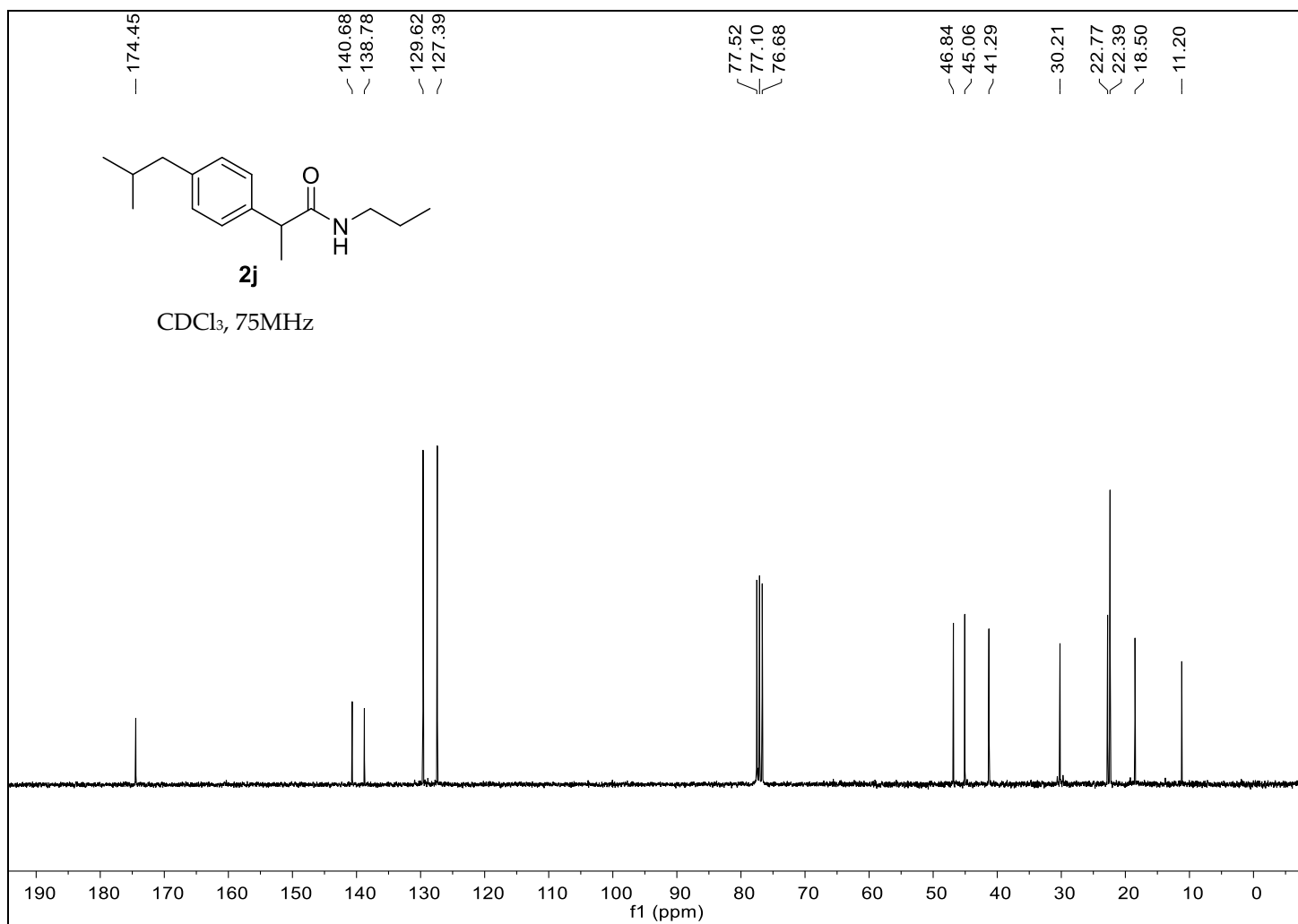
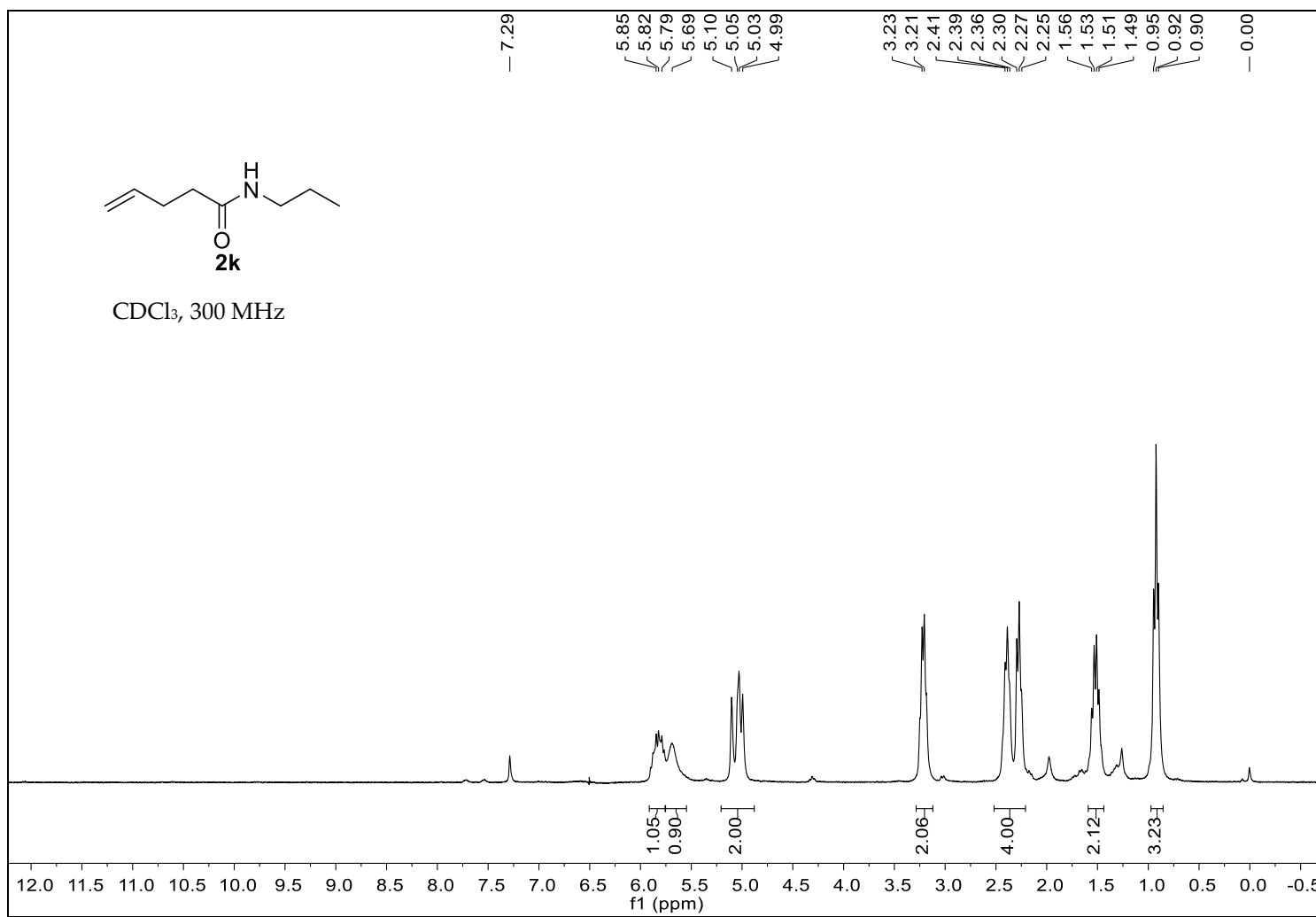


Figure S20. ¹³C-NMR of 2-(4-isobutylphenyl)-N-propylpropanamide (**2j**).

Figure S21. ¹H-NMR of N-Propylpent-4-enamide (**2k**).

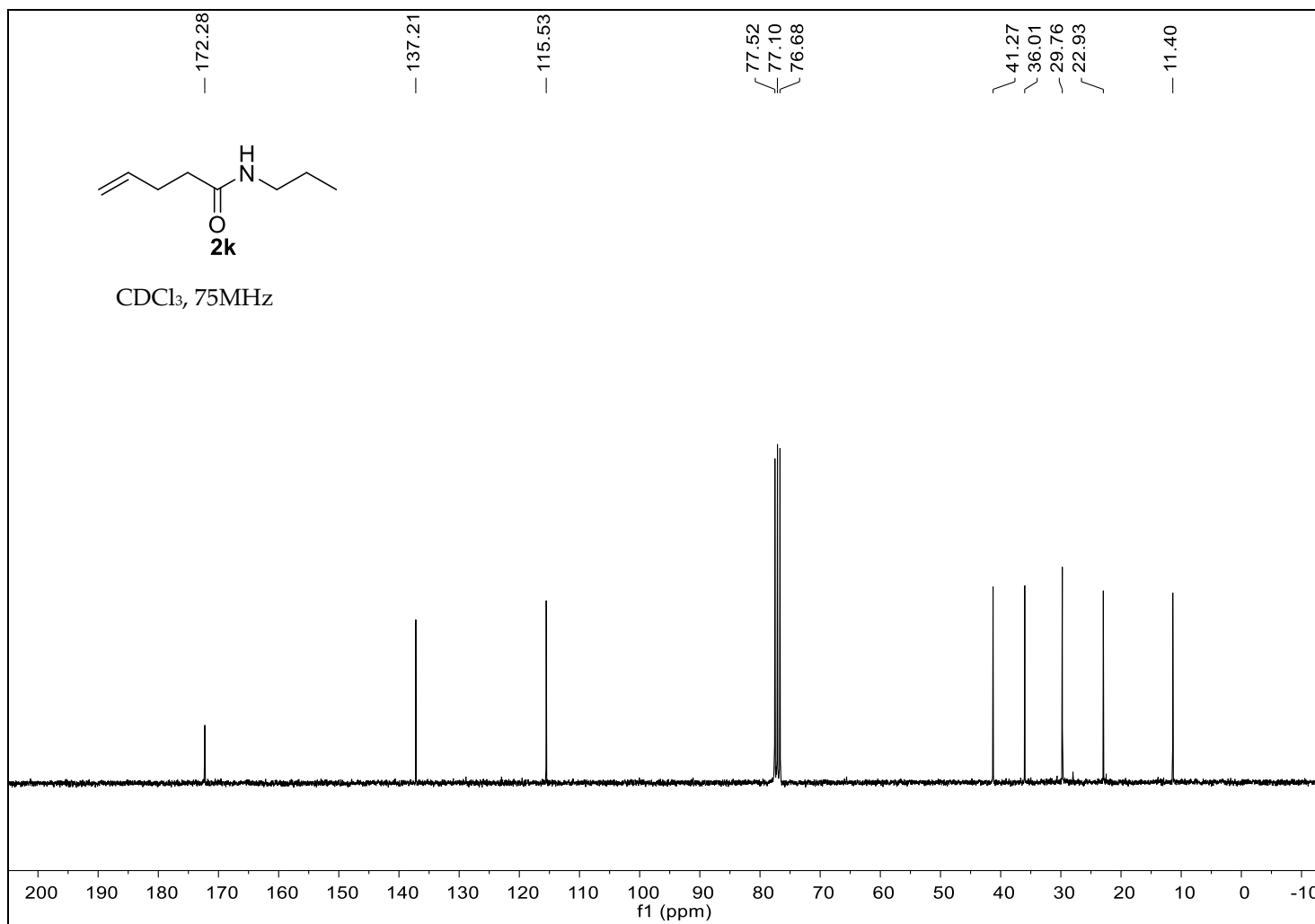
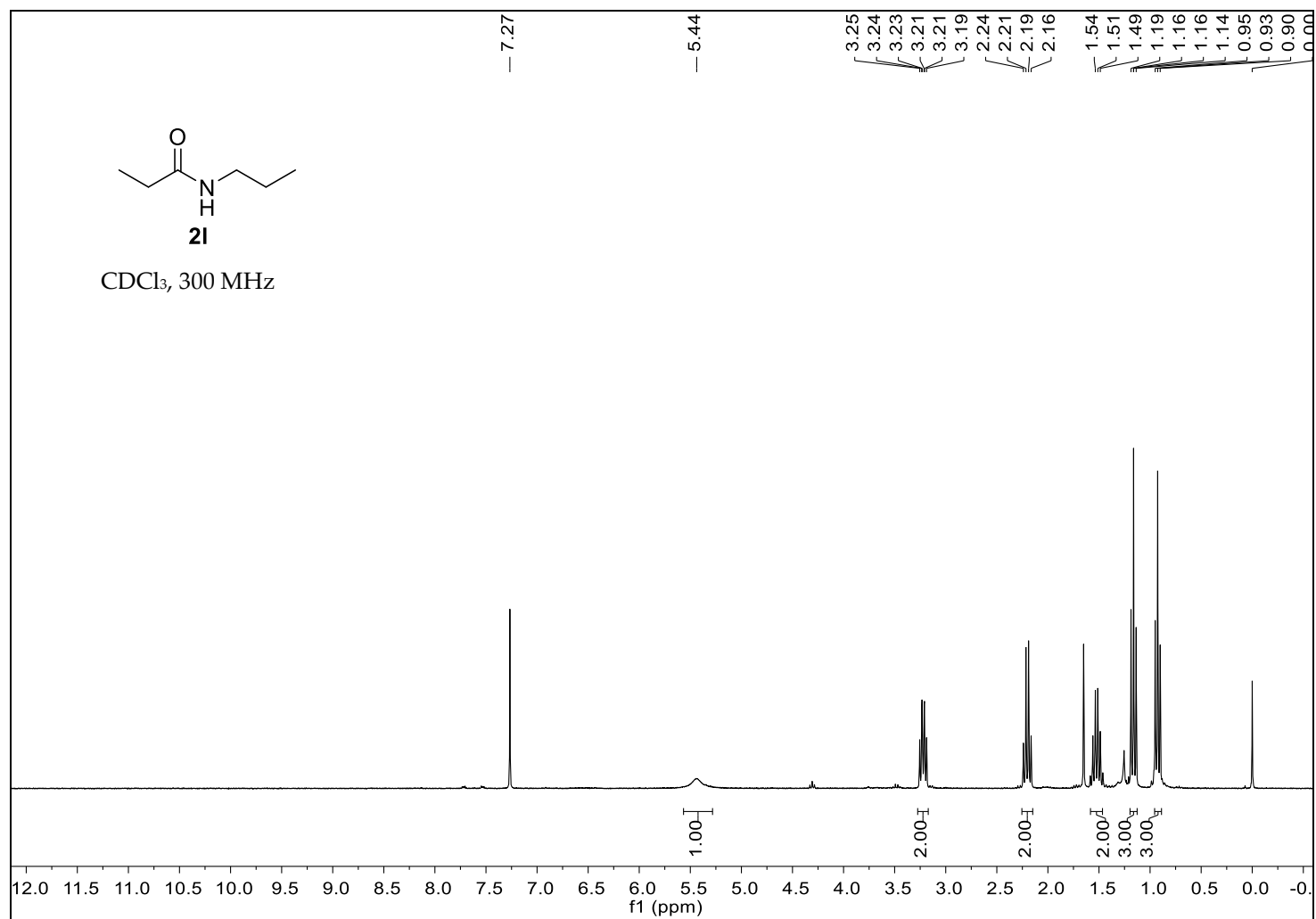


Figure S22. ¹³C-NMR of N-Propylpent-4-enamide (2k).

Figure S23. ¹H-NMR of *N*-Propylpropionamide (21).

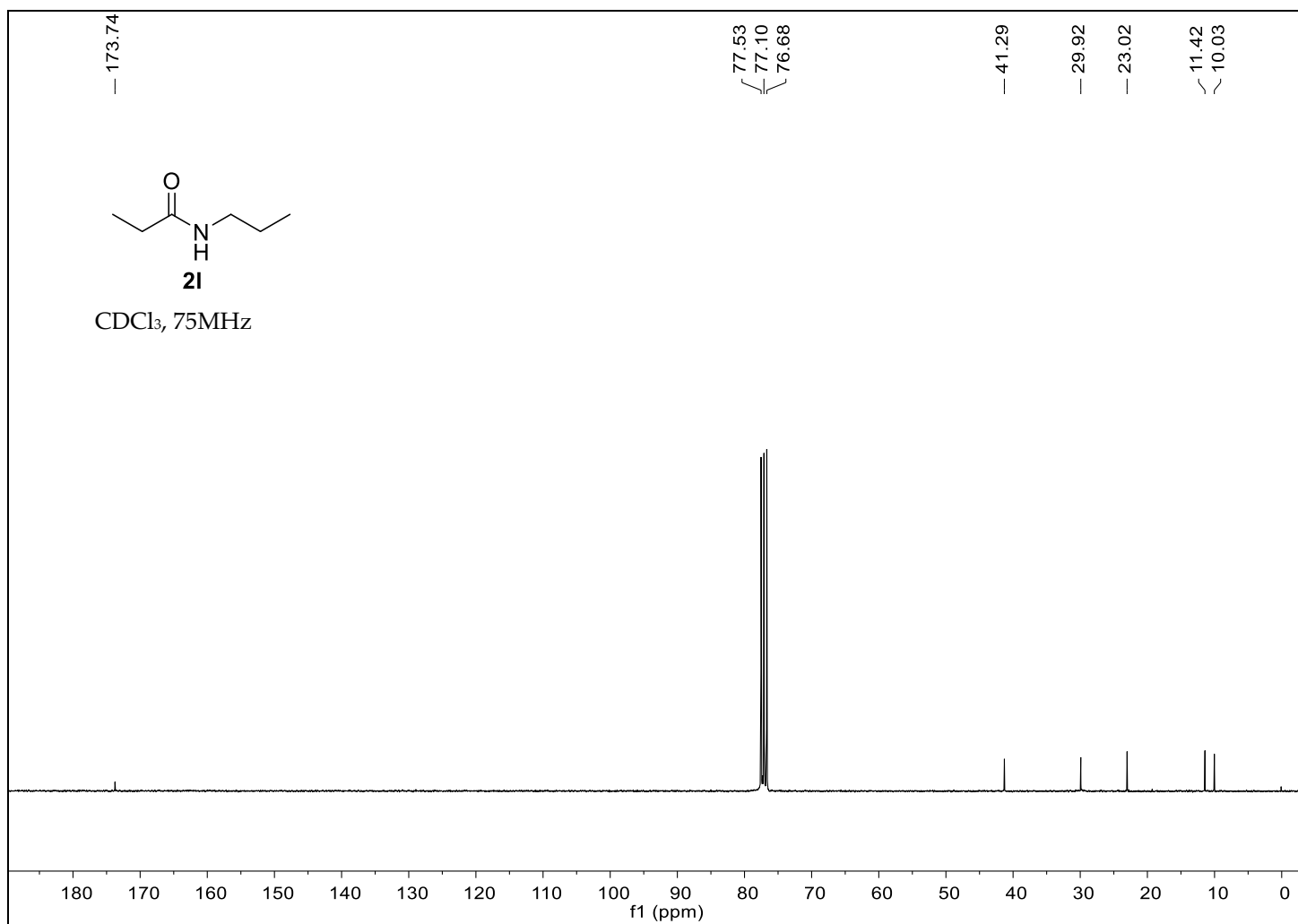
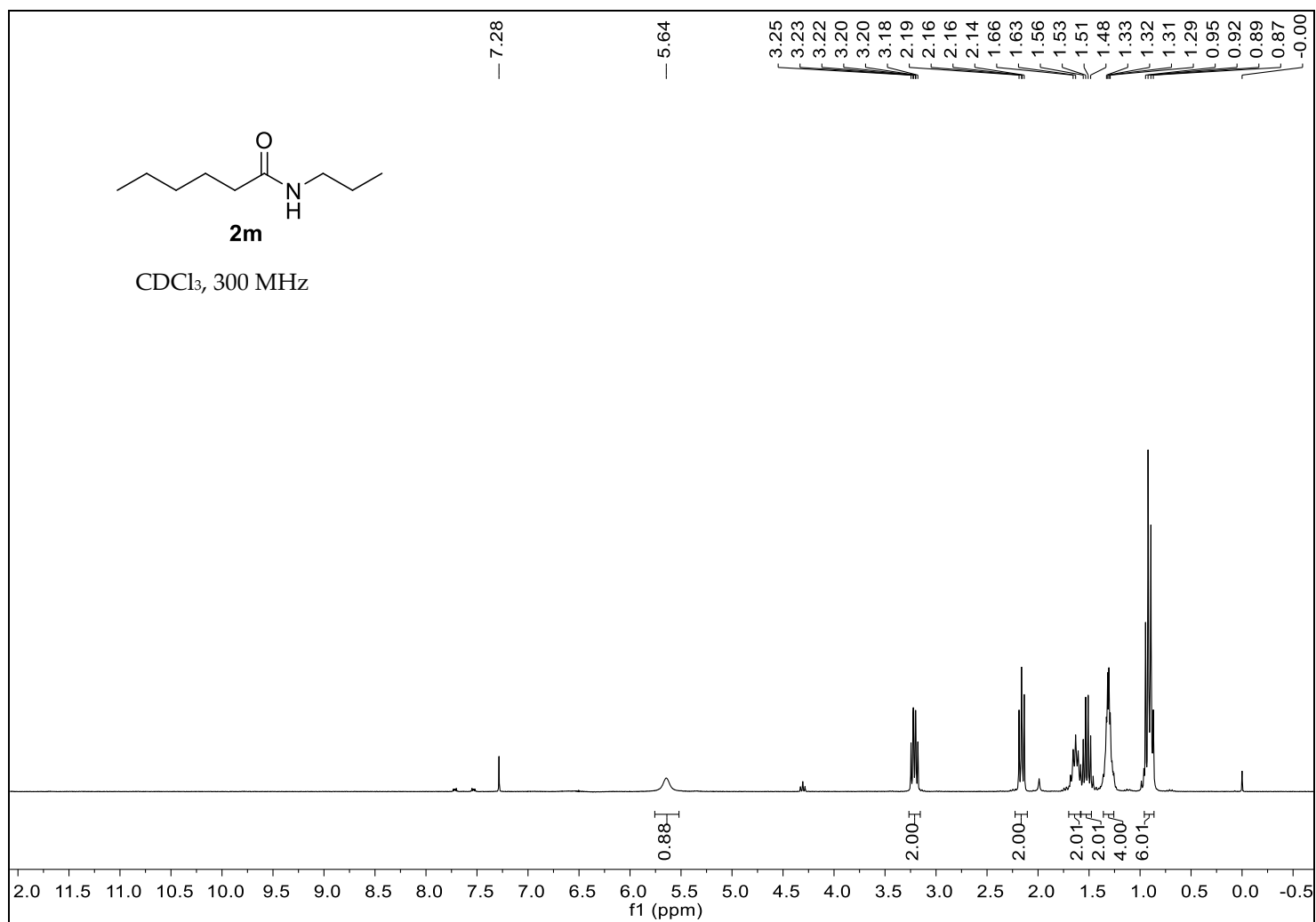
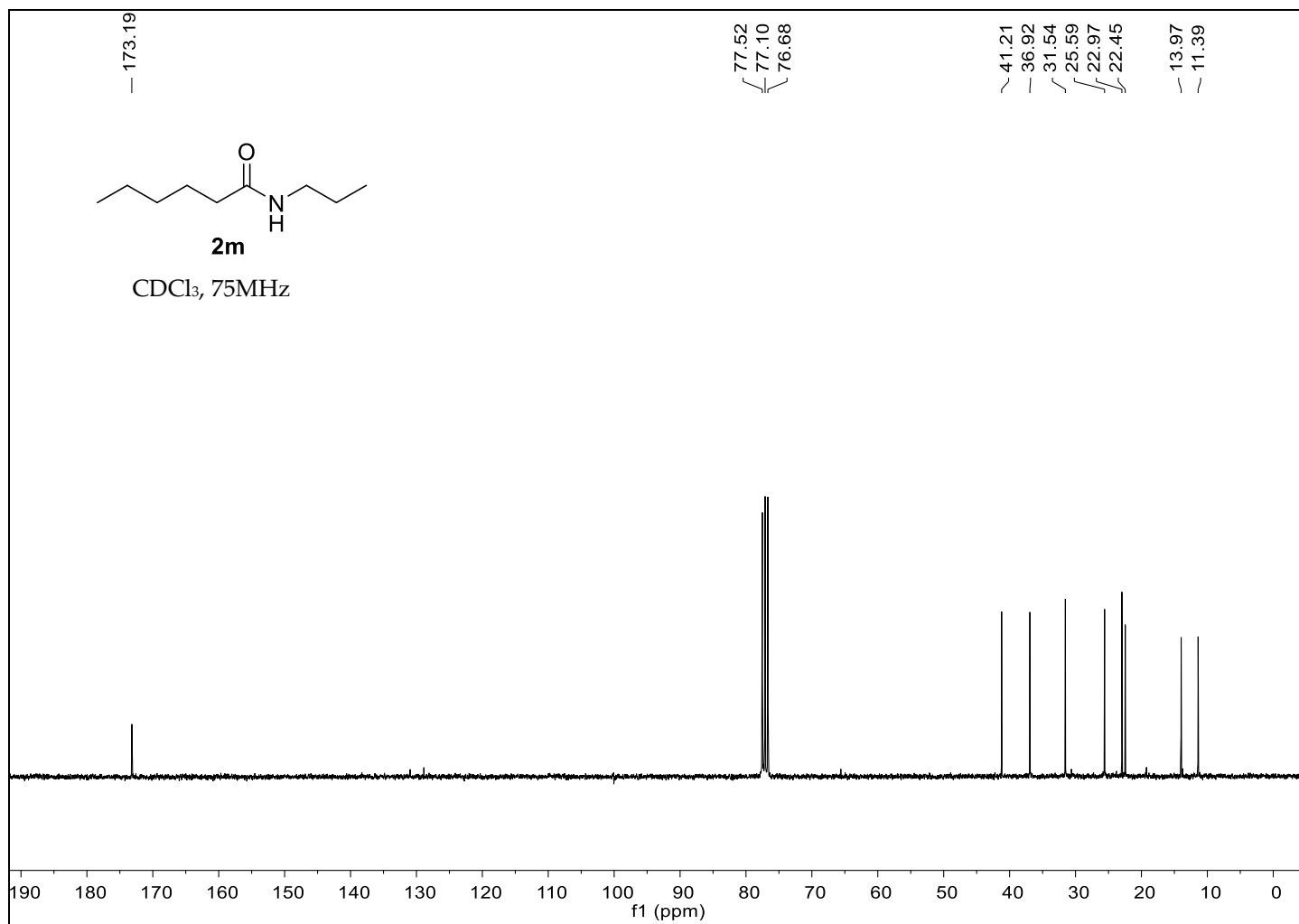
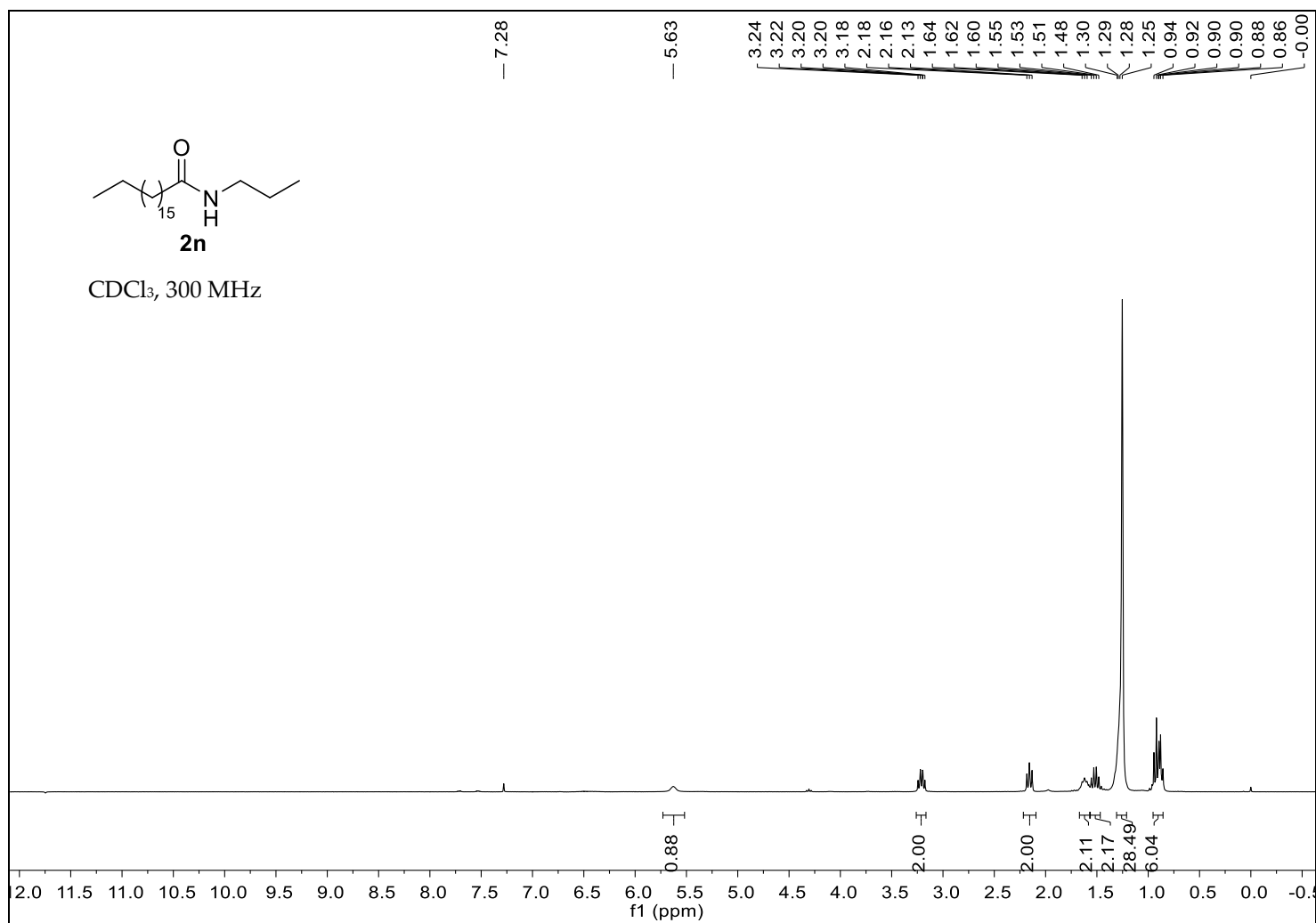
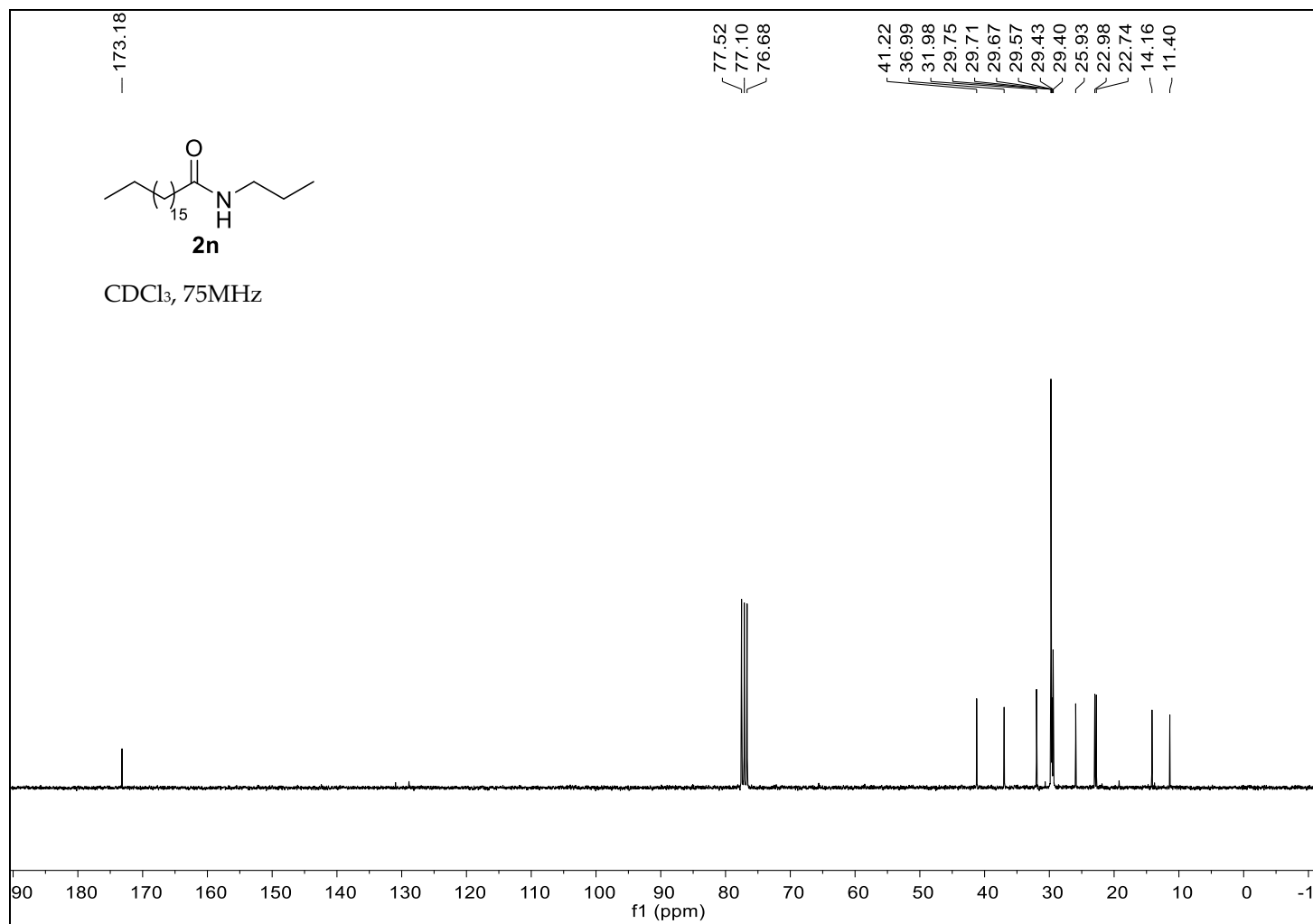


Figure S24. ¹³C-NMR of *N*-Propylpropionamide (**21**).

Figure S25. ¹H-NMR of N-Propylhexanamide (2m).

Figure S26. ¹³C-NMR of N-Propylhexanamide (**2m**).

Figure S27. ¹H-NMR of N-Propylstearamide (2n).

Figure S28. ¹³C-NMR of *N*-Propylstearamide (**2n**).

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T: FTMS + p ESI Full ms [100.0000-1500.0000]

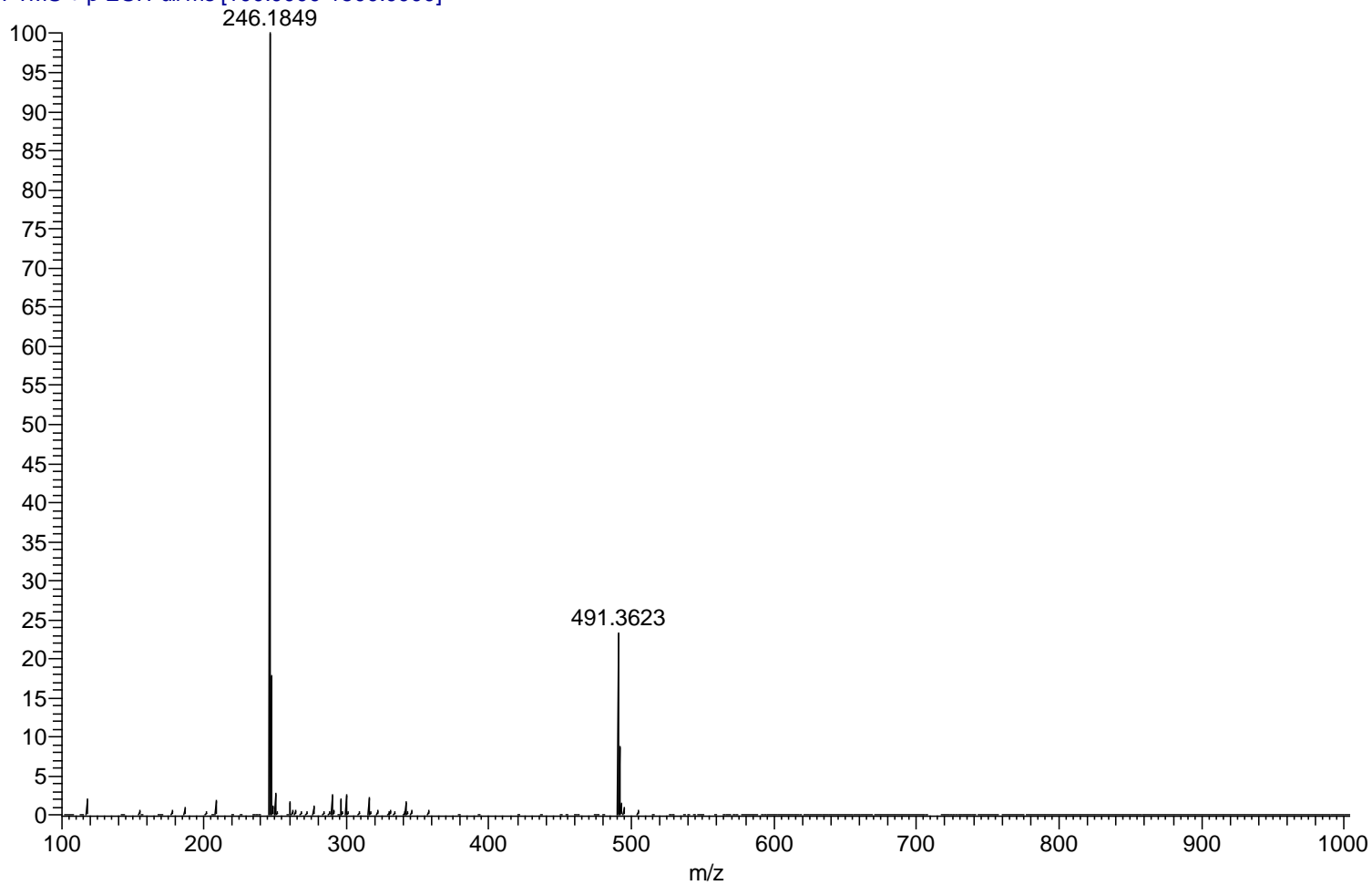


Figure S29. HRMS of 4-Cyclohexyl-N-propylbenzamide (2g).

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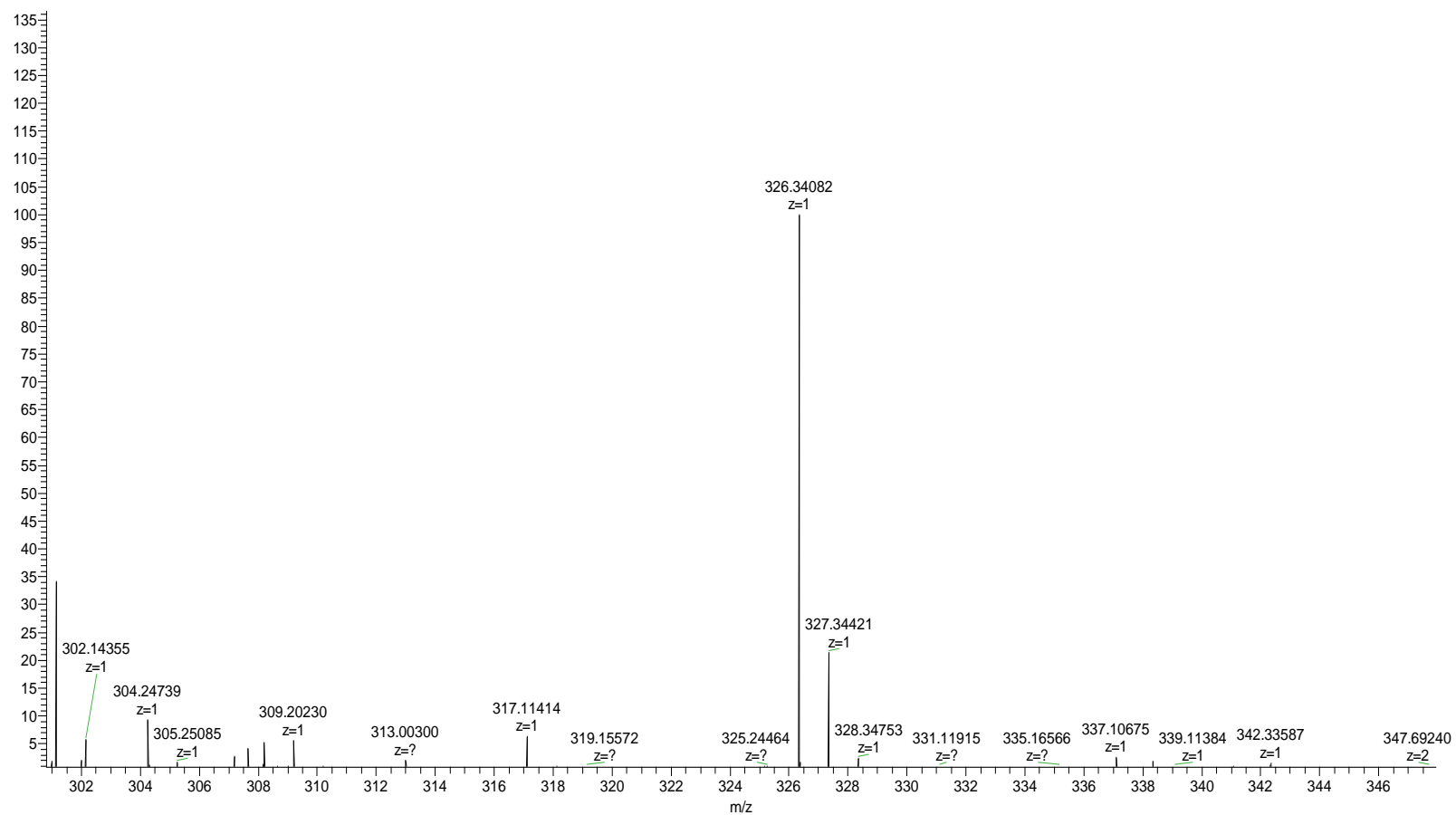


Figure S30. HRMS of N-Propylstearamide (2n).

