Supplementary Materials

Palladium-Catalyzed Room Temperature Acylative Cross-Coupling of Activated Amides with Trialkylboranes

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Copies of ^{1}H NMR, ^{13}C NMR **3a-3n** and HRMS Spectrum of **3l**

Figure S1. ^{1}H NMR of 1-(4-methoxyphenyl)propanone (**3a**)

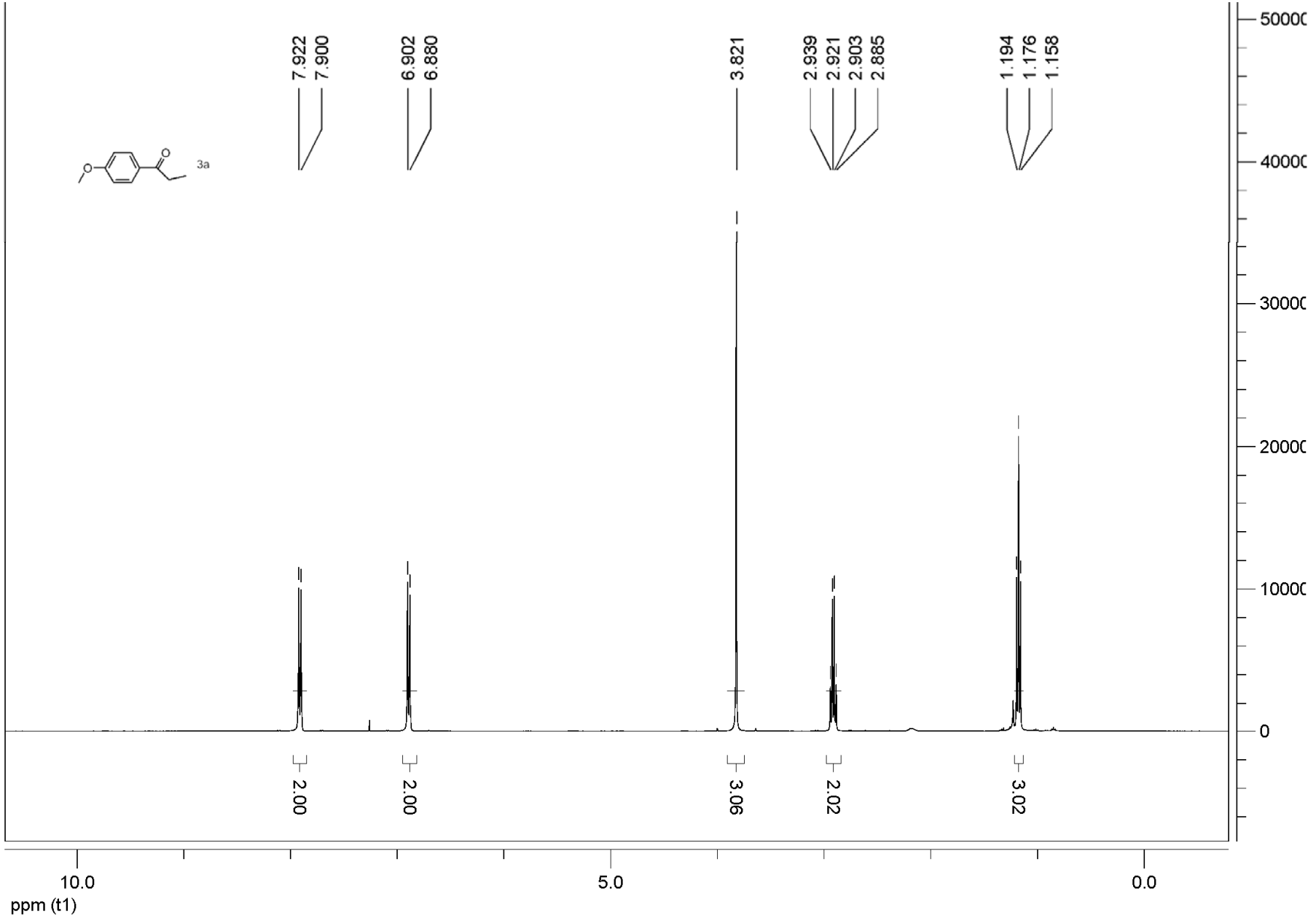


Figure S2. ^{13}C NMR of 1-(4-methoxyphenyl)propanone (**3a**)

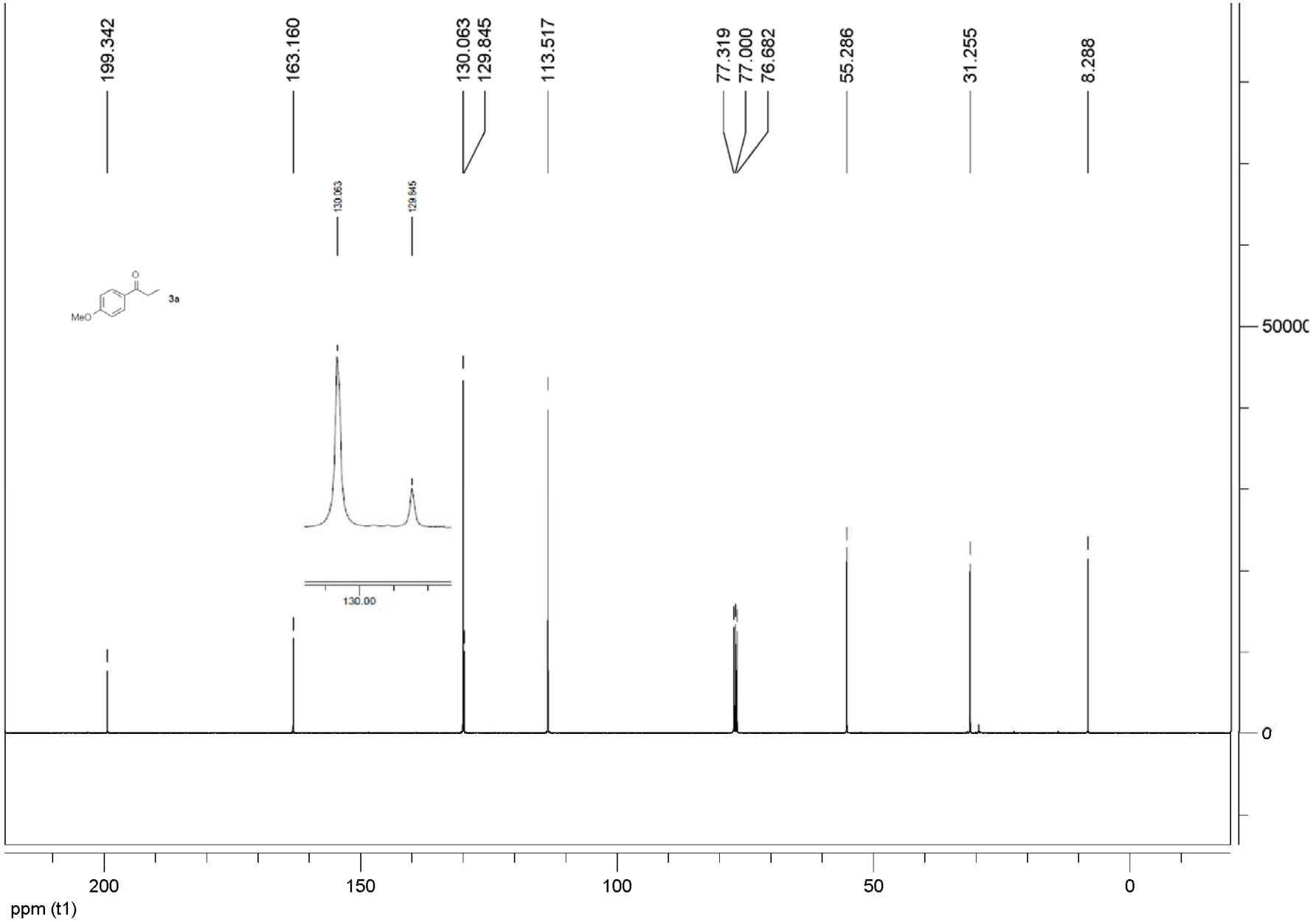


Figure S3. ^{1}H NMR of 1-(4-acetylphenyl)propanone (**3b**)

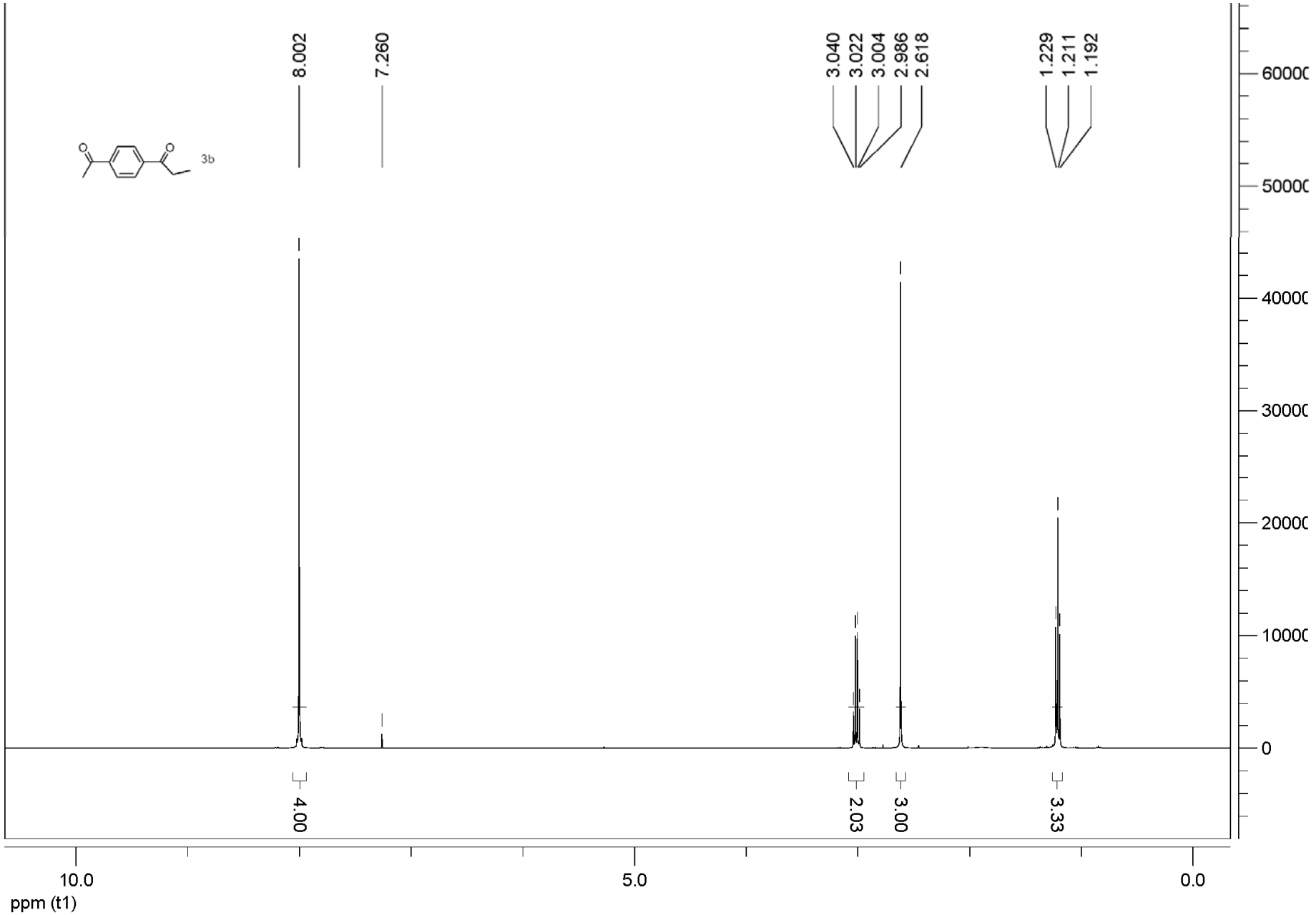


Figure S4. ^{13}C NMR of 1-(4-acetylphenyl)propanone (**3b**)

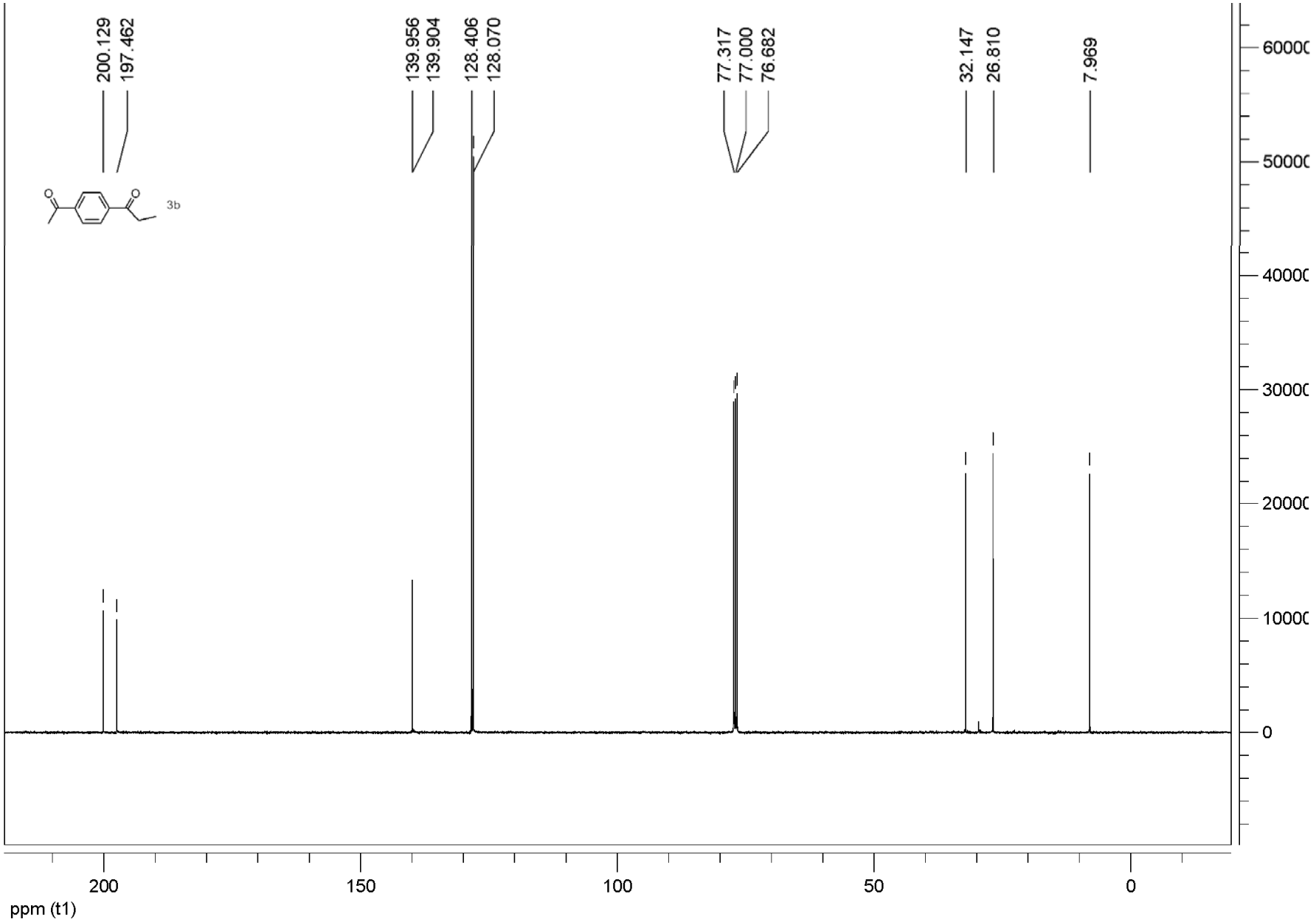


Figure S5. ^{1}H NMR of 4-propionylbenzonitrile (**3c**)

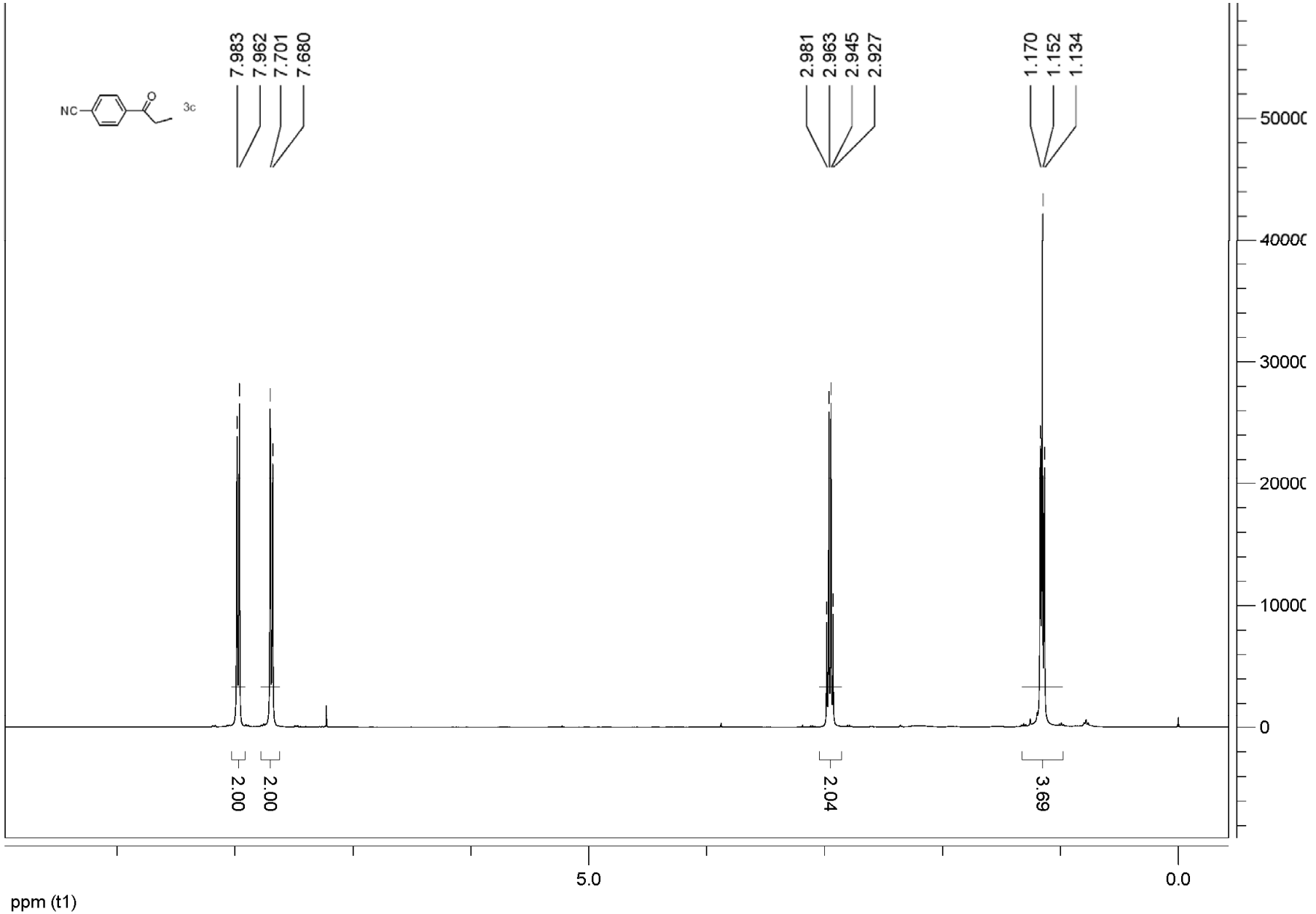


Figure S6. ^{13}C NMR of 4-propionylbenzonitrile (**3c**)

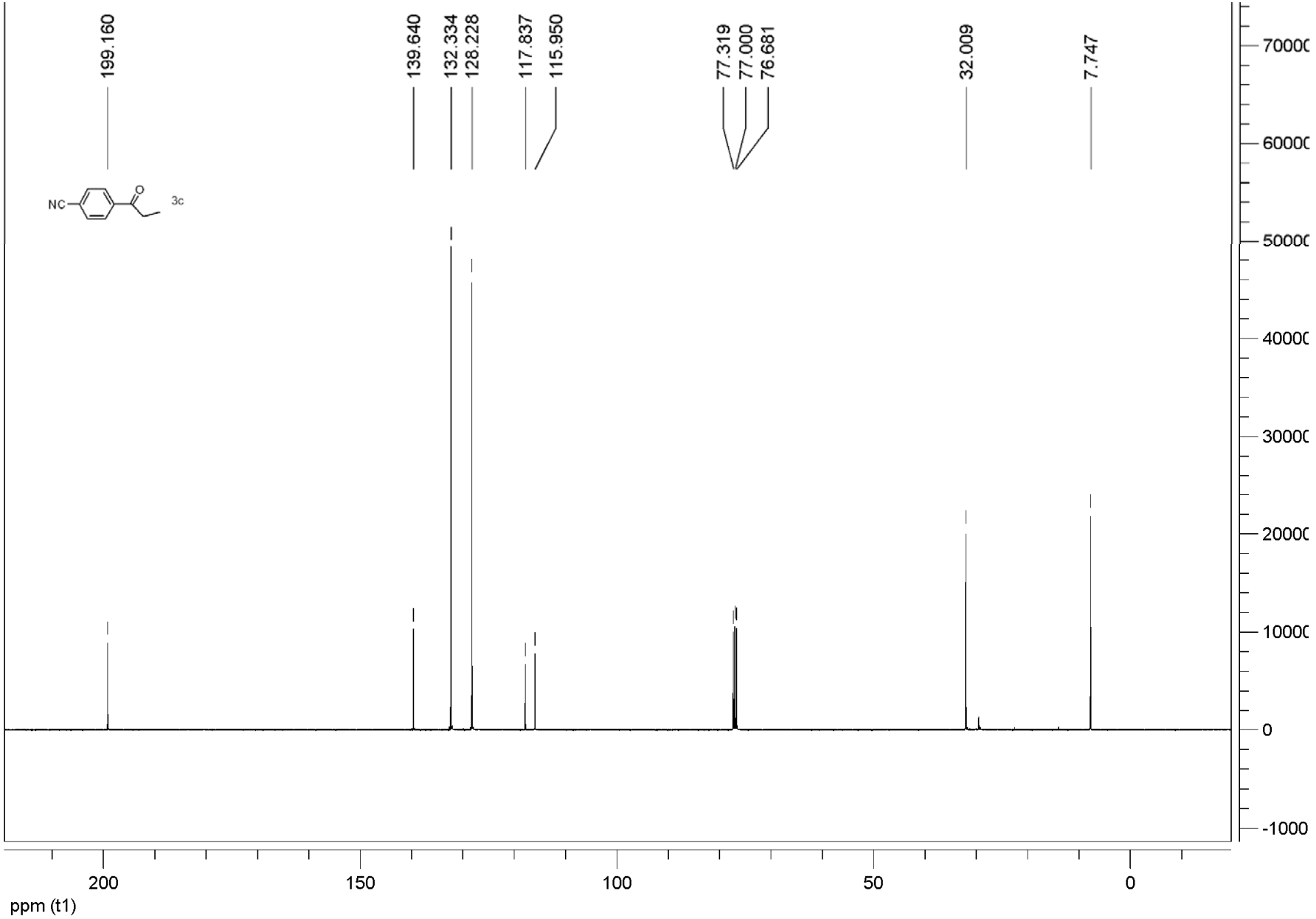


Figure S7. ^{1}H NMR of methyl 4-propionylbenzoate (**3d**)

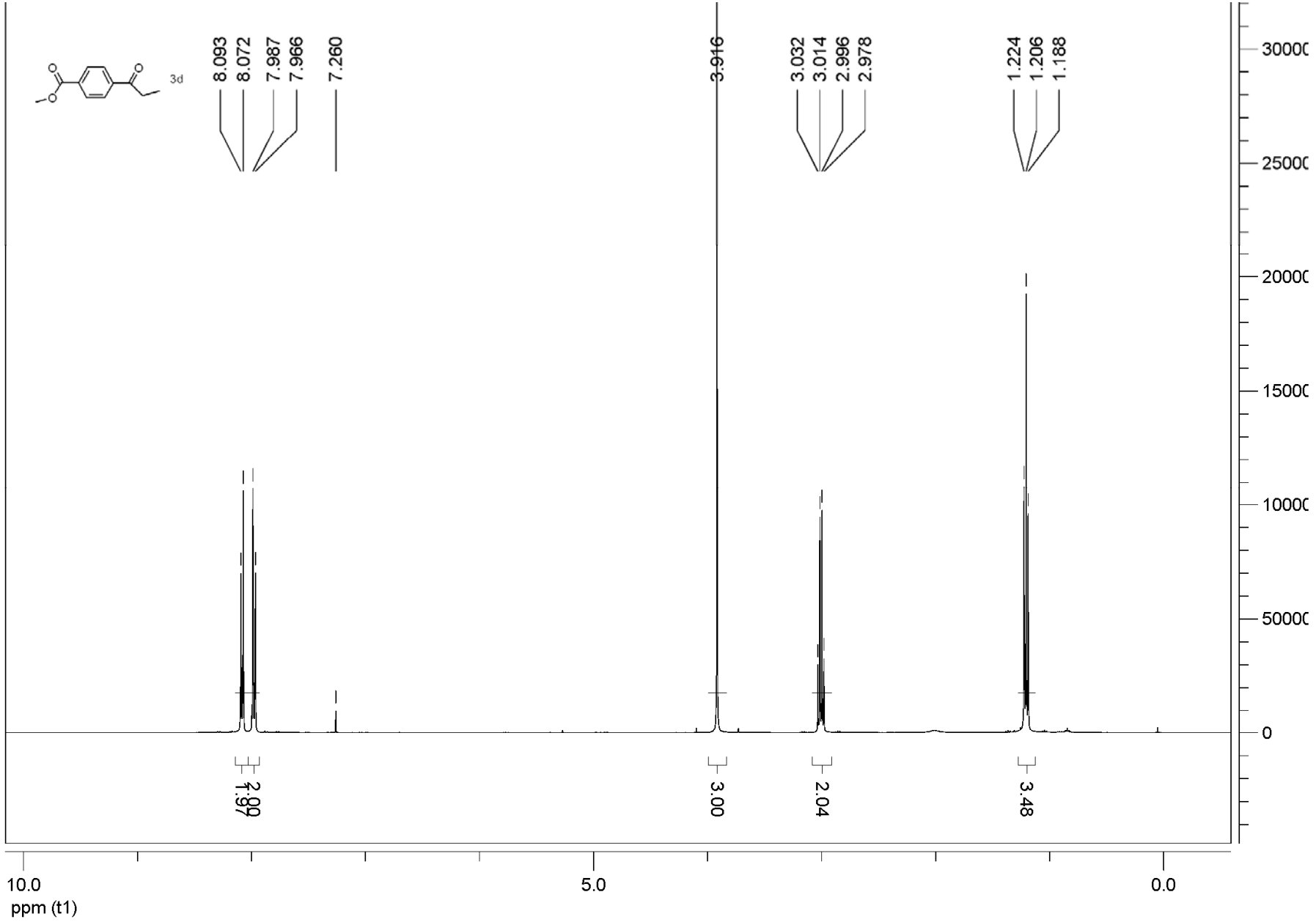


Figure S8. ^{13}C NMR of methyl 4-propionylbenzoate (**3d**)

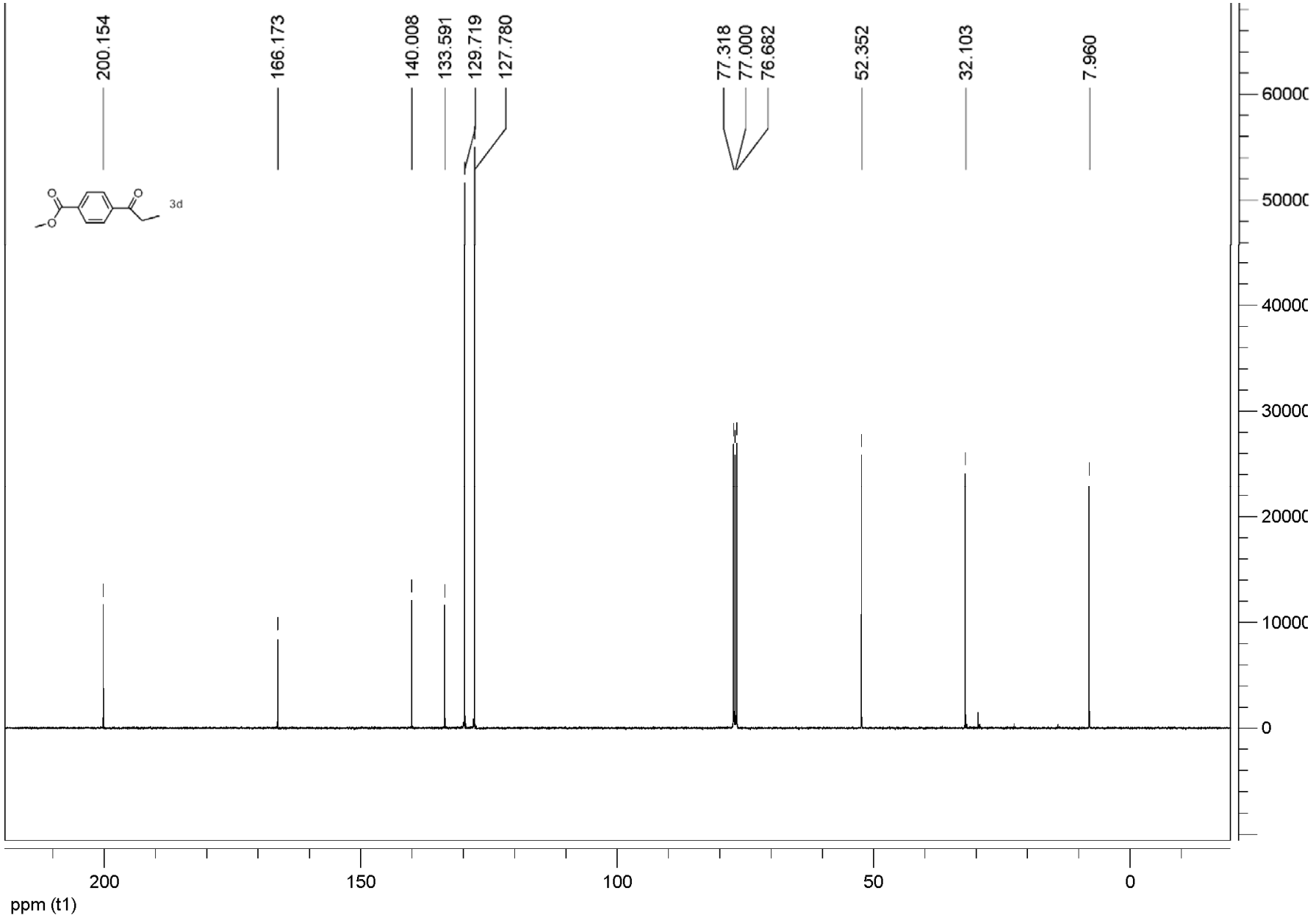


Figure S9. ^{1}H NMR of 1-(4-ethylphenyl)propanone (**3e**)

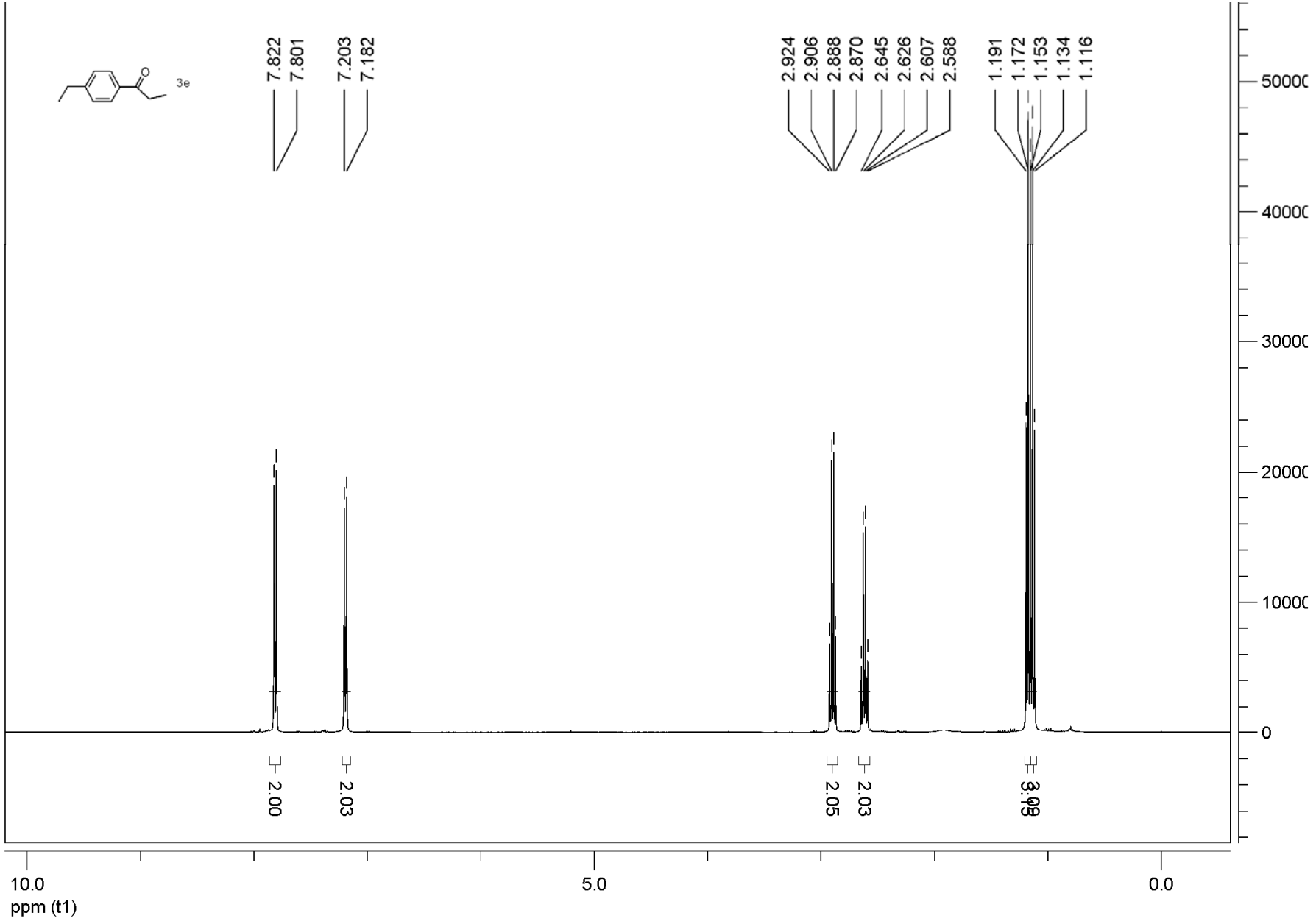


Figure S10. ^{13}C NMR of 1-(4-ethylphenyl)propanone (**3e**)

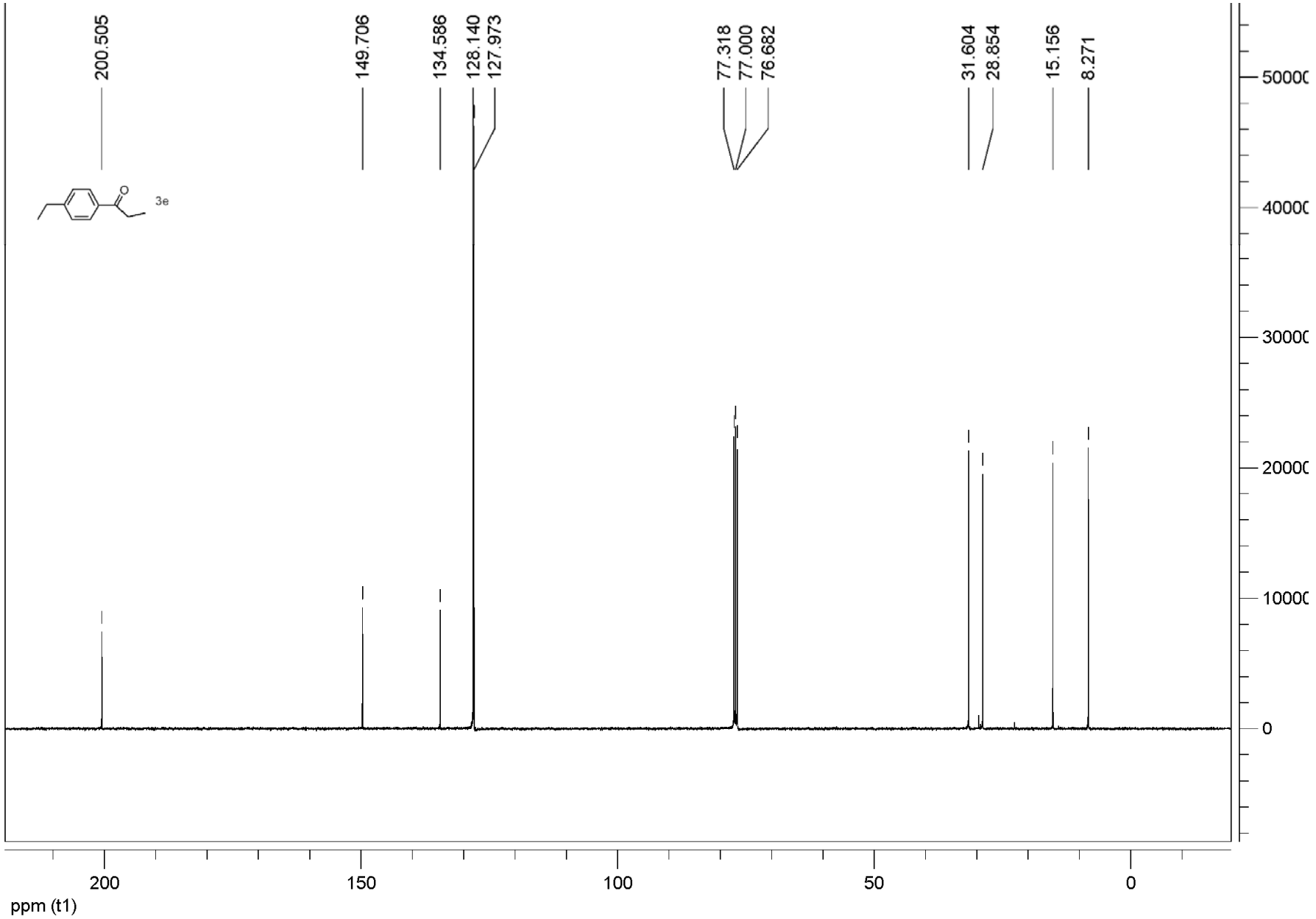


Figure S11. ^{1}H NMR of 1-(o-tolyl)propanone (**3f**)

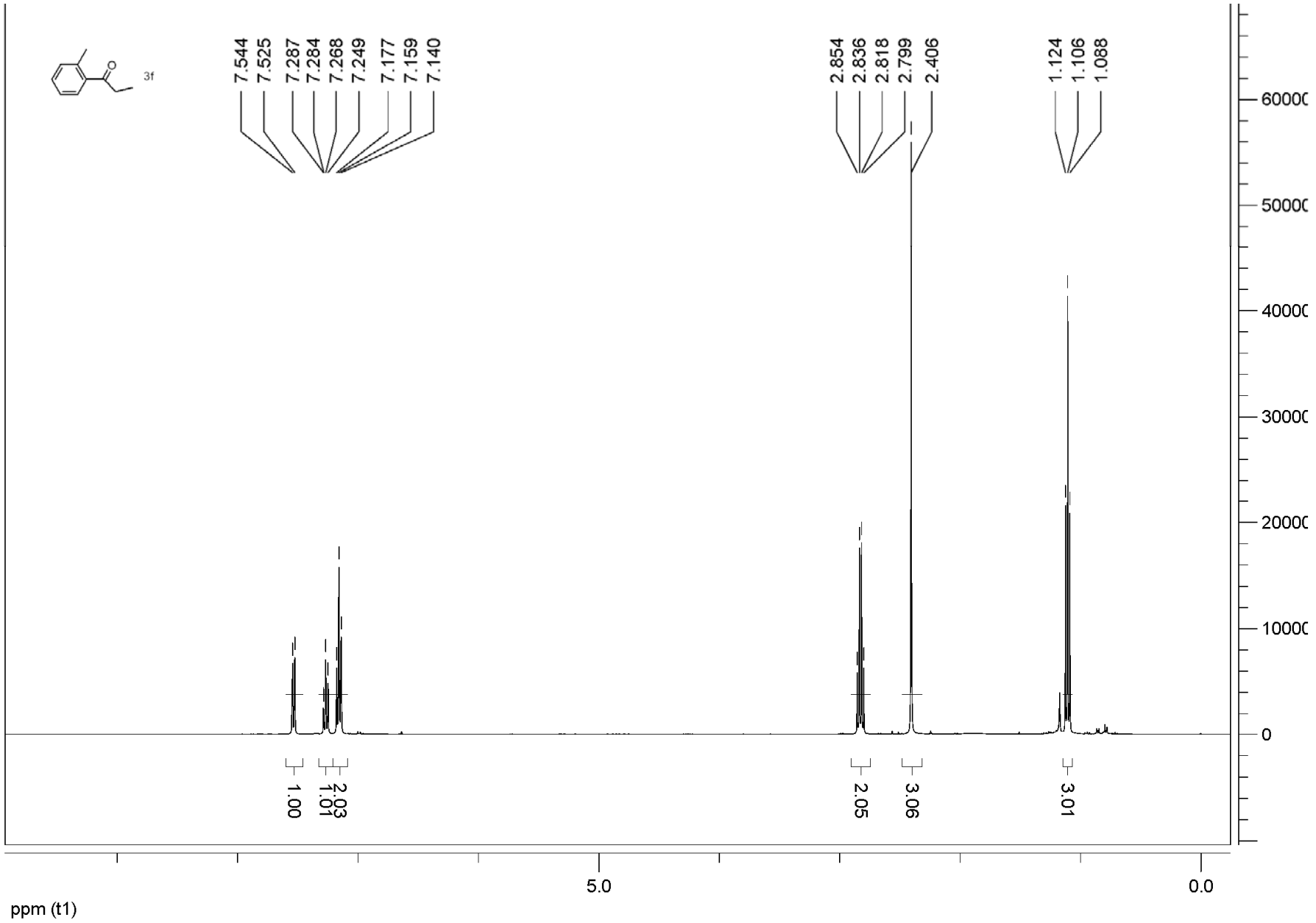


Figure S12. ^{13}C NMR of 1-(o-tolyl)propanone (**3f**)

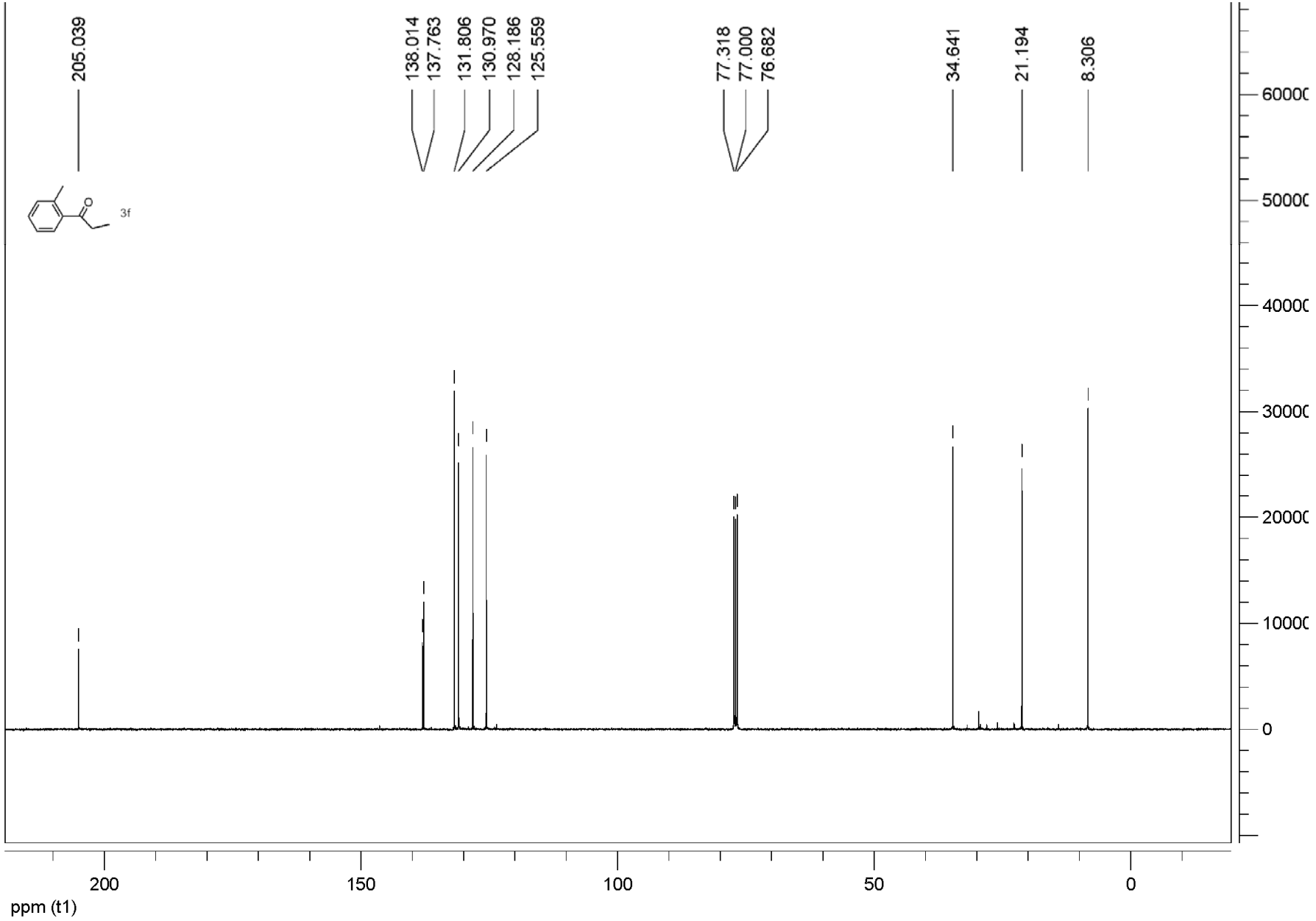


Figure S13. ^{1}H NMR of 1-phenylpentan-3-one (**3g**)

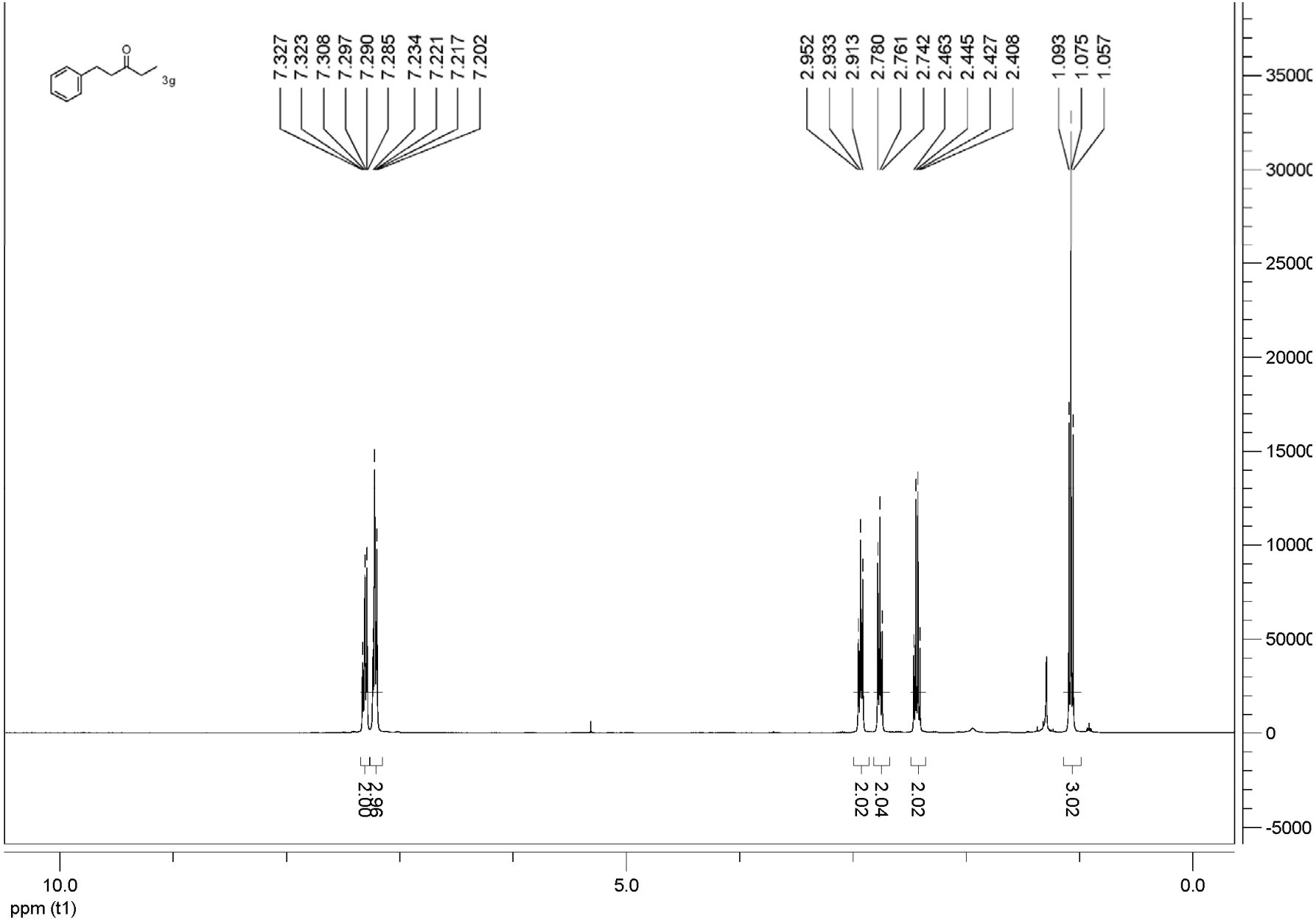


Figure S14. ^{13}C NMR of 1-phenylpentan-3-one (**3g**)

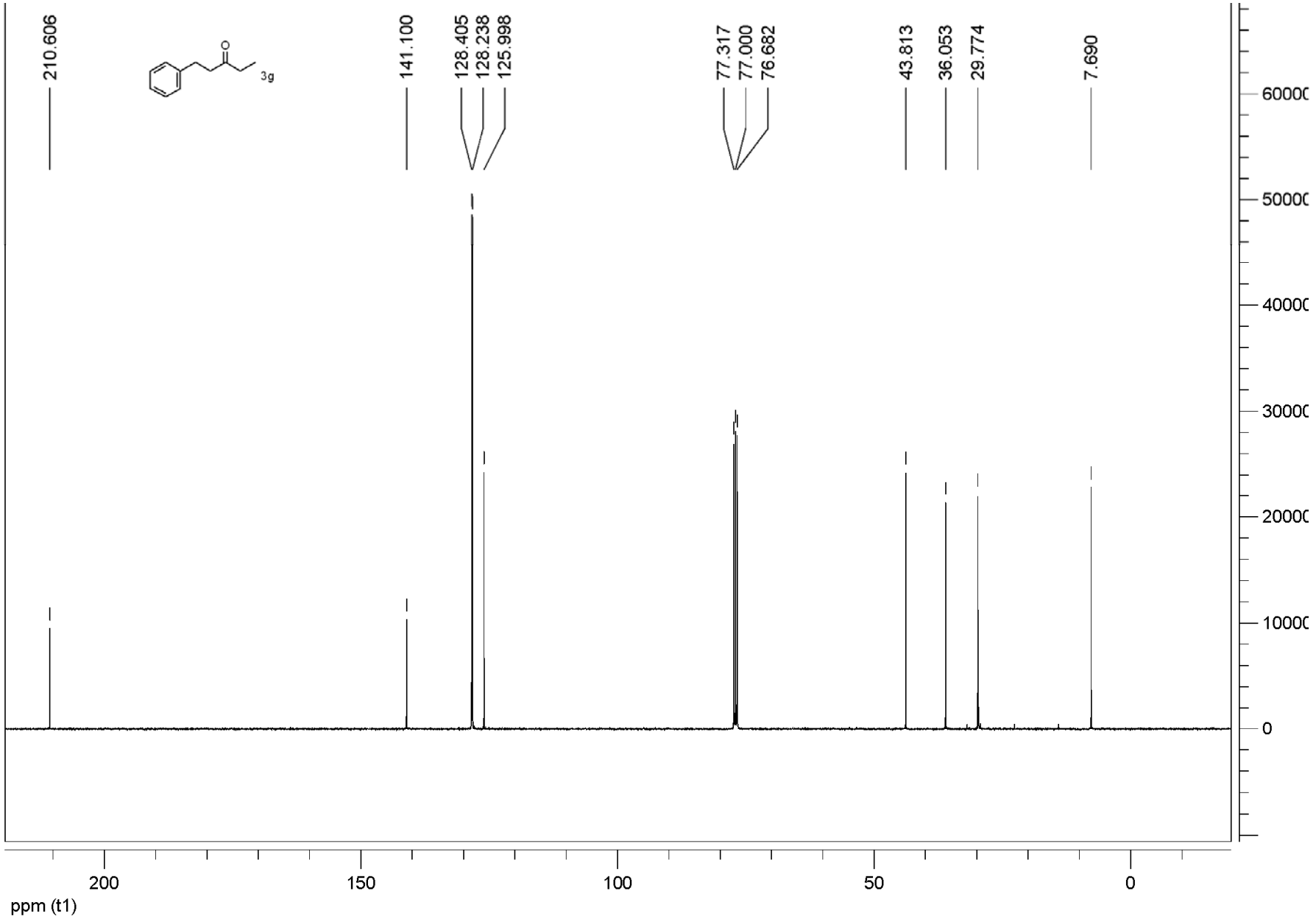


Figure S15. ^{1}H NMR of 1-(4-methoxyphenyl)pentan-3-one (**3h**)

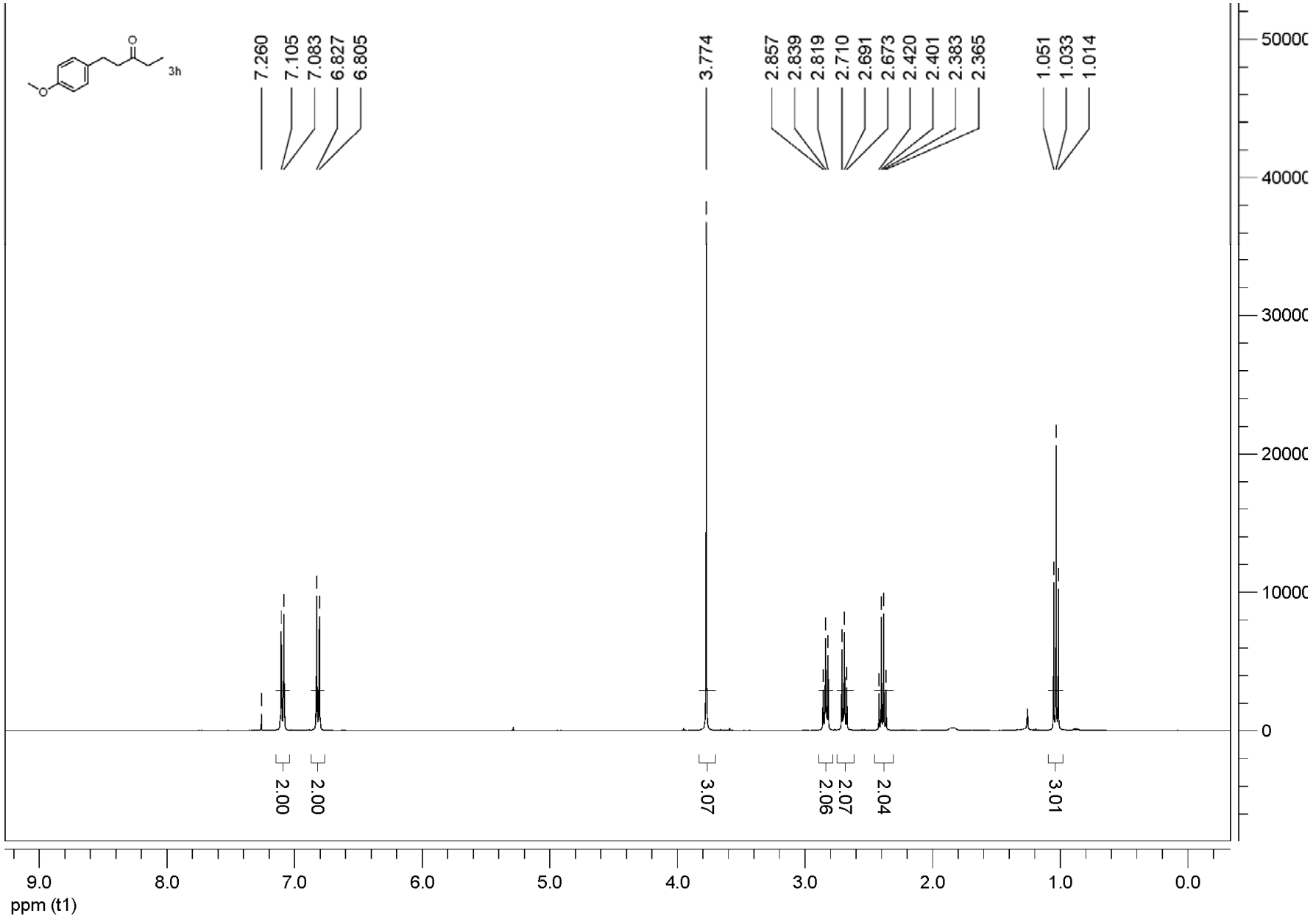


Figure S16. ^{13}C NMR of 1-(4-methoxyphenyl)pentan-3-one (**3h**)

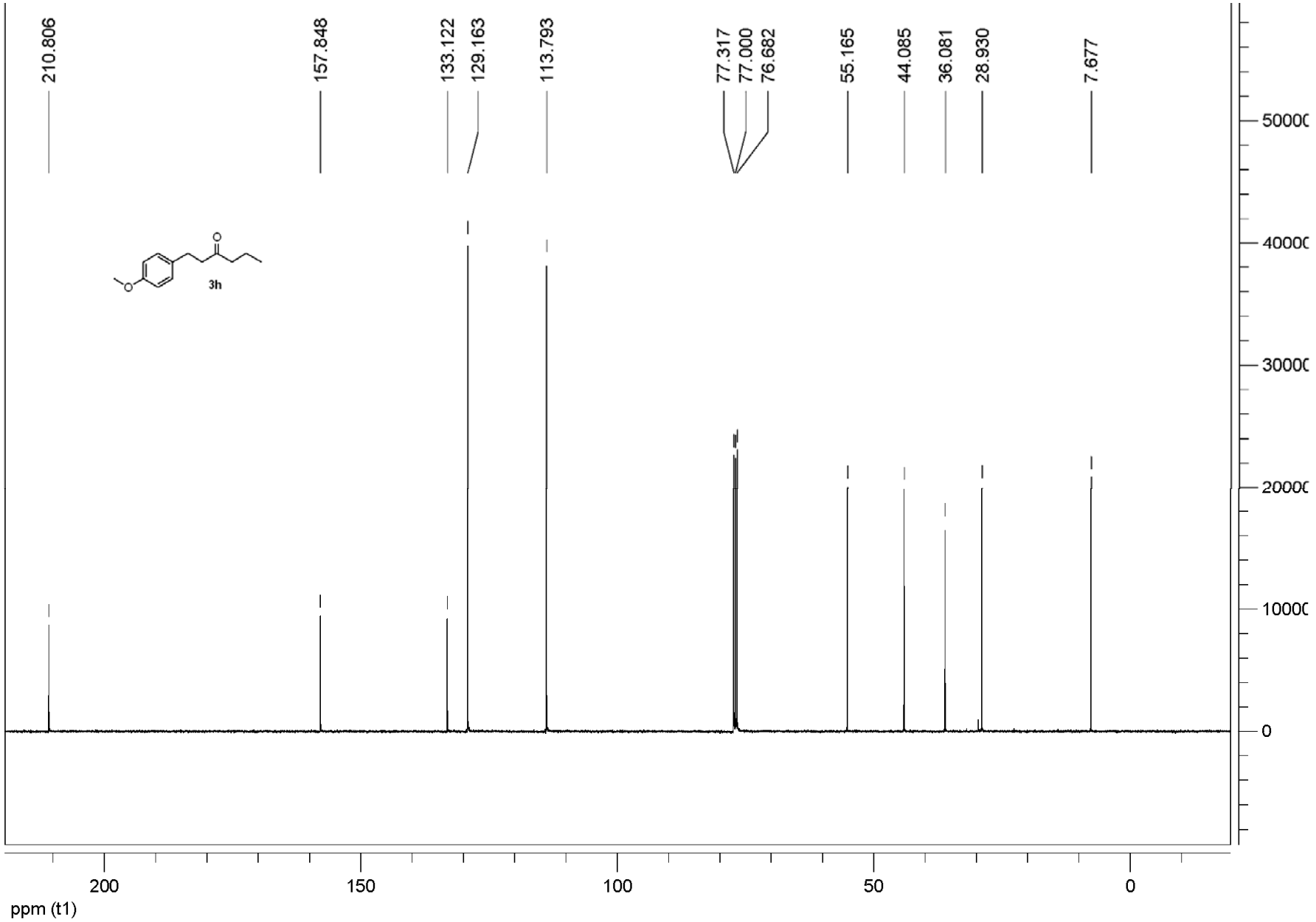


Figure S17. ^{1}H NMR of 1-(4-methoxyphenyl)pentanone (**3i**)

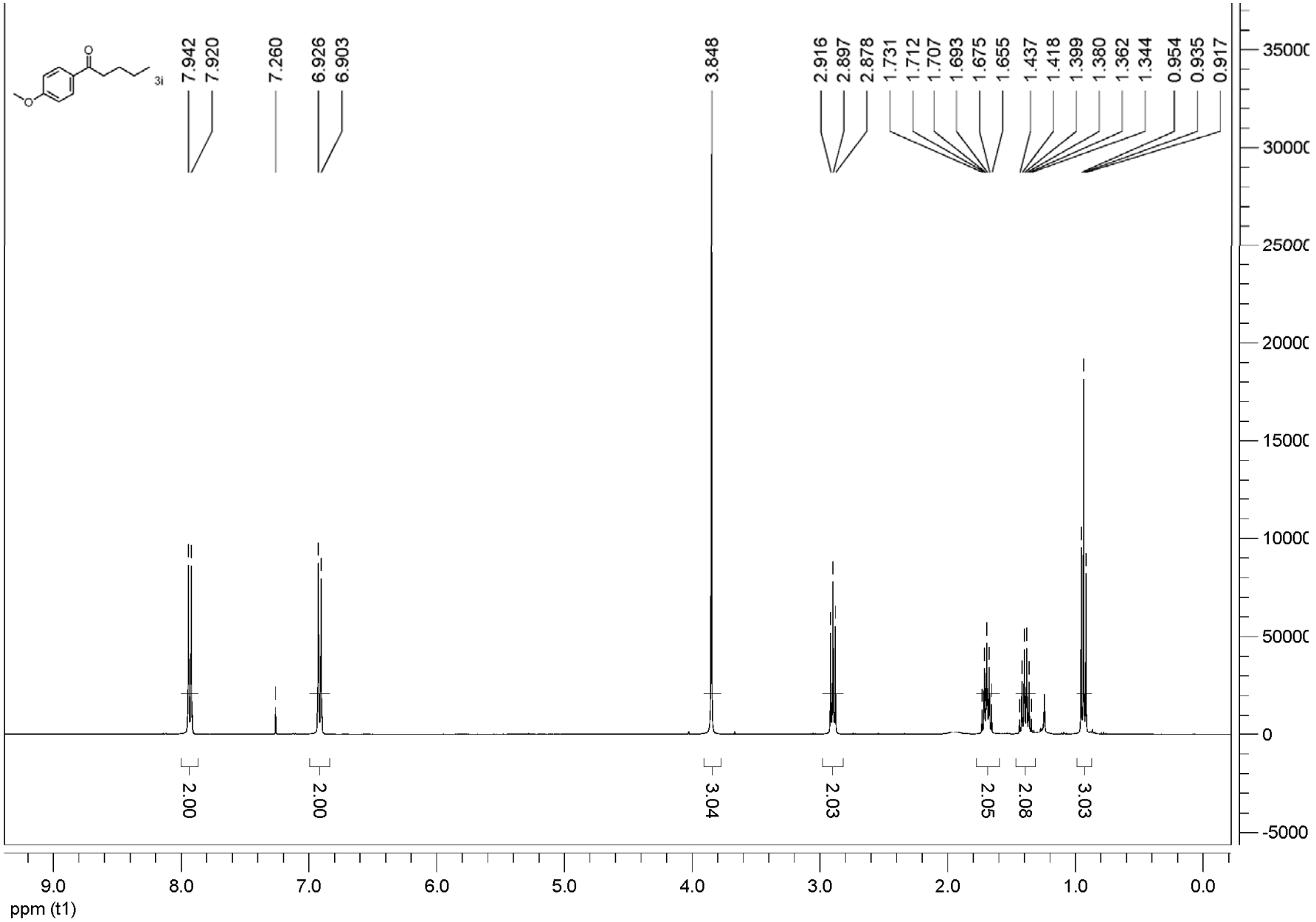


Figure S18. ^{13}C NMR of 1-(4-methoxyphenyl)pentanone (**3i**)

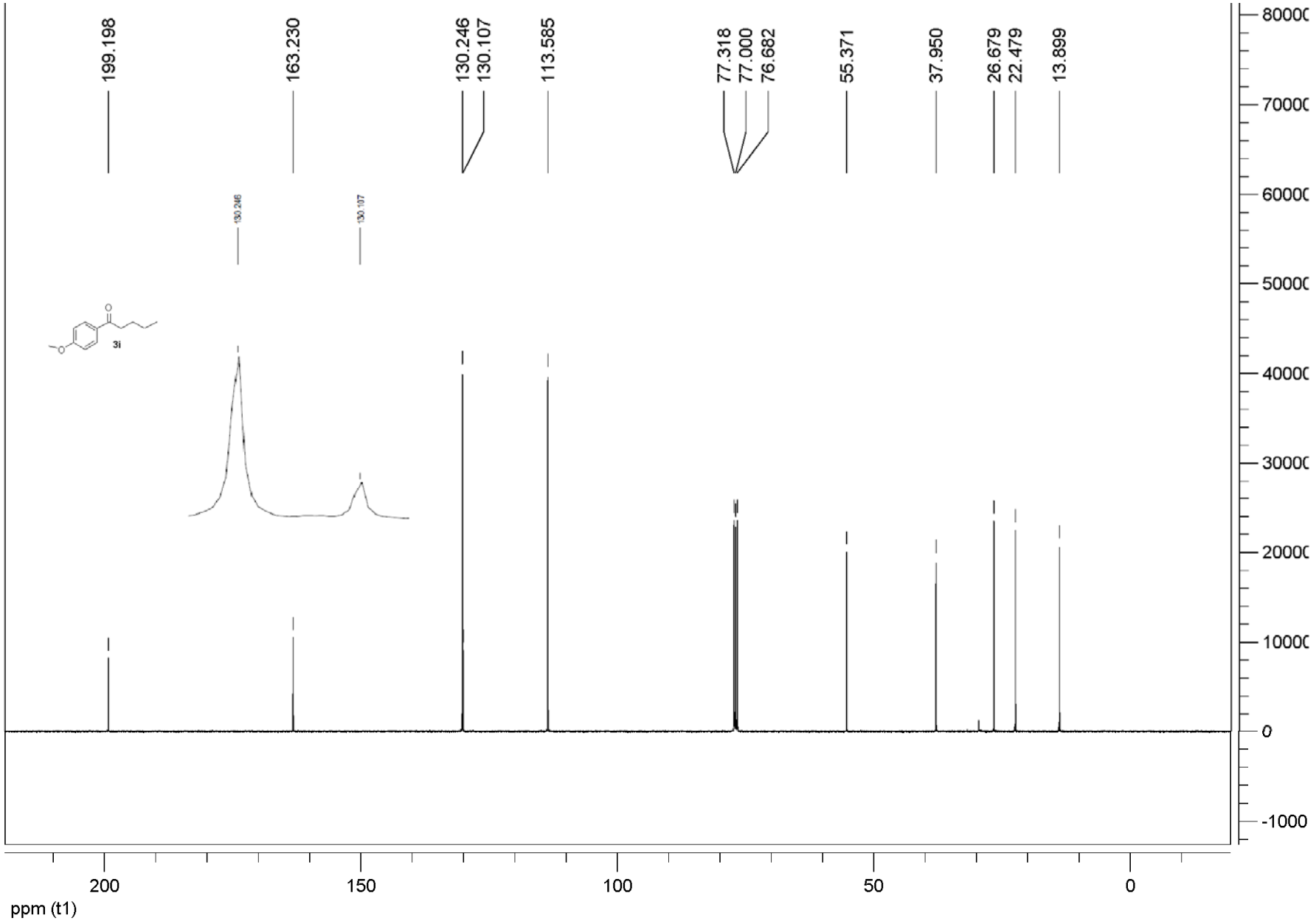


Figure S19. ^{1}H NMR of 1-(4-methoxyphenyl)nonanone (**3j**)

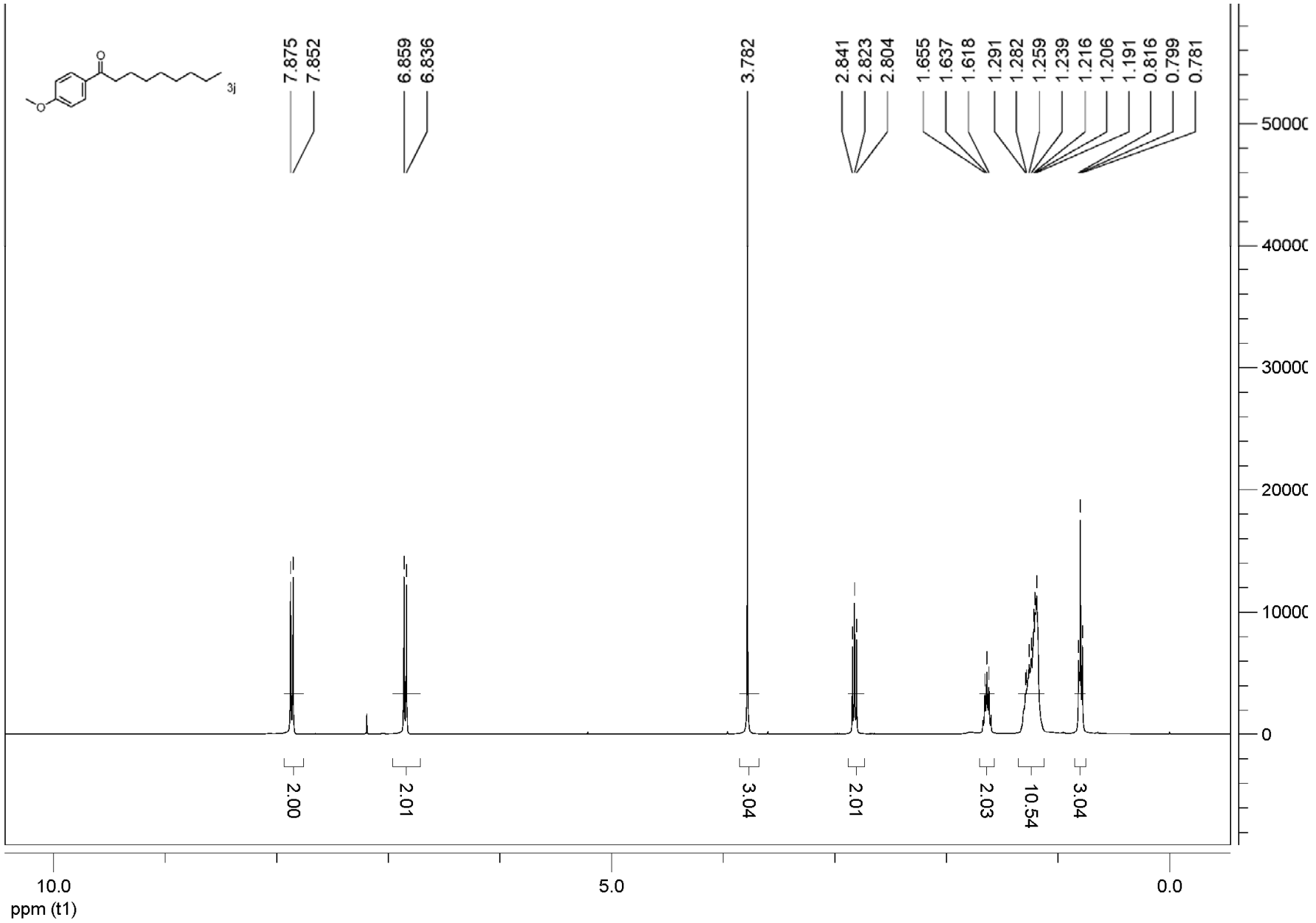


Figure S20. ^{13}C NMR of 1-(4-methoxyphenyl)nonanone (**3j**)

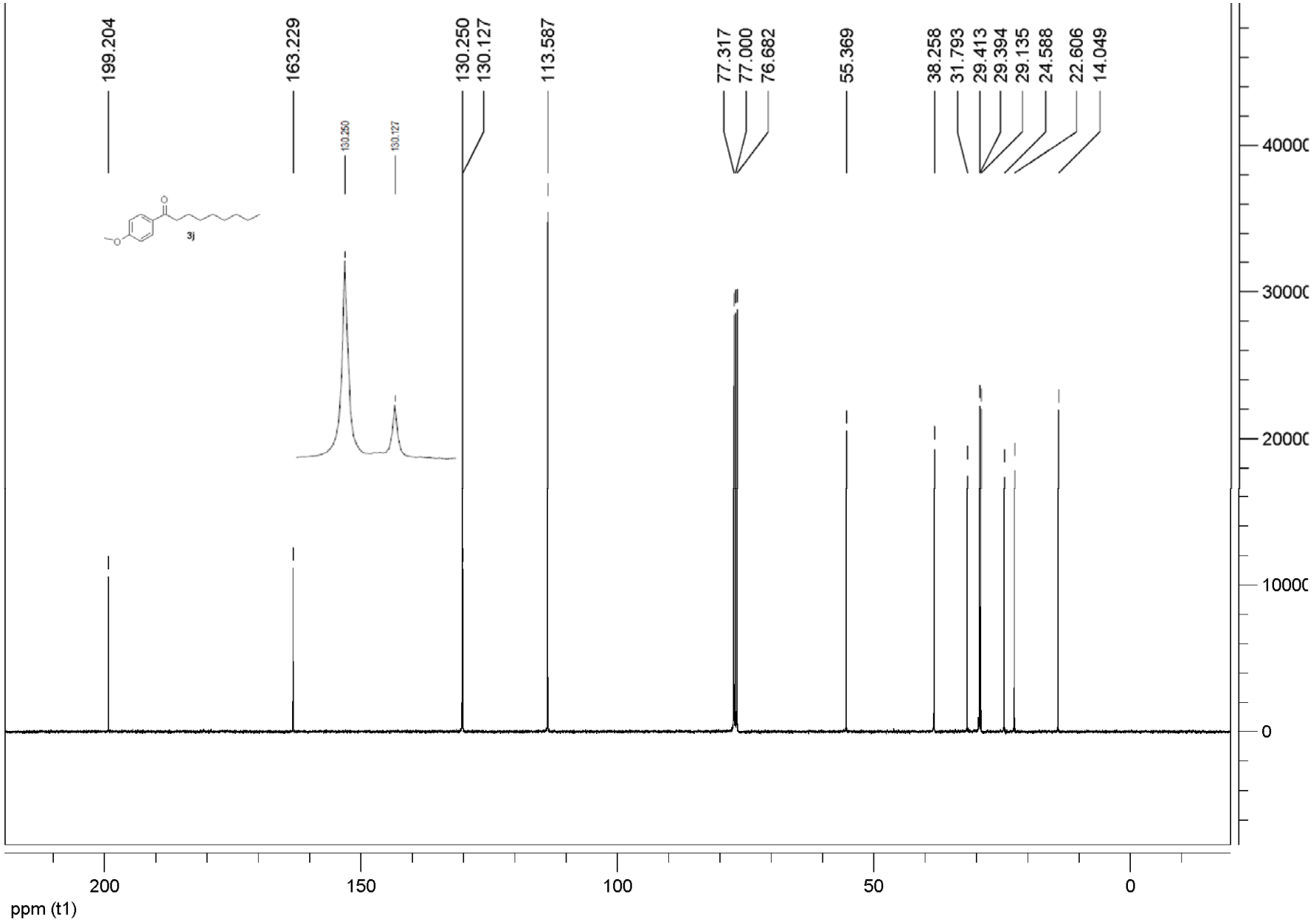


Figure S21. ^{1}H NMR of 1-(4-methoxyphenyl)-3-phenylbutanone (**3k**)

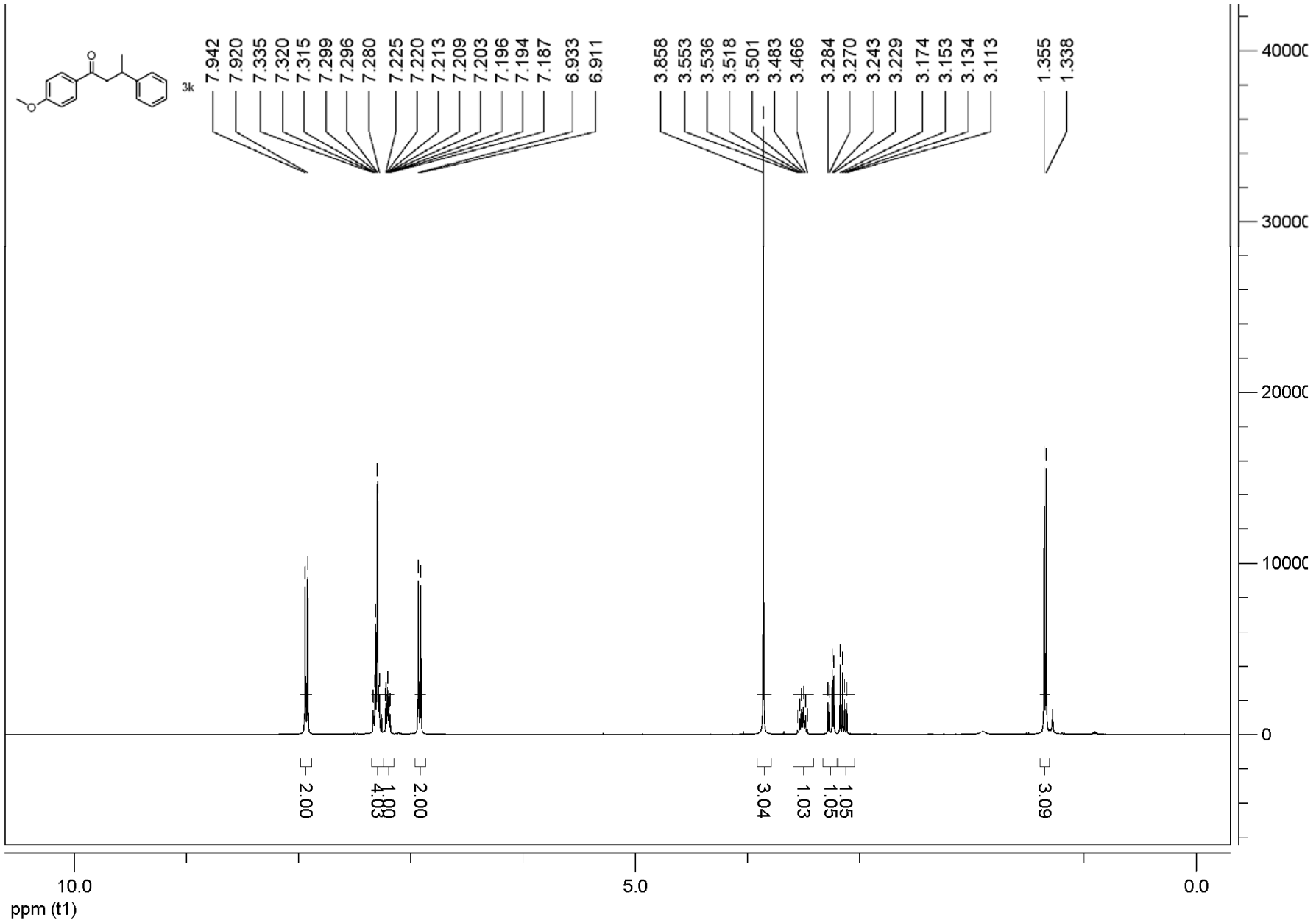


Figure S22. ^{13}C NMR of 1-(4-methoxyphenyl)-3-phenylbutanone (**3k**)

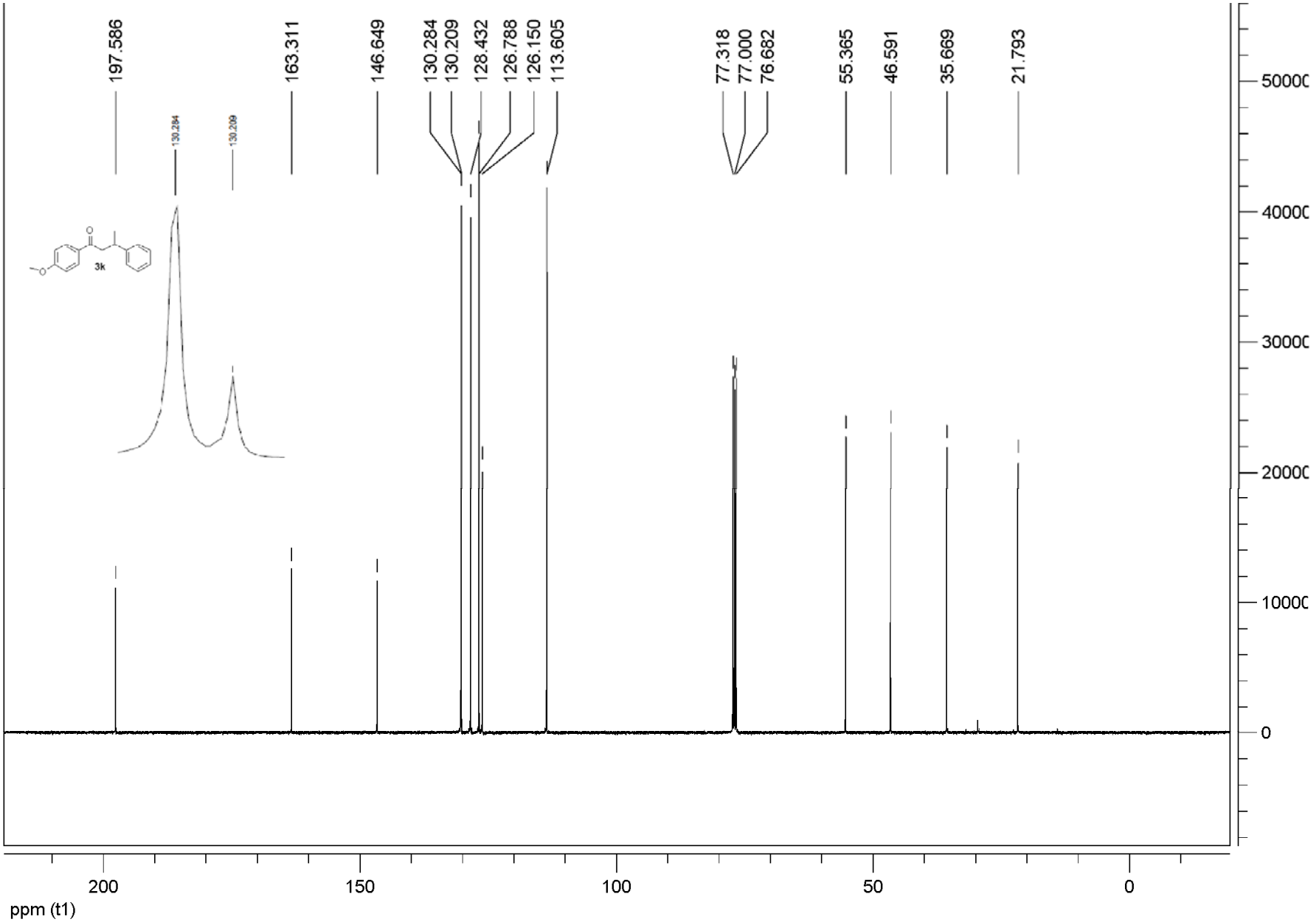


Figure S23. ^{1}H NMR of 1-cyclohexyl-3-phenylbutanone (**3l**)

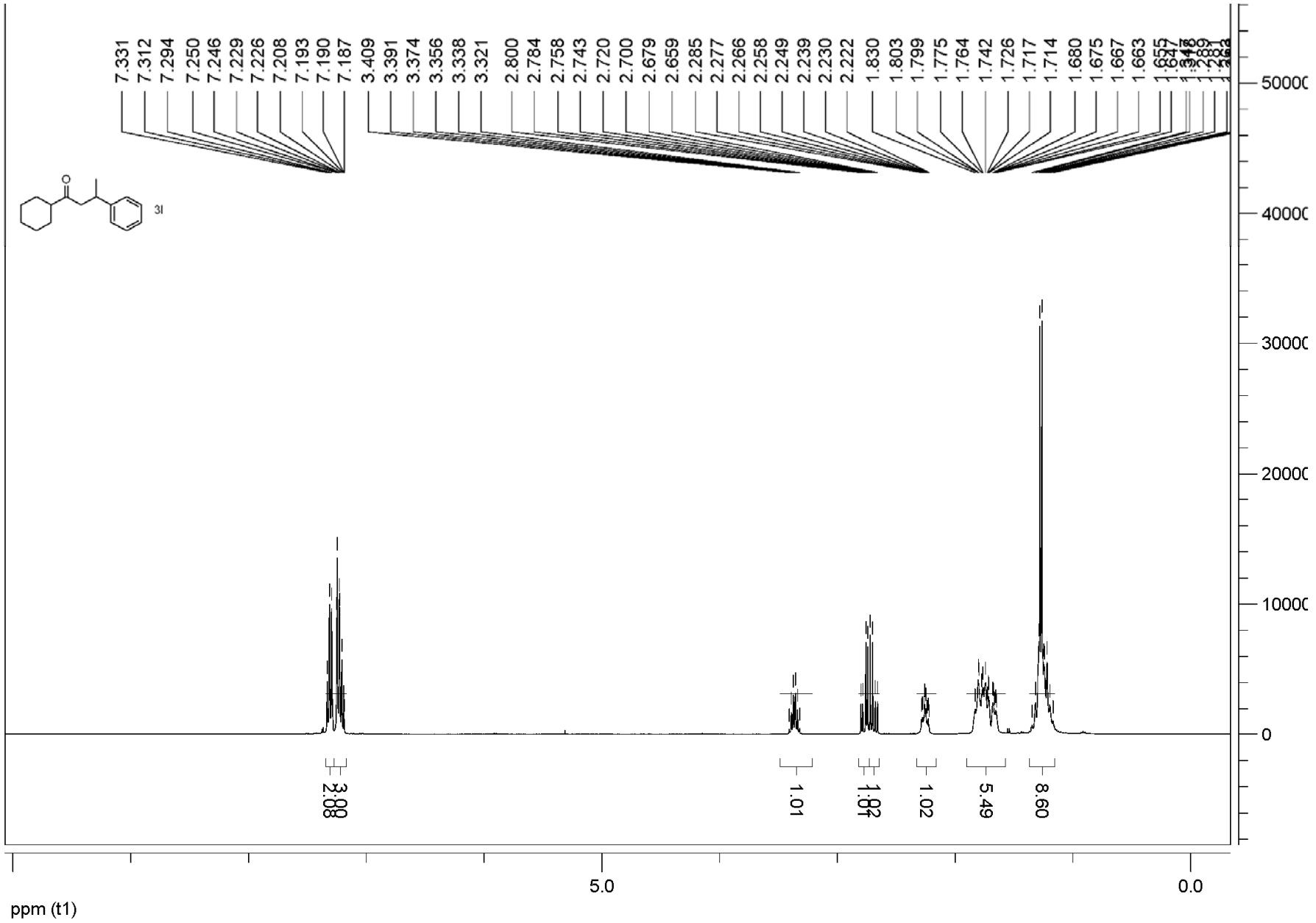


Figure S24. ^{13}C NMR of 1-cyclohexyl-3-phenylbutanone (**3l**)

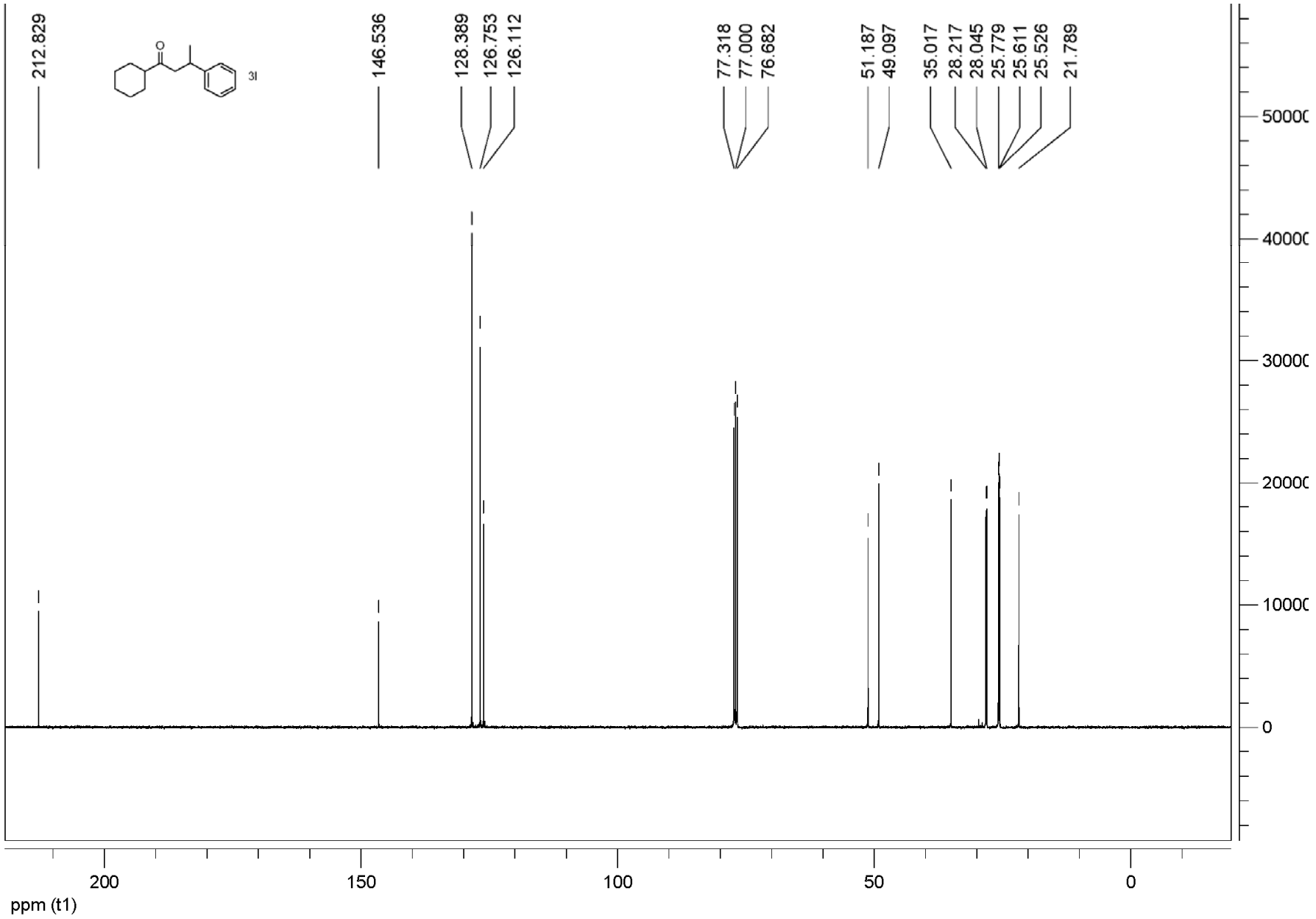


Figure S25. ^{1}H NMR of 3-phenyl-1-(thiophen-2-yl)butanone (**3m**)

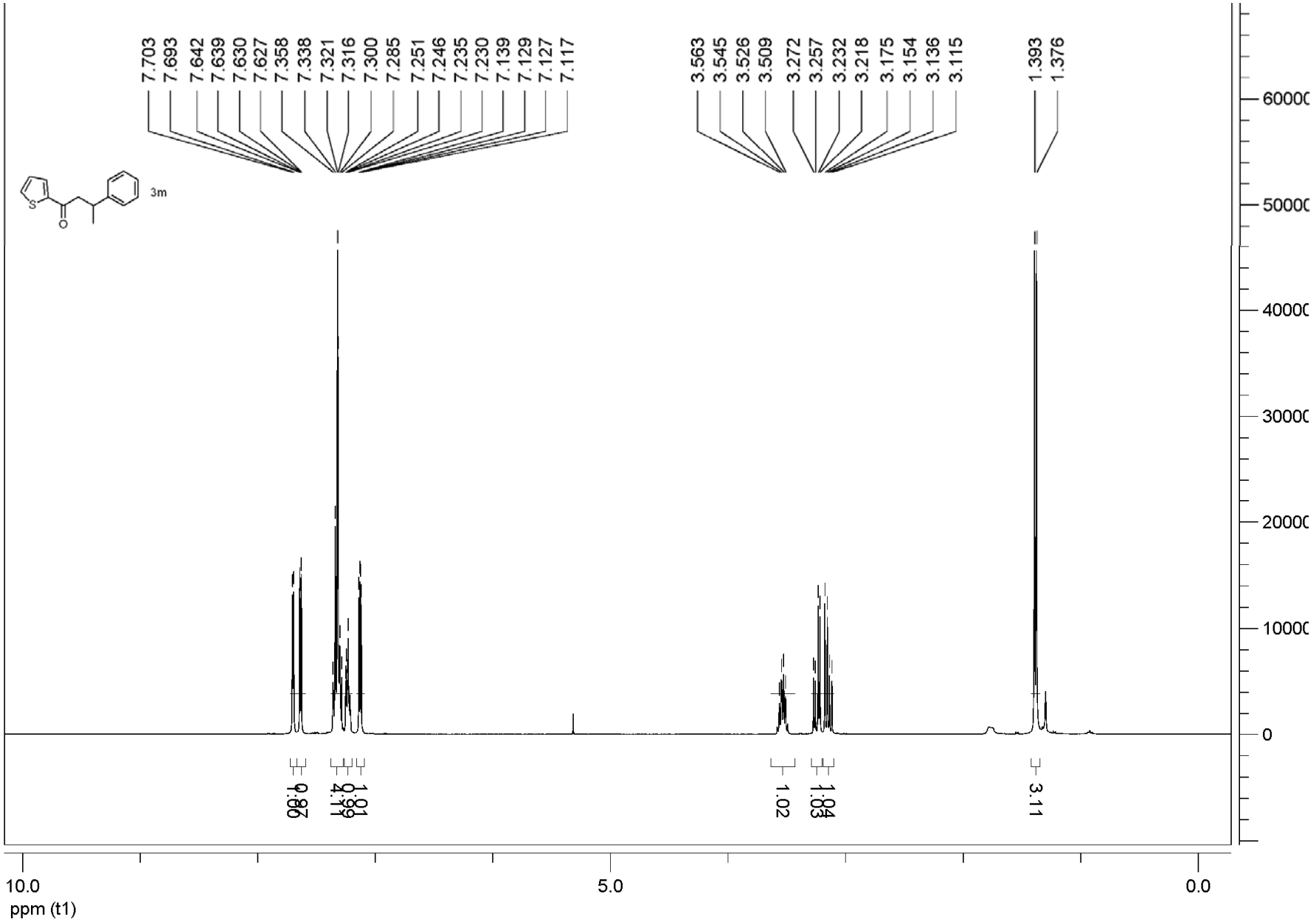


Figure S26. ^{13}C NMR of 3-phenyl-1-(thiophen-2-yl)butanone (**3m**)

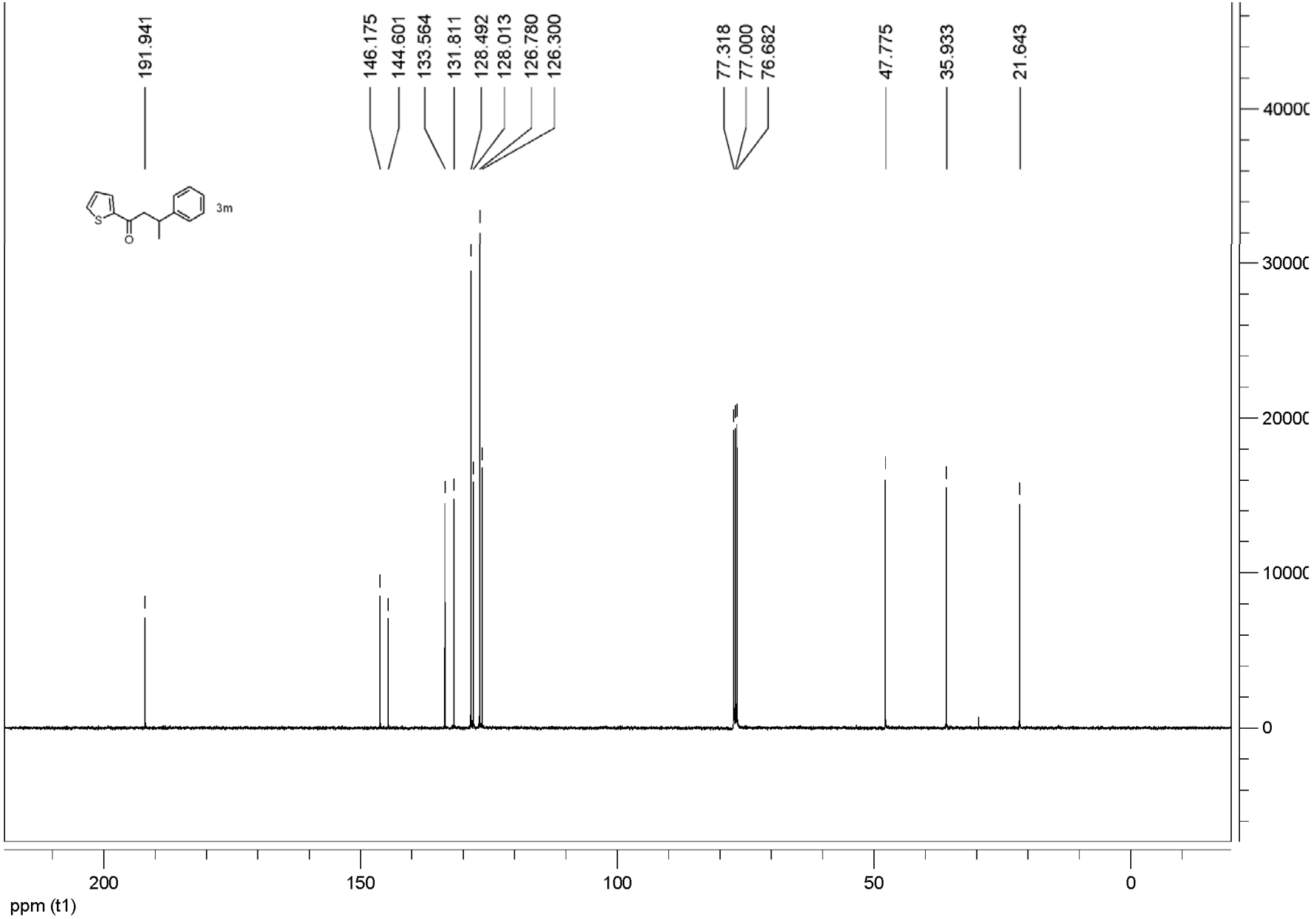


Figure S27. ^{1}H NMR of 1-phenylnonanone (**3n**)

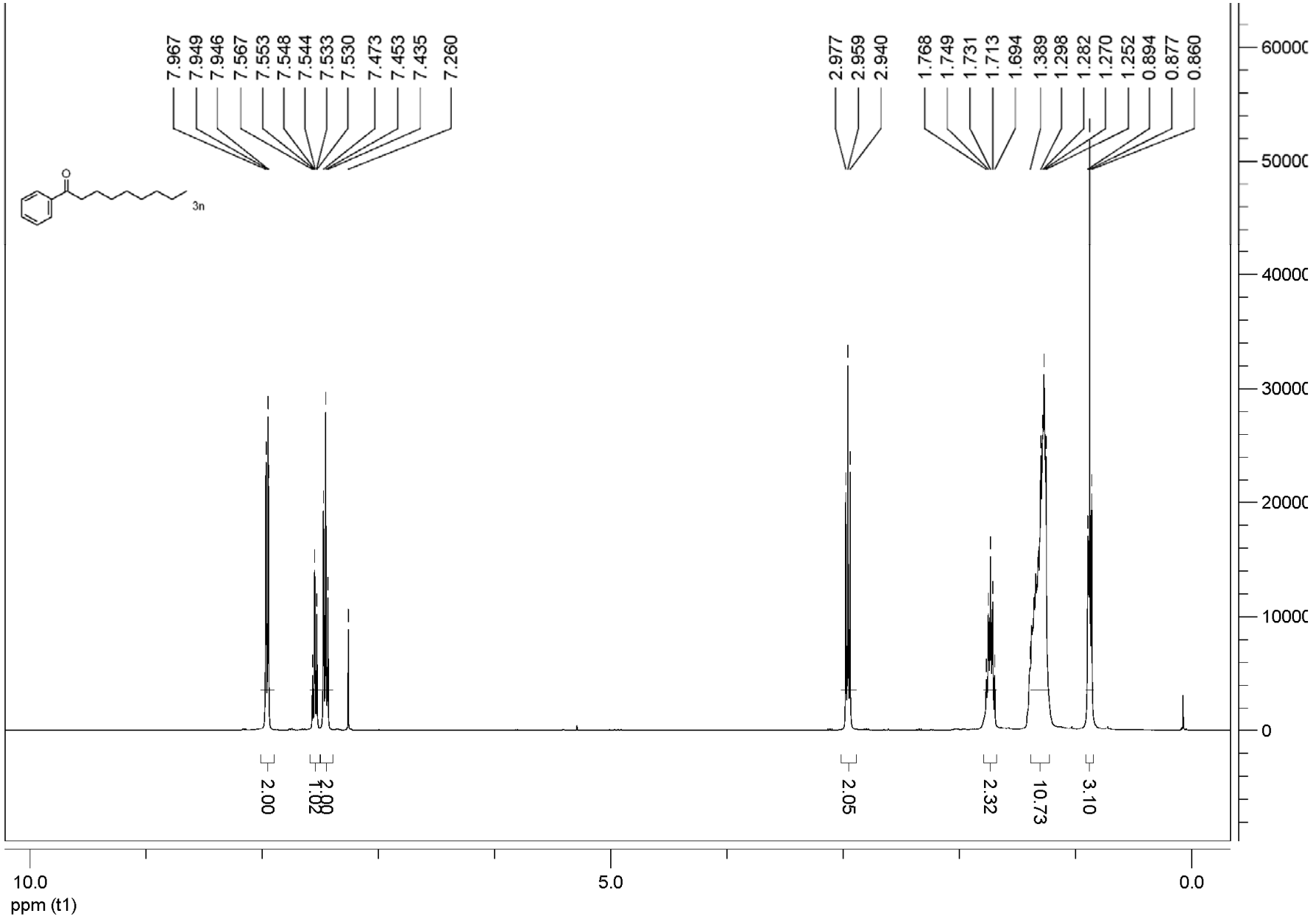


Figure S28. ^{13}C NMR of 1-phenylnonanone (**3n**)

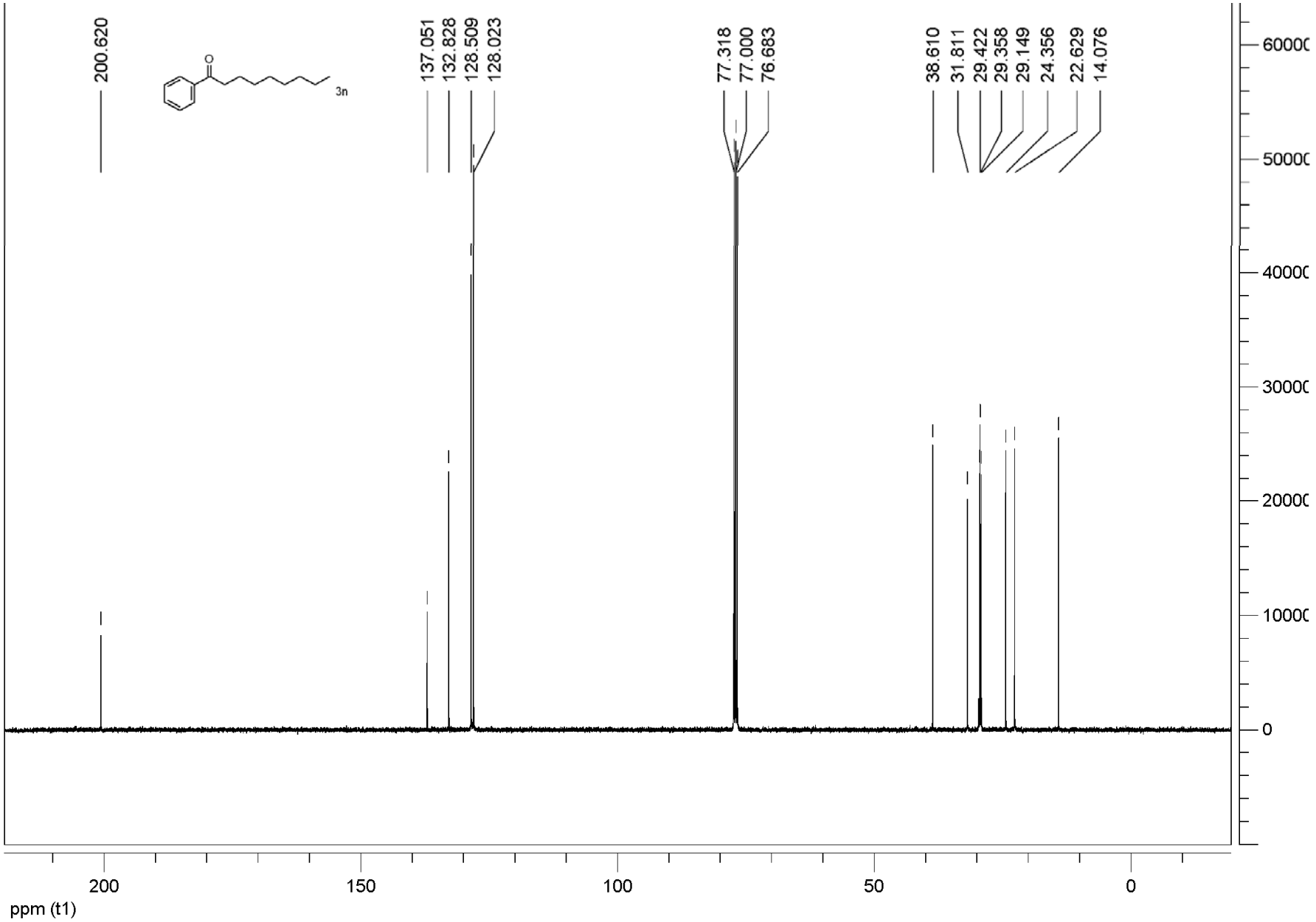
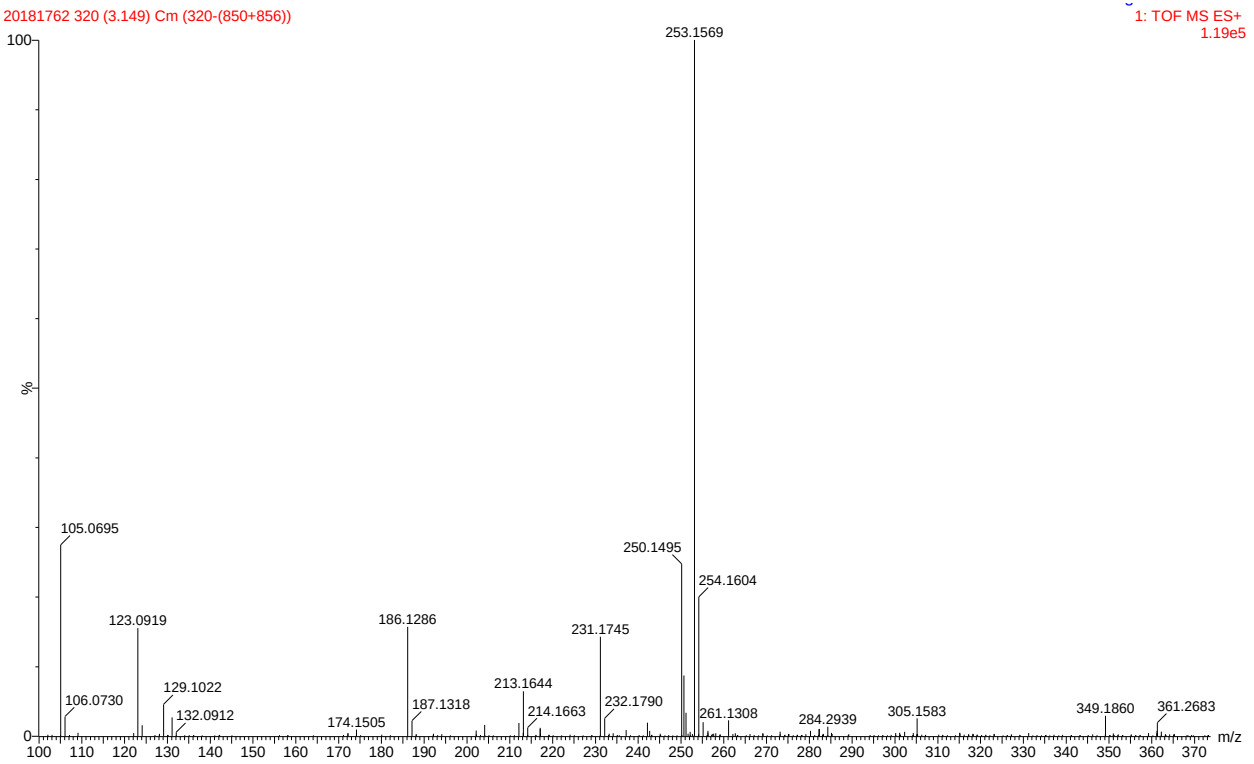


Figure S29. HRMS of 1-cyclohexyl-3-phenylbutanone (**3l**)



Elemental Composition Report
Multiple Mass Analysis: 2 mass(es) processed
Tolerance = 5.0 PPM / DBE: min = -1.5, max = 50.0
Element prediction: Off
Number of isotope peaks used for i-FIT = 3

Monoisotopic Mass, Even Electron Ions
808 formula(e) evaluated with 2 results within limits (all results (up to 1000) for each mass)
Elements Used:
12C: 0-50 13C: 0-1 H: 0-50 O: 0-5 Na: 0-1

Minimum:	10.00					-1.5	
Maximum:	100.00		5.0	5.0	50.0		
Mass	RA	Calc. Mass	mDa		PPM	DBE	i-FIT
253.1569	100.00	253.1568	0.1	0.4	5.5	44.5	n/a
n/a	12C16 H22 O Na						
254.1604	19.97	254.1602	0.2	0.8	5.5	27.1	n/a
n/a	12C15 13C H22 O Na						