

Supporting Information

Highly Enantioselective Synthesis of 2-Phenyl-5-alkylprolines using Phase-transfer Catalytic Alkylation

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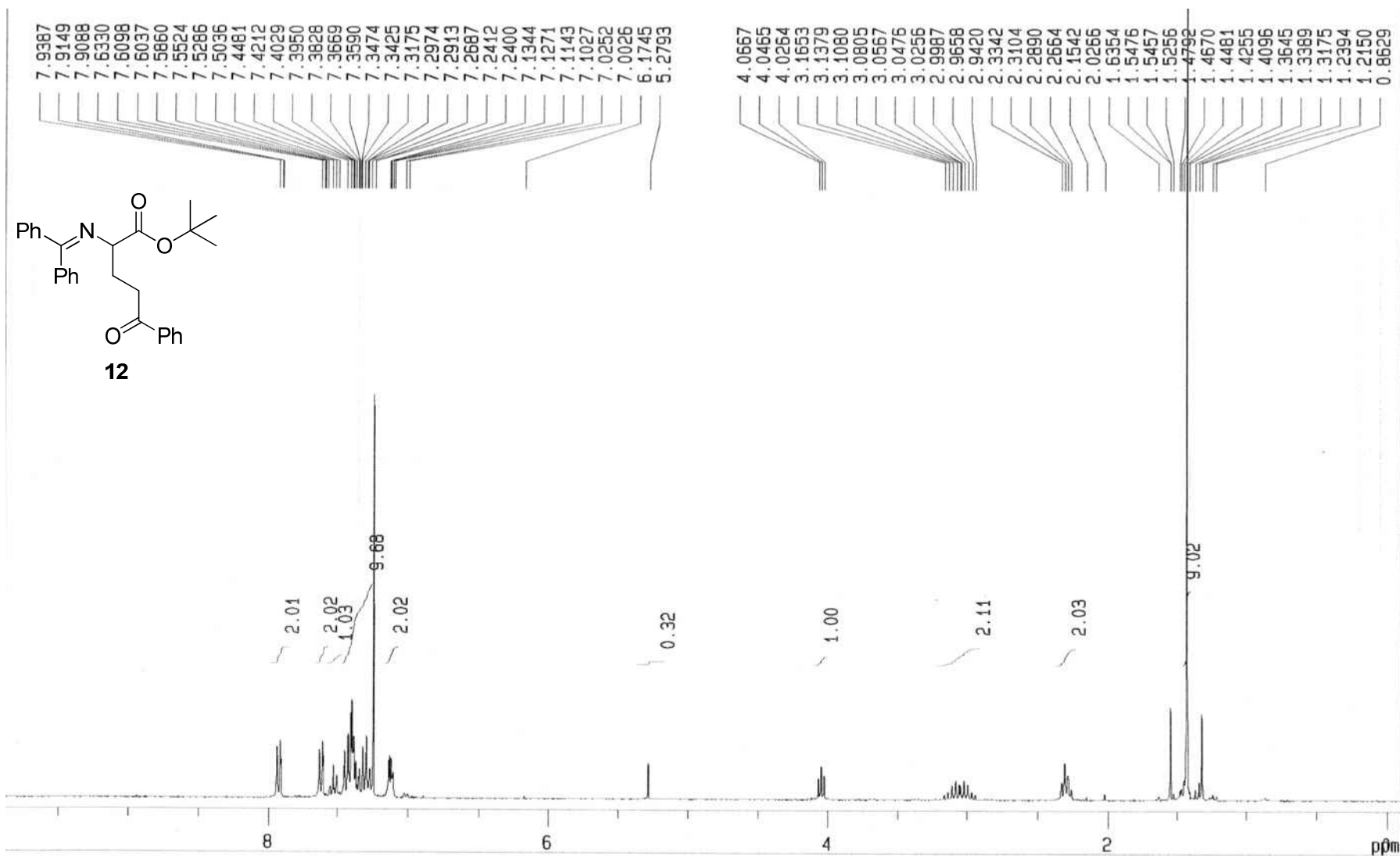
^b*College of Pharmacy, Inje University, 607 Obang-dong, Gimhae, Gyeongnam 621-749, Korea,*

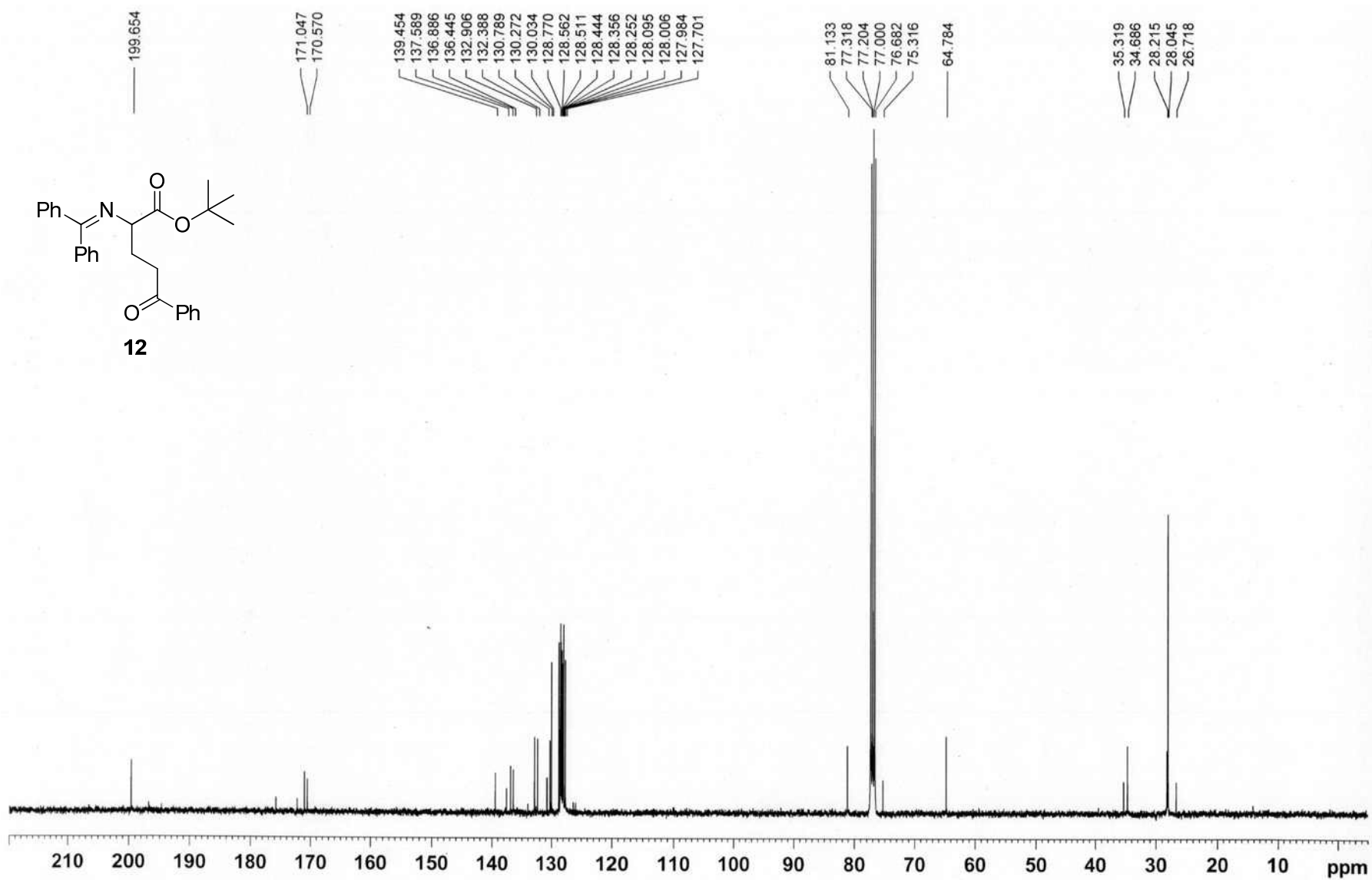
^c*Marine Natural Products Chemistry Laboratory, Korea Ocean Research and Development Institute, Ansan 426-744, Korea*

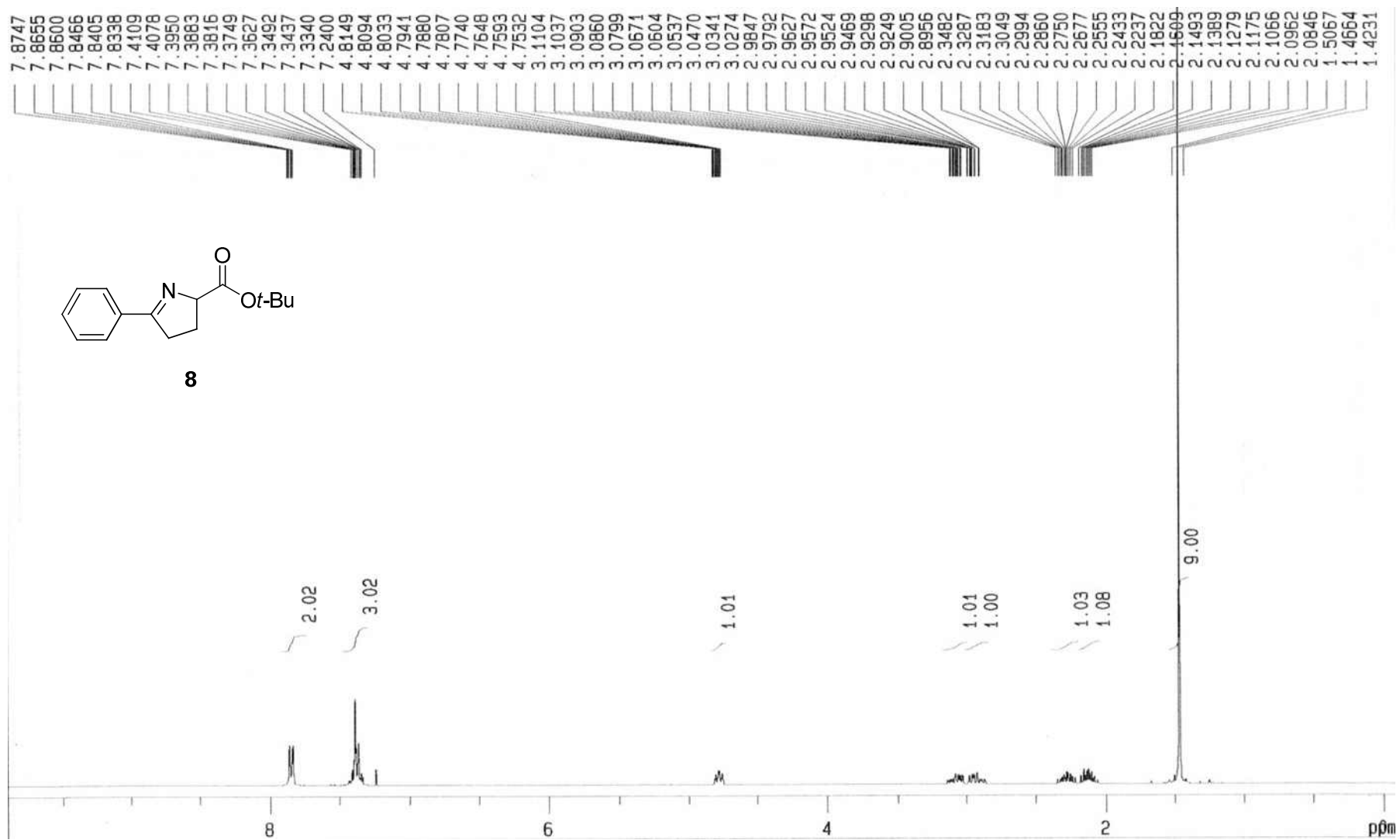
hgpk@snu.ac.kr

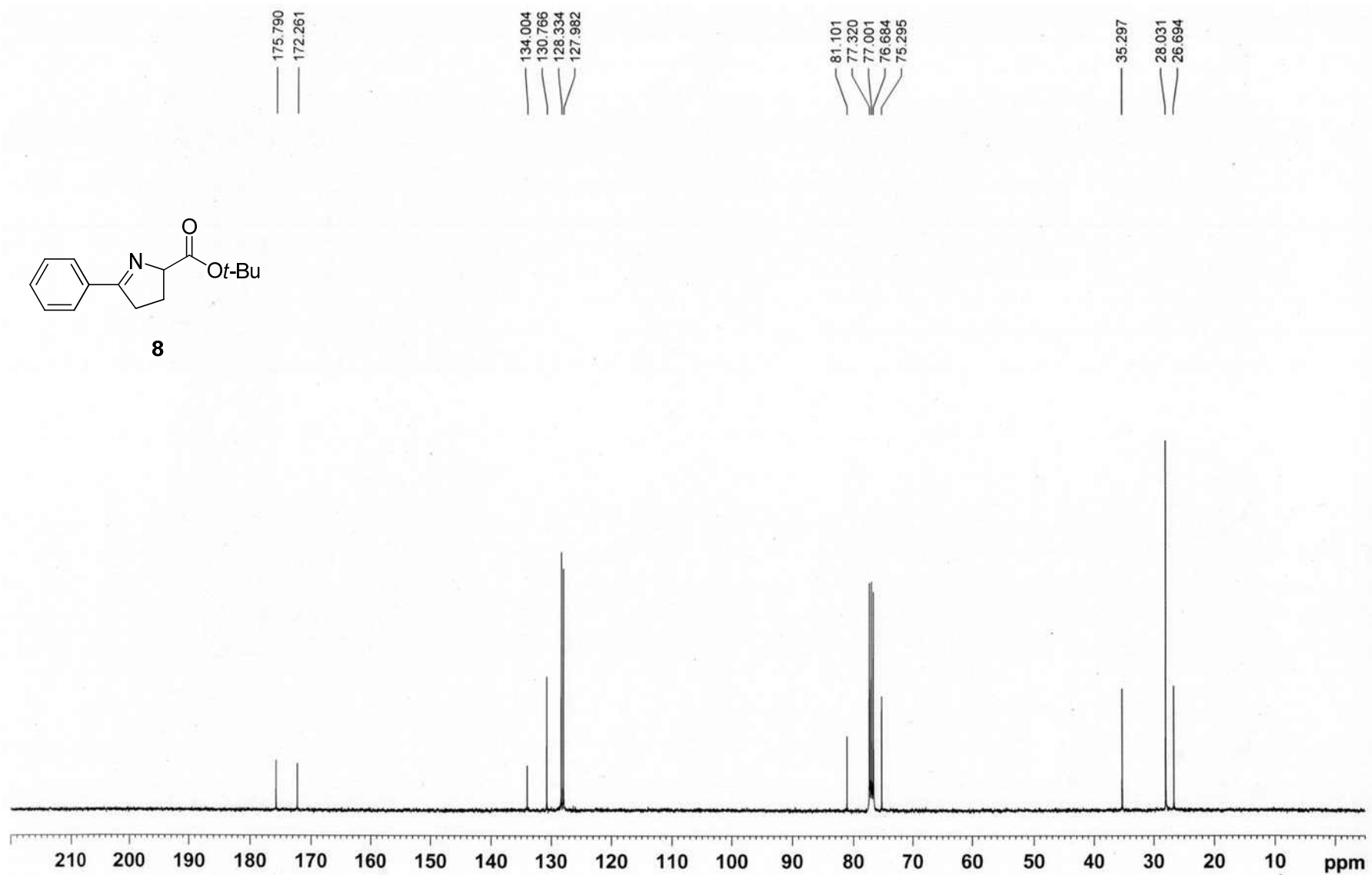
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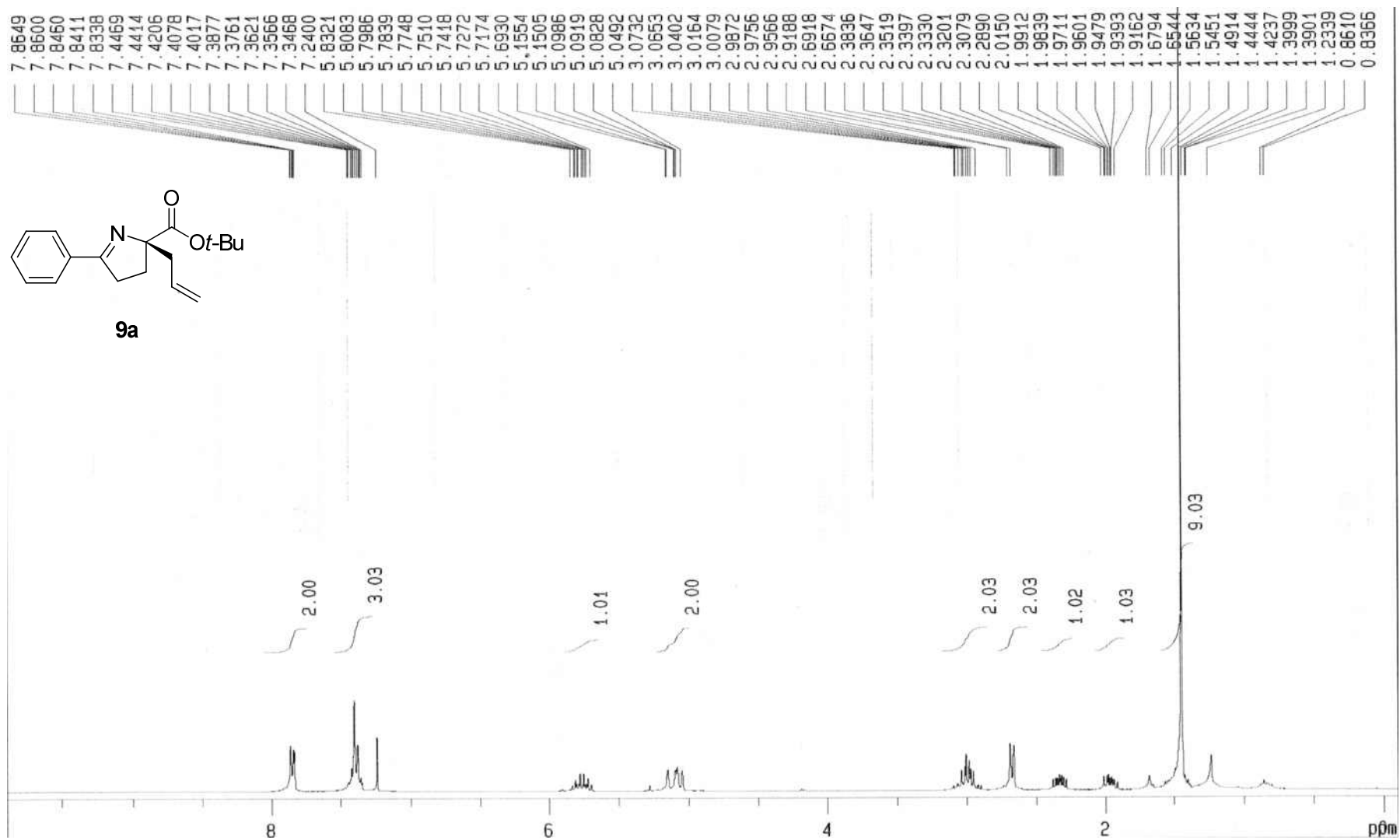
¹ H & ¹³ C NMR Spectra	S-2
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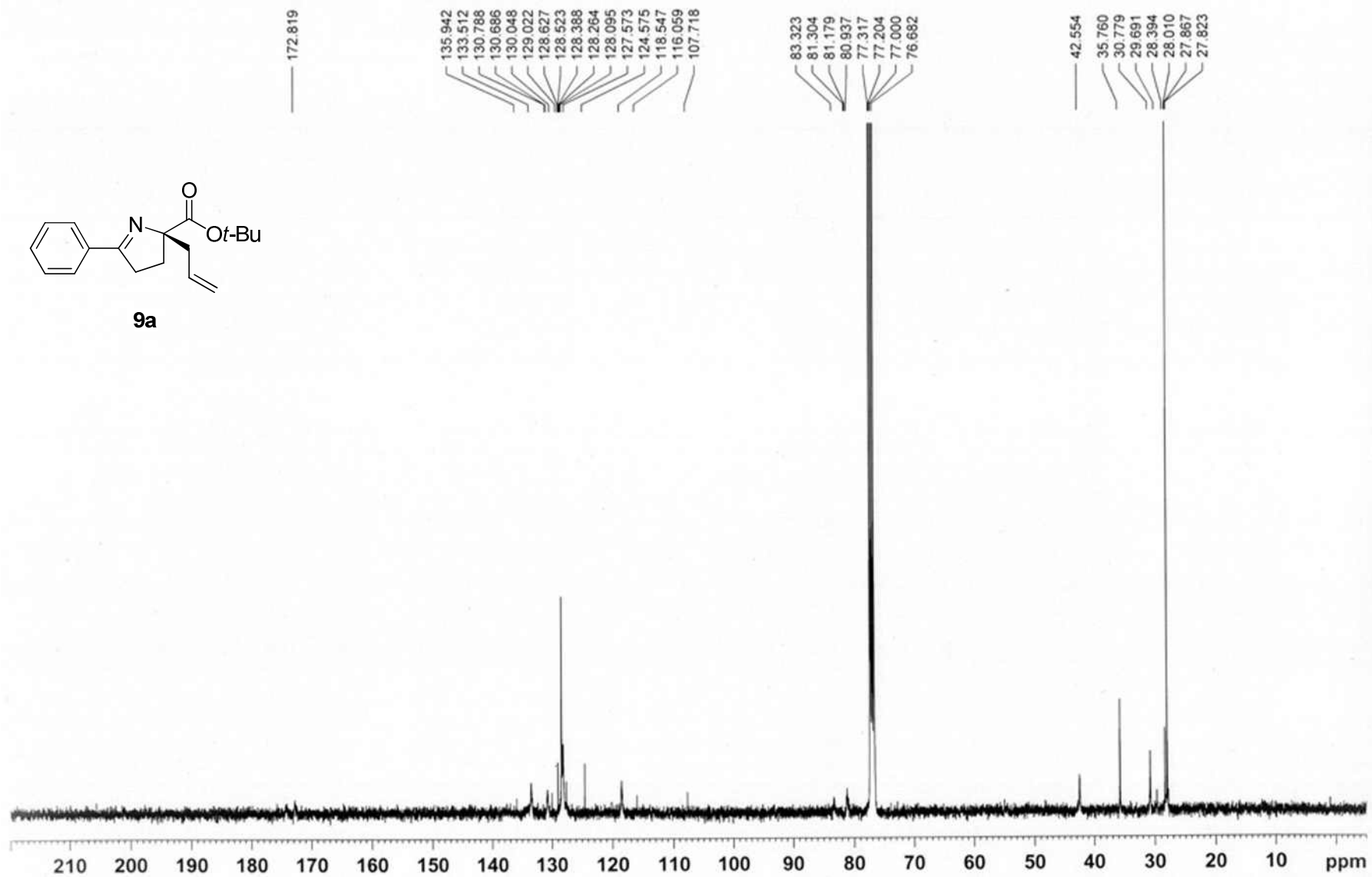


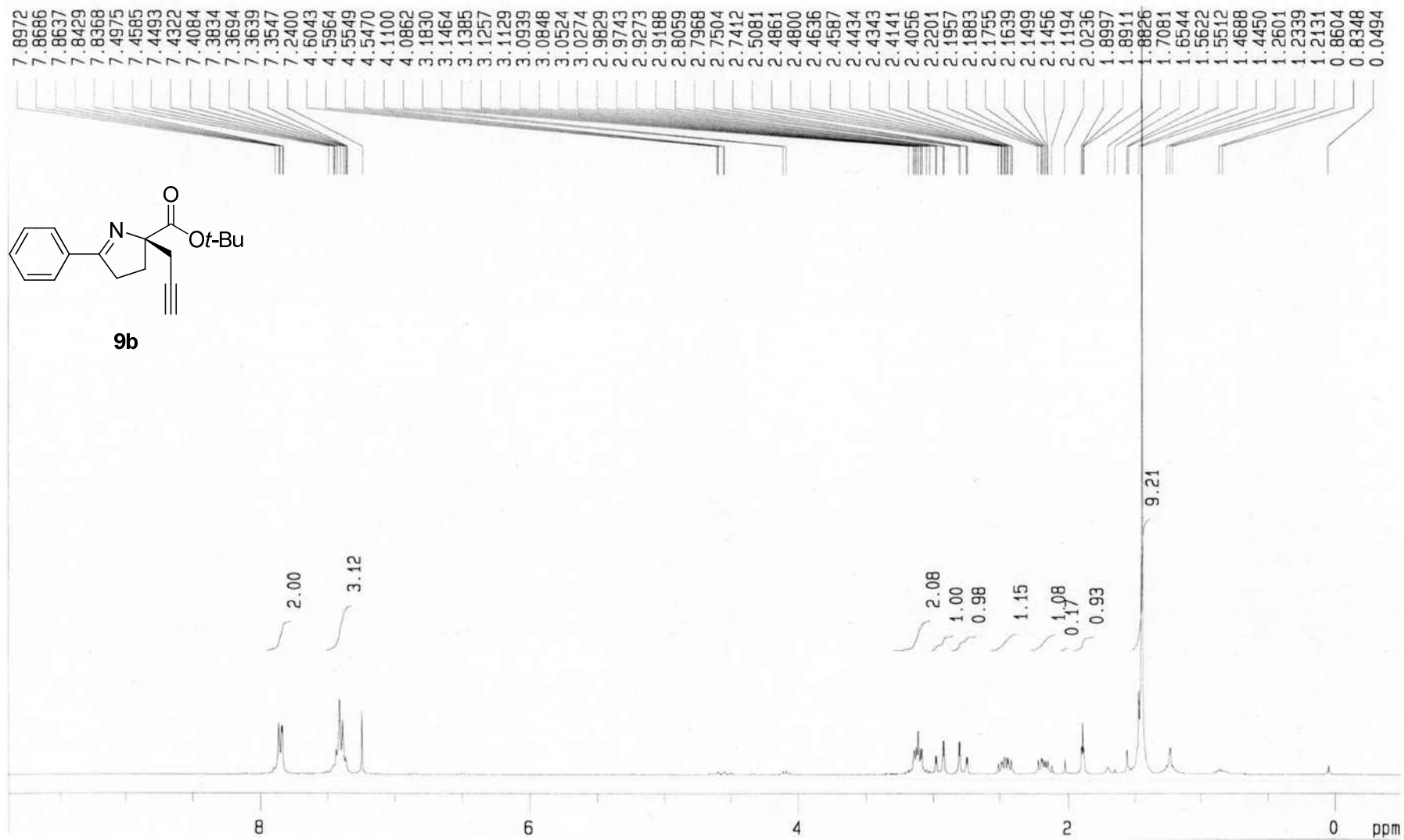


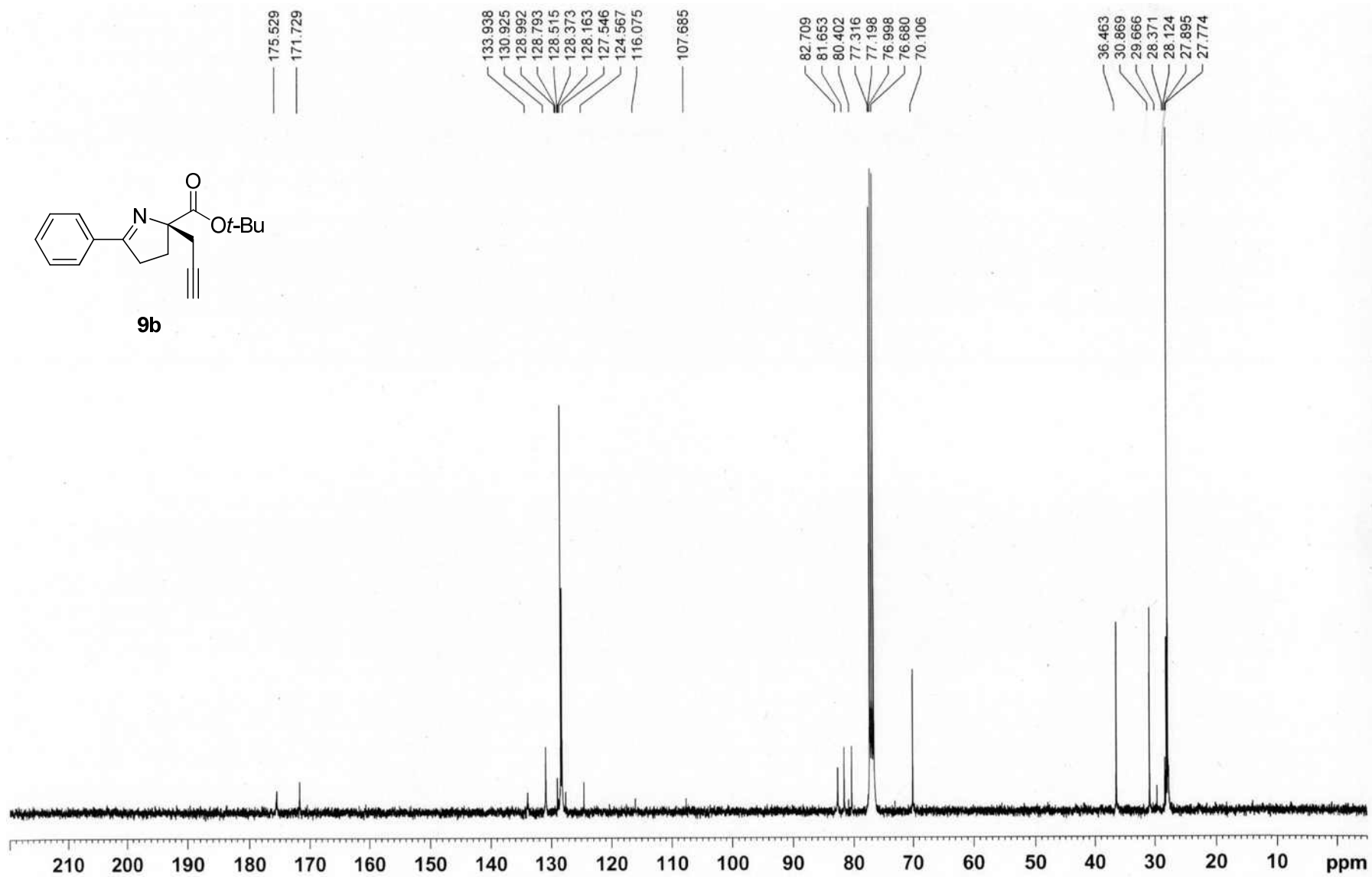


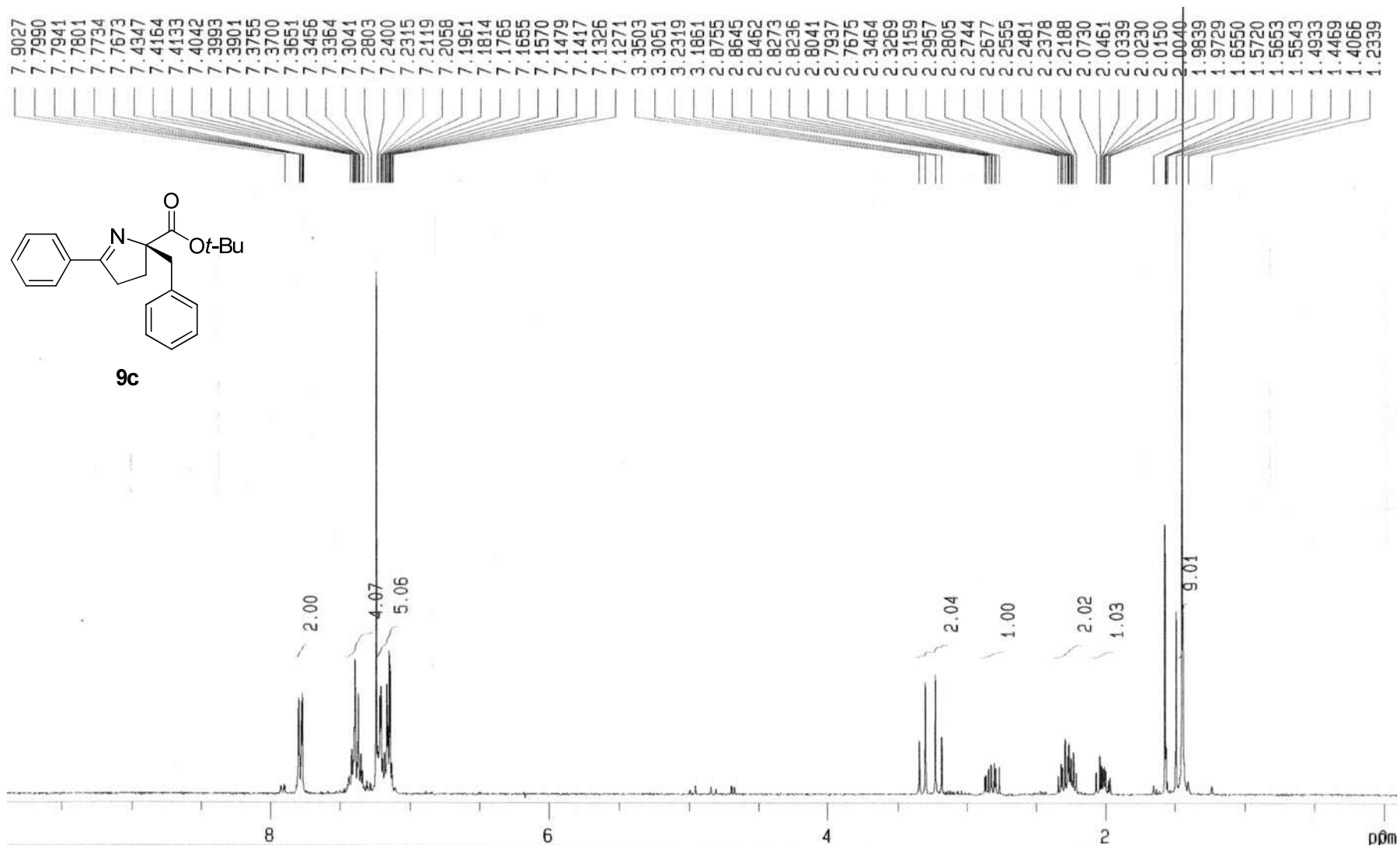


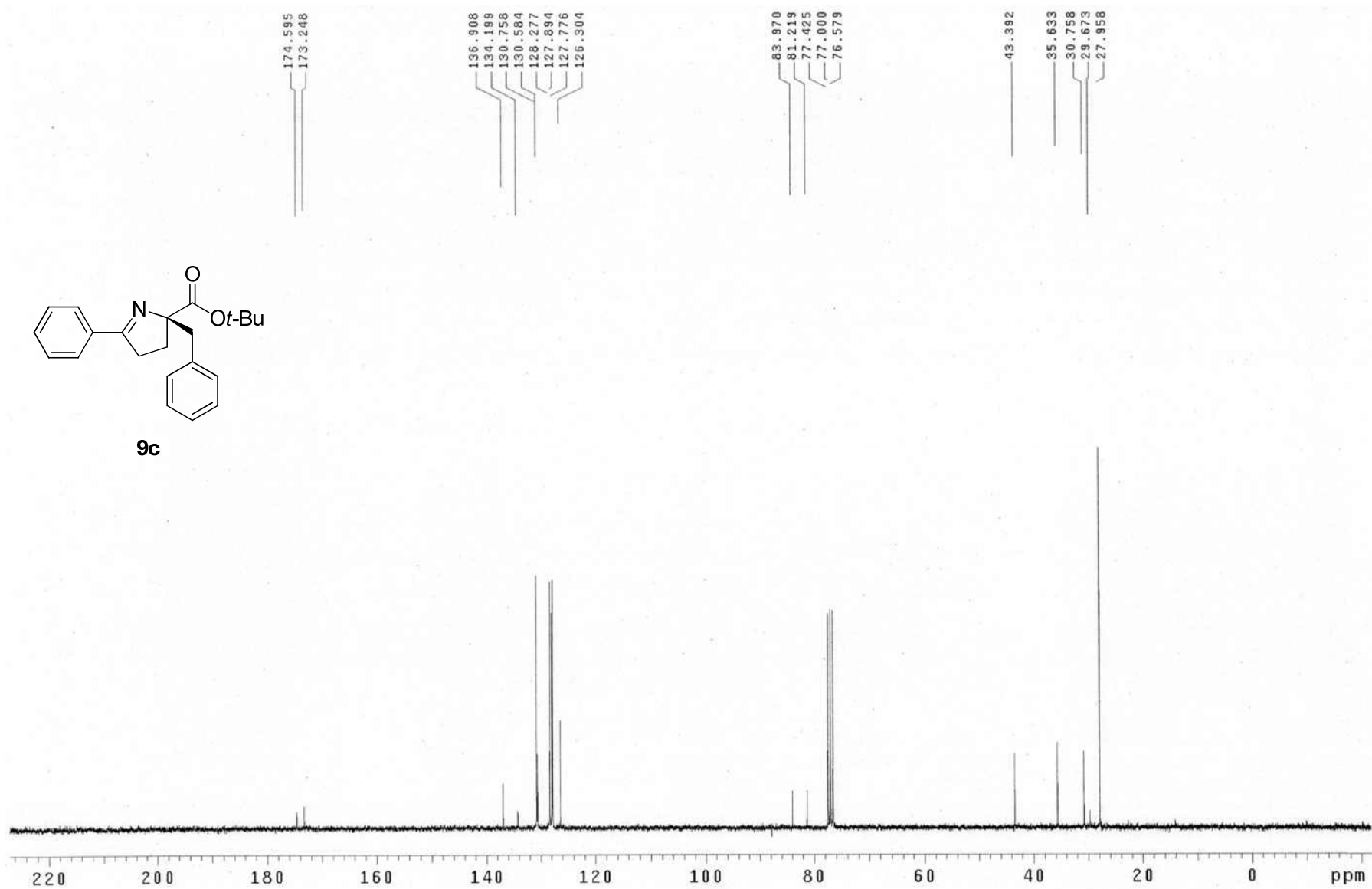


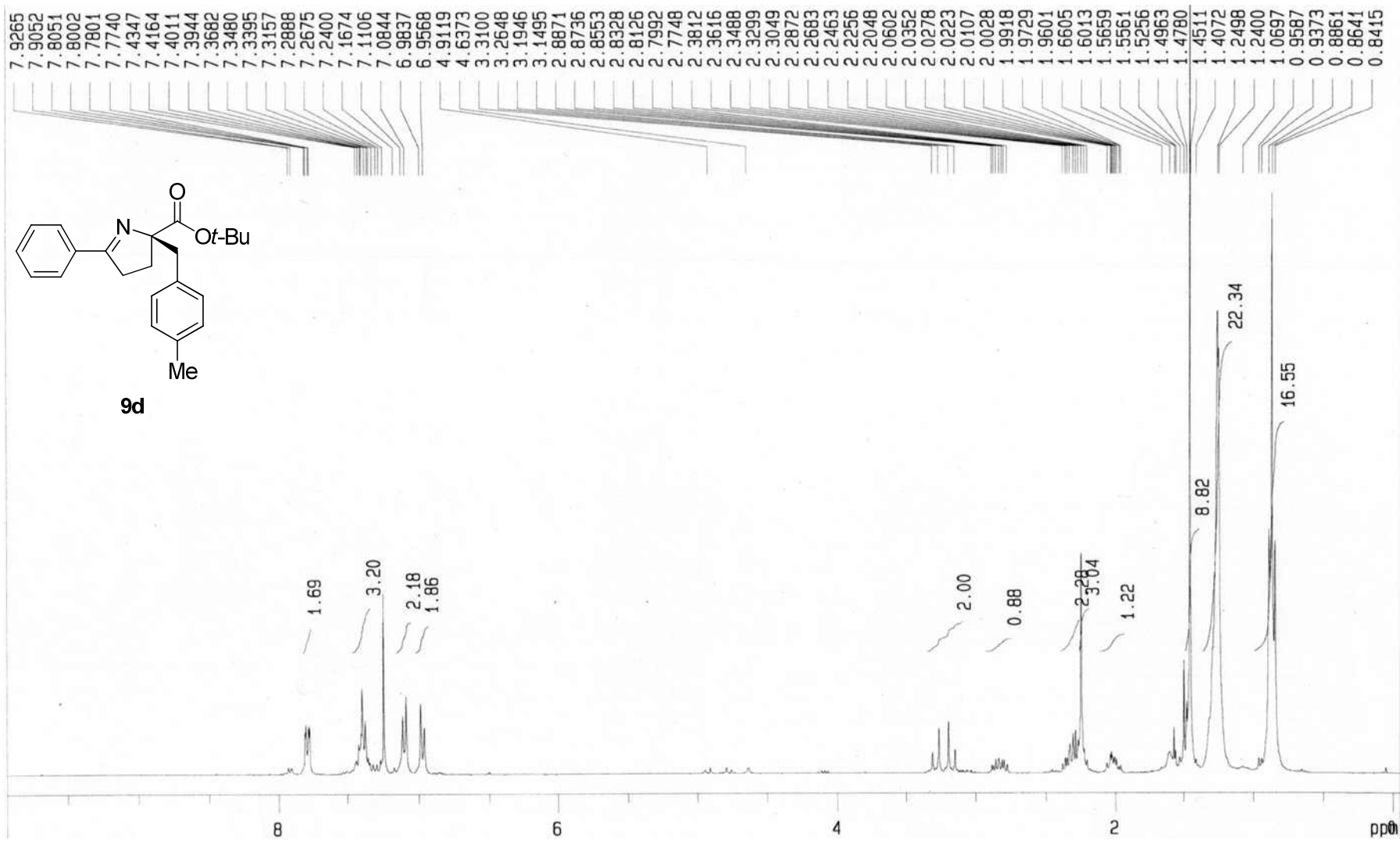


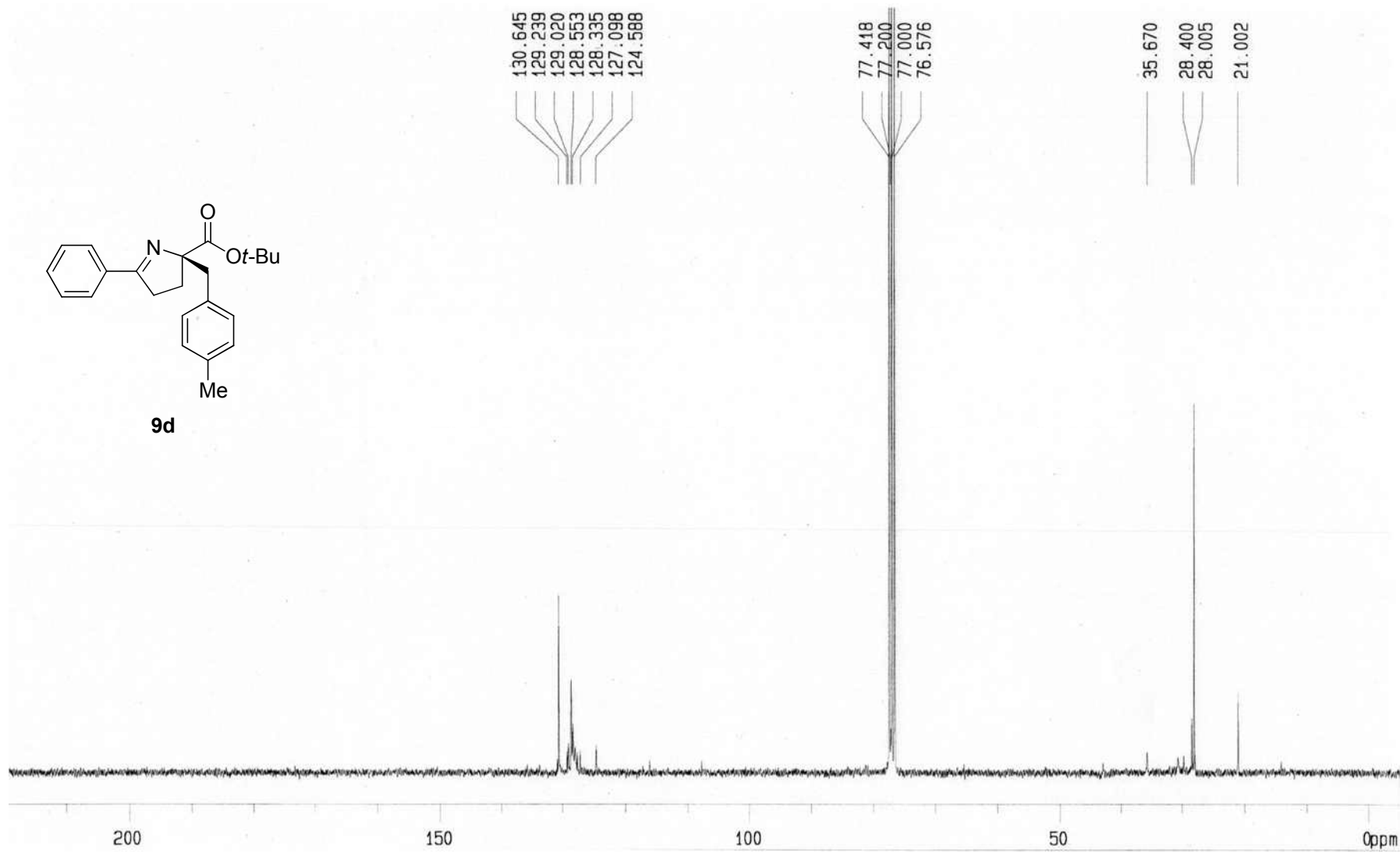


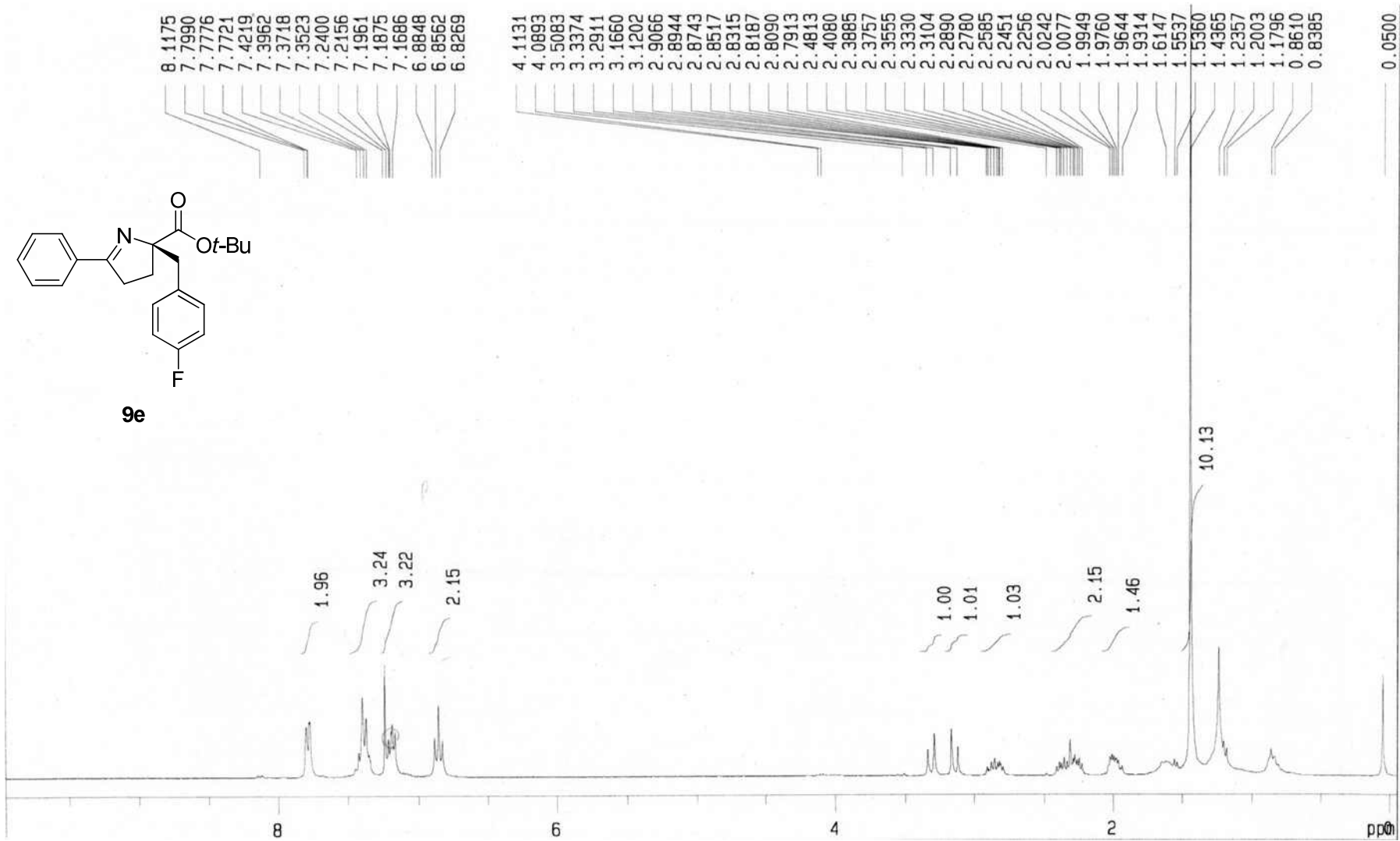


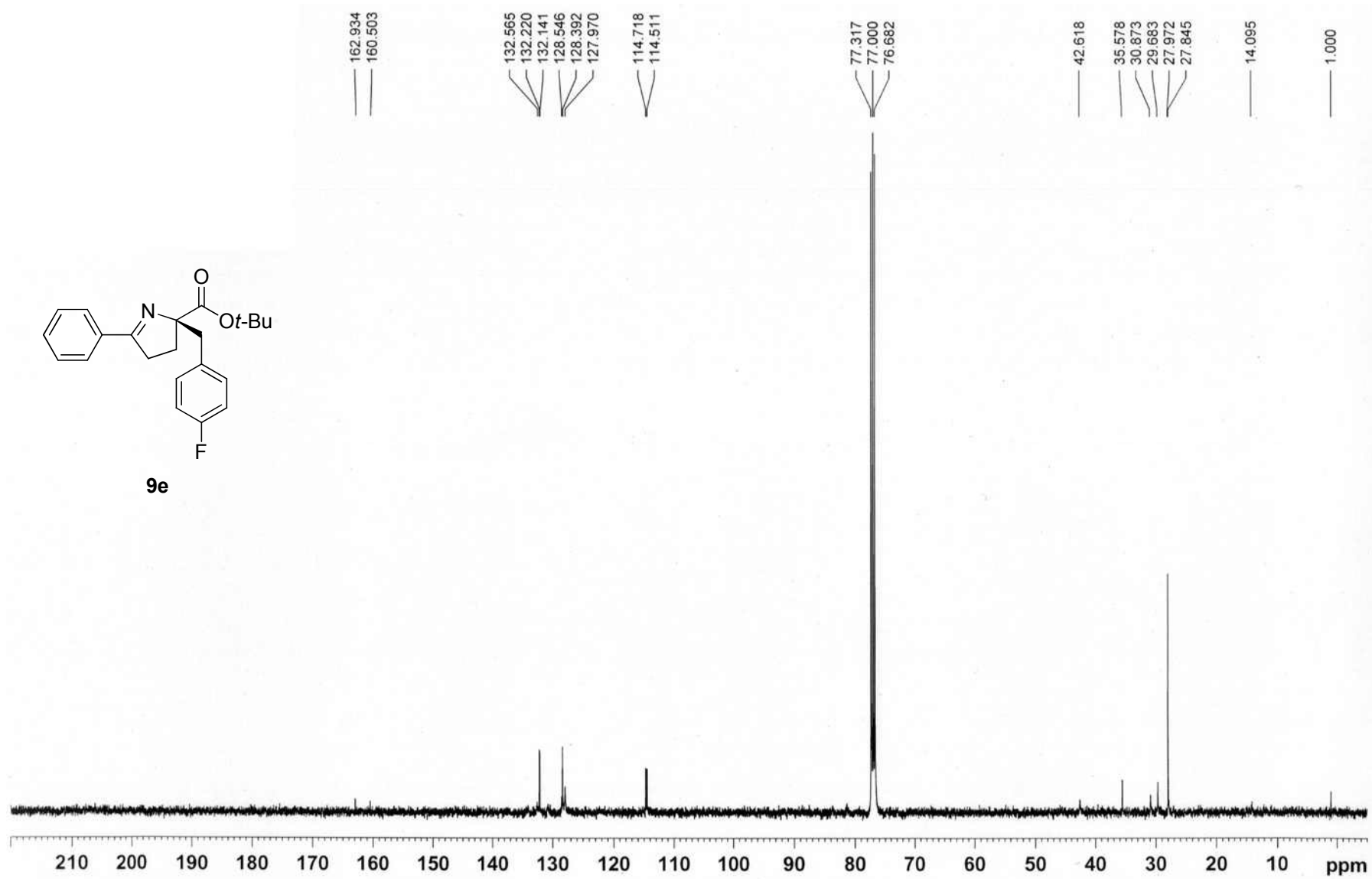


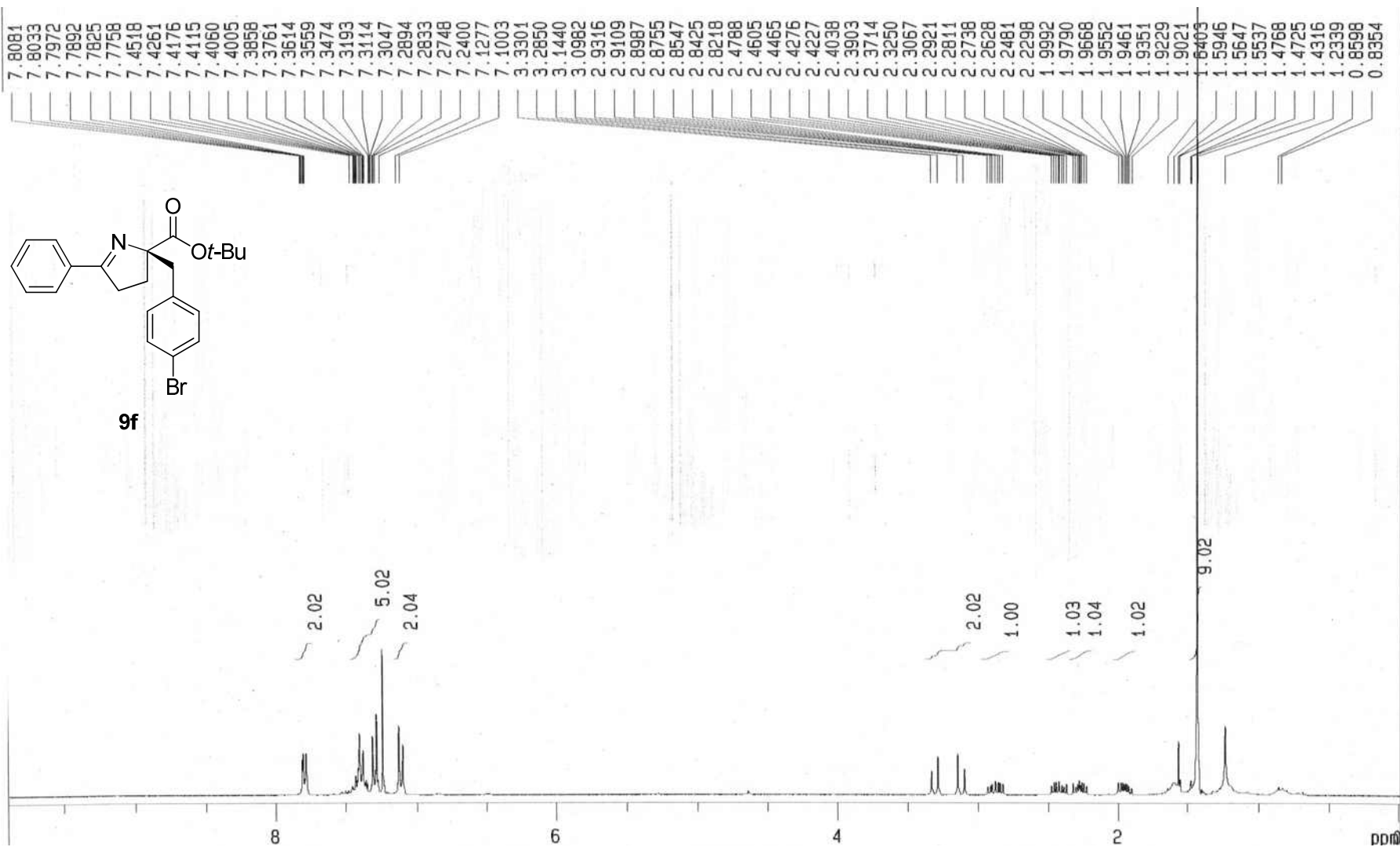


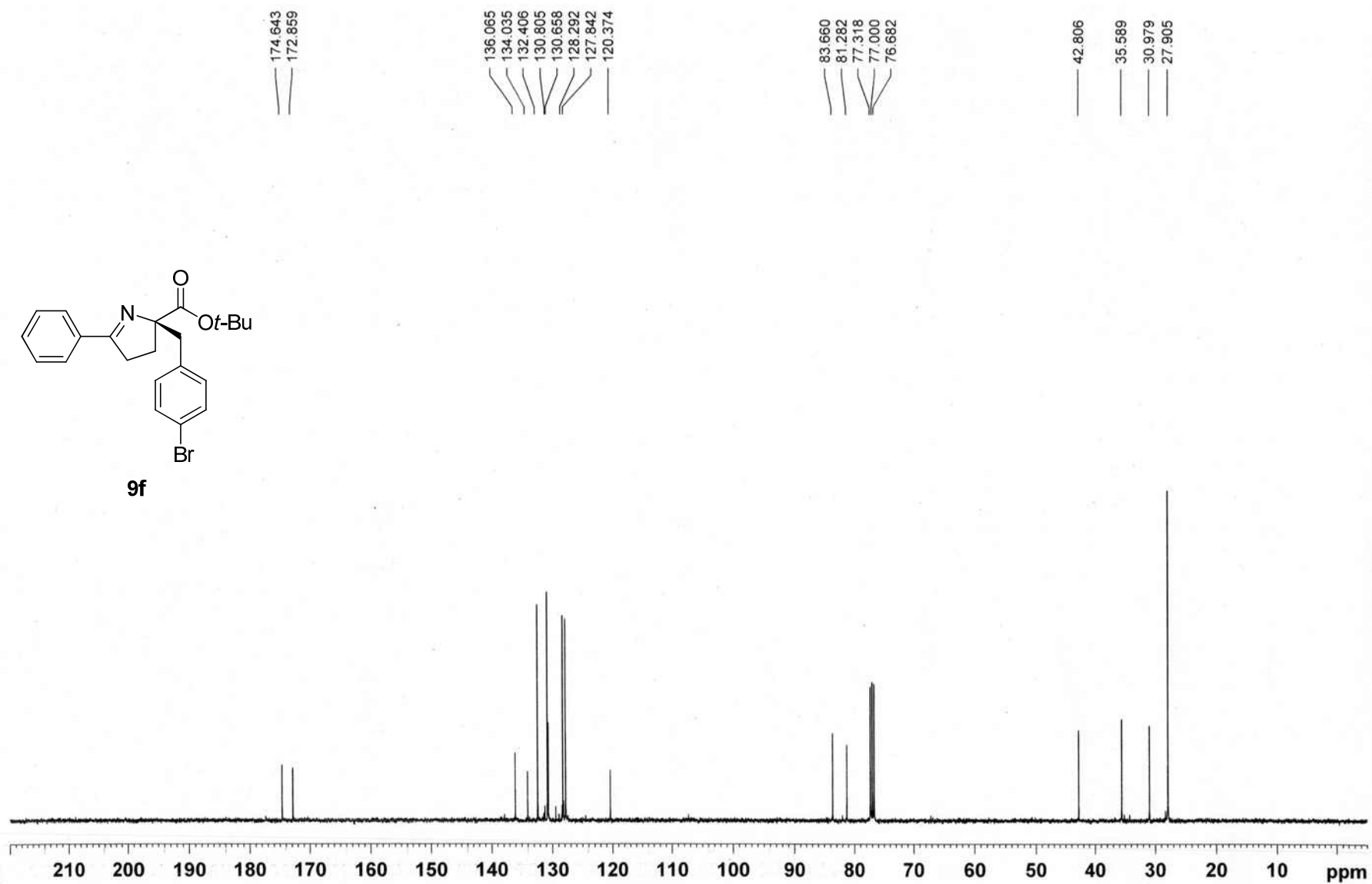


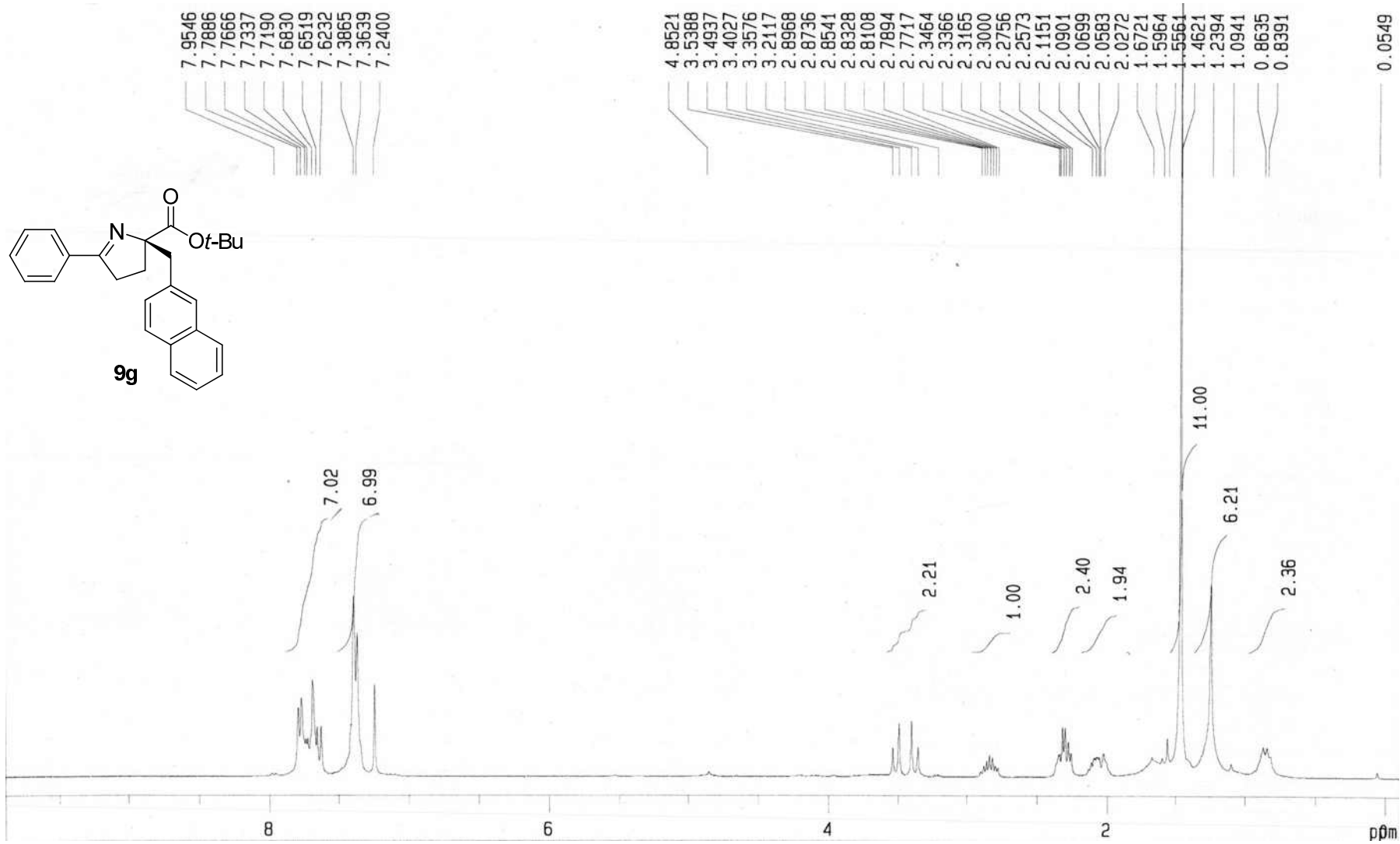


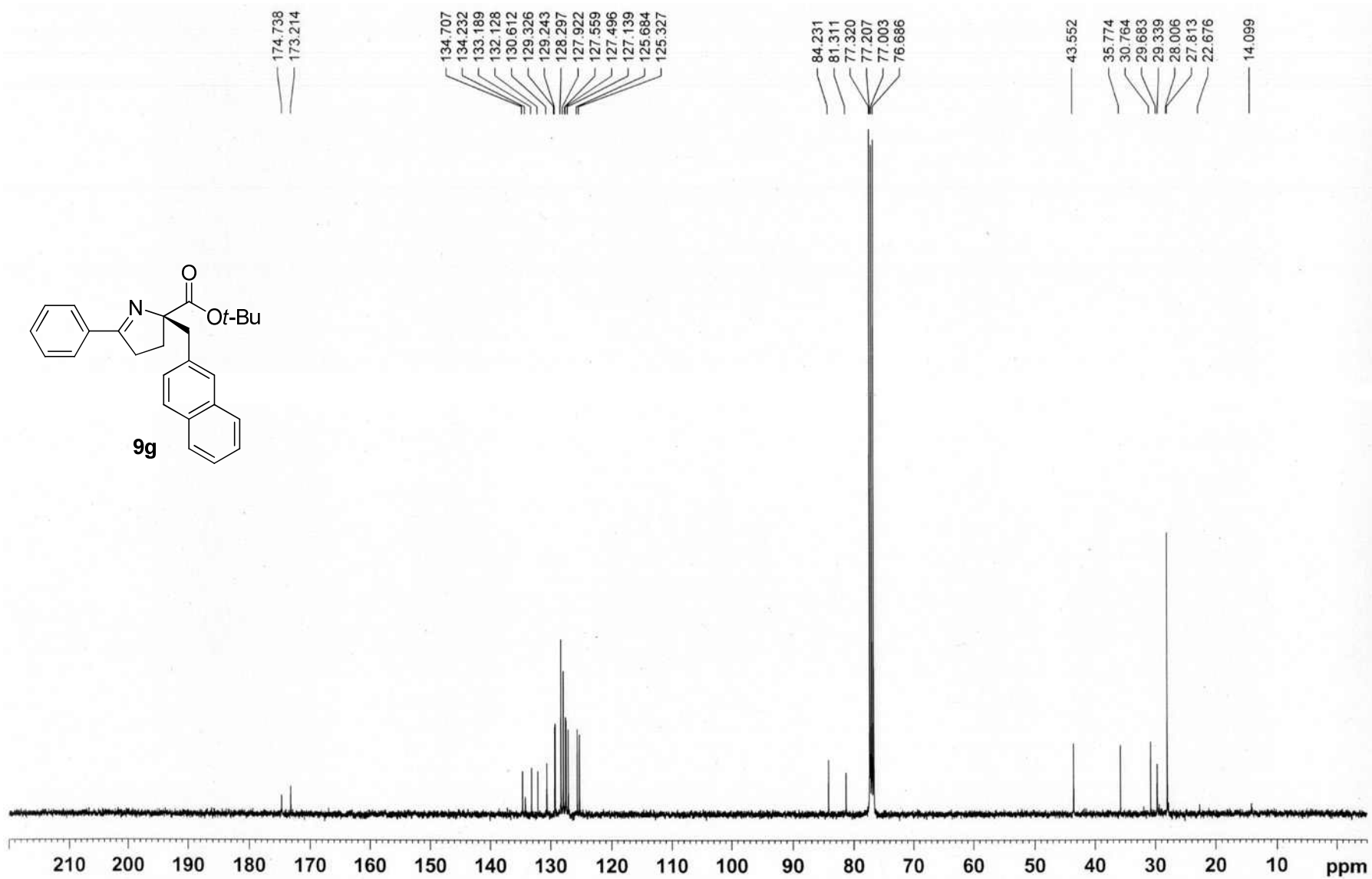


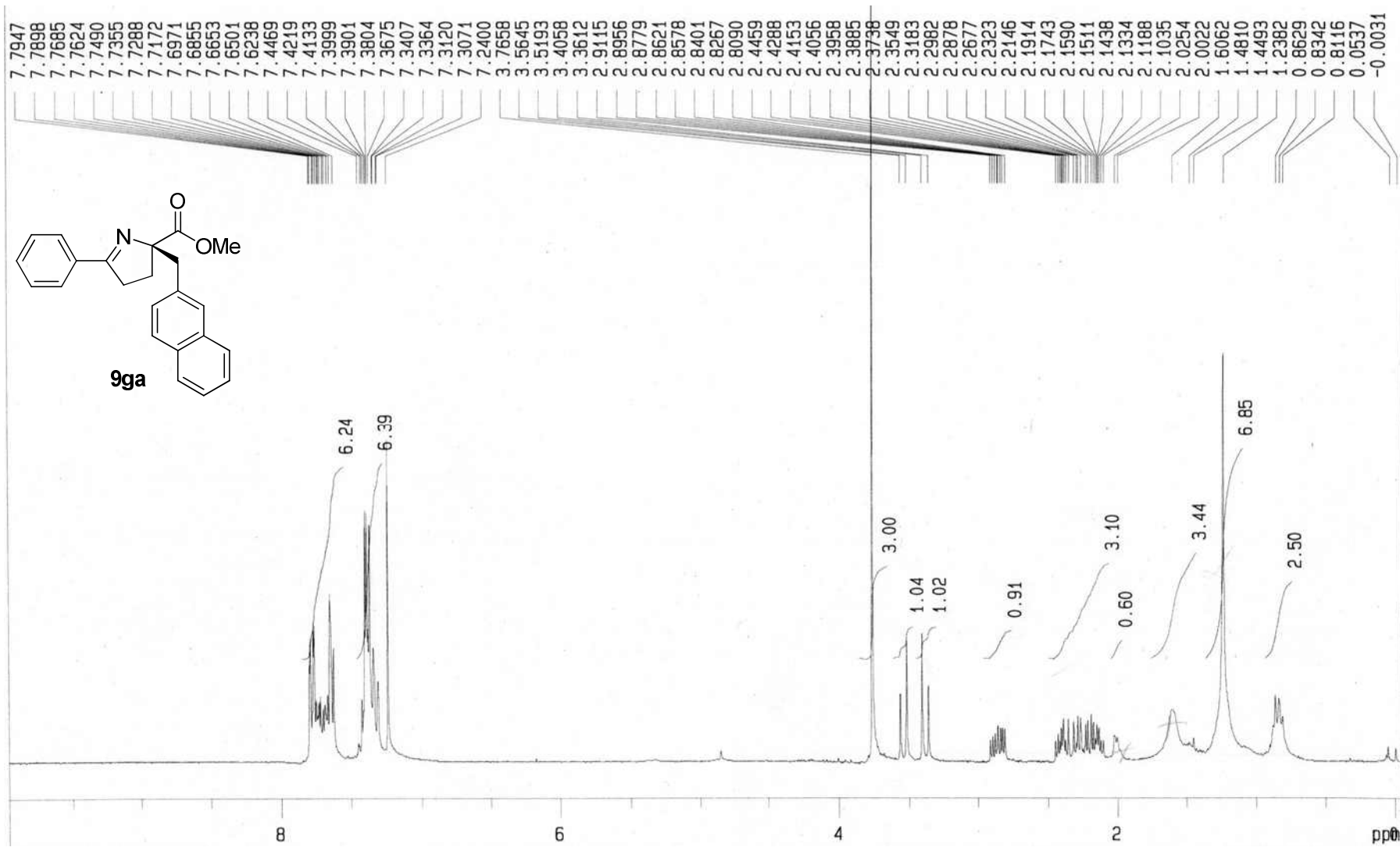


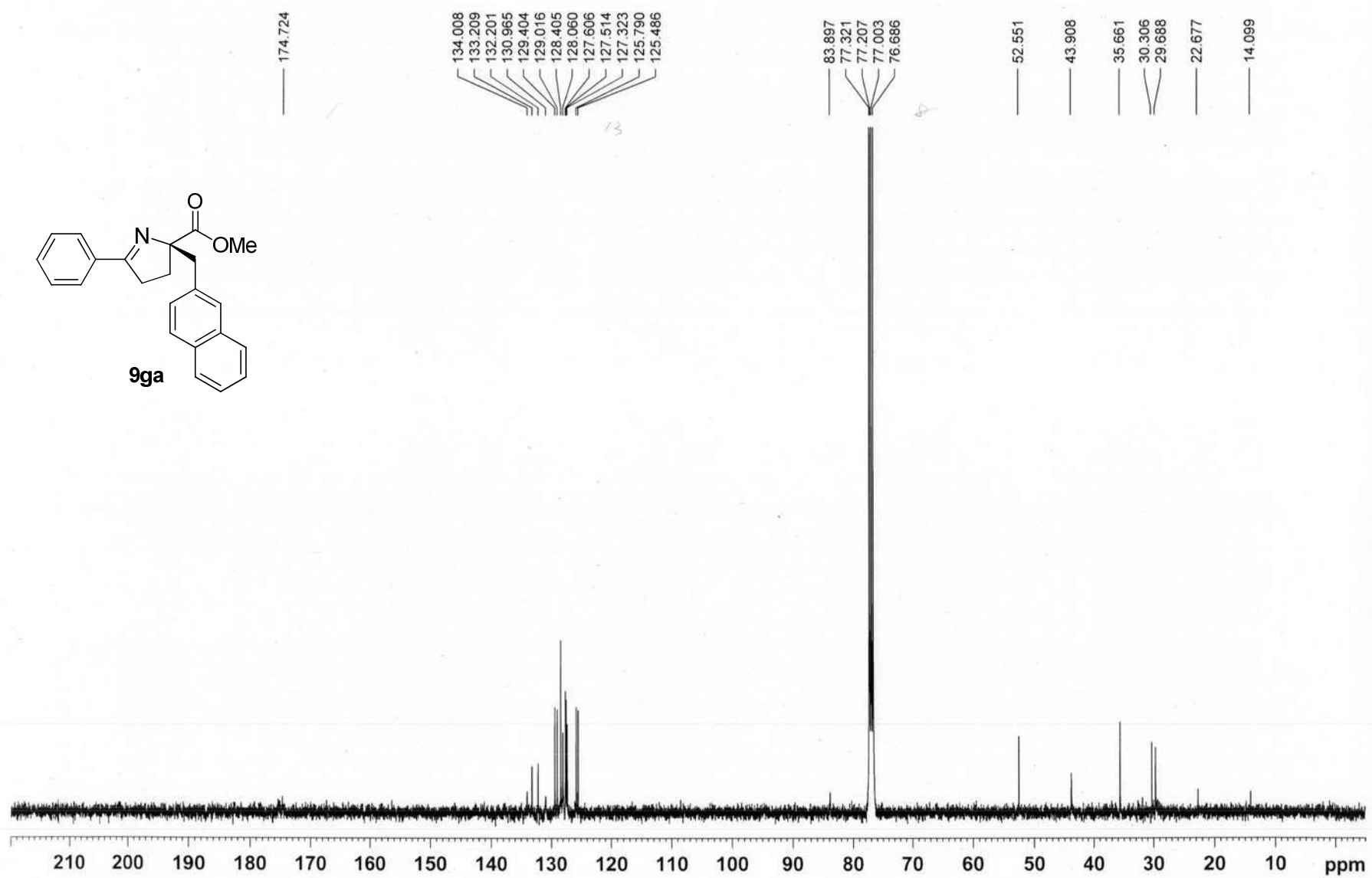


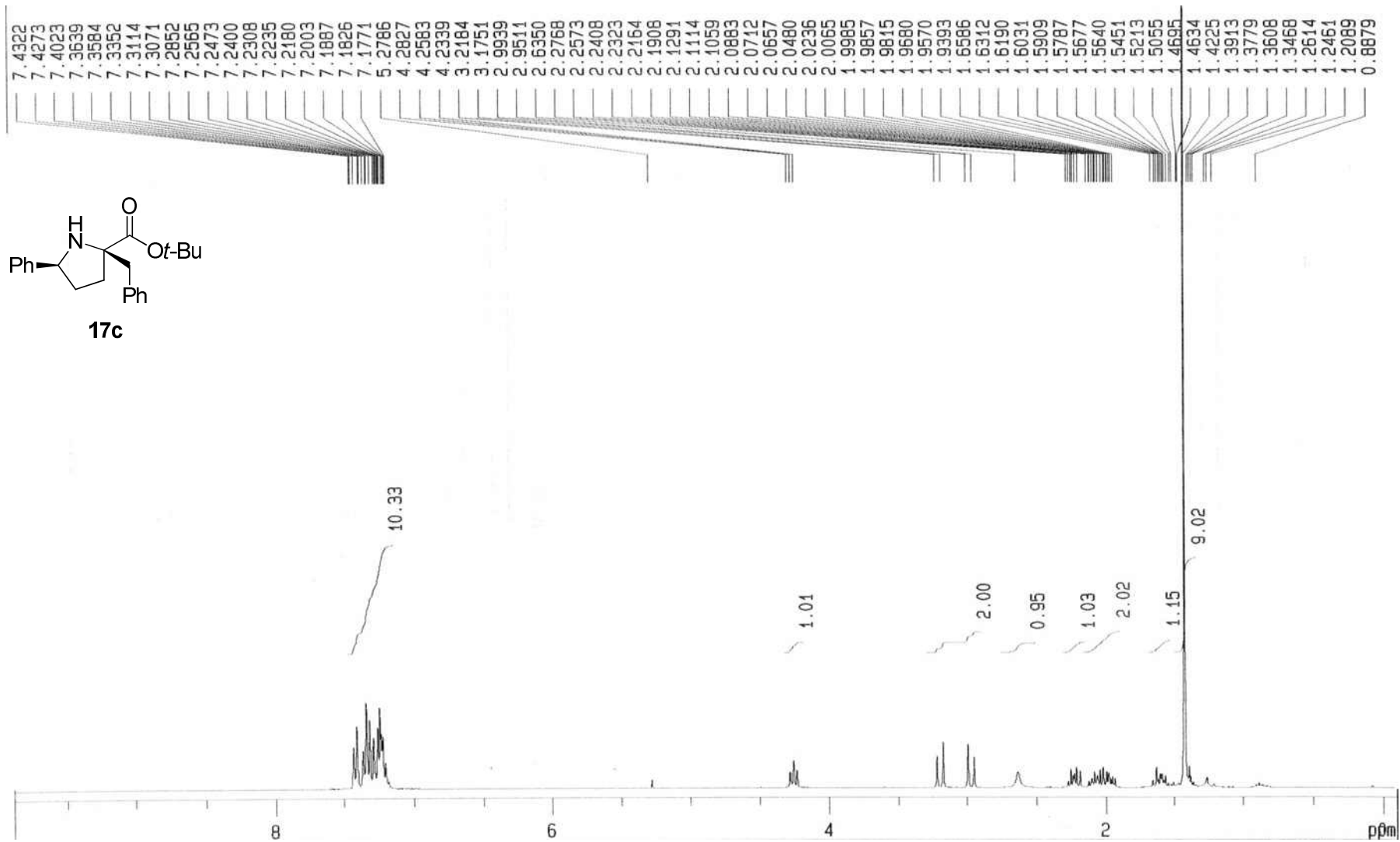


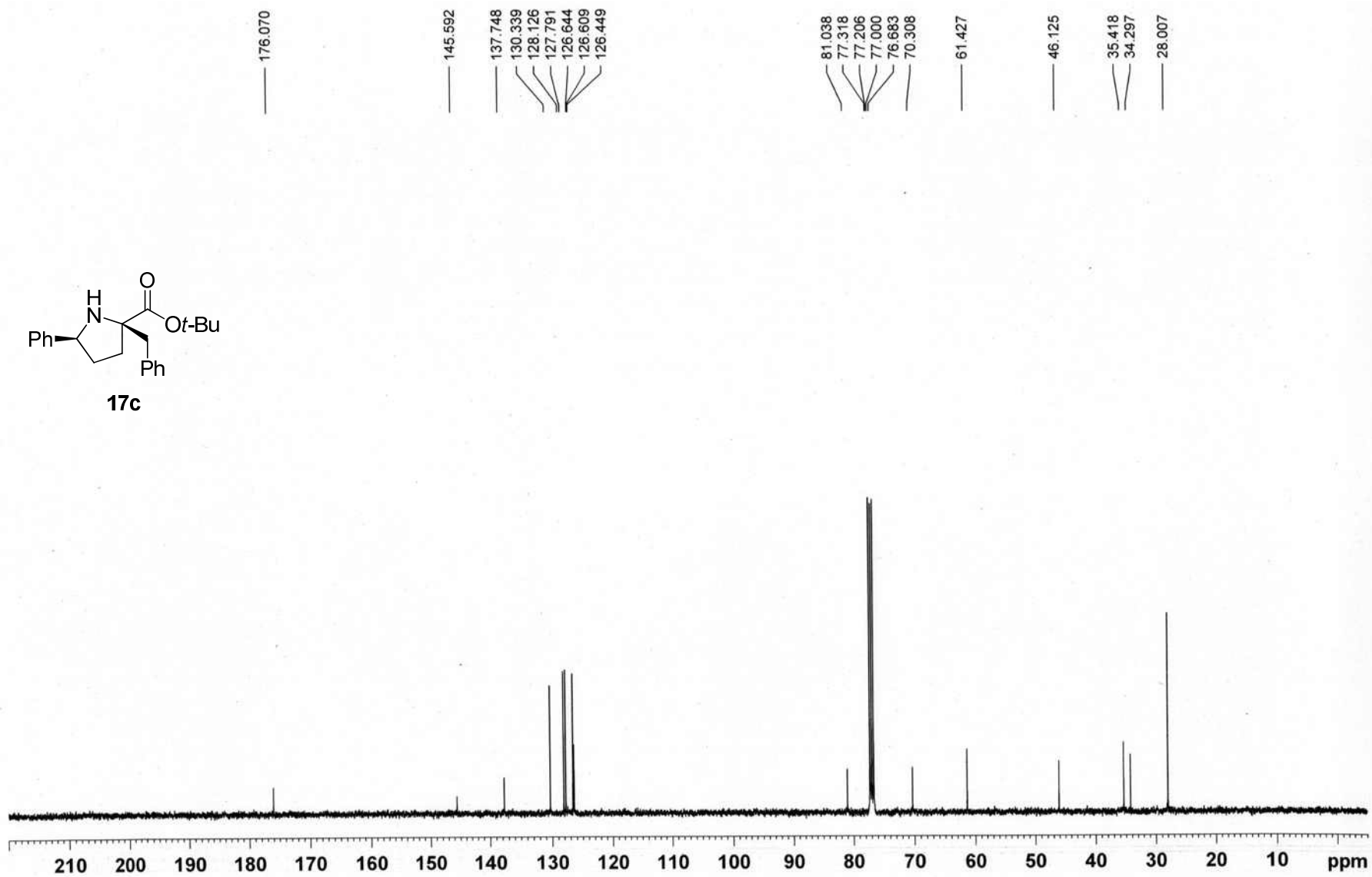
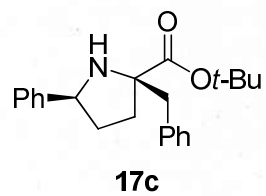


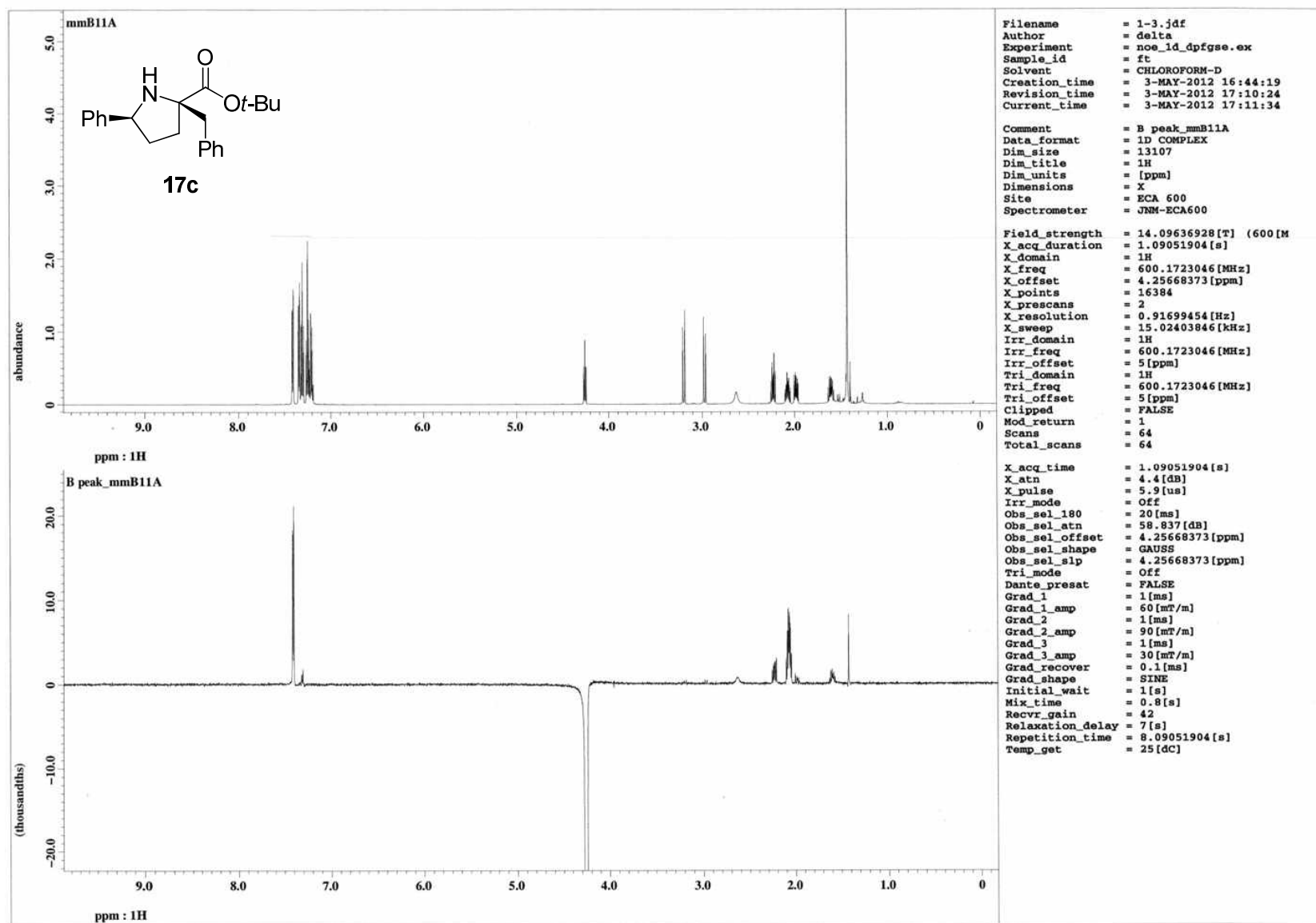


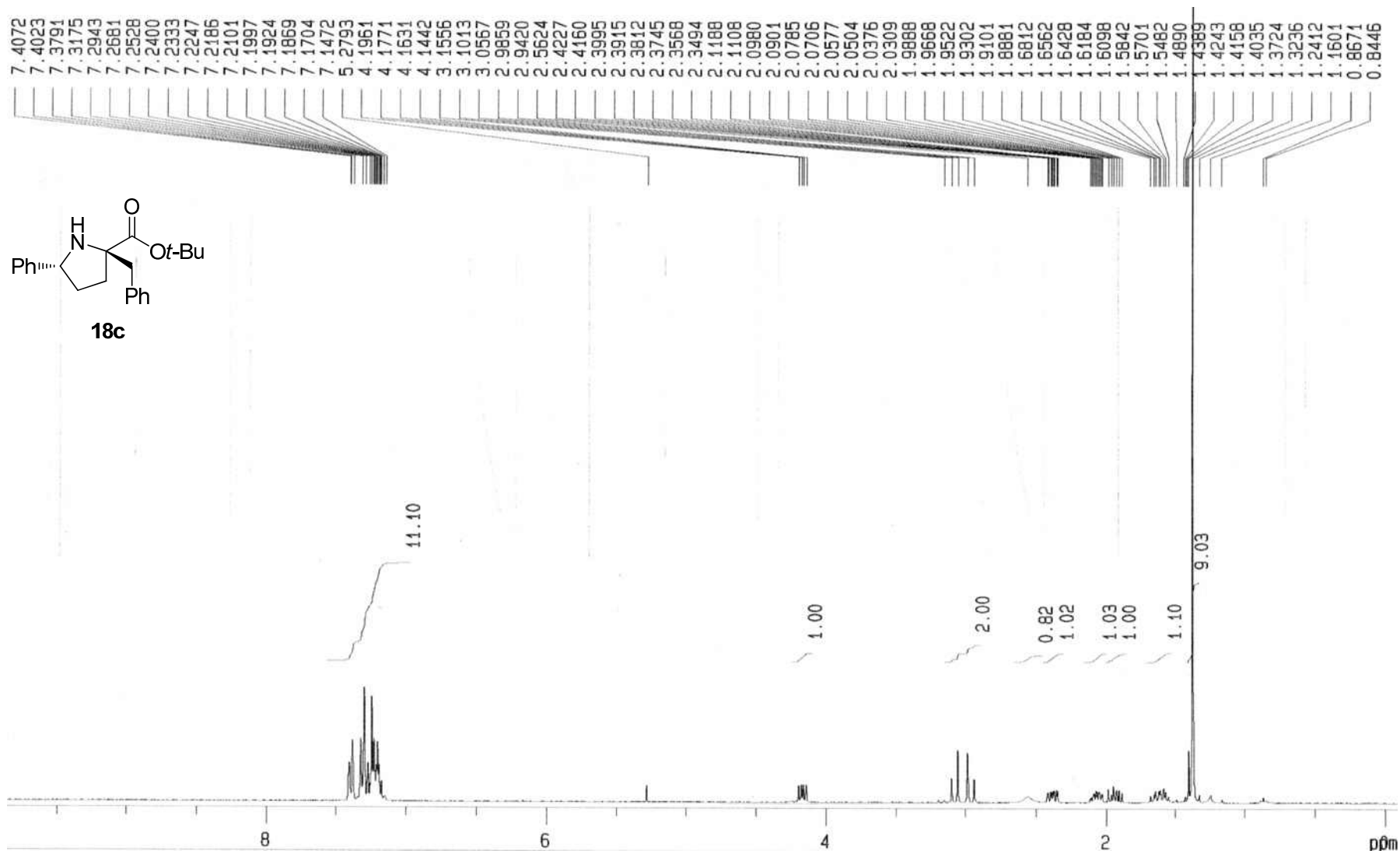


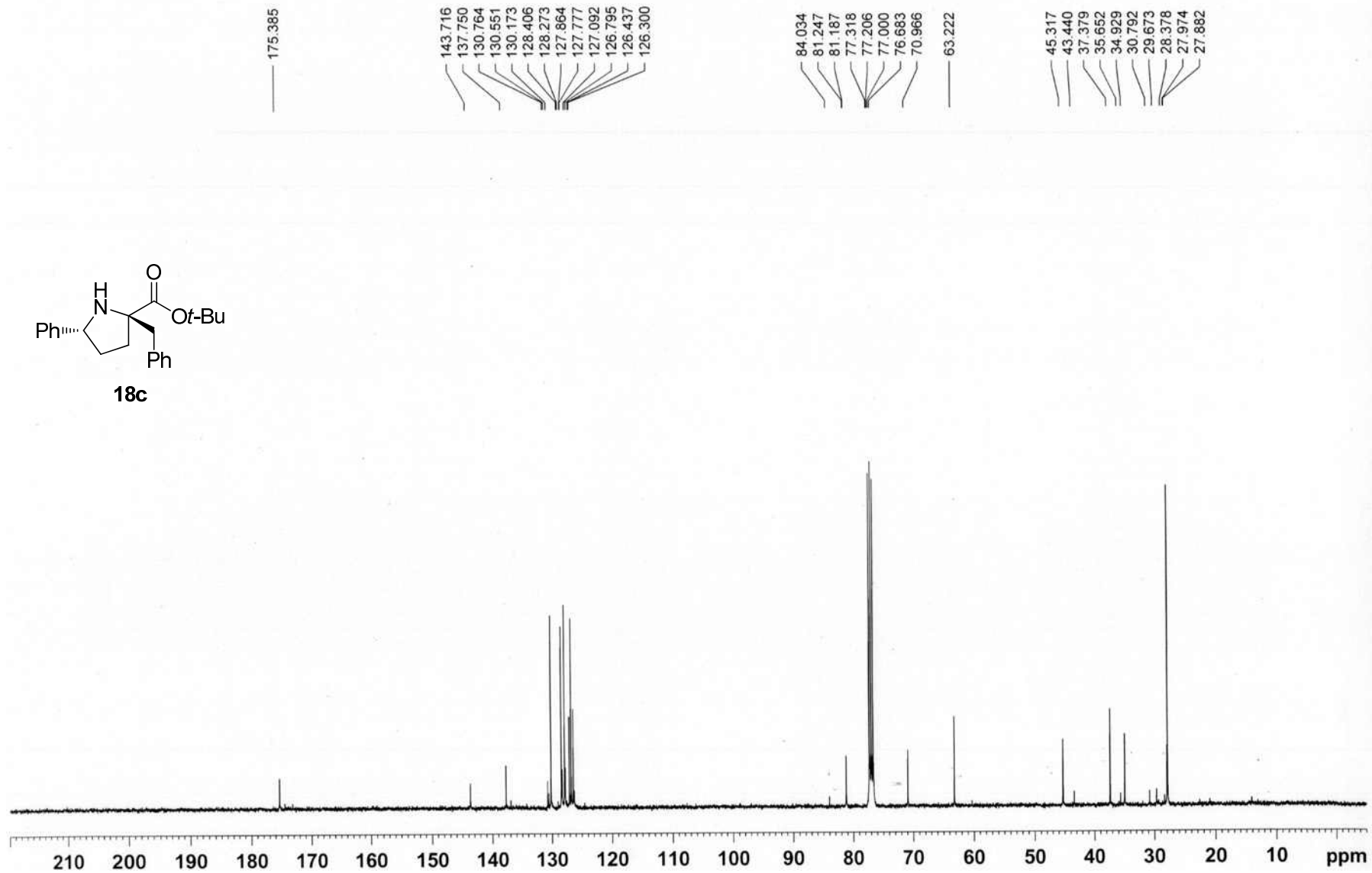


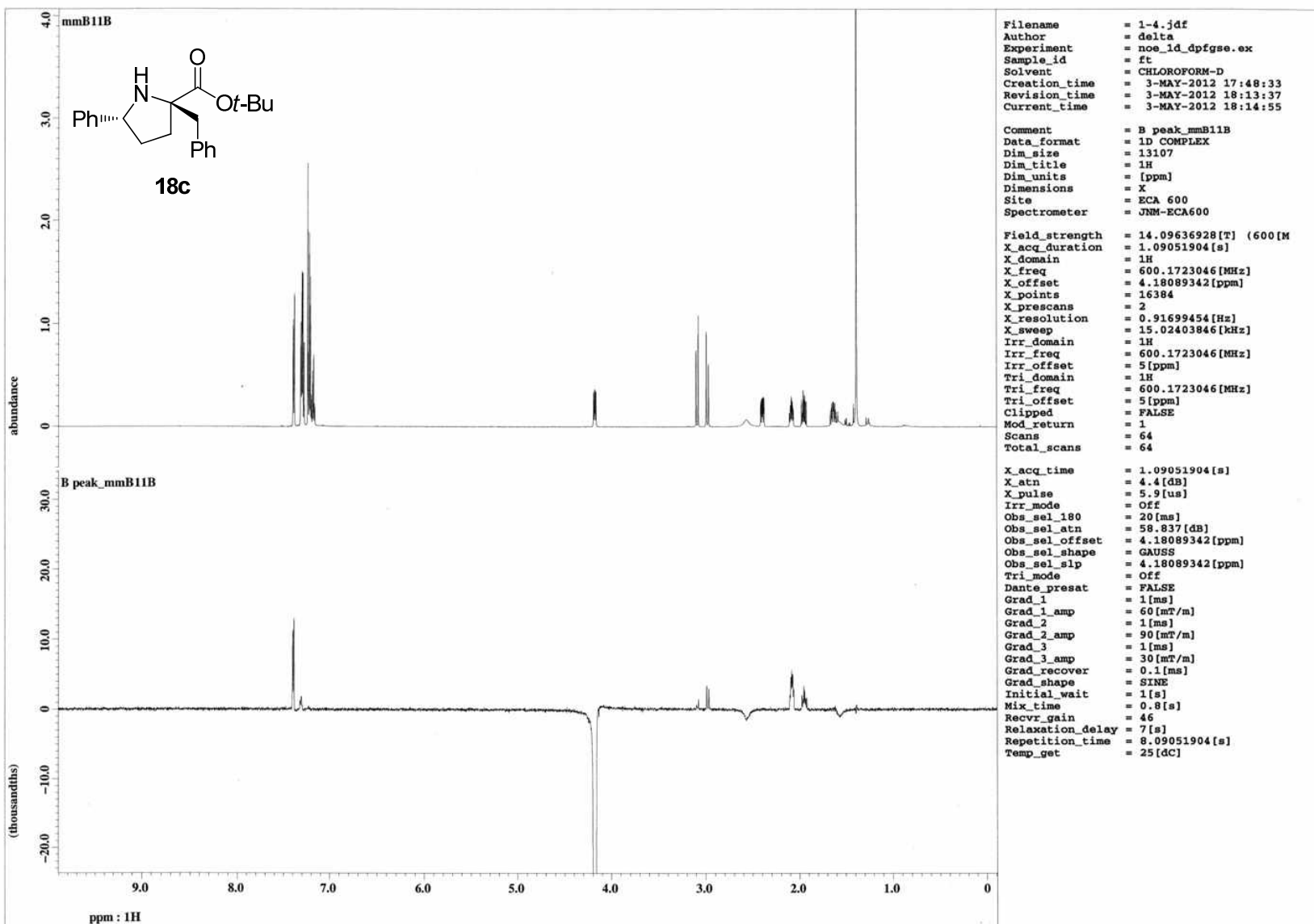


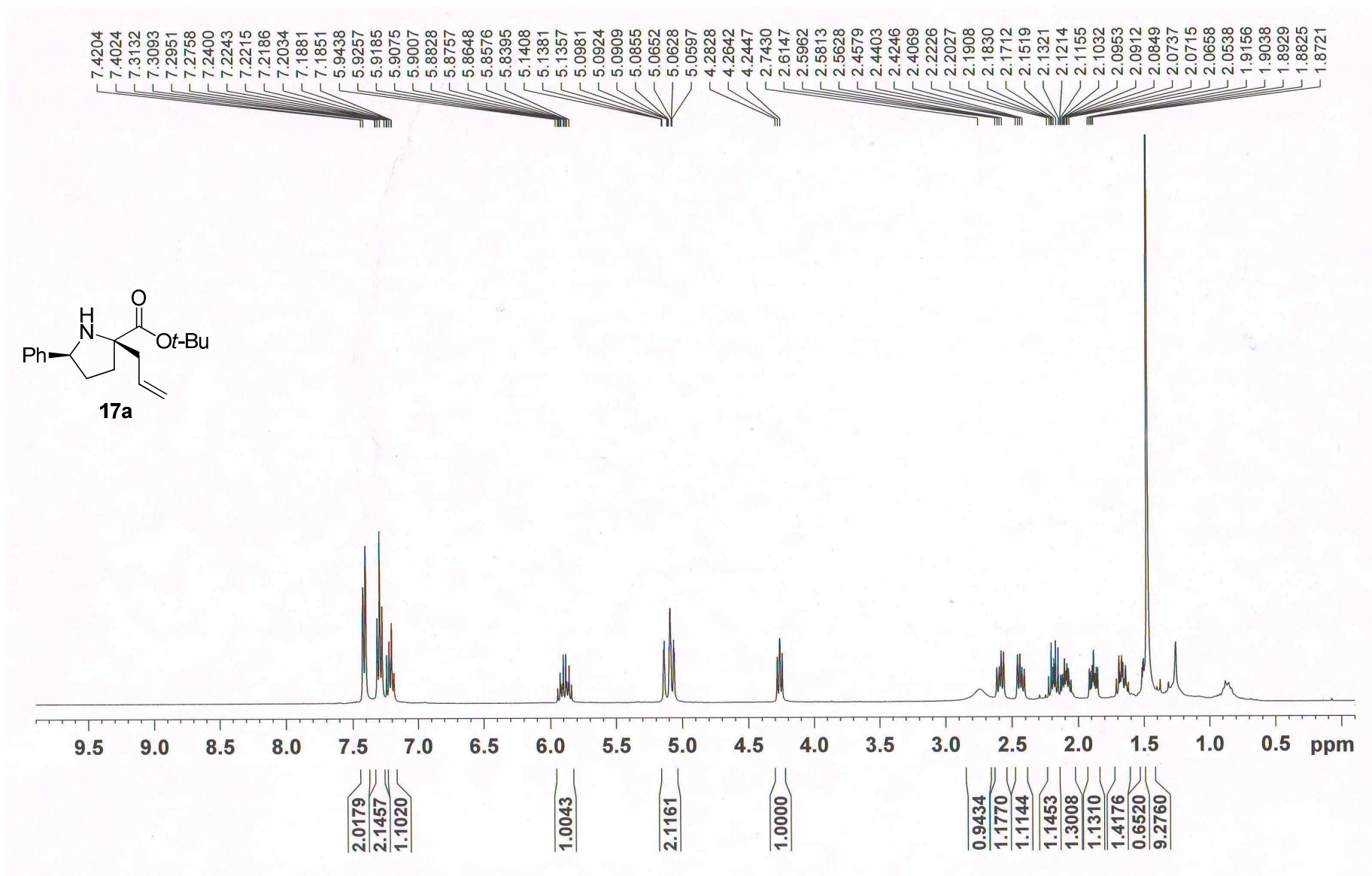


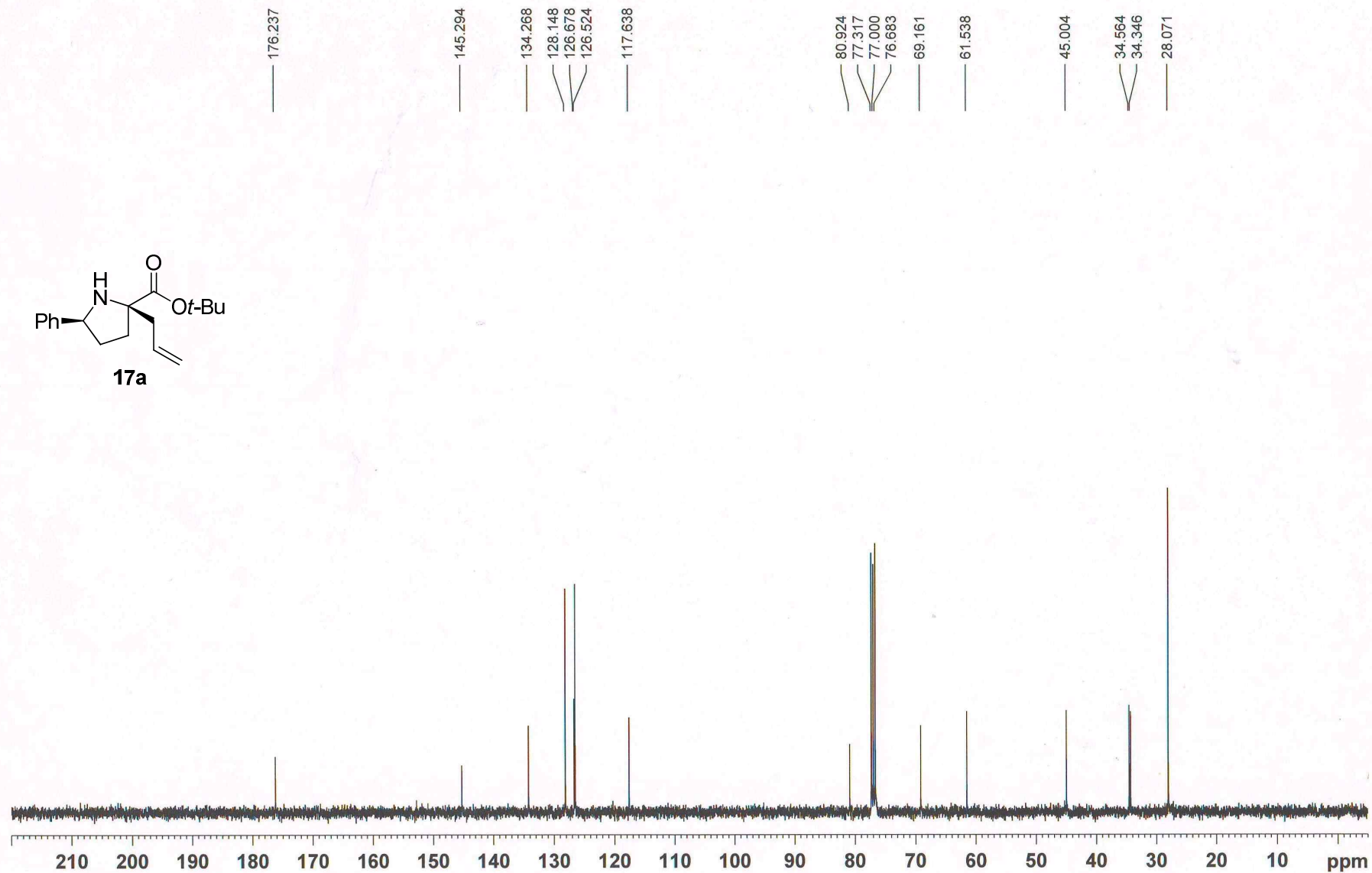
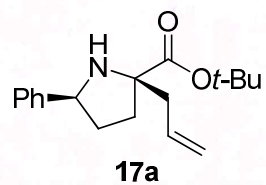


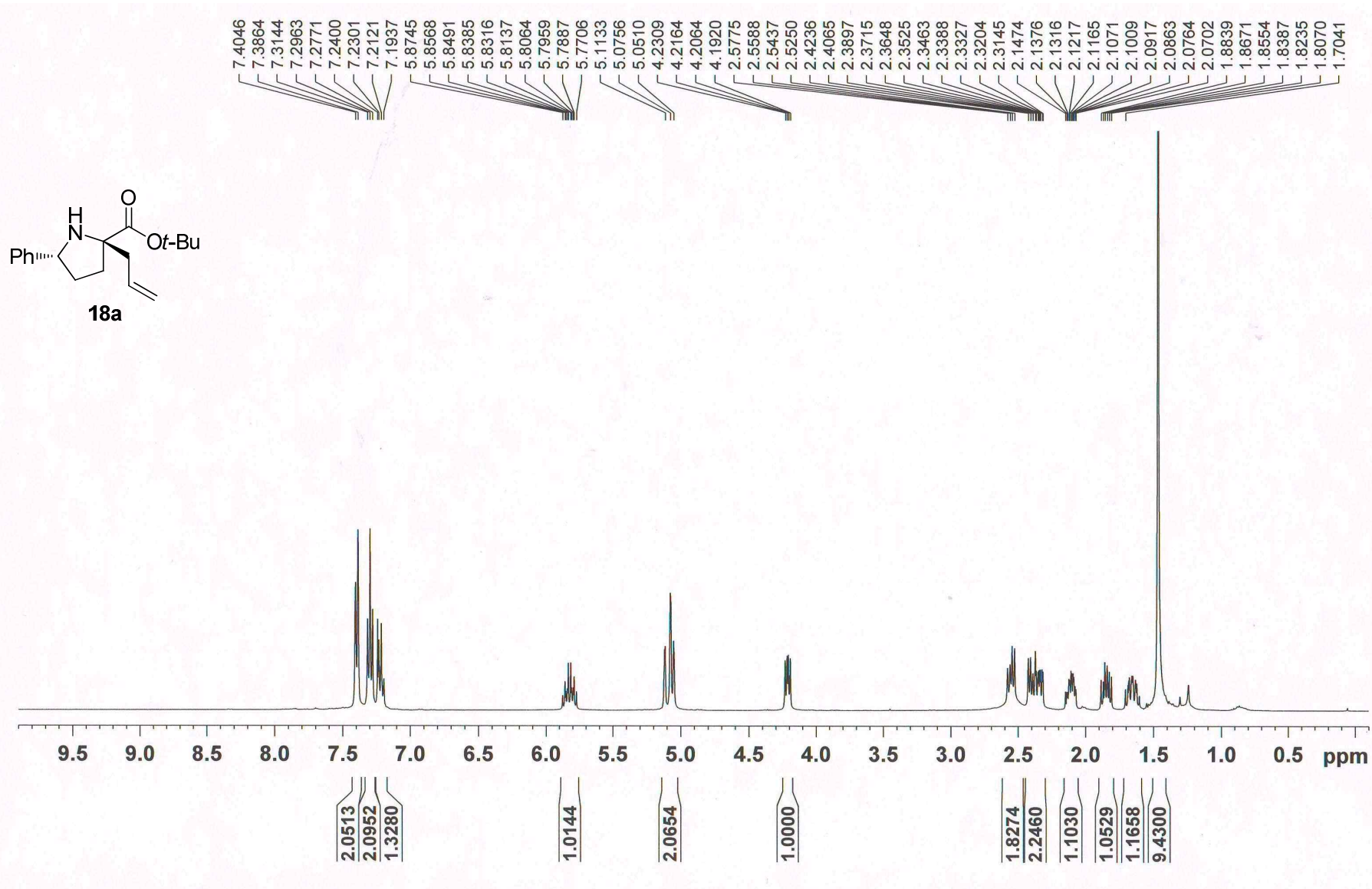


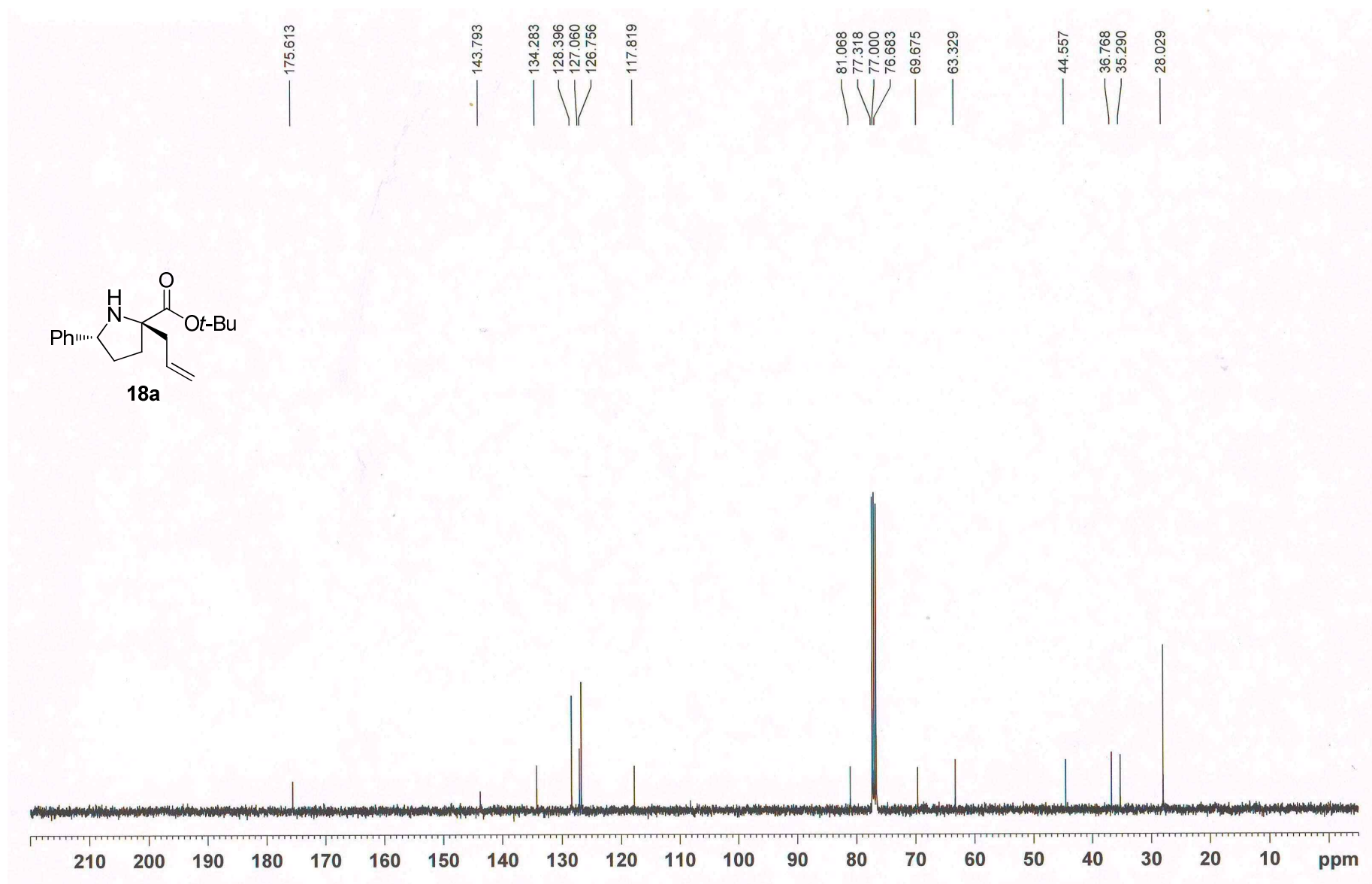


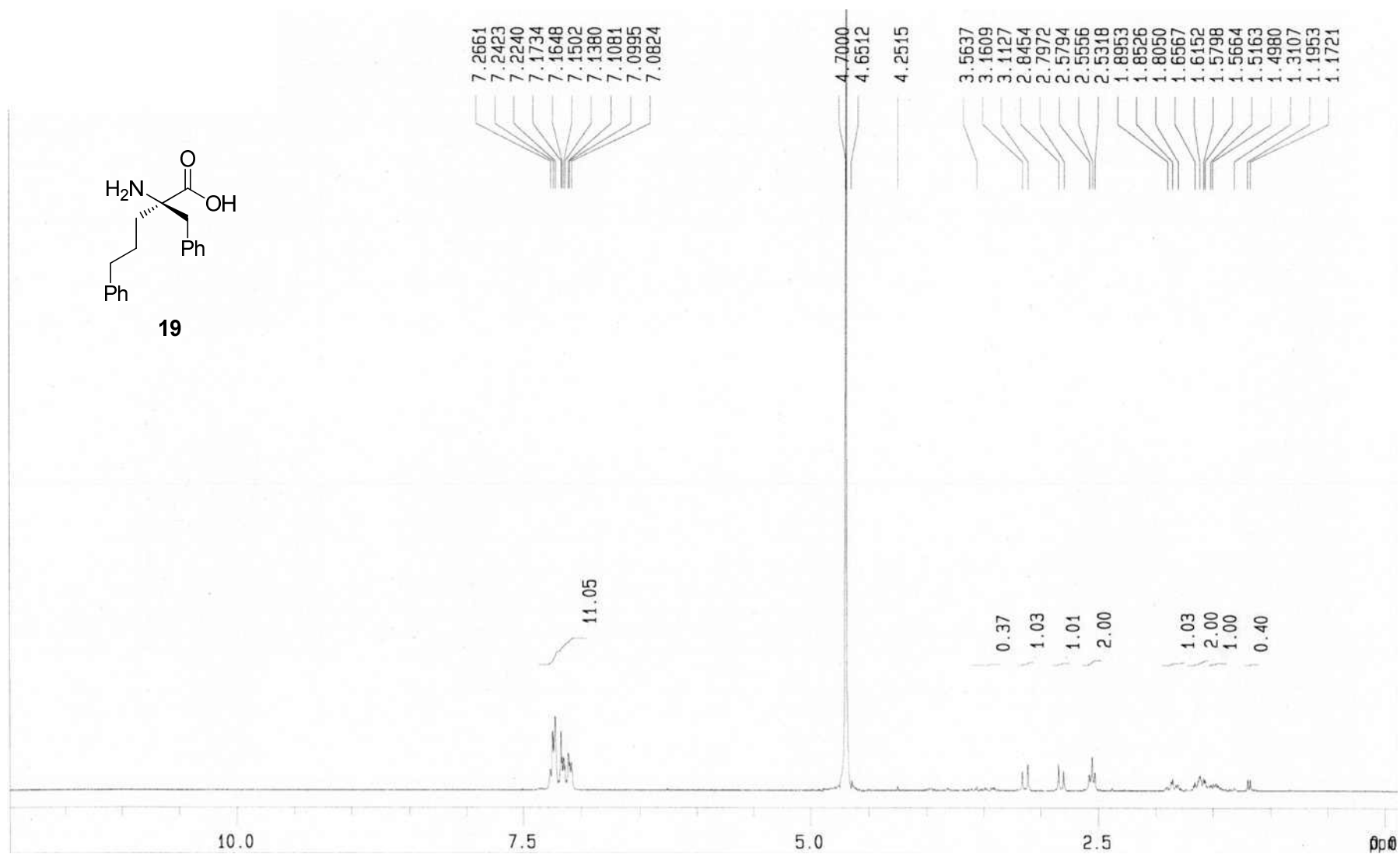


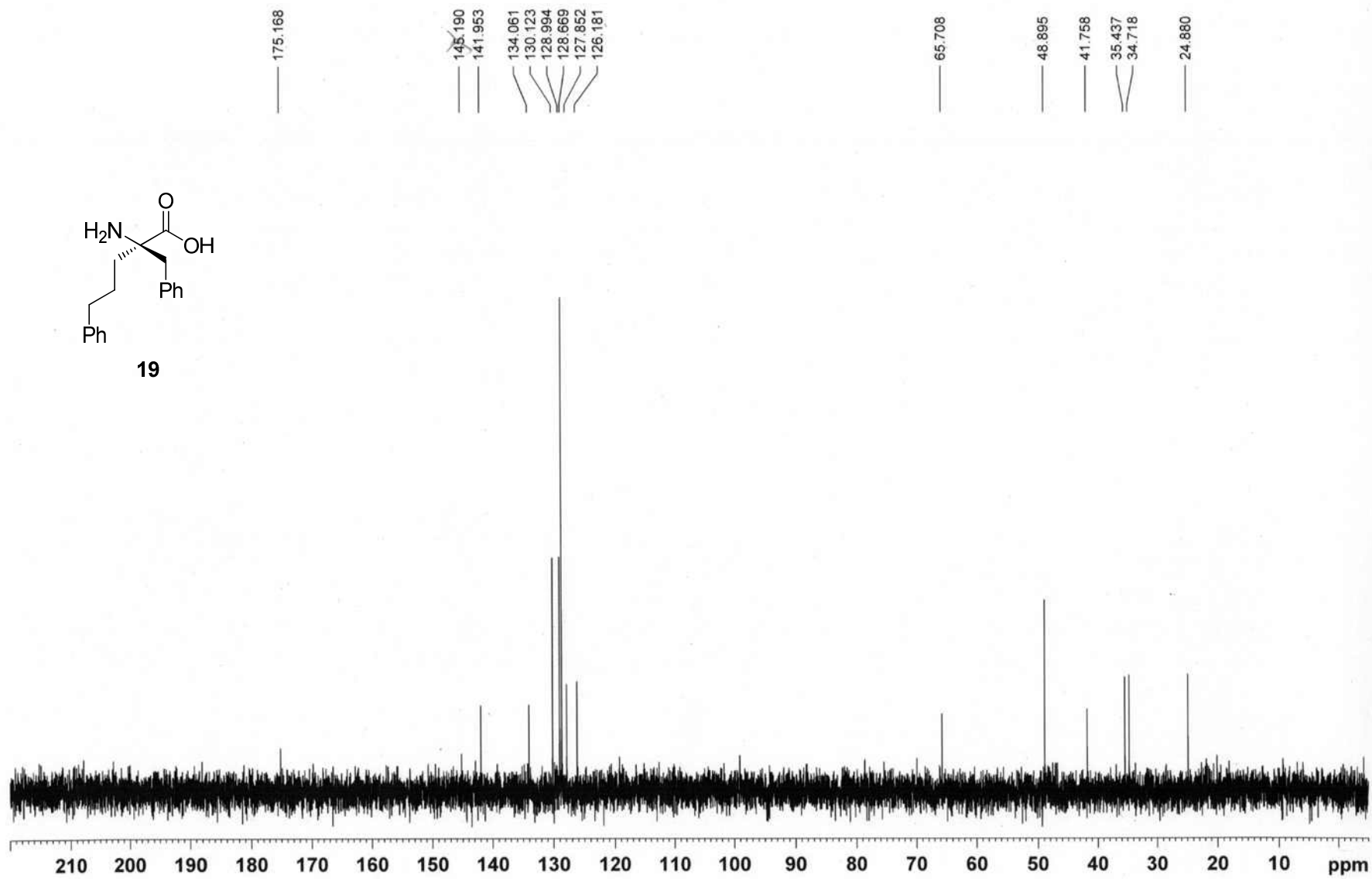


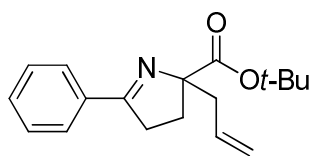










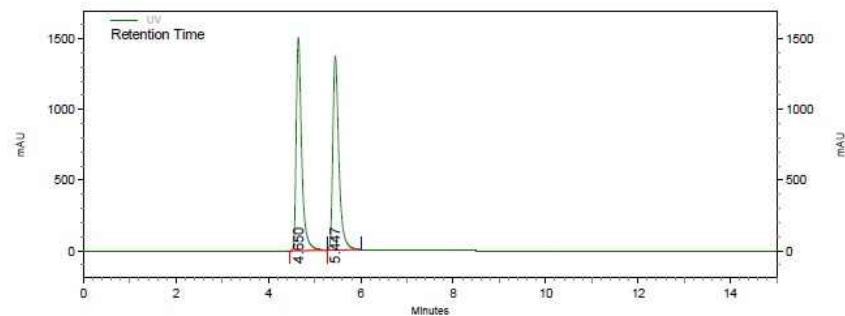


9a

Area Percent Report

File: C:\EZChrom Elite\Enterprise\Projects\minu\MW 5-43 (racemate) AD-H 99 1 1flow 254nm 15 min

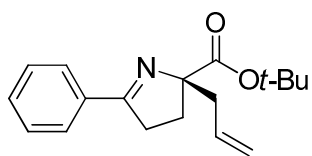
Sample ID: MW 5-43 (racemate)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
1	4.650	49678477	49.953	mm
2	5.447	49772100	50.047	mm

Totals		99450577	100.000	
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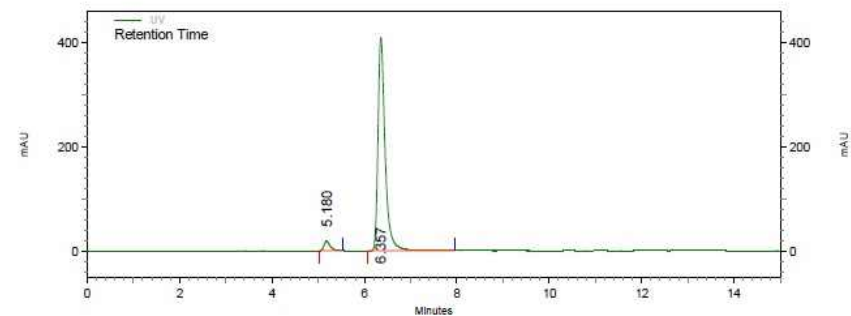


9a

Area Percent Report

File: C:\EZChrom Elite\Enterprise\Projects\HSC\영주누나 샘플\HSC7-65 (AD-H 99 1 1flow 254nm 15min).dat

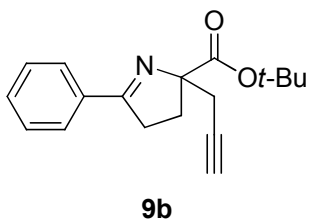
Sample ID: HSC7-65



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
1	5.180	679516	3.742	BI
2	6.357	17477930	96.258	BI

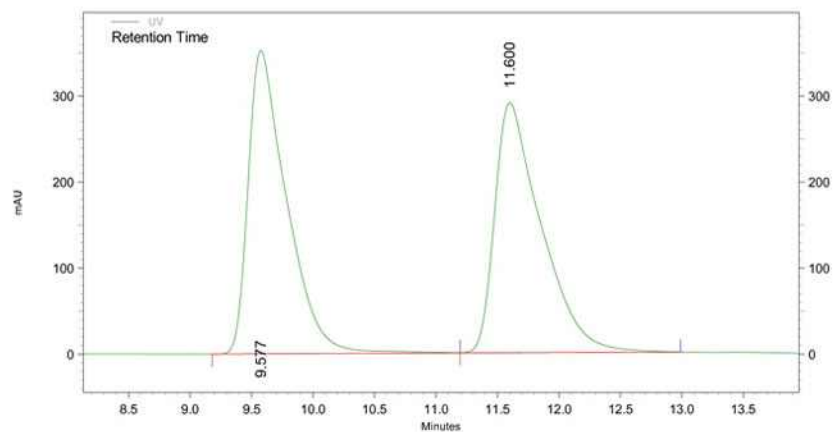
Totals		18157446	100.000	
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Area Percent Report

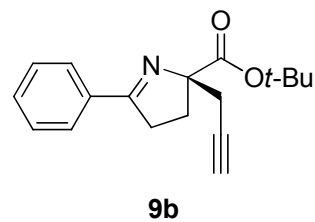
Data File: C:\EZChrom Elite\Enterprise\Projects\EY\EY19(AD-H 99 1 1 254nm).dat

Sample ID: EY19 (9b, Propa)



UV Results

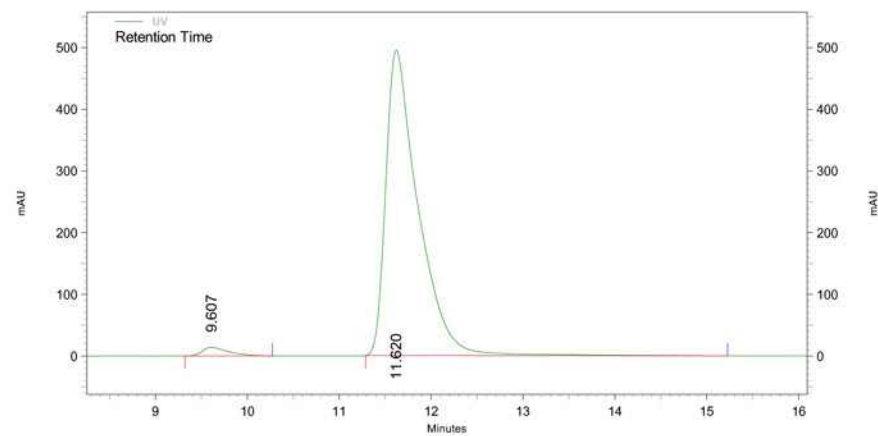
Name	Retention Time	Area	Area Percent	Integration Codes
	9.577	30673473	50.126	BV
	11.600	30519364	49.874	VI
Totals				
		61192837	100.000	



Area Percent Report

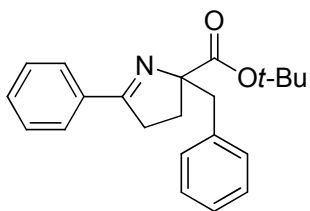
Data File: C:\EZChrom Elite\Enterprise\Projects\EY\EY38(AD-H 99 1 1 254nm).dat

Sample ID: EY38 (9b, Propa)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	9.607	1101186	2.218	II
	11.620	48549552	97.782	II
Totals				
		49650738	100.000	

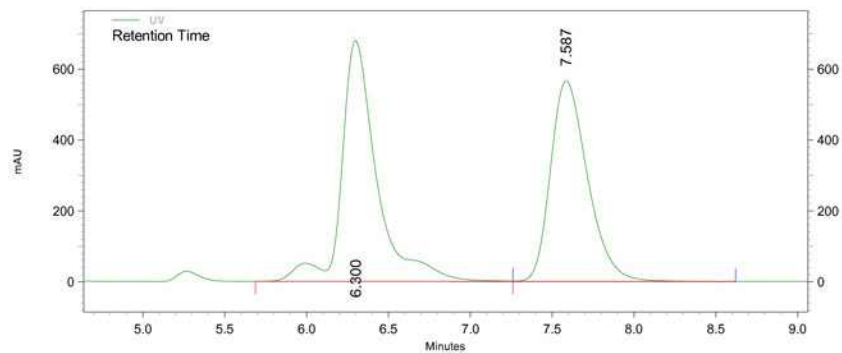


9c

Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\YJYJ167 002.dat

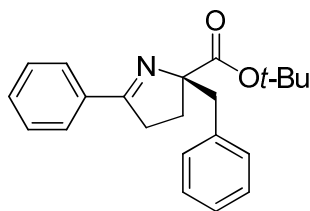
Sample ID: YJ167 (9c, Bn)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	6.300	40780407	53.390	IV
	7.587	35602280	46.610	VI

Totals		76382687	100.000	
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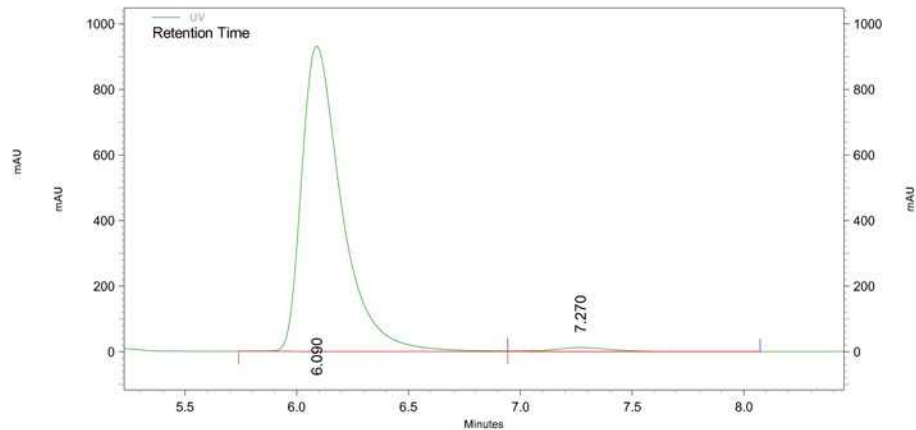


9c

Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\YJYJ 171 002.dat

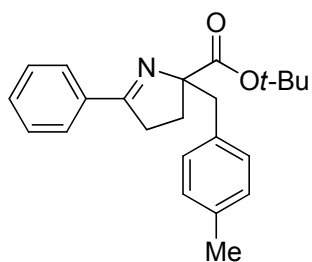
Sample ID: YJ171 (9c, Bn)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	6.090	46205068	98.235	IV
	7.270	829934	1.765	VB

Totals		47035002	100.000	
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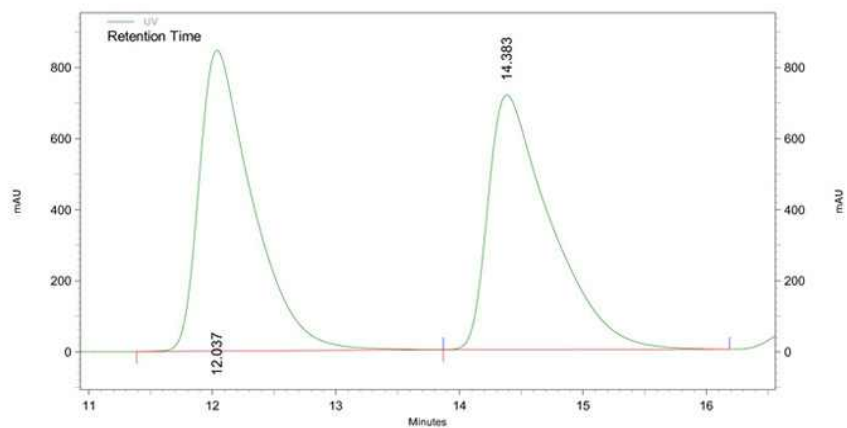


9d

Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\EY\EY22(AD-H 99 1 1 254nm).dat

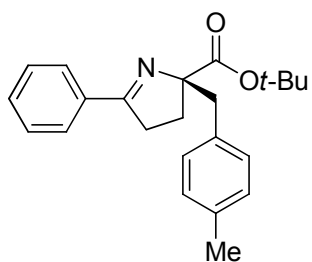
Sample ID: EY22 (9d, 4-Me)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	12.037	101490806	50.183	IB
	14.383	100750610	49.817	BI

Totals		202241416	100.000	
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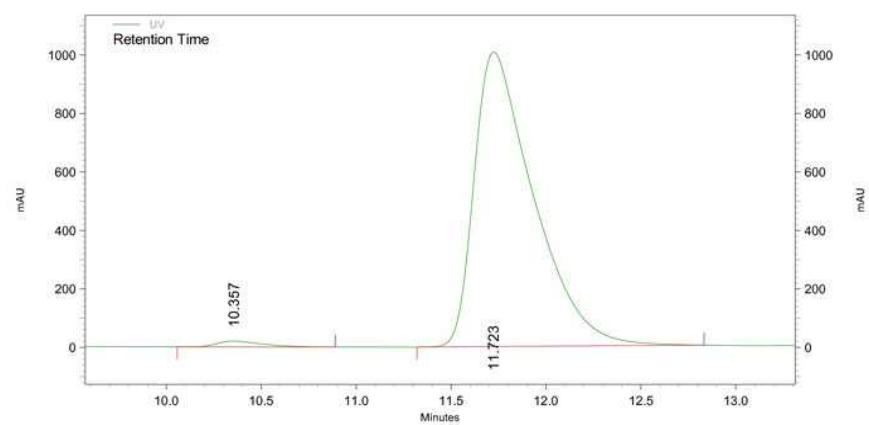


9d

Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\EY\EY39(AD-H 99 1 1 254nm).dat

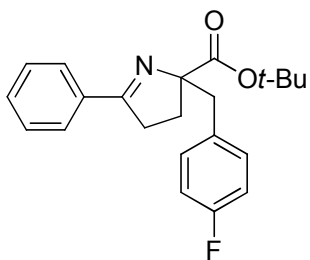
Sample ID: EY39 (9d, 4-Me)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	10.357	1311174	1.477	BB
	11.723	87490227	98.523	BI

Totals		88801401	100.000	
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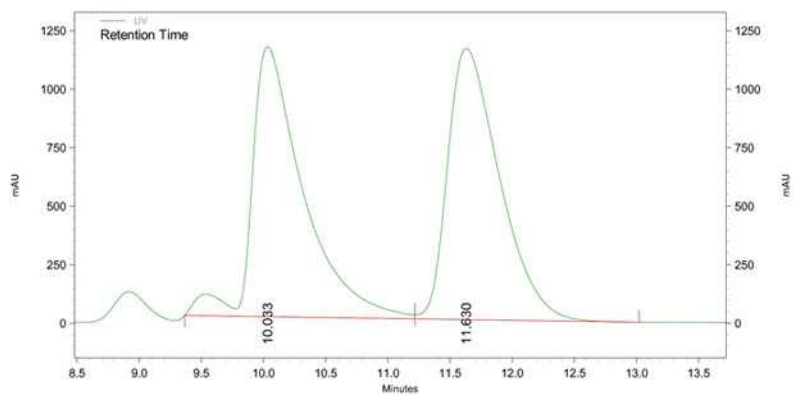


9e

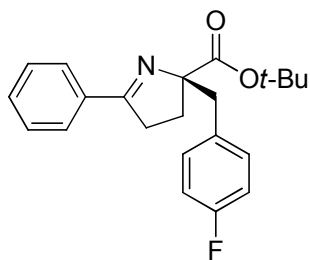
Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\EY\EY23(OD-H 99 1 1 254nm).dat

Sample ID: EY23 (9e, 4-F)



UV Results				
Name	Retention Time	Area	Area Percent	Integration Codes
	10.033	133021096	49.764	IV
	11.630	134280468	50.236	VB
Totals		267301564	100.000	

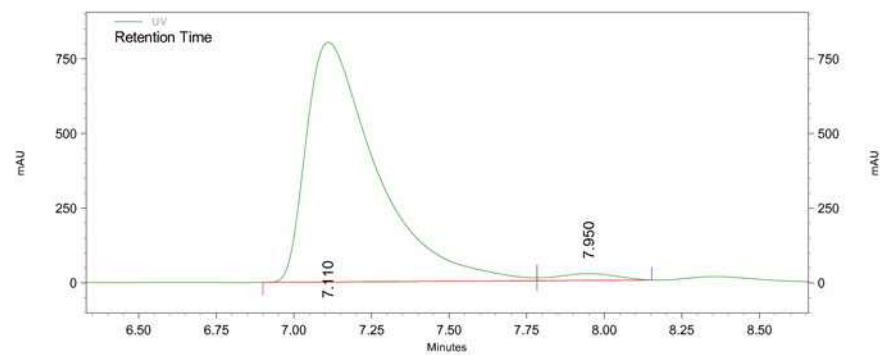


9e

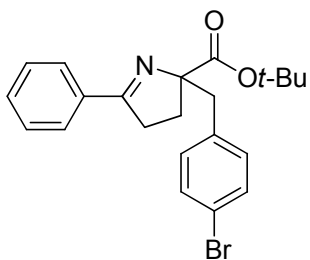
Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\YJ\YJ273(OD-H 99 1 254nm)-2.dat

Sample ID: YJ273 (9e, 4-F)



UV Results				
Name	Retention Time	Area	Area Percent	Integration Codes
	7.110	50578234	97.692	BV
	7.950	1194754	2.308	VI
Totals		51772988	100.000	

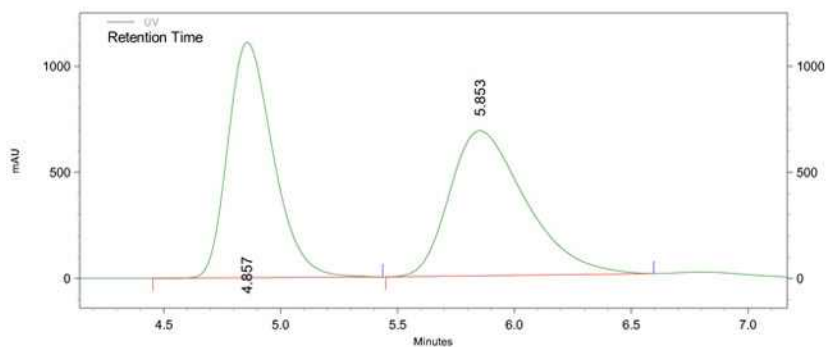


9f

Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\YJ\YJ293(AS-H 99 1 1 254nm).dat

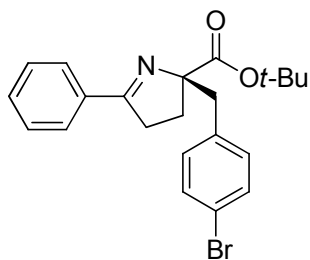
Sample ID: YJ293 (9f, 4-Br)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	4.857	59792744	49.188	IB
	5.853	61766893	50.812	BB

Totals		121559637	100.000	
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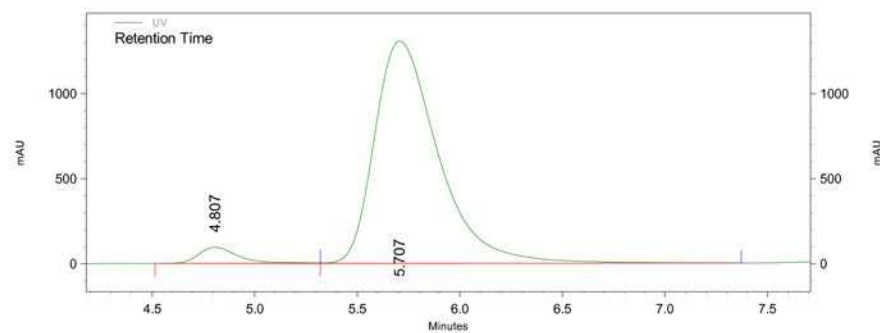


9f

Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\YJ\YJ292(AS-H 99 1 1 254nm)-2.dat

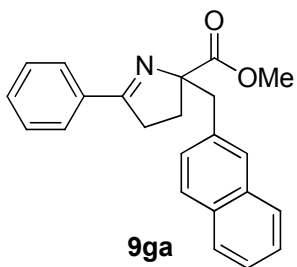
Sample ID: YJ292 (9f, 4-Br)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	4.807	5127487	4.361	IV
	5.707	112444742	95.639	VB

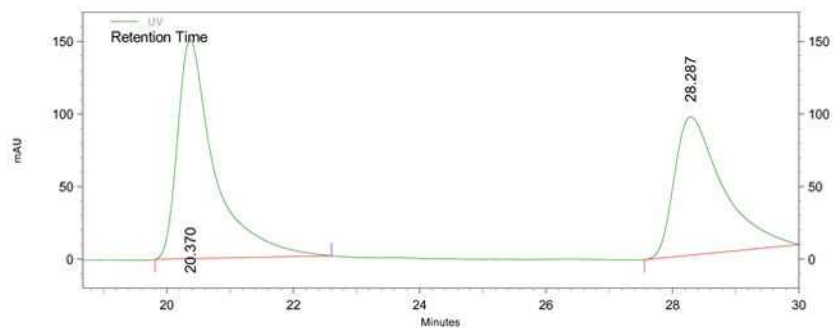
Totals		117572229	100.000	
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Area Percent Report

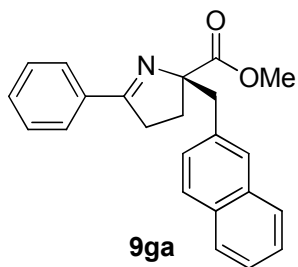
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Sample ID: YJ277 (9g, Naphth)



UV Results

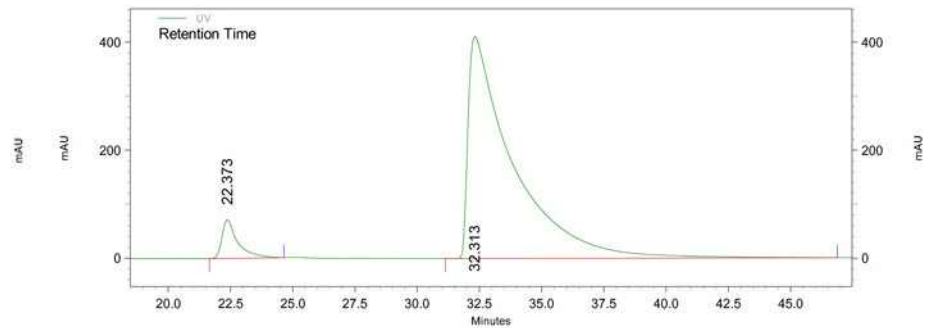
Name	Retention Time	Area	Area Percent	Integration Codes
	20.370	24379527	54.763	II
	28.287	20138707	45.237	BE
Totals		44518234	100.000	



Area Percent Report

Data File: C:\EZChrom Elite\Enterprise\Projects\YJ\YJ281(AD-H 99 1 254nm).dat

Sample ID: YJ281 (9g, Naph)



UV Results

Name	Retention Time	Area	Area Percent	Integration Codes
	22.373	12620773	5.771	BI
	32.313	206090665	94.229	IB
Totals		218711438	100.000	