

Supporting Information - II: *Spectra*

The Direct Reductive Amination of Electron-deficient Amines with Aldehydes: the Unique Reactivity of Re_2O_7 Catalyst

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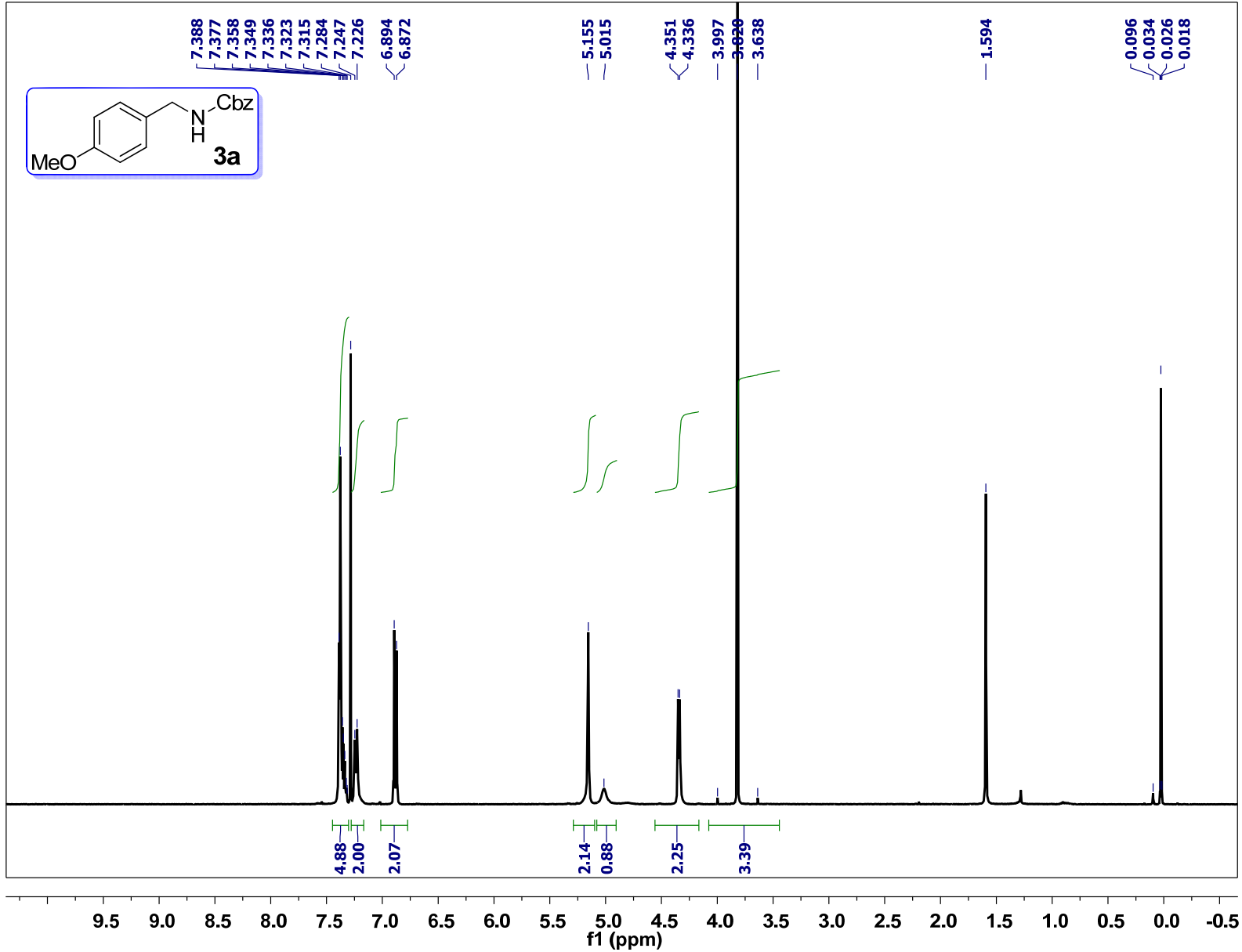
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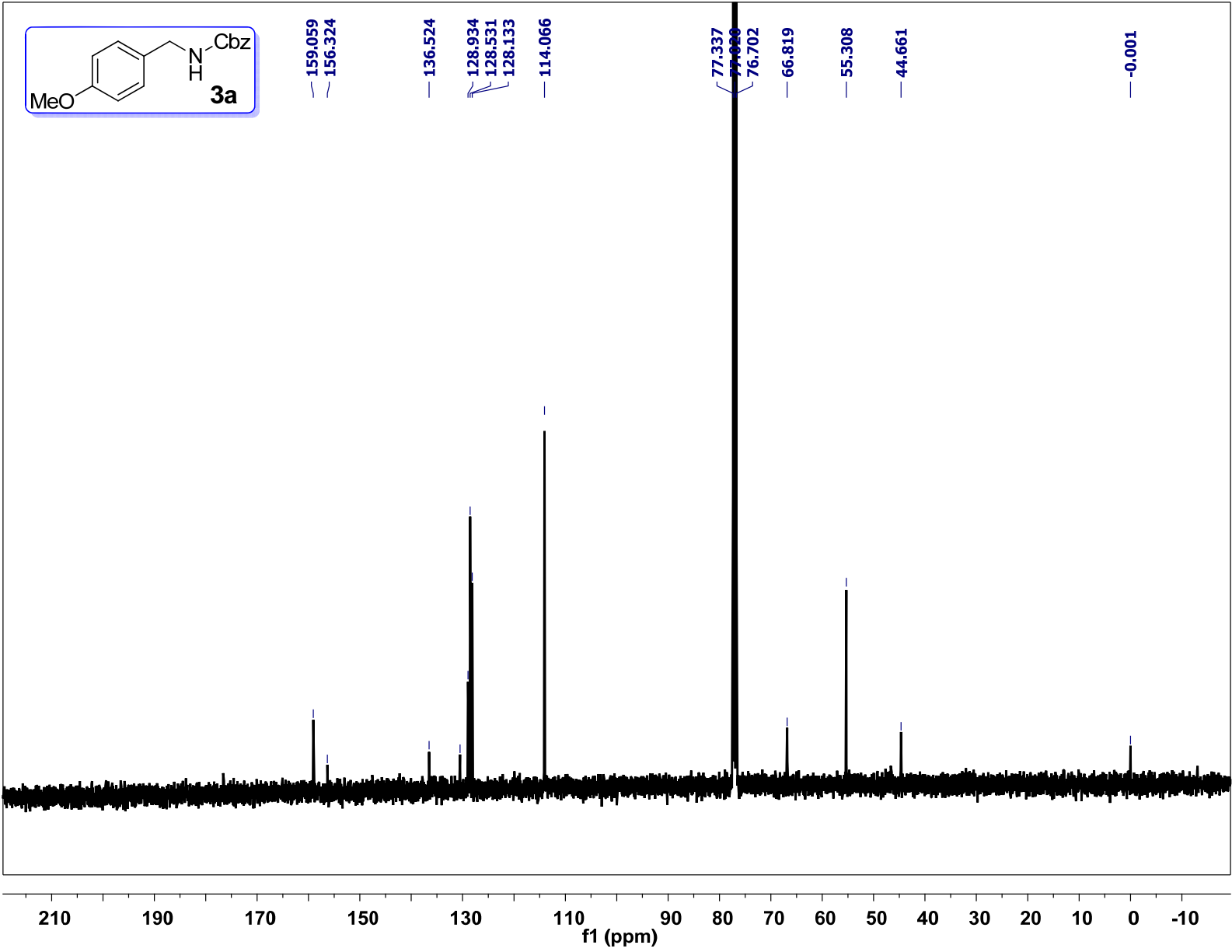
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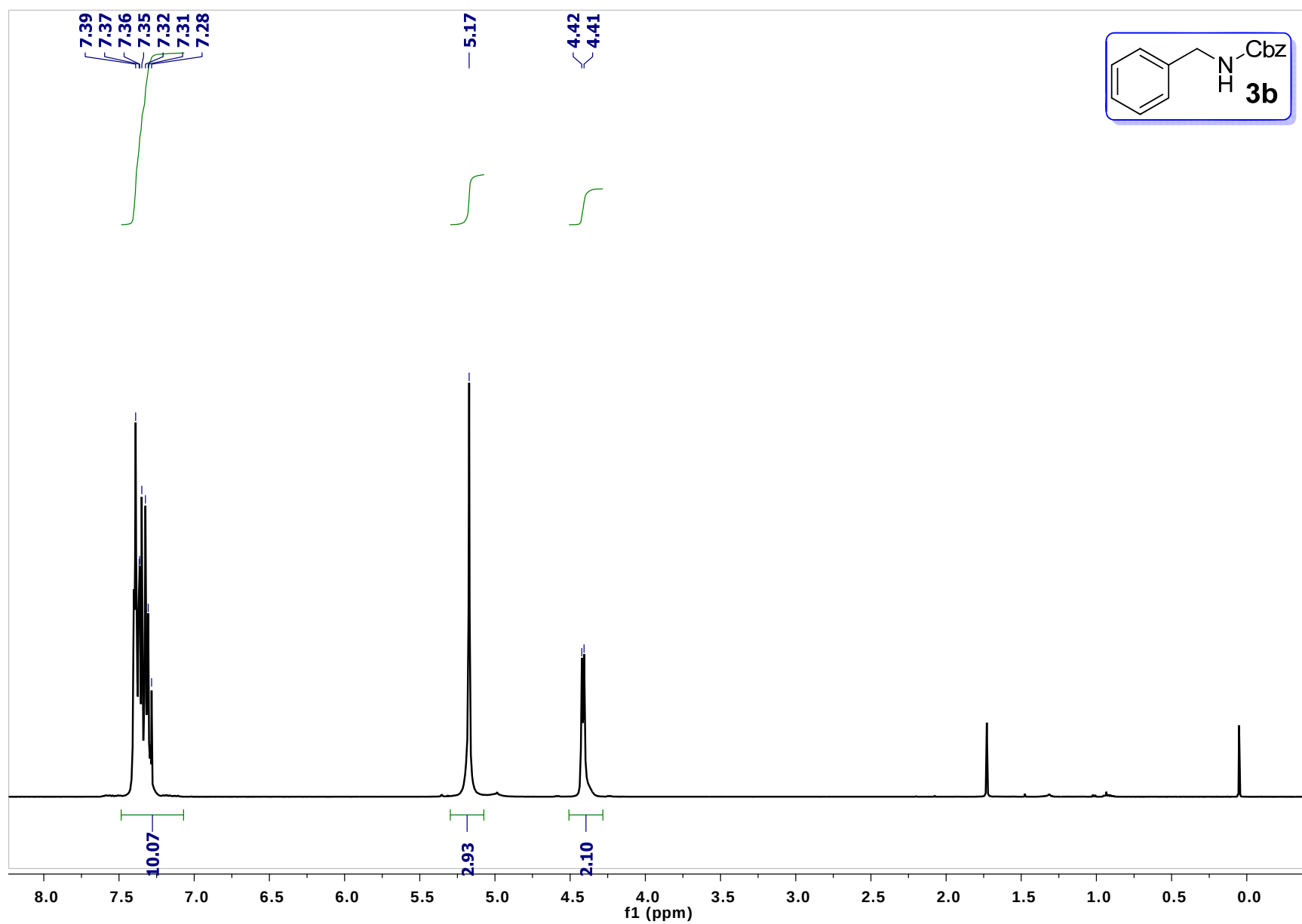
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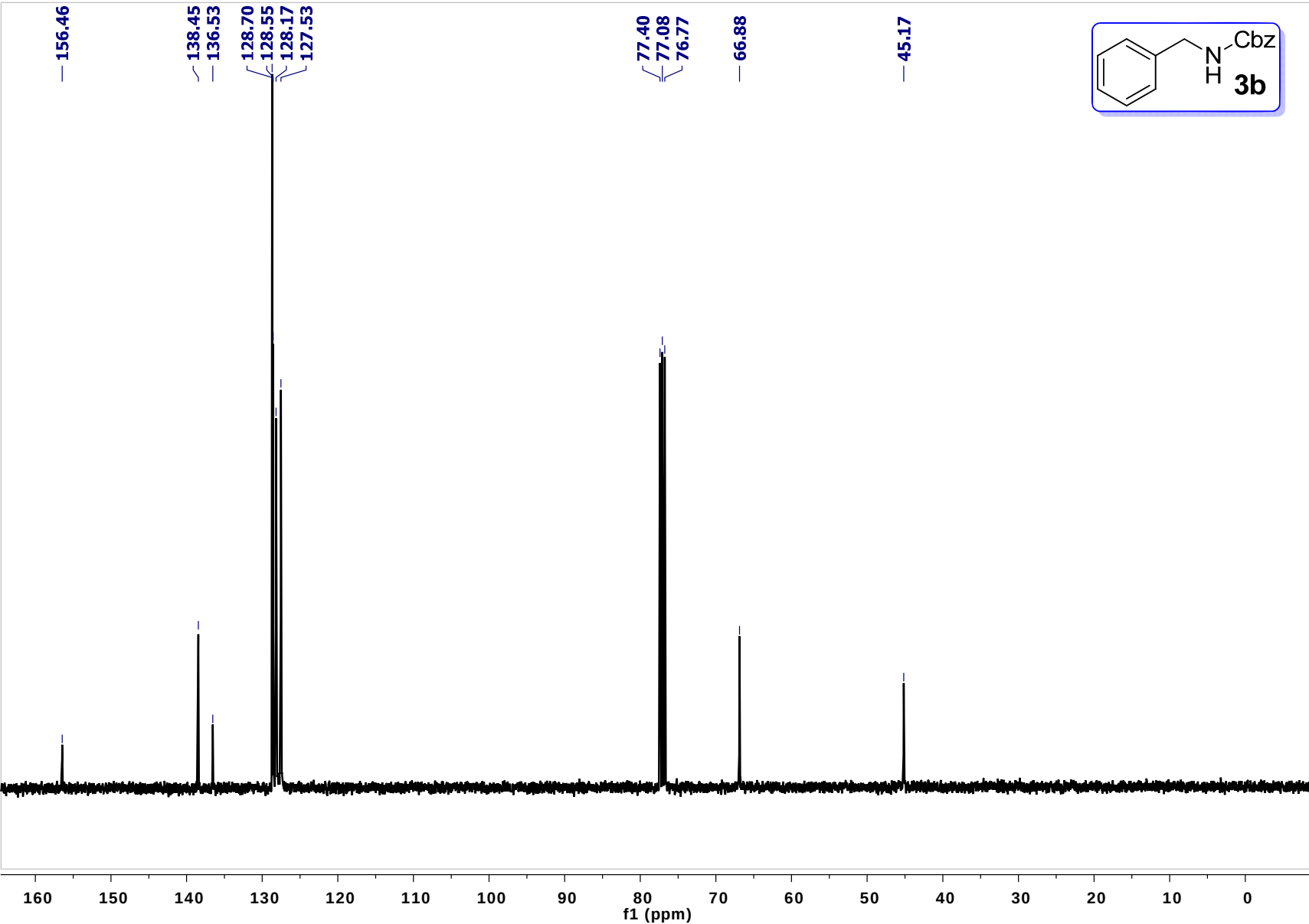
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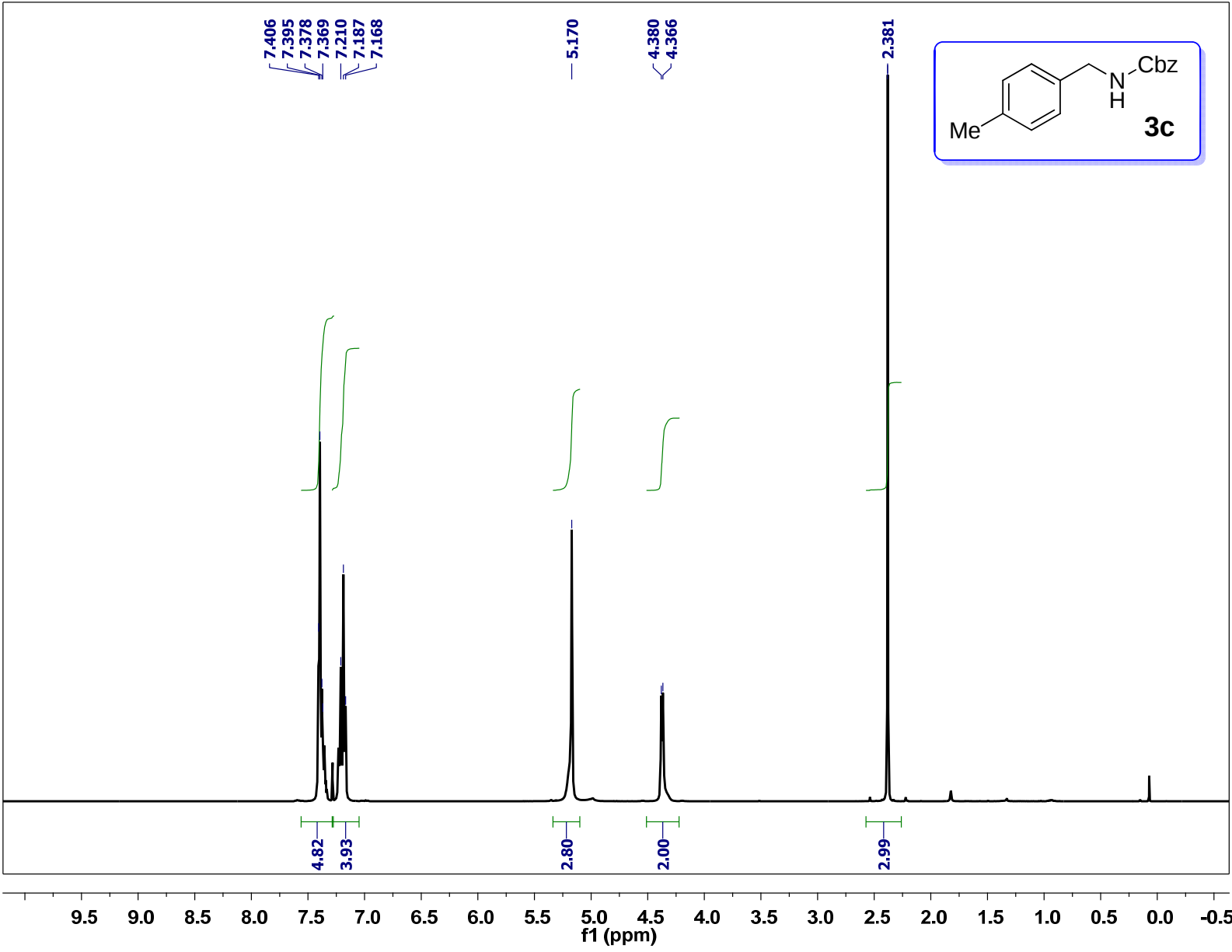
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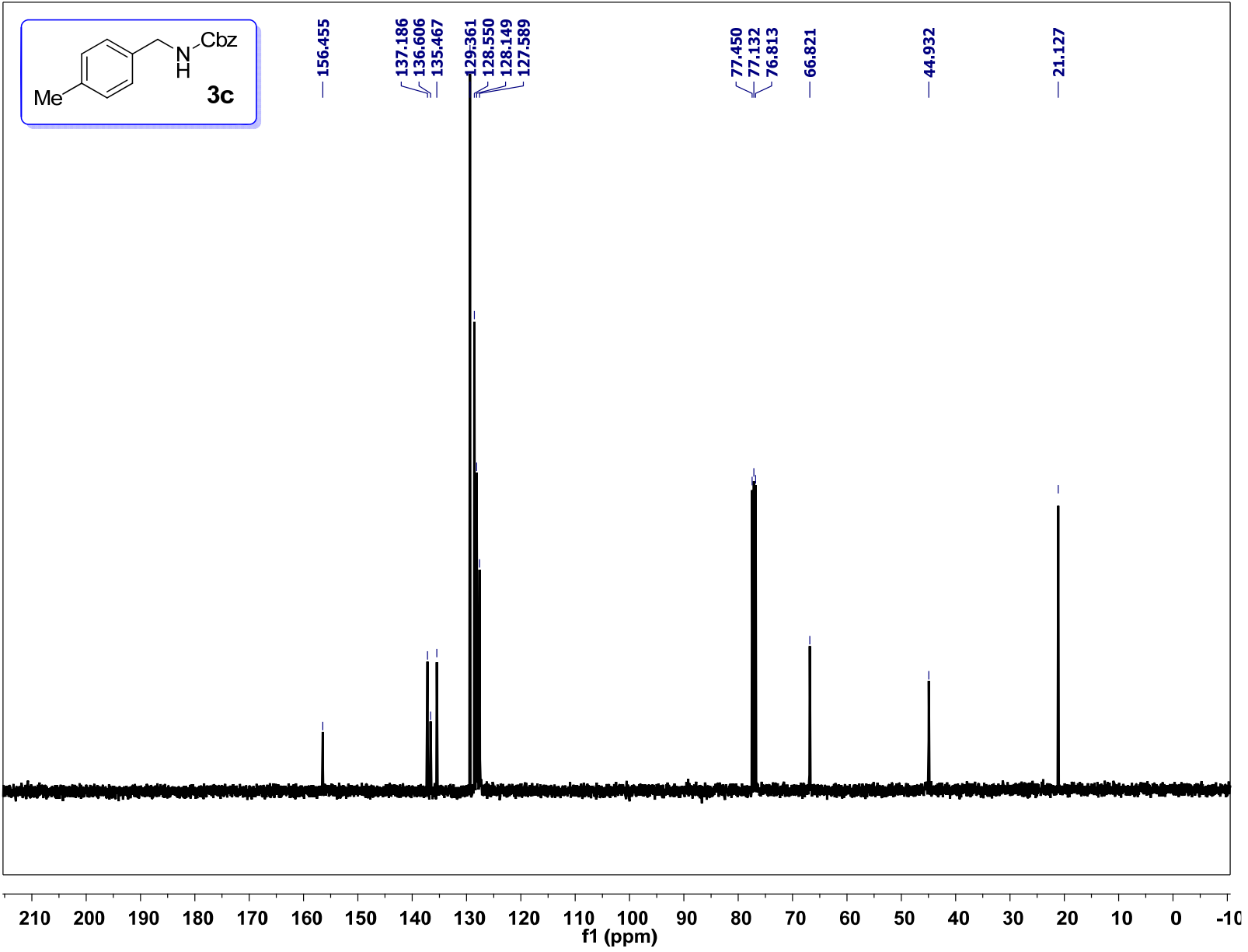


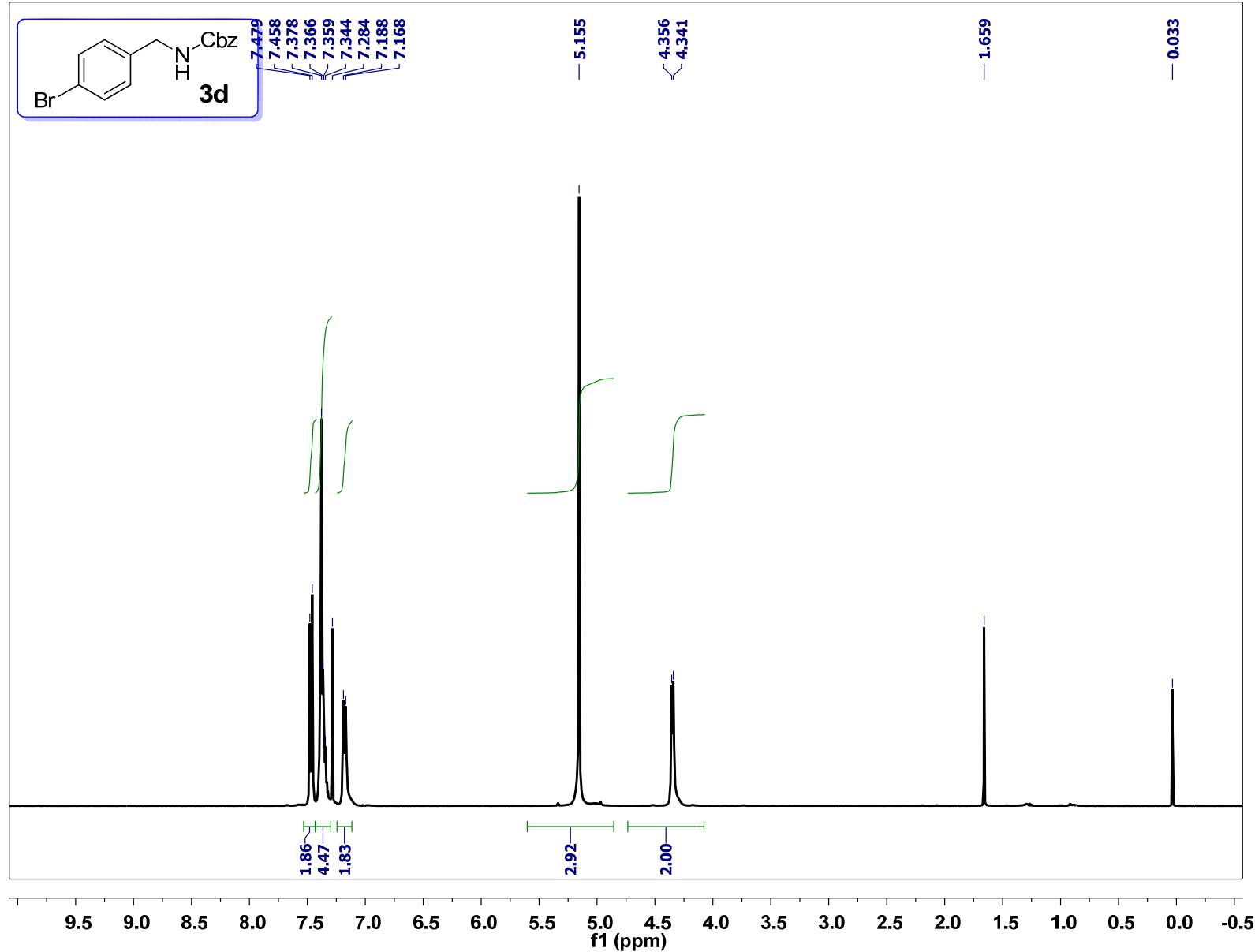


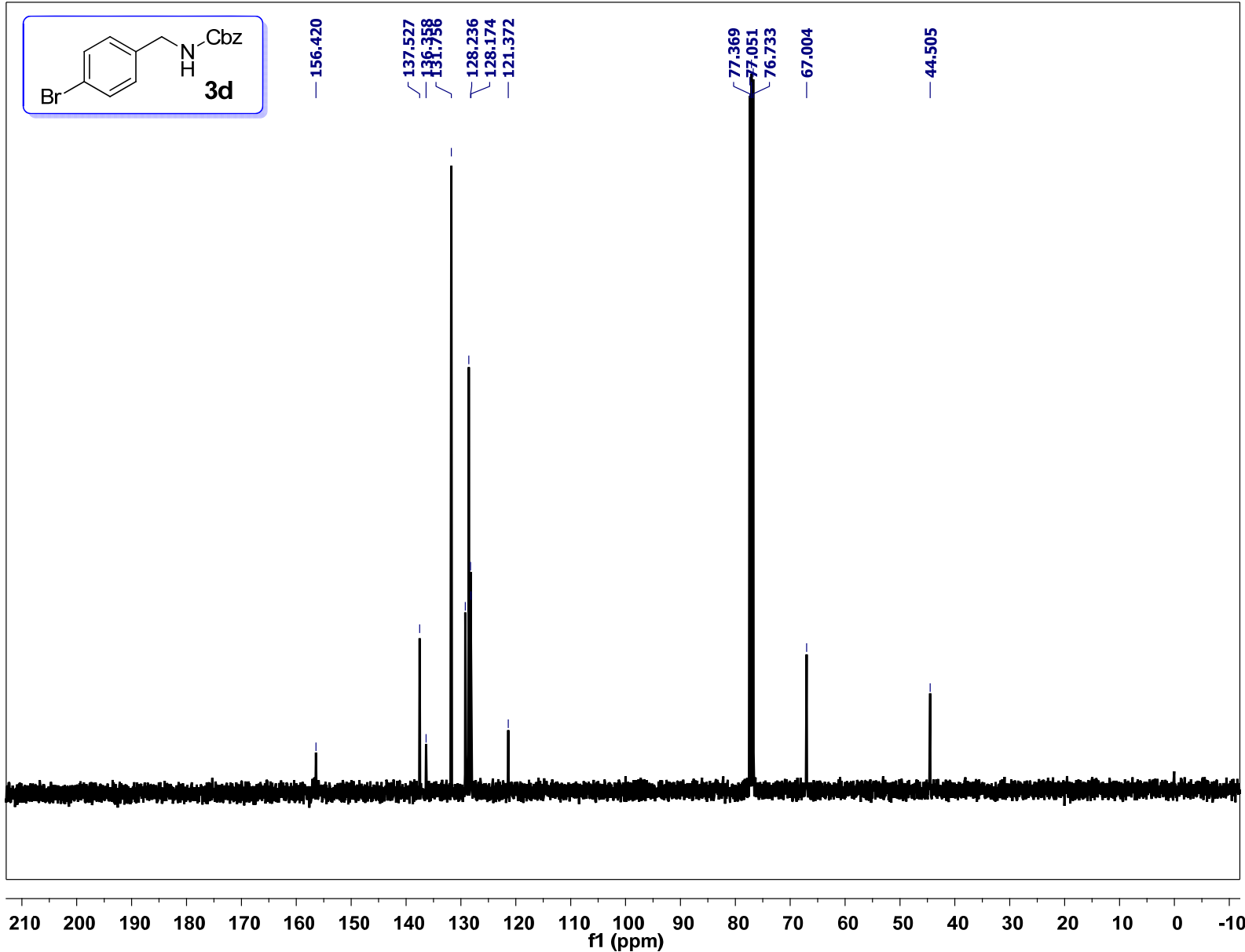


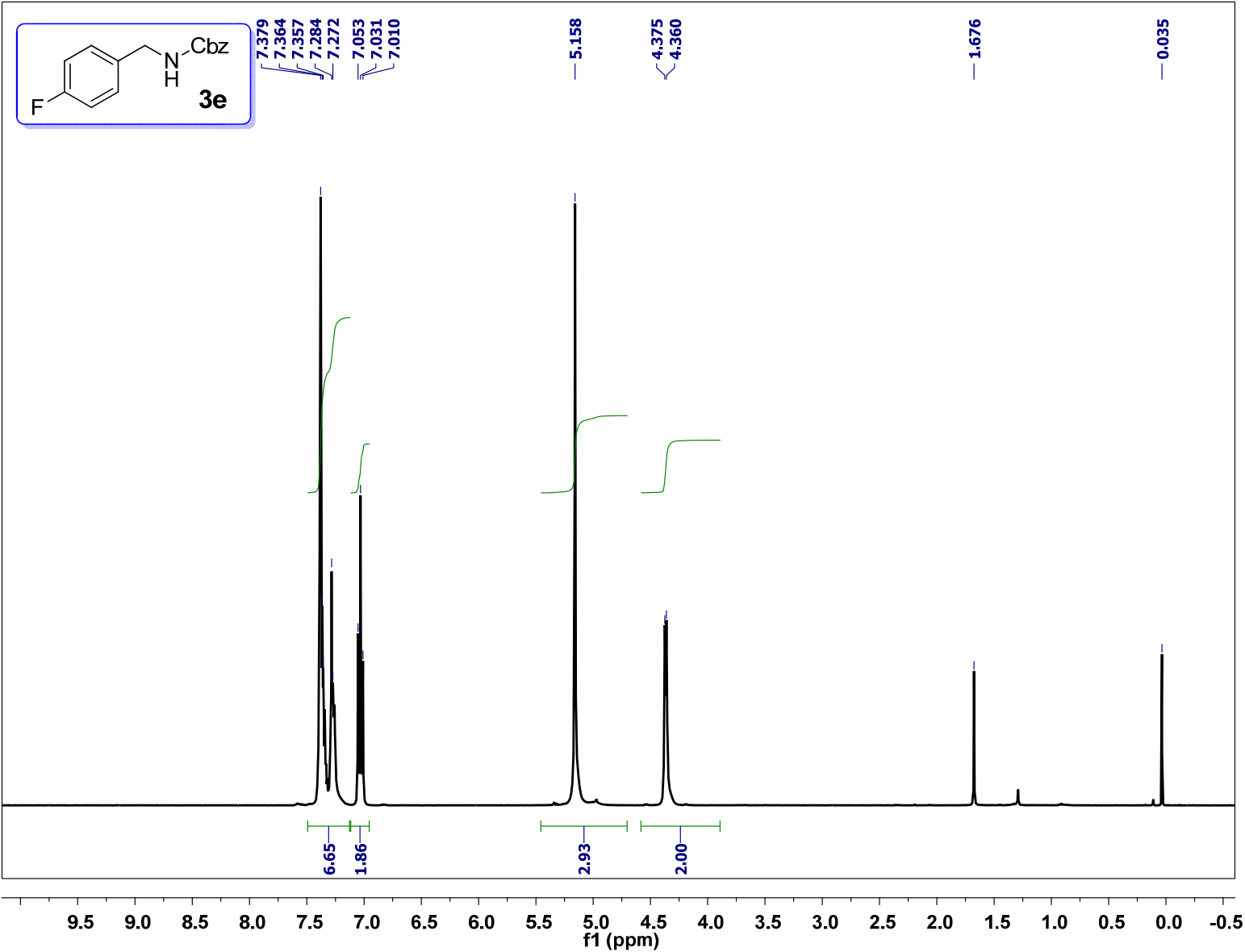


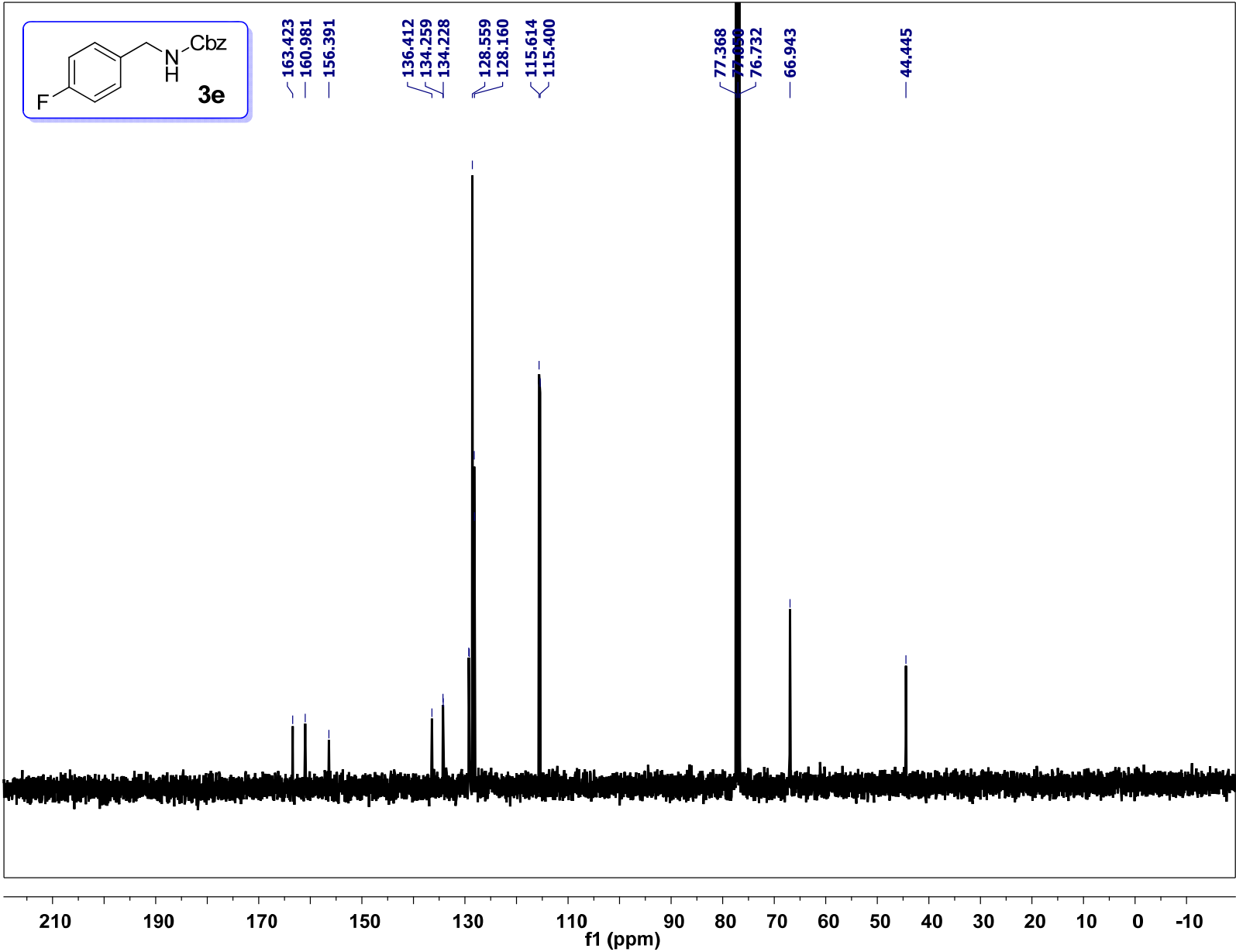


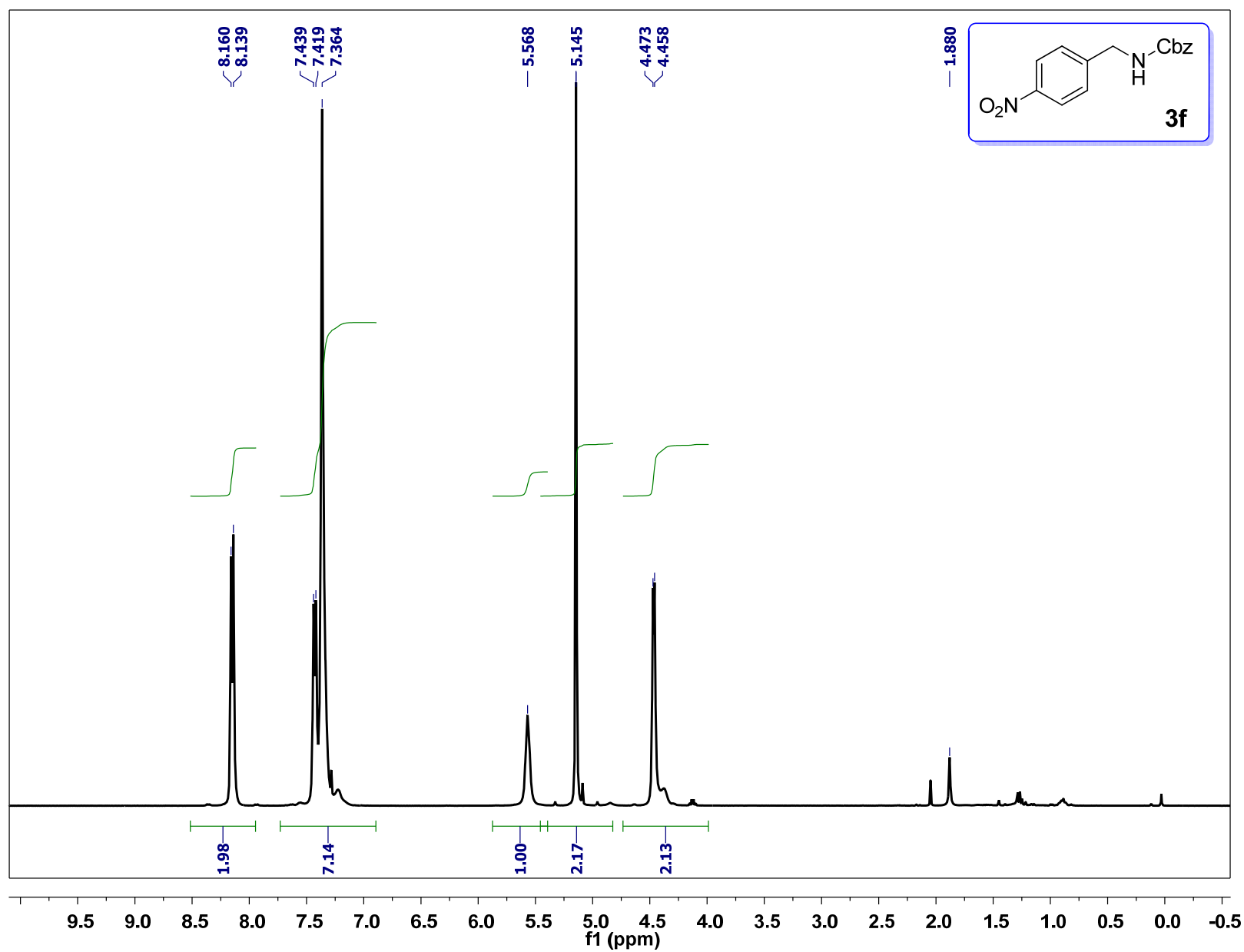


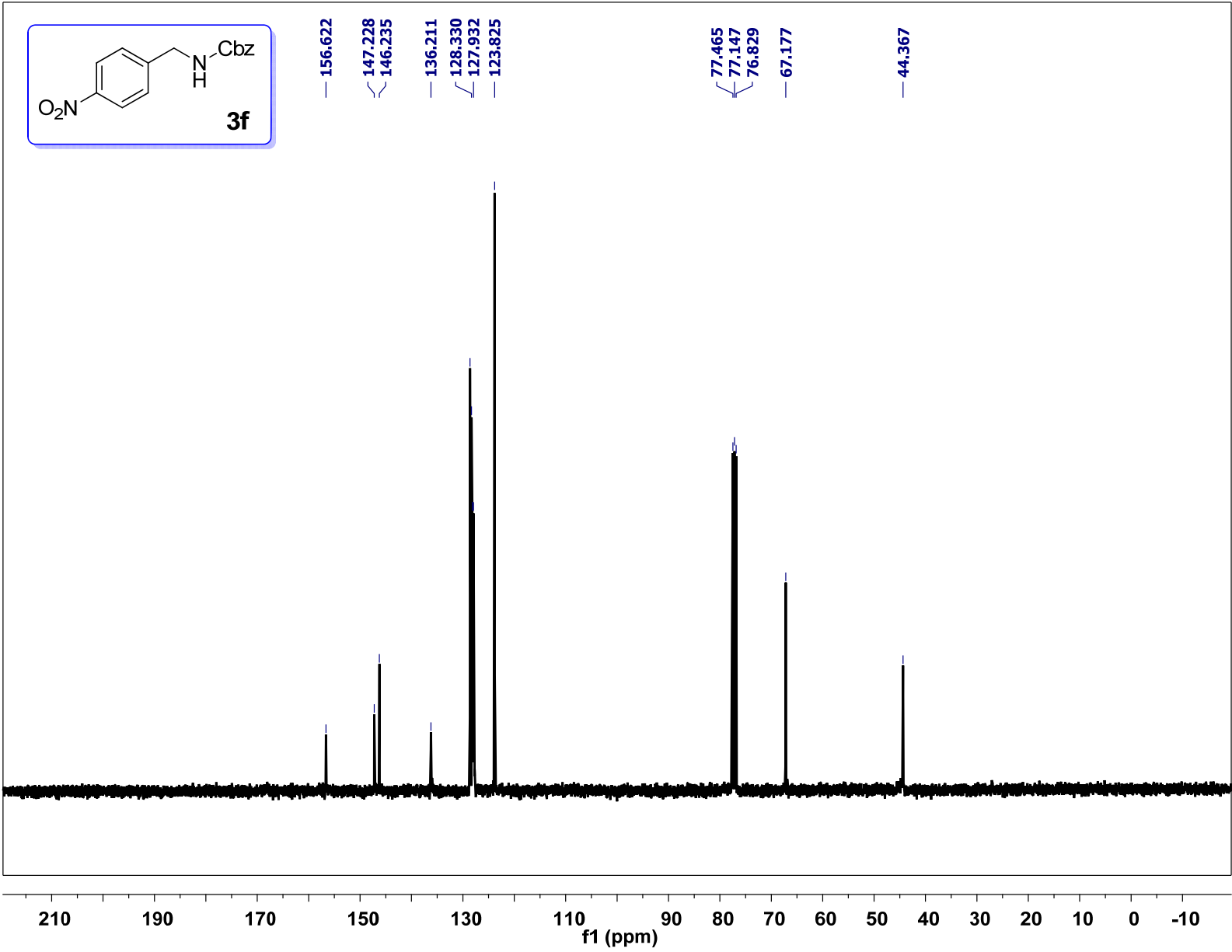


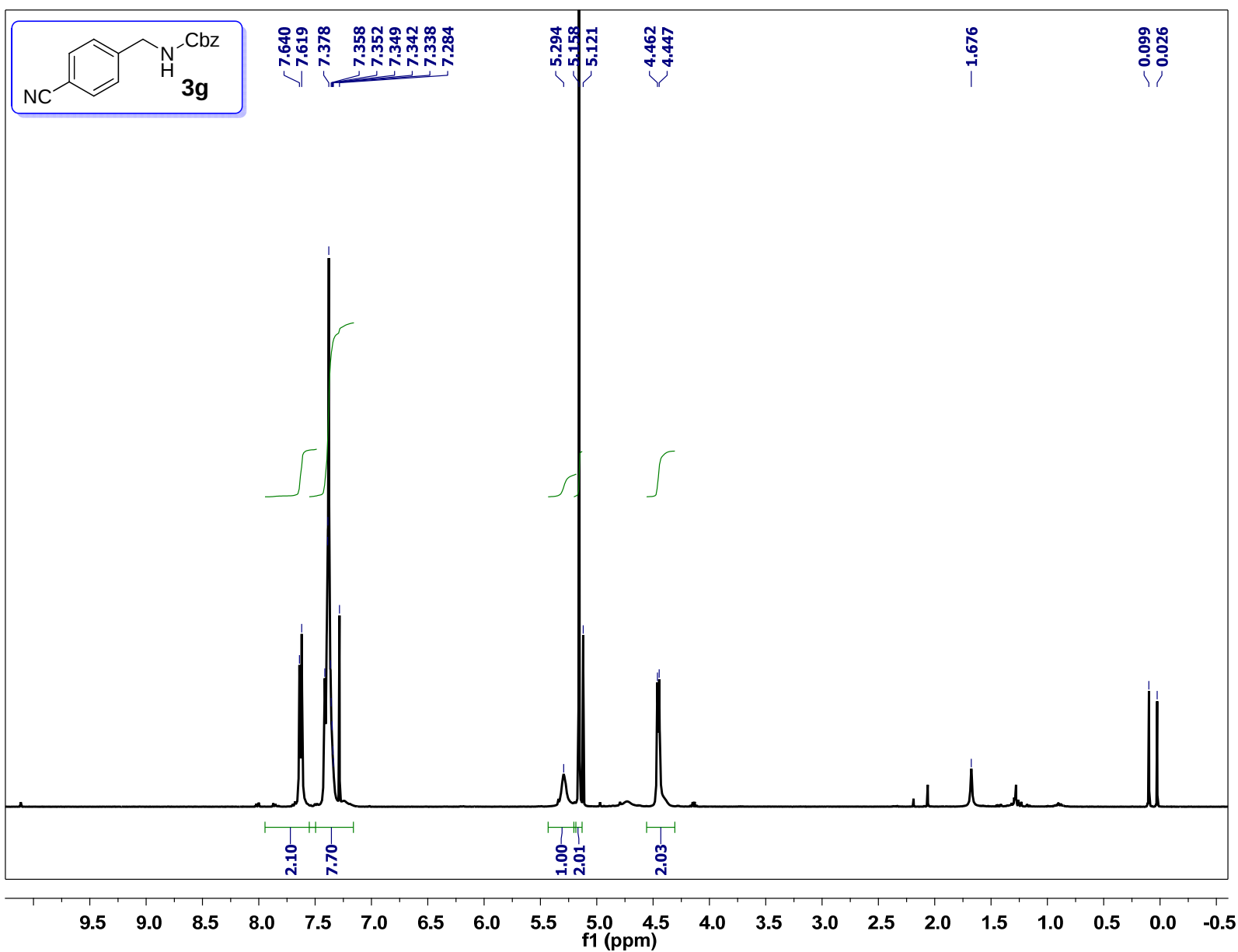


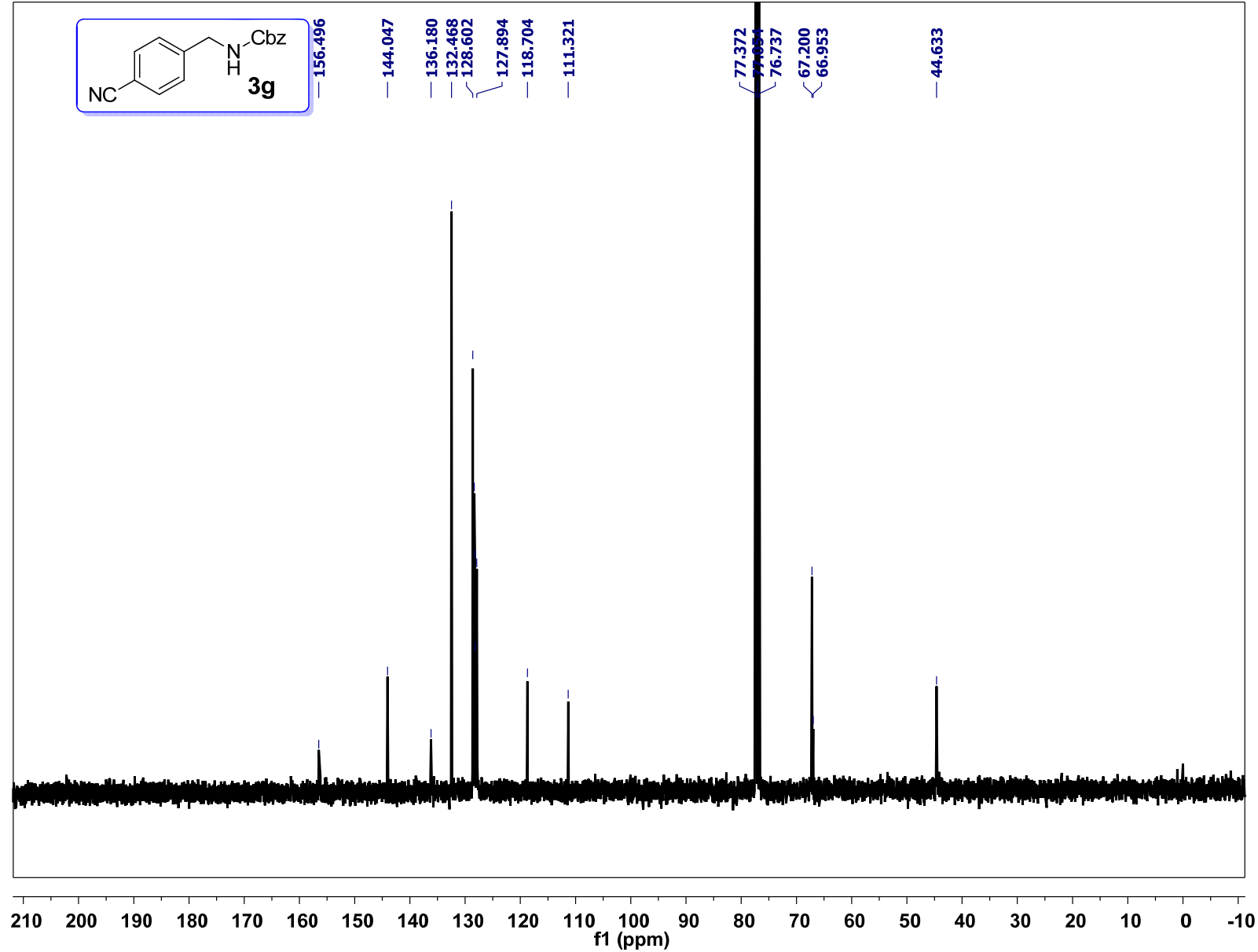


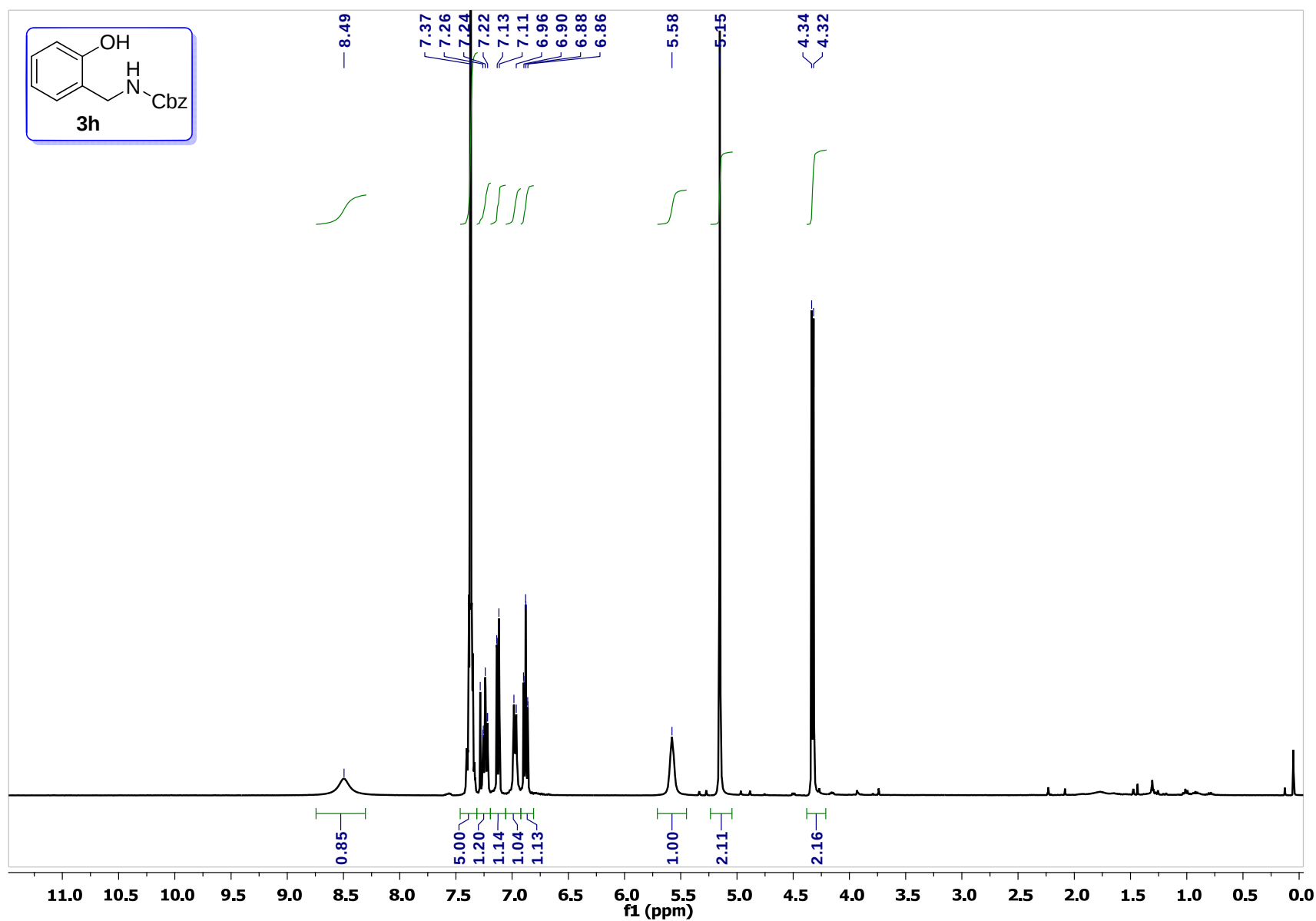


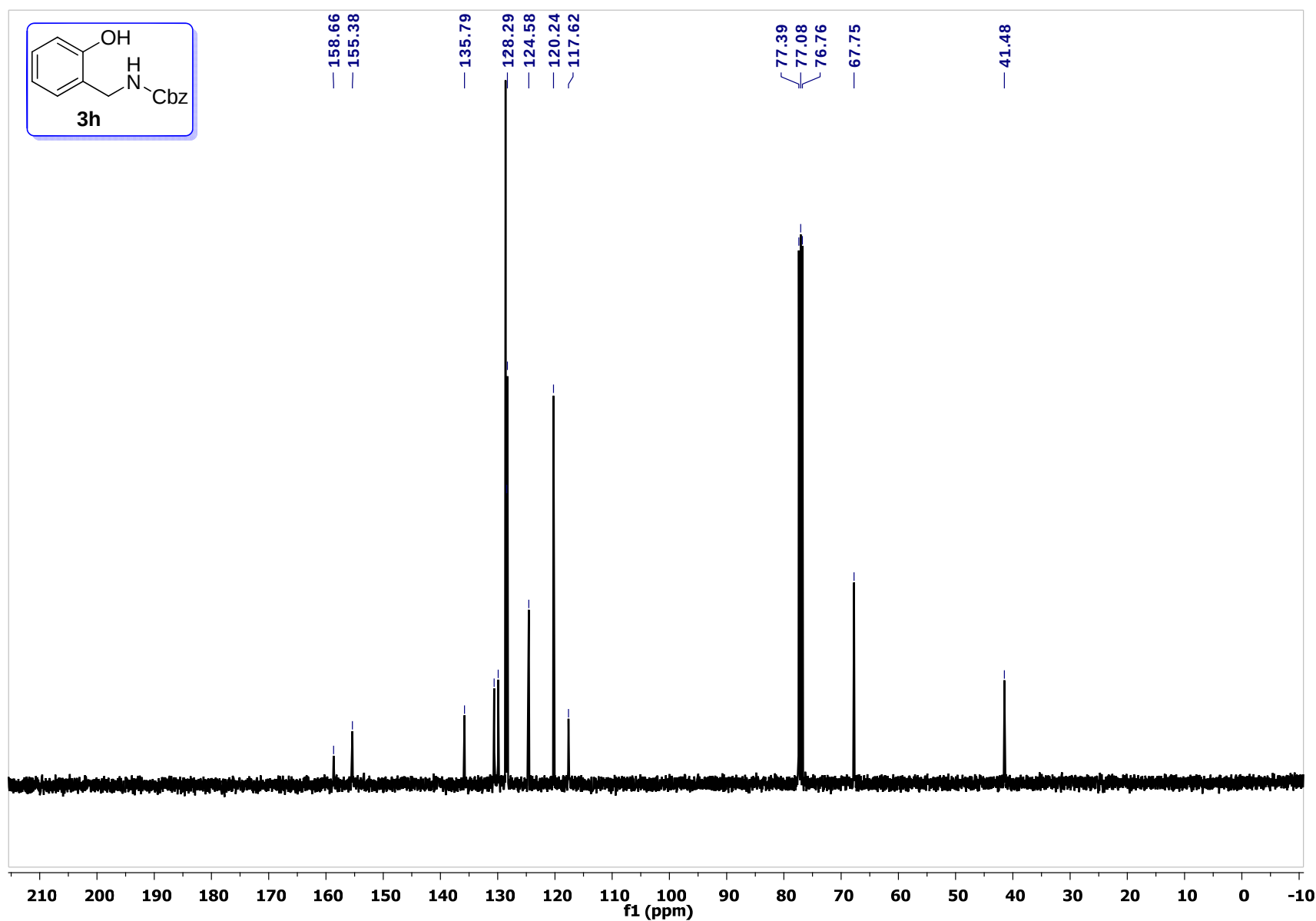


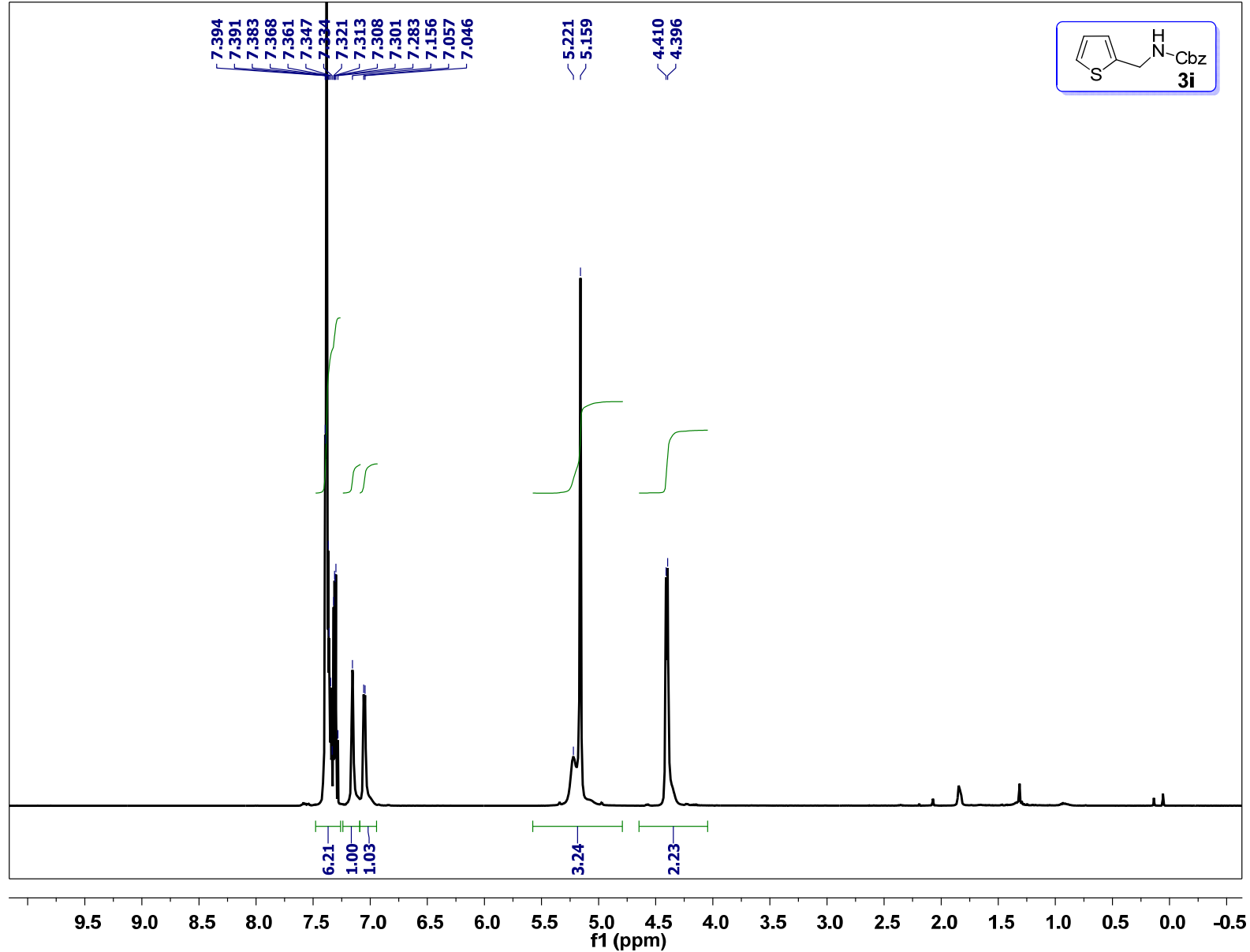


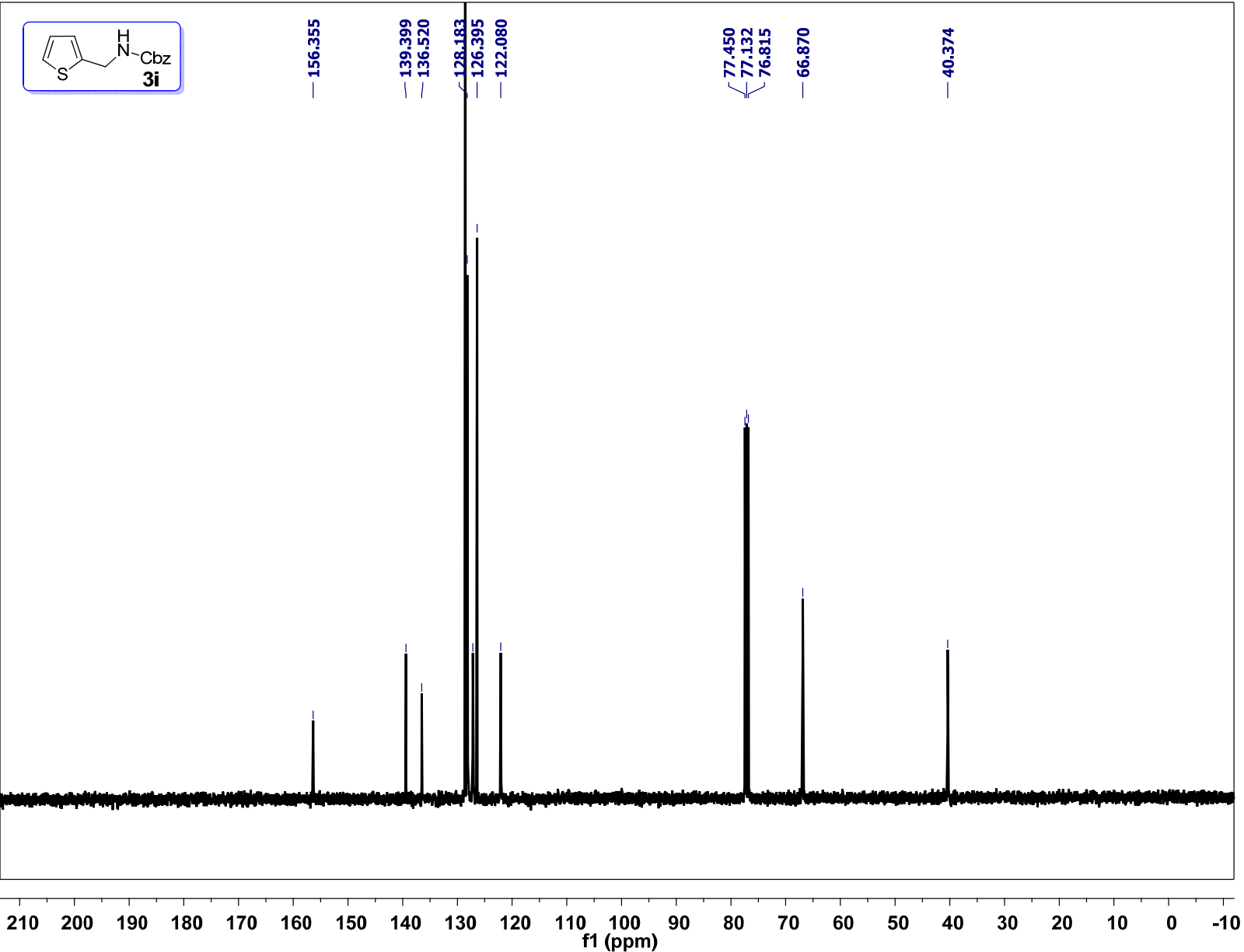


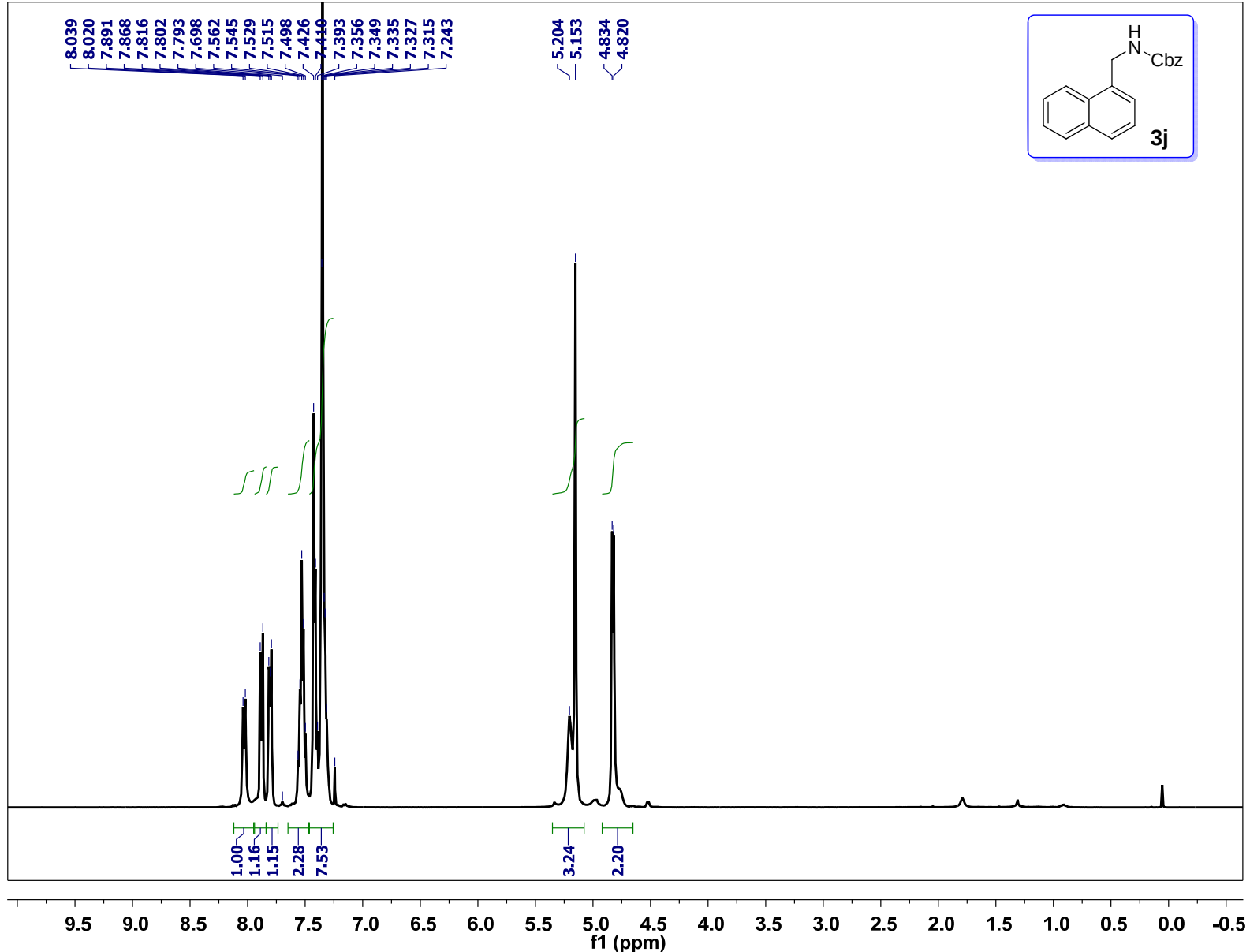


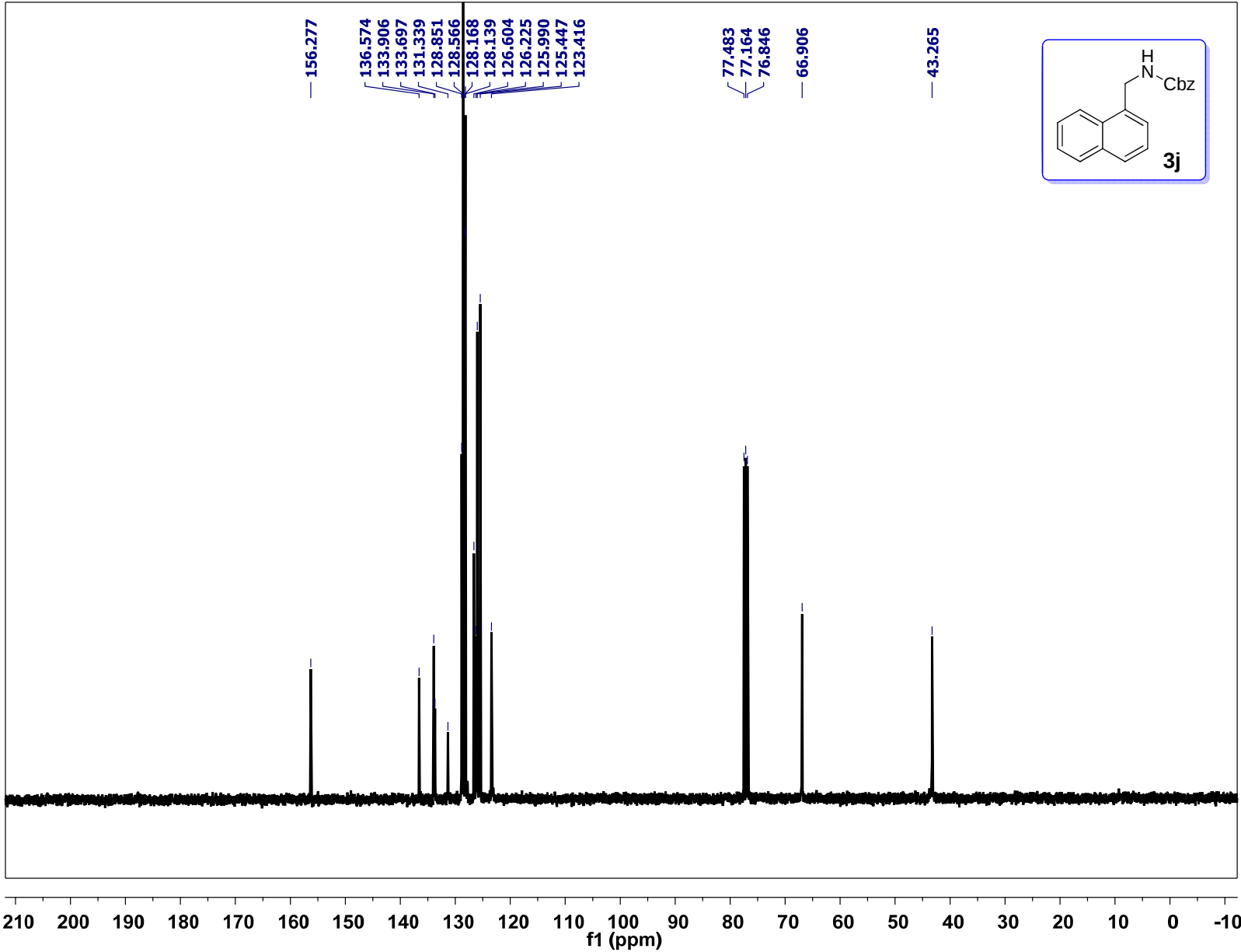


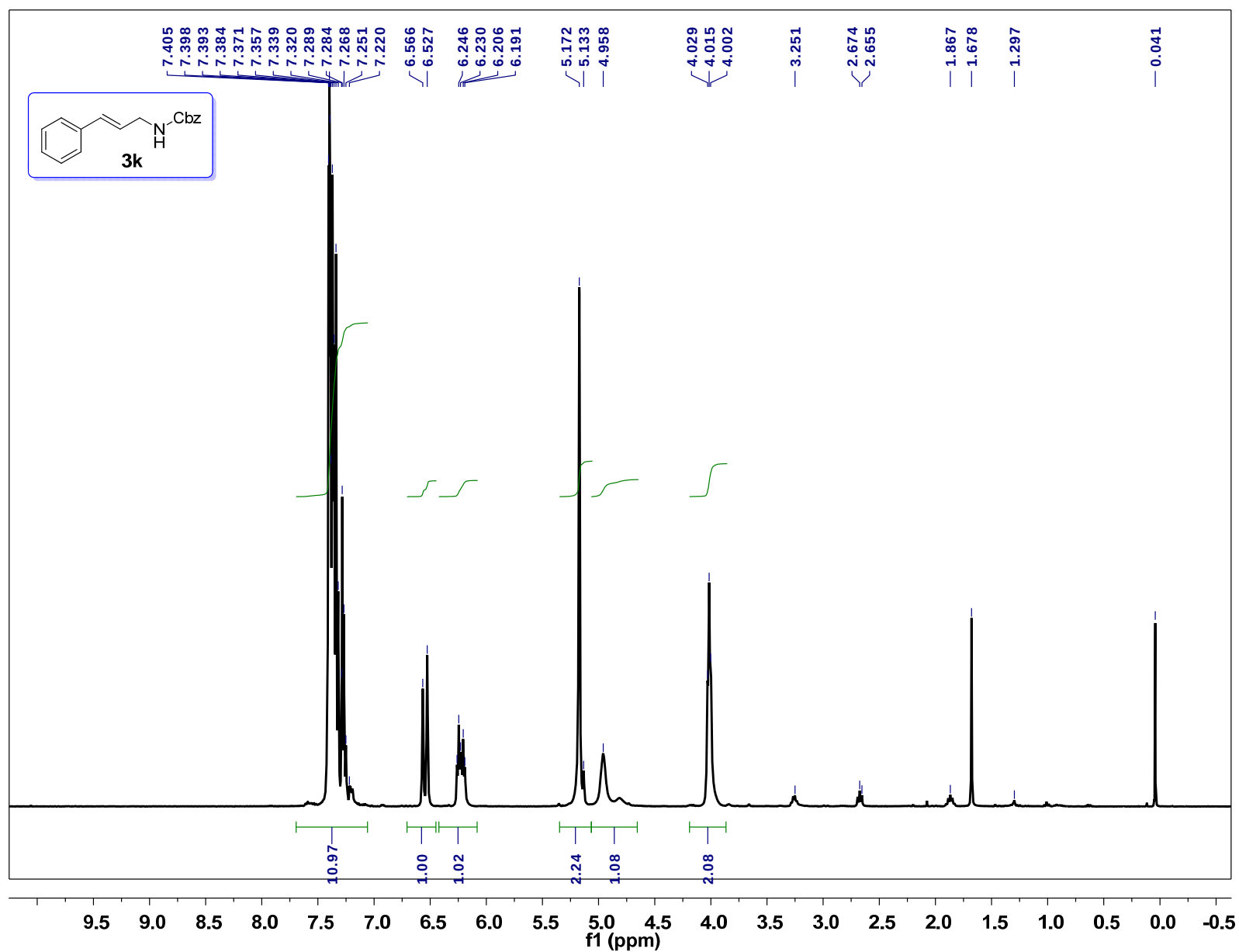


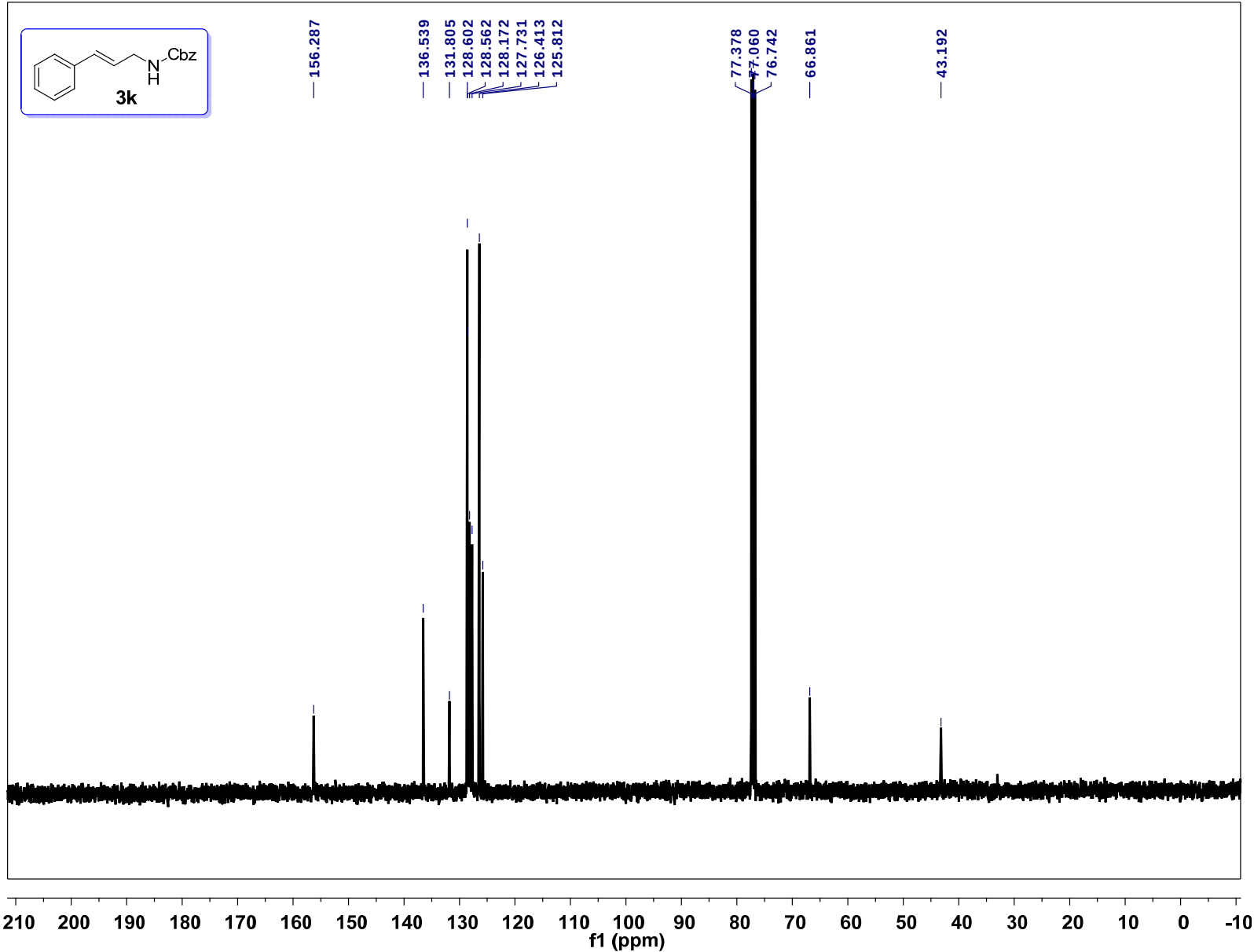


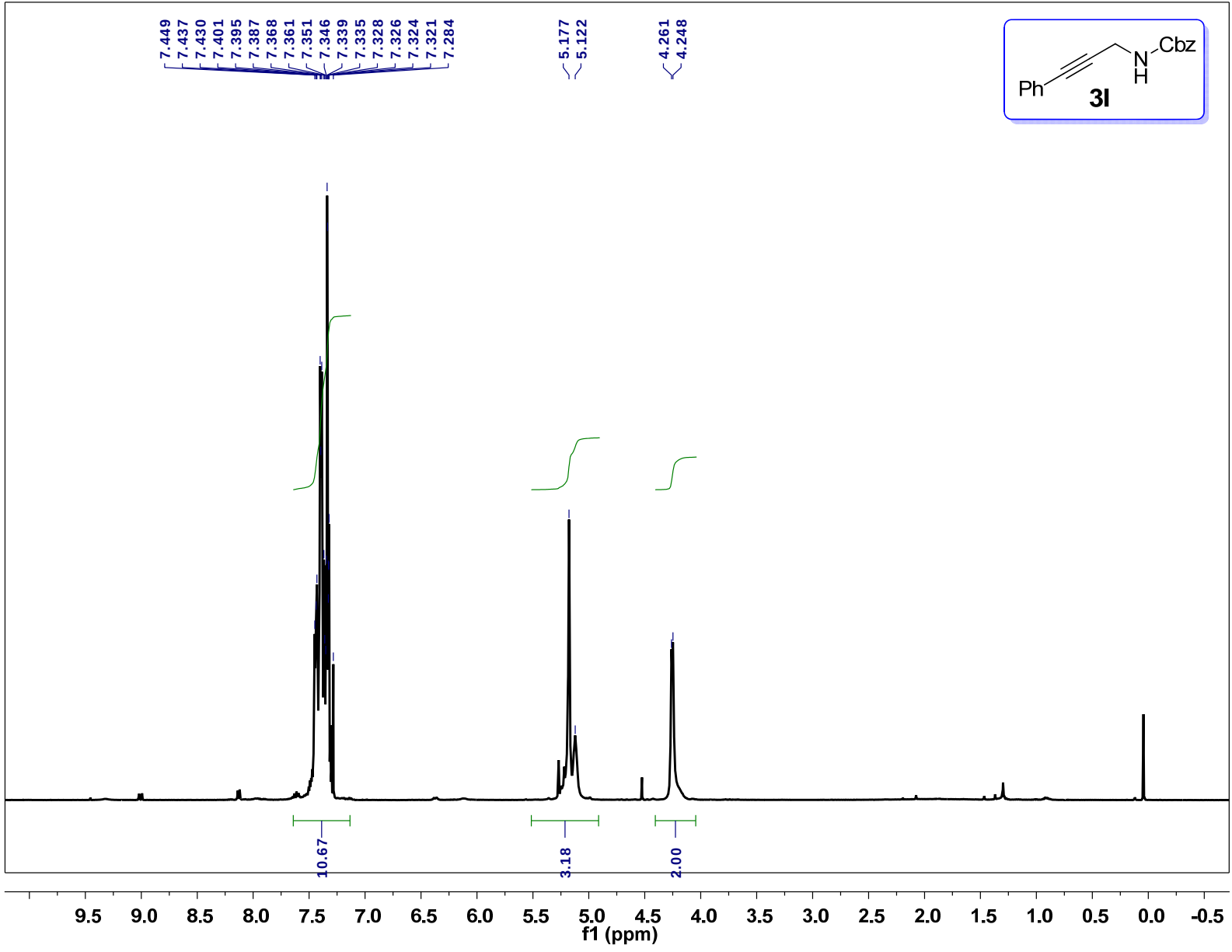


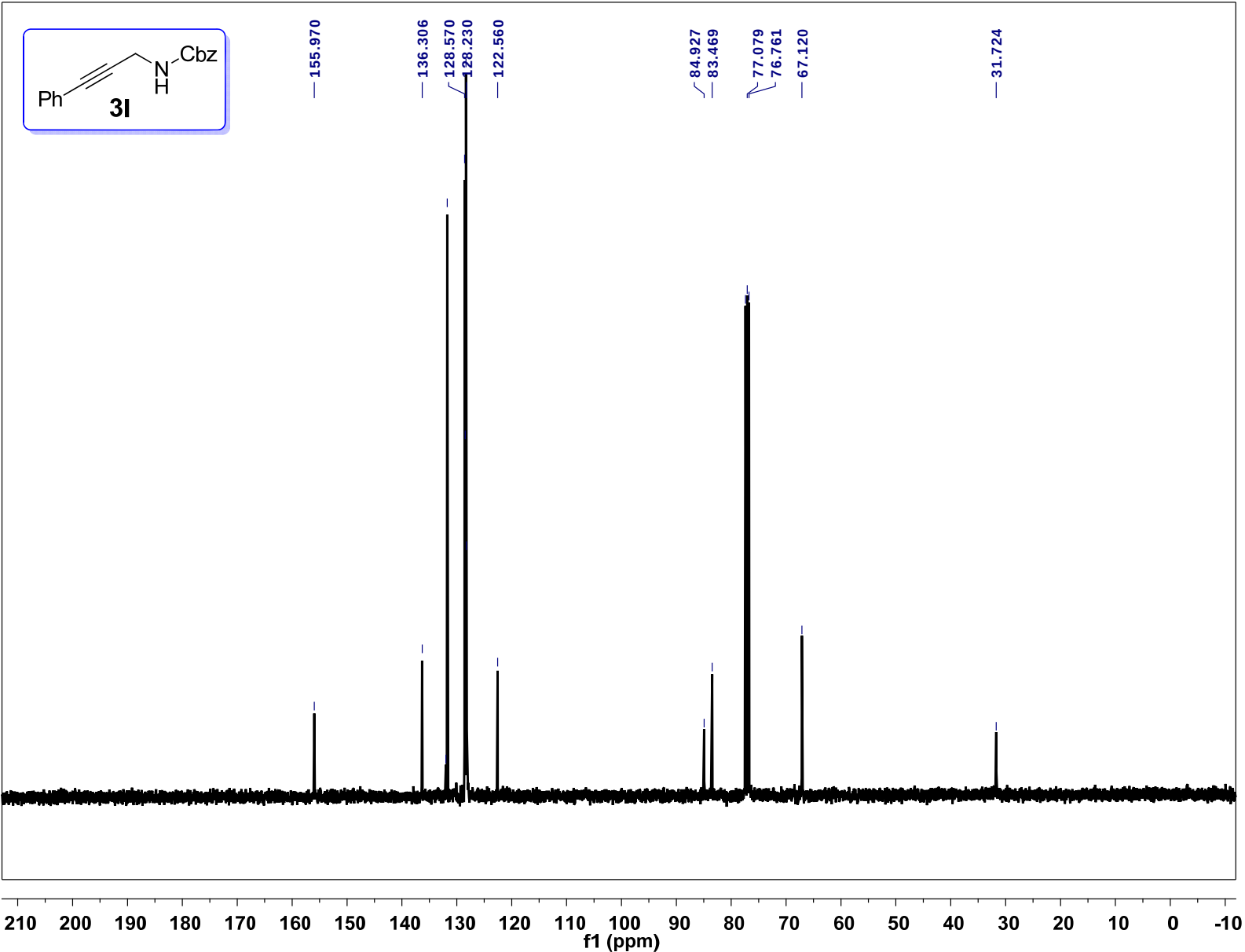


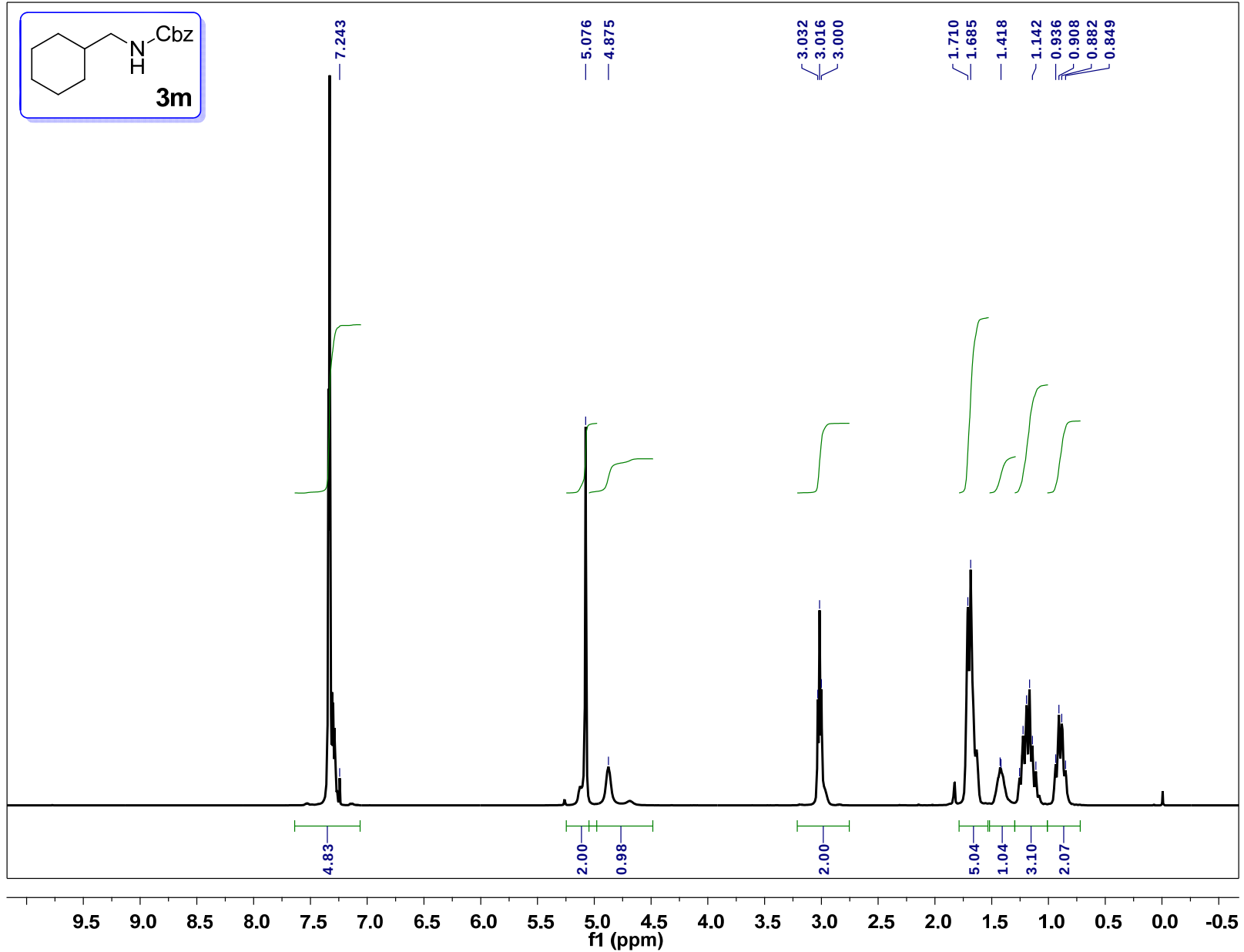


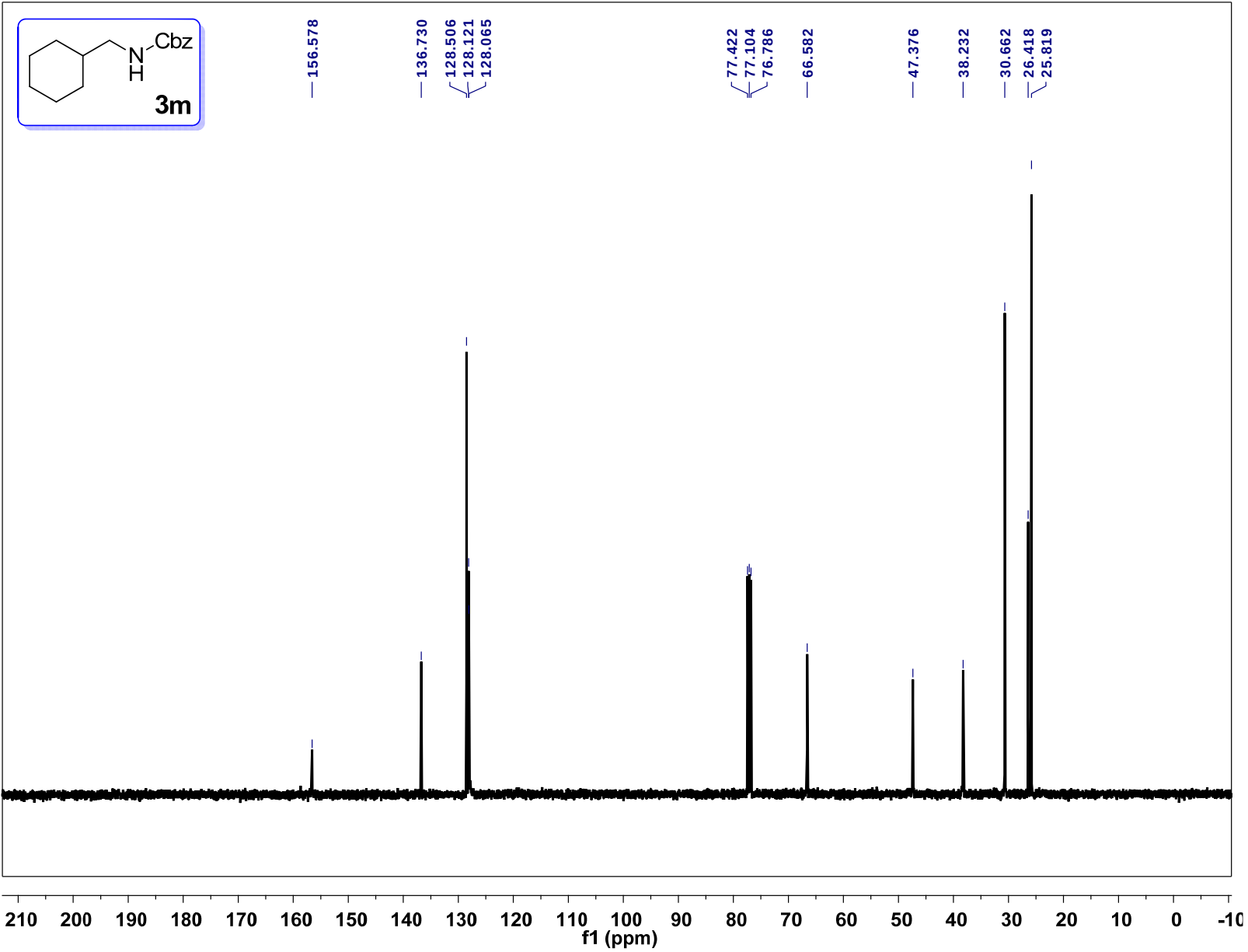


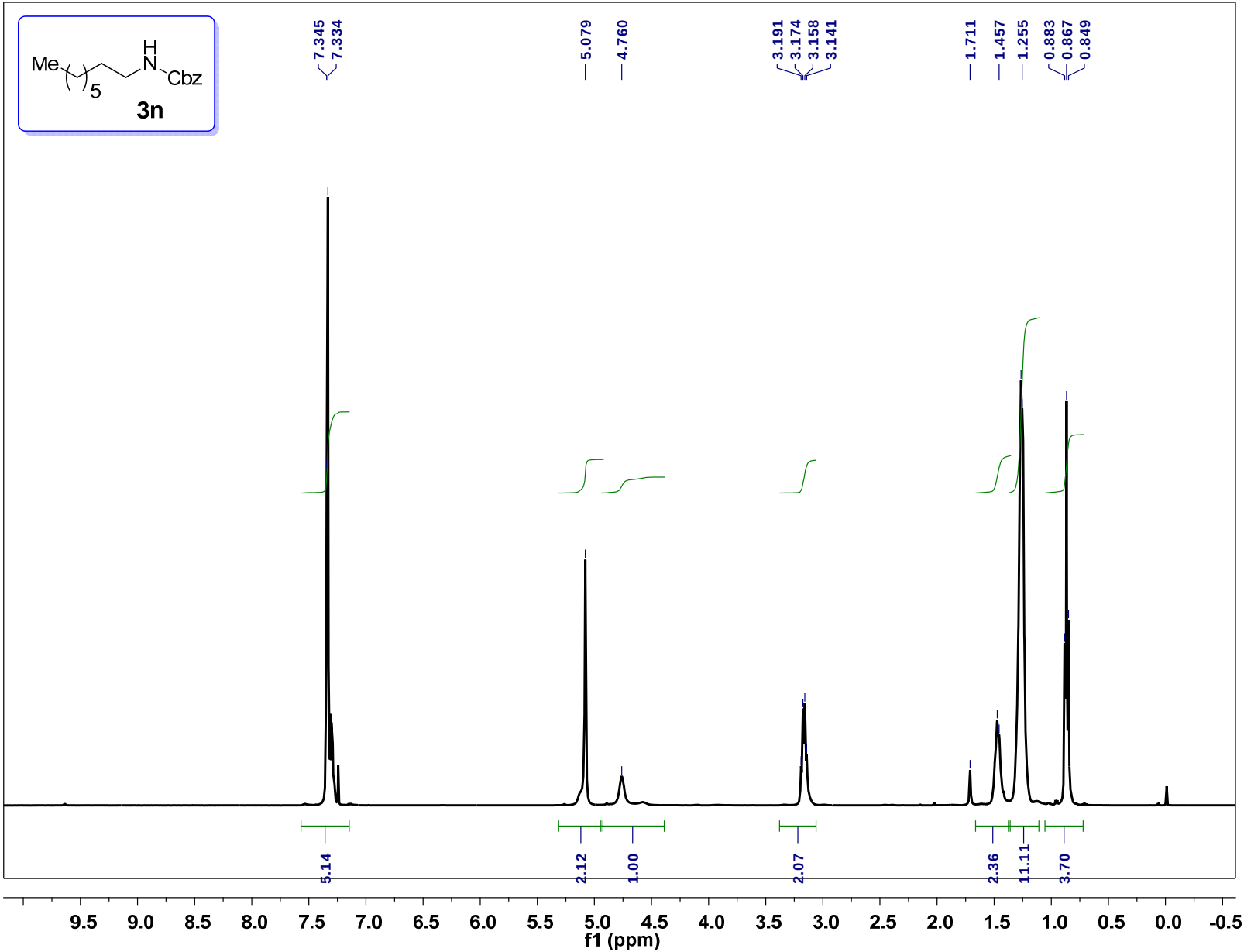


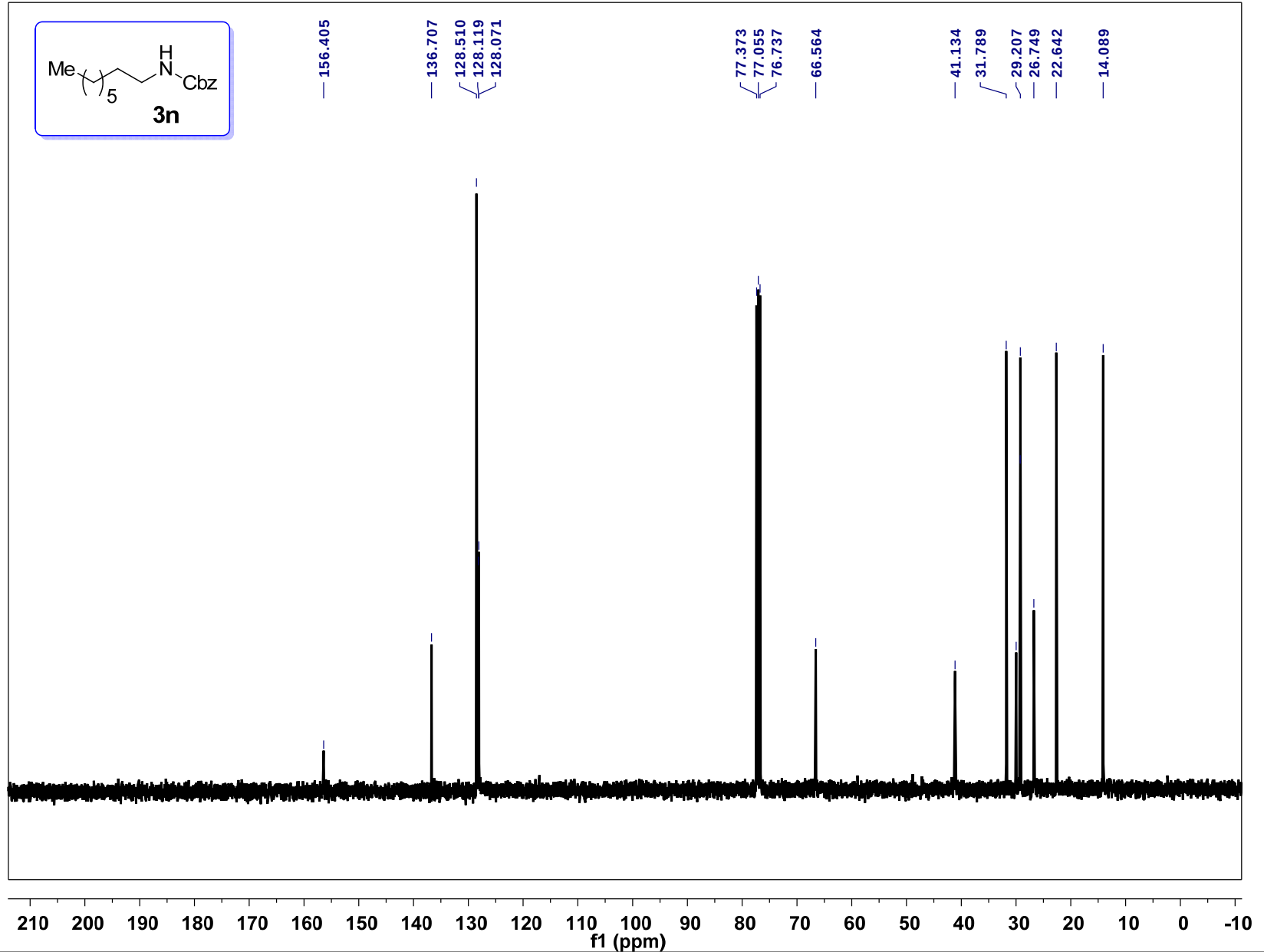


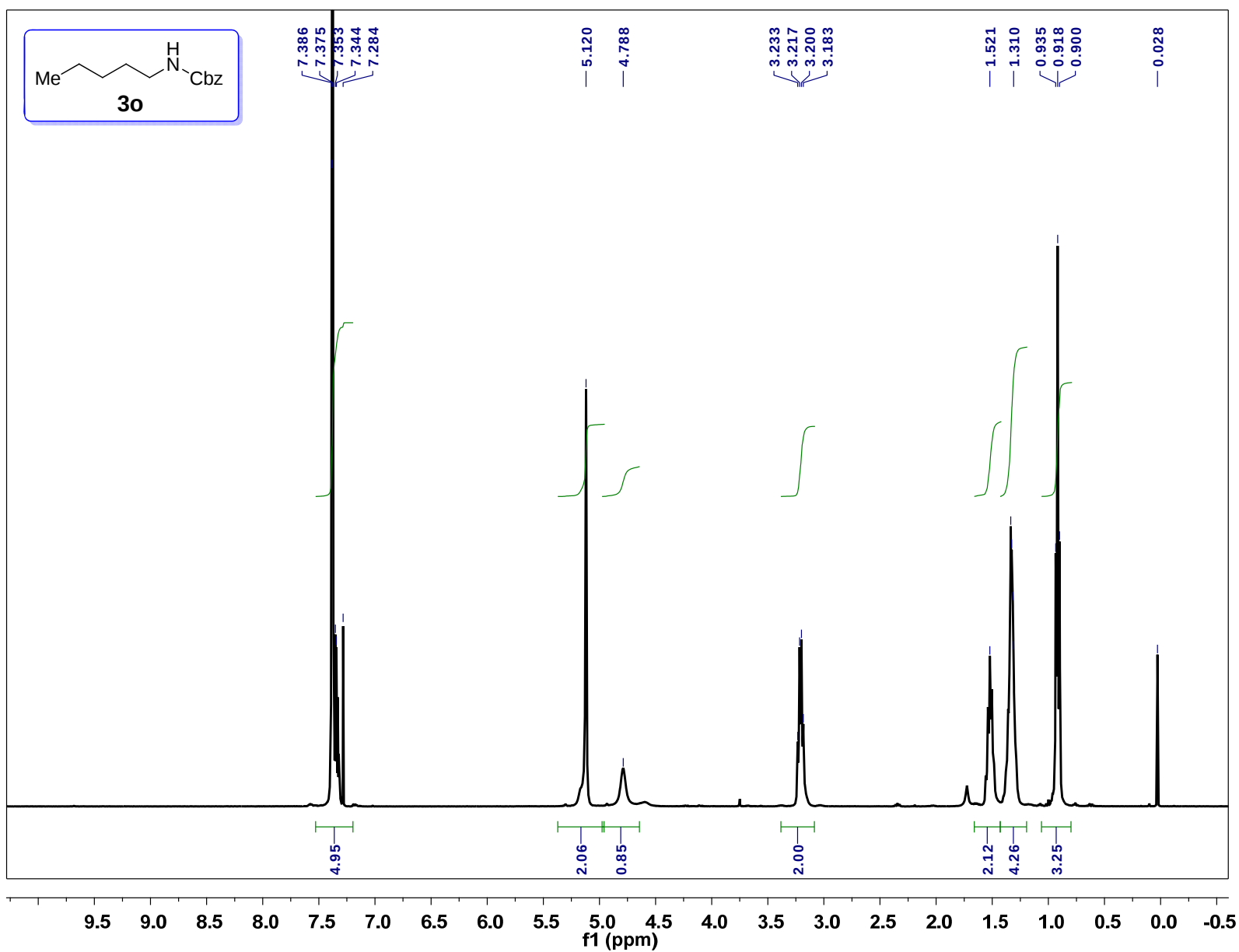


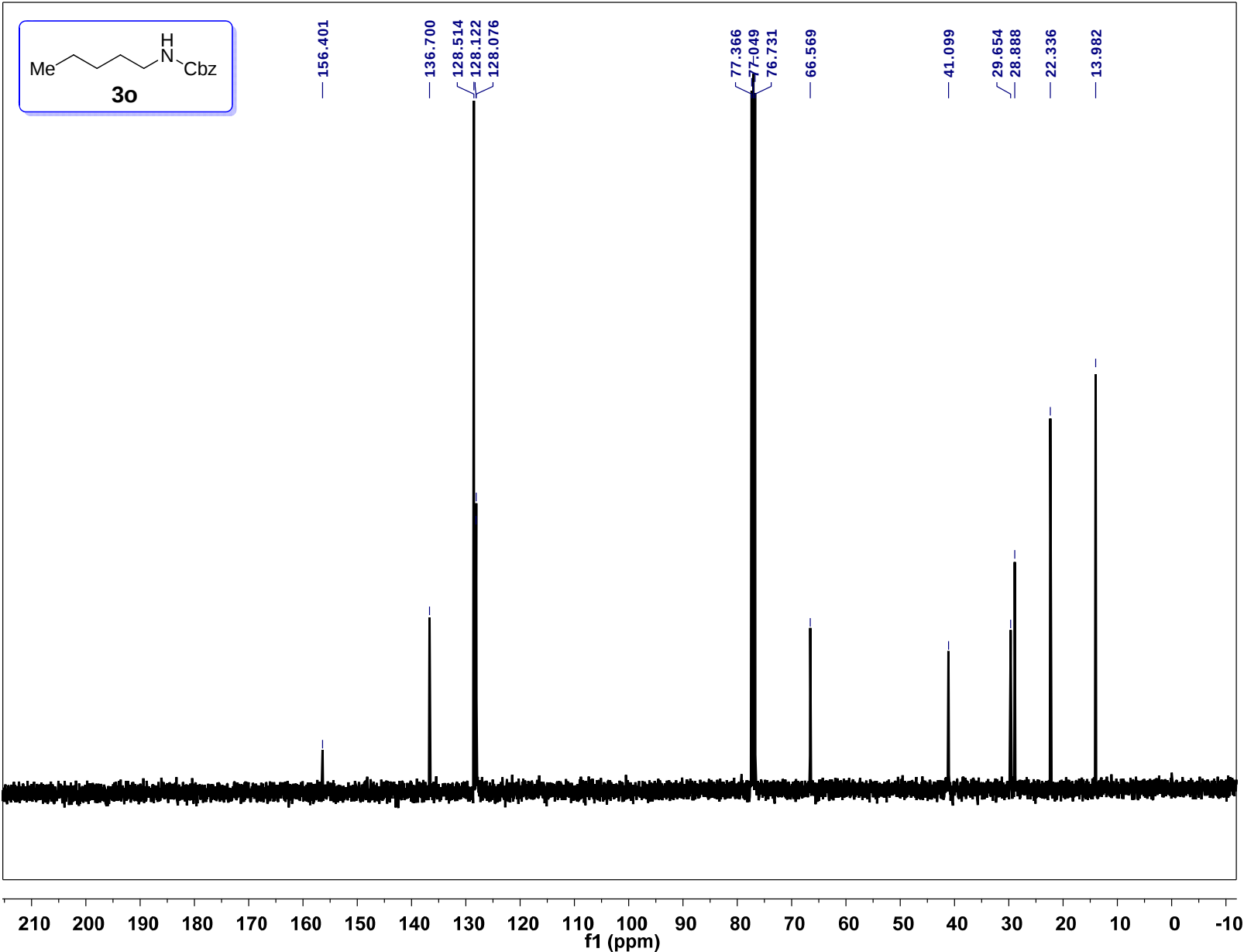


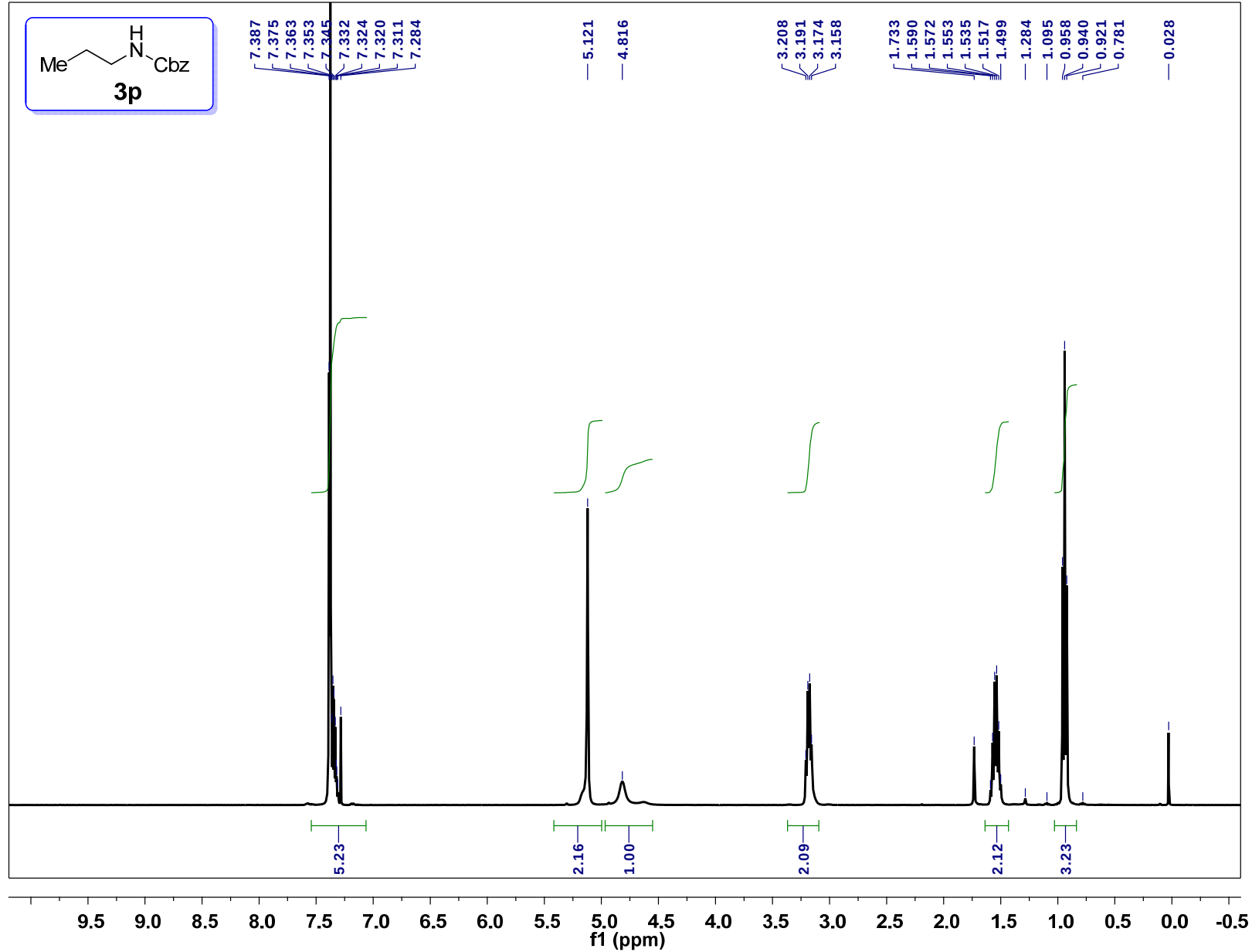


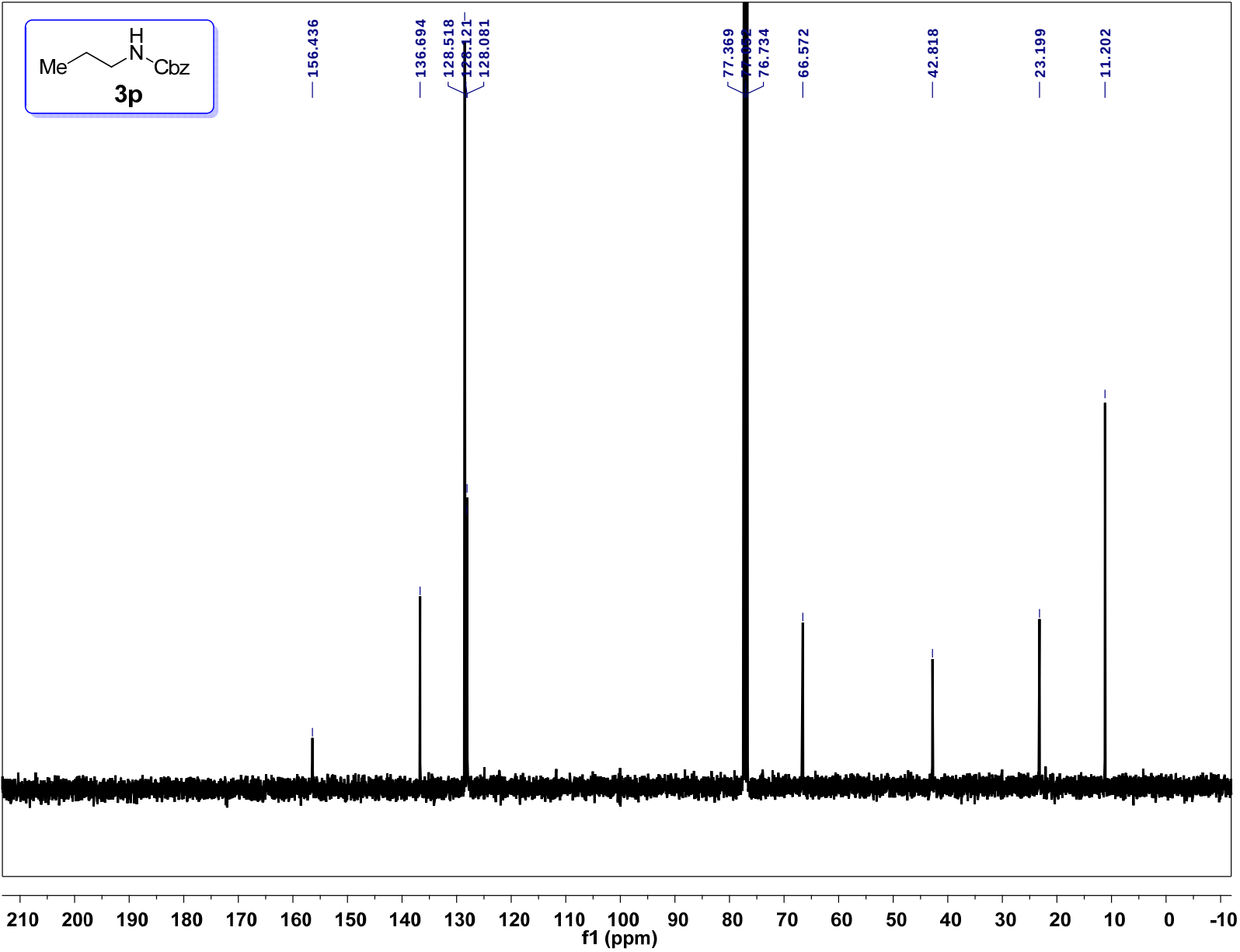


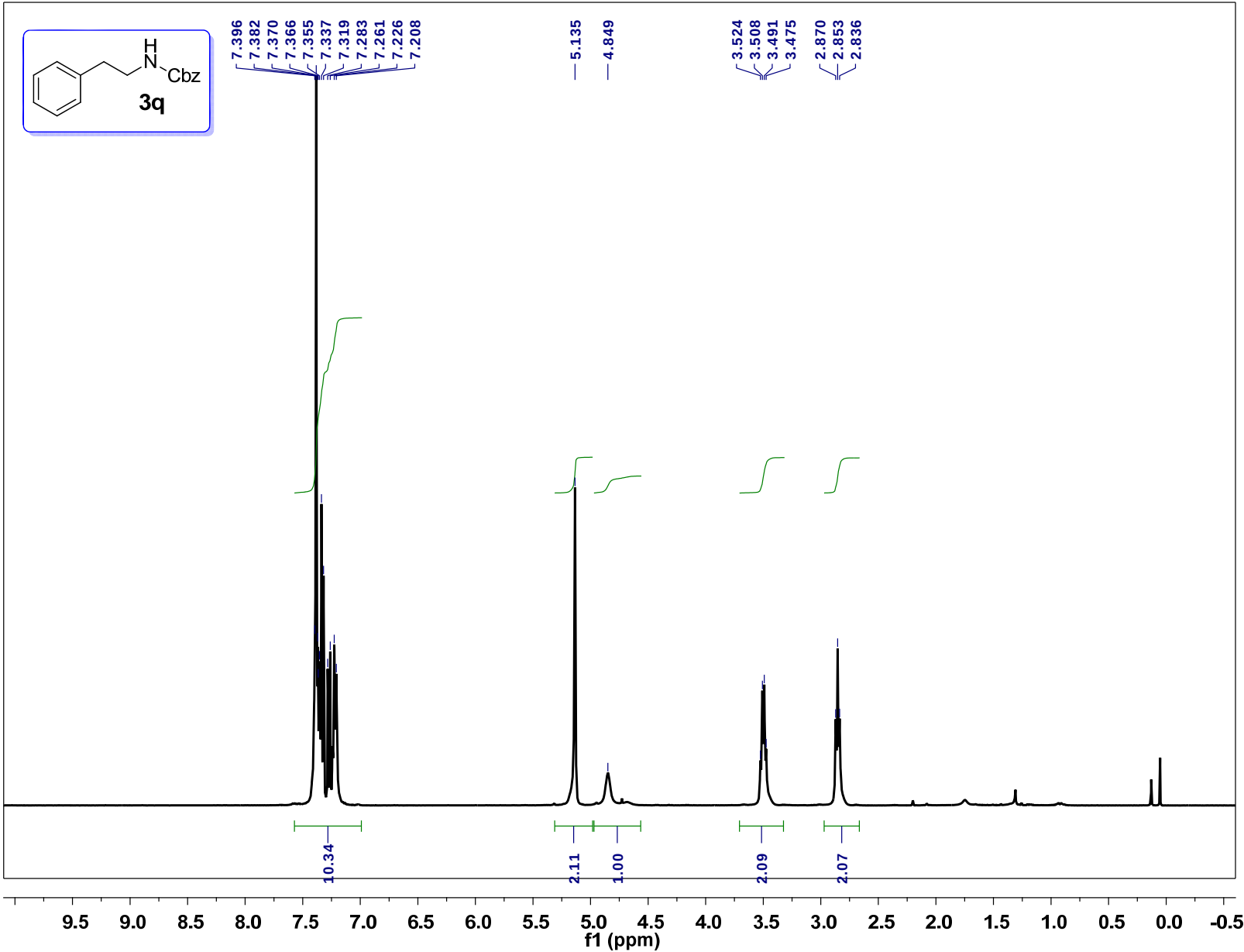


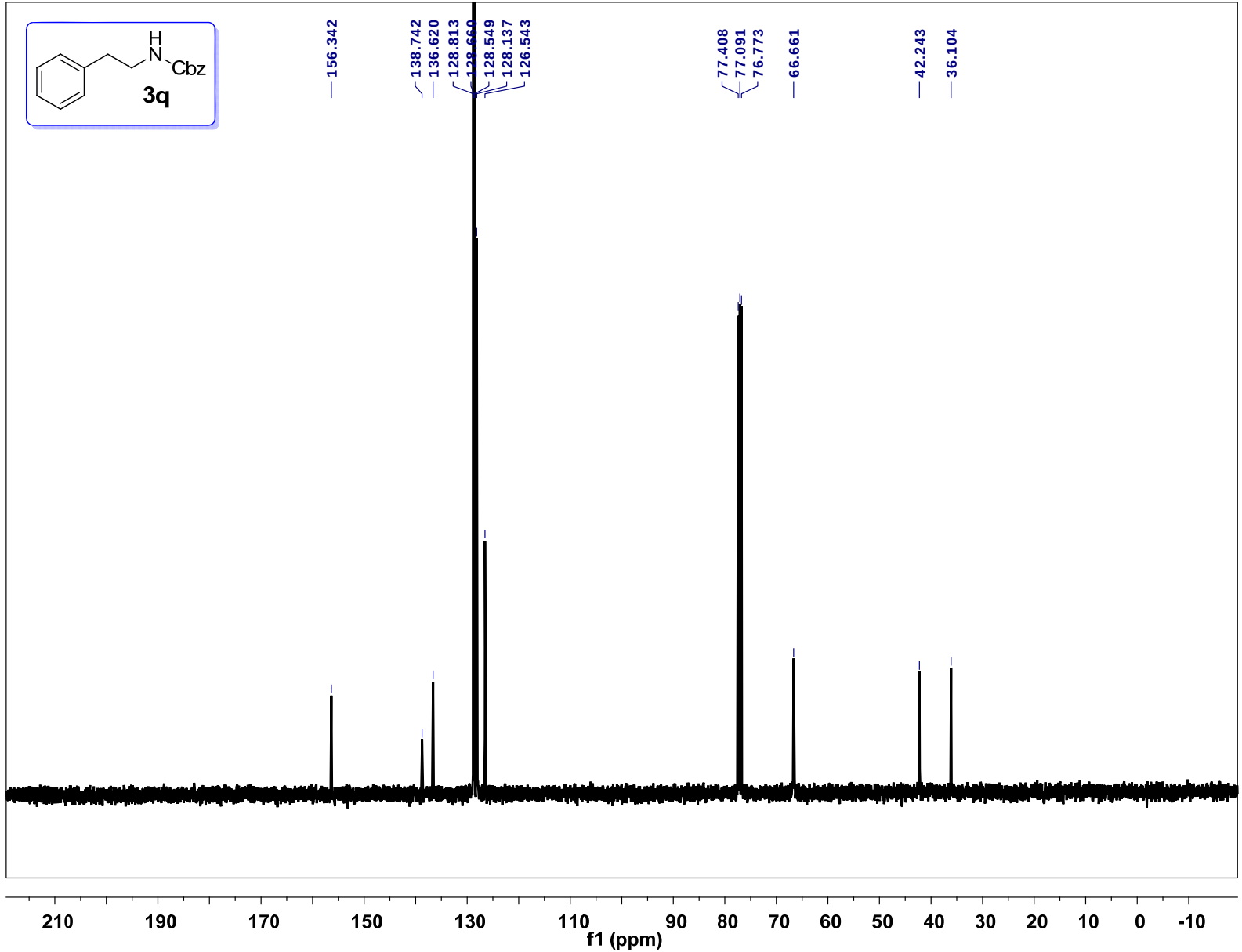


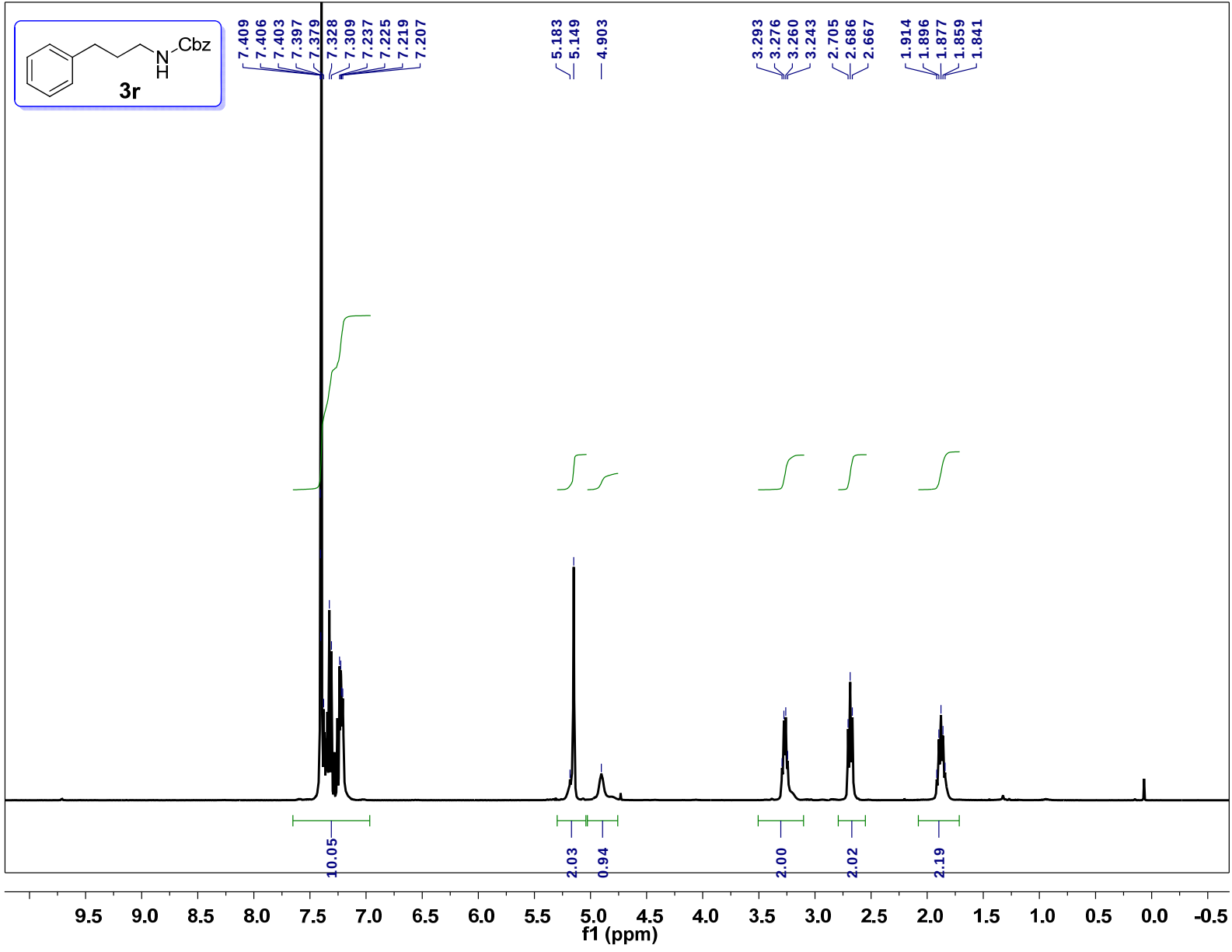


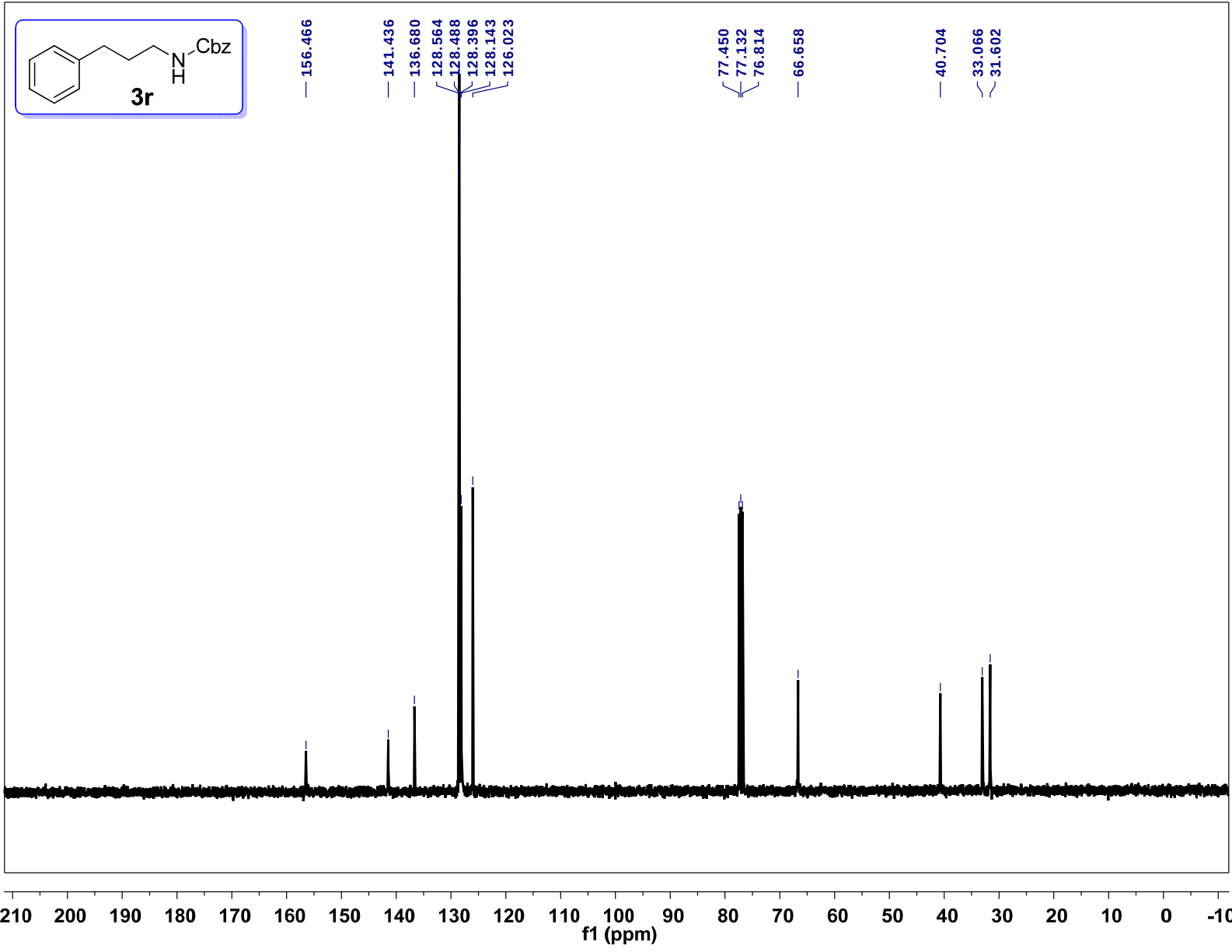


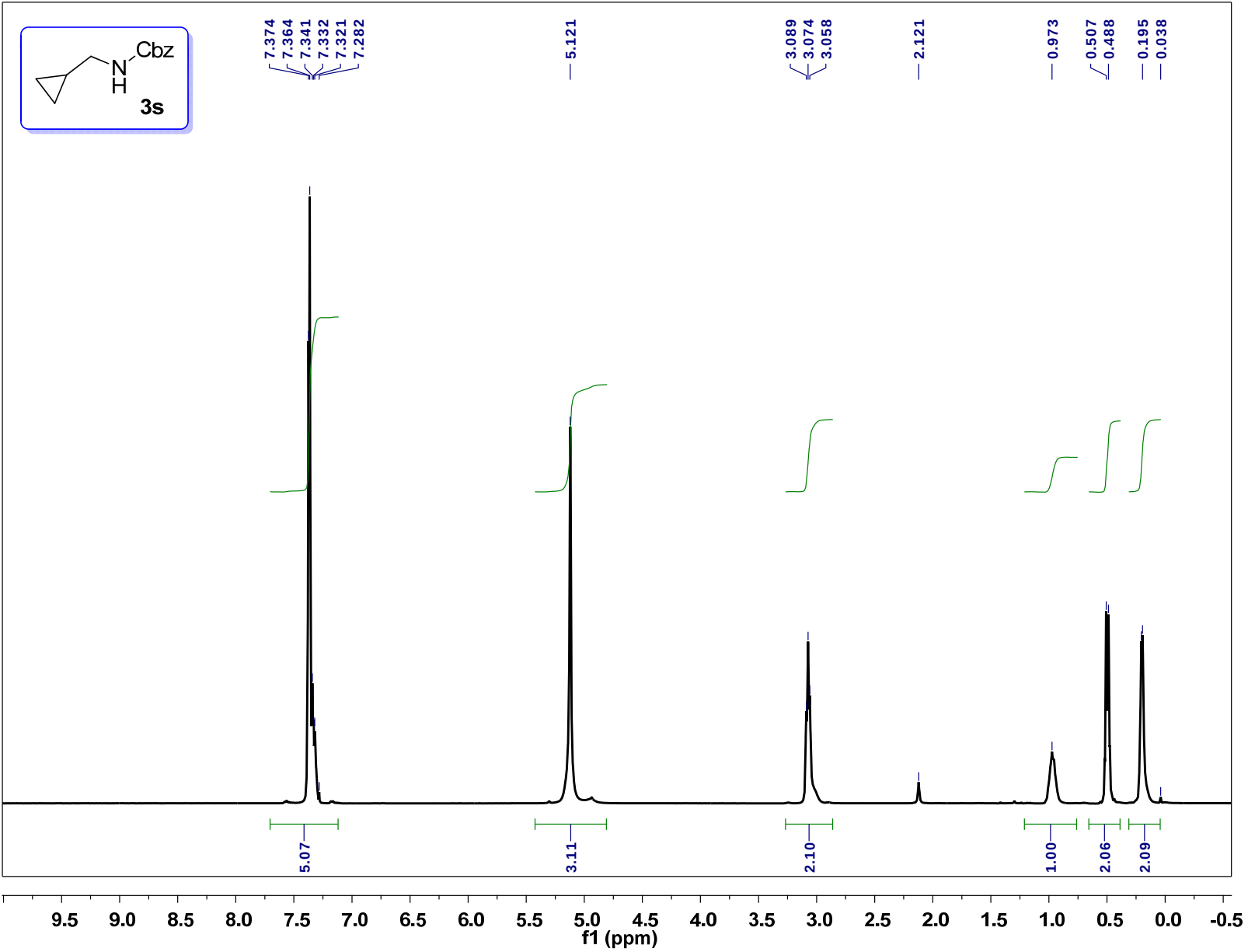


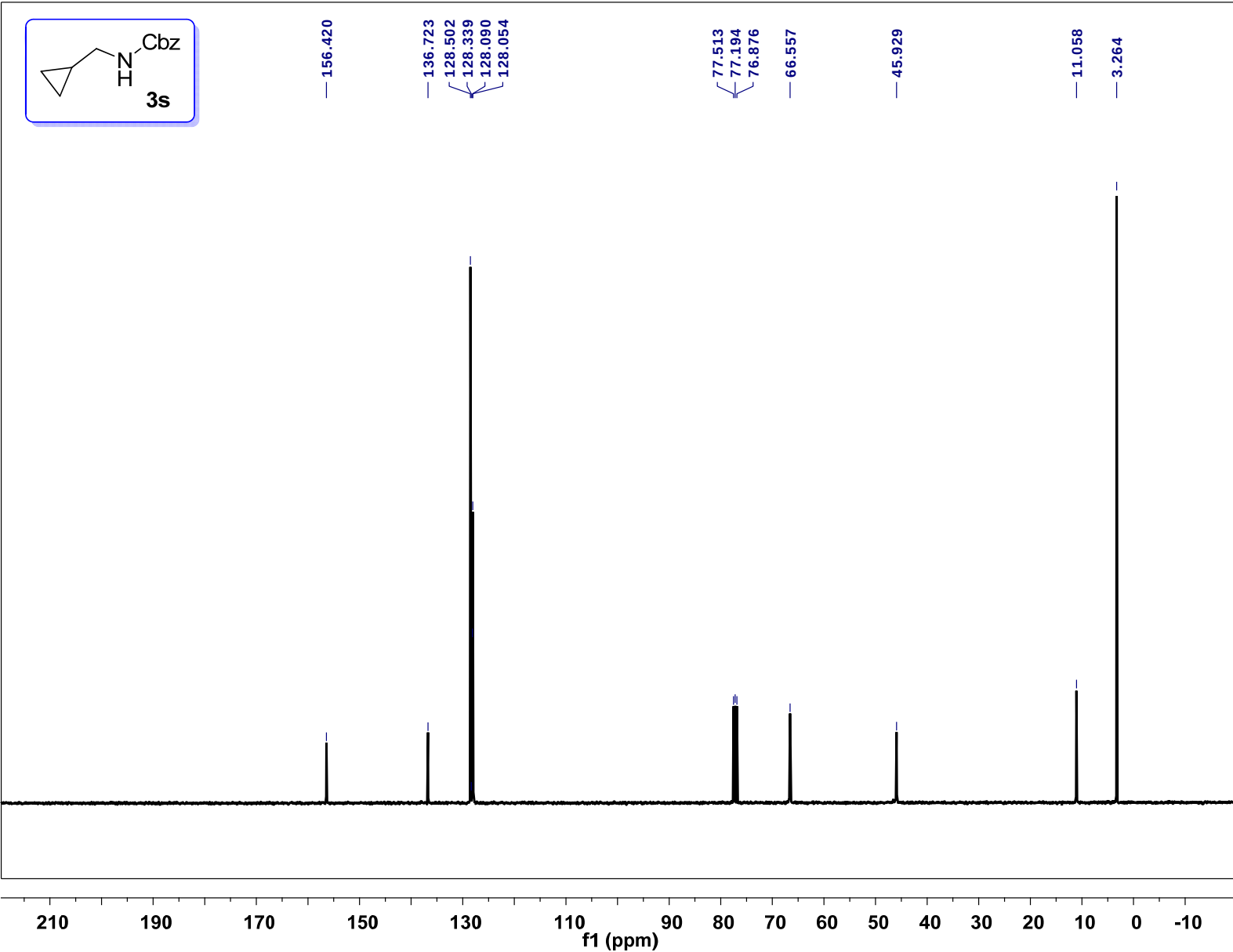


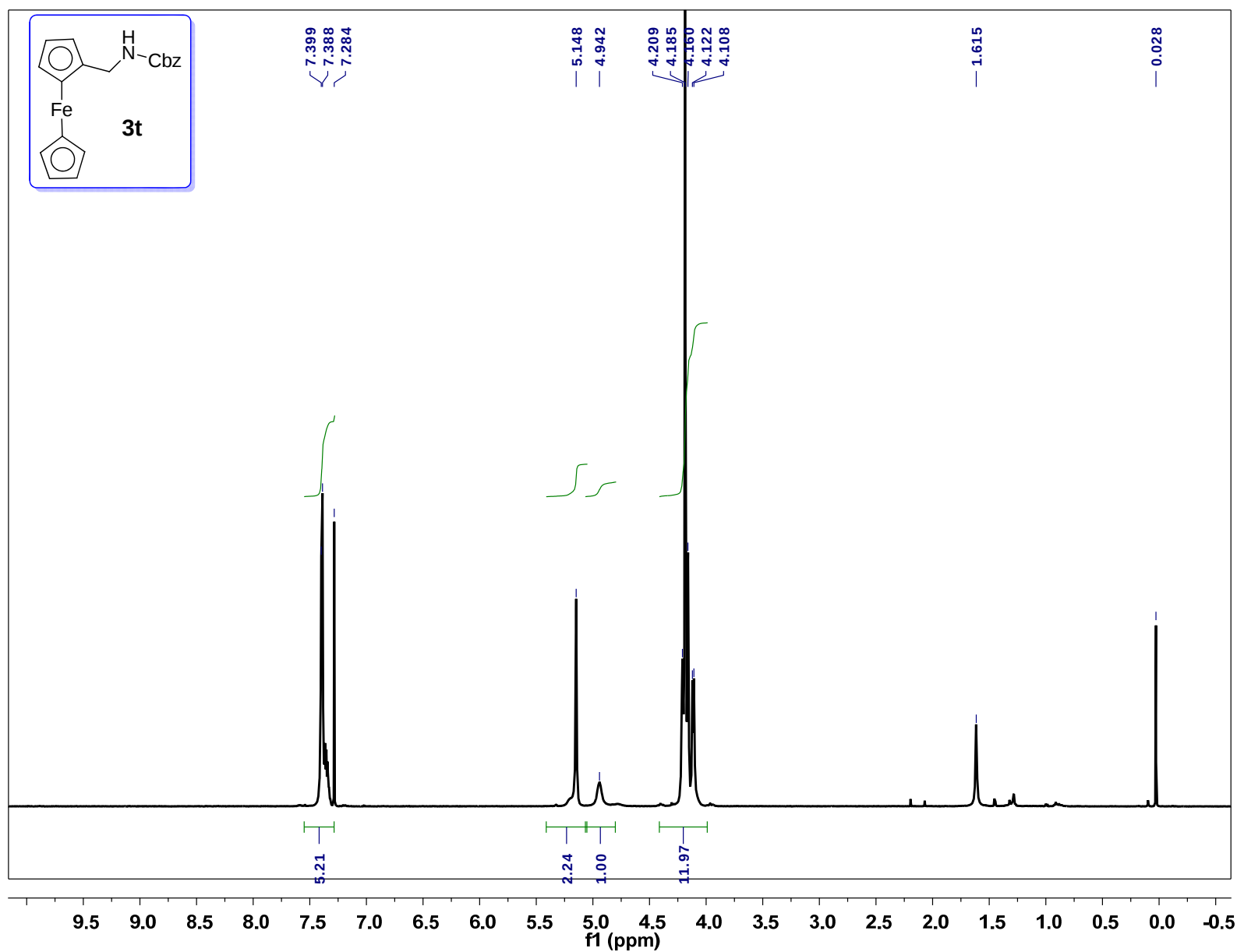


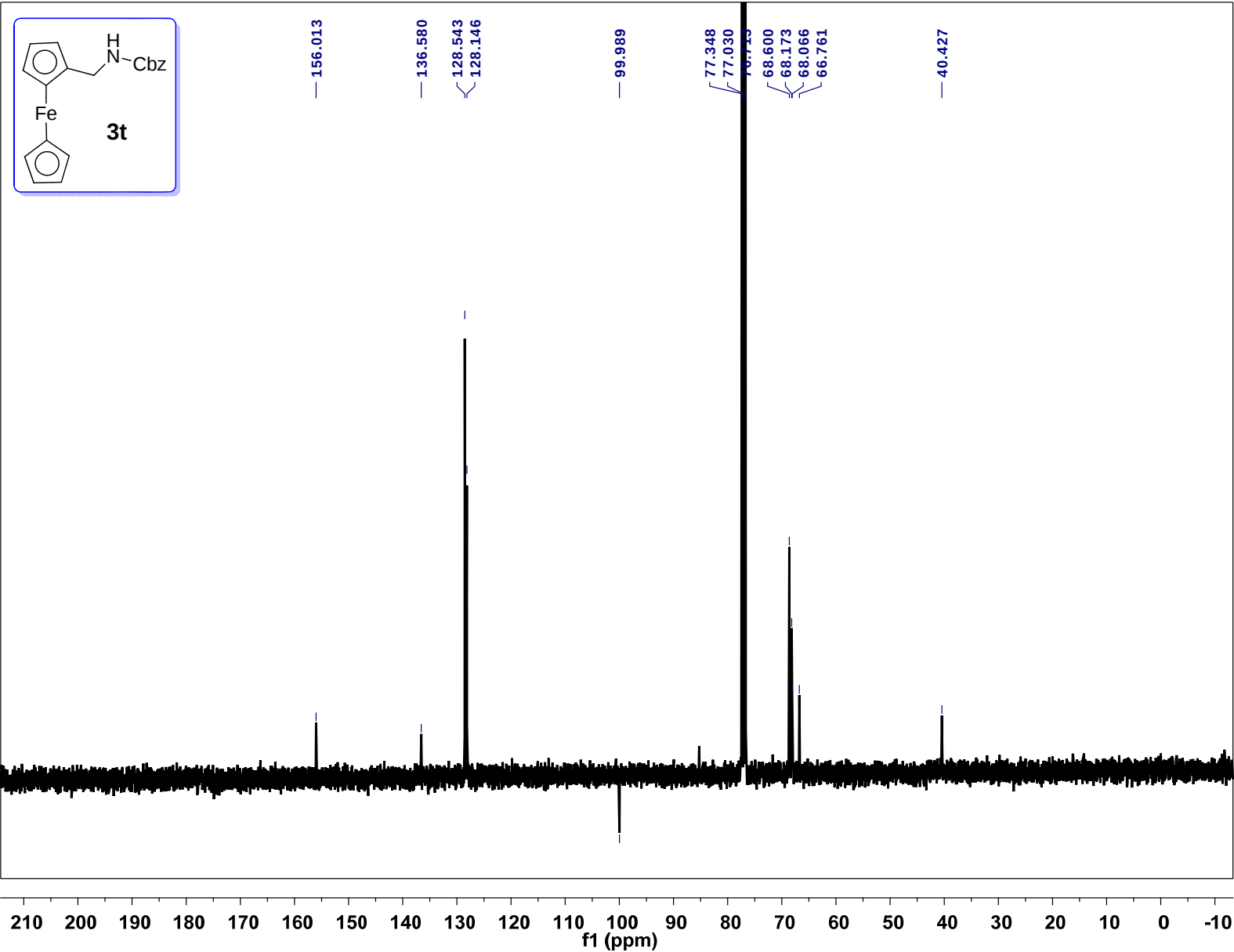


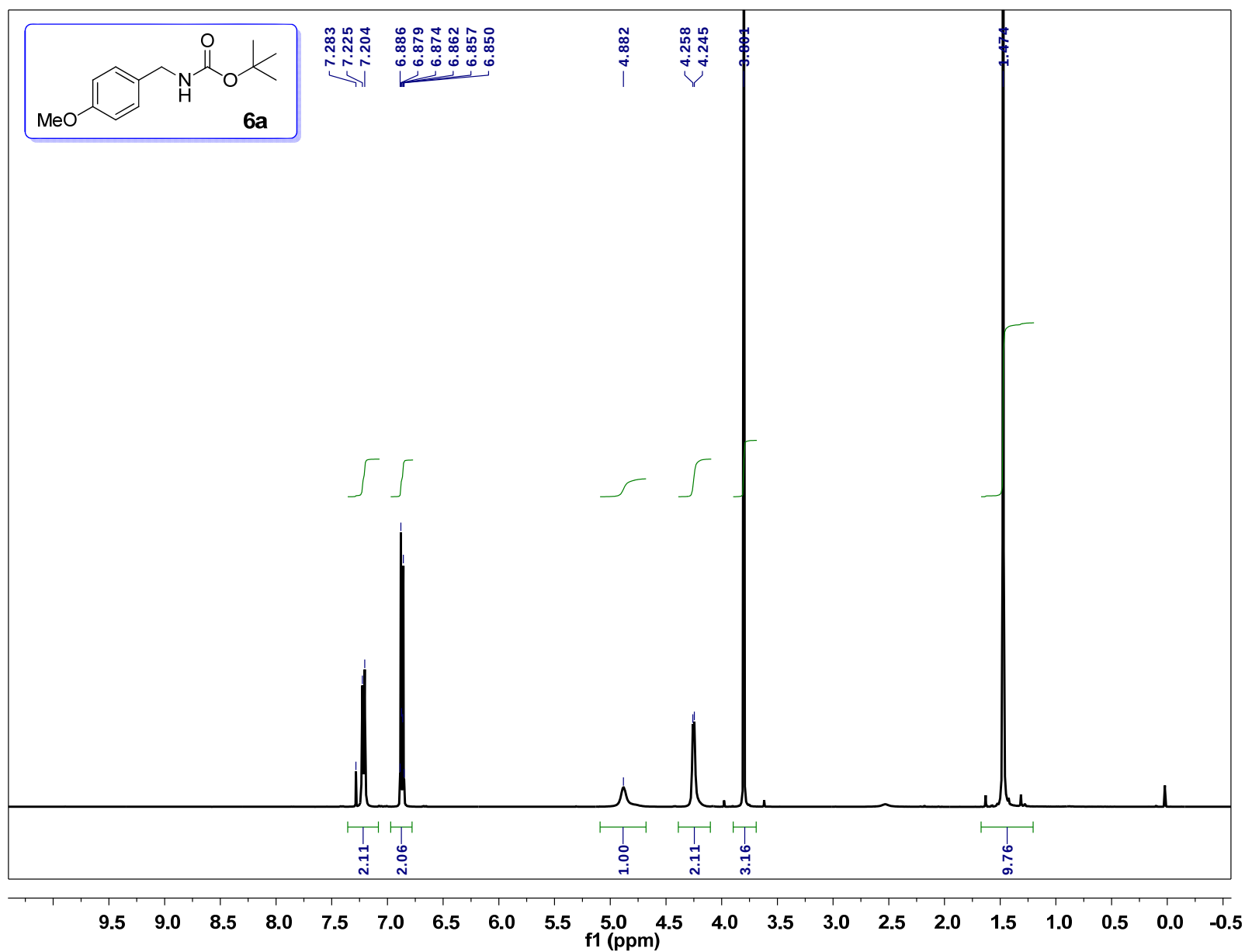


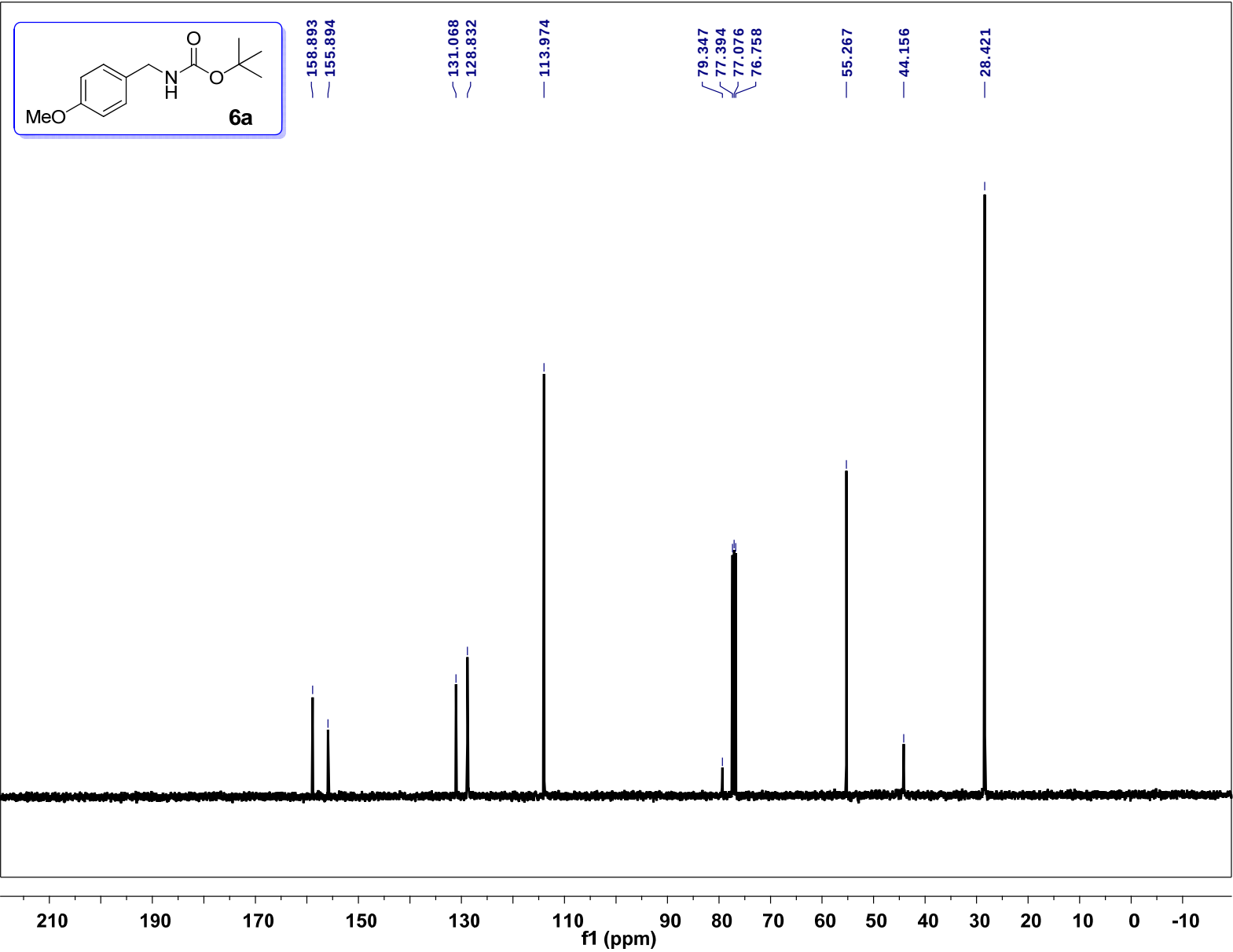


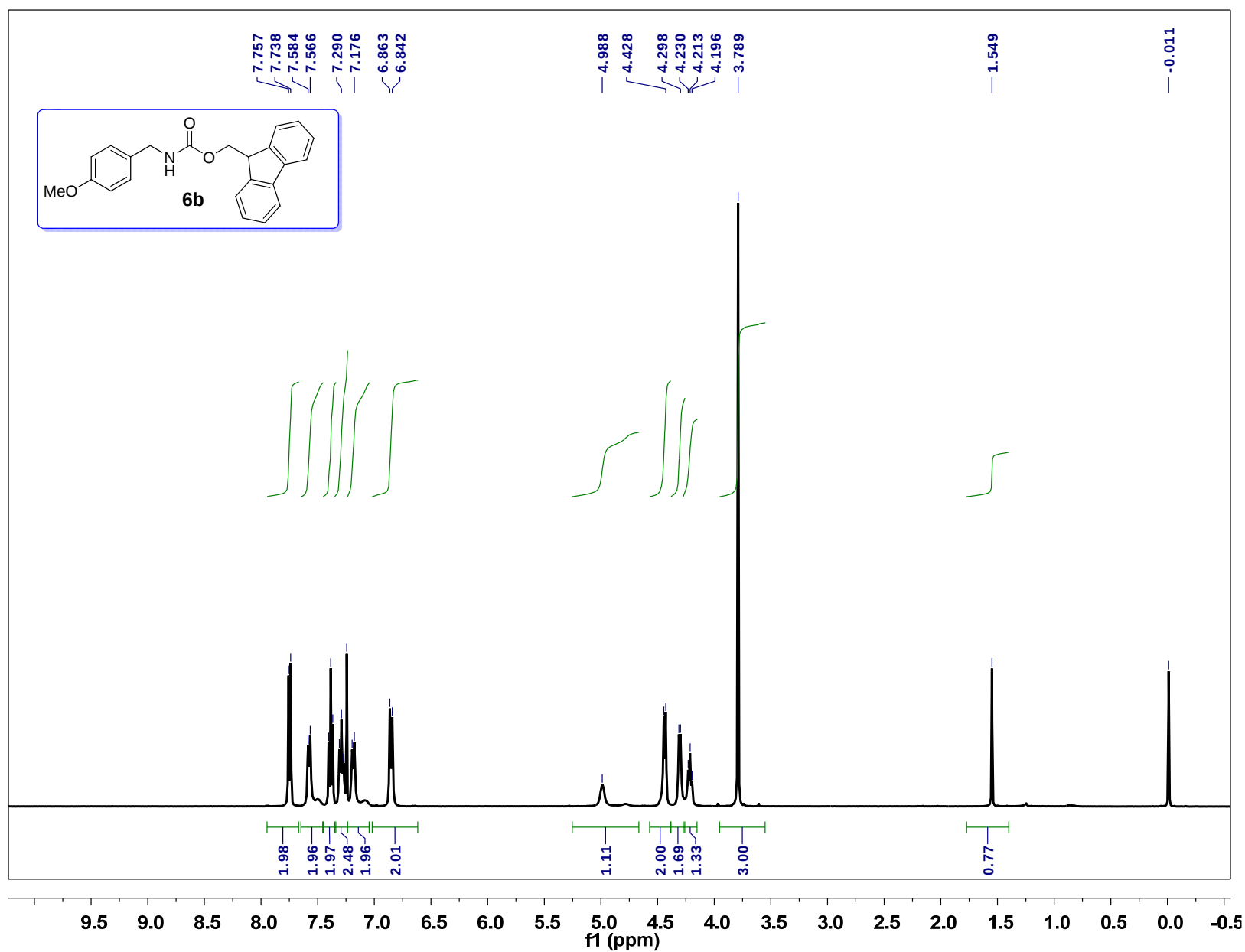


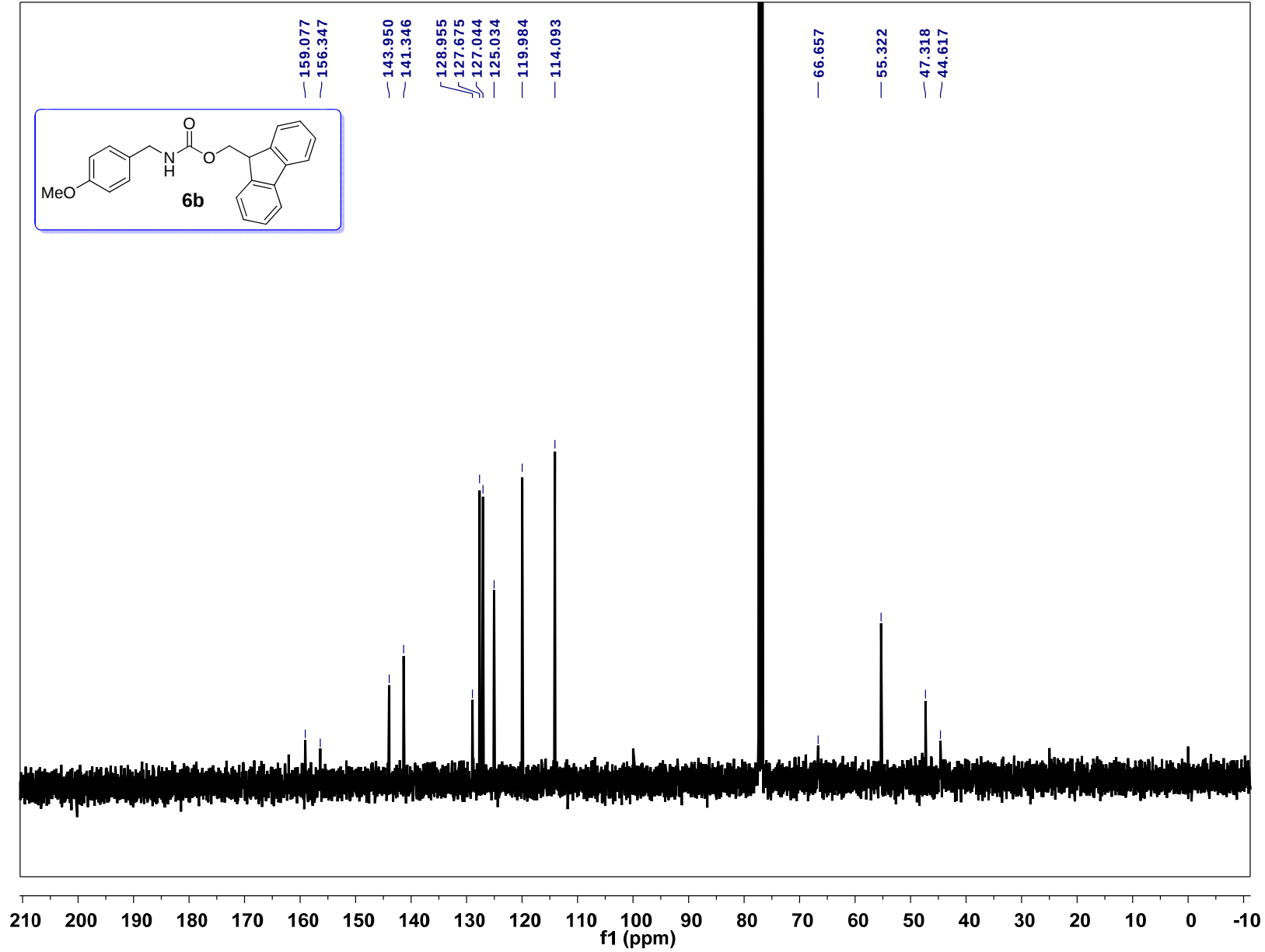


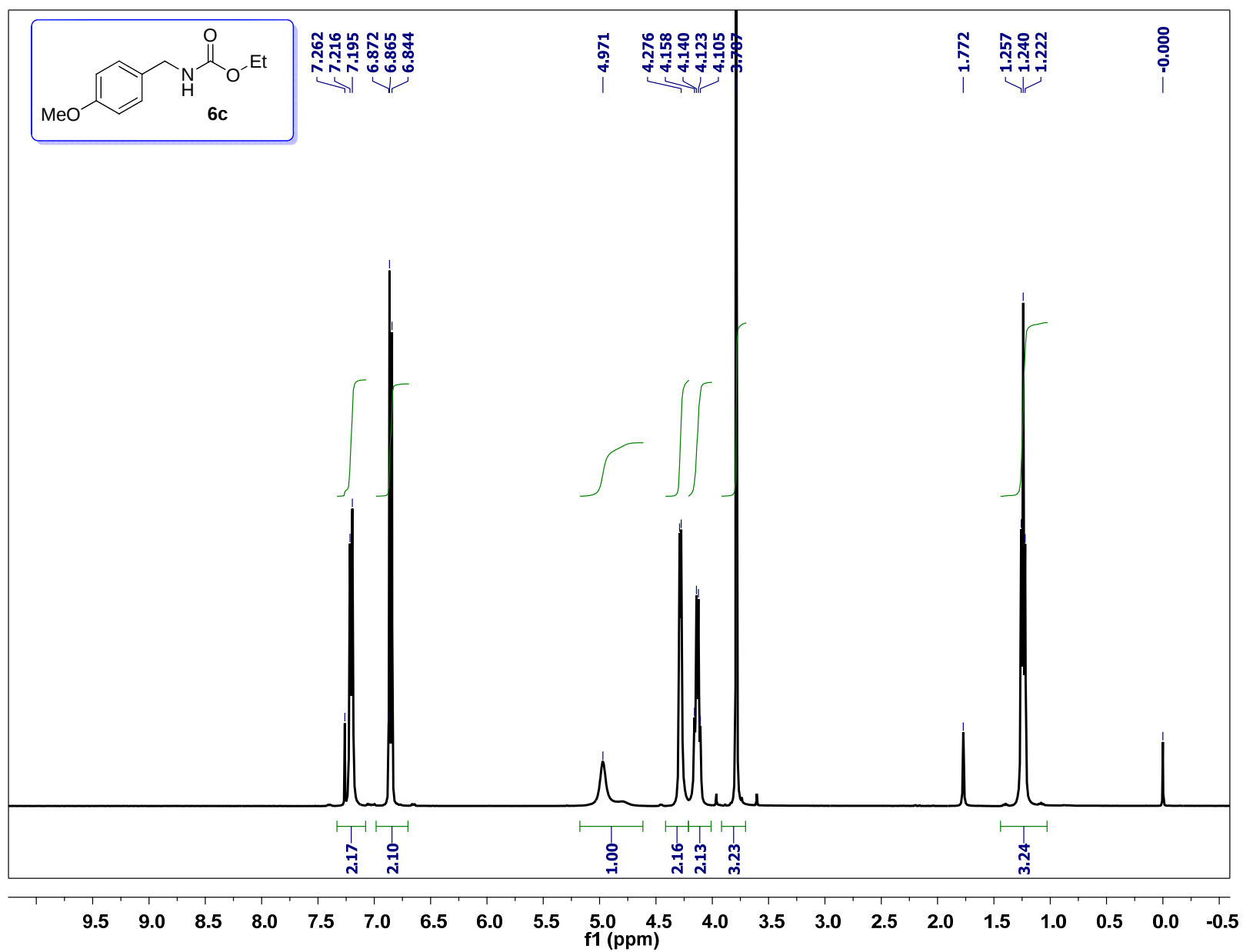


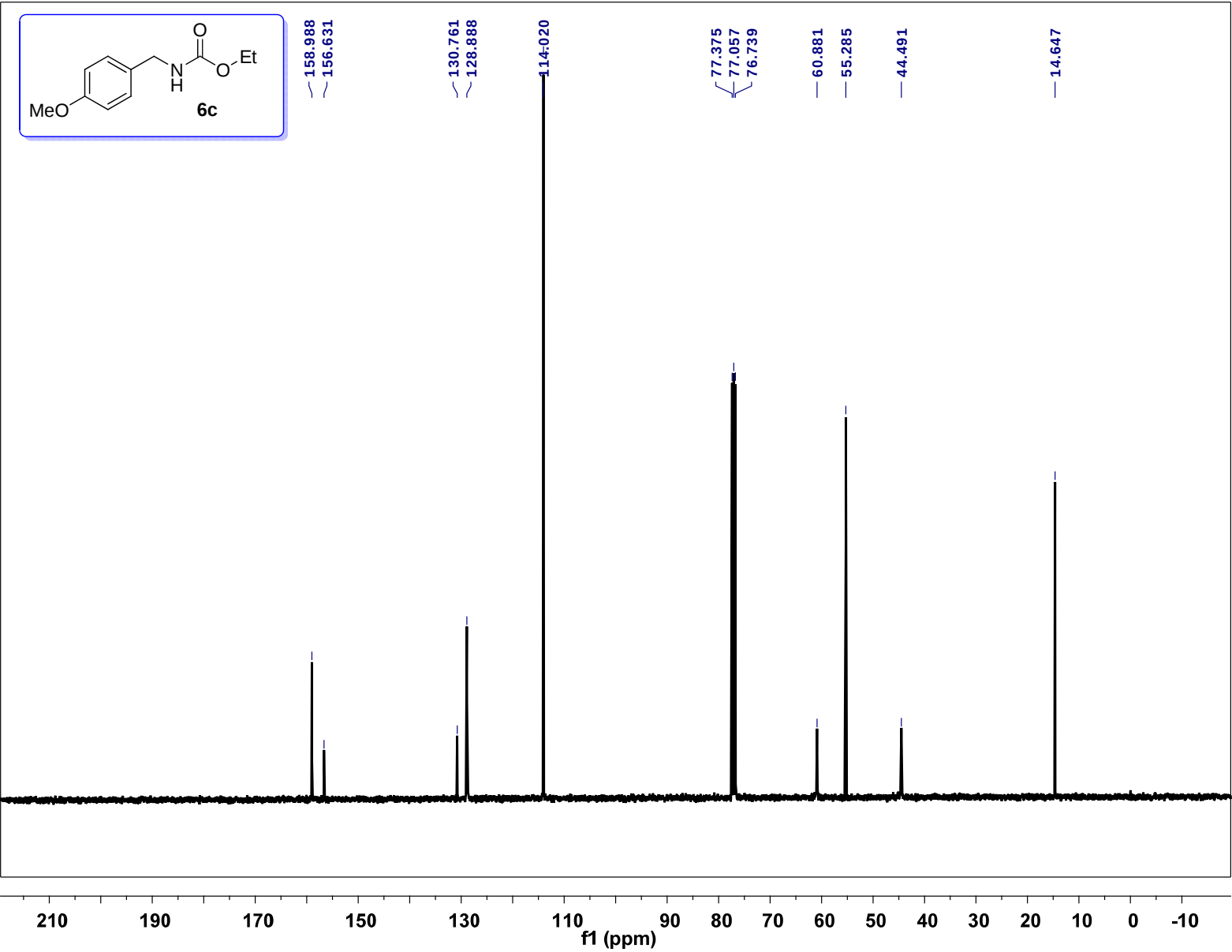


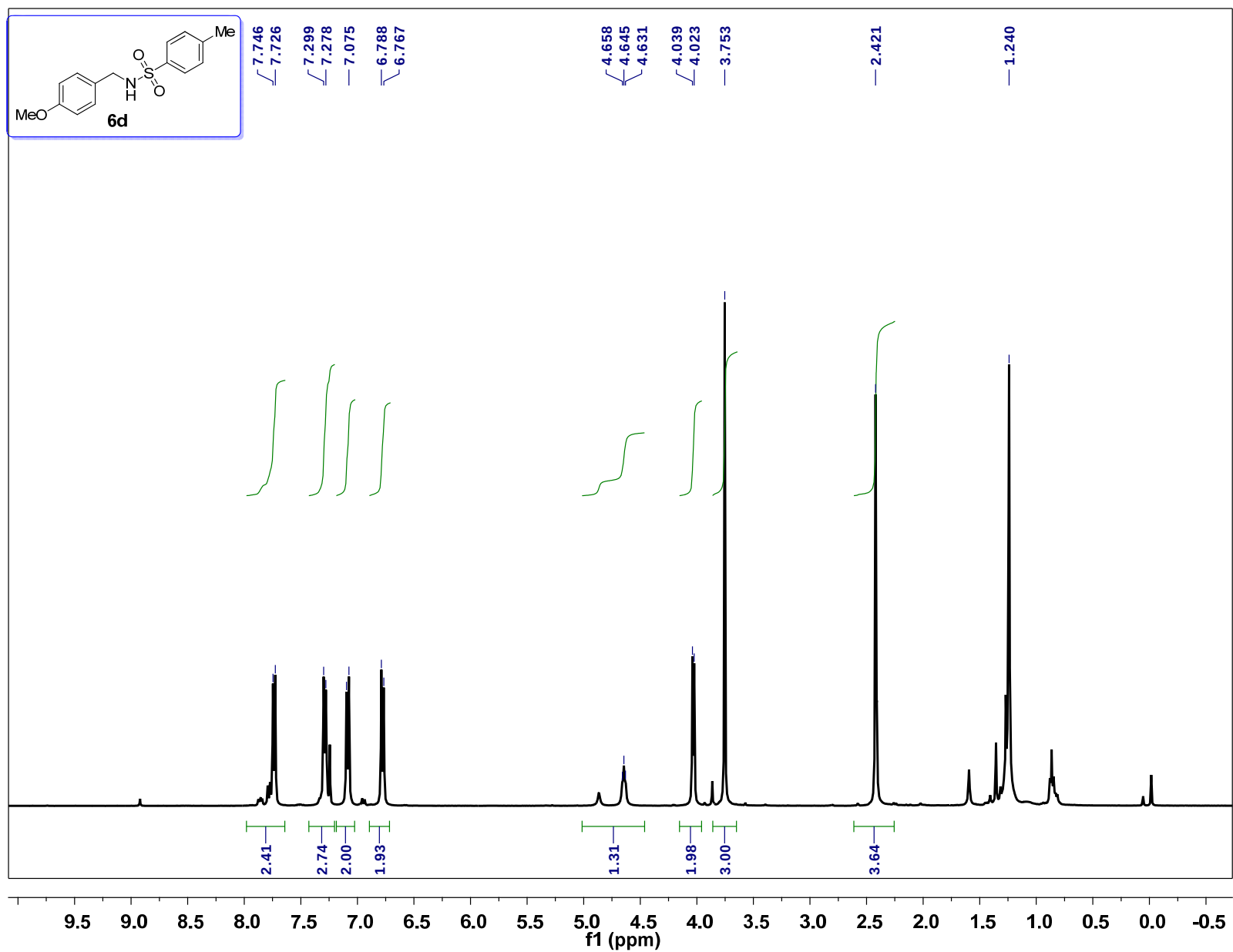


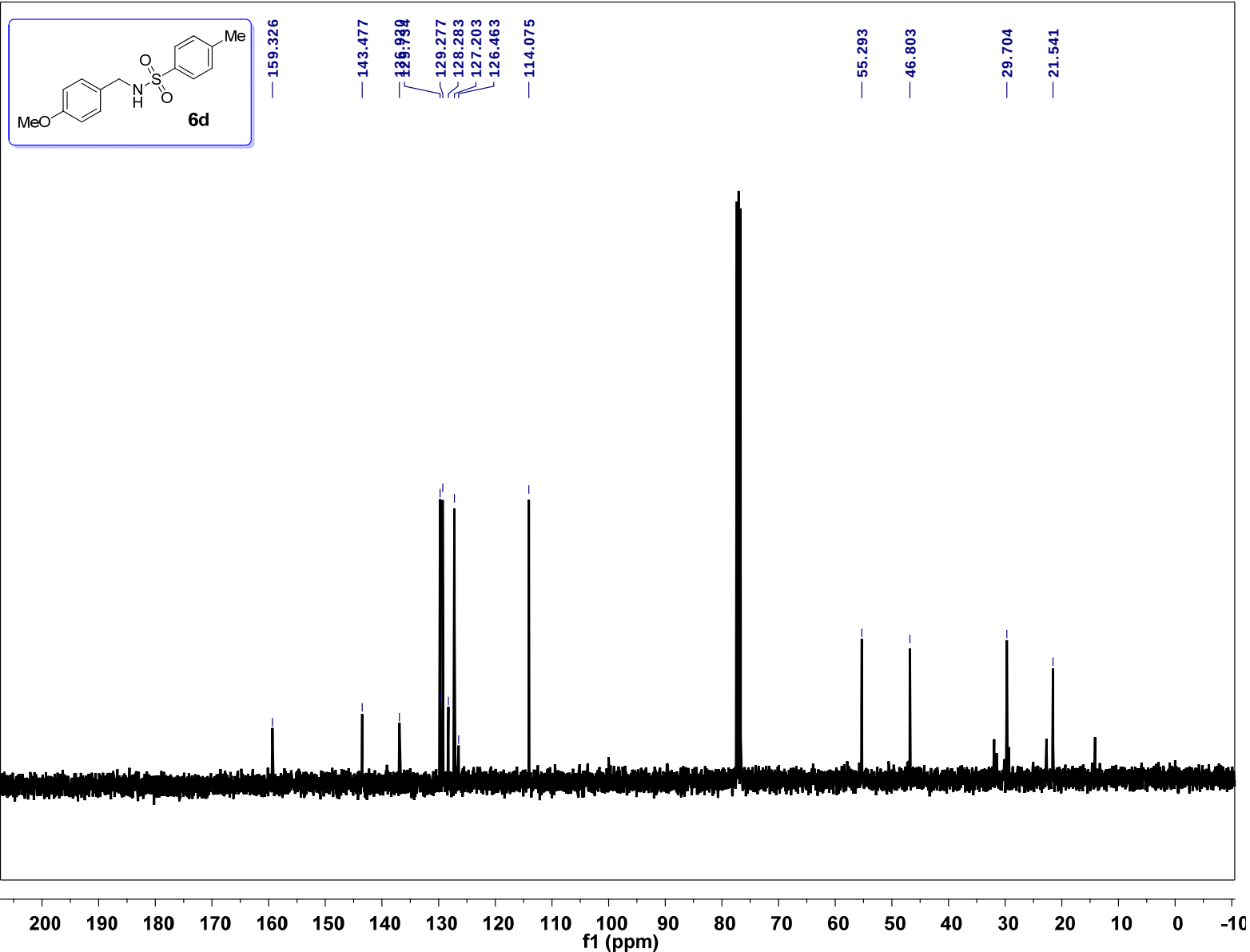


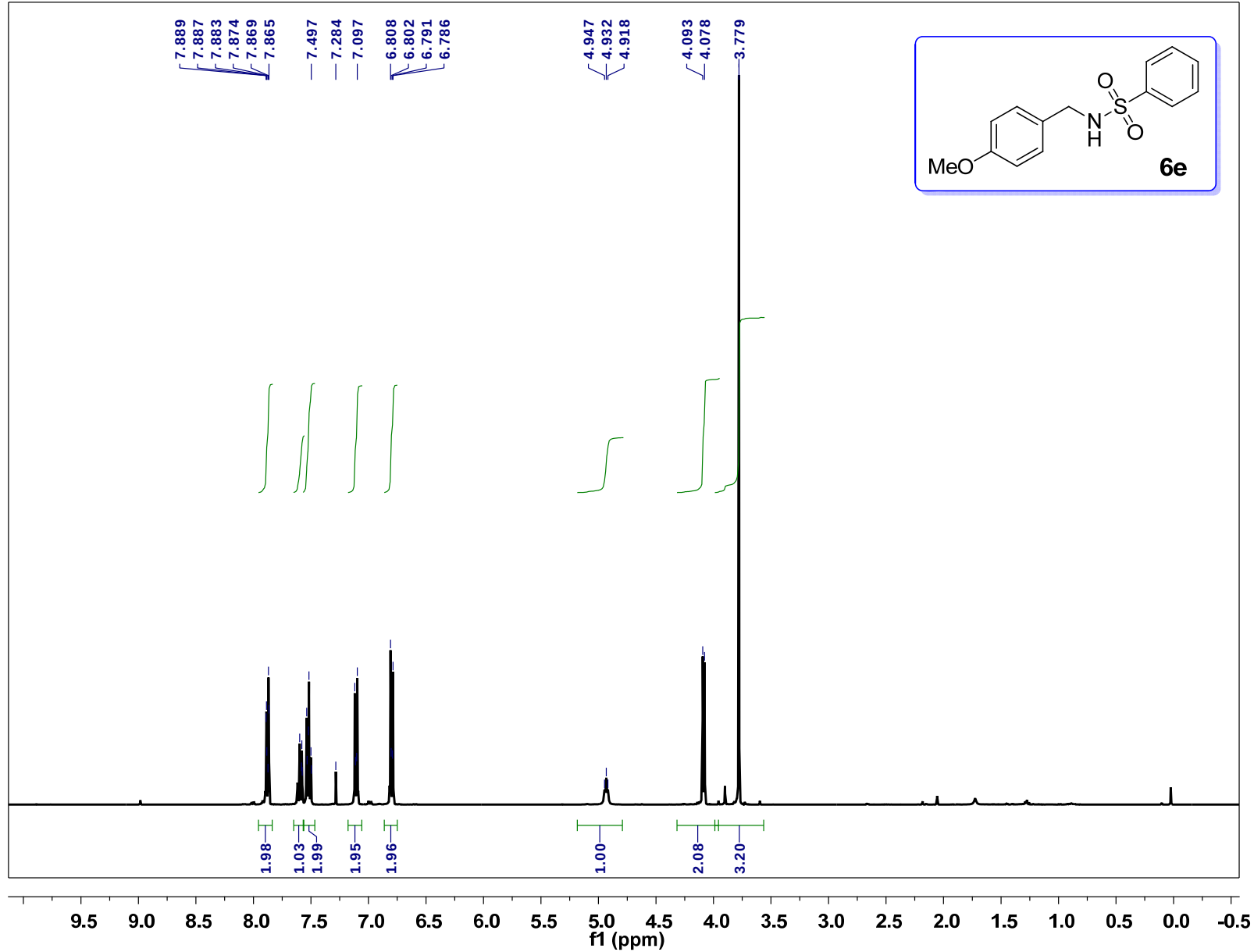


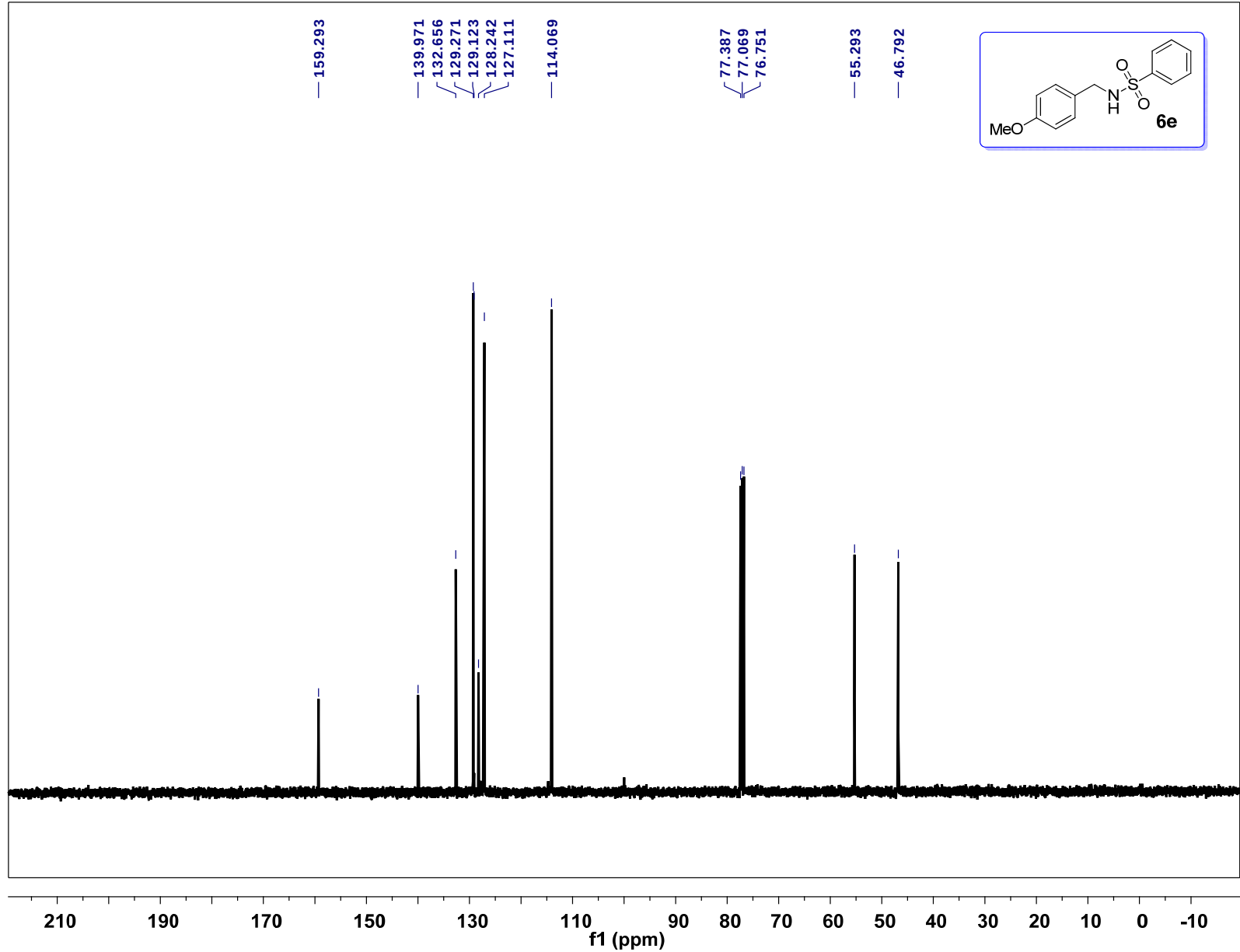


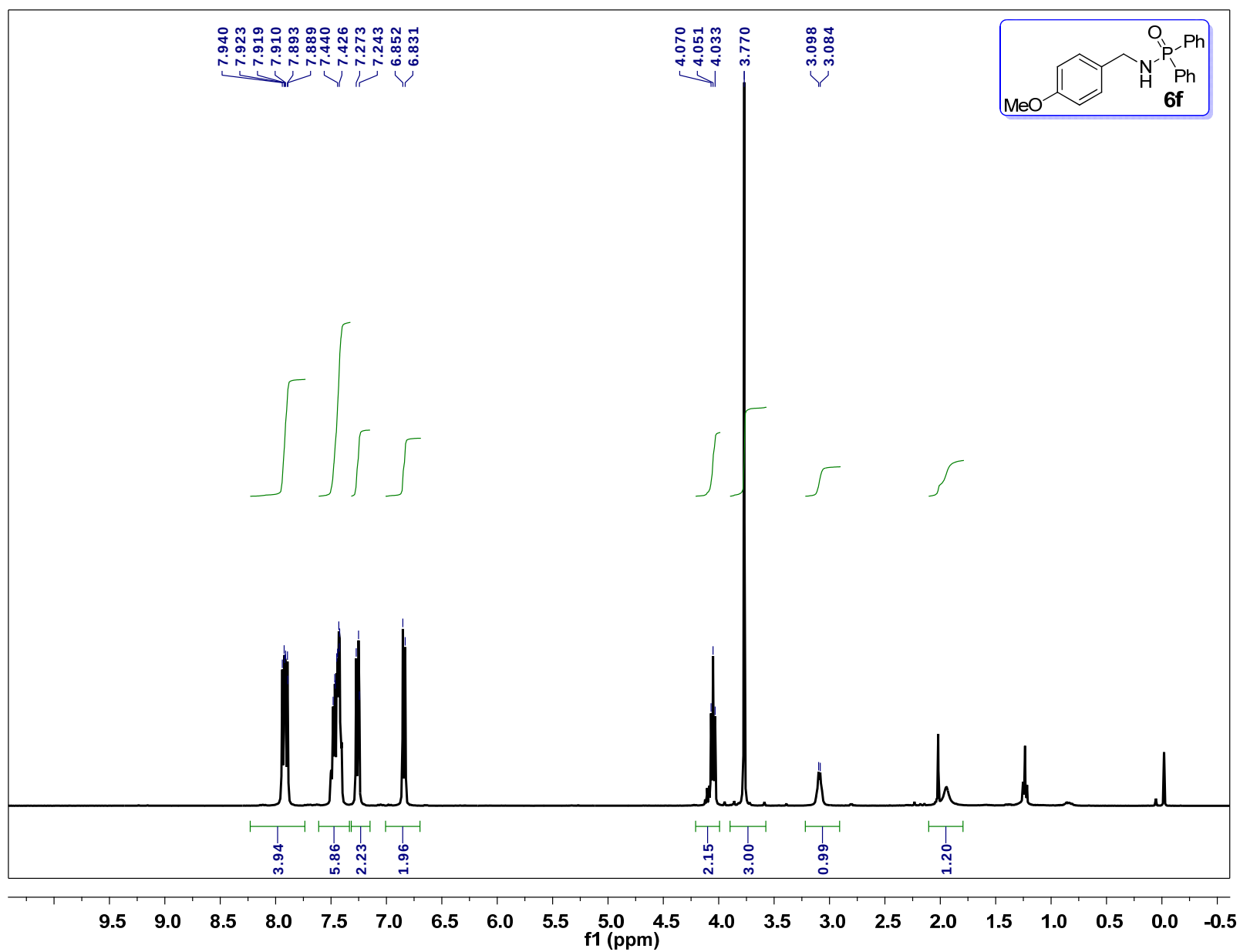


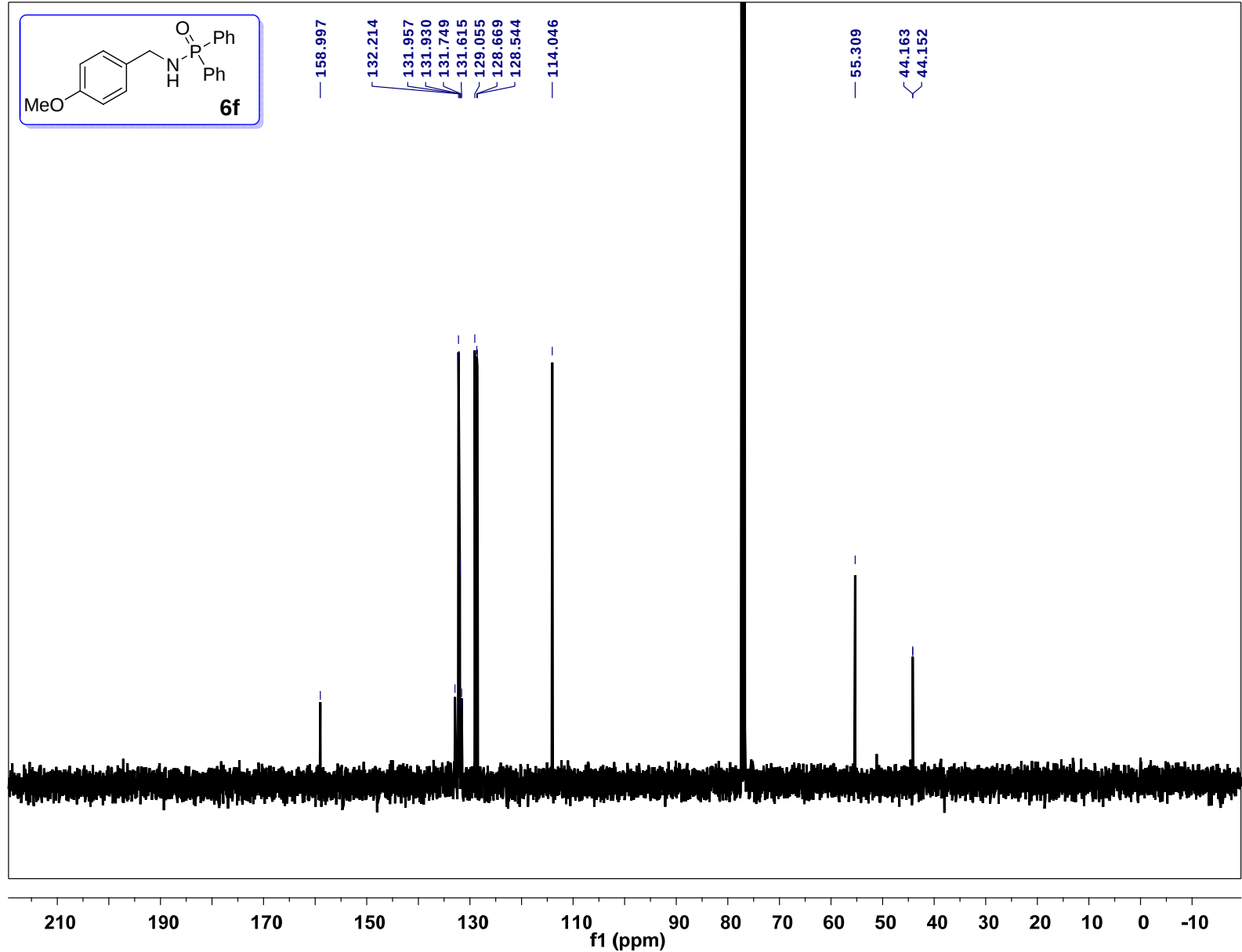


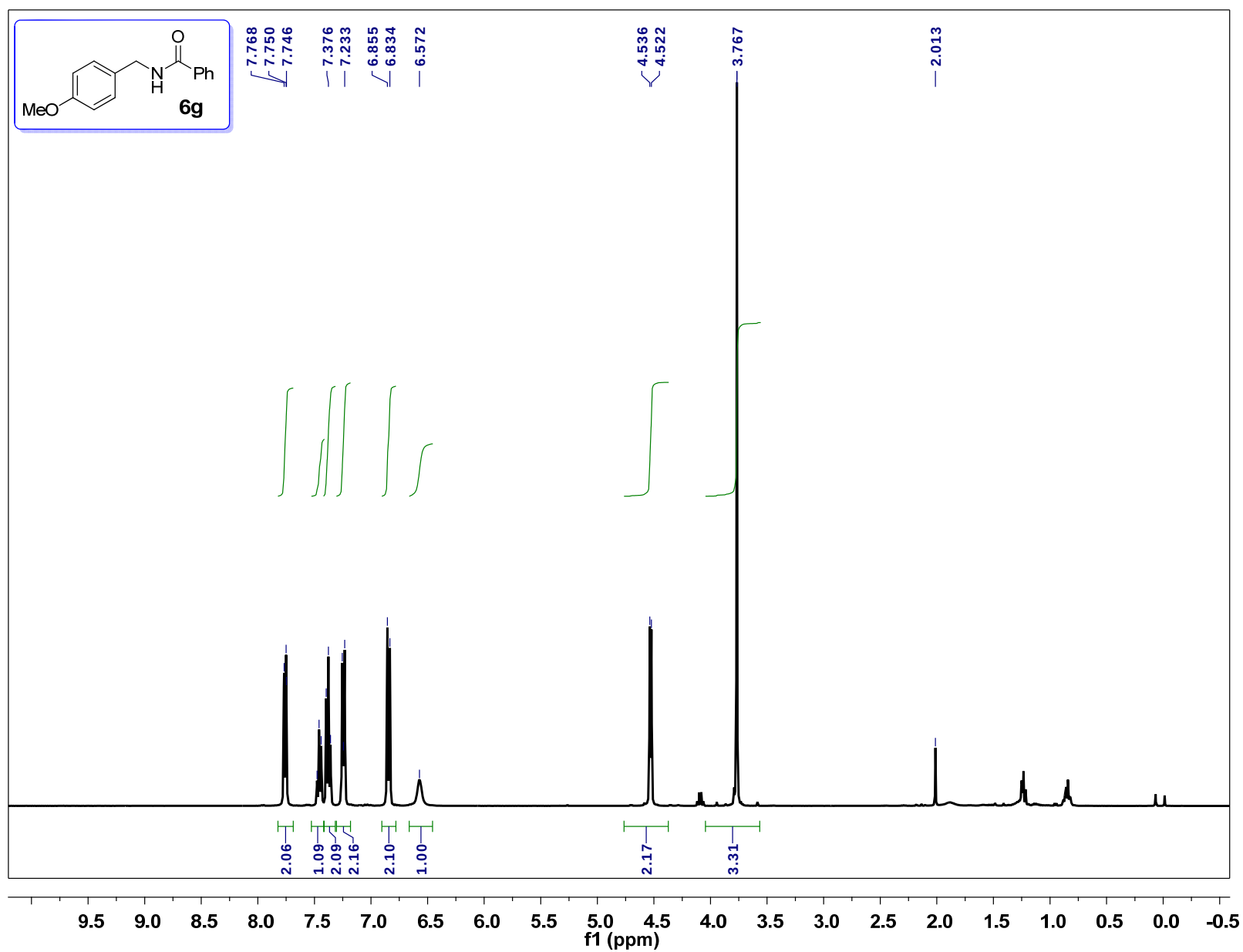


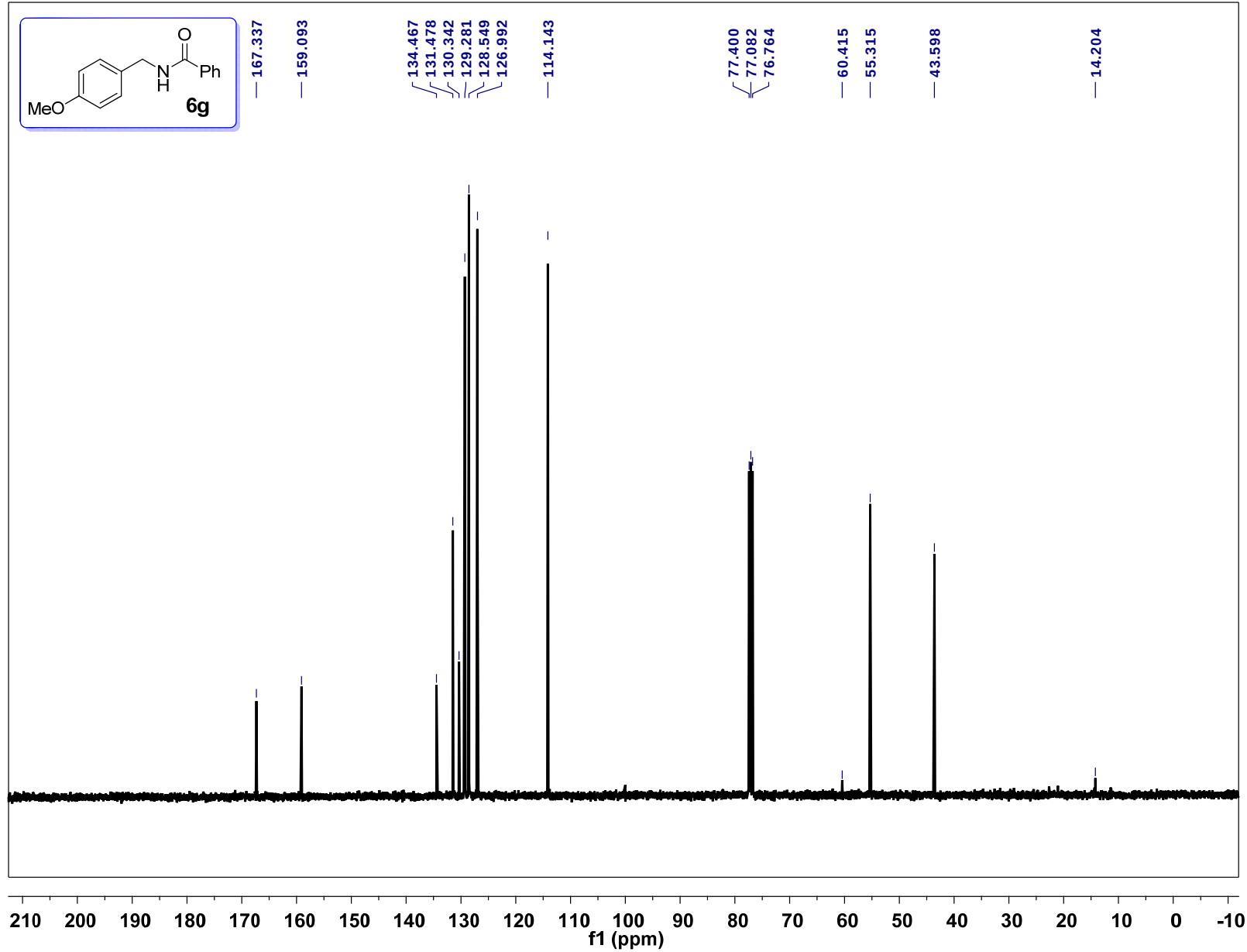


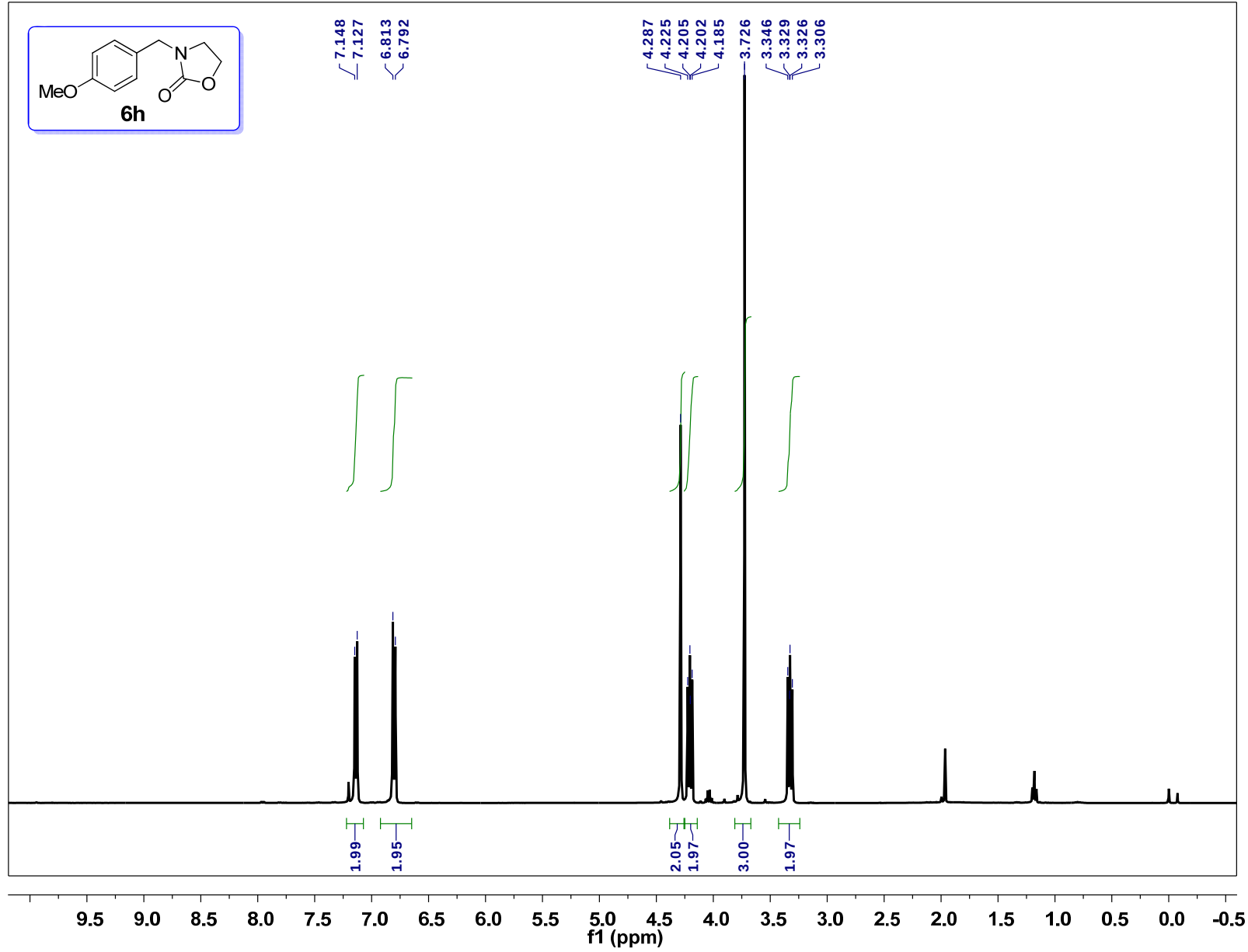


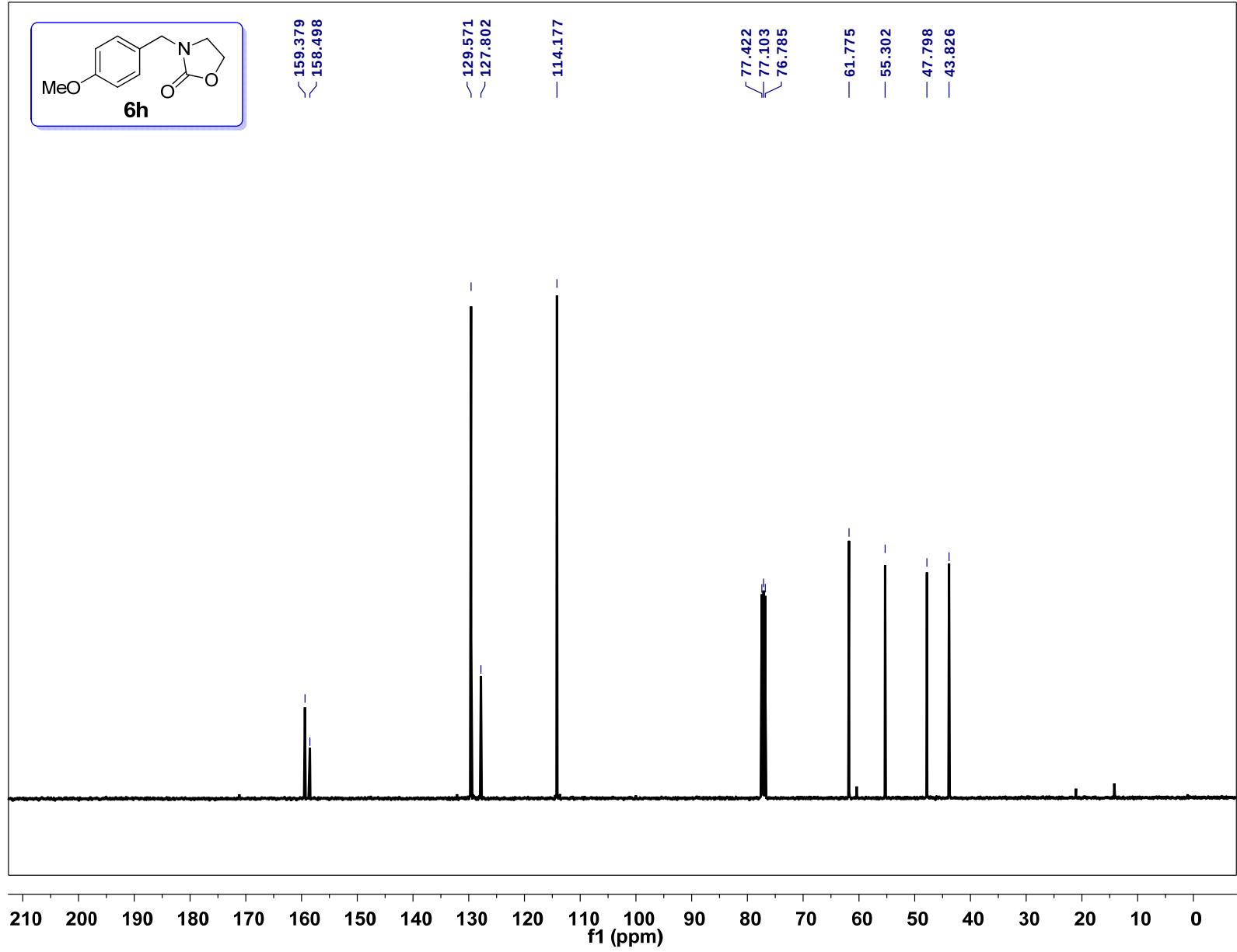


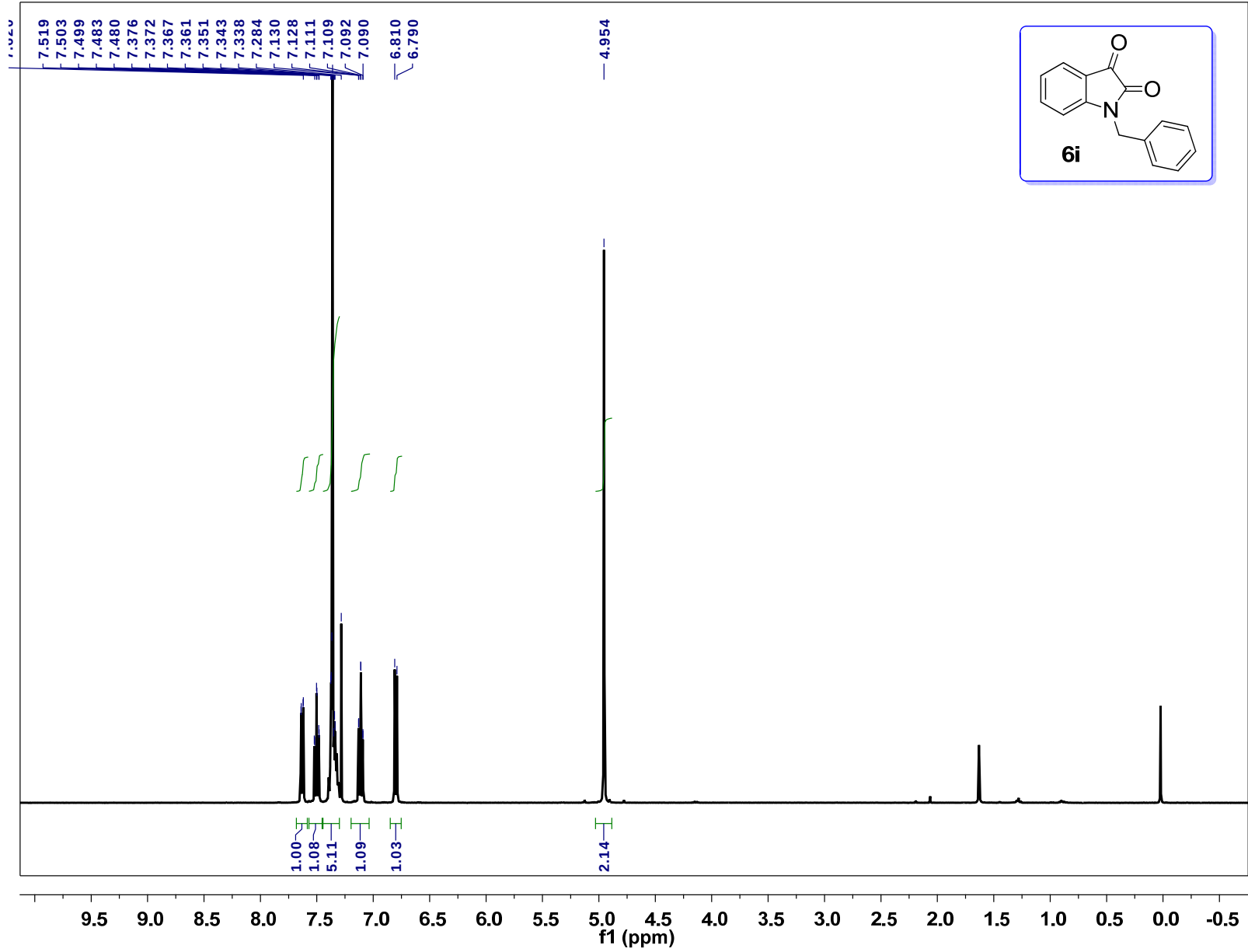


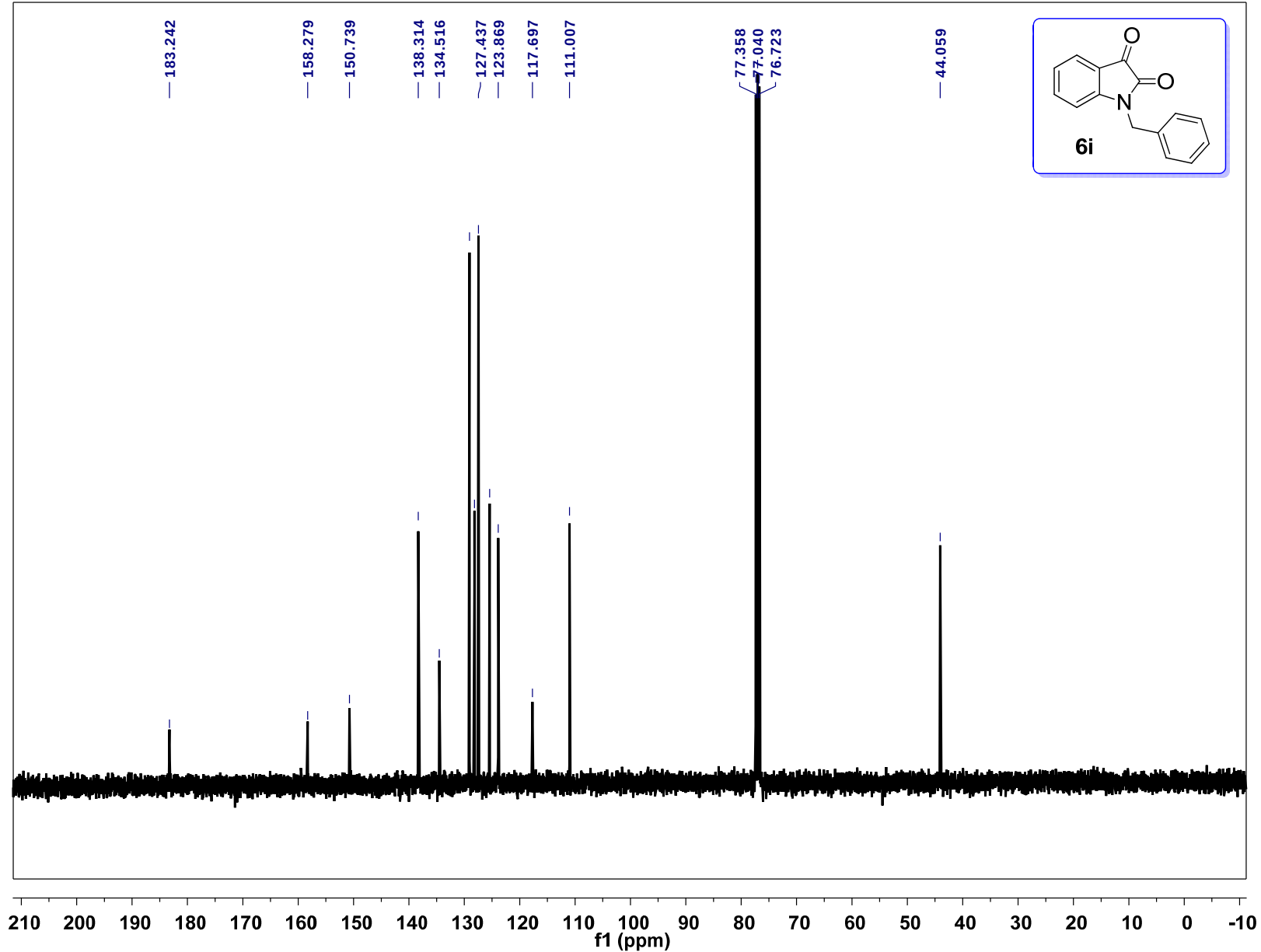


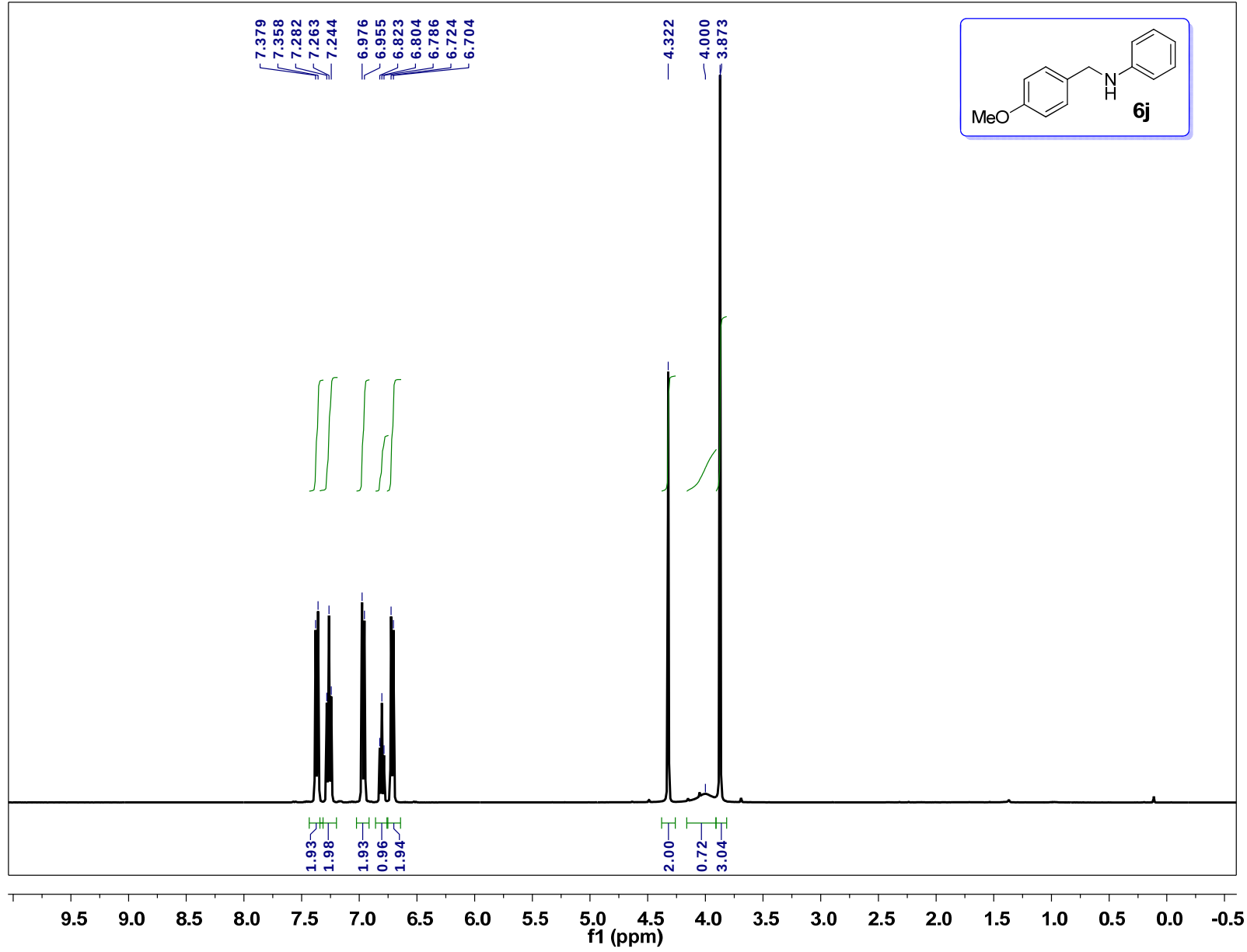


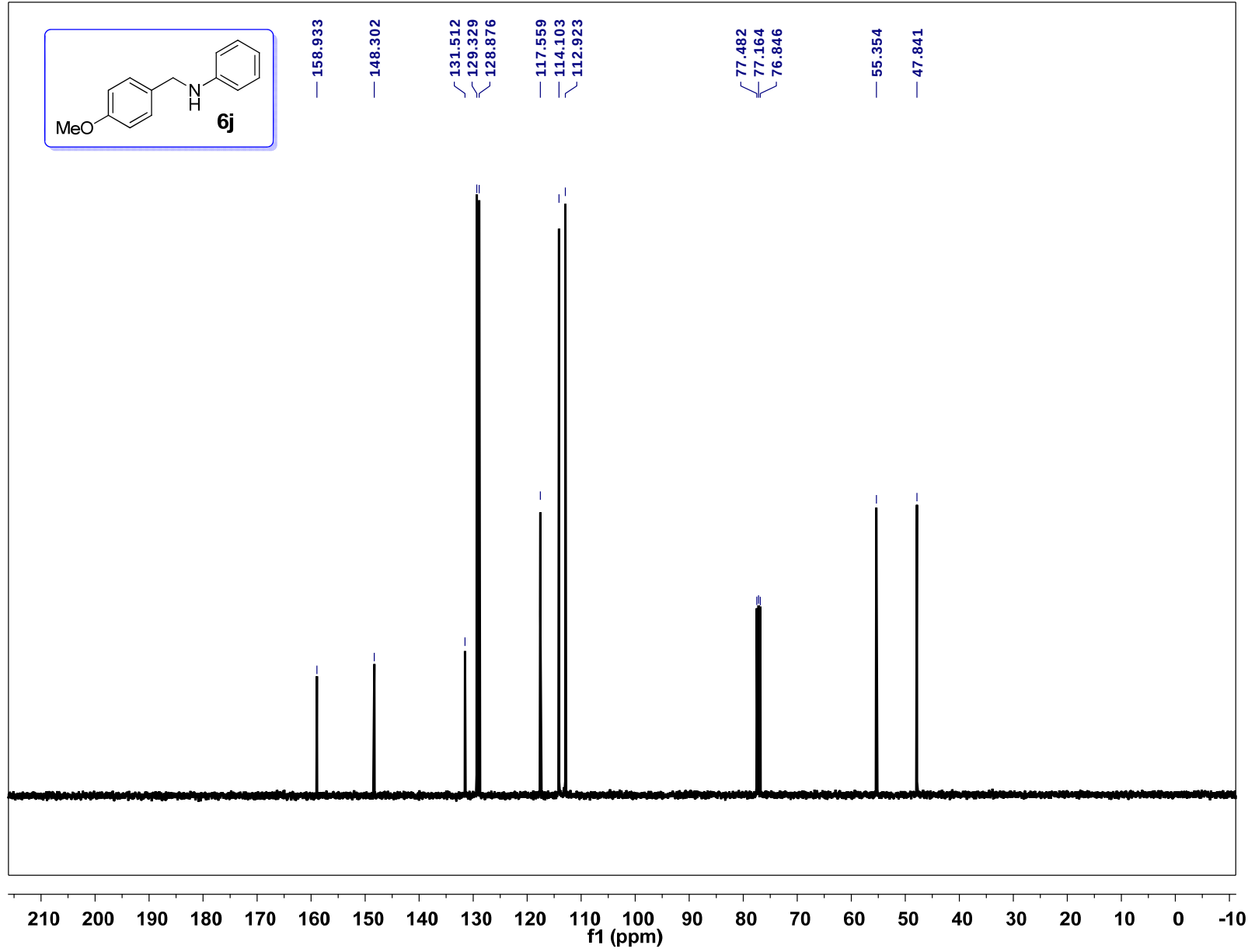


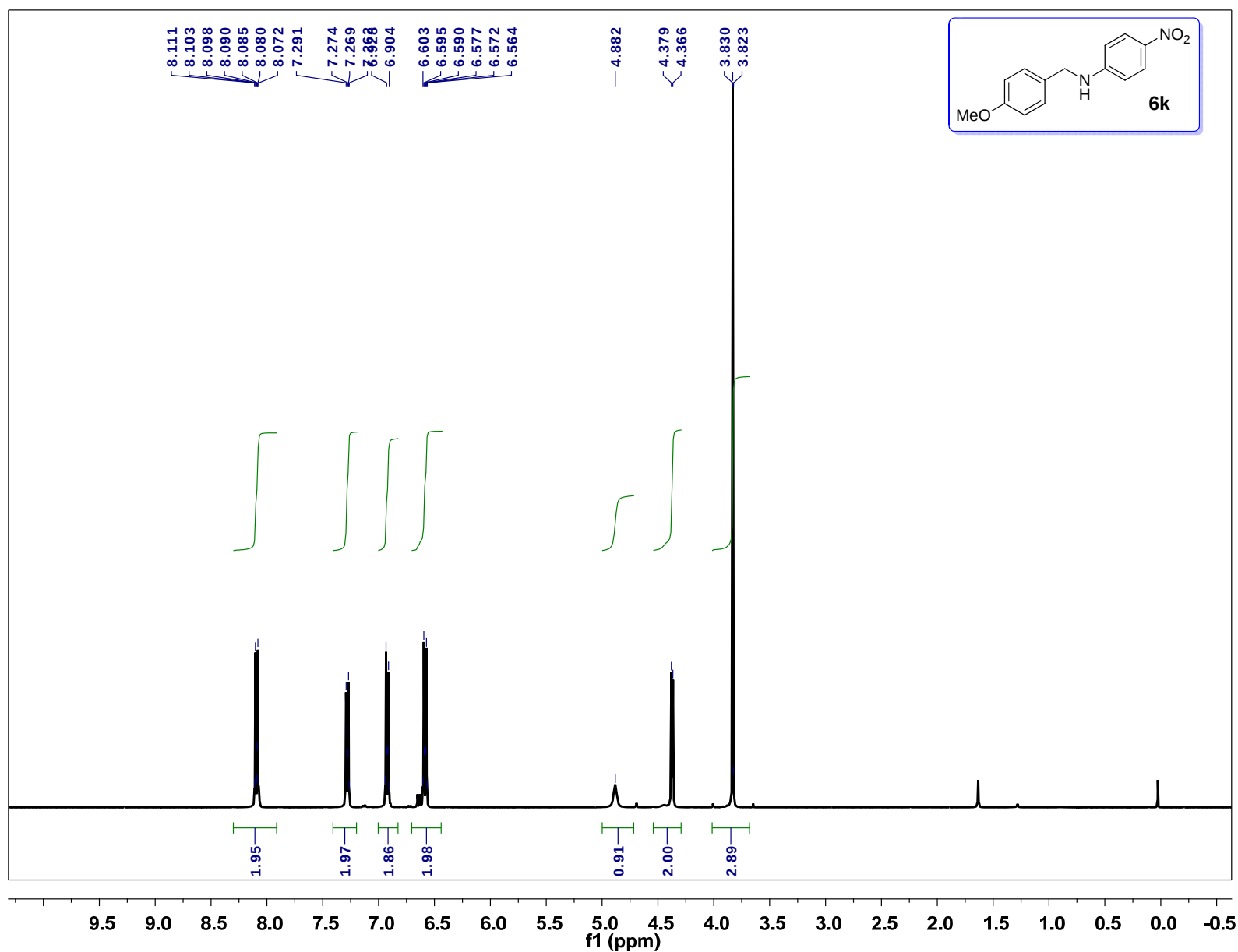


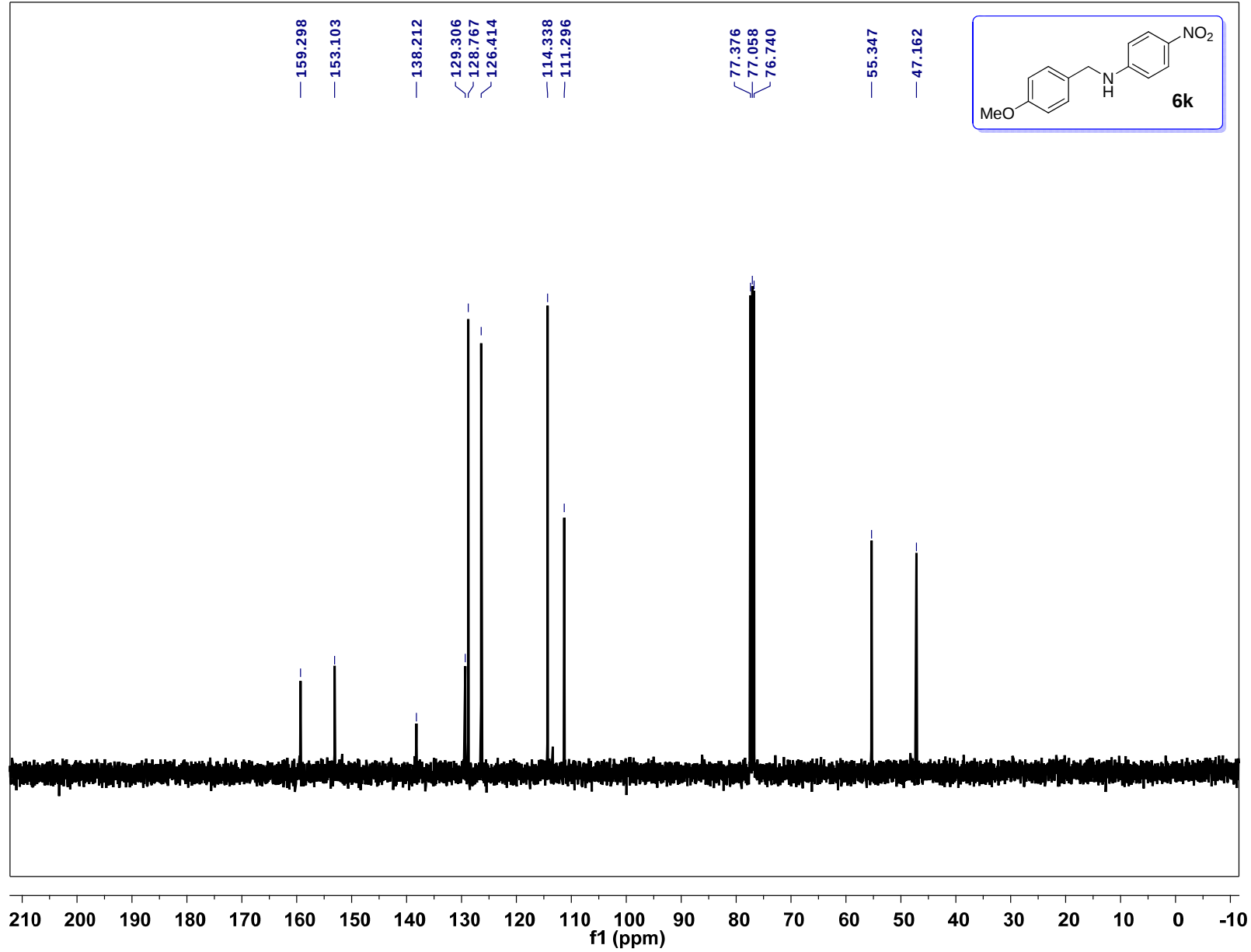


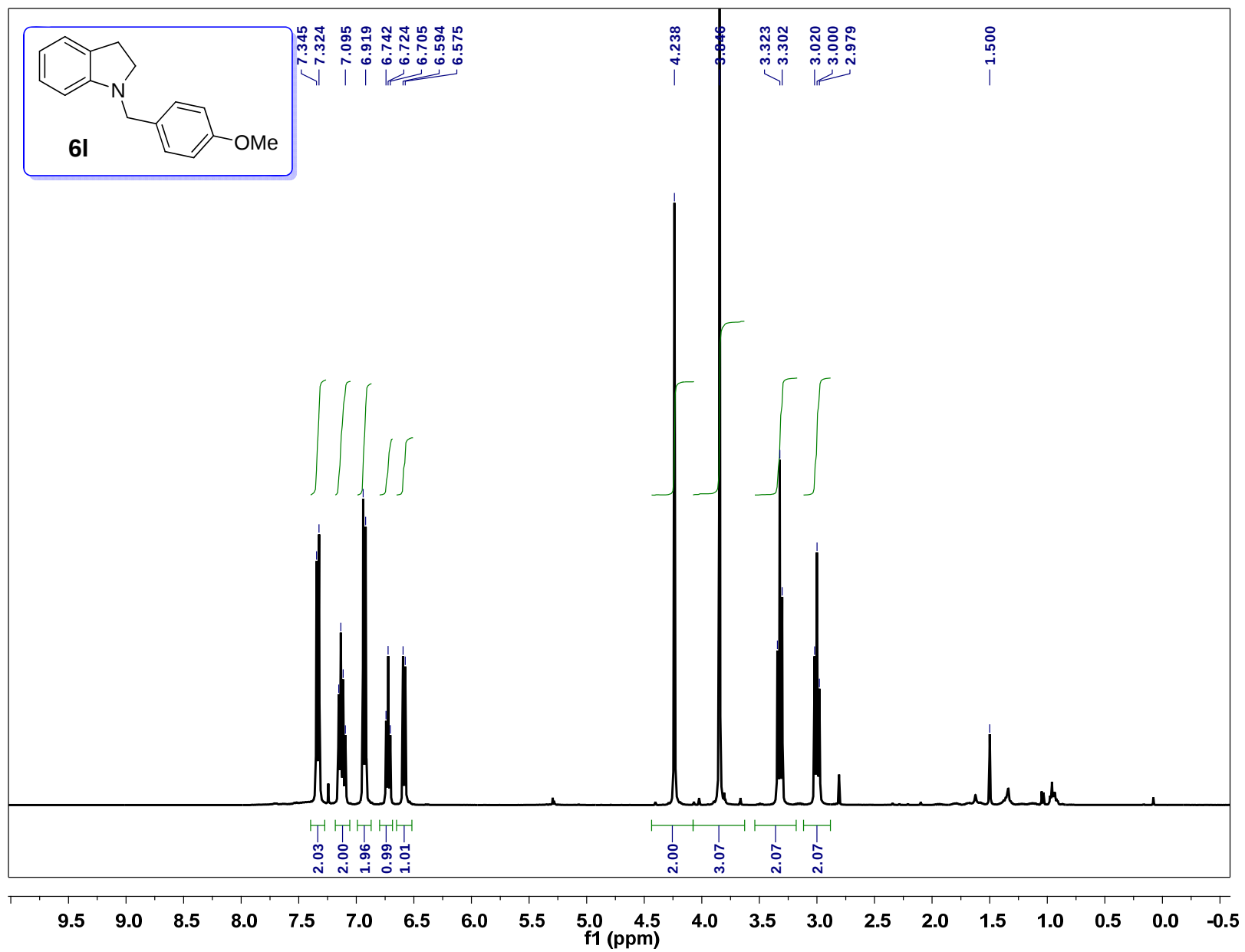


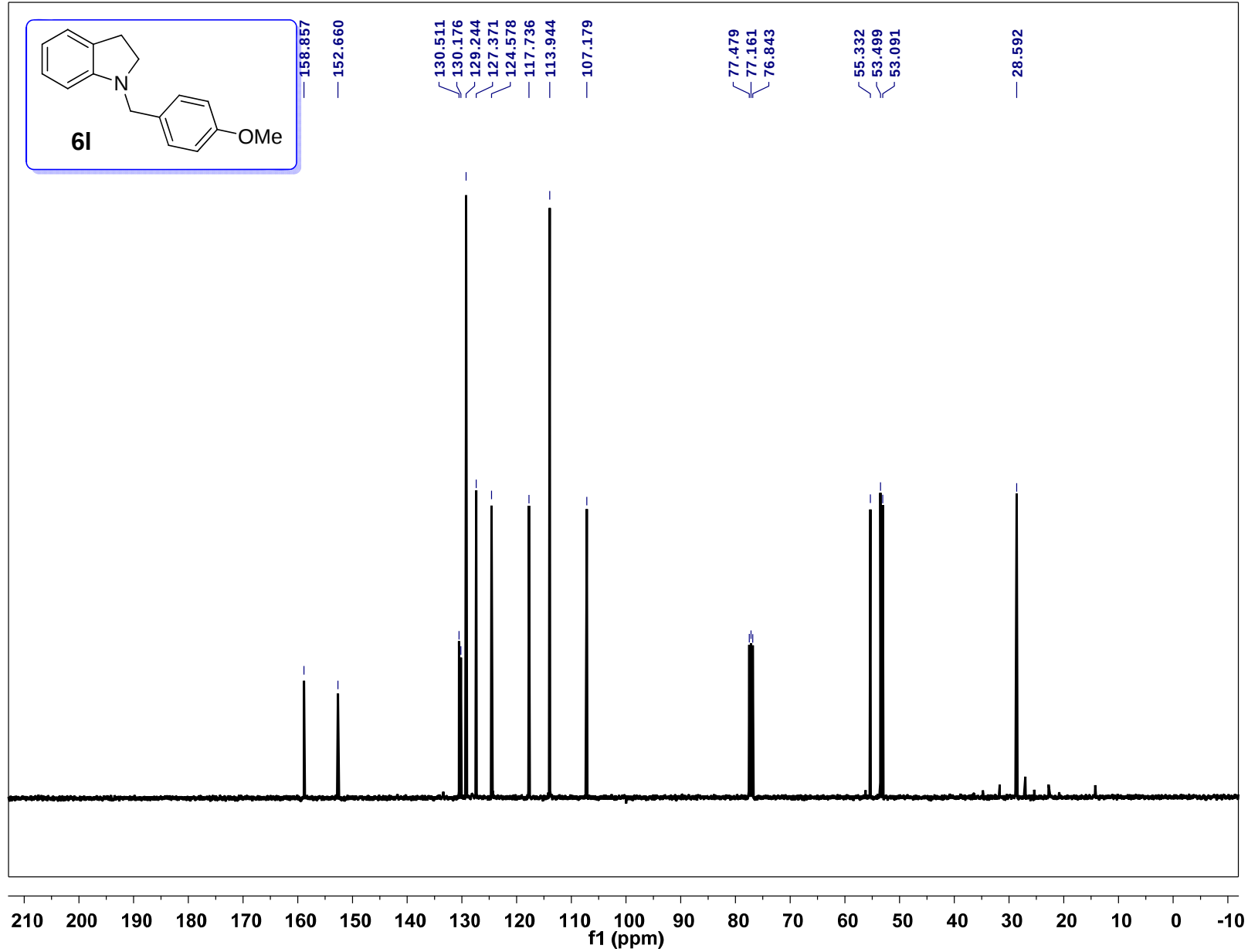


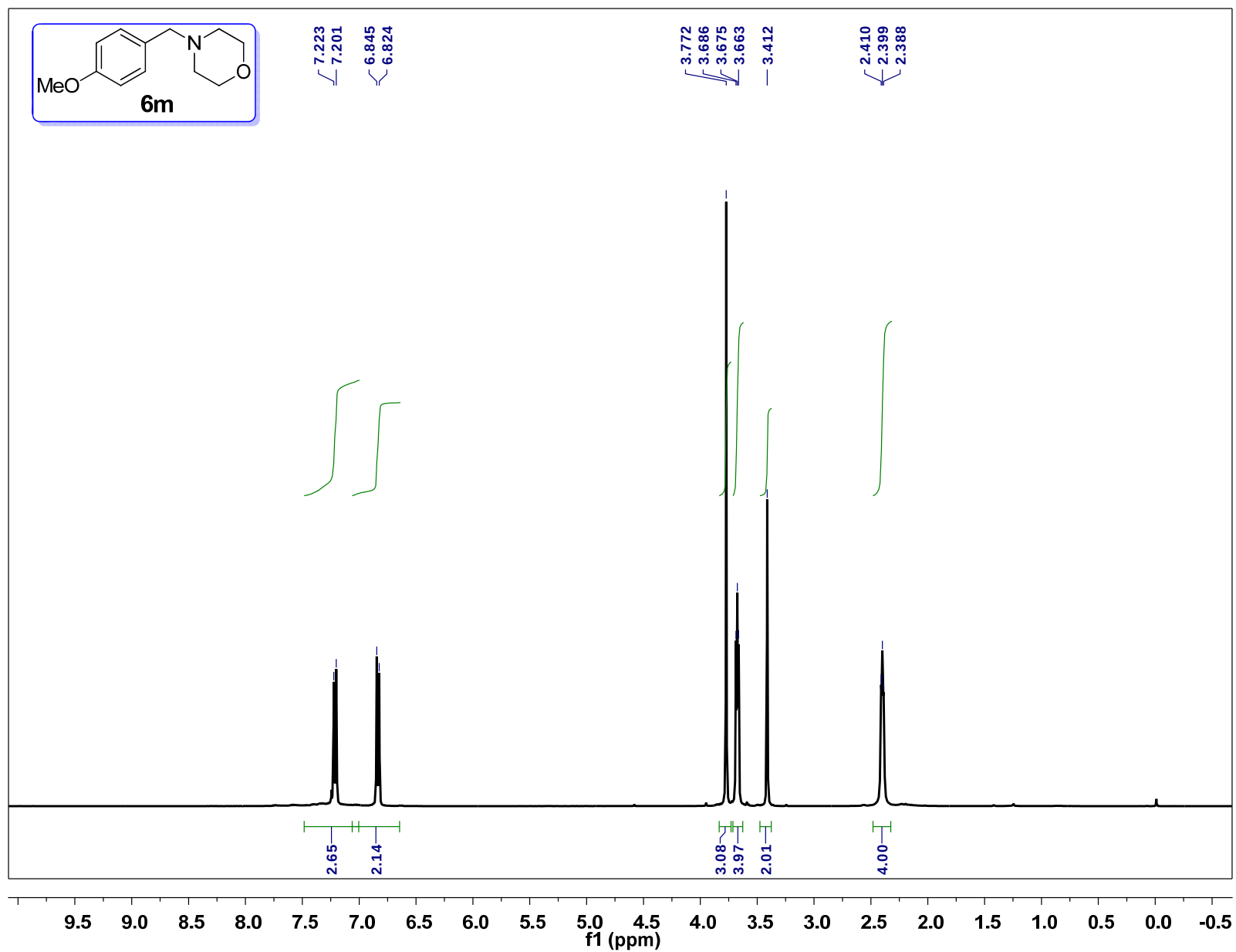


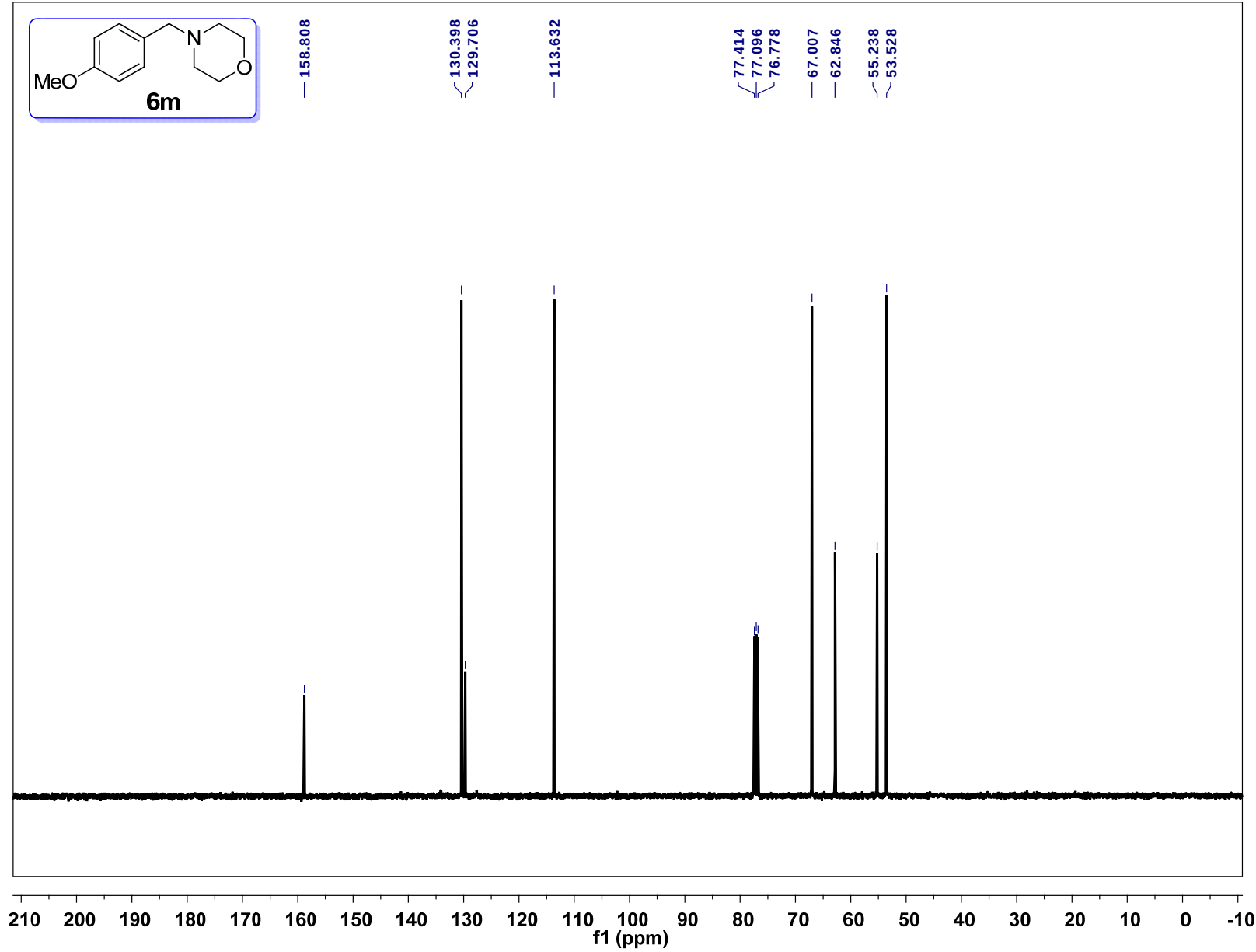


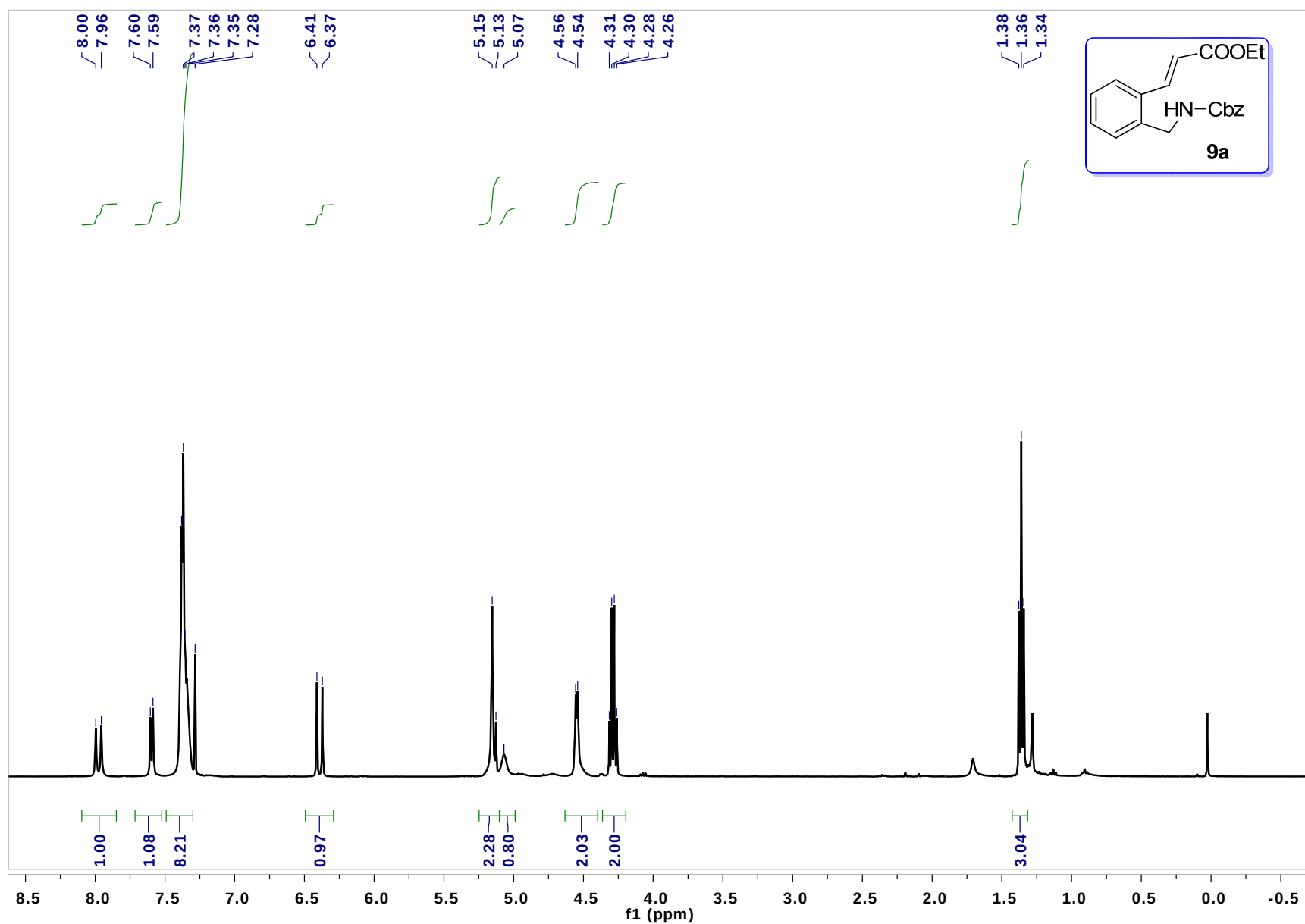


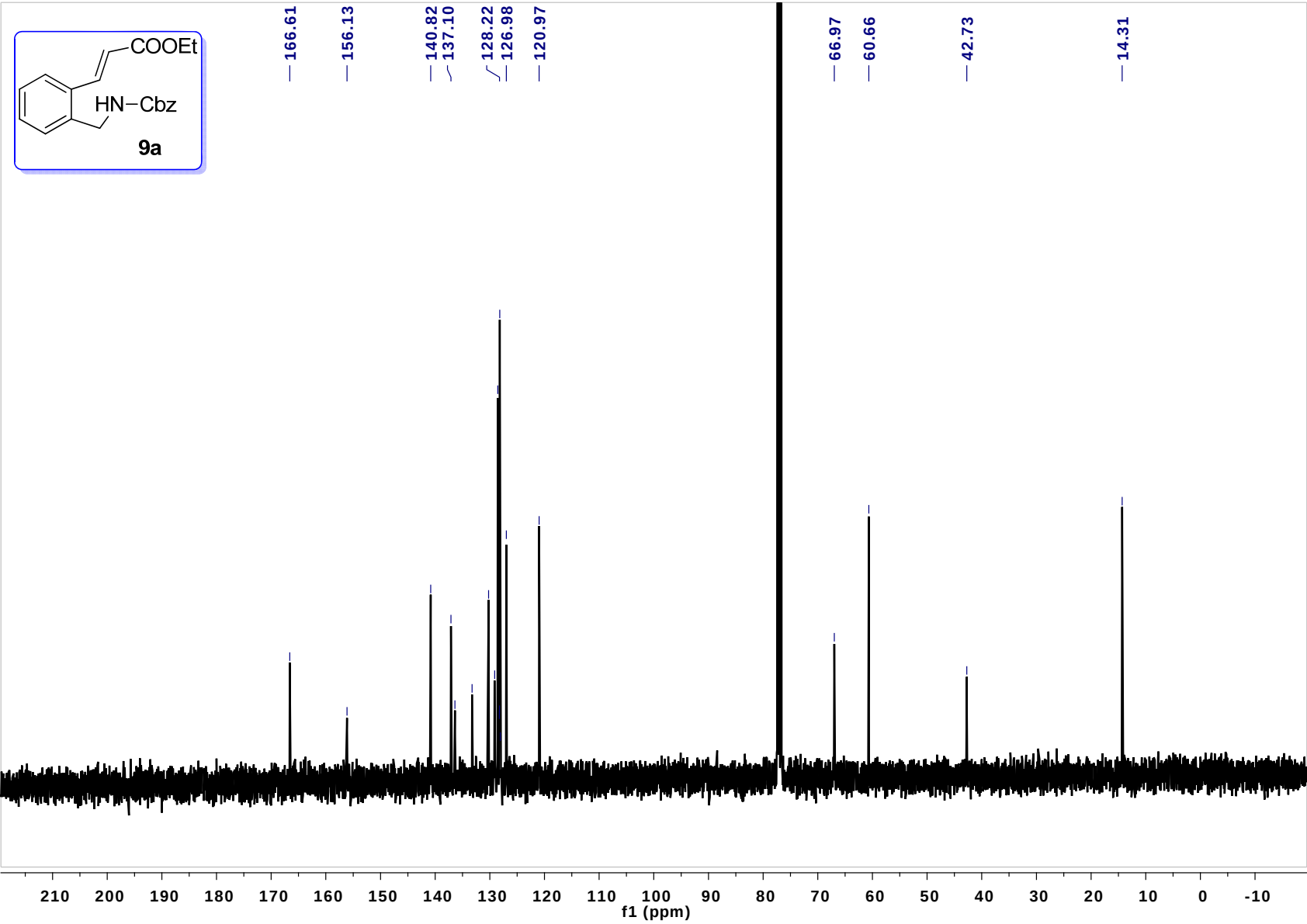


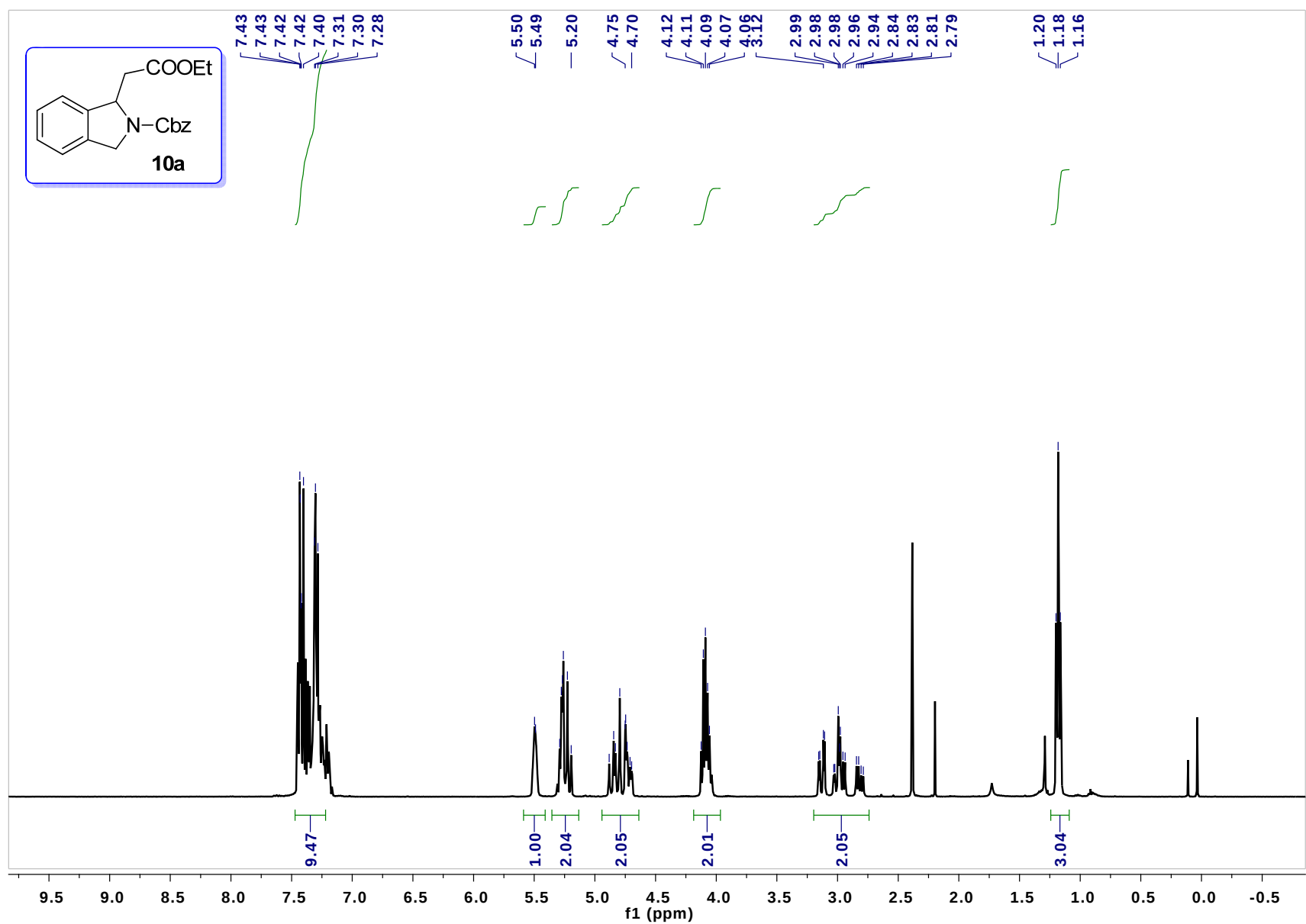


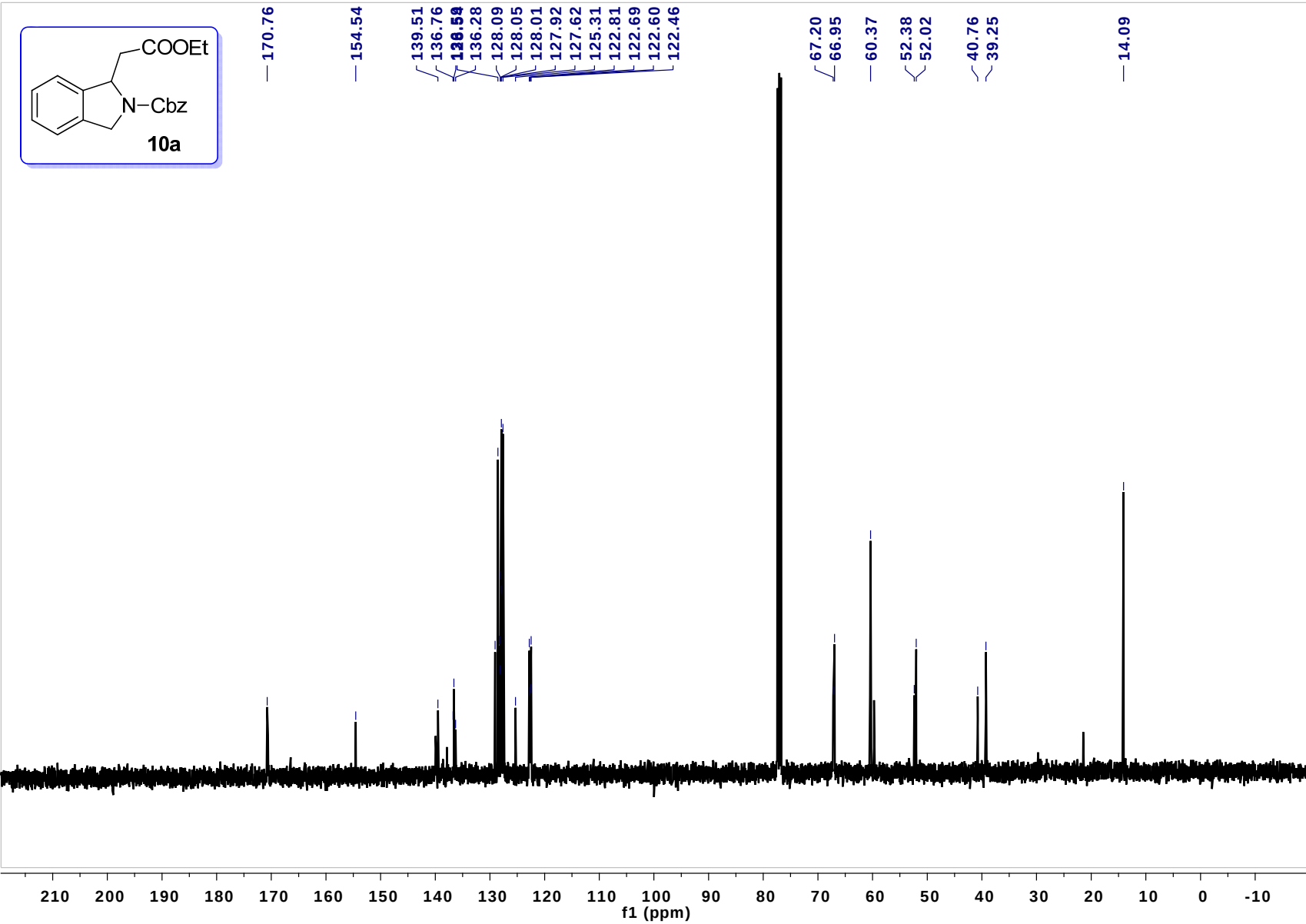


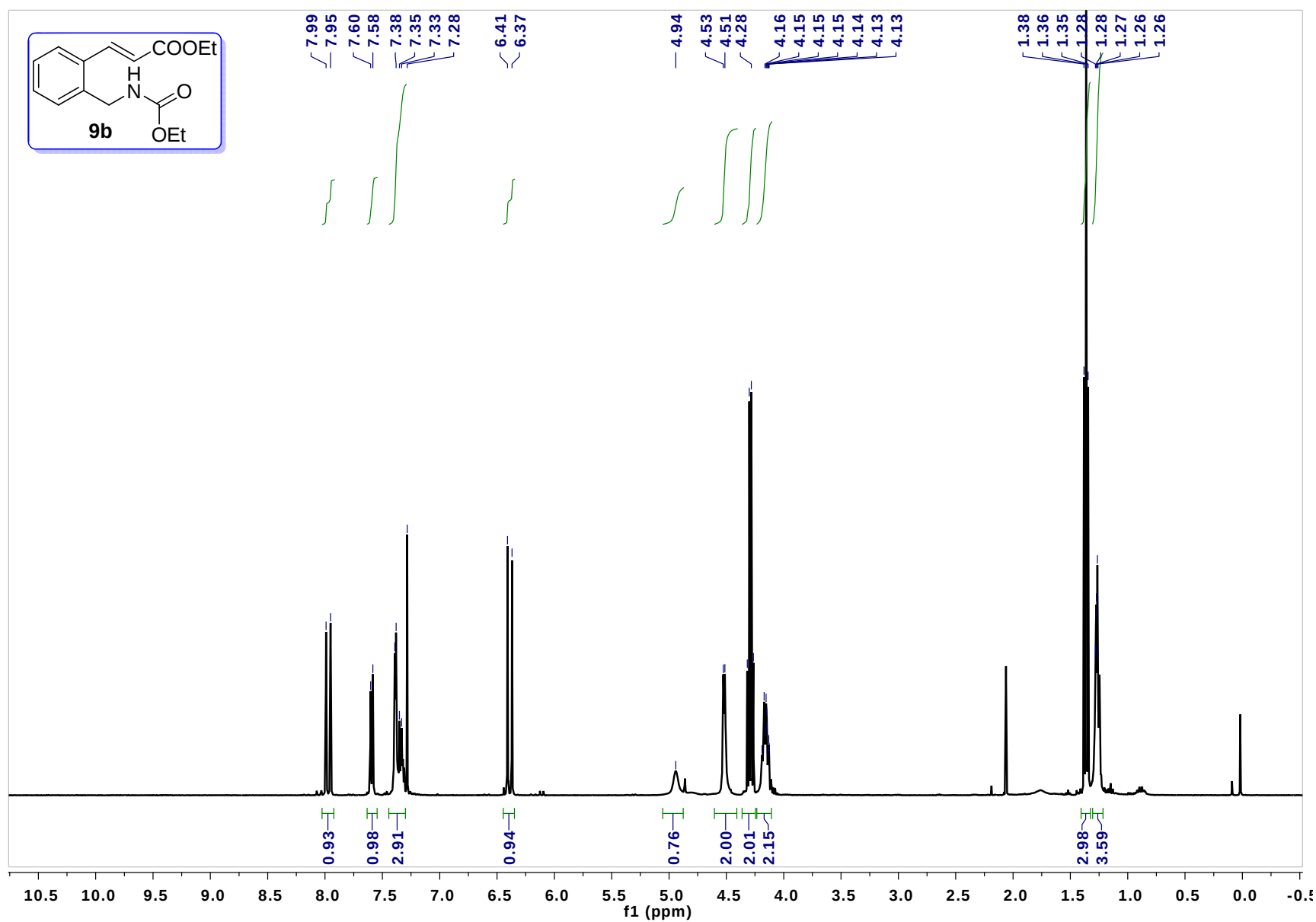


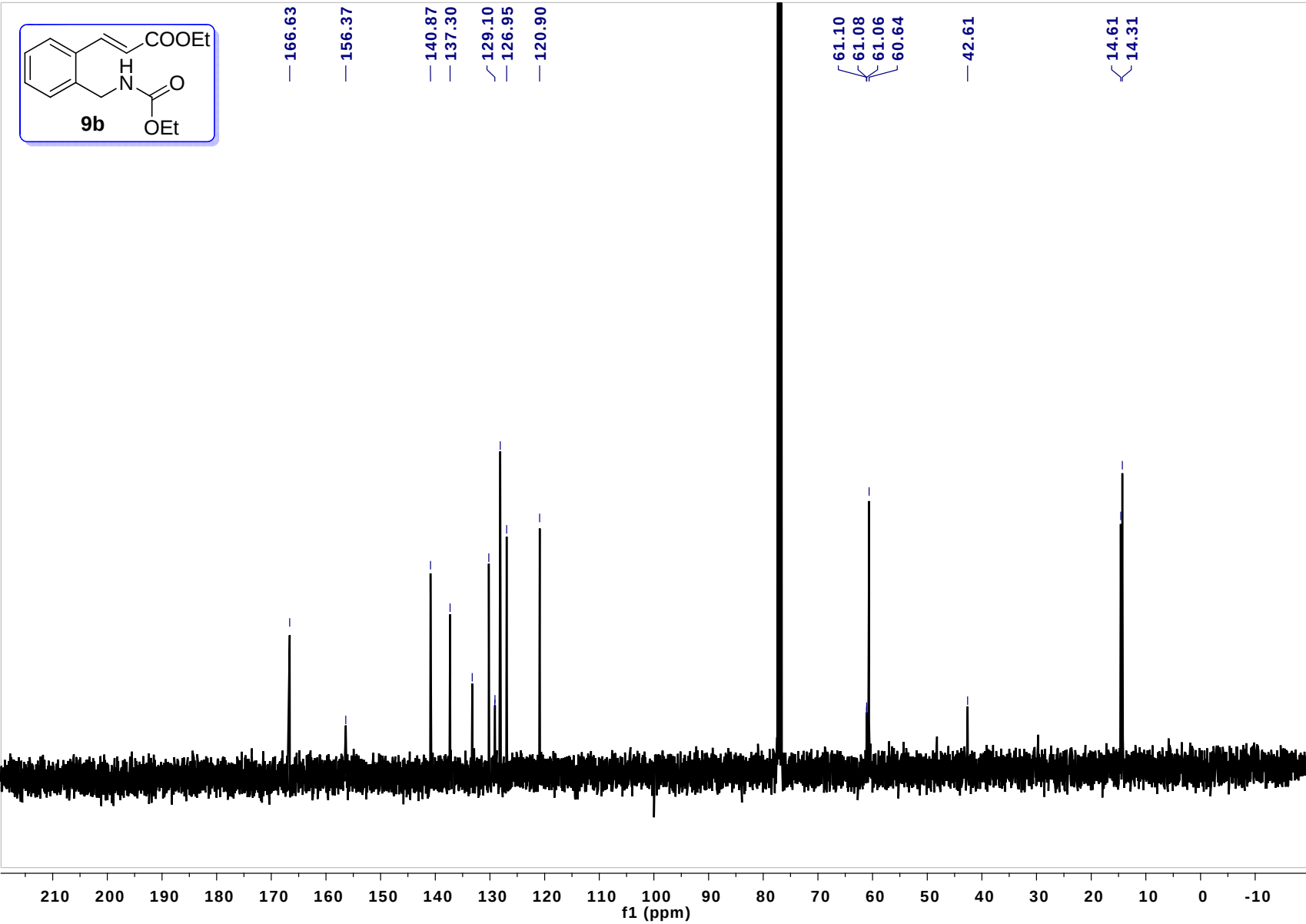


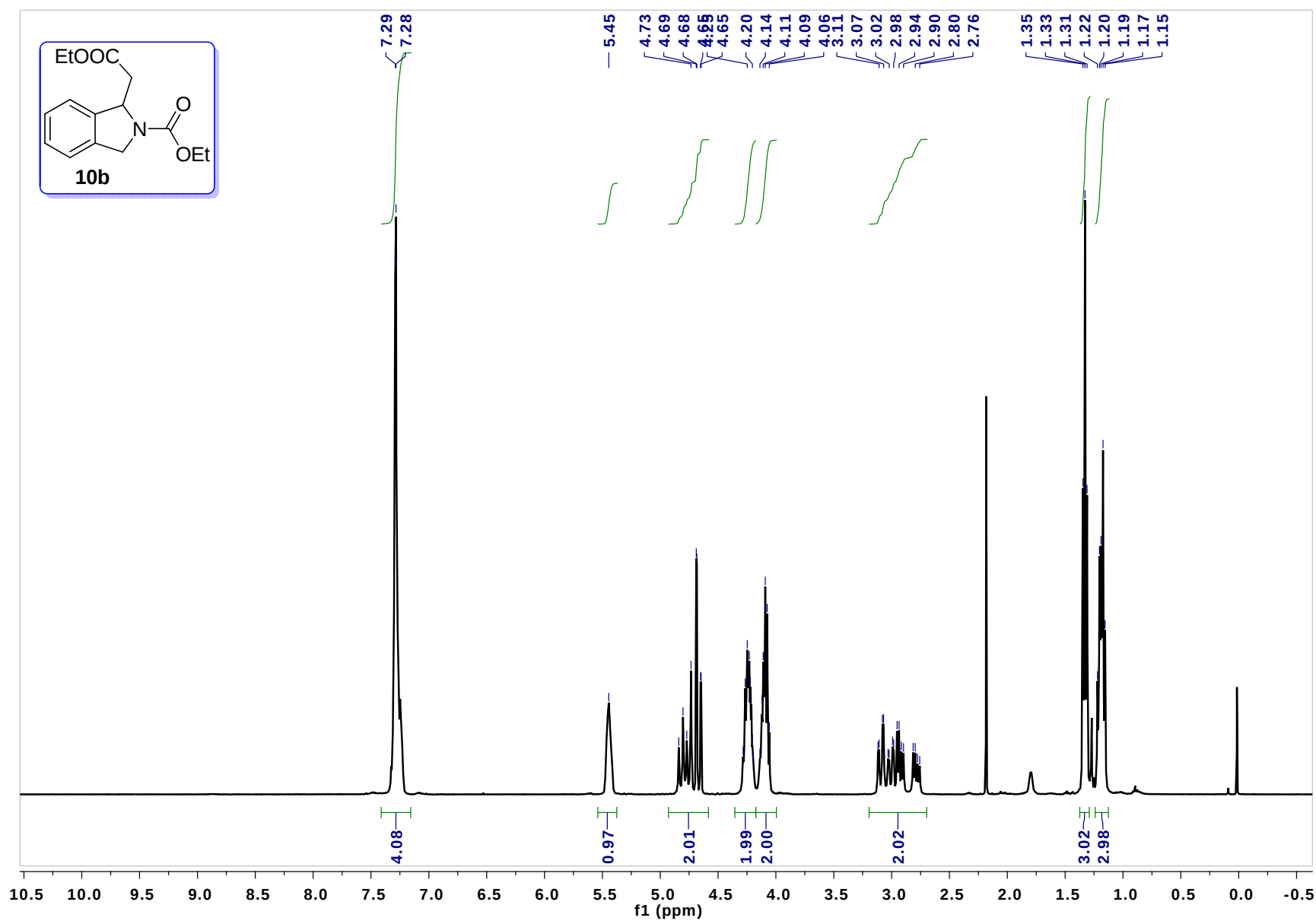


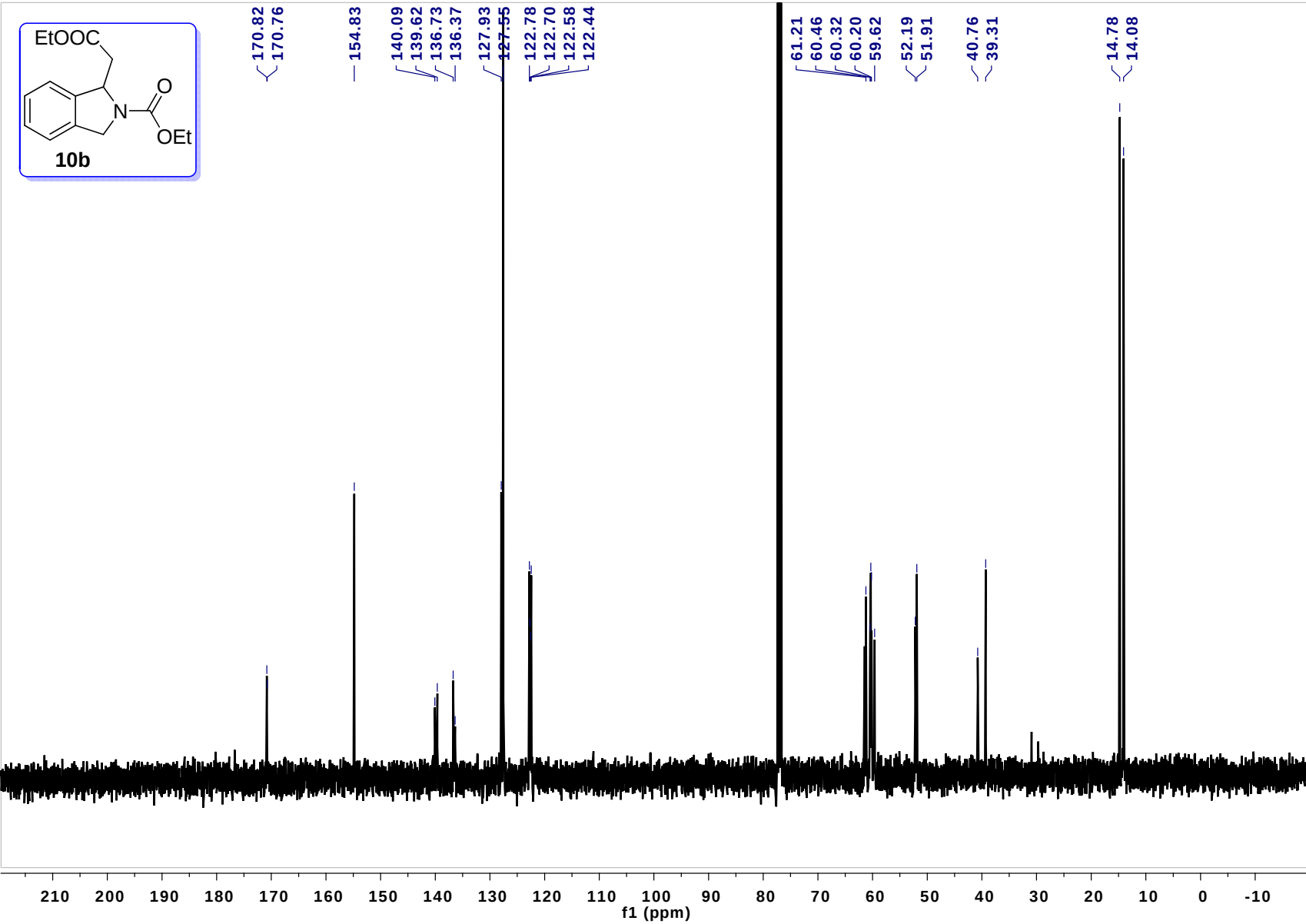


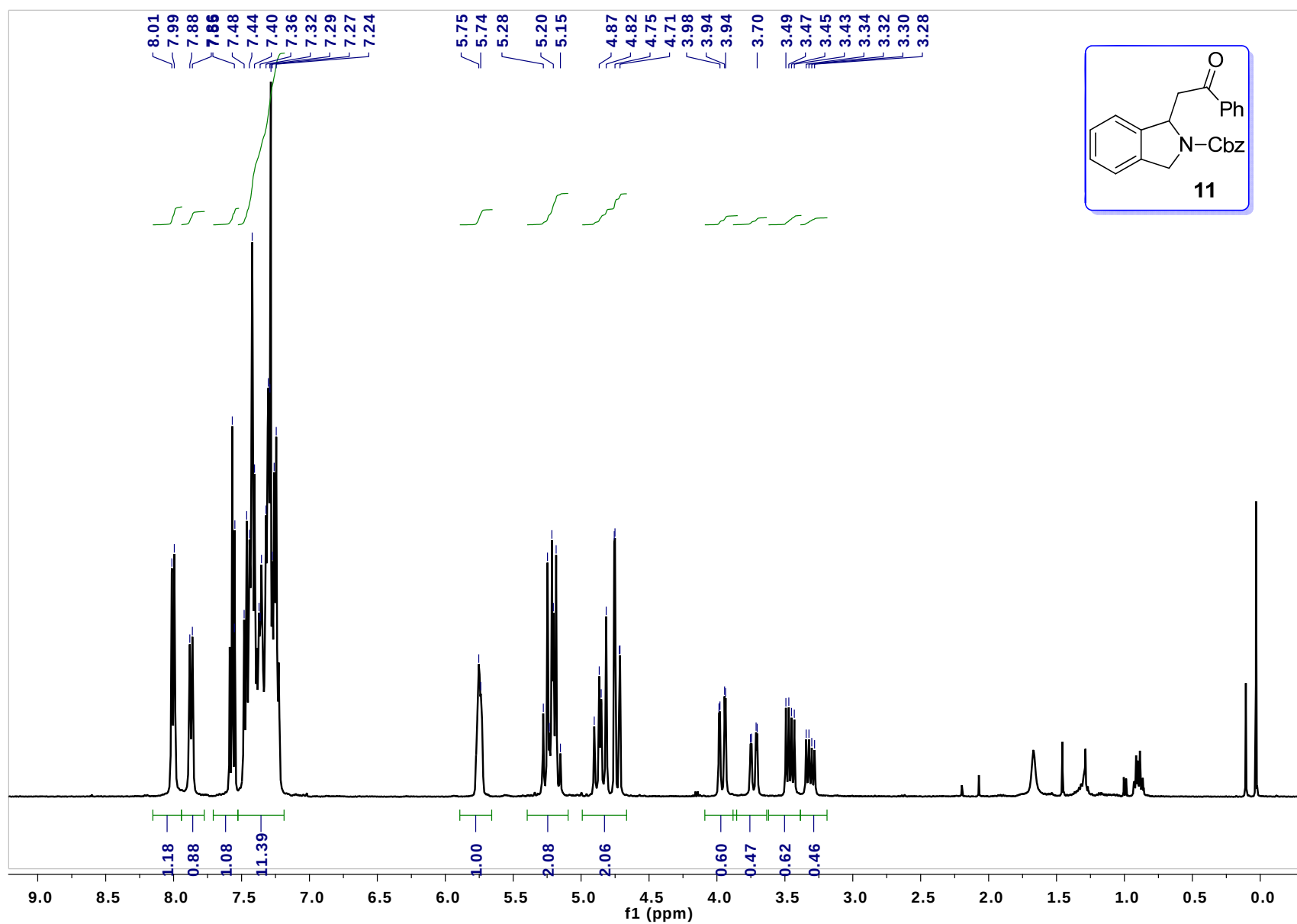


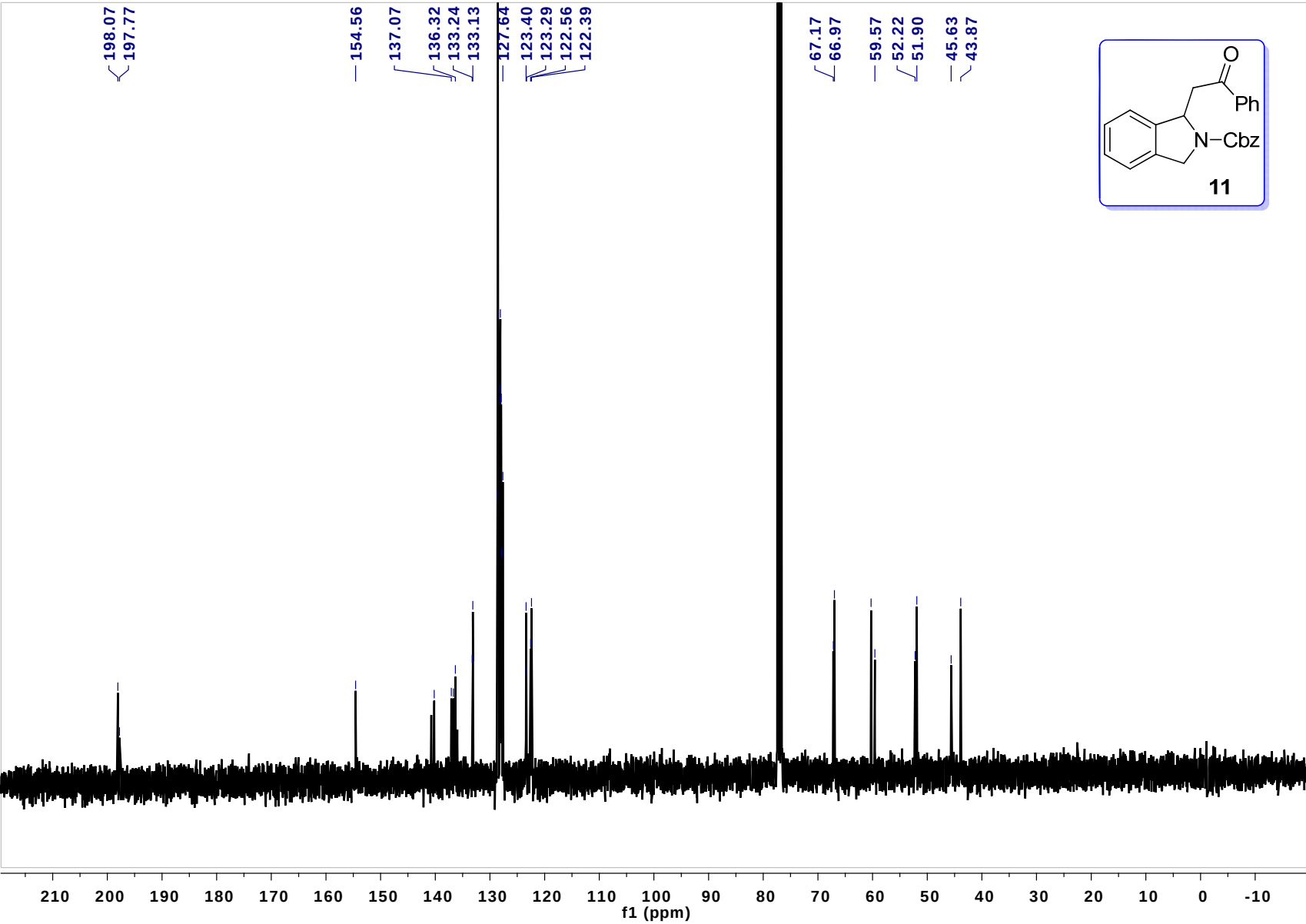


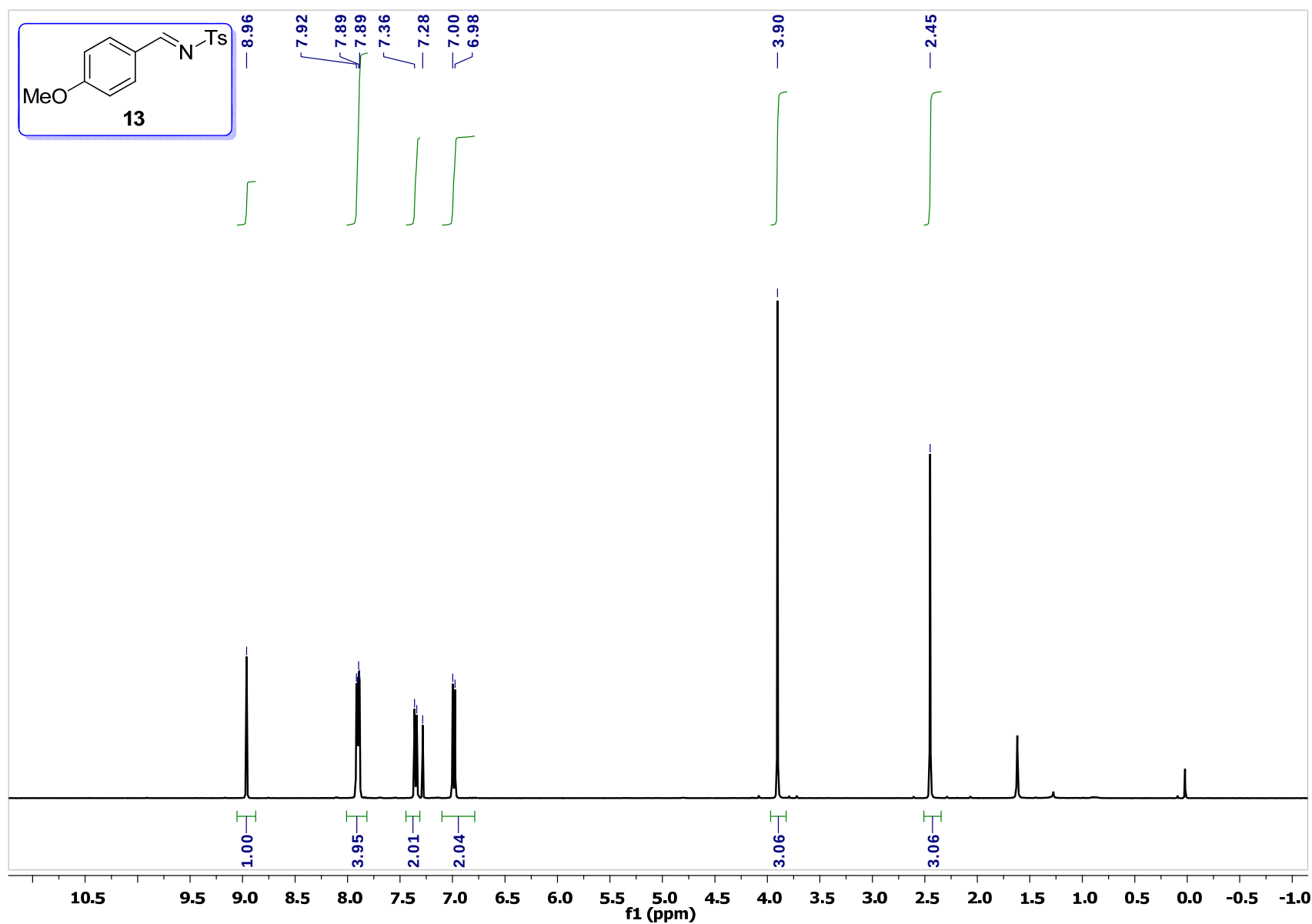


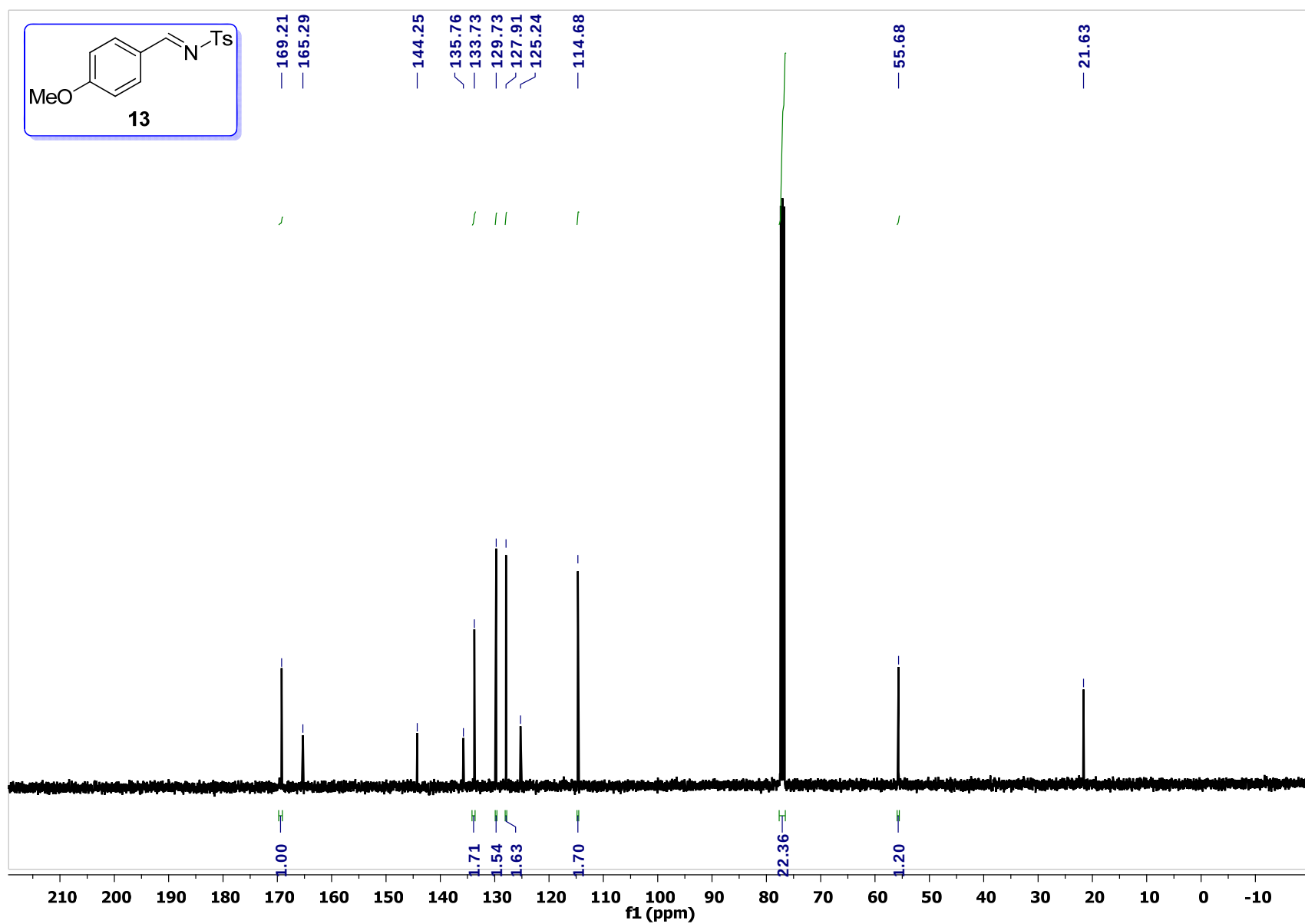


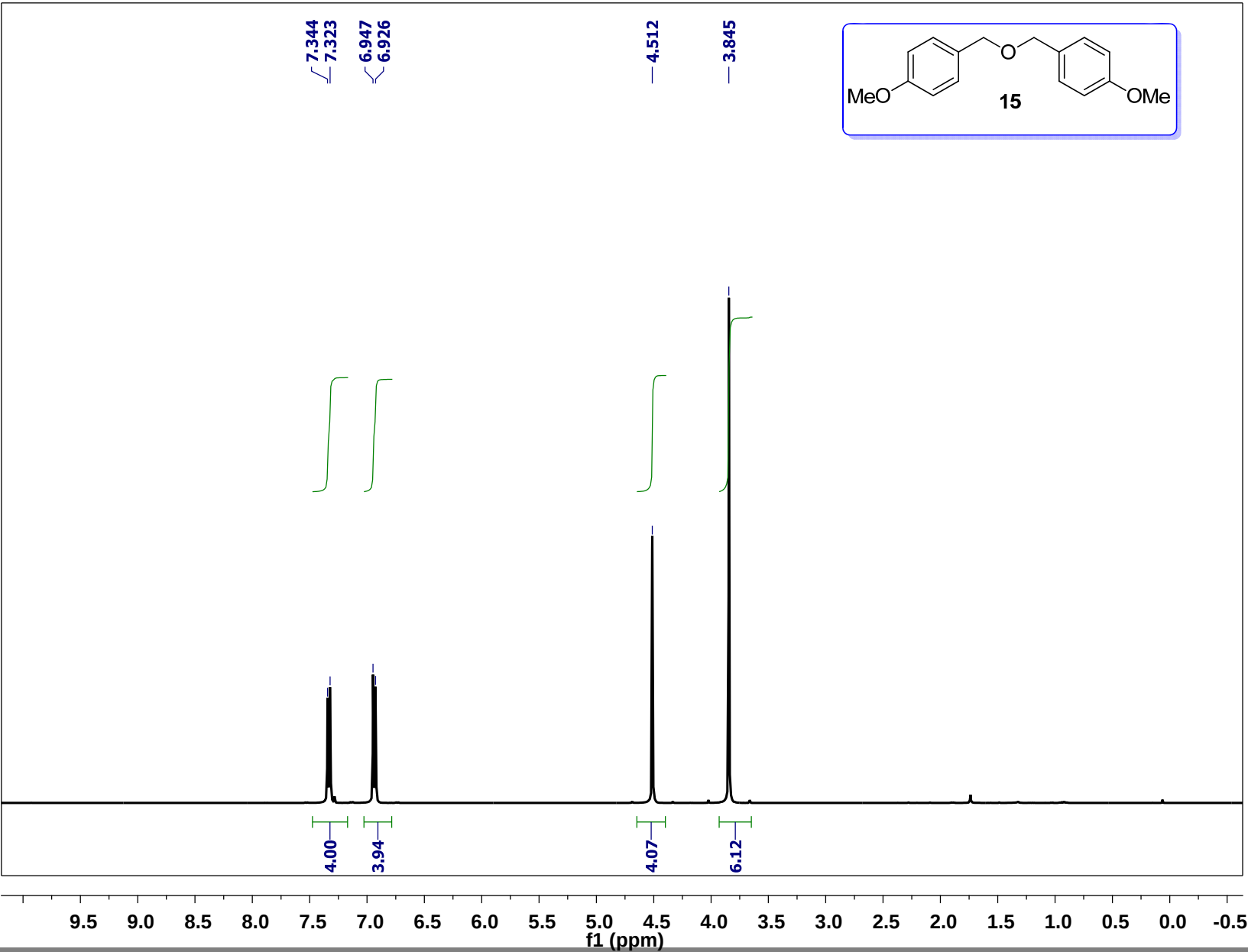


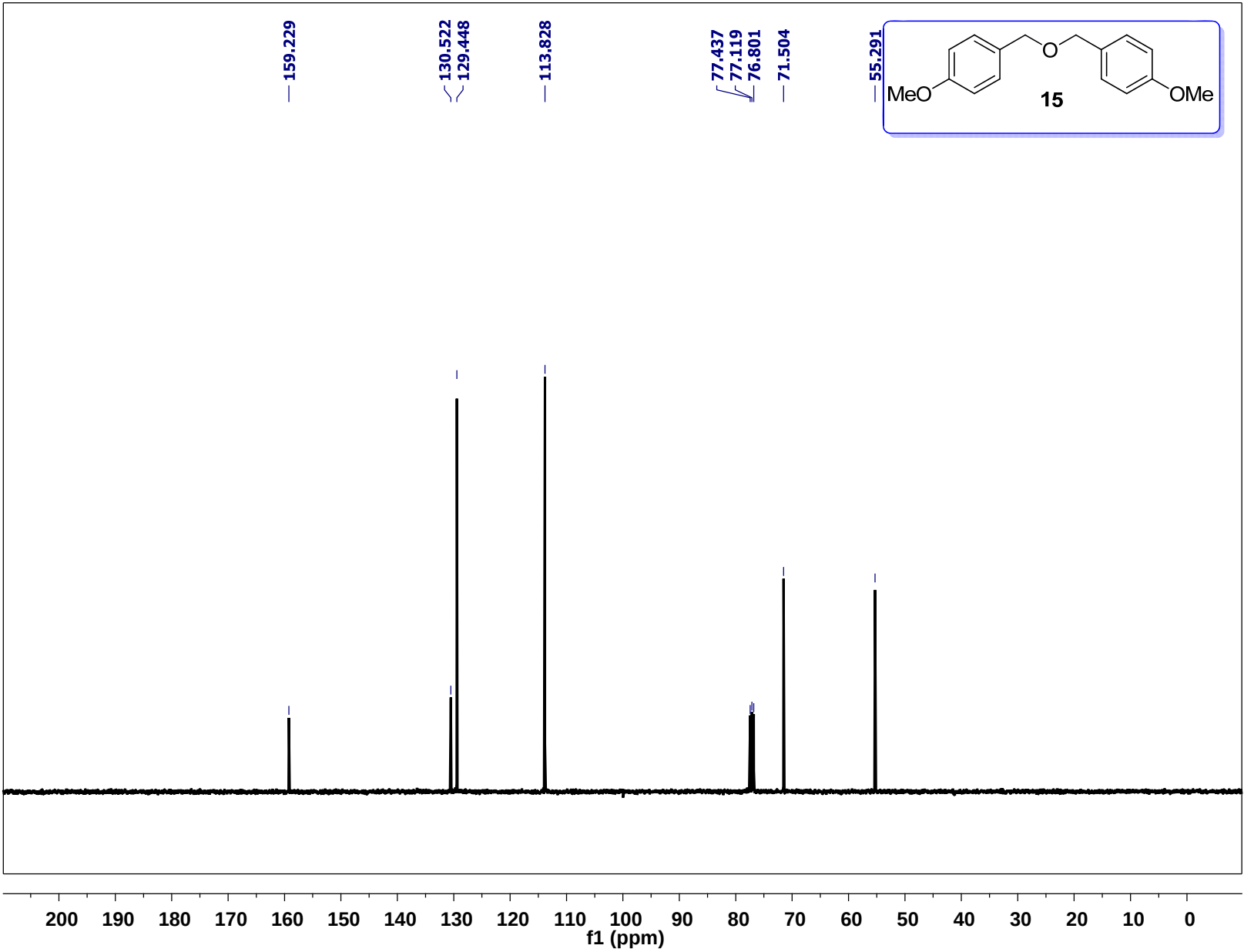












1	Cal: Blank 6/18/2012 15:28:28 IR Custom ID1: Custom ID2: Custom ID3:							
	Co2286	Co2388	Cu3247	Cu3273	Ni2216	Ni2316		
Line	228.616 {447	238.892 {141	324.754 {104	327.396 {103	221.647 {452	231.604 {446		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	.1700	-4.417	-2.158	-2.350	8.737	24.91		
Stddev	.7425	2.027	1.096	.721	.869	.68		
% RSD	436.7	45.90	50.79	30.69	9.944	2.749		
Rep #1	-.0233	-4.800	-3.400	-2.550	7.963	24.77		
Rep #2	.9900	-6.225	-1.325	-1.550	8.570	24.31		
Rep #3	-.4567	-2.225	-1.750	-2.950	9.677	25.66		
2	Cal: HighStd 6/18/2012 15:31:48 IR Custom ID1: Custom ID2: Custom ID3:							
	Co2286	Co2388	Cu3247	Cu3273	Ni2216	Ni2316		
Line	228.616 {447	238.892 {141	324.754 {104	327.396 {103	221.647 {452	231.604 {446		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	11870.	826.7	2600.	1232.	2374.	2026.		
Stddev	50.	5.7	108.	49.	11.	6.		
% RSD	.4194	.6891	4.160	3.978	.4483	.3045		
Rep #1	11900.	833.1	2509.	1184.	2380.	2031.		
Rep #2	11890.	822.1	2572.	1231.	2381.	2027.		
Rep #3	11810.	824.9	2720.	1282.	2362.	2019.		
3	Cal: CalibStd-1 6/18/2012 15:35:24 IR Custom ID1: Custom ID2: Custom ID3:							
	Co2286	Co2388	Cu3247	Cu3273	Fe2382	Fe2599	Ni2216	Ni2316
Line	228.616 {447	238.892 {141	324.754 {104	327.396 {103	238.204 {141	259.940 {130	221.647 {452	231.604 {446
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2040.	135.3	243.6	112.6	27.14	71.78	275.8	356.2
Stddev	120.	8.1	4.6	2.2	1.61	1.96	22.6	18.4
% RSD	5.886	5.952	1.882	1.976	5.944	2.734	8.201	5.176
Rep #1	1917.	127.1	248.8	110.9	27.20	71.28	252.8	336.2
Rep #2	2048.	135.5	240.1	115.1	28.73	73.95	276.6	360.0
Rep #3	2156.	143.2	242.0	111.8	25.50	70.13	298.0	372.5
4	Cal: CalibStd-2 6/18/2012 15:38:31 IR Custom ID1: Custom ID2: Custom ID3:							
	Co2286	Co2388	Cu3247	Cu3273	Fe2382	Fe2599	Ni2216	Ni2316
Line	228.616 {447	238.892 {141	324.754 {104	327.396 {103	238.204 {141	259.940 {130	221.647 {452	231.604 {446
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1203.	81.76	193.1	88.68	-14.35	38.15	180.5	201.5
Stddev	10.	2.43	6.3	4.35	.53	1.30	3.4	2.6
% RSD	.8480	2.976	3.258	4.904	3.659	3.406	1.880	1.312
Rep #1	1215.	83.60	200.2	92.60	13.98	36.68	184.1	204.5
Rep #2	1199.	82.68	190.9	84.00	14.95	39.13	180.0	199.5
Rep #3	1196.	79.00	188.2	89.43	14.13	38.65	177.4	200.4
5	Cal: CalibStd-3 6/18/2012 15:41:45 IR Custom ID1: Custom ID2: Custom ID3:							
	Co2286	Co2388	Cu3247	Cu3273	Fe2382	Fe2599	Ni2216	Ni2316
Line	228.616 {447	238.892 {141	324.754 {104	327.396 {103	238.204 {141	259.940 {130	221.647 {452	231.604 {446
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	267.4	19.19	116.3	51.49	3.108	8.100	-27.94	43.56
Stddev	20.2	1.72	6.8	8.02	1.570	1.376	3.51	2.62
% RSD	7.548	8.942	5.807	15.57	50.50	16.98	12.57	6.023
Rep #1	288.7	21.10	124.1	60.75	4.900	8.150	-23.89	46.38
Rep #2	265.0	18.70	112.4	46.80	1.975	9.450	-29.88	43.10
Rep #3	248.6	17.78	112.5	46.93	2.450	6.700	-30.06	41.20
6	Unk: Sample-1 6/18/2012 15:45:00 CONC Custom ID1: Custom ID2: Custom ID3:							
	Co2286	Co2388	Cu3247	Cu3273	Fe2382	Fe2599	Ni2216	Ni2316
Line	228.616 {447	238.892 {141	324.754 {104	327.396 {103	238.204 {141	259.940 {130	221.647 {452	231.604 {446
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1467	-.0383	.7199	.1364	3.753	2.362	^ *****	1.572
Stddev	.0039	.0108	.0373	.0543	.023	.008	-----	.018
% RSD	2.656	28.27	5.184	39.81	.6161	.3314	-----	1.123