Simple, Efficient Chemoenzymatic synthesis of (S)-5-(*tert*-butyldimethylsilyloxy)-2-cyclohexenone and Enantiomeric Ketone Intermediates of 19-Nor-1α, 25-dihydroxyvitamin D_3

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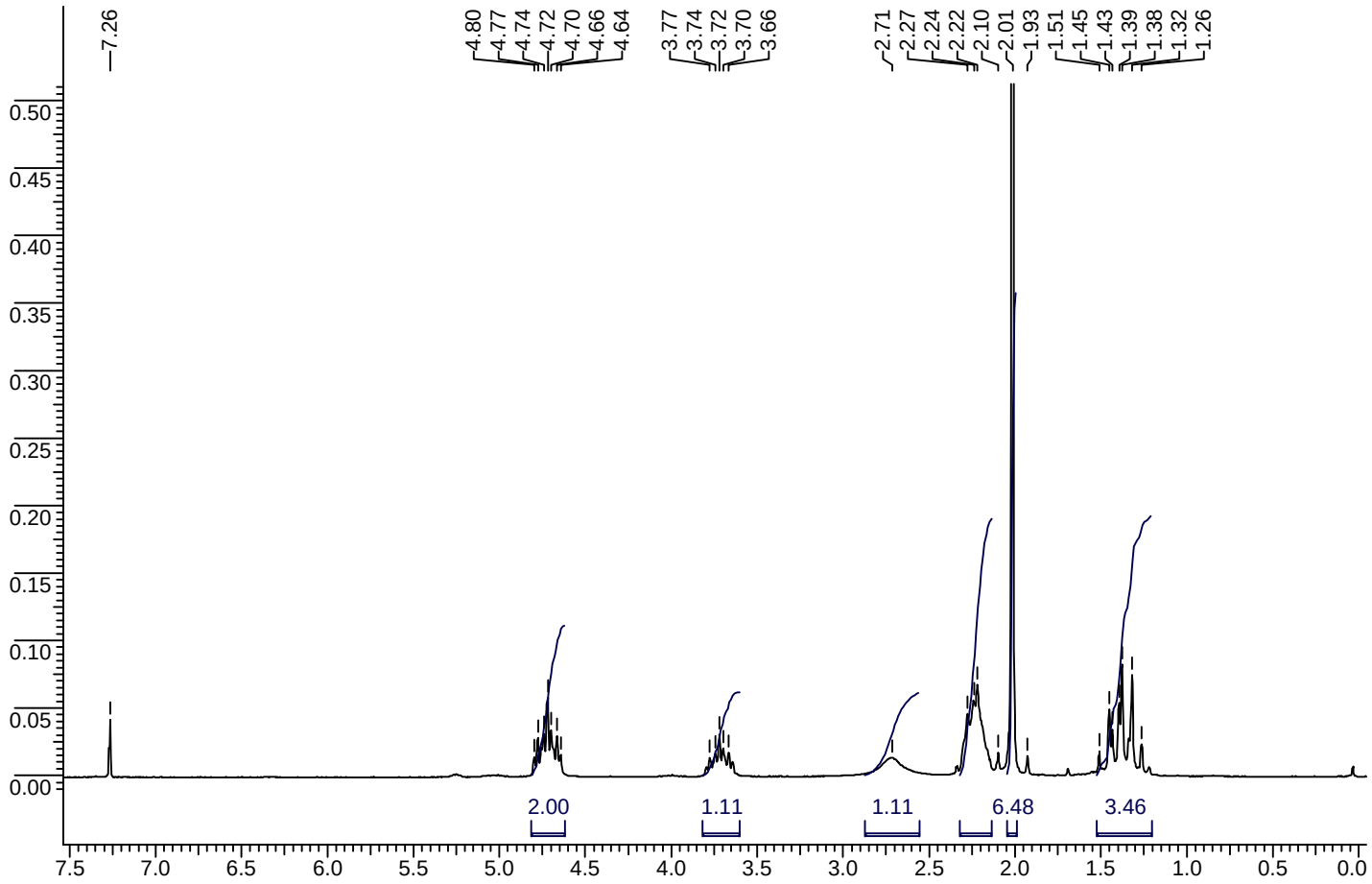
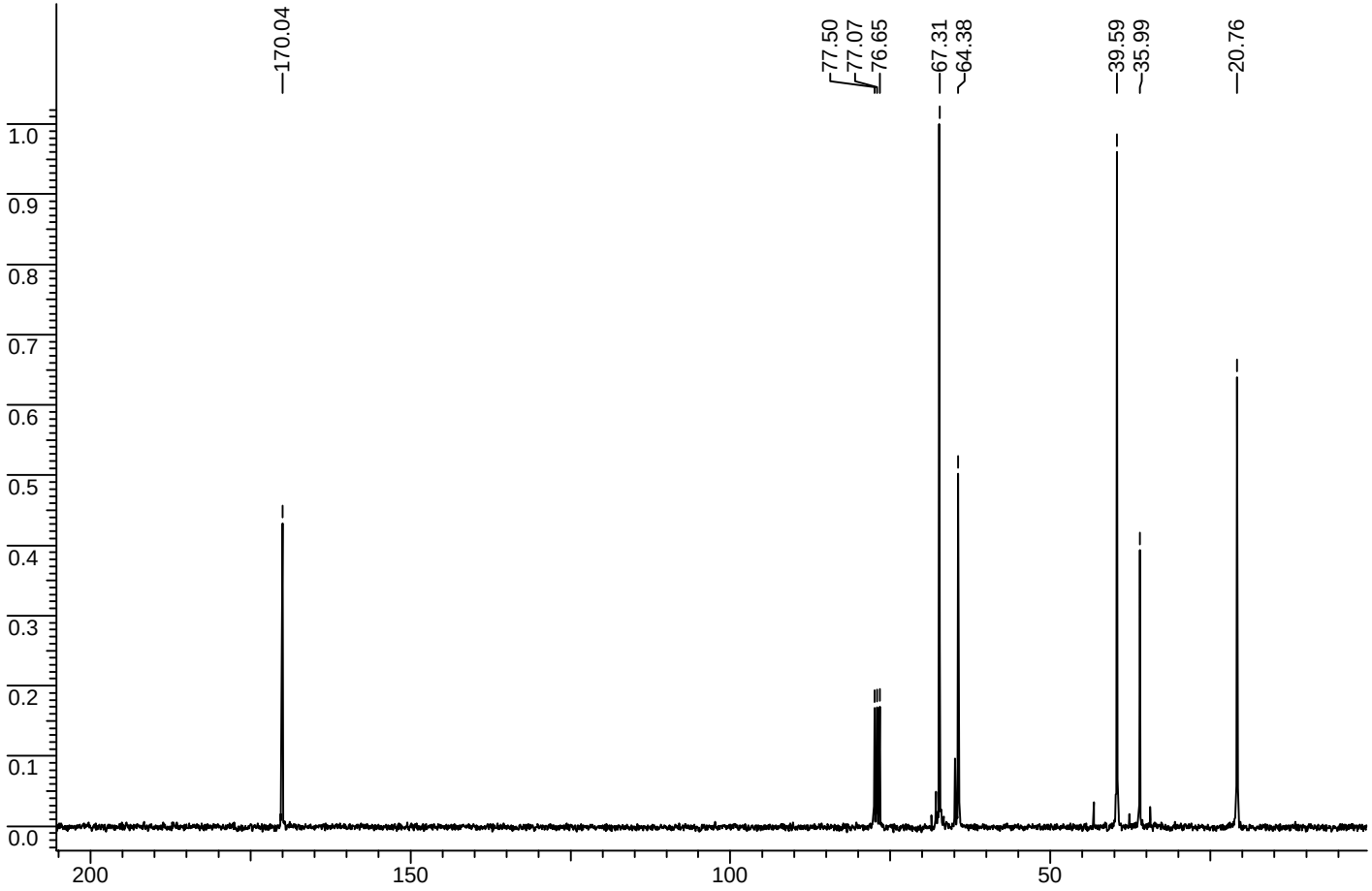
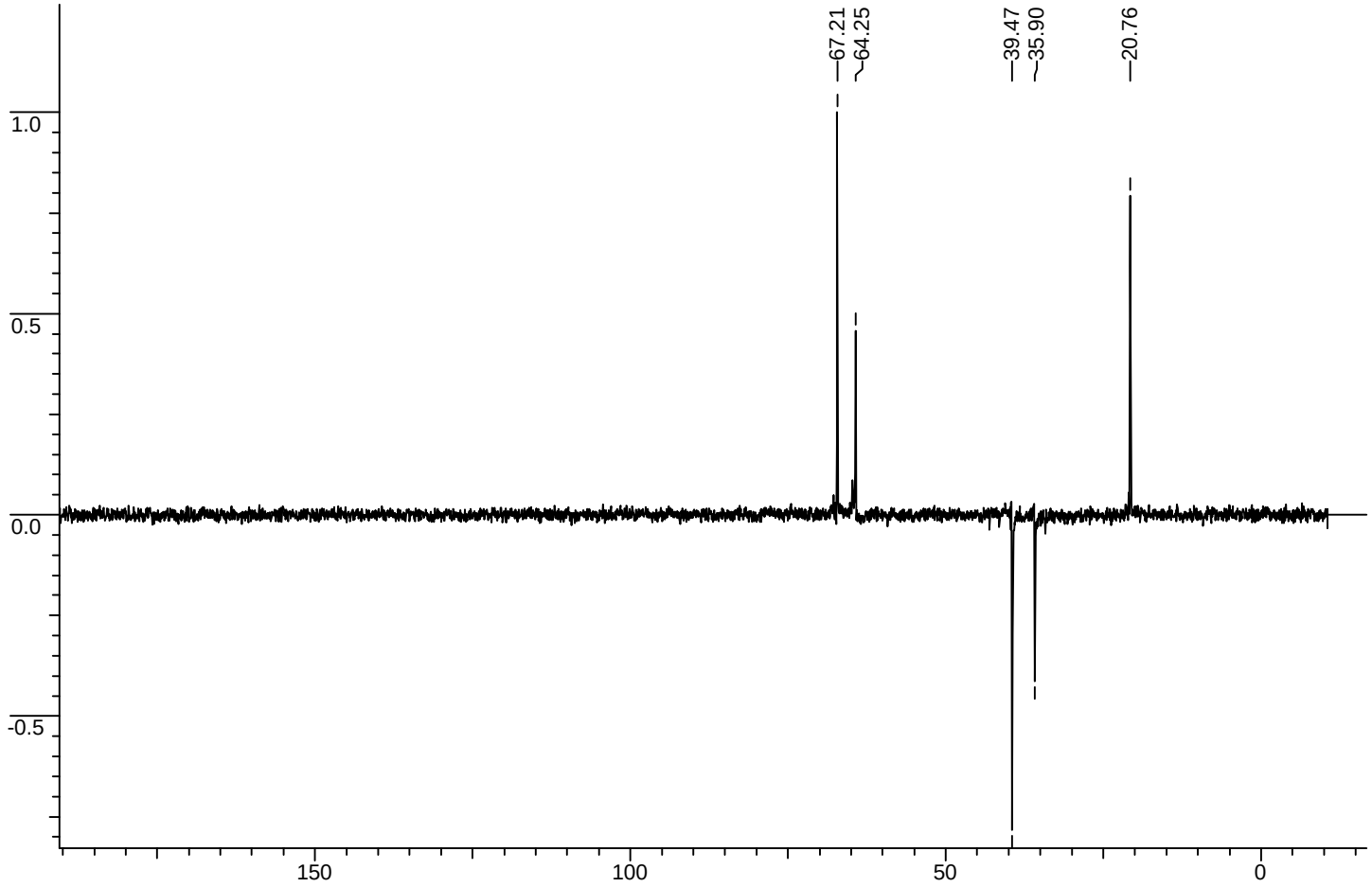
^{1}H NMR spectrum of 11



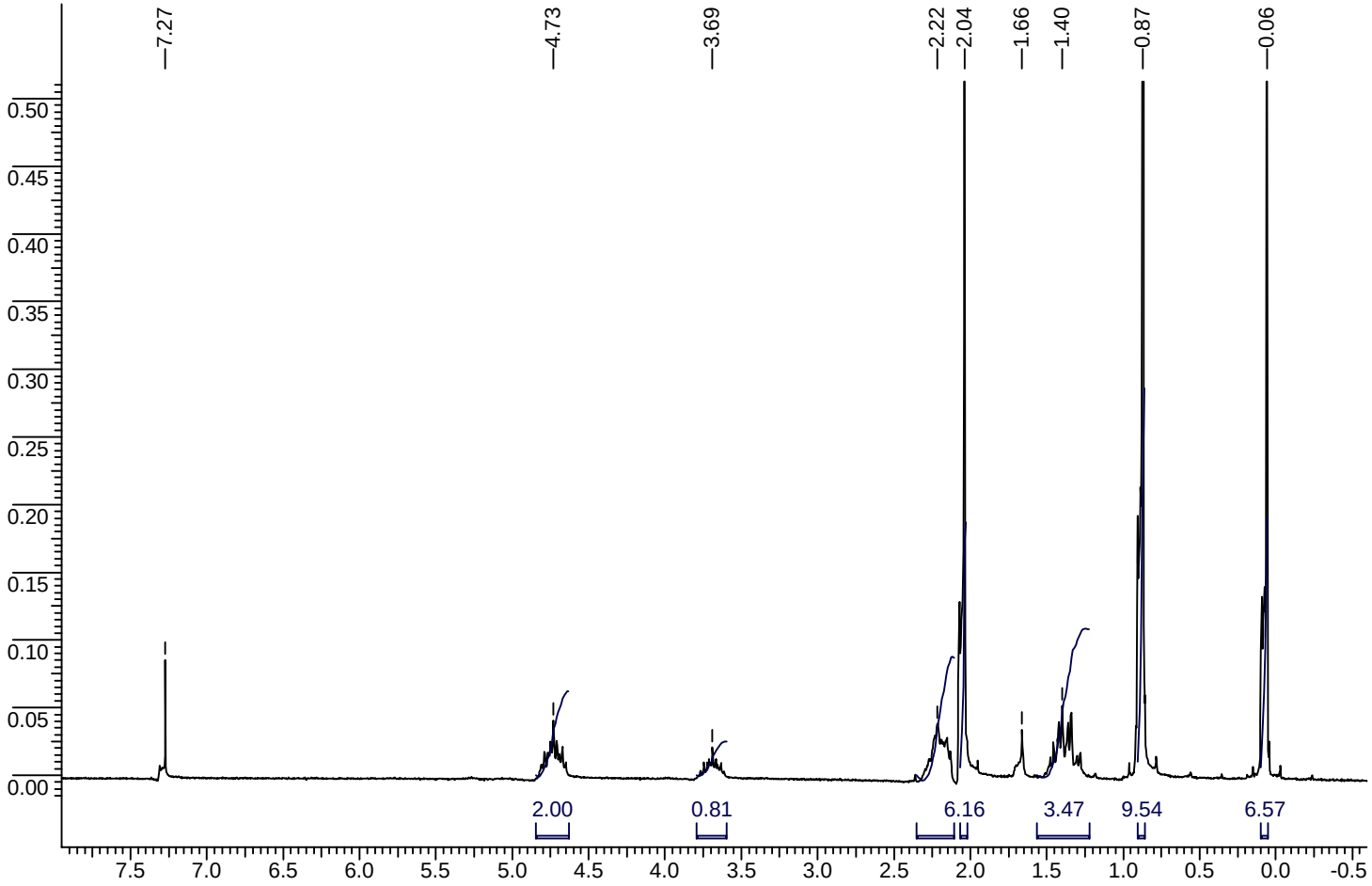
*^{13}C NMR Spectra of **11***



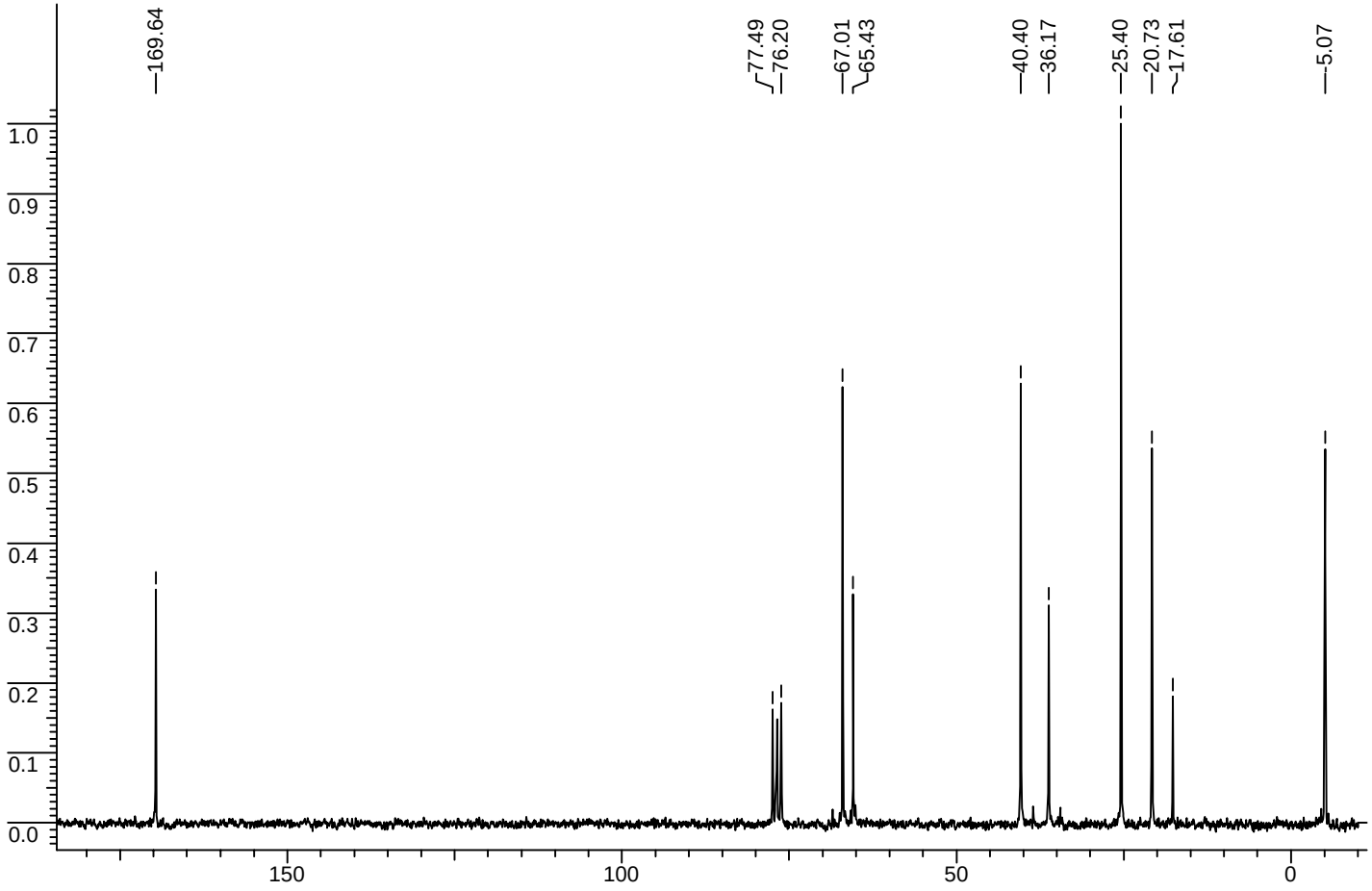
*^{13}C DEPT NMR Spectra of **11***



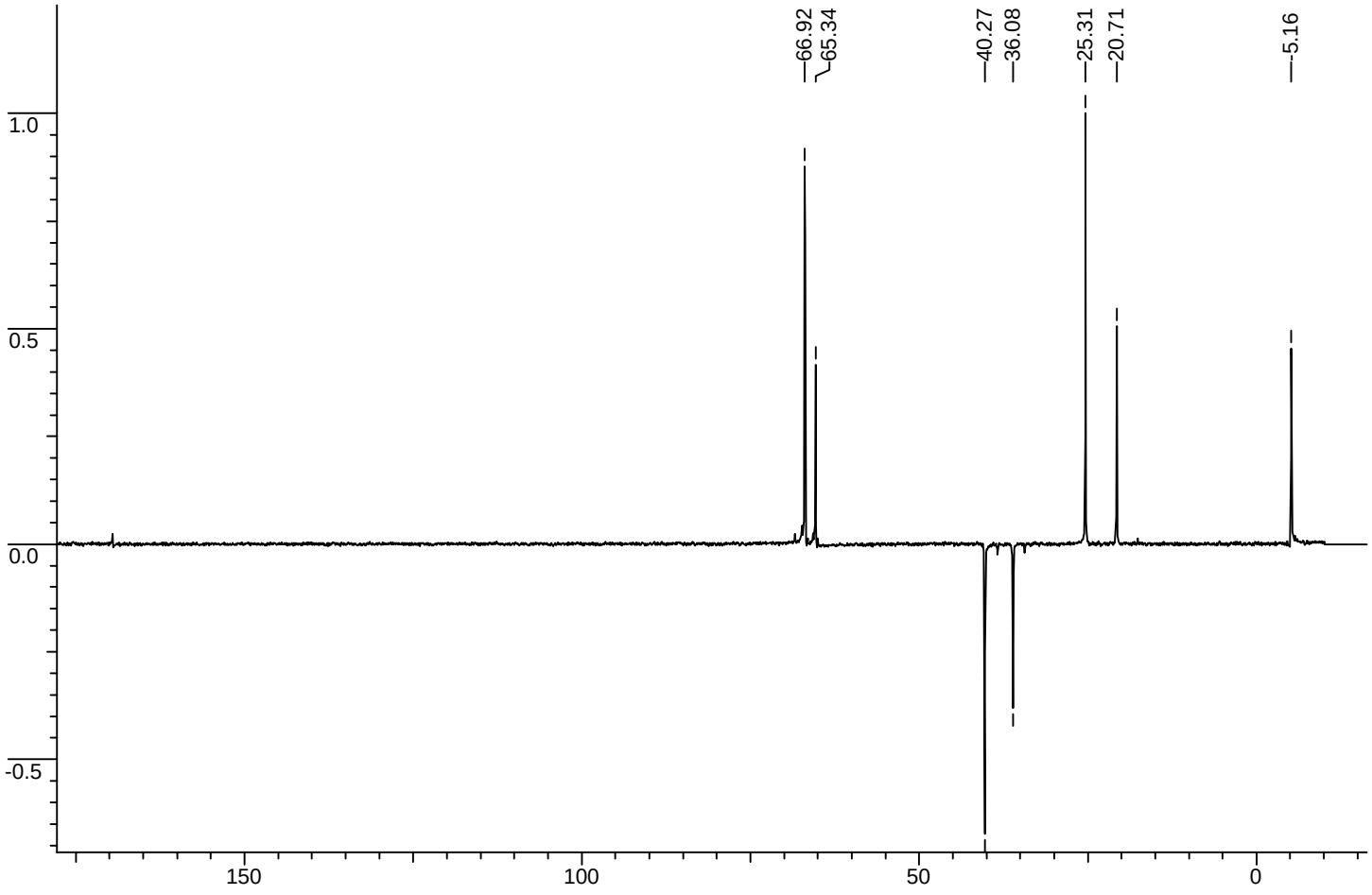
*^{1}H NMR spectrum of **12***



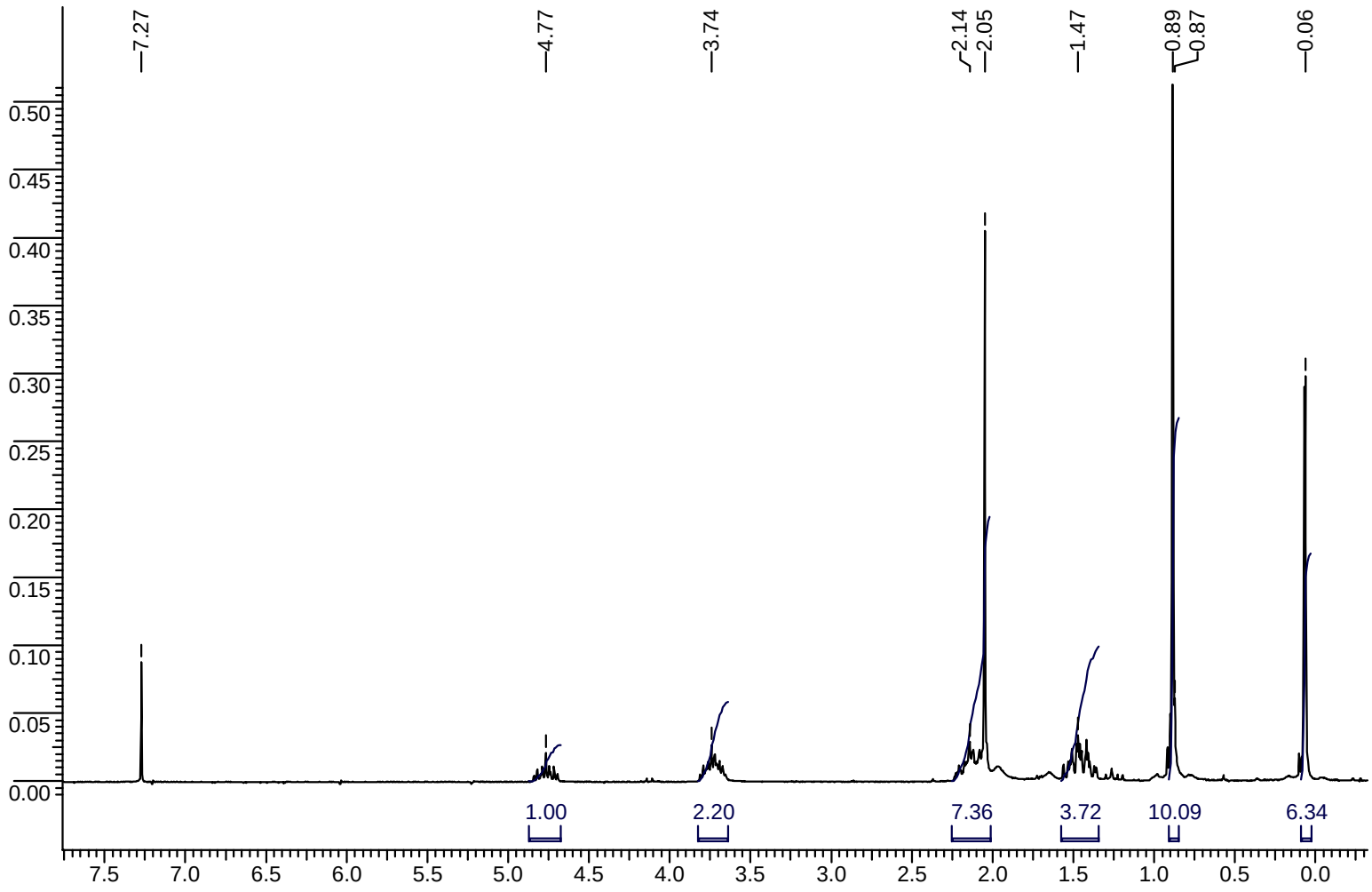
☞ *^{13}C NMR spectra of **12***



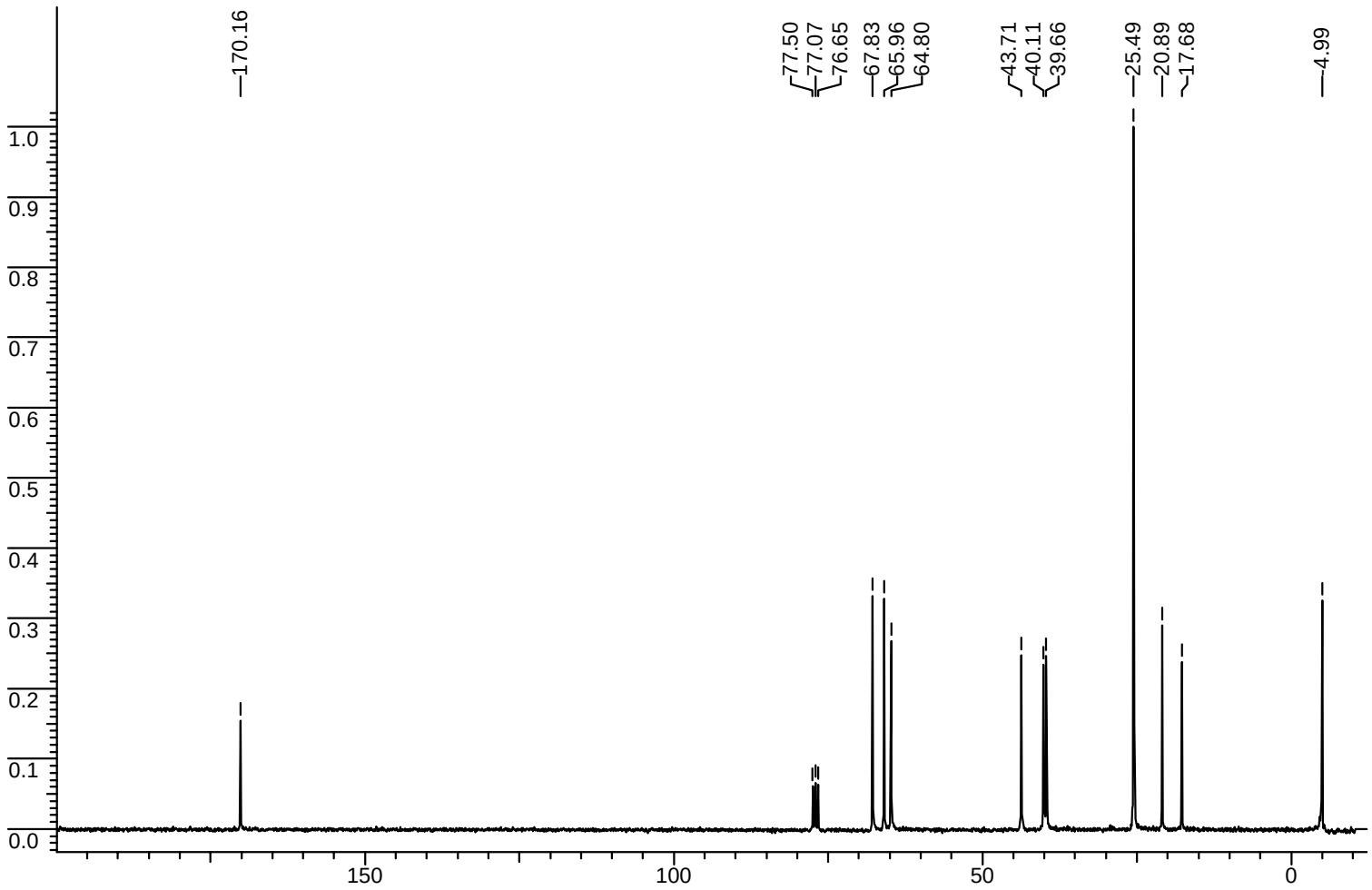
☞ ^{13}C DEPT NMR spectra of ***12***



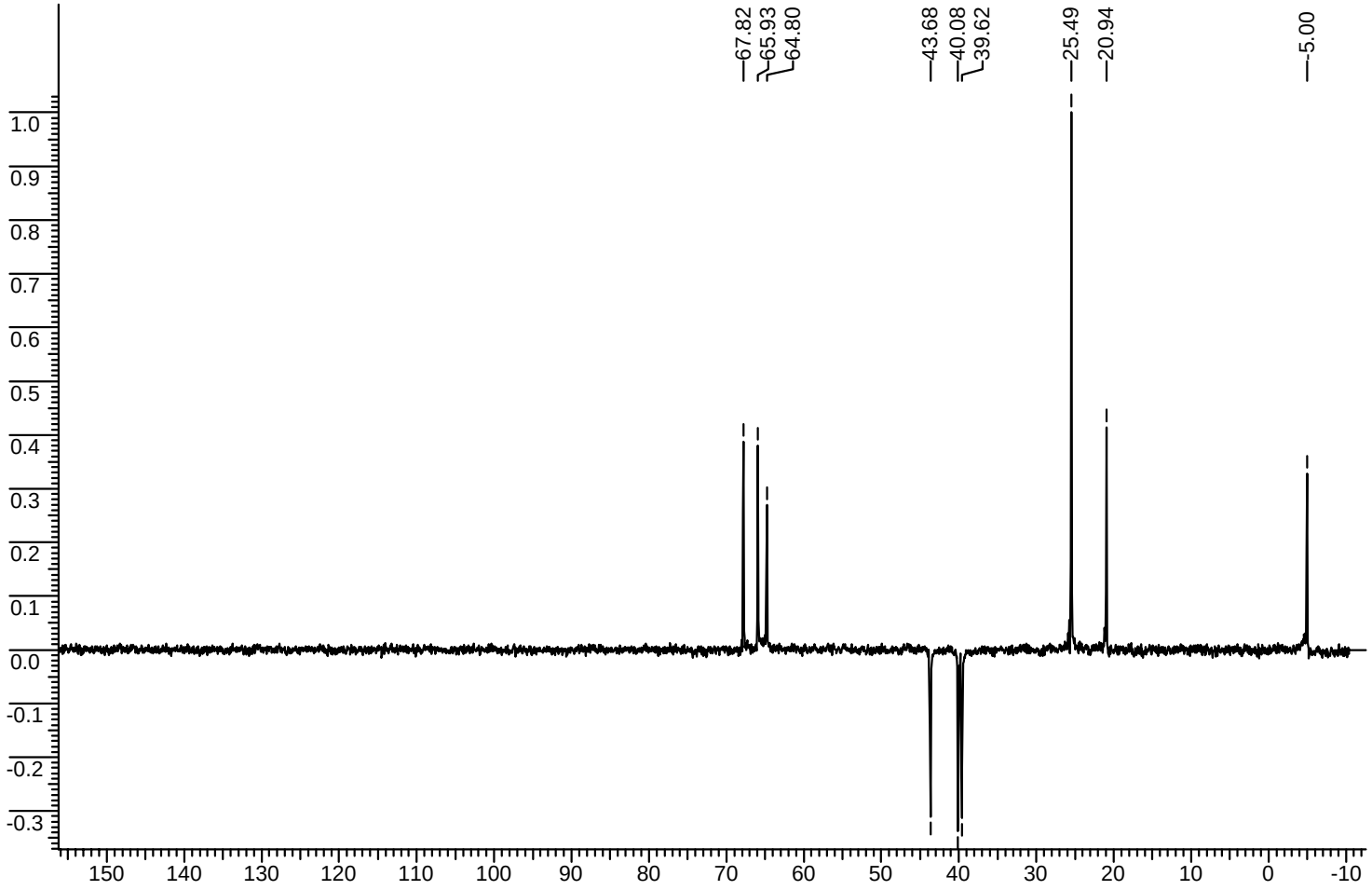
☞ ^{1}H NMR spectrum of ***8***



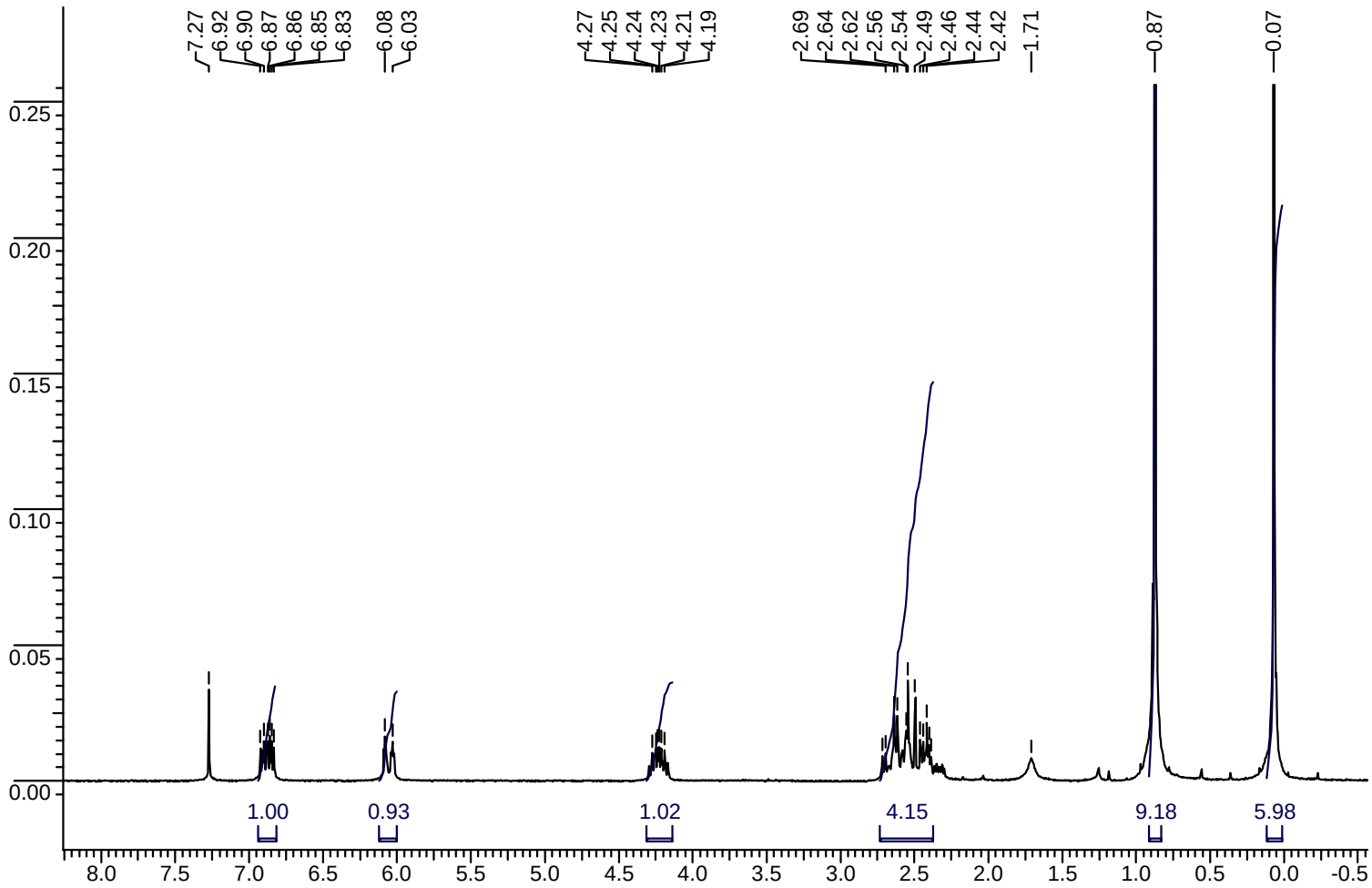
☞ *^{13}C NMR spectra of **8***



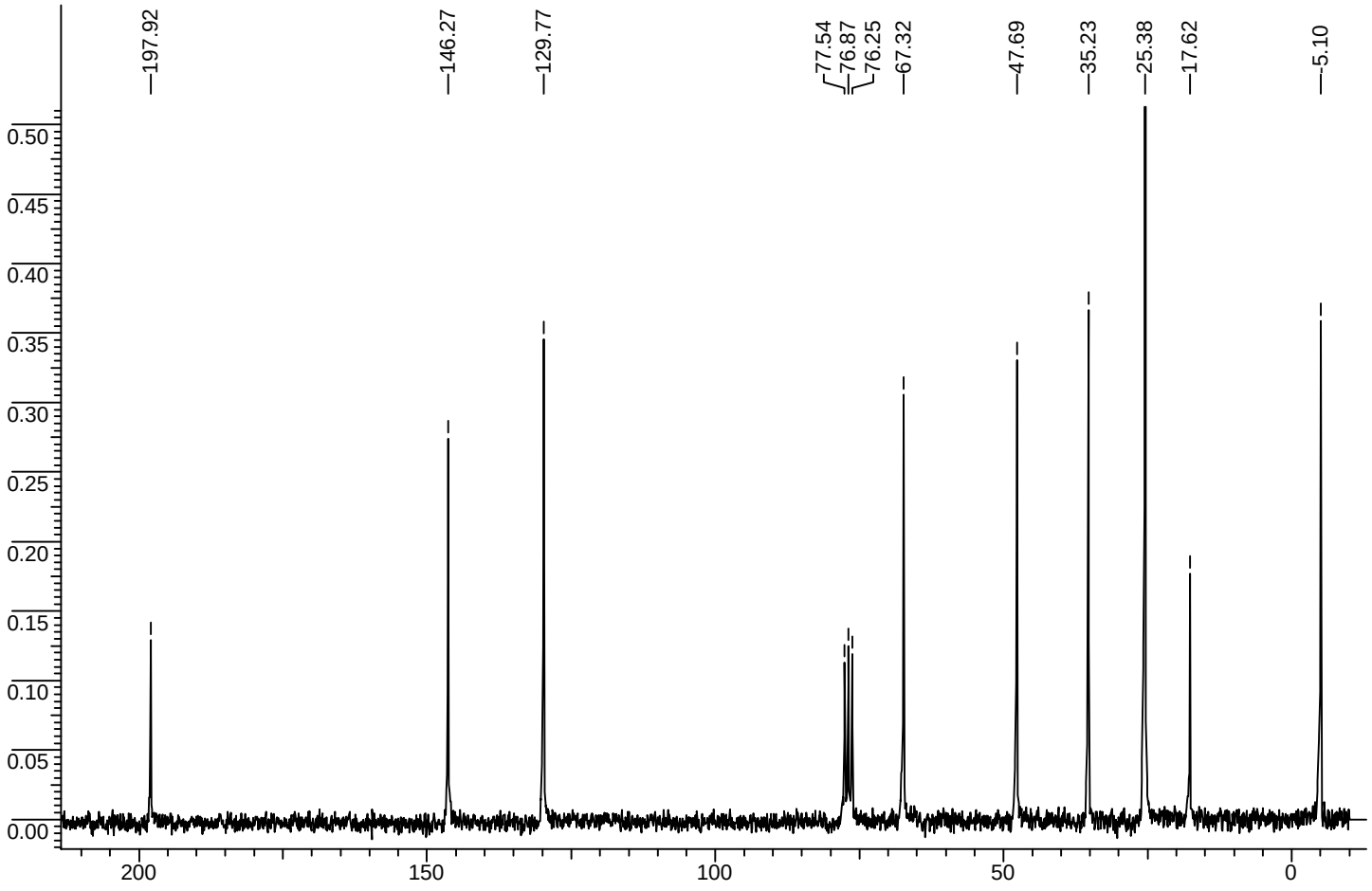
*^{13}C DEPT NMR spectra of **8***



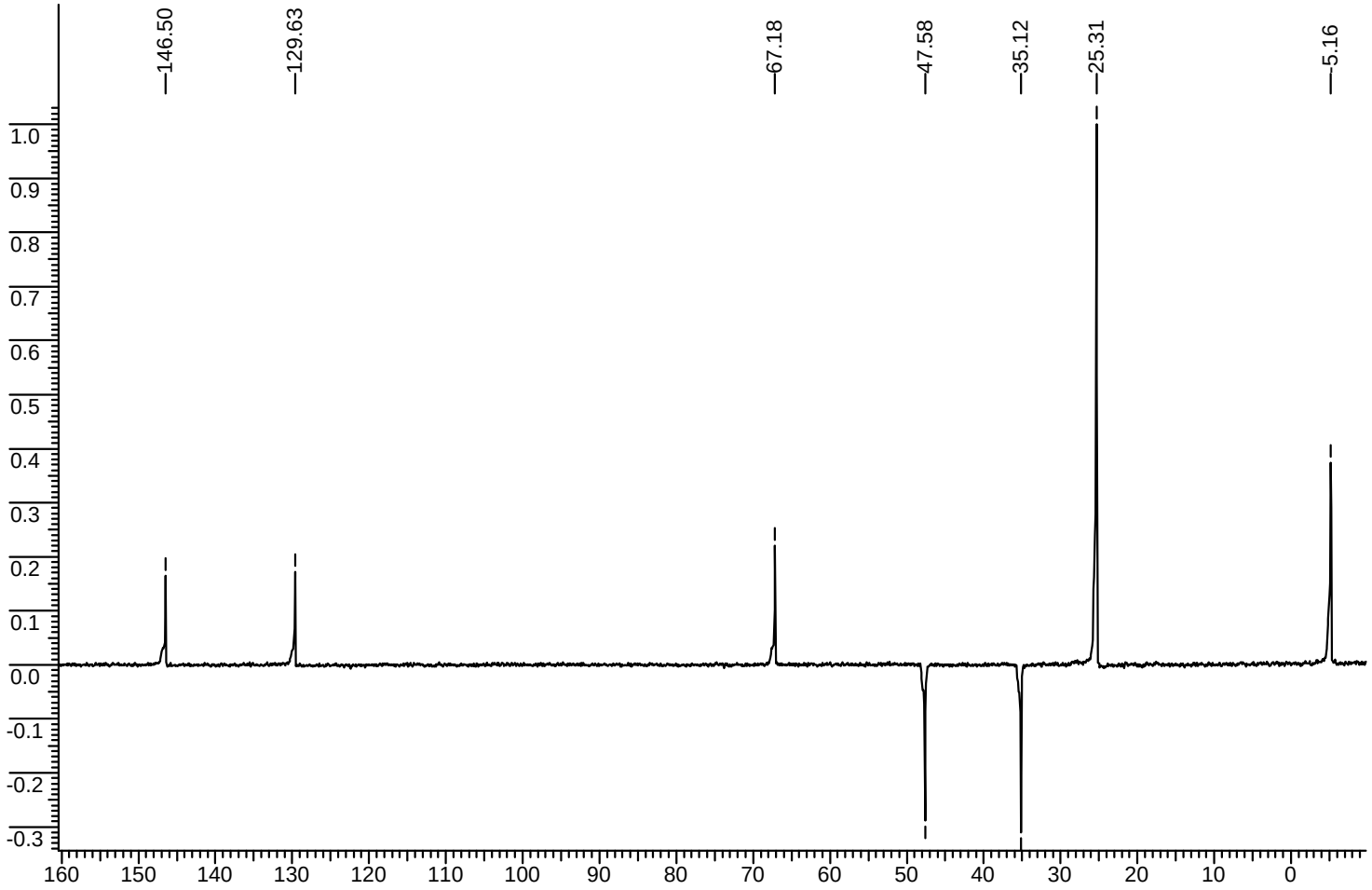
☞ ^{1}H NMR spectrum of ***13***



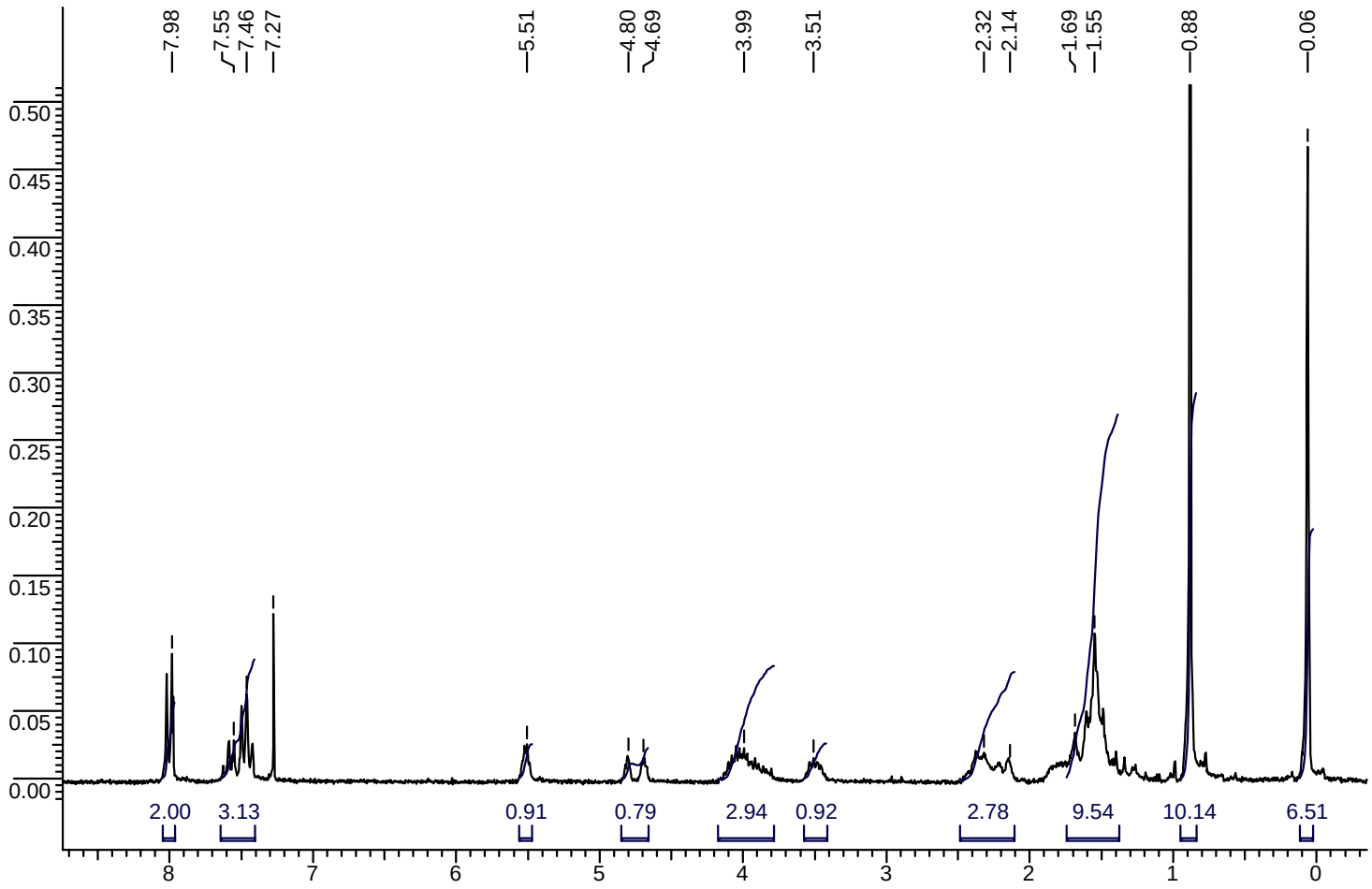
☞ ^{13}C NMR spectra of ***13***



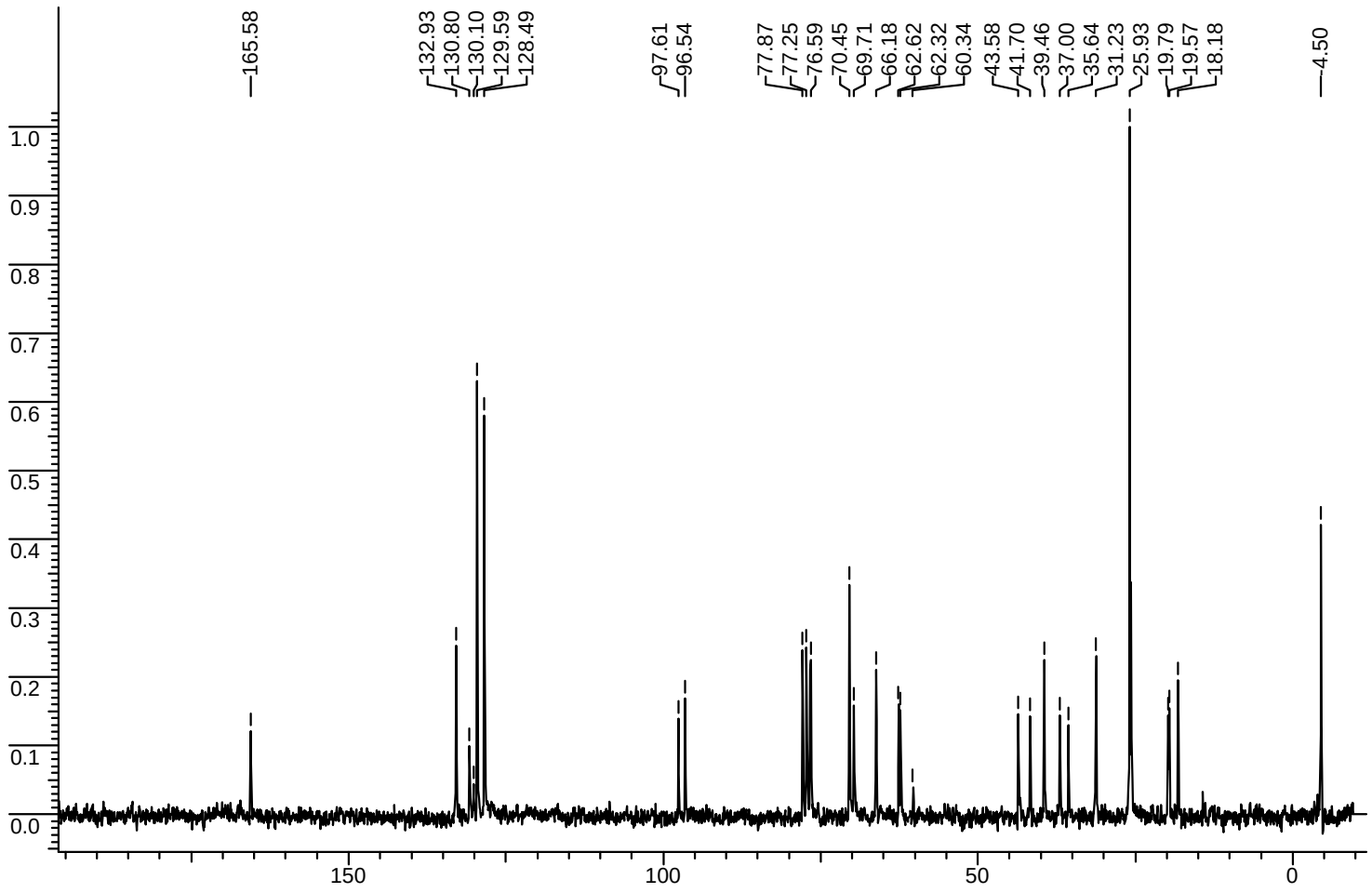
*^{13}C DEPT NMR spectra of **13***



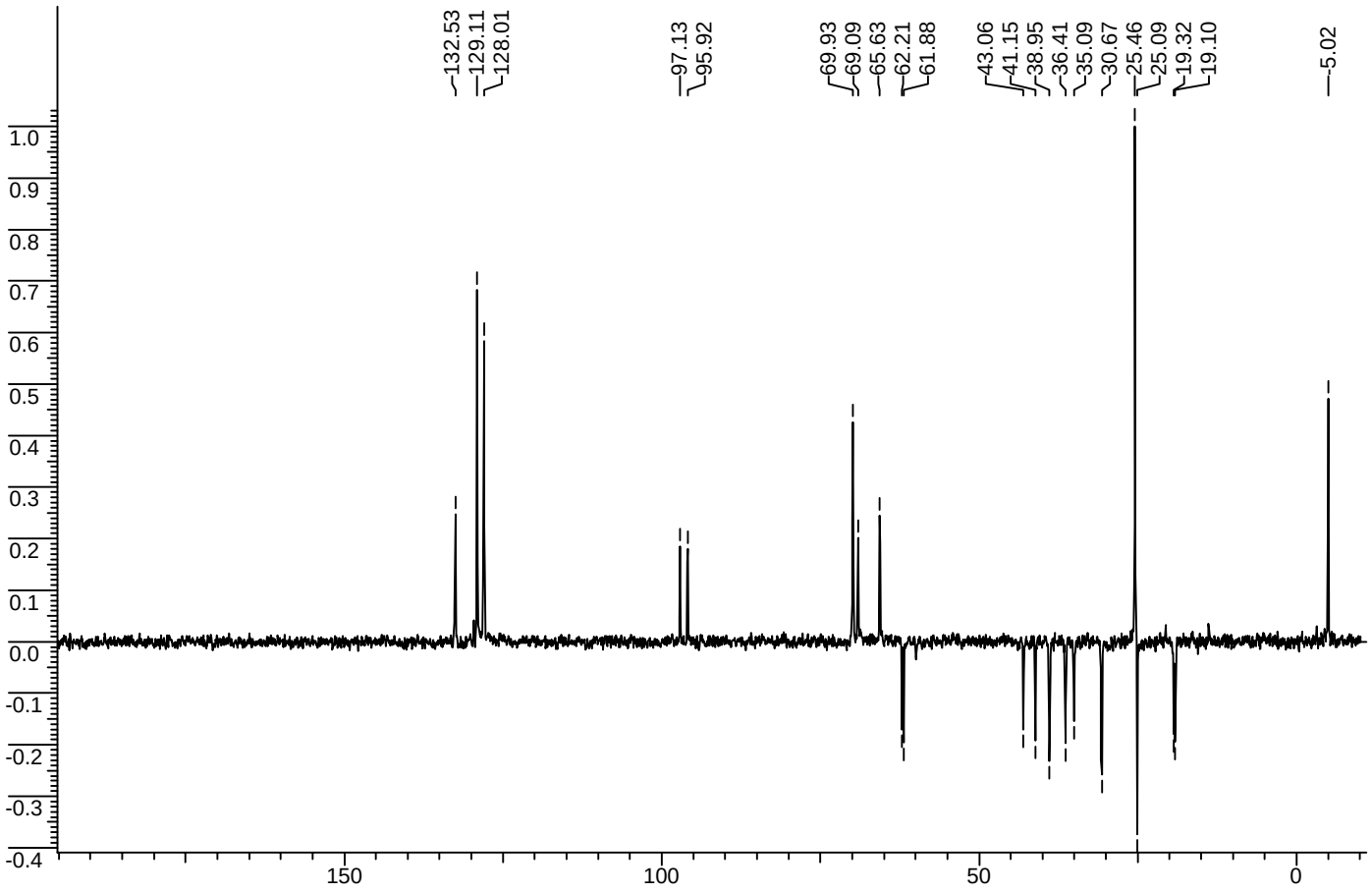
☞ ^{1}H NMR spectrum of ***16***



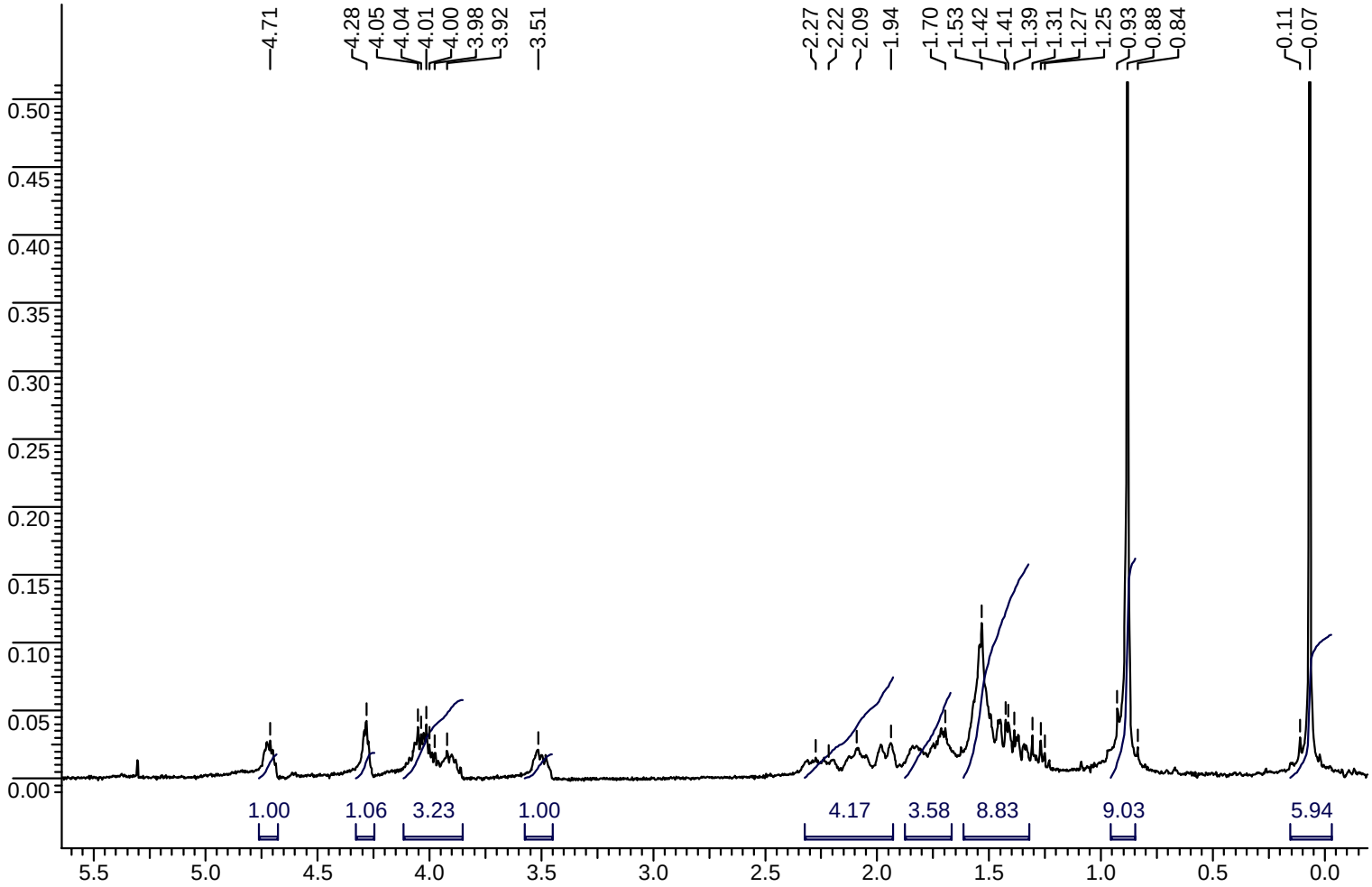
☞ *^{13}C NMR spectra of **16***



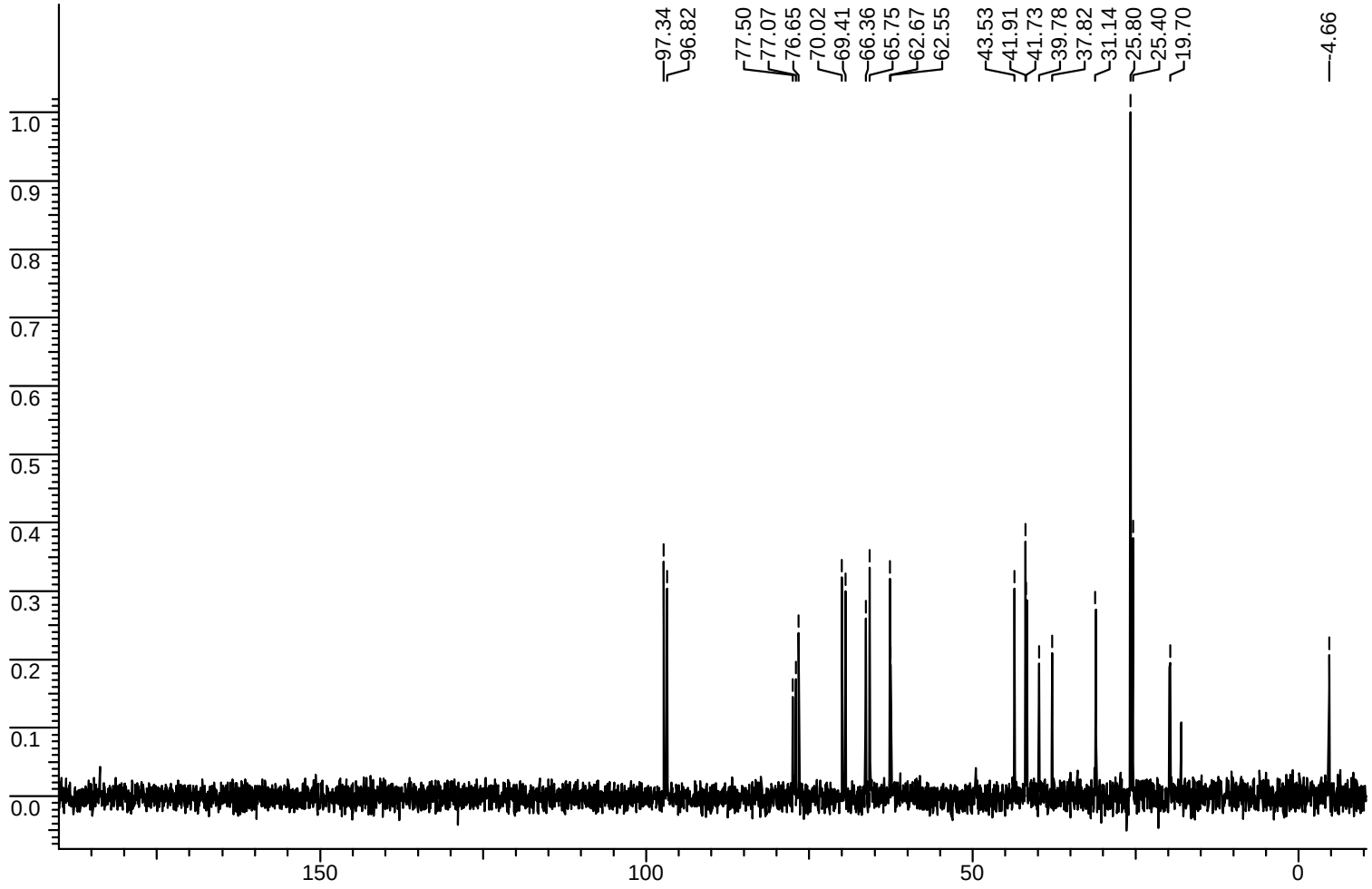
*^{13}C DEPT NMR spectra of **16***



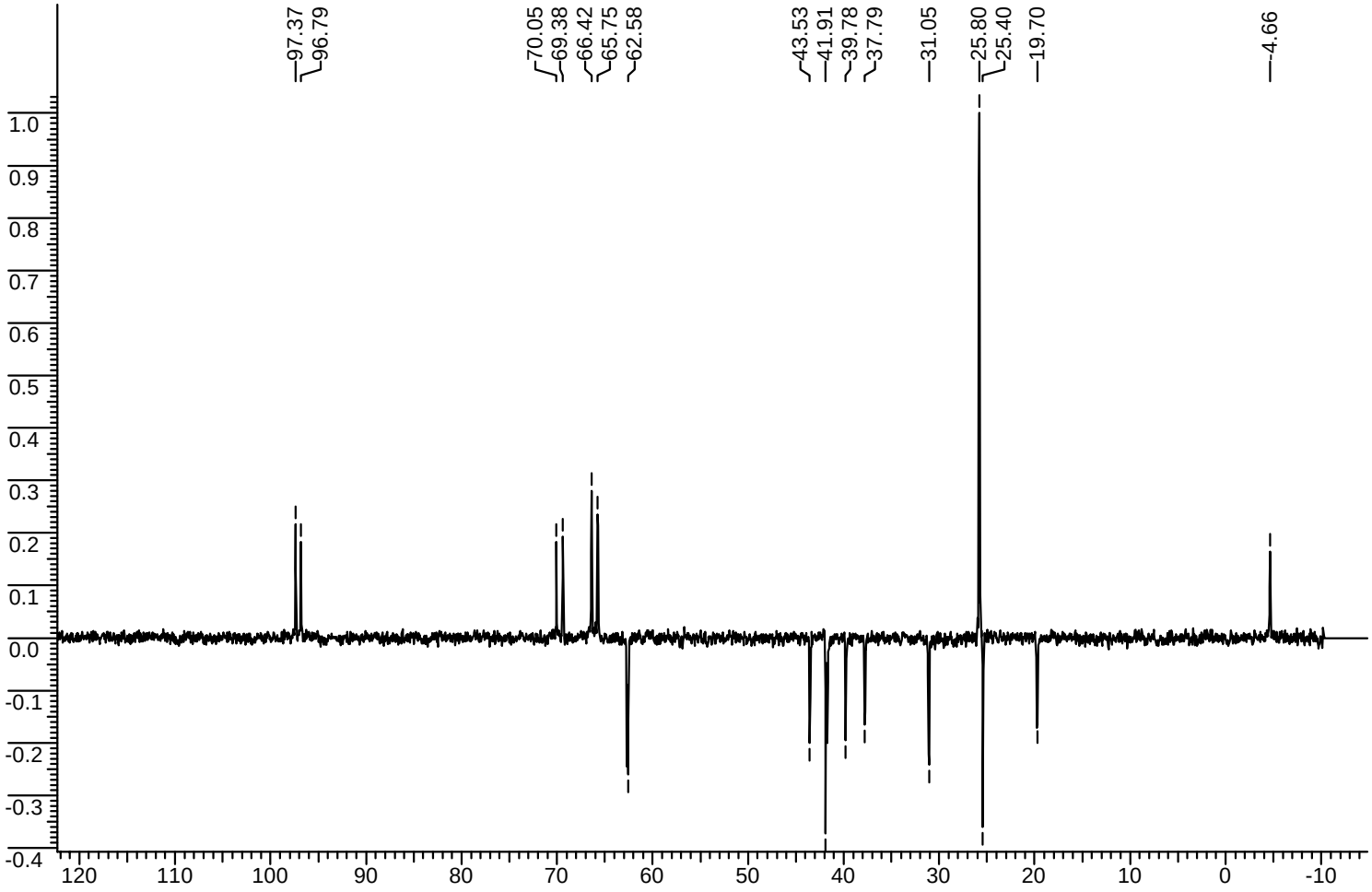
*^{1}H NMR spectrum of **17***



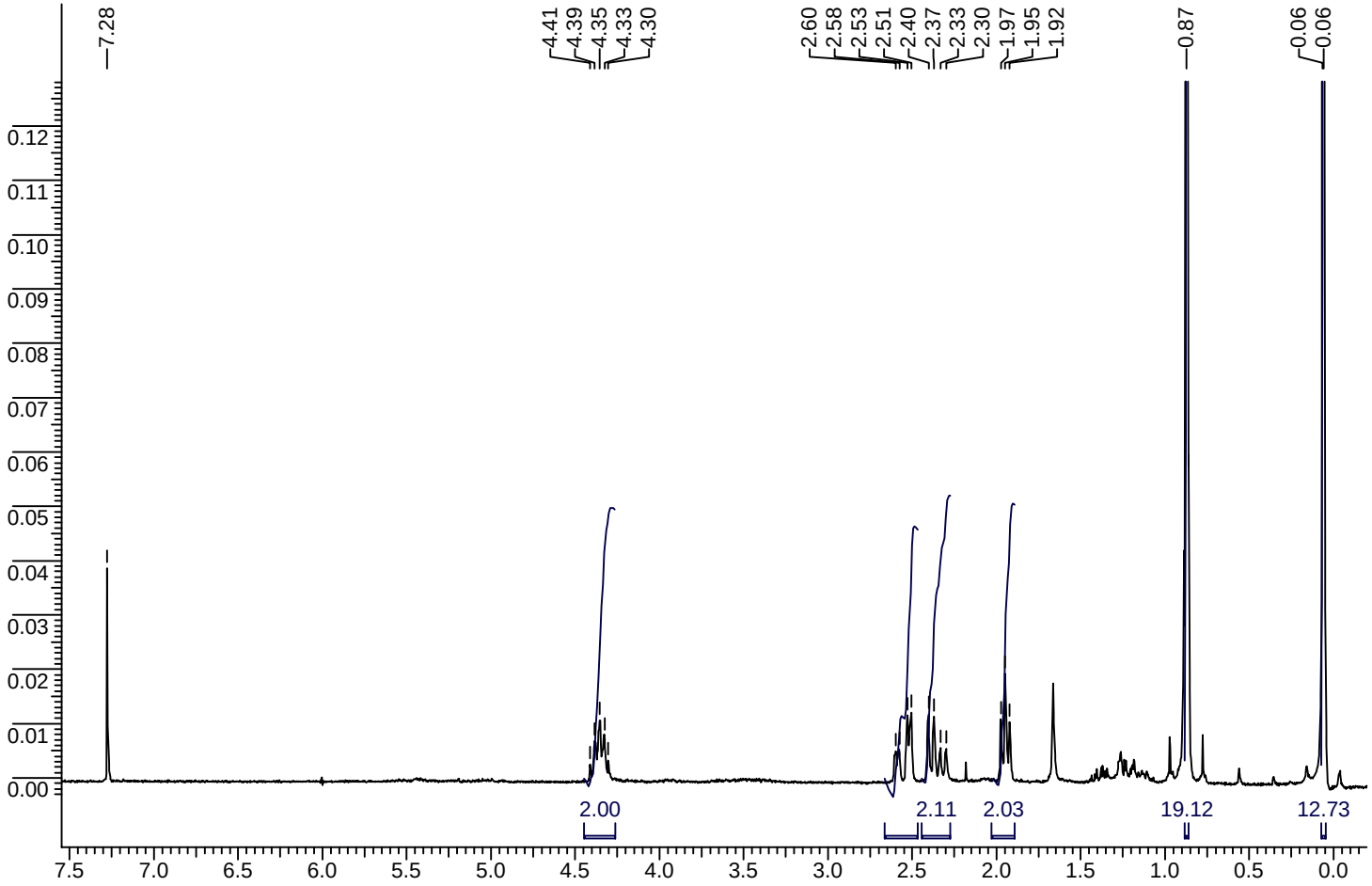
*^{13}C NMR spectra of **17***



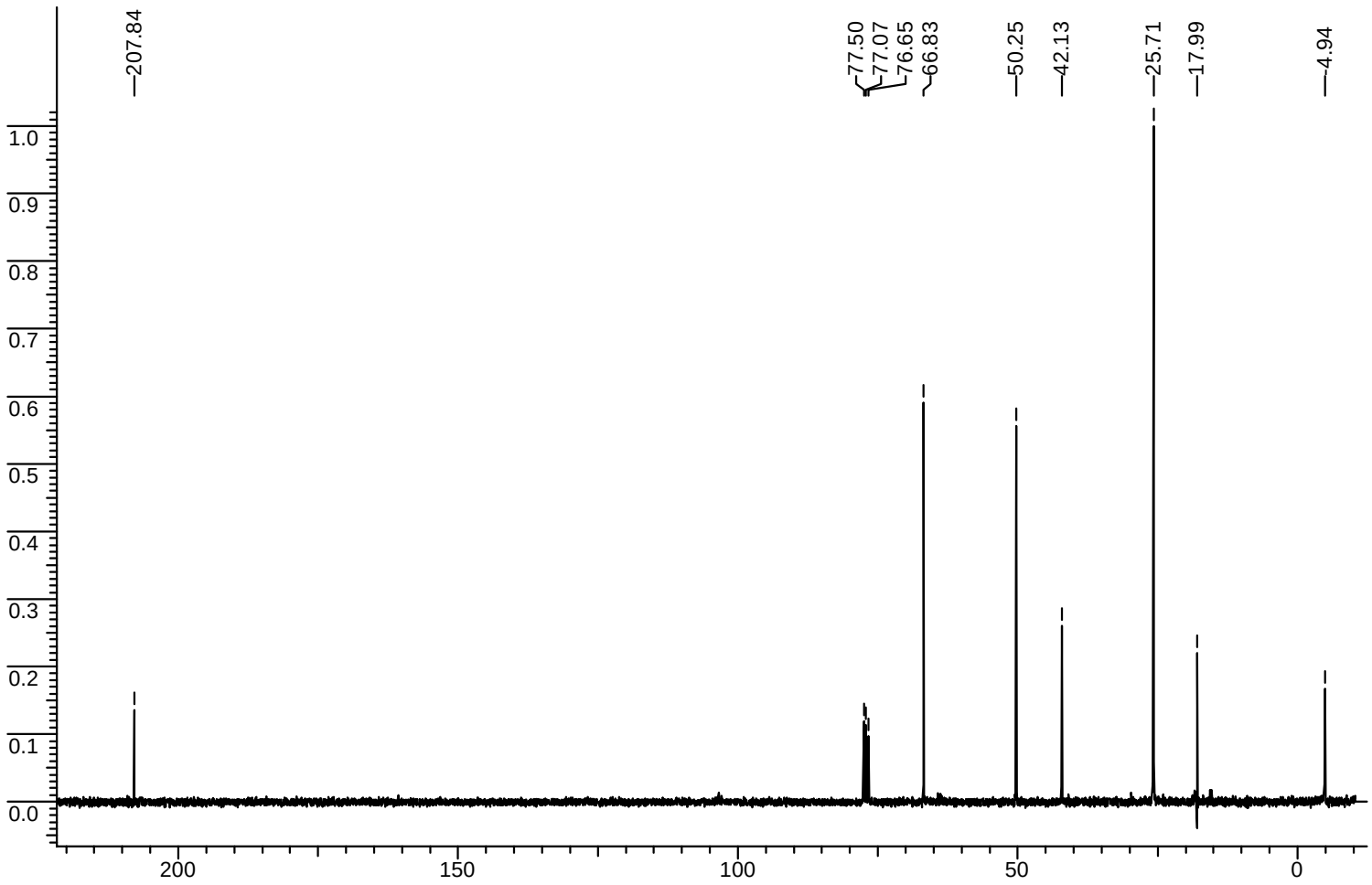
*^{13}C DEPT NMR spectra of **17***



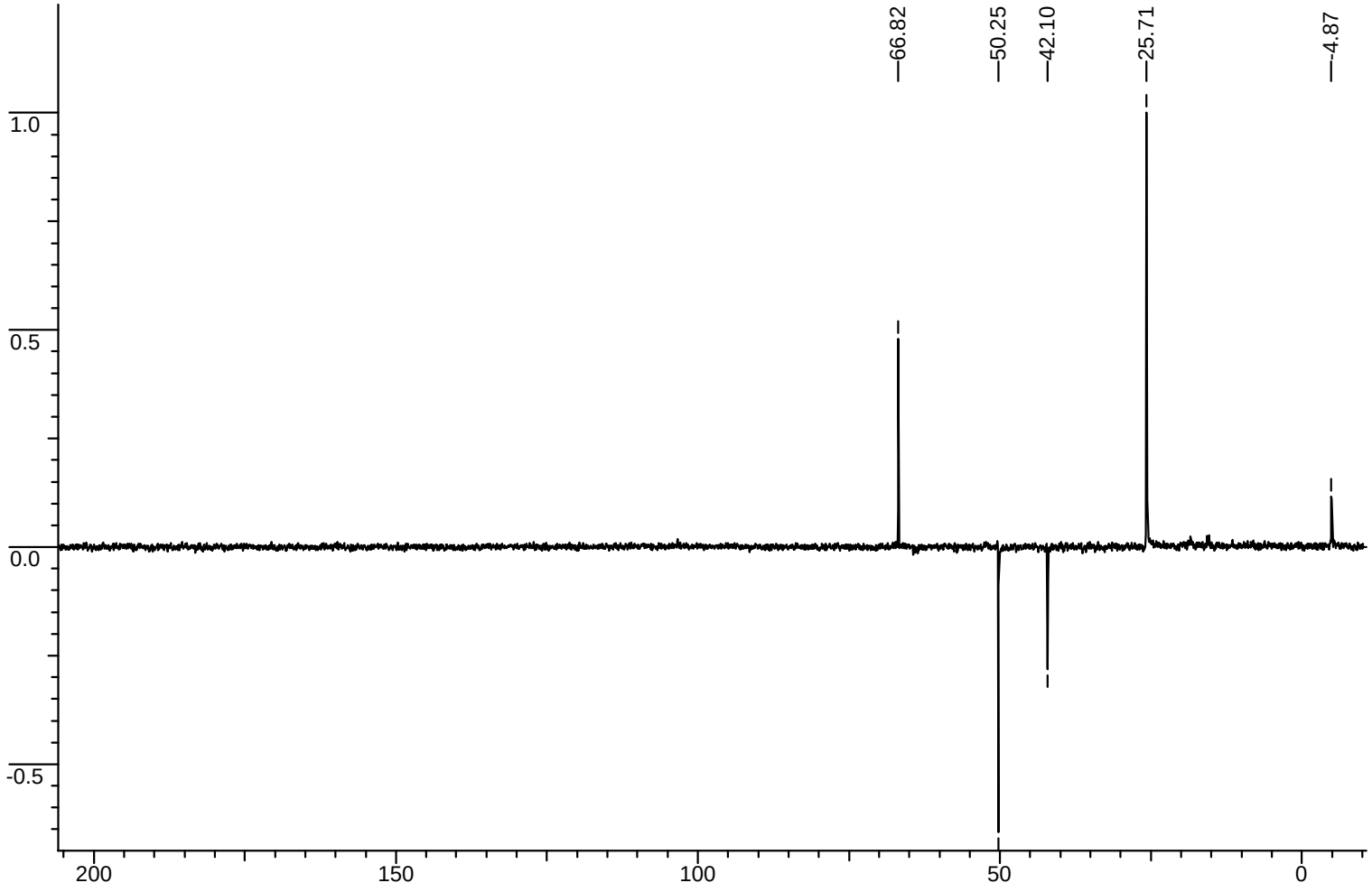
*^{1}H NMR spectrum of **7***



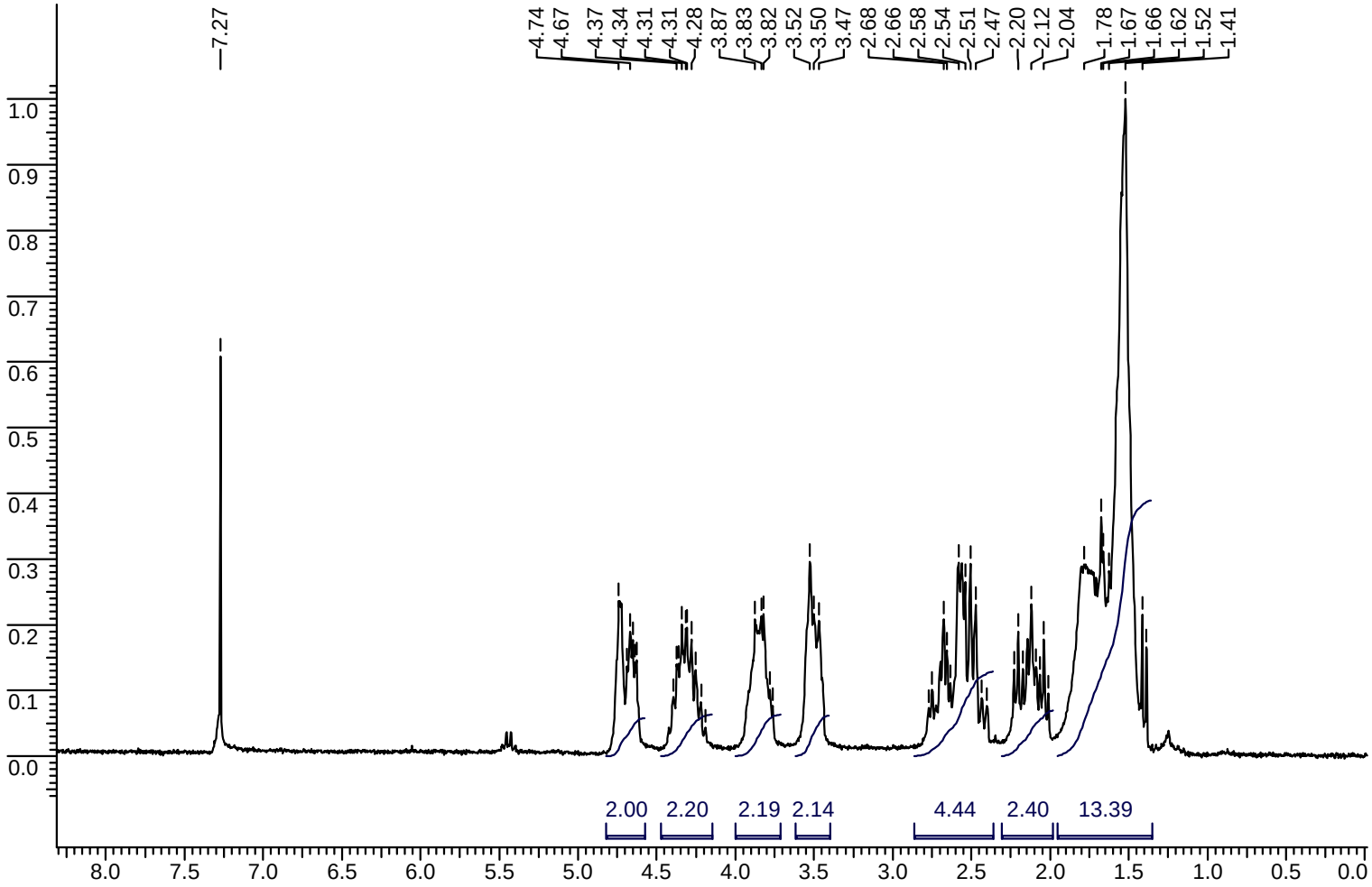
☞ *^{13}C NMR spectra of **7***



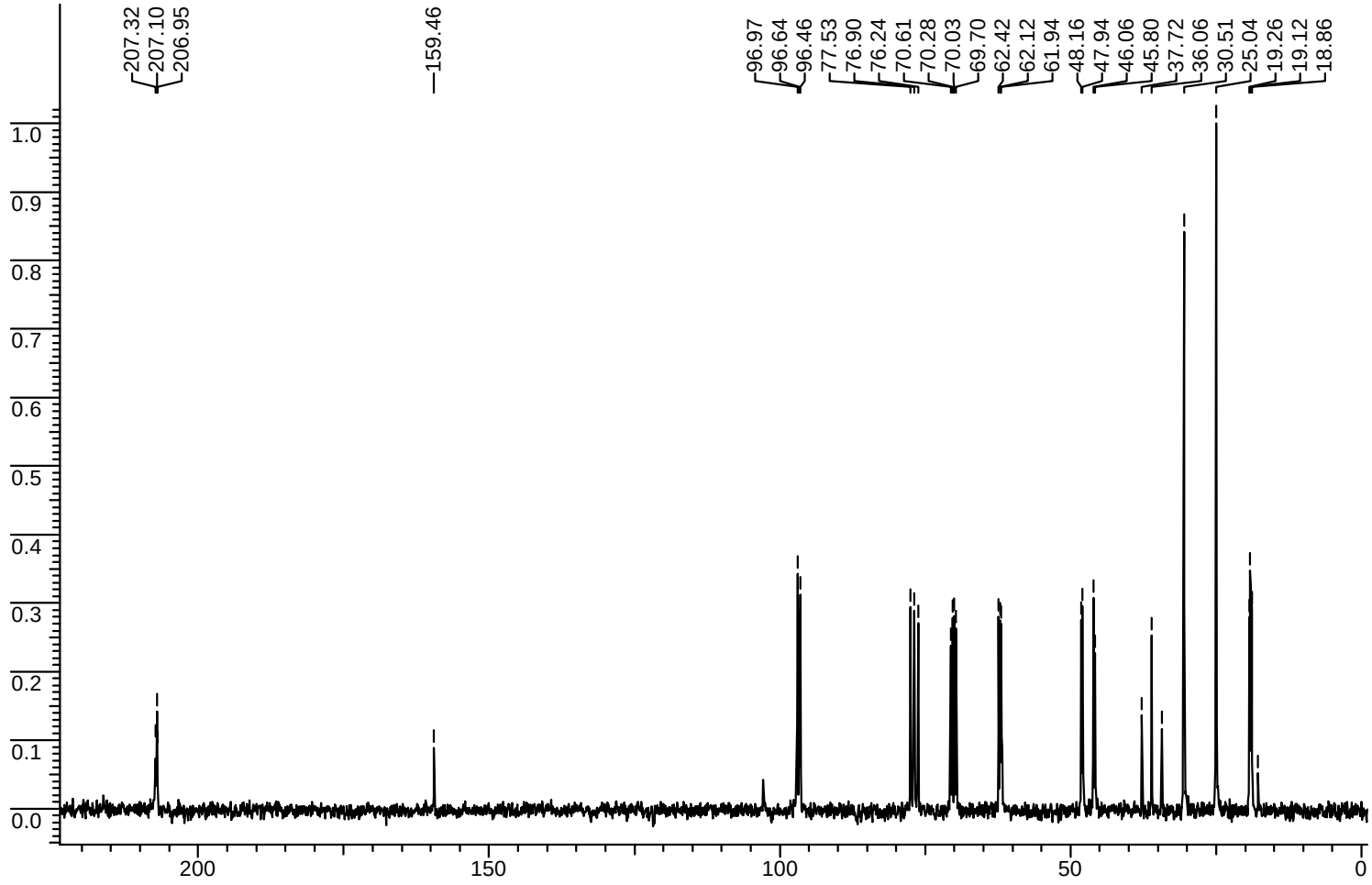
*^{13}C DEPT NMR spectra of **7***



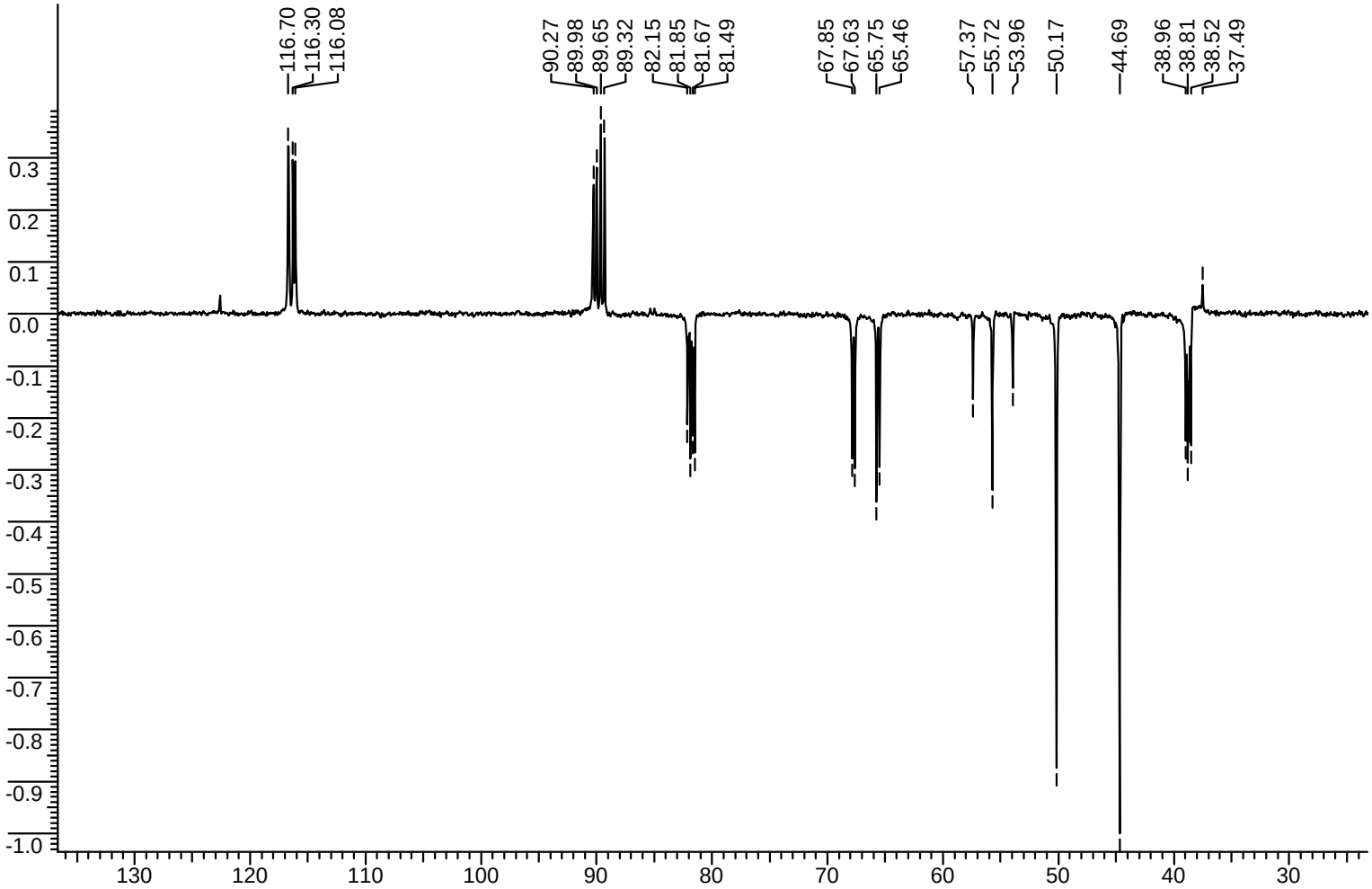
^{1}H NMR spectrum of ***ent-7***



^{13}C NMR spectra of ***ent-7***

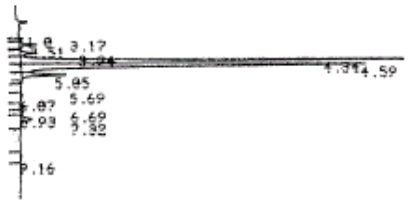


^{13}C DEPT NMR spectra of ***ent-7***



☞ *Chiral HPLC charts for Mosher ester of **8***

Racemic Mosher ester



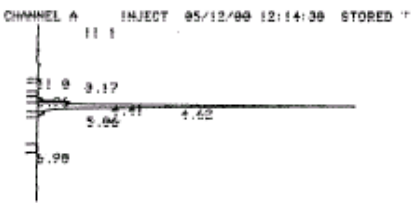
DATA SAVED TO BIN #

SANDEEP.CHORPADE 05/12/00 12:00:45

FILE 1. METHOD 0. RUN 1 INDEX 1

PEAK#	AREA%	RT	AREA	BC
1	0.274	3.17	13417	01
2	1.479	3.51	72396	01
3	1.546	3.94	75655	02
4	43.549	4.34	2131211	02
5	44.357	4.59	2170728	02
6	5.065	5.05	247873	03
7	0.149	5.69	7295	02
8	0.466	6.07	22795	02
9	0.521	6.69	25510	02
10	0.483	6.93	23661	02
11	1.949	7.32	95389	03
12	0.16	9.16	7845	01
TOTAL	100.		4893273	

Optically enriched Mosher ester



DATA SAVED TO BIN # 2

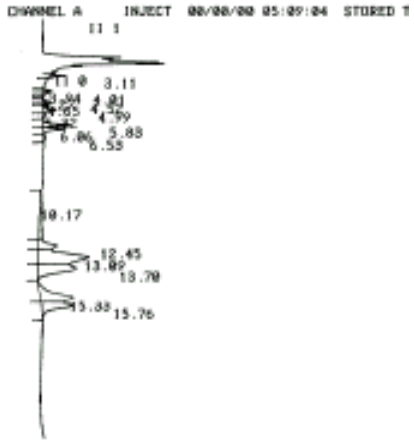
SANDEEP.CHORPADE 05/12/00 12:14:30

FILE 1. METHOD 0. RUN 2 INDEX

PEAK#	AREA%	RT	AREA	BC
1	0.395	3.17	9500	01
2	0.227	3.96	5464	01
3	7.200	4.41	173269	02
4	90.231	4.62	2169111	02
5	1.731	5.06	41614	03
6	0.200	6.98	5000	01
TOTAL	100.		2403966	

Chiral HPLC chart for ***ent-7***

Racemic ent-7



DATA SAVED TO BIN # 2

S.B.CHORPADE 00/00/00 05:09:04

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PEAK#	AREA%	RT	AREA	BC
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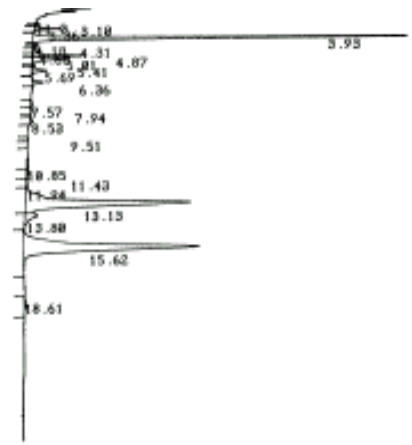
2	0.815	3.94	38242	02
3	0.63	4.01	29551	02
4	0.064	4.27	3019	03
5	0.37	4.52	17382	02
6	0.821	4.65	38537	02
7	2.212	4.99	103810	02
8	0.617	5.32	28940	02
9	3.822	5.83	179336	02
10	3.676	6.06	172481	00
11	0.273	6.58	12810	05
12	5.465	10.17	256400	02
13	6.761	12.45	317251	02
14	28.353	13.09	1330068	02
15	17.854	13.7	837704	02
16	15.403	15.33	722711	02
17	11.8	15.76	553647	03
TOTAL	100.		4692062	

Optically active ent-7



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S.B.CHORPADE 00/00/00 04:34:54

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3	19.645	3.93	1995629	00
4	0.013	4.10	1323	06
5	0.191	4.31	19433	06
6	0.522	4.66	52999	06
7	2.941	4.87	298707	06
8	2.873	5.01	291798	06
9	0.142	5.41	14397	06
10	1.171	5.69	118906	07
11	0.776	6.36	78787	01
12	0.178	7.57	18053	02
13	0.138	7.94	14050	03
14	0.294	8.53	29826	01
15	0.031	9.51	3162	01
16	0.554	10.85	56322	02
17	0.379	11.43	38517	02
18	0.429	11.94	43569	02
19	30.899	13.13	3138794	02
20	2.065	13.8	209755	02
21	35.201	15.62	3575788	03
22	0.331	18.61	33617	01
TOTAL	100.		10158277	