Supplementary Materials

Guaianolide Sesquiterpene Lactones from *Centaurothamnus maximus*

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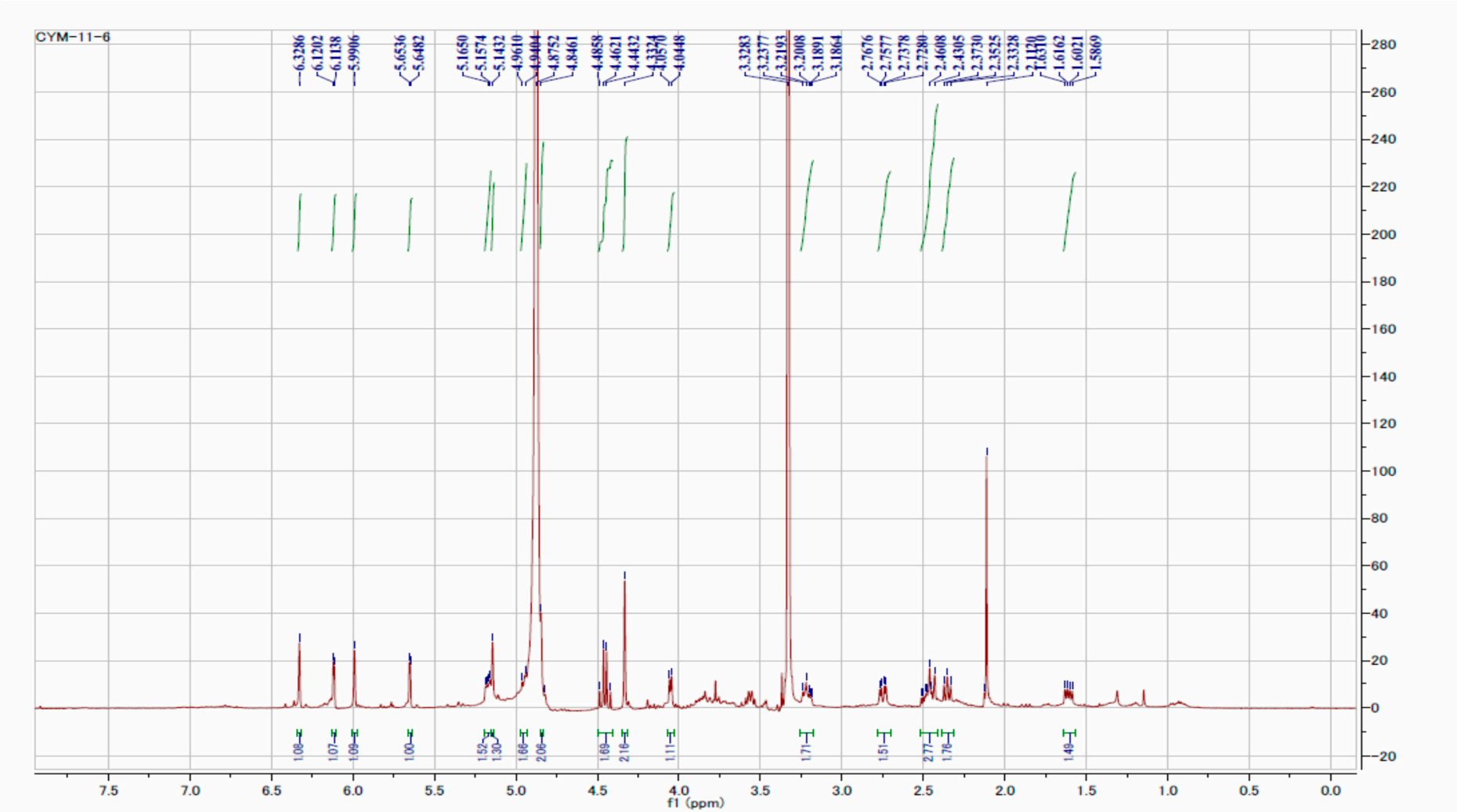
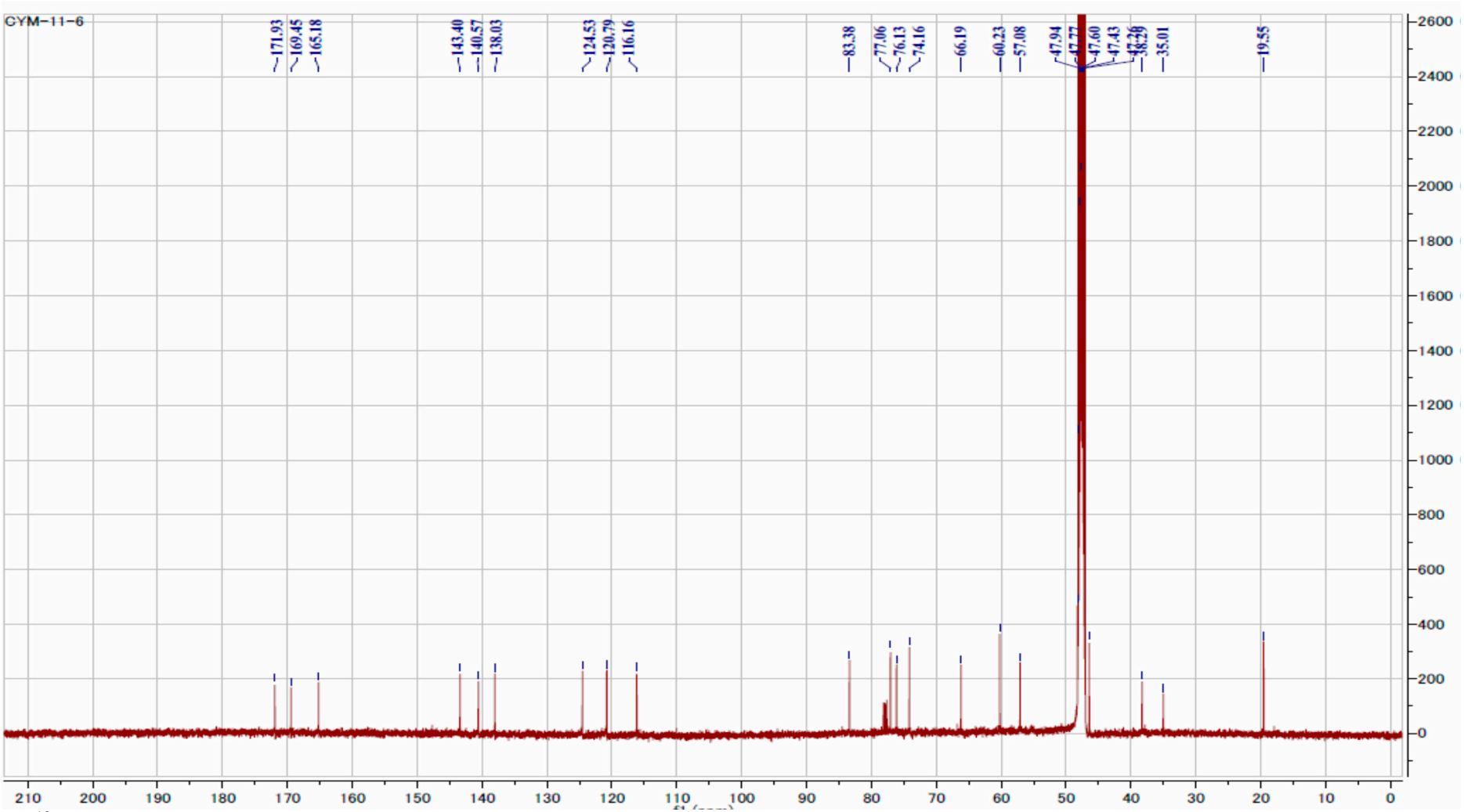
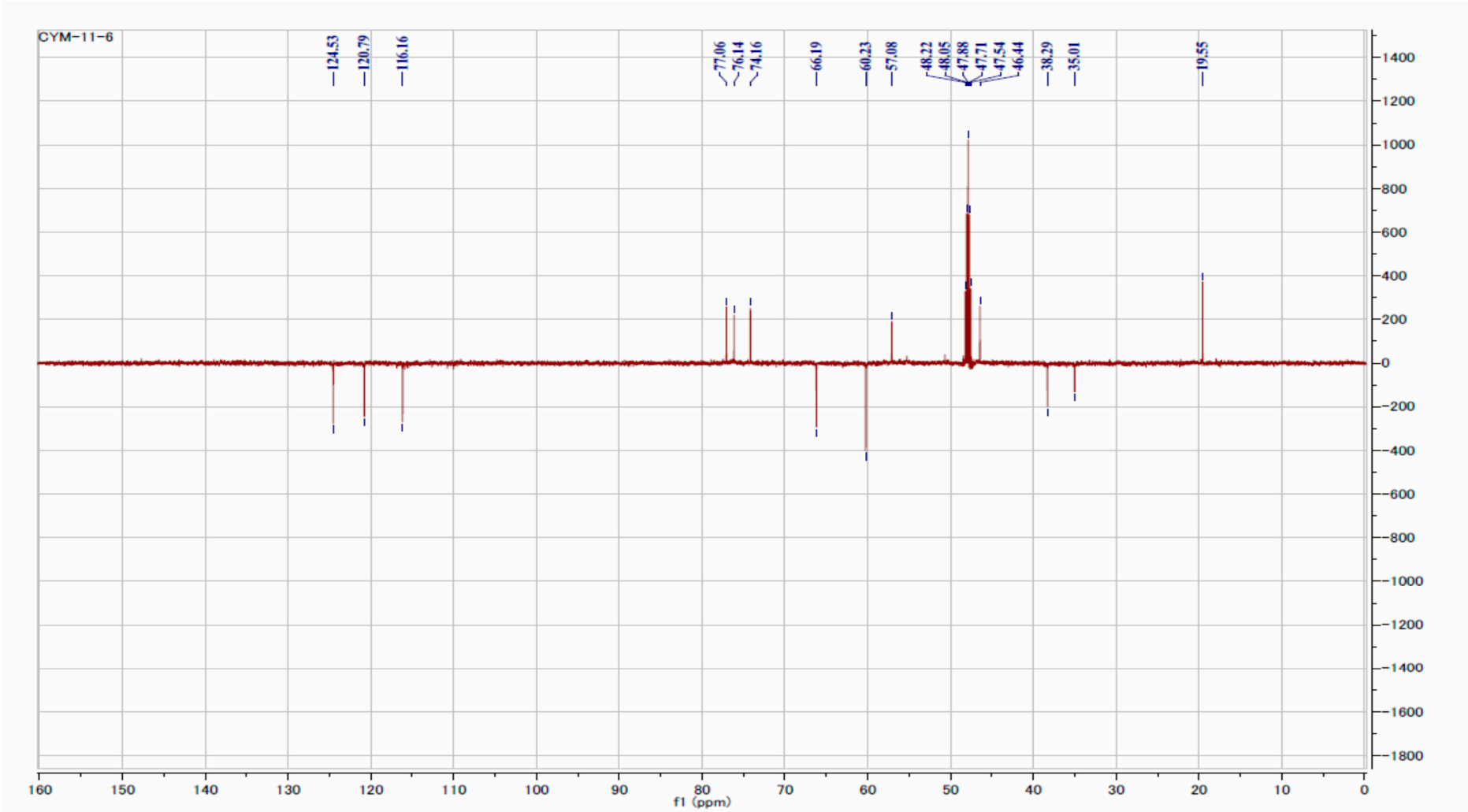


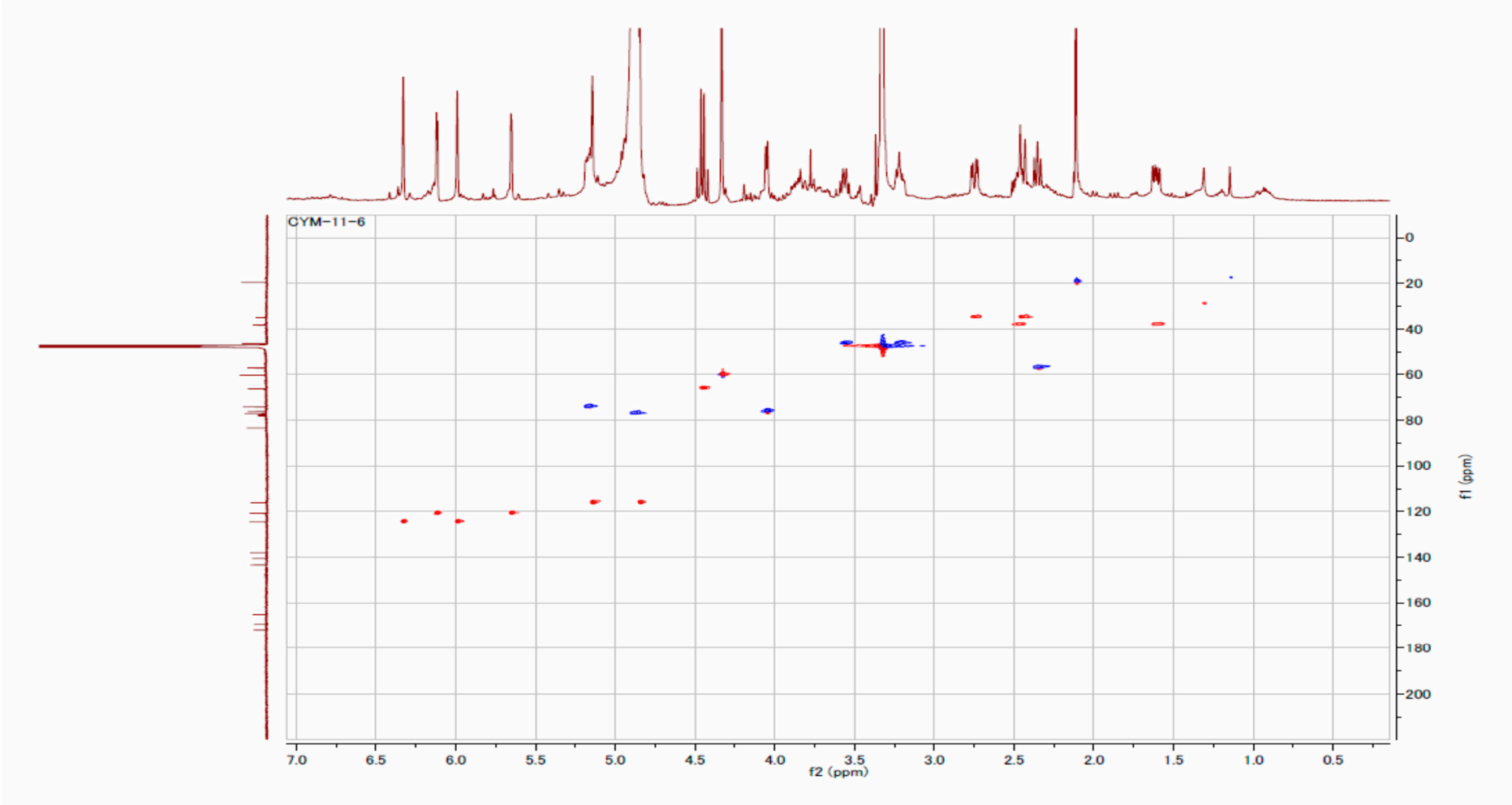
S1:[1]H NMR ($CDCl_3$, 500 MHz) of **1**



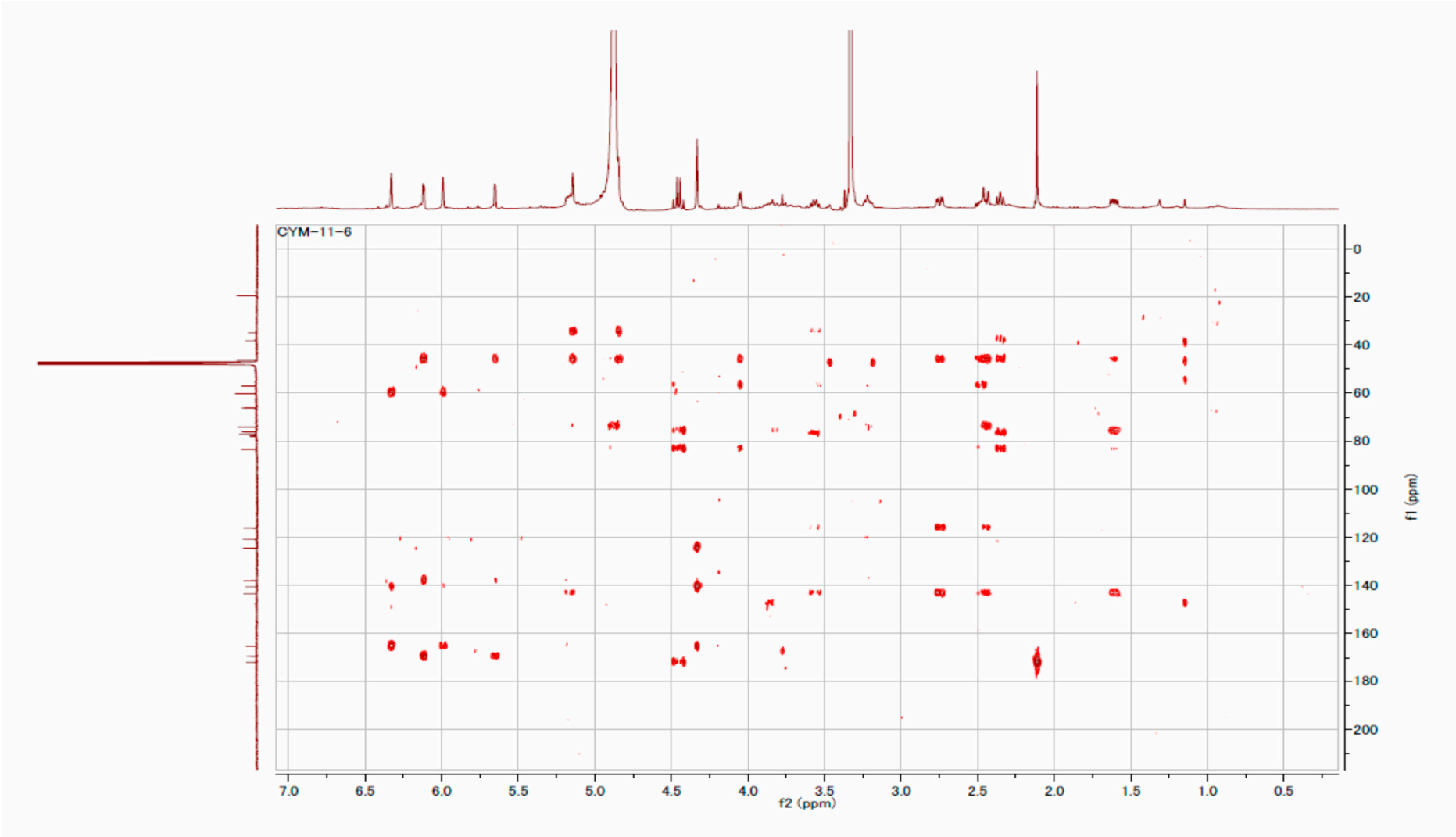
S2:[13]C NMR (CDCl3, 125 MHz) of **1**


CYM-11-6
124.53
120.79
116.16
77.06
76.14
74.16
66.19
60.23
57.08
48.22
48.05
47.88
47.71
47.54
46.44
38.29
35.01
19.55
f1 (ppm)

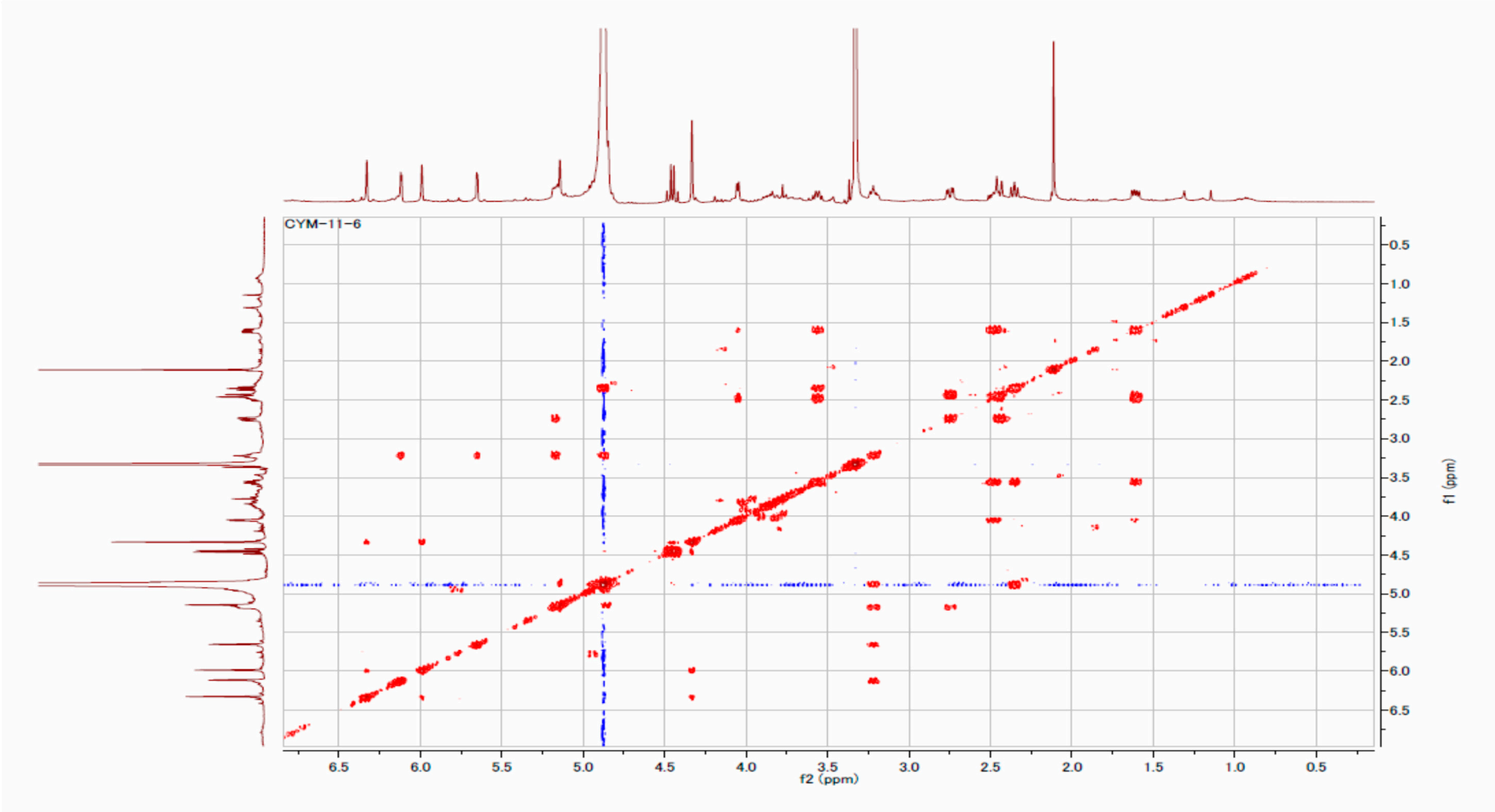
S3:DEPT of **1**



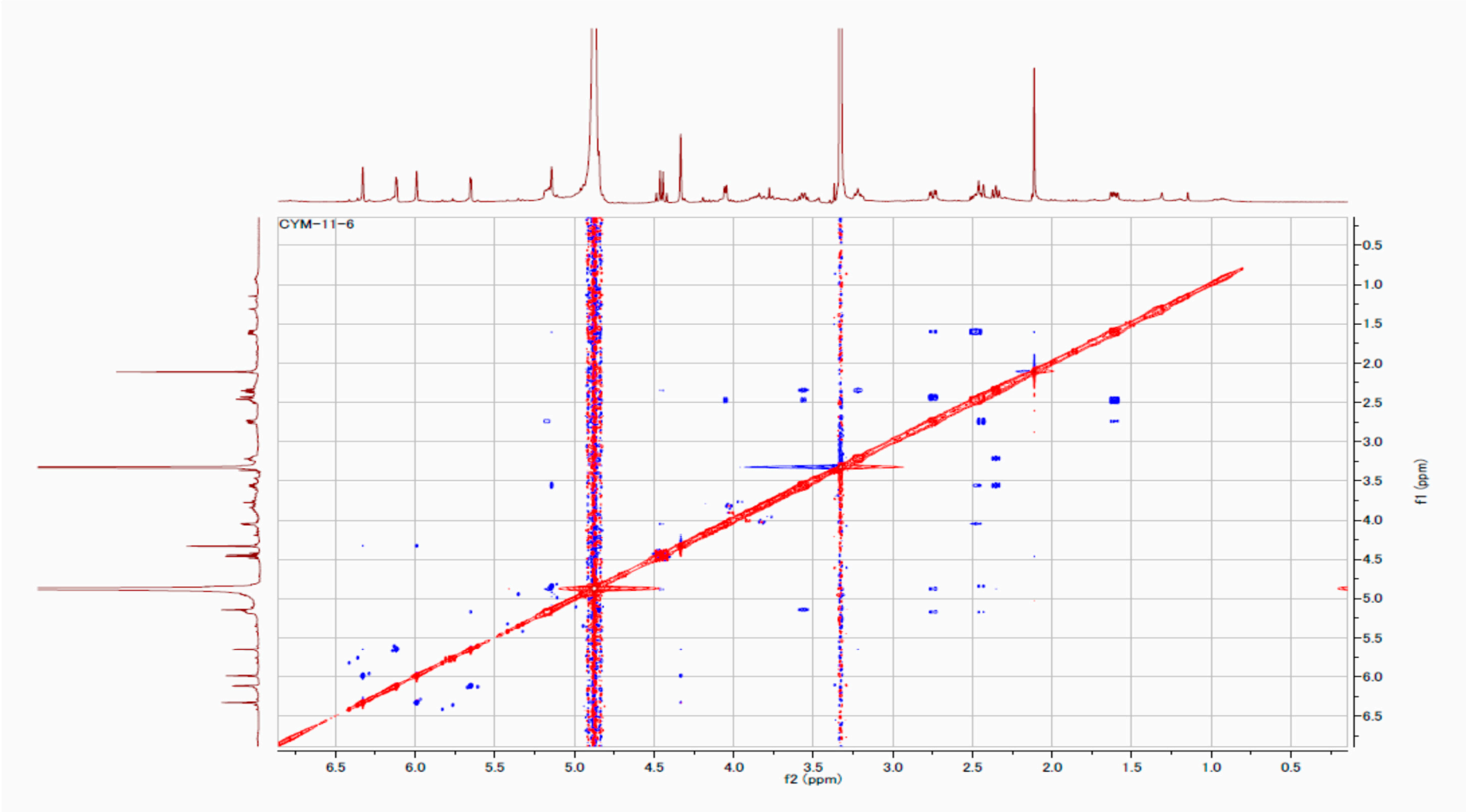
S4:HSQC of **1**



S5:HMBC of **1**



S6:^{1}H ^{1}H COSY of **1**

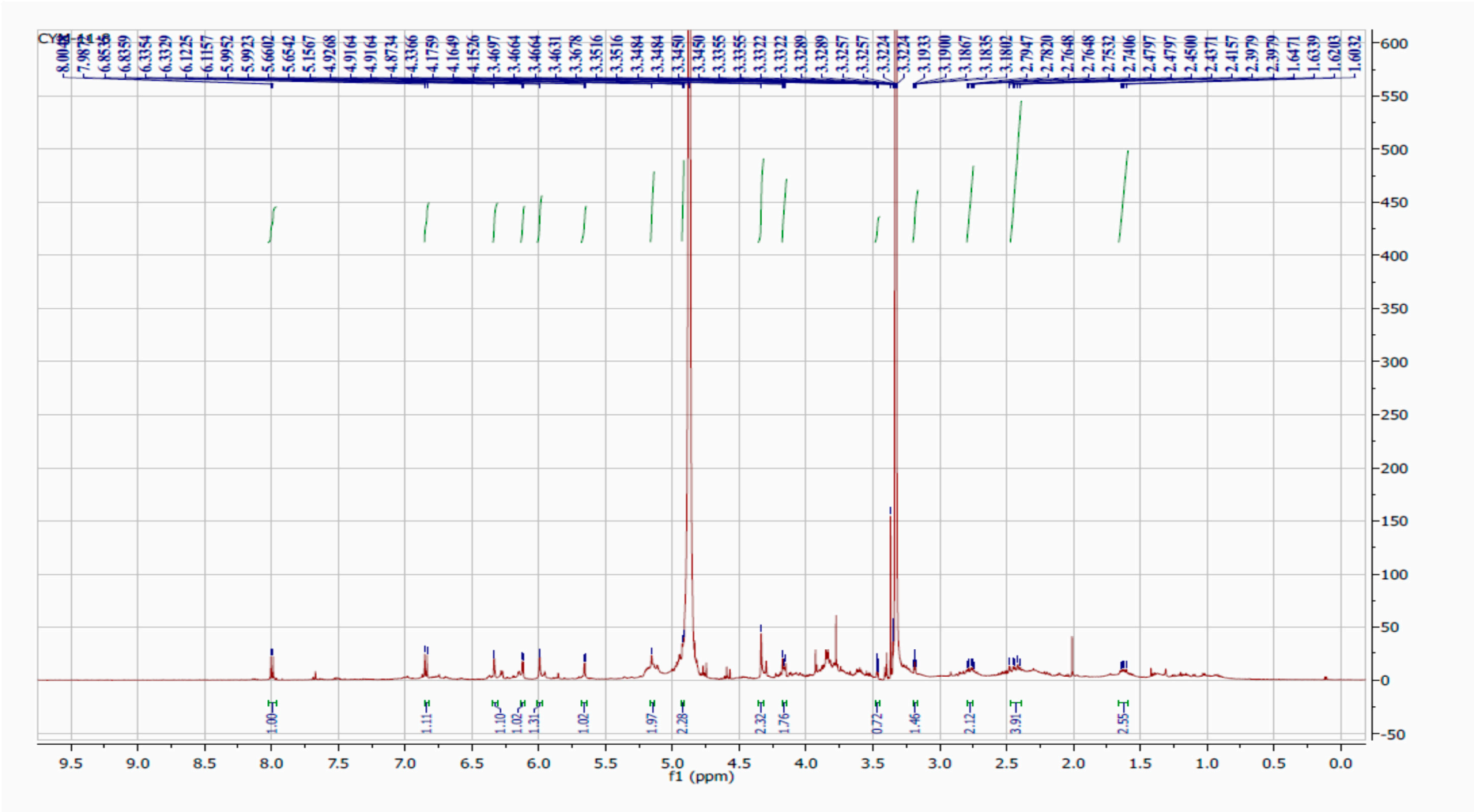


S7:NOESY of **1**

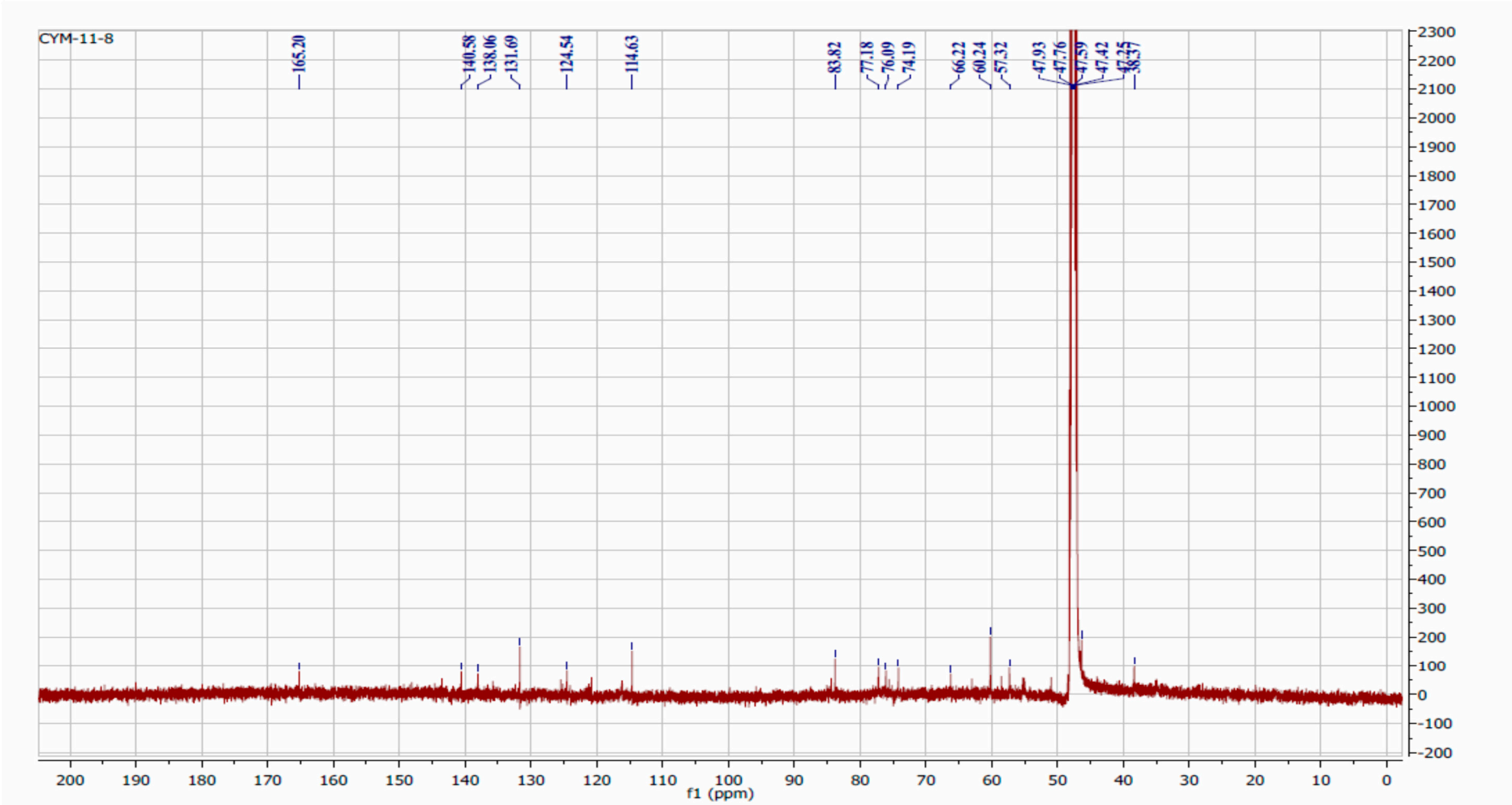
Sample : CyM-11-6
Note : MStation
Inlet : Direct Ion Mode : CI+
RT : 2.11 min Scan# : 56
Elements : C 150/0, H 250/0, O 50/0
Mass Tolerance : 5mmu
Unsaturation (U.S.) : 0.0 – 15.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	423.1655	18.79	-0.0 / -0.0	8.5	C21 H27 O9

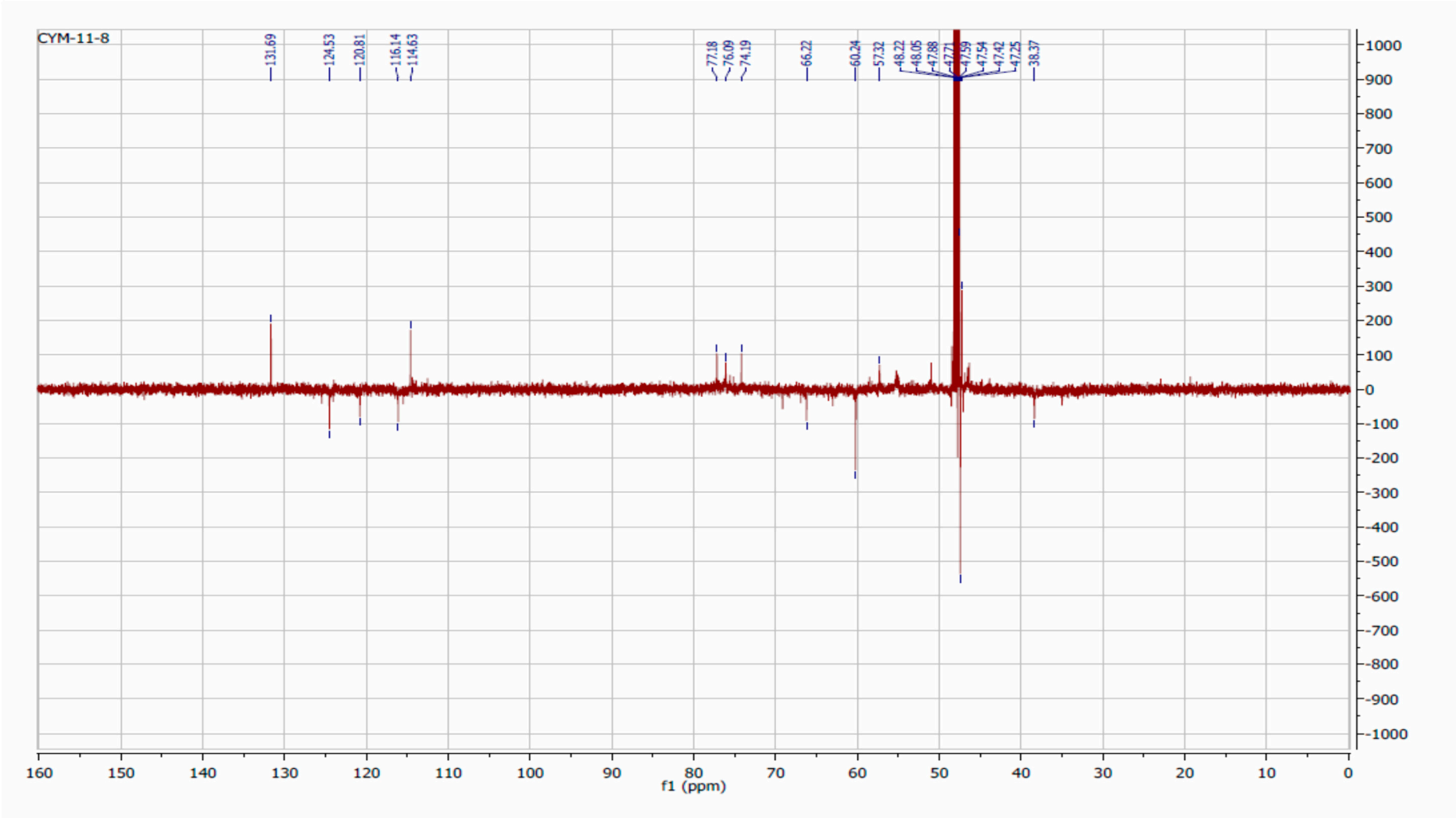
S8: HRCI/mas of **1**



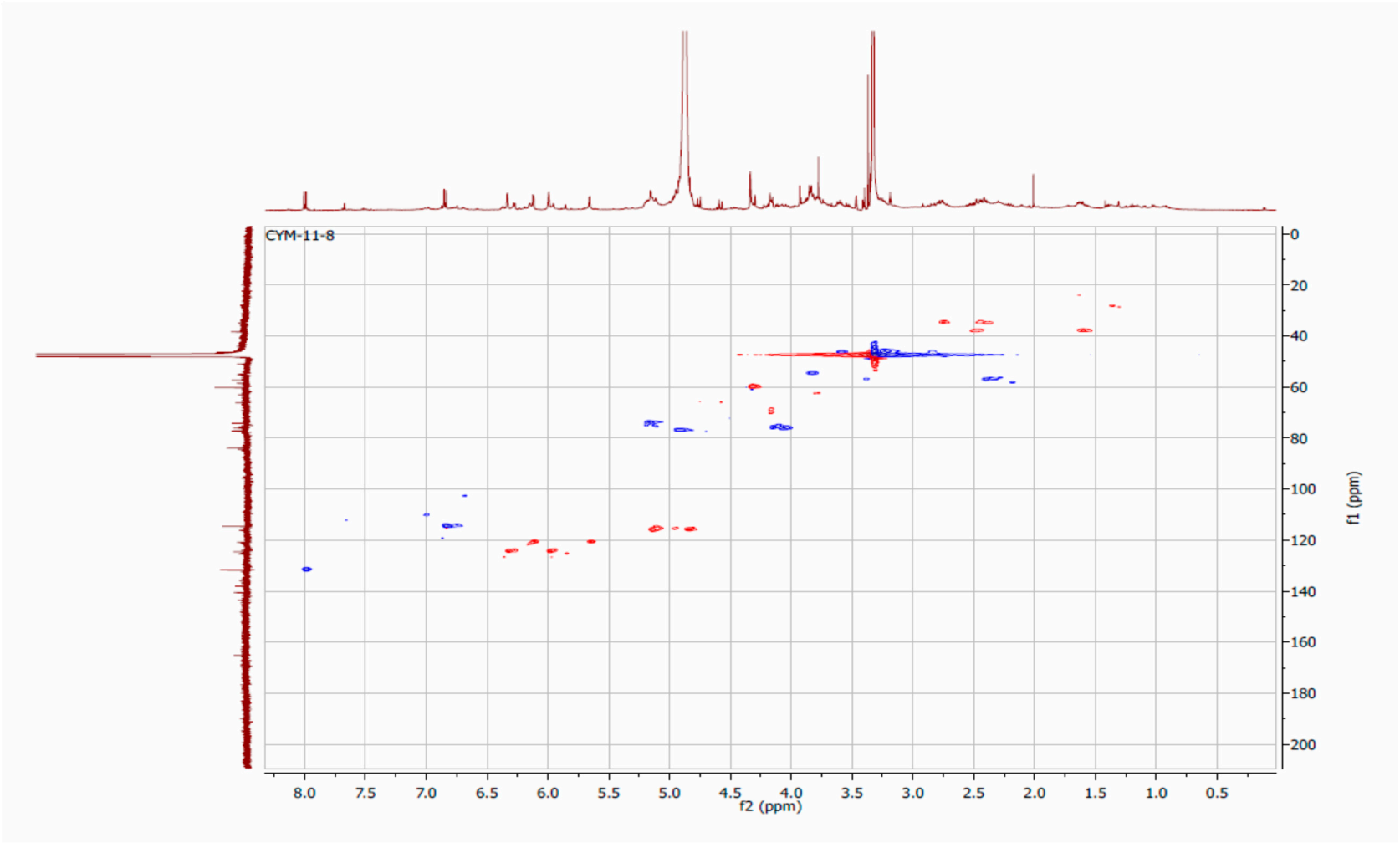
S9:[1]H NMR ($CDCl_3$, 500 MHz) of **2**



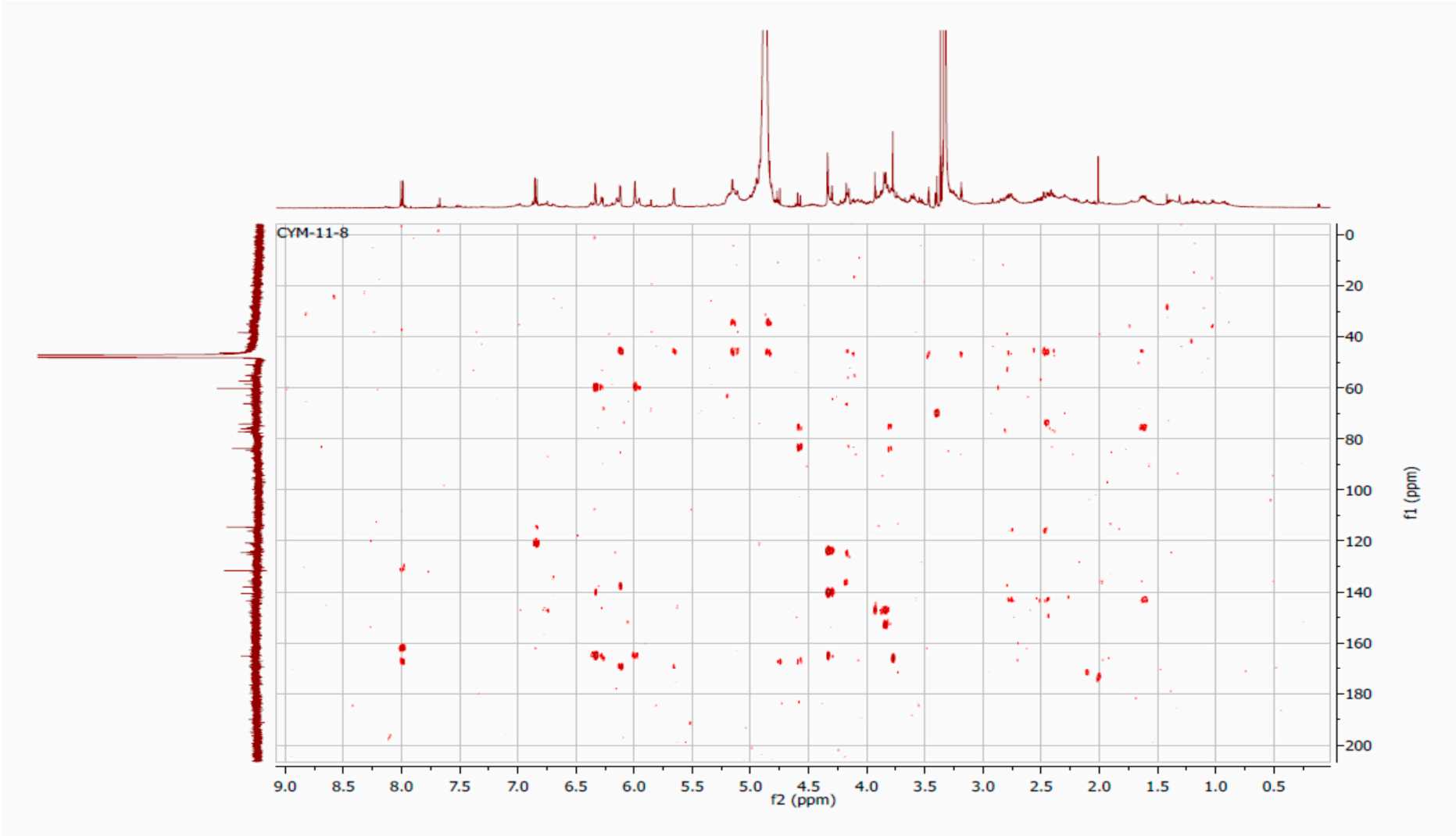
S10:^{13}C NMR (CDCl3, 125 MHz) of **2**


CYM-11-8
131.69
124.53
120.81
116.14
114.63
77.18
76.09
74.19
66.22
60.24
57.32
48.22
48.05
47.88
47.71
47.59
47.54
47.42
47.25
38.37
f1 (ppm)

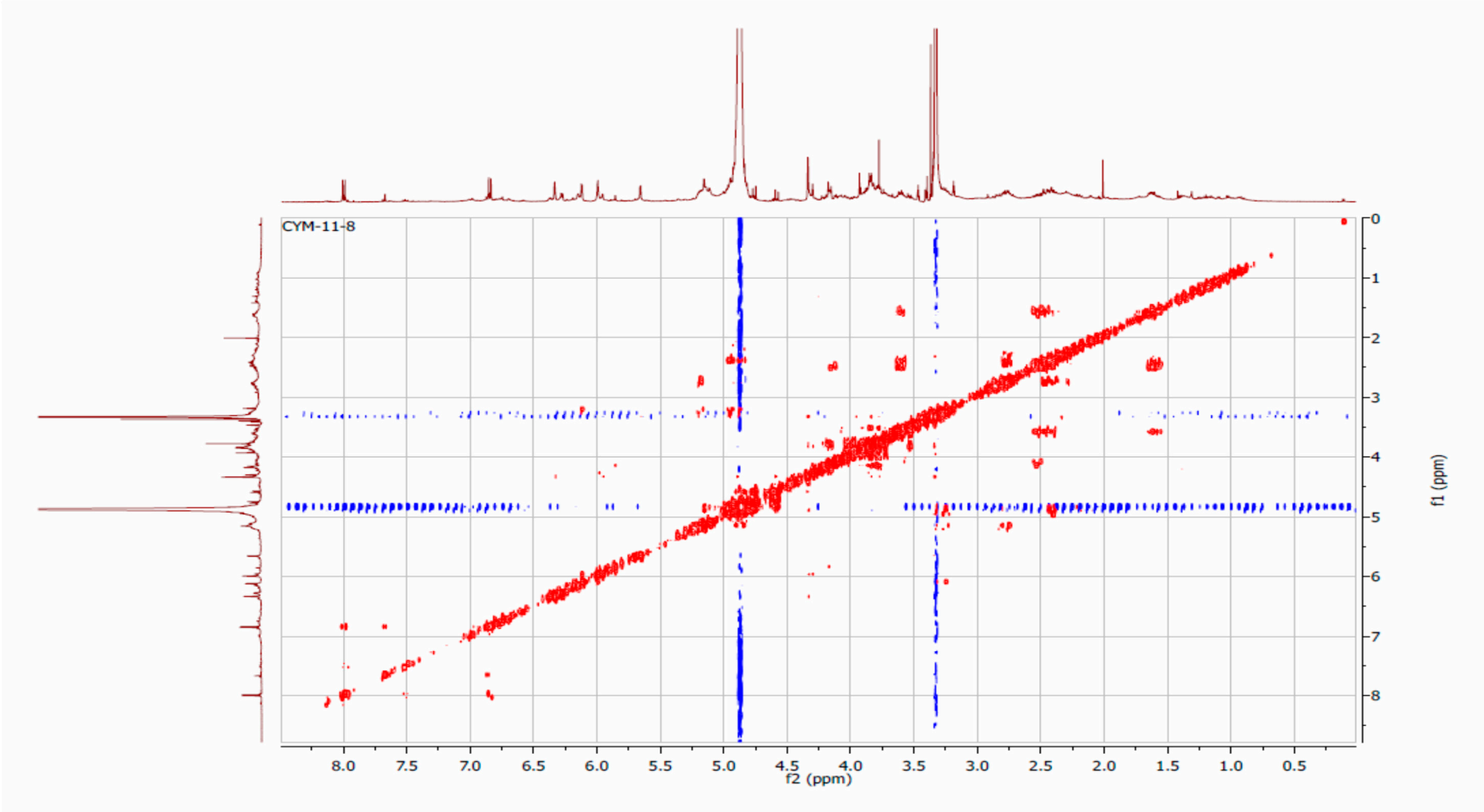
S11:DEPT of **2**



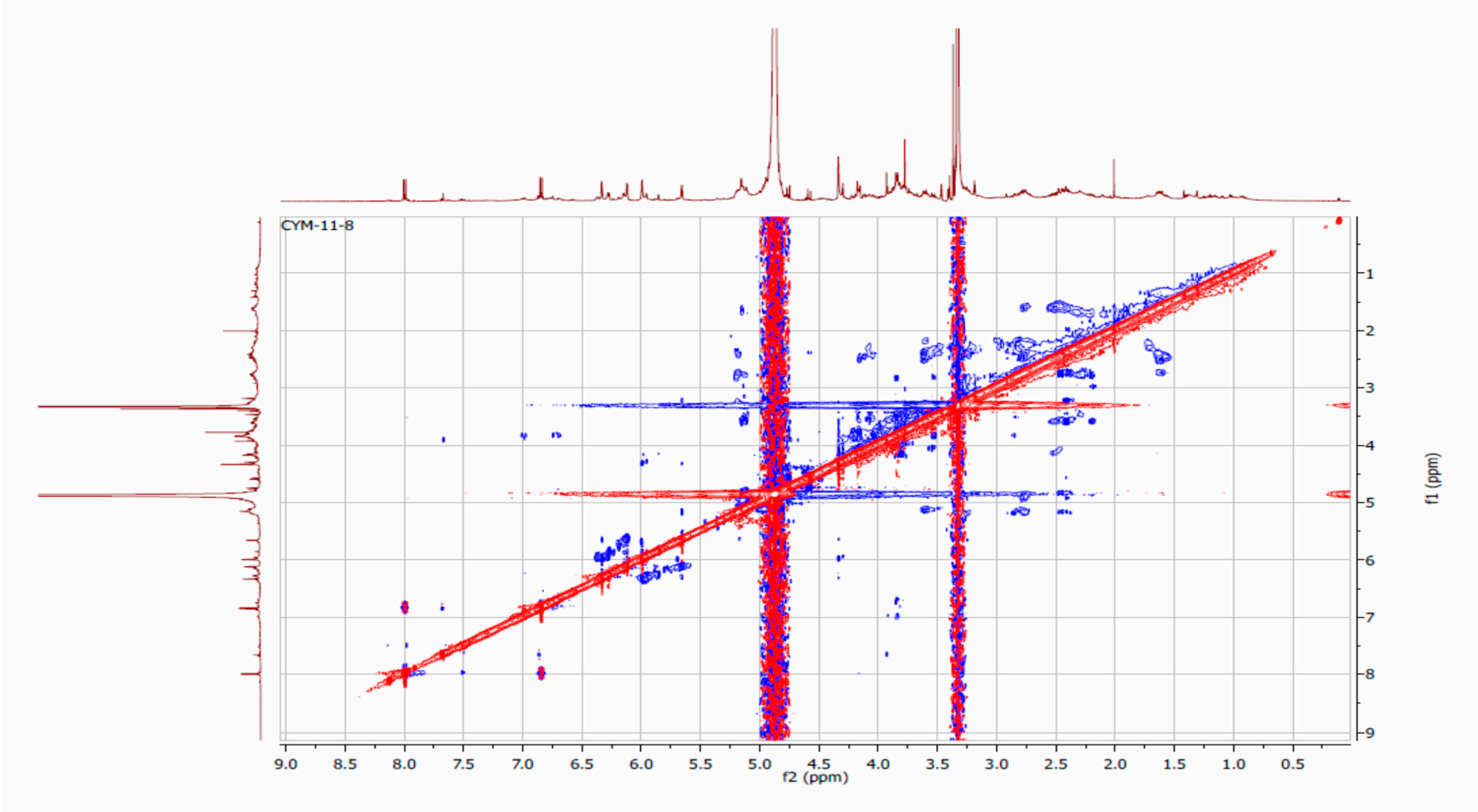
S12:HSQC of **2**



S13:HMBC of **2**



S14:^{1}H ^{1}H COSY of **2**

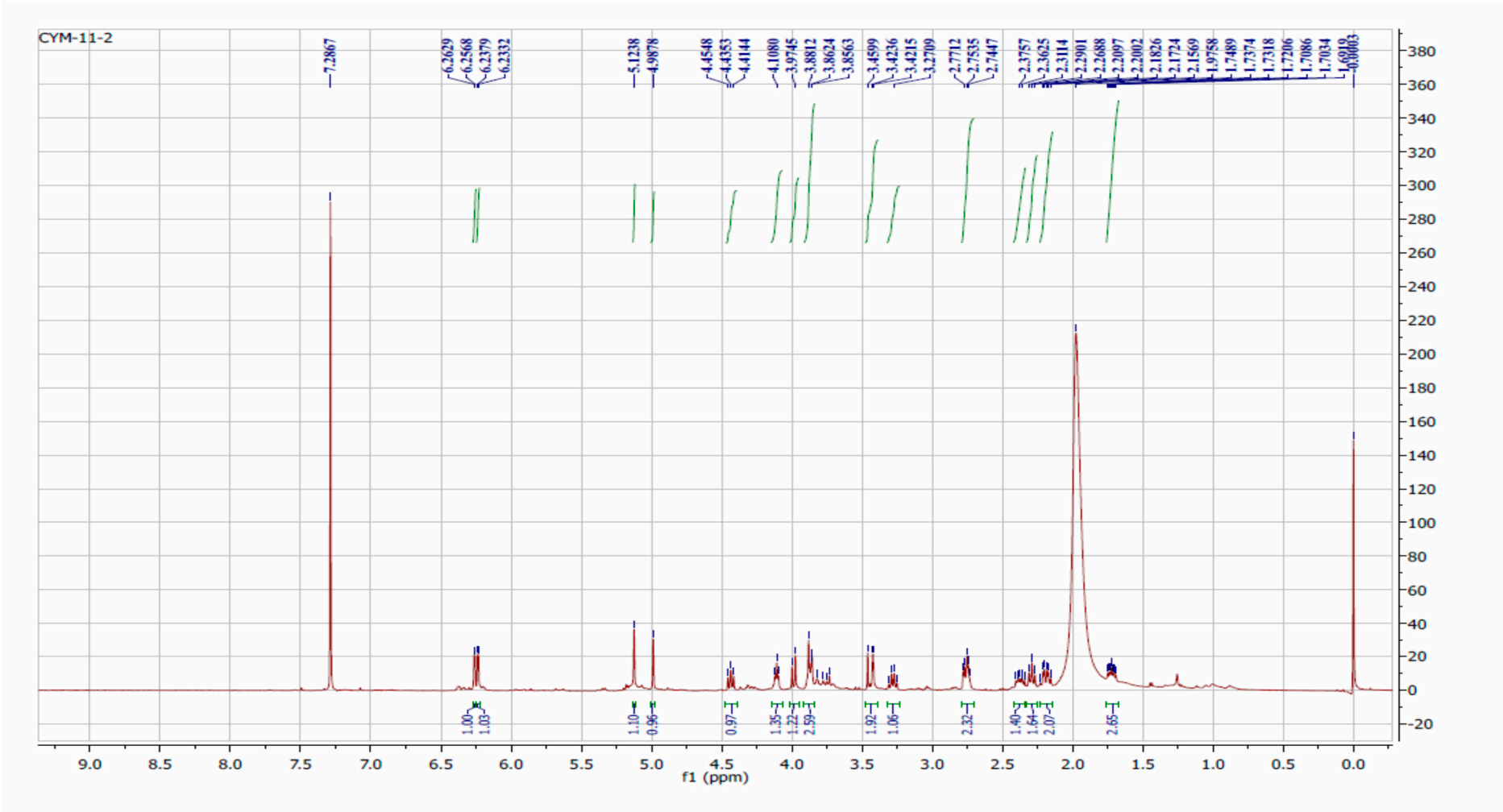


S15:NOESY of **2**

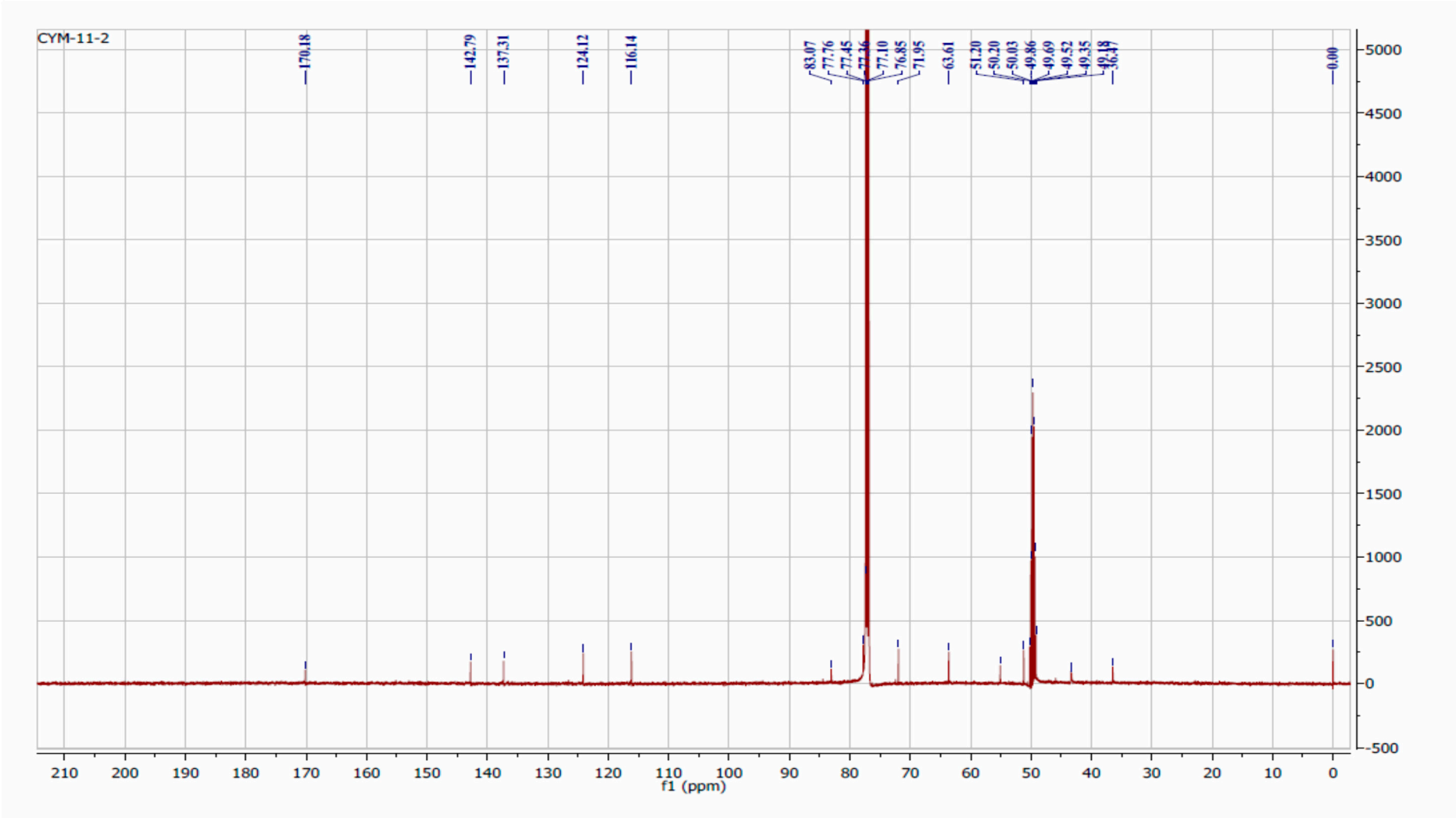
Sample : CyM-11-8
Note : MStation
Inlet : Direct Ion Mode : CI+
RT : 2.26 min Scan# : 60
Elements : C 150/0, H 250/0, O 50/0
Mass Tolerance : 5mmu
Unsaturation (U.S.) : 0.0 – 15.0

	Observed m/z	Int%	Err[ppm / mmu]	U.S.	Composition
1	472.1758	1.34	+5.2 / +2.5	12.0	C25 H28 O9
2			-7.2 / -3.4	3.0	C18 H32 O14

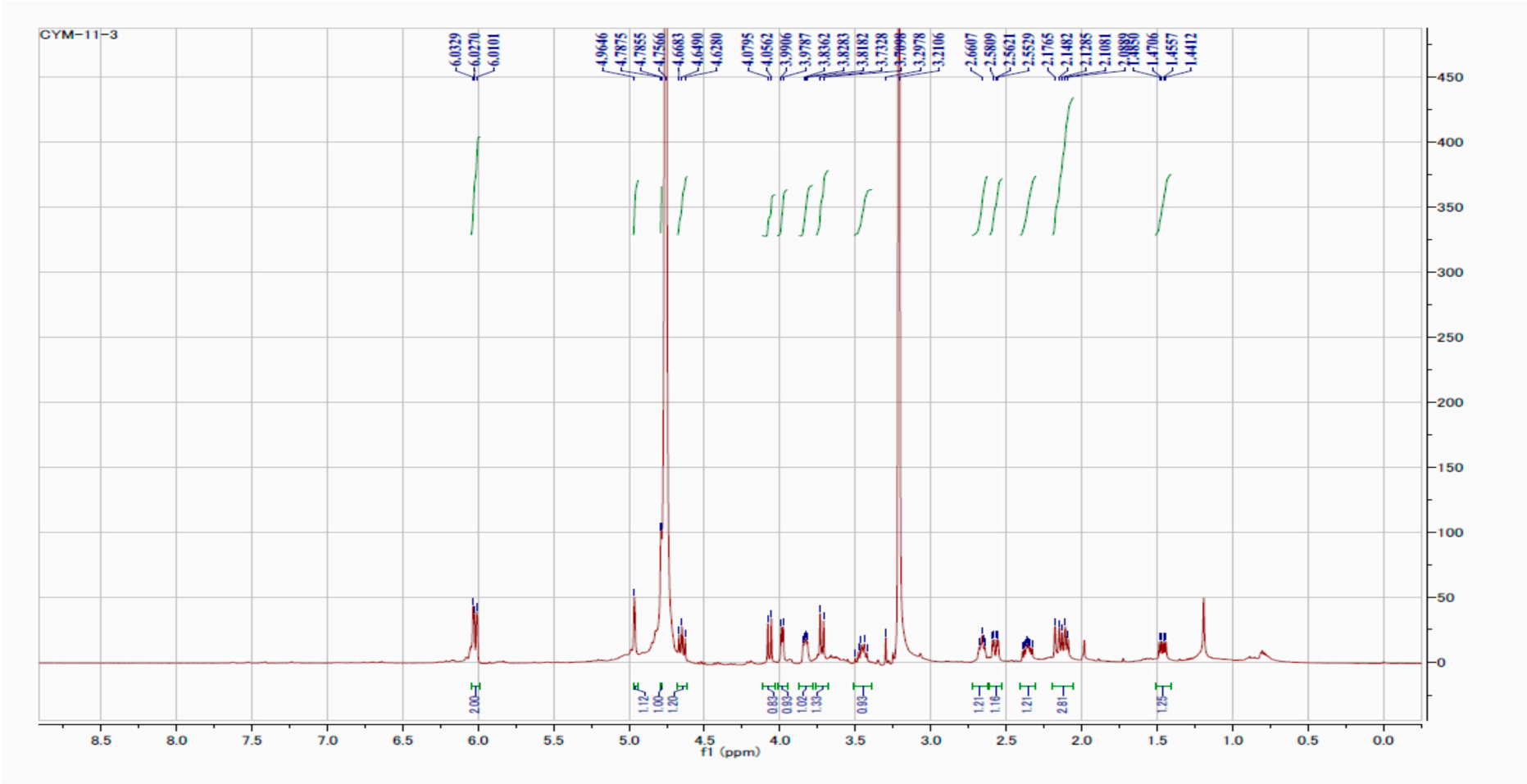
S 16: HRCI/mas of **2**



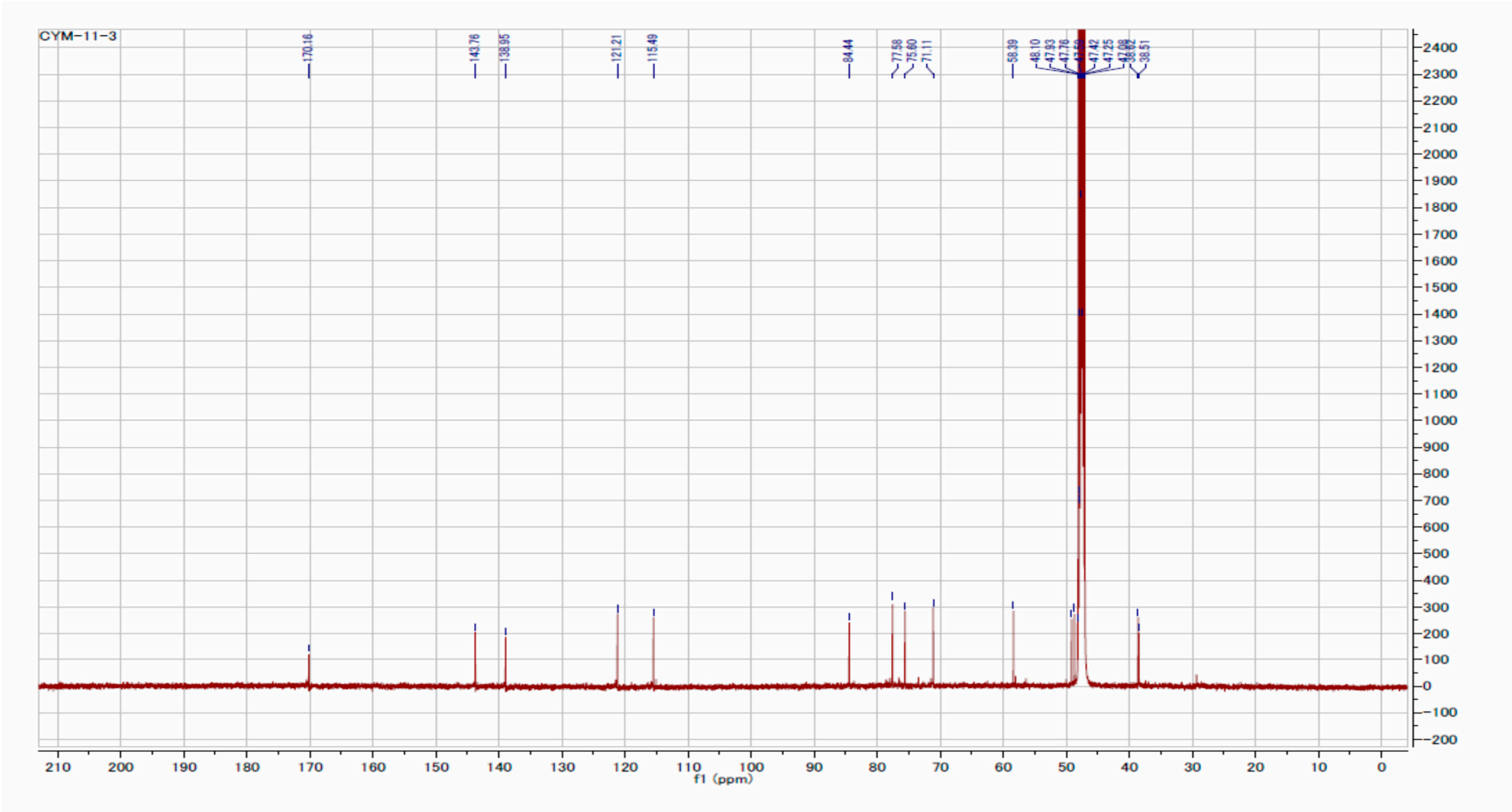
S17:^{1}H NMR ($CDCl_3$, 500 MHz) of **3**



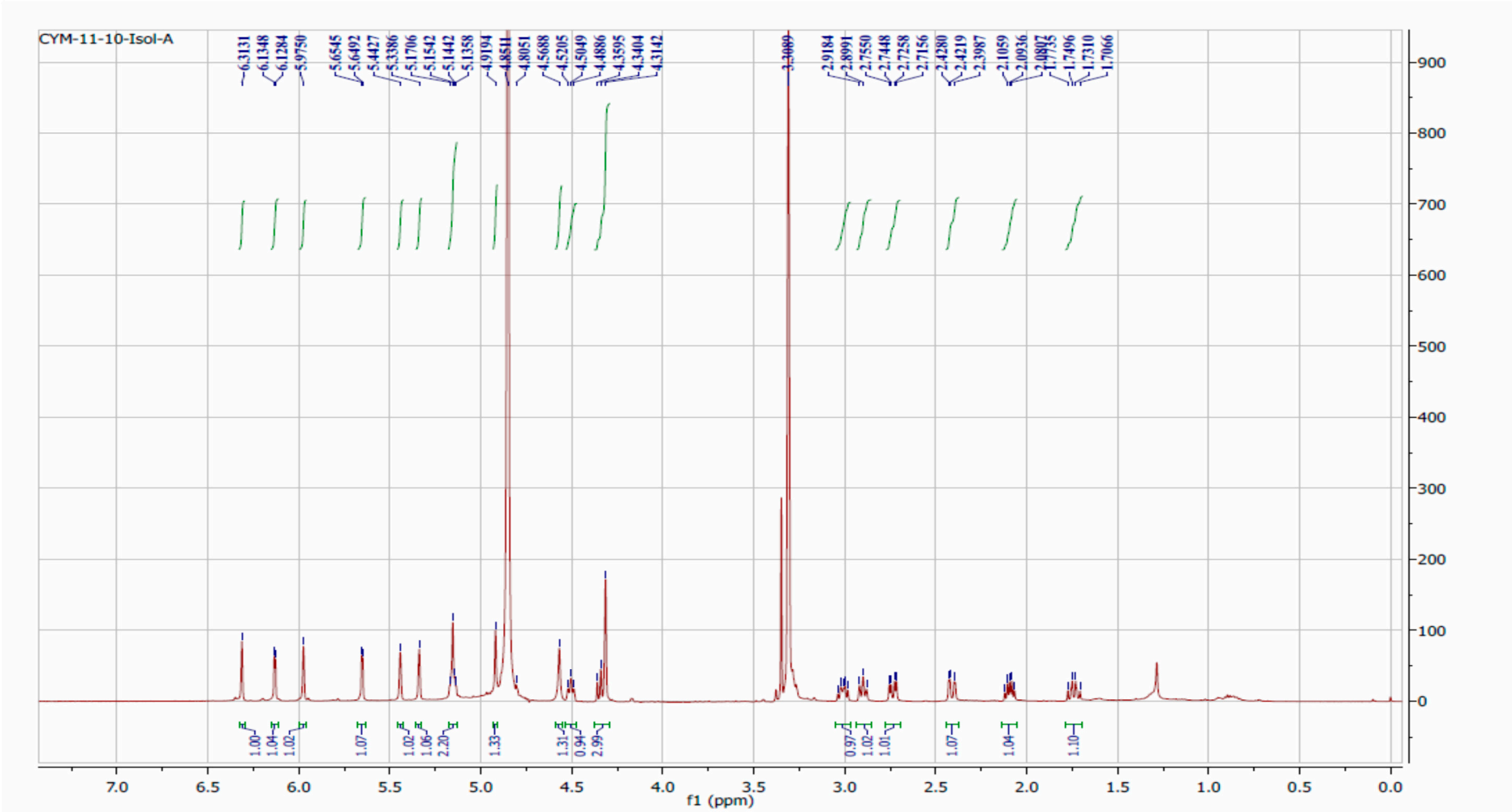
S18:^{13}C NMR (C_5D_5N, 125 MHz) of **3**



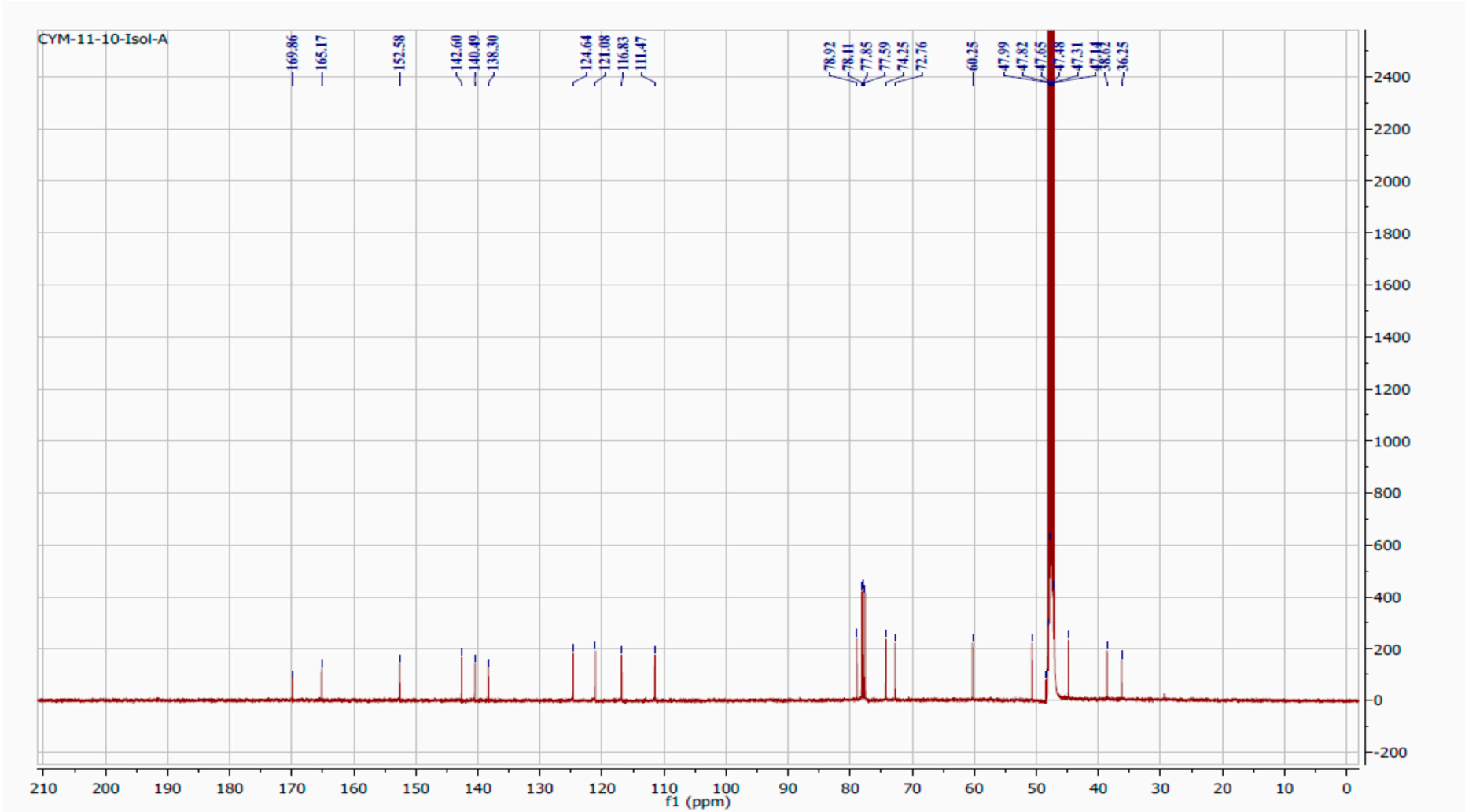
S19:[1]H NMR ($CDCl_3$, 500 MHz) of **4**



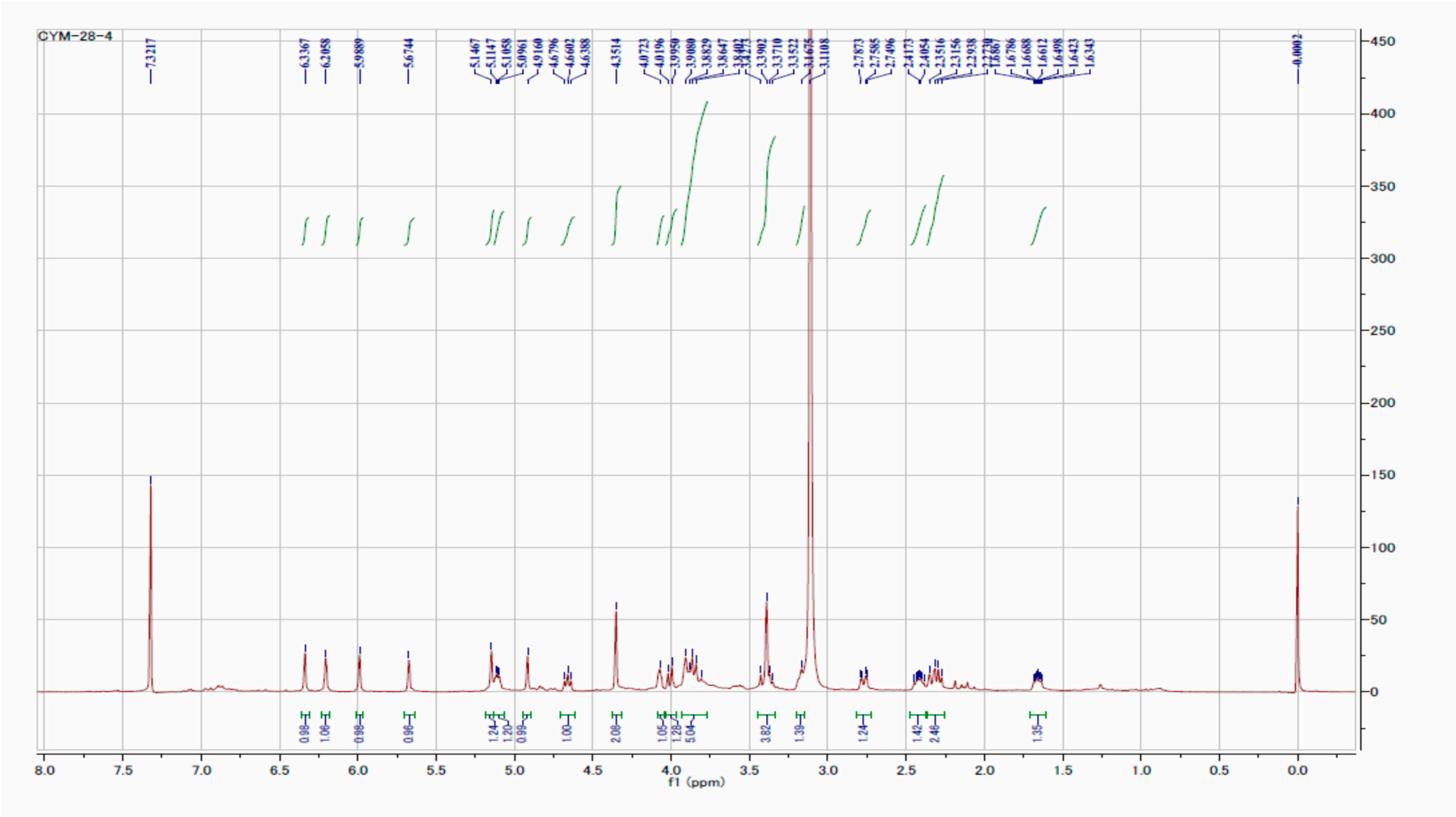
S20:^{13}C NMR (C_5D_5N, 125 MHz) of **4**



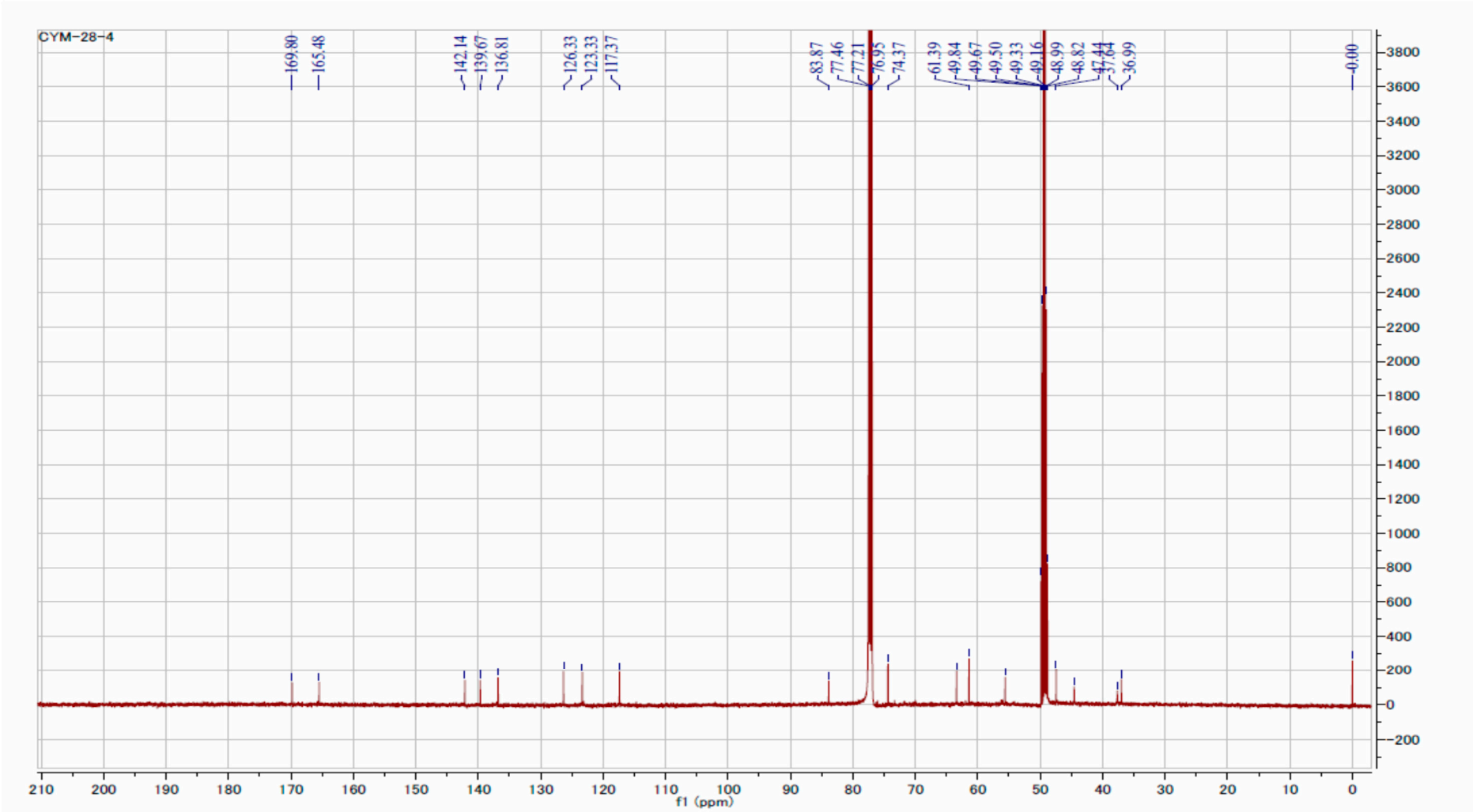
S21:[1]H NMR ($CDCl_3$, 500 MHz) of **5**



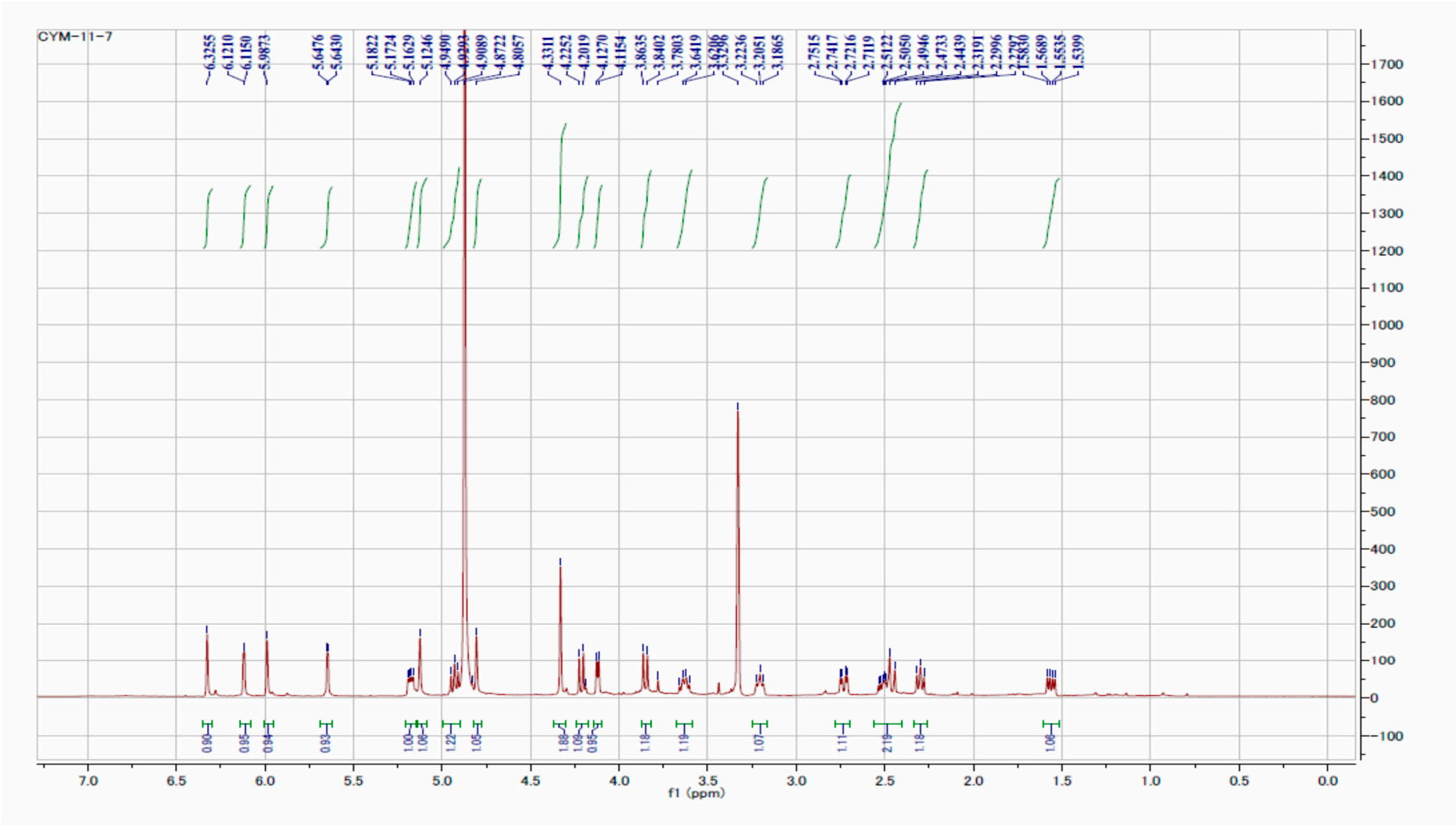
S22:^{13}C NMR (C_5D_5N, 125 MHz) of **5**



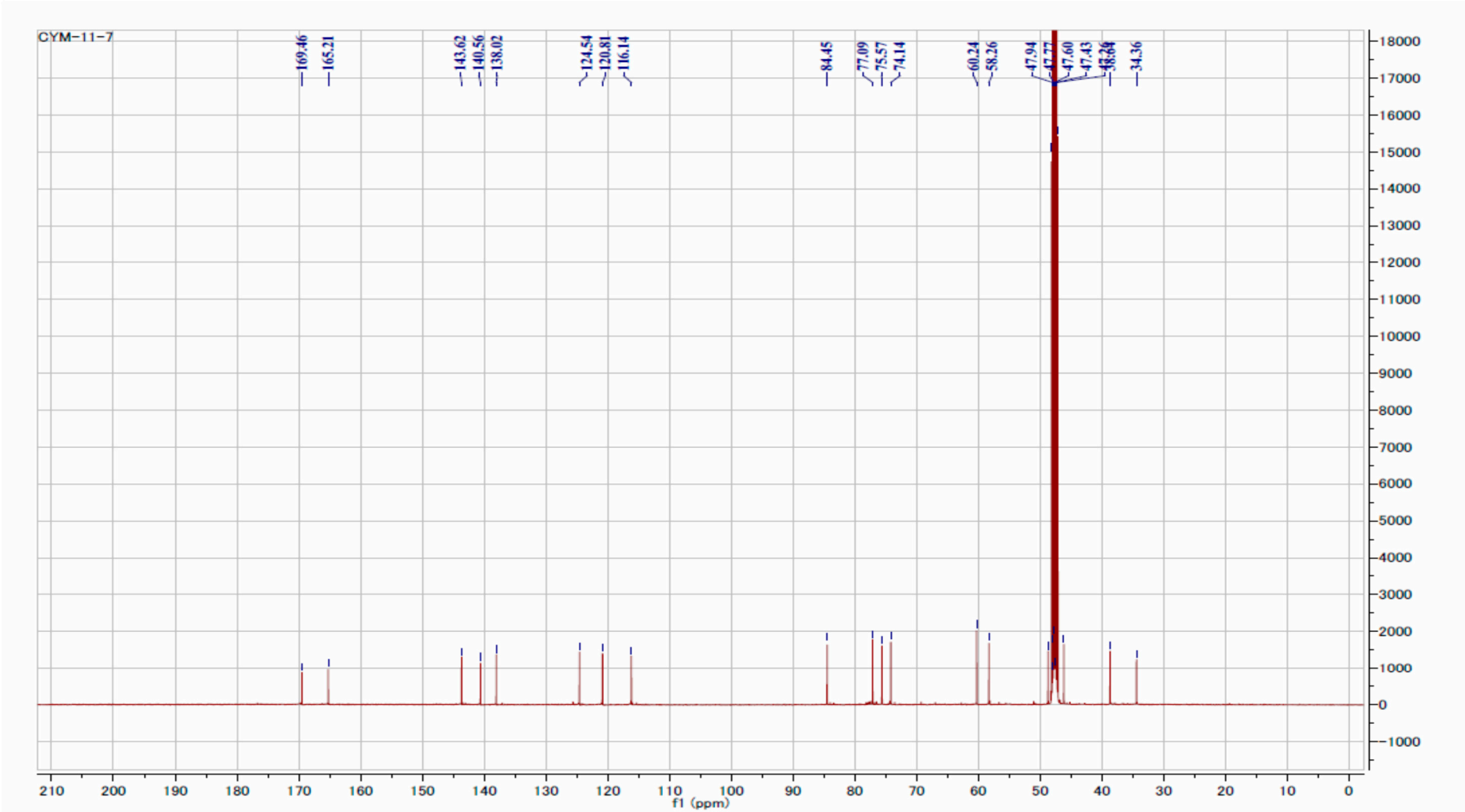
S23:[1]H NMR ($CDCl_3$, 500 MHz) of **6**



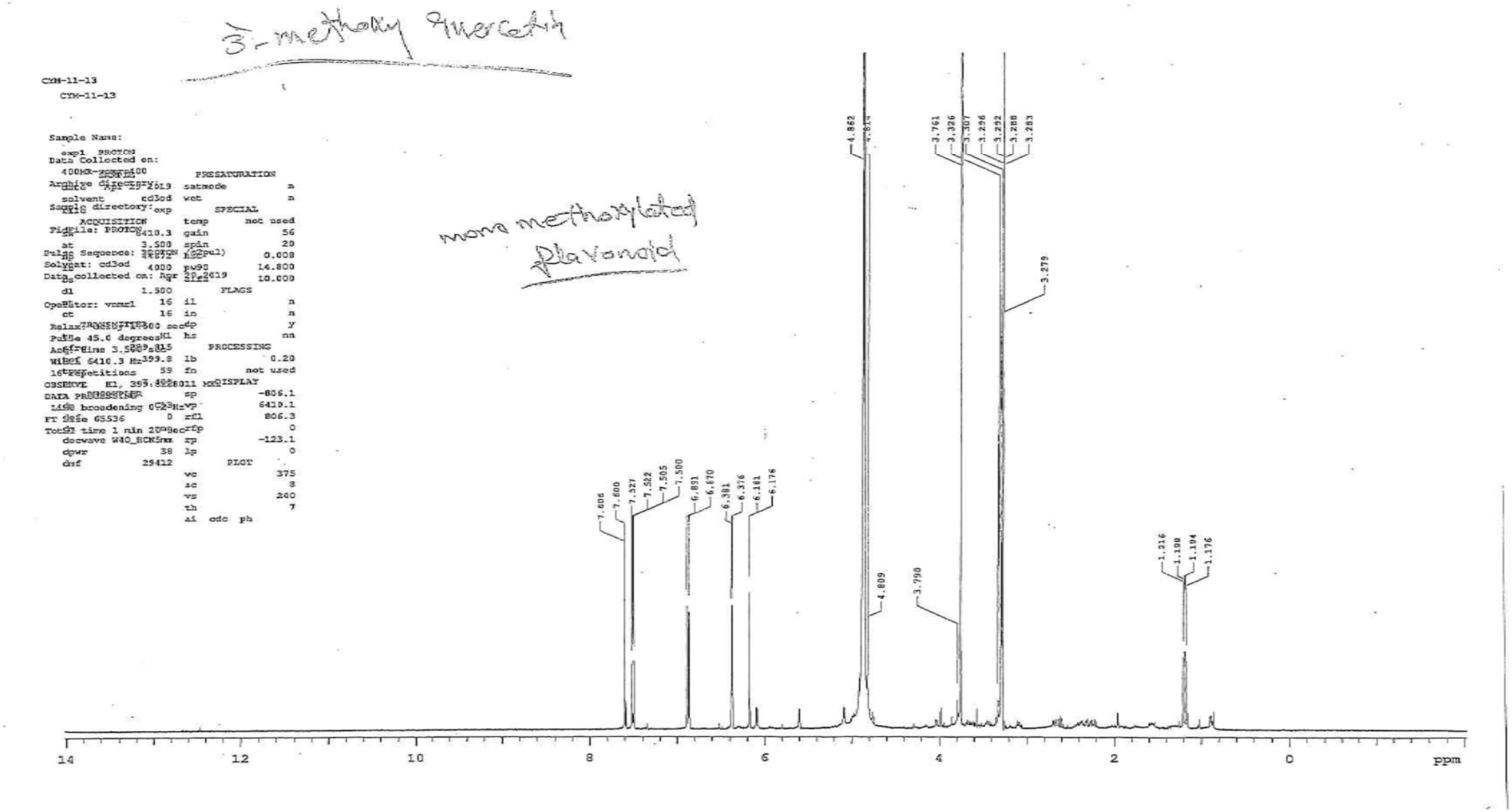
S24:^{13}C NMR (C_5D_5N, 125 MHz) of **6**



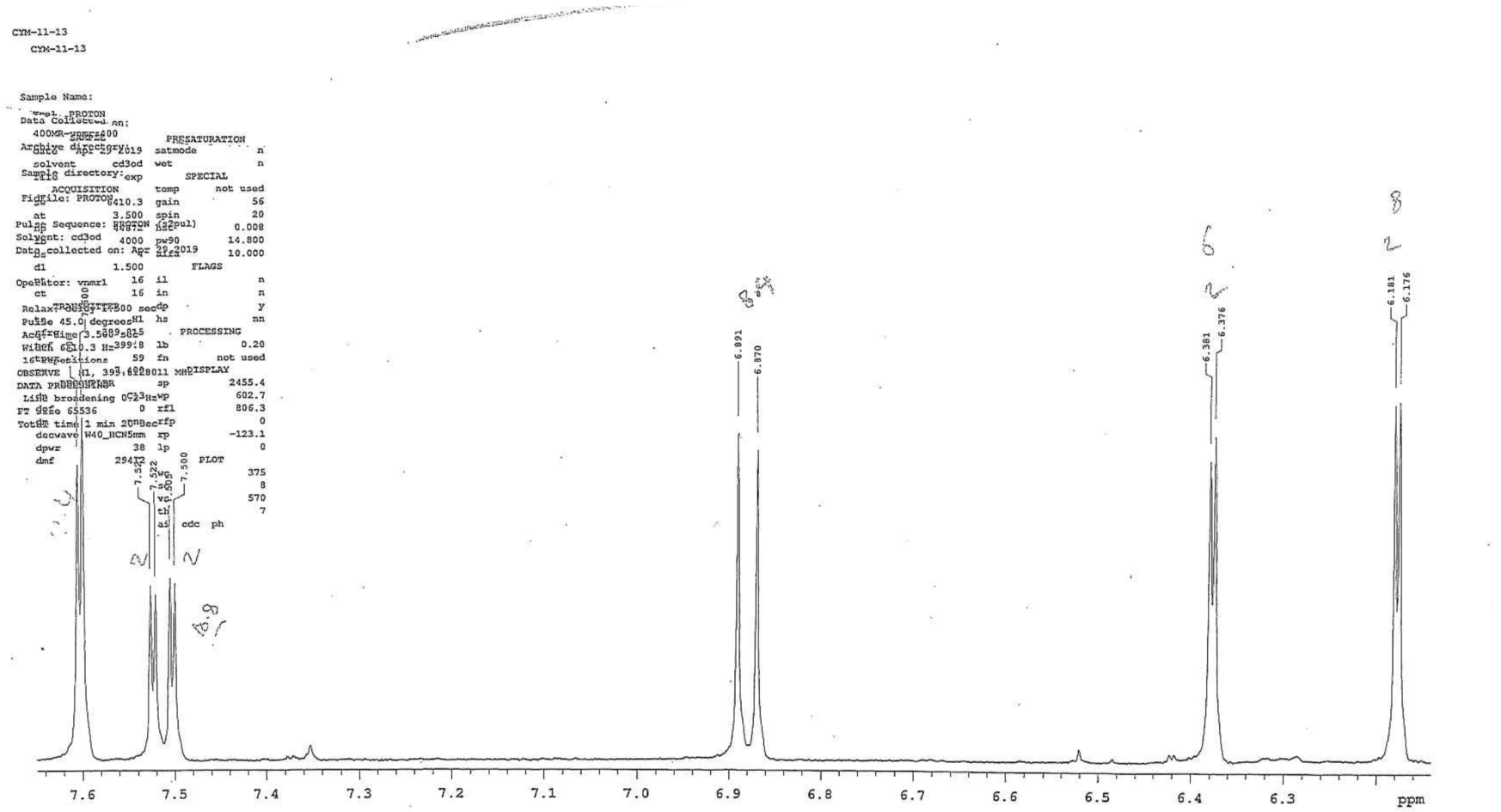
S25:^{1}H NMR ($CDCl_3$, 500 MHz) of **7**



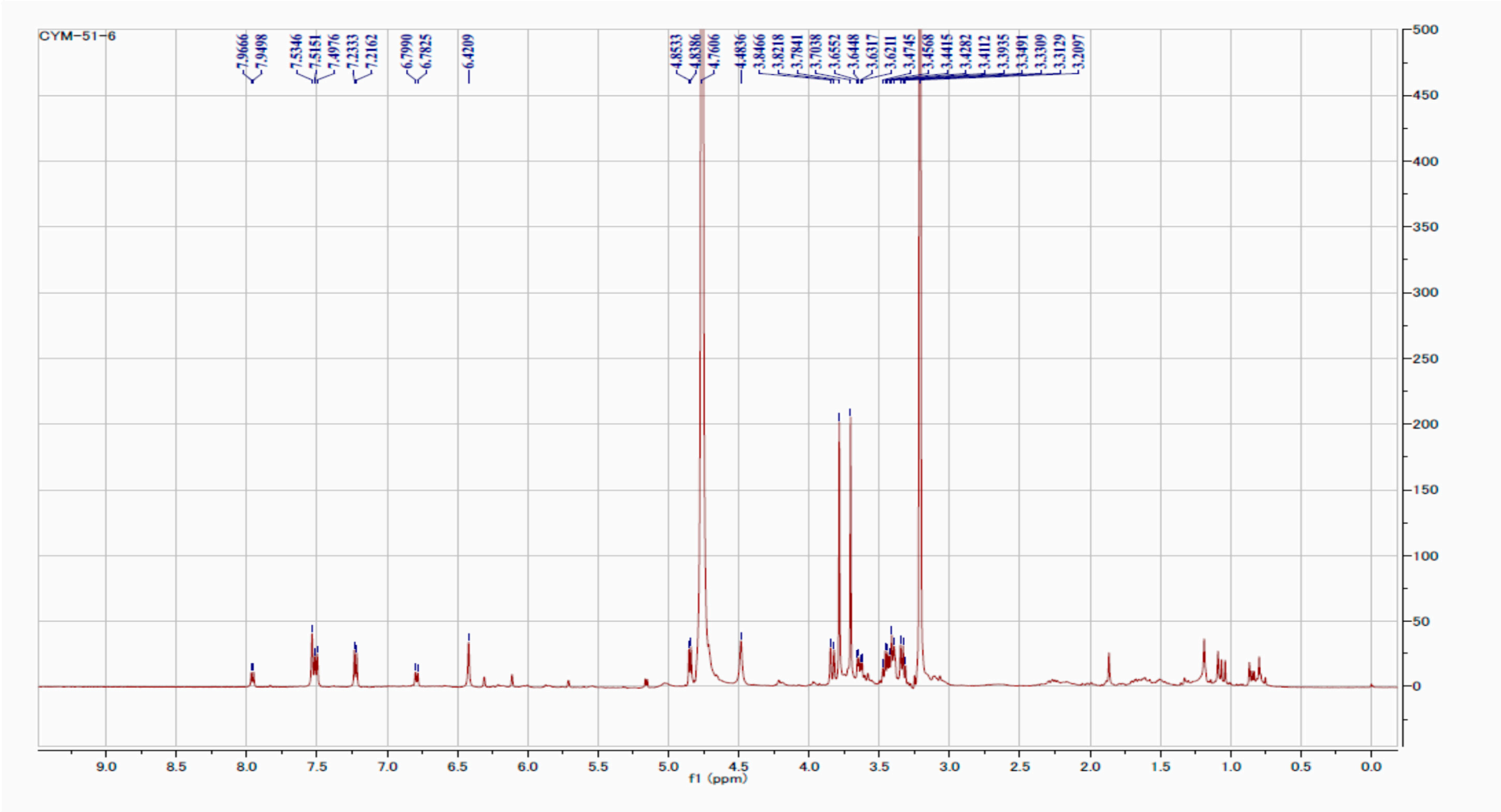
S26:^{13}C NMR (C_5D_5N, 125 MHz) of **7**



S27:[1]H NMR ($CDCl_3$, 500 MHz) of **8**



S27:[1]H NMR (C_5D_5N, 125 MHz) of **8**



S28:^{1}H NMR ($CDCl_3$, 500 MHz) of **9**