

Figures with supplementary spectroscopic data

Flavonoids with Antiprotozoal activity against *Entamoeba histolytica* isolated from *Lippia graveolens* Kunth (Mexican oregano)

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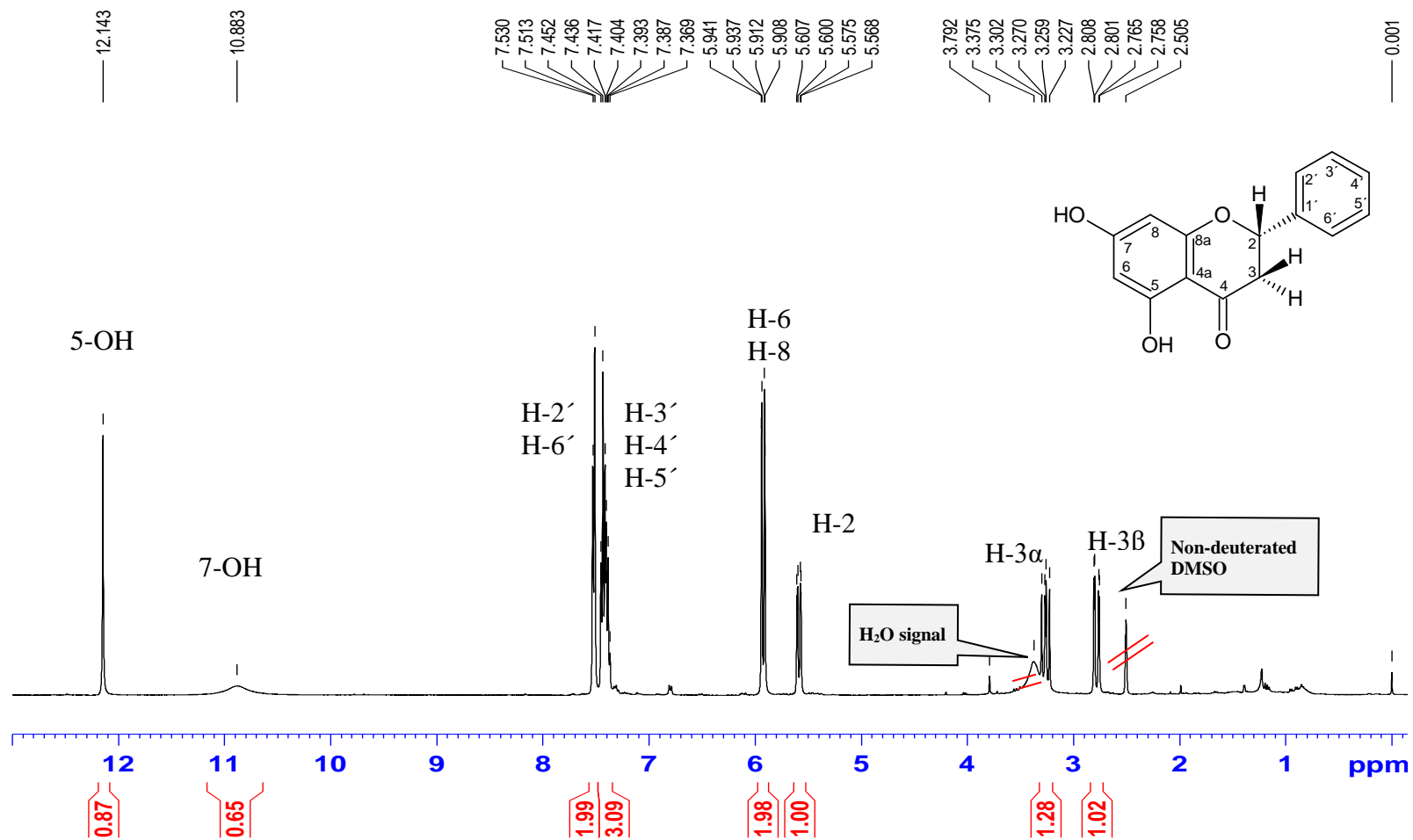
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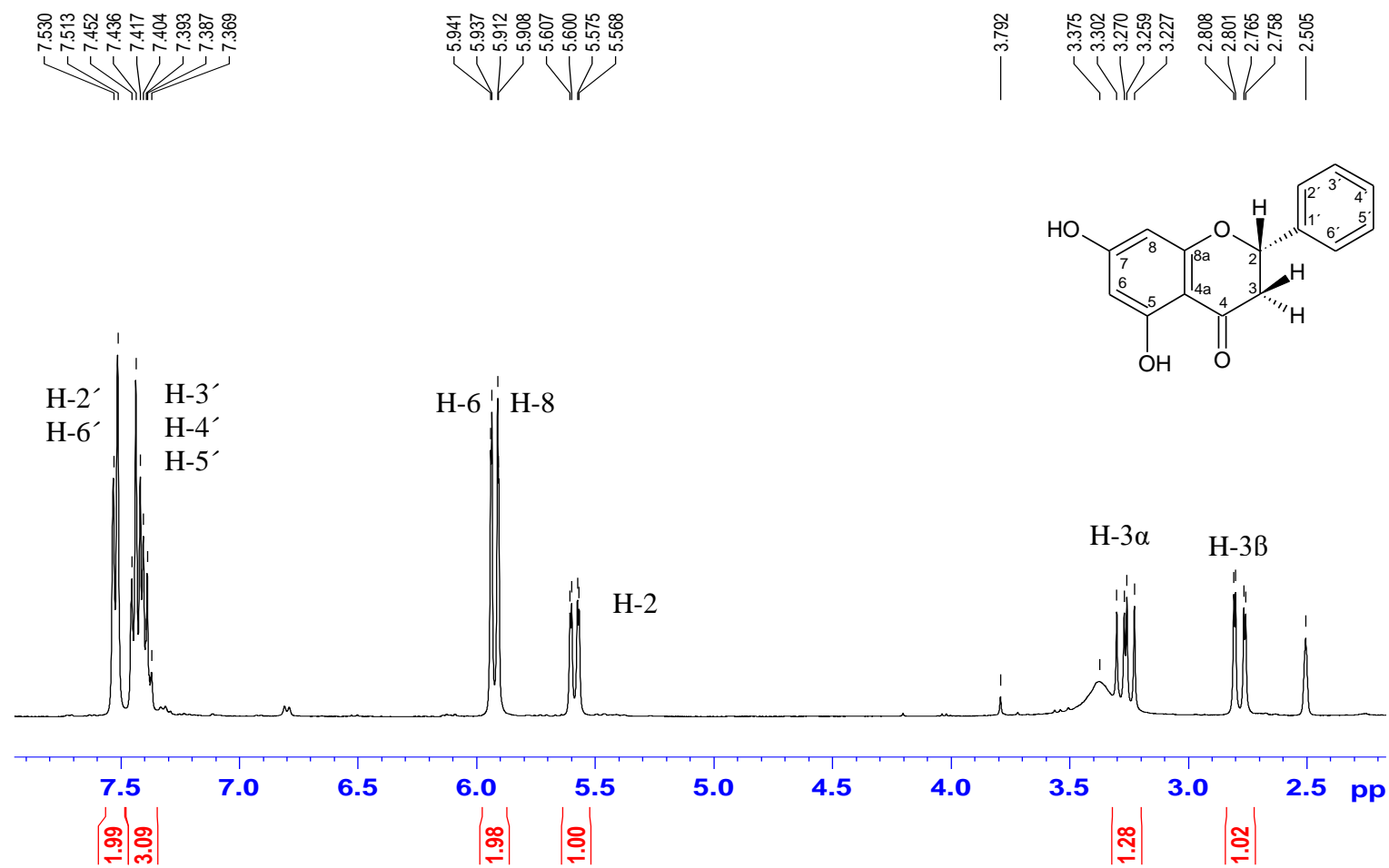
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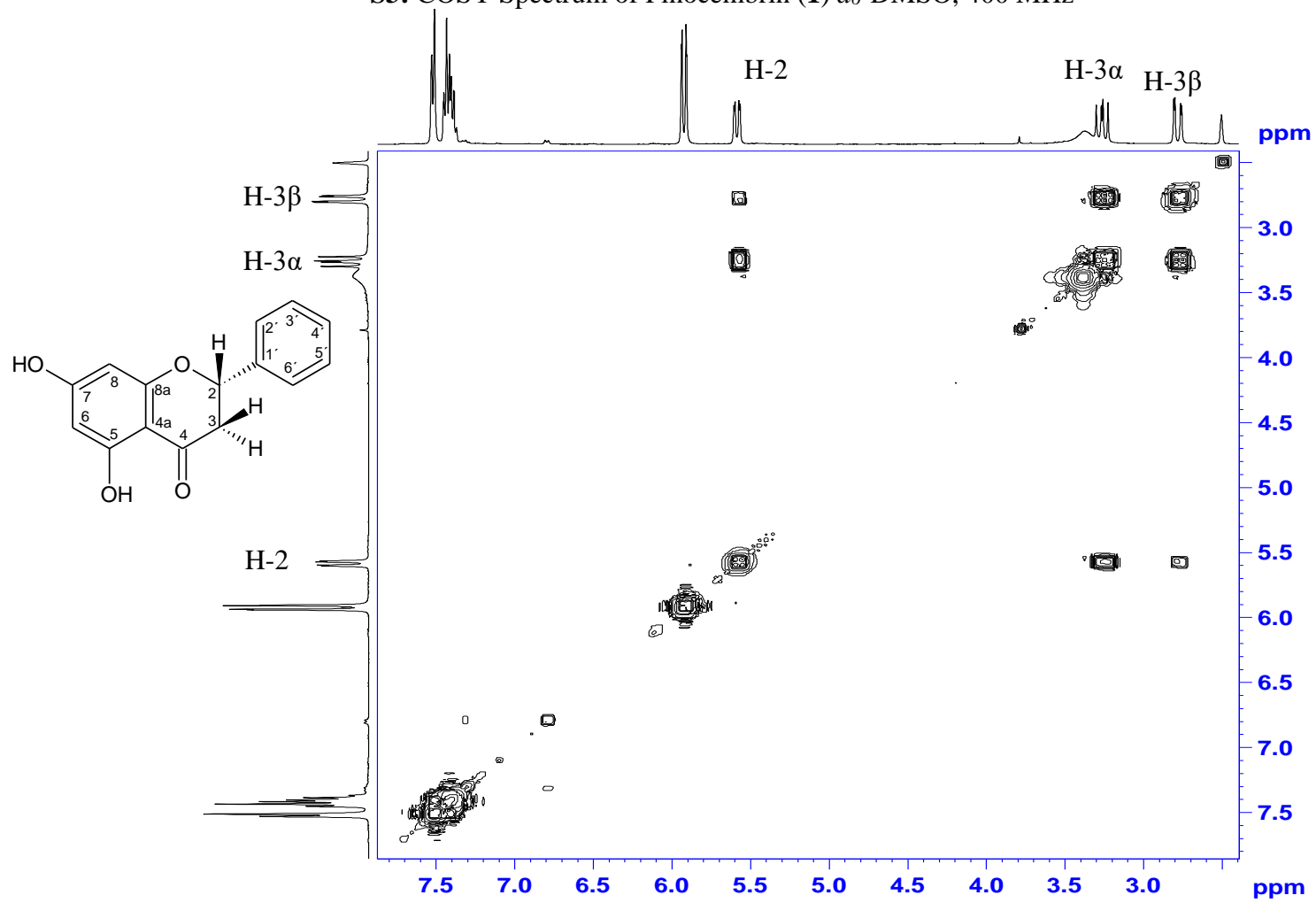
S1: ¹H-NMR Spectrum of Pinocembrin (1) *d*₆-DMSO, 400 MHz



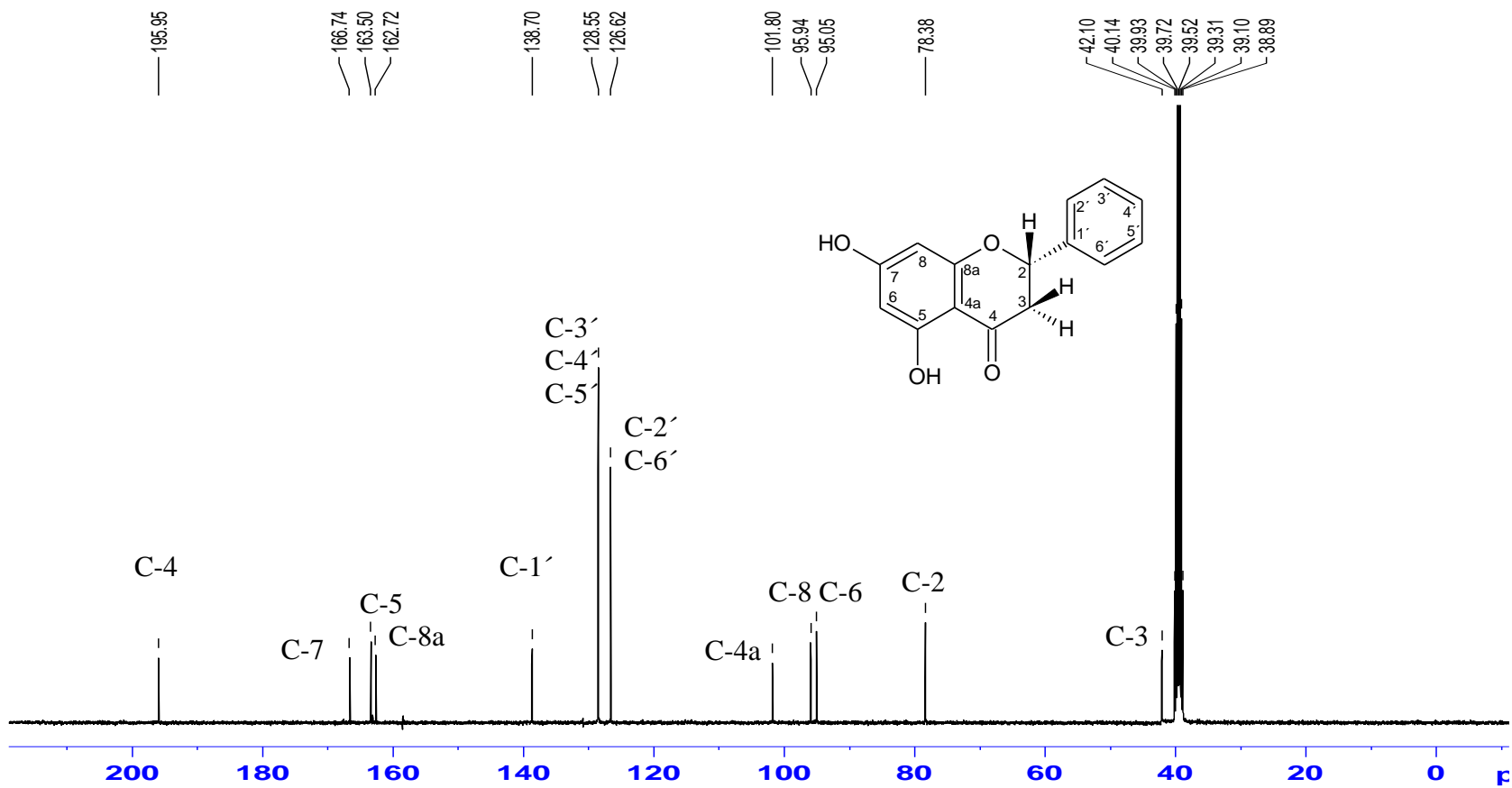
S2: $^1\text{H-NMR}$ Spectrum (Ext. 7.5 – 2.5 ppm) of Pinocembrin (**1**) d_6 -DMSO, 400 MHz



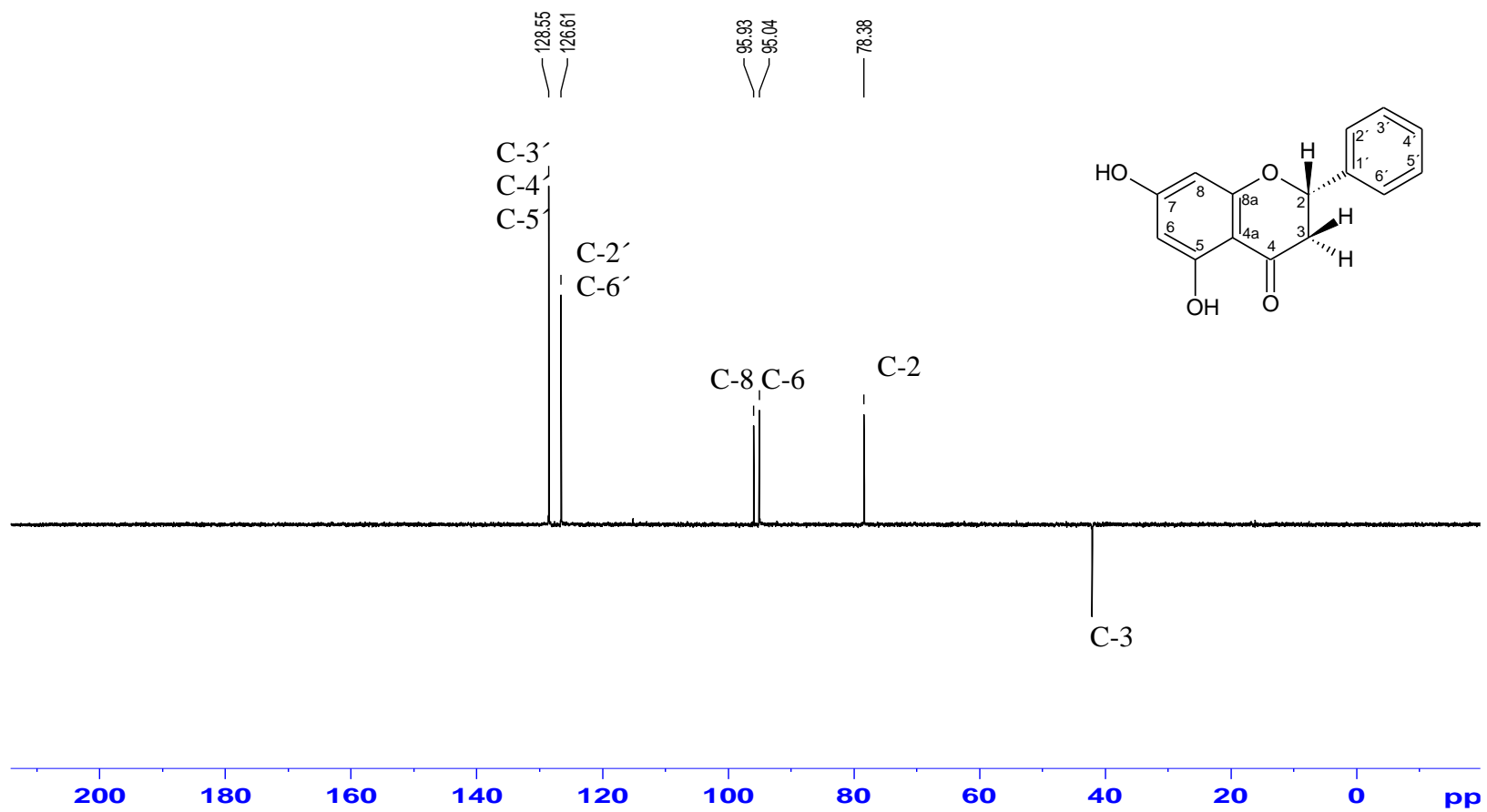
S3: COSY Spectrum of Pinocembrin (1) d_6 -DMSO, 400 MHz



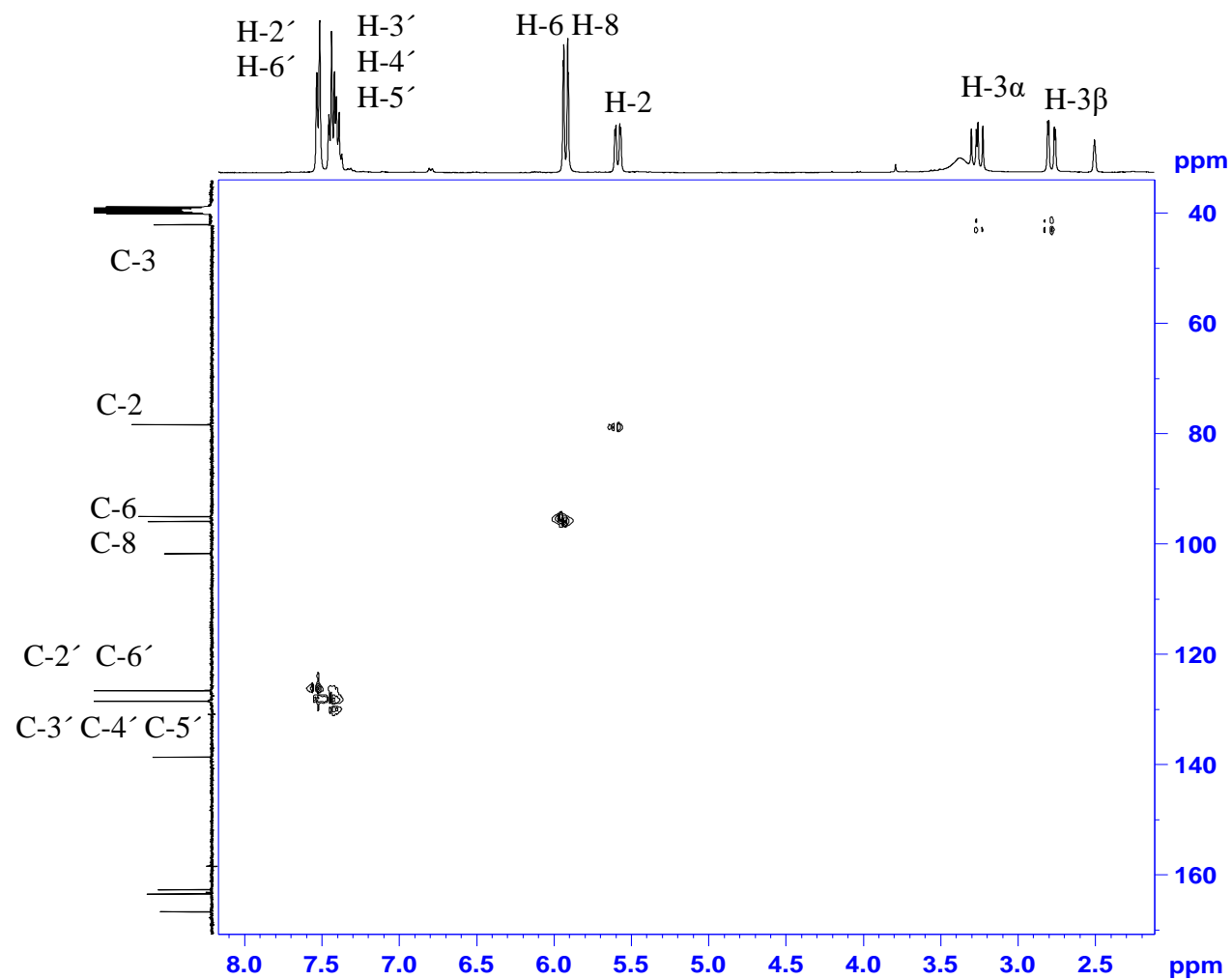
S4: ^{13}C -NMR Spectrum of Pinocembrin (**1**) (d_6 -DMSO, 100 MHz)



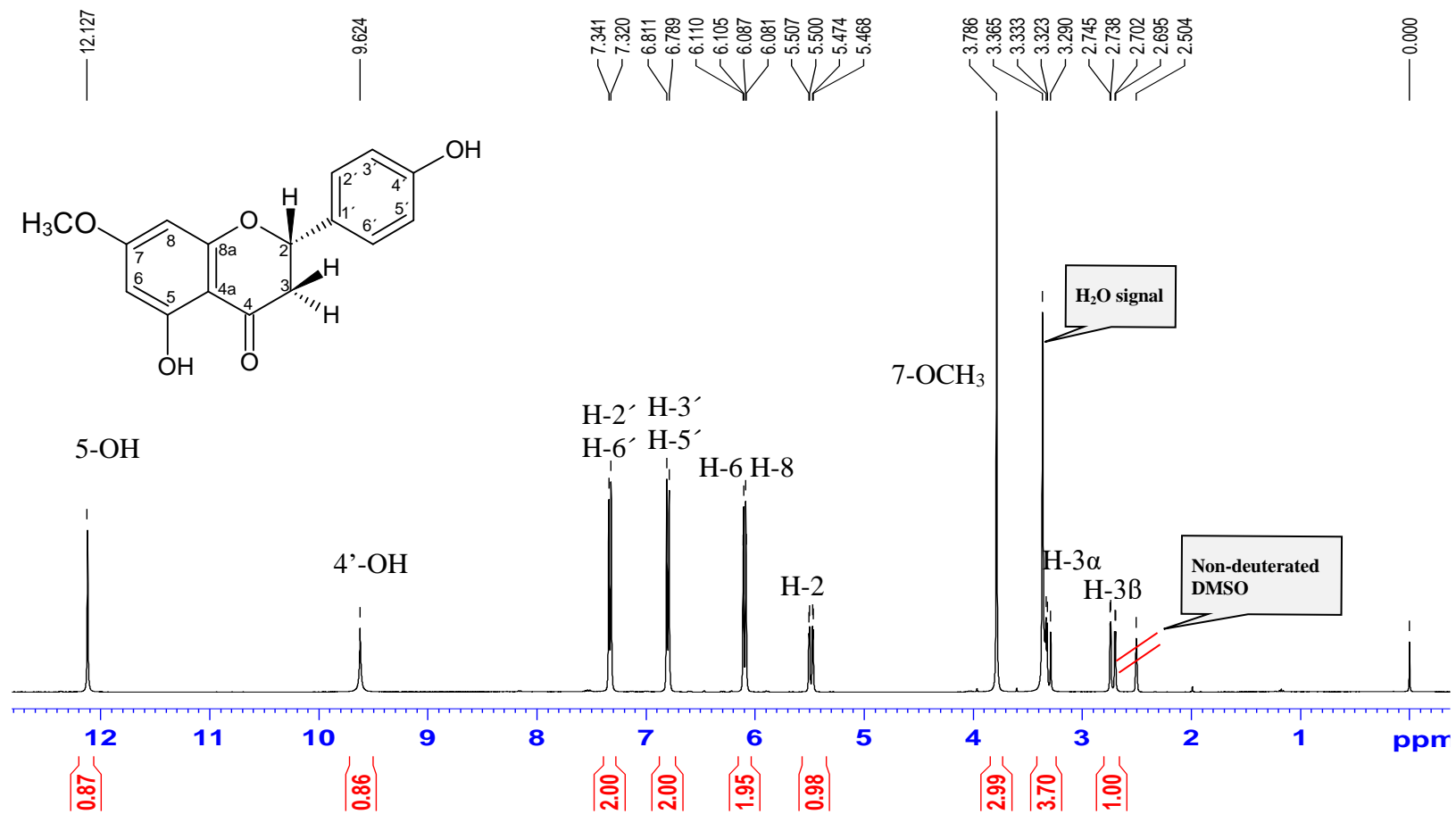
S5: DEPT-135 Spectrum of Pinocembrin (1) (*d*₆-DMSO, 100 MHz)



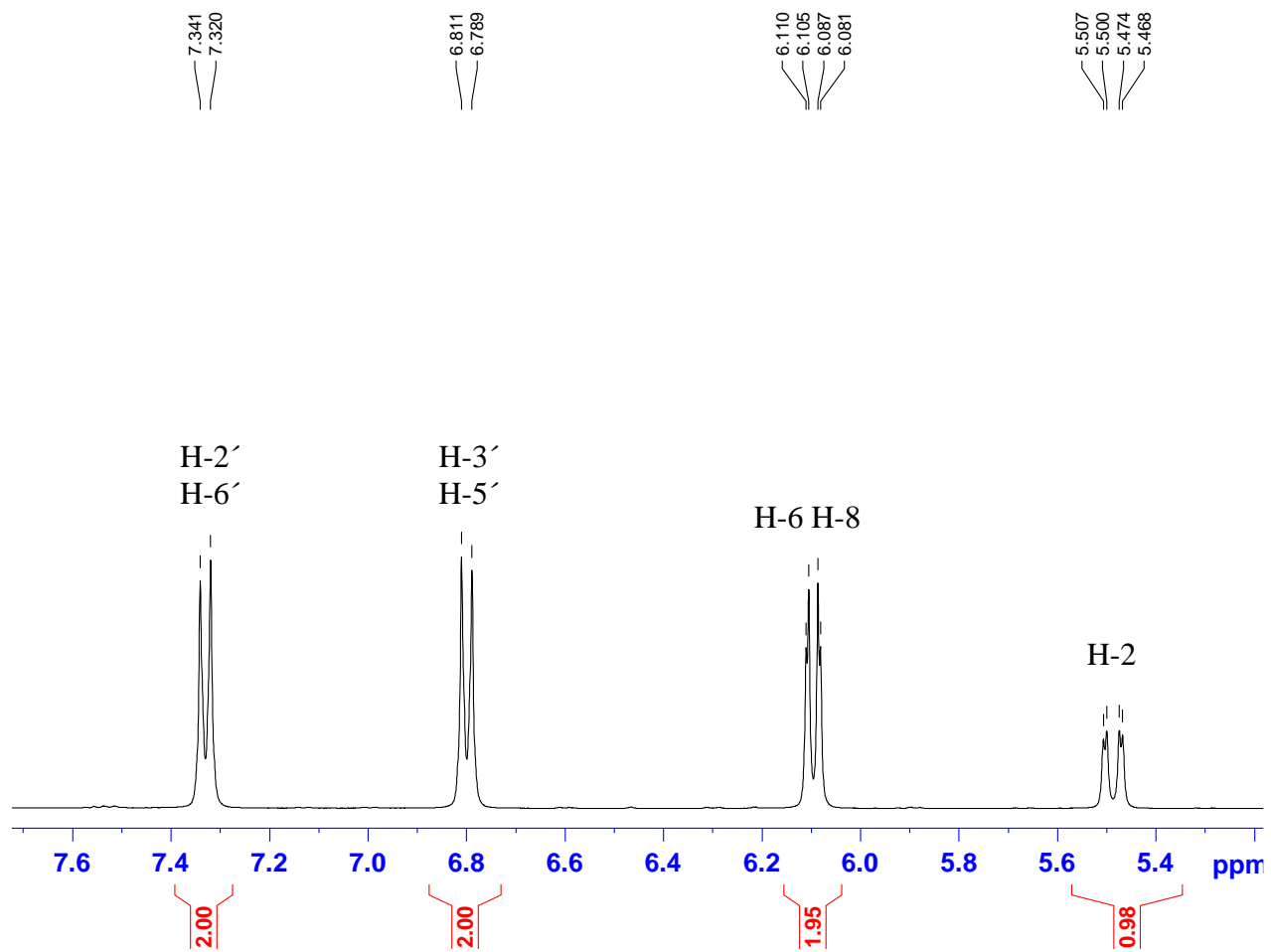
S6: HSQC Spectrum (Ext. ^1H : 2.0-8.2 ppm; ^{13}C : 40-170 ppm) of Pinocembrin (**1**) (d_6 -DMSO, 400 MHz, 100 MHz)



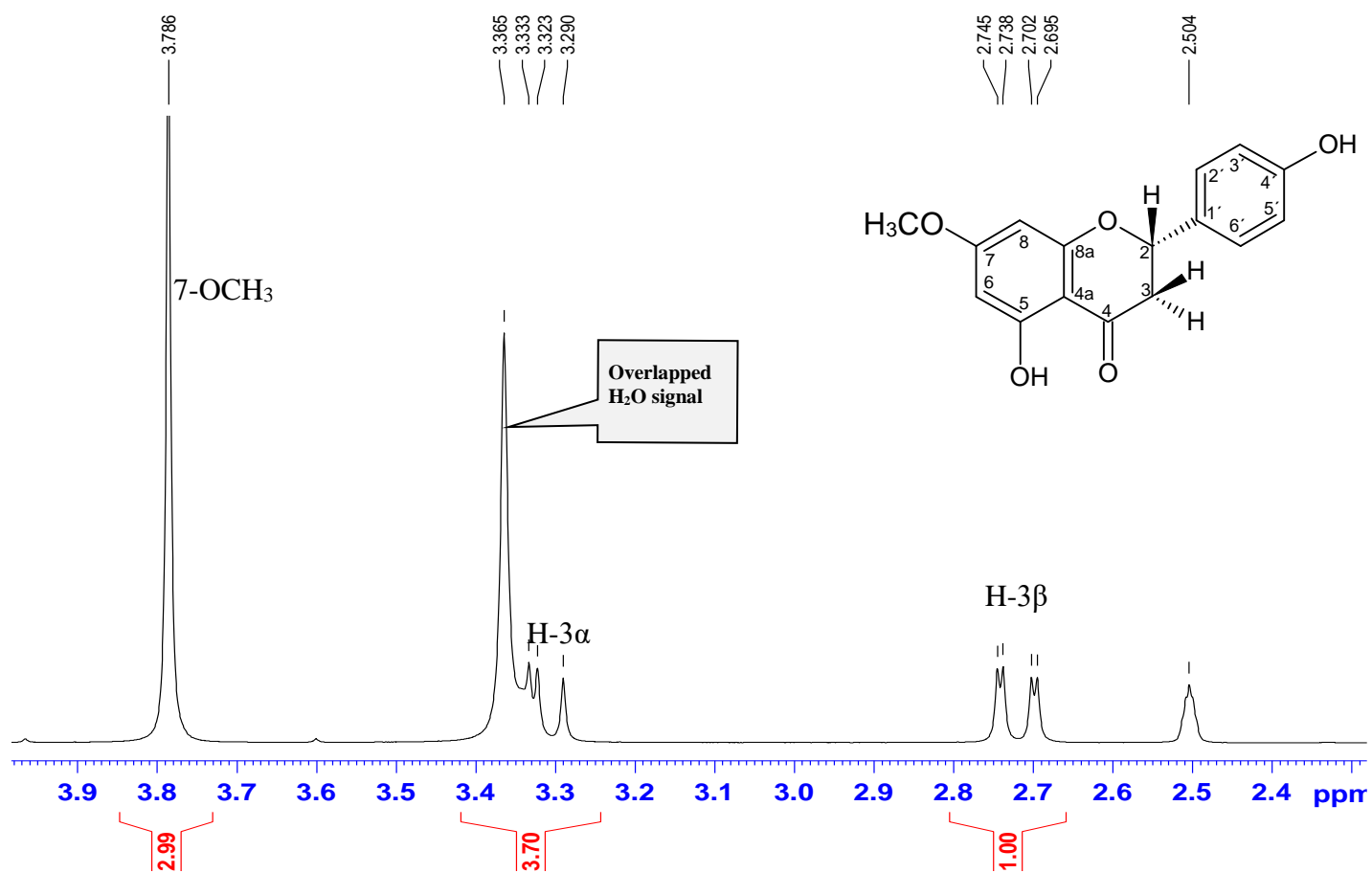
S7: ¹H-NMR Spectrum of Sakuranetin (2) *d*₆-DMSO, 400 MHz



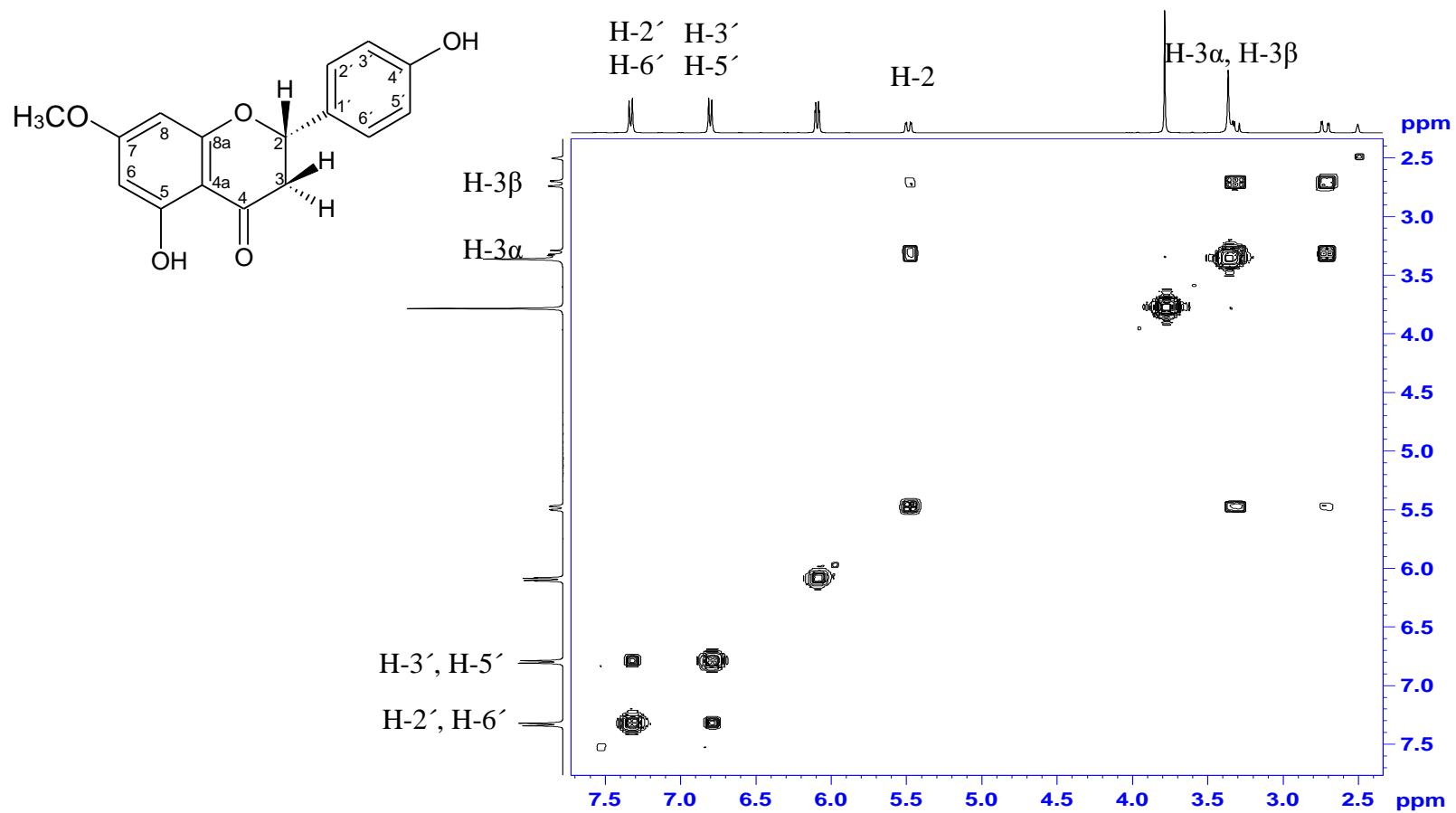
S8: $^1\text{H-NMR}$ Spectrum (Ext. 6.4 – 8.0 ppm) of Sakuranetin (2) d_6 -DMSO, 400 MHz



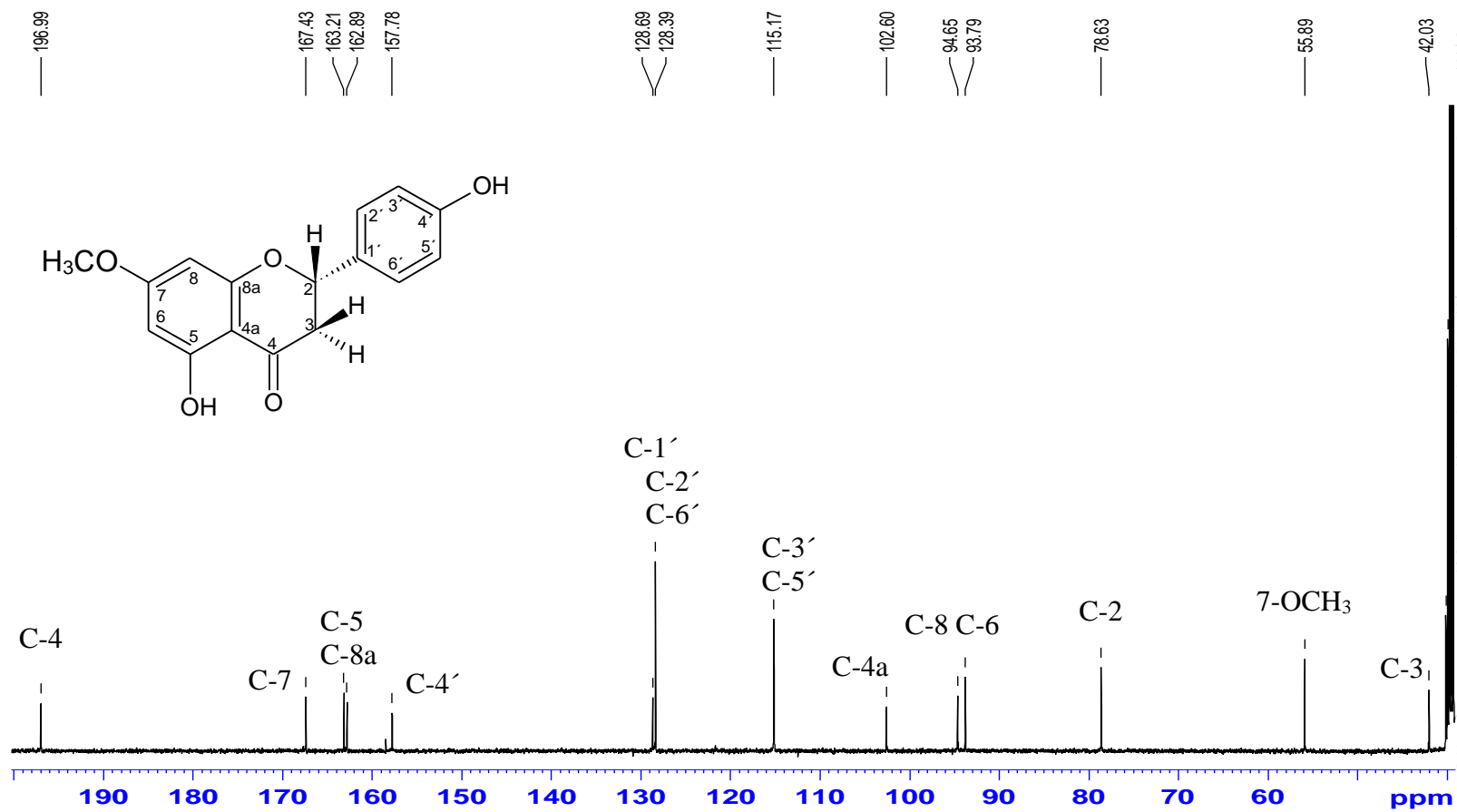
S9: $^1\text{H-NMR}$ Spectrum (Ext. 2.5 – 4.0 ppm) of Sakuranetin (2) d_6 -DMSO, 400 MHz



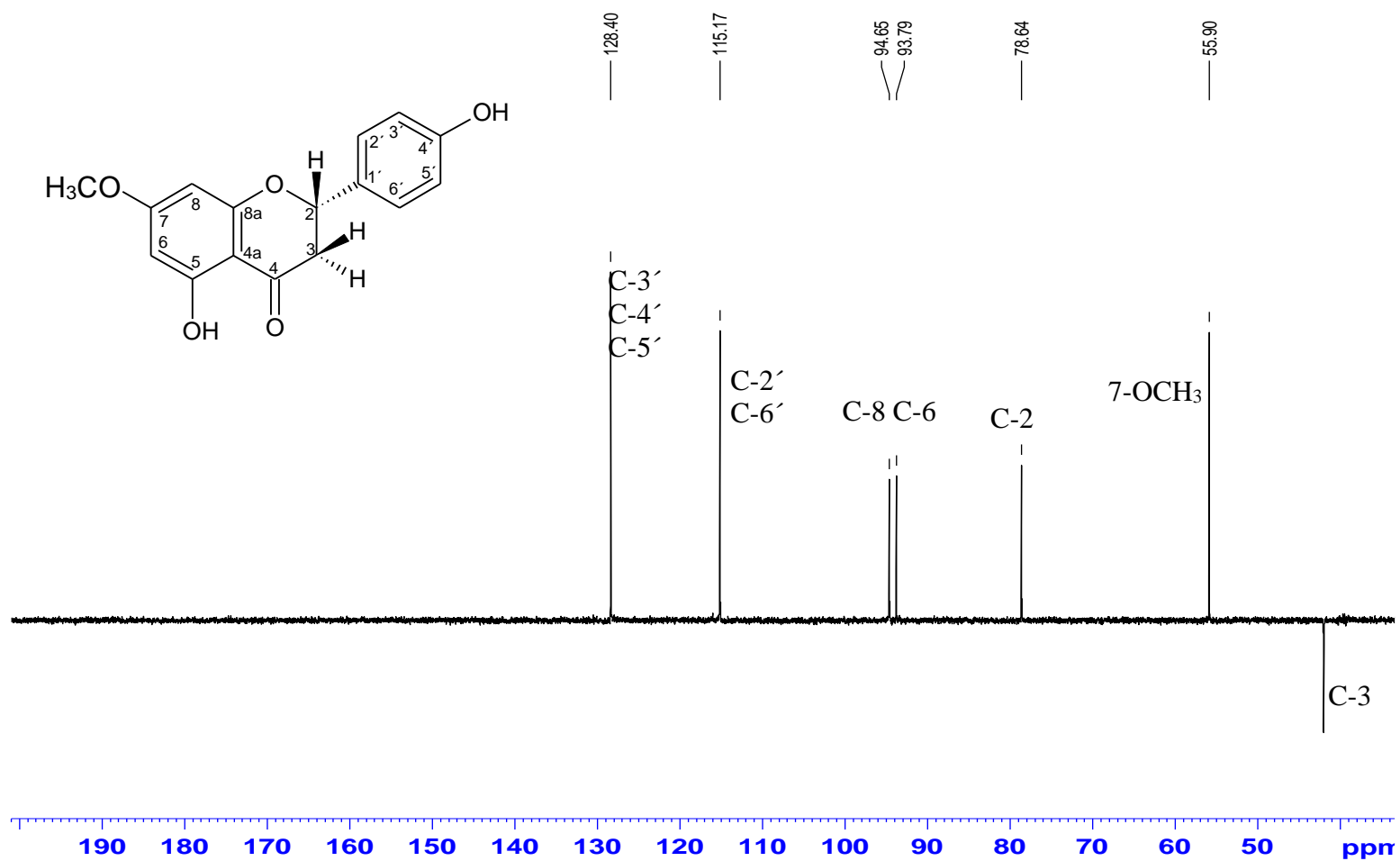
S10: COSY Spectrum of Sakuranetin (2) d_6 -DMSO, 400 MHz



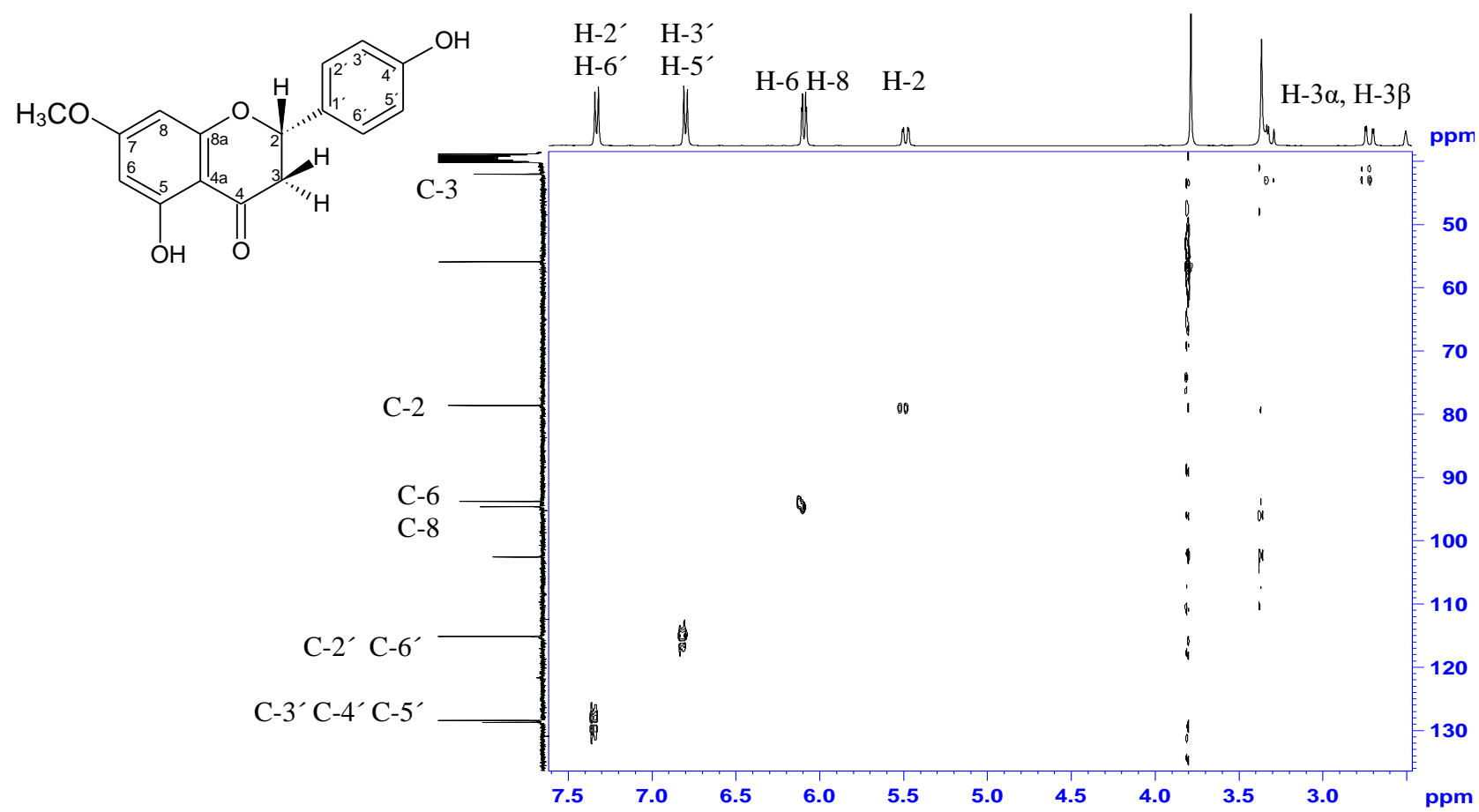
S11: ^{13}C -NMR Spectrum of Sakuranetin (**2**) (d_6 -DMSO, 100 MHz)



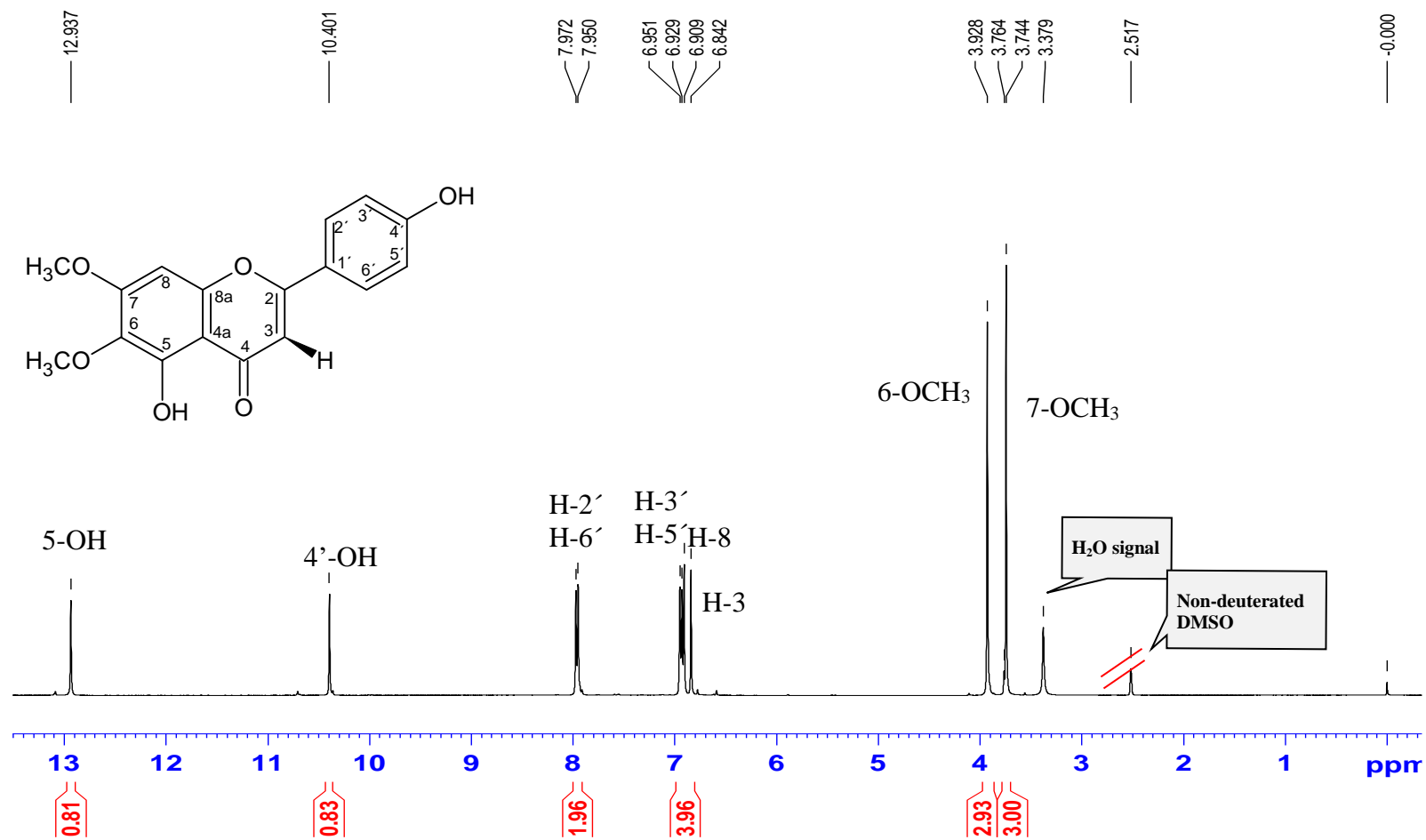
S12: DEPT-135 Spectrum of Sakuranetin (2) (*d*₆-DMSO, 100 MHz)



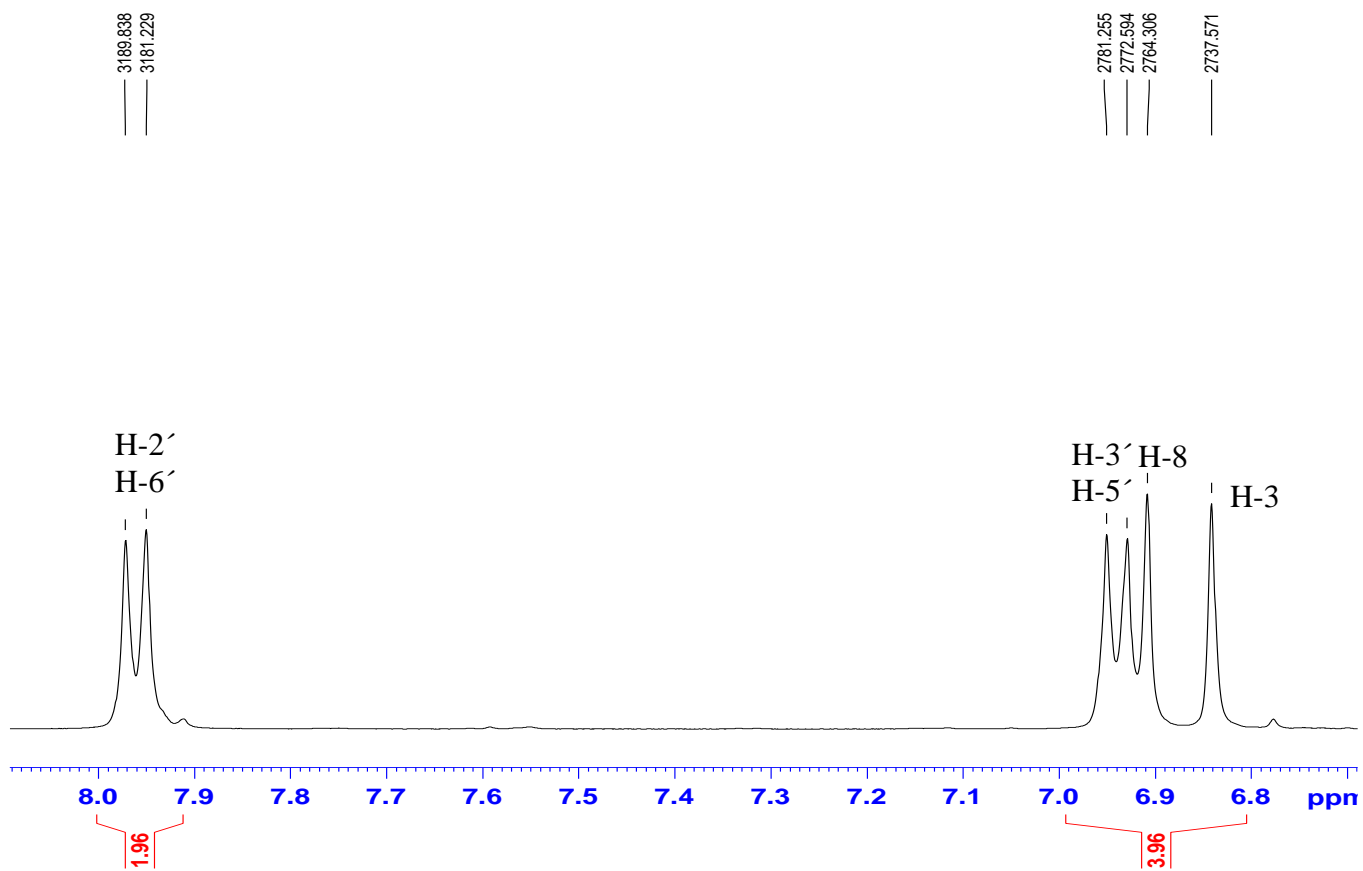
S13: HSQC Spectrum (Ext. ^1H : 2.0-7.6 ppm; ^{13}C : 40-140 ppm) of Sakuranetin (**2**) (d_6 -DMSO, 400 MHz, 100 MHz)



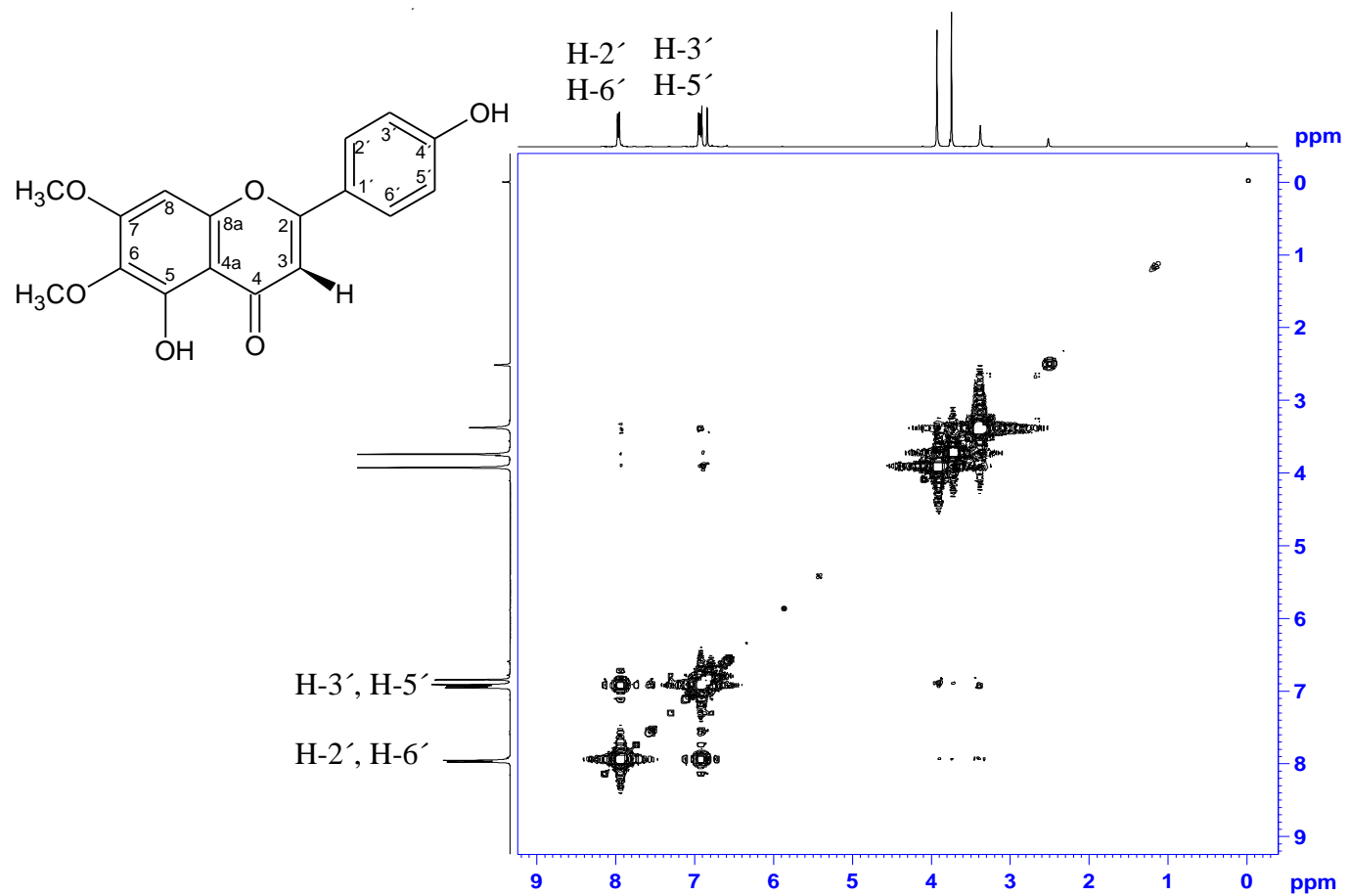
S14: ¹H-NMR Spectrum of Cirsimaritin (3) *d*₆-DMSO, 400 MHz



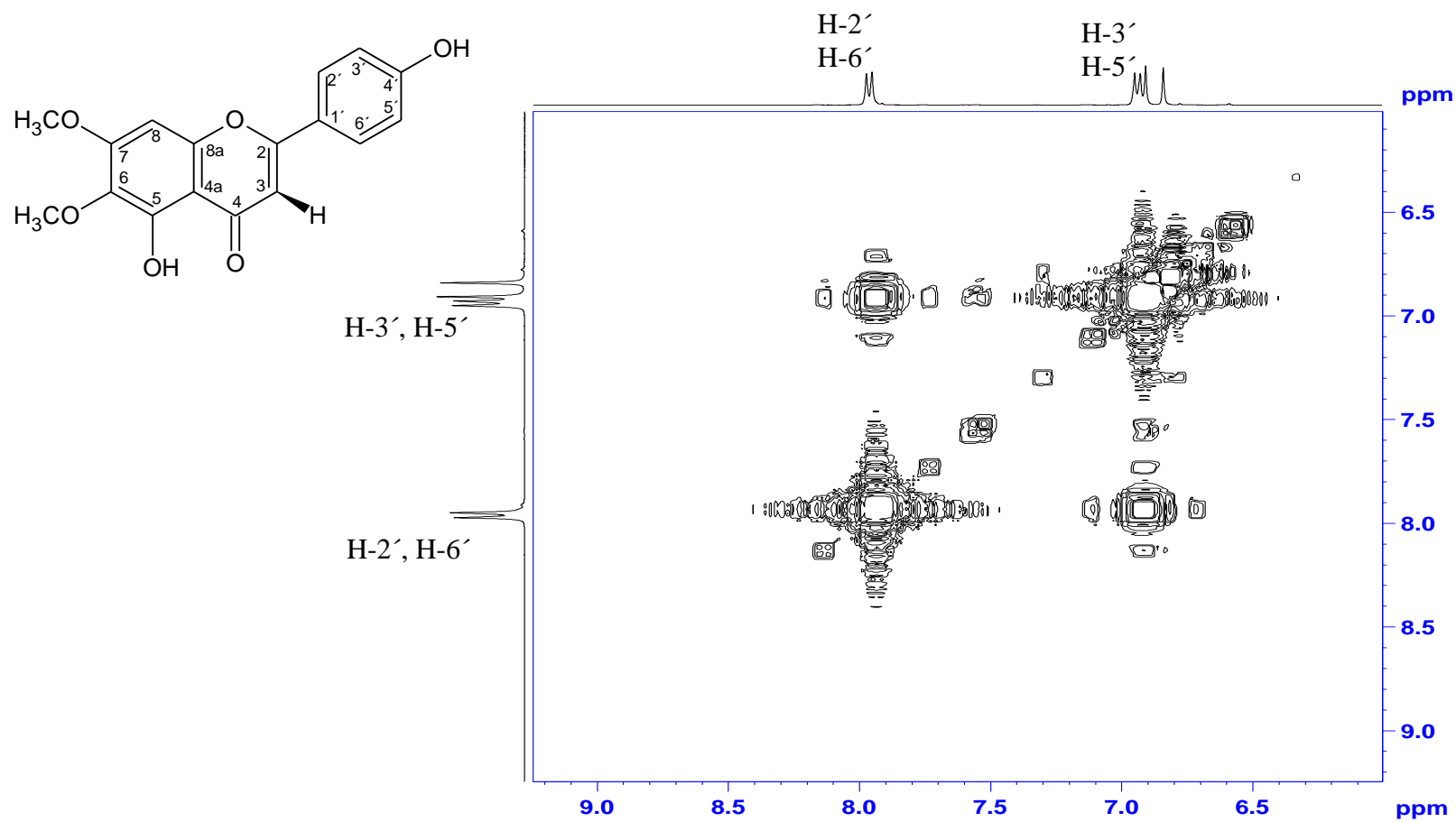
S15: ^1H -NMR Spectrum (Ext. 6.8 – 8.0 ppm) of Cirsimaritin (**3**) d_6 -DMSO, 400 MHz



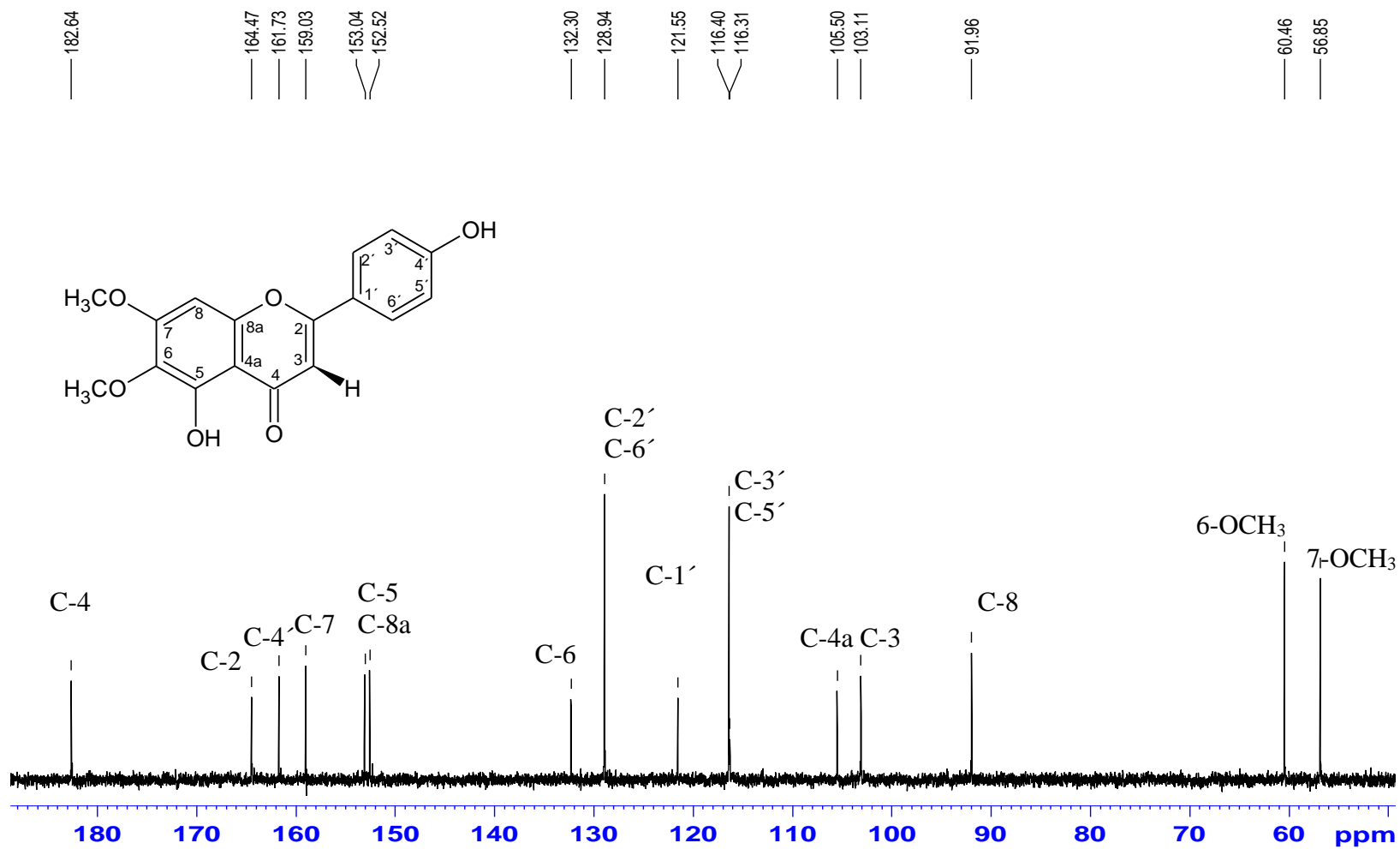
S16: COSY Spectrum of Cirsimaritin (**3**) d_6 -DMSO, 400 MHz



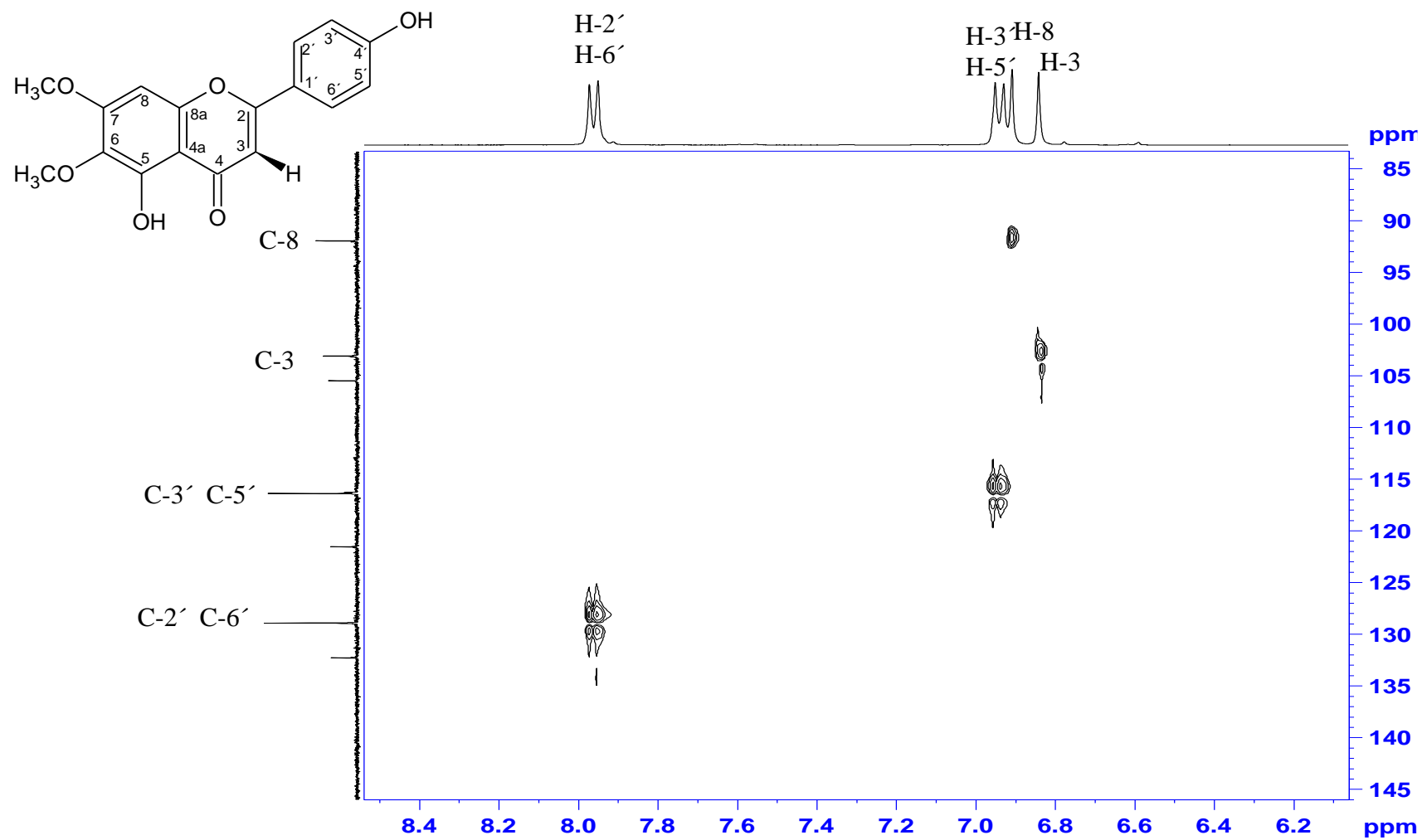
S17: COSY Spectrum (Ext ^1H : 5.0-9.4 ppm; ^1H : 5.0-9.4 ppm) of Cirsimaritin (**3**) d_6 -DMSO, 400 MHz



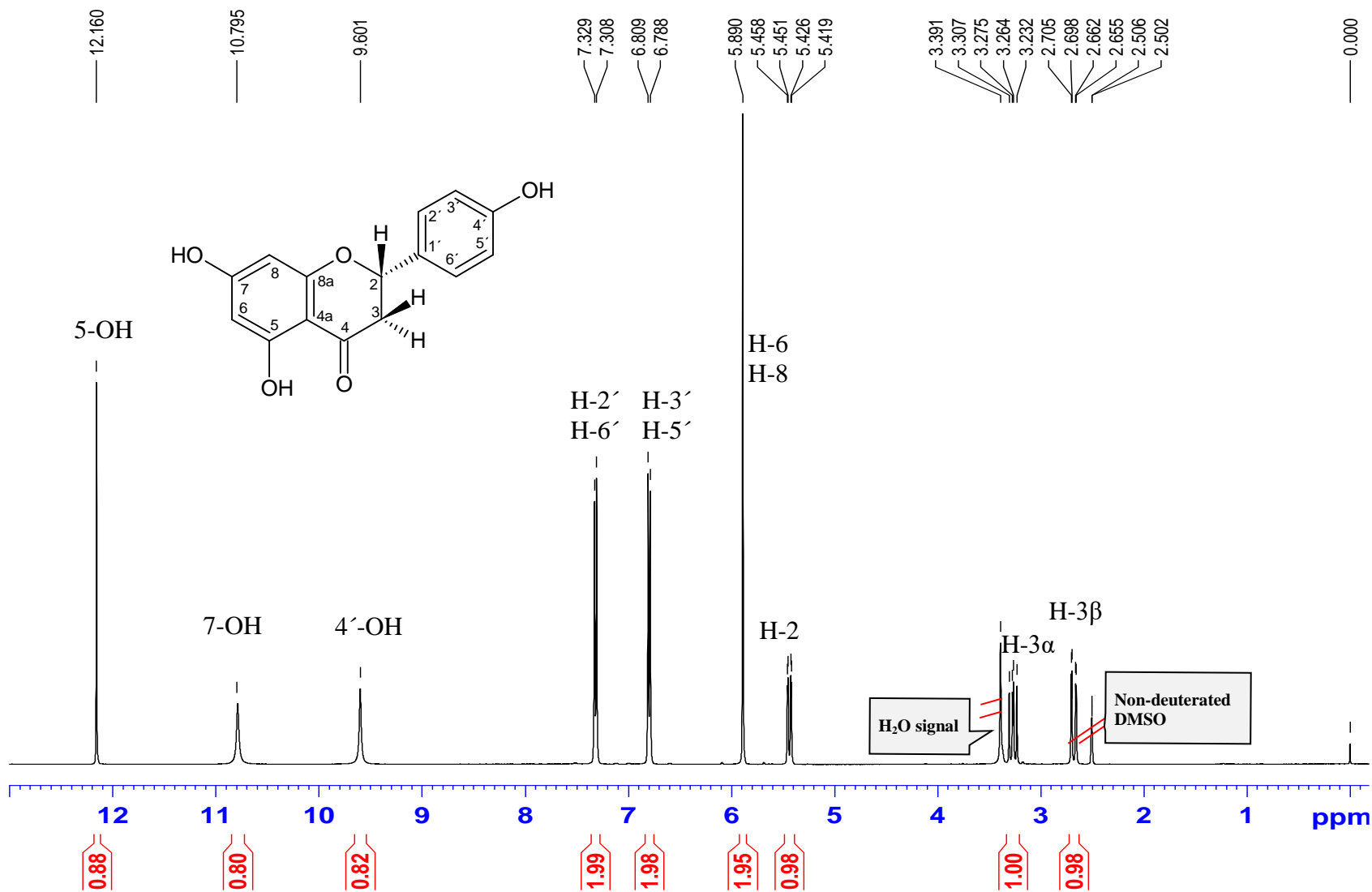
S18: ^{13}C -NMR Spectrum of Cirsimaritin (**3**) (d_6 -DMSO, 100 MHz)



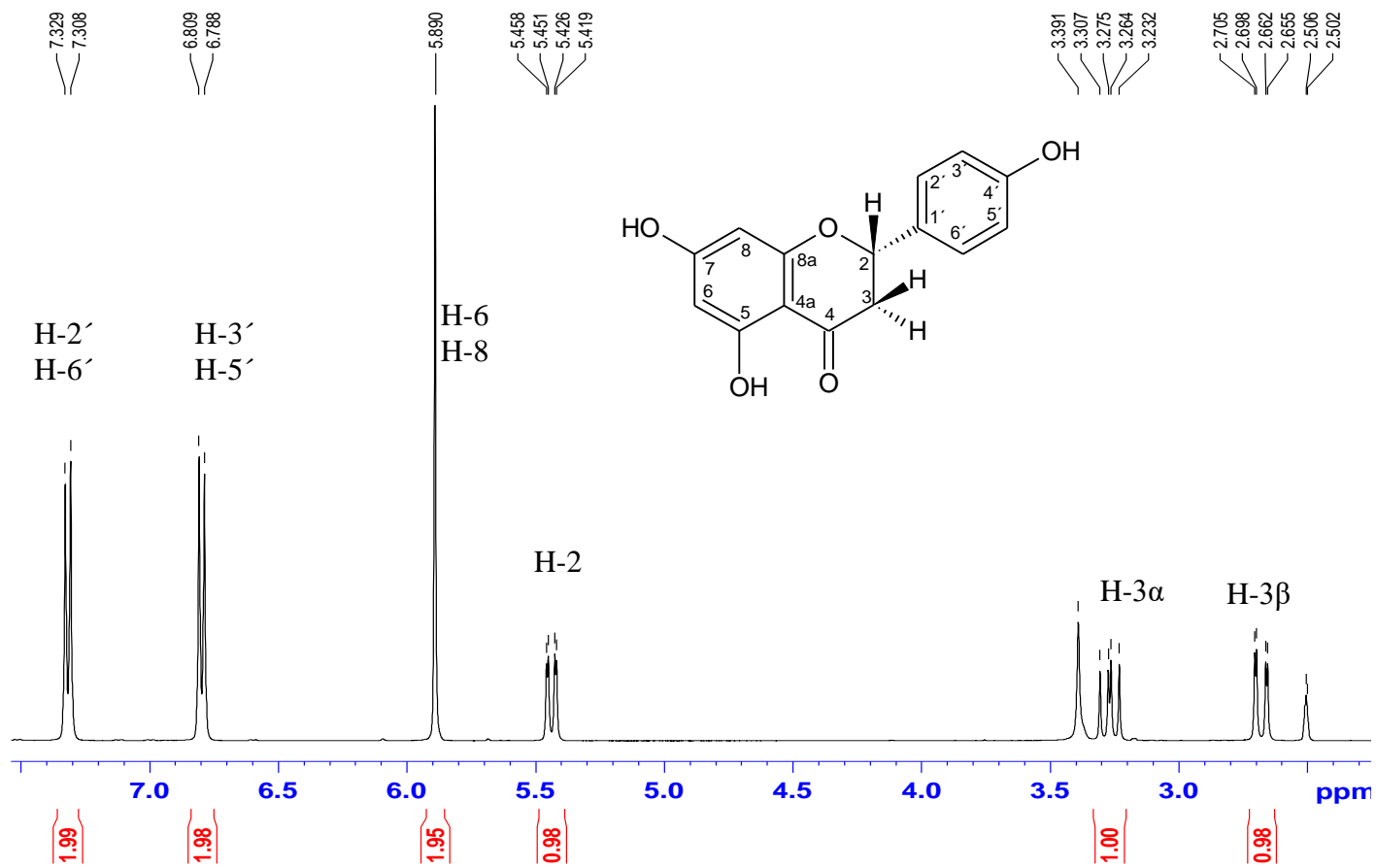
S19: HSQC Spectrum (Ext. ^1H : 6.2-8.4 ppm; ^{13}C : 85-145 ppm) of Cirsimaritin (**3**) (d_6 -DMSO, 400 MHz, 100 MHz)



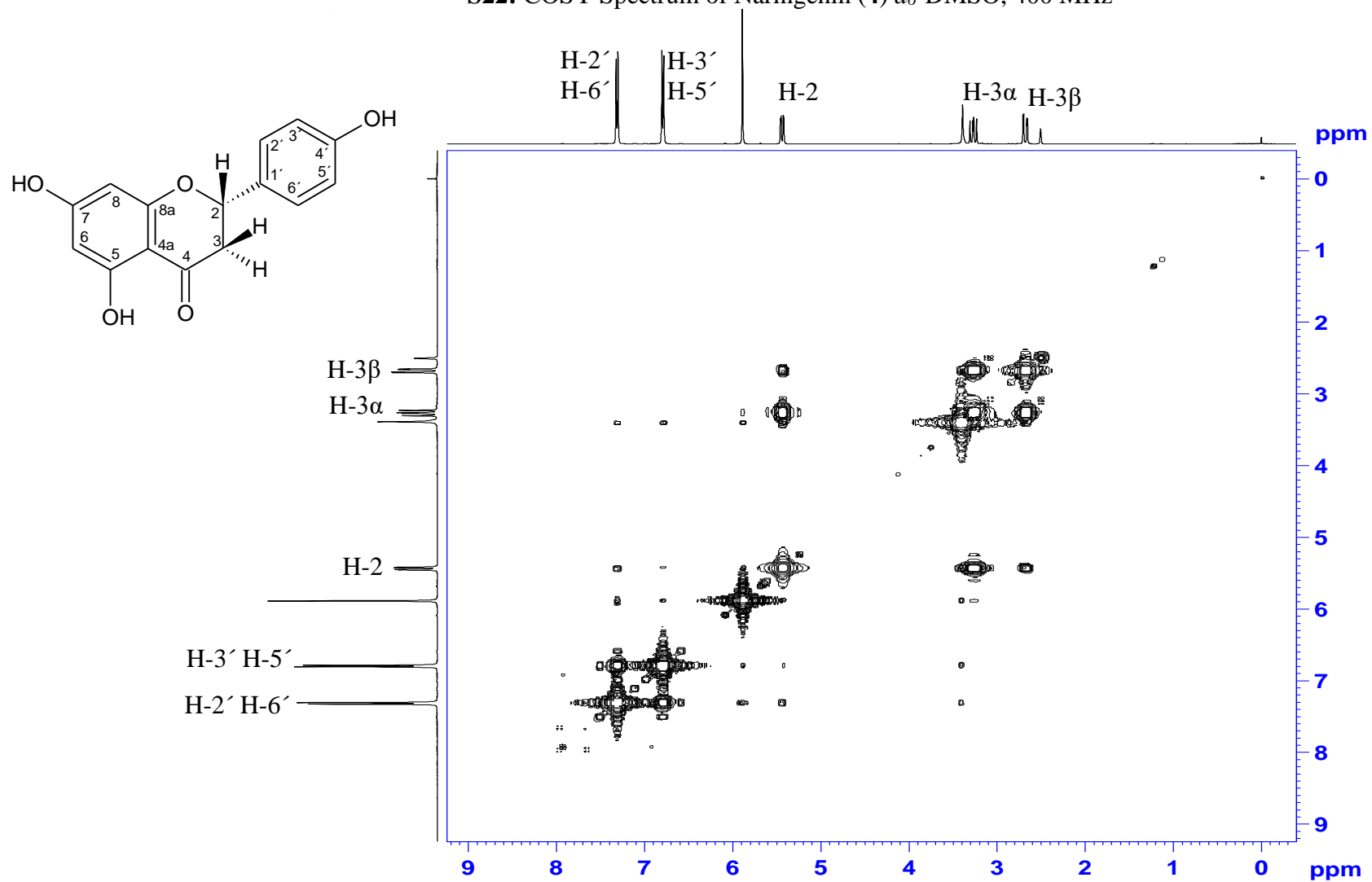
S20: ¹H-NMR Spectrum of Naringenin (4) *d*₆-DMSO, 400 MHz



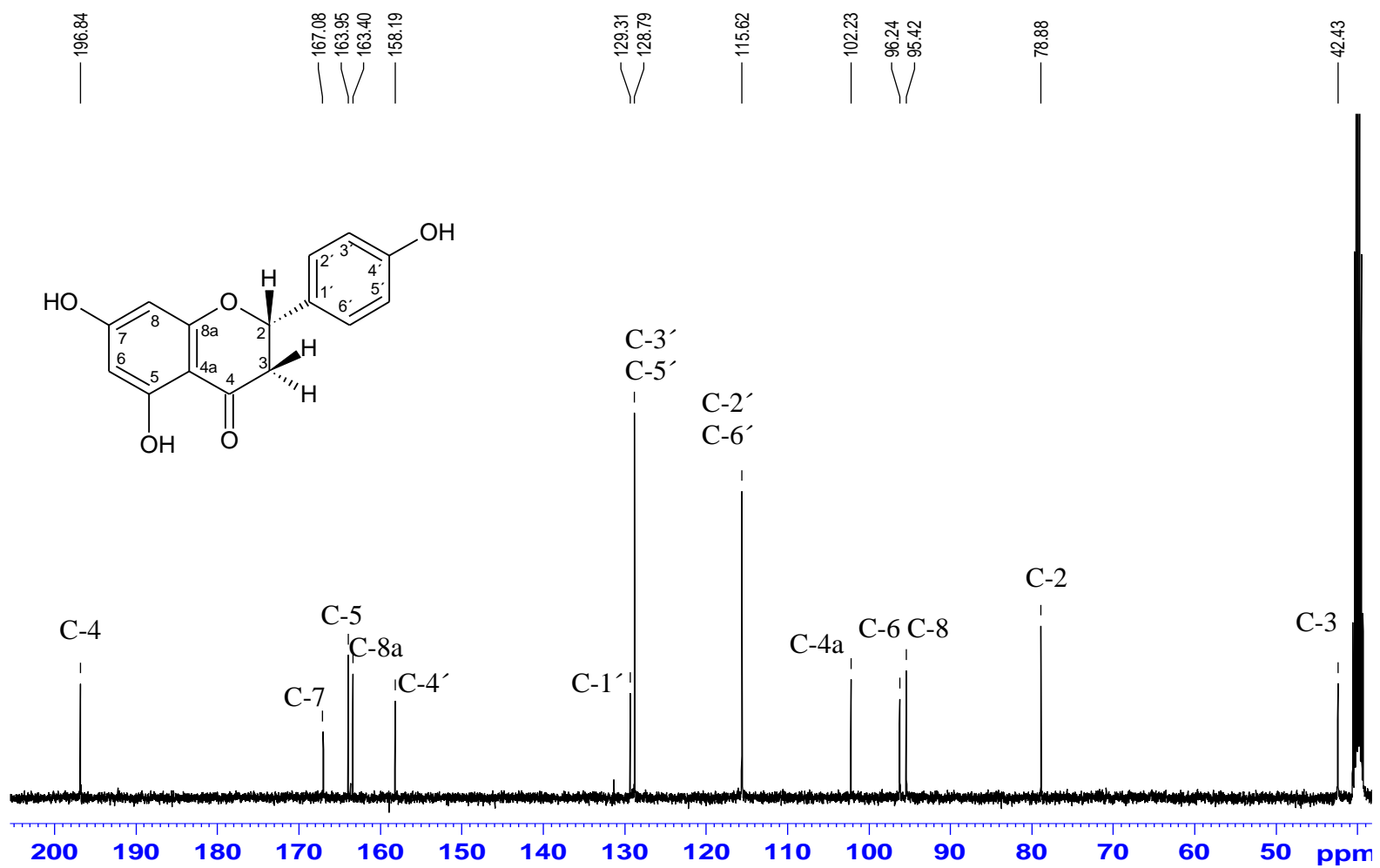
S21: ¹H-NMR Spectrum (Ext. 8.0 – 2.0 ppm) of Naringenin (**4**) *d*₆-DMSO, 400 MHz



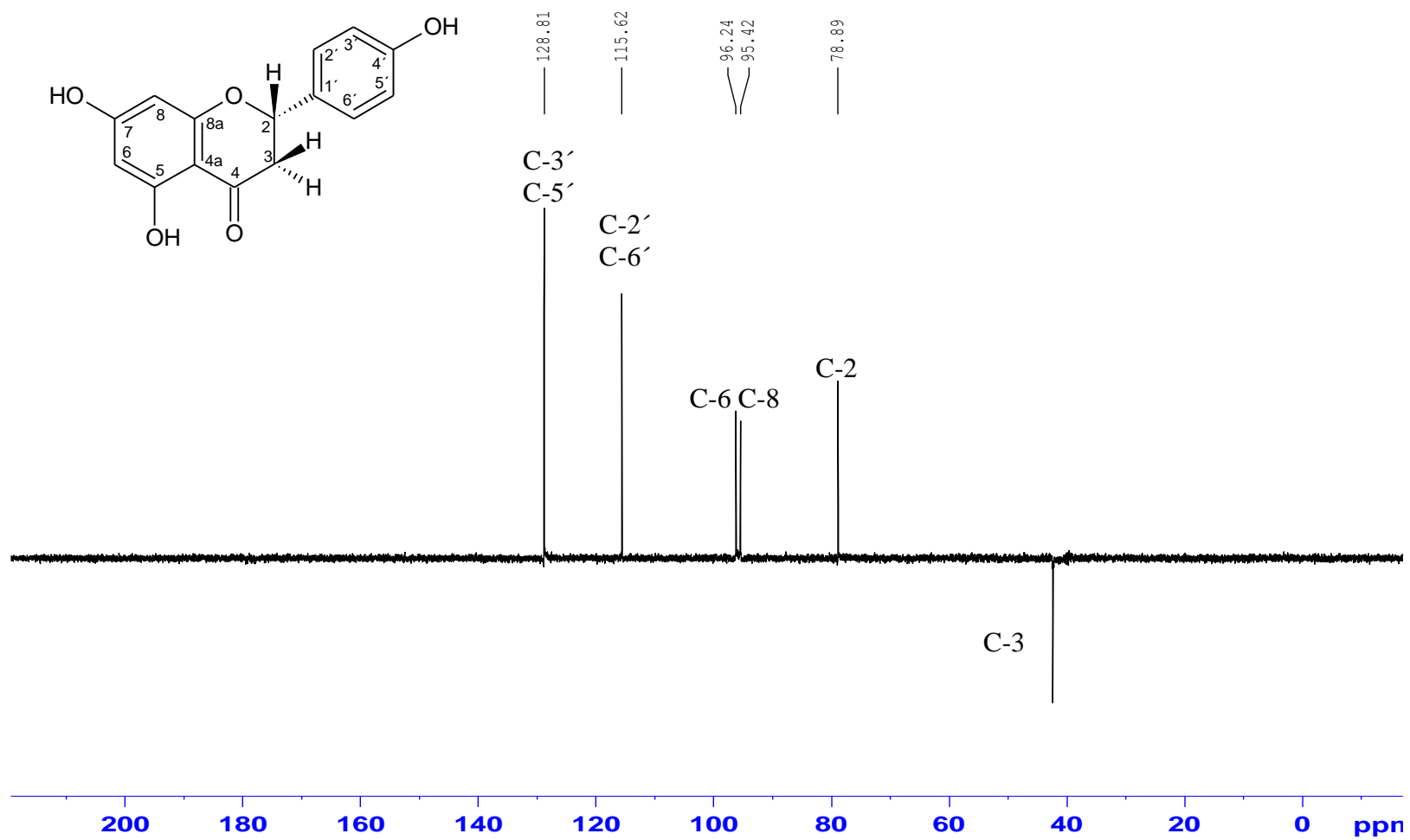
S22: COSY Spectrum of Naringenin (4) *d*₆-DMSO, 400 MHz



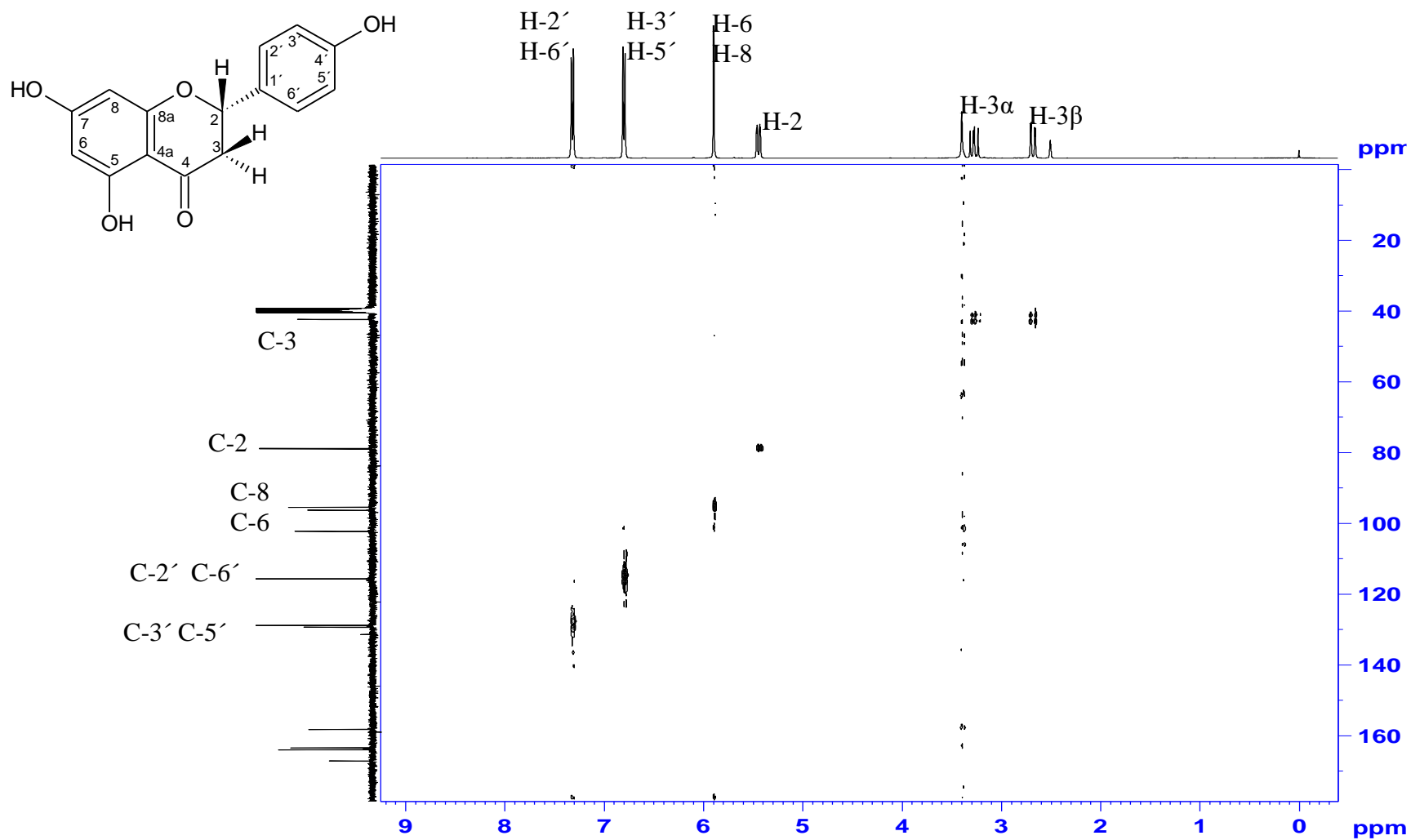
S23: ^{13}C -NMR Spectrum of Naringenin (4) (d_6 -DMSO, 100 MHz)



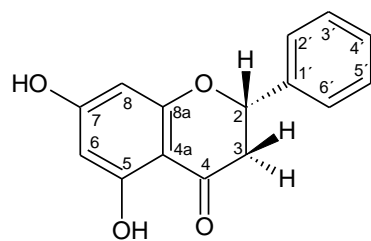
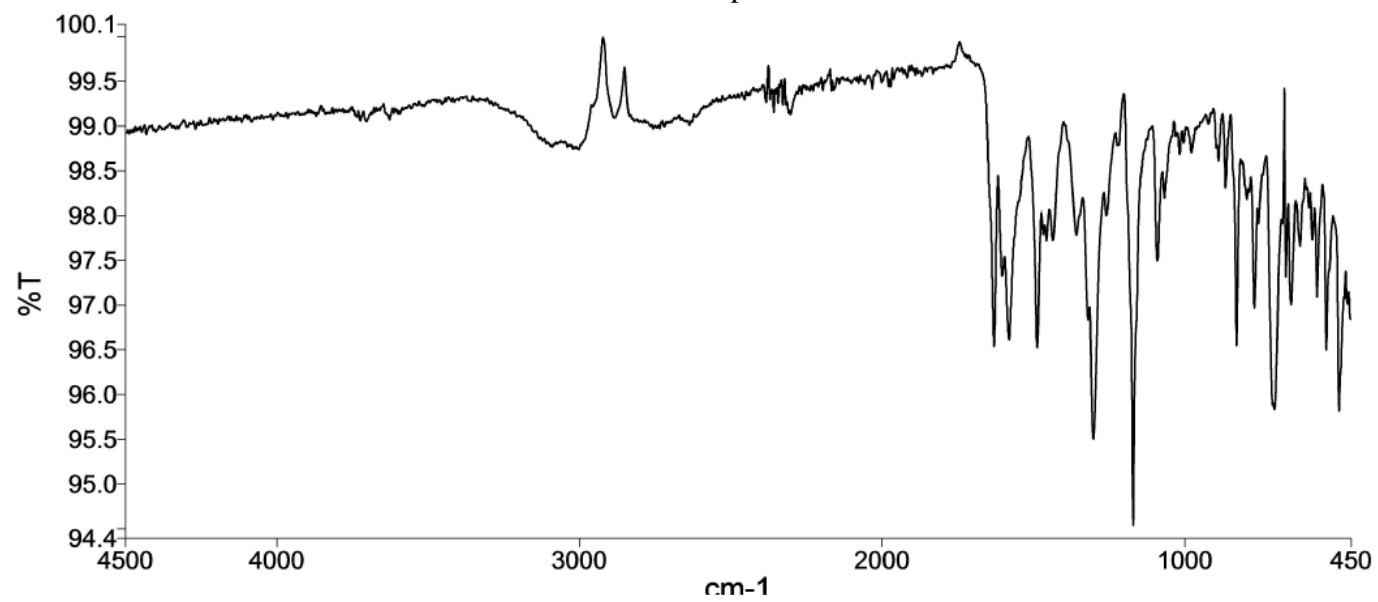
S24: DEPT-135 Spectrum of Naringenin (4) (*d*₆-DMSO, 100 MHz)



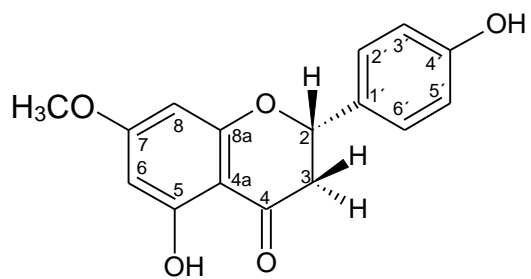
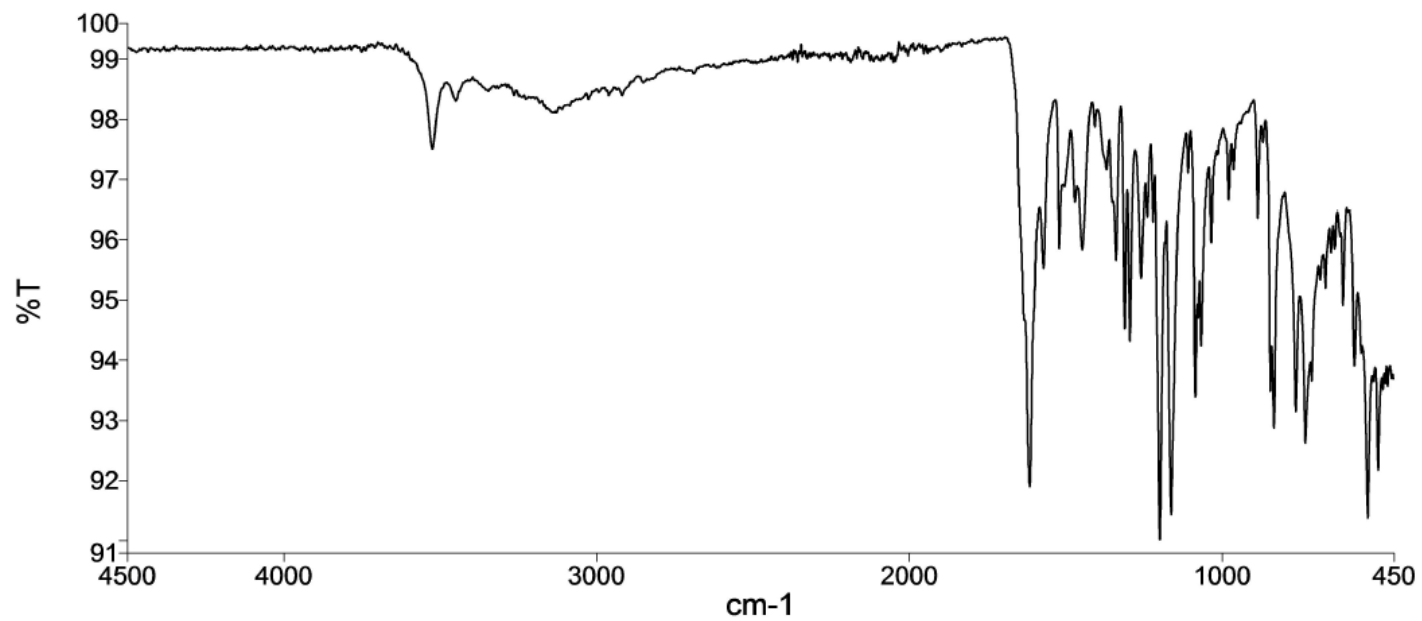
S25: HSQC Spectrum (Ext. ^1H : 0-9.0 ppm; ^{13}C : 10-180 ppm) of Naringenin (4) (d_6 -DMSO, 400 MHz, 100 MHz)



S26: IR spectrum of Pinocembrin 1



S27: IR spectrum of Sakuranetin 2



S28: IR spectrum of Cirsimaritin 3

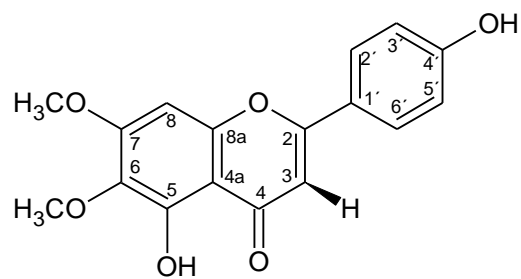
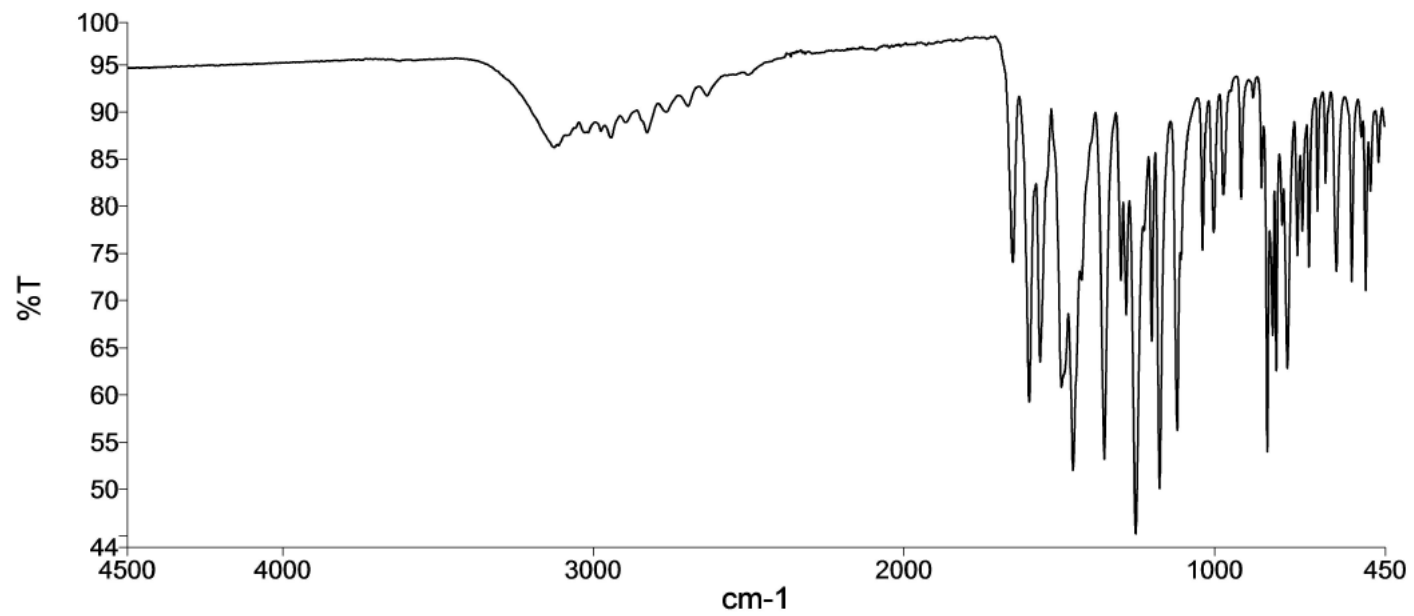


Table 1. ¹H-NMR spectral data of compounds 1-4 (400 MHz, DMSO-*d*₆)

Position	δ in ppm (m, <i>J</i> in Hz)			
	1	2	3	4
2	5.59 (dd, 12.71, 2.98)	5.49 (dd, 12.75, 2.86)	-	5.44 (dd, 12.78, 2.88)
3α_(ax)	3.26 (dd, 17.10, 12.71)	3.33 (dd, 17.15, 12.75)	6.84 (s)	3.27 (dd, 17.11, 12.78)
3β_(ec)	2.78 (dd, 17.10, 2.98)	2.72 (dd, 17.15, 2.86)	-	2.68 (dd, 17.11 2.88)
6	5.94 (d, 1.70)	6.11 (d, 2.09)	-	5.89 (s)
8	5.91 (d, 1.70)	6.08 (d, 2.12)	6.91 (s)	5.89 (s)
2',6'	7.52 (d, 7.05)	7.33 (d, 8.48)	7.96 (d, 8.61)	7.32 (d, 8.48)
3',5'	7.45-7.37 (m)	6.80 (d, 8.48)	6.94 (d, 8.61)	6.80 (d, 8.48)
4'	7.45-7.37 (m)	-	-	-
5-OH	12.14 (s)	12.13 (s)	12.94 (s)	12.16 (s)
7-OH	10.88 (br. s)	-	-	10.76 (s)
4'-OH	-	9.62 (s)	10.40 (s)	9.60 (s)
6-OCH₃	-	-	3.93 (s)	-
7-OCH₃	-	3.79 (s)	3.75 (s)	-

S30

Table 2. ^{13}C -NMR spectral data of compounds 1-4 (100 MHz, $\text{DMSO-}d_6$)

Position	δ in ppm			
	1	2	3	4
2	78.38	78.63	164.47	78.88
3	42.10	42.03	103.11	42.43
4	195.95	196.99	182.64	196.89
4a	101.80	102.60	105.50	102.33
5	163.50	163.21	153.04	163.95
6	95.05	93.79	132.30	95.42
7	166.74	167.43	159.03	167.08
8	95.94	94.65	91.96	96.24
8a	162.72	162.89	152.52	163.40
1'	138.70	128.69	121.55	129.31
2', 6'	126.62	128.39	128.94	128.79
3', 5'	128.55	115.17	116.40	115.62
4'	128.55	157.78	161.73	158.19
6-OCH ₃			60.46	
7-OCH ₃		55.89	56.85	