

Supporting Information

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Antioxidant and α -Glucosidase Inhibitory Activities of Isolated Compounds from *Ipomoea aquatica*

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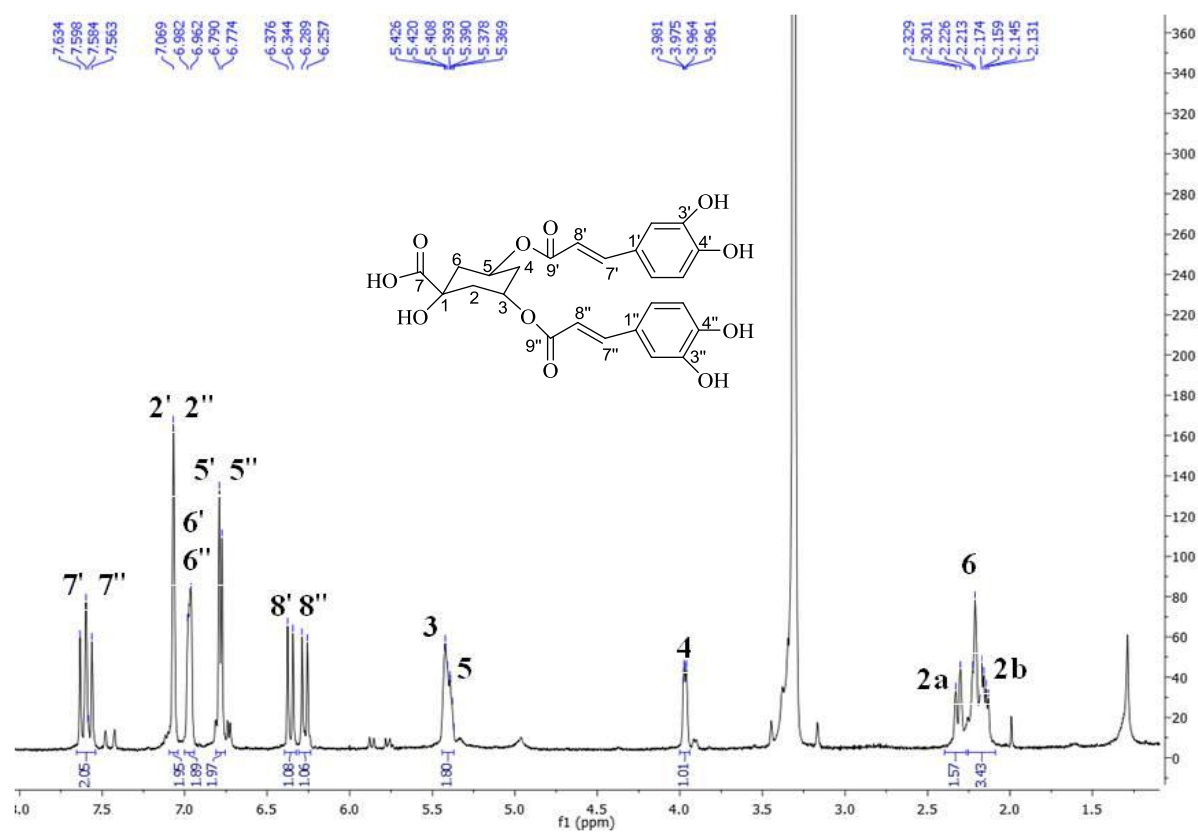
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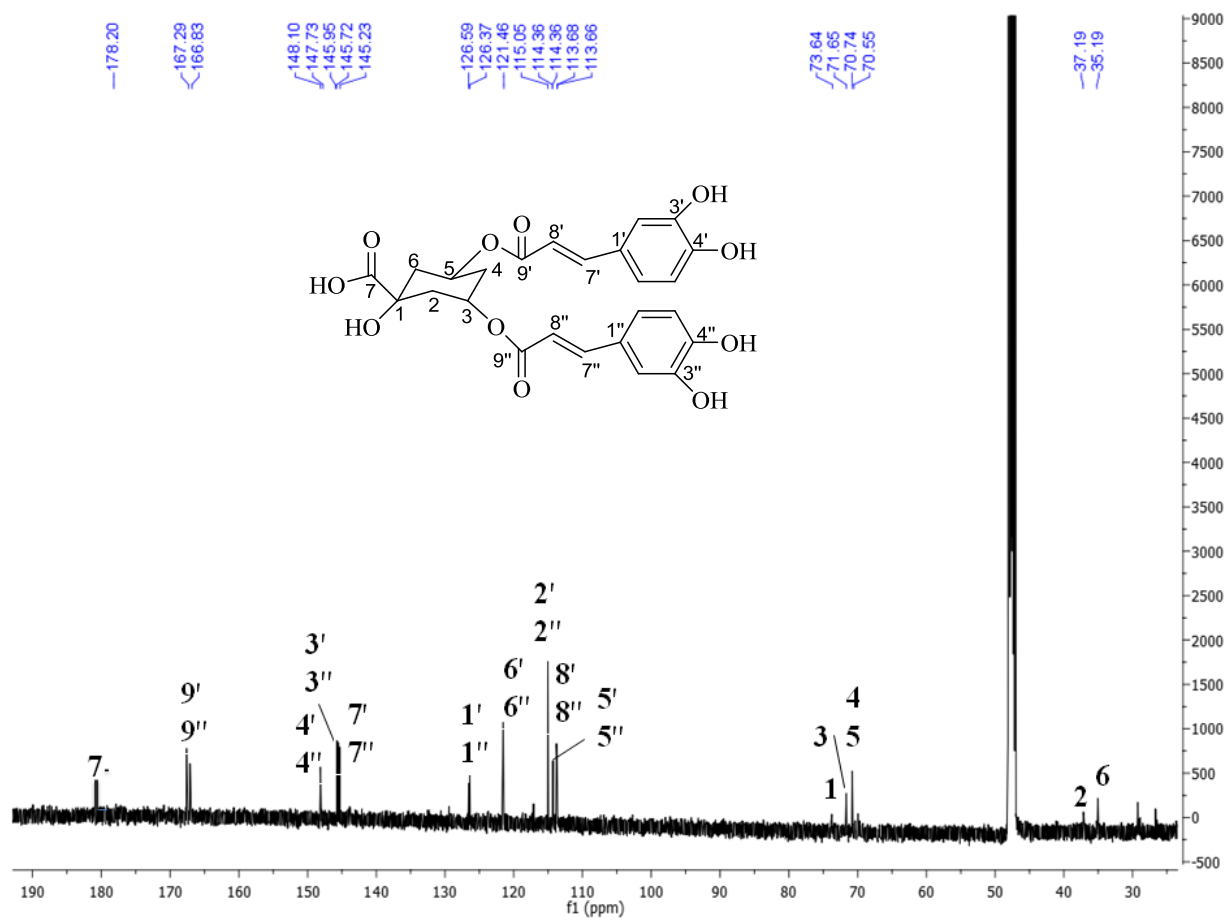
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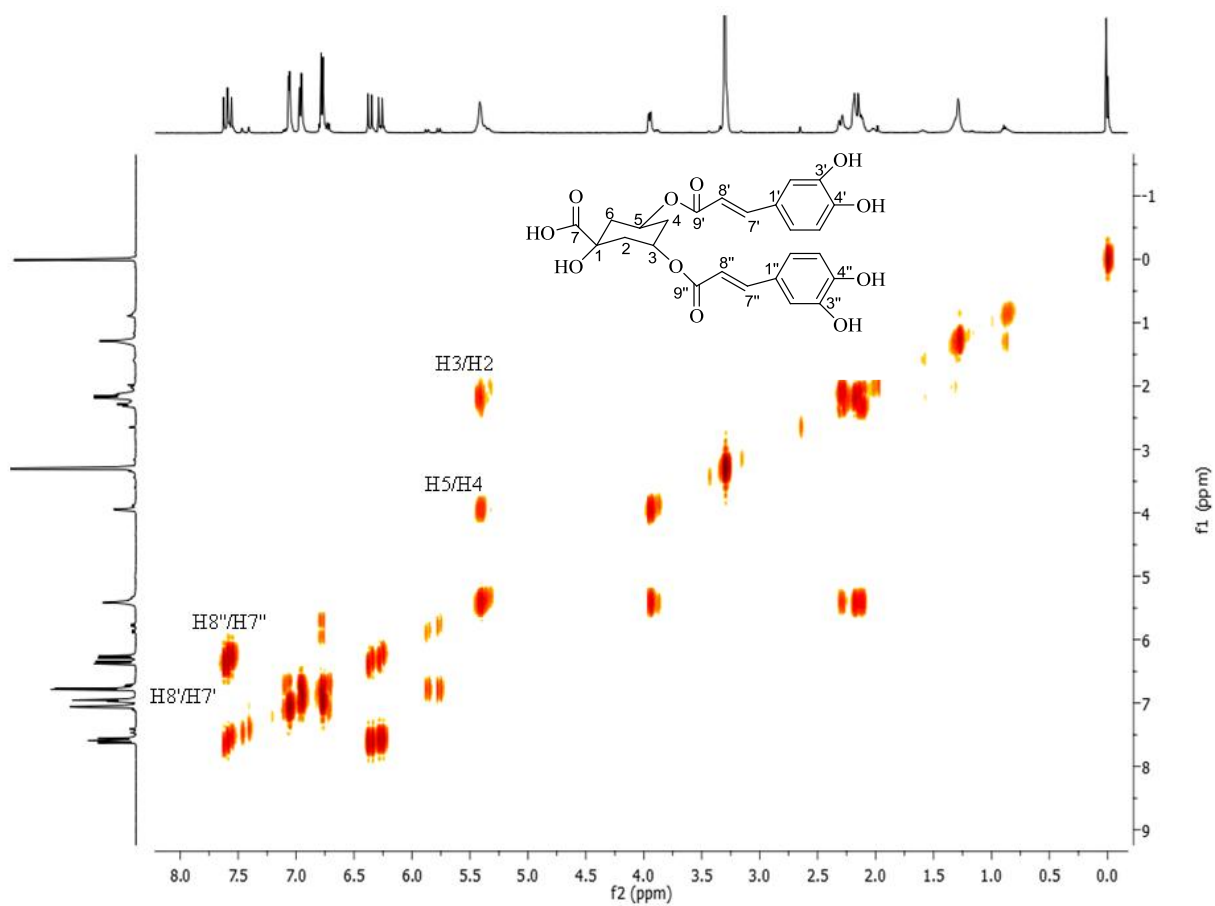
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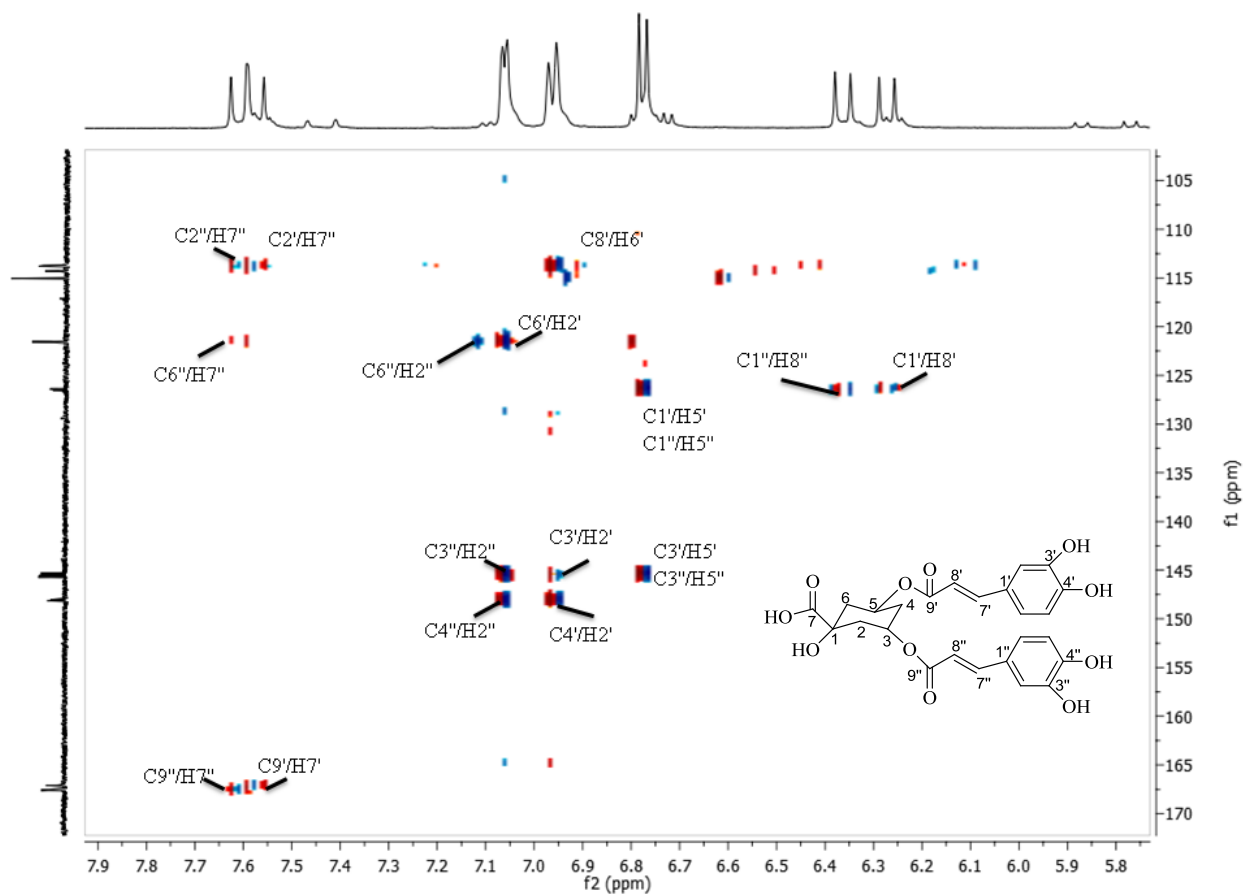
S1: $^1\text{H-NMR}$ (500 MHz, CD_3OD) spectrum of compound (1)



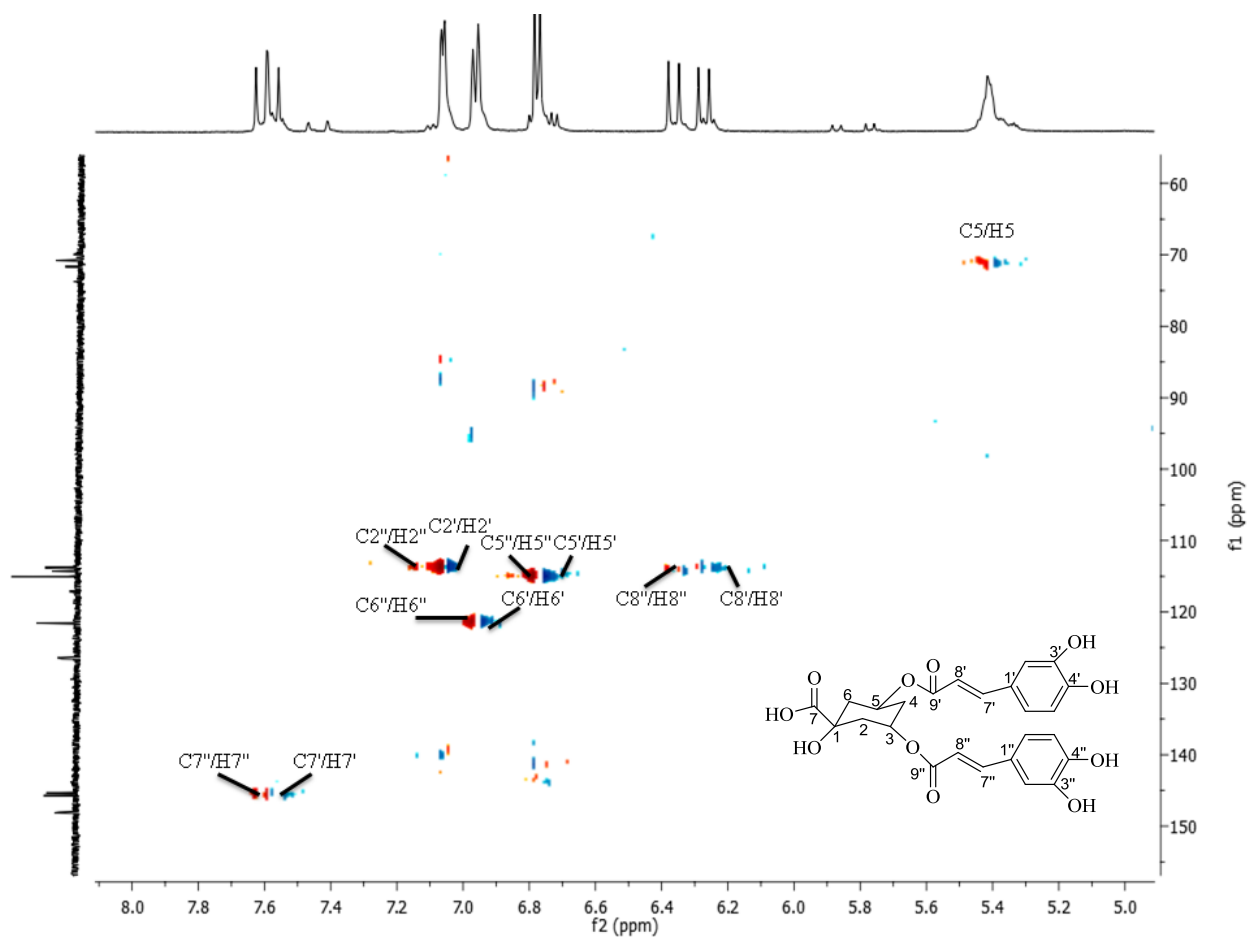
S2: ^{13}C NMR (500 MHz, CD_3OD) spectrum of compound 1



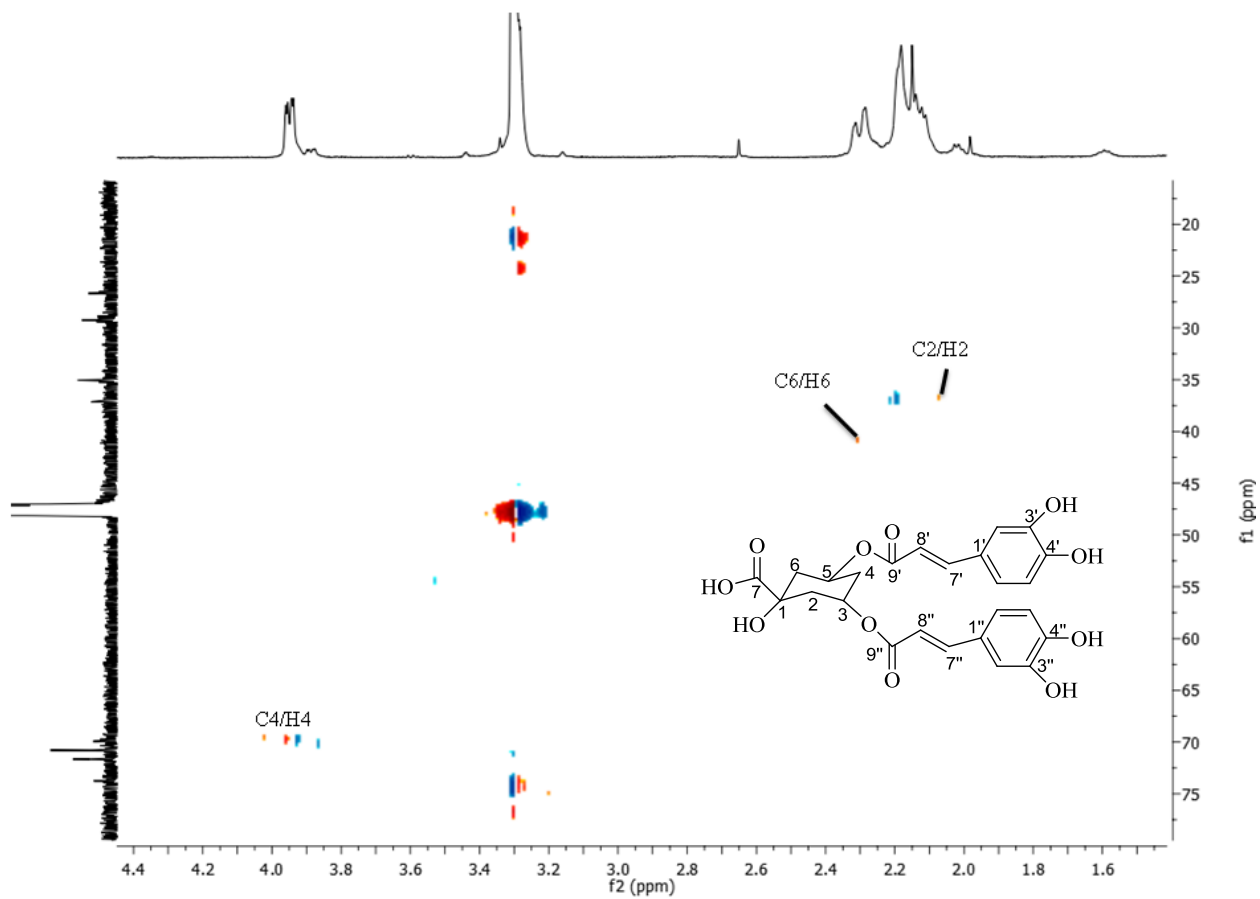
S3: COSY (500 MHz, CD₃OD) spectrum of compound **1**.



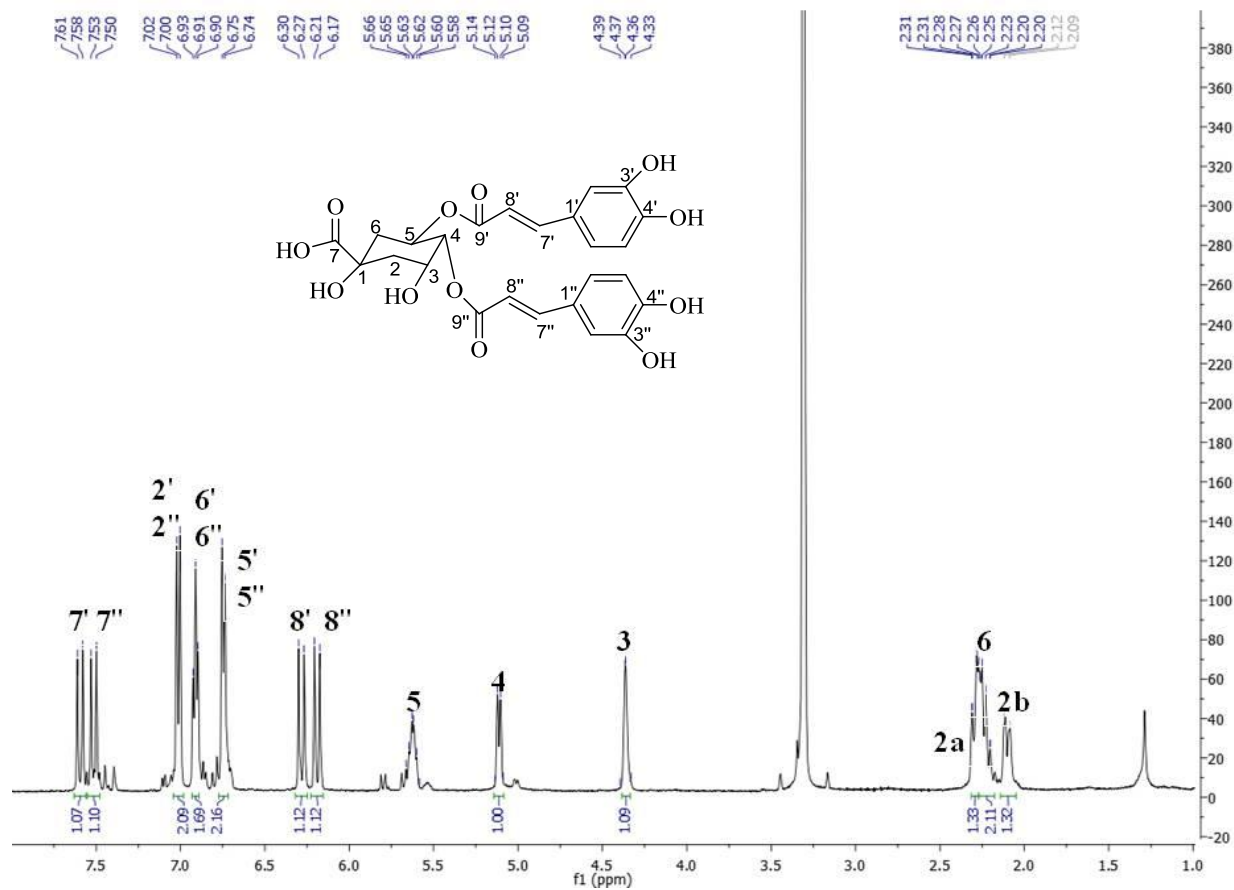
S4: HMBC (500 MHz, CD₃OD) spectrum of compound **1** (expanded)

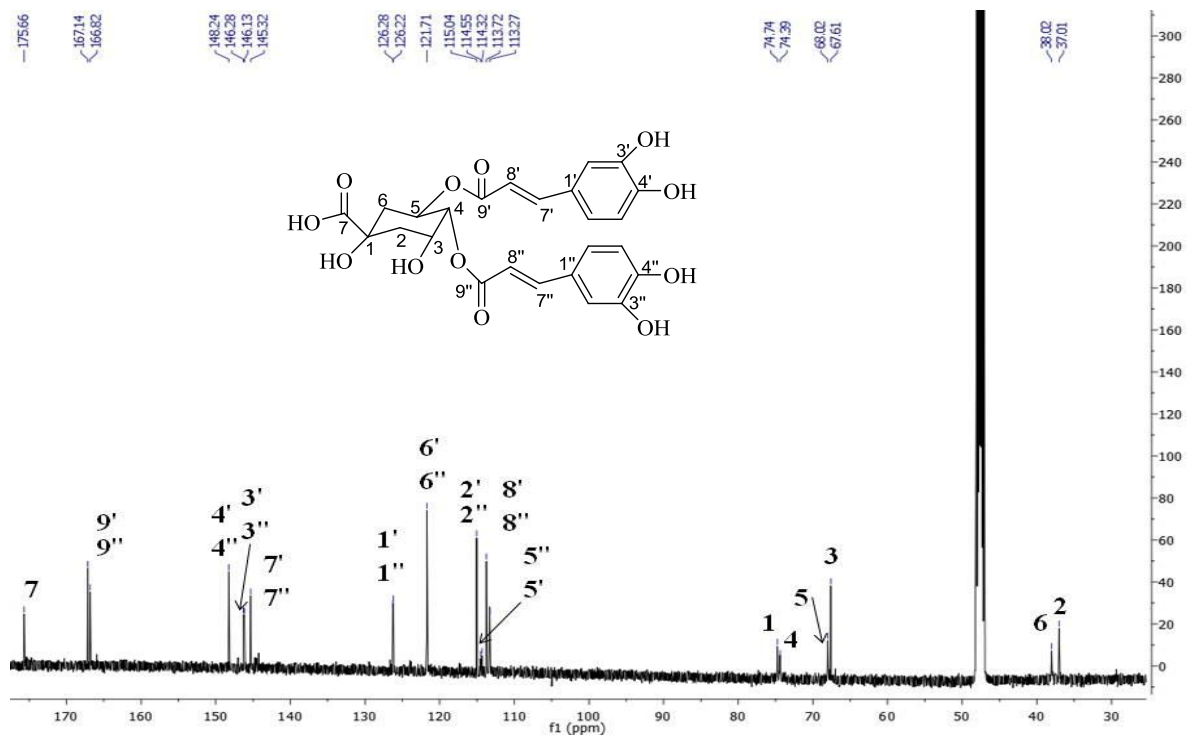


S5: HSQC (500 MHz, CD₃OD) spectrum of compound **1** (expanded)

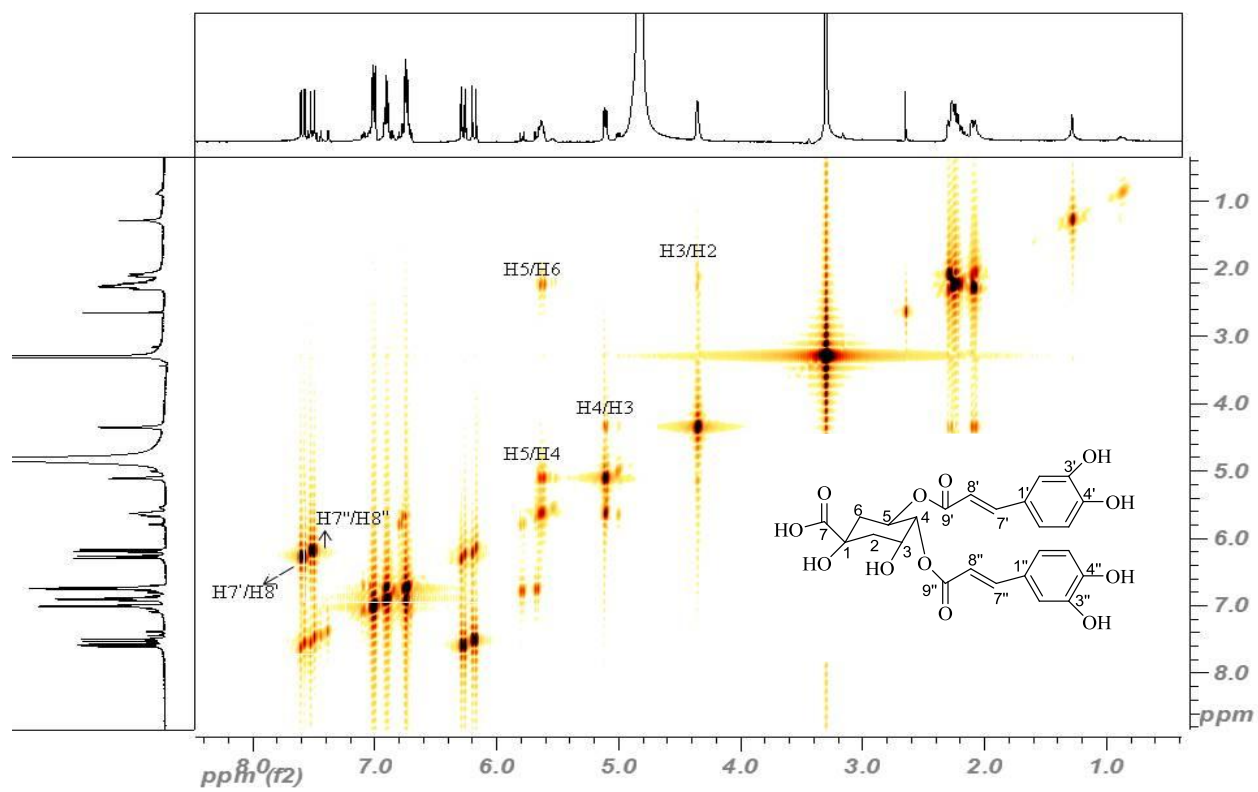


S6: HSQC (500 MHz, CD₃OD) spectrum of compound **1** (expanded)

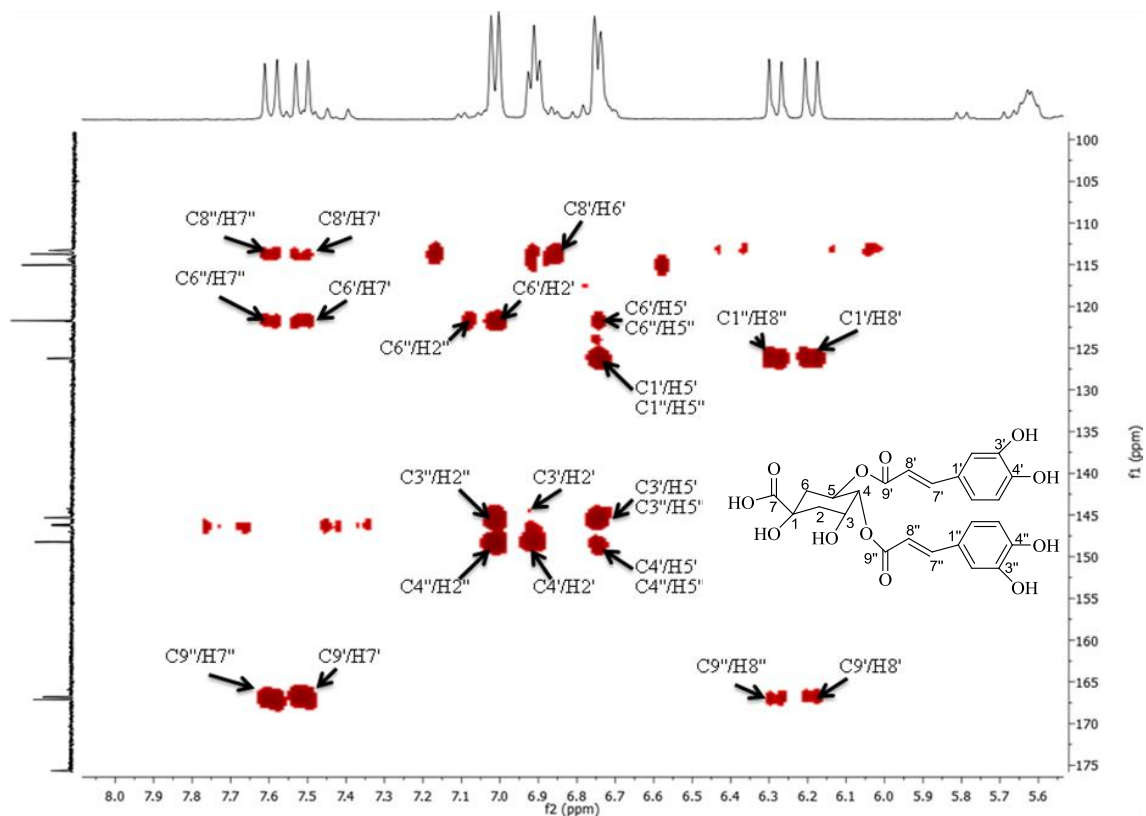




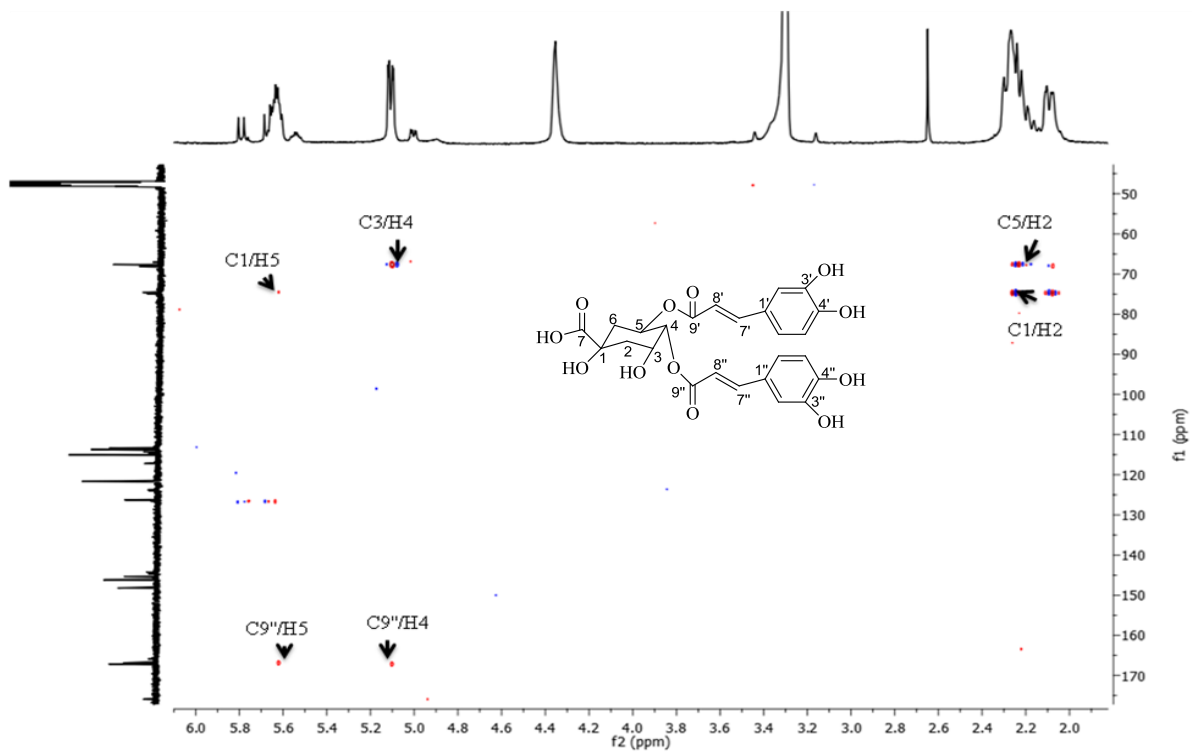
S8: ^{13}C NMR (500 MHz, CD_3OD) spectrum of compound 2



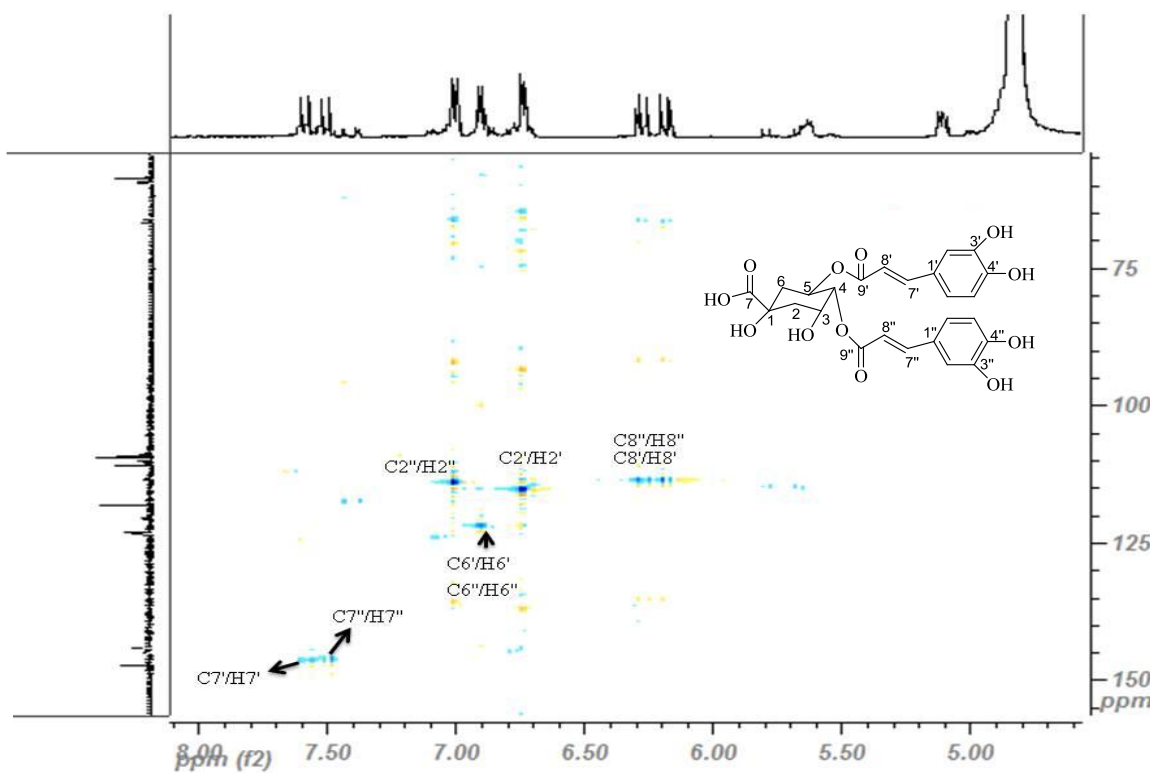
S9: COSY (500 MHz, CD₃OD) spectrum of compound **2**.



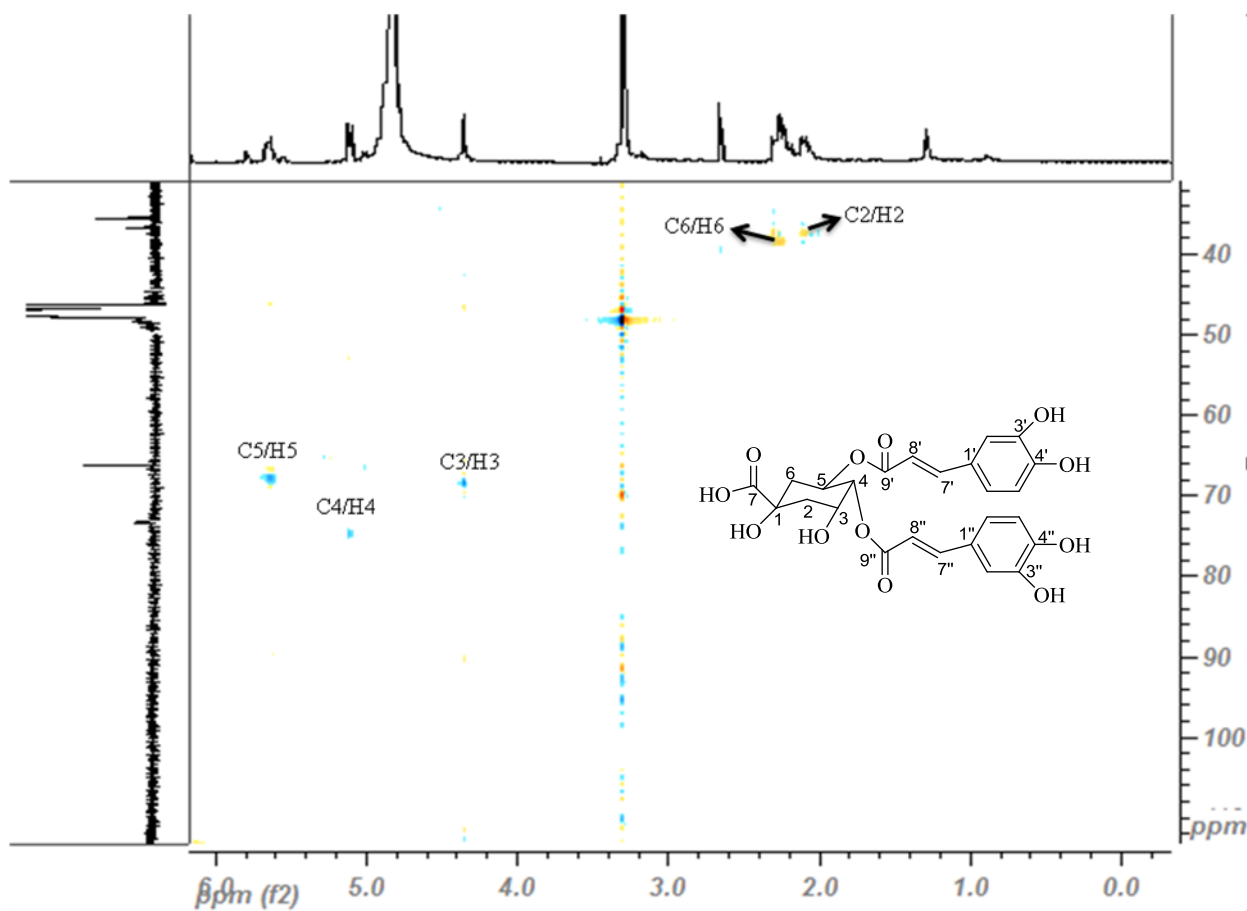
S10: HMBC (500 MHz, CD₃OD) spectrum of compound **2** (expanded)



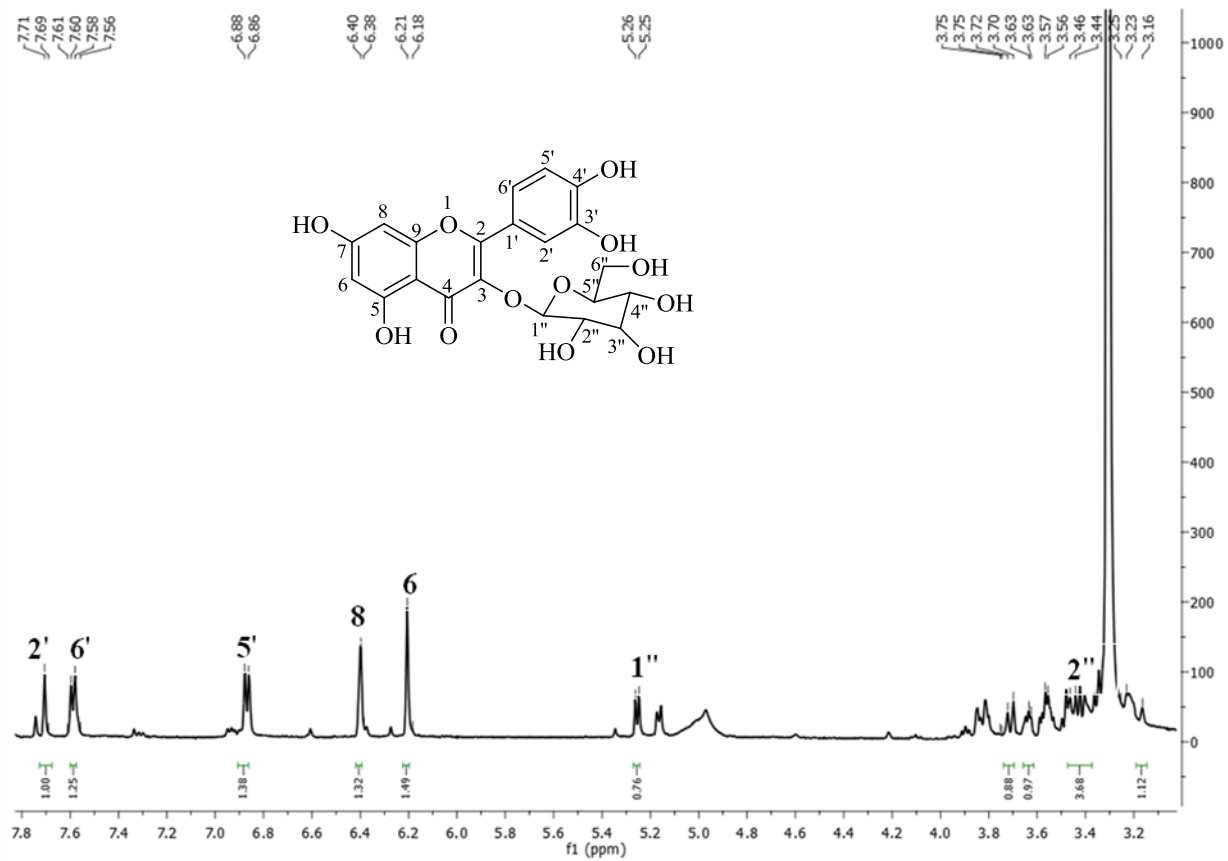
S11: HMBC (500 MHz, CD₃OD) spectrum of compound **2** (expanded)



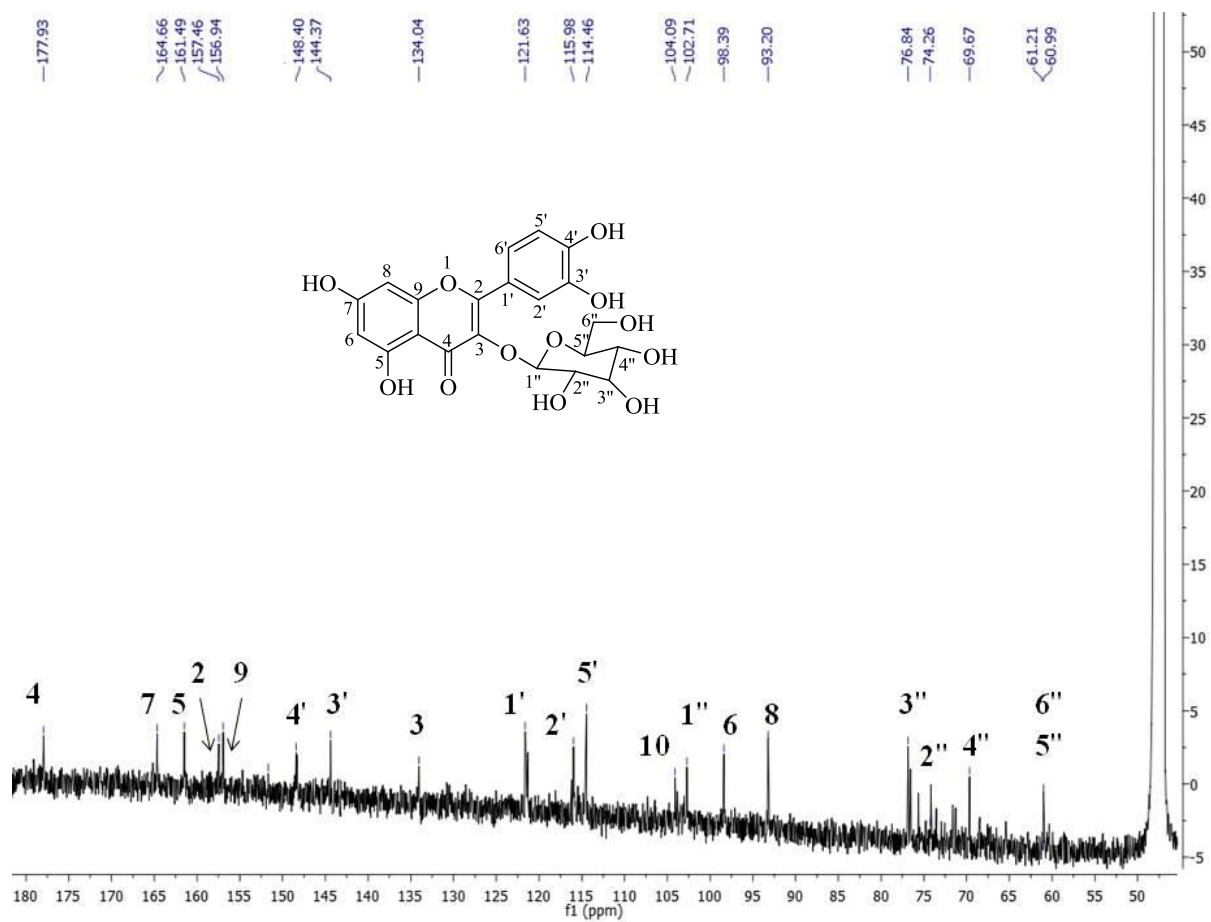
S12: HSQC (500 MHz, CD₃OD) spectrum of compound **2** (expanded)



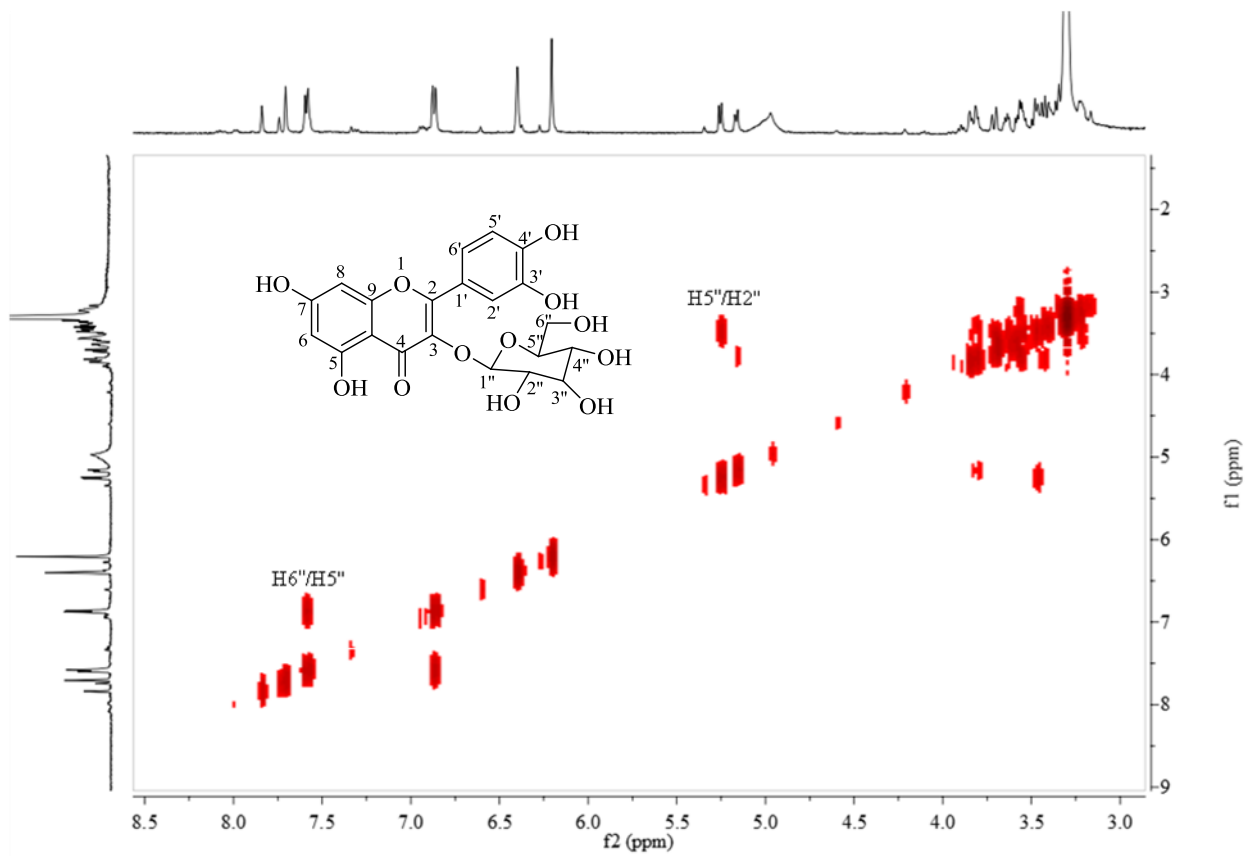
S13: HSQC (500 MHz, CD₃OD) spectrum of compound **2** (expanded)



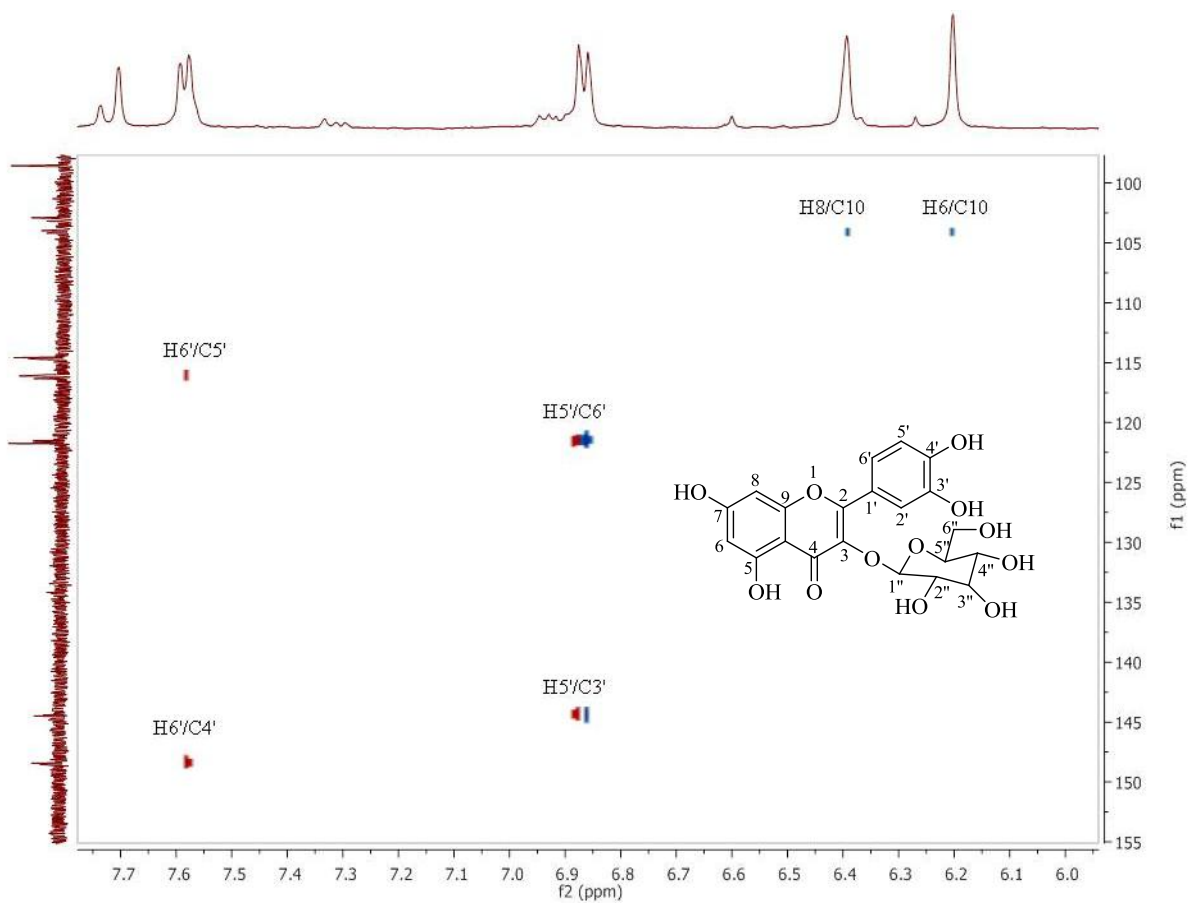
S14: ¹H-NMR (500 MHz, CD₃OD) spectrum of compound (3)



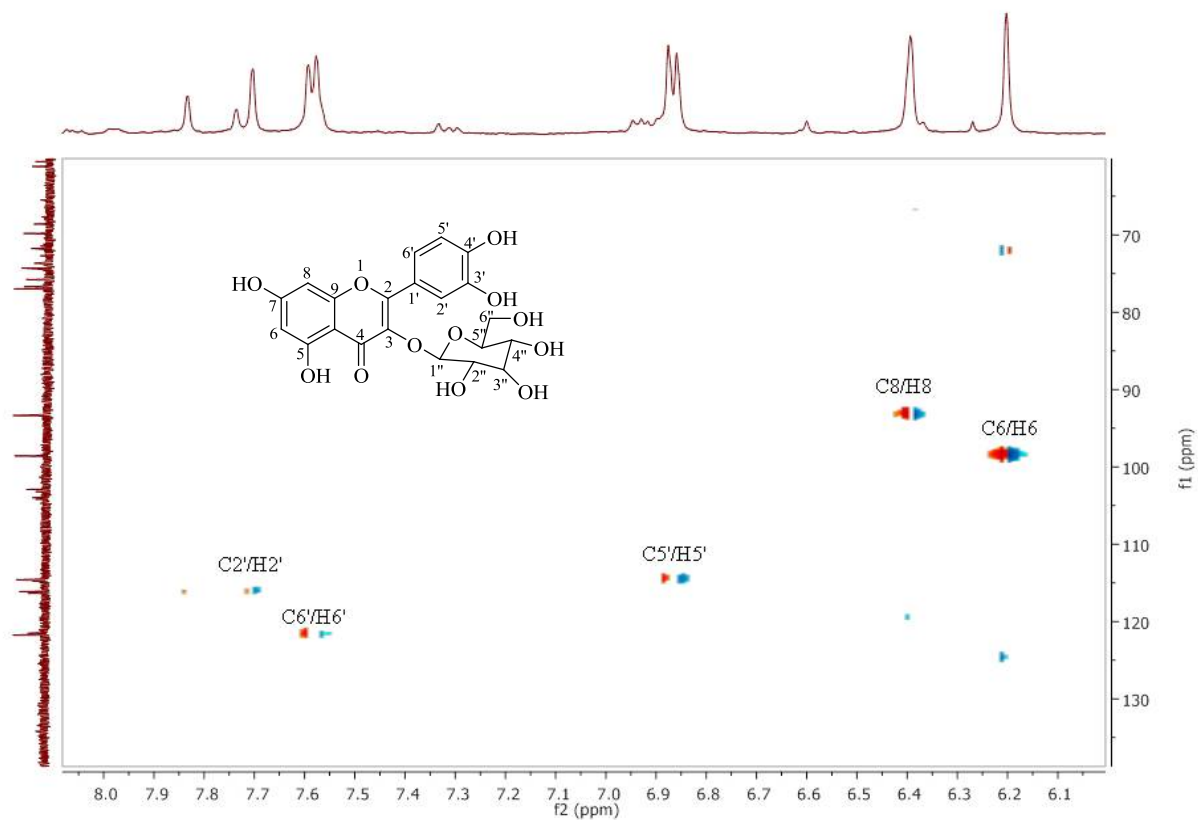
S15: ^{13}C NMR (500 MHz, CD_3OD) spectrum of compound **3**



S16: COSY (500 MHz, CD₃OD) spectrum of compound **3**



S17: HMBC (500 MHz, CD₃OD) spectrum of compound **3** (expanded)



S18: HSQC (500 MHz, CD₃OD) spectrum of compound **3** (expanded)

S19 : Table 1. ^{13}C and ^1H NMR of compound **1** and **2** (500 MHz in CD_3OD , δ in ppm, J in Hz).

Position	Compound 1		Compound 2	
	δ_{C}	δ_{H}	δ_{C}	δ_{H}
1	73.6		74.2	
2 _{ax} 2 _{eq}	37.1	2.32 (2H, d, $J = 14.0$ Hz ax) 2.20 (2H, m, H-6eq)	37	2.07 – 2.14 (2H, dd, $J = 14.2, 3.5$, Heq) 2.24 – 2.32 (2H, br.d, $J = 14.2$, Hax)
3	71.7	5.45 (m)	67.7	4.36 (1H, m)
4	70.5	3.97 (1H, d, $J = 9.0, 2.5$ Hz)	74.4	5.11 (1H, dd, $J = 9.0, 2.0$ Hz)
5	71.7	5.37 (1H, t = 5.0 Hz)	68.1	5.64 (1H, m)
6 _{ax} 6 _{eq}	35.2	2.27 (2H, dd, $J = 14.5, 7.0$ Hz ax) 2.24 (m, Heq)	38.1	2.24 – 2.32 (2H, m, Heq) 2.18 – 2.27 (2H, m, Hax)
7	178.2		175.7	
1'	126.4		126.3	
2'	115.1	7.07 (br.s)	114.4	6.91 (1H, d, $J = 2.0$ Hz)
3'	145.9		146.1	
4'	148.8		148.2	
5'	114.8	6.78 (1H, d, $J = 8.0$ Hz)	115.1	6.75 (1H, d, $J = 8.0$ Hz)
6'	121.9	6.98 (1H, d, $J = 8.0$ Hz)	121.7	6.89 (2H, dd, $J = 9.0, 1.5$ Hz)
7'	145.9	7.57 (1H, d, $J = 15.5$ Hz)	146.3	7.51 (1H, d, $J = 15.9$ Hz)
8'	113.9	6.28 (1H, d, $J = 15.5$ Hz)	113.3	6.19 (1H, d, $J = 15.9$ Hz)
9'	166.8		168.8	
1''	126.1		126.5	
2''	115.3	7.07 (br.s)	115.3	7.07 (1H, d, $J = 5.0$ Hz)
3''	145.9		146.5	
4''	149.0		148.9	
5''	115.9	6.78 (1H, d, $J = 8.0$ Hz)	115	6.78 (1H, d, $J = 8.0$ Hz)
6''	121.5	6.96 (1H, d, $J = 8.0$ Hz)	121.5	6.97 (1H, d, $J = 8.0$ Hz)
7''	145.7	7.63 (1H, d, $J = 15.5$ Hz)	146.1	7.60 (1H, d, $J = 15.9$ Hz)
8''	114.4	6.39 (1H, d, $J = 15.5$ Hz)	115.4	6.28 (1H, d, $J = 15.9$ Hz)
9''	167.3		167.8	

S20 Table 2. ^{13}C and ^1H NMR of compound **3** (500 MHz in CD_3OD , δ in ppm, J in Hz).

Compound 3		
Position	δ_{C}	δ_{H}
1	-	
2	157.1	
3	134.1	
4	178.1	
5	161.6	
6	98.5	6.21 (1H, d, $J = 1.5$ Hz)
7	164.8	
8	93.3	6.40 (1H, d, $J = 1.5$ Hz)
9	156.9	
10	104.2	
1'	121.4	
2'	115.8	7.71 (1H, d, $J = 2.0$ Hz)
3'	144.5	
4'	148.4	
5'	114.4	6.3 (1H, d, $J = 8.5$ Hz)
6'	121.8	7.70 (1H, dd, $J = 8.5, 2.0$ Hz)
Glucose C-8		
1"	102.9	5.26 (1H, d, $J = 7.5$ Hz)
2"	74.3	3.46 (3H, dd, $J = 8.0, 10$ Hz)
3"	76.9	
4"	69.2	
5"	61.6	
6"	60.9	