SUPPLEMENTARY MATERIAL

New aurone epoxide and auronolignan from the heartwood of *Cotinus coggygria* Scop.

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Abstract. From the methylene chloride/methanol extract of *Cotinus coggygria* Scop. heartwood one new aurone epoxide, 2,10-oxy-10-methoxysulfuretin (**14**), and one auronolignan (**15**), named cotinignan A, were isolated by silica gel column and semipreparative HPLC chromatography. In addition, thirteen known secondary metabolites namely sulfuretin, 2,3-*trans*-fustin, fisetin, butin, butein, taxifolin, eriodictyol, 3',5,5',7–tetrahydroxyflavanone, 3',4',7-trihydroxyflavone, 3-*O*-methyl-2,3-*trans*-fustin, 3-*O*-galloyl-

2,3-*trans*-fustin, *β*-resorcylic acid and 3-*O*-*β*-sitosterol glucoside were isolated as well. Their structures were elucidated by 1D and 2D NMR, HR-ESI-MS, IR and UV. Ten out of eleven isolated flavonoids possess 7, 3' and 4' hydroxy groups. These structural features could be considered as chemotaxonomic characteristic of flavonoids from *C. coggygria*. Cotinignan A (**15**) represents new subclass of secondary metabolites - auronolignans.

Keywords. *Cotinus coggygria* Scop, flavonoids, cotinignan A, semipreparative HPLC, NMR

Figure S18. The second part of the NOESY spectrum of **15**

Table S3. ^{1}H and ^{13}C NMR data of **15** (CD_3OD, δ ppm, *J* in Hz)

Figure S19. 3-Aryl-propanol moiety in **15**

Figure S20. Key HMBC correlations in **15**

Figure S21. UV spectrum of **15**

Figure S22. UV spectrum of **10**

Table S1. HPLC program for the quantification of the main compounds from the *C. coggygria* CH_2Cl_2/MeOH extract

t (min)	A (water)	B (acetonitrile)	Flow (mL/min)
0	95	5	1.4
1.5	95	5	1.4
26	5	95	1.4
35	5	95	1.4
36	95	5	1.4
41	95	5	1.4

—MeOH —MeOH+$AlCl_3$ —MeOH+$AlCl_3$+HCl

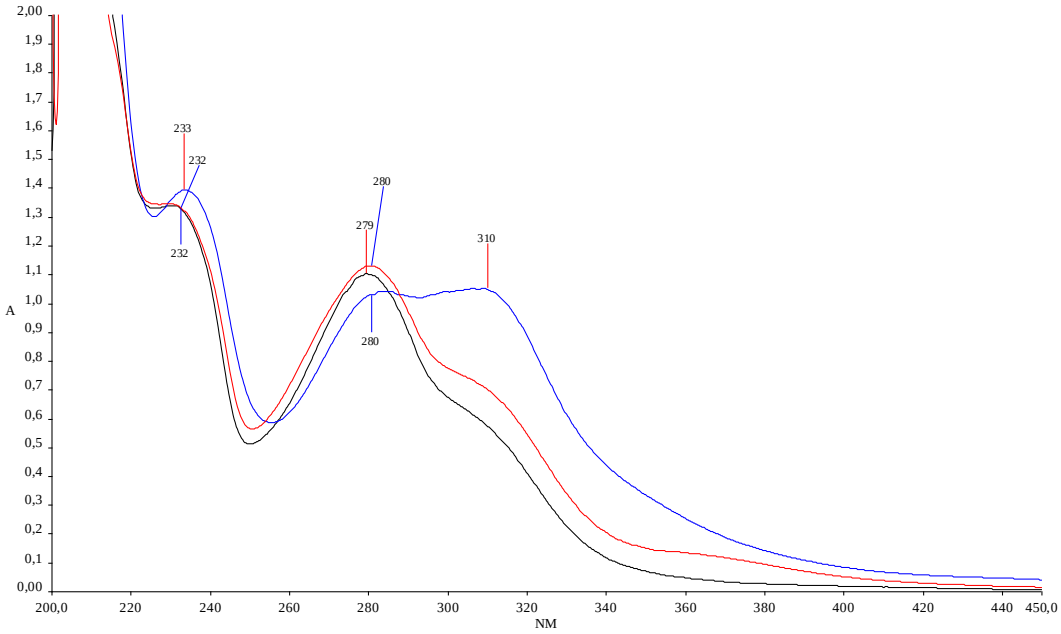

Figure S1. UV spectra of **14** in MeOH, with addition of $AlCl_3$, and HCl

—MeOH —MeOH+NaOAc —MeOH+NaOAc+H_3BO_3 —MeOH+NaOMe

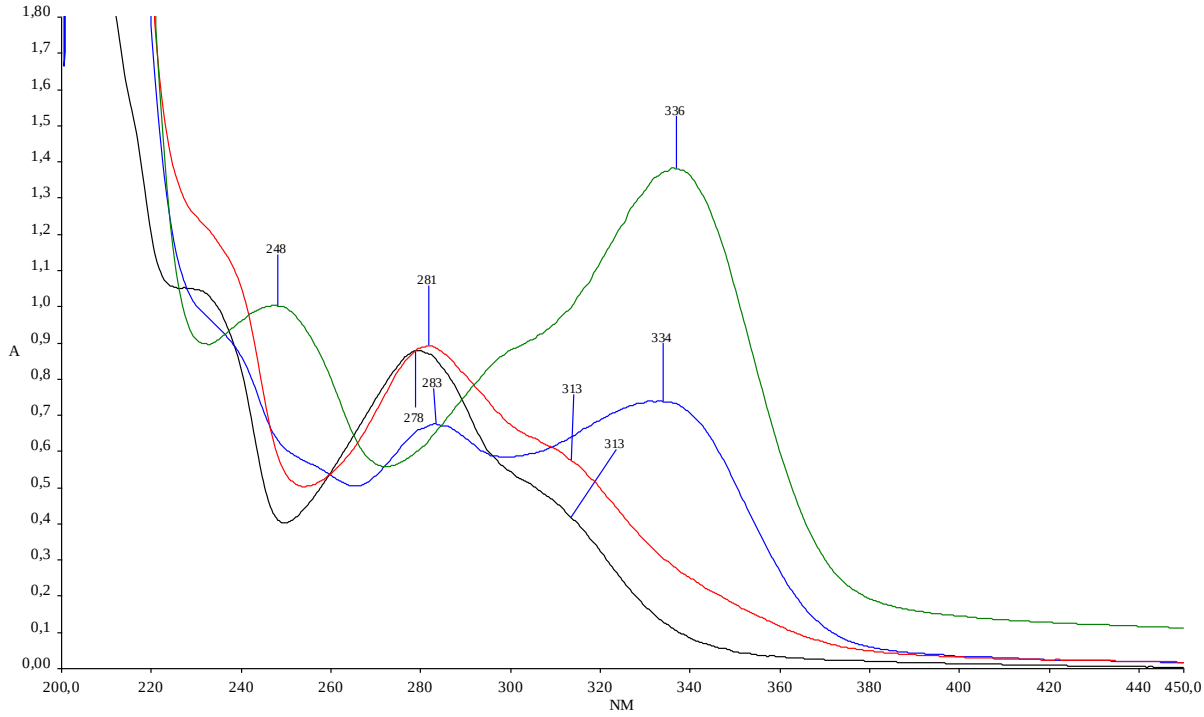

Figure S2. UV spectra of **14** in MeOH, with NaOAc, NaOAc+H_3BO_3 and with NaOMe

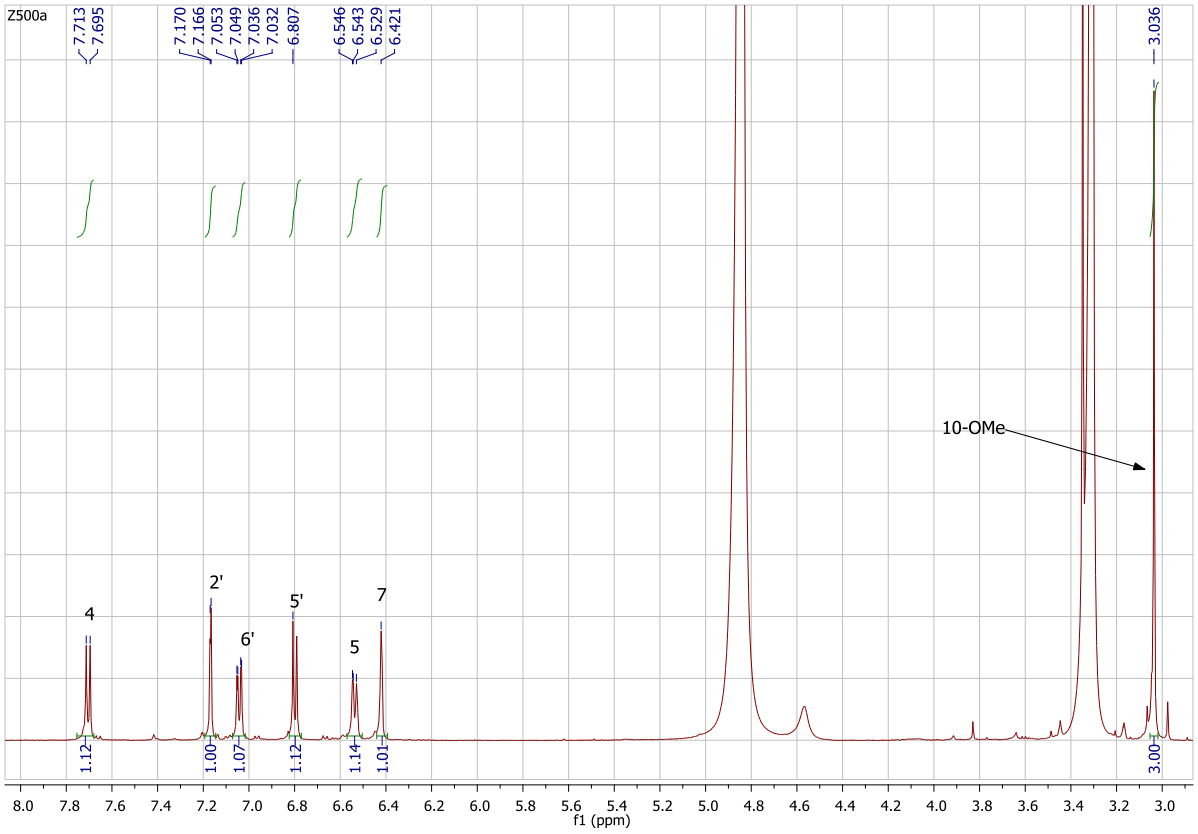

Figure S3. ^{1}H NMR spectrum of **14**

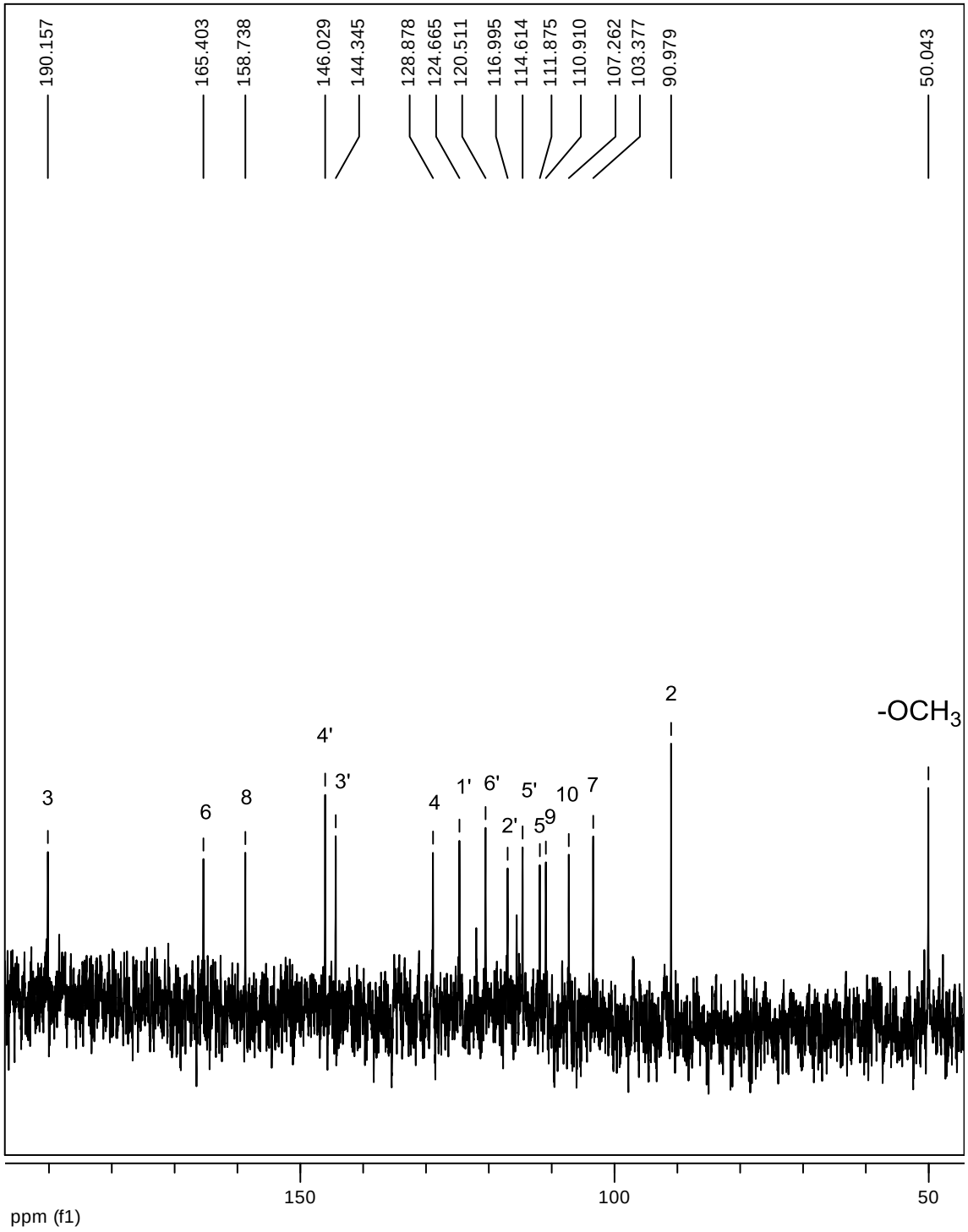

Figure S4. ^{13}C NMR spectrum of **14**

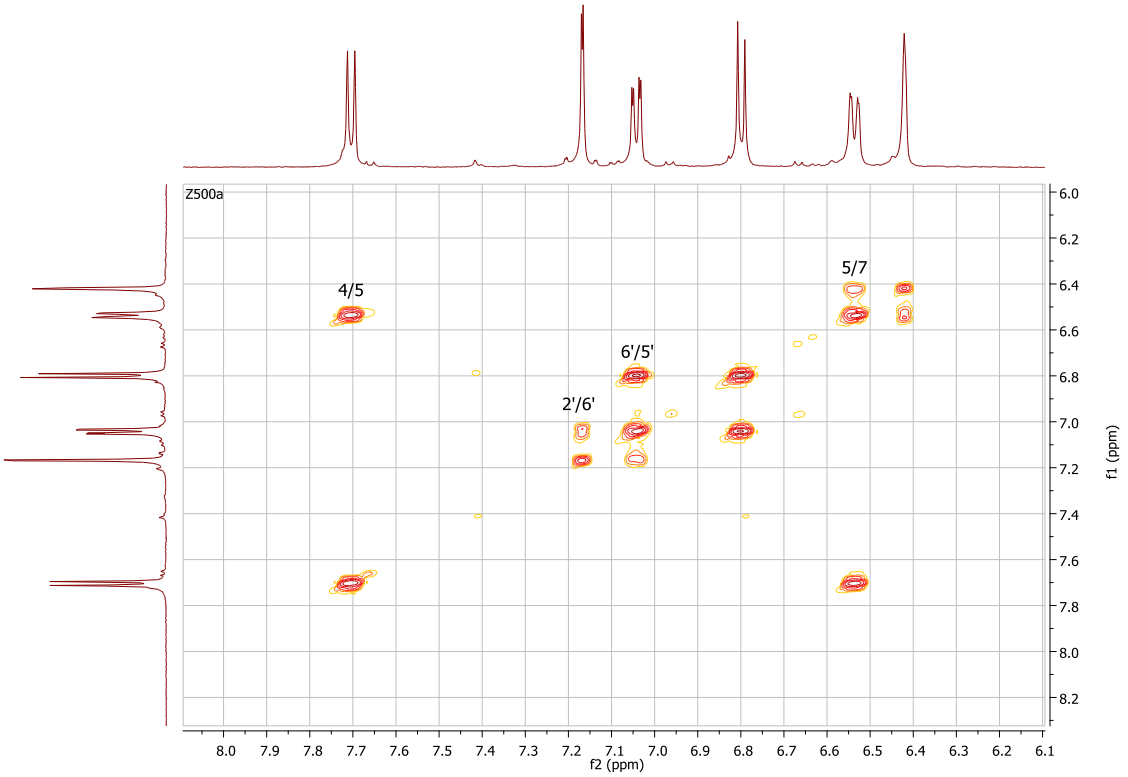

Figure S5. Aromatic part of the COSY spectrum of **14**

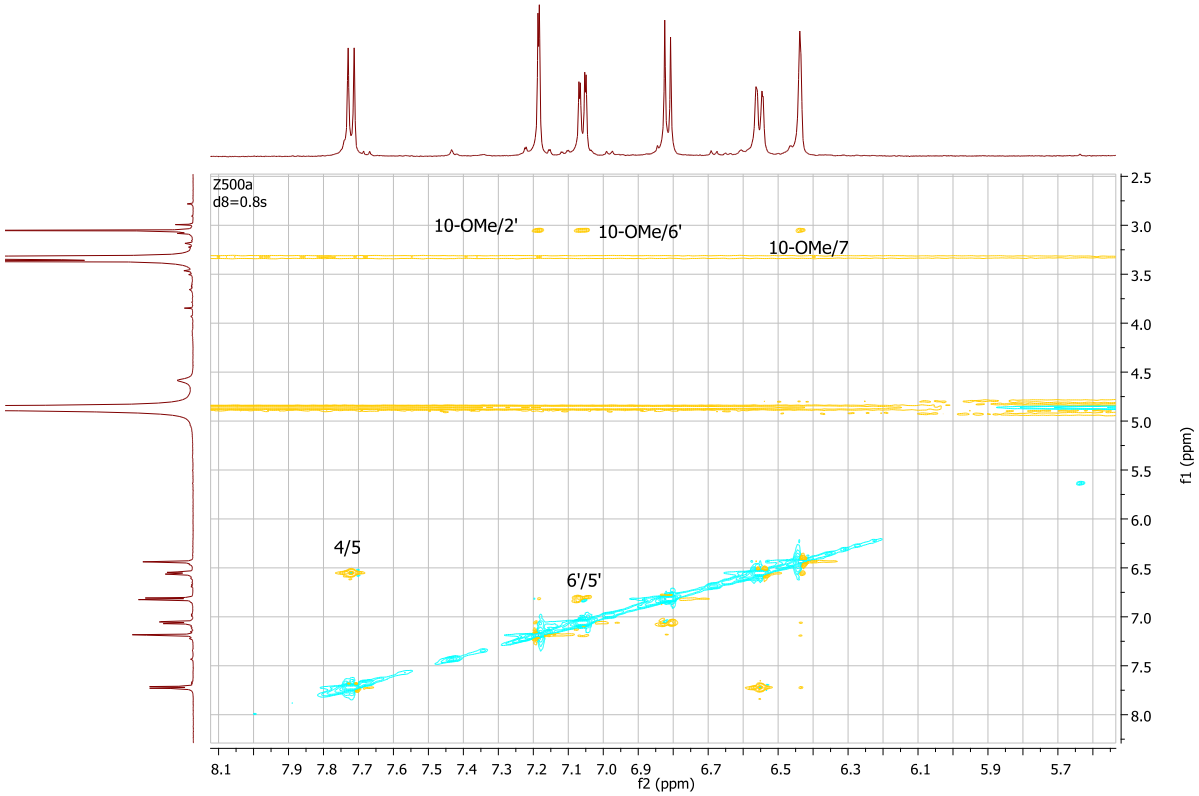

Figure S6. Aromatic part of the NOESY spectrum of **14**

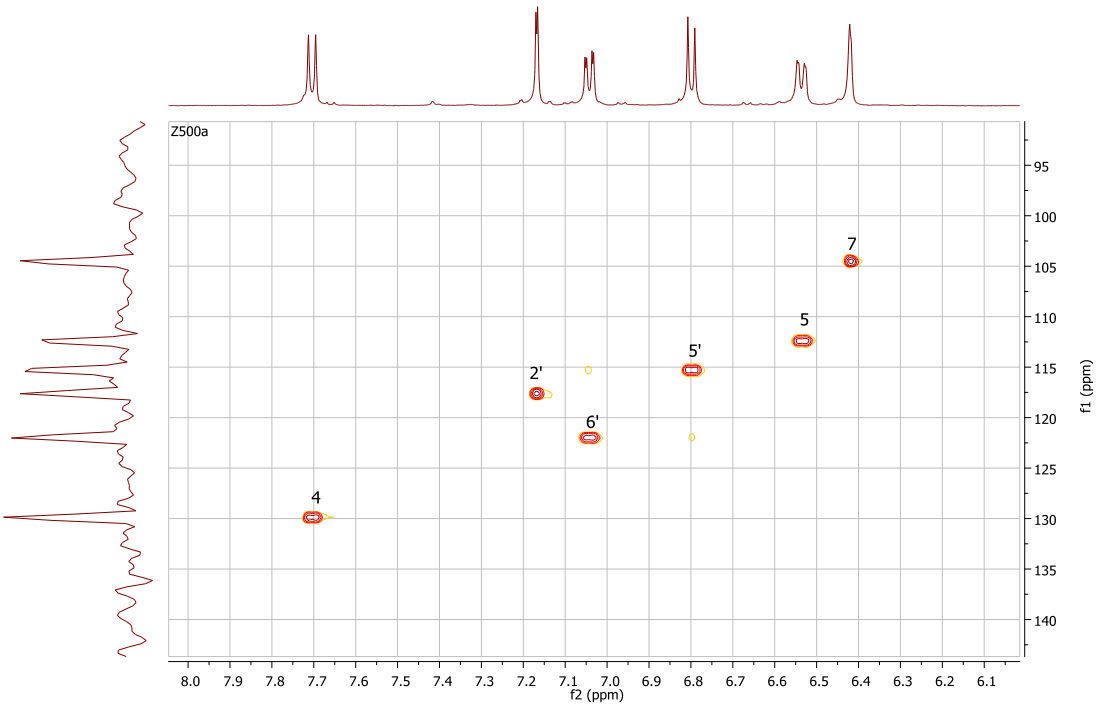

Figure S7. Aromatic part of the HSQC spectrum of **14**

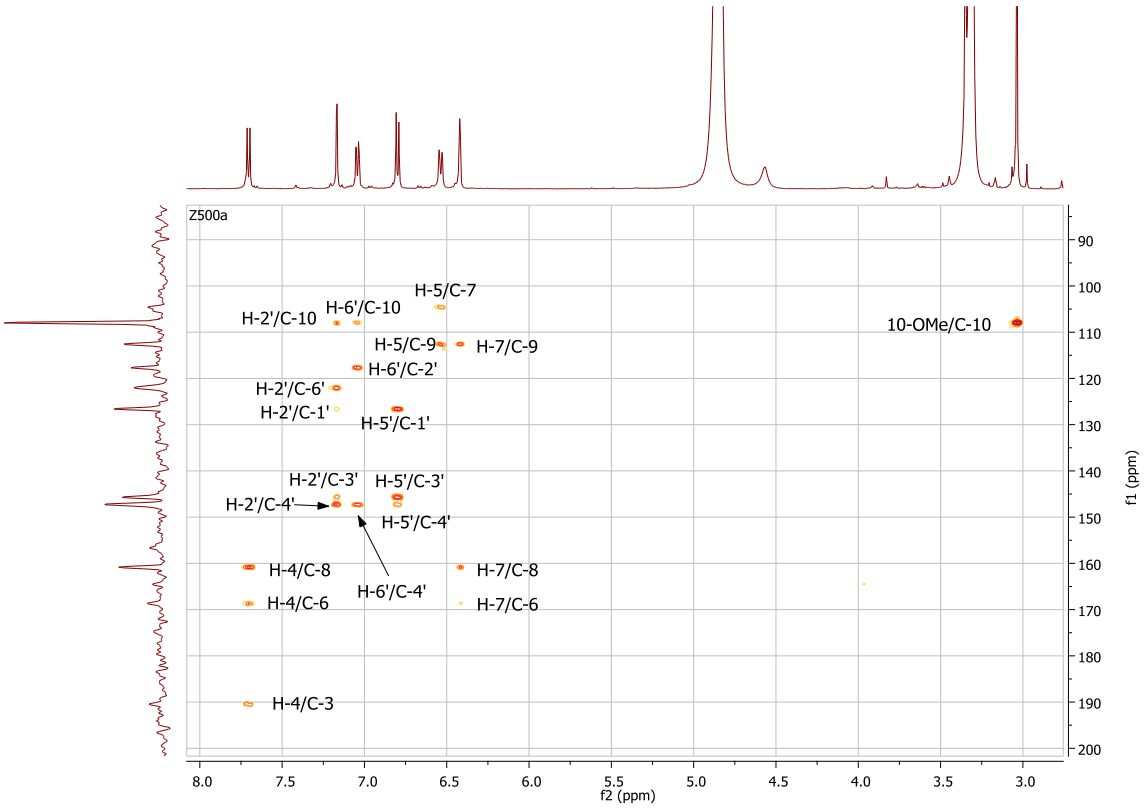

Figure S8. Aromatic part of the HMBC spectrum of **14**

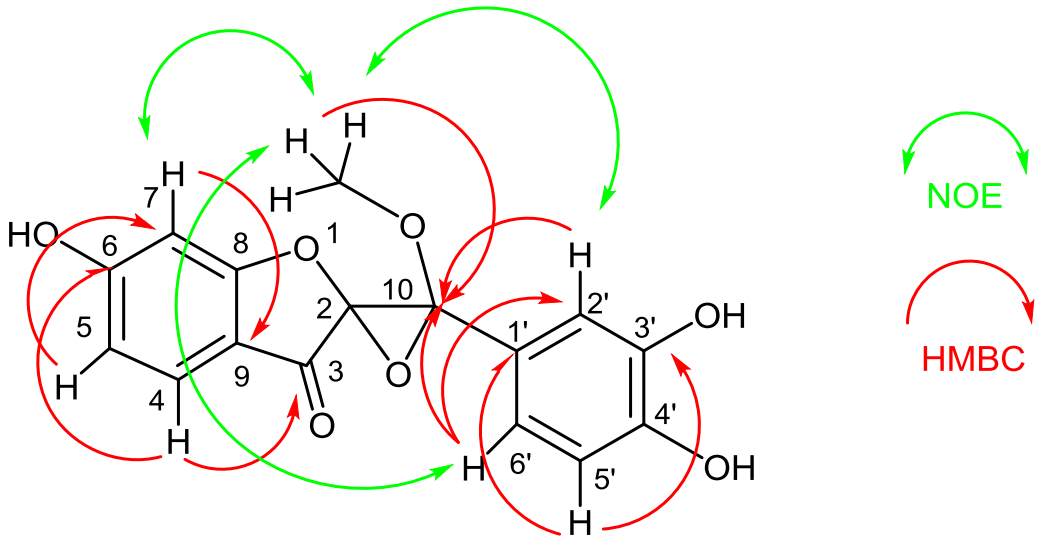

Figure S9. Key HMBC correlations of **14**

Table S2. ^{1}H, ^{13}C NMR and HMBC data of **14** (CD_3OD, δ ppm, *J* in Hz)

Position	δ_H	δ_C	HMBC $_{H\rightarrow C}$
2		90.97	
3		190.16	
4	7.67 d (8.8 Hz)	128.88	8, 6
5	6.48 dd (8.8; 2.2 Hz)	110.91	7
6		165.40	
7	6.35 d (2.2 Hz)	103.37	9
8		158.74	
9		111.87	
10		107.26	
1'		124.66	
2'	7.17 d (2.0 Hz)	116.99	10, 4', 6'
3'		144.34	
4'		146.02	
5'	6.79 d (8.4 Hz)	114.61	1', 3'
6'	7.04 dd (8.4; 2.0 Hz)	120.51	2', 4'
10-OMe	3.03 s	50.04	10

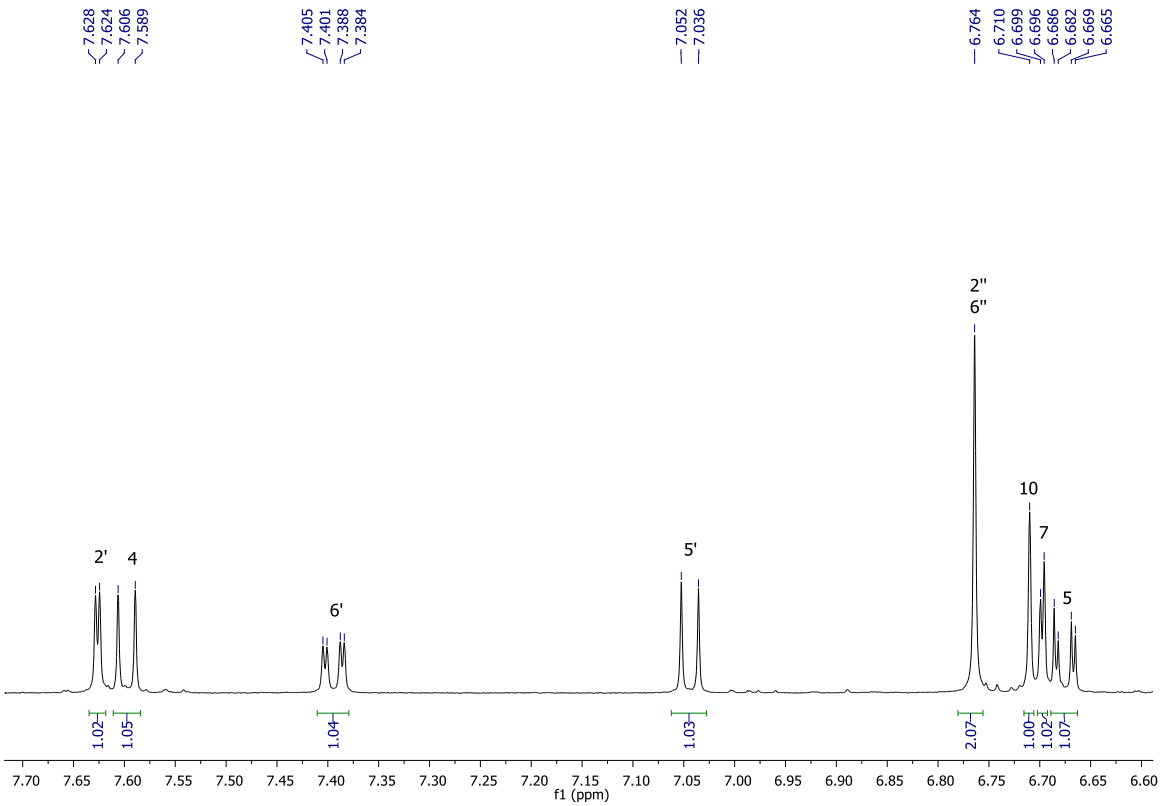

Figure S10. Aromatic part of the ^{1}H NMR spectrum of **15**

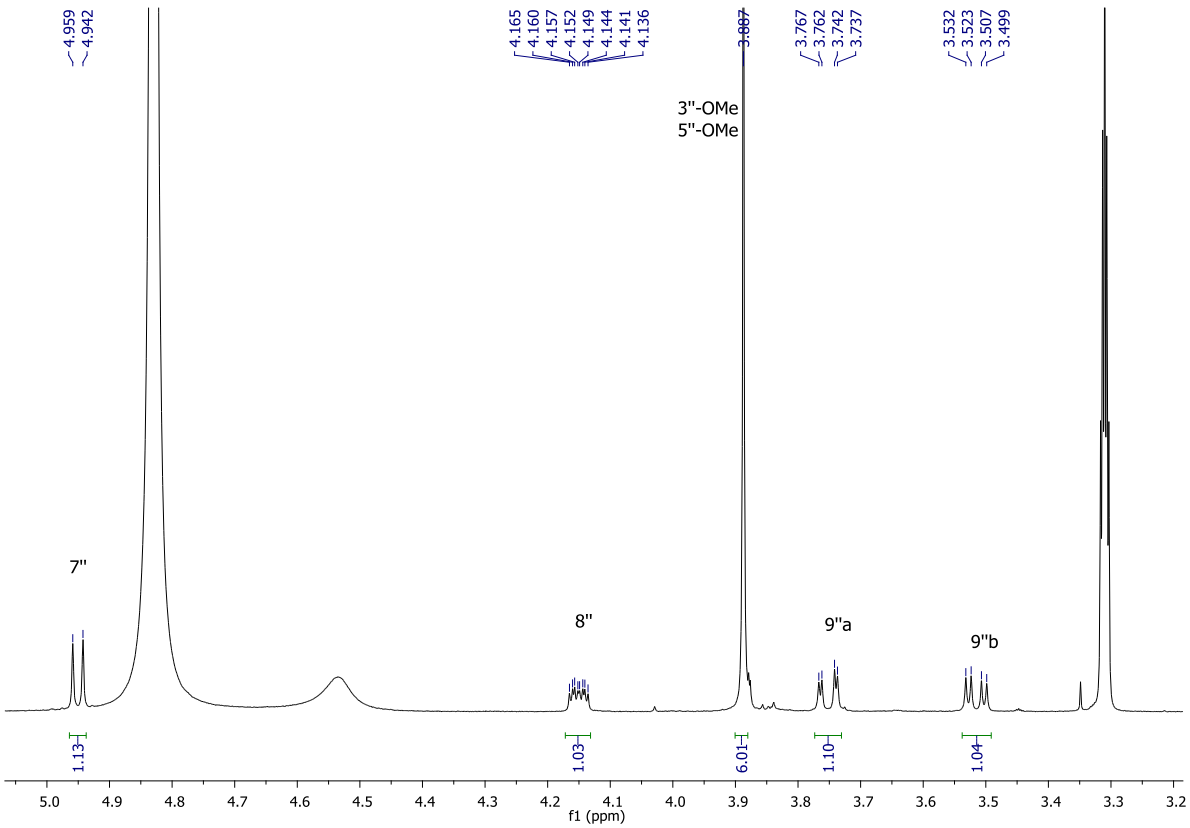

Figure S11. Aliphatic part of the ^{1}H NMR spectrum of **15**

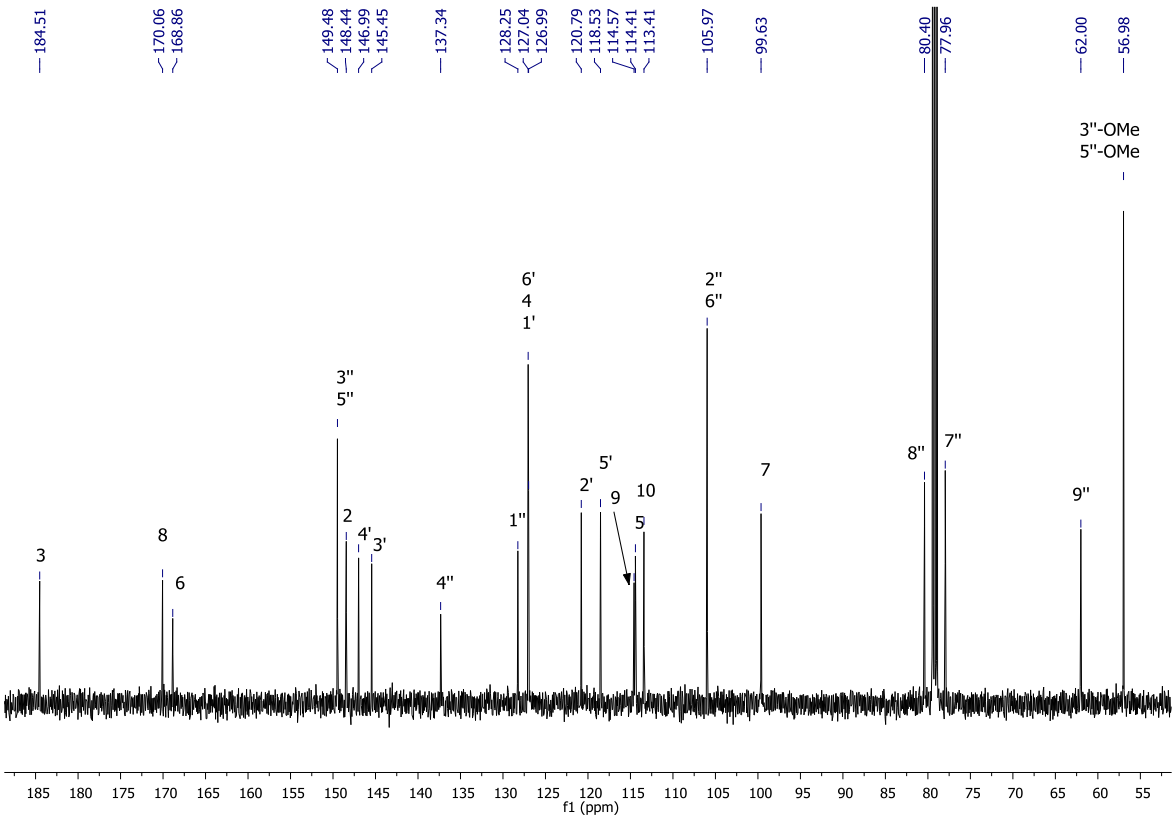

Figure S12. ^{13}C NMR spectrum of **15**

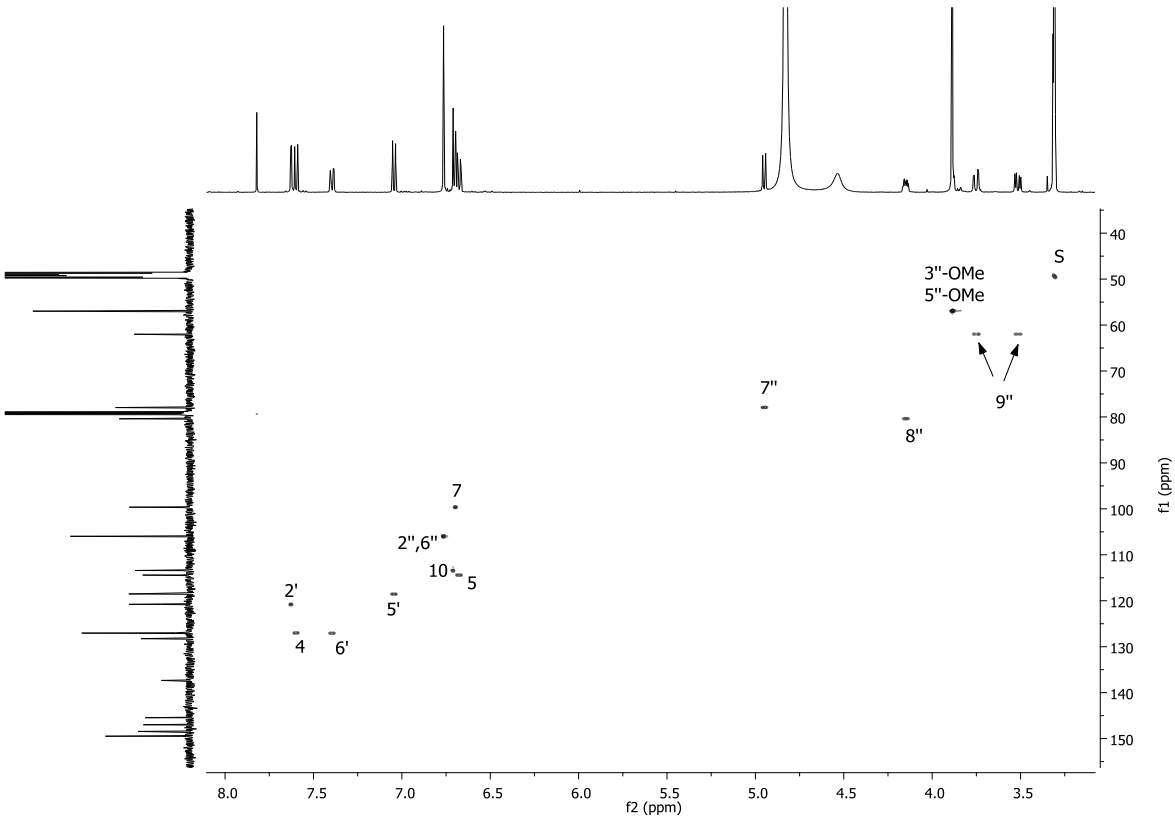

Fig. S13. HSQC spectrum of **15**

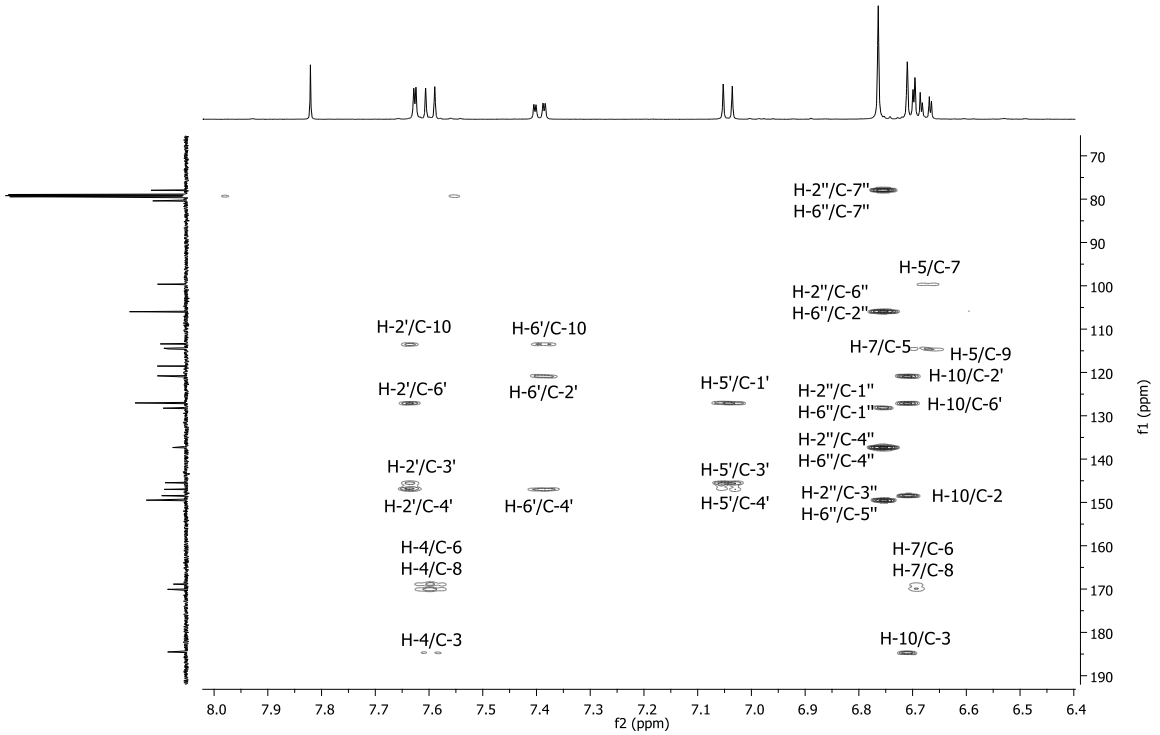

Figure S14. The first part of the HMBC spectrum of **15**

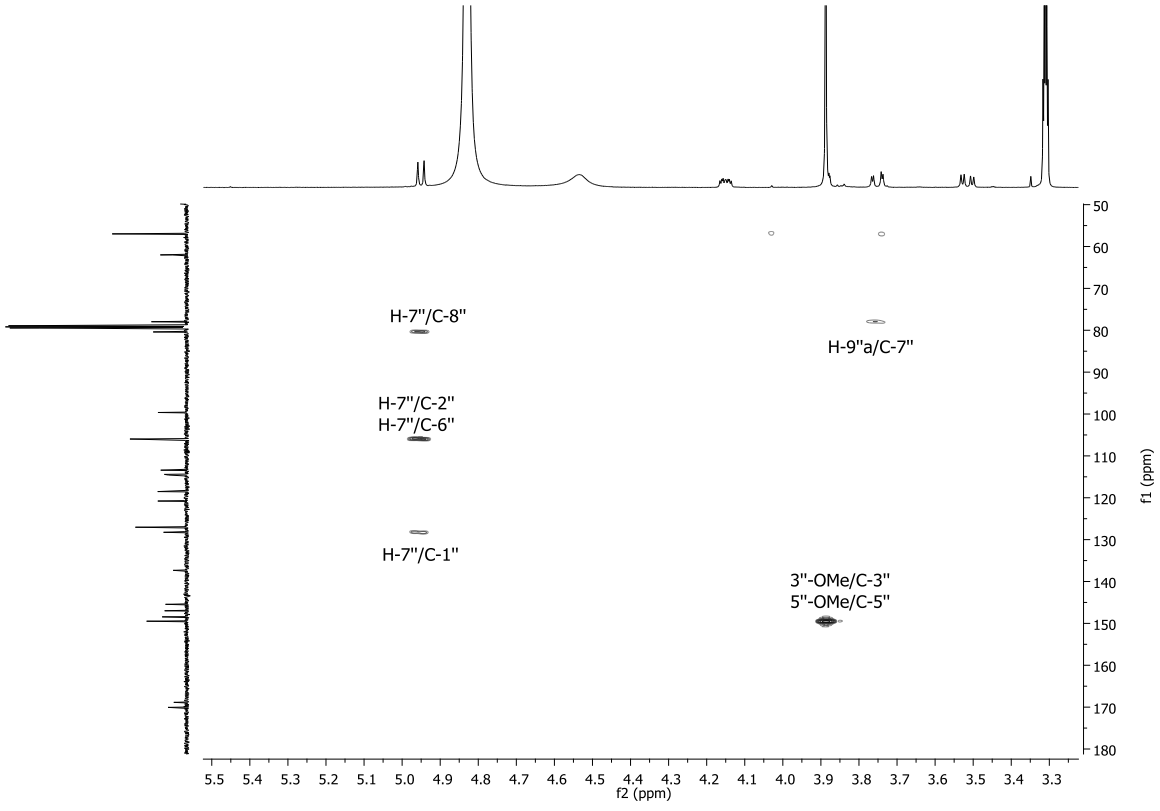

Figure S15. The second part of the HMBC spectrum of **15**

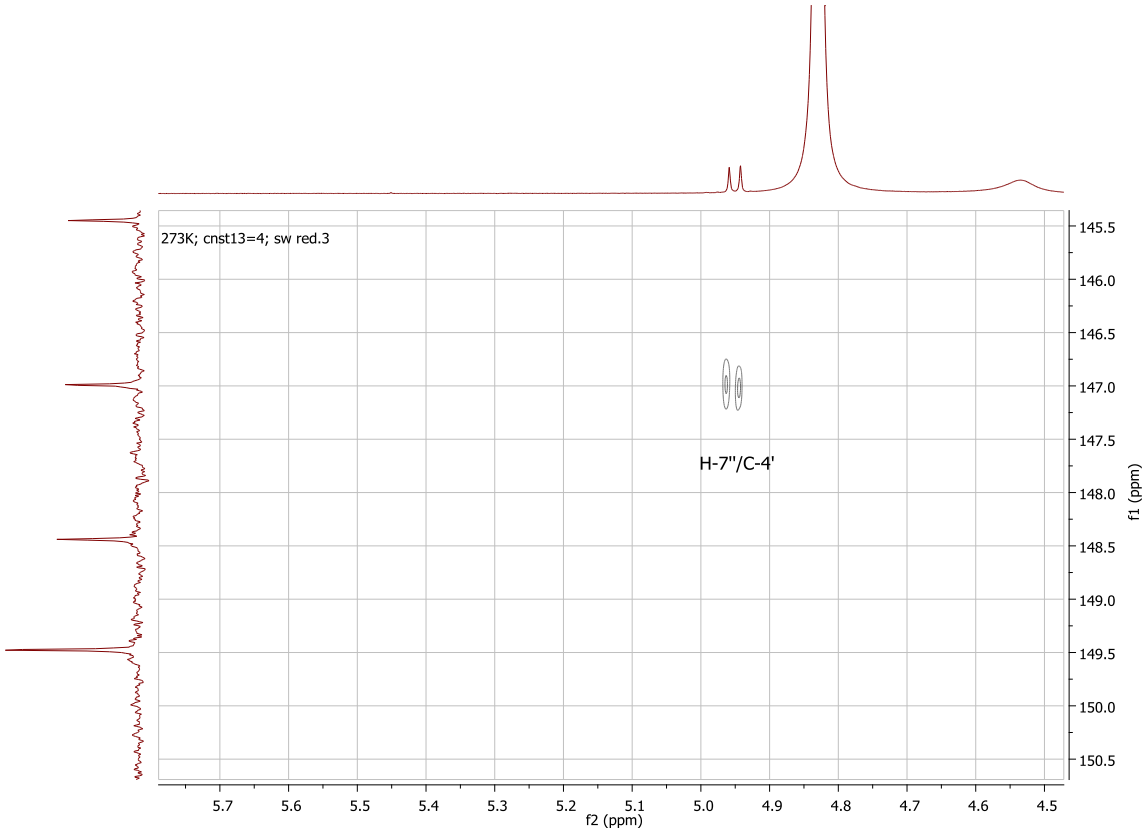

Figure S16. HMBC (4 Hz) correlation H-7''/C-4' (**15**)

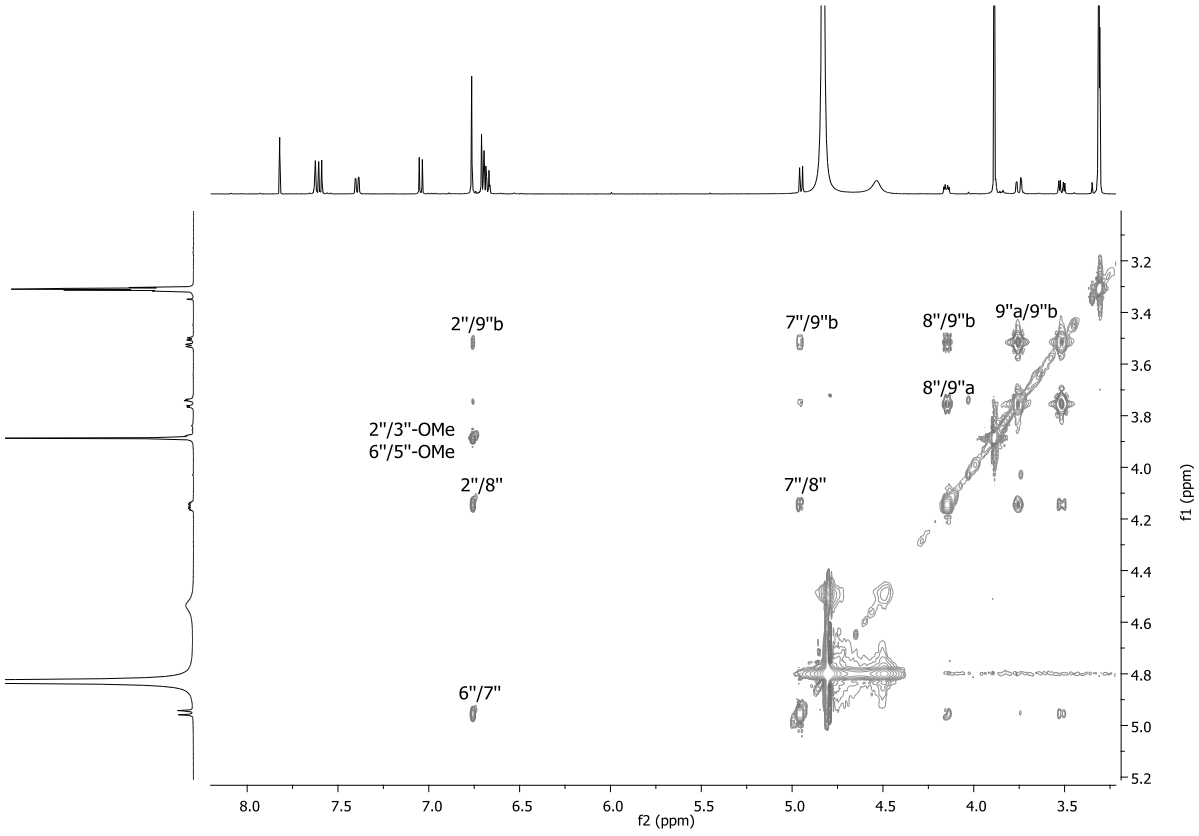

Figure S17. The first part of the NOESY spectrum of **15**

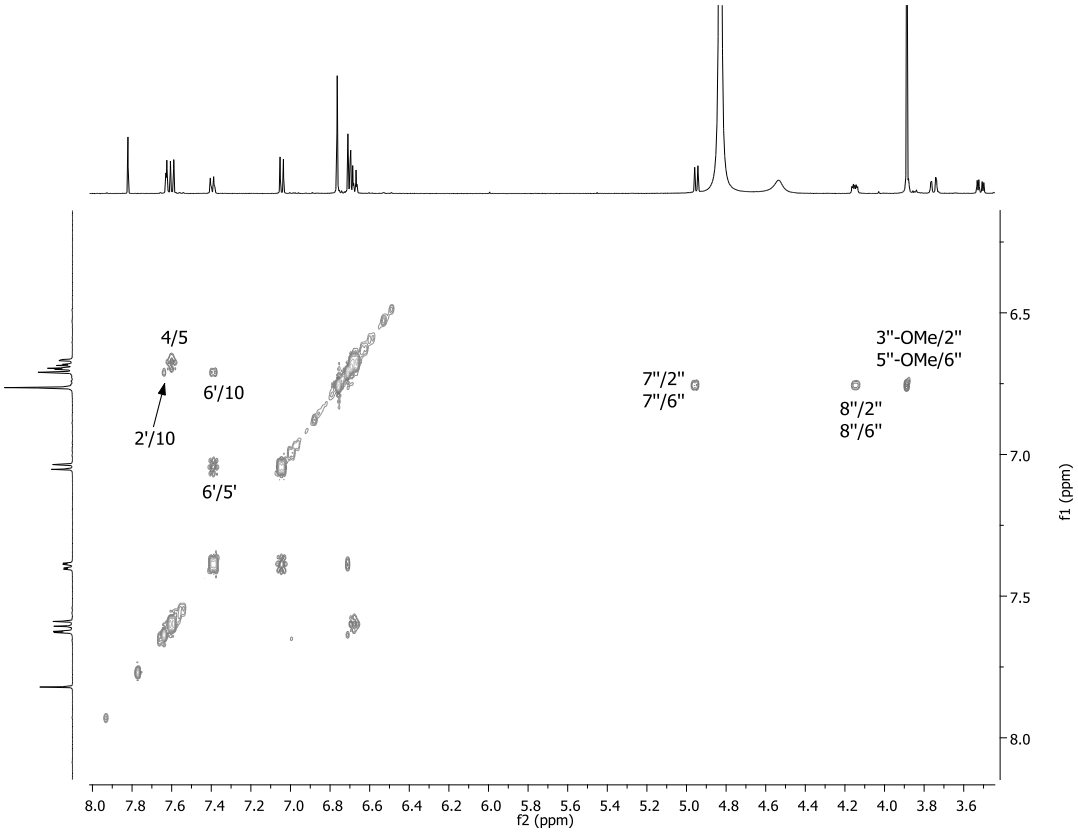

Figure S18. The second part of the NOESY spectrum of **15**

Table S3. ^{1}H and ^{13}C NMR data of compounds **15** (CD_3OD, δ ppm, *J* in Hz)

Compound	**15**	
Position	δ_H	δ_C
2	-	148.4
3	-	184.5
4	7.60 d (8.5)	128.2
5	6.68 dd (8.5; 2.0)	114.4
6	-	168.9
7	6.70 d (2.0)	99.6
8	-	170.1
9	-	114.6
10	6.71 s	113.4
1'	-	127.0
2'	7.62 d (2.0)	120.8
3'	-	145.5
4'	-	147.0
5'	7.04 d (8.5)	118.5
6'	7.39 dd (8.5; 2.0)	127.0

1"	-	128.3
2"	6.76 s	106.0
3"	-	149.5
4"	-	137.3
5"	-	149.5
6"	6.76 s	106.0
7"	4.95 d (8.0)	78.0
8"	4.15 ddd (8.0; 4.0; 2.5)	80.4
9"	3.75 dd (12.5; 2.5) 3.51 dd (12.5; 4.0)	62.0
3"-OMe	3.89 s	57.0
5"-OMe	3.89 s	57.0

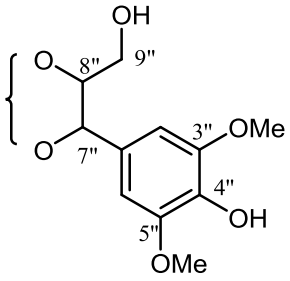

Figure S19. 3-Aryl-propanol moiety in **15**

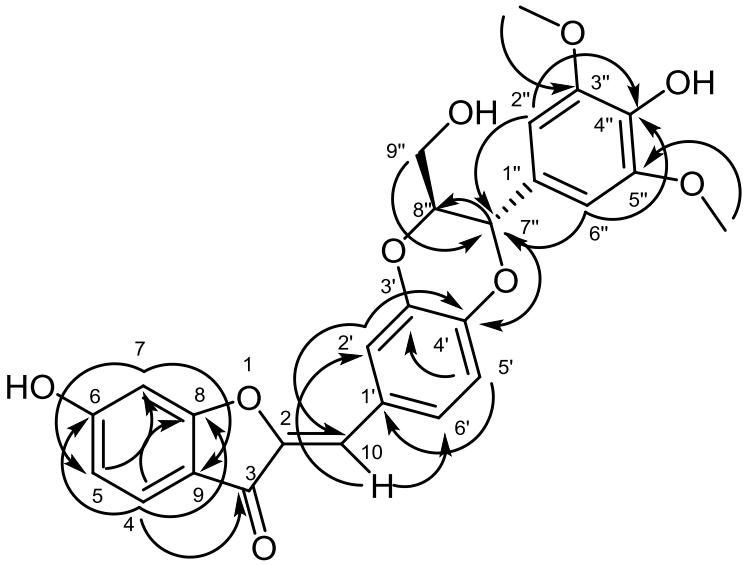

Figure S20. Key HMBC correlations in **15**

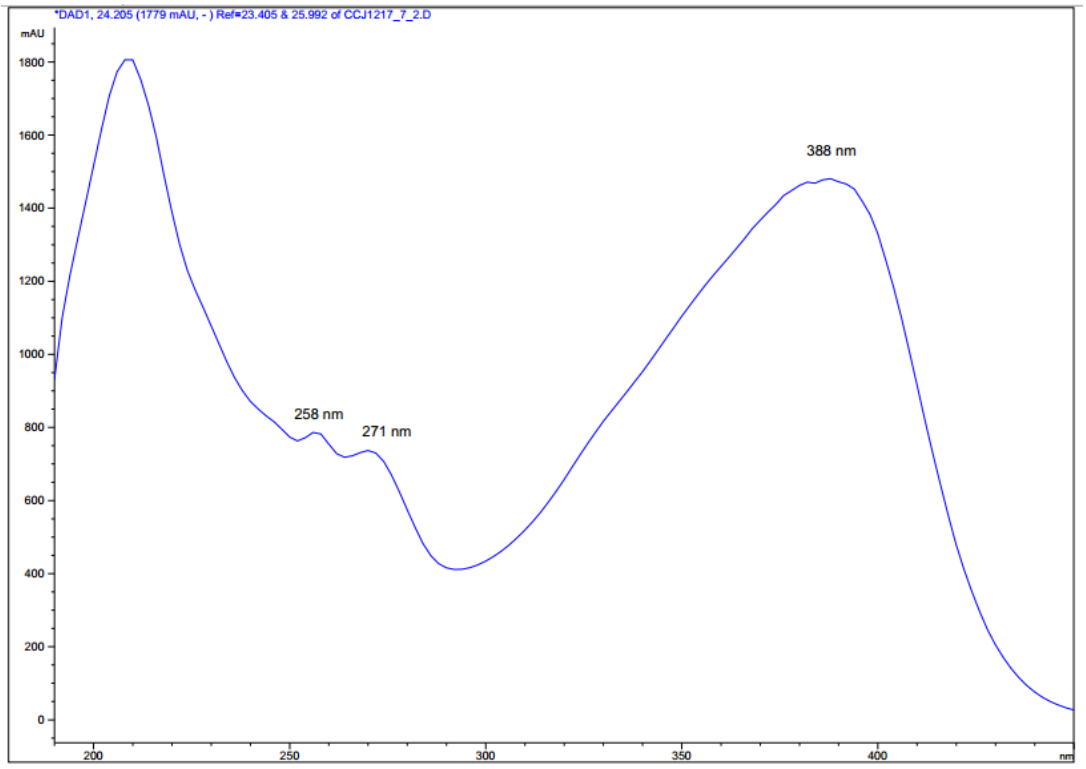

Figure S21. UV spectrum of **15**

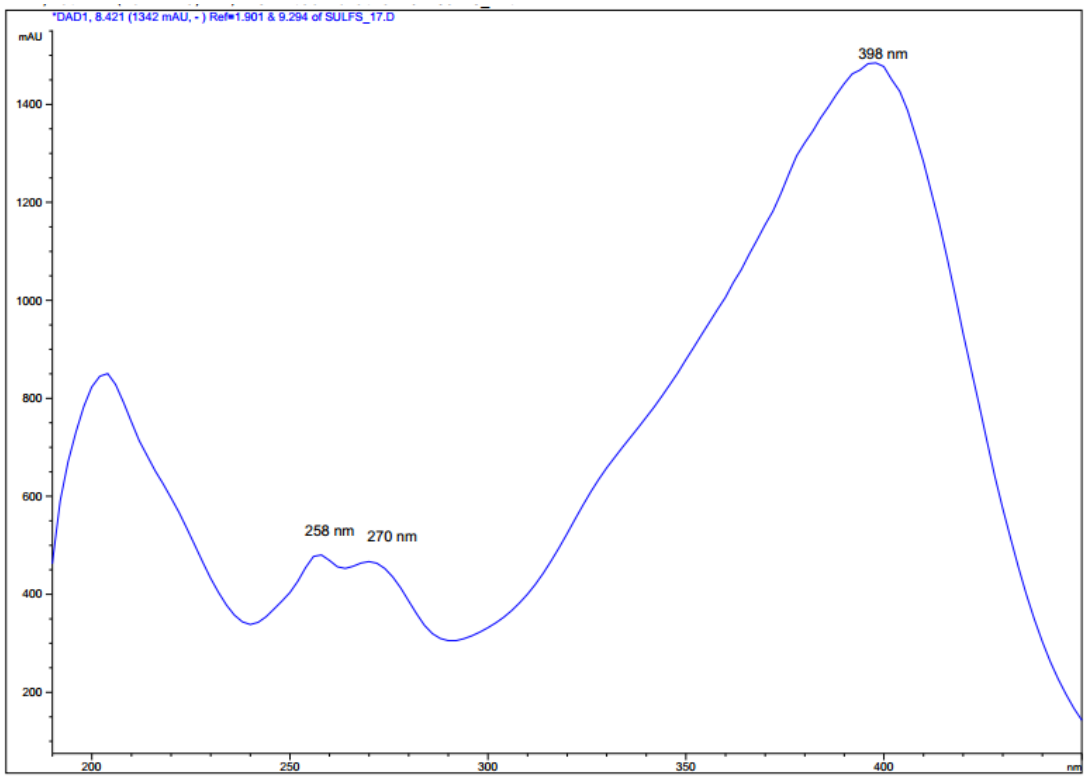

Figure S22. UV spectrum of **10**