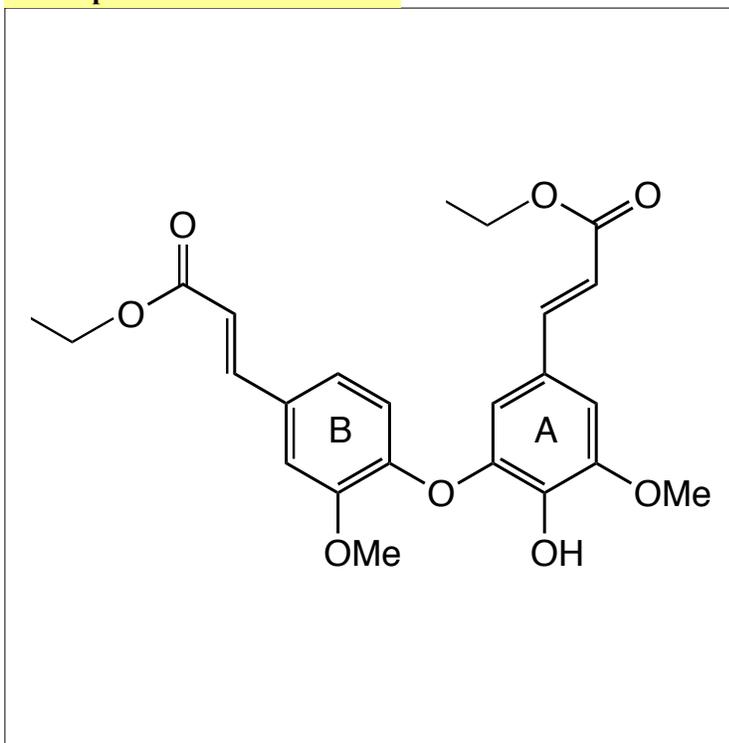


Compound Number 3001

¹³C



4-O-5 dehydrodiethylferulate

3-{3-[4-(2-ethoxycarbonyl-vinyl)-2-methoxy-phenoxy]-4-hydroxy-5-methoxy-phenyl}acrylic acid ethyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
A CH ₃	1.24	t	7.1
B CH ₃	1.27	t	7.1
B3 OMe	3.93	s	
A3 OMe	3.96	s	
A CH ₂	4.16	q	7.1
B CH ₂	4.19	q	7.1
A β	6.36	d	15.9
B β	6.48	d	15.95
B5	6.81	d	8.3
A6	6.89	d	1.9
B6	7.17	dd	8.7, 2.0
A2	7.22	d	1.9
B2	7.46	d	2.0
A α	7.53	d	15.9
B α	7.62	d	15.95

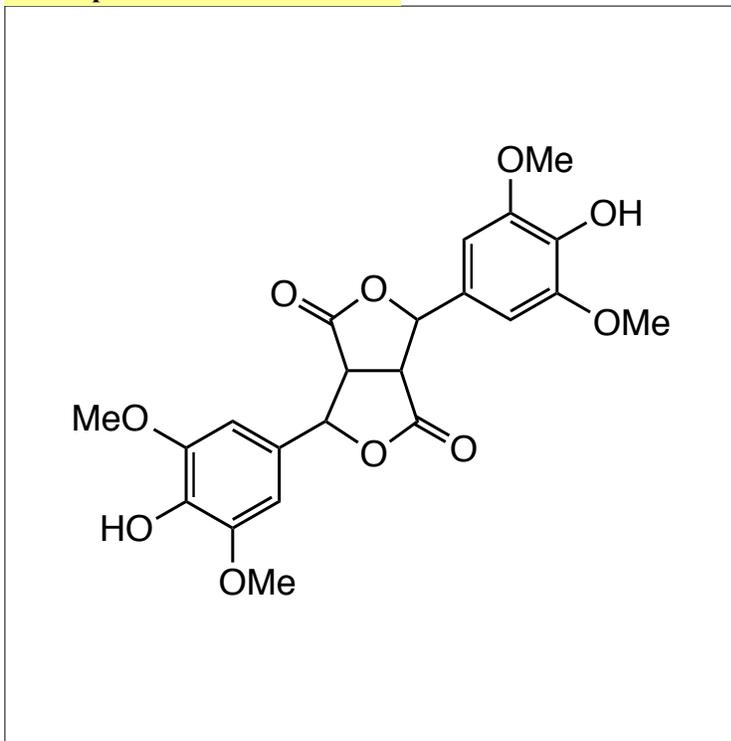
Notes:

jrf107.P1 /1 (H1), /2 (C13), /3 (Dept135)

Atom	CDCl ₃	Acetone	DMSO	
A CH ₃		14.60		
B CH ₃		14.60		
B3 OMe		56.41		
A3 OMe		56.77		
A CH ₂		60.53		
B CH ₂		60.64		
A2		107.99		
B2		112.66		
A6		114.45		
A β		116.99		
B β		117.93		
B5		118.36		
B6		122.84		
A1		126.67		
B1		131.04		
A4		141.41		
A5		141.45		
B α		144.81		
A α		144.94		
B4		149.35		
A3		150.12		
B3		151.41		
B γ		167.15		
A γ		167.16		

Compound Number 3002

¹³C



Atom	CDCl ₃	Acetone	DMSO	
β		49.06		
OMe		56.77		
OMe		56.77		
α		83.39		
2		104.31		
6		104.31		
4		129.87		
1		137.51		
3		149.04		
5		149.04		
g		176.05		

¹H (acetone)

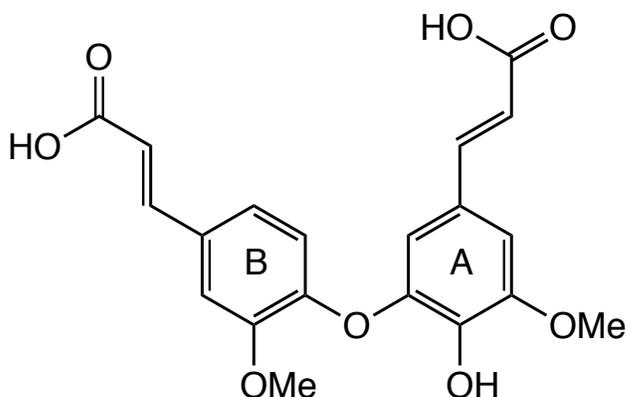
Atom	H Shifts	Mult	J
OMe	3.83	s	
β	4.11	s	
α	5.95	s	
2,6	6.73	s	
OH	7.42	s	

Notes:

FLJ144
As this dimer contains a plane of symmetry the CS's are reported for one unit.

Compound Number 3003

¹³C



4-O-5 dehydrodiferulic acid

Atom	CDCl ₃	Acetone	DMSO	
B3 OMe		56.40	55.85	
A3 OMe		56.76	56.24	
A2		108.03	107.58	
B2		112.7	111.86	
A6		114.46	114.05	
A β		117.00	116.96	
B β		117.95	118.00	
B5		118.33	116.34	
B6		122.80	121.91	
A1		126.71	125.22	
B1		131.06	129.43	
A4		141.38	140.35	
A5		144.44	142.94	
A α		145.23	143.81	
B α		145.38	143.63	
B4		149.34	148.05	
A3		150.12	149.28	
B3		151.38	149.56	
B γ		168.02	167.82	
A γ		168.05	167.82	

¹H (acetone)

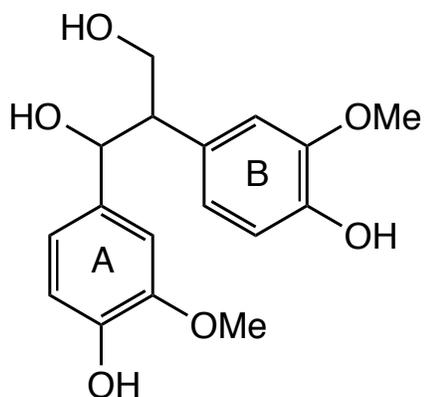
Atom	H Shifts	Mult	J
B3 OMe	3.58	s	
A3 OMe	3.88	s	
A β	6.36	d	15.9
B β	6.47	d	15.95
B5	6.82	d	8.3
A6	6.90	d	1.9
B6	7.22	dd	8.3, 2.0
A2	7.22	d	1.9
B2	7.45	d	2.0
A α	7.54	d	15.9
B α	7.63	d	15.95
DMSO			
B3 OMe	3.85		
A3 OMe	3.86		
A β	6.35		
B β	6.47		
B5	6.59		
A6	6.85		
B6	7.12		
A2	7.20		
B2	7.43		
A α	7.42		
B α	7.51		
	7.51		

Notes:

Acetone: jrf117 /2 (C13) and /1 (H1) DMSO: jrf127.c/2 Not soluble in chloroform
¹H NMR (DMSO-d₆) δ: 3.85 (B3-OMe), 3.86 (A3-OMe), 6.35 (A8), 6.47 (B8),
6.59 (B5), 6.85 (A6), 7.12 (B6), 7.20 (A2), 7.43 (B2), 7.42 (A7), 7.51 (B7)
JCS Perkin 1, 3485-98 (1994) Cmpd 17

Compound Number 3004

¹³C



erythro

1,2-diguaiacylpropane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
β	2.93	m	
γ1	3.72	m	
γ2	3.87	m	
α	5.02	bd	
B6	6.60	bd	
B5	6.66	dd	
A5	6.68	d	8.1
A6	6.68	m	
A2	6.71	m	
B2	6.74	d	1.9

Notes:

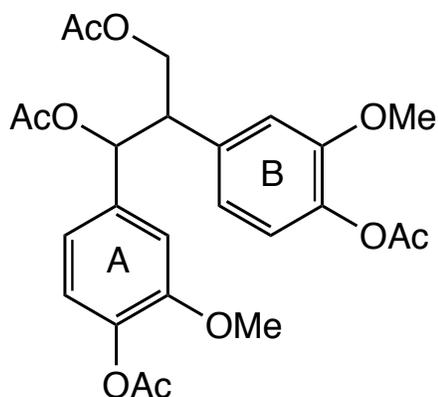
jrlz 15

Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃	Acetone	DMSO	
OMe		55.85		
OMe		55.95		
β		56.31		
γ		64.21		
α		74.66		
A2		111.01		
B2		114.00		
A5		114.81		
B5		115.00		
A6		119.95		
B6		123.05		
B1		132.24		
A1		136.67		
B4		145.96		
A4		146.17		
B3		147.56		
A3		147.63		

Compound Number 3005

¹³C



threo

Acetic acid 3-acetoxy-2,3-bis-(4-acetoxy-3-methoxyphenyl)propyl ester

Atom	CDCl ₃	Acetone	DMSO
Ac Me		20.41	
Ac Me		20.44	
Ac Me		20.72	
Ac Me		21.01	
β		50.71	
OMe		56.18	
OMe		56.21	
γ		64.71	
α		76.50	
A2		112.51	
B2		114.33	
A6		119.77	
B6		121.85	
A5		123.14	
B5		123.22	
B1		137.82	
A1		138.39	
B4		139.96	
A4		140.35	
B3		151.76	
A3		151.85	
Ac C=O		168.84	
Ac C=O		168.88	
α Ac C=O		170.01	
γ Ac C=O		170.81	

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.93	s	
α Ac Me	2.09	s	
Ac Me	2.18	s	
Ac Me	2.19	s	
β	3.56	m	
OMe	3.67	s	
OMe	3.71	s	
γ1	4.38	dd	11.2, 5.2
γ2	4.54	dd	11.2, 7.2
α	6.02	d	8.2
B6	6.77	ddd	8.1, 2.0, 0.3
A2	6.79	bd	1.9
A6	6.82	ddd	8.1, 1.9, 0.5
B2	6.85	bd	1.9
B5	6.90	d	8.1
A5	6.91	d	8.1

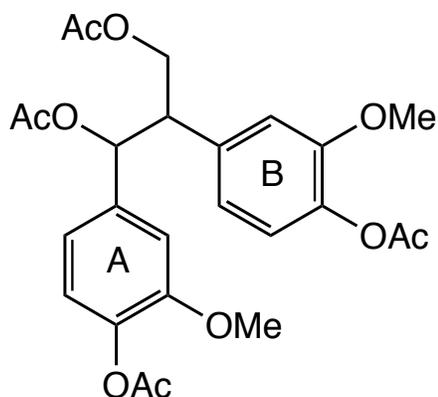
Notes:

jrlz9.1

Liming Zhang, isolate from mild acidolysis

Compound Number 3006

¹³C



erythro

Acetic acid 3-acetoxy-2,3-bis(4-acetoxy-3-methoxyphenyl)propyl ester

Atom	CDCl ₃	Acetone	DMSO	
Ac Me		20.43		
Ac Me		20.46		
Ac Me		20.65		
Ac Me		20.83		
β		50.98		
OMe		56.20		
OMe		56.22		
γ		64.86		
α		75.56		
A2		112.09		
B2		114.52		
A6		119.73		
B6		121.93		
B5		123.13		
A5		123.30		
B1		137.43		
A1		138.72		
B4		140.05		
A4		140.51		
B3		151.80		
A3		152.00		
Ac C=O		168.89		
Ac C=O		168.95		
α Ac C=O		169.94		
γ Ac C=O		170.74		

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.92	s	
α Ac Me	1.97	s	
Ac Me	2.20	s	
Ac Me	2.21	s	
β	3.50	m	6.7
OMe	3.69	s	
OMe	3.73	s	
γ1	4.20	dd	11.2, 6.7
γ2	4.37	dd	11.2, 6.8
α	6.16	d	6.6
B6	6.84	ddd	8.1, 1.9, 0.3
A2	6.84	bd	1.8
A6	6.87	ddd	8.1, 1.8, 0.5
B2	6.92	bd	1.9
B5	6.96	d	8.1
A5	6.98	d	8.1

Notes:

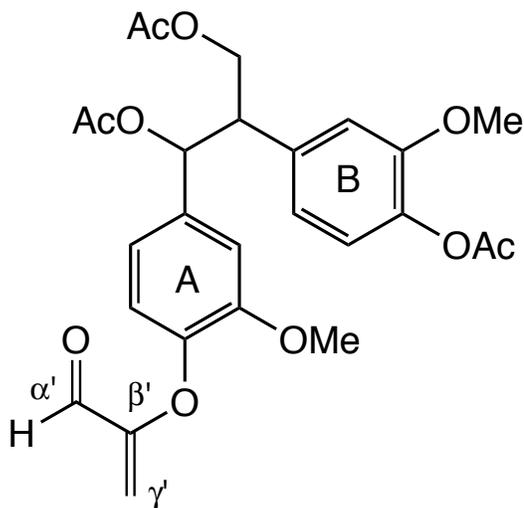
jrlz11.1

Liming Zhang, isolate from mild acidolysis

¹H data at 600 MHz

Compound Number 3007

¹³C



erythro

Acetic acid 3-acetoxy-2,3-bis-(4-acetoxy-3-methoxyphenyl)propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.94	s	
α Ac Me	2.00	s	
Ar Ac Me	2.07	s	
β	3.50	m	
OMe	3.69	s	
OMe	3.76	s	
γ1	4.22	dd	11.2, 6.8
γ2	4.38	dd	11.2, 6.8
γ1'	5.00	d	2.8
γ2'	5.38	d	2.8
α	6.19	d	6.4
B6	6.81	dd	8.1, 1.6
A2	6.88	bd	
A6	6.89	dd	7.3, 1.5
B5	6.94	d	8.1
A5	6.97		
A2	6.99		
a'	9.45		

Notes:

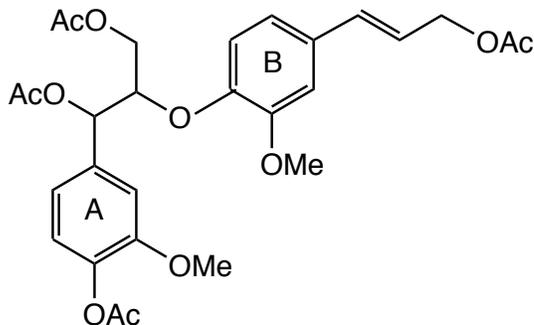
jrlz 13

Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃	Acetone	DMSO	
Ac Me	20.60	20.43		
Ac Me	20.79	20.66		
Ac Me	20.96	20.83		
β	50.13	51.07		
OMe	55.85	56.12		
OMe	55.85	56.22		
γ	63.96	64.82		
α	74.76	75.38		
γ'	107.76	108.01		
A2	111.65	122.68		
B2	113.15	114.44		
A6	119.35	120.17		
B6	121.12	122.12		
A5	121.61	122.14		
B5	122.45	123.16		
B1	135.71	137.41		
A1	136.32	138.17		
B4	139.10	140.07		
A4	142.55	143.24		
B3	150.75	151.76		
A3	150.75	151.81		
β'	157.84	159.33		
B4 Ac C=O	168.79	168.91		
α Ac C=O	169.70	169.94		
γ Ac C=O	170.69	170.71		
α'	186.74	187.55		

Compound Number 3008

¹³C



threo

Acetic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-
2-[4-(3-acetoxypropenyl)-2-methoxyphenoxy]propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.95	s	
B γ Ac Me	2.01	s	
α Ac Me	2.02	s	
Δ4 Ac Me	2.21	s	
OMe	3.82	s	
OMe	3.85	s	
γ1	4.02	dd	11.9, 5.7
γ2	4.25	dd	11.9, 4.1
B γ	4.66	dd	6.4, 1.3
β	4.81	m	
α	6.10	d	6.4
B β	6.26	dt	15.9, 6.4
B α	6.63	bdt	15.9
B6	6.95	dd	8.3, 2.0
B5	7.00	d	8.3
A5	7.03	d	8.2
A6	7.09	dd	8.2, 1.7
B2	7.14	d	1.9
A2	7.22	d	1.6

Notes:

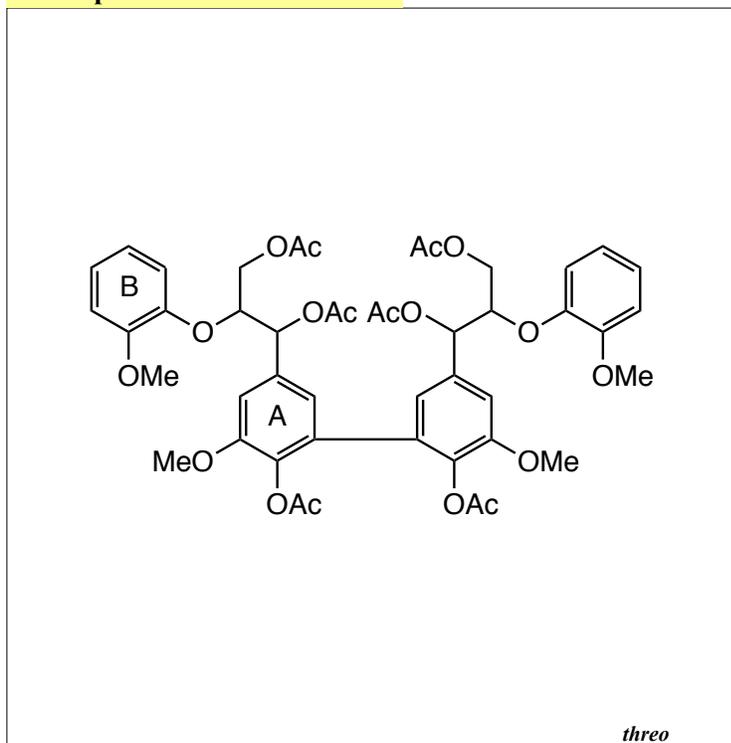
jr/z 35

Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃	Acetone	DMSO	
Ac Me		20.41		
Ac Me		20.55		
Ac Me		20.75		
Ac Me		20.89		
OMe		56.23		
OMe		56.27		
γ		63.54		
B γ		65.33		
α		75.29		
β		80.62		
B2		111.30		
A2		112.63		
B5		118.73		
A6		120.28		
B6		120.52		
B β		123.25		
A5		123.54		
B1		132.34		
B α		134.14		
A1		136359		
A4		140.90		
B4		149.08		
B3		151.74		
A3		152.21		
A4 Ac C=O		168.85		
α Ac C=O		169.95		
γ Ac C=O		170.64		
B γ Ac C=O		170.64		

Compound Number 3009

¹³C



Atom	CDCl ₃	Acetone	DMSO
Ac Me		20.26	
Ac Me		20.61	
Ac Me		20.93	
OMe		56.17	
OMe		56.52	
γ		63.51	
α		75.31	
β		80.70	
A2		111.90	
B2		113.72	
B5		119.41	
A6		121.64	
B6		121.68	
B1		123.87	
A5		131.91	
A1		135.93	
A4		138.48	
B4		148.99	
B3		151.87	
A3		152.58	
4 Ac C=O		168.88	
α Ac C=O		170.09	
γ Ac C=O		170.71	
erythro isomer		62.95	
γ		74.59	
α		80.344	
β		120.09	
B5		124.19	
B1		131.70	
A5		138.36	
A4		148.19	
B4		152.11	
B3			

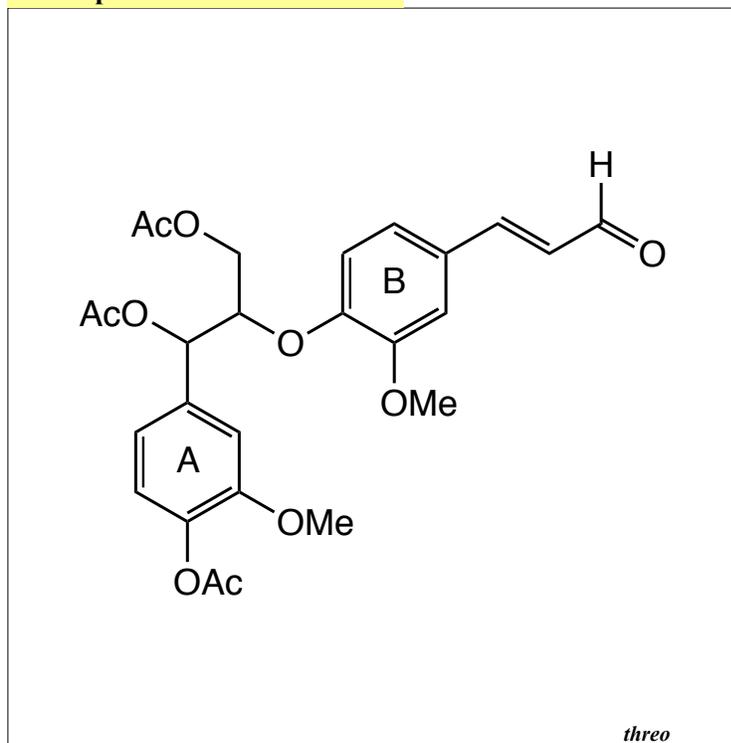
¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.77	s	
OMe	3.85	s	
γ1	4.09	m	
γ2	4.29	m	
β	4.78	m	
α	6.08	d	
A6,B6	6.80-6.90	m	
B1	6.96	m	
B2	6.99	m	
B5	7.02	m	
A2	7.26	m	

Notes:

J.Ralph jrf79.5

As this dimer contains a plane of symmetry the CS's are reported for one unit.

Compound Number 3010
¹³C


Acetic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-
2-[2-methoxy-4-(3-oxopropenyl)phenoxy]propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.08	s	
Ac Me	2.21	s	
OMe	3.82	s	
OMe	3.91	s	
γ 1	4.07	dd	12.0, 5.8
γ 2	4.28	dd	12.0, 4.1
β	4.96	m	
α	6.11	d	6.4
Bβ	6.70	dd	15.9, 7.7
A5	7.03	d	8.1
A6	7.08	dd	8.5, 1.4
B5	7.15	d	8.4
A2	7.24	bd	
B6	7.25	dd	8.8, 1.7
B2	7.40	d	1.8
B α	7.59	d	16.0
B γ	9.66	d	7.6

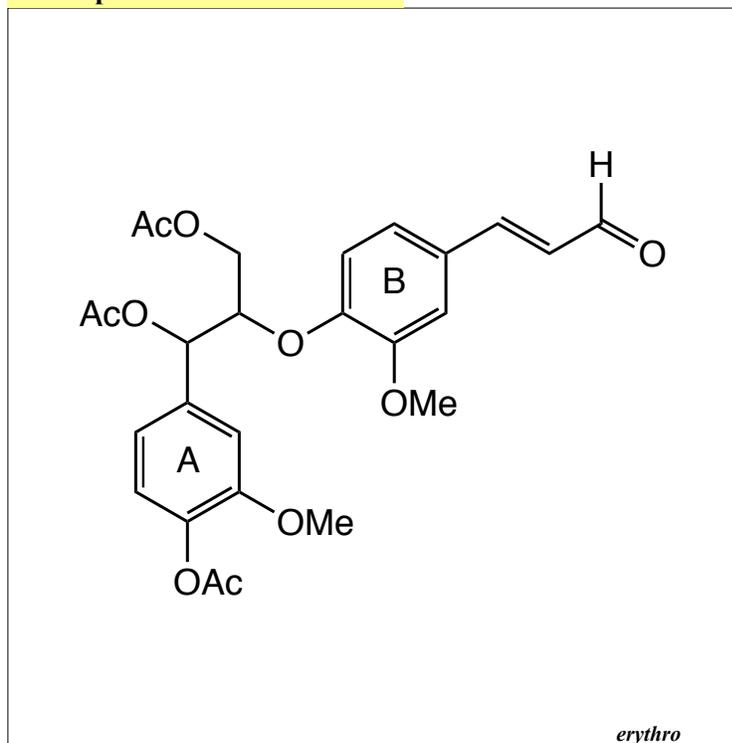
Notes:

jrlz 29 1mg
Liming Zhang, isolate from mild acidolysis
see 3011 some shifts taken from isomer mix

Atom	CDCl ₃	Acetone	DMSO
g Ac Me	20.60	20.43	
a Ac Me	20.68	20.57	
A4 Ac Me	20.94	20.88	
OMe	55.90	56.30	
OMe	55.98	56.41	
γ	62.81	63.45	
α	74.14	75.19	
β	79.67	80.26	
B2	111.28	112.56	
A2	111.58	112.66	
B5	117.36	117.85	
A6	119.48	120.34	
A5	122.71	123.61	
B6	122.89	123.76	
B β	127.40	128.23	
B1	128.88	129.89	
A1	134.87	136.40	
A4	140.01	140.99	
B4	150.72	151.73	
B3	150.68	151.73	
A3	151.16	152.26	
B α	152.26	153.29	
A4 Ac C=O	168.72	168.87	
α Ac C=O	169.41	169.85	
γ Ac C=O	170.48	170.66	
B γ	193.43	193.61	

Compound Number 3011

¹³C



Acetic acid 3-acetoxy-3-(4-acetoxy-3-methoxyphenyl)-
2-[2-methoxy-4-(3-oxopropenyl)phenoxy]propyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me			
Ac Me			
Ac Me			
OMe	3.82	s	
OMe	3.90	s	
γ 1	4.27	m	
γ 2	4.37	m	
β	4.99	m	
α	6.07	d	5.2
B β	6.79	dd	15.9, 7.7
A5	7.02	d	8.1
A6	7.07	m	
B5	7.11	d	8.3
A2	7.23	m	
B6	7.27	d	1.8
B2	7.38	d	2.0
B α	7.58	d	15.9
B γ	9.65	d	7.7

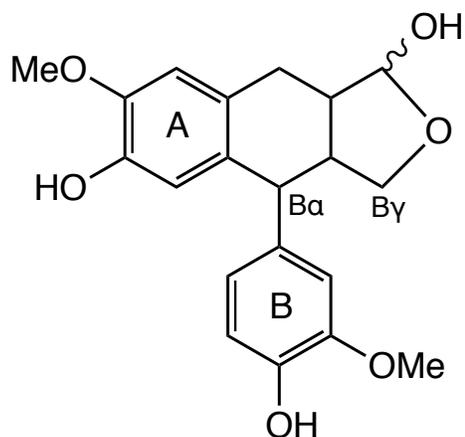
Notes:

jrlz41
Liming Zhang, isolate from mild acidolysis
CS's taken from isomer mix spectrum

Atom	CDCl ₃	Acetone	DMSO
γ Ac Me	20.60	20.65	
α Ac Me	20.68	20.79	
A4 Ac Me	20.94	21.10	
OMe	55.87	56.51	
OMe	55.90	56.65	
γ	62.44	63.19	
α	73.55	74.57	
β	79.56	80.02	
B2	111.38	112.85	
A2	112.00	113.08	
B5	117.93	118.49	
A6	119.76	120.75	
A5	122.61	123.50	
B6	122.81	123.91	
B β	127.47	128.53	
B1	129.10	130.22	
A1	134.80	136.48	
A4	139.90	141.11	
B4	150.02	151.22	
B3	150.95	152.12	
A3	151.00	152.35	
B α	152.26	153.45	
A4 Ac C=O	168.74	169.09	
α Ac C=O	169.57	170.07	
γ Ac C=O	170.65	170.88	
B γ	193.43	194.10	

Compound Number 3014

¹³C



Atom	CDCl ₃	Acetone	DMSO	
α		29.84		
B β		46.24		
β		47.00		
B α		51.09		
OMe		55.96		
OMe		56.05		
B γ		72.06		
γ		98.75		
B2		112.38		
A2		112.84		
B5		115.51		
A5		116.17		
B6		121.75		
A1		128.34		
A6		133.42		
B1		137.28		
A4		145.11		
B4		145.93		
A3		146.61		
B3		148.24		

4-(4-hydroxy-3-methoxyphenyl)-7-methoxy-1,3,3a,4,9,9a-hexahydronaphtho[2,3-c]furan-1,6-diol

¹H (acetone)

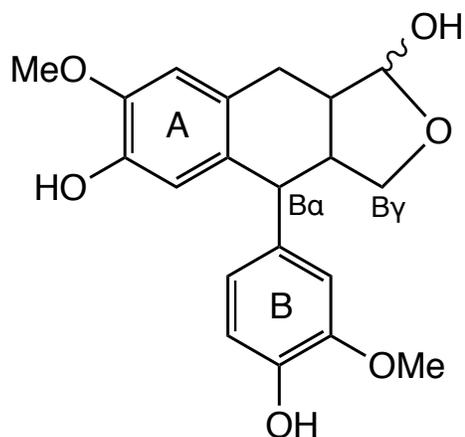
Atom	H Shifts	Mult	J
A β	1.98	m	
B β	2.54	m	
A α1	2.84	m	
A α2	3.00	m	
B γ1	3.47	dd	10.0, 8.0
B α	3.64	d	12.2
B γ2	3.77	m	
OMe	3.77	s	
OMe	3.80	s	
A γ OH	4.99	d	4.3
A γ	5.40	d	4.3
A5	6.22	d	0.9
B6	6.63	dd	8.0, 2.0
A2	6.72	s	
B2	6.74	d	2.0
B5	6.77	d	8.0
A4 OH	7.17	s	
B4 OH	7.39	s	

Notes:

jrlz5, mixture of 2 isomers in ca. 2:1 ratio.
 Data for major isomer
 Liming Zhang, isolate from mild acidolysis

Compound Number 3015

¹³C



4-(4-hydroxy-3-methoxyphenyl)-7-methoxy-1,3,3a,4,9,9a-hexahydronaphtho[2,3-c]furan-1,6-diol

¹H (acetone)

Atom	H Shifts	Mult	J
A β	1.98	m	
B β	2.28	m	
A α1	2.80	m	
A α2	3.00	m	
B γ 1,2	3.64	m	
B α	3.72	bd	11.4
OMe	3.77	s	
OMe	3.80	s	
A γ	5.18	d	6.2
A γOH	5.28	d	
A5	6.55	d	
B6	6.62	dd	10.1, 2.0
A2	6.72	s	
B2	6.74	d	2.0
B5	6.77	d	8.0
A4 OH	7.17	s	
B4 OH	7.39	s	

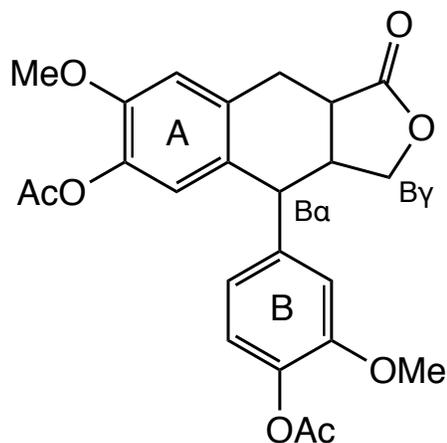
Notes:

jrlz5, mixture of 2 isomers in ca. 2:1 ratio.
Data for minor isomer
Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃	Acetone	DMSO	
α		31.98		
Bβ		49.88		
β		49.88		
B α		50.12		
OMe		55.96		
OMe		56.05		
Bγ		70.96		
γ		104.08		
B2		112.28		
A2		112.79		
B5		115.51		
A5		116.28		
B6		121.75		
A1		127.93		
A6		133.38		
B1		136.75		
A4		145.31		
B4		145.95		
A3		146.63		
B3		148.20		

Compound Number 3016

¹³C



Acetic acid 4-(4-acetoxy-3-methoxyphenyl)-7-methoxy-1-oxo-1,3,3a,4,9,9a-hexahydroanphtho[2,3-c]furan-6-yl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.13	s	
Ac Me	2.23	s	
B β	2.75	m	
A β	2.78	m	
A α1	2.98	m	
A α2	3.18	dd	16.0, 5.0
OMe	3.75	s	
OMe	3.81	s	
B α	4.16	m	
B γ	4.16	m	
A5	6.44	s	
B6	6.83	dd	8.1, 1.9
B2	6.96	d	1.9
A2	6.98	s	
B5	7.03	d	8.1

Notes:

jrlz25

Liming Zhang, isolate from mild acidolysis

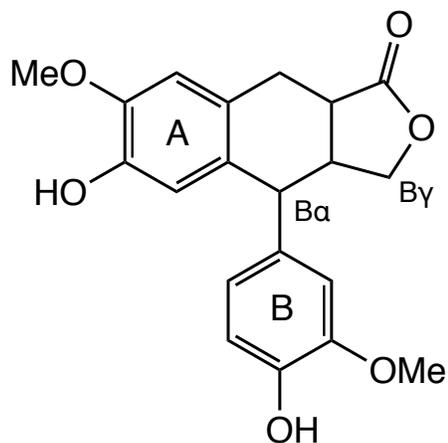
FPL Collection analog alpha-Conidendrin

The B2 and B6 carbon signals are broad and 1/4 height of B5

Atom	CDCl ₃	Acetone	DMSO
Ac Me	20.53	20.36	20.64
Ac Me	20.63	20.48	20.76
α	29.57	30.12	29.23
β	41.66	41.87	40.93
B β	47.44	47.65	45.93
B α	49.93	50.09	48.52
OMe	55.87	56.20	56.13
OMe	55.93	56.20	56.16
B γ	71.60	71.85	71.46
B2	111.77	113.40	112.90
A2	112.98	114.00	113.88
B6	120.61	121.45	120.94
B5	123.20	123.86	123.03
A5	123.70	124.12	123.41
A6	130.39	132.09	131.54
A1	133.59	134.97	134.47
A4	138.36	139.27	137.88
B4	139.08	140.00	138.51
B1	140.74	142.52	141.90
A3	149.92	150.80	149.50
B3	151.59	152.59	151.29
Ac C=O	168.90	168.75	169.22
Ac C=O	169.03	168.75	169.25
γ	176.43	176.77	177.46
<u>¹H</u>			
AcMe	2.21		2.11
AcMe	2.29		2.21
B β	2.50		2.69
β	2.59		2.82
A α1	3.00		2.95
A α2	3.25		3.12
OMe	3.73		3.65
OMe	3.81		3.72
B α	3.95		4.09
B γ1	4.02		4.05
B γ2	4.22		4.11
A5	6.51		6.28
B6	6.71		6.75
B2	6.63		6.87
A2	6.77		6.98
B5	6.98		7.02

Compound Number 3017

¹³C



6-Hydroxy-4-(4-hydroxy-3-methoxyphenyl)-7-methoxy-3a,4,9,9a-tetrahydro-3H-naphtho[2,3-c]furan-1-one

¹H (acetone)

Atom	H Shifts	Mult	J
B β	2.67	m	
A β	2.67	m	
A α	3.07	dd	16.2, 4.5
OMe	3.78	s	
OMe	3.82	s	
B α	3.95	bd	9.5
B γ	4.10	m	
A5	6.26	d	0.9
B6	6.69	dd	8.0, 2.0
A2	6.79	s	
B2	6.80	d	2.0
B5	6.80	d	8.0

Notes:

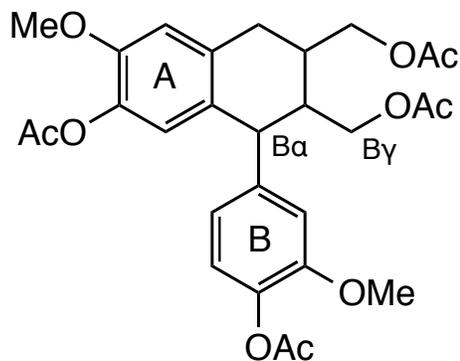
jrlz33

Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃	Acetone	DMSO	
α		29.73		
β		41.98		
B β		47.61		
B α		49.95		
OMe		55.99		
OMe		56.03		
B γ		71.78		
B2		112.25		
A2		112.93		
B5		115.61		
A5		116.23		
B6		121.92		
A1		126.77		
A6		132.87		
B1		135.09		
A4		145.61		
B4		146.29		
A3		146.89		
B3		148.42		
γ		177.15		

Compound Number 3018

¹³C



Acetic acid 8-(4-acetoxy-3-methoxyphenyl)-6,7-bis-acetoxy methyl-3-methoxy-5,6,7,8-tetrahydronaphthalen-2-yl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.02	s	
Ac Me	2.11	s	
Ac Me	2.22	s	
Bβ	2.16	m	
β	2.29	m	
α	2.92	m	
OMe	3.74	s	
OMe	3.78	s	
B γ1	3.92	dd	11.7, 3.6
B α	4.02	d	10.5
B γ2	4.09	m	
A γ1	4.11	m	
A γ2	4.23	dd	11.1, 5.3
A5	6.34	bs	
B6	6.74	dd	8.1, 2.0
A2	6.87	s	
B2	6.92	d	2.0
B5	6.99	d	8.1

Notes:

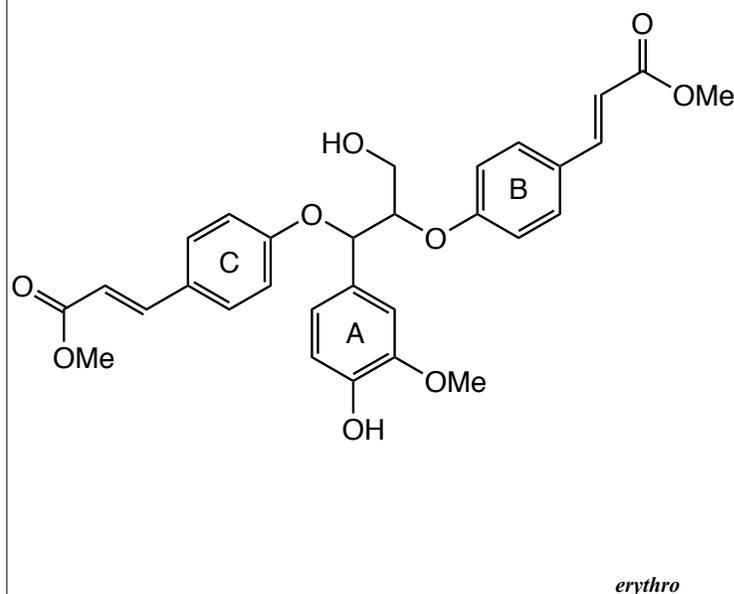
jrlz27

Liming Zhang, isolate from mild acidolysis

Atom	CDCl ₃	Acetone	DMSO	
Ac Me	20.56	20.36		
Ac Me	20.65	20.47		
Ac Me	20.77	20.69		
Ac Me	20.82	20.72		
α	33.02	33.53		
β	35.13	36.29		
B β	43.44	44.25		
B α	47.22	47.98		
OMe	55.83	56.17		
OMe	55.91	56.19		
B γ	63.04	63.57		
γ	66.20	66.74		
A2	111.81	112.90		
B2	113.17	114.53		
B6	121.52	121.11		
B5	122.81	123.64		
A5	123.71	124.16		
A6	131.13	132.26		
A1	134.05	135.25		
A4	138.03	139.17		
B4	138.03	139.63		
B1	142.77	144.24		
A3	149.35	150.46		
B3	151.16	152.28		
Ac C=O	168.91	168.93		
Ac C=O	169.11	168.96		
Ac C=O	170.80	171.06		
Ac C=O	170.97	171.06		

Compound Number 3019

¹³C



3-(4-{3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-[4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.70	s	
C γ OMe	3.71	s	
A3 OMe	3.78	s	
γ 's	3.95	m	5.8
γ OH	4.16	t	5.8
β	4.88	m	
α	5.60	d	5.5
C β	6.34	d	16.0
B β	6.37	d	16.0
A5	6.79	d	8.1
A6	7.00	m	
C2,6	6.97	m	8.8
B2,6	7.02	m	8.8
A2	7.12	d	1.9
C3,5	7.50	m	8.6
B3,5	7.54	m	8.6
C α	7.55	d	16.0
B α	7.59	d	16.0

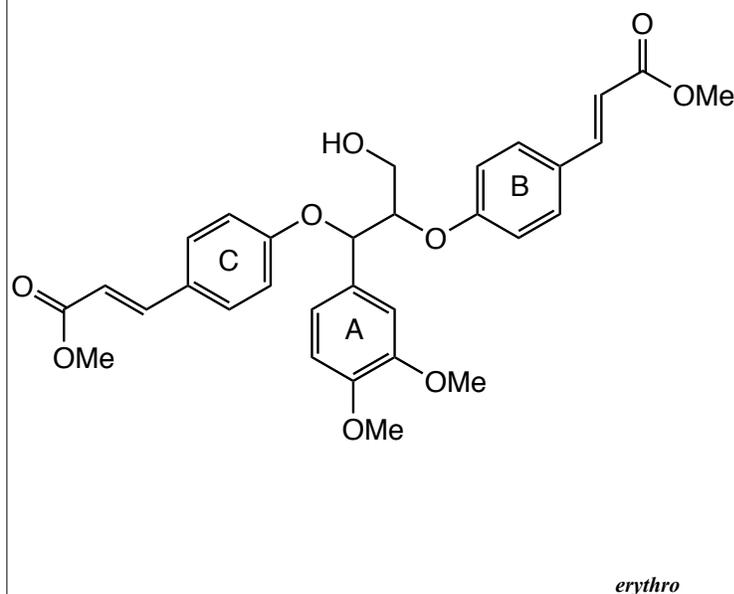
Notes:

jrf101.C9-12
Authenticated assignments in acetone.

Atom	CDCl ₃	Acetone	DMSO
C γ OMe	51.55	51.52	51.27
B γ OMe	51.59	51.53	55.63
A3 OMe	55.92	56.26	55.80
γ	61.43	61.42	59.79
α	78.70	79.32	77.75
β	81.89	82.67	81.24
A2	109.26	112.00	111.78
A5	114.48	115.55	115.29
B β	115.68	116.15	115.13
C β	115.86	116.25	115.13
C2	116.24	117.23	116.20
C6	116.24	117.23	116.20
B2	116.54	117.34	116.24
B6	116.54	117.34	116.24
A6	120.21	121.43	120.28
C1	127.73	128.19	126.74
B1	128.00	128.22	126.86
A1	128.67	129.37	127.73
B3	129.57	130.46	129.93
B5	129.57	130.46	129.93
C3	129.61	130.48	129.93
C5	129.61	130.48	129.93
C α	144.12	144.87	144.16
B α	144.23	144.94	144.26
A4	145.72	147.35	146.29
A3	146.78	148.23	147.31
C4	159.14	160.49	159.17
B4	159.81	161.67	160.5
C γ	167.62	167.67	166.86
B γ	167.63	167.72	166.92

Compound Number 3020

¹³C



3-(4-{1-(3,4-dimethoxyphenyl)-3-hydroxy-2[4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.693	s	
C γ OMe	3.711	s	
A4 OMe	3.732	s	
A3 OMe	3.752	s	
γ 's	3.954	m	5.9, *
γ OH	4.157	t	5.9
β	4.881	m	5.5, 4.9
α	5.603	d	5.5
C β	6.335	d	16.0
B β	6.363	d	16.0
A5	6.876	d	8.2
C2,6	6.973	m	8.8
B2,6	7.015	m	8.7
A6	7.047	dd	8.2, 1.9
A2	7.126	d	1.9
C3,5	7.515	m	8.8
B3,5	7.550	m	8.7
C α	7.543	d	16.0
B α	7.582	d	16.0

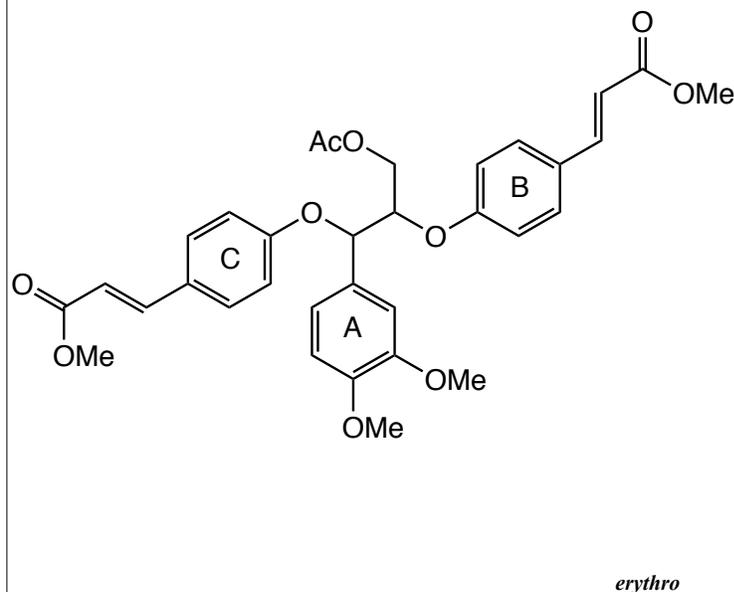
Notes:

jrf119.C2
assignments not authenticated - from #3019

Atom	CDCl ₃	Acetone	DMSO	
C γ OMe		51.52		
B γ OMe		51.52		
A4 OMe		55.97		
A3 OMe		56.12		
γ		61.38		
α		79.21		
β		82.64		
A2		112.38		
A5		112.47		
B β		116.21		
C β		116.33		
C2		117.26		
C6		117.26		
B2		117.38		
B6		117.38		
A6		121.02		
C1		128.26		
B1		128.32		
B3		130.51		
B5		130.51		
C3		130.52		
C5		130.52		
A1		130.56		
C α		144.87		
B α		144.96		
A4		150.25		
A3		150.26		
C4		160.50		
B4		161.69		
C γ		167.66		
B γ		167.72		

Compound Number 3021

¹³C



3-(4-{3-carboxy-1-(3,4-dimethoxyphenyl)-2-[4-(2-methoxy carbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.920	s	
B γ OMe	3.694	s	
C γ OMe	3.712	s	
A4 OMe	3.736	s	
A3 OMe	3.759	s	
γ 1	4.460	dd	11.9, 6.2
γ 2	4.507	dd	11.9, 3.8
β	5.084	m	6.2, 5.8, 3.8
α	5.629	d	5.8
C β	6.343	d	16.0
B β	6.378	d	16.0
A5	6.888	d	8.3
C2,6	6.992	m	8.7
B2,6	7.018	m	8.7
A6	7.073	dd	8.3, 2.0
A2	7.161	d	2.0
C3,5	7.527	m	8.7
B3,5	7.570	m	8.7
Cα	7.548	d	16.0
Bα	7.584	d	16.0

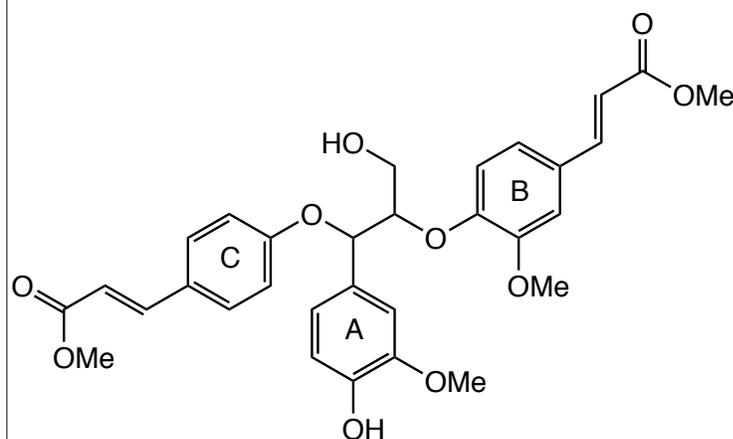
Atom	CDCl ₃	Acetone	DMSO	
γ Ac Me		20.58		
C γ OMe		51.54		
B γ OMe		51.57		
A4 OMe		55.97		
A3 OMe		56.14		
γ		63.49		
α		79.32		
β		79.81		
A2		112.17		
A5		112.47		
B β		116.49		
C β		116.55		
C2		117.27		
C6		117.27		
B2		117.41		
B6		117.41		
A6		120.88		
C1		128.55		
B1		128.74		
A1		130.09		
B3		130.53		
B5		130.53		
C3		130.61		
C5		130.61		
C α		144.81		
B α		144.81		
A4		150.38		
A3		150.43		
C4		160.24		
B4		161.18		
C γ		167.66		
B γ		167.69		
γ Ac C=O		170.79		

Notes:

jrf137
 assignments not authenticated - from #3019/3020
 A4 vs A3 OMe may be switched

Compound Number 3022

¹³C



erythro

3-(4-{3-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-2-[2-methoxy-4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.696	s	
C γ OMe	3.720	s	
A3 OMe	3.804	s	
B3 OMe	3.853	s	
γ 's	3.95	m	
β	4.791	m	
α	5.621	d	5.3
C β	6.330	d	16.0
B β	6.417	d	16.0
A5	6.798	d	8.2
C2,6	6.978	m	8.8
A6	7.013	dd	8.2, 1.9
B5	7.065	d	8.3
B6	7.123	dd	8.3, 1.9
A2	7.205	d	1.9
B2	7.283	d	1.9
C3,5	7.493	d	8.8
C α	7.554	d	16.0
B α	7.584	d	16.0

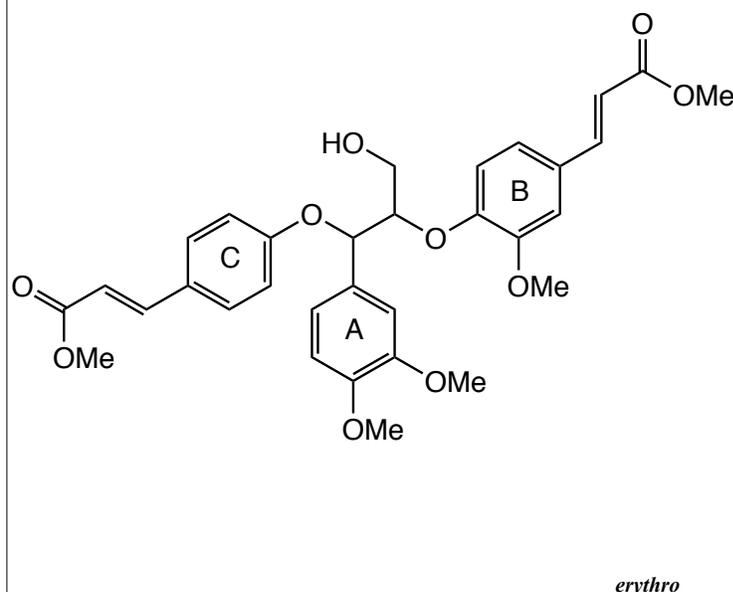
Notes:

jrf103.C12-25
fully authenticated in acetone

Atom	CDCl ₃	Acetone	DMSO
B γ OMe	51.55	51.52	51.27
C γ OMe	51.66	51.56	51.28
A3 OMe	55.83	56.22	55.48
B3 OMe	55.96	56.32	55.79
γ	61.29	61.31	59.66
α	78.46	79.44	77.95
β	86.25	84.21	81.84
B2	110.87	112.14	111.43
A2	109.37	112.21	112.01
A5	114.49	115.38	114.89
C β	115.62	116.16	115.16
B β	116.77	116.59	115.24
C2	116.28	117.23	116.22
C6	116.28	117.23	116.22
B5	120.21	117.54	115.45
A6	119.50	121.53	120.44
B6	122.14	123.04	122.48
C1	127.67	128.13	126.79
B1	129.92	129.21	127.27
A1	129.32	129.39	127.54
C3	129.57	130.42	129.91
C5	129.57	130.42	129.91
C α	144.21	144.89	144.18
B α	144.28	145.23	144.61
A4	145.68	147.29	146.27
A3	146.78	148.17	147.24
B4	149.40	151.24	149.76
B3	151.14	151.54	150.11
C4	159.30	160.57	159.25
C γ	167.39	167.68	166.86
B γ	167.64	167.71	166.95

Compound Number 3023

¹³C



3-(4-{1-(3,4-dimethoxyphenyl)-3-hydroxy-2-[2-methoxy-4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl

¹H (acetone)

Atom	H Shifts	Mult	J
B γ OMe	3.693	s	
C γ OMe	3.715	s	
A3 OMe	3.741	s	
A4 OMe	3.773	s	
B3 OMe	3.865	s	
γ *	*	*	-
β	4.787	m	-
α	5.640	d	5.3
C β	6.337	d	16.0
B β	6.416	d	16.0
A5	6.871	d	8.3
C2,6	6.981	m	8.8
A6	7.067	dd	8.3, 1.9
B5	7.068	d	8.3
B6	7.134	dd	8.3, 1.9
A2	7.200	d	1.9
B2	7.302	d	1.9
C3,5	7.517	d	8.8
C α	7.537	d	16.0
B α	7.573	d	16.0

Notes:

jrf121.C5-7

assignments not authenticated - from #3022 and 3020

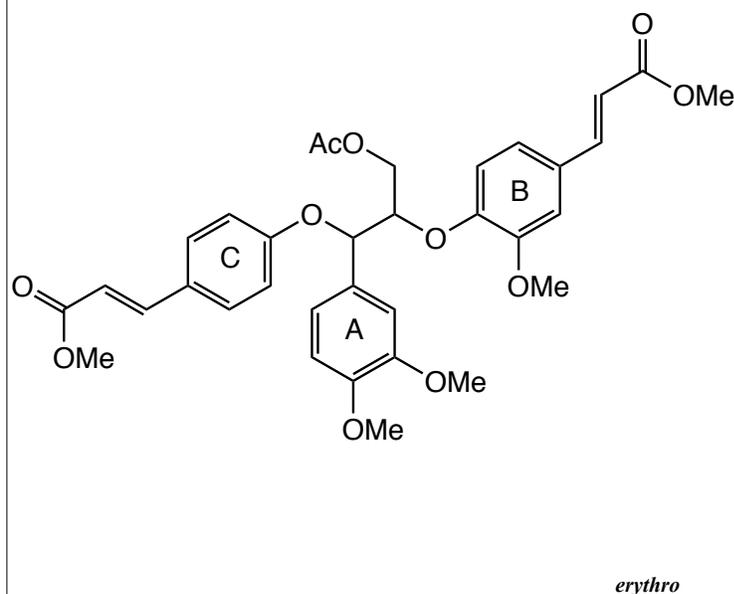
A4 vs A3 OMe may be switched

*γ and γ-OH protons buried, C-H correlations not run.

Atom	CDCl ₃	Acetone	DMSO
B γ OMe		51.52	
C γ OMe		51.55	
A4 OMe		55.98	
A3 OMe		56.07	
B3 OMe		56.37	
γ		61.29	
α		79.37	
β		84.19	
B2		112.19	
B5		112.24	
A2		112.70	
C β		116.27	
B β		116.67	
C2		117.29	
C6		117.29	
B5		117.60	
A6		121.14	
B6		123.10	
C1		128.25	
B1		129.30	
C3		130.49	
C5		130.49	
A1		130.59	
C α		144.91	
B α		145.25	
A4		150.20	
A3		150.23	
B4		151.31	
B3		151.65	
C4		160.63	
C γ		167.68	
B γ		167.71	

Compound Number 3024

¹³C



3-(4-{3-carboxy-1-(3,4-dimethoxyphenyl)-2-[2-methoxy-4-(2-methoxycarbonylvinyl)phenoxy]propoxy}phenyl)acrylic acid methyl

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.920	s	
B γ OMe	3.695	s	
C γ OMe	3.716	s	
A3 OMe	3.745	s	
A4 OMe	3.775	s	
B3 OMe	3.877	s	
γ1	4.428	dd	11.9, 3.8
γ2	4.487	dd	11.9, 6.2
β	4.988	m	6.2, 5.3, 3.8
α	5.659	d	5.3
C β	6.345	d	16.0
B β	6.431	d	16.0
A5	6.888	d	8.3
C2,6	6.995	m	8.8
B5	7.051	m	8.3
A6	7.066	dd	8.3, 2.0, 0.4
B6	7.143	dd	8.3, 2.0, 0.4
A2	7.190	d	2.0
B2	7.323	d	2.0
C3,5	7.527	m	8.8
C α	7.553	d	16.0
B α	7.576	d	16.0

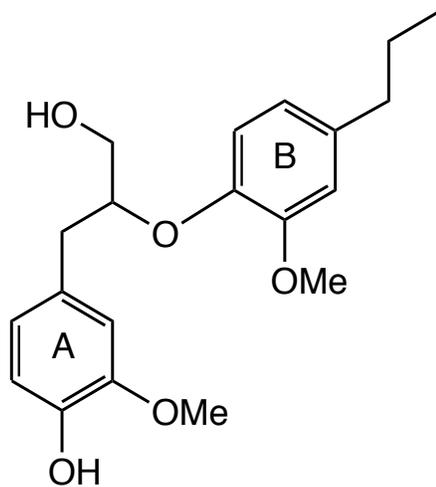
Notes:

jrf139
 assignments not authenticated - from #3023 and 3021
 A4 vs A3 OMe may be switched
 Note γ's, J's switch from #3021!!

Atom	CDCl ₃	Acetone	DMSO
g Ac Me		20.61	
B γ OMe		51.54	
C γ OMe		51.58	
A4 OMe		55.99	
A3 OMe		56.09	
B3 OMe		56.35	
γ		63.49	
α		79.62	
β		81.21	
A2		112.24	
B5		112.38	
B2		112.38	
C β		116.42	
B β		116.98	
C2		117.28	
C6		117.28	
B5		118.21	
A6		120.82	
B6		122.93	
C1		128.46	
B1		129.89	
A1		130.14	
C3		130.52	
C5		130.52	
C α		144.85	
B α		145.14	
A4		150.33	
A3		150.37	
B4		150.72	
B3		151.80	
C4		160.44	
C γ		167.67	
B γ		167.67	
γ OAc C=O		170.79	

Compound Number 3025

¹³C



3-(4-hydroxy-3-methoxyphenyl)-2-(2-methoxy-4-propylphenoxy)propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
B γ	0.895	t	7.3
B β	1.585	m	
B α	2.492	m	
α1	2.91	m	
α2	2.94	m	
γ	3.59	m	
γ OH	3.731	t	6.1
OMe	3.786	s	
OMe	3.802	s	
β	4.308	m	
B6	6.646	ddt	8.1, 2.1, 0.6
A5	6.72	m	
A6	6.72	m	
B2	6.816	d	2.1
B5	6.827	d	8.1
A2	6.918	m	
Ar OH	7.333	s	

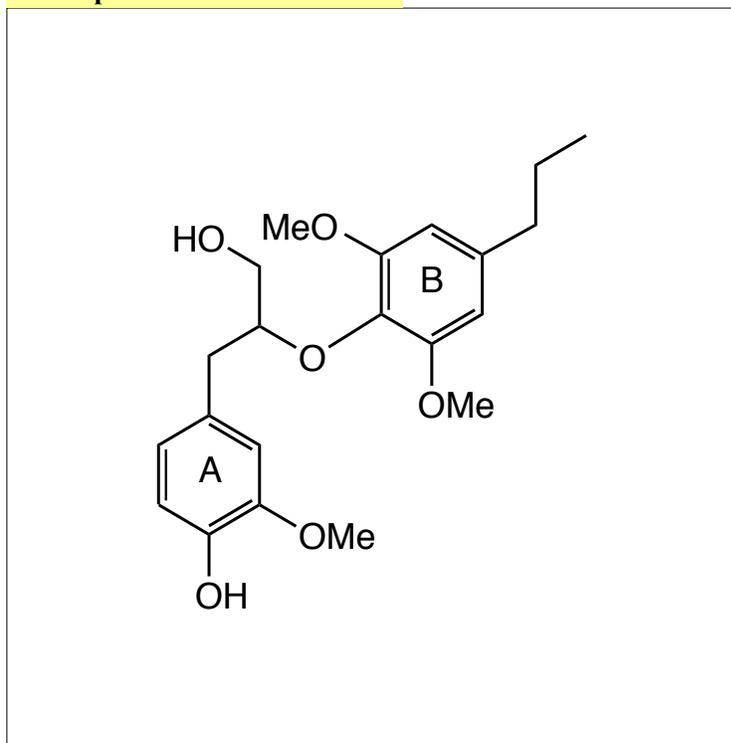
Notes:

jrbha69

Atom	CDCl ₃	Acetone	DMSO
B γ	13.77	14.01	13.75
B β	24.58	25.39	24.29
α	37.37	37.74	36.52
B α	37.76	38.22	36.97
OMe	55.76	56.15	55.49
OMe	55.89	56.20	55.58
γ	63.41	63.38	61.82
β	85.32	83.67	80.83
B2	112.16	113.85	112.89
A2	112.32	113.99	113.64
A5	114.34	115.49	115.19
B5	119.95	118.72	115.70
B6	121.00	121.37	120.21
A6	122.08	122.83	121.63
A1	129.75	130.58	129.16
B1	138.23	137.46	135.30
A4	144.20	145.88	144.79
B4	145.33	146.82	145.45
A3	146.44	148.05	147.26
B3	150.88	151.63	149.69
<u>¹H</u>	<u>CDCl₃</u>	<u>DMSO</u>	
B γ	0.915	0.856	
B β	1.594	1.531	
B α	2.504	2.46	
α1	2.866	2.733	
α2	3.040	2.831	
γ1	3.574		
γ2	3.656		
γ OH		4.761	
OMe	3.823	3.680	
OMe	3.841	3.703	
β	4.160	4.265	
Ar-OH	5.611	8.70	

Compound Number 3026

¹³C



2-(2,6-dimethoxy-4-propylphenoxy)-3-(4-hydroxy-3-methoxyphenyl)propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
B γ	0.917	t	7.3
B β	1.619	m	
B α	2.523	dd	
α1	2.941	dd	13.6, 8.2
α2	3.077	dd	13.6, 5.4
γ1	3.392	m	12.0, 4.1
γ2	3.483	m	12.0, 3.4
γ OH	3.5	m	
A OMe	3.809	s	
B OMe	3.817	s	
β	4.128	m	
B2,6	6.540	s	
A6	6.711	dd	8.0, 1.8
A5	6.740	dd	8.0, 0.4
A2	6.892	d	1.8
Ar OH	7.349	s	

Notes:

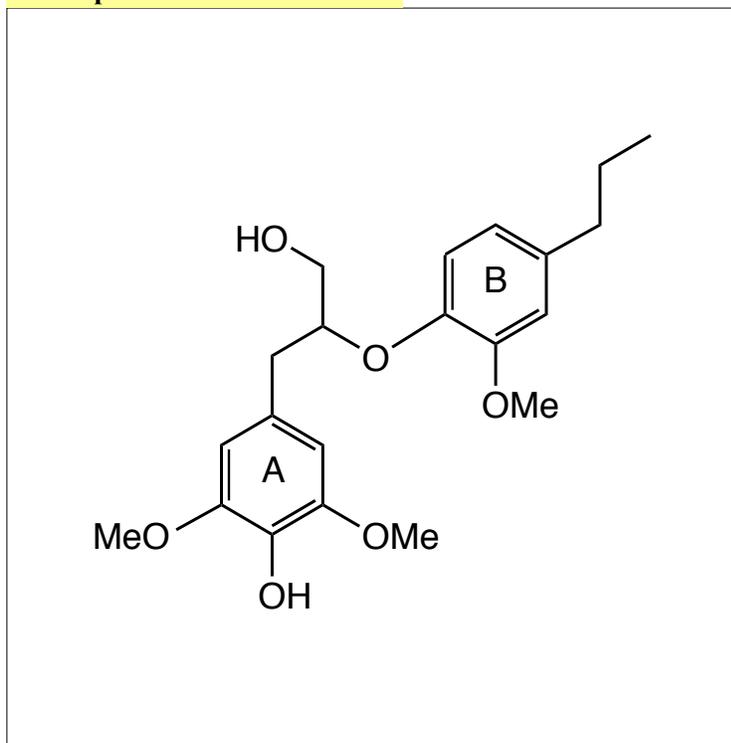
jrbha61
 Hγ's are perfect dd's after adding D2O to acetone - otherwise complex multiplets;
 J's are from D2O exchanged spectra. All spectra ref'd to solvent, Acetone 2.04,
 29.8
 CDCl3 7.24, 77.0, DMSO 2.49, 39.5

Atom	CDCl ₃	Acetone	DMSO
B γ	13.76	14.06	13.73
B β	24.51	25.30	24.10
α	37.28	38.00	36.86
B α	38.39	38.91	37.64
A OMe	55.81	56.17	55.51
B OMe	55.97	56.41	55.81
γ	62.17	62.77	61.65
β	84.36	85.24	83.39
B2	105.42	106.55	105.58
B6	105.42	106.55	105.58
A2	112.20	113.87	113.58
A5	114.15	115.50	115.06
A6	122.03	122.78	121.64
A1	130.19	130.81	129.36
B4	133.40	134.92	133.46
B1	138.77	139.25	137.62
A4	143.99	145.78	144.60
A3	146.31	148.03	147.11
B3	152.99	154.09	152.76
B5	152.99	154.09	152.76

¹ H	CDCl ₃	DMSO
B γ	0.928	0.886
B β	1.614	1.573
B α	2.513	2.753
α1	2.966	2.871
α2	3.192	~3.35?
γ1	3.418	~3.35?
γ2	3.54	~3.35?
γ OH	3.56	~3.35?
A OMe	3.805	3.697
B OMe	3.831	3.708
β	4.150	4.068
B2,6	6.392	6.465
A6	6.745	6.583
A5	6.809	6.641
A2	6.796	6.763
Ar OH	5.698	8.634

Compound Number 3027

¹³C



3-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2-methoxy-4-propylphenoxy)propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
B γ	0.894	t	7.4
B β	1.585	m	
B α	2.491	m	
α1	2.85	dd	13.9, 6.2
α2	2.922	dd	13.9, 6.1
γ	3.602	m	
γ OH	3.734	t	
A OMe	3.770	s	
B OMe	3.806	s	
β	4.335	m	
A2,6	6.596	s	
B6	6.646	ddt	8.2, 2.1, 0.6
B2	6.817	d	2.1
B5	6.833	d	8.2
Ar OH	6.940		

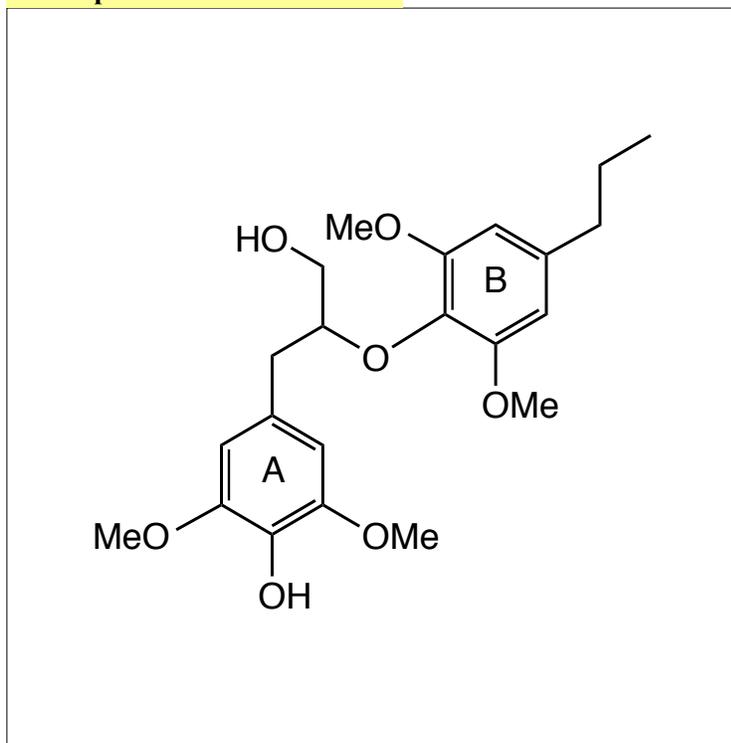
Notes:

jrbha67

Atom	CDCl ₃	Acetone	DMSO
B γ	13.77	14.01	13.67
B β	24.57	25.40	24.22
A α	37.76	38.21	36.90
B α	37.94	38.23	36.90
B OMe	55.77	56.19	55.47
A OMe	56.28	56.56	55.82
γ	63.47	63.46	61.84
β	85.35	83.47	80.56
A2	106.13	107.93	106.83
A6	106.13	107.93	106.83
B2	112.30	113.81	112.74
B5	120.04	118.54	115.44
B6	121.03	121.36	120.11
A1	128.98	129.59	128.24
A4	133.32	135.34	133.78
B1	138.31	137.38	135.09
B4	145.32	146.85	145.41
A3	146.97	148.48	147.64
A5	146.97	148.48	147.64
B3	150.89	151.57	149.53
¹ H	CDCl ₃		DMSO
B γ	0.910		0.86
B β	1.589		1.54
B α	2.499		2.45
α1	2.856		2.74
α2	3.032		2.84
γ1	3.578		
γ2	3.655		
γ OH			4.75
A OMe	3.831		3.68
B OMe	3.841		3.71
β	4.160		4.30
A2,6	6.478		6.49
B6	6.628		6.62
B2	6.697		6.76
B5	6.651		6.83
Ar OH	8.03		8.03

Compound Number 3028

¹³C



3-(4-hydroxy-3,5-dimethoxyphenyl)-2-(2,5-dimethoxy-4-propylphenoxy)propan-1-ol

¹H (acetone)

Atom	H Shifts	Mult	J
B γ	0.917	t	7.4
B β	1.620	m	
B α	2.525	m	
α1	2.925	dd	13.6, 8.1
α2	3.074	dd	13.6, 5.3
γ1	3.402	m	12.0, 4.1
γ2	3.486	m	12.0, 3.6
γ OH	3.47	m	
A OMe	3.793	s	
B OMe	3.825	s	
β	4.142	m	
B2,6	6.544	s	
A2,6	6.573	s	
Ar OH	6.949	s	

Notes:

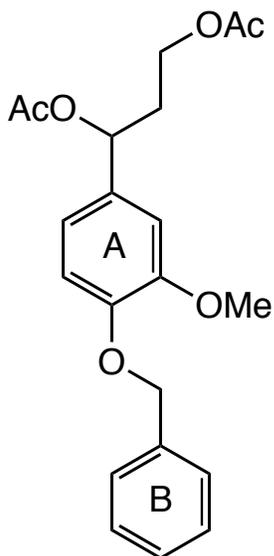
jrbha63 Hγ's are dd's after adding D2O to acetone - otherwise complex multiplets; J's are from D2O exchanged spectra. In acetone: Many peaks were split with a 2:1 ratio. Aα 38.38 & 38.50, Bα 38.80 & 38.93, A1 129.69 & 129.86, B4 134.94 & 134.97, A4 135.24 & 135.28, B1 139.10 & 139.26, A3/5 148.44 & 148.49, B3/5 154.07 & 154.12

Atom	CDCl ₃	Acetone	DMSO
B γ	13.70	14.06	13.82
B β	24.47	25.30	24.18
α	37.65	38.38	37.35
B α	38.24	38.80	37.60
A OMe	55.96	56.43	55.91
B OMe	56.19	56.58	55.97
γ	62.19	62.93	61.88
β	84.19	85.20	83.32
B2	105.42	106.57	105.67
B6	105.42	106.57	105.67
A2	106.12	107.83	106.89
A6	106.12	107.83	106.89
A1	129.21	129.69	128.54
B4	133.07	134.94	133.46
A4	133.28	135.24	133.70
B1	138.64	139.10	137.61
A3	146.75	148.44	147.65
A5	146.75	148.44	147.65
B3	152.92	154.07	152.79
B5	152.92	154.07	152.79

¹ H	CDCl ₃	DMSO
B γ	0.917	0.879
B β	1.592	1.562
B α	2.489	2.45
α1	2.950	2.756
α2	3.175	2.868
γ1	3.408	
γ2	3.542	
γ OH	3.47	4.334?
A OMe	3.798	3.692
B OMe	3.829	3.696
β	4.152	4.103
B2,6	6.386	6.449
A2,6	6.498	6.462
Ar OH	5.493	8.044

Compound Number 3029

¹³C



1-(4-benzyloxy-3-methoxyphenyl)propane-1,3-diol

¹H (acetone)

Atom	H Shifts	Mult	J
γ Ac Me	1.99	s	
α Ac Me	2.03	s	
β	2.18	m	
OMe	3.83	s	
γ	4.08	m	
B α	5.09	s	
α	5.85	dd	8.2, 5.7
A6	6.91	dd	8.3, 2.0
A5	6.99	d	8.3
A2	7.04	d	2.0
Bz H's	7.28-7.51	m	

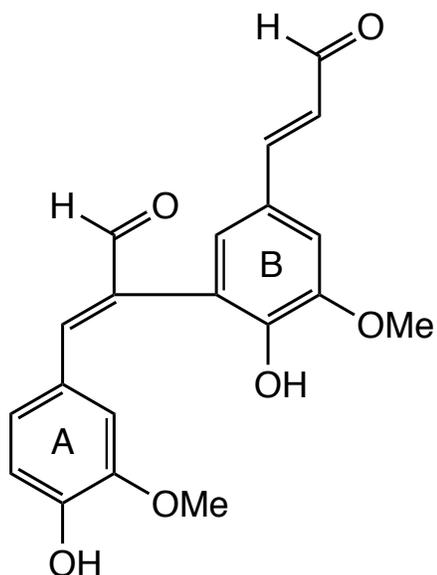
Notes:

JRHKC25

Atom	CDCl ₃	Acetone	DMSO	
γ Ac Me		20.70		
α Ac Me		21.01		
β		35.78		
OMe		56.16		
γ		61.20		
B α		71.26		
α		73.17		
A2		111.49		
A5		114.64		
A6		119.58		
B3		128.28		
B5		128.28		
B2		129.09		
B6		129.09		
B4		128.45		
A1		134.19		
B1		138.33		
A4		149.02		
A3		150.68		
α Ac C=O		170.17		
γ Ac C=O		170.80		

Compound Number 3030

¹³C



beta-[5-(2-formylvinyl)-2-hydroxy-3-methoxyphenyl]
coniferyl aldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
A3 OMe	3.47	s	
B3 OMe	3.96	s	
B β	6.66	dd	15.8, 7.8
A5	6.77	d	8.3
A2	6.87	d	2.0
A6	6.98	dd	8.3, 2.0
B6	7.01	d	2.0
B2	7.44	d	2.0
A α	7.57	s	
B α	7.57	d	15.8
OH	8.43	s	
B γ	9.61	d	7.8
A γ	9.69	s	

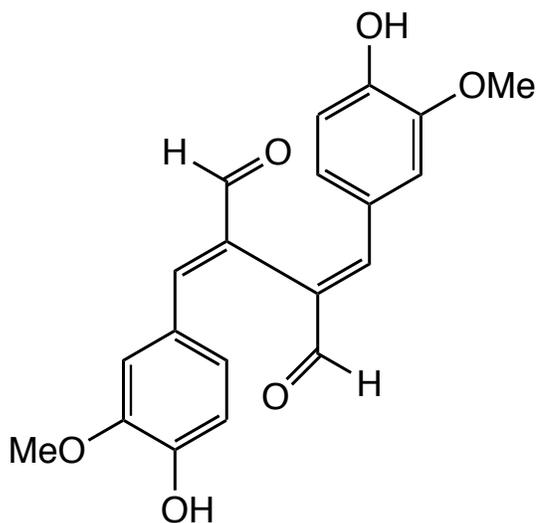
Notes:

JRHKB117 (Higuchi)
13mg

Atom	CDCl ₃	Acetone	DMSO	
A3 OMe		55.55		
B3 OMe		56.63		
B2		110.61		
A2		113.56		
A5		115.95		
A β		123.15		
B6		126.36		
A6		126.92		
B β		127.29		
A1		127.38		
B1		127.44		
B5		136.33		
A3		148.13		
B4		148.59		
A3		149.30		
B4		150.16		
A α		151.36		
B α		153.79		
A γ		193.43		
B γ		193.96		

Compound Number 3032

¹³C



2,3-diformyl-1,4-bis(4-hydroxy-3-methoxyphenyl)
buta-1,3-diene

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.70	s	
5	6.82	d	8.31
6	7.21	dd	8.31, 2.15
2	7.28	d	2.15
α	7.78	s	
OH	8.29	s	
γ	9.66	s	

Notes:

JRHKb121 11mg

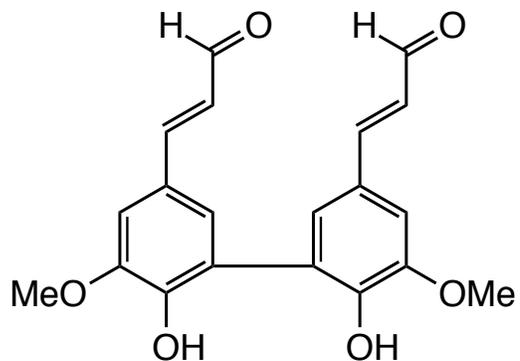
Higuchi

As this dimer contains a plane of symmetry the CSs are reported for one unit.

Atom	CDCl ₃	Acetone	DMSO	
OMe		56.11		
2		113.71		
5		116.24		
6		126.25		
1		127.47		
β		134.42		
3		148.41		
4		150.51		
α		152.83		
γ		192.74		

Compound Number 3033

¹³C



5,5'-bis-coniferyl aldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.95	s	
β	6.68	dd	15.84, 7.84
6	7.27	s	2.0
2	7.36	s	2.0
α	7.59	s	15.84
γ	9.65	s	7.84

Notes:

JRHKb123 37mg

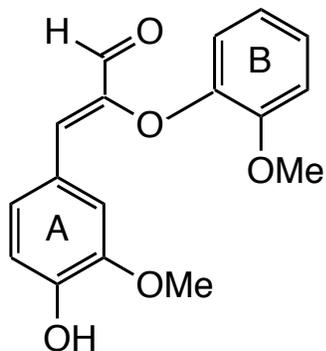
Higuchi

As this dimer contains a plane of symmetry the CSs are reported for one unit.

Atom	CDCl ₃	Acetone	DMSO	
OMe		56.52		
2		110.00		
1		126.05		
5		126.13		
β		126.81		
6		127.10		
3		149.42		
4		149.63		
α		154.40		
γ		193.92		

Compound Number 3034

¹³C



Atom	CDCl ₃	Acetone	DMSO	
A3 OMe		55.84		
B3 OMe		56.17		
B2		113.51		
A2		113.82		
B5		114.85		
A5		116.07		
B6		121.34		
B1		123.35		
A1		125.49		
A6		126.57		
α		137.82		
B4		146.22		
β		148.09		
A3		148.30		
B3		149.89		
A4		150.20		
γ		187.90		

¹H (acetone)

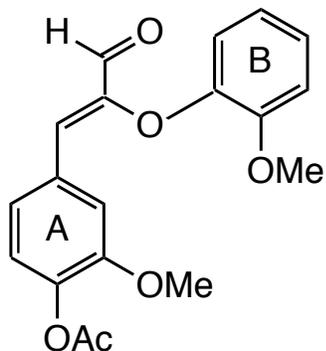
Atom	H Shifts	Mult	J
A4 OMe	3.73	s	
B3 OMe	3.88	s	
B5	6.72	dd	8.0, 2.0
B6	6.76	ddd	8.2, 7.1, 2.0
A5	6.87	d	8.3
B1	6.95	ddd	8.2, 7.1, 2.0
B2	7.05	dd	8.2, 2.0
α	7.26	s	
A6	7.33	dd	8.3, 2.0
A2	7.59	d	2.0
γ	9.50	s	

Notes:

HKc63.4

Compound Number 3035

¹³C



Atom	CDCl ₃	Acetone	DMSO	
Ac Me		20.41		
A3 OMe B3 OMe		55.97		
B2		56.20		
A2		113.62		
B5		114.66		
B6		115.56		
B1		121.39		
B1		123.83		
A5		124.06		
A6		124.53		
A1		132.33		
α		135.40		
A4		142.47		
B4		146.01		
β		149.94		
B3		150.01		
A3		152.27		
Ac C=O		168.73		
γ		188.21		

¹H (acetone)

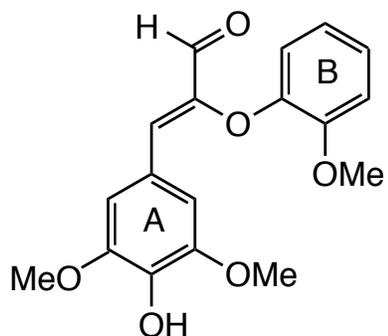
Atom	H Shifts	Mult	J
Ac Me	2.23	s	
A3 OMe	3.73	s	
B3 OMe	3.87	s	
B5	6.79	m	
B6	6.79	m	
B1	6.97	m	
B2	7.06	bd	7.8
A5	7.11	d	8.3
α	7.30	s	
A6	7.45	dd	8.3, 2.0
A2	7.68	d	2.0
γ	9.55	s	

Notes:

HKc 63.4Ac

Compound Number 3036

¹³C



Atom	CDCl ₃	Acetone	DMSO	
B3 OMe		56.11		
A3 OMe		56.31		
A5 OMe		56.31		
A2		109.27		
A6		109.27		
B2		113.39		
B5		114.53		
B6		121.32		
B1		123.27		
A1		124.05		
α		138.23		
A4		139.74		
B4		146.16		
β		148.15		
A3		148.57		
A5		148.57		
B3		149.76		
γ		187.91		

¹H (acetone)

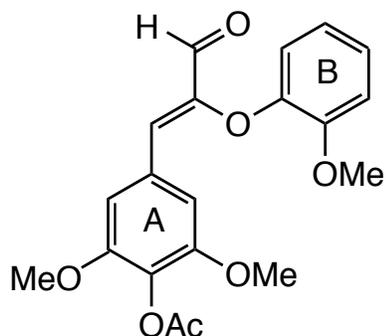
Atom	H Shifts	Mult	J
A3,5 OMe	3.74	s	
B3 OMe	3.88	s	
B5	6.70	dd	8.2, 1.7
B6	6.76	ddd	8.2, 7.2, 1.5
B1	6.94	ddd	8.2, 7.2, 1.7
B2	7.05	dd	8.2, 1.5
A2,6	7.24	s	
α	7.26	s	
γ	9.51	s	

Notes:

HKd 59.1

Compound Number 3037

¹³C



Atom	CDCl ₃	Acetone	DMSO	
Ac Me		20.17		
B3 OMe		56.14		
A3 OMe		56.29		
A5 OMe		56.29		
A2		108.10		
A6		108.10		
B2		113.48		
B5		115.07		
B6		121.37		
B1		123.68		
A1		131.35		
A4		131.53		
α		136.12		
B4		145.97		
b		149.81		
B3		149.84		
A3		153.20		
A5		153.20		
Ac C=O		168.30		
γ		188.26		

¹H (acetone)

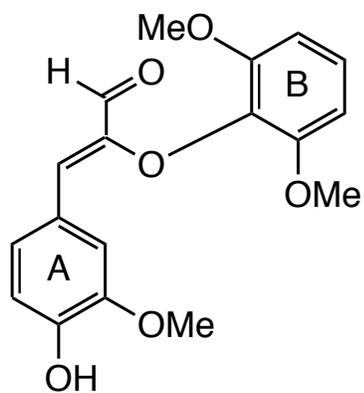
Atom	H Shifts	Mult	J
Ac Me	2.21	s	
A3,5 OMe	3.73	s	
B3 OMe	3.88	s	
B5	6.76	dd	8.2, 2.4
B6	6.77	ddd	8.2, 6.5, 1.4
B1	6.97	ddd	8.2, 6.5, 2.4
B2	7.06	dd	8.2, 1.4
A2,6	7.29	s	
α	7.31	s	
γ	9.57	s	

Notes:

HKd 59.1 Ac

Compound Number 3038

¹³C



Atom	CDCl ₃	Acetone	DMSO	
A3 OMe		56.07		
B3 OMe		56.53		
B5 OMe		56.53		
B2		106.40		
B6		106.40		
A2		114.55		
A5		115.95		
B1		124.17		
A6		125.77		
A1		126.72		
α		129.06		
B4		135.22		
A3		148.04		
A4		149.05		
β		150.82		
B3		152.47		
B5		152.47		
γ		186.64		

¹H (acetone)

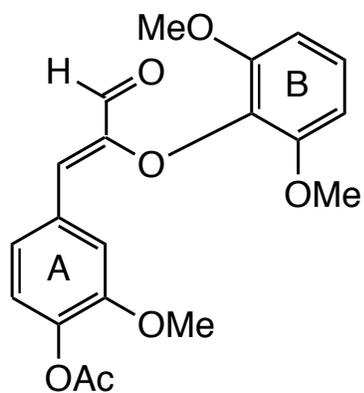
Atom	H Shifts	Mult	J
B3,5 OMe	3.74	s	
A3 OMe	3.81	s	
α	6.64	s	
B2,6	6.65	d	8.2
A5	6.88	d	8.3
B1	6.99	dd	8.2, 7.6
A6	7.45	dd	8.3, 2.0
A2	7.60	d	2.0
γ	9.25	s	

Notes:

HKd 23.3

Compound Number 3039

¹³C



Atom	CDCl ₃	Acetone	DMSO	
Ac Me		20.45		
A3 OMe		56.09		
B3 OMe		56.52		
B5 OMe		56.52		
B2		106.29		
B6		106.29		
A2		115.15		
A5		123.78		
A6		124.04		
B1		124.53		
α		126.73		
A1		133.43		
B4		134.81		
A4		141.52		
A3		152.04		
β		152.11		
B3		152.41		
B5		152.41		
Ac C=O		168.85		
γ		187.00		

¹H (acetone)

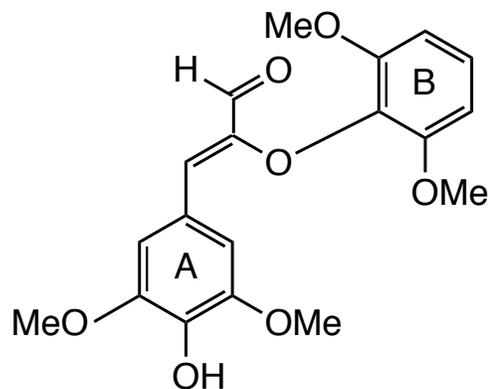
Atom	H Shifts	Mult	J
Ac Me	2.24	s	
B3,5 OMe	3.75	s	
A3 OMe	3.80	s	
B2,6	6.67	d	8.3
α	6.71	s	
B1	7.01	dd	8.3, 7.9
A5	7.11	d	8.2
A6	7.54	dd	8.2, 1.9
A2	7.68	d	1.9
γ	9.32	s	

Notes:

HKd 23.3 Ac

Compound Number 3040

¹³C



Atom	CDCl ₃	Acetone	DMSO	
A3 OMe		56.51		
A5 OMe		56.51		
B3 OMe		56.59		
B5 OMe		56.59		
B2		106.50		
B6		106.50		
A2		109.41		
A6		109.41		
B1		124.18		
A1		125.37		
α		129.08		
B4		135.21		
A4		138.72		
A3		148.44		
A5		148.44		
β		150.91		
B3		152.46		
B5		152.46		
γ		186.60		

¹H (acetone)

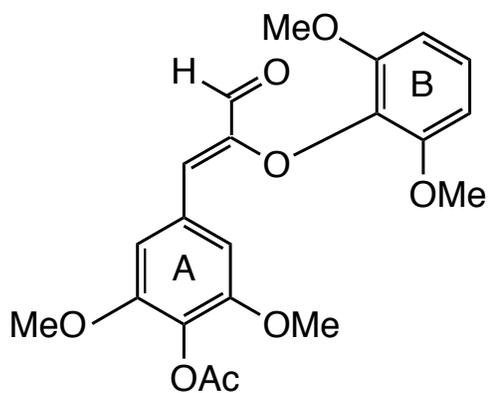
Atom	H Shifts	Mult	J
B3,5 OMe	3.75	s	
A3,5 OMe	3.80	s	
α	6.63	s	
B2,6	6.66	d	8.3
B1	6.99	t	8.3
A2,6	7.31	s	
γ	9.25	s	

Notes:

HKd 63.1

Compound Number 3041

¹³C



Atom	CDCl ₃	Acetone	DMSO	
Ac Me		20.22		
B3 OMe		56.35		
B5 OMe		56.35		
A3 OMe		56.56		
A5 OMe		56.56		
B2		106.37		
B6		106.37		
A2		108.07		
A6		108.07		
B1		124.51		
α		126.81		
A4		130.47		
A1		132.69		
B4		134.76		
β		152.09		
B3		152.35		
B5		152.35		
A3		153.01		
A5		153.01		
Ac C=O		168.43		
γ		186.95		

¹H (acetone)

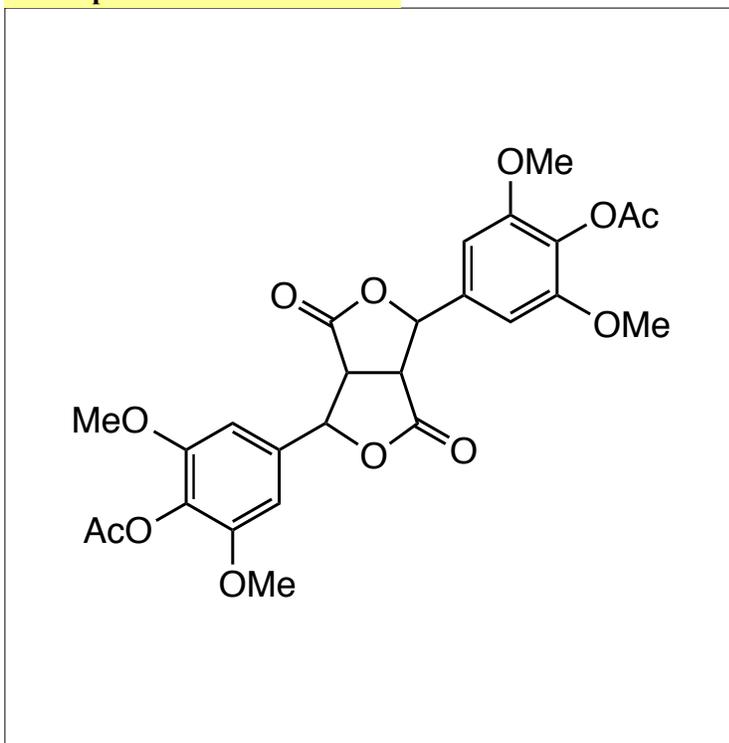
Atom	H Shifts	Mult	J
Ac Me	2.23	s	
A3,5 OMe	3.77	s	
B3,5 OMe	3.78	s	
B2,6	6.67	d	8.3
α	6.69	s	
B1	7.01	dd	8.6, 8.2
A2,6	7.34	s	
γ	9.32	s	

Notes:

HKd 63.1 Ac

Compound Number 3042

¹³C



Atom	CDCl ₃	Acetone	DMSO	
Ac Me		20.18		
β		48.76		
3 OMe		55.56		
5 OMe		55.56		
α		82.61		
2		103.05		
6		103.05		
4		129.76		
1		137.84		
3		153.54		
5		153.54		
Ac C=O		168.50		
γ		175.77		

¹H (acetone)

Atom	H Shifts	Mult	J
Ac Me	2.23	s	
OMe	3.81	s	
β	4.20	s	
α	5.86	s	
2,6	6.81	s	

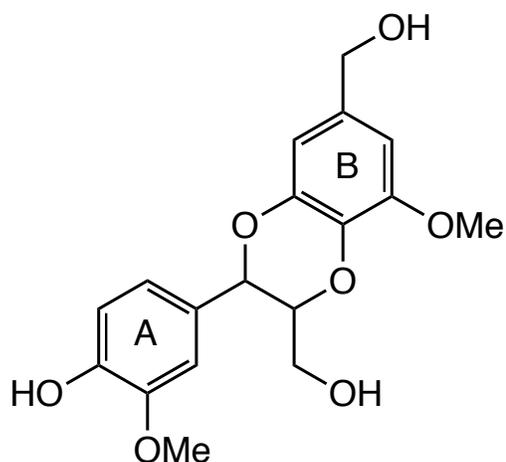
Notes:

FLj 144

As this dimer contains a plane of symmetry the CS's are reported for one unit.

Compound Number 3043

¹³C



Atom	CDCl ₃	Acetone	DMSO	
B3 OMe		56.26		
A3 OMe		56.32		
γ		61.83		
Bα		64.61		
α		76.97		
β		79.30		
B2		104.10		
B6		108.55		
A2		111.90		
A5		115.70		
A6		121.49		
A1		129.50		
B4		133.24		
B1		135.46		
B5		145.19		
A4		147.92		
A3		148.44		
B3		149.84		

¹H (acetone)

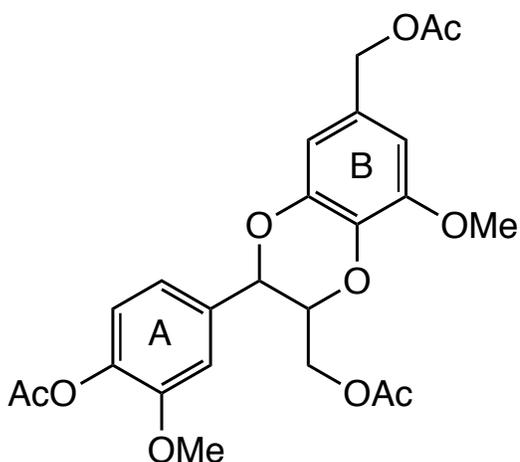
Atom	H Shifts	Mult	J
γ1	3.47	m	
γ2	3.76	m	
B3 OMe	3.81	s	
A3 OMe	3.85	s	
β	3.99	ddd	7.9, 3.9, 2.5
Bα	4.49	m	
α	4.95	d	7.9
B6	6.53	ddd	1.8, 0.75, 0.75
B2	6.60	d	1.8
A5	6.86	d	8.1
A6	6.94	ddd	8.1, 1.9, 0.5
A2	7.09	d	1.9
A4 OH	7.80	s	

Notes:

F. Lu
flm11

Compound Number 3044

¹³C



Atom	CDCl ₃	Acetone	DMSO
A4 Ac Me		20.45	
γ Ac Me		20.49	
Bα Ac Me		20.81	
A3 OMe		56.36	
B3 OMe		56.44	
γ		63.36	
Bα		66.36	
β		75.97	
α		77.01	
B2		106.08	
B6		110.41	
A2		112.77	
A6		120.75	
A5		123.88	
B1		129.92	
B4		133.65	
A1		136.00	
A4		141.45	
B5		144.92	
B3		149.98	
A3		152.57	
A4 Ac C=O		168.86	
γ Ac C=O		170.62	
Bα Ac C=O		170.83	

¹H (acetone)

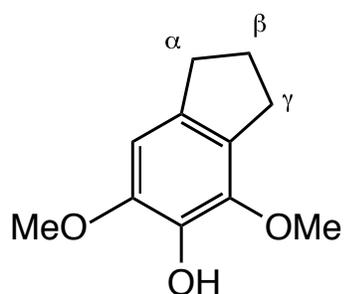
Atom	H Shifts	Mult	J
Bα Ac Me	1.99	s	
γ Ac Me	2.03	s	
A4 Ac Me	2.24	s	
B3 OMe	3.83	s	
A3 OMe	3.84	s	
γ1	4.02	dd	12.4, 4.3
γ2	4.28	dd	12.4, 3.4
β	4.40	ddd	7.7, 4.3, 3.4
Bα	4.98	s	
α	5.04	d	7.7
B6	6.61	d	1.9
B2	6.66	d	1.9
A6	7.08	dd	8.1, 1.7
A5	7.11	d	8.1
A2	7.26	d	1.7

Notes:

F. Lu
flm11Ac

Compound Number 3045

¹³C



Atom	CDCl ₃	Acetone	DMSO	
β		26.11		
γ		30.33		
α		33.51		
5 OMe		56.73		
3 OMe		59.83		
6		104.24		
2		128.60		
1		134.89		
4		138.17		
3		144.71		
5		148.47		

¹H (acetone)

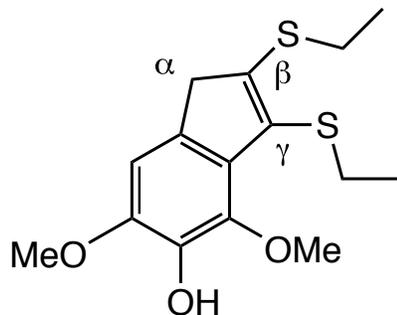
Atom	H Shifts	Mult	J
β	1.98	quint	7.2
α	2.78	br t	7.2
γ	2.83	br t	7.2
5 OMe	3.77	s	
3 OMe	3.79	s	
6	6.58	s	
<u>Benzene</u>			
β	1.86	quin	7.37
α	2.71	td	7.37, 0.66
γ	2.86	t	7.37
5 OMe	3.28	s	
3 OMe	3.75	s	
6	6.32	s	

Notes:

HKE-11
Raney nickel reaction of hke5.5

Compound Number 3046

¹³C



Atom	CDCl ₃	Acetone	DMSO	
γ S-CH3		15.11		
β S-CH3		15.41		
β S-CH2		26.33		
γ S-CH2		29.12		
α		41.68		
5 OMe		56.91		
3 OMe		62.30		
6		105.00		
γ		126.93		
2		131.50		
1		133.78		
3		104.04		
4		141.58		
5		147.06		
β		148.43		

¹H (acetone)

Atom	H Shifts	Mult	J
γ S-CH3	1.15	t	7.37
β S-CH3	1.30	t	7.37
γ S-CH2	2.89	q	7.37
β S-CH2	2.95	q	7.37
α	3.58	d	0.92
5 OMe	3.82	s	
3 OMe	3.85	s	
6	6.87	br t	0.92

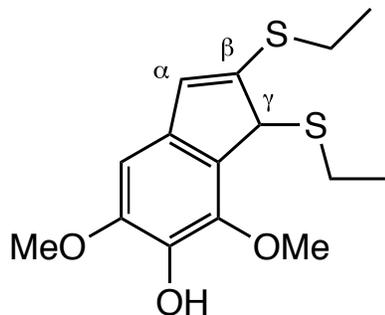
Notes:

hke 5.4.1

Thioacidolysis product of β-O-4 (S-G) aldehyde dimer

Compound Number 3047

¹³C



Atom	CDCl ₃	Acetone	DMSO	
γ S-CH3		14.39		
β S-CH3		14.45		
γ S-CH2		22.23		
β S-CH2		26.80		
γ		52.56		
5 OMe		56.71		
3 OMe		60.09		
6		100.11		
α		124.89		
2		128.89		
1		135.82		
4		137.70		
β		145.14		
3		145.23		
5		149.46		

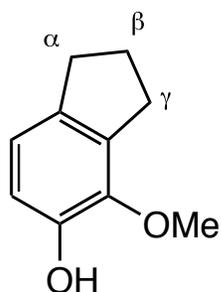
¹H (acetone)

Atom	H Shifts	Mult	J
γ S-CH3	1.00	t	7.5
β S-CH3	1.33	t	7.37
γ S-CH2	2.22, 2.04	dq, dq	12.1, 7.5
β S-CH2	2.94	q	7.37
5 OMe	3.82	s	
3 OMe	3.96	s	
γ	4.39	d	1.18
α	6.38	d	1.18
6	6.63	s	

Notes:

hke 5.5

Thioacidolysis product of γ-O-4 (S-G) aldehyde dimer

Compound Number 3048¹³C**6-methoxy-indan-5-ol**¹H (acetone)

Atom	H Shifts	Mult	J
β	1.99	quint	7.63
α	2.74	t	7.63
γ	2.76	t	7.63
OMe	3.79	s	
3	6.66	s	
6	6.78	s	

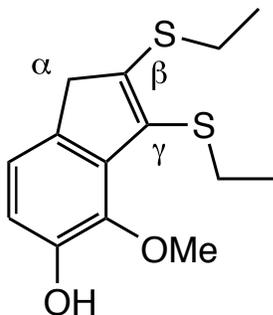
Notes:

hke87
Desulfurized (Raney-nickle Rxn)
thioacidolysis product of β-O-4 (G-S) aldehyde model compound

Atom	CDCl ₃	Acetone	DMSO	
β		26.45		
α		33.13		
γ		33.25		
OMe		56.48		
6		108.74		
3		111.56		
1		135.00		
2		136.73		
4		146.11		
5		147.01		

Compound Number 3049

¹³C



2,3-bis-ethylsulfanyl-6-methoxy-1H-inden-5-ol

¹H (acetone)

Atom	H Shifts	Mult	J
γ S CH3	1.67	t	7.37
β S CH3	1.31	t	7.37
γ S CH2	2.81	q	7.37
β S CH2	2.99	q	7.37
α	3.58	d	0.79
OMe	3.83	s	
3	6.87	s	
6	7.06	br t	0.79

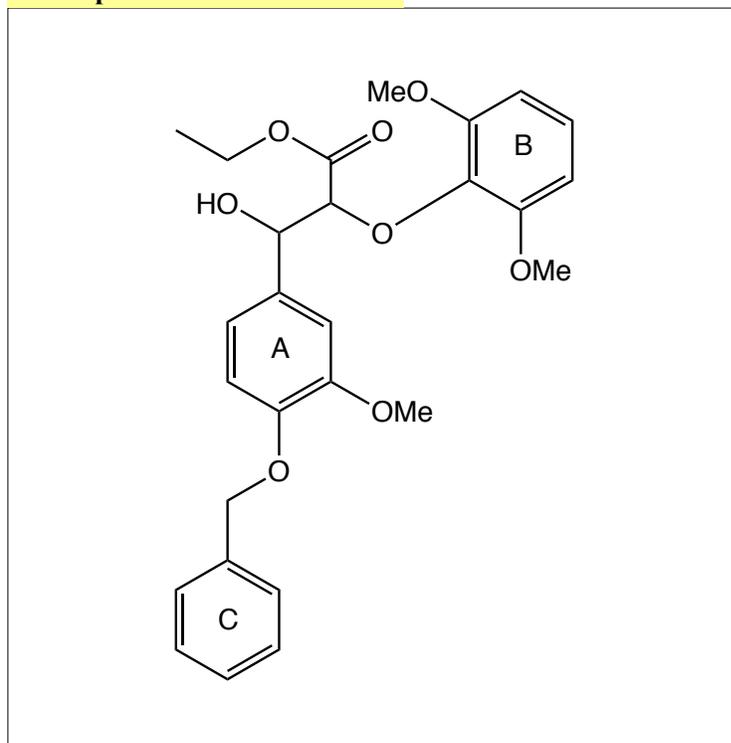
Notes:

hke83.3
Thioacidolysis product of β-O-4 (G-S) aldehyde dimer model.

Atom	CDCl ₃	Acetone	DMSO	
β S CH3		15.47		
γ S CH3		15.74		
β S CH2		23.65		
γ S CH2		27.70		
α		41.57		
OMe		56.83		
4		106.37		
6		109.01		
γ		128.64		
1		133.31		
2		140.13		
5		146.09		
4		146.91		
β		148.16		

Compound Number 3050

¹³C



erythro?

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.09	t	7.10
B OMe	3.75	s	
A OMe	3.82	s	
CH2	4.04	m	
β	4.68	d	5.39
α	4.96	d	5.39
C α	5.09	s	
B 2,6	6.64	d	8.16
A6	6.92	dd	8.29, 1.71
A5	6.96	d	8.29
B1	6.99	t	8.16
A2	7.17	d	1.71
C 3,4,5	7.27-7.40	m	
C 2,6	7.37	br d	7.37

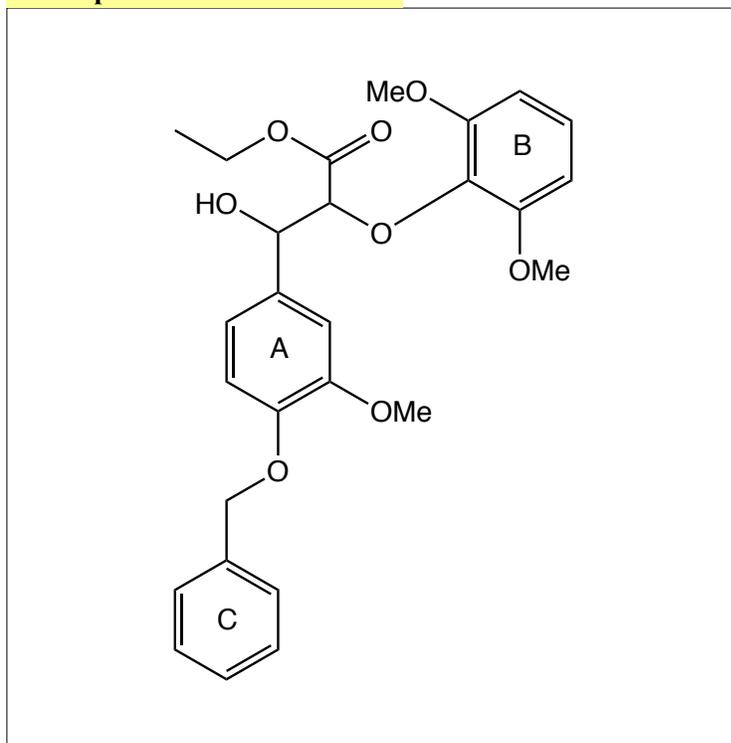
Notes:

hkd79.2C
possibly erythro

Atom	CDCl ₃	Acetone	DMSO	
CH3		14.41		
A OMe		56.13		
B OMe		56.44		
B OMe		56.44		
CH2		60.69		
C α		71.37		
α		74.31		
β		86.14		
B2		106.37		
B6		106.37		
A2		112.31		
A5		114.41		
A6		120.34		
B1		124.73		
C2		128.31		
C6		128.31		
C4		128.41		
C3		129.09		
C5		129.09		
A1		134.57		
B4		137.19		
C1		138.62		
A4		148.71		
A3		150.33		
B3		153.64		
B5		153.64		
γ		169.44		

Compound Number 3051

¹³C



threo?

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	0.99	t	7.23
A OMe	3.79	s	
B OMe	3.82	s	
CH2	3.95	m	
β	4.02	d	8.42
α	4.84	d	8.42
C α	5.09	s	
B 2,6	6.71	d	8.5
A6	6.81	dd	8.29, 1.97
A5	6.94	d	8.29
A2	6.99	d	1.97
B1	7.05	t	8.55
C 3,4,5	7.29-7.39	m	
C 2,6	7.46	br d	7.37

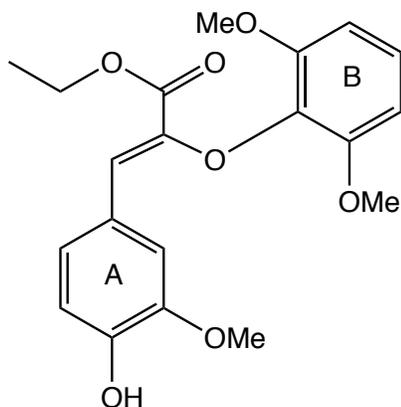
Notes:

hkd79.2Ex
possibly threo

Atom	CDCl ₃	Acetone	DMSO	
CH3		14.30		
A OMe		56.15		
B OMe		56.42		
B OMe		56.42		
CH2		60.68		
C α		71.38		
α		76.04		
β		90.35		
B2		106.26		
B6		106.26		
A2		112.09		
A5		114.61		
A6		120.46		
B1		125.18		
C2		128.33		
C6		128.33		
C4		128.44		
C3		129.11		
C5		129.11		
A1		132.51		
B4		138.07		
C1		138.56		
A4		149.17		
A3		150.62		
B3		153.39		
B5		153.39		
γ		169.49		

Compound Number 3052

¹³C



Atom	CDCl ₃	Acetone	DMSO	
CH3		14.35		
A OMe		56.09		
B OMe		56.79		
B OMe		56.79		
CH2		61.05		
B2		107.08		
B6		107.08		
A2		114.38		
A5		115.74		
α		119.07		
B1		123.37		
A6		125.09		
A1		126.76		
B4		136.27		
β		143.08		
A3		148.01		
A4		148.10		
B3		152.01		
B5		152.01		
γ		163.74		

¹H (acetone)

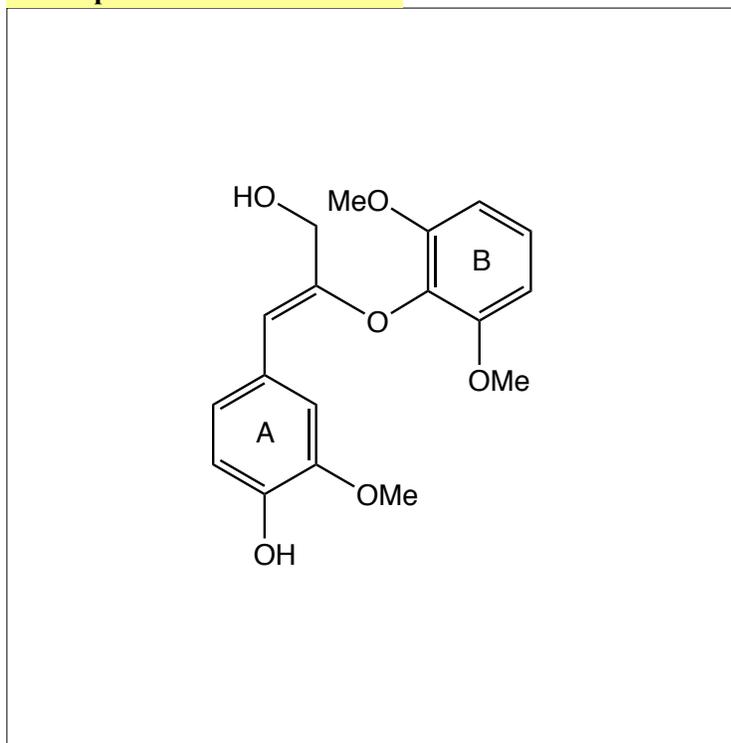
Atom	H Shifts	Mult	J
CH3	1.11	t	7.10
B OMe	3.74	s	
A OMe	3.76	s	
CH2	4.06	q	7.10
B 2,6	6.67	d	8.68
α	6.79	s	
A5	6.82	d	8.29
B1	6.94	t	8.68
A6	7.29	dd	8.29, 1.84
A2	7.52	d	1.84

Notes:

hkd 17.2.1.3

Compound Number 3053

¹³C



Atom	CDCl ₃	Acetone	DMSO	
1H data only				

¹H (acetone)

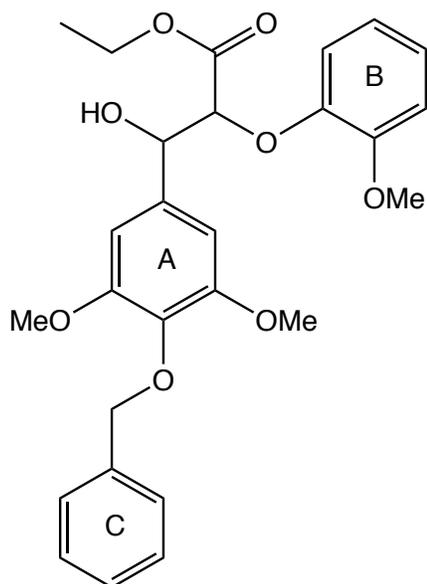
Atom	H Shifts	Mult	J
A OMe	3.76	s	
B OMe	3.77	s	
γ	3.97	br s	
α	5.75	br s	
B 2,6	6.68	d	8.42
A 5	6.79	d	8.29
B 1	7.07	t	8.42
A 6	7.18	dd	8.29, 1.84
A 2	7.46	d	1.84

Notes:

hkd87

Compound Number 3054

¹³C



erythro?

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.08	t	7.1
B OMe	3.80	s	
A OMe	3.82	s	
CH2	4.04	m	7.1
β	4.72	d	5.52
Cα	4.93	s	
α	5.08	d	5.52
A 2,6	6.83	s	
B 5,6	6.77-6.85	m	
B 1,2	6.90-7.00	m	
C 3,4,5	7.24-7.38	m	
C 2,6	7.50	br d	7.37

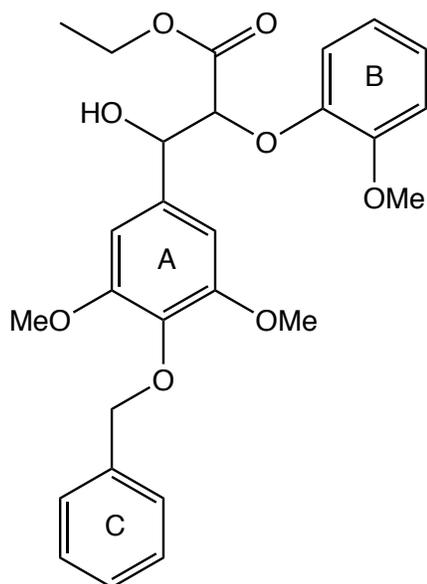
Notes:

hkd35.2.1.2
possibly erythro (see 3055)
separated by cyclohexane:EtOAc:Acetic Acid (100:50:1)

Atom	CDCl ₃	Acetone	DMSO	
CH3		14.35		
B OMe		56.36		
A OMe		56.44		
A OMe		56.44		
CH2		61.29		
C α		75.06		
α		75.59		
β		84.38		
A2		105.44		
A6		105.44		
B2		113.87		
B5		117.25		
B6		121.61		
B1		123.44		
C4		128.31		
C3		128.76		
C5		128.76		
C2		128.82		
C6		128.82		
A1		136.70		
A4		137.61		
C1		139.47		
B4		148.70		
B3		151.03		
A3		154.17		
A5		154.17		
γ		169.85		

Compound Number 3055

¹³C



threo?

¹H (acetone)

Atom	H Shifts	Mult	J
CH3	1.19	t	7.10
B OMe	3.77	s	
A OMe	3.83	s	
CH2	4.16	q	7.10
β	4.70	d	6.71
C α	4.94	s	
α	5.07	d	6.71
B 5,6	6.79	m	
A 2,6	6.90	s	
B 1,2	6.90-6.97	m	
C 3,4,5	7.24-7.37	m	
C 2,6	7.5	br d	7.37

Notes:

hkd35.2.1.1

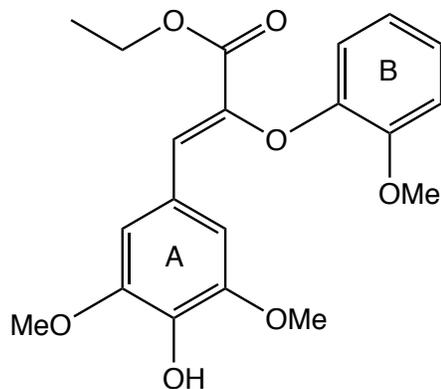
Possible threo (see 3054)

separated by cyclohexane:EtOAc:Acetic Acid (100:50:1)

Atom	CDCl ₃	Acetone	DMSO	
CH3		14.16		
B OMe		56.28		
A OMe		56.40		
A OMe		56.40		
CH2		61.28		
α		74.84		
C α		75.04		
β		83.40		
A2		105.51		
A6		105.51		
B2		113.77		
B5		116.96		
B6		121.52		
B1		123.43		
C4		128.28		
C3		128.73		
C5		128.73		
C2		128.80		
C6		128.80		
A4		137.51		
A1		137.79		
C1		139.50		
B4		148.35		
B3		151.08		
A3		154.04		
A5		154.04		
γ		170.25		

Compound Number 3056

¹³C



Atom	CDCl ₃	Acetone	DMSO	
CH3		14.19		
B OMe		56.30		
A OMe		56.37		
A OMe		56.37		
CH2		61.58		
A2		109.09		
A6		109.09		
B2		113.72		
B5		114.15		
B6		121.49		
B1		123.24		
A1		124.12		
α		127.99		
β		138.78		
A4		138.94		
B4		146.94		
A3		148.50		
A5		148.50		
B3		149.87		
γ		164.06		

¹H (acetone)

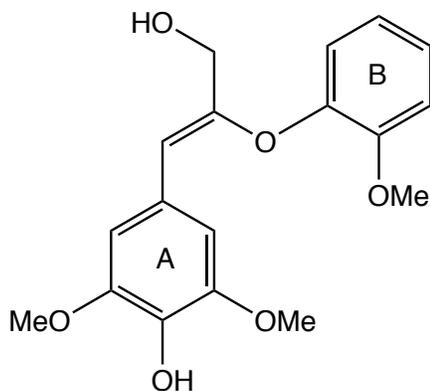
Atom	H Shifts	Mult	J
CH3	1.21	t	7.10
A OMe	3.73	s	
B OMe	3.90	s	
CH2	4.20	q	7.10
B5	6.72	dd	8.02, 1.58
B6	6.79	ddd	8.02, 7.37, 1.58
B1	6.94	ddd	8.02, 7.37, 1.58
B2	7.06	dd	8.02, 1.58
A 2,6	7.16	s	
α	7.33	s	

Notes:

hkd91.1.2

Compound Number 3057

¹³C



Atom	CDCl ₃	Acetone	DMSO	
1H data only				

¹H (acetone)

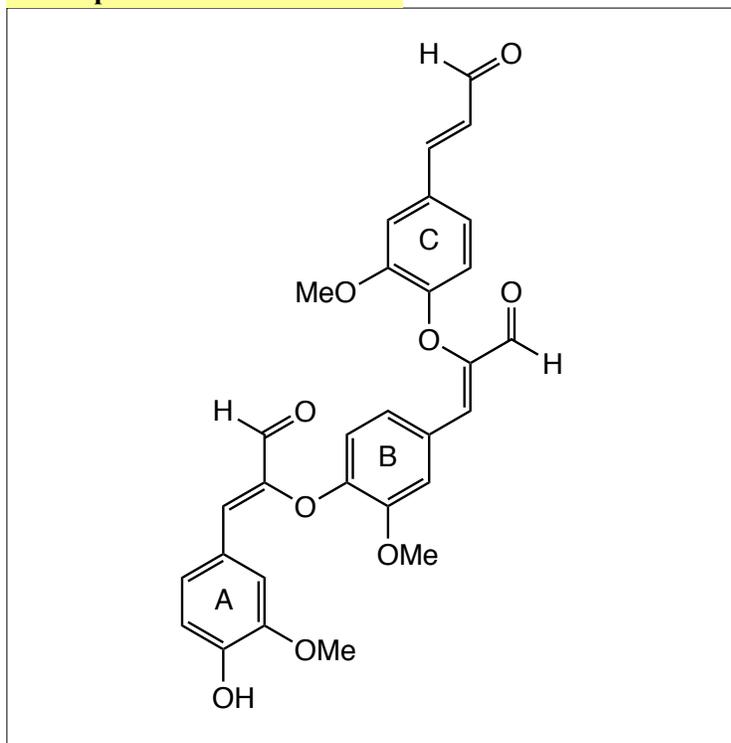
Atom	H Shifts	Mult	J
A OMe	3.67	s	
B OMe	3.90	s	
γ	4.15	br s	
α	6.21	br s	
A 2,6	6.90	s	
B 1,2,5,6	6.75-7.05	m	
A4 OH	8.00	s	

Notes:

hkd57.4
1H Data only

Compound Number 3058

¹³C



CAld-b-CAld-b-CAld

¹H (acetone)

Atom	H Shifts	Mult	J
A OMe	3.69	s	
B OMe	3.83	s	
C OMe	3.98	s	
C β	6.70	dd	15.92, 7.65
B5	6.79	d	8.29
C5	6.82	d	8.29
A5	6.85	d	8.29
C6	7.15	dd	8.29, 1.97
B6	7.28	dd	8.29, 1.97
A6	7.30	dd	8.29, 1.97
A α	7.30	s	
B α	7.33	s	
C2	7.48	d	1.97
A2	7.52	d	1.97
C α	7.58	d	15.92
B2	7.67	d	1.97
A OH	8.37	bs	
A γ	9.48	s	
B γ	9.53	s	
C γ	9.65	d	7.65

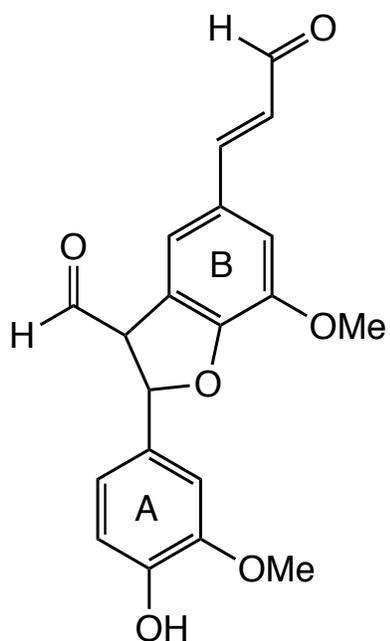
Notes:

hkc43.4.1

Atom	CDCl ₃	Acetone	DMSO	
A OMe		55.93		
B OMe		56.14		
C OMe		56.50		
C2		112.55		
A2		113.95		
B2		114.87		
B5		115.18		
C5		115.42		
A5		116.26		
C6		123.59		
A1		125.21		
B6		125.59		
A6		126.78		
B1		128.03		
Cβ		128.38		
C1		130.35		
Bα		137.15		
Aα		138.31		
Aβ		147.52		
A3		148.46		
B4		148.47		
Bβ		148.51		
C4		148.72		
B3		149.91		
C3		150.35		
A4		150.58		
Cα		153.13		
Aγ		187.43		
Bγ		187.65		
Cγ		193.91		

Compound Number 3059

¹³C



CAld-c-CAld

Atom	CDCl ₃	Acetone	DMSO	
A OMe		56.31		
B OMe		56.54		
β		62.91		
α		85.24		
A2		110.66		
B2		114.27		
A5		115.93		
B6		119.49		
A6		119.81		
B5		125.79		
Bβ		127.69		
B1		129.66		
A1		132.18		
B3		146.01		
A3		147.91		
A4		148.57		
B4		151.77		
Bα		153.45		
Bγ		193.83		
γ		197.57		

¹H (acetone)

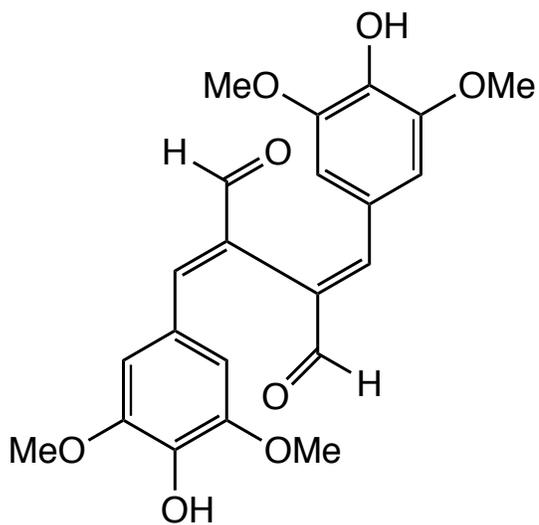
Atom	H Shifts	Mult	J
A OMe	3.82	s	
B OMe	3.92	s	
β	4.50	d	6.5
α	6.20	d	6.5
B β	6.70	dd	15.78, 7.76
A5	6.84	d	8.16
A6	6.90	dd	8.16, 1.84
A2	7.06	d	1.84
B2	7.38	s	
B6	7.43	s	
B α	7.61	d	15.78
A OH	8.29	s	
B γ	9.64	d	7.76
A γ	9.94	s	

Notes:

hkf69.2.2
Fl173.12

Compound Number 3060

¹³C



Atom	CDCl ₃	Acetone	DMSO	
OMe		56.54		
2		109.07		
6		109.07		
1		126.05		
β		134.78		
4		140.10		
3		148.71		
5		148.71		
α		152.98		
γ		192.70		

¹H (acetone)

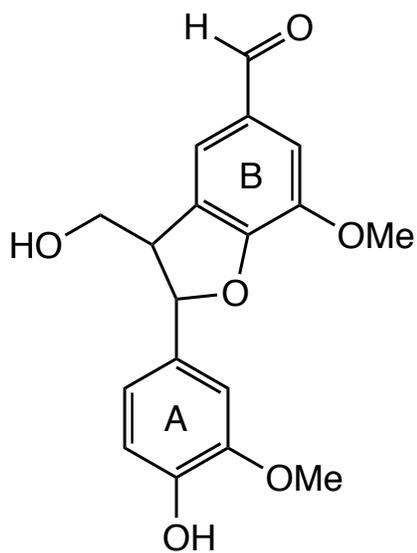
Atom	H Shifts	Mult	J
OMe	3.72	s	
2,6	7.02	s	
α	7.79	s	
OH	7.94	bs	
γ	9.67	s	

Notes:

hkf7-1
This compound has a plane of symmetry and so the signals are reported for only one half.

Compound Number 3061

¹³C



G-c-Van

Atom	CDCl ₃	Acetone	DMSO	
β		53.84		
A OMe		56.30		
B OMe		56.37		
γ		64.22		
α		89.87		
A2		110.65		
B2		113.44		
A5		115.79		
A6		119.82		
B6		121.43		
B5		131.19		
B1		132.40		
A1		133.42		
B3		145.81		
A4		147.67		
A3		148.49		
B4		154.87		
B α		190.90		

¹H (acetone)

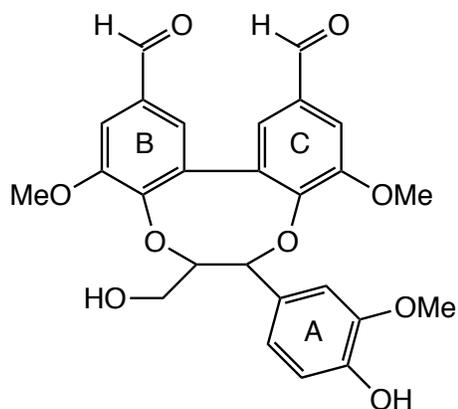
Atom	H Shifts	Mult	J
β	3.67	bq	
A OMe	3.82	s	
B OMe	3.92	s	
γ	3.92	m	
α	5.69	d	6.84
A5	6.81	d	8.16
A6	6.88	dd	8.16, 1.97
A2	7.05	d	1.97
B2	7.42	d	1.45
B6	7.53	dd	1.45, 0.92
A OH	7.65	bs	
B α	9.82	s	

Notes:

hkf75.322

Compound Number 3062

¹³C



Dibenzodioxicin

Atom	CDCl ₃	Acetone	DMSO	
C OMe		56.32		
A OMe		56.37		
B OMe		56.62		
γ		62.29		
α		85.11		
β		87.48		
B2		111.71		
C2		111.88		
A2		112.08		
A5		115.64		
A6		121.57		
C6		125.15		
B6		125.32		
A1		130.25		
B5		133.27		
C5		133.72		
B1		134.42		
C1		134.56		
A4		147.73		
A3		148.23		
B4		152.46		
C4		152.81		
B3		154.23		
C3		154.39		
Cα		191.66		
Bα		191.71		

¹H (acetone)

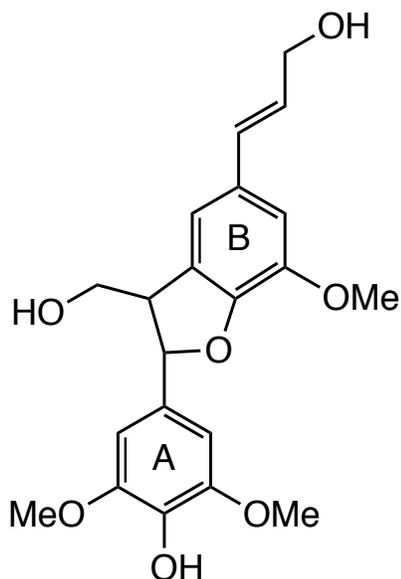
Atom	H Shifts	Mult	J
γ1	3.48	m	
γ2	3.95	m	
A OMe	3.82	s	
C OMe	3.91	s	
B OMe	4.03	s	
β	4.18	m	
α	5.05	d	10.14
A5	6.84	d	8.16
A6	6.93	dd	8.16, 1.97
A2	7.05	d	1.97
C2	7.56	d	1.84
B2	7.65	d	1.84
C6	7.70	d	1.84
B6	7.74	d	1.84
C α	10.02	s	
B α	10.06	s	

Notes:

hkf83.2.1 (6 mg)

Compound Number 3063

¹³C



Simulanol, S-(8-5)-G

4-[3-hydroxy-5-(3-hydroxy-propenyl)-7-methoxy-2,3-dihydrobenzofuran-2-yl]-2,6-dimethoxy-phenol

¹H (acetone)

Atom	H Shifts	Mult	J
A OMe	3.79	s	
B OMe	3.86	s	
Aβ	3.54	m	
Bγ	4.19	td	J = 5.52, 1.58
Aα	5.54	d	J = 6.71
Bβ	6.23	dt	J = 15.92, 5.52
Bα	6.52	dt	J = 15.92, 1.58
A 2,6	6.74	s	
B2	6.84	s	
B6	6.97	s	
A4-OH	7.19	s	

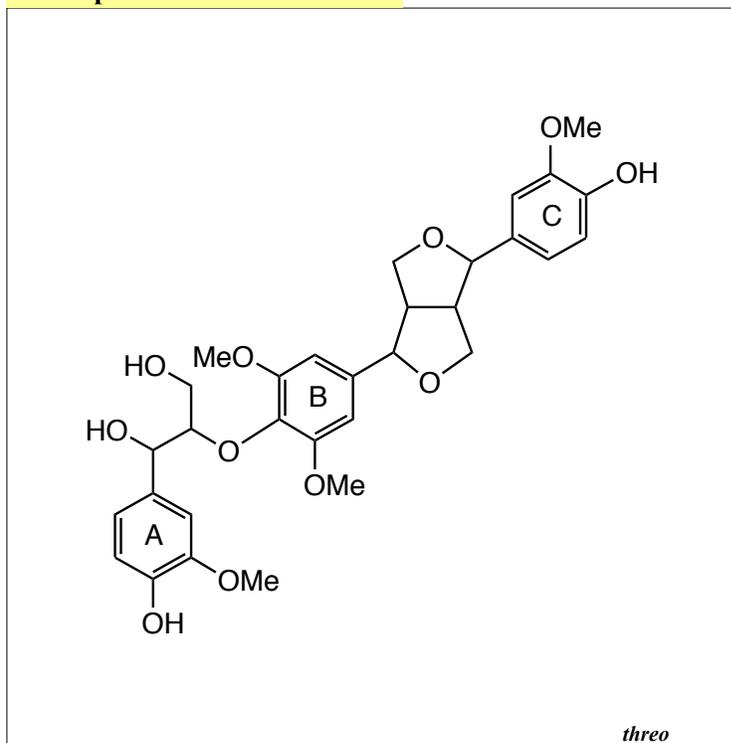
Notes:

hkh 99.14 Morreel #6
 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Atom	CDCl ₃	Acetone	DMSO	
Aβ		54.78		
B OMe		56.44		
B OMe		56.44		
A OMe		56.67		
Bγ		63.39		
Aγ		64.52		
Aα		88.74		
A2		104.55		
A6		104.55		
B2		111.80		
B6		116.07		
Bβ		128.38		
B5		130.47		
Bα		130.52		
B1		131.95		
A1		133.30		
A4		136.68		
B3		145.16		
A3		148.74		
A5		148.74		
B4		148.95		

Compound Number 3064

¹³C



buddlenol E, G-(8-O-4)-S-(8-8)-G

1-(4-hydroxy-3-methoxy-phenyl)-2-{4-[4-(4-hydroxy-3-methoxy-phenyl)-tetrahydro-furo[3,4c]furan-1-yl]-2,6-dimethoxy-phenoxy}-

¹H (acetone)

Atom	H Shifts	Mult	J
Cβ + Bβ	3.10	m	
Aγ1	3.43	m	
Aγ2	3.84	m	
Cγ2 + Bγ2	3.86	m	
Aβ	4.15	m	
Cγ1 + Bγ1	4.24	m	
Cα	4.68	d	J = 4.34
Bα	4.73	d	J = 4.34
Aα	4.97	m	
B 2,6	6.76	s	
C2	6.98	d	J = 1.84
A2	7.03	d	J = 1.84
A4-OH	7.37	s	
C4-OH	7.49	s	

Notes:

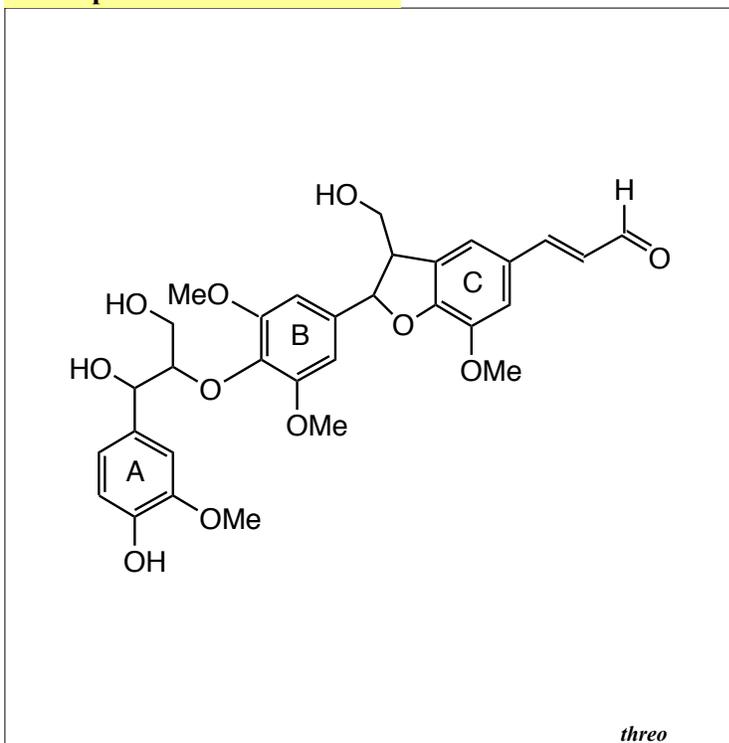
hkh 99.6 Morreel #22

Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Atom	CDCl ₃	Acetone	DMSO	
Cβ		55.15		
Bβ		55.46		
OMe		56.24		
B OMe		56.59		
B OMe		56.59		
OMe		56.70		
Aγ		60.98		
Cγ		72.30		
Bγ		72.54		
Aα		73.38		
Bα		86.57		
Cα		86.60		
Aβ		87.86		
B2		104.12		
B6		104.12		
C2		110.62		
A2		110.92		
A5		115.20		
C5		115.54		
C6		119.60		
A6		120.04		
C1		133.77		
B1		133.80		
A1		134.10		
C4		135.72		
B4		139.10		
A3		146.47		
C3		146.90		
A4		147.98		
B3		154.20		
B5		154.20		

Compound Number 3065

¹³C



buddlenol A, G-(t8-O-4)-S-(8-5)-G'

3-(2-{4-[2-hydroxy-3-methoxy-phenyl]1-hydroxymethyl-ethoxy}-3,5-dimethoxy-phenyl)-3-hydroxymethyl-7-methoxy-2,3-

¹H (acetone)

Atom	H Shifts	Mult	J
OMe	3.82	s	
B OMe	3.84	s	
OMe	3.94	s	
A α	4.97	t	J = 4.47
B α	5.70	d	J = 6.45
C β	6.66	dd	J = 15.78, 7.63
A5	6.76	d	J = 8.02
A6	6.83	dd	J = 8.02, 1.84
B 2,6	6.83	s	
A2	7.03	d	J = 1.84
C α	7.59	d	J = 15.78
C γ	9.64	d	J = 7.63

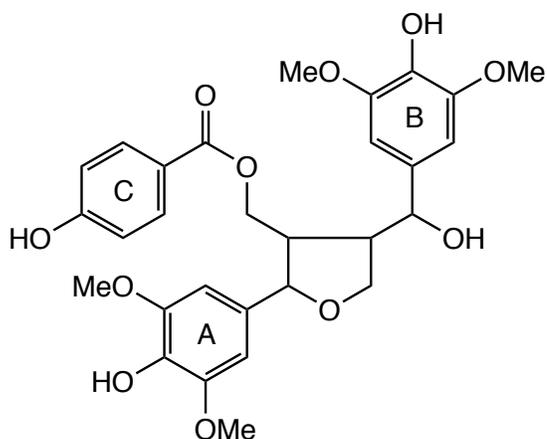
Notes:

hkh 19.1t Morreel #23
 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Atom	CDCl ₃	Acetone	DMSO	
PROTON data only				

Compound Number 3066

¹³C



SP-(8,8)-S

tetrahydro- α 4,2-bis-(4-hydroxy-3,5-dimethoxyphenyl) α -3O-(4-hydroxybenzoyl)-3,4-furandimethanol

¹H (acetone)

Atom	H Shifts	Mult	J
A β	2.55	m	
OMe	3.74	s	
OMe	3.78	s	
B β	3.99	m	
B γ	4.14	m	
A γ 1	4.41	m	
A γ 2	4.68	m	
A α	4.90	d	J = 6.3
B α	4.96	d	J = 5.0
A2,6	6.66	s	
B2,6	6.72	s	
C3,5	6.87	m	
C2,6	7.77	m	

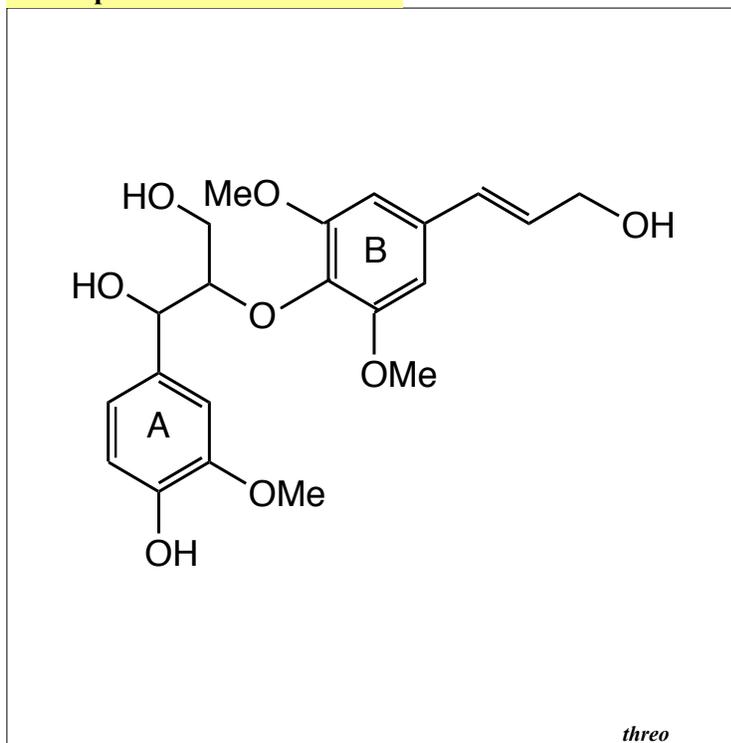
Notes:

Fln 117 Morreel #19
 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Atom	CDCl ₃	Acetone	DMSO	
B β		48.37		
A β		49.80		
OMe		56.50		
A γ		63.99		
B γ		69.95		
B α		72.59		
A α		85.34		
A2		104.45		
A6		104.45		
B2		104.53		
B6		104.53		
C3		115.98		
C5		115.98		
C1		122.40		
C2		132.45		
C6		132.45		
A1		134.49		
B1		134.91		
A4		136.01		
B4		136.01		
A3		148.54		
A5		148.54		
B3		148.54		
B5		148.54		
C4		162.56		
C α		166.43		

Compound Number 3067

¹³C



G-(8-O-4)-S

threo-1-(4-hydroxy-3-methoxyphenyl)-2-[2,6 dimethoxy-phenoxy-4-(3-

¹H (acetone)

Atom	H Shifts	Mult	J
Aγ	3.39	m	-
A3 OMe	3.83	s	
B3 OMe	3.87	s	
Bγ	4.21	m	-
Aα-OH	4.33	d	J = 3.8
Aα	4.96	dd	J = 6.8, 8.4
Bβ	6.37	dt	J = 15.8, 5.1
Bα	6.54	d	J = 15.8
A5	6.76	d	J = 8.2
B2/6	6.79	s	
A6	6.82	dd	J = 8.2, 1.3
A2	7.03	d	J = 1.3
A4-OH	7.33	br s	

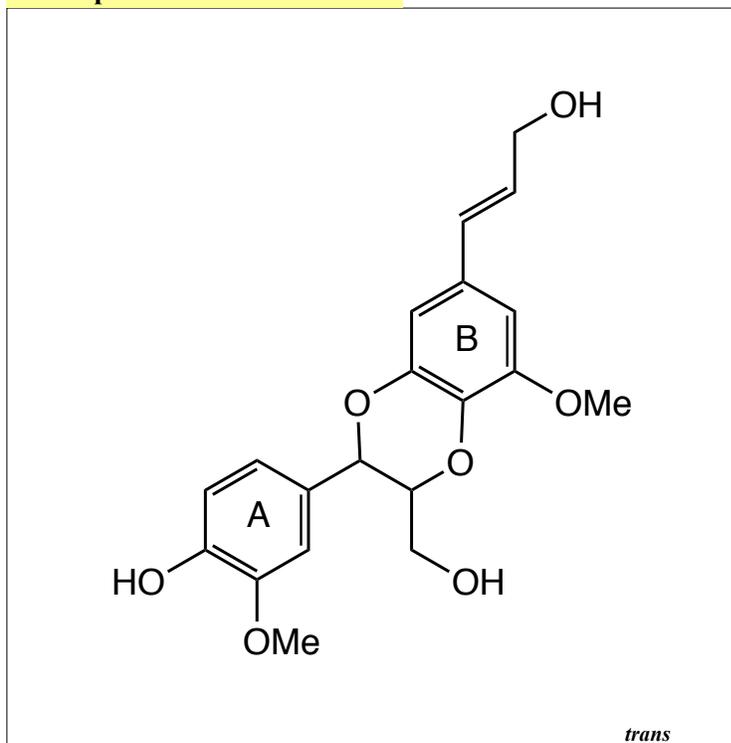
Notes:

HKh83.5, FL1112 Compound #8, Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549 See compound #118 for peracetate

Atom	CDCl ₃	Acetone	DMSO	
PROTON data only				

Compound Number 3068

¹³C



G-(8-O-4)-5H [nocomtol]

4-[3-hydroxymethyl-7-(E)-(3-hydroxypropenyl)-5-methoxy-2,3-dihydro-benzo[1,4]dioxin-2-yl]-2-methoxyphenol

¹H (acetone)

Atom	H Shifts	Mult	J
A γ 1	3.50	m	-
A γ 2	3.76	m	-
B3 OMe	3.85	s	
A3 OMe	3.85	s	
A β	4.05	m	-
B γ	4.20	dd	J = 5.4, 1.6
A α	4.96	d	J = 7.9
B α	6.26	dt	J = 15.9, 5.4
B β	6.47	dt	J = 15.9, 1.6
B6	6.68	d	J = 1.8
A5	6.87	d	J = 8.1
A6	6.95	dd	J = 8.1, 1.8
A2	7.10	d	J = 1.8

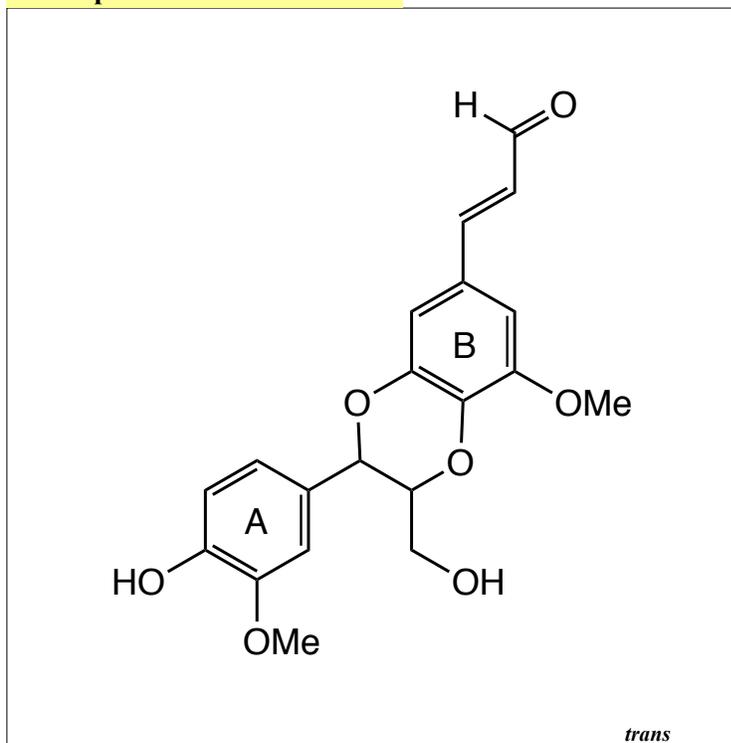
Notes:

FLm08 Cmpd 1a: Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. K. Morreel, J. Ralph, F. Lu, G. Goeminne, R. Busson, P. Herdewijn, J.L. Goeman, J. Van der Eycken, W. Boerjan and E. Messens. Plant Physiology, 136(4), 4023-4036 (2004).

Atom	CDCl ₃	Acetone	DMSO	
B3-OMe		56.2		
A3-OMe		56.2		
A γ		61.9		
B γ		63.6		
A α		76.7		
A β		79.3		
B2		103.2		
B6		108.5		
A2		111.7		
A5		115.7		
A6		121.4		
B β		129.0		
A1		129.1		
B α		130.1		
B1		130.3		
B4		133.7		
B5		145.2		
A4		147.8		
A3		148.3		
B3		149.8		

Compound Number 3069

¹³C



G-(8-O-4)-5H' [nocomtal]

(2E)-3-[3-(4-hydroxy-3-methoxy-phenyl)-2(hydroxymethyl)-8-methoxy-2,3-dihydro-1,4-benzodioxin-6-yl]acrylaldehyde

¹H (acetone)

Atom	H Shifts	Mult	J
Aγ1	3.53	m	-
Aγ2	3.82	m	-
A3 OMe	3.86	s	
B3 OMe	3.91	s	
Aβ	4.14	ddd	J = 8.0, 3.8, 2.6
Aα	5.01	d	J = 8.0
Bβ	6.67	dd	J = 15.8, 7.6
A5	6.88	d	J = 8.0
B6	6.92	dd	J = 2.0, 0.4
A6	6.97	ddd	J = 8.0, 2.0, 0.4
B2	7.02	d	J = 2.0
A2	7.12	d	J = 2.0
Bα	7.53	d	J = 15.8
A4-OH	7.59	bs	-
Bγ	9.64	d	7.6

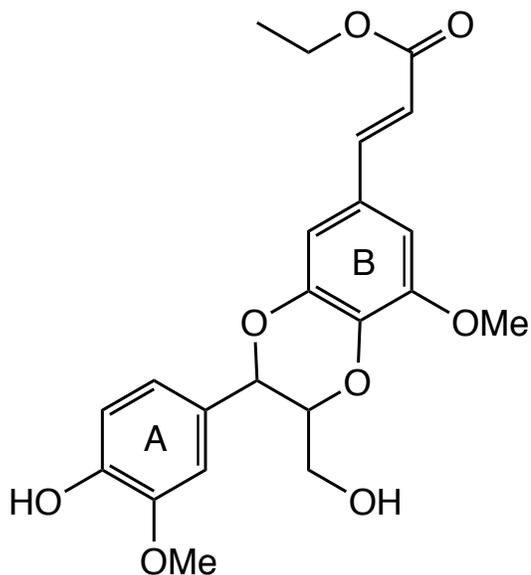
Notes:

FLn55 Cmpd 3: Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. K. Morreel, J. Ralph, F. Lu, G. Goeminne, R. Busson, P. Herdewijn, J.L. Goeman, J. Van der Eycken, W. Boerjan and E. Messens. Plant Physiology, 136(4), 4023-4036 (2004).

Atom	CDCl ₃	Acetone	DMSO	
A3-OMe		56.4		
B3-OMe		56.5		
Aγ		61.6		
Aα		77.0		
Aβ		79.8		
B2		105.5		
B6		111.9		
A2		112.0		
A5		115.8		
A6		121.6		
B1		127.5		
Bβ		128.0		
A1		128.9		
Bα		137.4		
B5		145.6		
A3		148.1		
A4		148.5		
B3		150.4		
B4		153.7		
Bγ		193.8		

Compound Number 3070

¹³C



trans

G-(8-O-4)-5H''

3-[3-(4-hydroxy-4-methoxyphenyl)-2-hydroxymethyl-8-methoxy-2,3-dihydrobenzo[1,4] dioxin-6-yl]-acrylic acid ethyl ester

¹H (acetone)

Atom	H Shifts	Mult	J
Me	1.25	t	J = 7.1
A _γ 1	3.50	m	-
A _γ 2	3.83	m	-
B3 OMe	3.85	s	
A3 OMe	3.92	s	
A _β	4.09	m	-
CH2	4.17	q	J = 7.1
A _α	4.98	d	J = 8.0
B _β	6.40	d	J = 15.9
B6	6.85	d	J = 1.5
A5	6.88	d	J = 8.1
B2	6.95	d	J = 1.5
A6	6.96	dd	J = 8.1, 1.8
A2	7.10	d	J = 1.8
B _α	7.54	d	J = 15.9

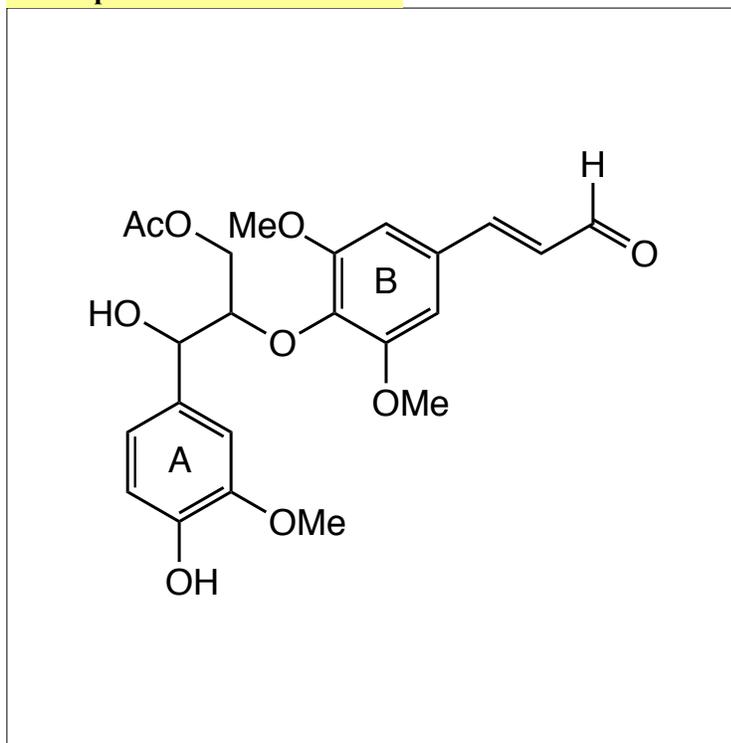
Notes:

FL1111 Cmpd c: Phenolic profiling of caffeic acid O-methyltransferase-deficient poplar reveals novel benzodioxane oligolignols. K. Morreel, J. Ralph, F. Lu, G. Goeminne, R. Busson, P. Herdewijn, J.L. Goeman, J. Van der Eycken, W. Boerjan and E. Messens. Plant Physiology, 136(4), 4023-4036 (2004).

Atom	CDCl ₃	Acetone	DMSO	
Me		14.6		
B3-OMe		56.2		
A3-OMe		56.3		
A _γ		61.6		
CH2		61.6		
A _α		76.9		
A _β		79.5		
B2		104.7		
B6		111.1		
A2		111.7		
A5		115.7		
B _β		117.0		
A6		121.4		
B1		127.4		
A1		128.8		
B4		136.4		
B _α		145.2		
B5		145.3		
A4		147.8		
B3		148.3		
A3		150.1		
B _γ		167.2		

Compound Number 3071

¹³C



Atom	CDCl ₃	Acetone	DMSO	
γ Ac Me		20.66		
A3 OMe		56.62		
B3 OMe		56.73		
γ		63.59		
α		73.31		
β		84.56		
A2/6		104.65		
B2/6		106.94		
Bβ		129.11		
B1		131.09		
A1		131.65		
A4		136.04		
B4		139.26		
A3/5		148.51		
Bα		153.45		
B3/5		154.57		
γ Ac C=O		167.76		
Bγ		193.90		

¹H (acetone)

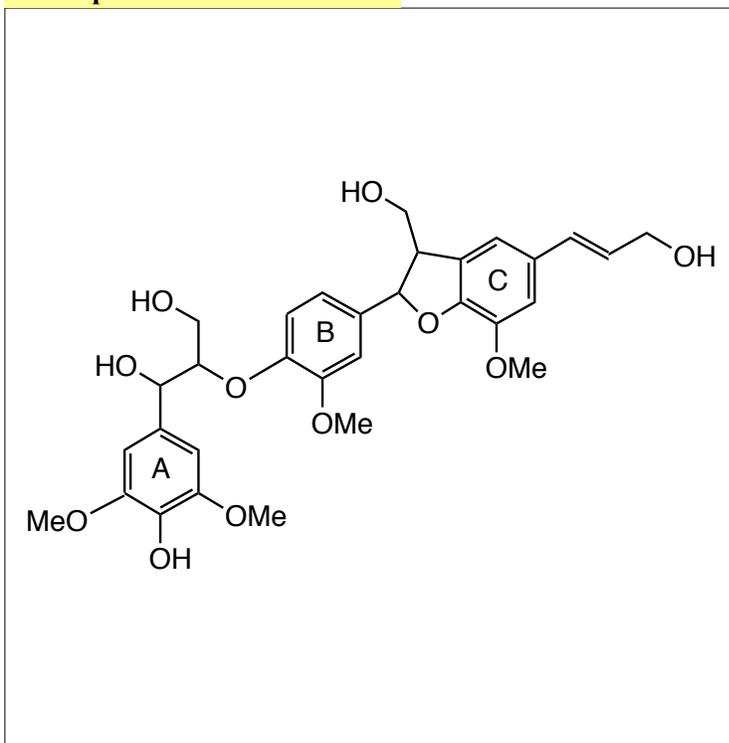
Atom	H Shifts	Mult	J
γ Ac Me	1.84	s	-
A3/5 OMe	3.80	s	-
B3/5 OMe	3.94	s	-
γ1	4.12	dd	J = 11.9, 3.2
γ2	4.39	dd	J - 11.9, 7.4
β	4.62	m	-
α	4.94	dd	J = 6.7, 4.0
A2/6	6.70	s	-
Bβ	6.77	dd	J = 15.8, 7.6
B2/6	7.12	s	-
Bα	7.61	d	J = 15.8
Bγ	9.67	d	J = 7.6

Notes:

HKj51T6.7 Cmpd #9, Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549 Note the single γ-acetate!

Compound Number 3072

¹³C



S-(8-O-4)-G-(8-5)-G

Atom	CDCl ₃	Acetone	DMSO
Bβ		54.8	
OMe		56.35	
OMe		56.39	
OMe		56.58	
Aγ		61.86	
Cγ		63.26	
Bγ		64.58	
Aα		73.84	
Aβe		86.32	
Aβt		88.03	
Bα		88.24	
A2/6		105.36	
C2/6		111.14	
B2/5/6		119.33	
Cβ		128.42	
Cα		130.48	

¹H (acetone)

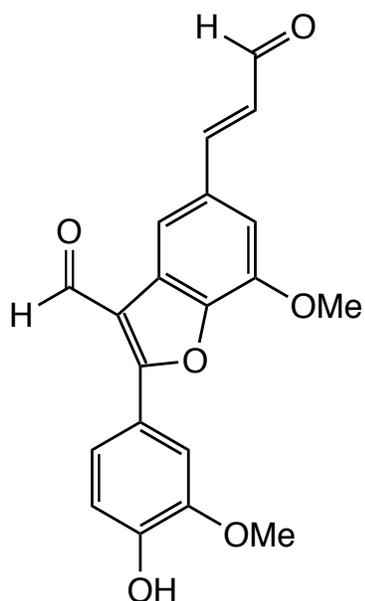
Atom	H Shifts	Mult	J
Bβ	3.51	m	
Aγ1	3.51	m	
Aγ2	3.71	m	
Bγ	3.85	m	
OMe	3.77	s	
OMe	3.86	s	
OMe	3.94	s	
Cγ	4.19	dd	J = 5.5, 1.3
Aβt	4.24	m	
Aβe	4.32	m	
Aα	4.86	d	J = 5.9
Bα	5.59	d	J = 6.5
Cβ	6.23	dt	J = 15.9, 5.5
Cα	6.51	d	J = 15.9
A 2,6	6.76	s	

Notes:

HKf145, mixture of isomers Morreel #39 Morreel, K., Ralph, J., Kim, H., Lu, F., Goeminne, G., Ralph, S.A., Messens, E., Boerjan, W. Profiling of oligolignols reveals monolignol coupling conditions in lignifying poplar xylem. Plant Physiol. November 2004, Vol.136, pp.3537-3549

Compound Number 3073

¹³C



Atom	CDCl ₃	Acetone	DMSO	
A OMe	56.20	56.52	55.90	55.84
B OMe	56.31	56.74	56.28	56.18
B2	106.58	107.79	107.04	107.08
A2	110.94	112.97	112.43	112.40
B5	115.19	116.71	115.37	115.44
B6	116.54	116.97	116.07	116.05
A5	116.73	116.99	116.14	116.20
A1	120.10	120.52	118.44	118.50
A6	123.80	124.24	123.12	123.18
A β	127.96	128.85	127.37	127.43
B β	128.43	129.44	128.46	128.42
B1	132.13	133.54	132.35	132.33
B4	144.65	145.29	143.70	143.77
B3	145.39	146.56	145.11	145.12
A3	147.04	149.08	148.13	148.20
A4	149.06	151.05	150.36	150.52
B α	153.00	153.89	153.74	153.64
A α	166.60	167.07	165.77	165.80
A γ	186.37	186.93	186.72	186.62
B γ	193.54	194.07	194.38	194.21

¹H (DMSO)

Atom	H Shifts	Mult	J
A OMe	3.89	s	
B OMe	4.04	s	
B β	6.97	dd	7.6, 15.8
A5	7.00	d	8.2
A6	7.46	dd	2.1, 8.2
A2	7.51	d	2.0
B2	7.52	d	1.4
B α	7.90	d	15.8
B6	7.99	d	1.4
B γ	9.69	d	7.7
A γ	10.24	s	

¹H

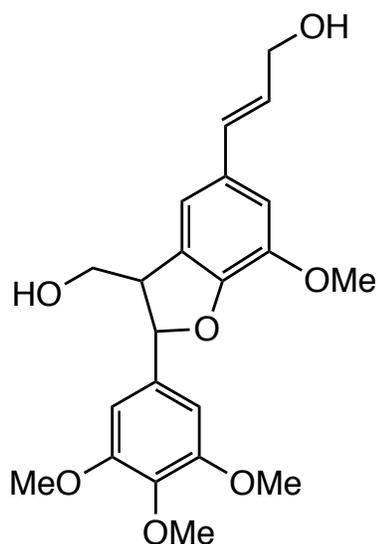
A OMe	4.01	3.97	3.86
B OMe	4.07	4.09	4.03
B β	6.75	6.82	6.95
A5	7.08	7.06	7.06
A6	7.42	7.50	7.46
A2	7.37	7.56	7.47
B2	7.09	7.45	7.49
B α	7.58	7.79	7.85
B6	8.05	8.01	8.02
B γ	9.72	9.71	9.71
A γ	10.30	10.31	10.26

Notes:

KY CAld dimer (KY-98f1)
 Not very soluble in CDCl₃ or d₆-acetone
 some shifts taken from HMBC

Compound Number 3074

¹³C



Atom	CDCl ₃	Acetone	DMSO	
β	53.59	54.90	53.15	53.35
A3 OMe	56.16	56.37	55.87	55.74
A5 OMe	56.16	56.37	55.87	55.74
B3 OMe	56.01	56.40	55.78	55.72
A4 OMe	60.81	60.46	59.98	59.90
B γ	63.75	63.35	61.62	61.74
γ	63.95	64.53	62.79	62.93
α	88.16	88.40	87.10	87.22
A2	103.12	103.99	103.13	103.16
A6	103.12	103.99	103.13	103.16
B2	110.54	111.68	110.45	110.53
B6	114.74	116.02	114.90	114.96
B β	126.54	128.47	128.14	128.21
B5	127.90	130.16	129.31	129.36
B α	131.19	130.39	128.87	128.89
B1	131.00	132.09	130.74	130.88
A1	136.63	138.63	137.14	137.26
A4	137.86	138.69	137.06	137.18
B3	144.45	145.18	143.73	143.82
B4	148.27	148.81	146.99	147.17
A3	153.40	154.42	152.92	153.00
A5	153.40	154.42	152.92	153.00

¹H (acetone)

Atom	H Shifts	Mult	J
β	3.54	q	
A4 OMe	3.70	s	
A3 A5 OMe	3.78	s	
B3 OMe	3.87	s	
γ's	3.83	dd	7.04, 10.9
	3.90	dd	5.4, 10.9
B γ	4.19	dd	1.6, 5.6
α	5.59	d	6.5
B β	6.24	dt	5.6, 15.8
B α	6.52	dt	1.6, 15.8
A2, A6	6.75	s	
B2	6.95		
B6	6.96		

¹H

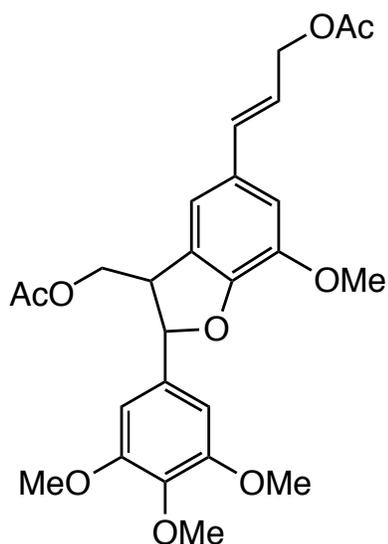
β	3.61	3.46	3.56
A4 OMe	3.80	3.64	3.65
A3 A5 OMe	3.81	3.74	3.71
B3 OMe	3.89	3.81	3.82
γ's	3.91	3.65	3.75
	3.96	3.74	3.85
B γ	4.28	4.07	4.16
α	5.57	5.49	5.62
B β	6.22	6.21	6.28
B α	6.53	6.45	6.53
A2, A6	6.61	6.66	6.74
B2	6.87	6.93	6.98
B6	6.87	6.93	7.01
γ OH	3.69	5.05	

Notes:

F. Lu MS-b5-G (FLw80)

Compound Number 3075

¹³C



Atom	CDCl ₃	Acetone	DMSO	
γ Ac Me	20.78	20.74	20.58	20.45
B γ Ac Me	20.99	20.82	20.73	20.60
β	50.37	51.29	49.36	49.51
A3 OMe	56.13	56.47	55.79	55.74
A5 OMe	56.13	56.47	55.88	55.78
B3 OMe	55.98	56.47	55.88	55.78
A4 OMe	60.79	60.51	59.98	59.92
B γ	65.16	65.51	64.53	64.53
γ	65.29	65.94	64.72	64.80
α	88.62	88.89	87.54	87.62
A2	103.10	104.29	103.42	103.41
A6	103.10	104.29	103.42	103.41
B2	110.59	112.24	111.01	111.08
B6	115.26	116.34	115.26	115.29
B β	121.23	122.29	121.39	121.37
B5	127.49	129.12	128.03	128.03
B1	130.60	131.57	130.11	130.20
B α	134.26	134.72	133.51	133.55
A1	135.94	137.61	136.07	136.17
A4	138.02	139.11	137.32	137.44
B3	144.40	145.42	143.89	143.97
B4	148.17	149.33	147.55	147.70
A3	153.41	154.55	152.96	153.05
A5	153.41	154.55	152.96	153.05
B γ Ac C=O	170.86	170.78	170.16	170.09
γ Ac C=O	170.71	170.96	170.30	170.25
<u>¹H</u>				
γ Ac Me	2.02		1.98	1.97
B γ Ac Me	2.07		2.04	2.03
β	3.76		3.77	3.82
A4 OMe	3.80		3.65	3.66
A3 A5 OMe	3.81		3.75	3.73
B3 OMe	3.89		3.82	3.83
γ's	4.30		4.30	4.35
B γ	4.42		4.40	4.45
α	4.68		4.65	4.67
B β	5.44		5.49	5.56
B α	6.13		6.24	6.27
B α	6.57		6.60	6.64
A2, A6	6.57		6.69	6.74
B6	6.86		7.01	7.06
B2	6.86		7.04	7.07

¹H (acetone)

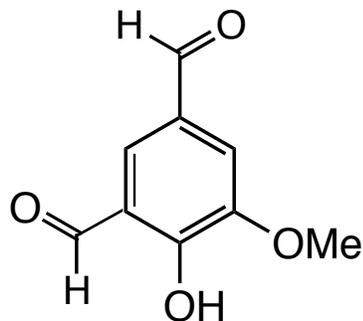
Atom	H Shifts	Mult	J
Ac Me	2.01	s	
Ac Me	2.01	s	
β	3.78	m	
A4 OMe	3.71	s	
A3 A5 OMe	3.80	s	
B3 OMe	3.89	s	
γ's	4.34, 4.44	dd	7.3, 11.1
B γ	4.66	dd	5.5, 11.1
α	5.53	d	1.2, 6.5
B β	6.24	dt	7.1
B α	6.64	bd	6.5, 15.9
B α	6.64	bd	15.9
A2, A6	6.76	s	
B6	7.03	bs	
B2	7.05	bs	

Notes:

F. Lu MS-b5-G (FLw80Ac)
Ac C=O switch order in solvents checked by HMBC

Compound Number 3076

¹³C



5-formyl vanillin

Atom	CDCl ₃	Acetone	DMSO	
OMe	56.42	56.72	56.30	
2	114.17	114.87	113.33	
5	119.95	122.06	122.40	
6	129.40	128.45	124.87	
1	129.06	130.15	128.07	
3	149.36	150.13	149.22	
4	157.01	157.26	156.06	
α	189.44	190.70	191.16	
5 C=O	195.84	195.35	190.22	

¹H (DMSO)

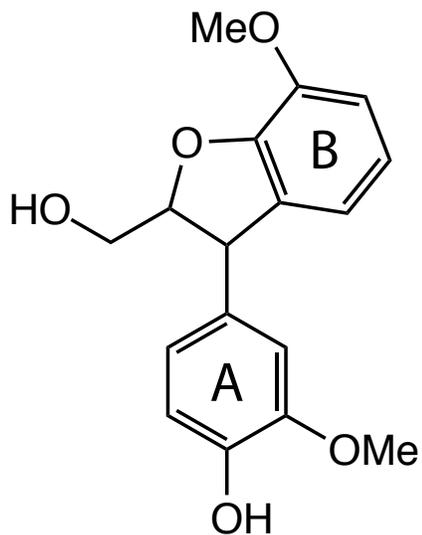
Atom	H Shifts	Mult	J
OMe	3.93		
2	7.58		
6	7.85		
α	9.86		
formyl H	10.33		
4-OH	11.28		
<u>CDCl₃</u>			
OMe	3.96		
2	7.58		
6	7.71		
α	9.87		
formyl H	9.99		
4-OH	11.66		
<u>Acetone</u>			
OMe	3.99		
2	7.66		
6	7.96		
α	9.92		
formyl H	10.25		
4-OH	11.13		

Notes:

FPL Collection
 C1 and C6 change order in CDCl₃
 Aldehyde C=Os change order in DMSO

Compound Number 3077

¹³C



phenyl dihydrobenzofuran

¹H (acetone)

Atom	H Shifts	Mult	J
γ1	3.77	m	
OMe	3.77	s	
OMe	3.84	s	
γ2	3.86	m	
γ-OH	4.16	t	
α	4.50	d	8.1
β	4.58-4.61	m	
B6	6.54	dt	7.6
A6	6.67	dd	8.1, 2.0
B1	6.76	dd	8.0, 7.6
A5	6.78	d	8.1
B2	6.81	d	8.0
A2	6.83	d	2.0
Ar OH	7.52	s	

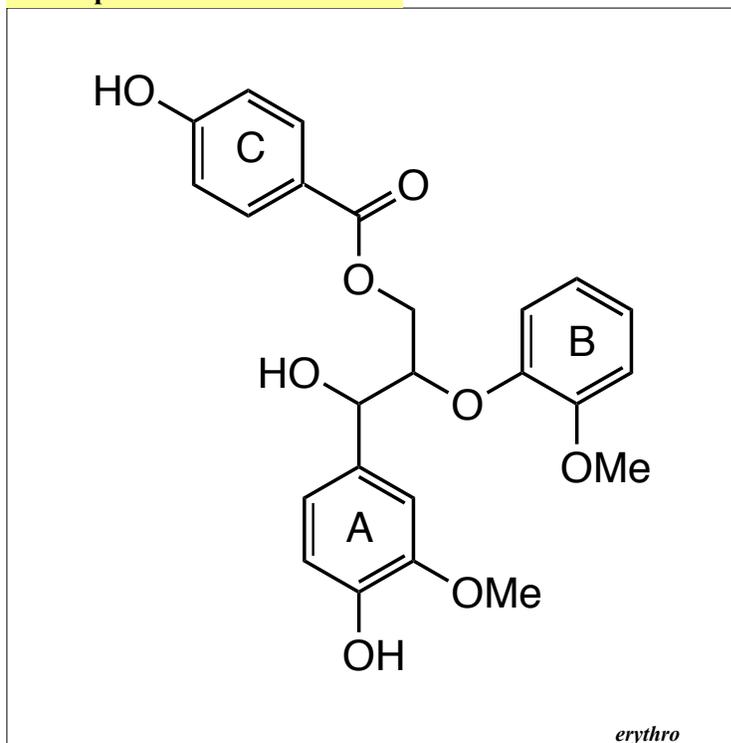
Notes:

F. Lu, et. al
 Polymers 2020, 12, 113
 600MHz

Atom	CDCl ₃	Acetone	DMSO	
α		50.74		
OMe		56.14		
OMe		56.20		
γ		63.40		
β		93.49		
A2		112.34		
B2		112.73		
A5		115.93		
B6		118.07		
A6		121.48		
B1		121.83		
B5		133.03		
A1		134.88		
B3		145.44		
A4		146.49		
A3		148.49		
B4		149.26		

Compound Number 3078

¹³C



Atom	CDCl ₃	Acetone	DMSO	
A OMe	55.89	56.18	55.49	55.40
B OMe	55.83	56.23	55.50	55.44
γ	62.83	64.52	63.61	63.63
α	72.39	73.40	71.68	71.82
β	84.19	83.72	81.39	81.64
A2	108.82	111.47	111.00	111.05
B2	112.28	113.63	112.81	112.76
A5	114.19	115.28	114.81	114.92
C3	115.14	115.86	115.11	115.13
C5	115.14	115.86	115.11	115.13
A6	119.25	119.91	119.30	119.37
B5	120.56	120.36	117.40	117.56
B6	121.51	121.73	120.61	120.61
B1	124.09	123.61	121.99	122.00
C1	122.03	122.43	120.17	120.28
C2	131.95	132.58	131.41	131.45
C6	131.95	132.58	131.41	131.45
A1	130.84	133.72	132.97	133.04
A4	145.11	146.80	145.63	145.84
A3	146.64	148.10	147.15	147.27
B4	146.91	149.40	147.57	147.66
B3	151.39	152.15	150.18	150.30
C4	160.20	162.51	161.87	161.99
C α	166.30	166.43	165.39	165.49
<u>¹H</u>				
A OMe	3.81	3.72	3.73	
B OMe	3.76	3.63	3.62	
γ1	4.49	4.39	4.56	
γ2	4.54	4.45	4.53	
β	4.72	4.63	4.74	
α	5.01	4.81	4.96	
C 3,5	6.84	7.57	6.82	
C 2,6	7.71	6.75	7.66	
A2	7.16	7.02	7.13	
A5	6.78	6.70	6.80	
A6	6.94	6.82	6.92	
B1	6.93	6.87	6.87	
B2	6.94	6.89	6.87	
B5	7.04	6.96	7.03	
B6	6.82	6.78	6.79	

¹H (chloroform)

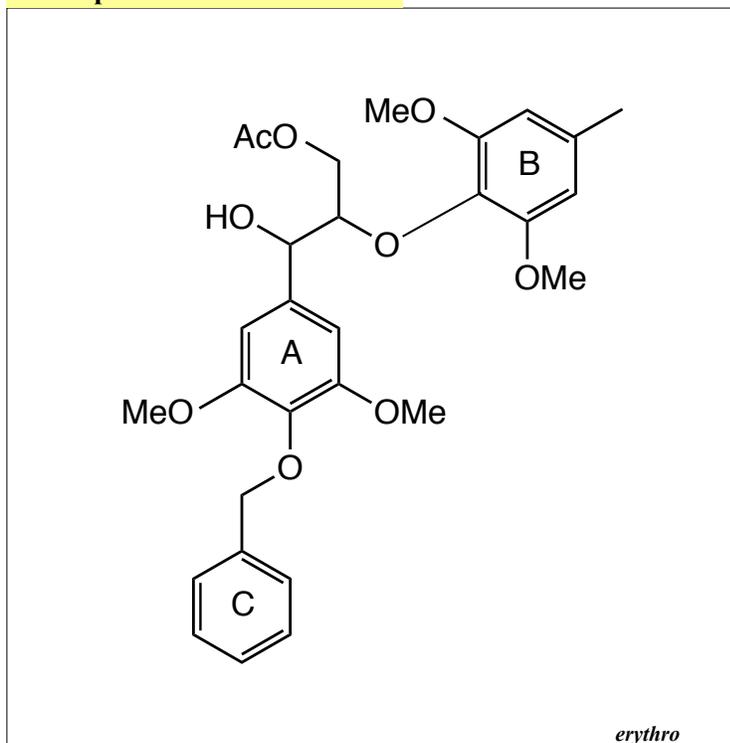
Atom	H Shifts	Mult	J
A OMe	3.81	s	
B OMe	3.83	s	
γ1	4.37	dd	3.4, 11.1
γ2	4.55	dd	7.0, 11.1
β	4.56	m	
α	4.97	bd	2.4
C 3,5	6.76	d	8.7
C 2,6	7.75	d	8.7
A2	7.01	bd	1.4
A5	6.84	d	8.1
A6	6.82	dd	1.4, 8.1
B1	7.03	dt	1.3, 7.9
B2	7.03	d	7.9
B5	7.06	dd	1.3, 7.9
B6	6.89	dd	1.2, 7.7

Notes:

J. Ralph
26
A6 and B5 switch order in DMSO and DMSO/pyr from CDCl₃ and acetone

Compound Number 3079

¹³C



erythro

BzS-b-S

¹H (DMSO)

Atom	H Shifts	Mult	J
γ Ac Me	1.77 (1.87)	s	
B Me	2.24	s	
A OMe	3.70	s	
B OMe	3.76	s	
γ1	4.04 (3.83)	m	
γ2	4.27 (4.06)	m	
β	4.30 (4.27)	m	
α	4.91 (4.82)	t	4.6
Bz CH ₂	4.85	s	
C 4	7.29	dt	7.4
C 3,5	7.35	dt	7.4
C 2,6	7.44	d	7.4
B 2,6	6.45 (6.48)	s	
A 2,6	6.66 (6.81)	s	

Notes:

FL w

S.Ralph

shifts can change order among the solvents

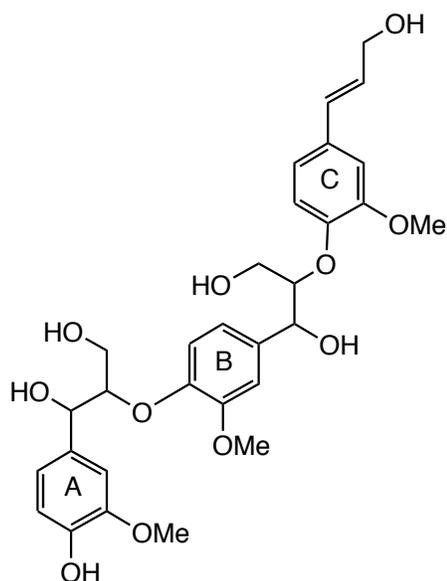
significant *threo* isomer 1H shifts in ()

alpha 13C shifts are split in acetone shift is average

Atom	CDCl ₃	Acetone	DMSO	
γ Ac Me	20.88	20.72	20.42	20.34
B Me	21.94	21.80	21.37	21.27
A OMe	56.15	56.41	55.64	55.59
B OMe	56.15	56.47	55.80	5.70
γ	62.46	63.24	62.79	62.88
α	71.47	72.82	72.33	72.44
β	82.73	83.87	82.94	83.08
Bz CH ₂	74.92	75.06	73.93	73.97
A 2,6	102.88	104.28	103.47	103.54
B 2,6	106.17	107.12	105.89	105.90
C 4	127.73	128.32	127.62	127.55
C 3,5	128.06	128.79	127.84	127.81
C 2,6	128.48	128.84	128.05	127.99
B 4	132.03	133.92	132.83	132.89
B 1	134.54	134.71	133.28	133.37
A 4	135.90	136.99	135.15	135.29
A 1	134.43	137.05	137.94	138.01
C 1	137.83	139.51	137.97	138.04
A 3,5	153.47	154.30	152.33	152.42
B 3,5	153.21	154.06	152.58	152.68
γ Ac C=O	170.88	170.82	170.08	170.08
<u>¹H</u>				
γ Ac Me	1.97 (2.03)	1.86 (1.96)	1.77	1.78 (1.87)
B Me	2.33	2.29	2.24	2.21
A OMe	3.78	3.80	3.70	3.71
B OMe	3.84	3.84	3.76	3.75
γ1	4.13 (3.90)	4.09 (3.95)	4.04	4.17 (3.95)
γ2	4.36 (4.51)	4.33 (4.35)	4.27	4.41 (4.20)
β	4.45 (3.96)	4.48 (4.20)	4.30	4.42 (4.39)
α	4.82 (4.96)	4.91 (4.91)	4.91	5.05 (4.97)
Bz CH ₂	4.95	4.93	4.85	4.89
C 4	7.26	7.27	7.29	7.27
C 3,5	7.30	7.33	7.35	7.33
C 2,6	7.44	7.49	7.44	7.47
B 2,6	6.43 (6.38)	6.54 (6.51)	6.45	6.45 (6.47)
A 2,6	6.53 (6.54)	6.71 (6.75)	6.66	6.74 (6.90)
<u>¹³C</u>				
<i>threo</i>				
γ	63.92	64.58	63.57	63.68
α	74.61	74.44	71.68	71.93
β	86.59	86.11	83.27	83.44
A 2,6	104.06	105.05	103.91	104.02
B 2,6	105.85	107.02	106.11	106.07
B 4			133.08	133.12
B 1			133.50	133.63
A 3,5	152.26	153.45	152.40	152.45
B 3,5	153.43	154.18	152.43	152.45
γ Ac C=O	170.65	170.76	170.06	170.03

Compound Number 3080

¹³C



G-b-G-b-CA

¹H (acetone)

Atom	H Shifts	Mult	J
A OMe	3.80	s	
B OMe	3.80	s	
C OMe	3.83	s	
A,B γ1	3.66-3.71	m	
A,B γ2	3.78-3.81	m	
C γ1	3.82	dt	1.6, 5.6
C γ2	4.18		
A β	4.24	m	
B β	4.29	m	
A α	4.86	t	5.4
B α	4.89	t	5.3
C β	6.26	dt	5.3, 15.9
C α	6.49	bd	15.9
A5	6.75	d	8.1
C6	6.84	dd	1.8, 8.3
B,C 5- A,B 6	6.85- -6.89		
C2	7.04	d	1.7
A2	7.09	d	1.7
B2	7.12	d	1.5
Ph OH	7.46	s	

Notes:

Ruili Gao (rg316-30)

Shifts for A, B 6, and

B, C 5 are too close to assign with confidence

Atom	CDCl ₃	Acetone	DMSO
OMe		56.16	
OMe		56.21	
OMe		56.23	
A γ		61.73	
B γ		61.83	
C γ		63.25	
B α		73.63	
A α		73.72	
B β		86.48	
A β		86.86	
C2		110.81	
A2		111.30	
B2		112.27	
A5		115.16	
5		118.97	
5		119.21	
C6		120.17	
6		120.37	
6		120.41	
C1		132.81	
A1		134.41	
B1		137.34	
C β		129.54	
C α		129.83	
A4		146.60	
A3		147.95	
B4		148.08	
C4		148.46	
B3		151.48	
C3		151.81	