Supporting information

Comparison of antidiabetic potential of (+) and (-)-Hopeaphenol, a pair of enantiomers isolated from *Ampelocissus indica (L.)* and *Vateria indica* Linn, with respect to inhibition of digestive enzymes and induction of glucose uptake in L6 myotubes

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[b] Academy of Scientific and Innovative Research (AcSIR), New Delhi 110001, India

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[d] CoreValley's Herbal Technologies, 133-H, Mini Industrial Estate, Nallalam, Calicut-673027,Kerala, India

[e] Department of Botany, Calicut University, Caliciut, Kerala, India

[f] M. S. Swaminathan Research Foundation-Community Agrobiodiversity Centre (MSSRF-CAbC), Puthurvayal, Wayanad, Kerala, India

[g] Department of Chemistry,Sree Narayana College, Chempazhanthy, Thiruvananthapuram, Kerala, India

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Figure S1 ^{1}H-NMR Spectrum of Compound 1, (+)- hopeaphenol (CD_3COCD_3, 500 MHz)

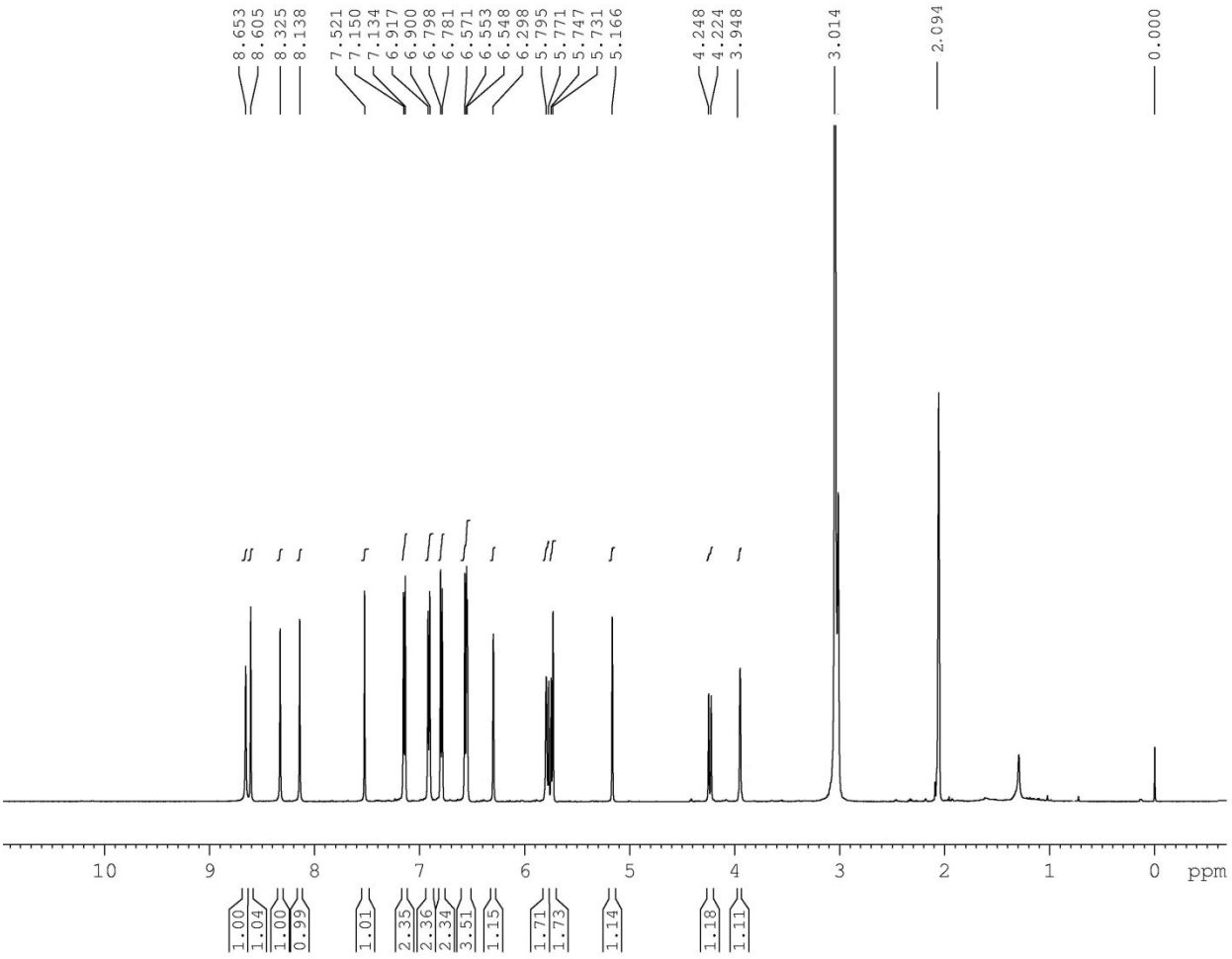


Figure S2 ^{13}C-NMR Spectrum of compound 1,(+)-hopeaphenol (CD_3COCD_3 125MHz)

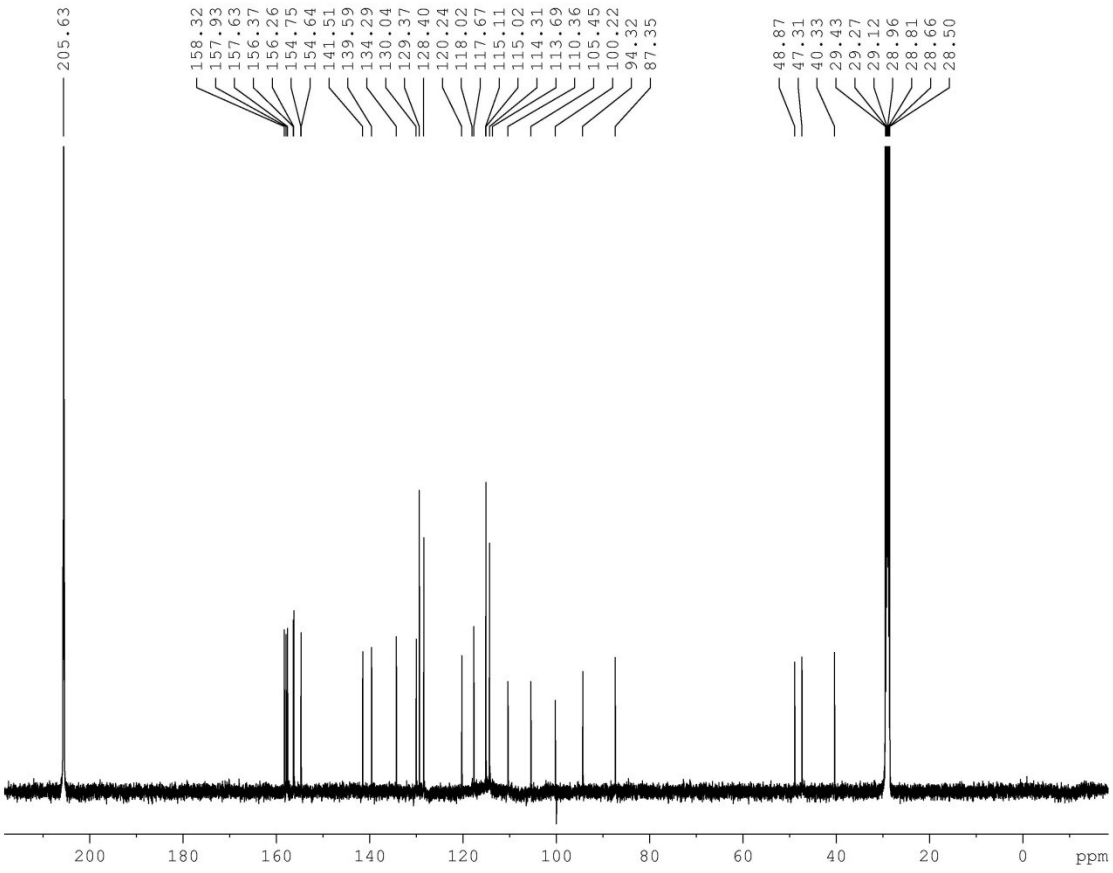


Figure S3 ^{1}H-^{1}H COSY Spectrum of Compound 1, (+)-hopeaphenol (CD_3COCD_3)

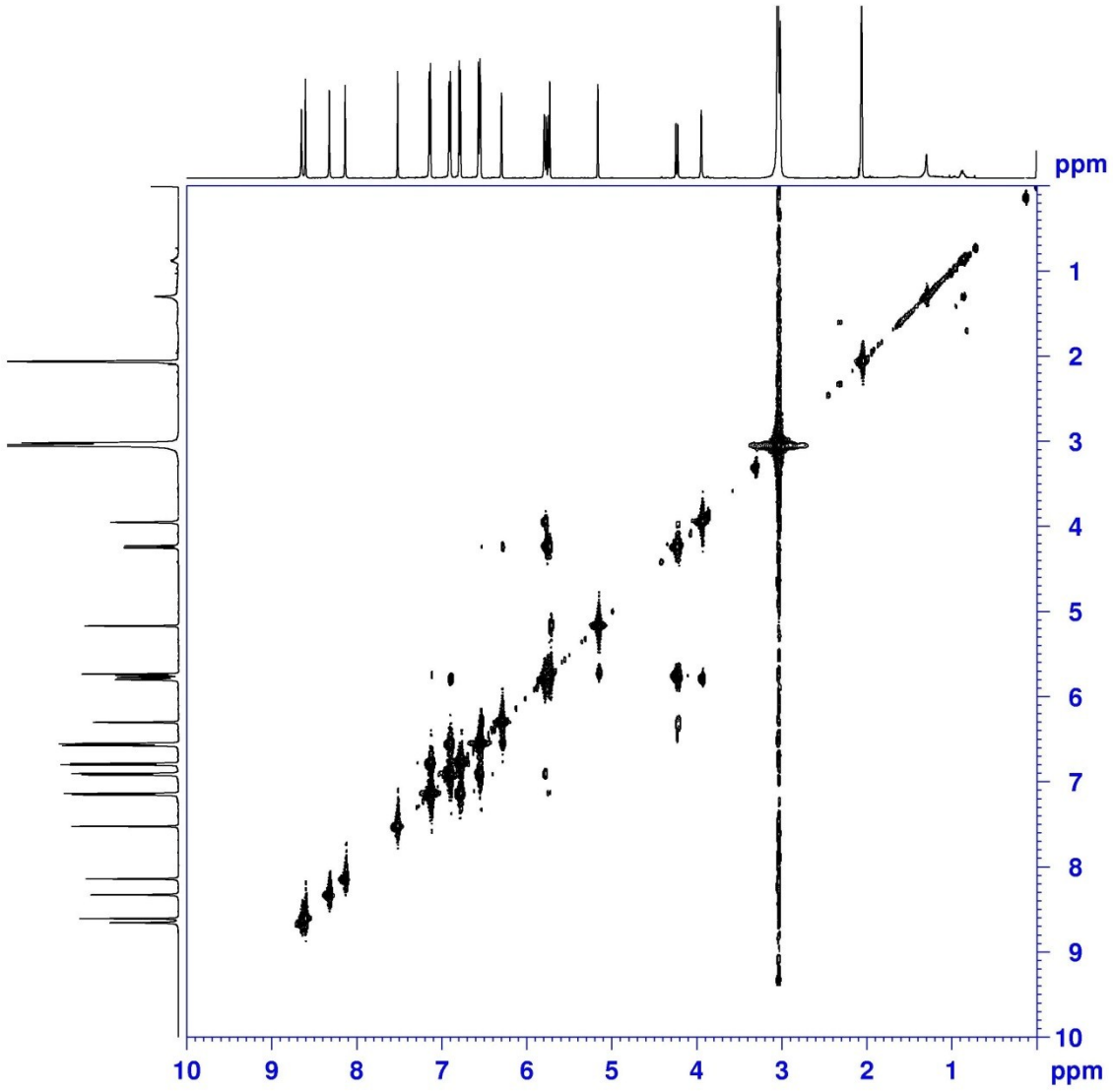


Figure S4 HMQC-Spectrum of Compound 1, (+)-hopeaphenol, (CD3COCD3)

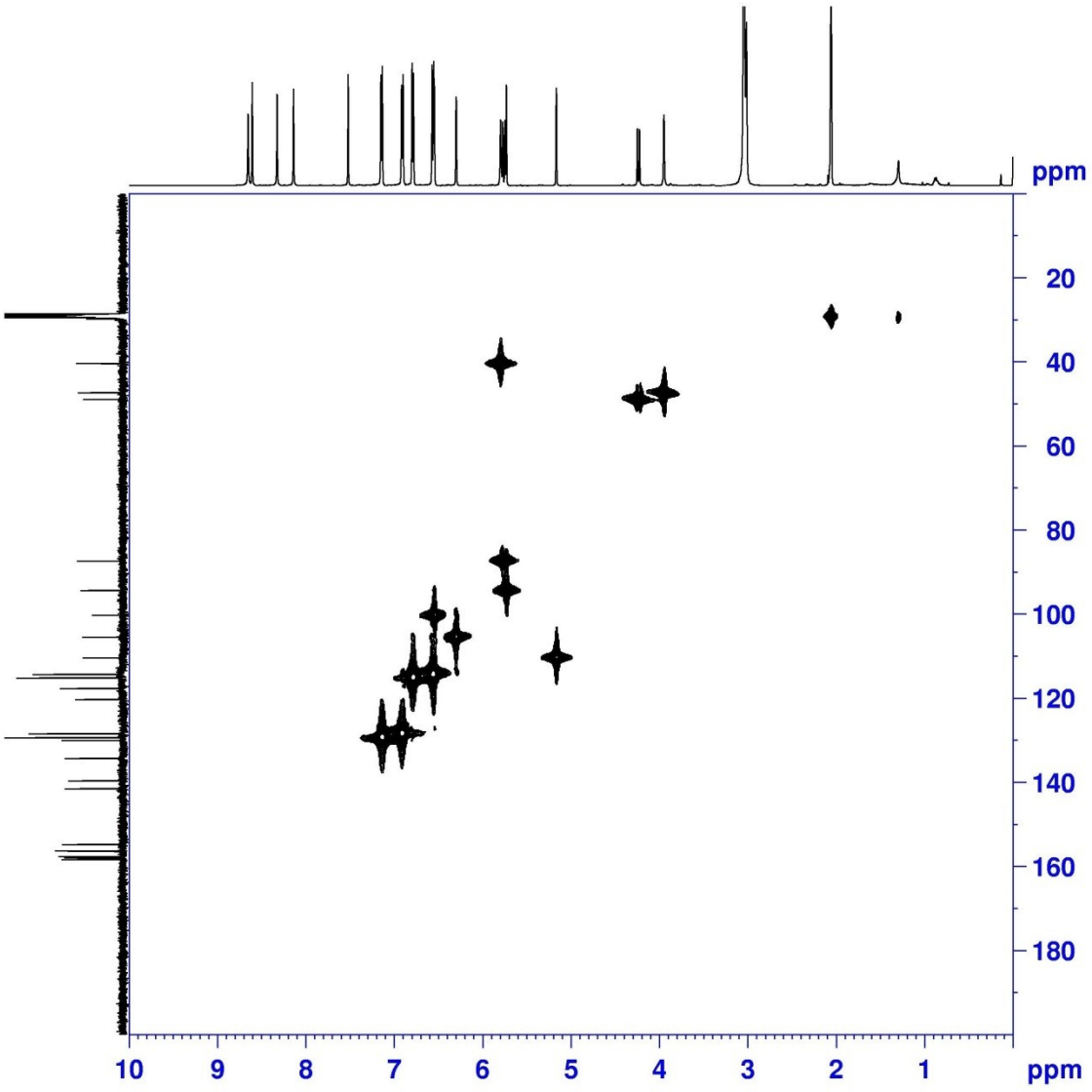


Figure S5 DEPT-135 Specrrum of Compound 1,(+)-hopeaphenol,(CD3COCD3)

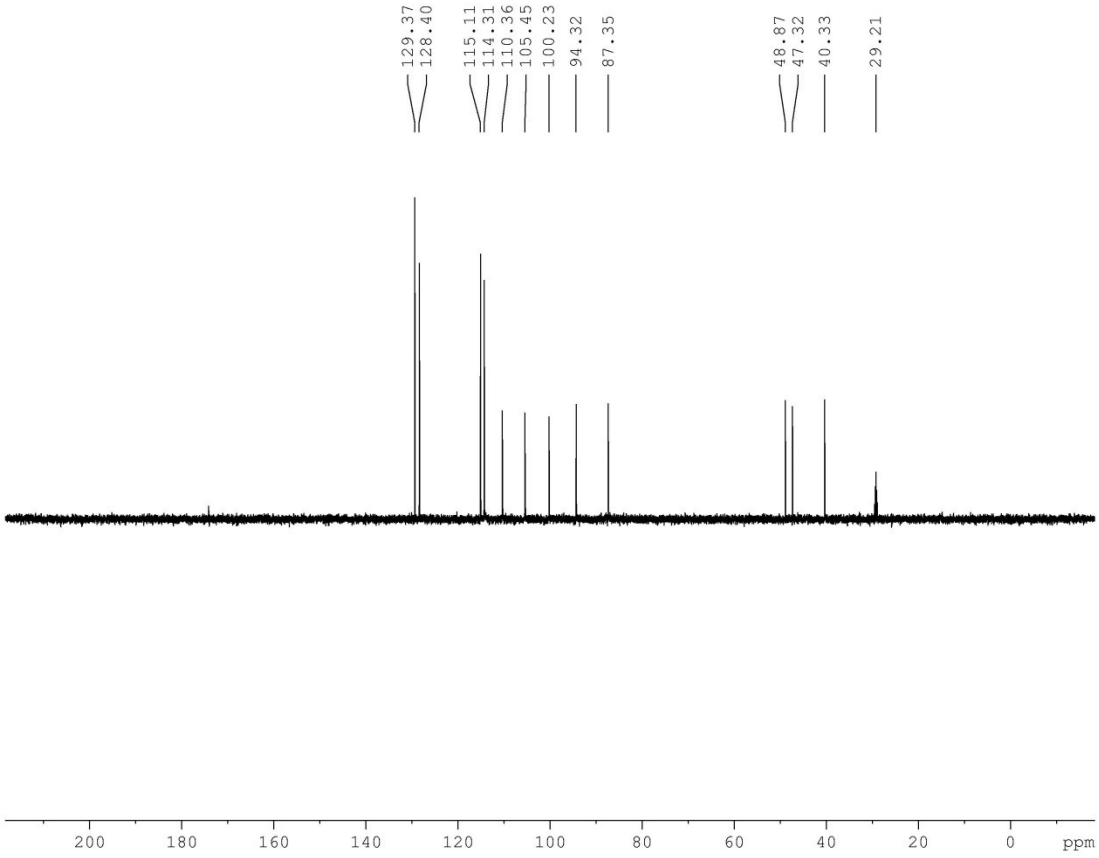


Figure S6 HMBC Spectrum of Compound 1, (+)- hopeaphenol, (CD3COCD3)

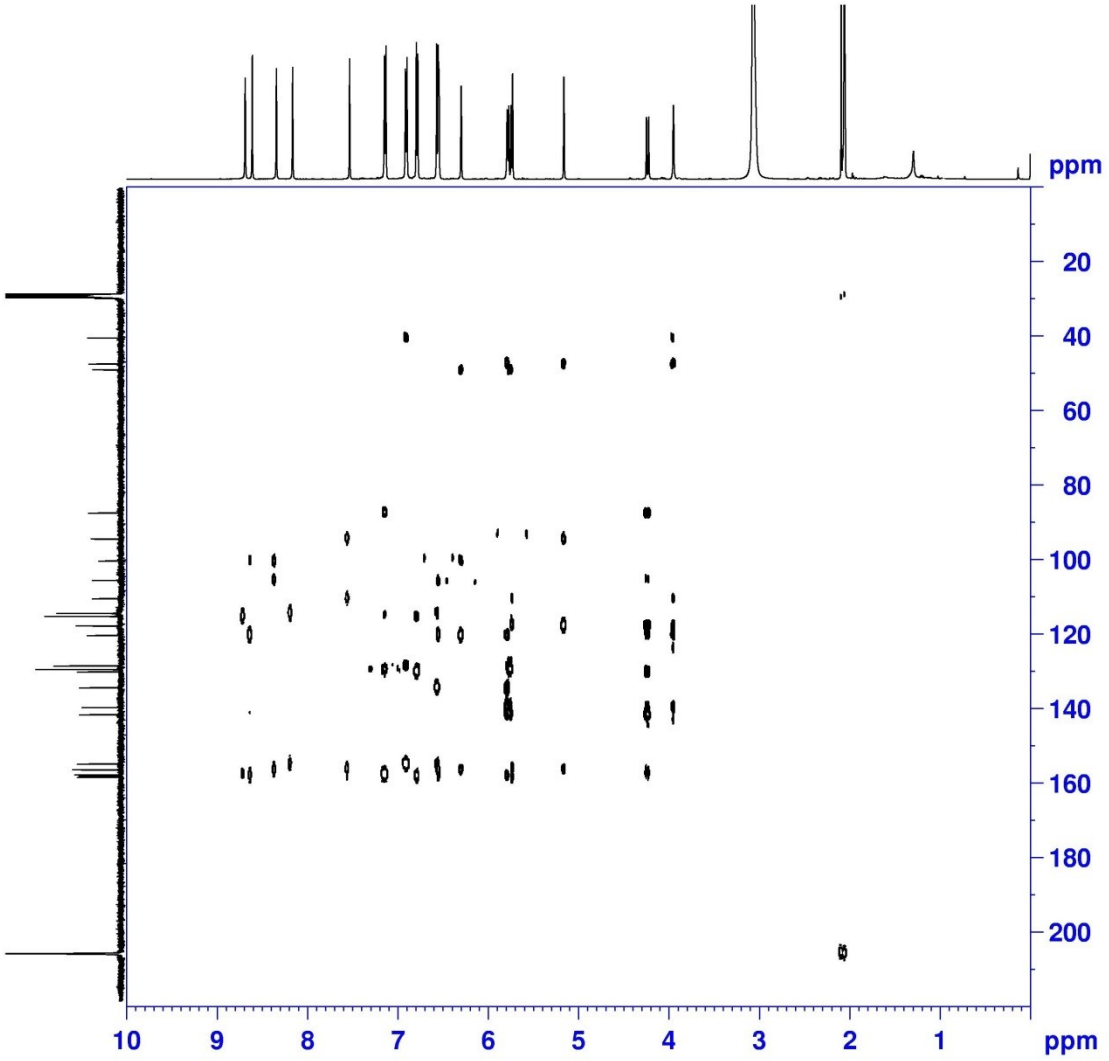


Figure S7 NOESY Spectrum of Compound 1, (+)- hopeaphenol, (CD3COCD3)

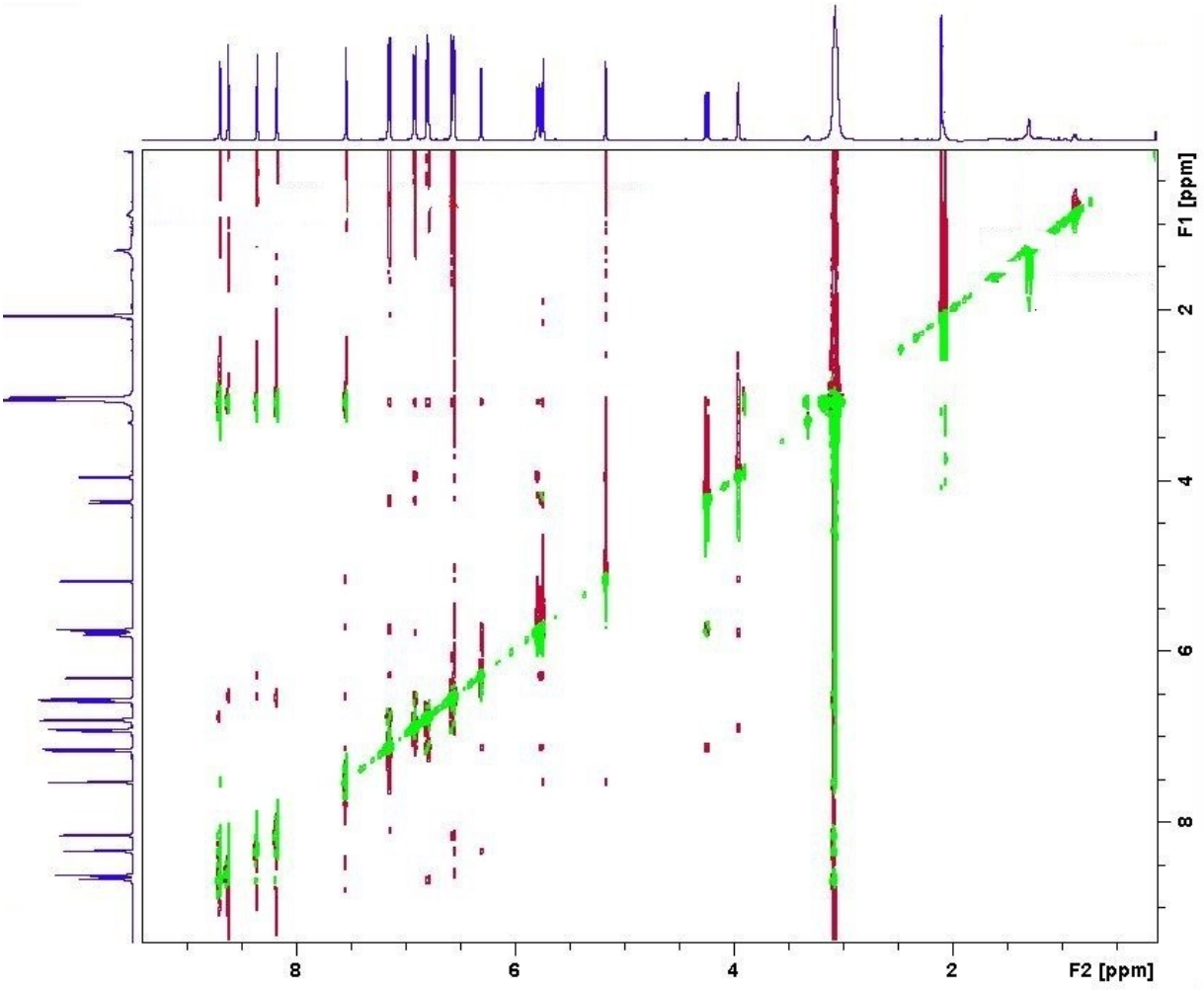


Figure S8 [1]H-NMR Spectrum of Compound 2, (-)- hopeaphenol (CD3COCD3 , 500 MHz)

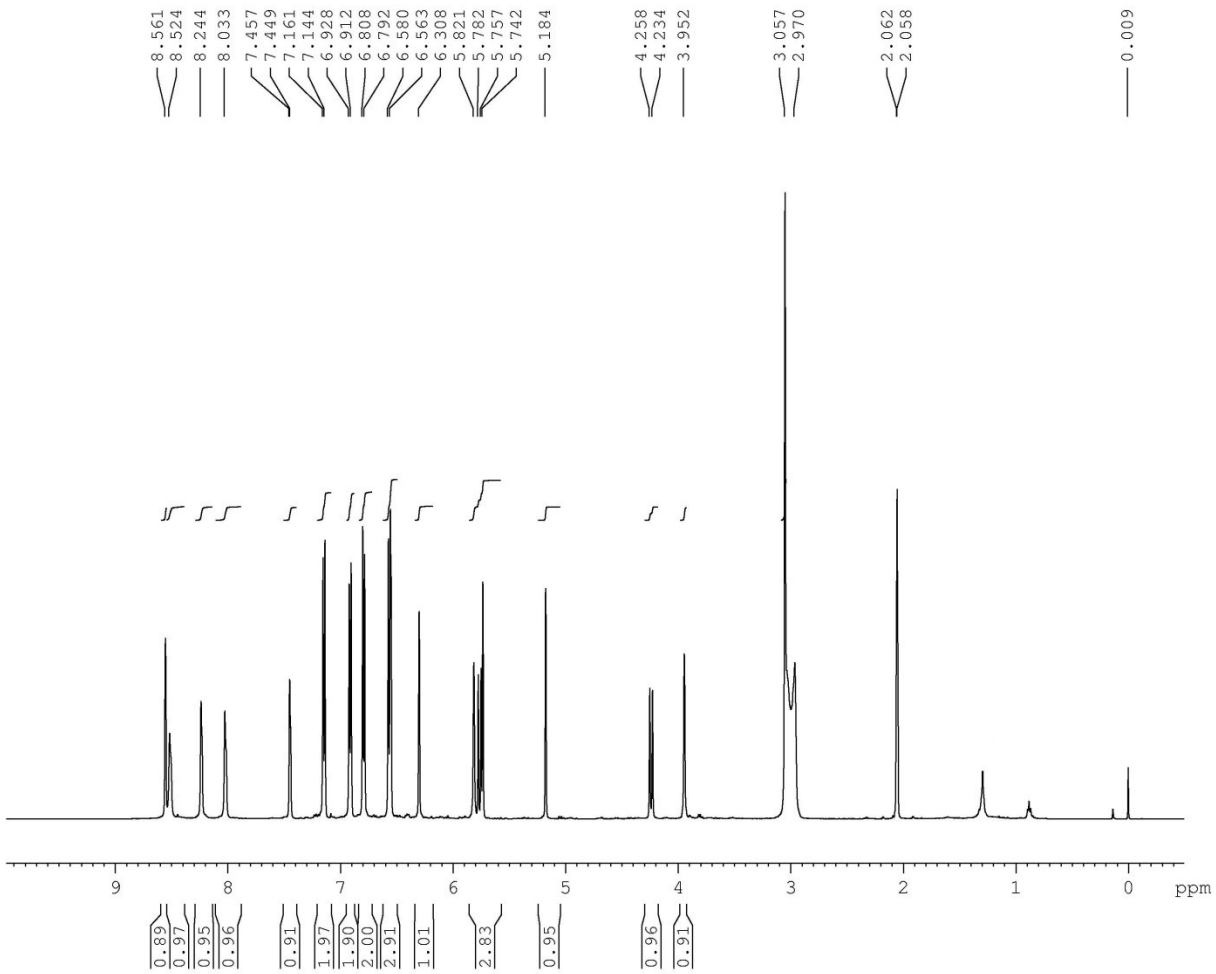


Figure S9 ^{13}C-NMR Spectrum of compound 2,(-)-hopeaphenol, (CD3COCD3 , 125 MHz)

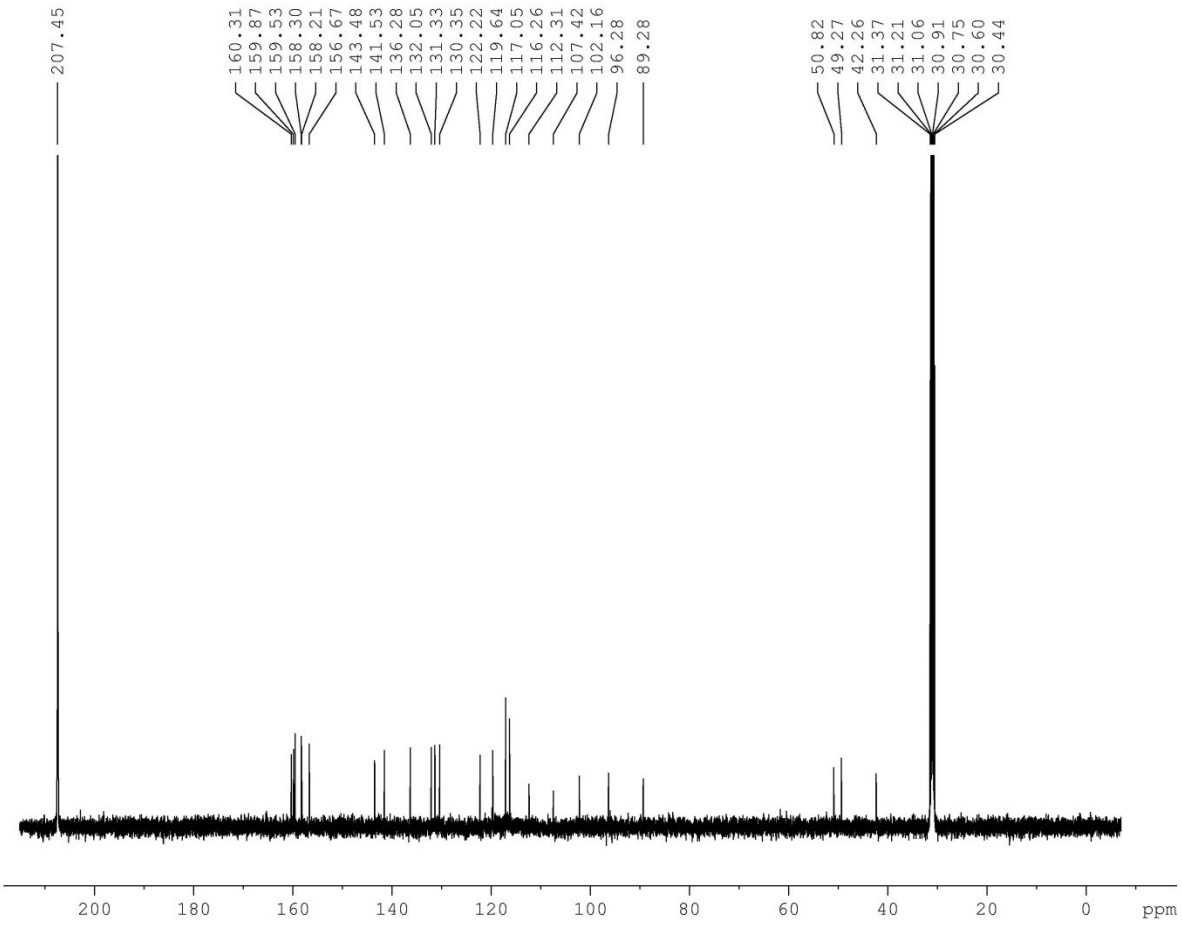


Figure S10 ^{1}H-^{1}H COSY Spectrum of Compound 2, (-)-hopeaphenol, (CD3COCD3)

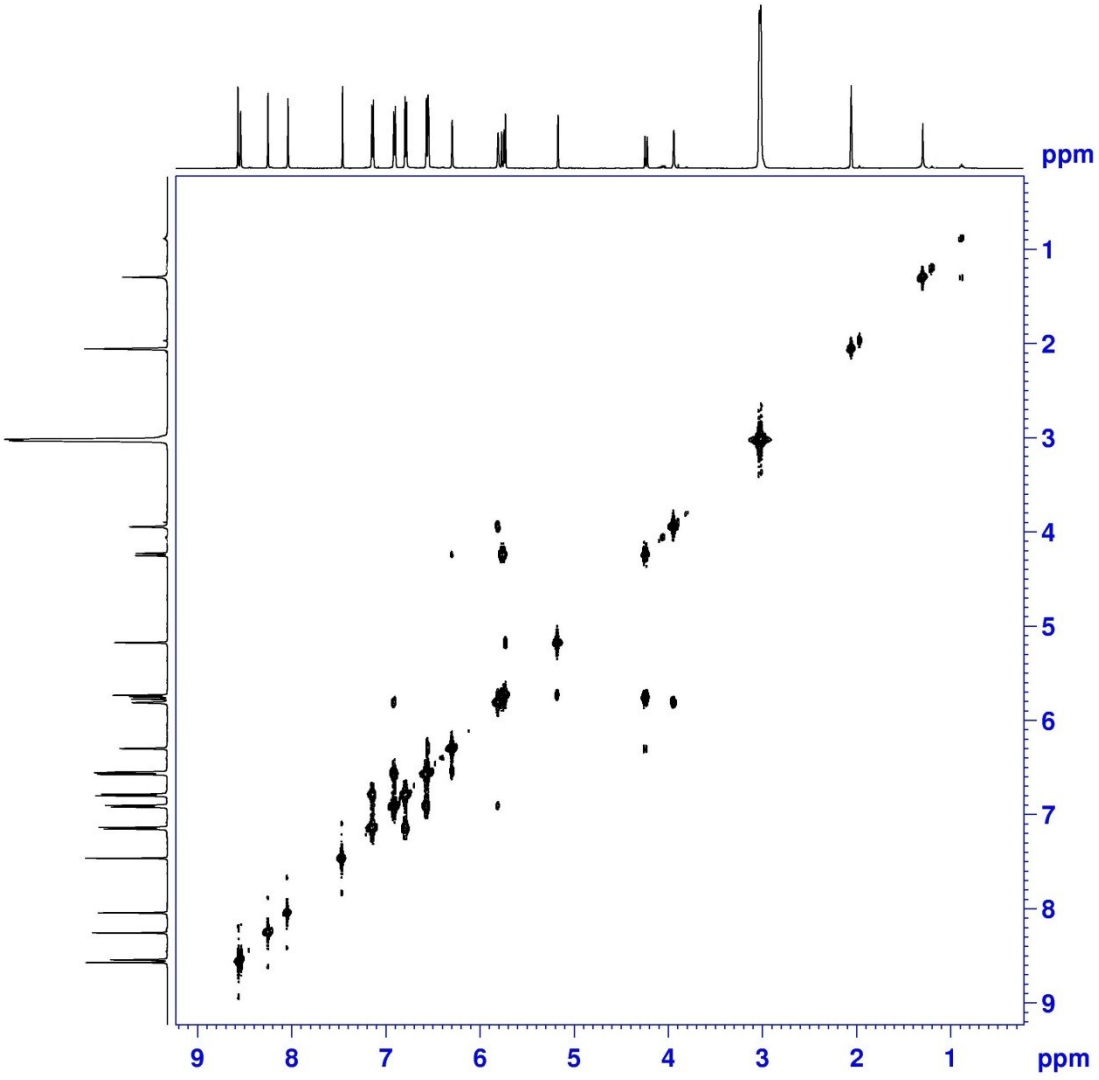


Figure S11 HMQC-Spectrum of Compound 2, (-)-hopeaphenol, (CD3COCD3)

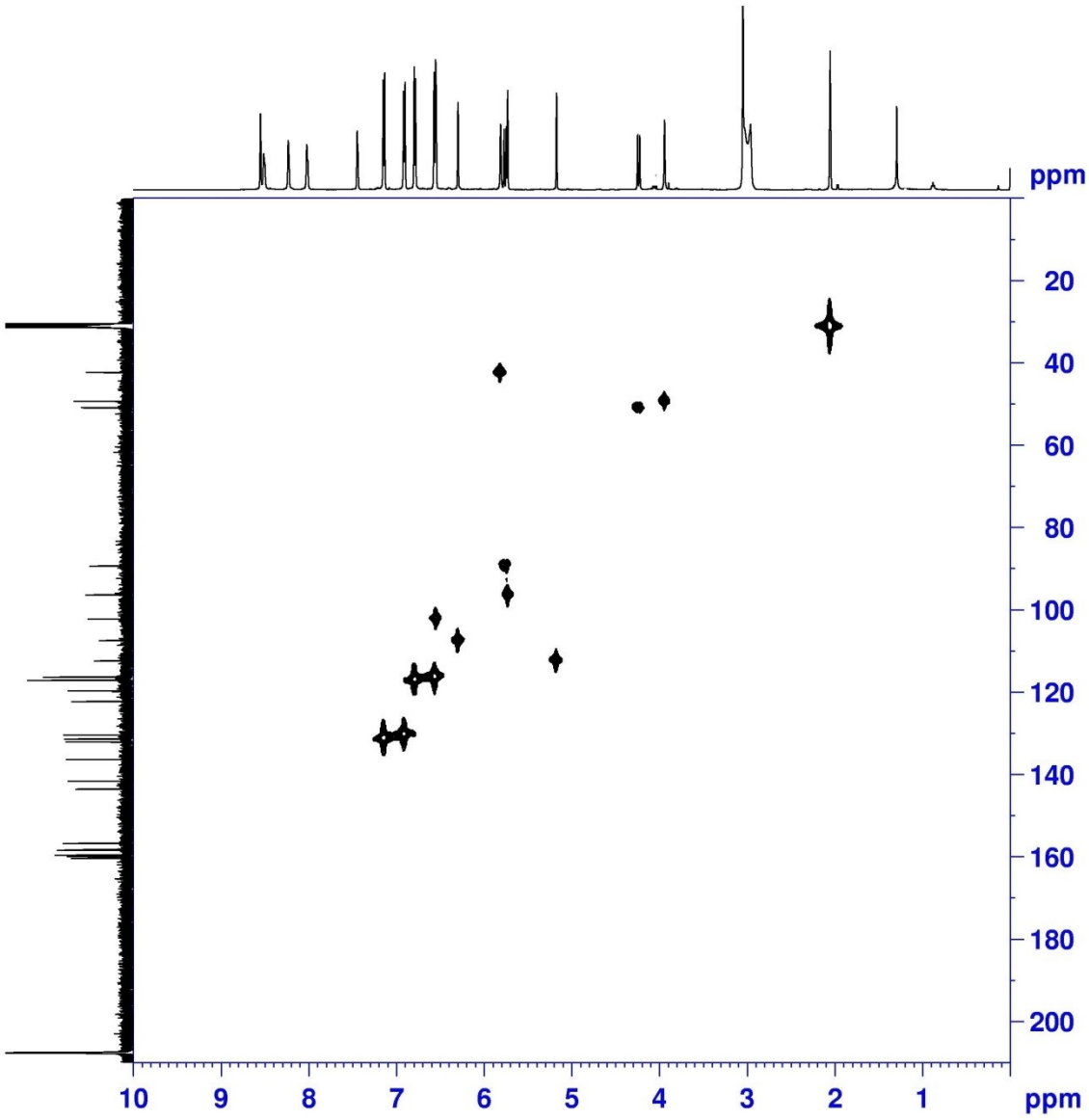


Figure S12 DEPT-135 Spectrum of Compound 2,(-)-hopeaphenol, (CD3COCD3)

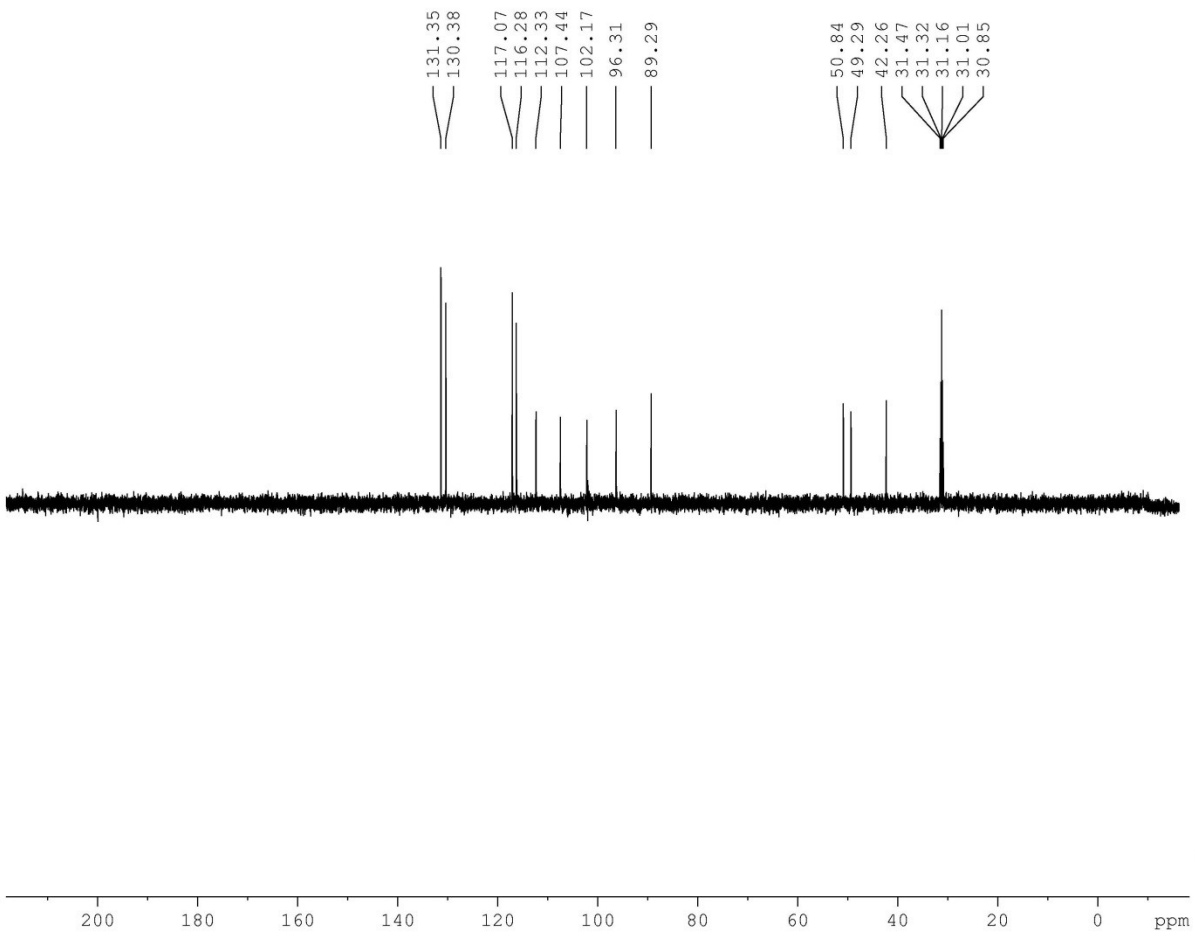


Figure S13 HMBC Spectrum of Compound 2, (-)- hopeaphenol, (CD3COCD3)

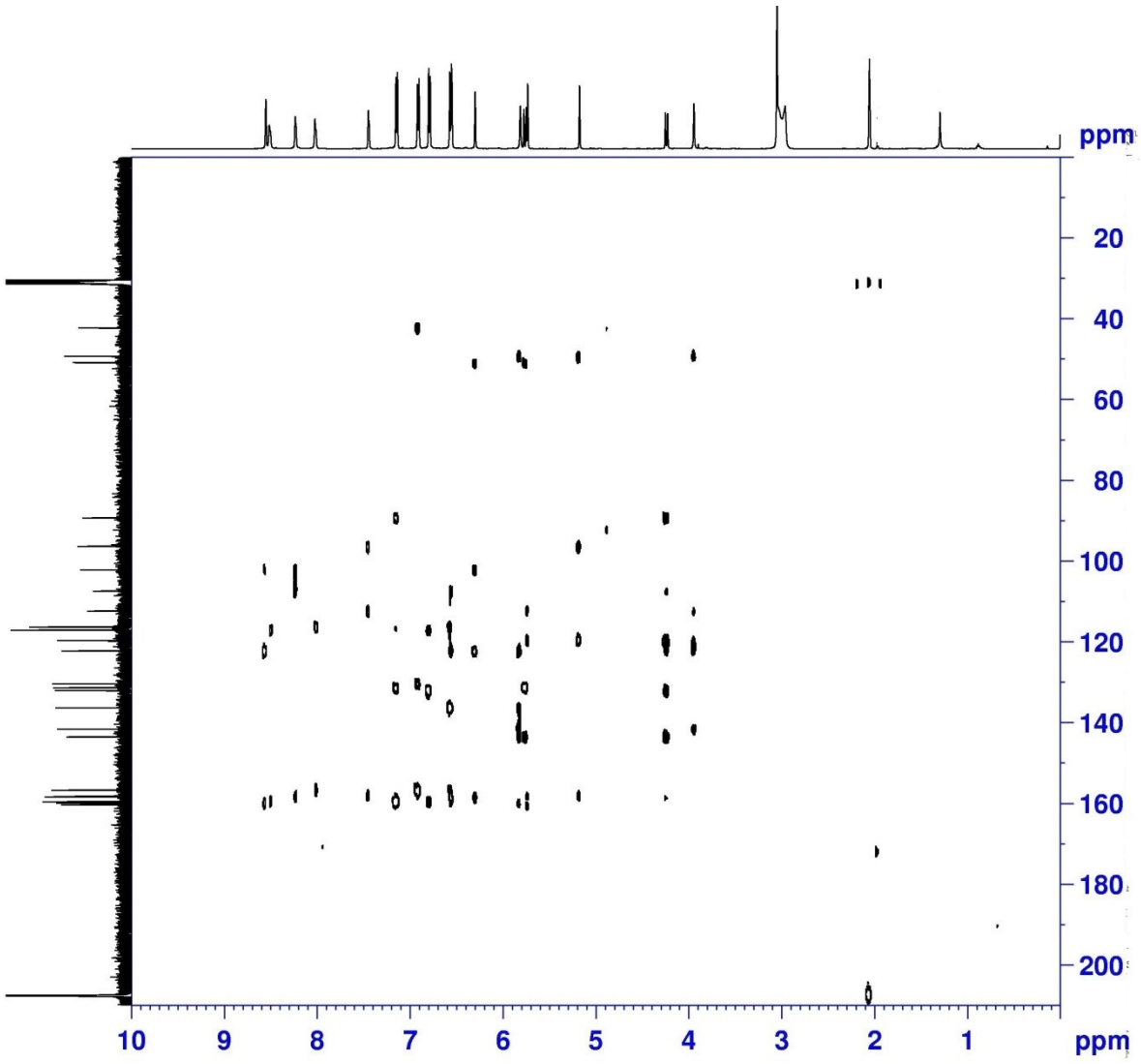


Figure S14 NOESY Spectrum of Compound 2, (-)- hopeaphenol, (CD3COCD3)

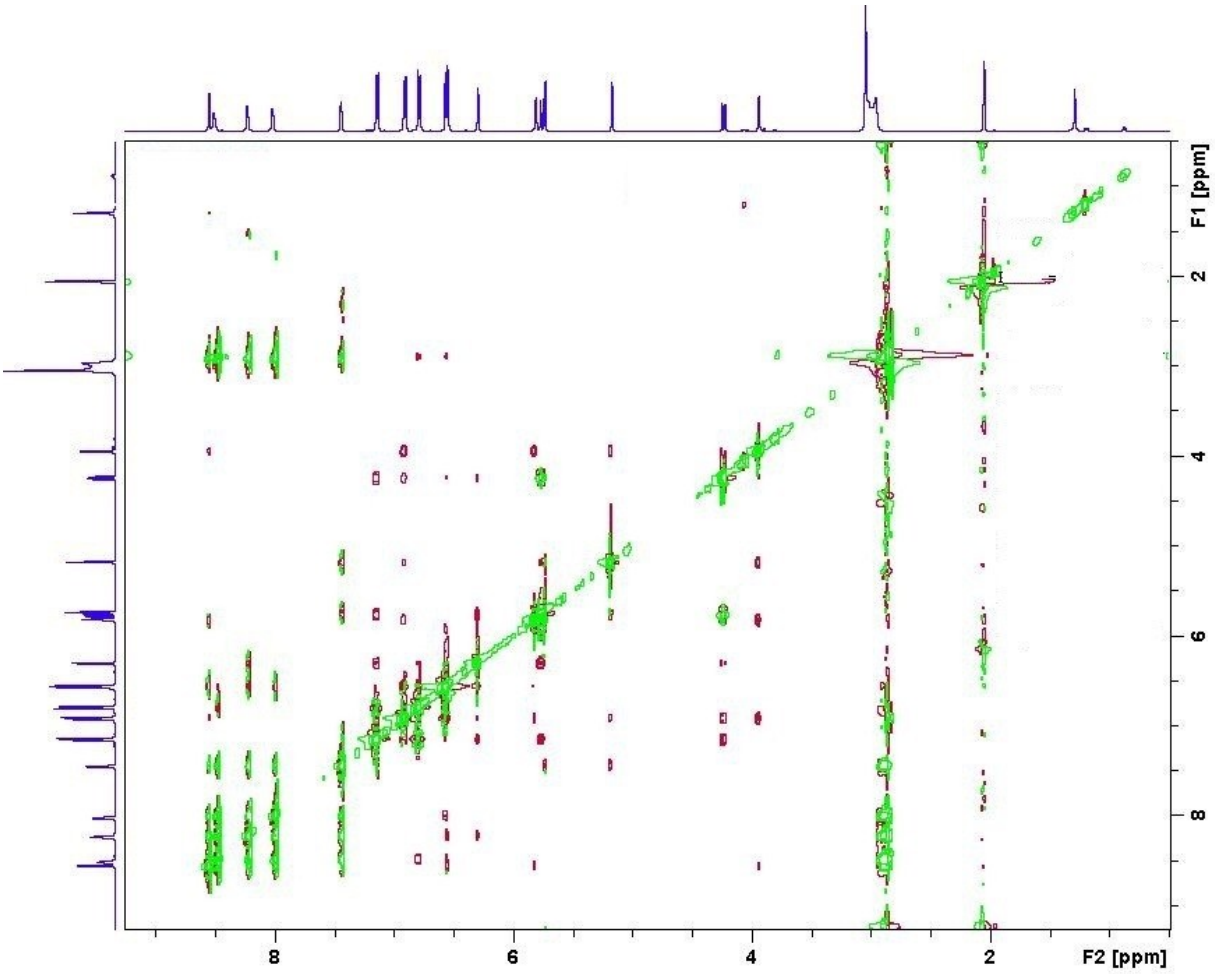
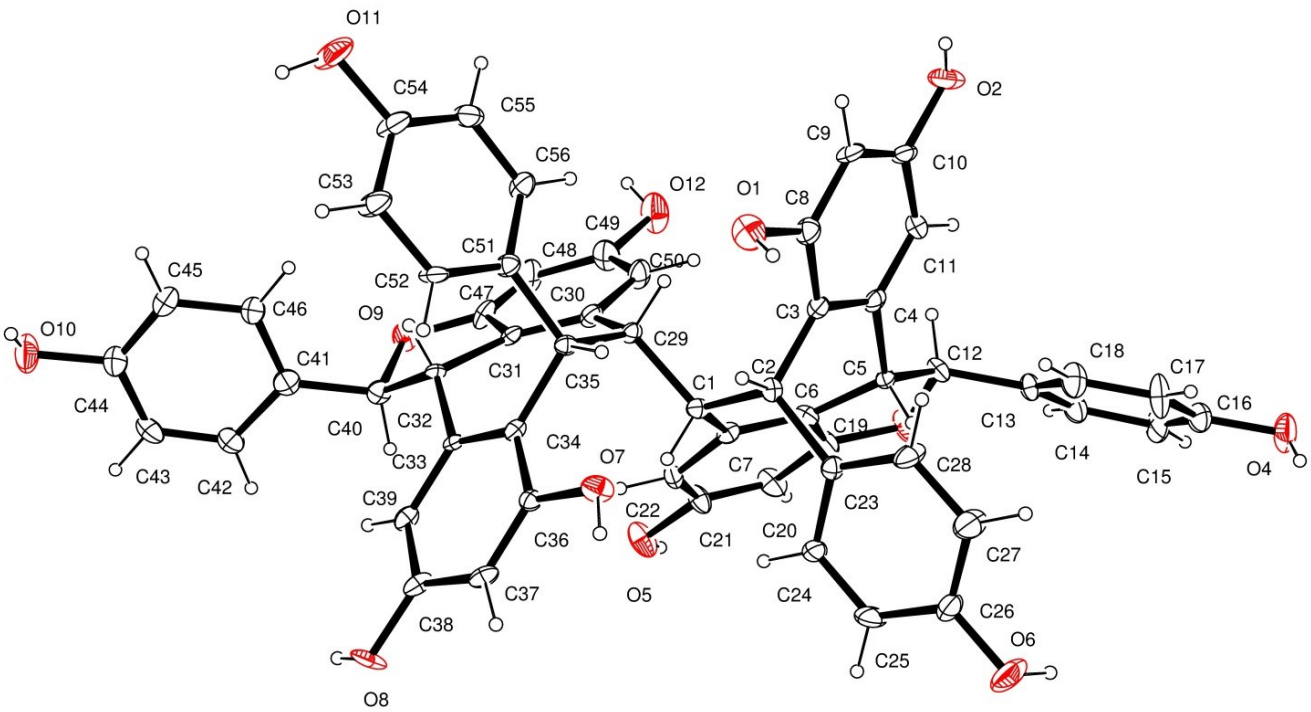


Figure S15 ORTEP Structure of Compound 1, (+)- hopeaphenol



X-ray crystallographic details of (+)-hopeaphenol

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'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

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'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

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'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

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The symmetry employed for this shelxl refinement is uniquely defined

by the following loop, which should always be used as a source of

symmetry information in preference to the above space-group names.

They are only intended as comments.

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_space_group_symop_operation_xyz

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'x+1/2, -y+1/2, -z'

'-x, y+1/2, -z+1/2'

'-x+1/2, -y, z+1/2'

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Structure factors included contributions from the .fab file.

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(Parsons, Flack and Wagner, Acta Cryst. B69 (2013) 249-259).

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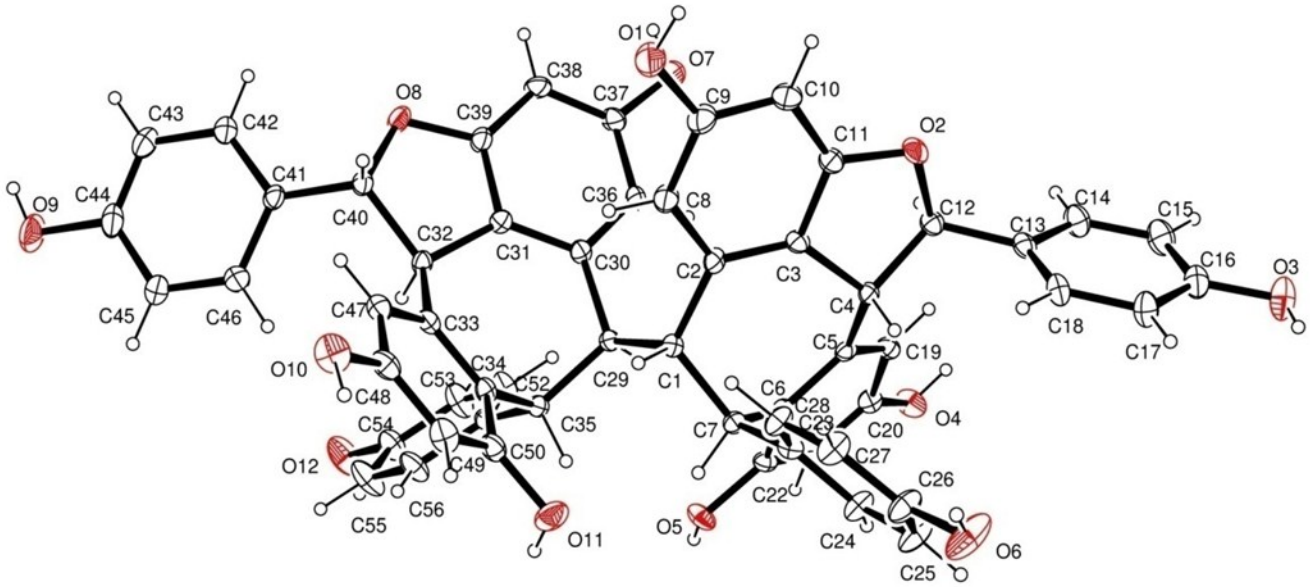
Figure S16 ORTEP Structure of Compound 2, (-)- hopeaphenol



X-ray crystallographic details of (-)-hopeaphenol

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'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

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'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

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'International Tables Vol C Tables 4.2.6.8 and 6.1.1.4'

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The symmetry employed for this shelxl refinement is uniquely defined

by the following loop, which should always be used as a source of

symmetry information in preference to the above space-group names.

They are only intended as comments.

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_space_group_symop_operation_xyz

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'x+1/2, -y+1/2, -z'

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Structure factors included contributions from the .fab file.

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Flack x determined using 2604 quotients [(I+)-(I-)]/[(I+)+(I-)]

(Parsons, Flack and Wagner, Acta Cryst. B69 (2013) 249-259).

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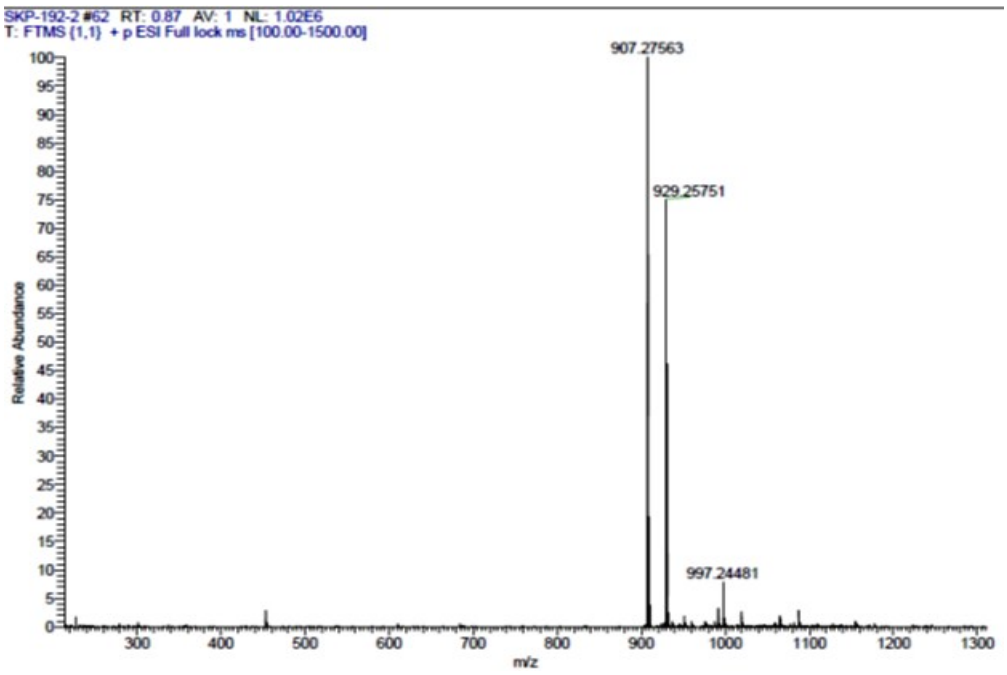

Figure S17 HRMS Spectrum of Compound 1 (+)-hopeaphenol

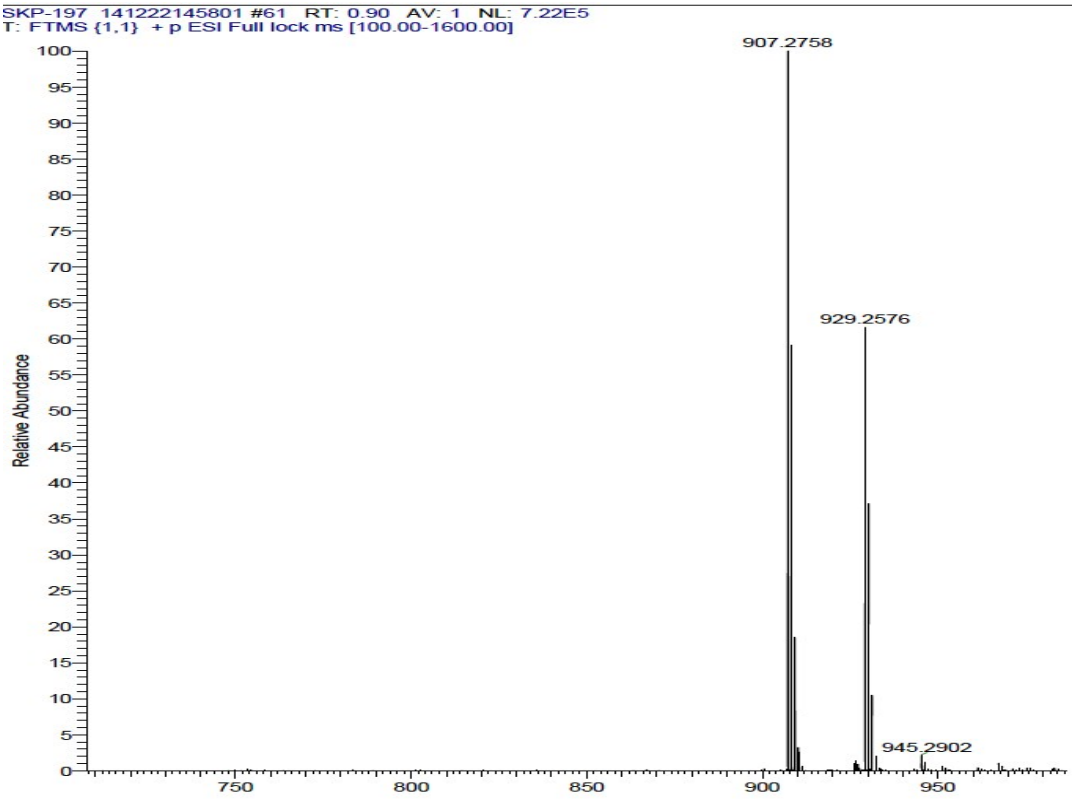

Figure S18 HRMS Spectrum of Compound 2 (-)- hopeaphenol

Sample Name: (+)-hopeaphenol
Sample Description:

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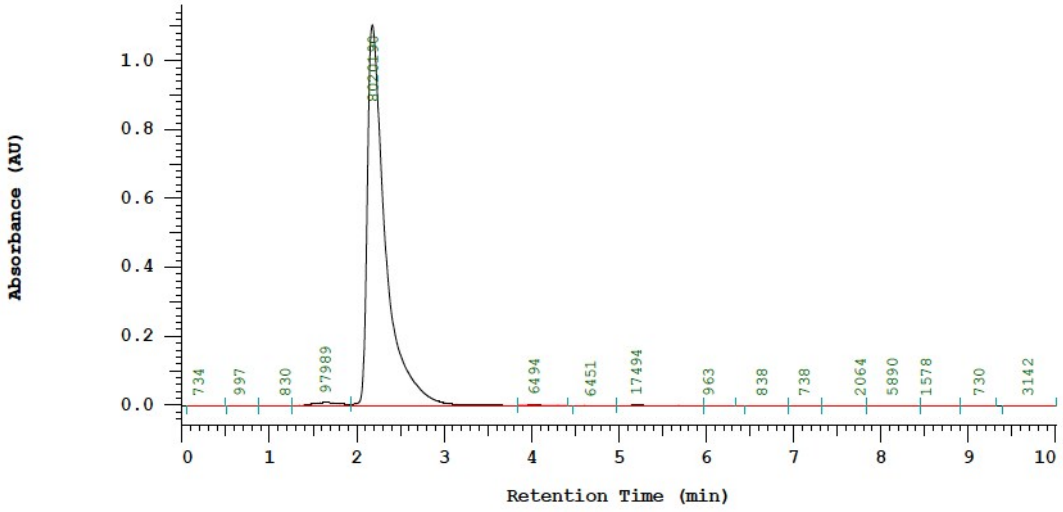

Chrom Type: Fixed WL Chromatogram, 254 nm

Peak Quantitation: AREA

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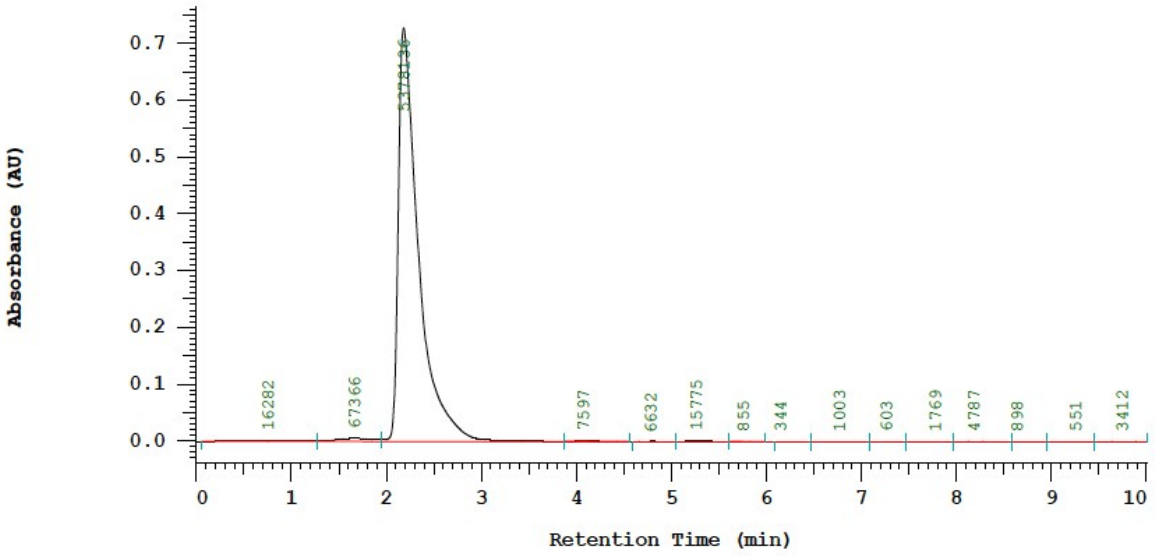
4	1.65		97989	4705	1.200	0.9985
5	2.18		8020190	552461	98.201	0.9964
6	4.03		6494	401	0.080	0.0547
7	4.75		6451	362	0.079	-0.0851
8	5.20		17494	641	0.214	0.9111
9	6.03		963	63	0.012	0.9950
10	6.64		838	58	0.010	0.9411
11	7.12		738	48	0.009	0.9464
12	7.76		2064	117	0.025	0.9788
13	8.13		5890	248	0.072	0.9893
14	8.51		1578	102	0.019	0.9879
15	9.12		730	54	0.009	0.9904
16	9.68		3142	175	0.038	0.9820
			8167122	559663	100.000	

Peak rejection level: 0

Figure S19 HPLC Profile of Compound 1 (+)-hopeaphenol

Sample Name: **(-)- hopeaphenol**
Sample Description:

Chrom Type: Fixed WL Chromatogram, 254 nm



Chrom Type: Fixed WL Chromatogram, 254 nm

Peak Quantitation: AREA

No.	RT	Name	Area	Height	Area %	Purity
1	0.75		16282	377	0.296	-0.9401
2	1.67		67366	2850	1.224	0.9188
3	2.18		5378136	364113	97.677	0.9943
4	4.07		7597	411	0.138	0.9967
5	4.80		6632	385	0.120	0.9994
6	5.26		15775	633	0.287	0.9999
7	5.75		855	70	0.016	0.9997
8	6.15		344	18	0.006	0.9999
9	6.77		1003	67	0.018	0.9996
10	7.26		603	46	0.011	0.9997
11	7.77		1769	110	0.032	0.9999
12	8.18		4787	209	0.087	1.0000
13	8.64		898	63	0.016	0.9999
14	9.25		551	46	0.010	1.0000
15	9.75		3412	213	0.062	0.9999
			5506010	369611	100.000	

Peak rejection level: 0

Figure S20 HPLC Profile of Compound 2 (-)-hopeaphenol

Materials and Methods used for preliminary biological screening of different extracts of VI and AI

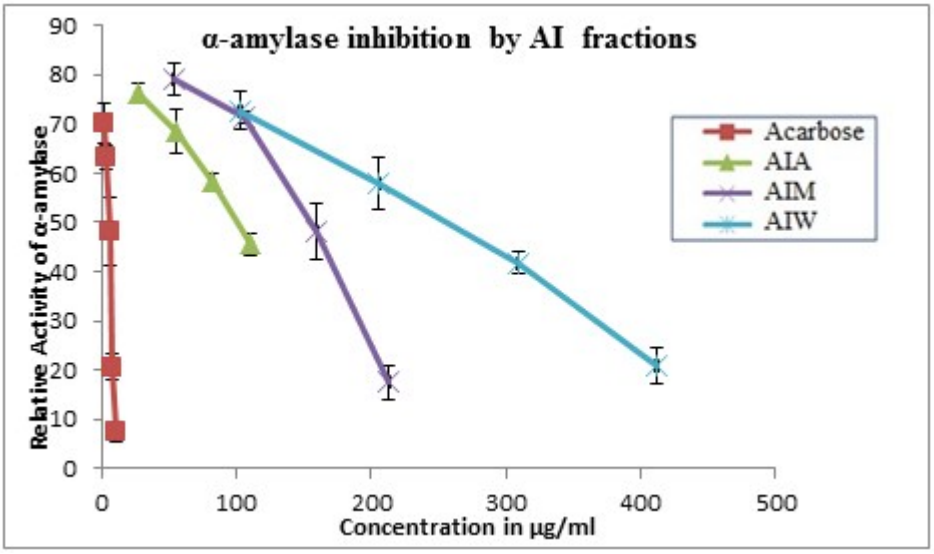


Figure S21 Graph showing the relative decrease in the activity of α-Amylase by the fractions of AI

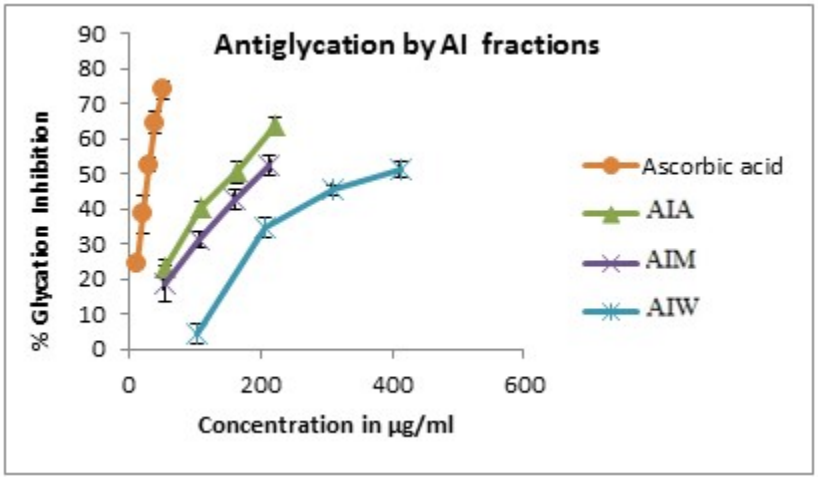


Figure S22 Graph showing the % Inhibition of glycation by fractions of AI

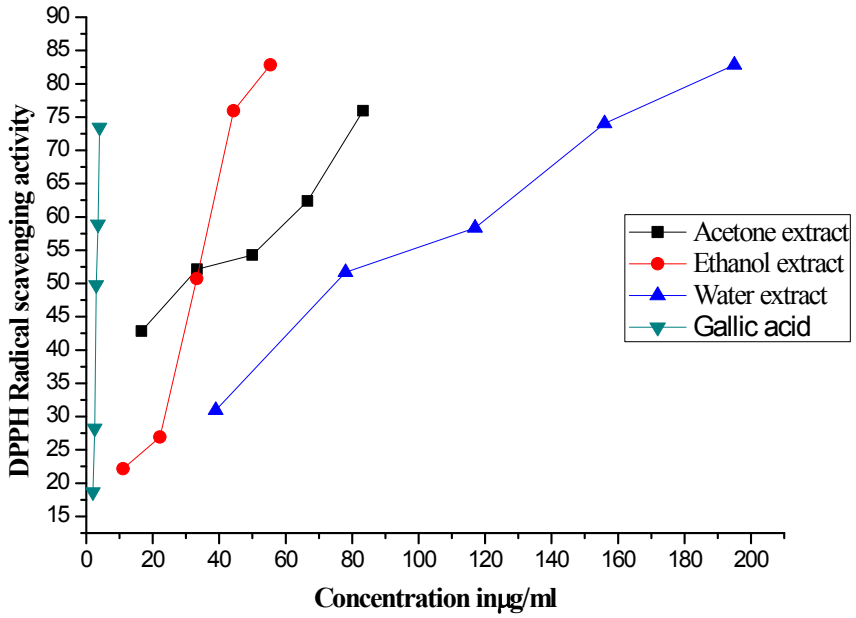


Figure S23 Graph showing the DPPH Radical scavenging activity by fractions of VI

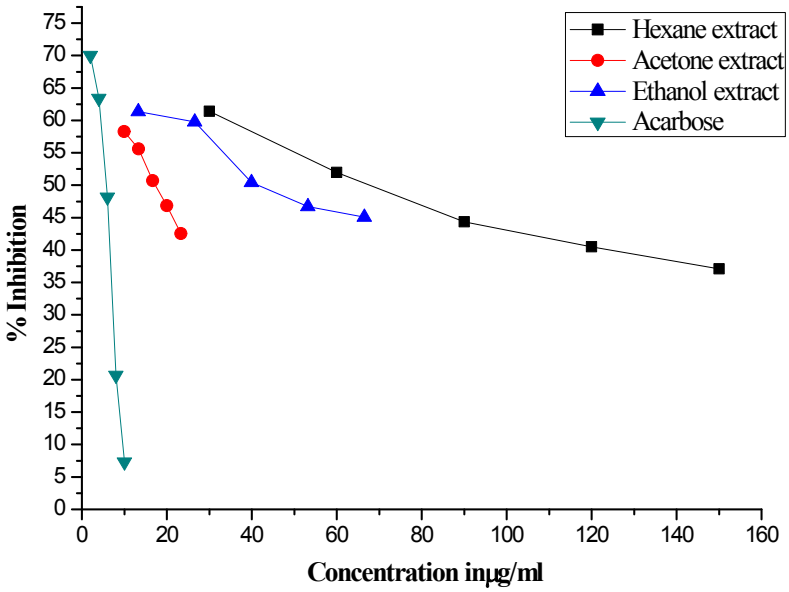


Figure S24 α-Amylase inhibition activity of different extracts of VI