

The chromatogram used for purity and homogeneity assessment was the summed absorbance between 220 nm and 350 nm. Purity was determined as the area percent of the major peak after integration of any impurities judged to be authentic by the analyst. Using this method the purity was determined at **99.1%**

¹H NMR

Unless otherwise specified, proton magnetic resonance spectra were run in deuterio-DMSO at 300 MHz. The NMR data is consistent with the structure.

Storage Conditions

Compound(s) provided by Chemtos should be stored and handled in a manner appropriate to those trained in the art. Examples of routine practices are follows:

- Samples should be stored in an air tight, amber vial under an inert atmosphere.
- Samples should be stored at the coldest temperature possible.
- Samples should be stored in the dark.
- Samples that may be hygroscopic or sensitive to moisture should be handled in a dry box.
- To prevent water contamination during weighing the sample container should be equilibrated to room temperature before opening.
- Samples that may be sensitive to oxygen should be handled in a glove box under an inert atmosphere.

Due to individual variations in chemical stability profiles, Chemtos strongly recommends strict adherence to the above minimum storage conditions. Chemtos provides no guarantee of the long-term chemical stability of any compound.

Caution

This information is provided as an indication of the quality of the underlying material when examined by a specific technique. The reported values are subject to normal experimental error and should be treated as estimates. The absence of undetected impurities cannot be guaranteed by this or any other general approach and this certificate does not certify the absence of such substances in the sample.

Intended Use

This product is intended for investigational use only and should not be used in humans. It is pharmaceutically unrefined, may contain uncharacterized toxic impurities, and is not intended for use in humans. Responsibility for its use and compliance with all federal laws rests solely with the purchaser.

Analytical Review and Approval

Signature:

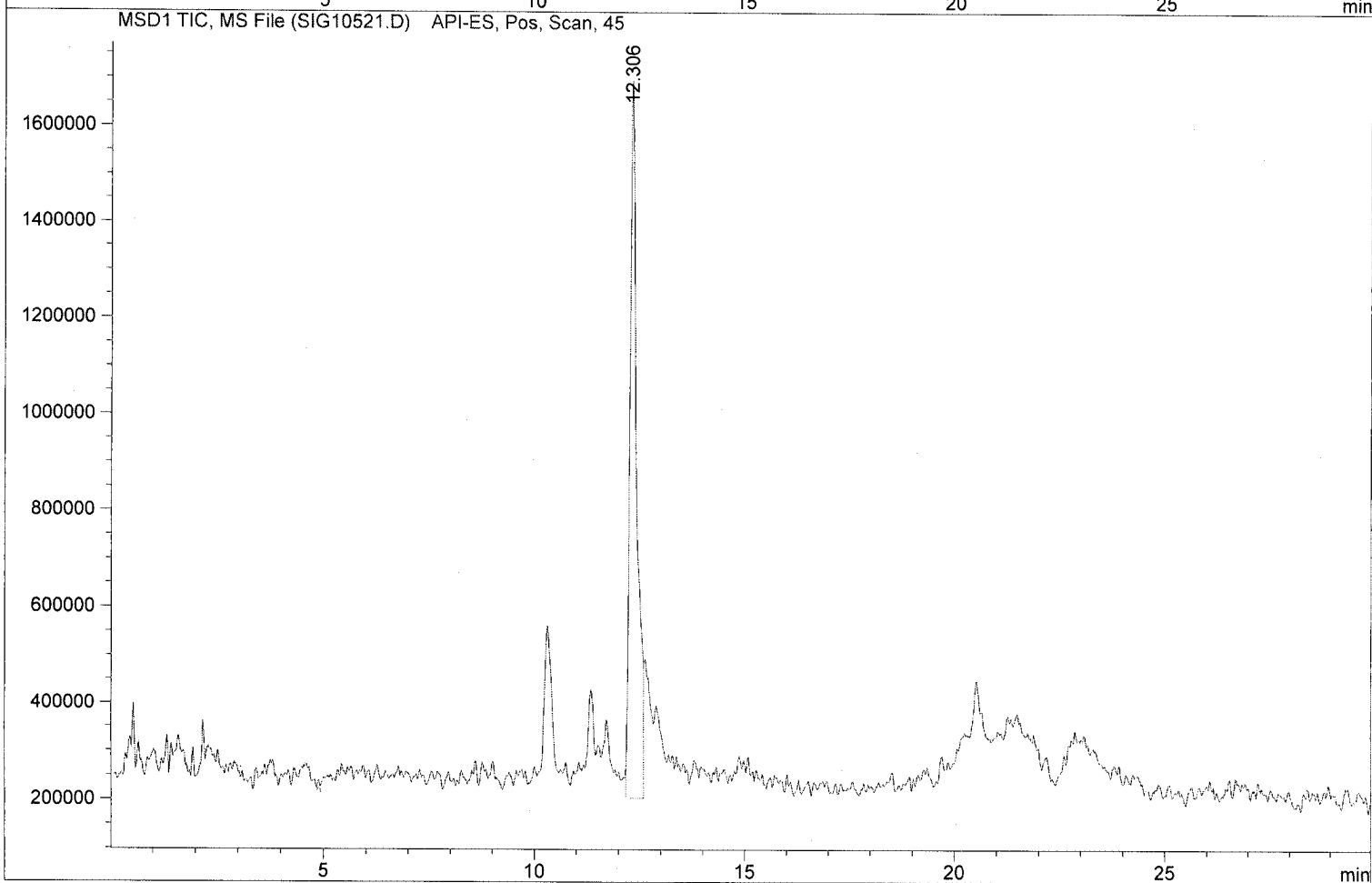
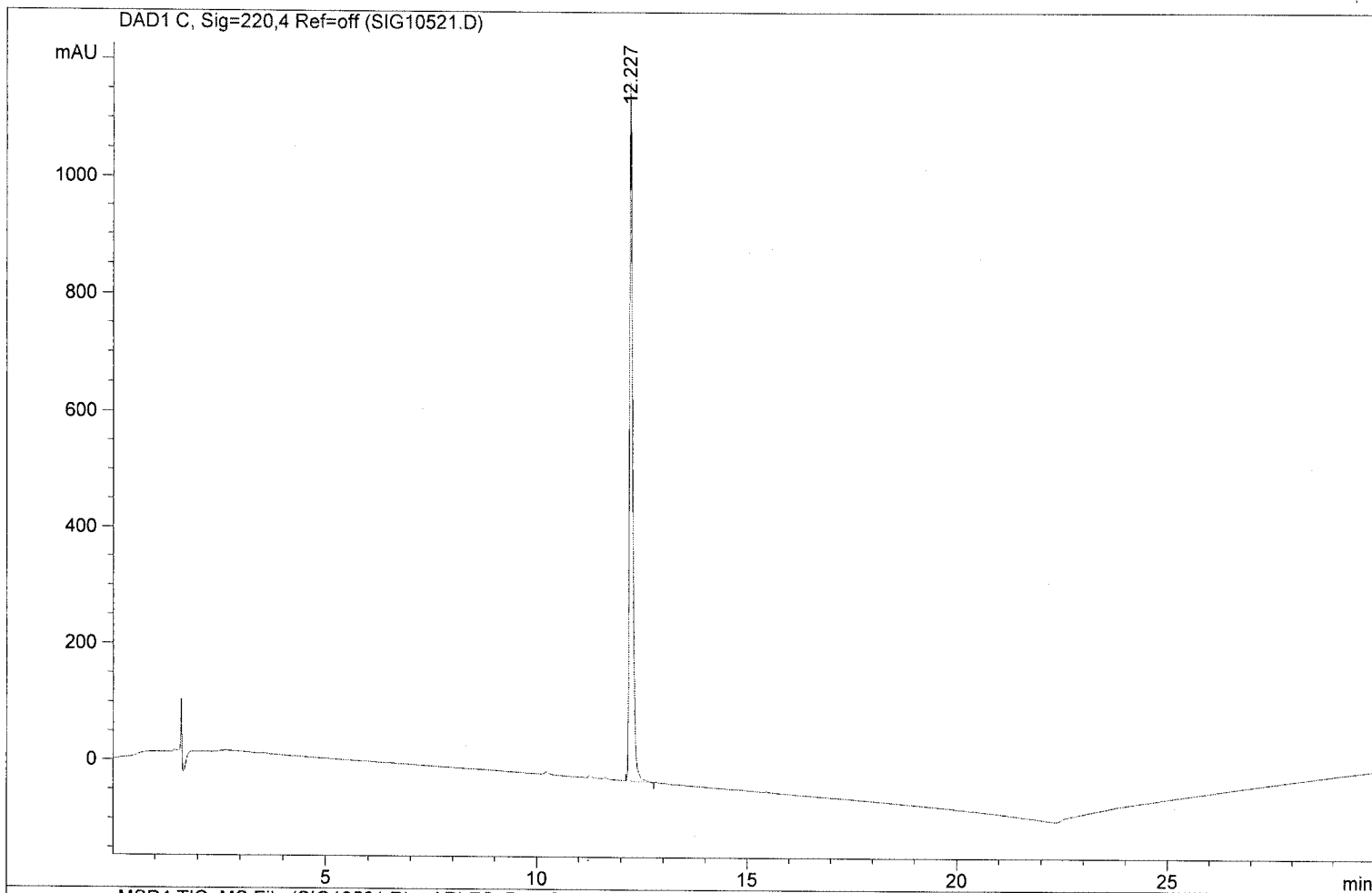
Date:

Quality Review and Approval

Signature:

Date:

=====
Injection Date : 5/13/2008 10:48:12 AM
Sample Name : Location : Vial 1
Acq. Operator : Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\HPCHEM\1\METHODS\CHEMTOS.M
Last changed : 5/13/2008 10:15:16 AM
(modified after loading)
Analysis Method : C:\HPCHEM\1\METHODS\CHEMTOS.M
Last changed : 5/13/2008 11:43:47 AM
(modified after loading)



Spectra averaged over upper half of peaks.
Number of ions per peak: 6
Display Time Range(+/- mins): 1.0

DataPath : C:\HPCHEM\1\DATA\SIG10521.D

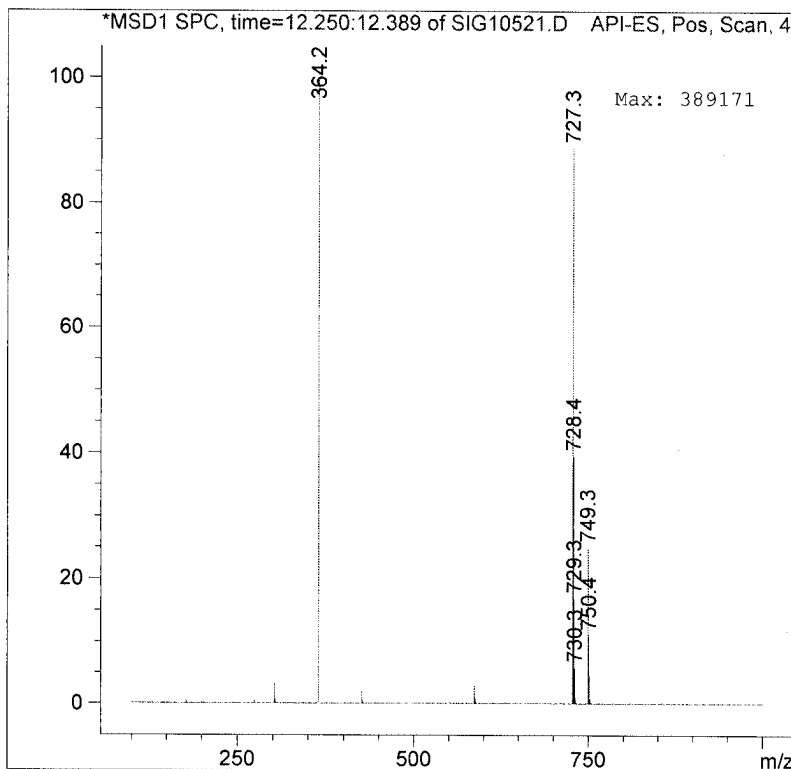
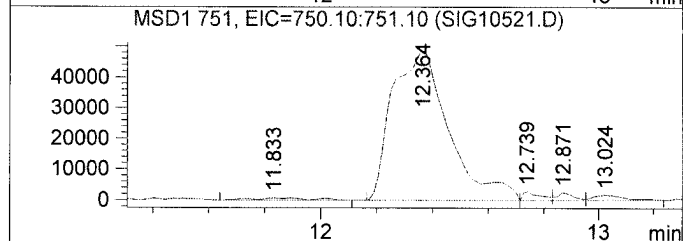
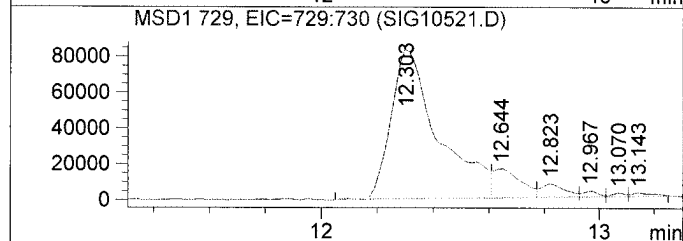
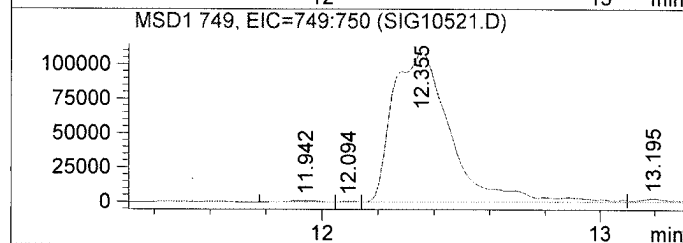
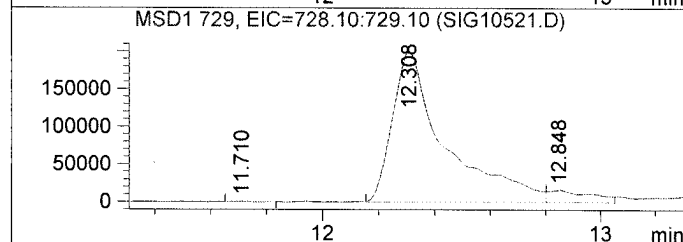
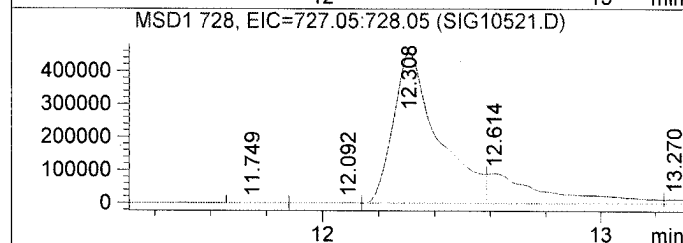
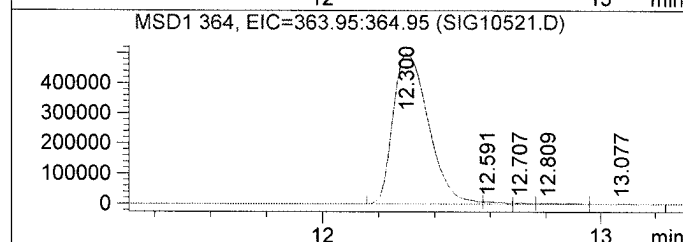
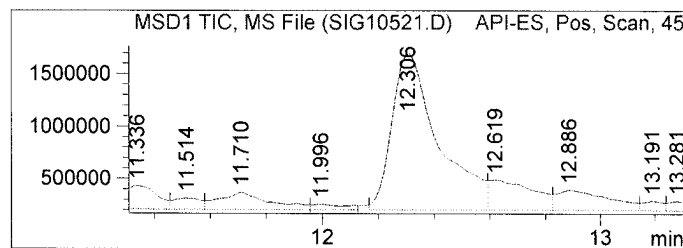
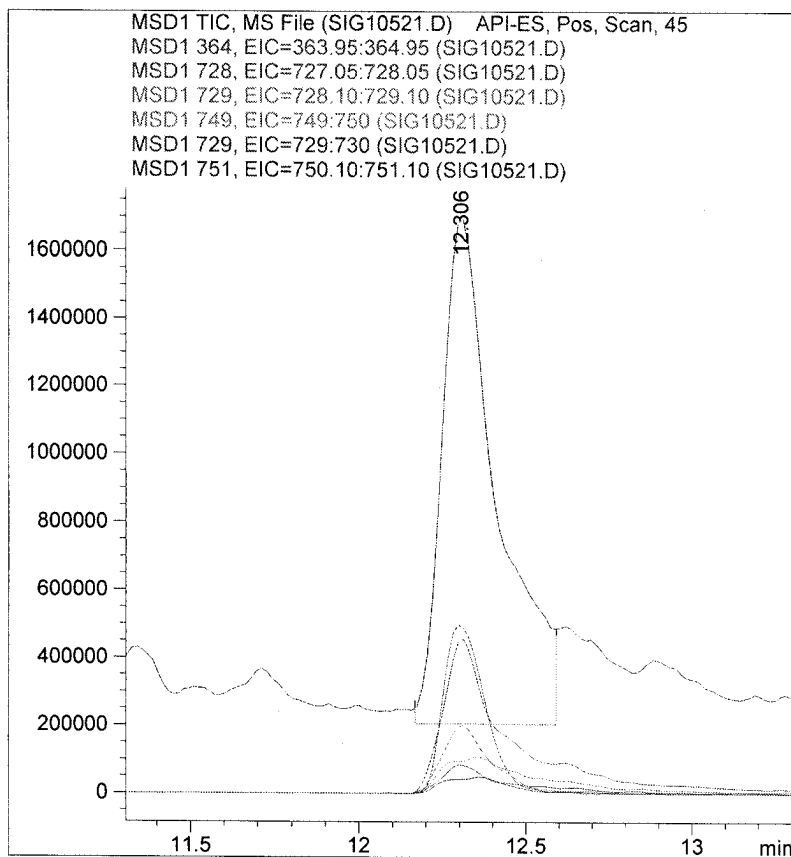
DateTime : 05/13/2008 11:43:55 am

Operator :

Vial : 1

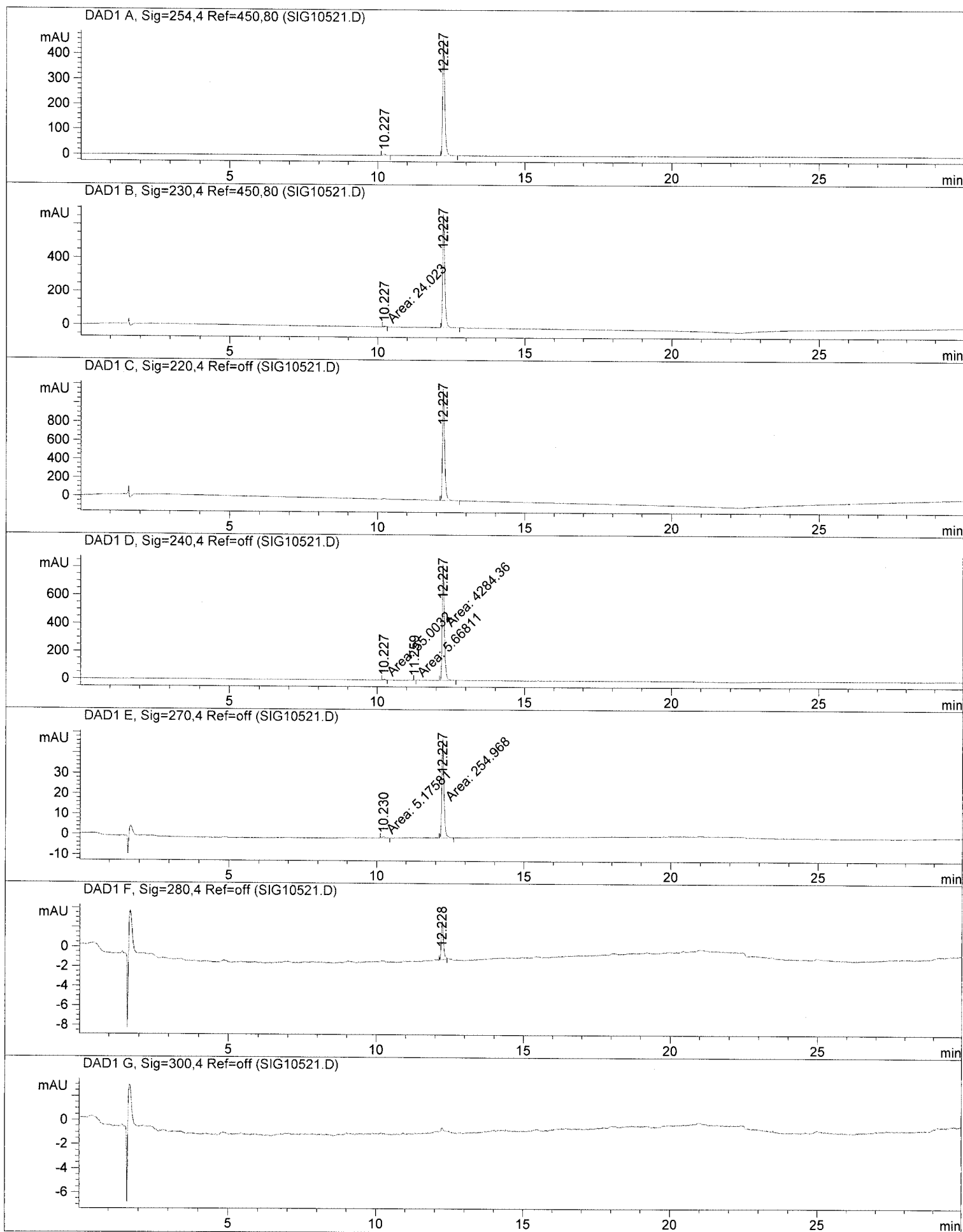
Sample :

Retention : 12.306 minutes



*** End of Report ***

=====
Injection Date : 5/13/2008 10:48:12 AM
Sample Name : Location : Vial 1
Acq. Operator : Inj Volume : 5 µl
Acq. Method : C:\HPCHEM\1\METHODS\CHEMTOS.M
Last changed : 5/13/2008 10:15:16 AM
(modified after loading)
Analysis Method : C:\HPCHEM\1\METHODS\CHEMTOS.M
Last changed : 5/13/2008 11:41:55 AM
(modified after loading)



=====
 Area Percent Report
 =====

Sorted By : Signal
 Multiplier : 1.0000
 Dilution : 1.0000

Signal 1: DAD1 A, Sig=254,4 Ref=450,80

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.227	BB	0.1002	32.35512	4.85158	1.3310
2	12.227	BB	0.0758	2398.54004	468.27283	98.6690
Totals :				2430.89516	473.12441	

Signal 2: DAD1 B, Sig=230,4 Ref=450,80

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.227	MM	0.0988	24.02302	4.05079	0.6866
2	12.227	BV	0.0756	3474.78491	679.89313	99.3134
Totals :				3498.80793	683.94392	

Signal 3: DAD1 C, Sig=220,4 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	12.227	BV	0.0766	6224.70459	1198.07153	100.0000
Totals :				6224.70459	1198.07153	

Signal 4: DAD1 D, Sig=240,4 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.227	MM	0.1237	55.00319	7.41336	1.2659
2	11.259	MM	0.0553	5.66811	1.70814	0.1305
3	12.227	MM	0.0847	4284.35986	842.66412	98.6037
Totals :				4345.03116	851.78562	

Signal 5: DAD1 E, Sig=270,4 Ref=off

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.230	MM	0.1332	5.17581	6.47726e-1	1.9896
2	12.227	MM	0.0863	254.96800	49.24870	98.0104
Totals :				260.14382	49.89642	

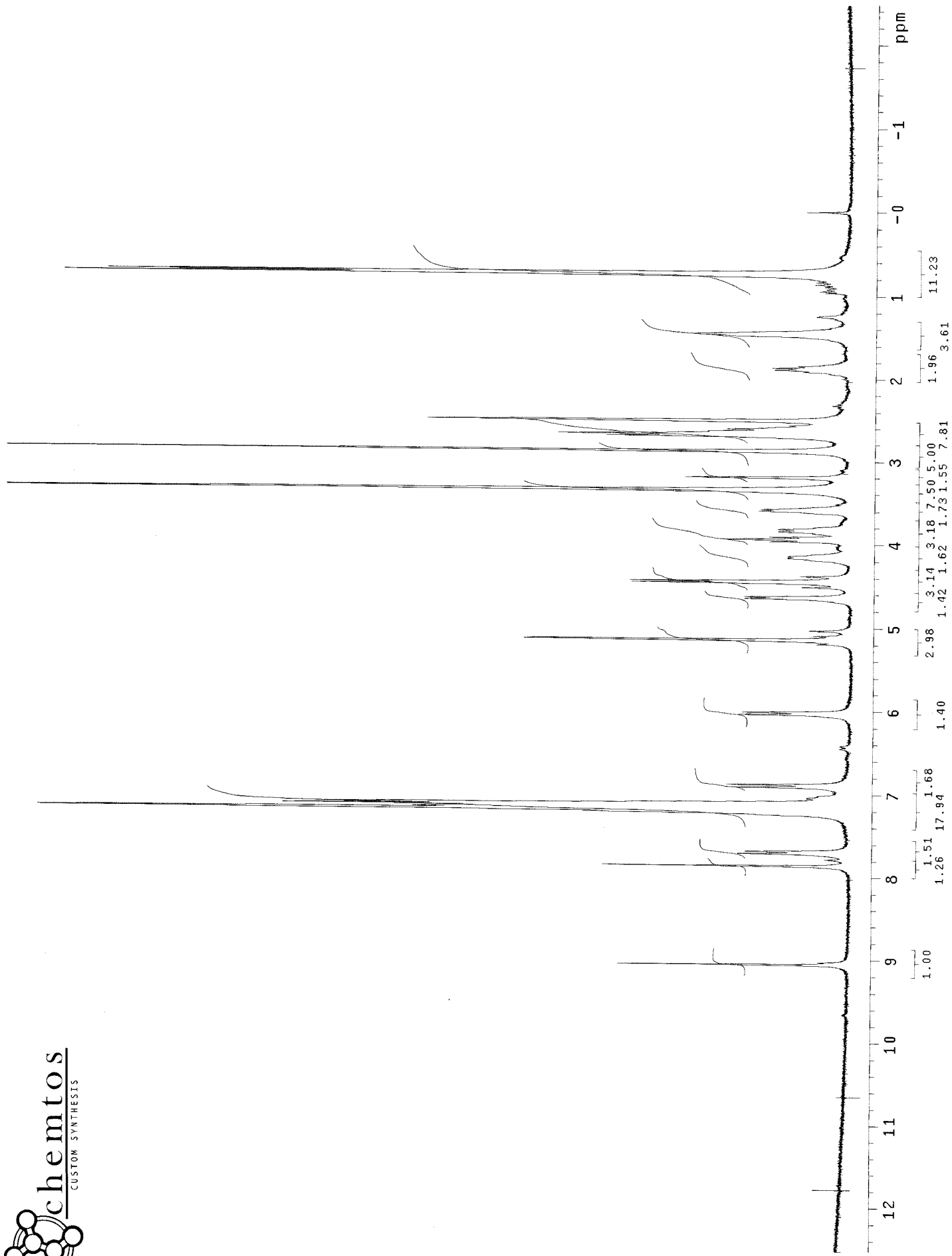
Signal 6: DAD1 F, Sig=280,4 Ref=off

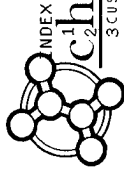
Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	12.228	PB	0.0836	20.76014	3.95471	100.0000

Totals : 20.76014 3.95471

Signal 7: DAD1 G, Sig=300,4 Ref=off

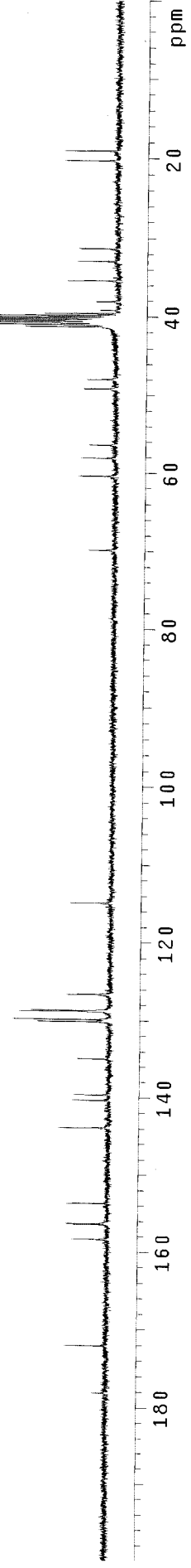
=====
*** End of Report ***

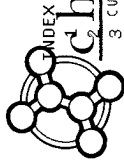




INDEX	FREQUENCY PPM	HEIGHT	INDEX	FREQUENCY PPM	HEIGHT
1	178.124	2.1	40	2058.073	27.289
2	178.124	6.4	41	1530.734	20.297
3	158.358	5.4	42	1436.547	19.048
4	11800.085	5.3			
5	11789.492	6.4			
6	11592.241	6.3			
7	10852.193	7.8			
8	10583.657	5.6			
9	10532.126	5.3			
10	10178.850	4.9			
11	9816.412	11.4			
12	9795.513	15.1			
13	9716.785	14.1			
14	9707.910	12.3			
15	9552.743	6.6			
16	8667.262	6.3			
17	6986.765	-1.0			
18	5271.915	3.9			
19	5093.845	-1.0			
20	4556.487	5.6			
21	4381.280	5.3			
22	4254.456	4.0			
23	3707.364	4.9			
24	3617.756	4.5			
25	3113.607	14.4			
26	3092.709	39.7			
27	3071.810	81.4			
28	3050.625	88.3			
29	3029.726	74.7			
30	3008.827	36.2			
31	2987.928	11.3			
32	2955.578	2.5			
33	2900.325	-1.1			
34	2873.128	3.1			
35	2681.316	-1.1			
36	2669.292	7.7			
37	2632.075	-1.1			
38	2481.489	6.1			
39	2361.822	5.9			

HEIGHT
-1.1
8.2
8.3





INDEX	FREQUENCY PPM	HEIGHT
1	134.33	4.0
2	128.124	11.9
3	118.21	9.7
4	118.00	9.7
5	117.89	11.9
6	115.92	11.6
7	108.52	14.1
8	105.83	10.2
9	105.32	9.7
10	101.78	8.9
11	98.16	20.7
12	97.95	27.6
13	97.16	25.9
14	97.07	22.4
15	95.52	12.0
16	86.67	11.4
17	52.71	7.2
18	45.56	10.3
19	43.81	9.7
20	42.54	7.4
21	37.07	9.0
22	36.17	8.3
23	31.13	26.1
24	30.92	72.5
25	30.71	148.8
26	30.50	161.5
27	30.29	136.6
28	30.08	66.2
29	29.87	20.9
30	29.55	4.5
31	28.73	5.8
32	26.69	14.0
33	24.81	11.3
34	23.61	10.9
35	15.30	15.0
36	14.36	15.2

