APPENDICES

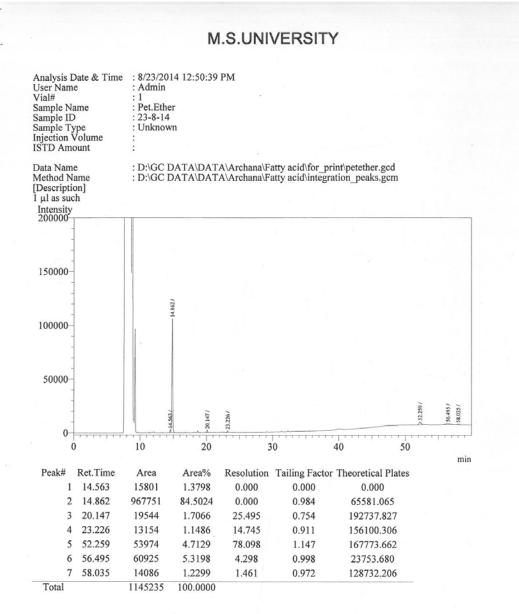
List of Reports

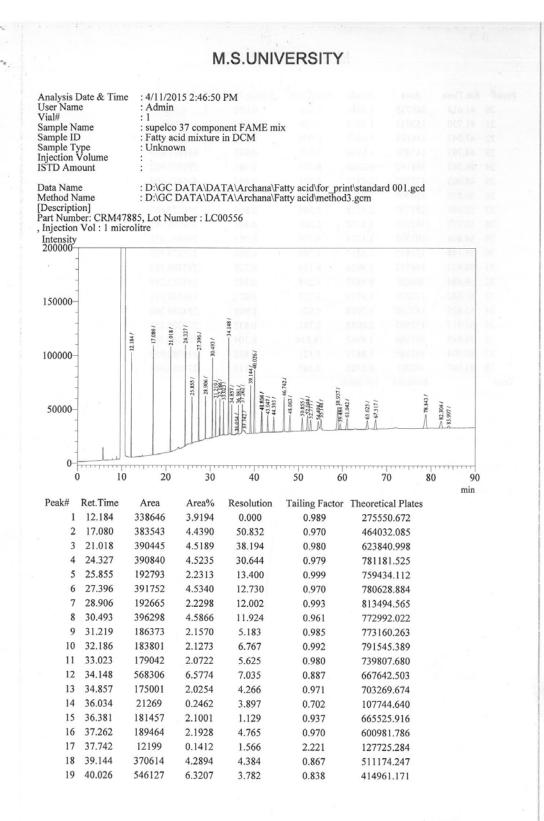
REPORTS	TERM	EXPANSION		
1	Control_27 June	GC analysis for Control		
2	Hexane	GC analysis of Hexane		
3	Pet ether	GC analysis of Petroleum		
		Ether		
4	Supelco 37	GC analysis of Supelco 37		
		component FAME mixture		
5	Po_invivo shoot_90 min	GC analysis of in vivo		
		shoots of <i>P.oleracea</i>		
6	Po_leaf_90_6	GC analysis of leaf of		
		P.oleracea		
7	Stem	GC analysis of stem of		
		P.oleracea		
8	Po_invitroplant_90_3	GC analysis of in vitro		
		shoot of <i>P.oleracea</i>		
9	Po_callus_3_90min	GC analysis of callus		
10		cultures of <i>P.oleracea</i>		
10	INVIVO-3	GCMS analysis of invivo		
11		shoots of <i>P.oleracea</i>		
11	LEAF-2	GCMS analysis of leaves		
12		of <i>P.oleracea</i>		
12	STEAM (STEM)	GCMS analysis of stem of <i>P.oleracea</i>		
13	IV	GCMS analysis of invitro		
15	1 V	shoots of <i>P.oleracea</i>		
14	C3	GCMS analysis of callus		
11		cultures of <i>P.oleracea</i>		
15	0.1%EMS1_28June	GC analysis of 0.1% EMS		
	_	treated shoots of		
		P.oleracea		
16	0.2%EMSshoot_1july	GC analysis of 0.2% EMS		
		treated shoots of		
		P.oleracea		
17	0.3%EMSinvitro	GC analysis of 0.3% EMS		
	plant_29June	treated shoots of		
		P.oleracea		
18	0.4% EMS1_27 June	GC analysis of 0.4% EMS		
		treated shoots of		
		P.oleracea		
19	0.6%EMSshoot_1july	GC analysis of 0.6% EMS		
		treated shoots of		
21		P.oleracea		
21	0.1%EMS	GC analysis of 0.1% EMS		
22	callus_30June	treated callus of <i>P.oleracea</i>		
22	0.2%EMScallus_1 July	GC analysis of 0.2% EMS		
22	0.20/ EMS aciliar 2. 21-1	treated callus <i>P.oleracea</i>		
23	0.3%EMScallus2_2July	GC analysis of 0.3% EMS		

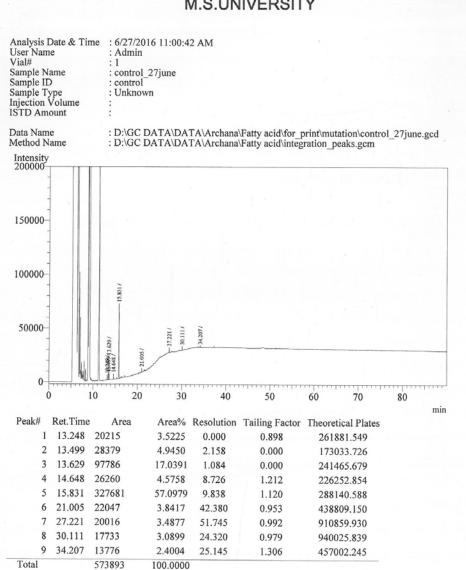
		treated callus <i>P.oleracea</i>
24	0.1%EMS shoot	GCMS analysis of
		0.1%EMS treated shoots of
		P.oleracea
25	0.2% EMS shoot	GCMS analysis of
		0.2%EMS treated shoots of
		P.oleracea
25	0.3% EMS shoot	GCMS analysis of
		0.3%EMS treated shoots of
		P.oleracea
27	0.4% EMS shoot	GCMS analysis of
		0.4%EMS treated shoots of
		P.oleracea
28	0.6%EMS shoot	GCMS analysis of
		0.6%EMS treated shoots of
		P.oleracea
29	0.1%EMS callus	GCMS analysis 0.1%EMS
		treated callus of <i>P.oleracea</i>
30	0.2%EMS callus	GCMS analysis 0.2%EMS
		treated callus of <i>P.oleracea</i>
31	0.3%EMS callus	GCMS analysis 0.3%EMS
		treated callus of <i>P.oleracea</i>
32	Linoleic Acid	Mass spectra of Linoleic
		acid of <i>P.oleracea</i>
33	Linolenic Acid	Mass spectra of Linolenic
		acid of <i>P.oleracea</i>

Analysis Date & Time User Name Vial# : 8/23/2014 2:14:51 PM Admin Hexanes Sample Name 23-8-14 Sample ID Sample Type Injection Volume Unknown ISTD Amount : D:\GC DATA\DATA\Archana\Fatty acid\for_print\hexane.gcd : D:\GC DATA\DATA\Archana\Fatty acid\integration_peaks.gcm Data Name Method Name [Description] 1 µl as such Intensity 200000-6.884 150000-21.185/ 100000 14.831/ 50000-134597/107 11.598/ 445/ 「あのの -14.426 27.453/ 0 10 20 40 50 Ó 30 min Area% Resolution Tailing Factor Theoretical Plates Ret.Time Peak# Area 1 11.598 125016 0.3786 0.000 1.023 166660.588 88939.843 2 12.107 113851 0.3448 3.698 0.707 139299.984 1.112 3 12.540 12060 0.0365 2.930 0.810 141461.323 0.1070 2.604 4 12.893 35334 1.604 70561.052 0.0954 1.826 5 13.199 31482 0.841 154620.439 34336 0.1040 7.123 6 14.426 1.9065 2.218 1.010 73074.871 7 14.831 629468 16.594 5162792 15.6365 0.000 0.000 0.000 8 9 16.867 25485240 77.1868 0.000 0.000 53573.875 184945.156 10 21.185 1226156 3.7136 17.728 0.688 0.819 261585.923 0.0386 19.297 11 24.960 12745 0.778 309030.272 0.0434 1.843 25.307 14316 12 0.1779 1.473 0.894 274270.164 13 25.584 58746 14 27.453 16989 0.0515 9.485 0.931 302498.450 0.782 45707.713 15 45.445 59070 0.1789 34.365 100.0000 33017601

Total







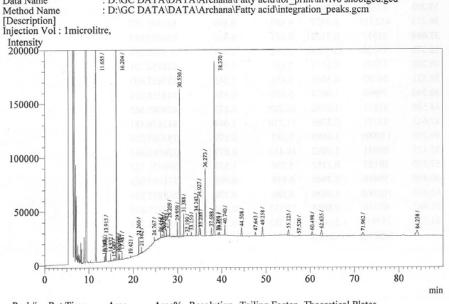
Analysis Date & Time User Name Vial# Sample Name Sample ID Sample Type Injection Volume ISTD Amount

Data Name

۰.

: 5/29/2015 11:50:21 AM : Admin 1 : Po_invivo shoot_90min po Unknown

: D:\GC DATA\DATA\Archana\Fatty acid\for_print\invivo shootgcd.gcd : D:\GC DATA\DATA\Archana\Fatty acid\integration_peaks.gcm



Peak#		Ret.Time	Area	Area%	Resolution	Tailing Factor	Theoretical Plates	
	1	11.655	1522661	20.3322	0.000	0.743	223947.703	
	2	13.547	19062	0.2545	19.886	0.942	344800.204	
	3	13.776	21411	0.2859	2.535	0.924	382411.187	
	4	13.915	84961	1.1345	1.542	1.001	369221.695	
	5	14.932	27058	0.3613	10.789	0.985	375978.938	
	6	15.689	12428	0.1660	6.197	0.894	180778.895	
	7	16.204	1009165	13.4755	4.130	0.901	398741.168	
	8	16.648	25262	0.3373	4.458	1.070	469588.629	
	9	16.911	22598	0.3018	2.506	1.176	360955.335	
1	0	17.487	33701	0.4500	5.396	0.827	473475.623	
1	11	19.421	10347	0.1382	17.919	0.812	458369.067	
1	12	21.260	61170	0.8168	17.236	1.033	734188.989	
1	13	21.862	18543	0.2476	6.130	0.935	803153.142	
1	4	24.767	16766	0.2239	29.735	1.214	1014263.218	
1	15	26.161	17695	0.2363	13.770	1.007	1000819.345	
1	16	26.535	16807	0.2244	3.255	0.853	706620.353	
1	17	26.950	21793	0.2910	3.491	1.349	932616.229	
1	18	27.505	32178	0.4297	4.849	1.253	868107.189	
1	19	28.209	68006	0.9081	6.182	0.881	1044517.645	
2	20	29.959	59399	0.7932	15.394	1.068	1040359.884	

 Analysis Date & Time
 : 5/13/2015 12:53:17 PM

 User Name
 : Admin

 Vial#
 : 1

 Sample Name
 : Po_leaf_90_6

 Sample ID
 : po

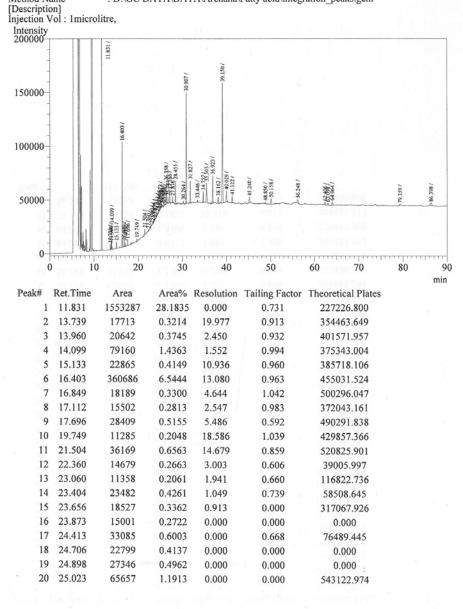
 Sample Type
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 Injection Volume
 :

 ISTD Amount
 :

Data Name Method Name





Analysis Date & Time User Name Vial# 1 Sample Name Stem Sample ID Sample Type Injection Volume

ISTD Amount

Method Name [Description]

> 12 33.252

13

14

15

16

17

18

19

20

34.064

35.236

37.656

39.002

39.899

40.596

41.665

44.349

27826

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20838

33472

117794

238645

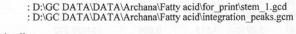
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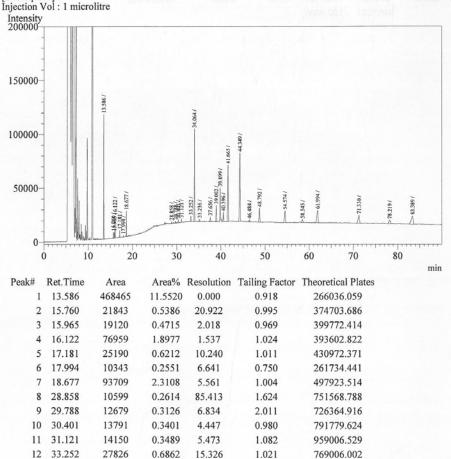
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740426

Data Name

: 4/11/2015 4:39:10 PM : Admin 10gm/2mL Unknown





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5.395

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4.270

3.277

4.687

9.552

13.1625

0.5138

0.8254

2.9047

5.8848

1.7291

11.9815

18.2583

1.021

0.902

0.737

0.843

0.949

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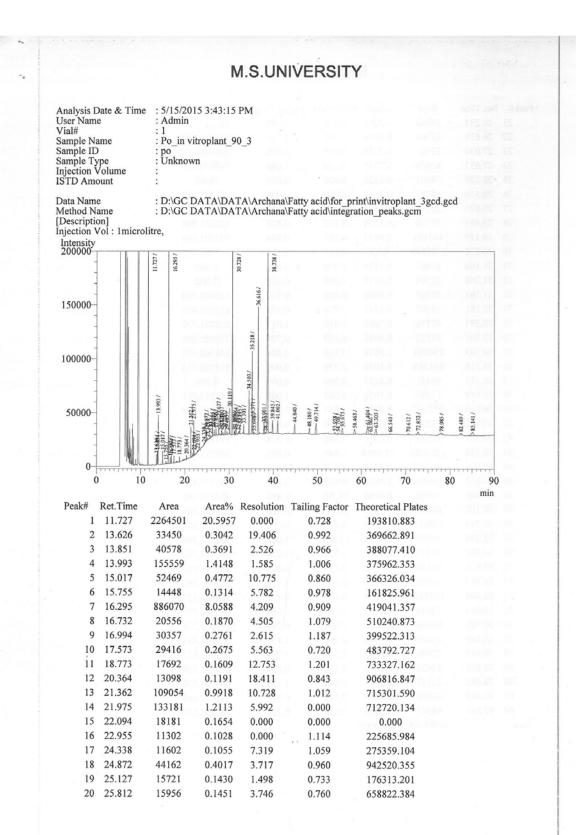
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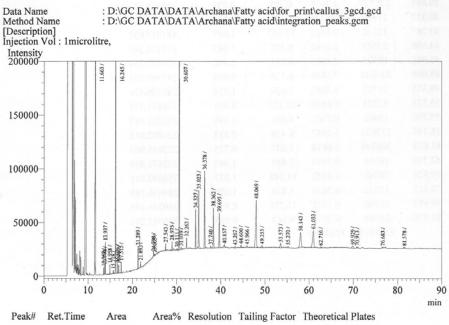


Analysis Date & Time User Name Sample Name Sample ID Sample Type Injection Volume ISTD Amount : 5/21/2015 1:44:15 PM : Admin 1 po Unknown

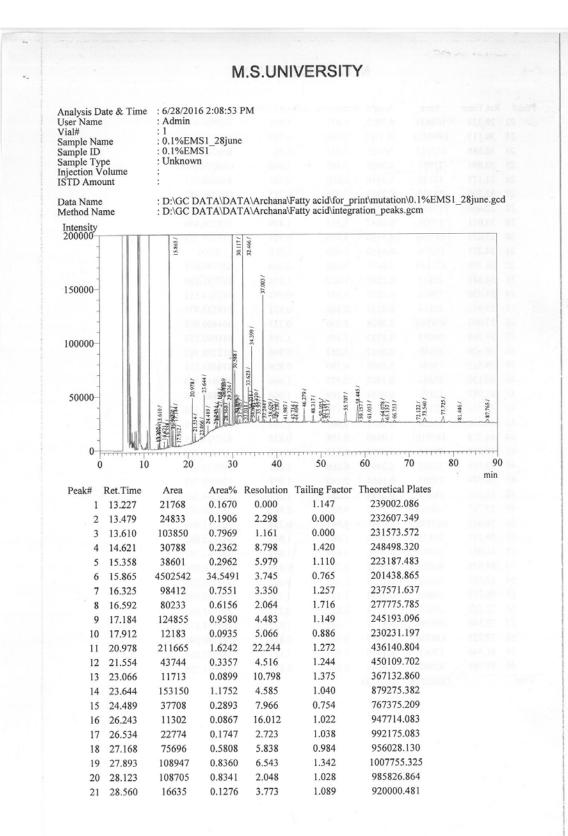
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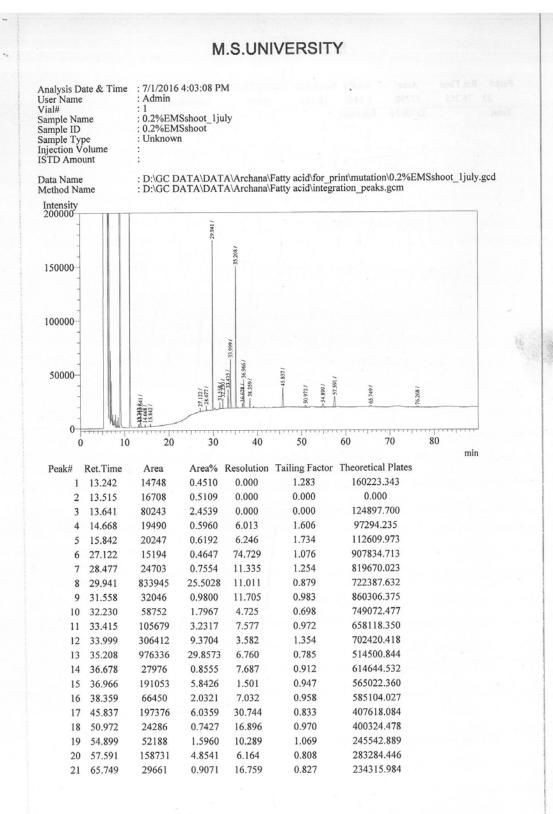
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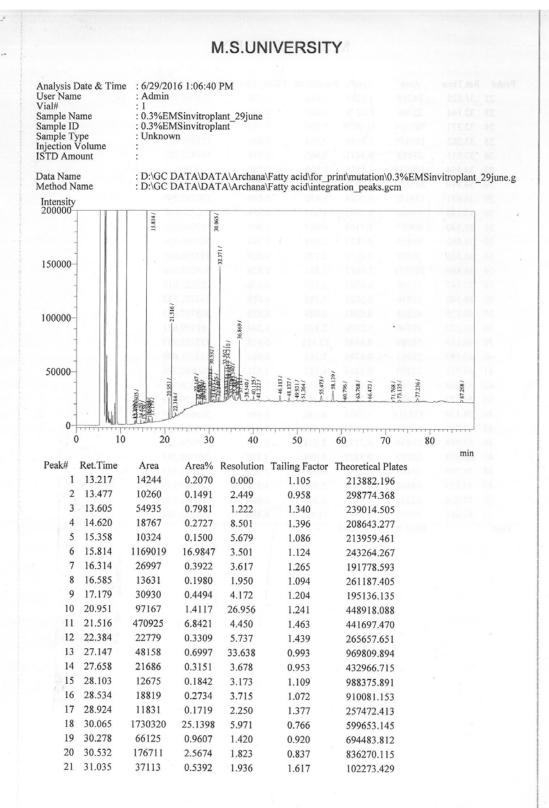




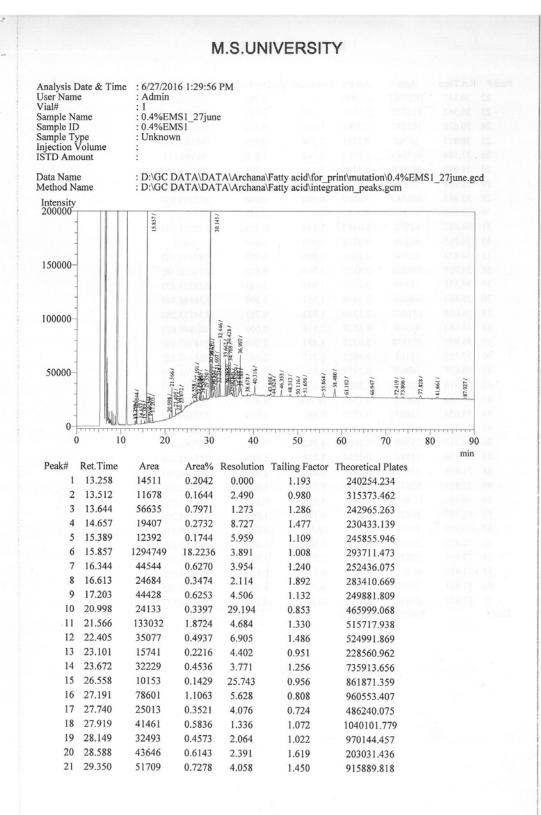
Peak#	Ret.Time	Area	Area%	Resolution	Tailing Factor	Theoretical Plates	
1	11.663	1750058	20.9189	0.000	0.720	221331.073	
2	13.567	24756	0.2959	19.750	0.880	332420.875	
3	13.798	23995	0.2868	2.573	0.849	410846.454	
4	13.937	104046	1.2437	1.558	0.949	359419.660	
5	14.958	37434	0.4475	10.689	0.776	367647.059	
6	15.718	17364	0.2076	6.066	0.877	170291.391	
. 7	16.245	1483291	17.7301	4.027	0.831	348877.336	
8	16.676	33010	0.3946	4.198	1.054	483453.112	
9	16.940	33443	0.3997	2.511	1.100	347710.618	
10	17.515	46261	0.5530	5.292	0.761	462031.668	
11	21.289	78442	0.9376	37.205	1.035	720089.710	
12	21.893	18793	0.2246	6.144	1.011	816836.594	
13	24.798	17098	0.2044	28.506	1.377	852054.294	
14	25.065	10519	0.1257	1.725	0.913	246809.773	
15	27.543	33376	0.3989	15.549	1.012	875088.777	
16	28.975	43113	0.5153	11.959	0.745	895159.491	
17	30.111	11936	0.1427	8.023	1.060	557920.813	
18	30.607	1297792	15.5128	3.074	0.789	567653.274	
19	31.039	16993	0.2031	2.042	1.529	225340.181	
20	32.263	52058	0.6223	6.093	1.030	832067.204	





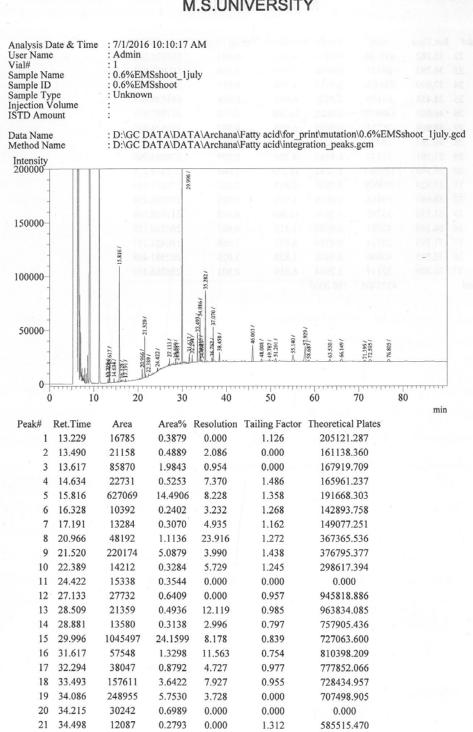


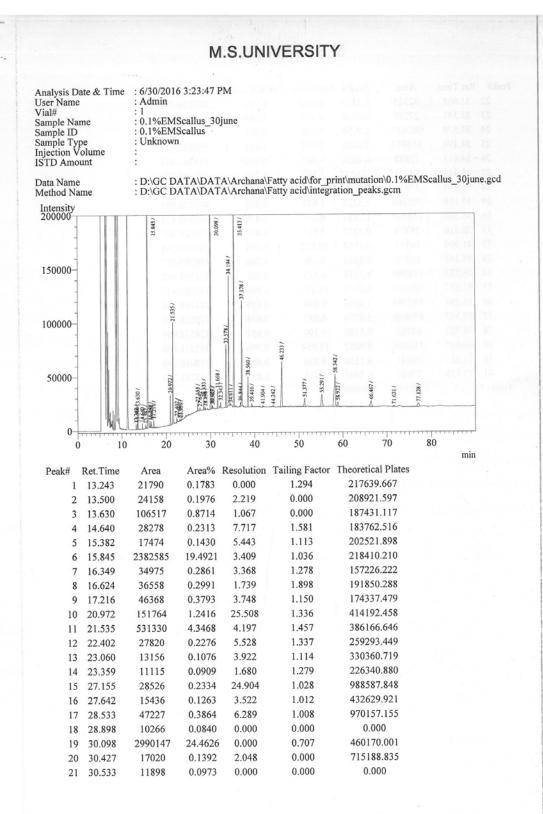
Peak#	Ret.Time	Area	Area%	Resolution	Tailing Factor	Theoretical Plates
22	31.625	74259	1.0789	1.848	1.198	253007.456
23	32.144	22566	0.3279	0.000	0.000	0.000
24	32.371	763154	11.0879	0.000	0.798	679705.758
25	33.562	196630	2.8568	7.564	0.931	715591.151
26	33.915	23888	0.3471	2.065	0.934	543955.321
27	34.154	109679	1.5935	0.000	0.000	0.000
28		247630	3.5978	0.000	0.000	583720.605
29	34.641	134176	1.9494	1.630	0.849	370792.299
30		14400	0.2092	1.261	0.624	74294.978
31	35.340	90637	1.3169	0.667	1.001	597059.557
32	35.882	39055	0.5674	2.578	0.794	362703.426
33		10830	0.1574	3.175	0.809	697970.891
34		385554	5.6017	1.841	0.826	614710.696
35	37.147	32386	0.4705	1.539	0.876	725282.012
36	38.540	13936	0.2025	7.585	1.070	634271.532
37	40.125	41855	0.6081	6.929	0.925	365737.953
38	41.222	19796	0.2876	2.810	1.244	101739.601
39	46.113	58089	0.8440	12.315	0.918	435252.337
40		32993	0.4793	7.102	0.961	435271.679
41		12700	0.1845	6.137	1.021	460680.768
42		12508	0.1817	4.612	1.016	389626.831
43	55.473	85495	1.2422	10.599	1.042	245129.199
44		157711	2.2914	6.130	0.806	300619.539
45	60.796	10925	0.1587	6.489	1.057	375404.161
46	63.768	21854	0.3175	7.024	0.923	319024.282
47	66.473	23212	0.3372	5.684	1.102	279708.085
48	71.768	15403	0.2238	10.641	1.303	336081.853
49	73.135	48464	0.7041	2.331	1.128	184997.137
50		62242	0.9043	6.396	0.969	260226.773
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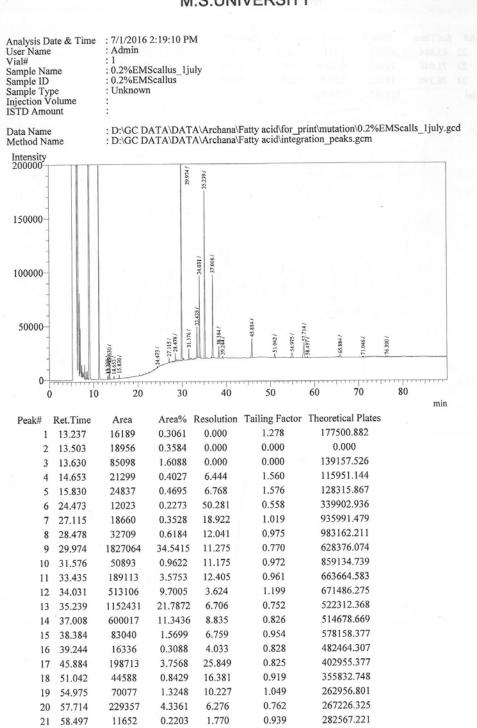
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					826681.985
					785156.177
					559383.559
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	23 30.362 24 30.620 25 30.915 26 31.104 27 31.697 28 32.238 29 32.446 30 33.662 31 34.012 32 34.265 33 34.428 34 34.769 35 35.178 36 35.463 37 36.024 38 36.683 39 36.997 40 37.183 41 38.678 42 40.316 43 43.808 44 44.624 45 46.353 46 48.313 47 50.116 48 51.656 49 55.864 50 58.480 51 61.102 52 66.947 53 72.419 54 73.806 55 77.828	23 30.362 153370 24 30.620 193282 25 30.915 16702 26 31.104 127643 27 31.697 230808 28 32.238 72838 29 32.446 358845 30 33.662 207109 31 34.012 61792 32 34.265 66200 33 34.428 302444 34 34.769 199866 35 35.178 12304 36 35.463 49006 37 36.024 151402 38 36.683 48519 39 36.997 257358 40 37.183 33161 41 38.678 16860 42 40.316 97090 43 43.808 16623 44 44.624 11075 45 46.353 64552 46 48.313	22 30.145 1825663 25.6962 23 30.362 153370 2.1587 24 30.620 193282 2.7204 25 30.915 16702 0.2351 26 31.104 127643 1.7966 27 31.697 230808 3.2486 28 32.238 72838 1.0252 29 32.446 358845 5.0507 30 33.662 207109 2.9151 31 34.012 61792 0.8697 32 34.265 66200 0.9318 33 34.428 302444 4.2569 34 34.769 199866 2.8131 35 35.178 12304 0.1732 36 35.463 49006 0.6898 37 36.024 151402 2.1310 38 36.683 48519 0.6829 39 36.997 257358 3.6223 40 37.183 <td>22 30.145 1825663 25.6962 5.617 23 30.362 153370 2.1587 1.458 24 30.620 193282 2.7204 1.905 25 30.915 16702 0.2351 2.378 26 31.104 127643 1.7966 0.740 27 31.697 230808 3.2486 1.821 28 32.238 72838 1.0252 0.000 29 32.446 358845 5.0507 0.000 30 33.662 207109 2.9151 7.631 31 34.012 61792 0.8697 2.145 32 34.265 66200 0.9318 0.000 34 34.769 199866 2.8131 1.964 35 35.178 12304 0.1732 1.943 36 35.463 49006 0.6898 1.351 37 36.024 151402 2.1310 1.973 38 <</td> <td>2330.3621533702.15871.4580.9732430.6201932822.72041.9050.8522530.915167020.23512.3780.9292631.1041276431.79660.7401.8702731.6972308083.24861.8211.0652832.238728381.02520.0000.0002932.4463588455.05070.0000.0003033.6622071092.91517.6310.9413134.012617920.86972.1450.9553234.265662000.93180.0000.0003334.4283024444.25690.0000.0003434.7691998662.81311.9640.8923535.178123040.17321.9431.3413635.463490060.68981.3510.9973736.0241514022.13101.9730.7533836.683485190.68292.1180.0003936.9972573583.62231.4910.0004037.183331610.46670.7172.4474138.678168600.23735.6510.9724240.316970901.36657.3460.7684343.808166230.234014.7140.8664444.624110750.15592.8610.995<t< td=""></t<></td>	22 30.145 1825663 25.6962 5.617 23 30.362 153370 2.1587 1.458 24 30.620 193282 2.7204 1.905 25 30.915 16702 0.2351 2.378 26 31.104 127643 1.7966 0.740 27 31.697 230808 3.2486 1.821 28 32.238 72838 1.0252 0.000 29 32.446 358845 5.0507 0.000 30 33.662 207109 2.9151 7.631 31 34.012 61792 0.8697 2.145 32 34.265 66200 0.9318 0.000 34 34.769 199866 2.8131 1.964 35 35.178 12304 0.1732 1.943 36 35.463 49006 0.6898 1.351 37 36.024 151402 2.1310 1.973 38 <	2330.3621533702.15871.4580.9732430.6201932822.72041.9050.8522530.915167020.23512.3780.9292631.1041276431.79660.7401.8702731.6972308083.24861.8211.0652832.238728381.02520.0000.0002932.4463588455.05070.0000.0003033.6622071092.91517.6310.9413134.012617920.86972.1450.9553234.265662000.93180.0000.0003334.4283024444.25690.0000.0003434.7691998662.81311.9640.8923535.178123040.17321.9431.3413635.463490060.68981.3510.9973736.0241514022.13101.9730.7533836.683485190.68292.1180.0003936.9972573583.62231.4910.0004037.183331610.46670.7172.4474138.678168600.23735.6510.9724240.316970901.36657.3460.7684343.808166230.234014.7140.8664444.624110750.15592.8610.995 <t< td=""></t<>

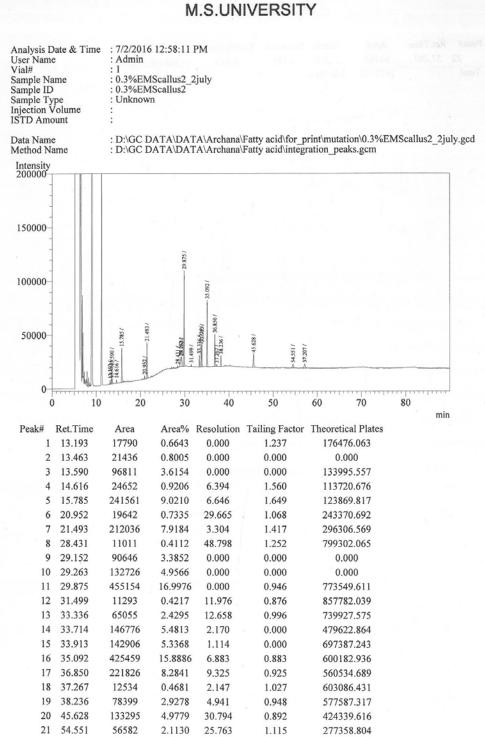




			M.S.UNIVERSITY						
]	Peak#	Ret.Time	Area	Area%	Resolution	Tailing Factor	Theoretical Plates		
	22	31.668	92325	0.7553	0.000	0.967	827256.754		
	23	32.343	27259	0.2230	4.817	1.048	832167.063		
	24	33.578	363657	2.9751	8.038	0.865	650840.879		
	25	34.194	855977	7.0028	3.587	1.013	592042.637		
	26	34.611	12888	0.1054	1.763	0.936	218361.433		
	27	35.413	1544117	12.6325	3.197	0.710	470109.727		
	28	36.844	27849	0.2278	7.115	0.896	561294,901		
	29	37.178	772864	6.3228	1.639	0.801	490336.055		
	30	38.560	218589	1.7883	6.633	0.878	563248.478		
	31	39.416	28323	0.2317	3.981	0.837	490120.467		
	32	41.904	14255	0.1166	10.822	0.898	505055.598		
	33	44.242	10539	0.0862	9.196	1.206	416787.597		
	34	46.233	514769	4.2114	6.613	0.701	314749.942		
	35	51.377	101138	0.8274	15.231	0.891	349502.472		
	36	55.291	195764	1.6016	9.869	0.949	244169.130		
	37	58.342	620630	5.0774	6.057	0.638	172028.531		
	38	58.922	65762	0.5380	1.190	0.951	324518.909		
	39	66.467	110644	0.9052	15.954	0.796	247211.846		
	40	71.631	18941	0.1550	9.236	0.881	238616.396		
	41	77.128	72667	0.5945	8.918	0.897	225743.316		
I	Total		12223365	100.0000		166888	1923 1		



Peak#	Ret.Time	Area	Area%	Resolution	Tailing Factor	Theoretical Plates
22	65.884	43285	0.8183	15.634	0.804	269854.086
23	71.046	11841	0.2239	9.587	0.878	246371.154
24	76.390	18192	0.3439	9.240	0.988	270795.101
Total		5289476	100.0000			The second



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Peak#	Ret.Time	Area	Area%	Resolution	Tailing Factor	Theoretical Plates
22	57.207	60162	2.2467		0.973	316120.356
Total		2677752	100.0000			