

Data Hasil Pengujian Senyawa *Tar* Dengan GC-MS

3/8

TIC: 26041604.D

Abundance

Time-->

2.00 4.00 6.00 8.00 10.00 12.00 14.00 16.00 18.00 20.00 22.00 24.00 26.00 28.00 30.00 32.00 34.00 36.00 38.00

9500000
9000000
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1.51 3.53 4.16 5.15 6.92 8.32 11.20 12.29 13.51 14.46 17.27

1.81 2.33 2.99 3.69 4.88 5.28 5.34 5.38 5.84 6.19 6.30 6.57 6.88 7.15 7.24 7.89 8.49 8.63 9.01 9.30 9.67 9.84 9.93 10.45 10.63 11.71 12.49 12.97 13.59 14.06 14.58 14.93 15.35 15.43 15.87 16.07 16.87 17.81

Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\PROFILING\
 Data File : 26041604.D
 Acq On : 27 Apr 2016 12:29
 Operator : C009
 Sample : 4-469
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
 Integrator: RTE
 Smoothing: OFF
 Sampling: 2
 Start Thrs: 0.001
 Stop Thrs: 0
 Filtering: 7
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
 Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\PROFILE1.M
 Title :

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.505	161	164	185	rBB3	1898397	30730850	40.94%	5.855%
2	1.810	189	199	208	rBB4	2315421	8365248	11.15%	1.594%
3	2.115	227	234	245	rBB4	221652	1081457	1.44%	0.206%
4	2.333	254	259	273	rBB4	505785	1979132	2.64%	0.377%
5	2.986	326	334	343	rBB3	985301	3898696	5.39%	0.743%
6	3.534	353	397	398	rBB	10143868	75056933	100.00%	14.301%
7	3.691	413	415	419	rBB	1015022	998823	1.33%	0.190%
8	3.813	425	429	436	rBB2	416719	1573587	2.10%	0.300%
9	3.996	441	450	453	rBB3	691583	2405956	3.21%	0.458%
10	4.161	461	469	473	rBB3	2216189	8606186	11.47%	1.640%
11	4.736	527	535	539	rBB6	349312	946045	1.26%	0.180%
12	4.884	539	552	573	rBB3	4306213	17766167	23.67%	3.385%
13	5.154	574	583	595	rBB4	4047971	20183506	26.89%	3.846%
14	5.285	595	598	600	rBB	1890084	2482179	3.31%	0.473%
15	5.337	601	604	609	rBB	872736	1690506	2.25%	0.322%
16	5.842	650	662	665	rBB7	378629	2171238	2.89%	0.414%
17	6.042	665	685	689	rBB2	2992258	16665620	22.20%	3.175%
18	6.190	689	702	707	rBB3	2329149	11136648	14.84%	2.122%
19	6.304	708	715	731	rBB6	1627219	7324433	9.76%	1.396%
20	6.574	741	746	753	rBB2	2863385	5752136	7.66%	1.096%
21	6.678	753	758	765	rVV	3526197	8378004	11.16%	1.596%
22	6.922	765	786	794	rBB	4523490	15274478	20.35%	2.910%
23	7.183	811	816	819	rBB	1065497	1529573	2.04%	0.291%
24	7.235	819	822	832	rBB	1363298	2329432	3.10%	0.444%
25	7.741	857	880	889	rBB3	4267275	30144413	40.16%	5.744%
26	7.889	889	897	903	rBB2	1282204	5615597	7.48%	1.070%
27	7.993	903	909	914	rBB2	872808	1984778	2.64%	0.378%
28	8.072	915	918	925	rBB	874586	1328205	1.77%	0.253%
29	8.220	927	935	939	rBB2	751599	2502819	3.33%	0.477%
30	8.315	939	946	961	rBB4	3880273	25746793	34.30%	4.906%
31	8.490	961	966	969	rBB	2634483	4333055	5.77%	0.826%
32	8.611	973	980	989	rBB4	706474	2462818	3.28%	0.469%
33	8.829	992	1005	1011	rBB5	327107	1631493	2.17%	0.311%
34	9.012	1011	1026	1037	rVV	1980699	10798232	14.39%	2.057%
35	9.299	1049	1059	1015	rBB	2082845	1974007	10.02%	1.442%
36	9.665	1084	1101	1105	rBB	947474	2654042	3.54%	0.506%
37	9.839	1113	1121	1125	rBB5	204103	865937	1.15%	0.165%
38	9.953	1125	1134	1155	rBB2	2640100	10462424	13.94%	1.993%
39	10.449	1168	1191	1205	rBB	1771381	16501185	21.98%	3.144%
40	10.667	1205	1216	1234	rBB7	968860	9032054	12.03%	1.721%
41	11.198	1259	1277	1305	rBB3	4416325	25925961	34.54%	4.940%
42	11.712	1305	1336	1371	rBB3	2073169	25474621	33.94%	4.854%
43	12.286	1389	1402	1413	rBB	5624782	25036419	33.36%	4.770%
44	12.487	1413	1425	1445	rBB4	689845	5275905	7.03%	1.005%
45	12.879	1449	1470	1475	rBB8	150128	1237838	1.65%	0.236%
46	12.966	1475	1480	1507	rBB7	373873	2373237	3.16%	0.452%
47	13.506	1521	1542	1547	rBB	4574981	14301749	19.05%	2.725%
48	13.593	1547	1552	1576	rBB4	349796	2355939	3.14%	0.449%
49	14.063	1591	1606	1624	rBB	496106	2037009	2.71%	0.388%
50	14.464	1628	1652	1657	rBB	3861647	9682523	12.90%	1.845%
51	14.577	1657	1665	1681	rBB	1354579	3686835	4.91%	0.702%
52	14.925	1684	1705	1715	rBB2	875277	3799932	5.06%	0.724%
53	15.352	1743	1754	1759	rBB2	607573	1611142	2.15%	0.307%
54	15.430	1759	1763	1767	rBB	558406	914614	1.22%	0.174%
55	15.909	1805	1818	1825	rBB3	452499	1235009	1.65%	0.235%
56	16.066	1825	1836	1852	rBB2	257708	1190994	1.59%	0.227%
57	16.467	1871	1882	1907	rBB	1189649	3169881	4.22%	0.604%
58	16.867	1907	1928	1955	rBB	696727	3628801	4.83%	0.691%
59	17.268	1961	1974	2019	rBB	2081677	8454232	11.26%	1.611%
60	17.808	2019	2036	2055	rBB2	243373	1070492	1.43%	0.204%

Sum of corrected areas: 524828478

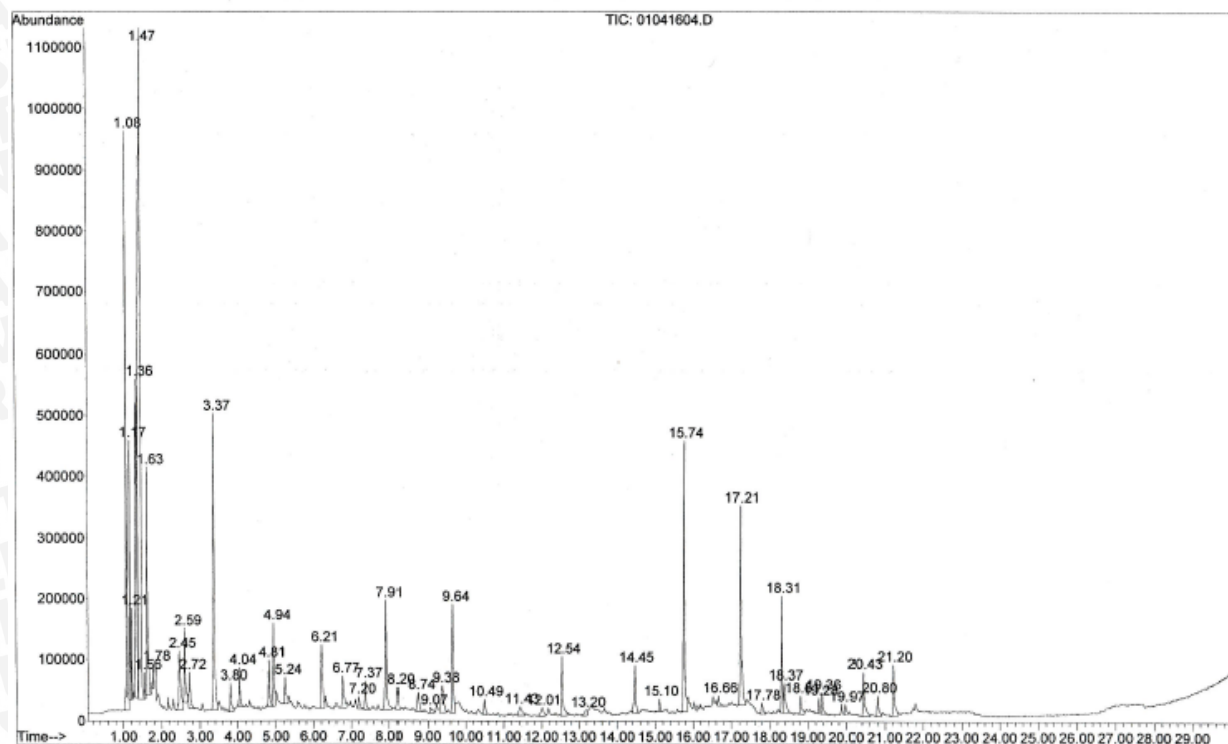
PROFILE1.M Fri Apr 29 15:29:03 2016

BRAWIJAYA



1.2 GC-MS tar suhu 350°C

File : C:\MSDCHEM\1\DATA\INTERBAT\01041604.D
Operator : C001
Acquired : 5 Apr 2016 12:03 using AcqMethod PROFILE4.M
Instrument : Instrument #1
Sample Name: 4-01
Misc Info : split 1:100
Vial Number: 1



Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\INTERBAT\
Data File : 01041604.D
Acq On : 5 Apr 2016 12:03
Operator : C001
Sample : 4-01
Misc : split 1:100
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing: CN
Sampling: 1
Start Thrs: 0.2
Stop Thrs: 0
Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\PROFILE1.M
Title :

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.081	108	116	123	rBV	946471	1069921	25.09%	6.546%
2	1.168	123	126	129	rBV	425664	437699	10.26%	2.678%
3	1.211	129	131	136	rBV	149578	177471	4.16%	1.086%
4	1.358	139	148	149	rBV2	521710	1421505	33.33%	8.697%
5	1.471	151	161	169	rVB	1096166	4264833	100.00%	26.093%
6	1.557	169	171	174	rBV	43228	44058	1.03%	0.270%
7	1.626	174	179	190	rVB	372676	562658	13.19%	3.442%
8	1.782	194	197	199	rBV	40367	55025	1.29%	0.337%
9	2.449	266	274	286	rBV2	96323	329595	7.73%	2.017%
10	2.587	287	290	299	rBV	121558	229672	5.39%	1.405%
11	2.717	302	305	321	rVB3	58946	147559	3.46%	0.903%
12	3.366	372	380	392	rBV2	486085	1007102	23.61%	6.162%
13	3.799	426	430	440	rBV	46793	99754	2.34%	0.610%
14	4.041	454	458	470	rVB	64478	134524	3.15%	0.823%
15	4.812	543	547	557	rVB	75347	149883	3.51%	0.917%
16	4.941	557	562	567	rBV2	136737	265694	6.23%	1.626%
17	5.236	591	596	606	rBV	43321	131082	3.07%	0.802%
18	6.205	704	708	718	rBV2	103602	290694	6.82%	1.778%
19	6.768	768	773	785	rBV	52733	192973	4.52%	1.181%
20	7.200	819	823	837	rVB	20813	54228	1.27%	0.332%
21	7.374	839	843	858	rVB	46778	104486	2.45%	0.639%
22	7.910	897	905	924	rBV	179588	491289	11.52%	3.006%
23	8.204	934	939	948	rVB2	36818	89840	2.11%	0.550%
24	8.741	994	1001	1011	rVB3	31982	106951	2.51%	0.654%
25	9.070	1034	1039	1051	rVB3	9001	42797	1.00%	0.262%
26	9.382	1066	1075	1087	rVB2	44280	203140	4.76%	1.243%
27	9.641	1099	1105	1114	rBV	178148	458930	10.76%	2.808%
28	10.489	1198	1203	1213	rBV2	24369	62838	1.47%	0.384%
29	11.433	1301	1312	1326	rBV10	14072	81406	1.91%	0.498%
30	12.013	1366	1379	1389	rBV6	13207	78652	1.84%	0.481%
31	12.541	1435	1440	1457	rBV	96302	272113	6.38%	1.665%
32	13.199	1500	1516	1518	rBV8	8764	43065	1.01%	0.263%
33	14.454	1653	1661	1673	rVB	77403	206952	4.85%	1.266%
34	15.103	1730	1736	1744	rVB	20689	45842	1.07%	0.280%
35	15.743	1805	1810	1820	rBV	444430	850288	19.94%	5.202%
36	16.661	1912	1916	1927	rVB3	16712	43701	1.02%	0.267%
37	17.215	1976	1980	1997	rBV	327817	758093	17.78%	4.638%
38	17.777	2041	2045	2058	rBV	17788	61439	1.44%	0.376%
39	18.305	2102	2106	2111	rBV	191503	338267	7.93%	2.070%
40	18.374	2111	2114	2132	rVB	48612	168683	3.96%	1.032%
41	18.807	2160	2164	2175	rBV	29665	76478	1.79%	0.468%
42	19.283	2215	2219	2225	rBV	25062	49279	1.16%	0.301%
43	19.361	2225	2228	2243	rVB	34952	78814	1.85%	0.482%
44	19.967	2294	2298	2306	rBV	15909	43126	1.01%	0.264%
45	20.426	2347	2351	2373	rBV	71975	200657	4.70%	1.228%
46	20.798	2388	2394	2406	rBV	33342	96780	2.27%	0.592%
47	21.205	2436	2441	2455	rBV	83351	225064	5.28%	1.377%

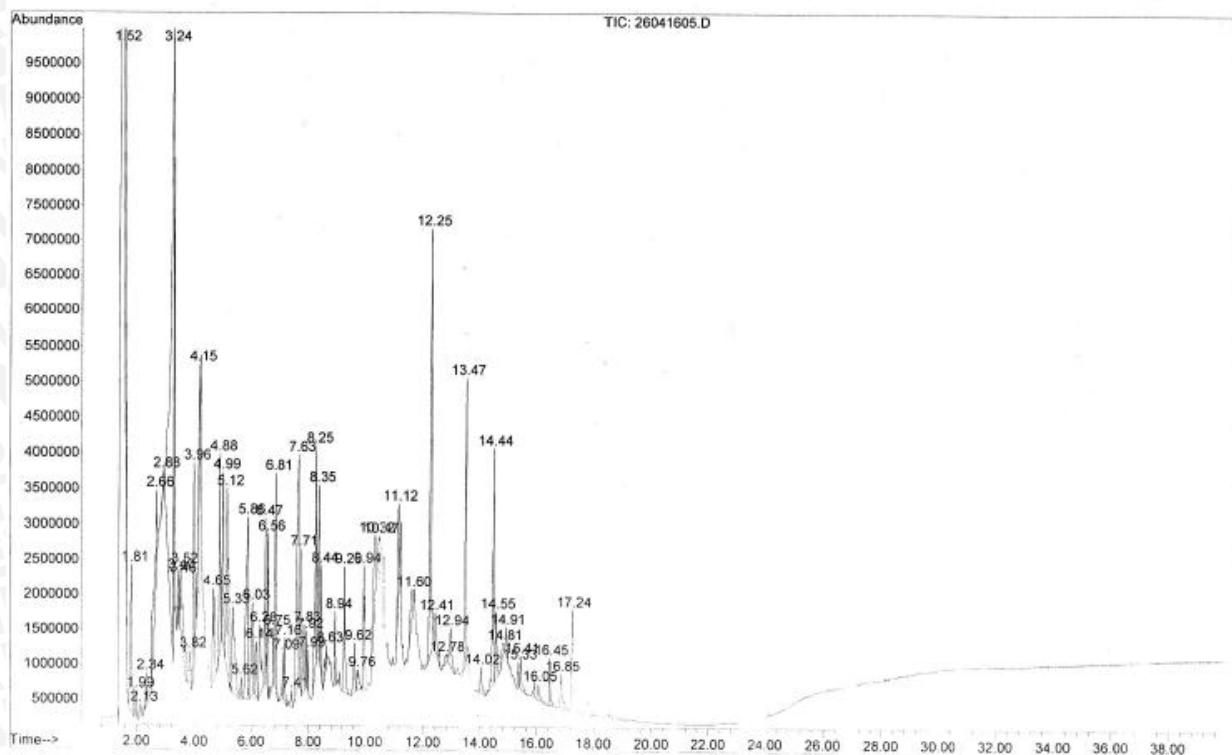
Sum of corrected areas: 16344900

PROFILE1.M Tue Apr 05 13:19:03 2016

1.3 GC-MS tar suhu 450°C

File : C:\MSDCHEM\1\DATA\PROFILING\26041605.D
 Operator : C009
 Acquired : 27 Apr 2016 13:23 using AcqMethod PROFILE1.M
 Instrument : Instrument #1
 Sample Name: 4-470
 Misc Info :
 Vial Number: 1

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MSDCHEM\1\DATA\PROFILING\
Data Path : C:\MSDCHEM\1\DATA\PROFILING\
Data File : 26041605.D
Acq On : 27 Apr 2016 13:23
Operator : C009
Sample : 4-470
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing: OFF
Sampling: 2
Start Thrs: 0.001
Stop Thrs: 0

Filtering: 7
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\PROFILE1.M
Title :

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.523	161	166	181	rBB2	3406813	31822039	50.72%	8.415%
2	1.810	187	199	209	rBB3	2093094	8809683	14.04%	2.330%
3	1.993	211	220	228	rBB3	397980	1673126	2.67%	0.442%
4	2.132	229	236	245	rBB4	192070	947825	1.51%	0.251%
5	2.341	254	260	273	rBB4	480090	1895731	3.02%	0.501%
6	2.663	277	297	303	rBB2	1135237	8509467	13.56%	2.250%
7	2.881	311	322	327	rBB4	310618	1266760	2.02%	0.335%
8	3.238	327	363	364	rBB	9541297	62742097	100.00%	16.591%
9	3.404	380	382	385	rBB	810161	917866	1.46%	0.243%
10	3.465	385	389	391	rBB	678378	716829	1.14%	0.190%
11	3.517	391	395	417	rBB4	927411	5593916	8.92%	1.479%
12	3.822	423	430	440	rBB2	508224	1892486	3.02%	0.500%
13	3.961	441	446	453	rBB	2984658	7139378	11.38%	1.888%
14	4.153	462	468	471	rBB	1597234	5409386	8.62%	1.430%
15	4.649	518	525	541	rBB2	1362277	5243111	8.36%	1.386%
16	4.875	542	551	559	rBB	2792509	7950766	12.67%	2.102%
17	4.988	559	564	572	rBB2	2410862	7369889	11.75%	1.949%
18	5.119	573	579	592	rBB2	2549795	11848036	18.89%	3.133%
19	5.328	597	603	629	rBB3	1206689	8011354	12.77%	2.118%
20	5.624	629	637	645	rBB3	312800	778544	1.24%	0.206%
21	5.860	645	664	671	rBB2	2601134	13229091	21.08%	3.498%
22	6.025	671	683	691	rBB2	1324847	4739678	7.55%	1.253%
23	6.138	691	696	706	rBB2	769466	2827777	4.52%	0.750%
24	6.278	707	712	729	rBB3	1027778	5111144	8.15%	1.352%
25	6.469	730	734	741	rBB2	2349770	4226758	6.74%	1.118%
26	6.556	741	744	748	rBB	2204104	3557813	5.67%	0.941%
27	6.748	761	766	769	rBB	760592	1583335	2.52%	0.419%
28	6.809	769	773	785	rBB	2978253	8189205	13.05%	2.165%
29	7.087	791	805	809	rBB3	673884	1444906	2.30%	0.382%
30	7.157	809	813	823	rBB2	900994	1613871	2.57%	0.427%
31	7.410	829	842	847	rBB4	245428	802485	1.28%	0.212%
32	7.627	848	867	871	rBB	3247246	15316787	24.41%	4.050%
33	7.706	871	876	881	rBB2	1985072	3345784	5.33%	0.885%
34	7.828	882	890	897	rBB2	977395	3543317	5.65%	0.937%
35	7.923	897	901	903	rBB4	1007193	1412097	2.20%	0.379%
36	7.993	905	909	912	rBB	563990	679234	1.08%	0.180%
37	8.254	925	939	943	rBB	3113263	9432896	15.03%	2.494%
38	8.350	943	950	957	rBB2	2474480	6831632	10.89%	1.806%
39	8.437	957	960	963	rBB	1516970	2847545	3.26%	0.541%
40	8.629	968	982	987	rBB6	298717	1477313	2.35%	0.391%
41	8.942	1012	1018	1025	rBB	1061276	2278717	3.63%	0.603%
42	9.265	1047	1055	1072	rBB2	1801320	5600517	8.93%	1.481%
43	9.622	1084	1096	1103	rBB	703835	2419841	3.86%	0.640%
44	9.761	1104	1112	1123	rBB6	288383	1405349	2.24%	0.372%
45	9.935	1123	1132	1147	rBB2	1775328	6502156	10.36%	1.719%
46	10.318	1163	1176	1185	rBB2	981900	7080941	11.29%	1.872%
47	10.466	1185	1193	1219	rBB6	589817	7332832	11.69%	1.939%
48	11.120	1259	1268	1273	rBB2	1365838	5427731	8.65%	1.435%
49	11.599	1307	1323	1329	rBB3	400490	2910370	4.64%	0.770%
50	12.252	1382	1398	1411	rBB	6016181	21988178	35.05%	5.814%
51	12.408	1411	1416	1440	rBB5	500241	2589334	4.13%	0.685%
52	12.783	1441	1459	1465	rBB4	122273	662018	1.06%	0.175%
53	12.940	1465	1477	1495	rBB5	539847	2731449	4.35%	0.722%
54	13.471	1530	1538	1545	rBB	4058671	10565026	16.84%	2.794%
55	14.020	1593	1601	1622	rBB2	368648	1550987	2.47%	0.410%
56	14.438	1624	1649	1655	rBB	3345051	7246898	11.55%	1.916%
57	14.551	1655	1662	1673	rBB	966334	2730614	4.35%	0.722%
58	14.812	1678	1692	1697	rBB6	159755	1303019	2.08%	0.345%
59	14.908	1697	1703	1715	rBB2	389097	1161485	1.85%	0.307%
60	15.335	1748	1752	1757	rBB	369615	684630	1.09%	0.181%
61	15.413	1757	1761	1784	rBB	453021	1318658	2.10%	0.349%
62	16.049	1825	1834	1850	rBB2	220822	994402	1.58%	0.263%
63	16.449	1867	1880	1895	rBB2	690477	1743039	2.78%	0.461%
64	16.850	1915	1926	1961	rBB	482204	2138979	3.41%	0.566%
65	17.242	1961	1971	2017	rBB	1440652	5843421	9.31%	1.545%

Sum of corrected areas: 378173988

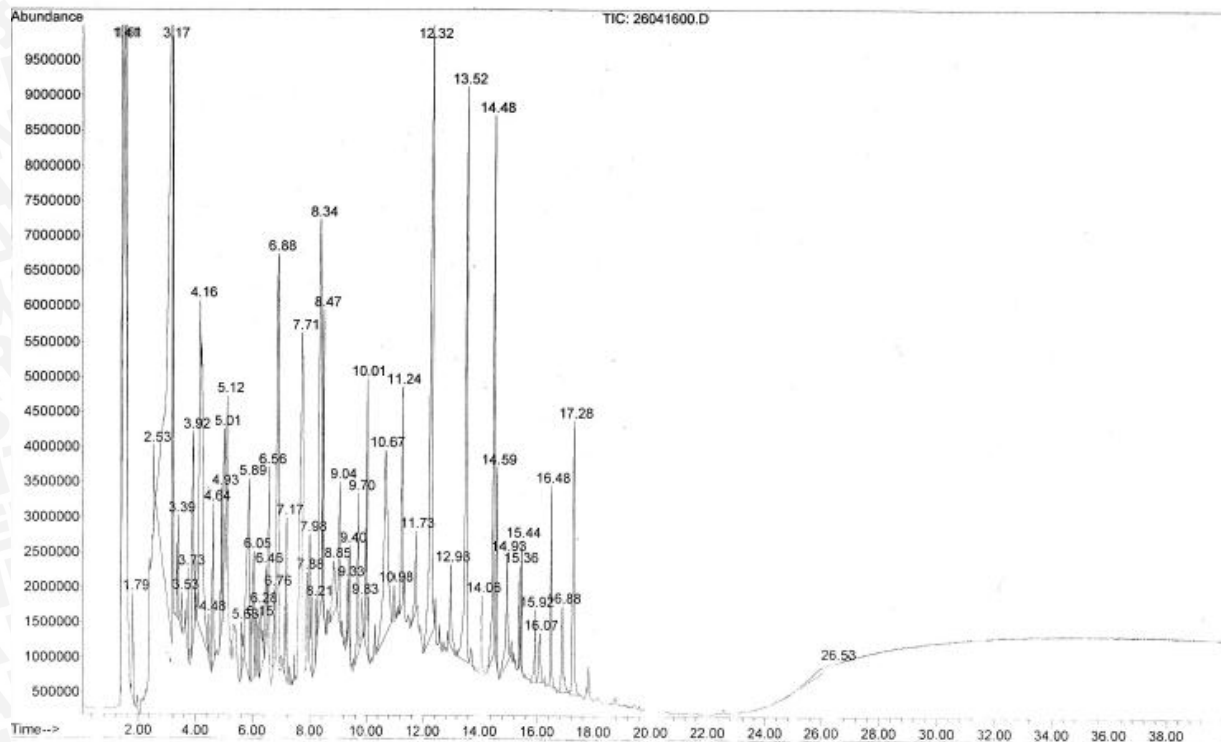
PROFILE1.M Fri Apr 29 15:33:57 2016



1.4 GC-MS tar suhu 500°C

File : C:\MSDCHEM\1\DATA\PROFILING\26041600.D
 Operator : C009
 Acquired : 26 Apr 2016 15:18 using AcqMethod PROFILE1.M
 Instrument : Instrument #1
 Sample Name: 4-465
 Misc Info :
 Vial Number: 1

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Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\PROFILING\
 Data File : 26041600.D
 Acq On : 26 Apr 2016 15:18
 Operator : C009
 Sample : 4-465-
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rsteint.p
 Integrator: RTE
 Smoothing: OFF
 Sampling: 2
 Start Thrs: 0.001
 Stop Thrs: 0
 Filtering: 7
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
 Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\PROFILE1.M
 Title :

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TV	peak height	corr. area	corr. % max.	% of total
1	1.409	151	153	163	rBB2	10021659	31555645	27.50%	4.802%
2	1.505	163	164	181	rBB3	1122066	18941069	16.51%	2.882%
3	1.792	189	197	208	rBB	1478262	5238821	4.57%	0.797%
4	2.533	280	282	289	rBB	1216345	2466618	2.15%	0.375%
5	3.168	289	355	356	rBB	10527921	114742390	100.00%	17.460%
6	3.386	369	380	385	rBB2	1469274	3951775	3.44%	0.601%
7	3.525	385	396	399	rBB3	554935	1614067	1.41%	0.246%
8	3.734	411	420	425	rBB3	1170866	2444019	2.13%	0.372%
9	3.917	433	441	449	rBB2	2979660	11688821	10.19%	1.779%
10	4.161	455	469	501	rBB2	4672594	38641480	33.68%	5.880%
11	4.483	501	506	514	rBB3	662436	1365197	1.19%	0.208%
12	4.640	515	524	531	rBB3	2272138	7603562	6.63%	1.157%
13	4.928	546	557	561	rBB3	2001632	5333793	4.65%	0.812%
14	5.015	561	567	573	rBB2	1877682	7046235	6.14%	1.072%
15	5.119	573	579	581	rBB	2404349	4121237	3.59%	0.627%
16	5.633	632	638	647	rBB5	715863	2592183	2.26%	0.394%
17	5.886	647	667	669	rBB2	2844189	16930862	14.76%	2.576%
18	6.051	673	686	693	rBB2	1800023	7975223	6.95%	1.214%
19	6.147	693	697	707	rBB2	812259	2609523	2.27%	0.397%
20	6.277	707	712	727	rBB3	963882	4614997	4.02%	0.702%
21	6.460	727	733	739	rBB4	1069016	2983354	2.60%	0.454%
22	6.565	739	745	749	rBB2	2428478	5543182	4.83%	0.844%
23	6.756	755	767	771	rBB2	1084190	2827503	2.46%	0.430%
24	6.878	771	781	790	rBB	5845827	22197052	19.35%	3.378%
25	7.174	805	815	818	rBB2	2325096	5565341	4.85%	0.847%
26	7.706	856	876	889	rBB2	4886297	32082946	27.96%	4.882%
27	7.880	889	896	903	rBB2	1293050	4338692	3.78%	0.660%
28	7.984	903	908	920	rBB2	1807133	7865604	6.86%	1.197%
29	8.211	928	934	939	rBB	753729	1829526	1.59%	0.278%
30	8.341	939	949	959	rBB2	5602906	29841274	26.01%	4.541%
31	8.472	959	964	967	rBB2	4254297	8648734	7.54%	1.316%
32	8.846	992	1007	1019	rBB5	742202	5427471	4.73%	0.826%
33	9.038	1019	1029	1037	rBB	2002178	5292483	4.61%	0.805%
34	9.334	1057	1063	1067	rBB3	732289	1824880	1.59%	0.278%
35	9.395	1067	1070	1075	rBB2	1299341	2988024	2.60%	0.450%
36	9.700	1092	1105	1115	rBB	2303915	7084300	6.17%	1.078%
37	9.831	1116	1120	1127	rBB3	646517	1937677	1.69%	0.295%
38	10.013	1127	1141	1154	rBB2	3864788	12788161	11.15%	1.946%
39	10.667	1186	1216	1243	rBB7	2651244	26507854	23.10%	4.034%
40	10.980	1243	1252	1261	rBB4	497098	1870584	1.63%	0.285%
41	11.241	1274	1282	1289	rBB	3136594	9070924	7.91%	1.380%
42	11.729	1317	1338	1343	rBB2	1168731	3168797	2.76%	0.482%
43	12.321	1371	1406	1415	rBB	8708662	48828158	42.55%	7.430%
44	12.983	1473	1482	1501	rBB3	1152802	4110915	3.58%	0.626%
45	13.523	1509	1544	1556	rBB2	8170381	33470833	29.17%	5.093%
46	14.063	1593	1606	1625	rBB	1112826	3478893	3.03%	0.529%
47	14.481	1629	1654	1659	rBB	7648898	23025737	20.07%	3.504%
48	14.585	1659	1666	1674	rBB	2782557	6409558	5.59%	0.975%
49	14.934	1682	1706	1719	rBB3	1560924	7084676	6.17%	1.078%
50	15.361	1749	1755	1759	rBB	1429309	2906464	2.53%	0.442%
51	15.439	1759	1764	1771	rBB	1825772	2998144	2.61%	0.456%
52	15.918	1801	1819	1827	rVV2	1038953	3058119	2.67%	0.465%
53	16.075	1827	1837	1853	rBB3	702274	3223519	2.81%	0.491%
54	16.475	1873	1883	1898	rBB	2856952	6724217	5.86%	1.023%
55	16.876	1917	1929	1955	rBB	1223888	5386411	4.69%	0.820%
56	17.276	1963	1975	1997	rVB	3900085	13293472	11.59%	2.023%

Sum of corrected areas: 657161105

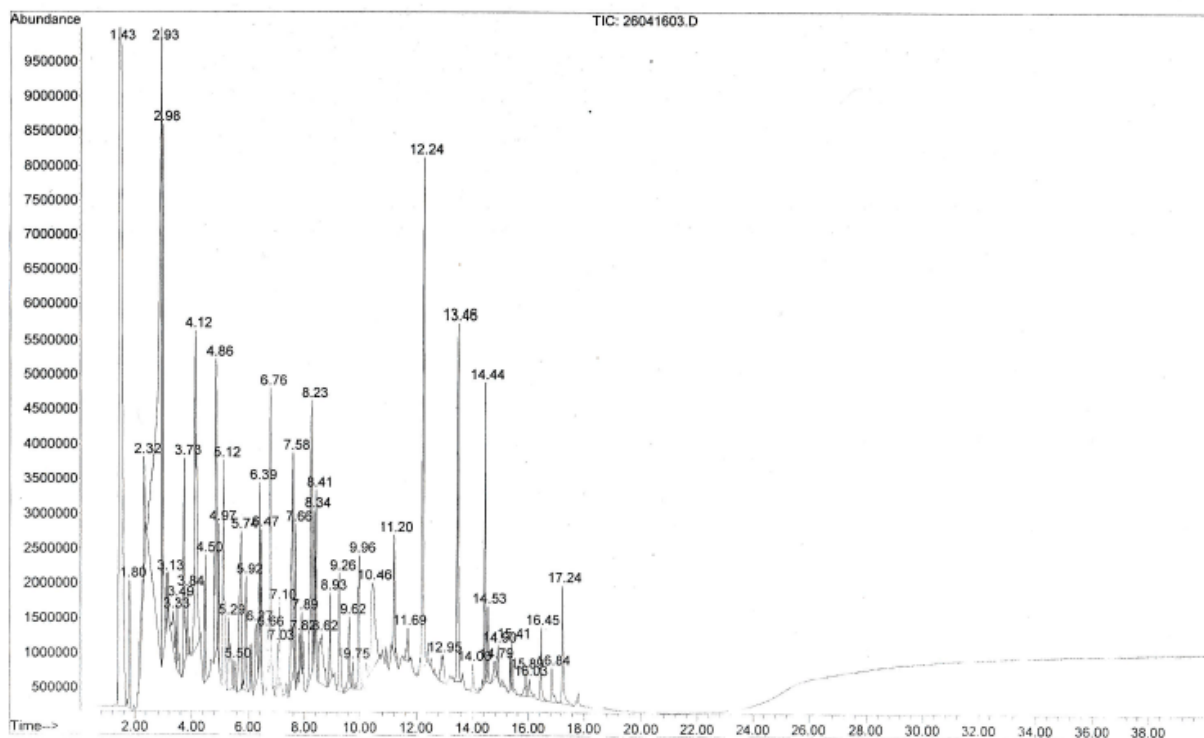
PROFILE1.M Fri Apr 29 14:56:43 2016



1.5 GC-MS tar suhu 600°C

File : C:\MSDCHEM\1\DATA\PROFILING\26041603.D
 Operator : C009
 Acquired : 27 Apr 2016 11:39 using AcqMethod PROFILE1.M
 Instrument : Instrument #1
 Sample Name : 4-468
 Misc Info :
 Vial Number : 1

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Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\PROFILING\
Data File : 26041603.D
Acq On : 27 Apr 2016 11:39
Operator : C009
Sample : 4-468
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing: OFF
Sampling : 2
Start Thrs: 0.001
Stop Thrs : 0
Filtering: 7
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\PROFILE1.M
Title :

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.427	125	155	185	rBV3	12138114	101909602	100.00%	20.152%
2	1.801	185	198	213	rBB3	1841514	6214059	6.10%	1.229%
3	2.324	238	258	267	rBB3	1736789	7931744	7.78%	1.568%
4	2.933	269	328	329	rBB	9227789	86667330	85.04%	17.138%
5	2.977	330	333	345	rBB	7706198	13601799	13.35%	2.690%
6	3.125	348	350	355	rBB2	741241	1168047	1.15%	0.231%
7	3.334	363	374	389	rBB5	489236	3457184	3.39%	0.684%
8	3.491	389	392	409	rBB2	1015141	2428911	2.38%	0.480%
9	3.735	413	420	429	rBB2	3000086	9045704	8.88%	1.789%
10	3.839	429	432	438	rBB	935060	1333077	1.31%	0.264%
11	4.118	451	464	493	rBB	4595105	23386265	22.95%	4.625%
12	4.501	499	508	517	rBB2	1813464	5462570	5.36%	1.080%
13	4.858	538	549	557	rBB3	4236836	15524255	15.23%	3.070%
14	4.971	557	562	565	rBB	2009093	3145458	3.09%	0.622%
15	5.119	573	579	593	rBB2	3251622	9170825	9.00%	1.813%
16	5.294	594	599	619	rBB2	1049580	5614826	5.51%	1.110%
17	5.503	619	623	631	rBB4	416222	1354931	1.33%	0.268%
18	5.738	632	650	657	rBB2	2283123	11735404	11.52%	2.321%
19	5.921	657	671	679	rBB2	1642343	6266953	6.15%	1.239%
20	6.269	699	711	721	rBB4	867727	4451950	4.37%	0.880%
21	6.391	721	725	731	rBB2	2534090	4345660	4.26%	0.859%
22	6.469	731	734	737	rBB	1883660	2515856	2.47%	0.498%
23	6.661	751	756	761	rBB3	764796	1840711	1.81%	0.364%
24	6.757	761	767	789	rBB	4147998	12003245	11.78%	2.374%
25	7.027	790	798	803	rBB3	699301	1725825	1.69%	0.341%
26	7.096	803	806	823	rBB	1248623	2368431	2.32%	0.468%
27	7.575	846	861	865	rBB	3191474	13821471	13.56%	2.733%
28	7.662	865	871	875	rBB2	2258284	3977695	3.90%	0.787%
29	7.819	885	889	893	rBB	577019	1441611	1.41%	0.285%
30	7.889	893	897	901	rBB	804832	1446113	1.42%	0.286%
31	8.228	922	936	945	rBB	3943116	13466470	13.21%	2.663%
32	8.342	945	949	953	rBB2	1908780	4624086	4.54%	0.914%
33	8.411	953	957	960	rBB	2262916	3018380	2.96%	0.597%
34	8.620	965	981	1005	rBB10	723169	7338411	7.20%	1.451%
35	9.320	1000	1010	1023	rBB	1400173	2924043	2.87%	0.576%
36	9.256	1045	1054	1075	rBB2	1694729	6028823	5.92%	1.192%
37	9.622	1076	1096	1103	rBB	1035129	3929724	3.86%	0.777%
38	9.752	1103	1111	1116	rBB5	393499	1212497	1.19%	0.240%
39	9.961	1127	1135	1147	rBV2	1928642	6699030	6.57%	1.325%
40	10.458	1171	1192	1221	rBB8	1238362	13174390	12.93%	2.605%
41	11.198	1271	1277	1296	rBB	1707462	4894013	4.80%	0.968%
42	11.694	1319	1334	1338	rBB4	478834	1607396	1.58%	0.318%
43	12.243	1377	1397	1411	rBB	7332142	24664011	24.20%	4.877%
44	12.948	1463	1478	1493	rBB4	395595	2864041	2.81%	0.566%
45	13.462	1523	1537	1551	rVV	5150901	13880606	13.62%	2.745%
46	14.002	1593	1599	1623	rBB	404333	1552521	1.52%	0.307%
47	14.438	1631	1649	1655	rBB	4330107	8798985	8.63%	1.740%
48	14.533	1655	1660	1672	rBB	1087950	2929525	2.87%	0.579%
49	14.786	1677	1689	1697	rBB2	237532	1371201	1.35%	0.271%
50	14.899	1697	1702	1712	rBB	480869	1047761	1.03%	0.207%
51	15.413	1757	1761	1782	rBB	694390	1427106	1.40%	0.282%
52	15.892	1793	1816	1823	rBB3	355330	1120850	1.10%	0.222%
53	16.031	1823	1832	1850	rBB2	258615	1170418	1.15%	0.231%
54	16.449	1867	1880	1906	rBB2	1046063	2796817	2.74%	0.553%
55	16.841	1917	1925	1960	rBB	489031	2108614	2.07%	0.417%
56	17.242	1961	1971	2019	rBB	1697653	5693564	5.59%	1.126%

Sum of corrected areas: 505697795

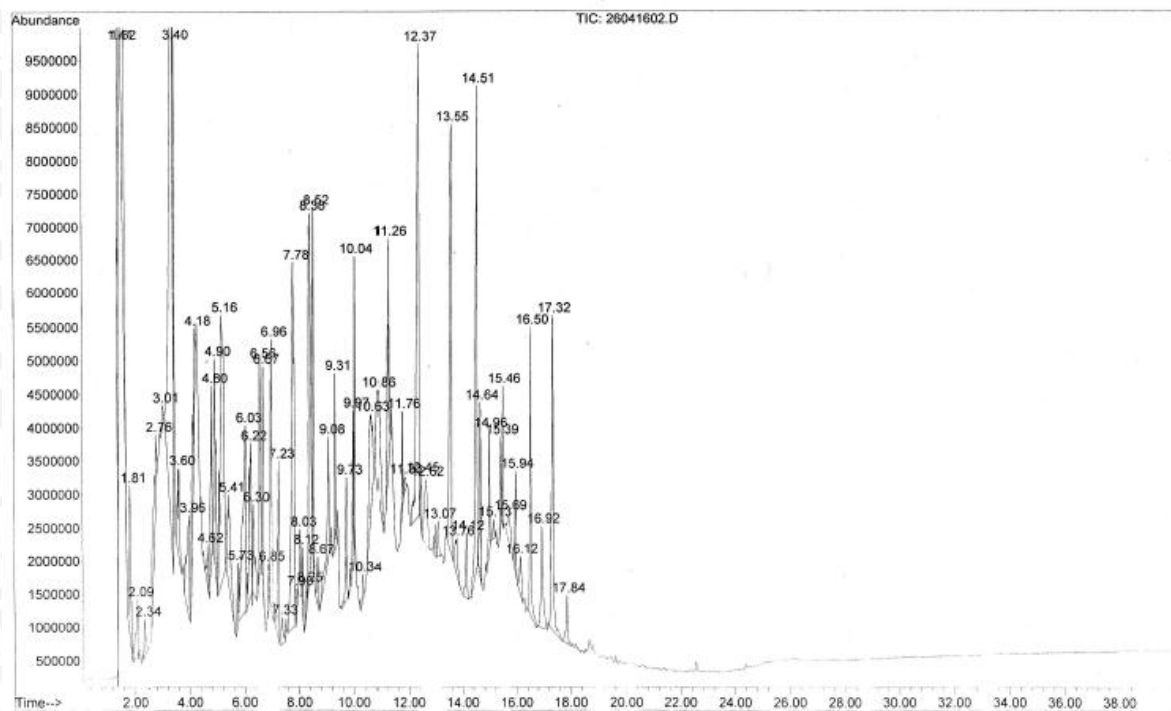
PROFILE1.M Fri Apr 29 15:27:07 2016



1.6 GC-MS tar suhu 700°C

File : C:\MSDCHEM\1\DATA\PROFILING\26041602.D
Operator : C009
Acquired : 27 Apr 2016 10:41 using AcqMethod PROFILE1.M
Instrument : Instrument #1
Sample Name: 4-467
Misc Info :
Vial Number: 1

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Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\PROFILING\
Data File : 26041602.D
Acq On : 27 Apr 2016 10:41
Operator : C009
Sample : 4-467
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p

Integrator: RTE
Smoothing: OFF
Sampling: 2
Start Thrs: 0.001
Stop Thrs: 0

Filtering: 7
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\PROFILE1.M
Title :

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.410	147	153	161	rBB2	7165040	30194377	34.74%	4.156%
2	1.523	161	166	186	rBB3	2909382	35995292	41.41%	4.954%
3	1.810	189	199	209	rBB4	2308178	9112131	10.48%	1.254%
4	2.089	211	231	235	rBB2	823329	3650471	4.20%	0.502%
5	2.341	255	260	273	rBB4	567698	2318413	2.67%	0.319%
6	2.759	289	308	315	rBB2	1113413	10617861	12.22%	1.461%
7	3.012	330	337	345	rBB3	304726	1345801	1.55%	0.185%
8	3.395	345	381	382	rBB	10957958	86914249	100.00%	11.963%
9	3.595	391	404	414	rBB3	1338382	6180618	7.11%	0.851%
10	3.961	425	446	450	rBB5	1554450	10578786	12.17%	1.456%
11	4.179	453	471	475	rBB4	1050152	10993984	12.65%	1.513%
12	4.623	513	522	530	rBB6	598658	1947037	2.24%	0.268%
13	4.797	531	542	547	rBB3	2504107	8374801	9.64%	1.153%
14	4.902	547	554	564	rBB	2975816	13090985	15.06%	1.802%
15	5.163	566	584	603	rBB4	3999824	38175085	43.92%	5.254%
16	5.407	603	612	640	rBB7	1329390	9832617	11.31%	1.353%
17	5.729	644	649	653	rBB3	984536	1897170	2.18%	0.263%
18	6.034	653	684	687	rBB3	2776943	22275678	25.62%	3.066%
19	6.217	687	705	711	rBB3	2280756	13116626	15.09%	1.805%
20	6.304	711	715	731	rBB5	1321408	6209973	7.14%	0.855%
21	6.556	739	744	751	rBB4	3154582	9441666	10.86%	1.300%
22	6.670	751	757	762	rBB	3426482	6329714	7.28%	0.871%
23	6.852	767	778	783	rBB5	704725	2460426	2.83%	0.339%
24	6.957	783	790	797	rBB	4070998	12537092	14.42%	1.726%
25	7.227	809	821	825	rBB2	2711955	8028954	9.24%	1.105%
26	7.331	825	833	847	rBB9	413971	2046783	2.35%	0.282%
27	7.776	859	884	893	rBB3	5463822	36333148	41.80%	5.001%
28	7.897	893	898	903	rBB2	318760	1076370	1.24%	0.148%
29	8.028	903	913	919	rBB4	1002335	3663965	4.22%	0.504%
30	8.124	919	924	927	rBB	1069003	1633981	1.88%	0.225%
31	8.255	929	939	943	rBB3	405879	1342300	1.54%	0.185%
32	8.376	943	953	963	rBB5	5385440	27012284	31.08%	3.718%
33	8.516	963	969	975	rBB2	5369022	14506050	16.69%	1.997%
34	8.673	977	987	994	rBB8	731498	2669997	3.07%	0.367%
35	9.082	995	1034	1041	rBB4	1203149	7736339	10.97%	1.312%
36	9.308	1051	1060	1069	rBB	2654945	4919156	5.66%	0.677%
37	9.726	1087	1108	1115	rBB2	1826604	6568556	7.56%	0.904%
38	9.970	1131	1136	1139	rBB	1899139	3991371	4.59%	0.549%
39	10.040	1139	1144	1147	rBB	4397280	8310754	9.56%	1.144%
40	10.336	1167	1178	1183	rBB5	361279	1229837	1.42%	0.169%
41	10.632	1193	1212	1225	rBB3	1416539	14293891	16.45%	1.967%
42	10.858	1225	1238	1262	rBB3	1467991	15545871	17.89%	2.140%
43	11.259	1271	1284	1291	rBB	3336462	11946622	13.75%	1.644%
44	11.755	1331	1341	1345	rBB	1439855	3509175	4.04%	0.483%
45	11.834	1345	1350	1357	rBB8	224446	869233	1.00%	0.120%
46	12.365	1376	1411	1415	rBB	7040243	43299170	49.82%	5.960%
47	12.452	1415	1421	1424	rBB2	817432	1941717	2.23%	0.267%
48	12.618	1425	1440	1459	rBB7	971775	8305568	9.56%	1.143%
49	13.070	1485	1492	1503	rVV3	530886	1960970	2.26%	0.270%
50	13.549	1529	1547	1556	rBB2	6421721	31307564	36.02%	4.309%
51	13.758	1557	1571	1587	rBB6	545891	3795664	4.37%	0.522%
52	14.124	1599	1613	1621	rBB	985051	3371343	3.88%	0.464%
53	14.507	1632	1657	1663	rBB	7226120	26057368	29.98%	3.586%
54	14.638	1663	1672	1679	rBB	2607802	7042505	8.10%	0.969%
55	14.960	1701	1709	1715	rBB	1847826	4706609	5.42%	0.648%
56	15.126	1716	1728	1733	rBB6	285688	1059544	1.22%	0.146%
57	15.387	1750	1758	1761	rBB	1329916	2847552	3.28%	0.392%
58	15.457	1761	1766	1770	rBB	2064215	3994426	4.60%	0.550%
59	15.692	1777	1793	1812	rBB9	440948	3606645	4.15%	0.496%
60	15.944	1813	1822	1830	rBB	1544781	3788864	4.36%	0.521%
61	16.118	1831	1842	1853	rBB4	579604	2744421	3.16%	0.378%
62	16.502	1875	1886	1910	rBB	4322193	12068807	13.89%	1.661%
63	16.920	1919	1934	1956	rBB	1540341	8536980	9.82%	1.175%
64	17.320	1963	1980	2020	rBB	4718995	20552150	23.65%	2.829%
65	17.843	2023	2040	2058	rBB2	729959	2942003	3.38%	0.405%

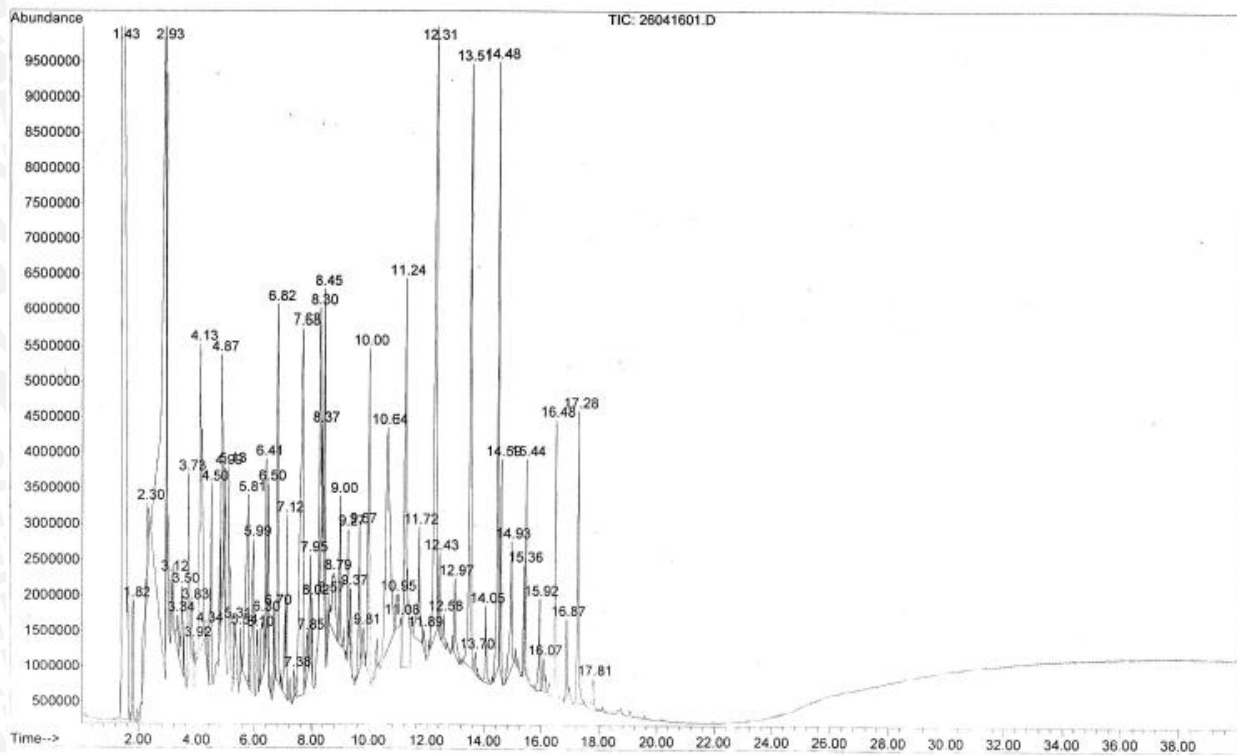
Sum of corrected areas: 726551380

PROFILE1.M Fri Apr 29 15:25:15 2016

1.7 GC-MS tar suhu 800°C

File : C:\MSDCHEM\1\DATA\PROFILING\26041601.D
 Operator : C009
 Acquired : 27 Apr 2016 9:50 using AcqMethod PROFILE1.M
 Instrument : Instrument #1
 Sample Name : 4-466
 Misc Info :
 Vial Number : 1

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Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\PROFILING\
 Data File : 26041601.D
 Acq On : 27 Apr 2016 9:50
 Operator : C009
 Sample : 4-466
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rtint.p

Integrator: RTE
 Smoothing: OFF
 Sampling: 2
 Start Thrs: 0.001
 Stop Thrs: 0

Filtering: 7
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
 Peak separation: 1

Method : C:\MSDCHEM\1\METHODS\PROFILE1.M
 Title :

Signal : TIC

Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.427	119	155	185	rBV3	11977554	104002162	100.00%	14.183%
2	1.819	185	200	207	rBB2	1704061	5995453	5.76%	0.818%
3	2.298	235	255	263	rBB2	1138053	7779886	7.48%	1.061%
4	2.933	269	328	329	rBB	9910584	93889914	90.28%	12.804%
5	3.125	347	350	353	rBB	771072	1359459	1.31%	0.185%
6	3.343	363	375	380	rBB4	503936	1971154	1.90%	0.269%
7	3.499	381	393	397	rBB4	1215994	4309930	4.14%	0.588%
8	3.726	412	419	429	rBB	2781051	9815572	9.44%	1.339%
9	3.830	429	431	437	rBB	699230	1139764	1.10%	0.155%
10	3.917	437	441	445	rVV	665984	1830181	1.76%	0.250%
11	4.126	451	465	483	rBB	4313587	26515520	25.50%	3.616%
12	4.335	483	489	498	rBB7	419186	1288062	1.24%	0.176%
13	4.501	499	508	517	rVV3	2821906	8447619	8.12%	1.152%
14	4.867	538	550	559	rBB3	3530525	15419563	14.83%	2.103%
15	4.989	559	564	567	rBB	2007443	3592773	3.45%	0.490%
16	5.128	573	580	594	rBB2	3007621	10598937	10.19%	1.445%
17	5.311	597	601	605	rBB	593784	1492958	1.44%	0.204%
18	5.537	621	627	631	rBB5	721616	1572500	1.51%	0.214%
19	5.807	631	658	663	rBB3	2675934	17001116	16.35%	2.318%
20	5.990	663	679	685	rBB2	2178260	10639751	10.23%	1.451%
21	6.103	686	692	701	rBB2	899214	3055631	2.94%	0.417%
22	6.304	701	715	721	rBB2	869712	4316767	4.15%	0.589%
23	6.408	722	727	731	rBB2	2514183	5006033	4.81%	0.683%
24	6.495	731	737	741	rBB2	2461714	5291001	5.09%	0.722%
25	6.695	754	760	765	rBB2	1115701	2580265	2.48%	0.352%
26	6.817	765	774	791	rBB	5283121	18328099	17.62%	2.499%
27	7.122	791	809	813	rBB2	2569961	7940516	7.63%	1.083%
28	7.383	830	839	849	rBB6	402918	1535410	1.48%	0.209%
29	7.680	849	873	881	rVV5	5183661	34150327	32.84%	4.657%
30	7.854	881	893	899	rBB2	620406	2463431	2.56%	0.363%
31	7.949	899	904	909	rBB	1538849	3935665	3.78%	0.537%
32	8.019	909	912	915	rBB	1044707	1503411	1.45%	0.205%
33	8.298	936	944	949	rBB	3564452	13582968	13.06%	1.852%
34	8.367	949	952	956	rBB	1461804	2779018	2.63%	0.374%
35	8.440	957	961	964	rBB	4509430	8118864	7.80%	1.107%
36	8.568	969	975	979	rBB3	618062	1367738	1.32%	0.187%
37	8.794	979	1001	1015	rBB8	854784	8178266	7.86%	1.115%
38	9.003	1015	1025	1034	rBB	2082620	6386257	6.14%	0.871%
39	9.273	1051	1056	1063	rBB	1686546	2784678	2.68%	0.380%
40	9.369	1063	1067	1072	rBB2	897699	2061672	1.98%	0.281%
41	9.674	1089	1102	1111	rBB2	2025551	6045462	5.81%	0.824%
42	9.813	1111	1118	1129	rBB8	523238	2227380	2.14%	0.304%
43	10.005	1129	1140	1152	rBB2	4597865	15241630	14.66%	2.079%
44	10.640	1184	1213	1241	rBB5	3118923	32315315	31.07%	4.407%
45	10.954	1241	1249	1259	rBB3	481132	1854552	1.78%	0.253%
46	11.076	1259	1263	1267	rVV3	710758	2691273	2.59%	0.367%
47	11.241	1267	1282	1301	rVV	5457797	28296448	27.21%	3.859%
48	11.720	1313	1337	1351	rBB2	1586958	7465857	7.18%	1.018%
49	11.886	1351	1356	1367	rBB5	264781	1080212	1.04%	0.147%
50	12.313	1379	1405	1415	rBB	8530703	45320652	43.58%	6.180%
51	12.434	1415	1419	1423	rBB	1108130	1839808	1.77%	0.251%
52	12.582	1425	1436	1446	rBB3	427543	1294639	1.24%	0.177%
53	12.966	1475	1480	1509	rBB4	1052734	3661734	3.52%	0.499%
54	13.514	1515	1543	1553	rBB2	8474810	32543585	31.29%	4.438%
55	13.697	1555	1564	1583	rBB5	306427	1490495	1.43%	0.203%
56	14.054	1593	1605	1625	rBB	1078211	3234661	3.11%	0.441%
57	14.481	1635	1654	1659	rBB	8516813	26118658	25.11%	3.562%
58	14.585	1659	1666	1675	rBB	3009356	6799092	6.54%	0.927%
59	14.925	1682	1705	1717	rBB3	1796544	8180415	7.87%	1.116%
60	15.361	1749	1755	1759	rBB	1485117	2792990	2.69%	0.381%
61	15.439	1759	1764	1771	rBB	2990424	5132645	4.94%	0.700%
62	15.918	1801	1819	1825	rVB2	1289939	3608579	3.47%	0.492%
63	16.066	1825	1836	1851	rBB4	463189	2233090	2.15%	0.305%
64	16.475	1863	1883	1897	rVB	3883416	9403662	9.04%	1.282%
65	16.867	1916	1928	1937	rBB	1087833	3214290	3.09%	0.438%
66	17.276	1955	1975	1997	rBV	4103462	13354680	12.84%	1.821%
67	17.808	2021	2036	2057	rBB2	438901	1661589	1.60%	0.227%

Sum of corrected areas: 733288702

PROFILE1.M Fri Apr 29 15:20:31 2016



Lampiran 2

Data Hasil Penelitian Volume Akhir Tar

Suhu (°C)	Volume Total (ml)
250	20
350	40
450	54
500	60
600	58
700	52
800	50

UNIVERSITAS BRAWIJAYA



Lampiran 4

Dokumentasi Alat Penelitian



Penimbangan sampel



Pengujian Moisture Analyzer



Oven



Tabung N₂



Alat Pirolisis