Supplementary Information

QUANTIFICATION OF THE COMPOSITION OF PYROLYSIS OILS OF COMPLEX PLASTIC WASTE BY GAS CHROMATOGRAPHY COUPLED WITH MASS SPECTROMETER DETECTOR

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Table S1. Pyrolysis oils' naming (ID), waste and pyrolysis experiment description.

ID#	Waste description		Materials	Experiment conditions
Note that the three pyrolysis liquids used as use-case in the manuscript documents correspond to these three pyrolysis liquids ID: *ID1 = "FRP" and "FRP (x10)"* *ID11 = "WEEE" and "WEEE (1/10)"* *ID12 = "PACKAGING"*				
ID1	EoL FRP	Boat-hull	Glass fibre, polyester resin, wood, painting	Conventional pyrolysis
ID2		Car chassis	Carbon fibre, epoxy resin, adhesive, painting, stickers	
ID3		Surfboard	Glass fibre, polyester resin, polyurethane foam, wood,	

			paraffin wax	
ID4		Rowing boat reinforcement	Carbon and glass fibre, epoxy resin, painting	
ID5		Racing car headlight support	Glass fibre, polyester resin, painting, gelcoat	
ID6		Coastguard boat-hull	Glass fibre, polyester resin, painting	
ID7	Discarded polymer mix from WEEE		Polyolefin, styrenic plastics, PVC, rubbers, other plastics, inorganic material	Conventional pyrolysis
ID8				Stepwise pyrolysis
ID9				Conventional pyrolysis + adsorption (type 1)
ID10				Conventional pyrolysis + adsorption (type 2)
ID11				Stepwise pyrolysis + adsorption (type 3)
ID12	Plastic from packaging		Polyolefins (mainly) + polystyrene	Conventional pyrolysis

Table S2. Certified mixture of saturated C7 – C30 alkanes, 1,000 µg/mL of each component in hexane (alkane-mix).

	Saturated alkanes	**Formula**	**CAS number**
1	Heptane	C_7H_{16}	142-82-5
2	Octane	C_8H_{18}	111-65-9
3	Nonane	C_9H_{20}	111-84-2
4	Decane	$C_{10}H_{22}$	124-18-5
5	Undecane	$C_{11}H_{24}$	1120-21-4
6	Dodecane	$C_{12}H_{26}$	112-40-3
7	Tridecane	$C_{13}H_{28}$	629-50-5
8	Tetradecane	$C_{14}H_{30}$	629-59-4

9	Pentadecane	$C_{15}H_{32}$	629-62-9
10	Hexadecane	$C_{16}H_{34}$	544-76-3
11	Heptadecane	$C_{17}H_{36}$	629-78-7
12	Octadecane	$C_{18}H_{38}$	593-45-3
13	Nonadecane	$C_{19}H_{40}$	629-92-5
14	Eicosane	$C_{20}H_{42}$	112-95-8
15	Heneicosane	$C_{21}H_{44}$	629-94-7
16	Docosane	$C_{22}H_{46}$	629-97-0
17	Tricosane	$C_{23}H_{48}$	638-67-5
18	Tetracosane	$C_{24}H_{50}$	646-31-1
19	Pentacosane	$C_{25}H_{52}$	629-99-2
20	Hexacosane	$C_{26}H_{54}$	630-01-3
21	Heptacosane	$C_{27}H_{56}$	593-49-7
22	Octacosane	$C_{28}H_{58}$	630-02-4
23	Nonacosane	$C_{29}H_{60}$	630-03-5
24	Triacontane	$C_{30}H_{48}$	638-68-6

Table S3. C7-C30 alkane mix analysis by the chromatographic method used during this work (split ratio 1:15) and by the same method in a splitless injection.

		Split 1:15	**Splitless**
RT	**Compound**	**Normalized peak area %**	**Normalized peak area %**
3.796	heptane	2,8	3,0
4.284	octane	2,7	2,9
12.447	undecane	2,9	3,1
14.150	dodecane	2,9	3,0
15.773	tridecane	3,8	3,9
17.367	tetradecane	3,7	3,6
18.773	pentadecane	3,9	3,8
20.258	hexadecane	4,0	4,0
21.932	heptadecane	3,8	3,7
24.058	octadecane	3,5	3,6
26.185	nonadecane	3,9	3,9

28.109	eicosane	4,2	4,1
29.808	heneicosane	4,5	4,6
31.350	docosane	4,9	4,9
32.776	tricosane	5,0	5,0
34.137	tetracosane	5,5	5,7
35.252	pentacosane	6,0	6,1
36.362	hexacosane	6,0	6,1
37.587	heptacosane	6,3	6,0
39.022	octacosane	6,6	6,6
40.723	nonacosane	6,2	6,4
42.826	triacontane	6,9	5,9

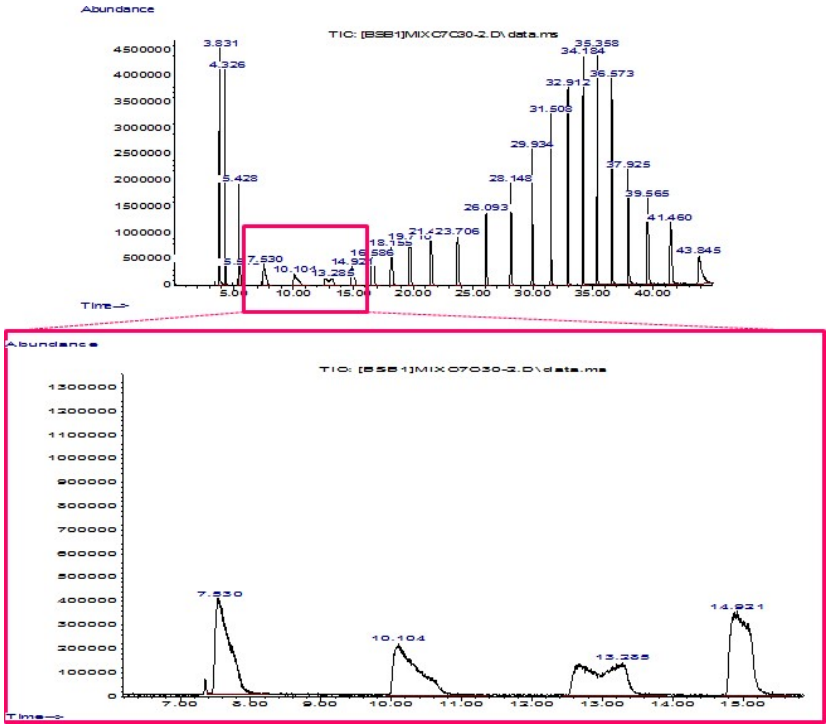

Figure S1. Poor solubility of the compounds with low retention times in the n-alkane mix dissolved in THF (7 min to 15 min).

Table S4. Quantification (in (µg/mL)) of the calibrated five aromatic and twelve aliphatic validation compounds for the thirteen studied pyrolysis oils: (a) prepared concentration (b) calculated concentration obtained with the proposed quantification methodology (using correction factor), (c) calculated concentration obtained with the proposed quantification methodology (without using correction factor), (d) concentration based on the hypothesis that area% is equal to weight%. “n.d.” corresponds to those compounds which are “not detected” in the GC-MS.

		(a)	(b)			(b)			(d)		
ID#	**Validation compounds**	**[ ] prepared (µg/mL)**	**[ ] calculated (µg/mL)**	**Abs. error (µg/mL)**	**Rel. error (%)**	**[ ] calculated w/o CF (µg/mL)**	**Abs. error (µg/mL)**	**Rel. error (%)**	**$[\ ]_{area}$ (µg/mL)**	**Abs. error (µg/mL)**	**Rel. error (%)**
ID1	Toluene	68	97	+29	+43	118	+50	+43	280	+212	+312
	Ethylbenzene	204	294	+91	+45	358	+154	+43	846	+643	+316
	Styrene	401	650	+249	+62	539	+138	+26	1,956	+1,555	+388
	Phenol	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	673	1,042	+369	+55	1,015	+342	+51	3,082	+2,410	+358
ID2	Toluene	23	32	+10	+43	39	+17	+74	61	+38	+168

	Ethylbenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	Styrene	90	146	+56	+62	122	+31	+34	287	+197	+218
	Phenol	1,675	1,325	-349	-21	1181	-493	-29	3,297	+1,622	+97
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	1,788	1,504	-284	-16	1,342	-446	-25	3,645	+1,857	+104
ID3	Toluene	14	160	+48	+43	195	+83	+74	567	+455	+407
	Ethylbenzene	210	304	+94	+45	370	+159	+76	1,077	+867	+412
	Styrene	454	736	+281	+62	610	+156	+34	2,727	+2,273	+500
	Phenol	111	88	-23	-21	78	-33	-29	412	+301	+272
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	887	1288	+400	+45	1,253	-769	-87	4,783	+3,896	+439
ID4	Toluene	3	4	+1	+43	5	+2	+74	7	+5	+166
	Ethylbenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	Styrene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	Phenol	1,769	1,400	-369	-21	1248	-521	-29	3,459	+1,689	+95

	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	1,772	1,404	-368	-21	1,253	-519	-29	3,466	+1,694	+96
ID5	Toluene	139	199	+60	+43	242	+103	+74	347	+207	+149
	Ethylbenzene	427	617	+190	+45	750	+323	+76	1,073	+646	+152
	Styrene	914	1,481	+566	+62	1228	+314	+34	2,696	+1,782	+195
	Phenol	72	57	-15	-21	51	-21	-29	132	+60	+83
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	1,552	2,354	+802	+52	2,271	+719	+46	4,248	+2,696	+174
ID6	Toluene	154	221	+67	+43	268	+114	+74	372	+218	+141
	Ethylbenzene	387	560	+173	+45	681	+294	+76	945	+557	+144
	Styrene	1,368	2,216	+848	+62	1838	+470	+34	3,911	+2,542	+186
	Phenol	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	3,820	5,995	+2,174	+57	2,788	+878	+46	10,455	+6,635	+174

ID7	Toluene	418	598	+180	+43	727	+309	+74	1,012	+594	+142
	Ethylbenzene	477	690	+213	+45	839	+362	+76	1,168	+691	+145
	Styrene	1,533	2,482	+949	+62	2,059	+526	+34	4,397	+2,865	+187
	Phenol	665	526	-139	-21	469	-196	-29	1,183	+518	+78
	Benzenebutanenitrile	119	55	-64	-54	94	-25	-21	326	+207	+174
	∑validation compounds	3,212	4,352	+1,140	+35	4,188	+976	+30	8,086	+4,874	+152
ID8	Toluene	443	634	+191	+43	771	+328	+74	953	+510	+115
	Ethylbenzene	687	993	+307	+45	1,207	+521	+76	1,493	+806	+117
	Styrene	1,474	2,386	+913	+62	1,980	+506	+34	3,755	+2,281	+155
	Phenol	443	350	-92	-21	312	-130	-29	700	+257	+58
	Benzenebutanenitrile	132	61	-70	-54	104	-28	-21	320	+188	+143
	∑validation compounds	3,178	4,425	1,248	39	4,374	+1,196	+38	7,220	+4,042	+127
ID9	Toluene	472	676	+204	+43	822	+349	+74	357	-115	-24
	Ethylbenzene	716	989	+273	+38	1,202	+486	+68	547	-169	-24
	Styrene	2,132	3,452	+1,320	+62	2,864	+732	+34	1,908	-224	-10

	Phenol	826	654	-172	-21	583	-243	-29	458	-368	-45
	Benzenebutanenitrile	56	26	-30	-54	44	-12	-21	48	-8	-15
	∑validation compounds	4,202	5,797	1,595	38	5,514	+1,312	+31	3,318	-884	-21
ID10	Toluene	410	586	+177	+43	713	+303	+74	779	+369	+90
	Ethylbenzene	611	884	+273	+45	1,075	+463	+76	1,174	+563	+92
	Styrene	1,942	3,145	+1,203	+62	2,609	+667	+34	4,373	+2,431	+125
	Phenol	914	724	-191	-21	645	-269	-29	1,276	+362	+40
	Benzenebutanenitrile	157	73	-84	-54	124	-33	-21	338	+181	+115
	∑validation compounds	4,034	5,412	+1,377	+34	5,165	+1,130	+28	7,940	+3,906	+97
ID11	Toluene	670	958	+289	+43	1,165	+495	+74	922	+253	+38
	Ethylbenzene	1,181	1,708	+527	+45	2,075	+895	+76	1,643	+462	+39
	Styrene	2,608	4,223	+1,615	+62	3,503	+895	+34	4,255	+1,647	+63
	Phenol	813	643	-170	-21	573	-239	-29	822	+9	+1
	Benzenebutanenitrile	74	35	-40	-54	59	-16	-21	116	+41	+56
	∑validation	5,345	7,567	+2,222	+42	7,376	+2,030	+38	7,757	+2,412	+45

	compounds										
ID12	Toluene	201	288	+87	+43	350	+149	+74	683	+395	+197
	Ethylbenzene	293	423	+131	+45	514	+222	+76	1,004	+581	+199
	Styrene	3,353	5,430	+2,077	+62	4,504	+1151	+34	13,492	+8,062	+240
	Phenol	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑aromatic validation compounds	3,847	6,141	+2,294	+150	5,368	+1,522	+40	15,179	+9,039	+636
	Nonadecane	16	20	+3	+22	17	+1	+9	62	+46	+284
	Eicosane	30	40	+9	+31	35	+5	+17	125	+95	+313
	Heneicosane	67	36	-31	-46	62	-6	-8	300	+233	+346
	Tricosane	80	48	-32	-40	81	+1	+2	396	+316	+395
	Tetracosane	70	44	-26	-37	75	+5	+7	363	+293	+420
	Pentacosane	88	37	-52	-59	75	-14	-16	470	+382	+433
	Heptacosane	53	23	-30	-56	48	-5	-10	300	+247	+467
	Nonacosane	43	20	-23	-54	41	-2	-5	256	+213	+498
	Triacontane	29	13	-17	-57	26	-4	-12	162	+132	+453
	∑aliphatic validation	477	280	-197	-41	459	-18	-4	2,433	+1,956	+411

	compounds										
	∑ validation compounds	4,323	6,420	2,097	49	5,827	+1,504	+35	17,612	+13,289	+307
ID1 (x10)	Toluene	166	238	+72	+43	289	+123	+74	2,035	+1,869	+1,126
	Ethylbenzene	3,247	4,697	+1,450	+45	5,708	+2,461	+76	6,953	+3,706	+114
	Styrene	8,909	14,427	+5,518	+62	11,968	+3,059	+34	22,362	+13,453	+151
	Phenol	82	65	-17	-21	58	-24	-29	128	+46	+56
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	12,404	19,426	+7,022	+57	18,023	+5,618	+45	31,478	+19,073	+154
ID11 (1/10)	Toluene	25	36	+11	+43	43	+18	+74	38	+13	+52
	Ethylbenzene	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	Styrene	177	287	+110	+62	238	+61	+34	319	+142	+80
	Phenol	122	97	-25	-21	86	-36	-29	136	+14	+12
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

	∑validation compounds	324	419	+95	+29	367	+43	+13	493	+169	+52

Table S5. Quantification (in wt%) of the calibrated five aromatic and twelve aliphatic validation compounds for the thirteen studied pyrolysis oils: (a) prepared concentration, (b) calculated concentration obtained with the proposed quantification methodology (using the correction factor), (c) calculated concentration obtained with the proposed quantification methodology (without using the correction factor), (d) concentration based on the hypothesis that area% is equal to weight%. “n.d.” corresponds to those compounds which are “not detected” in the GC-MS.

		(a)	(b)	(c)	(d)
ID#	**Validation compounds**	**wt% prepared (µg/mL)**	**wt% calculated with CF (µg/mL)**	**wt% calculated w/o CF (µg/mL)**	**wt% =area% (µg/mL)**
ID1	Toluene	0.7	1.0	1.2	3
	Ethylbenzene	2.1	3.0	3.6	9
	Styrene	4.1	6.6	5.5	20
	Phenol	n.d.	n.d.	n.d.	n.d.
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	6.9	10.6	10.3	31.4
ID2	Toluene	0.2	0.3	0.4	1
	Ethylbenzene	n.d.	n.d.	n.d.	n.d.
	Styrene	1	1	1	3
	Phenol	16	13	12	32
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	18	15	13	36
ID3	Toluene	1	1	2	5
	Ethylbenzene	2	3	3	10
	Styrene	4	7	5	24

	Phenol	1	1	1	4
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	8	12	11	43
ID4	Toluene	0.03	0.04	0.04	0.07
	Ethylbenzene	n.d.	n.d.	n.d.	n.d.
	Styrene	n.d.	n.d.	n.d.	n.d.
	Phenol	16	13	11	32
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	16	13	12	32
ID5	Toluene	1	2	2	3
	Ethylbenzene	4	6	7	10
	Styrene	9	14	12	25
	Phenol	1	1	0	1
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	15	22	21	40
ID6	Toluene	2	2	3	4
	Ethylbenzene	4	5	7	9
	Styrene	13	22	18	38
	Phenol	n.d.	n.d.	n.d.	n.d.
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	37	58	27	102
ID7	Toluene	4	6	7	9
	Ethylbenzene	4	6	8	11
	Styrene	14	23	19	41
	Phenol	6	5	4	11

	Benzenebutanenitrile	1	1	1	3
	∑validation compounds	30	41	39	76
ID8	Toluene	4	6	8	9
	Ethylbenzene	7	10	12	15
	Styrene	15	24	20	37
	Phenol	4	3	3	7
	Benzenebutanenitrile	1	1	1	3
	∑validation compounds	32	44	44	72
ID9	Toluene	4	6	7	8
	Ethylbenzene	6	9	11	13
	Styrene	19	31	25	45
	Phenol	7	6	5	11
	Benzenebutanenitrile	0.5	0.2	0.4	1
	∑validation compounds	37	51	49	79
ID10	Toluene	4	5	7	7
	Ethylbenzene	6	8	10	11
	Styrene	18	29	24	40
	Phenol	8	7	6	12
	Benzenebutanenitrile	1	1	1	3
	∑validation compounds	37	50	48	73
ID11	Toluene	7	10	12	9
	Ethylbenzene	12	17	21	16
	Styrene	26	42	35	42
	Phenol	8	6	6	8
	Benzenebutanenitrile	1	0.3	0.6	1

	∑validation compounds	53	75	73	77
ID12	Toluene	1	1	1	2
	Ethylbenzene	1	1	1	3
	Styrene	9	15	13	38
	Phenol	n.d.	n.d.	n.d.	n.d.
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑aromatic validation compounds	11	17	15	43
	Nonadecane	0.0	0.1	0.0	0.2
	Eicosane	0.1	0.1	0.1	0.4
	Heneicosane	0.2	0.1	0.2	0.8
	Tricosane	0.2	0.1	0.2	1.1
	Tetracosane	0.2	0.1	0.2	1.0
	Pentacosane	0.2	0.1	0.2	1.3
	Heptacosane	0.1	0.1	0.1	0.8
	Nonacosane	0.1	0.1	0.1	0.7
	Triacontane	0.1	0.0	0.1	0.5
	∑aliphatic validation compounds	1.3	0.8	1.3	6.9
	∑ validation compounds	12	18	16	50
ID1 (x10)	Toluene	0.2	0.2	0.3	2.0
	Ethylbenzene	3.2	4.7	5.7	6.9
	Styrene	8.9	14.4	11.9	22.3
	Phenol	0.1	0.1	0.1	0.1
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation	12.4	19.4	18.0	31.4

	compounds				
ID11 (1/10)	Toluene	2.4	3.5	4.2	3.7
	Ethylbenzene	n.d.	n.d.	n.d.	n.d.
	Styrene	17.4	28.1	23.3	31.3
	Phenol	12.0	9.5	8.4	13.4
	Benzenebutanenitrile	n.d.	n.d.	n.d.	n.d.
	∑validation compounds	31.8	41.1	36.0	48.3

Table S6. Average relative error and standard deviation of the validation compounds for the thirteen studied pyrolysis oils based on the relative error values included in Table S4. (a) Proposed quantification methodology (using the correction factor), (b) proposed quantification methodology without using correction factor and (c) quantification based on peak area % = weight%.

		(a)	**(b)**	**(c)**	**(a)**	**(b)**	**(c)**
Validation compounds	**RT (min)**	**Average relative error (%)**			**Standard deviation**		
Aromatic compounds							
Toluene	8.1	43	71	158	0	9	113
Ethylbenzene	10.1	36	72	130	17	10	130
Styrene	13.2	56	37	186	18	12	147
Phenol	28.1	-21	-29	64	8	0	81
Benzenebutanenitrile	30.5	-54	-21	95	0	0	67
Aliphatic compounds							
Nonadecane	25.8	22	9	284			
Eicosane	27.9	31	17	313			

Heneicosane	29.7	-46	-8	346			
Tricosane	32.7	-40	2	395			
Tetracosane	34.0	-37	7	420			
Pentacosane	35.2	-59	-16	433			
Heptacosane	37.7	-56	-10	467			
Nonacosane	41.1	-54	-5	498			
Triacontane	43.3	-57	-12	453			

Table S7. ID2 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	3.4	1		<85%	8,478,404	1.2	2.2	115.0	93.7	1.1	0.9
2	3.6	1		<85%	389,761	0.1	0.1	5.3	4.3	0.1	0.0
3	3.8	1		<85%	219,079	0.0	0.1	3.0	2.4	0.0	0.0
4	4.3	1		<85%	796,367	0.1	0.2	10.8	8.8	0.1	0.1
5	6.1	2		<85%	1,580,449	0.2	0.4	11.8	14.3	0.1	0.1
	8.165	2	1-Propanol (IS)		3,907,364						
6	8.2	2	Toluene	≥85%	4,341,545	0.6	1.1	32.4	39.4	1.0	0.4
7	8.5	2		<85%	3,082,994	0.4	0.8	23.0	28.0	0.2	0.3
8	9.9	2		<85%	1,794,514	0.2	0.5	13.4	16.3	0.1	0.2

9	10.2	2		<85%	7,325,082	1.0	1.9	54.7	66.5	0.5	0.7
10	10.4	2		<85%	2,306,154	0.3	0.6	17.2	20.9	0.2	0.2
11	10.6	2		<85%	1,944,564	0.3	0.5	14.5	17.6	0.1	0.2
12	10.7	2		<85%	1,630,459	0.2	0.4	12.2	14.8	0.1	0.1
13	11.3	3		<85%	2,686,443	0.4	0.7	19.2	15.9	0.2	0.2
14	11.6	3		<85%	655,399	0.1	0.2	4.7	3.9	0.0	0.0
15	12.1	3		<85%	536,623	0.1	0.1	3.8	3.2	0.0	0.0
16	12.4	3		<85%	3,625,824	0.5	0.9	25.9	21.4	0.3	0.2
17	12.9	3		<85%	1,234,945	0.2	0.3	8.8	7.3	0.1	0.1
18	13.2	3	Styrene	≥85%	20,540,875	2.8	5.3	146.5	121.5	1.4	1.2
19	13.4	3	Benzene, 1-methyl-2-(1-methylethyl)-	≥85%	11,688,975	1.6	3.0	83.4	69.1	0.8	0.7
20	13.7	3		<85%	2,214,390	0.3	0.6	15.8	13.1	0.2	0.1
21	14.7	3		<85%	7,412,837	1.0	1.9	52.9	43.9	0.5	0.4
22	15.1	3	Benzene, 2,4-diethyl-1-methyl-	≥85%	3,269,022	0.5	0.8	23.3	19.3	0.2	0.2
23	16.2	3		<85%	1,267,180	0.2	0.3	9.0	7.5	0.1	0.1
24	16.7	3		<85%	1,109,043	0.2	0.3	7.9	6.6	0.1	0.1
25	16.9	3		<85%	588,577	0.1	0.2	4.2	3.5	0.0	0.0
26	17.5	3		<85%	553,764	0.1	0.1	3.9	3.3	0.0	0.0

27	17.6	3		<85%	3,597,087	0.5	0.9	25.7	21.3	0.3	0.2
28	17.9	3		<85%	3,539,243	0.5	0.9	25.2	20.9	0.2	0.2
29	18.8	3		<85%	408,916	0.1	0.1	2.9	2.4	0.0	0.0
30	18.9	3		<85%	1,400,992	0.2	0.4	10.0	8.3	0.1	0.1
31	19.4	3		<85%	5,051,258	0.7	1.3	36.0	29.9	0.4	0.3
32	19.5	3		<85%	835,919	0.1	0.2	6.0	4.9	0.1	0.0
33	19.6	3		<85%	1,055,909	0.1	0.3	7.5	6.2	0.1	0.1
34	20.1	3		<85%	4,502,400	0.6	1.2	32.1	26.6	0.3	0.3
35	20.5	3		<85%	494,510	0.1	0.1	3.5	2.9	0.0	0.0
36	20.9	3		<85%	1,861,637	0.3	0.5	13.3	11.0	0.1	0.1
37	21.2	4		<85%	1,003,625	0.1	0.3	5.6	5.0	0.1	0.0
38	21.4	4		<85%	4,055,193	0.6	1.0	22.8	20.3	0.2	0.2
39	22.1	4	1H-Inden-1-one, 2,3-dihydro-3,3-dimethyl-	≥85%	3,815,697	0.5	1.0	21.4	19.1	0.2	0.2
40	22.2	4		<85%	853,241	0.1	0.2	4.8	4.3	0.0	0.0
41	23.2	4		<85%	1,133,817	0.2	0.3	6.4	5.7	0.1	0.1
42	23.3	4		<85%	4,951,038	0.7	1.3	27.8	24.8	0.3	0.2
43	24.1	4		<85%	430,292	0.1	0.1	2.4	2.2	0.0	0.0
44	24.3	4	Naphthalene, 1,2,3,4-tetrahydro-1,1,6-	≥85%	19,098,937	2.6	4.9	107.4	95.7	1.1	0.9

			trimethyl-								
45	24.9	4		<85%	637,918	0.1	0.2	3.6	3.2	0.0	0.0
46	25.4	4		<85%	747,584	0.1	0.2	4.2	3.7	0.0	0.0
47	25.8	4		<85%	886,064	0.1	0.2	5.0	4.4	0.0	0.0
48	26.0	4	Phenol, 3,5-dimethyl-	≥85%	7,903,902	1.1	2.0	44.4	39.6	0.4	0.4
49	26.2	4		<85%	903,824	0.1	0.2	5.1	4.5	0.1	0.0
50	26.6	4		<85%	1,551,244	0.2	0.4	8.7	7.8	0.1	0.1
51	26.9	4		<85%	2,005,240	0.3	0.5	11.3	10.0	0.1	0.1
52	27.5	4		<85%	417,527	0.1	0.1	2.3	2.1	0.0	0.0
53	27.9	4	Phenol	≥85%	235,762,525	32.5	60.3	1,325.3	1181.2	13.1	11.6
54	29.1	5	Phenol, 2-ethyl-	≥85%	13,589,122	1.9	3.5	29.1	49.5	0.3	0.5
55	29.4	5	Phenol, 4-methyl-	≥85%	44,701,431	6.2	11.4	95.8	162.8	0.9	1.6
56	29.8	5		<85%	1,045,352	0.1	0.3	2.2	3.8	0.0	0.0
57	30.3	5		<85%	7,199,355	1.0	1.8	15.4	26.2	0.2	0.3
58	30.7	5		<85%	3,416,080	0.5	0.9	7.3	12.4	0.1	0.1
59	30.9	5	Phenol, 2-ethyl-	≥85%	19,333,338	2.7	4.9	41.4	70.4	0.4	0.7
60	31.2	5	Phenol, 2-methyl-5-(1-methylethyl)-	≥85%	7,788,397	1.1	2.0	16.7	28.4	0.2	0.3
61	31.4	5		<85%	1,519,936	0.2	0.4	3.3	5.5	0.0	0.1

62	31.5	5	Phenol, 4-(1-methylethyl)-	≥85%	129,189,738	17.8	33.1	276.8	470.6	2.7	4.6
63	32.3	5		<85%	5,503,822	0.8	1.4	11.8	20.0	0.1	0.2
64	32.5	5		<85%	8,519,770	1.2	2.2	18.3	31.0	0.2	0.3
65	32.8	5		<85%	1,562,301	0.2	0.4	3.3	5.7	0.0	0.1
66	32.9	5		<85%	1,983,350	0.3	0.5	4.3	7.2	0.0	0.1
67	34.7	5		<85%	20,610,909	2.8	5.3	44.2	75.1	0.4	0.7
68	35.3	6		<85%	3,758,969	0.5	1.0	5.2	10.6	0.1	0.1
69	36.9	6	Benzenamine, 2,5-dichloro-	≥85%	6,405,063	0.9	1.6	8.8	18.0	0.1	0.2
70	40.4	6		<85%	45,466,892	6.3	11.6	62.6	127.8	0.6	1.3
71	41.7	6		<85%	4,121,265	0.6	1.1	5.7	11.6	0.1	0.1
							Total	**3,145.6**	**3,371.6**	**31.7**	**33.2**
							Identified signals	2,252.7	2,384.6	22.8	23.5
							Unknown signals	892.9	987.0	8.9	9.7
							Unknown % = 100*Unknown signals/Total detected signals	28.4	29.3	28.1	29.2

Table S8. ID3 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	3.5	1		<85%	2,955,882	1.4	1.5	80.5	65.6	0.7	0.6
2	3.6	1		<85%	483,302	0.2	0.2	13.2	10.7	0.1	0.1
3	3.8	1		<85%	198,270	0.1	0.1	5.4	4.4	0.0	0.0
4	4.3	1		<85%	370,145	0.2	0.2	10.1	8.2	0.1	0.1
5	6.1	2		<85%	1,867,679	0.9	1.0	28.0	34.0	0.3	0.3
	8.2	2	1-Propanol (IS)		1,946,544						
6	8.1	2	Toluene	≥85%	10,685,282	5.1	5.5	160.1	194.6	1.4	1.7
7	9.9	2		<85%	2,162,257	1.0	1.1	32.4	39.4	0.3	0.4
8	10.2	2	Ethylbenzene	≥85%	20,296,470	9.6	10.4	304.2	369.7	2.7	3.3

9	10.4	2		<85%	980,516	0.5	0.5	14.7	17.9	0.1	0.2
10	10.6	2		<85%	1,342,945	0.6	0.7	20.1	24.5	0.2	0.2
11	11.3	3		<85%	3,119,385	1.5	1.6	44.7	37.0	0.4	0.3
12	11.6	3		<85%	1,653,193	0.8	0.8	23.7	19.6	0.2	0.2
13	12.1	3		<85%	643,844	0.3	0.3	9.2	7.6	0.1	0.1
14	13.2	3	Styrene	≥85%	51,396,512	24.4	26.4	735.7	610.3	6.6	5.5
15	15.7	3		<85%	10,860,507	5.2	5.6	155.5	129.0	1.4	1.2
16	20.4	3		<85%	7,743,621	3.7	4.0	110.8	92.0	1.0	0.8
17	22.6	4	Pyridine, 2-methyl-	≥85%	3,196,154	1.5	1.6	36.1	32.1	0.3	0.3
18	23.8	4		<85%	2,284,319	1.1	1.2	25.8	23.0	0.2	0.2
19	24.3	4		<85%	3,427,957	1.6	1.8	38.7	34.5	0.3	0.3
20	25.4	4		<85%	3,333,937	1.6	1.7	37.6	33.5	0.3	0.3
21	28.1	4	Phenol	≥85%	7,759,339	3.7	4.0	87.6	78.0	0.8	0.7
22	29.5	5		<85%	5,204,256	2.5	2.7	22.4	38.1	0.2	0.3
23	31.5	5		<85%	733,249	0.3	0.4	3.2	5.4	0.0	0.0
24	31.6	5		<85%	2,012,121	1.0	1.0	8.7	14.7	0.1	0.1
25	32.2	5	Benzene, 1,1'-(1,3-propanediyl)bis-	≥85%	26,753,975	12.7	13.7	115.1	195.6	1.0	1.7
26	32.9	5	1H-Isoindole-1,3(2H)-dione, 2-methyl-	≥85%	19,252,658	9.1	9.9	82.8	140.8	0.7	1.3

27	42.0	6		<85%	17,017,827	8.1	8.7	47.1	96.0	0.4	0.9
28	44.4	6		<85%	3,143,888	1.5	1.6	8.7	17.7	0.1	0.2
							Total	**2,261.8**	**2,373.9**	**20.2**	**21.2**
							Identified signals	1521.6	1621.1	13.5	14.5
							Unknown signals	740.2	752.8	6.7	6.7
							Unknown % = 100*Unknown signals/Total detected signals	32.7	31.7	33.2	31.6

Table S9. ID4 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i)**	**(j)**	**(k)**	**(l)**
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	3.5	1		<85%	3,692,926	0.9	1.9	98.5	80.3	0.9	0.7
2	3.6	1		<85%	691,344	0.2	0.3	18.4	15.0	0.2	0.1

3	3.7	1		<85%	177,201	0.0	0.1	4.7	3.9	0.0	0.0
4	3.9	1		<85%	282,678	0.1	0.1	7.5	6.1	0.1	0.1
5	4.3	1		<85%	338,608	0.1	0.2	9.0	7.4	0.1	0.1
	8.2	2	1-Propanol (IS)		1,985,742						
6	8.2	2	Toluene	≥85%	269,527	0.1	0.1	4.0	4.8	0.0	0.0
7	10.2	2		<85%	581,542	0.1	0.3	8.5	10.4	0.1	0.1
8	10.6	2		<85%	1,196,196	0.3	0.6	17.6	21.4	0.2	0.2
9	20.2	3		<85%	6,805,010	1.7	3.4	95.5	79.2	0.9	0.7
10	22.2	4		<85%	2,546,809	0.6	1.3	28.2	25.1	0.3	0.2
11	24.4	4		<85%	3,685,181	0.9	1.9	40.8	36.3	0.4	0.3
12	25.9	4		<85%	1,375,146	0.3	0.7	15.2	13.6	0.1	0.1
13	26.0	4		<85%	2,650,115	0.7	1.3	29.3	26.1	0.3	0.2
14	26.6	4		<85%	1,575,527	0.4	0.8	17.4	15.5	0.2	0.1
15	26.9	4		<85%	2,785,294	0.7	1.4	30.8	27.5	0.3	0.3
16	27.6	4		<85%	10,147,068	2.5	5.1	112.2	100.0	1.0	0.9
17	28.0	4	Phenol	≥85%	126,591,789	31.8	63.8	1,400.3	1248.0	12.9	11.5
18	29.2	5	Phenol, 2-ethyl-	≥85%	12,176,714	3.1	6.1	51.3	87.3	0.5	0.8
19	29.4	5	Phenol, 4-methyl-	≥85%	14,090,809	3.5	7.1	59.4	101.0	0.5	0.9

20	30.3	5		<85%	3,759,541	0.9	1.9	15.9	26.9	0.1	0.2
21	30.5	5		<85%	2,212,864	0.6	1.1	9.3	15.9	0.1	0.1
22	30.9	5	Phenol, 4-ethyl-	≥85%	6,132,215	1.5	3.1	25.9	44.0	0.2	0.4
23	31.3	5	Phenol, 2-methyl-5-(1-methylethyl)-	≥85%	9,935,945	2.5	5.0	41.9	71.2	0.4	0.7
24	31.6	5	Phenol, 4-(1-methylethyl)-	≥85%	108,324,064	27.2	54.6	456.8	776.4	4.2	7.1
25	32.1	5		<85%	7,034,072	1.8	3.5	29.7	50.4	0.3	0.5
26	32.3	5		<85%	2,431,542	0.6	1.2	10.3	17.4	0.1	0.2
27	32.5	5	Phenol, p-tert-butyl-	≥85%	36,738,054	9.2	18.5	154.9	263.3	1.4	2.4
28	34.7	5	p-Isopropenylphenol	≥85%	30,350,575	7.6	15.3	128.0	217.5	1.2	2.0
							Total	**2,921.3**	**3,392.0**	**26.8**	**31.1**
							Identified signals	2,322.5	2,813.5	21.3	25.8
							Unknown signals	598.8	578.5	5.5	5.3
							Unknown % = 100*Unknown signals/Total detected signals	20.5	17.1	20.5	17.0

Table S10. ID5 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	3.4	1		<85%	7,550,614	0.8	1.5	78.9	64.3	0.7	0.6
2	3.6	1		<85%	1,182,458	0.1	0.2	12.4	10.1	0.1	0.1
3	3.8	1		<85%	1,035,531	0.1	0.2	10.8	8.8	0.1	0.1
4	4.0	1	3-Penten-1-yne, (E)-	≥85%	1,588,032	0.2	0.3	16.6	13.5	0.2	0.1
5	4.3	1		<85%	5,603,482	0.6	1.1	58.5	47.7	0.6	0.5
6	6.0	2		<85%	1,739,228	0.2	0.3	10.0	12.2	0.1	0.1
7	6.1	2	Benzene	≥85%	10,631,246	1.2	2.1	61.2	74.3	0.6	0.7
8	6.3	2		<85%	2,924,559	0.3	0.6	16.8	20.4	0.2	0.2
9	6.4	2		<85%	484,148	0.1	0.1	2.8	3.4	0.0	0.0

10	7.4	2		<85%	736,807	0.1	0.1	4.2	5.2	0.0	0.0
11	7.7	2		<85%	7,820,279	0.8	1.5	45.0	54.7	0.4	0.5
12	8.0	2		<85%	506,703	0.1	0.1	2.9	3.5	0.0	0.0
	8.2	2	1-Propanol (IS)		5,071,905						
13	8.2	2	Toluene	≥85%	34,643,321	3.8	6.8	199.3	242.2	1.9	2.3
14	8.5		Water	≥85%	2,144,492	0.2	0.4	12.3	15.0	0.1	0.1
15	8.7			<85%	4,566,034	0.5	0.9	26.3	31.9	0.2	0.3
16	8.8			<85%	1,060,161	0.1	0.2	6.1	7.4	0.1	0.1
17	9.6			<85%	787,494	0.1	0.2	4.5	5.5	0.0	0.1
18	9.9			<85%	4,166,254	0.5	0.8	24.0	29.1	0.2	0.3
19	10.2		Ethylbenzene	≥85%	107,250,288	11.7	21.1	616.9	749.7	5.8	7.1
20	10.4			<85%	2,335,913	0.3	0.5	13.4	16.3	0.1	0.2
21	10.6			<85%	4,056,525	0.4	0.8	23.3	28.4	0.2	0.3
22	11.1			<85%	835,868	0.1	0.2	4.6	3.8	0.0	0.0
23	11.3		Benzene, (1-methylethyl)-	≥85%	20,203,659	2.2	4.0	111.0	92.1	1.0	0.9
24	11.6			<85%	2,057,723	0.2	0.4	11.3	9.4	0.1	0.1
25	12.1			<85%	3,396,481	0.4	0.7	18.7	15.5	0.2	0.1
26	12.5			<85%	1,985,629	0.2	0.4	10.9	9.0	0.1	0.1

27	13.2		Styrene	≥85%	269,501,639	29.3	53.1	1,480.6	1228.2	14.0	11.6
28	14.7		.alpha.-methylstyrene	≥85%	50,124,411	5.4	9.9	275.4	228.4	2.6	2.2
29	17.7			<85%	2,472,302	0.3	0.5	13.6	11.3	0.1	0.1
30	18.8			<85%	1,266,476	0.1	0.2	7.0	5.8	0.1	0.1
31	20.2			<85%	5,839,596	0.6	1.2	32.1	26.6	0.3	0.3
32	25.3			<85%	5,905,024	0.6	1.2	25.6	22.8	0.2	0.2
33	25.8			<85%	4,239,021	0.5	0.8	18.4	16.4	0.2	0.2
34	28.0		Phenol	≥85%	13,196,717	1.4	2.6	57.2	50.9	0.5	0.5
35	28.2			<85%	7,093,829	0.8	1.4	30.7	27.4	0.3	0.3
36	29.2			<85%	1,535,840	0.2	0.3	2.5	4.3	0.0	0.0
37	29.4			<85%	2,090,818	0.2	0.4	3.5	5.9	0.0	0.1
38	29.8			<85%	5,213,558	0.6	1.0	8.6	14.6	0.1	0.1
39	30.3			<85%	1,063,436	0.1	0.2	1.8	3.0	0.0	0.0
40	30.7			<85%	1,327,216	0.1	0.3	2.2	3.7	0.0	0.0
41	30.9			<85%	2,551,558	0.3	0.5	4.2	7.2	0.0	0.1
42	31.6		Phenol, 3-(1-methylethyl)-	≥85%	5,544,695	0.6	1.1	9.2	15.6	0.1	0.1
43	32.0			<85%	4,020,437	0.4	0.8	6.6	11.3	0.1	0.1
44	32.1		Benzene, 1,1'-(1,3-propanediyl)bis-	≥85%	103,100,749	11.2	20.3	170.2	289.3	1.6	2.7

45	32.8		Dimethyl phthalate	≥85%	12,555,731	1.4	2.5	20.7	35.2	0.2	0.3
46	33.0			<85%	3,241,439	0.4	0.6	5.4	9.1	0.1	0.1
47	33.7		Benzoic acid	≥85%	8,998,232	1.0	1.8	14.9	25.2	0.1	0.2
48	34.5		Benzene, 1,1'-cyclopropylidenebis-	≥85%	43,979,214	4.8	8.7	72.6	123.4	0.7	1.2
49	35.0			<85%	17,657,661	1.9	3.5	18.7	38.2	0.2	0.4
50	35.3			<85%	3,969,539	0.4	0.8	4.2	8.6	0.0	0.1
51	35.6			<85%	7,535,856	0.8	1.5	8.0	16.3	0.1	0.2
52	36.1			<85%	5,874,084	0.6	1.2	6.2	12.7	0.1	0.1
53	36.8			<85%	3,370,680	0.4	0.7	3.6	7.3	0.0	0.1
54	37.2			<85%	4,507,406	0.5	0.9	4.8	9.8	0.0	0.1
55	38.1			<85%	6,616,767	0.7	1.3	7.0	14.3	0.1	0.1
56	39.5			<85%	53,533,130	5.8	10.6	56.8	115.9	0.5	1.1
57	40.5			<85%	14,477,355	1.6	2.9	15.4	31.4	0.1	0.3
58	41.8			<85%	34,44,987	0.4	0.7	3.7	7.5	0.0	0.1
59	42.1			<85%	6,002,388	0.7	1.2	6.4	13.0	0.1	0.1
60	46.0			<85%	7,403,629	0.8	1.5	7.9	16.0	0.1	0.2
							Total	**3,808.0**	**4030.1**	**36.0**	**38.1**
							Identified signals	3,118.1	3,183.0	29.4	30.0

Unknown signals	689.9	847.1	6.6	8.1
Unknown % = 100*Unknown signals/Total detected signals	18.1	21.0	18.3	21.3

Table S11. ID6 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	3.5	1		<85%	4,663,322	1.1	2.3	122.6	100.0	1.2	1.0
2	3.6	1		<85%	1,071,292	0.3	0.5	28.2	23.0	0.3	0.2
3	3.7	1		<85%	134,808	0.0	0.1	3.5	2.9	0.0	0.0
4	3.8	1		<85%	311,252	0.1	0.2	8.2	6.7	0.1	0.1

5	4.3	1		<85%	787,015	0.2	0.4	20.7	16.9	0.2	0.2
6	6.1	2	Benzene	≥85%	4,841,728	1.2	2.4	70.1	85.2	0.7	0.8
7	7.7	2		<85%	1,001,420	0.2	0.5	14.5	17.6	0.1	0.2
	8.2	2	1-Propanol (IS)		2,015,396						
8	8.2	2	Toluene	≥85%	15,256,441	3.6	7.6	220.8	268.4	2.2	2.6
9	8.7	2		<85%	1,648,003	0.4	0.8	23.9	29.0	0.2	0.3
10	9.9	2		<85%	1,180,306	0.3	0.6	17.1	20.8	0.2	0.2
11	10.2	2	Ethylbenzene	≥85%	38,713,173	9.2	19.2	560.4	681.0	5.5	6.6
12	11.3	3	Benzene, (1-methylethyl)-	≥85%	5,029,532	1.2	2.5	69.5	57.7	0.7	0.6
13	12.1	3		<85%	885,639	0.2	0.4	12.2	10.2	0.1	0.1
14	13.2	3	Styrene	≥85%	160,294,456	38.1	79.5	2,216.1	1838.4	21.6	17.9
15	16.2	3	.alpha.-methylstyrene	≥85%	36,295,270	8.6	18.0	501.8	416.3	4.9	4.1
16	20.5	3		<85%	5,264,656	1.3	2.6	72.8	60.4	0.7	0.6
17	28.5	4		<85%	9,260,952	2.2	4.6	100.9	90.0	1.0	0.9
18	30.4	5		<85%	9,205,097	2.2	4.6	38.2	65.0	0.4	0.6
19	32.5	5	Benzene, 1,1'-(1,3-propanediyl)bis-	≥85%	45,480,208	10.8	22.6	189.0	321.2	1.8	3.1
20	33.0	5		<85%	21,550,257	5.1	10.7	89.5	152.2	0.9	1.5
21	34.7	5	Benzoic acid	≥85%	15,569,545	3.7	7.7	64.7	109.9	0.6	1.1

Total	**4,558.3**	**4604.0**	**44.4**	**44.8**
Identified signals	3,892.4	3,778.1	38.0	36.8
Unknown signals	665.9	825.9	6.4	8.0
Unknown % = 100*Unknown signals/Total detected signals	14.6	17.9	14.4	17.9

Table S12. ID7 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	6.1	2		<85%	1,535,572	0.2	0.5	15.5	18.8	0.1	0.2
2	7.2	2	2-Propenenitrile	≥85%	2,163,310	0.3	0.7	20.1	24.4	0.2	0.2

3	7.4	2	2-Butenoic acid, methyl ester	<85%	8,340,156	1.2	2.7	78.3	95.1	0.7	0.9
	8.1	2	1-Propanol (IS)		3,131,298						
4	8.1	2	Toluene	≥85%	64,896,006	9.5	20.5	597.8	726.6	5.6	6.8
5	10.2	2	Ethylbenzene	≥85%	73,494,583	10.9	23.7	690.5	839.1	6.5	7.8
6	11.3	3	Benzene, (1-methylethyl)	≥85%	10,120,749	1.5	3.3	90.9	75.4	0.8	0.7
7	12.1	3	Benzene, propyl	≥85%	3,459,521	0.5	1.1	30.4	25.2	0.3	0.2
8	13.2	3	Styrene	≥85%	2.79E+08	41.1	89.1	2,482.1	2059.0	23.2	19.2
9	14.7	3	alfa, methylstyrene	≥85%	66,392,103	9.1	19.8	551.0	457.1	5.1	4.3
10	28.0	4	Phenol	≥85%	74,003,161	11.1	24.0	526.2	469.0	4.9	4.4
11	29.4	5		<85%	3,761,116	0.6	1.2	10.1	17.2	0.1	0.2
12	30.2	5	Benzenebutanenitrile	≥85%	20,293,420	3.0	6.6	55.3	94.0	0.5	0.9
13	31.0	5	Phenol, 3-ethyl	≥85%	3,279,205	0.5	1.0	8.6	14.6	0.1	0.1
14	31.6	5	Phenol, 4-(1-methylethyl)	≥85%	34,675,712	5.2	11.2	93.9	159.6	0.9	1.5
15	32.5	5		<85%	36,104,677	5.3	11.5	96.1	163.4	0.9	1.5
							Total	**5,346.7**	**5238.4**	**50.0**	**49.0**
							Identified signals	5,225.1	48.8	48.8	47.0
							Unknown signals	121.6	1.2	1.2	2.0
							Unknown % = 100*Unknown signals/Total detected signals	2.3	2.4	2.4	4.1

Table S13. ID8 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	6.1	2		<85%	1,843,598	0.2	0.5	15.3	18.5	0.2	0.2
2	7.2	2	2-Propenenitrile	≥85%	2,213,996	0.3	0.6	18.3	22.2	0.2	0.2
3	7.4	2		<85%	2,448,131	0.3	0.7	20.2	24.6	0.2	0.2
	8.1	2	1-Propanol (IS)		3,528,862						
4	8.1	2	Toluene	≥85%	76,691,208	9.5	21.7	634.0	770.6	6.3	7.7
5	10.2	2	Ethylbenzene	≥85%	120,174,992	14.9	34.1	993.5	1207.4	9.9	12.0
6	11.3	3	Benzene, (1-methylethyl)	≥85%	19,839,183	2.5	5.6	156.6	129.9	1.6	1.3
7	12.1	3	Benzene, propyl	≥85%	3,673,991	0.5	1.0	29.0	24.1	0.3	0.2
8	13.2	3	Styrene	≥85%	302,380,723	37.4	85.6	2,386.3	1979.5	23.7	19.7

9	14.7	3	alfa, methylstyrene	≥85%	85,150,944	10.5	24.1	670.4	556.2	6.7	5.5
10	18.8	3		<85%	2,809,216	0.3	0.8	22.2	18.4	0.2	0.2
11	26.0	4	Phenol, 2,6-Dimethyl	≥85%	5,100,387	0.6	1.4	31.7	28.2	0.3	0.3
12	28.0	4	Phenol	≥85%	56,320,110	7.0	16.0	350.5	312.4	3.5	3.1
13	29.4	5	Phenol, 3-ethyl	≥85%	5,382,401	0.7	1.5	12.7	21.6	0.1	0.2
14	30.2	5	Benzenebutanenitrile	≥85%	25,738,959	3.2	7.3	61.1	103.8	0.6	1.0
15	31.0	5	Phenol, 3-ethyl	<85%	4,227,395	0.5	1.2	10.0	17.0	0.1	0.2
16	31.6	5	Phenol, 4-(1-methylethyl)	≥85%	31,753,300	3.9	9.0	75.3	127.9	0.7	1.3
17	32.5	6		<85%	48,588,303	6.0	13.8	74.0	151.1	0.7	1.5
18	33.7	6		<85%	6,728,896	0.8	1.9	10.2	20.9	0.1	0.2
19	34.7	6	p-Isopropenyl-phenol	≥85%	8,467,213	1.0	2.4	12.9	26.3	0.1	0.3
							Total	**5,584.2**	**5560.7**	**55.6**	**55.3**
							Identified signals	5,442.3	5,327.1	54.1	53.0
							Unknown signals	141.9	233.6	1.5	2.3
							Unknown % = 100*Unknown signals/Total detected signals	2.5	4.2	2.7	4.2

Table S14. ID9 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in μg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in μg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (μg/mL)**	**[ ] w/o CF (μg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	6.1	2		<85%	2,317,491	0.3	0.7	20.7	25.2	0.2	0.2
2	7.2	2	2-Propenenitrile	≥85%	2,384,371	0.3	0.7	21.2	25.8	0.2	0.2
3	7.4	2	2-Butenoic acid, methyl ester	<85%	10,041,266	1.1	3.1	89.4	108.6	0.8	1.0
4	8.1	2	Toluene	≥85%	76,002,450	8.5	23.2	676.2	821.8	6.0	7.3
	8.2	2	1-Propanol (IS)		3,283,756						
5	10.2	3	Ethylbenzene	≥85%	116,484,879	13.0	35.5	989.1	820.5	8.8	7.3
6	11.3	3	Benzene, (1-methylethyl)	≥85%	16,550,032	1.8	5.0	140.5	116.6	1.2	1.0
7	12.1	3	Benzene, propyl	≥85%	5,821,372	0.7	1.8	49.4	41.0	0.4	0.4
8	13.2	3	Styrene	≥85%	406,643,837	45.4	123.9	3,451.9	2,863.5	30.5	25.3

9	14.7	3	alfa, methylstyrene	≥85%	100,120,681	11.2	30.5	848.5	703.9	7.5	6.2
10	18.8	3		<85%	3,122,667	0.3	1.0	26.5	22.0	0.2	0.2
11	26.0	4	Phenol, 2,6-Dimethyl	≥85%	3,375,487	0.4	1.0	22.7	20.2	0.2	0.2
12	28.0	4	Phenol	≥85%	97,781,765	10.9	29.8	653.9	582.8	5.8	5.2
13	29.4	5	Phenol, 3-ethyl	≥85%	3,763,864	0.4	1.1	9.6	16.3	0.1	0.1
14	30.2	5	Benzenebutanenitrile	≥85%	10,149,044	1.1	3.1	25.9	43.9	0.2	0.4
15	31.0	5		<85%	2,017,782	0.2	0.6	5.2	8.8	0.0	0.1
16	31.6	5	Phenol, 4-(1-methylethyl)	≥85%	25,399,243	2.8	7.7	64.8	110.1	0.6	1.0
17	32.5	6		<85%	10,616,285	1.2	3.2	17.5	35.6	0.2	0.3
18	40.4	6		<85%	3,143,875	0.3	0.9	4.9	9.9	0.0	0.1
							Total	**7,117.9**	**6,376.6**	**63.0**	**56.4**
							Identified signals	7,043.1	6,275.0	62.3	55.6
							Unknown signals	74.8	101.6	0.7	0.8
							Unknown % = 100*Unknown signals/Total detected signals	1.1	1.6	1.1	1.4

Table S15. ID10 pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	6.1	2		<85%	2,801,055	0.3	0.8	22.9	27.8	0.2	0.3
2	7.2	2	2-Propenenitrile	≥85%	2,293,246	0.2	0.6	18.8	22.9	0.2	0.2
3	7.4	2		<85%	8,528,443	0.9	2.4	70.9	86.2	0.7	0.8
	8.1	2	1-Propanol (IS)		3,549,498						
4	8.1	2	Toluene	≥85%	70,358,963	7.2	20.1	586.4	712.6	5.4	6.6
5	10.2	2	Ethylbenzene	≥85%	106,459,690	10.8	30.3	884.1	1,074.5	8.1	9.9
6	11.3	3	Benzene, (1-methylethyl)	≥85%	14,484,825	1.5	4.2	115.8	96.0	1.1	0.9
7	12.1	3	Benzene, propyl	≥85%	4,790,180	0.5	1.3	36.9	30.6	0.3	0.3

8	13.2	3	Styrene	≥85%	397,681,202	40.2	112.9	3,144.5	2,608.5	28.9	24.0
9	14.7	3	alfa, methylstyrene	≥85%	89,961,386	9.2	25.7	716.7	594.6	6.6	5.5
10	18.8	3		<85%	3,652,361	0.4	1.0	28.2	23.4	0.3	0.2
11	25.8	4	Naphthalene, 1-methyl	≥85%	1,610,962	0.2	0.4	9.8	8.7	0.1	0.1
12	25.9	4	Phenol, 2,6-Dimethyl	≥85%	4,971,198	0.5	1.4	31.2	27.8	0.3	0.3
13	27.9	4	Phenol	≥85%	115,989,166	11.7	32.9	723.5	644.9	6.7	5.9
14	29.4	5	Phenol, 3-ethyl	≥85%	6,149,956	0.6	1.8	14.8	25.2	0.1	0.2
15	30.1	5	Benzenebutanenitrile	≥85%	30,906,841	3.1	8.7	73.0	124.1	0.7	1.1
16	31.5	5	Phenol, 4-(1-methylethyl)	≥85%	61,134,800	6.2	17.5	146.8	249.5	1.4	2.3
17	32.2	6		<85%	30,144,785	3.0	8.4	45.4	92.7	0.4	0.9
18	32.5	6	Phenol, p-tert-butyl	≥85%	18,597,840	2.0	5.7	30.6	62.4	0.3	0.6
19	33.7	6		<85%	7,421,885	0.7	2.1	11.1	22.7	0.1	0.2
20	34.3	6	Naphthalene, 1,2,3,4, tetrahydro-1-phneyl	≥85%	2,574,562	0.3	0.7	3.9	7.9	0.0	0.1
21	34.7	6		<85%	5,362,015	0.5	1.5	8.0	16.2	0.1	0.1
							Total	**6,723.4**	**6,559.3**	**61.9**	**60.3**
							Identified signals	6,536.8	6,290.2	60.2	58.0
							Unknown signals	186.6	269.1	1.7	2.3

Unknown % = 100*Unknown signals/Total detected signals	2.8	4.1	2.7	3.8

Table S16. “FRP (X10)” (ID1 concentrated) pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	3.5	1		<85%	3,040,998	0.0	0.2	10.4	8.5	0.0	0.0
2	3.6	1		<85%	168,016	0.0	0.0	0.6	0.5	0.0	0.0
3	3.8	1		<85%	368,688	0.0	0.0	1.3	1.0	0.0	0.0
4	3.8	1		<85%	3,951,350	0.1	0.3	13.5	11.0	0.0	0.0
5	4.0	1		<85%	1,577,010	0.0	0.1	5.4	4.4	0.0	0.0

6	4.2	1	Propanal	≥85%	64,082,477	1.0	4.1	218.9	178.5	0.2	0.2
7	4.4	1	Acetone	≥85%	29,668,938	0.5	1.9	101.4	82.6	0.1	0.1
8	6.0	2	Benzene	≥85%	92,035,997	1.5	5.9	173.1	210.4	0.2	0.2
9	6.2	2		<85%	1,903,021	0.0	0.1	3.6	4.4	0.0	0.0
10	6.3	2		<85%	8,951,859	0.1	0.6	16.8	20.5	0.0	0.0
11	6.6	2		<85%	709,945	0.0	0.0	1.3	1.6	0.0	0.0
12	6.7	2		<85%	565,371	0.0	0.0	1.1	1.3	0.0	0.0
13	6.8	2		<85%	675,219	0.0	0.0	1.3	1.5	0.0	0.0
14	7.3	2		<85%	3,198,673	0.1	0.2	6.0	7.3	0.0	0.0
15	7.7	2	1,3-Dioxolane, 2-ethyl-4-methyl-	≥85%	202,513,167	3.3	13.1	380.9	462.9	0.4	0.5
16	7.9	2		<85%	5,374,761	0.1	0.3	10.1	12.3	0.0	0.0
17	8.1	2	Toluene	≥85%	126,337,743	2.0	8.1	237.6	288.8	0.2	0.3
	8.1		1-Propanol (IS)	≥85%	15,510,695						
18	8.5	2		<85%	5,516,760	0.1	0.4	10.4	12.6	0.0	0.0
19	8.6	2		<85%	26,655,970	0.4	9.9	290.0	352.4	0.3	0.4
20	8.8	2		<85%	850,132	0.0	0.3	9.2	11.2	0.0	0.0
21	8.9	2		<85%	419,262	0.0	0.2	4.6	5.5	0.0	0.0
22	9.3	2		<85%	2,507,041	0.0	0.9	27.3	33.1	0.0	0.0

23	9.5	2		<85%	1,705,354	0.0	0.6	18.6	22.5	0.0	0.0
24	9.6	2		<85%	547,023	0.0	0.2	6.0	7.2	0.0	0.0
25	9.8	2	2-Propen-1-ol	≥85%	49,782,475	0.8	18.6	541.6	658.2	0.5	0.7
26	10.1	2	Ethylbenzene	≥85%	431,727,844	6.9	161.0	4,696.9	5,708.3	4.7	5.7
27	10.4	2	p-xylene	≥85%	6,156,755	0.1	2.3	67.0	81.4	0.1	0.1
28	10.5	2	o-xylene	≥85%	14,761,427	0.2	5.5	160.6	195.2	0.2	0.2
29	11.0	3		<85%	1,602,517	0.0	0.6	16.7	13.8	0.0	0.0
30	11.2	3	Benzene, (1-methylethyl)-	≥85%	66,122,103	1.1	24.7	687.1	570.0	0.7	0.6
31	11.3	3		<85%	3,111,321	0.1	1.2	32.3	26.8	0.0	0.0
32	11.5	3		<85%	20,824,010	0.3	7.8	216.4	179.5	0.2	0.2
33	12.0	3	Benzene, propyl-	≥85%	12,382,125	0.2	4.6	128.7	106.7	0.1	0.1
34	12.3	3		<85%	2,535,385	0.0	0.9	26.3	21.9	0.0	0.0
35	12.7	3		<85%	13,848,852	0.2	5.2	143.9	119.4	0.1	0.1
36	13.1	3	Styrene	≥85%	1,388,393,613	22.3	517.8	14,426.8	11,967.6	14.4	11.9
37	13.6	3		<85%	2,835,714	0.0	1.1	29.5	24.4	0.0	0.0
38	14.2	3		<85%	9,301,194	0.1	3.5	96.6	80.2	0.1	0.1
39	14.6	3	.alpha.-methylstyrene	≥85%	352,984,335	5.7	131.6	3,667.9	3,042.6	3.7	3.0
40	15.2	3		<85%	22,118,857	0.4	8.2	229.8	190.7	0.2	0.2

41	15.6	3		<85%	3,891,507	0.1	1.5	40.4	33.5	0.0	0.0
42	15.8	3		<85%	12,278,629	0.2	4.6	127.6	105.8	0.1	0.1
43	16.1	3		<85%	14,838,606	0.2	5.5	154.2	127.9	0.2	0.1
44	16.3	3		<85%	3,570,496	0.1	1.3	37.1	30.8	0.0	0.0
45	16.5	3		<85%	1,836,045	0.0	0.7	19.1	15.8	0.0	0.0
46	16.8	3		<85%	2,459,213	0.0	0.9	25.6	21.2	0.0	0.0
47	17.0	3		<85%	2,799,339	0.0	1.0	29.1	24.1	0.0	0.0
48	17.2	3		<85%	1,863,278	0.0	0.7	19.4	16.1	0.0	0.0
49	17.3	3		<85%	3,373,026	0.1	1.3	35.0	29.1	0.0	0.0
50	17.5	3		<85%	3,541,107	0.1	1.3	36.8	30.5	0.0	0.0
51	17.6	3	Benzene, 2-butenyl-	≥85%	6,596,009	0.1	2.5	68.5	56.9	0.1	0.1
52	18.2	3	Benzaldehyde	≥85%	16,437,592	0.3	6.1	170.8	141.7	0.2	0.1
53	18.4	3		<85%	5,597,066	0.1	2.1	58.2	48.2	0.1	0.0
54	18.6	3		<85%	2,459,551	0.0	0.9	25.6	21.2	0.0	0.0
55	18.8	3		<85%	3,851,419	0.1	1.4	40.0	33.2	0.0	0.0
56	19.1	3		<85%	734,589	0.0	0.3	7.6	6.3	0.0	0.0
57	19.1	3		<85%	4,158,362	0.1	1.6	43.2	35.8	0.0	0.0
58	19.3	3	Benzene, 1-hexynyl-	≥85%	12,532,929	0.2	4.7	130.2	108.0	0.1	0.1

59	19.5	3		<85%	3,533,982	0.1	1.3	36.7	30.5	0.0	0.0
60	19.6	3		<85%	1,649,965	0.0	0.6	17.1	14.2	0.0	0.0
61	19.8	3		<85%	2,378,780	0.0	0.9	24.7	20.5	0.0	0.0
62	19.9	3		<85%	1,294,368	0.0	0.5	13.4	11.2	0.0	0.0
63	20.0	3		<85%	1,638,549	0.0	0.6	17.0	14.1	0.0	0.0
64	20.2	3		<85%	2,908,573	0.0	1.1	30.2	25.1	0.0	0.0
65	20.3	3	Acetophenone	≥85%	18,589,722	0.3	6.9	193.2	160.2	0.2	0.2
66	20.5	3	Benzoic acid, ethyl ester	≥85%	8,572,090	0.1	3.2	89.1	73.9	0.1	0.1
67	20.9	3		<85%	1,269,954	0.0	0.5	13.2	10.9	0.0	0.0
68	21.7	4		<85%	4,339,398	0.1	1.6	35.5	31.7	0.0	0.0
69	22.1	4	Naphthalene	≥85%	10,943,448	0.2	4.1	89.6	79.9	0.1	0.1
70	22.3	4	n-Propyl benzoate	≥85%	11,469,597	0.2	4.3	94.0	83.7	0.1	0.1
71	23.0	4		<85%	1,901,601	0.0	0.7	15.6	13.9	0.0	0.0
72	23.1	4		<85%	17,994,581	0.3	6.7	147.4	131.4	0.1	0.1
73	23.7	4	Benzoic acid, 2-propenyl ester	≥85%	99,240,541	1.6	37.0	812.9	724.5	0.8	0.7
74	24.0	4		<85%	14,278,664	0.2	5.3	117.0	104.2	0.1	0.1
75	24.8	4		<85%	9,555,120	0.2	3.6	78.3	69.8	0.1	0.1
76	25.0	4		<85%	1,287,025	0.0	0.5	10.5	9.4	0.0	0.0

77	25.3	4		<85%	3,755,353	0.1	1.4	30.8	27.4	0.0	0.0
78	25.6	4	Benzocycloheptatriene	≥85%	10,934,580	0.2	4.1	89.6	79.8	0.1	0.1
79	26.1	4	N-(2-Fluoro-benzyl)-2,2-diphenyl-acetamide	≥85%	1,914,092	0.0	0.7	15.7	14.0	0.0	0.0
80	26.3	4		<85%	887,865	0.0	0.3	7.3	6.5	0.0	0.0
81	26.5	4		<85%	7,751,282	0.1	2.9	63.5	56.6	0.1	0.1
82	26.8	4		<85%	797,068	0.0	0.3	6.5	5.8	0.0	0.0
83	27.1	4		<85%	3,126,701	0.1	1.2	25.6	22.8	0.0	0.0
84	27.3	4		<85%	2,091,058	0.0	0.8	17.1	15.3	0.0	0.0
85	27.6	4	Biphenyl	≥85%	19,961,212	0.3	7.4	163.5	145.7	0.2	0.1
86	27.8	4	Phenol	≥85%	7,945,235	0.1	3.0	65.1	58.0	0.1	0.1
87	28.0	4		<85%	23,337,368	0.4	8.7	191.2	170.4	0.2	0.2
88	28.2	4	Diphenylmethane	≥85%	542,919	0.0	0.2	4.4	4.0	0.0	0.0
89	28.3	4		<85%	3,220,576	0.1	1.2	26.4	23.5	0.0	0.0
90	28.3	4	1H-Inden-1-one, 2,3-dihydro-	≥85%	1,628,970	0.0	0.6	13.3	11.9	0.0	0.0
91	28.4	4		<85%	821,533	0.0	0.3	6.7	6.0	0.0	0.0
92	28.5	4		<85%	515,378	0.0	0.2	4.2	3.8	0.0	0.0
93	28.6	4		<85%	4,457,010	0.1	1.7	36.5	32.5	0.0	0.0

94	28.7	4		<85%	656,015	0.0	0.2	5.4	4.8	0.0	0.0
95	28.9	4		<85%	639,095	0.0	0.2	5.2	4.7	0.0	0.0
96	29.0	4		<85%	829,525	0.0	0.3	6.8	6.1	0.0	0.0
97	29.3	5		<85%	4,519,380	0.1	1.7	14.1	24.0	0.0	0.0
98	29.4	5		<85%	4,597,562	0.1	1.7	14.4	24.4	0.0	0.0
99	29.5	5		<85%	1,846,601	0.0	0.7	5.8	9.8	0.0	0.0
100	29.5	5	1,1'-Biphenyl, 4-methyl-	≥85%	10,147,854	0.2	3.8	31.7	53.9	0.0	0.1
101	29.6	5		<85%	13,505,446	0.2	5.0	42.2	71.7	0.0	0.1
102	29.7	5		<85%	3,490,617	0.1	1.3	10.9	18.5	0.0	0.0
103	29.8	5		<85%	9,243,567	0.1	3.4	28.9	49.1	0.0	0.0
104	30.1	5		<85%	1,460,703	0.0	0.5	4.6	7.8	0.0	0.0
105	30.1	5		<85%	1,867,527	0.0	0.7	5.8	9.9	0.0	0.0
106	30.3	5		<85%	12,235,050	0.2	4.6	38.2	64.9	0.0	0.1
107	30.5	5	Benzenebutanol	≥85%	4,243,051	0.1	1.6	13.2	22.5	0.0	0.0
108	30.6	5		<85%	1,456,722	0.0	0.5	4.5	7.7	0.0	0.0
109	30.7	5	1,1'-Biphenyl, 2-ethyl-	≥85%	3,349,487	0.1	1.2	10.5	17.8	0.0	0.0
110	30.8	5		<85%	1,368,643	0.0	0.5	4.3	7.3	0.0	0.0
111	30.9	5		<85%	2,371,011	0.0	0.9	7.4	12.6	0.0	0.0

112	31.2	5	4,4'-Dimethylbiphenyl	≥85%	4,829,339	0.1	1.8	15.1	25.6	0.0	0.0
113	31.3	5	4-Ethylbiphenyl	≥85%	1,532,606	0.0	0.6	4.8	8.1	0.0	0.0
114	31.4	5		<85%	1,840,230	0.0	0.7	5.7	9.8	0.0	0.0
115	31.4	5		<85%	1,843,988	0.0	0.7	5.8	9.8	0.0	0.0
116	31.8	5	Benzene, 1,1'-(1-methyl-1,3-propanediyl)bis-	≥85%	29,035,647	0.5	10.8	90.7	154.1	0.1	0.2
117	31.9	5	Benzene, 1,1'-(1,3-propanediyl)bis-	≥85%	477,002,654	7.7	177.9	1,489.5	2,531.7	1.5	2.5
118	32.0	5	Benzene, 1,1'-(3-methyl-1-propene-1,3-diyl)bis-	≥85%	27,292,923	0.4	10.2	85.2	144.9	0.1	0.1
119	32.2	5		<85%	6,141,664	0.1	2.3	19.2	32.6	0.0	0.0
120	32.4	5		<85%	7,093,310	0.1	2.6	22.1	37.6	0.0	0.0
121	32.5	5	2-Propenoic acid, 3-phenyl-, 2-propenyl ester	≥85%	8,673,745	0.1	3.2	27.1	46.0	0.0	0.0
122	32.7	5		<85%	10,305,698	0.2	3.8	32.2	54.7	0.0	0.1
123	32.8	5		<85%	14,067,323	0.2	5.2	43.9	74.7	0.0	0.1
124	32.9	5		<85%	2,175,434	0.0	0.8	6.8	11.5	0.0	0.0
125	33.0	5	Bicyclo[4.2.1]nona-2,4,7-triene, 7-phenyl-	≥85%	31,091,361	0.5	11.6	97.1	165.0	0.1	0.2
126	33.1	5		<85%	1,424,850	0.0	0.5	4.4	7.6	0.0	0.0

127	33.2	5	2'-Ethylpropiophenone	≥85%	7,861,501	0.1	2.9	24.5	41.7	0.0	0.0
128	33.4	5	Fluorene	≥85%	8,686,908	0.1	3.2	27.1	46.1	0.0	0.0
129	33.5	5		<85%	80,105,372	1.3	29.9	250.1	425.2	0.2	0.4
130	33.6	5		<85%	4,303,743	0.1	1.6	13.4	22.8	0.0	0.0
131	33.6	5	1(3H)-Isobenzofuranone	≥85%	6,029,512	0.1	2.2	18.8	32.0	0.0	0.0
132	33.8	5	2H-1-Benzopyran-2-one	≥85%	7,570,930	0.1	2.8	23.6	40.2	0.0	0.0
133	33.9	5		<85%	8,637,174	0.1	3.2	27.0	45.8	0.0	0.0
134	34.0	5	.alpha.-methylstilbene	≥85%	2,106,854	0.0	0.8	6.6	11.2	0.0	0.0
135	34.1	5		<85%	2,310,992	0.0	0.9	7.2	12.3	0.0	0.0
136	34.1	5		<85%	8,774,851	0.1	3.3	27.4	46.6	0.0	0.0
137	34.2	5		<85%	89,818,389	1.4	33.5	280.5	476.7	0.3	0.5
138	34.3	5	Benzoic acid	≥85%	509,245,198	8.2	189.9	1,590.1	2,702.8	1.6	2.7
139	34.5	5	Benzoic acid	≥85%	16,082,581	0.3	6.0	50.2	85.4	0.1	0.1
140	34.7	5		<85%	50,305,836	0.8	18.8	157.1	267.0	0.2	0.3
141	34.8	5	1,2-Diphenylcyclopropane	≥85%	228,396,778	3.7	85.2	713.2	1,212.2	0.7	1.2
142	35.0	6	Benzophenone	≥85%	11,526,369	0.2	4.3	23.1	47.2	0.0	0.0
143	35.1	6		<85%	47,667,158	0.8	17.8	95.7	195.3	0.1	0.2
144	35.3	6	(E)-Stilbene	≥85%	18,221,466	0.3	6.8	36.6	74.6	0.0	0.1

145	35.4	6	1,2-Benzenedicarboxylic acid, bis(2-methylpropyl) ester	≥85%	38,859,643	0.6	14.5	78.0	159.2	0.1	0.2
146	35.6	6		<85%	351,028,018	5.6	130.9	704.7	1,438.0	0.7	1.4
147	35.7	6		<85%	2,890,974	0.0	1.1	5.8	11.8	0.0	0.0
148	35.8	6		<85%	9,802,298	0.2	3.7	19.7	40.2	0.0	0.0
149	35.9	6		<85%	14,506,983	0.2	5.4	29.1	59.4	0.0	0.1
150	36.0	6		<85%	7,147,318	0.1	2.7	14.3	29.3	0.0	0.0
151	36.0	6		<85%	10,94,614	0.0	0.4	2.2	4.5	0.0	0.0
152	36.2	6		<85%	3,988,749	0.1	1.5	8.0	16.3	0.0	0.0
153	36.3	6		<85%	12,341,542	0.2	4.6	24.8	50.6	0.0	0.1
154	36.6	6		<85%	14,906,620	0.2	5.6	29.9	61.1	0.0	0.1
155	36.9	6		<85%	4,565,760	0.1	1.7	9.2	18.7	0.0	0.0
156	37.0	6		<85%	11,766,921	0.2	4.4	23.6	48.2	0.0	0.0
157	37.3	6		<85%	9,445,869	0.2	3.5	19.0	38.7	0.0	0.0
158	37.4	6		<85%	2,689,988	0.0	1.0	5.4	11.0	0.0	0.0
159	37.6	6		<85%	5,128,795	0.1	1.9	10.3	21.0	0.0	0.0
160	37.7	6		<85%	19,246,116	0.3	7.2	38.6	78.8	0.0	0.1
161	37.9	6		<85%	9,773,157	0.2	3.6	19.6	40.0	0.0	0.0

162	37.9	6		<85%	2,739,317	0.0	1.0	5.5	11.2	0.0	0.0
163	38.2	6		<85%	2,359,703	0.0	0.9	4.7	9.7	0.0	0.0
164	38.3	6		<85%	4,666,761	0.1	1.7	9.4	19.1	0.0	0.0
165	38.6	6		<85%	13,970,650	0.2	5.2	28.0	57.2	0.0	0.1
166	38.8	6		<85%	5,615,347	0.1	2.1	11.3	23.0	0.0	0.0
167	39.1	6		<85%	1,564,060	0.0	0.6	3.1	6.4	0.0	0.0
168	39.2	6		<85%	13,759,814	0.2	5.1	27.6	56.4	0.0	0.1
169	39.5	6		<85%	8,091,295	0.1	3.0	16.2	33.1	0.0	0.0
170	39.8	6		<85%	12,002,218	0.2	4.5	24.1	49.2	0.0	0.0
171	40.1	6		<85%	140,395,945	2.3	52.4	281.9	575.1	0.3	0.6
172	40.4	6		<85%	7,229,902	0.1	2.7	14.5	29.6	0.0	0.0
173	40.8	6		<85%	4,245,318	0.1	1.6	8.5	17.4	0.0	0.0
174	41.0	6		<85%	8,024,927	0.1	3.0	16.1	32.9	0.0	0.0
175	41.3	6		<85%	4,205,260	0.1	1.6	8.4	17.2	0.0	0.0
176	41.5	6		<85%	6,712,515	0.1	2.5	13.5	27.5	0.0	0.0
177	41.8	6	Phthalimide	≥85%	9,309,945	0.1	3.5	18.7	38.1	0.0	0.0
178	42.2	6		<85%	4,425,038	0.1	1.7	8.9	18.1	0.0	0.0
179	42.4	6	1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	≥85%	53,259,887	0.9	19.9	106.9	218.2	0.1	0.2

			2,4-diene								
180	42.9	6		<85%	13,507,550	0.2	5.0	27.1	55.3	0.0	0.1
181	43.3	6		<85%	8,522,977	0.1	3.2	17.1	34.9	0.0	0.0
182	45.3	6	1,1':4',1''-Terphenyl-, 3'-methyl-	≥85%	8,403,449	0.1	3.1	16.9	34.4	0.0	0.0
183	45.6	6		<85%	136,057,790	2.2	50.7	273.2	557.4	0.3	0.6
184	46.1	6		<85%	32,015,699	0.5	11.9	64.3	131.2	0.1	0.1
							Total	**38,012.7**	**41,604.0**	**37.9**	**41.5**
							Identified signals	32,087.6	33,208.3	32.0	33.0
							Unknown signals	5,925.1	8,395.7	5.9	8.5
							Unknown % = 100*Unknown signals/Total detected signals	15.6	20.2	15.6	20.5

Table S17. “WEEE (1/10)” (ID6 diluted) pyrolysis liquid composition details, where the following information is given for each detected signal: (a) number of signal, (b) retention time, (c) window, (d) compound name, (e) quality match (below or equal and above 85 %), (f) integrated area, (g) area percentage, (h) normalised area to the internal standard, (i) calculated concentration in µg/mL (calculated as normalised area of the compound multiplied by the correction factor and by the response factor (RF)), (j) calculated concentration in µg/mL (calculated as normalised area of the compound without multiplying by the correction factor and multiplying it by the response factor (RF)), (k) concentration (using correction factor) in wt.%. and (l) concentration (without using the correction factor) in wt.%.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Nº	**RT (min)**	**W**	**Compound**	**Quality match**	**Area**	**Area %**	**Norm. Area**	**[ ] with CF (µg/mL)**	**[ ] w/o CF (µg/mL)**	**[ ] with CF (wt%)**	**[ ] w/o CF (wt%)**
1	3.5	1		<85%	6,380,974	11.1	3.7	194.3	158.4	19.1	15.5
2	3.6	1		<85%	1,879,263	3.3	1.1	57.2	46.7	5.6	4.6
	8.1		1-Propanol (IS)	≥85%	2,124,042						
3	8.1	2	Toluene	≥85%	2,124,042	3.7	1.2	35.6	43.3	3.5	4.2
4	10.1	2		<85%	10,167,987	17.7	5.8	170.5	207.2	16.7	20.3
5	11.2	3		<85%	1,320,063	2.3	0.8	21.1	17.5	2.1	1.7
6	13.2	3	Styrene	≥85%	17,918,160	31.3	10.3	286.9	238.0	28.1	23.3
7	20.4	3		<85%	7,713,408	13.5	4.4	123.5	102.5	12.1	10.0

8	28.0	4	Phenol	≥85%	7,657,400	13.4	4.4	96.7	86.2	9.5	8.4
9	31.7	5		<85%	2,169,218	3.8	1.2	10.4	17.7	1.0	1.7
							Total	**996.4**	**917.5**	97.7	89.9
							Identified signals	419.2	367.5	41.1	35.9
							Unknown signals	577.2	550	56.6	54
							Unknown % = 100*Unknown signals/Total detected signals	57.9	59.9	57.9	60.1

Table S18. (a) Pyrolysis oil total concentration prepared experimentally, (b) total concentration calculated applying the proposed quantification methodology in μg/mL (using correction factor), (c) absolute and relative error and (d) number of identified signals in the GC/MS chromatograms. Total concentration quantified by methodology refers to the sum of the concentration of all the signals detected in the GC/MS chromatograph of the analysed pyrolysis oils by applying the proposed quantification methodology.

	(a)	(b)	(c)		(d)	(e)		(f)
	Experimental (μg/mL)	**Proposed quantification methodology with CF (μg/mL)**	**Absolute error (μg/mL)**	**Relative error (%)**	**Proposed quantification methodology without CF (μg/mL)**	**Absolute error (μg/mL)**	**Relative error (%)**	**Number of detected signals**
ID1	9,820	2,257	-7,563	-77	2,516	-7,304	-74	30
ID2	10,150	3,146	-7,004	-69	3,372	-6,778	-67	71
ID3	11,190	2,262	-8,928	-80	2,374	-8,816	-79	28
ID4	10,890	2,921	-7,969	-73	3,392	-7,498	-69	28
ID5	10,580	3,808	-6,772	-64	4,030	-6,550	-62	60
ID6	10,270	4,558	-5,712	-56	4,604	-5,666	-55	22
ID7	10,700	5,347	-5,353	-50	5,238	-5,462	-51	15

ID8	10,050	5,584	-4,466	-44	5,561	-4,489	-45	19
ID9	11,300	7,118	-4,182	-37	6,377	-4,923	-44	19
ID10	10,870	6,723	-4,147	-38	6,559	-4,311	-40	21
ID11	10,040	9,412	-628	-6	9,088	-952	-9	20
ID12	35,440	12,019	-23,421	-66	11,508	-23,932	-68	98
ID1 concentrated	100,200	38,013	-62,187	-62	41,604	-58,596	-58	184
ID6 diluted	1,020	996	-24	-2	917	-103	-10	9

Table S19. Total concentration of the validation compounds quantification (µg/mL) in the analysed pyrolysis oils based on (a) calibration, (b) based on the proposed methodology (with correction factor), (c) absolute and relative error, (d) based on the proposed methodology (without correction factor) and (e) absolute and relative error.

	(a)	(b)	(c)		(d)	(e)	
	Calibration based concentration (µg/mL)	**Proposed quantification methodology with CF (µg/mL)**	**Absolute error (µg/mL)**	**Relative error (%)**	**Proposed quantification methodology without CF (µg/mL)**	**Absolute error (µg/mL)**	**Relative error (%)**
ID1	673	1,042	+369	+55	1,015	+342	+51
ID2	1,788	1,504	-284	-16	1,342	-446	-25
ID3	887	1,288	+400	+45	1,253	-769	-87
ID4	1,772	1,404	-368	-21	1,253	-519	-29
ID5	1,552	2,354	+802	+52	2,271	+719	+46
ID6	3,820	2,997	+1,087	+57	2,788	+878	+46
ID7	3,212	4,352	+1,140	+35	4,188	+976	+30
ID8	3,178	4,425	+1,248	+39	4,374	+1,196	+38
ID9	4,202	5,797	+1,595	+38	5,514	+1,312	+31

ID10	4,034	5,412	+1,377	+34	5,165	+1,130	+28
ID11	5,345	7,567	+2,222	+42	7,376	+2,030	+38
ID12	4,323	6,420	+2,097	+49	5,827	+1,504	+35
ID1 concentrated	12,404	19,426	+7,022	+57	18,023	+5,618	+45
ID6 diluted	324	419	+95	+29	367	+43	+13

Table S20. Non isothermal Kováts retention index (KRI) of all the identified compounds (match quality ≥ 85% in the MS library search) for all the studied pyrolysis liquids (including those in the Supplementary Material identified with their corresponding ID listed in Table S1).

Heating segment	Equation factor		RT (min)	Compound	KRI	Liquid ID
	Slope	Indep. term				
40	255,48	-301,39	3.64	Hexane	628.6	ID12
			3.71	1-Hexene	646.4	ID12
			3.91	Heptane	697.5	ID12
			4.00	3-Penten-1-yne, (E)-	720.5	ID5
			4.11	1-Heptene	748.6	ID12
			4.27	Propanal	789.5	ID1
40-150	57,844	469,36	6.07	Benzene	820.5	ID1
			6.07	Benzene	820.5	ID6
			6.08	Benzene	821.1	ID5
			7.16	2-Propenenitrile	883.5	ID10
			7.16	2-Propenenitrile	883.5	ID11
			7.17	2-Propenenitrile	884.1	ID7
			7.17	2-Propenenitrile	884.1	ID8
			7.17	2-Propenenitrile	884.1	ID9
			7.72	1,3-Dioxolane, 2-ethyl-4-methyl-	915.9	ID1
			8.02	1-Propanol	933.3	ID12
			8.13	1-Propanol	939.6	ID7
			8.13	1-Propanol	939.6	ID8
			8.13	1-Propanol	939.6	ID9
			8.14	1-Propanol	940.2	ID10
			8.15	1-Propanol	940.8	ID11
			8.15	1-Propanol	940.8	ID1
			8.15	1-Propanol	940.8	ID3
			8.16	1-Propanol	941.4	ID4
			8.16	1-Propanol	941.4	ID6
			8.17	1-Propanol	941.9	ID2
			8.17	1-Propanol	941.9	ID5
			8.13	Toluene	939.6	ID7
			8.13	Toluene	939.6	ID8
			8.13	Toluene	939.6	ID9
			8.14	Toluene	940.2	ID10
			8.14	Toluene	940.2	ID11
			8.15	Toluene	940.8	ID1
			8.15	Toluene	940.8	ID3
			8.15	Toluene	940.8	ID5
			8.15	Toluene	940.8	ID2

			8.16	Toluene	941.4	ID4
			8.26	Toluene	947.2	ID12
			8.25	1-Octene	946.6	ID12
			8.52	Water	962.2	ID10
			8.52	Water	962.2	ID11
			8.54	Water	963.3	ID5
			8.55	Water	963.9	ID7
			8.55	Water	963.9	ID8
			8.55	Water	963.9	ID9
			8.63	Water	968.6	ID12
			9.35	Cyclooctene	1010.2	ID12
			10.16	Ethylbenzene	1057.1	ID12
			10.16	Ethylbenzene	1057.1	ID10
			10.16	Ethylbenzene	1057.1	ID11
			10.17	Ethylbenzene	1057.6	ID7
			10.17	Ethylbenzene	1057.6	ID8
			10.17	Ethylbenzene	1057.6	ID9
			10.18	Ethylbenzene	1058.2	ID1
			10.19	Ethylbenzene	1058.8	ID5
			10.19	Ethylbenzene	1058.8	ID3
			10.19	Ethylbenzene	1058.8	ID6
			11.26	Benzene, (1-methylethyl)	1120.7	ID10
			11.26	Benzene, (1-methylethyl)	1120.7	ID11
			11.26	Benzene, (1-methylethyl)	1120.7	ID7
			11.26	Benzene, (1-methylethyl)	1120.7	ID8
			11.26	Benzene, (1-methylethyl)	1120.7	ID9
			11.28	Benzene, (1-methylethyl)-	1121.8	ID1
			11.28	Benzene, (1-methylethyl)-	1121.8	ID5
			11.29	Benzene, (1-methylethyl)-	1122.4	ID6
			12.06	Benzene, propyl	1167.0	ID10
			12.06	Benzene, propyl	1167.0	ID11
			12.08	Benzene, propyl	1168.1	ID7
			12.08	Benzene, propyl	1168.1	ID8
			12.08	Benzene, propyl	1168.1	ID9
			13.16	Styrene	1230.6	ID10
			13.16	Styrene	1230.6	ID11
			13.18	Styrene	1231.7	ID7
			13.18	Styrene	1231.7	ID8
			13.18	Styrene	1231.7	ID9
			13.20	Styrene	1232.9	ID5
			13.20	Styrene	1232.9	ID1
			13.22	Styrene	1234.1	ID2
			13.23	Styrene	1234.6	ID3
			13.23	Styrene	1234.6	ID6

			13.43	Benzene, 1-methyl-2-(1-methylethyl)-	1246.2	ID2
			13.50	Styrene	1250.3	ID12
			14.69	alpha-Methylstyrene	1319.1	ID10
			14.69	alpha-Methylstyrene	1319.1	ID11
			14.72	alpha-Methylstyrene	1320.8	ID5
			14.72	alpha-Methylstyrene	1320.8	ID7
			14.72	alpha-Methylstyrene	1320.8	ID8
			14.72	alpha-Methylstyrene	1320.8	ID9
			14.98	alpha-Methylstyrene	1335.9	ID12
			15.15	Benzene, 2,4-diethyl-1-methyl-	1345.7	ID2
			15.82	1-Undecene	1384.5	ID12
			17.27	5-Dodecene, (E)-	1468.3	ID12
150	50,621	619,62	22.12	1H-Inden-1-one, 2,3-dihydro-3,3-dimethyl-	1739.4	ID2
			22.56	Pyridine, 2-methyl-	1761.6	ID3
150-240	60,876	307,65	24.31	Naphthalene, 1,2,3,4-tetrahydro-1,1,6-trimethyl-	1787.5	ID2
			24.65	5-Octadecene,(E)-	1808.2	ID12
			25.76	Naphthalene, 1-methyl	1875.8	ID10
			25.76	Naphthalene, 1-methyl	1875.8	ID11
			25.85	Nonadecane	1881.3	ID12
			25.93	Pheno, 2,6-Dimethyl	1886.2	ID10
			25.93	Pheno, 2,6-Dimethyl	1886.2	ID11
			26.00	Pheno, 2,6-Dimethyl	1890.4	ID8
			26.00	Pheno, 2,6-Dimethyl	1890.4	ID9
			25.95	Phenol, 3,5-dimethyl-	1887.4	ID2
			26.94	1-Nonadecene	1947.6	ID12
			27.86	Eicosane	2003.7	ID12
			27.92	Phenol	2007.3	ID10
			27.92	Phenol	2007.3	ID11
			27.95	Phenol	2009.1	ID2
			27.98	Phenol	2011.0	ID4
			27.99	Phenol	2011.6	ID7
			27.99	Phenol	2011.6	ID8
			27.99	Phenol	2011.6	ID9
			28.02	Phenol	2013.4	ID5
			28.06	Phenol	2015.8	ID3
			28.91	Cycloeicosane	2067.6	ID12
			29.13	Phenol, 2-ethyl-	2081.0	ID2
			29.16	Phenol, 2-ethyl-	2082.8	ID4
			29.37	Phenol, 3-ethyl	2095.6	ID10
			29.37	Phenol, 2,3-dimethyl-	2095.6	ID11

			29.37	Phenol, 4-methyl-	2095.6	ID2
			29.42	Phenol, 4-methyl-	2098.6	ID4
			29.45	Phenol, 3-ethyl	2100.4	ID7
			29.45	Phenol, 3-ethyl	2100.4	ID8
			29.45	Phenol, 3-ethyl	2100.4	ID9
			29.72	Heneicosane	2116.9	ID12
			30.09	Benzenebutanenitrile	2139.4	ID10
			30.09	Benzenebutanenitrile	2139.4	ID11
			30.23	Benzenebutanenitrile	2147.9	ID7
			30.23	Benzenebutanenitrile	2147.9	ID8
			30.23	Benzenebutanenitrile	2147.9	ID9
			30.54	10-Heneicosene (c,t)	2166.8	ID12
			30.90	Phenol, 2-ethyl-	2188.7	ID2
			30.93	Phenol, 4-ethyl-	2190.5	ID4
			30.94	Phenol, 3-ethyl	2191.2	ID11
			31.25	Phenol, 2-methyl-5-(1-methylethyl)-	2210.0	ID2
			31.25	Docosane	2210.0	ID12
			31.26	Phenol, 2-methyl-5-(1-methylethyl)-	2210.6	ID4
			31.50	Phenol, 4-(1-methylethyl)	2225.2	ID10
			31.50	Phenol, 4-(1-methylethyl)	2225.2	ID11
			31.54	Phenol, 4-(1-methylethyl)-	2227.7	ID2
			31.57	Phenol, 4-(1-methylethyl)-	2229.5	ID4
			31.58	Phenol, 4-(1-methylethyl)	2230.1	ID7
			31.58	Phenol, 4-(1-methylethyl)	2230.1	ID8
			31.58	Phenol, 4-(1-methylethyl)	2230.1	ID9
			31.58	Phenol, 3-(1-methylethyl)-	2230.1	ID5
			31.82	Benzene, 1,1'-(1,3-propanediyl)bis-	2244.7	ID12
			31.97	1-Docosene	2253.9	ID12
			32.13	Benzene, 1,1'-(1,3-propanediyl)bis-	2263.6	ID5
			32.23	Benzene, 1,1'-(1,3-propanediyl)bis-	2269.7	ID1
			32.24	Benzene, 1,1'-(1,3-propanediyl)bis-	2270.3	ID3
			32.47	Phenol, p-tert-butyl	2284.3	ID10
			32.47	Phenol, p-tert-butyl	2284.3	ID11
			32.50	Benzene, 1,1'-(1,3-propanediyl)bis-	2286.1	ID6
			32.52	Phenol, p-tert-butyl-	2287.3	ID4
			32.74	Tricosane	2300.7	ID12
			32.80	Dimethyl phthalate	2304.4	ID5
			32.91	1H-Isoindole-1,3(2H)-dione, 2-methyl-	2311.1	ID3

			33.27	9-Tricosene, (Z)-	2333.0	ID12
			33.67	Benzoic acid	2357.3	ID5
			33.96	Tetracosane	2375.0	ID12
			34.34	Naphthalene, 1,2,3,4, tetrahydro-1-phneyl	2398.1	ID10
			34.50	Benzene, 1,1'-cyclopropylidenebis-	2407.9	ID5
			34.55	Cyclotetracosane	2410.9	ID12
			34.56	Benzoic acid	2411.5	ID1
			34.71	Isopropenylphenol	2420.7	ID11
			34.72	Benzoic acid	2421.3	ID6
			34.72	p-Isopropenylphenol	2421.3	ID8
			34.74	p-Isopropenylphenol	2422.5	ID4
240	61,149	374,24	35.08	Bicyclo[4.2.1]nona-2,4,7-triene, 7-phenyl-	2519.3	ID1
			35.18	Pentacosane	2525.5	ID12
			35.79	z-12-Pentacosene	2562.8	ID12
			36.87	Benzenamine, 2,5-dichloro-	2628.8	ID2
			37.13	9-Hexacosene	2644.7	ID12
			37.57	Heptacosane	2671.6	ID12
			39.03	Octacosane	2760.9	ID12
			39.99	Cyclooctacosane	2819.6	ID12
			40.80	Nonacosane	2869.1	ID12
			41.87	Z-14-Nonacosane	2934.5	ID12
			44.21	Cyclotriacontane	3077.6	ID12
			45.37	Triacontane	3148.6	ID12