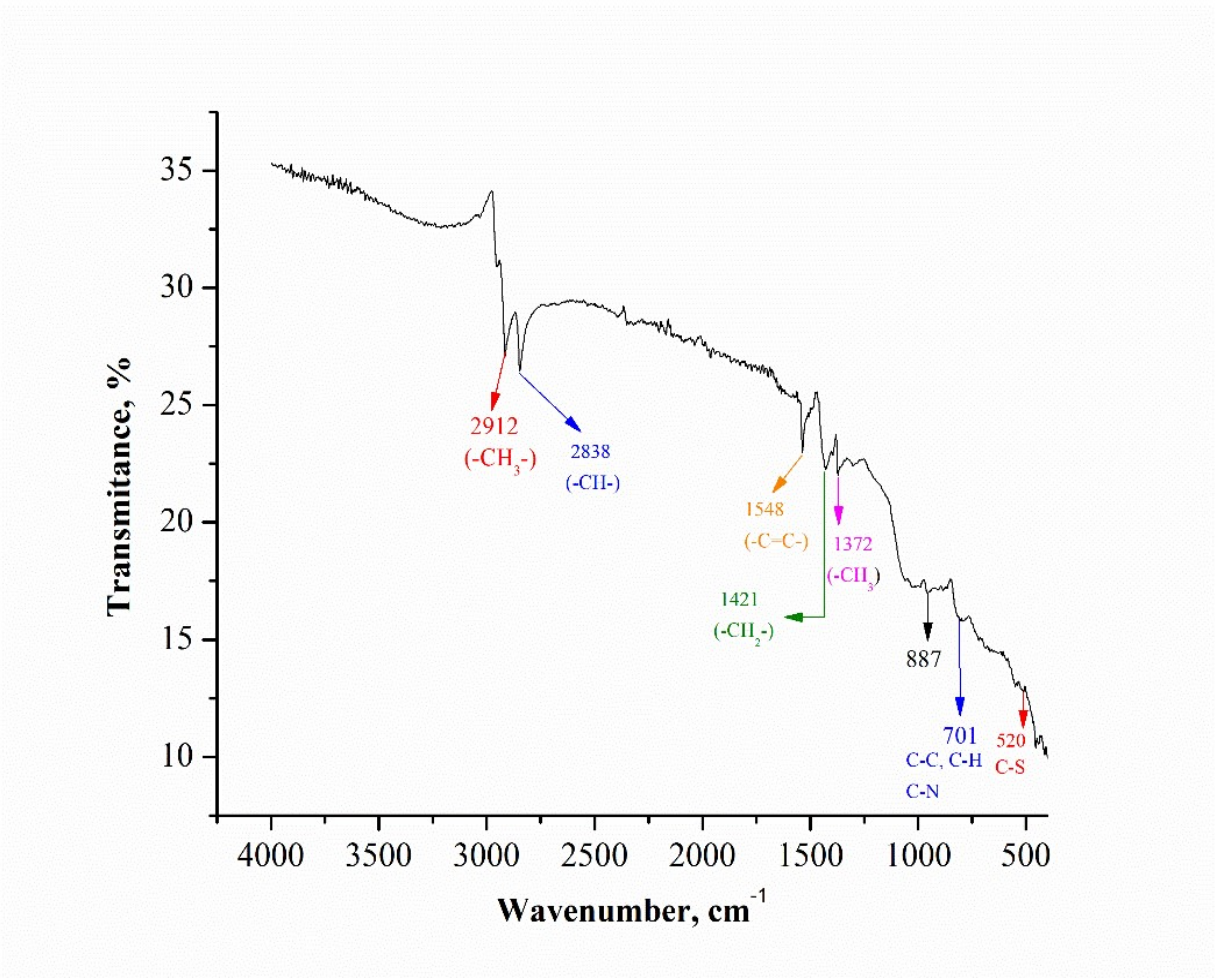

Figure 1. FTIR-ATR of waste tire.

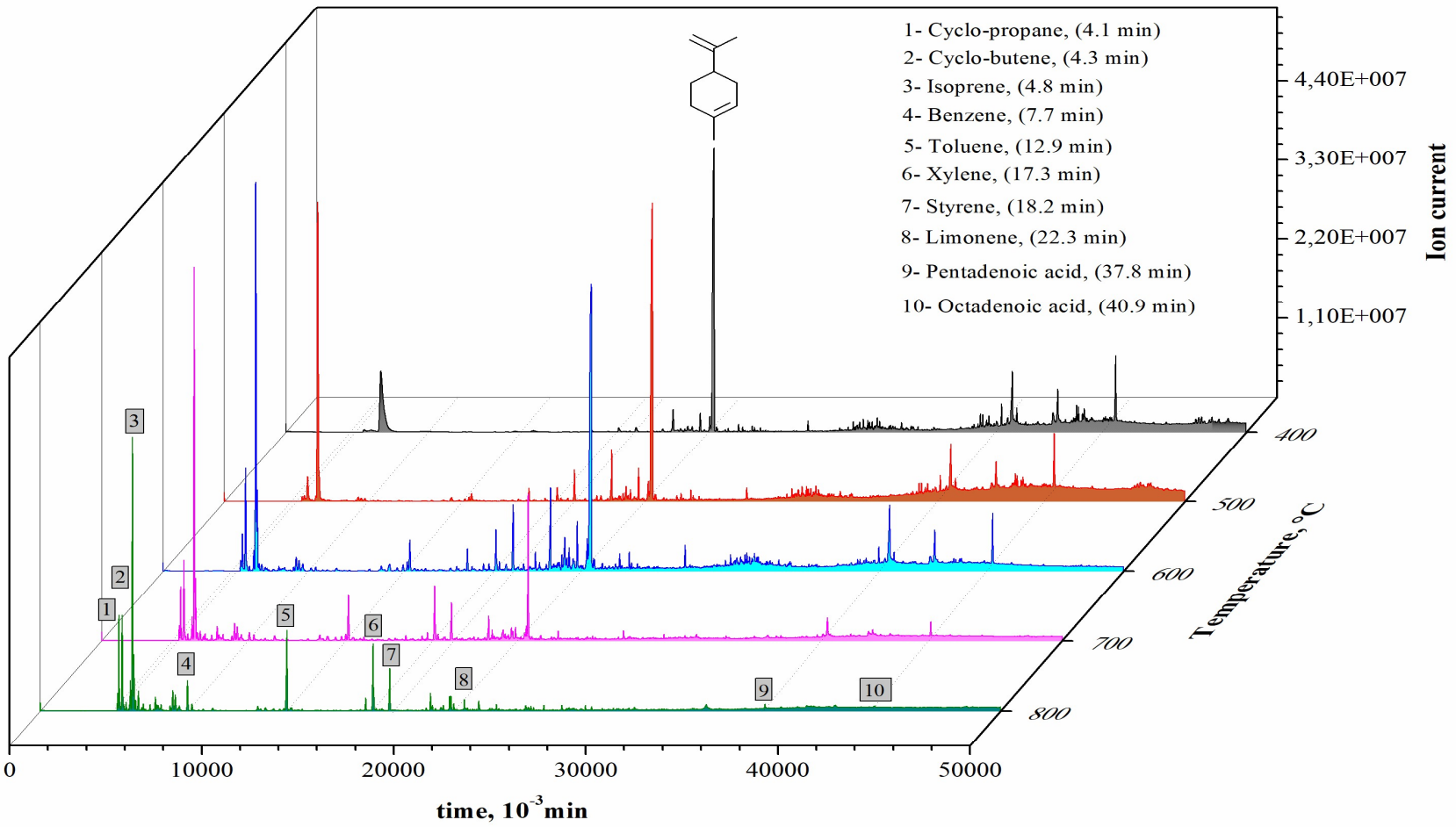

Figure S1. Chromatograms of WTs Py-GC/MS at different temperatures with the ids of the main signals detected.

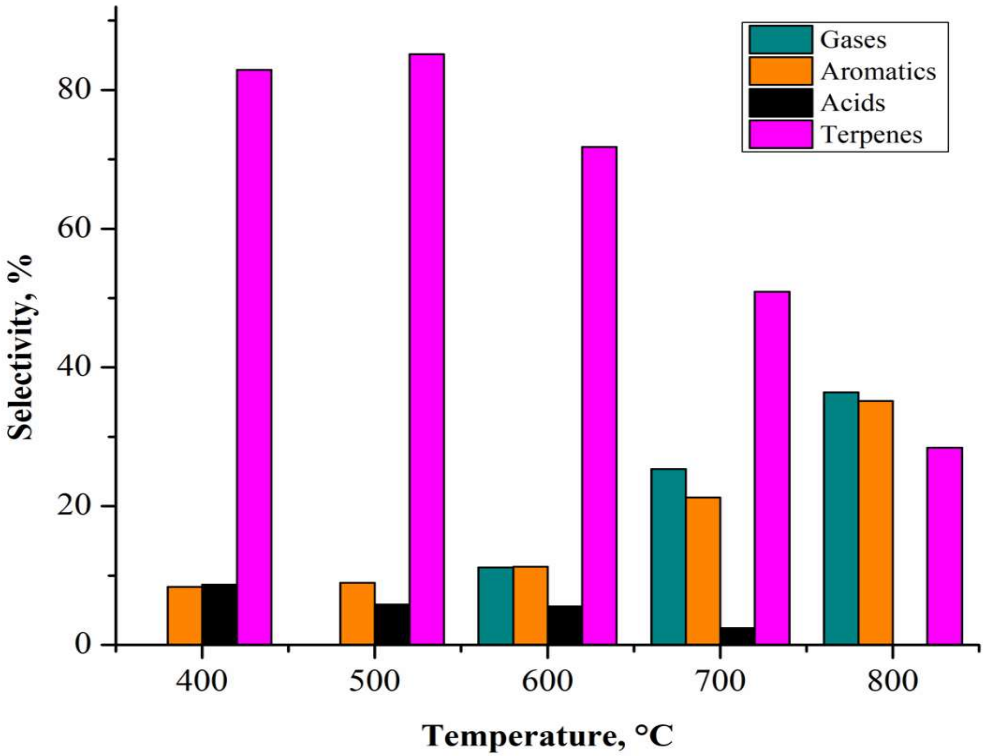

Figure S2. Effect of pyrolysis temperature on the product distribution (based on area-related selectivity).

Table S1. Compounds identification during the WTs pyrolysis in the Py-GC/MS system.

R.Time	Name
4,120	Carbon dioxide
4,972	Isoprene
17,327	o-Xylene
18,223	Styrene
20,080	Cyclohexanethiol
20,157	D-Limonene
21,550	1,5-Heptadiene, 2,5-dimethyl-3-methylene-
22,205	D-Limonene
23,769	Benzene, 1-methyl-4-(1-methylethenyl)-
27,184	Benzothiazole
29,524	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,371	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,782	Quinoline, 1,2-dihydro-2,2,4-trimethyl-
30,898	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
32,039	Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(1-methylethenyl)-, [1S-(1.alpha.,2.beta.,4.beta.)]-
34,404	Squalene
35,141	Pentadecanoic acid
37,244	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,846	Pentadecanoic acid
38,039	Ethyl iso-allocholate
39,932	9-Octadecenal, (Z)-
40,185	Octadecanoic acid
40,302	Docosanoic acid, 1,2,3-propanetriyl ester
41,470	Ethyl iso-allocholate
43,187	1,4-Benzenediamine, N-(1,3-dimethylbutyl)-N'-phenyl-

Table S1. Compounds identification during the WTs pyrolysis in the Py-GC/MS system.

R.Time	Name
4,950	Isoprene
17,334	o-Xylene
18,234	Styrene
20,169	D-Limonene
21,567	2,4,6-Trimethyl-1,3,6-heptatriene
22,068	2,4,6-Trimethyl-1,3,6-heptatriene
22,284	D-Limonene
23,564	Cyclohexene, 4-ethyl-3-ethylidene-
23,774	Benzene, 1-methyl-4-(1-methylethenyl)-
24,273	Cycloheptane, 1,3,5-tris(methylene)-
27,180	Benzothiazole
29,533	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,382	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,784	Quinoline, 1,2-dihydro-2,2,4-trimethyl-
32,050	Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(1-methylethenyl)-, [1S-(1.alpha.,2.beta.,4.beta.)]-
36,481	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
36,601	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,258	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,584	Cyclohexane, 1-ethenyl-1-methyl-2-(1-methylethenyl)-4-(1-methylethylidene)-
37,821	Pentadecanoic acid
38,053	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-

40,185	Octadecanoic acid
41,169	2,2,4-Trimethyl-3-(3,8,12,16-tetramethyl-heptadeca-3,7,11,15-tetraenyl)-cyclohexanol
41,563	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
43,201	1,4-Benzenediamine, N-(1,3-dimethylbutyl)-N'-phenyl-

Table S1. Compounds identification during the WTs pyrolysis in the Py-GC/MS system.

R.Time	Name
4,906	Isoprene
15,876	Cyclohexene, 4-ethenyl-
17,342	o-Xylene
18,238	Styrene
19,616	2,4,6-Trimethyl-1,3,6-heptatriene
20,176	D-Limonene
20,923	1,6-Octadiene, 2,6-dimethyl-, (Z)-
21,576	2,4,6-Trimethyl-1,3,6-heptatriene
22,092	2,4,6-Trimethyl-1,3,6-heptatriene
22,308	D-Limonene
22,428	2,4,6-Trimethyl-1,3,6-heptatriene
23,781	Benzene, 1-methyl-4-(1-methylethenyl)-
24,278	Cycloheptane, 1,3,5-tris(methylene)-
27,187	Benzothiazole
29,541	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,390	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,793	Quinoline, 1,2-dihydro-2,2,4-trimethyl-
32,058	Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(1-methylethenyl)-, [1S-(1.alpha.,2.beta.,4.beta.)]-
36,610	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,269	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,834	Pentadecanoic acid
38,062	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
40,191	Octadecanoic acid

41,573	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
43,211	1,4-Benzenediamine, N-(1,3-dimethylbutyl)-N'-phenyl

Table S1. Compounds identification during the WTs pyrolysis in the Py-GC/MS system.

R.Time	Name
4,855	Isoprene
12,866	Toluene
15,858	Cyclohexene, 4-ethenyl-
17,333	o-Xylene
18,227	Styrene
20,170	D-Limonene
21,568	2,4,6-Trimethyl-1,3,6-heptatriene
22,068	2,4,6-Trimethyl-1,3,6-heptatriene
22,283	D-Limonene
23,562	Cyclohexane, 1-butenylidene-
23,778	Benzene, 1-methyl-4-(1-methylethenyl)-
24,278	Cycloheptane, 1,3,5-tris(methylene)-
27,185	Benzothiazole
29,540	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,389	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
30,789	Quinoline, 1,2-dihydro-2,2,4-trimethyl-
36,487	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-

36,606	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,264	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,814	Pentadecanoic acid
38,057	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
40,173	Octadecanoic acid
41,271	2,2,4-Trimethyl-3-(3,8,12,16-tetramethyl-heptadeca-3,7,11,15-tetraenyl)-cyclohexanol
41,568	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
43,200	1,4-Benzenediamine, N-(1,3-dimethylbutyl)-N'-phenyl-

Table S1. Compounds identification during the WTs pyrolysis in the Py-GC/MS system.

R.Time	Name
4,040	Carbon dioxide
4,132	Propene
4,300	Cyclobutene
4,727	2-Butene, 2-methyl-
4,829	Cyclopropane, ethylidene-
4,907	Cyclopropane, 1,1-dimethyl-
12,856	Toluene
15,852	Cyclohexene, 4-ethenyl-
17,338	o-Xylene
18,232	Styrene
19,392	1,5-Heptadiene, 2,3,6-trimethyl-
20,178	D-Limonene
20,769	1,5-Heptadiene, 2,3,6-trimethyl-
20,922	Cyclopropane, 1,1-dimethyl-2-(1-methyl-2-propenyl)-
21,150	1,5-Heptadiene, 2,3,6-trimethyl-
21,573	2,4,6-Trimethyl-1,3,6-heptatriene
22,086	2,4,6-Trimethyl-1,3,6-heptatriene
22,299	D-Limonene
23,782	Benzene, 1-methyl-4-(1-methylethenyl)-
24,280	Cycloheptane, 1,3,5-tris(methylene)-
27,186	Benzothiazole

37,260	Cycloheptane, 4-methylene-1-methyl-2-(2-methyl-1-propen-1-yl)-1-vinyl-
37,824	Pentadecanoic acid
40,175	Octadecanoic acid
43,189	1,4-Benzenediamine, N-(1,3-dimethylbutyl)-N'-phenyl

Table S1. Compounds identification during the WTs pyrolysis in the Py-GC/MS system.

R.Time	Name
4,040	Carbon dioxide
4,115	Propene
4,286	Bicyclo[1.1.0]butane
4,712	Cyclopropane, 1,1-dimethyl-
4,815	Cyclopropane, ethylidene-
4,894	Cyclopropane, 1,1-dimethyl-
5,730	1-Hexene
6,017	2-Pentene, 4-methyl-, (E)-
6,927	1,3,5-Hexatriene, (Z)-
7,060	1,3,5-Hexatriene, (Z)-
7,695	Benzene
12,855	Toluene
16,969	o-Xylene
17,343	o-Xylene
18,221	Styrene
20,157	Cyclobutane, 1,2-bis(1-methylethenyl)-, trans-
20,337	Benzene, 1-ethyl-3-methyl-
21,337	Benzene, 1,2,4-trimethyl-
22,111	Benzene, 1,2-diethyl-
22,213	D-Limonene
23,775	Benzene, 1-methyl-4-(1-methylethenyl)-
27,178	Benzothiazole
37,784	Pentadecanoic acid
40,136	Octadecanoic acid
43,167	1,4-Benzenediamine, N-(1,3-dimethylbutyl)-N'-phenyl-

Table S1. Compounds identification during the WTs pyrolysis in the Py-GC/MS system.

R.Time	Name
4,030	Carbon dioxide
4,098	Propene
4,269	Cyclobutene
4,474	1-Butene, 3-methyl-
4,694	Cyclopropane, 1,1-dimethyl-
4,801	Isoprene
4,876	Cyclopropane, 1,1-dimethyl-
4,966	1,3-Pentadiene
5,116	1,3-Cyclopentadiene
5,369	2-Pentene, 4-methyl-, (E)-
5,996	2-Pentene, 4-methyl-, (E)-
6,904	1,3,5-Hexatriene, (Z)-
7,033	1,3,5-Hexatriene, (Z)-
7,668	Benzene
12,845	Toluene
16,949	Ethylbenzene
17,330	o-Xylene
18,204	Styrene
20,322	Benzene, 1-ethyl-3-methyl-
20,430	
21,317	Benzene, 1,2,4-trimethyl-
21,395	Benzene, 1-ethenyl-2-methyl-
21,533	Benzene, 1-ethenyl-4-methyl-
22,086	Benzene, 1,2,4-trimethyl-
22,838	Benzene, 1,2-propadienyl-