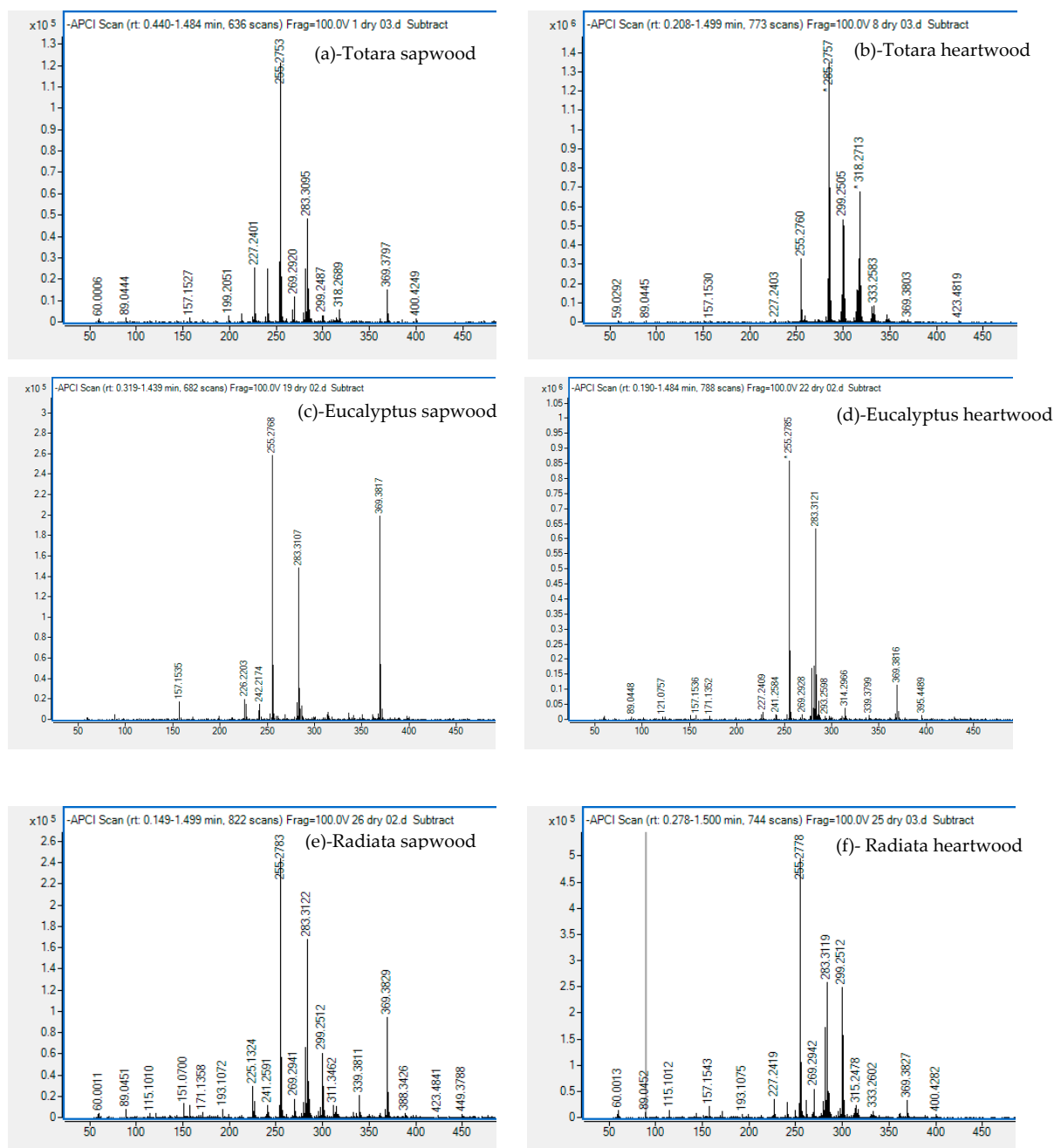


# Supplementary Materials

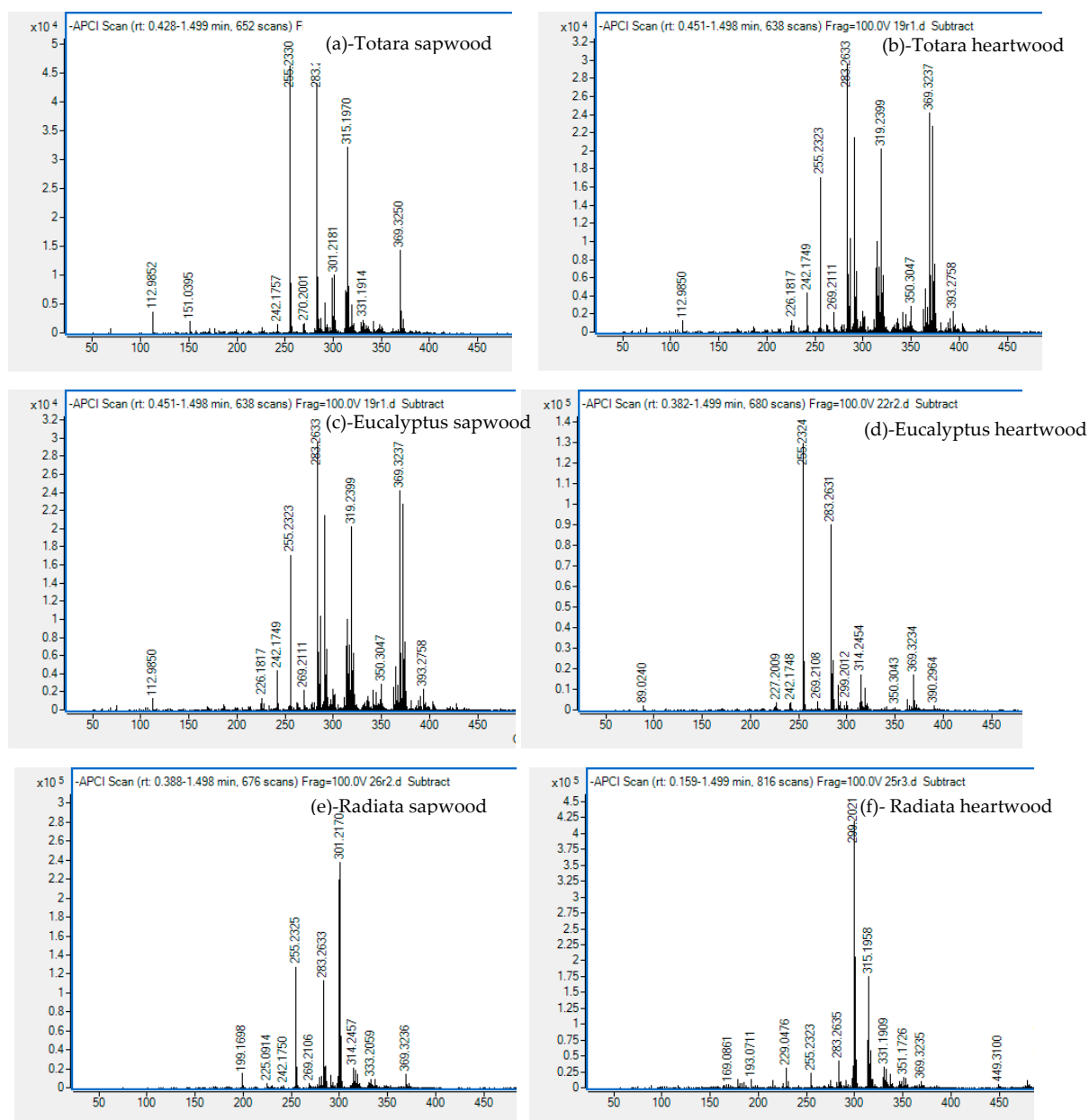
## Figures

### DART-TOF-MS spectra without solvents



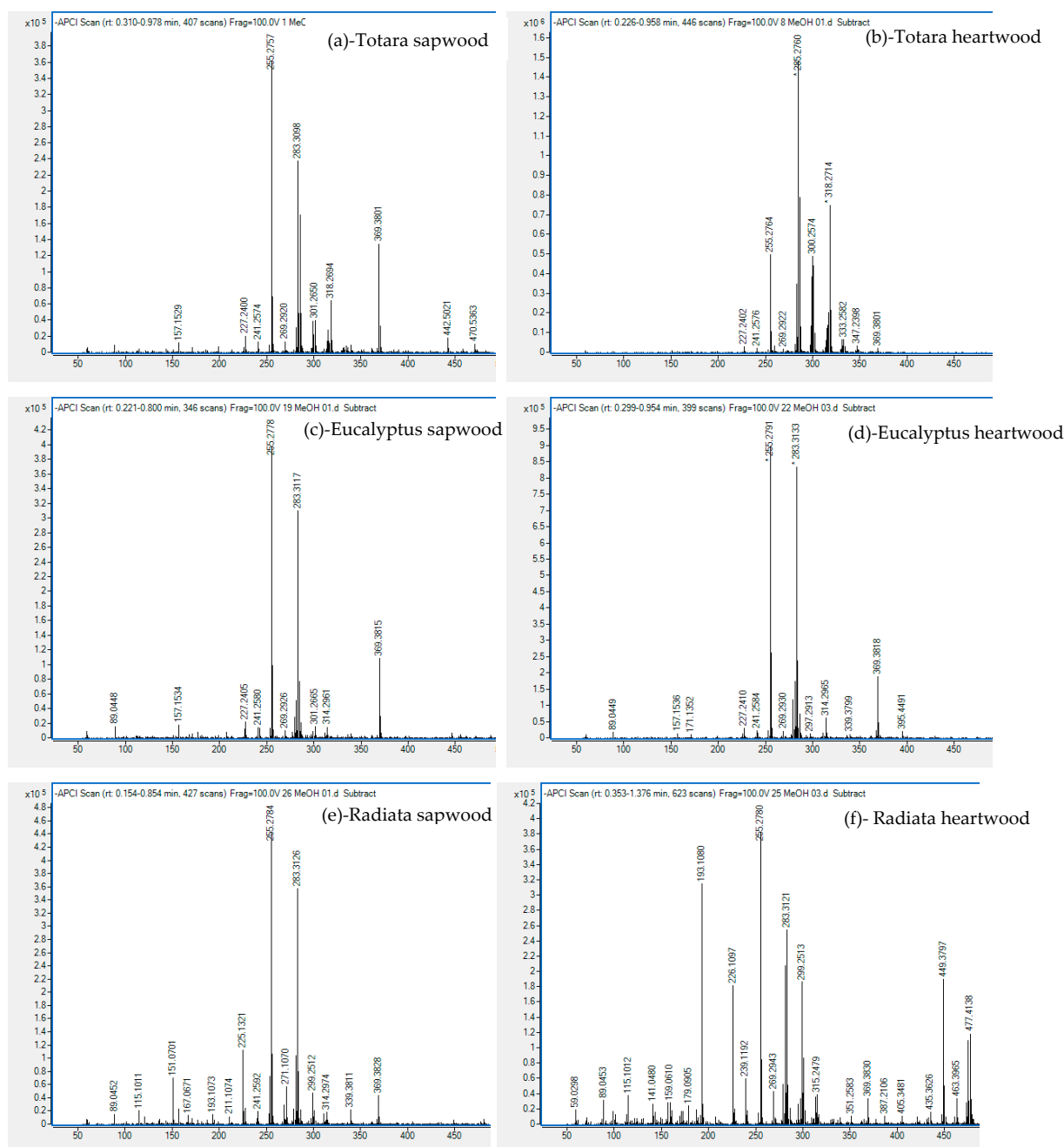
**Figure S1:** DART TOF MS mass spectra without solvent of *Podocarpus totara* sapwood (a) and heartwood (b), *Eucalyptus globoides* sapwood (c) and heartwood (d), *Pinus radiata* sapwood (e) and heartwood (f) samples.

## DART-TOF-MS with Dichloromethane



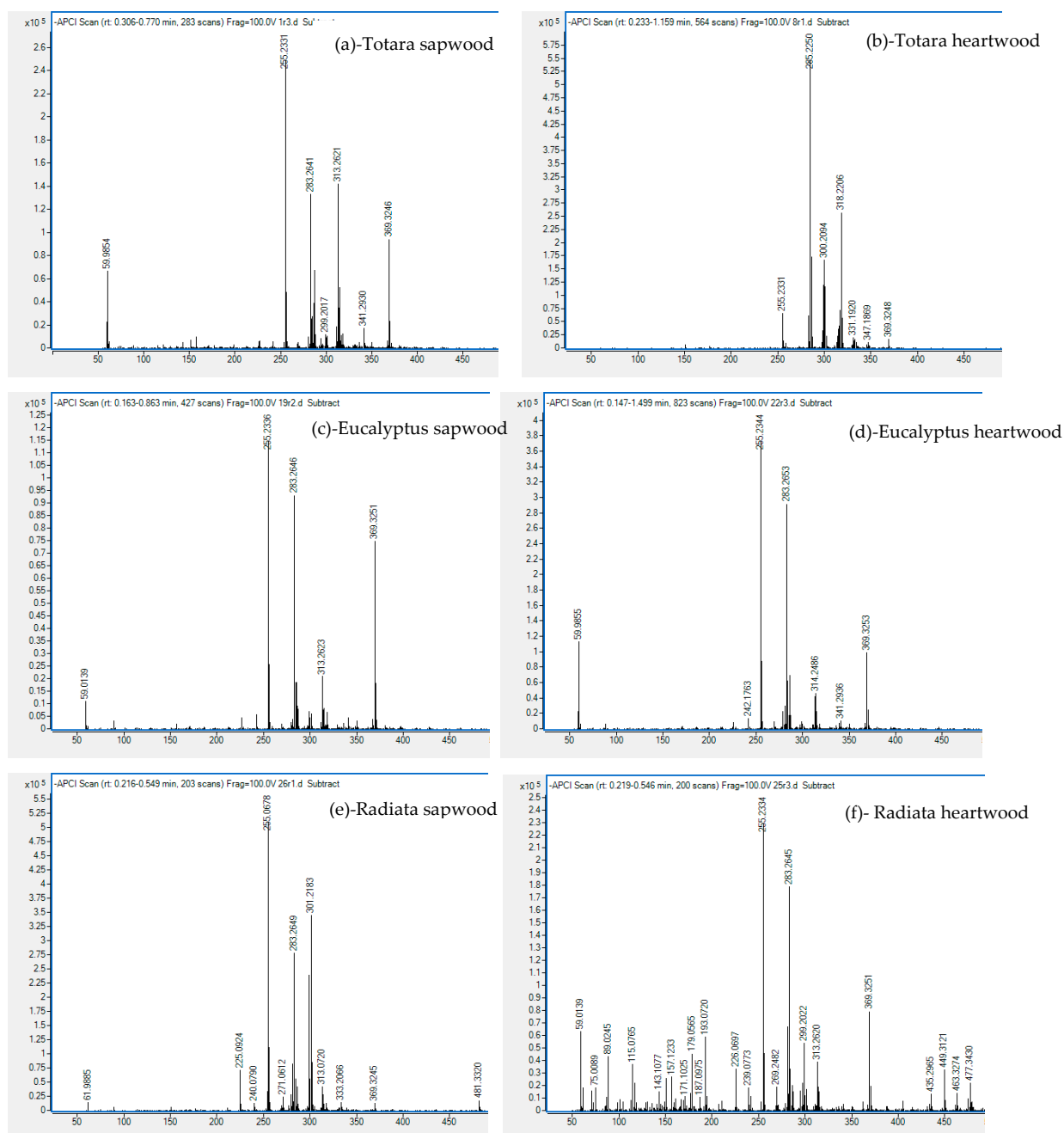
**Figure S2:** DART TOF MS mass spectra with dichloromethane of *Podocarpus totara* sapwood (a) and heartwood (b), *Eucalyptus globoides* sapwood (c) and heartwood (d), *Pinus radiata* sapwood (e) and heartwood (f) samples.

## DART-TOF-MS with Methanol



**Figure S3:** DART TOF MS mass spectra with Methanol of *Podocarpus totara* sapwood (a) and heartwood (b), *Eucalyptus globoides* sapwood (c) and heartwood (d), *Pinus radiata* sapwood (e) and heartwood (f) samples.

## DART-TOF-MS with Acetonitrile



**Figure S4:** DART TOF MS mass spectra with Acetonitrile of *Podocarpus totara* sapwood (a) and heartwood (b), *Eucalyptus globoides* sapwood (c) and heartwood (d), *Pinus radiata* sapwood (e) and heartwood (f) samples.

## Tables LC-MS

**Table S1:** Compounds present in the *Podocarpus totara* samples analysed by LC-MS

(\* = confirmed with reference standard).

Compound	Mass (Da)	RT (min)
Carnosol	330.1850	39.85
Catechin*	290.0804	10.80
Callicarpone	332.2003	35.61
Epicatechin*	290.0798	15.01
5,7,2'-Trihydroxyflavone	270.0536	39.29
Acalyphin	360.1161	22.38
Shoyuflavone C	418.0536	22.93
Sennoside B* (internal standard)	862.1986	23.07
Kaempferol*	286.0487	34.21
2',4'-Dihydroxy-7-methoxy-8-prenylflavan	340.1668	34.84
5,7,2',5'-Tetramethoxyflavanone	344.1275	21.32
Quercetin*	302.0429	32.63
2',8-Dihydroxy-3',4',5',7-tetramethoxyflavan	362.1383	24.59
Totanol-19-carboxylic acid	316.2055	39.69
5,7-Dimethoxy-8-prenylflavan	338.1881	39.62
Picrasin F	422.1958	33.24
Depdecin	228.1002	30.55
Acetoxy-6-gingerol	336.1953	39.33
4,5-Dihydrovomifoliol	226.1579	17.79
2-Hydroxy-3-carboxy-6-oxo-7-methylocta-2,4-dienoate	228.0629	30.78
Emodin*	270.0535	39.37
Gingerol	294.1842	37.45
Nagilactone C	362.1381	24.50
Torachrysone 8-beta-gentiobioside	570.1973	20.23
Glaucarubolone 15-O-beta-D-glucopyranoside	556.2182	31.05
7,8-Dehydroastaxanthianthin	594.3710	39.67
7beta,12alpha-Dihydroxykaurenolide	332.2003	34.84
Procyanidin B3	578.1441	13.42
Lanugone A	314.1894	38.86
Procyanidin B2*	578.1448	13.18
Estriol-3-glucuronide	464.2067	35.22
Calycanthidine	360.2320	39.15
Tephrowatsin B	336.1724	38.86

Skullcapflavone I 2'-(2''-E-cinnamoylglucoside)	606.1722	19.60
Ligustroside	524.1918	20.45
Momilactone B	330.1845	37.99
Calycanthine	346.2160	38.04
Ingenol	348.1952	35.81
Mycophenolic acid	320.1272	11.19
Vanillactic acid	212.0692	7.11
Carnosic acid	332.2002	34.85
Afzelechin 7-apioside	406.1256	22.77
Sonchuionoside C	386.1959	14.48
Quercetin 3-O-glucoside*	464.0950	23.11
Goshonoside F5	646.3540	37.54
Isorosmanol	346.1793	38.70
Quercetin 7-glucuronoside 3-sophoroside	802.1789	23.07
1 $\alpha$ ,5 $\alpha$ -Epidithio-17 $\alpha$ -oxa-D-homoandrostan-3,17-dione	366.1335	13.07
Demeclocycline	464.1007	23.24
Methyl cis-p-coumarate 3-(3,7-dimethyl-2,6-octadienyl)	314.1897	38.84
Mytatrienediol	316.2052	39.33
8-Caffeoyl-3,4-dihydro-5,7-dihydroxy-4-phenylcoumarin	418.1044	23.24
Dehydroamlodipine	406.1295	22.79
7,8-Didehydroastaxanthin	594.3726	39.66
Nicotinuric acid	180.0529	12.78
Salicylaldehyde	122.0373	13.06
10-Hydroxyloganin	406.1479	22.66
Glucitol-4-gucopyanoside	344.1305	21.60
Nagilactone	302.1176	24.55
2,6-Dimethoxyquinone	168.0417	30.60
Unidentified: m/z = 244.0869; r.t. = 14.89 min.	244.0869	14.89
Unidentified: m/z = 388.2117; r.t. = 14.97 min.	388.2117	14.97
Unidentified: m/z = 570.1974; r.t. = 20.29 min.	570.1974	20.29
Unidentified: m/z = 422.196; r.t. = 33.24 min.	422.1964	33.24
Unidentified: m/z = 286.0602; r.t. = 34.32 min.	286.0602	34.32
Unidentified: m/z = 464.2071; r.t. = 35.22 min.	464.2071	35.21
Unidentified: m/z = 332.2003; r.t. = 35.40 min.	332.2003	35.40
Unidentified: m/z = 328.1688; r.t. = 37.54 min.	328.1688	37.54
Unidentified: m/z = 432.2019; r.t. = 14.63 min.	432.2020	14.64
Unidentified: m/z = 344.1329; r.t. = 21.31 min.	344.1329	21.31
Unidentified: m/z = 168.0527; r.t. = 30.53 min.	168.0527	30.53

Unidentified: m/z = 510.2134; r.t. = 31.04 min.	510.2134	31.04
Unidentified: m/z = 256.052; 32.61 min.	256.0520	32.61
Unidentified: m/z = 240.0577; r.t. = 34.29 min.	240.0577	34.29
Unidentified: m/z = 270.0679; r.t. = 39.39 min.	270.0679	39.39
Unidentified: m/z = 464.1032; r.t. = 23.05 min.	464.1032	23.05
Unidentified: m/z = 228.0865; r.t. = 30.61 min.	228.0865	30.61
Unidentified: m/z = 210.0178; r.t. = 39.52 min.	210.0178	39.52
Unidentified: m/z = 302.0549; r.t. = 32.78 min.	302.0549	32.78
Unidentified: m/z = 330.1847; r.t. = 37.36 min.	330.1847	37.36
Unidentified: m/z = 242.0309; r.t. = 32.63 min.	242.0309	32.63
Unidentified: m/z = 302.0533; r.t. = 32.60 min.	302.0533	32.60
Unidentified: m/z = 432.2018; r.t. = 14.45 min.	432.2018	14.45
Unidentified: m/z = 360.1394; r.t. = 22.74 min.	360.1394	22.74
Unidentified: m/z = 418.1008; r.t. = 23.12 min.	418.1008	23.12

**Table S2:** Compounds present in the *Eucalyptus globoides* samples analysed by LC-MS  
(\* = confirmed with reference standard).

Compound	Mass (Da)	RT (min)
Ellagic acid	302.0076	21.64
1-O-Caffeoyl-( $\beta$ -D-glucose 6-O-sulfate)	422.0515	1.93
2-O-Galloylpunicalin	934.0754	4.27
Repenol	388.0449	20.53
Glucosyl passiflorate	696.4114	33.78
1-O-Galloylpedunculagin	936.0907	12.63
Pedunculagin	784.0790	5.65
Granatin A	784.0789	8.53
Isorhamnetin 3-glucuronide-7-sulfate	572.0471	2.53
Shoyuflavone C	418.0555	15.96
Sanguisorbic acid dilactone	470.0139	14.45
Tricrozarin A	294.0385	3.61
Castanin	784.0789	4.80
Quercetin 7-(6'-acetylglucoside)	506.1081	31.34
(-)-Epicatechin 8-C-galactoside	452.1336	20.57
Sanguiin H4	634.0831	11.79
Heterophyllin A	786.0944	13.72
Sanguiin H1	786.0943	13.69
4-Methoxybenzenepropanol 1-(2-sulfoglucoside)	408.1074	12.21

Phosphatidyl glycerol	246.0498	1.75
2( $\alpha$ -D-Mannosyl)-D-glycerate	268.0800	1.81
Inosine	268.0803	1.82
Lepidimoic acid	322.0909	1.87
2,3-Dioxogulonic acid	192.0274	1.89
2,4,6-Trihydroxybenzoic acid	170.0219	2.04
Gallic acid	170.0219	3.62
Catechin*	290.0796	10.78
11-O-Demethylpradinone I	464.0740	22.93
Sennoside B	862.1992	23.06
Kaempferol 3-(6'-sinapylglucosyl)-(1-2)-galactoside	816.2101	23.32
Quercetin*	302.0426	32.61
Picrasin F	422.1958	33.23
Tragopogonsaponin A	648.3898	33.28
Kaempferol*	286.0481	34.19
Estriol-3-glucuronide	464.2066	35.20
5,3',4'-Trihydroxy-3-methoxy-6,7-methylenedioxyflavone	344.0546	35.50
Ananasic acid	488.3520	37.46
Gingerol*	294.1839	37.46
Emodin*	270.0537	39.31

**Table S3:** Compounds present in the *Pinus radiata* samples analysed by LC-MS  
(\* = confirmed with reference standard).

Compound	Mass (Da)	RT (min)
Galactomannan	504.1652	1.726
5,7-Dihydroxy-6,8-di-C-methyl-3-methoxyflavone 7-galactosyl-(1→2)-rhamnoside	620.2118	1.726
Tetramethylquercetin 3-rutinoside	666.2171	1.726
Pinocembrin 7-O-neohesperidoside 4'''-O-acetate	606.1962	1.852
Ribonic acid	166.0465	1.854
Sequoyitol	194.0776	1.854
3-O-Caffeoyl-1-O-methylquinic acid	368.11	1.854
5-O-Methylchamanetin	376.1329	1.854
Egonol glucoside	488.1702	1.854
3,4-Dihydroxychalcone 4- $\beta$ -L-arabinopyranosyl-(1→4)-galactoside	534.1761	1.854
3-hydroxymethyl-glutaric acid	162.0514	1.854
Rutinose	326.1185	1.854
Malic acid	134.0205	1.983
Fumaric acid	276.1698	2.753
Euchrenone b3	462.1696	11.995
Marmesin rutinoside	554.1958	15.847



gibberellin A3 O-β-D-glucoside	508.1903	15.847
1-Hexanol arabinosylglucoside	396.1965	19.314
Gibberellin A79	364.1493	22.264
Gibberellin A68	346.1389	23.678
4-Hydroxy-3-methoxycinnamaldehyde	178.0613	25.219
Divanillyltetrahydrofuran ferulate	520.21	31.256
Isovaltrate	422.1907	33.432
Bidenoside B	478.1802	36.902
6-Gingerol*	294.1808	37.672
Piperochromenoic acid	340.2033	38.44
Dehydropinifolic acid	334.2118	39.855

## Tables GC-MS

**Table S4:** Compounds present in the *Podocarpus totara* samples analysed by GC-MS

(\* = confirmed with reference standard).

Compound	Base Peak (m/z)	RT (min)
Unidentified: b.p. = 73; r.t. = 19.96 min	73	19.96
Unidentified: b.p. = 186; r.t. = 23.57 min	186	23.574
Unidentified: b.p. = 186; r.t. = 23.57 min	186	23.587
2,2'-Bipyridine	156	27.433
Vanillin, TMS derivative *	194	29.429
Vanillic Acid, 2TMS derivative	297	34.515
3-Vanilpropanol, bis(trimethylsilyl)-	206	35.679
Coniferyl aldehyde, TMS derivative	220	36.473
Unidentified: b.p. = 222; r.t. = 36.95 min	222	36.959
Unidentified: b.p. = 223; r.t. = 37.81 min	223	37.818
Unidentified: b.p. = 73; r.t. = 38.29 min	73	38.292
Unidentified: b.p. = 149; r.t. = 39.75 min	149	38.736
Unidentified: b.p. = 223; r.t. = 39.63 min	223	39.642
Unidentified: b.p. = 137; r.t. = 39.87 min	137	39.847
Palmitic Acid, TMS derivative*	117	39.92
Unidentified: b.p. = 223; r.t. = 41.06 min	223	41.066
Phenanthrene, 1,2,3,4,4α,9,10,10α-octahydro-1,1,4α-trimethyl-7-(1-methylethyl)-, (4αS-trans)-	255	41.422
Unidentified: b.p. = 117; r.t. = 41.73 min	117	41.736
Unidentified: b.p. = 117; r.t. = 43.12 min	117	43.125
Unidentified: b.p. = 357; r.t. = 43.59 min	357	43.592
Stearic acid, TMS derivative *	117	43.6
Unidentified: b.p. = 141; r.t. = 43.76 min	141	43.764
(1R,4αR,4βS,7R,10αR)-1,4α,7-Trimethyl-7-vinyl-1,2,3,4,4α,4β,5,6,7,9,10,10α-dodecahydrophenanthrene-1-carbaldehyde	123	44.098
Totarol, trimethylsilyl ether	343	44.33

Unidentified: b.p. = 343; r.t. = 44.38 min	343	44.348
Unidentified: b.p. = 358; r.t. = 44.44 min	358	44.443
Unidentified: b.p. = 257; r.t. = 44.52 min	257	44.529
Ferruginol, trimethylsilyl ether	73	44.577
Unidentified: b.p. = 257; r.t. = 44.60 min	257	44.605
Unidentified: b.p. = 247; r.t. = 44.69 min	247	44.692
Ferruginol	271	45.896
Totarol, trimethylsilyl ether	343	46.079
Unidentified: b.p. = 288; r.t. = 46.25 min	288	46.249
Unidentified: b.p. = 358; r.t. = 44.84 min	358	46.846
Unidentified: b.p. = 309; r.t. = 47.20 min	309	47.202
Unidentified: b.p. = 73; r.t. = 47.65 min	73	47.655
Unidentified: b.p. = 57; r.t. = 47.69 min	57	47.69
Silane, dimethyl(4-(2-phenylprop-2-yl)phenoxy)pentyl-oxy-	341	47.954
Unidentified: b.p. = 341; r.t. = 48.2 min	341	48.034
Unidentified: b.p. = 73; r.t. = 48.35 min	73	48.357
Docosanol, TBDMS derivative	383	48.407
Unidentified: b.p. = 73; r.t. = 48.59 min	73	48.596
Benzoic acid, 5-methoxy-2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	297	49.115
Unidentified: b.p. = 73; r.t. = 49.16 min	73	49.167
Unidentified: b.p. = 341; r.t. = 49.23 min	341	49.237
Benzoic acid, 5-methoxy-2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	297	49.35
Unidentified: b.p. = 327; r.t. = 49.40 min	327	49.403
Unidentified: b.p. = 175; r.t. = 49.40 min	175	49.436
Unidentified: b.p. = 372; r.t. = 49.47 min	372	49.471
Unidentified: b.p. = 327; r.t. = 49.58 min	327	49.586
Unidentified: b.p. = 322; r.t. = 49.66 min	322	49.666
Unidentified: b.p. = 73; r.t. = 49.82 min	73	49.823
3-Hydroxytotarol, di(trimethylsilyl) ether	73	49.955
Decane, 3,8-dimethyl-	57	50.771
Unidentified: b.p. = 460 r.t. = 50.88 min	460	50.881
Unidentified: b.p. = 73 r.t. = 52.93 min	73	52.937

**Table S5:** Compounds present in the *Eucalyptus globoides* samples analysed by GC-MS

(\* = confirmed with reference standard).

Compound	Base Peak (m/z)	RT (min)
Unidentified: b.p. = 73; r.t. = 17.78 min	73	17.78
Unidentified: b.p. = 73; r.t. = 19.33 min	73	19.331
Unidentified: b.p. = 147; r.t. = 20.048 min	147	20.048
Unidentified: b.p. = 192; r.t. = 21.92 min	192	21.924
Unidentified: b.p. = 186; r.t. = 23.66 min	186	23.665

Unidentified: b.p. = 241; r.t. = 31.13 min	241	31.138
Unidentified: b.p. = 284; r.t. = 32.68 min	284	32.683
Unidentified: b.p. = 181; r.t. = 33.41 min	181	33.411
Unidentified: b.p. = 229; r.t. = 34.02 min	229	34.028
Vanillic Acid, 2TMS derivative	297	34.585
Unidentified: b.p. = 206; r.t. = 35.76 min	206	35.76
Unidentified: b.p. = 117; r.t. = 36.09 min	117	36.099
Unidentified: b.p. = 117; r.t. = 36.10 min	117	36.106
Unidentified: b.p. = 220; r.t. = 36.55 min	220	36.551
Syringic acid (2TMS)	327	37.393
Unidentified: b.p. = 117; r.t. = 37.79 min	117	37.798
Pentadecanoic acid, TMS derivative	117	38.098
Unidentified: b.p. = 297; r.t. = 39.612 min	297	39.611
Unidentified: b.p. = 223; r.t. = 39.79 min	223	39.749
Palmitic Acid, TMS derivative *	117	40.016
Unidentified: b.p. = 106; r.t. = 40.366 min	106	40.366
Unidentified: b.p. = 223; r.t. = 41.14 min	223	41.141
Unidentified: b.p. = 327; r.t. = 41.26 min	327	41.26
2-Pentanol, TMS derivative	117	41.82
Unidentified: b.p. = 253; r.t. = 42.11 min	253	42.114
9,12-Octadecadienoic acid (Z,Z)-, TMS derivative	73	43.181
Unidentified: b.p. = 73; r.t. = 43.32 min	73	43.324
Unidentified: b.p. = 357; r.t. = 43.57 min	357	43.573
Unidentified: b.p. = 103; r.t. = 44.80 min	103	44.805
Unidentified: b.p. = 73; r.t. = 46.53min	73	46.532
Unidentified: b.p. = 117; r.t. = 46.84 min	117	46.849
Unidentified: b.p. = 239; r.t. = 46.90 min	239	46.909
Unidentified: b.p. = 55; r.t. = 47.97 min	55	47.973
Docosanol, TMS derivative	383	48.504
Vanillylmandelic acid, 3TMS derivative	297	49.195
Unidentified: b.p. = 229; r.t. = 34.02 min	327	49.368
Benzoic acid, 5-methoxy-2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	297	49.438
Behenic acid, TMS derivative *	117	49.913
Unidentified: b.p. = 297; r.t. = 50.38 min	297	50.387
Unidentified: b.p. = 73; r.t. = 50.91 min	73	50.91
Unidentified: b.p. = 117; r.t. = 51.49 min	117	51.49
Unidentified: b.p. = 327; r.t. = 51.87 min	327	51.878
Unidentified: b.p. = 73; r.t. = 53.07 min	73	53.073
Lignoceric acid, TMS derivative	117	53.214
Unidentified: b.p. = 485; r.t. = 55.95 min	485	55.955
Hexacosanoic acid, TMS derivative	117	57.253

**Table S6:** Compounds present in the *Pinus radiata* samples analysed by GC-MS.

(\*= confirmed with reference standard).

Compound	Base Peak (m/z)	RT (min)
Unidentified: b.p. = 73; r.t. = 14.46 min	73	14.463
1(2H)-Quinolincarboxylic acid, 2-cyano-, ethyl ester	155	27.514
Vanillin, TMS derivative *	194	29.534
alpha terpineol	131	31.858
Vanillic Acid, 2TMS derivative	297	34.589
Unidentified: b.p. = 73; r.t. = 35.03 min	73	35.031
Eugenol TMS derivative *	206	35.762
Coniferyl aldehyde, TMS derivative *	220	36.562
Benzoic acid, 5-methoxy-2-[(trimethylsilyl)oxy]-, TMS derivative	297	39.614
Unidentified: b.p. = 223; r.t. = 39.74 min	223	39.742
Palmitic acid TMS derivative *	117	40.012
Unidentified: b.p. = 298; r.t. = 40.68 min	298	40.687
Unidentified: b.p. = 209; r.t. = 40.96 min	209	40.963
Unidentified: b.p. = 223; r.t. = 41.13 min	223	41.133
Margaric acid TMS derivative *	117	41.351
Unidentified: b.p. = 356; r.t. = 41.51 min	356	41.453
Unidentified: b.p. = 267; r.t. = 41.69 min	267	41.698
Unidentified: b.p. = 73; r.t. = 41.82 min	73	41.825
Unidentified: b.p. = 73; r.t. = 42.91 min	73	42.912
Oleic Acid, (Z)-, TMS derivative *	117	43.238
Stearic acid TMS derivative *	73	43.582
Seco-1-dehydroabietic Acid, Methyl ester *	146	44.197
trans Pinosylvin, mono methyl ether TMS derivative	239	44.253
Seco-2-dehydroabietic Acid, Methyl ester *	146	44.526
Unidentified: b.p. = 73; r.t. = 45.20 min	73	45.204
Sandaracopimaric acid TMS Derivative	121	45.865
Pimaric acid TMS Derivative *	73	46.098
Isopimaric acid TMS Derivative *	241	46.33
Palustric acid TMS Derivative *	73	46.509
Unidentified: b.p. = 357; r.t. = 47.00 min	357	47.006
Palustric acid TMS Derivative *	241	47.541
Unidentified: b.p. = 73; r.t. = 47.78 min	73	47.783
Unidentified: b.p. = 237; r.t. = 48.50 min	237	48.502
Unidentified: b.p. = 73; r.t. = 48.87 min	73	48.875
Neoabietic acid TMS Derivative *	135	49.166
12,14-Dichlorodehydroabietic acid TMS derivative	307	49.263
Unidentified: b.p. = 296; r.t. = 49.38 min	296	49.384
Unidentified: b.p. = 387; r.t. = 49.68 min	387	49.685
Unidentified: b.p. = 297; r.t. = 49.77 min	297	49.771
Behenic acid, TMS derivative *	117	49.943
7-Oxodehydroabietic acid, TMS derivative	253	50.418
Unidentified: b.p. = 296; r.t. = 51.07 min	296	51.079
1-Monooleoylglycerol, 2TMS derivative	129	51.986