

Supplementary Material

Table S1. Volatile compounds of PPSO tentatively identified using HS-SPME/GC-MS and NIST MS 11 mass spectral library.

RT (min)	Volatile compounds	Average	±SD
3.92	2-Butyne-1,4-diol	0.059	0.003
4.07	Propene	0.027	0.001
4.66	Acetaldehyde	0.035	0.002
4.73	2-Butene, (E)-	0.008	0.000
4.81	Butane	0.007	0.000
5.60	Ethanol	0.020	0.001
6.39	2-Propenal	0.947	0.047
6.52	Acetone	0.112	0.006
6.66	Hydrazine, methyl-	2.325	0.116
8.75	2-Fluoropropene	0.020	0.001
9.35	Methacrolein	0.008	0.000
9.88	Acetic acid	1.238	0.062
10.08	Methyl vinyl ketone	0.030	0.002
10.22	1-Hexene	0.096	0.005
10.44	Butanal	0.165	0.008
10.52	Propanal, 2-methyl-	0.040	0.002
10.60	Butyl isocyanatoacetate	0.048	0.002
12.07	2-Pentenal, (E)-	0.028	0.001
12.38	Tetrahydrofuran	0.024	0.001
13.69	2-Butenal	0.190	0.010
14.30	1-Butanol	0.137	0.007
14.47	Benzene	0.016	0.001

14.82	Furan, 2,3-dihydro-5-methyl-	0.121	0.006
15.34	Silanediol, dimethyl-	0.043	0.002
15.80	2-Pentanone	0.103	0.005
16.03	1-Heptene	0.085	0.004
16.15	Oxirane, tetramethyl-	0.011	0.001
16.61	Pentanal	2.067	0.103
17.31	2-Pentanol, 3-chloro-2-methyl-	0.012	0.001
19.27	3-Penten-2-one, (E)-	0.009	0.000
20.35	2-Hexyne	0.018	0.001
20.48	2-Pentenal, (E)-	0.154	0.008
20.57	(S)-5-Hydroxymethyl-2[5H]-furanone	0.068	0.003
21.08	1-Pentanol	2.216	0.111
21.53	Toluene	0.020	0.001
22.44	2-Butenal, 3-methyl-	0.013	0.001
22.63	2-Hexanone	0.111	0.006
22.76	1-Octene	0.076	0.004
22.99	Acetic acid, butoxyhydroxy-, butyl ester	0.017	0.001
23.32	Octane	0.686	0.034
23.52	Hexanal	12.740	0.637
24.32	2-Octene	0.033	0.002
24.97	1-Pentanol, 3-methyl-	0.020	0.001
25.19	Formic acid, pentyl ester	0.089	0.004
25.83	Furfural	0.118	0.006
26.22	2-Pentanone, 4-hydroxy-4-methyl-	0.072	0.004
26.77	Cyclopentanol, 2-methyl-, cis-	0.016	0.001
27.02	2-Heptene, 1-ethoxy-, (Z)-	0.009	0.000
27.17	2-Hexenal	2.330	0.117

27.79	Pentanoic acid	0.102	0.005
27.90	1-Hexanol	0.290	0.015
28.56	1-Cyclohexene, 1-ethynyl-	0.010	0.001
28.69	Oxime-, methoxy-phenyl-	0.177	0.009
29.11	1-Nonen-3-ol	0.018	0.001
29.38	2-Heptanone	1.014	0.051
29.61	2-n-Butyl furan	0.074	0.004
29.71	Acetic acid, trifluoro-, 3-methylbutyl ester	0.413	0.021
29.89	Hexane, 3-methyl-4-methylene-	0.272	0.014
29.98	Nonane	0.233	0.012
30.14	Cyclohexanecarboxaldehyde	0.066	0.003
30.28	Heptanal	1.687	0.084
30.48	Oxirane, pentyl-	0.099	0.005
30.71	3-Octen-1-ol, acetate, (Z)-	0.023	0.001
30.91	2H-Pyran, 3,4-dihydro-	0.040	0.002
31.12	Butyrolactone	0.340	0.017
31.28	2-Pentanone, 5-(acetyloxy)-	0.020	0.001
31.43	1,6-Octadiene, 5,7-dimethyl-, (R)-	0.085	0.004
31.72	1,3-Nonadiene, (E)-	0.157	0.008
32.05	Cyclopentane, 1,1,3,4-tetramethyl-, cis-	0.013	0.001
32.23	1-Heptyn-3-ol	0.072	0.004
32.47	Cyclohexane, ethylidene-	0.013	0.001
32.63	Cyclopentane, butyl-	0.046	0.002
32.71	2-Ethyl-3-vinyloxirane	0.064	0.003
32.88	3-Cyclohexene-1-carboxaldehyde, 1-methyl-	0.017	0.001
33.14	2-Hexene, 2,3-dimethyl-	0.603	0.030
33.39	4-Heptanol, 2-methyl-	0.058	0.003

33.57	Cyclohexanol, 4-methyl-	0.063	0.003
33.72	2(3H)-Furanone, dihydro-5-methyl-	0.160	0.008
33.95	2-Heptenal, (Z)-	18.873	0.944
34.23	Hexanoic acid	1.171	0.059
34.41	Cyclooctane	0.828	0.041
34.69	dl-Mevalonic acid lactone	0.105	0.005
34.83	Benzaldehyde	0.127	0.006
35.11	1-Octen-3-ol	2.436	0.122
35.27	2,3-Octanedione	0.193	0.010
35.49	3-Octanone	0.204	0.010
35.76	2-Octanone	0.567	0.028
35.92	Furan, 2-pentyl-	4.596	0.230
36.14	Cyclobutanecarboxylic acid, 3-tridecyl ester	0.159	0.008
36.28	1-Octanol, 2-butyl-	0.331	0.017
36.42	2,4-Heptadienal, (E,E)-	0.181	0.009
36.67	Octanal	1.492	0.075
37.04	Furan, 3-pentyl-	0.014	0.001
37.35	4-Ethylcyclohexanol	0.445	0.022
37.88	Octane, 2,7-dimethyl-	0.020	0.001
38.03	1-Hexanol, 2-ethyl-	0.167	0.008
38.35	(1-Allylcyclopropyl)methanol	0.076	0.004
38.57	1-Heptyne	0.048	0.002
38.75	3-Octen-2-one	0.570	0.028
38.93	Cyclopentene, 1-butyl-	0.348	0.017
39.03	Oxalic acid, 6-ethyloct-3-yl ethyl ester	0.254	0.013
39.17	2-Thiopheneacetic acid, cyclohexyl ester	0.036	0.002
39.28	2-Octenal, (E)-	0.442	0.022

39.41	Furan, 2-pentyl-	0.035	0.002
39.59	1-Decyne	0.017	0.001
39.76	Cyclohexanol, 2,4-dimethyl-	0.336	0.017
40.07	2-Octenal, (E)-	6.811	0.341
40.18	n-Caproic acid vinyl ester	0.998	0.050
40.31	Cyclooctyl alcohol	0.174	0.009
40.46	1-Octanol	0.811	0.041
40.68	4-Ethylcyclohexanol	0.075	0.004
40.81	n-Amyl ether	0.009	0.000
41.02	2-Octen-4-one	0.020	0.001
41.20	Cyclohexene, 3,5-dimethyl-	0.014	0.001
41.37	6-Methyl-hept-2-en-4-ol	0.080	0.004
41.47	4-Ethyl-4-methyl-1-hexene	0.061	0.003
41.59	3-Octen-1-ol, acetate, (Z)-	0.008	0.000
41.72	2-Nonanone	0.116	0.006
41.86	2,4-Decadienal, (E,E)-	0.044	0.002
42.06	2,3'-Bifuran, octahydro-	0.619	0.031
42.14	Cyclopentane, 1-acetyl-1,2-epoxy-	0.613	0.031
42.47	2H-Pyran-2-one, tetrahydro-6-methyl-	0.034	0.002
42.61	Nonanal	2.678	0.134
42.73	Formic acid, tetrahydrofurfuryl ester	0.086	0.004
43.21	2,4-Octadienal, (E,E)-	0.055	0.003
43.71	2,3,4-Trimethyl-hex-3-enal	0.095	0.005
43.96	3-Acetyldodecane	0.055	0.003
44.48	trans-3-Nonen-2-one	0.249	0.012
44.60	1-Heptanol, 2,4-dimethyl-, (R,R)-(+)-	0.037	0.002
44.87	5-Tridecene, (Z)-	0.035	0.002

45.01	2-Nonenal, (E)-	0.196	0.010
45.26	Octanoic acid	0.125	0.006
45.57	1-Heptanol, 6-methyl-	0.066	0.003
45.62	4-Methoxycarbonyl-4-butanolide	0.068	0.003
45.76	2-Nonenal, (E)-	0.815	0.041
46.03	1-Nonanol	0.133	0.007
46.14	4-Decanone	0.034	0.002
46.55	2-Decen-1-ol, (E)-	0.119	0.006
46.85	6-Dodecene, (E)-	0.157	0.008
47.00	2-Dodecanone	0.206	0.010
47.27	1-Heptanol, 2-propyl-	0.250	0.013
47.37	Cyclohexene, 3-(chloromethyl)-	0.211	0.011
47.66	Decanal	0.469	0.023
47.93	1,9-Nonanediol	0.040	0.002
48.02	4,6,6-Trimethyl-bicyclo[3.1.1]heptan-2-ol	0.045	0.002
48.24	2,4-Nonadienal, (E,E)-	0.254	0.013
48.33	Cyclobutanecarboxylic acid, 2-tridecyl ester	0.221	0.011
48.53	Ethanol, 2-phenoxy-	0.038	0.002
48.86	5-Undecene, 7-ethenyl-	0.020	0.001
49.08	Cyclooctane, 1,4-dimethyl-, trans-	0.359	0.018
49.15	4-Oxononanal	0.471	0.024
49.22	Propanoic acid, 2-penten-1-yl ester (Z)-	0.115	0.006
49.36	Cyclooctanone, 2-methyl-	0.097	0.005
49.44	Methyl 3-cis,9-cis,12-cis-octadecatrienoate	0.018	0.001
49.52	Sulfurous acid, cyclohexylmethyl hexadecyl ester	0.045	0.002
49.69	2-Decenal, (Z)-	0.911	0.046
49.85	Cyclodecanone	0.238	0.012

50.08	2,4-Pentadien-1-ol, 3-propyl-, (2Z)-	0.127	0.006
50.21	Hexanoic acid, 4-pentenyl ester	0.089	0.004
50.36	2,3'-Bifuran, octahydro-	0.109	0.005
50.47	2-Nonanone	0.038	0.002
50.56	Tridecane	0.076	0.004
50.71	2,4-Decadienal, (E,E)-	1.118	0.056
50.80	Propane, 1-bromo-2,2-dimethyl-	0.025	0.001
50.93	Undecanal	0.261	0.013
51.03	4-Hexen-3-ol, 2-methyl-	0.010	0.000
51.12	4-Hepten-3-one, 5-ethyl-4-methyl-	0.088	0.004
51.28	Cyclobutanecarboxylic acid, octyl ester	0.020	0.001
51.39	2,4-Decadienal, (E,E)-	3.708	0.185
51.53	2,4-Pentadien-1-ol, 3-pentyl-, (2Z)-	0.053	0.003
51.62	2,4,6-Octatrienal	0.081	0.004
51.92	Emylcamate	0.049	0.002
52.04	Octadecane, 1-(ethenyloxy)-	2.304	0.115
52.27	2-Octenal, (E)-	0.061	0.003
52.34	5-Decanone	0.033	0.002
52.42	2-Undecenal	0.724	0.036
52.56	2(3H)-Furanone, dihydro-5-pentyl-	0.151	0.008
52.81	trans-4,5-Epoxy-(E)-2-decenal	1.850	0.093
52.98	Pentadecane	0.128	0.006
53.05	2-Nonen-4-yne, (E)-	0.072	0.004
53.16	Sulfurous acid, octyl 2-pentyl ester	0.107	0.005
53.34	Dodecanal	0.272	0.014
53.46	3-Hexanol, 2-methyl-5-nitro-, (R*,R*)-	0.074	0.004
53.55	3-Pyridinepropionic acid	0.063	0.003

53.62	2-Undecene, (E)-	0.024	0.001
53.67	3-Hepten-1-ol	0.083	0.004
53.95	Allyl 2-ethyl butyrate	0.016	0.001
54.01	7-Oxabicyclo[4.1.0]heptane	0.015	0.001
54.08	2,7-Dimethyl-2,7-octadien-1-amine	0.029	0.001
54.19	5,9-Undecadien-2-one, 6,10-dimethyl-, (Z)-	0.176	0.009
54.37	Cyclopropane, 1-bromo-2-(1,1-dimethylethyl)-	0.100	0.005
54.51	Decane, 3,8-dimethyl-	0.028	0.001
54.59	6-Nonenal, 3,7-dimethyl-	0.030	0.001
54.68	1-Dodecanol	0.143	0.007
54.92	2(3H)-Furanone, 5-hexyldihydro-	0.074	0.004
54.98	Cyclopentanecarboxylic acid, 3-methyl-4-methylene-, menthyl ester	0.039	0.002
55.11	Pentadecane	0.090	0.004
55.20	Cyclohexane, 1-propenyl-	0.040	0.002
55.26	2H-Pyran-2-one, 5,6-dihydro-6-pentyl-	0.106	0.005
55.39	Dodecanedioic acid, bis(tert-butyldimethylsilyl) ester	0.018	0.001
55.54	Dodecanal	0.131	0.007
55.74	3-Nonen-2-one	0.032	0.002
55.88	Octadecane, 1-chloro-	0.013	0.001
56.10	Octane, 1,1'-oxybis-	0.010	0.000
56.19	Benzene, (1-butylhexyl)-	0.012	0.001
56.32	Oxirane, octyl-	0.014	0.001
56.71	1-Decanol, 2-hexyl-	0.017	0.001
56.96	Dodecane, 1-chloro-	0.022	0.001
57.22	3-Octadecene, (E)-	0.025	0.001
57.43	5H-Tetrazole-5-thione, 1-[2-(dimethylamino)ethyl]-1,2-dihydro-	0.012	0.001
57.91	Dodecanal	0.038	0.002

58.09	3-Octanol, 3,7-dimethyl-	0.011	0.001
58.39	2,6-Bis(1,1-dimethylethyl)-4-(1-oxopropyl)phenol	0.009	0.000
59.37	9-Octadecyne	0.011	0.001
59.96	Heptadecane	0.026	0.001
60.11	2-Pentadecanone	0.064	0.003
60.46	(7a-Isopropenyl-4,5-dimethyloctahydroinden-4-yl)methanol	0.012	0.001
60.69	Tetradecanal	0.018	0.001
60.79	7,8-Epoxy lanostan-11-ol, 3-acetoxy-	0.010	0.000
61.01	Benzoic acid, 2-ethylhexyl ester	0.006	0.000
63.18	Octadecane	0.014	0.001
Sum of volatiles (%)		99.85	0.084

RT: Retention time. Reported results are the average \pm standard deviation values of two replicates. Siloxane derivatives owed to the fiber material were excluded from the total percent area (%Area pct).