

**Table S1.** The relative concentration of volatile compounds in seven MP samples.

Compounds	Relative cconcentration (µg/g)							RI/RI* <sup>b</sup>	Qualitative method <sup>d</sup>
	MP 1	MP 2	MP 3	MP 4	MP 5	MP 6	MP 7		
<b>Esters (9)</b>									
Allyl isocyanate	2.63±0.19	1.86±0.08	5.43±1.02	- <sup>a</sup>	6.84±0.47	5.15±0.62	3.83±0.30	972/N <sup>c</sup>	MS
sec-Butylisothiocyanate-	3.29±0.75	4.38±1.19	-	8.31±1.58	3.27±0.35	-	-	1289/1287	MS, RI, S
Allyl isothiocyanate	2561.01±82.90	2496.43±77.48	3405.20±102.51	2540.38±42.03	6495.20±131.46	4734.59±67.05	3895.28±42.33	1363/1361	MS, RI, S
Allyl thiocyanate	520.50±38.56	499.57±27.09	714.63±51.27	524.18±49.98	1562.81±78.40	1092.93±71.03	867.37±58.63	1447/1440	MS, RI
3-Butenyl isothiocyanate	5.42±1.04	5.39±0.97	-	303.38±25.90	-	6.36±1.42	-	1451/1453	MS, RI
Diglycolmonoethylether acetate	2.00±0.21	2.34±0.03	6.10±0.10	-	-	-	-	1684/N	MS
3-(Methylthio)propyl isothiocyanate	-	1.62±0.32	-	2.55±0.17	-	-	-	1938/1979	MS, S
Benzyl isothiocyanate	1.96±0.05	2.20±0.04	1.22±0.00	2.70±0.31	1.60±0.08	1.31±0.09	-	2097/2107	MS, RI, S
Phenylethyl isothiocyanate	98.42±5.46	186.67±29.30	86.61±15.21	227.92±40.10	52.46±9.66	71.78±12.35	8.26±1.28	2227/2234	MS, RI, S
<b>Sulfur-containing compounds (3)</b>									
Allyl mercaptan	1.47±0.01	3.33±0.04	2.35±0.55	-	-	-	-	886/887	MS, RI, S
Diallyl sulfide	-	1.09±0.20	1.36±0.36	-	8.75±2.01	6.00±0.18	1.92±0.02	1148/1148	MS, RI, S
Diallyl disulphide	-	-	-	-	2.34±0.15	-	-	1477/1475	MS, RI, S
<b>Nitriles (2)</b>									
3-Butenenitrile	90.13±14.45	18.5±3.22	87.72±10.13	-	4.68±0.99	3.16±0.25	52.78±7.66	1176/1186	MS, RI
Benzenepropanenitrile	86.58±17.30	11.17±3.21	21.91±2.05	11.59±1.60	2.23±0.07	1.43±0.01	22.10±2.19	2035/2041	MS, RI
<b>Ketones (3)</b>									
α-Turmerone	4.47±1.51	-	-	-	-	-	-	2183/2245	MS
β-Turmerone	2.76±0.03	-	-	-	-	-	-	2250/N	MS
ar-Turmerone	3.49±0.10	-	-	-	-	-	-	2262/N	MS
<b>Alkenes (3)</b>									

$\alpha$ -Zingiberene	3.79±0.52	-	-	-	289.04±36.17	-	-	1718/1715	MS, RI
(-)- $\beta$ -Sesquiphellandrene	4.20±0.96	-	-	-	-	-	-	1765/1765	MS, RI
Curcumene	2.33±0.12	-	-	-	-	-	-	1769/1768	MS, RI
<b>Others (7)</b>									
Carbon disulfide	28.22±4.32	143.4±11.60	136.91±18.94	16.37±0.92	184.56±24.22	88.93±8.40	39.42±5.14	730/733	MS, RI, S
Allyl chloride	8.16±1.98	9.40±2.00	20.00±3.34	3.11±0.41	9.16±0.39	5.33±0.72	7.41±1.63	806/814	MS, RI, S
Isothiazole	-	-	1.00±0.06	1.00±0.04	-	-	-	1214/N	MS
N-Allylacetamide	-	-	-	-	5.46±0.91	-	-	1761/N	MS
Hexanoic acid	-	1.71±0.01	-	3.41±0.06	-	-	3.30±0.26	1850/1850	MS, RI, S
3-Methylphenol	-	-	0.86±0.00	-	-	-	-	2087/2085	MS, RI, S
Dehydroacetic acid	-	-	-	-	-	31.90±0.80	-	2374/N	MS
<b>Total</b>	3430.83	3389.06	4491.3	3644.9	8628.4	6048.87	4901.67		

<sup>a</sup> "-": Not detected; <sup>b</sup> RI: retention index on a DB-WAX column, RI\*: retention index in literature; <sup>c</sup> "N": retention index was not found in the literature; <sup>d</sup> "MS" means qualitative by mass spectrometry, "RI" means qualitative by retention index, and "S" means qualitative by the standard.

**Table S2.** Odor activity values of volatiles in seven samples.

Compounds	OT (µg/g) <sup>a</sup>	Odor description	OAV <sup>b</sup>						
			MP 1	MP 2	MP 3	MP 4	MP 5	MP 6	MP 7
sec-Butylisothiocyanate	0.09	Green	37	49	- <sup>c</sup>	92	36	-	-
Allyl isothiocyanate	0.049	Pungent mustard, horseradish	52266	50948	69494	51844	132555	96624	79495
3-Butenyl isothiocyanate	0.017	/	319	317	-	17846	-	374	-
Diglycolmonoethylether acetate	0.19	/	11	12	32	-	-	-	-
3-(Methylthio)propyl isothiocyanate	0.65	Earthy, vegetable, sulfurous, horseradish	-	2	-	4	-	-	-
Benzyl isothiocyanate	0.035	Dusty, medicinal, horseradish, oily	56	63	35	77	46	37	-
Phenylethyl isothiocyanate	0.24	Green, horseradish, gooseberry, watercress	410	778	361	950	219	299	34
Allyl mercaptan	0.018	Alliaceous, sulfurous, garlic, onion, roasted	82	185	131	-	-	-	-
Diallyl sulfide	0.1	Sulfurous, onion, garlic, horseradish, metallic	-	11	14	-	88	60	19
Diallyl disulphide	0.03	Alliaceous, onion, garlic, metallic	-	-	-	-	78	-	-
Benzenepropanenitrile	0.015	Powerful nasturtium	5772	745	1461	773	149	95	1473
Carbon disulfide	0.005	/	5644	28680	27382	3274	36912	17786	7884
Allyl chloride	18.6	/	<1	<1	1	<1	<1	<1	<1
Hexanoic acid	3	Sour, fatty, sweat, cheese	-	<1	-	1	-	-	1
3-Methylphenol	0.015	Medicinal, woody, leather, phenolic	-	-	57	-	-	-	-

<sup>a</sup> Odor detection threshold in water according to reference Gemert, L. J. (2011); <sup>b</sup> OAV is the ratio of the concentration to threshold; <sup>c</sup> "-": Not detected.