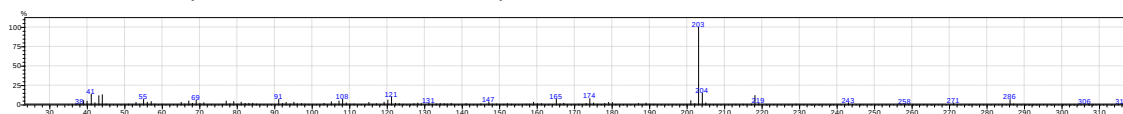
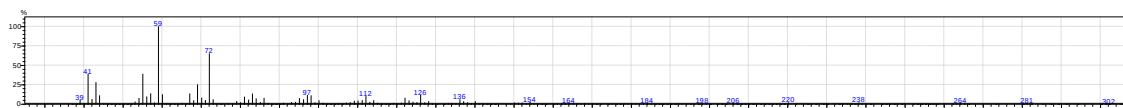


Suplementarny materials.

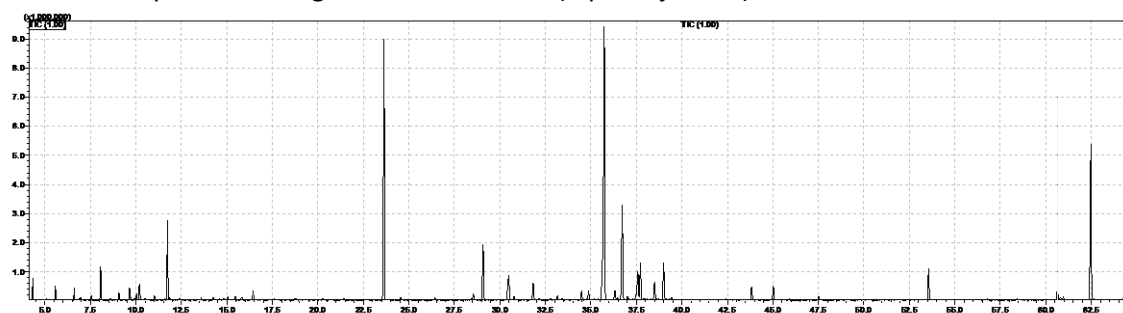
1. Data S1: EI-MS spectrum of unknown compound 1



2. Data S2: EI-MS spectrum of unknown compound 2:



3. Data S3: Sample chromatogram of essential oil (liquid injection)



4. Data S4: Sample chromatogram of aroma volatiles (SPME)

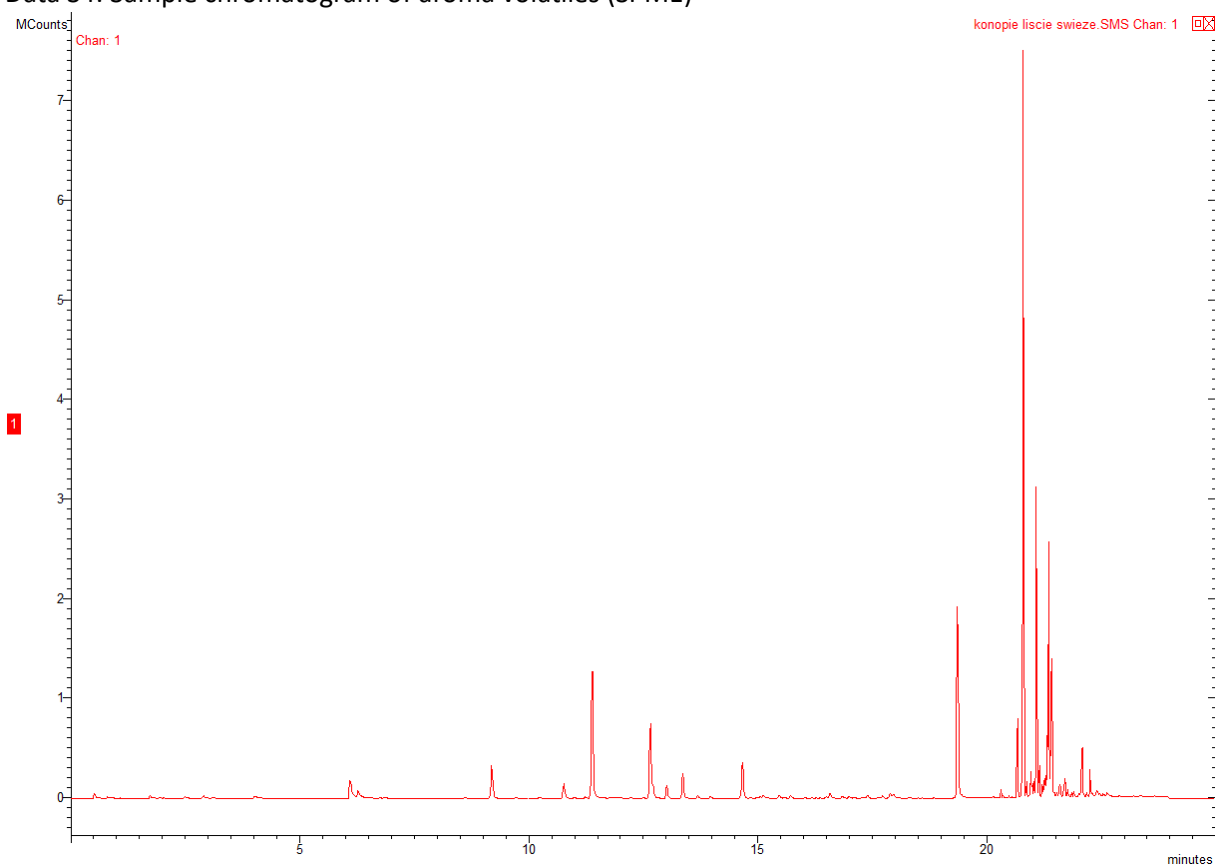


Table S1. Changes in aroma profile of hemp leaves according to various drying methods.

Compound	Fresh	CD50	CD60	CD70	240VMD	360VMD	480 VMD	CD60/VMD
		Content % ¹						
β -Myrcene	8.25 $\pm$ 1.09 ^{a,2}	11.96 $\pm$ 1.56 ^b	3.95 $\pm$ 0.77 ^c	1.62 $\pm$ 0.89 ^f	1.19 $\pm$ 0.44 ^g	1.30 $\pm$ 0.26 ^h	2.14 $\pm$ 0.46 ^e	2.47 $\pm$ 0.41 ^d
Limonene	5.47 $\pm$ 0.98 ^a	5.73 $\pm$ 0.68 ^b	1.95 $\pm$ 0.65 ^e	2.01 $\pm$ 0.66 ^e	0.95 $\pm$ 0.12 ^g	1.40 $\pm$ 0.32 ^f	4.78 $\pm$ 0.51 ^c	3.84 $\pm$ 0.89 ^d
Terpinolene	2.28 $\pm$ 0.045 ^a	1.32 $\pm$ 0.24 ^c	6.33 $\pm$ 0.89 ^d	3.34 $\pm$ 0.41 ^b	6.38 $\pm$ 1.43 ^d	9.53 $\pm$ 1.45 ^e	12.29 $\pm$ 1.39 ^g	10.36 $\pm$ 1.06 ^f
Isocaryophyllene	3.86 $\pm$ 0.78 ^a	1.95 $\pm$ 0.21 ^f	2.32 $\pm$ 0.41 ^d	2.09 $\pm$ 0.16 ^e	1.13 $\pm$ 0.17 ^h	1.64 $\pm$ 0.98 ^g	2.59 $\pm$ 0.35 ^c	3.08 $\pm$ 0.86 ^b
(<i>E</i>)- β -Caryophyllene	30.95 $\pm$ 3.53 ^a	18.03 $\pm$ 1.86 ^d	14.90 $\pm$ 1.01 ^e	13.24 $\pm$ 1.06 ^f	21.43 $\pm$ 2.42 ^b	20.69 $\pm$ 1.78 ^c	9.11 $\pm$ 1.36 ^g	7.10 $\pm$ 1.36 ^h
α -Humulene	11.22 $\pm$ 1.42 ^a	5.50 $\pm$ 1.06 ^d	5.26 $\pm$ 1.08 ^e	5.04 $\pm$ 0.26 ^f	7.45 $\pm$ 1.45 ^b	7.16 $\pm$ 1.24 ^c	4.11 $\pm$ 0.98 ^g	3.92 $\pm$ 1.05 ^h
β -Selinene	8.95 $\pm$ 0.98 ^a	1.21 $\pm$ 0.24 ^h	1.89 $\pm$ 0.33 ^e	2.05 $\pm$ 0.11 ^d	1.78 $\pm$ 1.06 ^f	1.50 $\pm$ 0.98 ^g	2.35 $\pm$ 0.44 ^c	2.84 $\pm$ 0.76 ^b
α -Selinene	7.00 $\pm$ 1.04 ^a	1.51 $\pm$ 0.33 ^g	2.07 $\pm$ 0.21 ^e	2.15 $\pm$ 0.48 ^d	1.19 $\pm$ 0.13 ^h	1.81 $\pm$ 0.34 ^f	2.33 $\pm$ 0.56 ^c	2.80 $\pm$ 0.44 ^b

¹ Calculated by peak area normalization according to internal standard; ² Values followed by the same letters are not statistically different (Tukey's test, $p > 0.05$)

Table S2. Changes in essential oils profile of hemp leaves according to various drying methods.

Compound	Fresh	CD50	CD60	CD70	240VMD	360VMD	480 VMD	CD60/VMD
	Content % ¹							
Limonene	4.67±0.27 ^{a,2}	0.46±0.06 ^c	0.45±0.11 ^c	0.170±0.06 ^d	1.26±0.03 ^b	1.06±0.13 ^b	0.41±0.22 ^c	0.49±0.09 ^c
Caryophyllene	33.18±1.41 ^a	20.76±0.99 ^b	12.50±1.03 ^f	10.19±1.41 ^g	13.76±1.22 ^{ef}	16.58±1.88 ^d	14.32±1.29 ^e	21.12±2.11 ^c
Humulene	3.57±0.21 ^a	9.96±1.01 ^g	6.40±0.77 ^c	4.85±0.35 ^b	6.79±0.41 ^d	7.80±0.49 ^e	7.40±0.54 ^e	8.28±0.48 ^f
Caryophyllene oxide	4.65±0.41 ^a	13.44±0.89 ^e	11.38±0.99 ^{cd}	8.92±0.56 ^b	11.93±1.01 ^d	10.21±1.21 ^c	13.82±1.46 ^e	11.18±1.03 ^{cd}
Humulene epoxide II	8.25±0.22 ^a	5.61±0.24 ^b	4.57±0.46 ^d	3.46±0.43 ^f	4.94±0.51 ^c	4.21±0.49 ^e	5.72±1.87 ^b	4.40±0.59 ^{ed}
Caryophylla-4(12),8(13)-dien-5 α -ol	2.02±0.11 ^a	8.16±0.36 ^b	12.14±0.78 ^c	8.24±0.78 ^b	9.80±0.43 ^b	9.80±0.87 ^b	8.75±0.98 ^b	8.96±0.49 ^b
14-hydroxy- <i>cis</i> -Caryophyllene	2.71±0.23 ^a	5.81±0.16 ^b	7.41±0.66 ^c	5.87±0.66 ^b	7.12±0.51 ^c	6.19±0.66 ^b	6.00±0.43 ^b	6.00±0.78 ^b
14-hydroxy-9- <i>epi-trans</i> -Caryophyllene	3.16±0.14 ^a	5.36±0.14 ^b	7.20±0.41 ^e	5.43±0.89 ^b	6.66±0.44 ^{de}	5.63±0.48 ^{bc}	6.23±0.47 ^{cd}	5.57±0.44 ^{bc}
TOTAL (mg/100g) d.w. ³	166.13	28.13	31.15	27.51	27.12	47.75	48.02	59.95
% recovery of EOs	100	16.93	18.75	16.55	16.32	28.56	28.91	36.08

¹ Calculated by peak area normalization according to internal standard; ² Values followed by the same letters are not statistically different (Tukey's test, $p > 0.05$)

Table S3. Changes in cannabinoids and triterpenoids profile of hemp leaves according to various drying methods.

Compound, TMS	ANOVA	Fresh	CD50	CD60	CD70	240VMD	360VMD	480 VMD	CD60/VMD
Concentration (mg g ⁻¹) ¹									
CBD	NS ²	2.19±0.27	1.98±0.12	1.87±0.13	1.88±0.24	1.89±0.65	2.01±0.14	2.08±0.12	1.95±0.33
CBC	NS	0.05±0.01	0.06±0.02	0.06±0.02	0.08±0.02	0.07±0.03	0.07±0.03	0.08±0.03	0.05±0.01
Δ ⁸ -THC-d ₈	NS	0.02±0.01	0.03±0.01	0.03±0.01	0.03±0.01	0.04±0.01	0.04±0.01	0.04±0.01	0.04±0.01
Δ ⁹ -THC-d ₉	NS	0.25±0.09	0.21±0.09	0.23±0.04	0.27±0.06	0.28±0.09	0.25±0.12	0.28±0.08	0.24±0.06
CBG	NS	0.09±0.01	0.07±0.03	0.08±0.02	0.10±0.04	0.08±0.02	0.14±0.09	0.10±0.04	0.09±0.03
CBN	NS	0.04±0.02	0.02±0.01	0.02±0.01	0.03±0.01	0.03±0.01	0.03±0.01	0.03±0.01	0.02±0.01
CBDA	NS	6.05±0.56	5.48±0.36	5.65±0.25	5.74±0.29	5.79±0.54	5.62±0.36	5.61±0.24	5.85±0.44
THCA	NS	0.63±0.09	0.59±0.08	0.67±0.12	0.60±0.08	0.55±0.14	0.48±0.24	0.49±0.07	0.52±0.06
CBGA	NS	0.19±0.08	0.20±0.09	0.23±0.07	0.20±0.15	0.17±0.05	0.19±0.11	0.16±0.04	0.14±0.03
TOTAL		9.51	8.64	8.84	8.93	8.90	8.83	8.87	8.90

¹Data are relative concentrations expressed per internal standard; ² NS – not statistically different.

Table S4. Changes in sterols profile of hemp leaves according to various drying methods.

Compound, TMS	ANOVA	Fresh	CD50	CD60	CD70	240VMD	360VMD	480 VMD	CD60/VMD
		Concentration ($\mu\text{g g}^{-1}$) ¹							
Campesterol	NS ²	97.90±1.43	100.37±3.13	86.70±2.18	92.27±2.47	93.22±3.27	108.87±3.46	107.33±3.57	104.11±4.12
Stigmasterol	NS	44.51±1.27	36.31±1.22	35.26±1.05	49.23±1.47	33.39±1.89	43.27±1.56	51.22±2.54	50.51±3.44
β -Sitosterol	NS	534.11±17.32	515.77±15.26	421.81±13.27	448.79±15.28	527.28±19.20	444.21±18.26	414.75±17.29	371.27±18.26
β -Amyrin	NS	65.96±2.48	40.68±1.45	60.41±2.10	64.33±1.99	49.50±1.79	60.41±2.48	65.12±4.99	56.53±2.56
Isofucosterol	NS	41.38±2.37	40.56±1.88	44.94±1.24	47.94±2.37	38.27±2.18	47.31±2.66	46.65±4.01	50.64±3.31
α -Amyrin	NS	61.07±2.11	65.91±1.36	72.09±1.56	73.80±3.11	67.42±2.14	70.45±3.56	73.15±4.19	73.26±4.28
Lupeol	NS	97.45±1.77	90.30±2.87	94.21±3.99	90.78±4.37	82.49±3.19	84.80±3.59	96.59±3.89	101.87±5.22
TOTAL		855.38	889.9	815.42	867.14	891.57	869.32	874.81	808.19

¹Data are relative concentrations expressed per internal standard; ² NS – not statistically different.