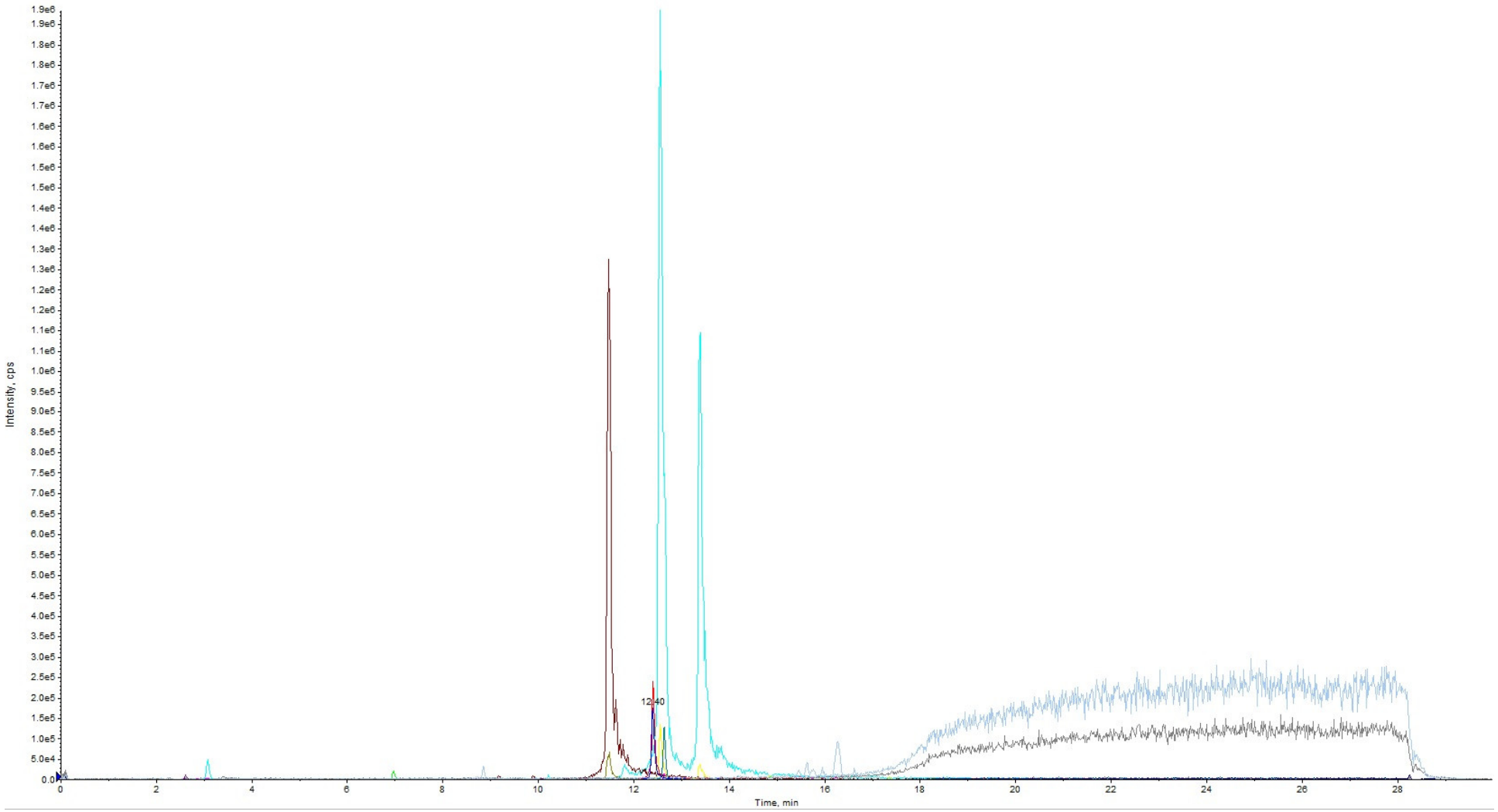
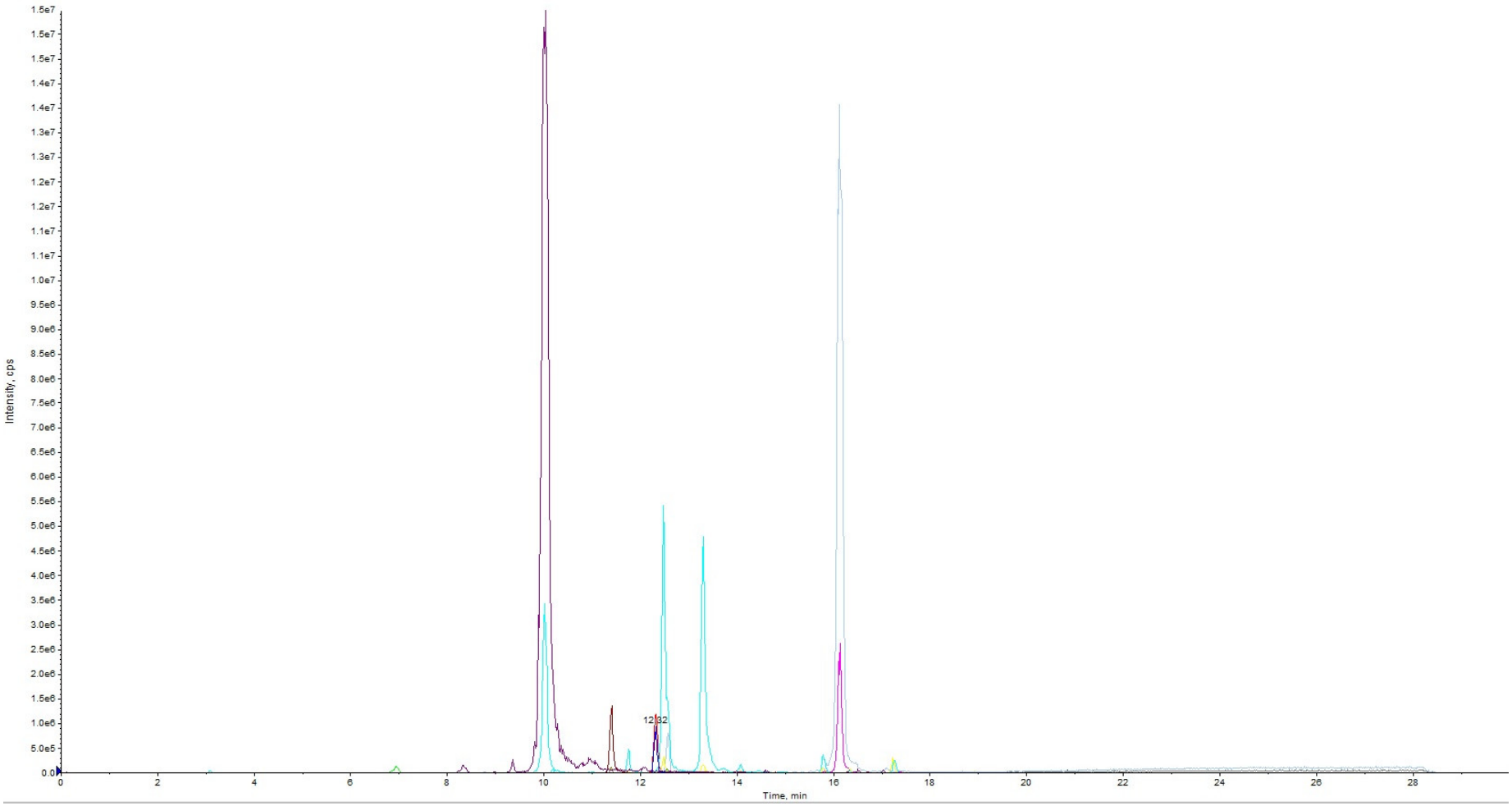
Table S1. Model statistics for prediction of compositional parameters of rosemary extracts based on the NIR spectra.

Models	Wavelength (nm)	Observed parameter	Parameters of model efficiency			
			R^2	RMSE	RPD	RER
MODEL 1	904-1699	TPC	0.999	0.227	3.888	14.576
		FRAP	0.993	50.404	2.168	10.288
		DPPH	0.997	0.545	3.399	12.972
MODEL 2	1349-1699	TPC	0.994	2.869	2.359	8.515
		FRAP	0.987	4543.942	0.024	0.114
		DPPH	0.995	0.732	2.531	9.658
MODEL 3	904-932,1349-1699	TPC	0.996	2.307	2.935	10.589
		FRAP	0.993	50.446	2.166	10.2797
		DPPH	0.997	0.54	3.431	13.093
MODEL 4	904-932	TPC	0.432	5.74	1.182	4.255
		FRAP	0.150	113.073	0.966	4.586
		DPPH	0.685	1.167	1.588	6.063

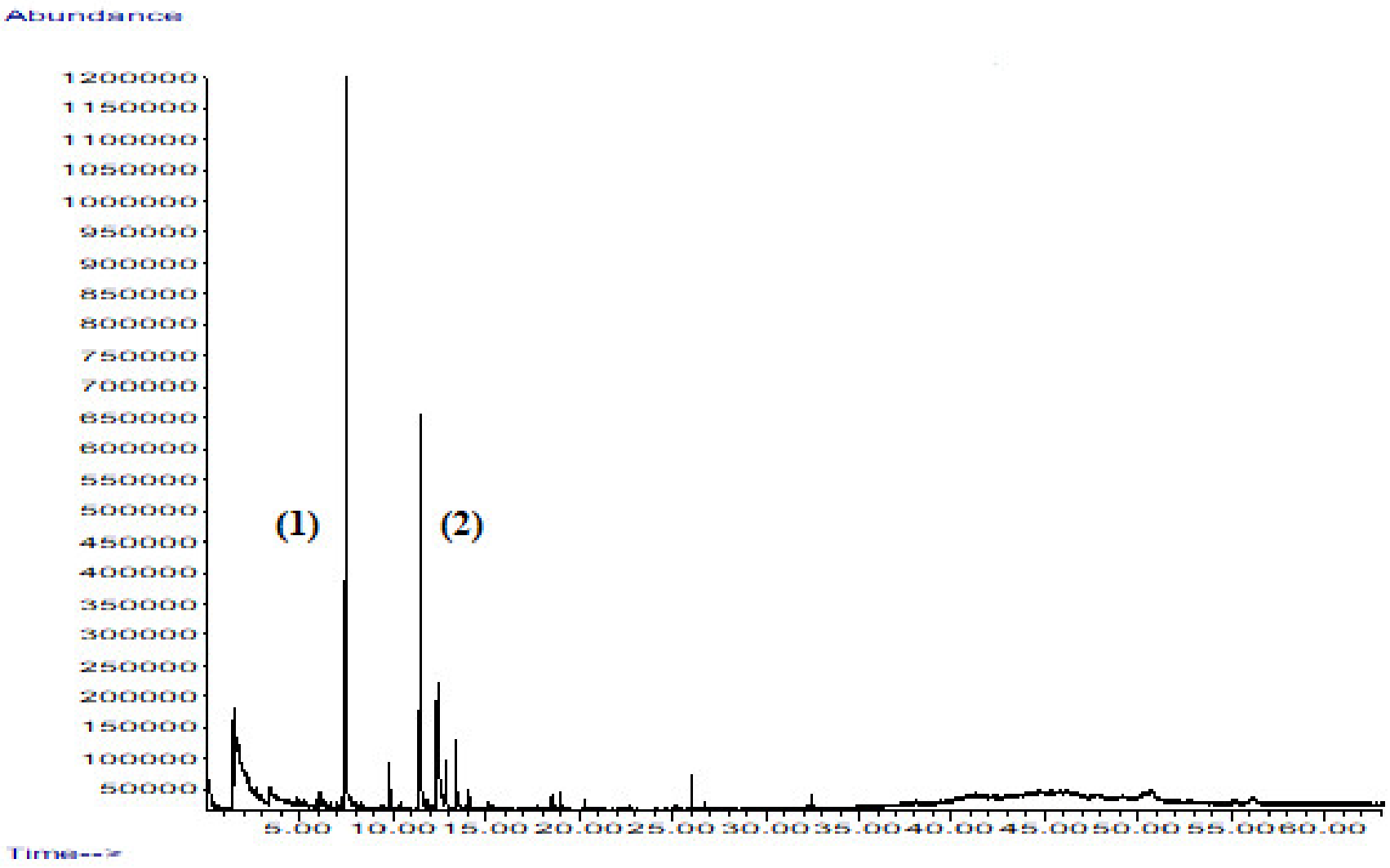

Intensity, cps
1.9e6
1.9e6
1.8e6
1.8e6
1.7e6
1.7e6
1.6e6
1.6e6
1.5e6
1.5e6
1.4e6
1.4e6
1.3e6
1.3e6
1.2e6
1.2e6
1.1e6
1.1e6
1.0e6
9.5e5
9.0e5
8.5e5
8.0e5
7.5e5
7.0e5
6.5e5
6.0e5
5.5e5
5.0e5
4.5e5
4.0e5
3.5e5
3.0e5
2.5e5
2.0e5
1.5e5
1.0e5
5.0e4
0.0
12.40
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
Time, min

a)

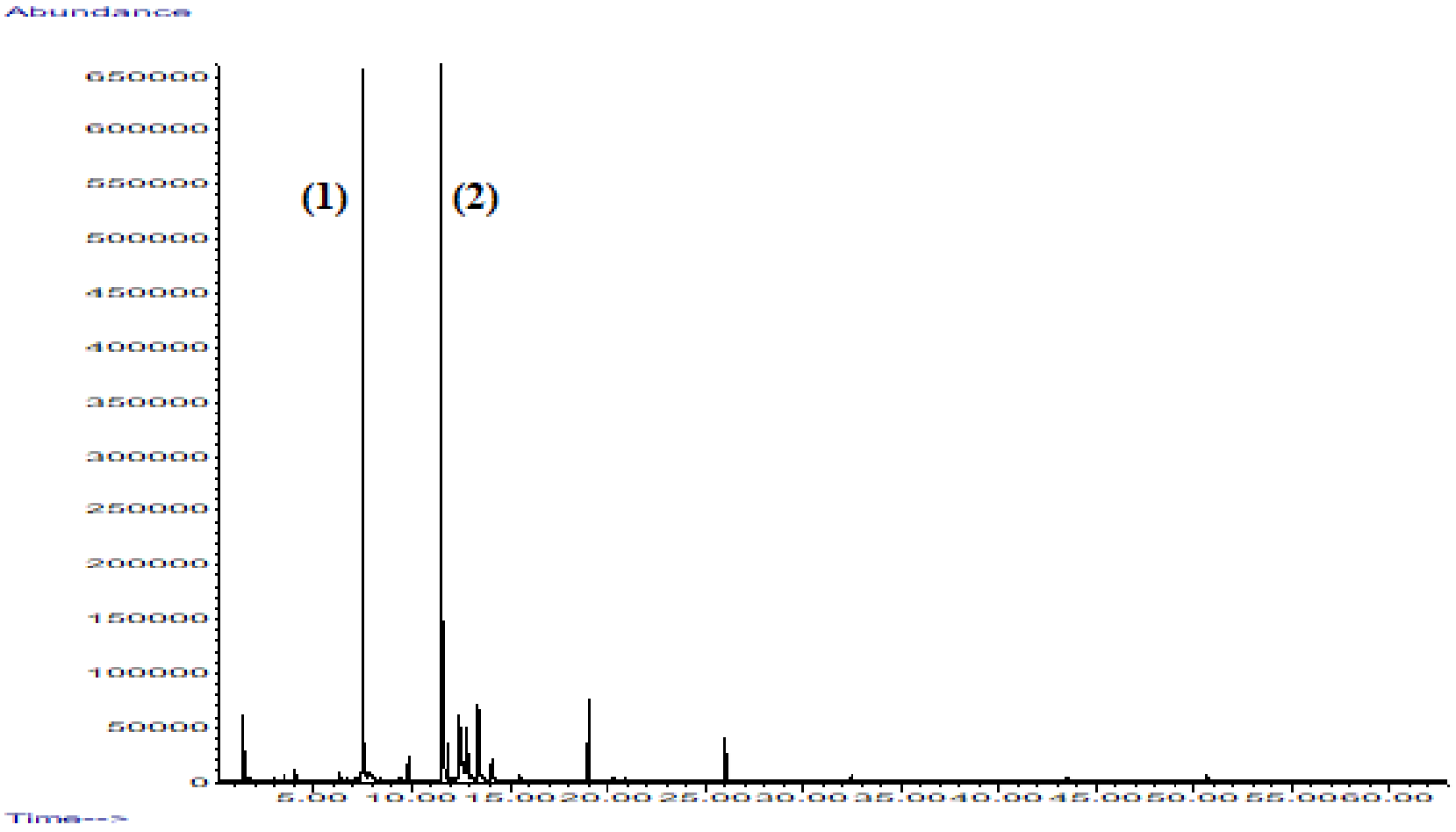


b)

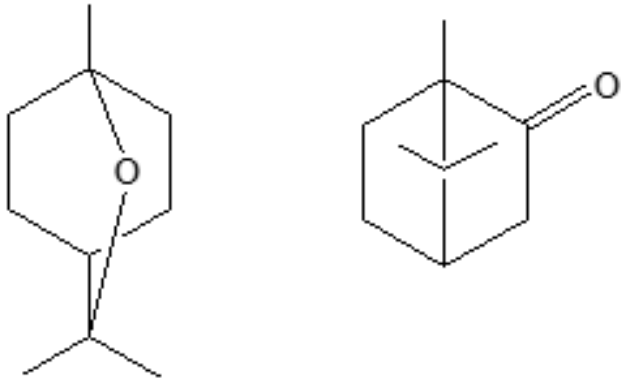
Figure S1. UPLC-MS/MS chromatograms of representative extracts: a) CE (sample 3 R25), and b) HVED (sample RN9).


Abundance
12000000
11500000
11000000
10500000
10000000
9500000
9000000
8500000
8000000
7500000
7000000
6500000
6000000
5500000
5000000
4500000
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
(1)
(2)
5.00
10.00
15.00
20.00
25.00
30.00
35.00
40.00
45.00
50.00
55.00
60.00
Time-->

a)


Abundance
650000
600000
550000
500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0
(1)
(2)
5.00
10.00
15.00
20.00
25.00
30.00
35.00
40.00
45.00
50.00
55.00
60.00
Time-->

b)



1,8-Cineole **(1)** Camphor **(2)**

c)

Figure S2. UPLC-MS/MS chromatograms of representative extracts: a) CE (sample 3 R0), and b) HVED (sample RA10), and c) chemical structure of main detected compounds

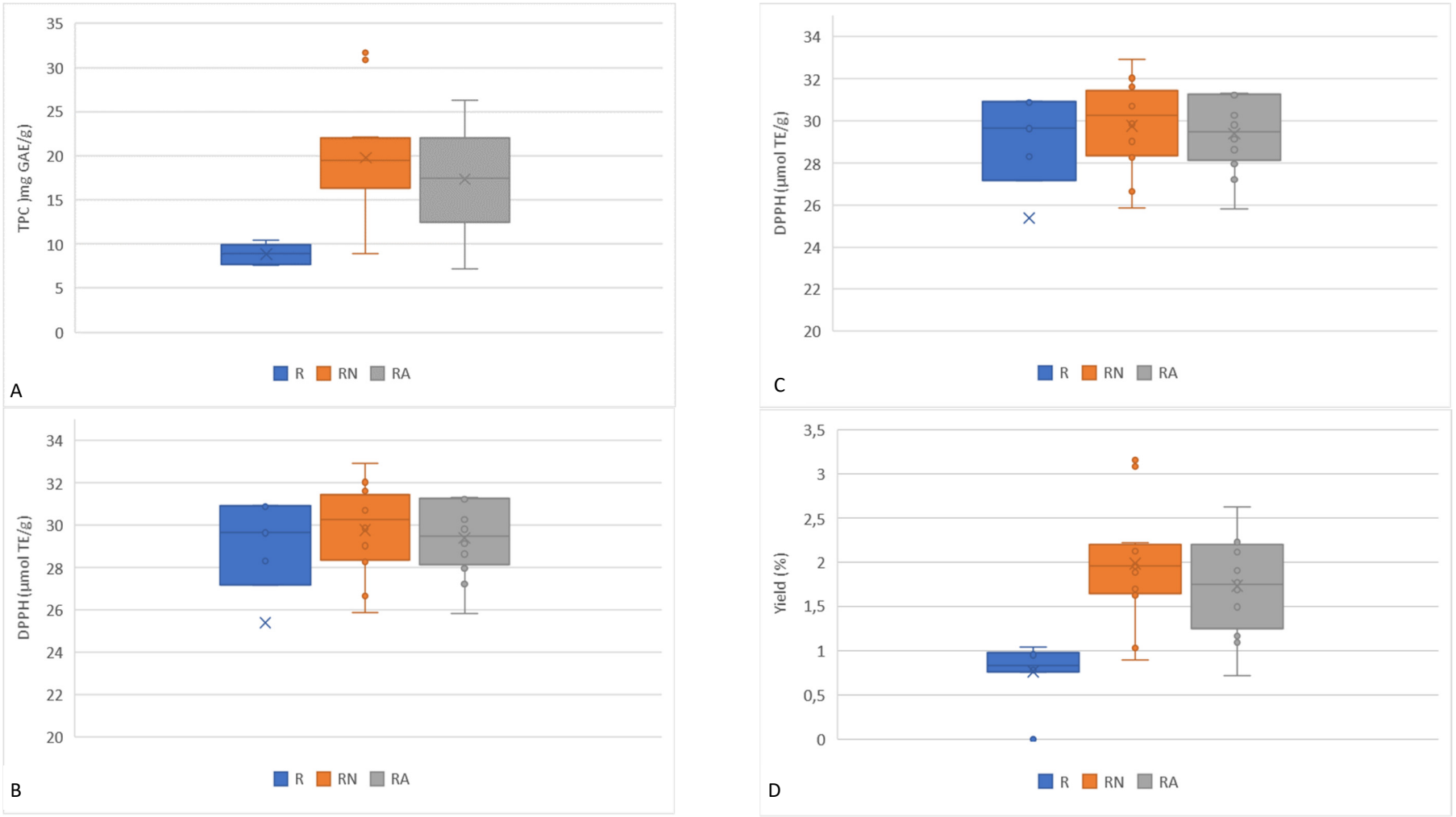


Figure S3. Box plots for the A) content of total phenols; antioxidant activity of the samples conducted by the B) DPPH and C) FRAP method and the D) yield for samples treated by CE (R) and HVED (RN & RA).

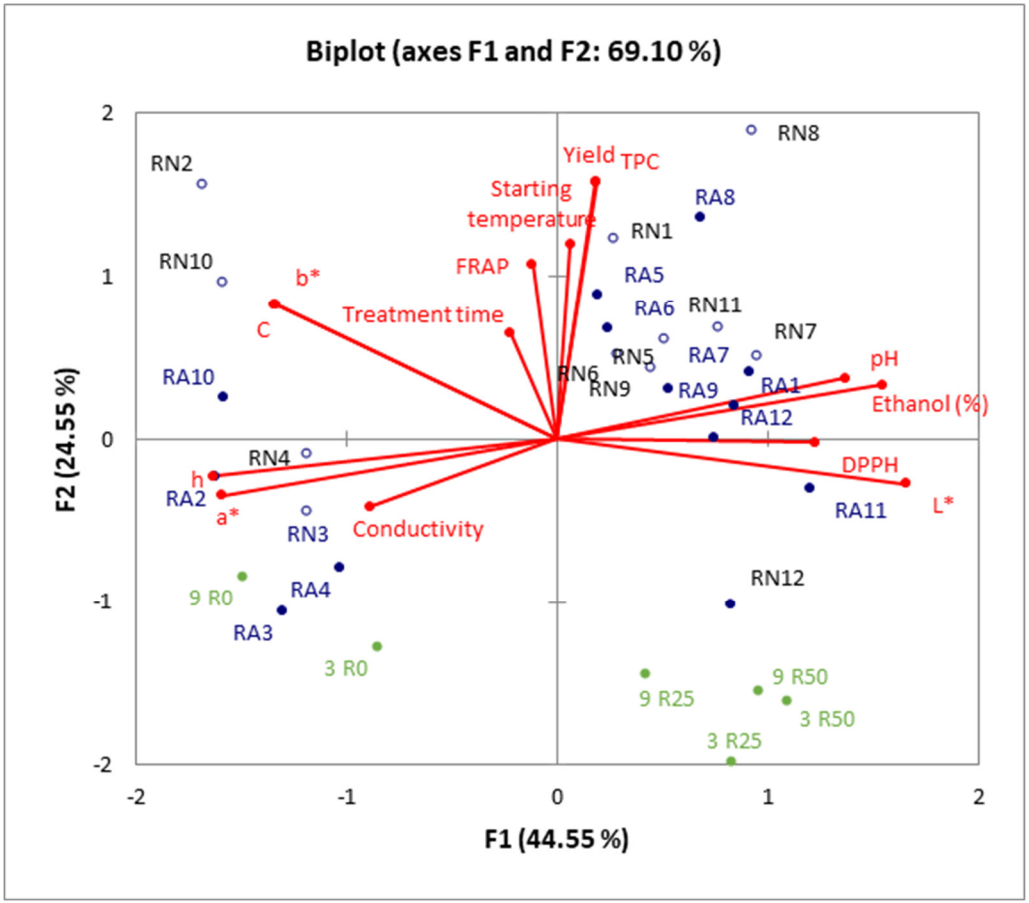


Figure S4. PCA biplot for different extraction types (CE: R; HVED; RN & RA)