Electronic Supplementary Material (ESI) for Analytical Methods.

Supplementary material

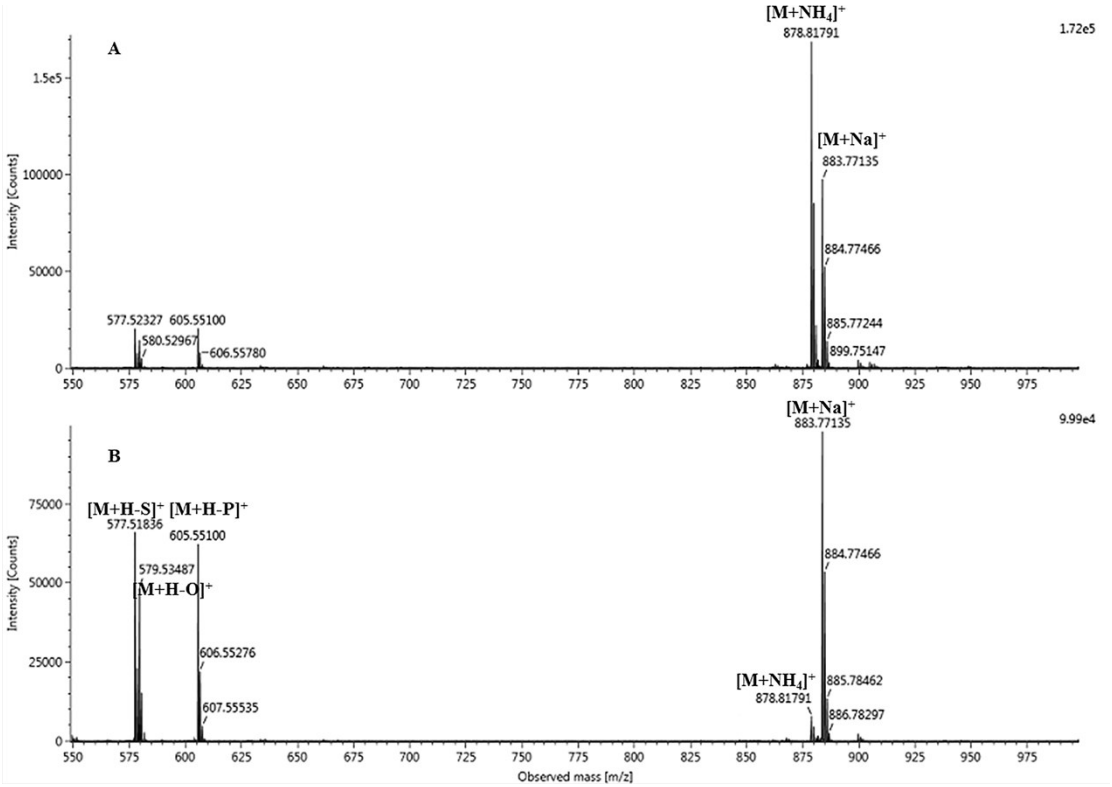

Fig. S1. MS spectra of S-O-P. (A) MS^1 spectrum and (B) MS^2 spectrum.

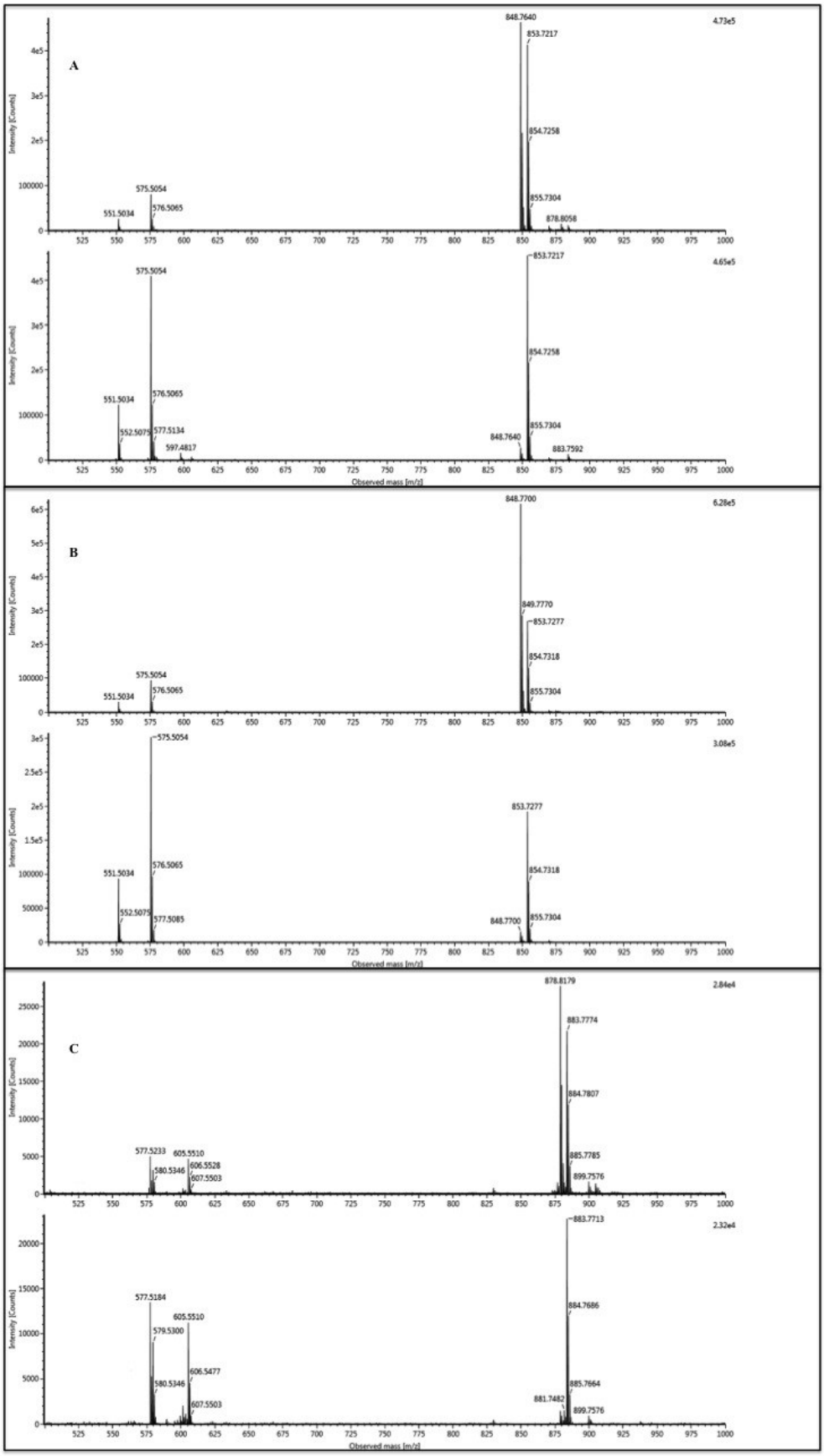

Fig. S2 Mass chromatogram of co-elution peaks of P-L-P and S-O-P on BEH column (A), mass chromatogram of P-L-P on BEH 2-EP (B) and S-O-P on BEH 2-EP (C).

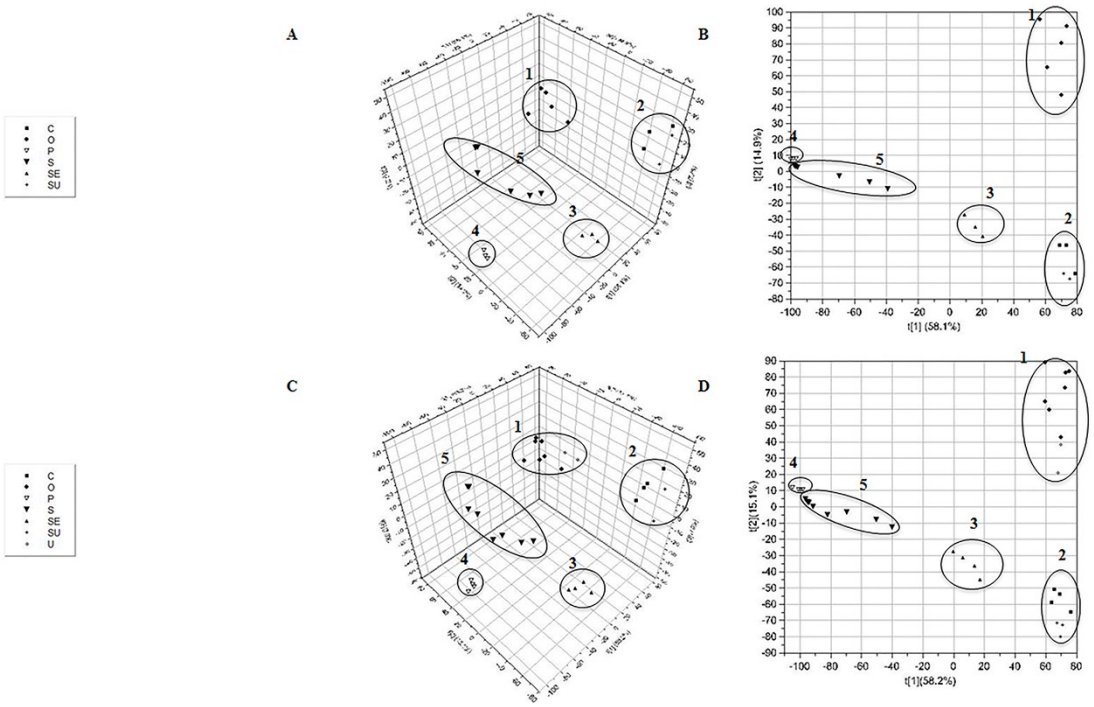

Fig. S3. Internal (A, B) of PCA model with 22 objects selected in original 31 oil samples, including 5 olive oils (O), 3 corn oils (O), 2 sunflower seed oils (SU), 3 sesame oils (SE), 3 peanut oils (P) and 6 soybean oils (S); External validation (C, D) of PCA model using original 31 objects as well as two new olive oils (U).

Table S1 F-value and p-value of 66 variables from ANOVA

Variables	t_R (min)	*m/z*	F-value	p-value	Variables	t_R (min)	*m/z*	F-value	p-value
1	9.87	877.7979	183.382	0	34	10.88	898.8668	20.541	0
2	11.03	965.9456	140.592	0	35	9.20	883.8514	19.521	0
3	11.51	961.9132	108.614	0	36	11.55	897.7668	19.242	0
4	10.63	900.8816	68.834	0	37	10.76	601.5753	19.238	0
5	9.68	874.8600	68.487	0	38	10.37	870.8213	19.033	0
6	11.10	896.7988	66.095	0	39	10.76	903.7654	18.919	0
7	10.05	902.8979	62.821	0	40	8.67	855.7589	15.069	0
8	9.49	876.8788	55.520	0	41	11.27	958.9703	13.702	0
9	9.50	909.8028	55.094	0	42	9.40	876.8162	12.959	0
10	10.82	903.8079	54.452	0	43	8.74	855.8164	12.146	0
11	10.98	901.7519	53.803	0	44	11.19	896.8420	11.911	0
12	9.78	879.8178	49.080	0	45	11.39	899.7843	10.557	0
13	10.72	937.9095	49.066	0	46	10.46	900.8577	9.973	0
14	8.97	853.7994	46.206	0	47	9.88	872.8461	9.805	0
15	10.74	898.8120	40.488	0	48	10.29	875.7837	9.098	0
16	11.10	879.8111	40.453	0	49	11.91	989.9481	8.454	0
17	10.25	907.8552	39.840	0	50	9.11	883.7873	7.522	0
18	9.32	881.7761	36.583	0	51	9.59	874.8149	7.151	0
19	10.07	907.7878	33.560	0	52	11.21	599.5491	6.988	0
20	8.87	848.8416	33.380	0	53	11.04	901.7771	6.513	0.001
21	9.87	872.7970	33.286	0	54	11.67	991.9661	6.360	0.001
22	11.51	956.9529	33.044	0	55	8.89	853.7561	6.232	0.001
23	11.28	963.9295	31.709	0	56	11.21	901.8001	6.145	0.001
24	10.53	905.7789	30.363	0	57	10.53	900.8225	6.062	0.001
25	9.80	909.8690	26.256	0	58	10.71	900.8782	5.692	0.001
26	11.30	931.8629	25.861	0	59	9.29	881.7682	4.584	0.004
27	9.87	877.7589	25.095	0	60	9.94	872.8255	4.447	0.005
28	9.29	879.7634	23.785	0	61	10.83	898.8418	4.163	0.007
29	11.10	901.8017	22.516	0	62	11.21	896.8459	4.025	0.008
30	9.39	881.8365	21.767	0	63	9.17	883.8300	3.723	0.012
31	11.46	894.8222	21.641	0	64	9.00	851.7717	2.753	0.041
32	10.65	905.8391	20.852	0	65	10.14	907.8074	2.752	0.041
33	10.79	903.8238	20.738	0	66	9.95	893.7737	2.694	0.044