

# Hydrophilic Interaction Liquid Chromatography to Characterize Nutraceuticals and Food Supplements based on Flavanols and Related Compounds

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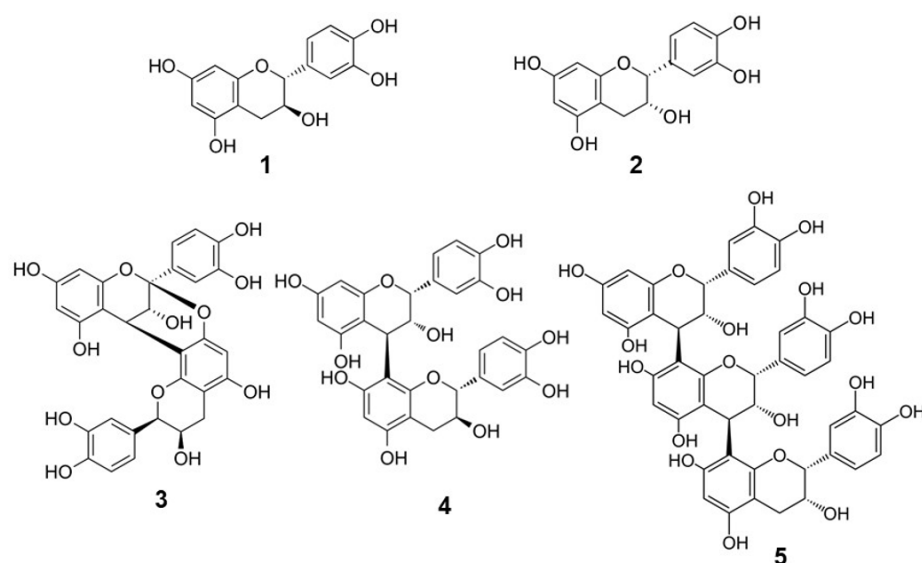
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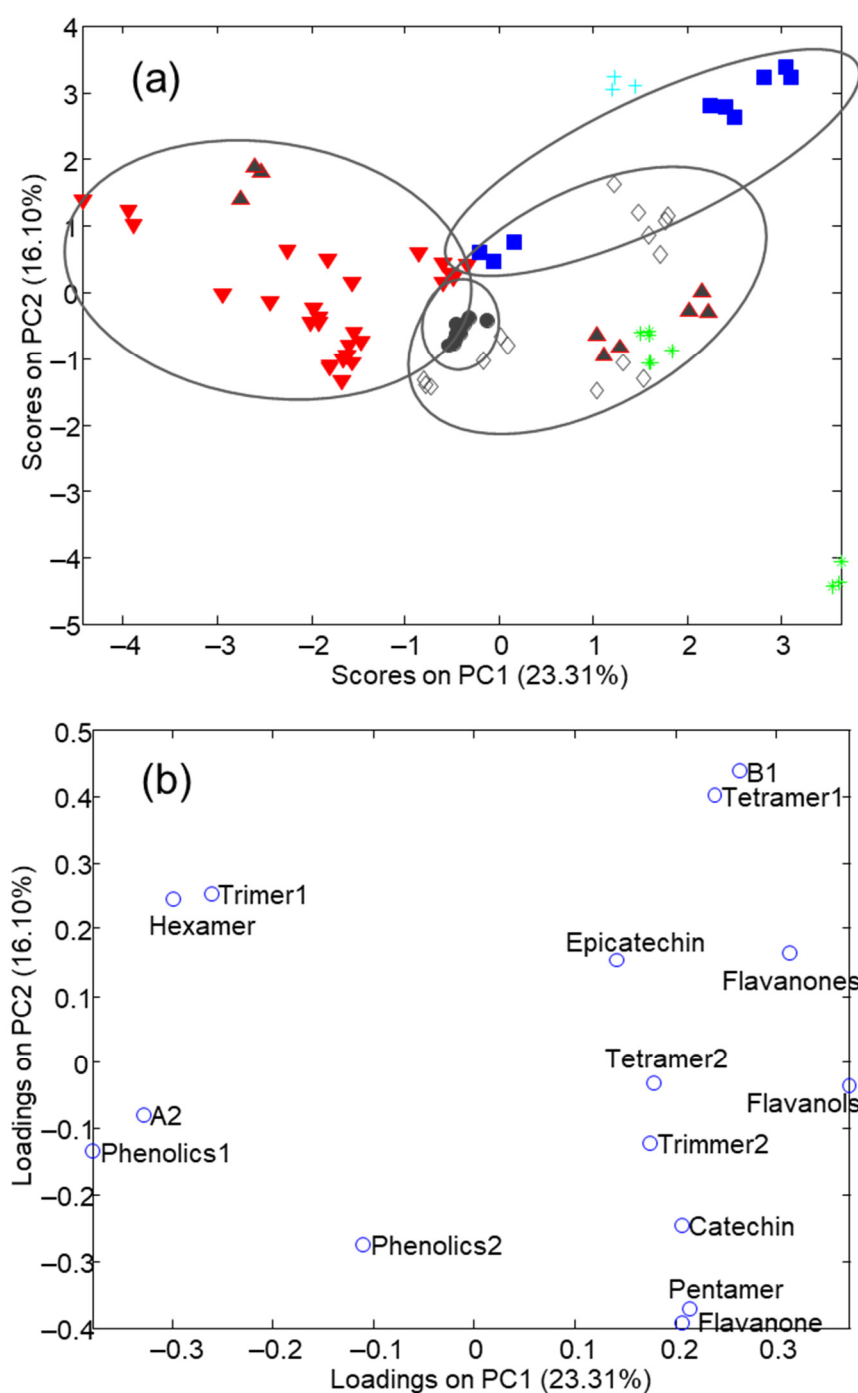
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**Table S1.** Peak features of selected compounds from estimated form the analysis of the QC samples ( $n = 10$ ).

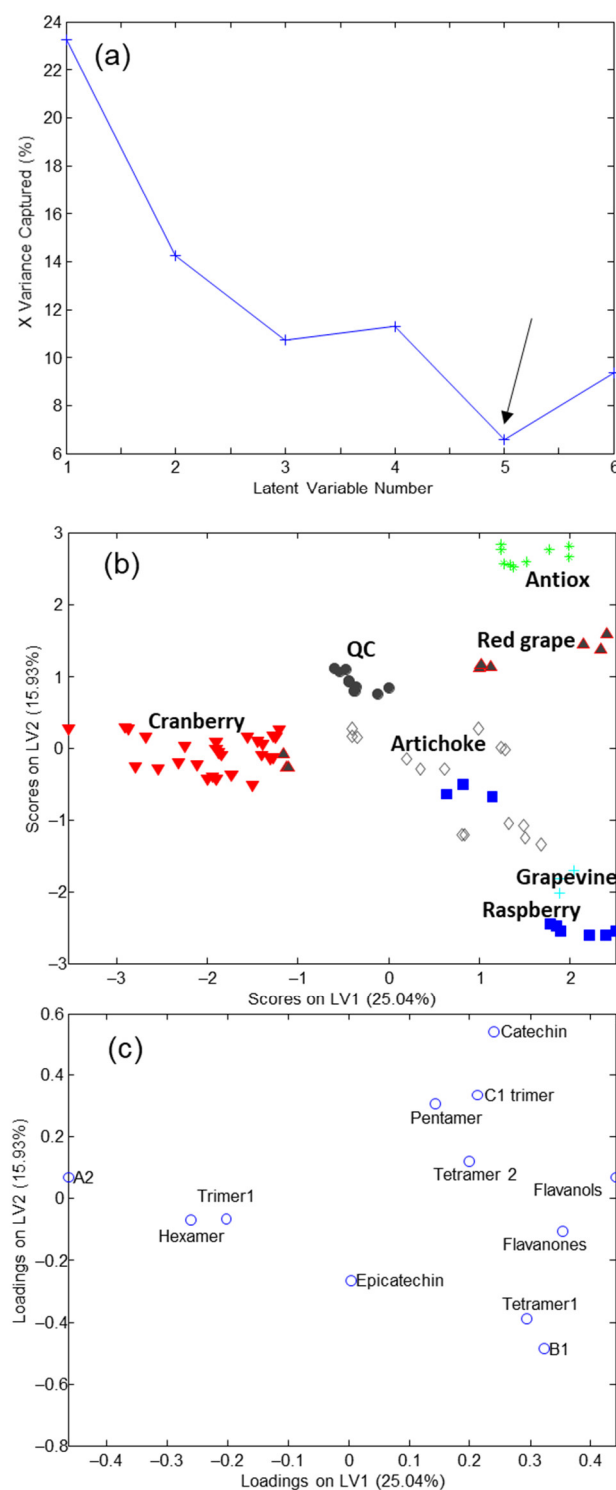
Compounds	Retention time (min)	Retention time RSD (%)	Peak area RSD (%)
Phenolic acids	4.0	0.5	2.6
Phenolic acids	4.8	0.9	2.0
Flavanones	5.9	0.9	9.2
Flavanols	7.0	0.2	4.6
Catechin	9.3	0.4	2.2
Epicatechin	9.8	0.8	1.3
Procyanidin A2	10.5	0.5	3.2
Procyanidin B2	11.9	1.0	6.8
Flavanone glycosides	13.3	0.5	5.5
Trimer1	14.9	0.5	4.9
Procyanidin C1 (trimer2)	15.7	0.2	3.2
Tetramer1	18.7	0.9	9.0
Tetramer2	19.8	0.8	21
Pentamers	22.8	0.8	38
Hexamers	25.3	0.8	20



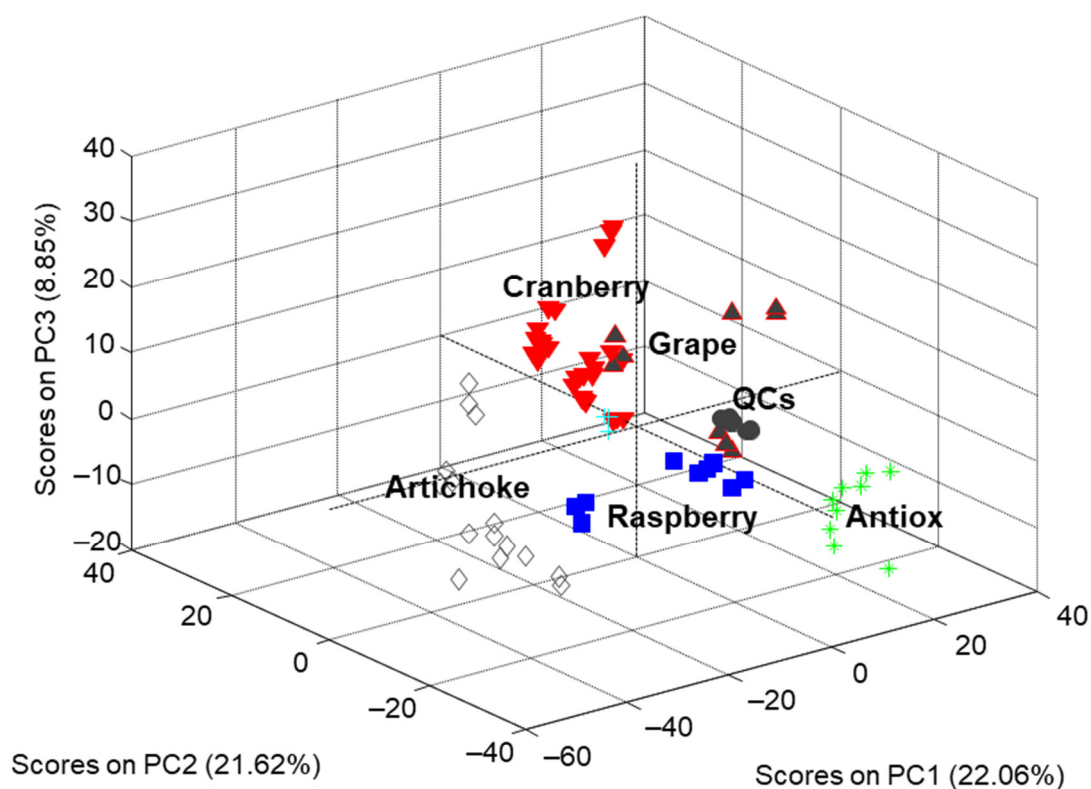
**Figure S1.** Scheme of some relevant analytes. 1 = catechin; 2 = epicatechin; 3 = procyanidin A2; 4 = procyanidin B2; 5 = procyanidin C1.



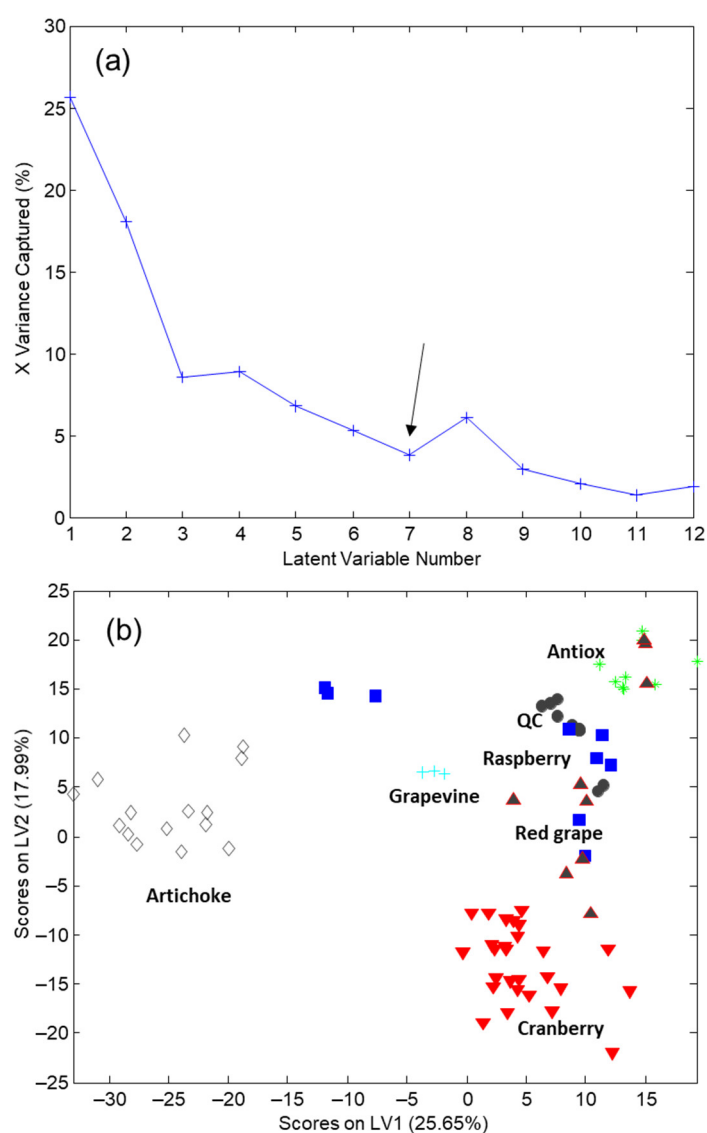
**Figure S2.** Characterization of nutraceuticals and dietary supplements by PCA using the compositional profiles of all relevant peaks as the data. **(a)** Scatter plot of scores of PC1 vs. PC2; **(b)** scatter plot of loadings of PC1 vs. PC2. Sample assignment: triangle (**vertex down**) = cranberry; triangle (**vertex up**) = red grape; **rhombus** = artichoke; **cross** = grapevine; **square** = raspberry; **asterisk** = antiox; **circle** = QCs.



**Figure S3.** Characterization of nutraceuticals and dietary supplements by PLS-DA using the compositional profiles of flavanols as the data. (a) Estimation of the number of latent variables by Venetian blinds cross validation (arrow indicates the selected number of LVs which provides the minimum prediction error); (b) scatter plot of scores of PC1 vs. PC2; (c) scatter plot of loadings of PC1 vs. PC2. Sample assignment: see Figure S2.



**Figure S4.** Scatter plot of scores of PC1 vs. PC2 vs. PC3 for the characterization of nutraceuticals and dietary supplements by PCA using the chromatographic fingerprints in the time range 3.5–25.5 min as the data. Sample assignation: see Figure S2.



**Figure S5.** Characterization of nutraceuticals and dietary supplements by PLS-DA using the chromatographic fingerprints in the time range 6.2–12 min as the data. (a) Estimation of the number of latent variables by Venetian blinds cross validation (arrow indicates the selected number of LVs which provides the minimum prediction error); (b) scatter plot of scores of PC1 vs. PC2. Sample assignation: see Figure S2.