

Supplementary Information

Simultaneous Determination of Different Phenolic Compounds Using Electrochemical Biosensor and Multivariate Calibration

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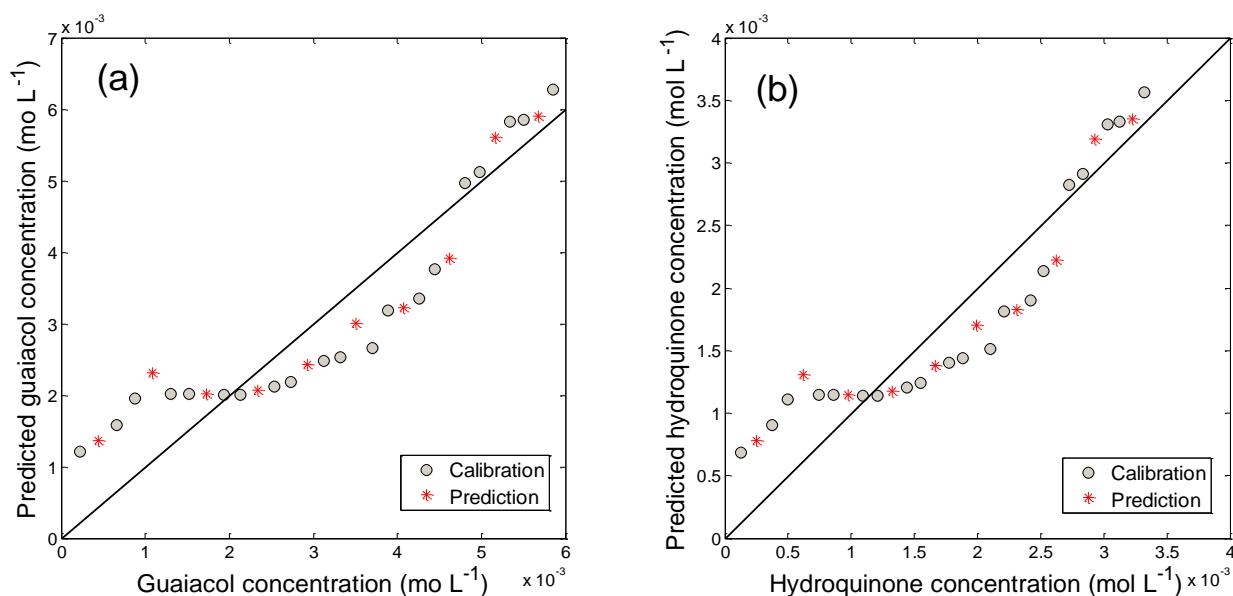


Figure S1. Relation between the reference values and predicted by univariate linear regression model using the oxidation peak for: (a) guaiacol and (b) hydroquinone. The dataset of samples used to construct the univariate model was the same as for the PLS multivariate model.

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Table S1. Results of the univariate linear regression models using the oxidation peak to determine guaiacol and hydroquinone concentration

Parameter	Guaiacol	Hydroquinone
RMSEC / (mol L ⁻¹)	6.62×10^{-4}	3.76×10^{-4}
R ² calibration	0.8448	0.8451
RMSEP / (mol L ⁻¹)	6.70×10^{-4}	3.80×10^{-4}
R ² prevision	0.8415	0.8415

Table S2. Guaiacol and hydroquinone contents in the samples used in the calibration and prediction of the PLS model

Sample	Guaicol / (mmol L ⁻¹)	Hydroquinone / (mmol L ⁻¹)
C1	0.2231	0.1277
C2	0.6625	0.3762
C3	0.8790	0.4999
C4	1.305	0.7415
C5	1.517	0.8610
C6	1.931	1.096
C7	2.135	1.212
C8	2.538	1.441
C9	2.737	1.554
C10	3.129	1.776
C11	3.322	1.886
C12	3.703	2.102
C13	3.890	2.209
C14	4.261	2.419
C15	4.444	2.523
C16	4.804	2.728
C17	4.982	2.838
C18	5.335	3.028
C19	5.505	3.126
C20	5.850	3.320
P1	0.4440	0.2520
P2	1.090	0.6210
P3	1.725	0.9790
P4	2.338	1.327
P5	2.934	1.666
P6	3.513	1.994
P7	4.076	2.314
P8	4.625	2.626
P9	5.160	2.929
P10	5.680	3.226