Supplementary data for article:

Mehmeti, E.; Stanković, D. M.; Ortner, A.; Zavašnik, J.; Kalcher, K. Highly Selective Electrochemical Determination of Phlorizin Using Square Wave Voltammetry at a Boron-Doped Diamond Electrode. *Food Analytical Methods* **2017**, *10* (11), 3747–3752. https://doi.org/10.1007/s12161-017-0935-x

Highly selective electrochemical determination of the Phlorizin using square wave voltammetry at a boron doped diamond electrode

Eda Mehmeti[1]*, Dalibor M. Stanković[2,3], Astrid Ortner[4], Janez Zavašnik[5], Kurt Kalcher[1*]

[1]*Institute of Chemistry - Analytical Chemistry, Karl-Franzens University, Universitäts platz 1/I, A-8010 Graz, Austria.*
[2]*The Vinča Institute of Nuclear Sciences, University of Belgrade, POB 522, 11001 Belgrade, Serbia*

[3]*Department of Analytical Chemistry, Innovation Center of the Faculty of Chemistry, University of Belgrade, Studentski trg 12-16, Belgrade, 11000, Serbia.*

[4]*Department of Pharmaceutical Chemistry, Karl-Franzens University, Universitäts platz 1/II, Graz, A-8010, Austria.*
[5]*Department for Nanostructured Materials, Jozef Stefan Institute, Ljubljana, Slovenia.*

Interference studies

As expected structurally similar compounds (phenolic antioxidants: caffeic acid, gallic acid, catechol, hydroquinone and phloretin) interfere by overlapping and increasing the response of phlorizin. Thus, in the presence of the others the analyte can be determined only as a sum of antioxidants. However, the carbohydrates under investigation, i.e., maltose, fructose and glucose are not electrochemically active under the chosen experimental conditions. Ascorbic acid and dopamine do not interfere with Phl determination due to their lower oxidation potential under proposed experimental conditions. On the other hand, uric acid interfere by slightly decreasing of oxidation current of Phl and overlapping the peaks obtained for UA and Phl.

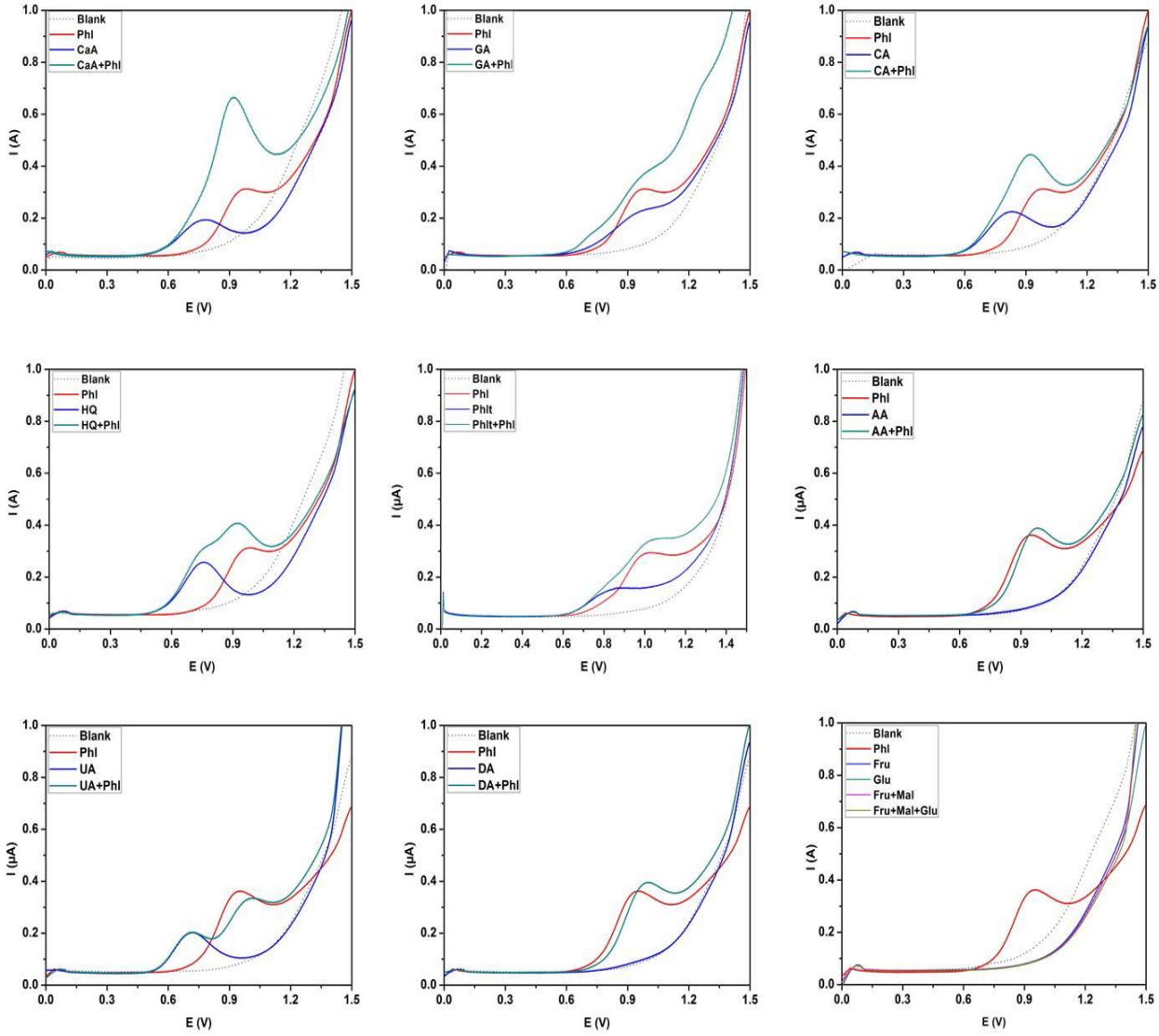

Figure S1. SW voltammograms obtained in the absence and presence of interferent compounds and phlorizin at same concentration 30 μM; supporting electrolyte: BR buffer (pH 6.0); parameters: scan rate 0.05 V/s, amplitude 0.01 V, frequency 20 Hz.