

LIST OF PUBLISHED PAPERS DUE TO EMQAL ACTIVITIES

Porphyrin binding mechanism is altered by mutating loop sequence in c-kit G-quadruplex DNA
S. Maneyu, R. Eritja, A. Aviñó, J. Jaumot, R. Gargallo.
Biochim. Biophys. Acta. Gen. Subjects. 2012, 1820, 1987-1996

Identification of bioactive peptides in a functional yogurt by micro liquid chromatography time-of-flight mass spectrometry assisted by retention time prediction.
Pradeep B. Kunda, Fernando Benavente, Sergio Catala-Clariana, Estela Gimenez, Jose Barbosa, Victoria Sanz-Nebot, *Journal of Chromatography A*, 1229 (2012) 121– 128.

Determination of flavanols by liquid chromatography with fluorescence detection. Application to the characterization of cranberry-based pharmaceuticals through profiling and fingerprinting approaches.
Bakhytkyzy, I; Nunez, O; Saurina, J.
JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS (2018) 156, 206-213.
DOI: 10.1016/j.jpba.2018.04.031

Size Exclusion Coupled to Reversed Phase Liquid Chromatography for the Characterization of Cranberry Products
Bakhytkyzy, I; Nunez, O.; Saurina, J.
FOOD ANALYTICAL METHODS (2019) 12, 604-611
DOI: 10.1007/s12161-018-1390-z

Regmi U, Palma M, Barroso CG. Direct determination of organic acids in wine and winederivedproducts by Fourier transform infrared (FT-IR) spectroscopy and chemometric techniques. *Anal Chim Acta* . 2012;732:137–44.

Ajaero C, Abdelrahim MYM, Palacios-Santander JM, Gil MLA, Naranjo-Rodríguez I, Hidalgo-Hidalgo De Cisneros JL, et al. Comparative study of the electrocatalytic activity of different types of gold nanoparticles using Sonogel-Carbon material as supporting electrode. *Sensors Actuators, B Chem* . 2012;171–172:1244–56.

Setyaningsih W, Palma M, Barroso CG. A new microwave-assisted extraction method for melatonin determination in rice grains. *J Cereal Sci* . 2012;56(2):340–6.

Abdelrahim MYM, Benjamin SR, Cubillana-Aguilera LM, Naranjo-Rodríguez I, Hidalgo-Hidalgo de cisneros JL, Delgado JJ, et al. Study of the electrocatalytic activity of cerium oxide and gold-studded cerium oxide nanoparticles using a sonogel-carbon material as supporting electrode: Electroanalytical study in apple juice for babies. *Sensors (Switzerland)* 2013;13(4):4979–5007.

Elpa D, Durán-Guerrero E, Castro R, Natera R, Barroso CG. Development of a new stir bar sorptive extraction method for the determination of medium-level volatile thiols in wine. *J Sep Sci* . 2014;37(14):1867–72.

Crispim DVFS, Lino FMA, Benjamin SR, Cubillana-Aguilera LM, Palacios-Santander JM, Gil ES. Differential pulse voltammetric determination of paracetamol formulations at a sonogel-carbon electrode. *Lat Am J Pharm* . 2015;34(2):344–50.

Setyaningsih W, Saputro IE, Barbero GF, Palma M, García Barroso C. Determination of melatonin in rice (*Oryza sativa*) grains by pressurized liquid extraction. *J Agric Food Chem* . 2015;63(4):1107–15.

Setyaningsih W, Saputro IE, Palma M, Barroso CG. Optimisation and validation of the microwave-assisted extraction of phenolic compounds from rice grains. *Food Chem.* 2015;169:141–9.

Setyaningsih W, Duros E, Palma M, Barroso CG. Optimization of the ultrasound-assisted extraction of melatonin from red rice (*Oryza sativa*) grains through a response surface methodology. *Appl Acoust*. 2016;103:129–35.

Hevia K, Castro R, Natera R, González-García JA, Barroso CG, Durán-Guerrero E. Optimization of Head Space Sorptive Extraction to Determine Volatile Compounds from Oak Wood in Fortified Wines. *Chromatographia*. 2016;79(11–12):763–71.

Setyaningsih W, Saputro IE, Palma M, Barroso CG. Pressurized liquid extraction of phenolic compounds from rice (*Oryza sativa*) grains. *Food Chem.* 2016;192:452–9.

Herrera C, Castro R, García-Barroso C, Durán-Guerrero E. Development of a stir bar sorptive extraction method for the determination of volatile compounds in orange juices. *J Sep Sci.* 2016;39(18):3586–93.

Setyaningsih W, Hidayah N, Saputro IE, Palma M, García Barroso C. Profile of phenolic compounds in Indonesian rice (*Oryza sativa*) varieties throughout post-harvest practices. *J.Food Compos Anal*. 2016;54:55–62.

Setyaningsih W, Saputro IE, Palma M, Barroso CG. Optimization of the ultrasound-assisted extraction of tryptophan and its derivatives from rice (*Oryza sativa*) grains through a response surface methodology. *J Cereal Sci*. 2017;75:192–7.

Setyaningsih W, Saputro IE, Carrera CA, Palma M, Barroso CG. Multiresponse optimization of a UPLC method for the simultaneous determination of tryptophan and 15 tryptophanderived compounds using a Box-Behnken design with a desirability function. *Food Chem.* 2017; 225:1–9.

Stipcovich T, Barbero GF, Ferreiro-González M, Palma M, Barroso CG. Fast analysis of capsaicinoids in Naga Jolokia extracts (*Capsicum chinense*) by high-performance liquid chromatography using fused core columns. *Food Chem.* 2018;239:217–24.

Maruti A, Durán-Guerrero E, Barroso CG, Castro R. Optimization of a multiple headspace sorptive extraction method coupled to gas chromatography-mass spectrometry for the determination of volatile compounds in macroalgae. *J Chromatogr A*. 2018;1551:41–51.

I. Correia, T. Jakusch, E. Cobbina, S. Mehtab, I. Tomaz, N.V. Nagy, A. Rockenbauer, J. Costa Pessoa, T. Kiss, Dalton Trans., Evaluation of the binding of oxovanadium(IV) to Human Serum Albumin, Dalton Trans., 2012, 41, 6477-6487.

D. Sanna, P. Buglyó, A.I. Tomaz, J. Costa Pessoa, S. Borović, G. Micera, E. Garribba, “VIVO and CuII complexation by ligands based on pyridine nitrogen donors”, Dalton Trans., 2012, 41, 12824- 12838.

Zeng YX, Araujo P, Du ZY, Ngyuen TT, Frøyland L, Grung B (2010): Elucidation of triacylglycerols in cod liver oil by liquid chromatography electrospray tandem ion-trap mass spectrometry, *Talanta*, 82, 1261-1270

Araujo P, Zeng YX, Du ZY, Ngyuen TT, Frøyland L, Grung B (2010): Discrimination of n-3 Rich Oils by Gas Chromatography, *Lipids*, 45, 1147-1158.

Zeng YX, Araujo P, Grung B, Zhang, LX (2011): Evaluation of different fingerprinting strategies for differentiating marine oils by liquid chromatography ion-trap mass spectrometry and chemometrics, Analyst, 136, 1507-1514.

Araujo P, Mengesha Z, Lucena E, Grung B (2014): Development and validation of an extraction method for the determination of pro-inflammatory eicosanoids in human plasma using liquid chromatography-tandem mass spectrometry, Journal of Chromatography A, 1353, 57-64.

Zeng Y.Z., Du Z.Y., Mjøs S.A., Grung B. and Midtbø L.K. (2016) Methylmercury Increases and Eicosapentaenoic Acid Decreases the Relative Amounts of Arachidonic Acid-Containing Phospholipids in Mouse Brain. Lipids, 51, 61-73.

Zeng Y.Z., Mjøs S.A., Araujo P., Grung B., Midtbø L.K. and Du Z.Y. (2016): An LC-MS-based lipidomics approach for studying the impact of dietary eicosapentaenoic acid on modulating methylmercury toxicity in mice. Metabolomics, 12, 174.

E. Cobbina, S. Mehtab, I. Correia, G. Gonçalves, I. Tomaz, I. Cavaco, T. Jakusch, E. Enyedi, T. Kiss, J. Costa Pessoa, Binding of Oxovanadium(IV) Complexes with Blood Serum Albumins, J. Mex.Chem. Soc., 2013, 57, 180-191.

I. Correia, S. Roy, C.P. Matos, S. Borovic, N. Butenko, I. Cavaco, F. Marques, J. Lorenzo, A. Rodríguez, V. Moreno, J. Costa Pessoa, Vanadium(IV) and copper(II) complexes of salicylaldimines and aromatic heterocycles: cytotoxicity, DNA binding and DNA cleavage properties, J. Inorg. Biochem., 2015, 147, 134-146.

I. Correia, I. Chorna, I. Cavaco, S. Roy, M.L. Kuznetsov, N. Ribeiro, G. Justino, F. Marques, T. Santos Silva, M.F.A. Santos, H.M. Santos, J.L. Capelo, J. Doutch, J. Costa Pessoa, Interaction of [VIVO(acac)₂] with human serum transferrin and albumin, Chem. Asian J., 2017, 12, 2062-2084.

I. Correia, S. Borovic, I. Cavaco, C.P. Matos, S. Roy, H.M. Santos, L. Fernandes, J.L. Capelo, L. Ruiz-Azuara, J. Costa Pessoa, Evaluation of the binding of four anti-tumor Casiopeínas to human serum albumin, J. Inorg. Biochem., 2017, 175, 284-297.

Waktola, Habtewold D.; Mjos, Svein A. Chromatographic efficiency of polar capillary columns applied for the analysis of fatty acid methyl esters by gas chromatography JOURNAL OF SEPARATION SCIENCE Volume: 41 Issue: 7 Pages: 1582-1592 2018.

Extension of least squares spectral resolution algorithm to high-resolution lipidomics data. Zeng, Ying-Xu; Mjos, Svein Are; David, Fabrice P. A.; et al. ANALYTICA CHIMICA ACTA Volume: 914 Pages: 35-46 2016.

Optimizing the relationship between chromatographic efficiency and retention times in temperatureprogrammed gas chromatography. Mjos, Svein A.; Waktola, Habtewold D. JOURNAL OF SEPARATION SCIENCE Volume: 38 Issue: 17 Pages: 3014-3027 2015.

Transfer of retention patterns in gas chromatography by means of response surface methodology. Chhaganlal, Milan; Skartland, Liv K.; Mjos, Svein A. JOURNAL OF CHROMATOGRAPHY A. Volume: 1332 Pages: 64-72 2014.

Least squares spectral resolution of liquid chromatography-mass spectrometry data of glycerophospholipids. Zeng, Ying-Xu; Mjos, Svein A.; Meier, Sonnich; et al. JOURNAL OF CHROMATOGRAPHY A Volume: 1280 Pages: 23-34 2013.

Efficiencies of three common lipid extraction methods evaluated by calculating mass balances of the fatty acids. Xiao, Liping; Mjos, Svein Are; Haugsgjerd, Bjorn Ole. JOURNAL OF FOOD COMPOSITION AND ANALYSIS Volume: 25 Pages: 198-207 2012.

Speciation of zinc in fish feed by size exclusion chromatography coupled to inductively coupled plasma mass spectrometry - using fractional factorial design for method optimisation and mild extraction conditions Silva, M. S.; Sele, V.; Sloth, J. J.; et al. JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES Volume: 1104 Pages: 262-268 2019.

A simple liquid extraction protocol for overcoming the ion suppression of triacylglycerols by phospholipids in liquid chromatography mass spectrometry studies. Araujo, Pedro; Tilahun, Ephrem; Breivik, Joar Fjortoft; et al. TALANTA Volume: 148 Pages: 463-471 2016.

Development and validation of an extraction method for the determination of pro-inflammatory eicosanoids in human plasma using liquid chromatography-tandem mass spectrometry. Araujo, Pedro; Mengesha, Zebasil; Lucena, Eva. JOURNAL OF CHROMATOGRAPHY A Volume: 1353 Pages: 57-64 Published: AUG 1 2014.

The impact of exogenous omega-6 and omega-3 polyunsaturated fatty acids on the induced production of pro- and anti-inflammatory prostaglandins and leukotrienes in Atlantic salmon head kidney cells using a full factorial design and LC-MS/MS. Araujo, Pedro; Lucena, Eva; Yang, Yang. JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES Volume: 964 2014.

Determination and Structural Elucidation of Triacylglycerols in Krill Oil by Chromatographic Techniques. Araujo, Pedro; Zhu, Han; Breivik, Joar Fjortoft; et al. LIPIDS Volume: 49 Issue: 2. Pages: 163-172 Published: FEB 2014.

Doehlert uniform shell designs and chromatography. Araujo, Pedro; Janagap, Steve JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES Volume: 910 Pages: 14-21 2012.

Optimization and comparison of miniaturized extraction techniques for PAHs from crude oil exposed Atlantic cod and haddock eggs. Sorensen, Lisbet; Silva, Marta S.; Booth, Andy M. ANALYTICAL AND BIOANALYTICAL CHEMISTRY Volume: 408 Pages: 1023-1032 2016.

Advances in miniaturization and increasing sensitivity in analysis of organic contaminants in marine biota samples. Sorensen, Lisbet; Silva, Marta S.; Meier, Sonnich; et al. TRENDS IN ENVIRONMENTAL ANALYTICAL CHEMISTRY Volume: 6-7 Pages: 39-47 2015.