Tania Portolés (October, 2017)

Publications

- 53 peer-reviewed articles in international Journals (ISI Web Science)
- 1 article classified as top downloaded papers
- 2 peer-reviewed book chapters; 1 book; 3 application notes; around 70 communications in Workshop and Congresses; 5 invited keynotes / conferences in international Workshops and Congresses.

Total citations 1200. h-index = 23.

Papers published in journals

- ***36 papers in the field of Analytical Chemistry***

Trends Anal Chem– 1 article
Anal Chem– 5
Anal Chim Acta– 6
J Chromatogr A– 7
Anal Bioanal Chem- 7
J Mass Spectrom- 5
Talanta-1
Journal of Separation Science- 1
Rapid Communications in Mass Spectrometry-2
Analytical Methods-2

- ***4 papers in the field of Environmental Sciences***

J Hazard Mat- 1
Sci Total Environ- 3

- ***4 papers in the field of Food Science and Technology***

J Agr Food Chem - 3
Food Chemistry – 2

- ***1 paper in the field of Pharmacology and Pharmacy***

J Pharm Biomed Anal – 1

Most relevant publications (in the last 5 years)

"Multiclass determination of 66 organic micropollutants in environmental water by fast gas chromatography-mass spectrometry"
Laura Cherta, Joaquim Beltrán, Tania Portolés, Félix Hernández
Analytical and Bioanalytical Chemistry, 402, 2301-2314 (2012)

"Current use of high-resolution mass spectrometry in the environmental sciences"
Félix Hernández, Juan V. Sancho, María Ibáñez, Esteban Abad, Tania Portolés, L. Mattioli
Analytical and Bioanalytical Chemistry 403 (5), 1251-1264 (2012)
(Review escrito por invitacion)

"Application of gas chromatography time-of-flight mass spectrometry for target and non-target analysis of pesticide residues in fruits and vegetables"
Inés Cervera, Tania Portolés, Elena Pitarch, Joaquin Beltran, Félix Hernández
Journal of Chromatography A, 1244, 168-177 (2012)

"The power of hyphenathed chromatography-time-of-flight mass spectrometry in public health laboratories"
María Ibáñez, Tania Portolés, A. Rúbies, E. Muñoz, G. Muñoz, L. Pineda, E. Serrahima, Juan V. Sancho, F. Centrich, Félix. Hernández.

Journal of Agricultural and Food Chemistry, 60 (21), 5311-5323 (2012)

"Characterization of the organic contamination pattern of a hiper-saline ecosystem by rapid screening using gas chromatography coupled to high-resolution time-of-flight mass spectrometry"
Roque Serrano, Tania Portolés, Miguel A. Blanes, Félix Hernández, J.C. Navarro, I. Varó, F. Amat
Science of the Total Environment, 433, 161-168 (2012)

"Advantages of atmospheric pressure chemical ionization in gas chromatography tandem mass spectrometry: pyrethroid insecticides as a case study"
Tania Portolés, Johannes G.J. Mol, Juan V. Sancho, F. Hernández
Analytical Chemistry, 84 (22), 9802-9810 (2012)

"Improved gas chromatography-tandem mass spectrometry determination of pesticide residues making use of atmospheric pressure chemical ionization"
Tania Portolés, Laura Cherta, J. Beltrán, F. Hernández
Journal of Chromatography A, 1260, 183-192 (2012)

"Use of time-of-flight mass spectrometers for large screening of organic pollutants in surface waters and soils from a rice production area of Colombia"
Félix Hernández, Tania Portolés, María Ibáñez, Marta Cristina Bustos-López, Ramón Díaz, Ana María Botero, Cilia Leonor Fuentes, Gustavo Peñuela
Science of the Total Environment, 439, 249-259 (2012)

"Development of sensitive and rapid analytical methodology for food analysis of 18 mycotoxins included in a total diet study"
Eduardo Beltran, María Ibáñez, Tania Portolés, Cristina Ripollés, Juan Vicente Sancho, Vicent Yusà, Silvia Marín, Félix Hernández
Analytica Chimica Acta, 783, 39-48 (2013)

"Application of gas chromatography-(triple quadrupole) mass spectrometry with atmospheric pressure chemical ionization for the determination of multiclass pesticides in fruits and vegetables"
Laura Cherta, Tania Portolés, Joaquín Beltran, Elena Pitarch, Johannes G.J. Mol, Félix Hernández
Journal of Chromatography A, 1314, 224-240 (2013)

"The role of GC-MS/MS with triple quadrupole in pesticide residue analysis in food and environment."
Félix Hernández, Inés Cervera, Tania Portolés, Joaquín Beltrán, Elena Pitarch
Analytical Methods, 5 (21), 5875-5894 (2013)
(Review written by invitation)

"Screening of pesticides and polycyclic aromatic hydrocarbons in feeds and fish tissues by gas chromatography coupled to high-resolution mass spectrometry using an atmospheric pressure chemical ionization (GC-(APCI)QTOF MS)"
Jaime Nácher-Mestre, Roque Serrano, Tania Portolés, M. Berntssen, J. Pérex-Sánchez, F. Hernández
Journal of Agricultural and Food Chemistry, 62 (10), 2165-2174 (2014)

"Use of electron ionization and atmospheric pressure chemical ionization in gas chromatography coupled to time-of-flight mass spectrometry for screening of organic pollutants in waters"
Tania Portolés, Johannes G.J. Mol, J. V. Sancho, F. Hernández
Journal of Chromatography A, 1339, 145-153 (2014)

"*Mass spectrometric behavior of anabolic androgenic steroids using gas chromatography coupled to atmospheric pressure chemical ionization source. Part I: Ionization.*
M. Raro, T. Portolés, J.V. Sancho, E. Pitarch, F. Hernández, J. Marcos, R.Ventura, C. Gómez, J. Segura, O. J. Pozo
Journal of Mass Spectrometry, 49 (6), 509-521 (2014)

"*Screening and quantification of pesticide residues in fruits and vegetables making use of gas chromatography-quadrupole time-of-flight mass spectrometry with atmospheric pressure chemical ionization"*
M.I. Cervera, T. Portolés, J. Beltrán, F.J. López, F. Hernández
Analytical and Bioanalytical Chemistry, 406 (27), 6843-6855 (2014)

(Paper written by invitation)

"Validation of a qualitative screening method for pesticides in fruits and vegetables by gas chromatography quadrupole-time of flight mass spectrometry with atmospheric pressure chemical ionization"
Tania Portolés, Johannes G.J. Mol, J. V. Sancho, F.J. López, F. Hernández
Analytica Chimica Acta, 76-85 (2014)

"Advancing towards universal screening for organic pollutants in waters"
F. Hernández, M. Ibáñez, T. Portolés, M. I. Cervera, J.V. Sancho, F.J. López
Hazardous Materials, 282 (23), 86–95 (2015)

"Analytical strategy based on the use of gas chromatography with time-of-flight and hybrid quadrupole time-of-flight analyzers to investigate potential polymeric migrants into food simulants."
L. Cherta, T. Portolés, E. Pitarch, J. Beltrán, F.J. López, F. Hernández
Food Chemistry, 188, 301-308 (2015)

"Non-target screening with high resolution mass spectrometry: Critical review using a collaborative trail on water analysis"
E.L. Schymanski, H.P. Singer, J. Slobodnik, I. Ipolyi, P. Oswald, M. Krauss, T. Schulze, P. Haglund, T. Letzel, S. Grosse, N. S. Thomaidis, C. Zwiener, M. Ibanez, T. Portoles, R. de Boer, M. Reid, M. Onghena, U. Kunkel, W. Schulz, A. Guillon, N. Noyon, G. Leroy, C. Margoum, S. Bogialli, D. Stipaničev, P. Rostkowski, J. Hollender.
Analytical and Bioanalytical Chemistry, 407 (21), 6237-6255 (2015)

"Atmospheric pressure chemical ionization tandem mass spectrometry (APGC/MS/MS) an alternative to high resolution mass spectrometry (HRGC/HRMS) for the determination of dioxins"
B. van Bavel, D. Geng, L. Cherta, J. Nácher, T. Portolés, M. Ábalos, J. Saulo, E. Abad, J. Dunstan, R. Jones, A. Kotz, H. Winterhalter, R. Malisch, W. Traag, J. Hagberg, I. Ericson, J. Beltrán, F. Hernández.
Analytical Chemistry, 87 (17), 9047–9053 (2015)

"Gas chromatography - tandem mass spectrometry with atmospheric pressure chemical ionization for fluorotelomer alcohols and perfluorinated sulfonamides determination"
T. Portolés, L. E. Rosales, F. J. Santos, J. V. Sancho, F. Hernández, E. Moyano
Journal of Chromatography A, 1413 (25), 107–116 (2015)

"Novel analytical approach for brominated flame retardants based on the use of gas chromatography-atmospheric pressure chemical ionization-tandem mass spectrometry with emphasis in highly brominated congeners"
T. Portolés, C. Sales, B. Gómara, J.V. Sancho, J. Beltrán, M.J. González, F. Hernández
Analytical Chemistry, 87 (19), 9892–9899 (2015

"Identification of substances migrating from plastic baby bottles using a combination of low and high resolution mass spectrometry analyzers coupled to gas and liquid chromatography."
M. Onghena, E. Van Hoeck, J. Van Loco, M. Ibáñez, L. Cherta.3, T. Portolés, E. Pitarch, F. Hernandéz, F. Lemière, A. Covaci
Journal Mass Spectrometry 50 (11), 1234-1244 (2015)

"Fast gas chromatographic residue analysis using split injection and atmospheric pressure chemical ionisation tandem mass spectrometry"
M. Tienstra, T. Portolés, J.G.J. Mol, F. Hernández
Journal of Chromatography A, 1422, 289–298 (2015)

"Potential of gas chromatography-atmospheric pressure chemical ionization-tandem mass spectrometry for screening and quantification of hexabromocyclododecane"
C. Sales, T. Portolés, J. V. Sancho, E. Abad, M. Ábalos, J. Sauló, H. Fiedler, B. Gómara, J. Beltrán
Analytical and Bioanalytical Chemistry, 408, 449–459 (2016)
Paper in forefront

"Potential of atmospheric pressure chemical ionization source in gas chromatography tandem mass spectrometry for the screening of urinary exogenous androgenic anabolic steroids"
M. Raro; T. Portoles; E. Pitarch; J. V Sancho; F. Hernandez; L. Garrostas; J. Marcos; J. Segura; O.J Pozo
Analytica Chimica Acta, 906, 128-138 (2016)

"Comprehensive monitoring of organic micro-pollutants in surface and groundwater in the surrounding of a solid-waste treatment plant of Castellón, Spain"
E. Pitarch, M. I. Cervera, T. Portolés, M. Ibáñez, M. Barreda, A. Renau-Pruñonosa, I. Morell, F. J. López, F. Albarrán, F. Hernández
Science of the Total Environment, 548–549, 211–220 (2016)

"*Evaluation of the capabilities of atmospheric pressure chemical ionization source coupled to tandem mass spectrometry for the determination of dioxin-like polychlorobiphenyls in complex-matrix food samples*"
T. Portolés, C. Sales, M. Abalos, J. Sauló, E. Abad
Analytica Chimica Acta, 937, 96-105 (2016)

"*3-Fluorophenmetrazine, a fluorinated analogue of phenmetrazine: Studies on in vivo metabolism in rat and human, in vitro metabolism in human CYP isoenzymes and microbial biotransformation in Pseudomonas Putida and wastewater using GC and LC coupled to (HR)-MS techniques*"
Mardal, M., Miserez, B., Bade, R., Portolés, T., Bischoff, M., Hernández, F., Meyer, M.R.
Journal of Pharmaceutical and Biomedical Analysis, 128, 485-495 (2016)

"Quality classification of Spanish olive oils by untargeted gas chromatography coupled to hybrid quadrupole-time of flight mass spectrometry with atmospheric pressure chemical ionization and metabolomics-based statistical approach"
Sales, C., Cervera, M.I., Gil, R., Portolés, T., Pitarch, E., Beltran, J.
Food Chemistry, 216, 365-373 (2017)

Main research projects (last five years)

"Desarrollo de estrategias analíticas, basadas en el uso de técnicas avanzadas de espectrometría de masas, en el campo de la salud pública"
Research Groups of Excellence, Prometeo/2009/054, PrometeoII/2014/023. Generalitat Valenciana
2009-2017
Principal researcher: Félix Hernández

"Uso combinado de GC-TOF MS y LC-QTOF MS en la investigación de contaminantes orgánicos en aguas"
Ministry of Science and Competitiveness, Ref CTQ2009-12347
2010-2013.
Principal researcher: Félix Hernández

"Desarrollo y aplicación de procedimientos cuantitativos de determinación de volátiles en muestras de matriz compleja"
University Jaume I - Bancaja P1·1B2009-25
2010-2013
Principal researcher: Joaquín Beltran

"Cooperative Research in Environment and Food Safety (ENV-FOOD)"
Networks of Excellence ISIC in the Valencia Region", Ref ISIC 2012/016, Generalitat Valenciana
2012-2015
Principal researcher: Félix Hernández

"Food safety and the use of terrestrial animal by-products in Atlantic salmon production"
Norwegian Research Council (Ref: 227387)
Responsible and coordinator Center: Dr. Marc Berntssen, NIFES (Noruega)
2013-2017
Responsible from UJI: Félix Hernández

"Desarrollo de una tecnología instrumental basada en GC/MS que complemente el método analítico comunitario denominado "panel test" en los aceites de oliva vírgenes"
University Jaume I - Bancaja P1 1B2013-70
2014-2016
Principal researcher: Joaquín Beltran

"Biosíntesis de ácidos grasos poliinsaturados de cadena muy larga (VLC-PUFA) en peces: bases moleculares y bioquímicas e implicaciones en acuicultura"
Ministry of Science and Competitiveness, Ref AGL2013-40986-R
2014-2017.
Responsible from UJI: Roque Serrano

"Expertise development in frame of NRL tasks. RIKILT - Institute of Food Chemistry"
Wot statutory research for the ministry of econòmic affairs, agriculture and innovation. Wageningen, The Netherlands, WOT-02-001-058.
Principal researcher: Johannes G. J. Mol

"Harmonisation of analysis methods. RIKILT - Institute of Food Chemistry"
Wot statutory research for the ministry of econòmic affairs, agriculture and innovation. Wageningen, The Netherlands, WOT-02-001-12.
Principal researcher: Johannes G. J. Mol

"Method development and surveys on environmental contaminants and pesticides in the frame of the dutch statutory research tasks. RIKILT - Institute of Food Chemistry"
Wot statutory research for the ministry of econòmic affairs, agriculture and innovation. Wageningen, The Netherlands, WOT-02-001-017.
Principal researcher: Johannes G. J. Mol

"NORMAN: Network of reference laboratorios for monitoring of emerging environmental pollutants"
Principal researcher: Jaroslav Slobodnik.
Responsible from UJI: Félix Hernández

"Uso de la nueva fuente de ionización química a presión atmosférica con GC-MS/MS y GC-QTOFMS para la investigación de retardantes de llama en los campos de seguridad alimentaria, medioambiental y biológico"
University Jaume I, UJI-A2016-01
2017-2018
Principal researcher: Tania Portolés

"AQUASAFE - evaluation of contaminant interactions using integrative high-throughput technology for aquafeed safety"
National institute of nutrition and seafood research, ES564096 - PN: 254807
2016-2020

Awards

Article selected as "special feature". Portada of Journal of Mass Spectrometry, Wiley, January 2009
"Searching for anthropogenic contaminants in human breast adipose tissues using gas chromatography-time-of-flight mass spectrometry"
F. Hernández, T. Portolés, E. Pitarch, F.J. López

Extraordinary Award for the PhD (2011/2012), Universitat Jaume I de Castellon.

2º Premio RSEEM, Sociedad Española de Espectrometría de Masas, 2011
V Reunion de la Sociedad Española de Espectrometría de Masas, Málaga, Abril 2011.
"Elucidation of unknown compounds by GC-TOF MS using different ionization techniques", by T. Portoles, E. Pitarch, F.J. López, F. Hernández, W.M.A. Niessen

1º Premio al mejor Poster, Sociedad Española de Cromatografía y Técnicas Afines, 2012
XII Reunión Científica de la Sociedad Española de Cromatografía y Técnicas Afines, Tarragona, Noviembre 2012, Patrocinado por Bruker
"Analysis of anabolic steroids in urine by GC-APGC-MS/MS (QqQ and QTOF). Potential use for doping control" by M. Raro, T. Portolés, J.V. Sancho, E. Pitarch, F. Hernández, J. Marcos, R. Ventura, O.J. Pozo, J. Segura

Honorable mention in the Judge's choice, 50th North American Chemical Residue Workshop, Florida, July 2013 to the poster:
"Screening pesticides and emerging contaminants in agricultural area in Colombia by TOF MS coupled to gas and liquid chromatography", by M.C. Bustos, T. Portolés, M. Ibáñez, F. Hernández, C. Fuentes, G. Peñuela

Young Researcher Award in the Basic Sciences Field, 2014,
Universitat Jaume I - Banco Santander

3º Premio Sociedad Española de Espectrometría de Masas, 2014
14th Jornadas de Analisis Instrumental, Barcelona, Octubre 2014 patrocinado por Waters
"Qualitative method for the detection of exogenous anabolic steroids in urine by GC-(APCI)QqQMS/MS", by M. Raro, T. Portolés, J.V. Sancho, E. Pitarch, F. Hernández, J. Marcos, R. Ventura, O. Pozo, J. Segura

1º Premio al mejor Poster, Sociedad Española de Cromatografía y Técnicas Afines, 2015
XV Reunión Científica de la Sociedad Española de Cromatografía y Técnicas Afines, Castellón, Octubre 2015, Patrocinado por Bruker

"Exploring potential of gas chromatography with atmospheric pressure chemical ionization and tandem mass spectrometry for sensitive determination of ethyl glucuronide in hair" by T. Portolés, J. Kinyua, Alexander van Nuijs, Delphine Capelle, J.V. Sancho, F. Hernández.

Invited conferences

Potential of atmospheric pressure chemical ionization (APCI) in GC-MS(/MS)
Nieuwe ontwikkelingen in de scheidingsmethoden. Organized by Werkgroep Scheidingsmethoden van de SAC, University of Leiden, The Netherlands, 2013

Advantages of atmospheric pressure chemical ionization in gas chromatography tandem mass spectrometry
7th International Fresenius Conference, Düsseldorf, Germany, 2013

New developments and applications of atmospheric pressure chemical ionization in gas chromatography tandem mass spectrometry in the residue pesticides analysis
10th European Pesticides Residue Analysis, Dublin, Ireland, 2014

GC-MS/MS with APCI for the determination of multiclass pesticides in fruits and vegetables
10th European Pesticides Residue Analysis. Waters Users Meeting, Dublin, Ireland, 2014

Combined use of GC-APGC-QTOF MS and UPLC-ESI-QTOF MS for universal screening of organic pollutants in water and fish feed
Waters European APGC Users Meeting, Manchester, England, 2014

Other information

- Supervisor of 2 PhD (running)
- Peer-reviewer for journals including, Analytical Chemistry, Journal of Chromatography A, Trends in Analytical Chemistry and Chromatographia
- Her main research line deals with the determination of organic contaminants and residues, such as pesticides, emerging contaminants, flame retardants, PAHs, PCBs and PBDEs, by GC-MS with a variety of mass analyzers (triple quadrupole, TOF and hybrid QTOF) in the environmental, food-safety and biological fields. Her current research is mainly focused on the analytical capabilities of the atmospheric pressure chemical ionization source designed to be coupled to GC with last generation of triple quadrupole and hybrid quadrupole time of flight mass analyzers.