



▶ Aikaterini Psoma

Ph.D Student at University of Athens

Phone: +302107274576

E-mail: katpsoma@chem.uoa.gr

Education

B.Sc. in Chemistry (2003-2010), University of Athens, Grade: 6.24/10

M.Sc. in Chemical Analysis & Quality Control (2010-2013), University of Athens, Grade 8.86/10

Ph.D. in Analytical Chemistry (2013-present), University of Athens.

Research Topic:

Bachelor thesis: Development and validation of a method for the determination of Cd-Pb and As-Cu in fish tissue and fish feed by electrothermal atomic absorption spectrometry and use of chemical modifiers.

Master thesis: Development and validation of a method for the determination of pesticides in Chios mastic gum by liquid chromatography-tandem mass spectrometry (LC-MS/MS).

Ph.D thesis: Development of a method for the target and suspect screening of transformation products of emerging pollutants in wastewater by mass spectrometric techniques.

Research Interests

My research interests are summarized on method development of modern analytical protocols for trace analysis in environmental and food samples, using atomic absorption and mass spectrometry analytical techniques. Since May 2013, I have been working in the field of "emerging pollutants". My research is focused on the development of a workflow for the suspect and non-target screening of biotransformation products mainly of pharmaceuticals and other emerging pollutants formed in wastewater. Currently, I am working on TREMEPOL (ARISTEIA) project (May 2013 - present). The main purpose of this project is to develop a wide-scope targeted screening liquid chromatographic - (high resolution) tandem mass spectrometric (LC-HR-MS/MS) method for the detection of known and tentative (predicted) major metabolites and transformation products as well as detection and identification of currently unknown abundant emerging pollutants and their possible transformation products using metabolomic strategies.

Publications in journals

1. A.K. Psoma, I.N. Pasiadis, A.A. Bletsou, and N.S. Thomaidis, Development and validation of a multi-residue method for the determination of pesticides in Chios mastic gum by QuEChERS and liquid chromatography - tandem mass spectrometry, Food Analytical Methods, 2014, 7 & Issue, (doi: 10.1007/s12161-014-9930-7).

2. A.K. Psoma, I.N. Pasiyas, N.I. Rousis, K.A. Barkonikos, N.S. Thomaidis, Development, validation and accreditation of a method for the determination of Pb, Cd, Cu and As in seafood and fish feed samples, *Food Chemistry*, 2014, 152, (doi: 10.1016/j.foodchem. 2013.11.045).

Chapters in books

1. I.N. Pasiyas, A.K. Psoma, N.I. Rousis, N.S. Thomaidis, Inorganic Arsenic in Foodstuffs: Health Effects and Analytical Methods for Its Determination by Marissa Jane Olson in *Arsenic: Detection, Management Strategies and Health Effects*, Nova Science Publishers Inc., ISBN 978-1-63321-054-7, New York.

Conferences Presentations

1. A.K. Psoma, A.A. Bletsou, N.S. Thomaidis, "Identification of biotransformation products of amine-containing pharmaceuticals formed in batch bioreactors", 9th Aegean Analytical Chemistry Days, 29/09-03/10-2014, Chios, Greece.
2. A.A. Bletsou, P.G. Ferrero, A.K. Psoma, R. Aalizadeh N.S. Thomaidis "Development of wide-scope high resolution mass spectrometric screening workflows for the determination of known and unknown emerging contaminants in wastewater samples" 9th Aegean Analytical Chemistry Days, 29/09-03/10-2014, Chios, Greece.
3. A.K. Psoma, A.A. Bletsou, N.S. Thomaidis, "Workflow for the identification of biotransformation products of amine-containing psychotropic drugs in the aquatic environment", 5th EuCheMS Chemistry Congress, 31/08-04/09/2014, Istanbul, Turkey. (Awarded)
4. A.A. Bletsou, A.K. Psoma, P.G. Ferrero, N.S. Thomaidis, "Targeted determination of 1525 micropollutants and transformation products in wastewater by liquid chromatography quadrupole-time-of-flight mass spectrometry with an accurate-mass database", 28th American Chemical Society National Meeting and Exposition, 10-14/08/2014, San Francisco, CA.
5. A.K. Psoma, N.S. Thomaidis, "Development and validation of a multi-residue method for the determination of pesticides in Chios mastic gum by QuEChERS and liquid chromatography-tandem mass spectrometry", 8th International Conference on Instrumental Methods of Analysis – Modern Trends and Application, 15-19/09/2013, Thessaloniki, Greece.

Awards and Honors

1. Top poster award, 5th EuCheMS Chemistry Congress Istanbul/Turkey, Turkish Chemical Society and European Association for Chemical and Molecular Science, 2014

Professional Affiliations

Association of Greek Chemists, 2010-Present
Hellenic Mass Spectrometry Society, 2013-Present

Contact information

Aikaterini Psoma
Office: 4th floor, Wing D, Office 12
Phone: 210 7274576
Postal Address: Panepistimioupoli Zografou, Postal Code:15771, Athens, Greece
Email: katpsoma@chem.uoa.gr

