



► Natasa Kalogiouri

Postdoctoral Researcher at University of Athens

Phone: +302107274902

E-mail: kalogiourin@chem.uoa.gr

Education

B.Sc. in Chemistry (2006-2011), Aristotle University of Thessaloniki, Very Good

M.Sc. in Advanced Chemical Analysis (2011-2013), Aristotle University of Thessaloniki, Excellent

PhD in Analytical Chemistry (2014-2017), University of Athens, Excellent

Research Topics:

Undergraduate Thesis: “Chemical analysis of roman glass fragments with m-XRF and ICP-AES. In cooperation with the Archaeological Museum of Thessaloniki (2010). Laboratory of Analytical Chemistry, Chemistry department, Aristotle University of Thessaloniki.

Master Thesis: “Development of Sequential Injection Lab-At Valve (SIA-LAV) for the determination of As with HG-AAS in environmental samples” (2012-2013). Laboratory of Analytical Chemistry, Chemistry department, Aristotle University of Thessaloniki.

Doctoral Thesis: “Development of High Resolution Mass Spectrometric Methods for the investigation of food authenticity”, (2014-2017). Laboratory of Analytical Chemistry, Chemistry department, University of Athens.

Postdoctoral Research: Development of analytical methodologies for the identification and subsequent quantification of markers that could be used for the authentication of food samples. Use of generic sample extraction procedures with target, suspect and non-target screening workflows. Use of supervised and unsupervised chemometric tools for data treatment (2017-Present). Laboratory of Analytical Chemistry, Chemistry department, University of Athens.

Research Interests

1. Food chemistry
 2. Environmental chemistry
 3. Archaeometry
- Method Development
 - Sample Preparation

- Reversed Phase Liquid Chromatography (RP-LC) and Hydrophilic interaction chromatography (HILIC)
- High Resolution Mass Spectrometry (HRMS)
- Advanced data treatment of HRMS data
- Speciation analysis
- Atomic Absorption Spectrometry
- Atomic Emission Spectrometry
- Flow Injection Analysis (FIA), Sequential Injection Analysis (SIA)
- X-Ray Fluorescence Spectroscopy
- X-Ray Diffraction Analysis
- Development of Prediction Models
- Used of supervised and unsupervised chemometric tools

Projects

- 2016-2017: EMBLAS II, EU/UNDP Project: Improving environmental monitoring in the Black Sea. Analysis of water framework priority substances and screening of black sea specific pollutants in water biota and sediment samples obtained during the National Pilot Monitoring Studies and Joint Open Sea Surveys and risk assessment of identified pollutants.
- 2017-2020: Actions to promote north Aegean Olive Oil and Olive products through the investigation of their bioactive constituents (Research Group Leader)

Publications in books

1. Natasa P. Kalogiouri, Nikolaos S. Thomaidis "Screening and high throughput multi-contaminants' methods" in "FOOD AUTHENTICATION: Analysis, Regulation & Consumers" by C. A. Georgiou (ed), Wiley, May 2017, ISBN: 978-1-118-81026-2.

Publications in journals

1. Natasa P. Kalogiouri, Reza Aalizadeh, Nikolaos S. Thomaidis, "Investigating the organic and conventional production type of olive oil with target and suspect screening by LC-QTOFMS, a novel semi-quantification method using chemical similarity and advanced chemometrics", *Analytical and Bioanalytical Chemistry*, 2017, doi:10.1007/s00216-017-0395-6. Impact Factor: 3,125
2. Natasa P. Kalogiouri, Nikiforos A. Alygizakis, Reza Aalizadeh, Nikolaos S. Thomaidis, "Olive oil authenticity studies by target and nontarget LC-QTOF-MS combined with advanced chemometric techniques" *Analytical and Bioanalytical Chemistry*, 2016, 408(28),7955-7970. Impact Factor: 3,125
3. Aristidis N. Anthemidis, Emmanoul I. Daftsis, Natasa P. Kalogiouri, "Development of a Sequential Injection Lab At Valve system coupled with Hydride Generation Atomic Absorption Spectrometry for inorganic arsenic determination in environmental samples" *Analytical Methods*, 2014, 6(8), 2745-2750, 2014. Impact Factor: 1,915
4. Aristidis N Anthemidis, Natasa P. Kalogiouri, "Advances in on-line Hydride Generation Atomic Spectrometric Determination of arsenic" *Analytical Letters*, 2013, 46 (11), 1672-1704. Impact Factor: 1,088

Publications in conference proceedings

1. N.P. Kalogiouri, I. Nazlis, D. Ignatiadou, J.A. Stratis, A preliminary study of Roman Glass Fragments from Thessaloniki Agora, International Symposium on “History Technology and conservation of ancient metal, glasses and enamels”, Athens, 2011.
2. N.P. Kalogiouri, I. Nazlis, D. Ignatiadou, J.A. Stratis, Physicochemical and analytical techniques and methods in the study of Roman Glass, 39th International Symposium on Archaeometry: “50 years of ISA”, 39th International Symposium on Archaeometry: “50 years of ISA”, Leuven, Belgium, 2012.
3. J.A. Stratis, C.N. Makarona, E.N. Charalampous, N.P. Kalogiouri, Glass, a material indicator of Human adventure. A Holistic view, 19th International Congress of the Association Internationale pour l’Histoire du Verre, Annales du 19^e Congrès de l’association internationale pour l’histoire du verre, by Irena Lazar (ed), Piran 2012, KOPER, 2015, ISBN: 978-90- 72290-05-2. Piran – Slovenia. 2012.

Conferences Presentations

1. [Natasa P. Kalogiouri](#), Reza Aalizadeh, Nikolaos S. Thomaidis, “Application of wide scope target, suspect and non-target High Resolution Mass Spectrometric Methods coupled with Advanced Chemometrics in Food Authenticity Studies”, 3rd IMECOFOODS Conference, 1-4/10/2017, Thessaloniki, Greece. (Oral Presentation)
2. Natasa P. Kalogiouri, Nikiforos A. Alygizakis, Reza Aalizadeh, [Nikolaos S. Thomaidis](#), “Development of target, suspect and non-target High Resolution Mass Spectrometry screening strategies coupled with advanced chemometric tools for the evaluation of extra virgin olive oil’s sensory profile, 10th Aegean Analytical Chemistry Days (AACD 2016), 29/9-2/10/2016, Çanakkale, Turkey. (Poster Presentation)
3. Reza Aalizadeh, Natasa P. Kalogiouri, [Nikolaos S. Thomaidis](#), “Application of Simulated Annealing Support Vector Machine as a Novel Chemometrics Tool to Support Non-Target Screening in liquid Chromatography High Resolution Mass Spectrometry”, 10th Aegean Analytical Chemistry Days (AACD 2016), 29/9-2/10/2016, Çanakkale, Turkey. (Poster Presentation)
4. [Natasa P. Kalogiouri](#), Nikolaos S. Thomaidis, “Virgin Olive Oil. Examining authenticity with HR-MS workflows”, 9th International Conference on Instrumental Methods of Analysis. Modern Trends and Applications. 20-24/9/2015, Kalamata, Greece. (Oral Presentation)
5. [Natasa P. Kalogiouri](#), Aristidis N. Anthemidis, “Sequential injection analysis with lab-at-valve (SI-LAV) for the determination of inorganic arsenic coupled with hydride generation atomic absorption spectrometry (HG-AAS)”, 8th International Conference on Instrumental Methods of Analysis. Modern Trends and Applications, 15-19/9/2013, Thessaloniki, Greece. (Oral Presentation)
6. [Natasa P. Kalogiouri](#), Aristidis N. Anthemidis, “On-line hydride generation for arsenic determination. Advances and perspectives in analytical methodologies”, 12th International Conference on Flow Analysis, 23-28/9/2012, Thessaloniki, Greece. (Poster Presentation)
7. [John A. Stratis](#), Christina N. Makarona, Eleftherios N. Charalampous “Glass, a material indicator of Human adventure. A Holistic view.” 19th International Congress of the Association Internationale pour l’Histoire du Verre, 18-22/9/2012, Piran, Slovenia. (Oral presentation)
8. [Natasa P. Kalogiouri](#), Ioannis Nazlis, Despina Ignatiadou, John A. Stratis, “A preliminary study of Roman Glass Fragments from Thessaloniki Agora”. International Conference on “History Technology and conservation of ancient metal, glasses and enamels”, 17-20/12/2012, Athens, Greece. (Oral presentation)

Conferences Organization

1. Member of the Organization Committee of the 12th International Conference on Flow Analysis. 23-28/9/2012, Thessaloniki, Greece. Editor of the Book of Abstracts.
2. Member of the Reviewing Committee of the Anatolia College Science and Technology Annual Conference, (2011-2014), Thessaloniki, Greece, organization recognized by IUPAC and UNESCO.

Lab Assistance

- Instrumental Analysis II (2012-2013), Lab of Analytical Chemistry, department of Chemistry, Aristotle University of Thessaloniki
- Instrumental Analysis I (2014-2017), Lab of Analytical Chemistry, department of Chemistry University of Athens

Foreign Languages

- English – Proficient user (Certificate of Proficiency in English, Michigan University 2004 & Certificate of Proficiency in English, Cambridge University 2005)
- French – Proficient user (Sorbonne II, Diplôme de Langue et Littérature françaises, 2004)

Professional Affiliations

Association of Greek Chemists, 2011-Present
Hellenic Society for Archaeometry, 2011-Present

Contact information

Natasa Kalogiouri
Office: 4th floor, Wing E
Phone: 210 7274902
Postal Address: Panepistimioupoli Zografou, Postal Code: 15771, Athens, Greece
Email: kalogiourin@chem.uoa.gr