

▶ Androulakakis Andreas

PhD Researcher at the University of Athens

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Education

B.Sc. in Chemistry (2004-2009), University of Athens, Grade: 6.43/10

M.Sc. in Applied Hydrogeochemistry & Hydrogeology (2011-2013), Technical University of Darmstadt, Germany, Grade 2.0/5

Ph.D. in Analytical Chemistry (2018-present), University of Athens

Research Topics

Undergraduate Thesis: “Experimental determination of Benzotriazoles and Benzothiazoles in municipal waste water samples by HPLC/UV”, Laboratory of Analytical Chemistry, Chemistry Department, University of Athens, Greece (2009).

Master Thesis: “Method development and validation for the determination of Cr (VI) in contaminated soil and riverine water samples from the Dhaka metropolitan area by Atomic Absorption Spectrometry (AAS)”, Laboratory of Hydrogeochemistry, Applied Geosciences Department, Technical University of Darmstadt, Germany (2012-2013).

Ph.D. Thesis: “Development of methods for the determination of new perfluorinated substances in environmental samples and assessment of their environmental risk”, Laboratory of Analytical Chemistry, Chemistry Department, University of Athens, Greece (2018-present).

Research Interests

General research interests:

- Method Development & Validation
- High Resolution Mass Spectrometry (HRMS)
- Liquid Chromatography-Electrospray-Tandem Mass Spectrometry (LC-ESI-MS/MS)
- Target, suspect and non-target screening workflows
- Detection, Occurrence and Environmental Fate of Per- and Polyfluorinated Substances (PFAS)
- Advanced monitoring of priority pollutants and emerging contaminants in environmental matrices
- Risk assessment & Prioritization of emerging contaminants to be regulated under EU legislation
- Implementation of REACh regulation under the Water Framework Directive (Directive 2000/60/EC)
- Retrospective untargeted screening of emerging contaminants in digitally-archived samples

- Pattern Recognition
- Field-work (in situ measurements and environmental sampling)

Projects:

- 2014-2015: **First Watch List**, European Commission (DG ENV, Unit C1): Detailed registration of potential water pollutants that should be carefully monitored by the EU Member States to determine the risk they pose to the aquatic environment and whether EU Environmental Quality Standards (EQS) should be set for them.
- 2015 –2017: **C-Cascades Project**, EU ITN: Improving the understanding of the processes that control carbon transport and transformations in different environments of the globe. Quantification of universal carbon fluxes and CO₂ emissions in hotspot regions (i.e. Danube Delta).
- 2018-Present: **LIFE APEX**, EU/UNDP Project: Improving systematic use of chemical monitoring data from apex predators and prey for protecting human health and the environment. Analysis of priority substances (i.e. PFCs, neonicotinoids insecticides) and screening of pollutants in biota samples obtained from Europe’s Environmental Specimen Banks, Natural History Museums and other research collections. Combining Chemical monitoring data from apex predators in terrestrial, freshwater and marine environments (e.g. raptors, otters, seals) with data from selected prey (e.g. fish) can deliver useful quantitative information on the persistence and bioaccumulation. Risk assessment of identified emerging pollutants & prioritization of the most frequently occurring substances and their mixtures. LIFE APEX responds to needs of regulators for specific regulatory applications in relation to REACH and the Biocidal Products Regulation.

Publications in journals

- Akinranti Ajibola, Andreas Androulakakis, Georgios Spyropoulos, Anna Bletsou, Marilena Dasenaki, Nikolaos Thomaidis, “Determination of Benzotriazoles and Benzothiazoles in Environmental Water Samples by HPLC-UV and LC-MS/MS” Proceedings of the 7th Aegean Analytical Chemistry Days (AACD 2010), 29 September-03 October, 2010, Lesvos, Greece P.3-24.

Conferences Presentations

- Niels Michelsen, Andreas Androulakakis, Christoph Schueth “Spatial Distribution of Elevated Nitrate Concentrations in Shallow Groundwater Bodies in the Hessian Reed”, Annual Symposium on Agricultural Research, September 2012, Volcani Center, Tel Aviv, Israel (oral presentation).
- Andreas Anroulakakis, Layth Sahib, Niels Michelsen, Christoph Schueth “Density Separation of Quartz and Heavy Minerals from Radioactive Sediments in the Riyadh Area, Saudi Arabia”, Summer School on Applied Geochemistry in International Cooperation, August 2014, Goethe University, Frankfurt, Germany (oral presentation)
- Andreas Androulakakis, Jos van Giels, Pierre Regnier “Delft3D applications for the simulation

of sediment load movement and deposition at the Danube Delta” EGU 2017, September 2017, Vienna, Austria (poster presentation)

- Andreas Androulakakis, Jos van Giels, Pierre Regnier “Delft3D applications for the modelling of particulate organic carbon (POC) and sediment trapping in the Upper Rhine” ICDC10, August 2017, Interlaken, Switzerland (poster presentation)

Awards and Honors

German national scholarship for MSc studies, Deutschlandstipendium 2011-2013.

Professional Affiliations

- Association of Greek Chemists, 2010-Present
- Association of German Chemists, 2013-Present

Contact information

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