



► Konstantina Diamanti

Ph.D. candidate at National and Kapodistrian University of Athens

Phone: +30 210 7274430

E-mail: kdiamanti@chem.uoa.gr

Scopus Author ID: 57201911822

ORCID ID: 0009-0000-9635-2032

Last update: July 2024

Education

B.Sc. in Chemistry (2011-2015), National and Kapodistrian University of Athens, Grade: 8.92/10

M.Sc. in Chemical Analysis - Quality Control (2015-2017), National and Kapodistrian University of Athens, Grade: 9.43/10

Ph.D. in Analytical Chemistry (2020-present), National and Kapodistrian University of Athens

Professional Experience

Innovation and Advanced Technologies Officer (10/2019-07/2020), Qualimetrix S.A.

Sophisticated analytical services to support pharmaceutical products throughout their whole lifecycle in an environment of Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP)

Research Topics

Undergraduate Thesis: "Development of MS and MS/MS spectral libraries for target screening of emerging contaminants by LC-QTOF-MS", Laboratory of Analytical Chemistry, Department of Chemistry, National and Kapodistrian University of Athens, Greece (2015)

Master Thesis: "Retrospective target and suspect screening of new psychoactive substances in raw wastewater by Liquid Chromatography - Quadrupole-Time-of-flight Mass Spectrometry (LC-QTOF-MS)", Laboratory of Analytical Chemistry, Department of Chemistry, National and Kapodistrian University of Athens, Greece (2016-2017)

Ph.D. Thesis: "Development of untargeted screening methods by mass spectrometry in biological samples for investigation of environmental exposure to chemicals", Laboratory of Analytical Chemistry, Department of Chemistry, National and Kapodistrian University of Athens, Greece (2020-present)

Research Interests

General research interests:

- High resolution mass spectrometry (HRMS)
- Tandem mass spectrometry (MS/MS)
- Ion mobility spectrometry (IMS)
- Liquid and Gas Chromatography (LC & GC)
- Method development and validation
- Advanced data treatment of HRMS data (target, suspect, non-target screening)

- Exposomics
- Human biomonitoring
- Environmental (bio)monitoring
- Ecotoxicological risk assessment
- Wastewater-based epidemiology
- Toxicological analysis
- Extractables and leachables testing
- *In vitro* release and *in vitro* skin permeation testing for topical drug products

Projects:

- **2024-present:** The chemical exposome in pregnant women and metabolic dysregulations analysis towards the prioritization of hazardous chemicals (**Expo-IS-omics**) (funding: *HORIZON-MSCA-2022-PF-01-01*)
- **2023-present: Collaborative Trial** for the intercomparison of Ion mobility separation data. Development of open-access CCS databases for IMS (*NORMAN network activity*, <https://www.norman-network.net/?q=node/27>)
- **2022-2023:** Determination of organic pollutants in **environmental samples from Israel** by LC-QTOFMS (funding: *Ruppin Academic Center*, <https://www.ruppin.ac.il/en/pages/hp.aspx>)
- **2022:** Analysis of metals and organic pollutants in **biota samples** (livers and bird eggs) (funding: *LUBW Landesanstalt für Umwelt, Baden-Württemberg*, <https://www.lubw.baden-wuerttemberg.de/startseite>)
- **2022:** Baltic Marine Environment Protection Commission (HELCOM): A pre-emptive study of the inputs of hazardous substances to the Baltic Sea (**HELCOM Pre-EMPT**) (funding: *NEFCO (Nordic Environment Finance Corporation) under the Baltic Sea Action Plan Fund*, <https://portal.helcom.fi/default.aspx>)
- **2022:** Determination of chemicals in wastewater and correlation with **SARS-Cov-2** (funding: *National Public Health Organization*, <https://eody.gov.gr/dimioyrgia-ethnikoy-diktyoy-epidimiologias-lymaton-giatin-parakolythisi-apotyposi-kai-egkairi-proeidopoiisi-tis-diasporas-toy-ioy-sars-cov-2-stin-koinotita/>)
- **2020:** European Union Water Initiative Plus for the Eastern Partnership (**EUWI+**): Dnipro River Basin Management Plan (funding: *International Office for Water (IOW)*, <https://euwipluseast.eu/en/>)
- **2019:** Research on identification of chemical status of surface water bodies of the **Dniester river basin** (funding: *Organization for Security and Co-operation in Europe (OSCE) – Project Co-ordinator in Ukraine*, <https://www.osce.org/project-coordinator-in-ukraine/environmental-activities>)
- **2016-2017:** Improving environmental monitoring in the Black Sea, phase 2-**EMBLAS-II** (Georgia, Ukraine): Analysis of water framework directive 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 (funding: *European Union / United Nations Development Programme*, <http://emblasproject.org/>)

Publications in peer-reviewed journals

1. Afroditi Kokkosi, Elpida Garofallidou, Nikolaos Zacharopoulos, Nikolaos Tsoureas, **Konstantina Diamanti**, Nikolaos S. Thomaidis, Antigoni Cheilari, Christina Machalia, Evangelia Emmanouilidou, Athanassios I. Philippopoulos "Ruthenium p-Cymene Complexes Incorporating Substituted Pyridine-Quinoline-Based Ligands: Synthesis, Characterization, and Cytotoxic Properties", *Molecules*, **2024**, 29, 3215 (doi: 10.3390/molecules29133215)
2. **Konstantina S. Diamanti**, Nikofores A. Alygizakis, Maria-Christina Nika, Martina Oswaldova, Peter Oswald, Nikolaos S. Thomaidis, Jaroslav Slobodnik "Assessment of the chemical pollution status of the Dniester River Basin by wide-scope target and suspect screening using mass spectrometric techniques", *Analytical and Bioanalytical Chemistry*, **2020**, 412, 4893-4907 (doi: 10.1007/s00216-020-02648-y)
3. **Konstantina Diamanti**, Reza Aalizadeh, Nikofores Alygizakis, Aikaterini Galani, Marie Mardal, Nikolaos S. Thomaidis "Wide-scope target and suspect screening methodologies to investigate the occurrence of

new psychoactive substances in influent wastewater from Athens”, *Science of the Total Environment*, **2019**, 685, 1058-1065 (doi: 10.1016/j.scitotenv.2019.06.173)

4. Marie Mardal, Mette Findal Andreassen, Christian Brinch Mollerup, Peter Stockham, Rasmus Telving, Nikolaos S. Thomaidis, **Konstantina S. Diamanti**, Kristian Linnet, Petur Weihe Dalsgaard “HighResNPS.com: An online crowd-sourced HR-MS database for suspect and non-targeted screening of new psychoactive substances”, *Journal of Analytical Toxicology*, **2019**, 43 (7), 520-527, (doi: 10.1093/jat/bkz030)

(Citations: 151, h-index: 3)

Other Publications

1. **Konstantina S. Diamanti**, Dimitrios E. Damalas, Georgios O. Gkotsis, Eleni I. Panagopoulou, Maria-Christina Nika, Nikolaos S. Thomaidis, “TargetScreener 4D workflow: Providing solutions in environmental monitoring studies”, **Application Note**, *Bruker Applied Mass Spectrometry*, **2023**

Conferences Presentations

1. **Boinis N.**, Gkotsis G., **Diamanti K.**, Nika M.-C., Alygizakis N., Oswald P., Slobodnik J., Thomaidis N. S., “In-Depth Investigation of Organic Micropollutant Burden in the Dnieper River Basin Using HRMS-Based Workflows”, **Poster Presentation**, 3rd Symposium of Graduate Students of the Chemistry Department of the National and Kapodistrian University of Athens “Chemistry and its Applications”, Chemistry Department of NKUA, Athens Greece 04-05/06/2024
2. **Boinis N.**, Gkotsis G., **Diamanti K.**, Nika M.-C., Alygizakis N., Slobodnik J., Thomaidis N. S., “In-Depth Investigation of Organic Micropollutant Burden in the Dnieper River Basin Using HRMS-Based Workflows”, **Poster Presentation**, SETAC Europe 34th Annual Meeting, Fibes Sevilla Conference & Exhibition Centre, Seville Spain 05-09/05/2024
3. **Diamanti K.**, **Gkotsis G.**, Panagopoulou E., Nika M.-C., Alygizakis N., Vasilatos K., Konomi A., Boinis N., Maragou N., Oswald P., Rohner S., Sieber U., Reif F., Dähne M., Persson S., Galatius A., Pawliczka I., Künitzer A., Vähä E., Lastumäki A., Grajewska A., Zalewska T., Usin E., Laht M., Mitrulevičiūtė J., Suhareva N., Brokmar L., Engelke C., Johansson H., Ruedel H., Pirntke U., Frank-Kamenetsky D., Larsen M. M., Slobodnik J., Thomaidis N. S., “Unveiling the chemical fingerprints in organisms from different trophic levels using advanced HRMS workflows: The case study of the Baltic Sea”, **Poster Presentation**, NORMAN workshop on chemical pollutants and biodiversity, Biologicum, Goethe University, Frankfurt Germany 06/12/2023
4. **Gkotsis G.**, **Diamanti K.**, Aalizadeh R., Thomaidis N. S., “Towards next generation environmental (bio)monitoring: State-of-the-art HRMS-based methodologies for broad coverage in chemical universe”, **Poster Presentation**, NORMAN workshop on chemical pollutants and biodiversity, Biologicum, Goethe University, Frankfurt Germany 06/12/2023
5. **Diamanti K. S.**, Damalas D. E., Gkotsis G. O., **Baessmann C.**, Galvin B., Thomaidis N. S., “Towards a comprehensive 4D-targeted workflow suitable for environmental and human biomonitoring of xenobiotics leveraging LC-VIP HESI-TIMS-HRMS”, **Poster Presentation**, International Conference on Environmental & Food Monitoring (ISEAC-41), Novotel Amsterdam City, Amsterdam the Netherlands 20-24/11/2023
6. **Tomou E.-M.**, **Diamanti K.**, Peppas E., Nika M.-C., Vourli G., Maragou N., Thomaidis N. S., Trichopoulou A., “Detection of polyphenolic compound metabolites in human serum following consumption of herbal infusions: Analytical approach for mountain tea”, **Poster Presentation**, Mediterranean Diet and Health, Grecotels Creta Palace & Caramel Boutique Resort, Rethymno Crete Greece 13-18/11/2023
7. **Diamanti K. S.**, Damalas D. E., Gkotsis G. O., Panagopoulou E. I., Nika M. C., Baessmann C., Galvin B., Thomaidis N. S., “Leveraging LC-TIMS-QTOFMS for addressing analytical challenges in chemical exposome studies”, **Poster/Short Oral Presentation**, 6th International Mass Spectrometry School, Hotel Regina Margherita, Cagliari Sardinia Italy 17-22/09/2023
8. **Boinis N.**, **Diamanti K. S.**, Panagopoulou E. I., Gkotsis G., Maragou N., Nika M. C., Vasilatos K., Hopker K. A., Schafer H., Wiczorek M., Osteraurer R., Thomaidis N. S., “Unveiling the occurrence of organic

- micropollutants in different species of terrestrial mesocarnivores utilizing HRMS techniques”, **Poster/Flash Presentation**, 18th International Conference on Environmental Science and Technology (CEST2023), Wyndham Grand Athens, Athens Greece 30/08-02/09/2023 (**Awarded poster**)
9. **Diamanti K. S.**, Aalizadeh R., Damalas D. E., Gkotsis G. O., Baessmann C., Galvin B., Labella G., Thomaidis N. S., “Wide-scope target screening by LC-HRMS combined with fast ion mobility – The answer to environmental and human biomonitoring challenges”, **Oral Presentation**, 18th International Conference on Chemistry and the Environment (ICCE 2023), Ca’ Foscari University Scientific Campus, Mestre Venice Italy 11-15/06/2023
 10. **Diamanti K. S.**, Aalizadeh R., Damalas D. E., Gkotsis G. O., Galvin B., **Filipenko A.**, Baessmann C., Thomaidis N. S., “CCS-aware wide-scope target screening utilizing LC-TIMS-HRMS and a new heated ESI source – The answer to environmental and human biomonitoring challenges”, **Poster Presentation**, 71st ASMS Conference on Mass Spectrometry and Allied Topics, George R. Brown Convention Center (GRB), Houston Texas USA 04-08/06/2023
 11. **Diamanti K. S.**, Damalas D. E., Gkotsis G. O., Panagopoulou E. I., Nika M. C., Baessmann C., Galvin B., Thomaidis N. S., “Development of a LC-ESI-TIMS-QTOFMS database to enhance the performance of wide-scope target screening in environmental (bio)monitoring studies”, **Oral Presentation**, IMSC 2022, Maastricht Exhibition & Congress Center (MECC), Maastricht, the Netherlands 27/08-02/09/2022
 12. **Diamanti K. S.**, Damalas D. E., Gkotsis G. O., Panagopoulou E. I., Nika M. C., **Baessmann C.**, Galvin B., Thomaidis N. S., “Enhanced performance of 4D wide-scope target screening in environmental (bio)monitoring studies utilizing LC-ESI-TIMS-QTOF-MS and a comprehensive database”, **Poster Presentation**, ASMS Conference on Mass Spectrometry and Allied Topics, Minneapolis Convention Center, Minneapolis Minnesota USA 05-09/06/2022
 13. **Diamanti K. S.**, Damalas D. E., Gkotsis G., Panagopoulou E. I., Nika M. C., Baessmann C., Galvin B., Thomaidis N. S., “Collision Cross Section (CCS) value as an additional identification point for chemical characterization: Development of a LC-ESI-TIMS-QTOFMS database for environmental (bio)monitoring studies”, **Onsite Poster Presentation**, SETAC Europe 32nd Annual Meeting, Bella Center Copenhagen, Copenhagen Denmark 15-19/05/2022
 14. **Diamanti K.**, Nika M. C., Alygizakis N., Kostakis M., Koupa A., Oswald P., Cirka L., Slobodnik J., Thomaidis N. S., “Water quality monitoring in the Dnieper River Basin using advanced analytical methodologies”, **Poster/Flash Presentation**, 17th International Conference on Environmental Science and Technology (CEST2021), Central building of National and Kapodistrian University of Athens (Propylaia), Athens Greece 01-04/09/2021
 15. **Diamanti K.**, Mardal M., Papoutsopoulou-Diamantopoulou C., **Thomaidis N.**, “Occurrence of controlled illicit drugs and new psychoactive substances in raw wastewater samples from Athens, Greece, analyzed by LC-QTOF-MS”, **Oral Presentation**, Testing the waters 2017 (3rd international conference) – Wastewater-based epidemiology: current applications and future perspectives, Lisbon Congress Centre, Lisbon Portugal 26-27/10/2017
 16. Nika M. C., Koulis G., Damalas D., **Diamanti K.**, Bletsou A. A., Psoma A., Attiti S., Aalizadeh R., Alygizakis N., Dasenaki M., Kasiotis K. M., Oswald P., Slobodnik J., **Thomaidis N. S.**, “Determination of legacy pollutants and emerging contaminants in the marine environment of Black Sea”, **Oral Presentation**, 15th International Conference on Environmental Science and Technology (CEST2017), Rodos Palace International Convention Center, Rhodes Greece 31/08-02/09/2017
 17. **Diamanti K.**, Thomaidis N. S., “Target and suspect screening approaches for the identification of new psychoactive substances in raw wastewater samples from Athens by LC-QTOF-MS”, **Oral Presentation**, 15th International Conference on Environmental Science and Technology (CEST2017), Rodos Palace International Convention Center, Rhodes Greece 31/08-02/09/2017
 18. **Diamanti K.**, Bletsou A., Damalas D., Thomaidis N. S., “Target screening of emerging contaminants in raw wastewater samples from Athens using LC-QTOF-MS”, **Poster Presentation**, 22nd Hellenic Chemistry Conference: “Chemistry: Research and Education aiming at Sustainable Energy”, Aristotle University Research Dissemination Center, Thessaloniki Greece 02-04/12/2016 (**Awarded**)

Awards and Honors

1. Nico Nibbering Travel **Award** for attendance at the 6th International Mass Spectrometry School, Cagliari Italy 17-22/09/**2023**
2. Best poster **award** in the 18th International Conference on Environmental Science and Technology (CEST2023), Athens Greece 30/08-02/09/**2023**
3. **Scholarship** by the Hellenic Foundation for Research and Innovation under the 3rd call for H.F.R.I. scholarships for PhD candidates (Grant number: 6627) (**2022-2025**)
4. **Scholarship** as teaching assistant in Analytical Chemistry courses in the Department of Chemistry of National and Kapodistrian University of Athens (**2021-2022**)
5. **Educational grant** for PhD studies by the A. G. Leventis Foundation (**2021-2022**)
6. **Scholarship** as teaching assistant in Analytical Chemistry courses in the Department of Chemistry of National and Kapodistrian University of Athens (**2020-2021**)
7. **Prize** for the best poster presentation from European Young Chemists' Network (EYCN) during the 22nd Hellenic Chemistry Conference: "Chemistry: Research and Education aiming at Sustainable Energy", Thessaloniki Greece 02-04/12/**2016**
8. **Scholarship** for graduate studies by Zois Soutsou Legacy (**2015-2016**)
9. **Scholarship** and **award** by State Scholarships Foundation (I.K.Y.) after ranking first in grades in the first year of undergraduate studies (**2011-2012**)
10. **Scholarship** for undergraduate studies by Triantafillidis Legacy, granted after examination (**2011-2015**)

Languages

Greek, Native speaker

English, Proficient speaker (Certificate of Proficiency in English, University of Michigan, 2009)

German, Proficient speaker (Goethe-Zertifikat C1, Goethe Institut, 2019)

Professional Affiliations

- NORMAN Network's Working group 1 'Prioritisation', 2024
- NORMAN Network's Working group 6 'Indoor environment', 2024
- NORMAN Network's Working group 8 'Marine environment', 2023-present
- Hellenic Mass Spectrometry Society, 2022-present
- Society of Environmental Toxicology and Chemistry (SETAC), 2022-present
- NORMAN Network's Working group 7 'Contaminants of emerging concern in soil and the terrestrial environment', 2020-present
- NORMAN Network's Cross-working group 'Non-target screening', 2020-present
- Association of Greek Chemists, 2016-present

Contact information

Konstantina Diamanti

Office: 4th floor, Wing D, Office 8

Phone: +30 210 7274430

Postal Address: Panepistimioupoli Zografou, Postal Code: 15771, Athens, Greece

Email: kdiamanti@chem.uoa.gr