Georgios Katsouras



Researcher (Dr.)

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(317 citations, h-index=6)
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EDUCATION

2001 Bachelor in Chemistry, National and Kapodistrian University of Athens, Department of Chemistry Dissertation carried out at the Environmental Chemistry Section

2005 Master in Oceanography, National and Kapodistrian University of Athens, Departments of Biology Geology-Physic-Chemistry, Oceanography Section, thesis title: "Distribution of Carbohydrates anc Dissolved Organic Carbon in Saronikos and Thermaikos Gulfs (Eastern Mediterranean)"

2009 Ph.D. in Oceanography, University of the Aegean, Department of Marine Sciences, thesis title "Paleoceanographic Study of climate variability in the northeastern Mediterranean during the last 20.000 years: A Biogeochemical and Stable Isotopes approach".

RESEARCH FIELDS

- Implementation of innovative and efficient systems, technologies and techniques for monitoring wastewater and water treatment.
- Chemistry of trace elements (e.g. Cu, Pb, Al, Fe, Zn, Cd, Mn, Ni, Cr, Hg), nutrients (nitrogen - phosphorus - silicon compounds), and organic compounds (polyaromatic hydrocarbons, phenols, etc.) in various environmental systems (water, sediments, air, organisms).
- Applications of analytical techniques of mass spectrometry for the quantitative and qualitative determination of trace analytes.
- Study of "transitional" water systems such as estuaries and lagoons.
- Integrated management of water systems (inland, coastal and marine) - drawing up a Marine Strategy in the framework of National and European Directives (WFD, MSFD, ICZM).
- Study and assessment of surface and groundwater quality through the development of appropriate analytical protocols and methodologies. Bioaccumulation of pollutants.
- Study of metal speciation in natural systems (soluble phase, sediments/soils, sediment pore water, particulate matter, gas phase) and the processes that affect them.
- Management of solid and liquid municipal waste
- Study of biogeochemical indicators and their correlation with climate change in the Eastern Mediterranean region.
- Assessment of uncertainty of the results produced in the context of environmental analysis.

EDUCATIONAL EXPERIENCE

UNDERGRADUATE COURSES

- 4/2019 – 6/2020: Professor of Chemistry at IEK SVIE, a private Institute for Training of Modern Biomedical Professions SA (Government Gazette A' 193/17-9-2013). Teaching format: independent teaching of the course (T) and laboratory (E).
  1. Course: Analytical Chemistry I (Lesson hours/week T:2, E:6)
  2. Course: Analytical Chemistry II (Lesson hours/week T:2 E:6)
  3. Course: General Chemistry (Lesson hours/week T: 3)
  4. Course: Organic Chemistry (Lesson hours/week T: 3)
  5. Course: Chemical Technology (Lesson hours/week T2)

DISCRIMINATIONS / SCHOLARSHIPS

- 1/2009 – 6/2009. ESF (European Science of Foundation) and MedCLIVAR program (exchange grant 2177) fellow at the LOCEAN laboratory of the CNRS - P. et M. Curie University, Paris, France.
- 9/2007. Conference Organizing Committee Scholarship ICP9 (Shanghai, China – travel grant No. icp-11)
- 1/2006 – 12/2008. Fellow of the Hellenic Center for Marine Research (HCMRR), Institute of Oceanography.
- 10/2000 – 10/2001. DEMOKRITOS Scholarship, Institute of Physical Chemistry.
- 2/1998 – 6/1998. I.K.Y. - EU Scholarship, Erasmus-Socrates Program, University of Natural Resources and Life Sciences, Vienna, Austria.

RESEARCH GRANTS

- RHE-MEDiation (H2020) «Responsive Hub for long term governancE to destress the MEDIterranean seA from chemical polluTION»/ ΕΥΔΑΠ R&D/ EU Project Number 101113045/ 7.040.396 €, 06/2023 – 05/2026
- ENVIROMED (H2020) «Next generation toolbox for greener pharmaceuticals design & manufacturing towards reduced environmental impact»/ ΕΥΔΑΠ R&D/ EU Project Number 101057844, 7.987.562 €, 06/2022 – 11/2025
- ToDrinQ (H2020) «TOolkit for aDaptable, Resilient INstallations securing high Quality drinking water»/ EU Project Number 101082035, 4.678.981 €, 12/2022 – 11/2026
- IMPETUS (H2020) «Building a low-carbon, climate resilient future: Research and innovation in support of the European Green Deal/ ΕΥΔΑΠ R&D/ EU Project Number 101037084, 16.224.769 €, 10/2021 – 09/2025
- NEXTGEN (H2020): «Towards a next generation of water systems and services for the circular economy/ ΕΥΔΑΠ R&D/ EU Project Number 776541-2, 11.391.606 €, 9/2018 – 6/2022
- INTCATCH (H2020): «Development and application of Novel, Integrated Tools for monitoring and managing Catchments»/ ΕΥΔΑΠ R&D/ EU Project Number 689341, 7.570.335 €, 6/2016 – 1/2020
- SMART-PLANT (H2020): «Scale-up of low-carbon footprint material recovery techniques for upgrading existing wastewater treatment plants»/ ΕΥΔΑΠ R&D/ EU Project Number 690323, 7.536.306 €, 6/2016 – 10/2020
- DESSIN (FP7): «Demonstrate Ecosystem Services Enabling Innovation in the Water Sector/ ΕΥΔΑΠ R&D/ EU Project Number 619039, 9.054.608 € (ΕΥΔΑΠ 283.000 €), 1/2014 – 12/2017
- Hadrian Aqueduct (ESPA): "Integrated Spatial Investment for Sustainable Urban Development (OHE-BAA) focusing on the utilization of the Adrian Aqueduct". Implementation: EYDAP in collaboration with the Region of Attica and the Ministry of Culture.
- «Action Plans for Integrated Regional Monitoring Programmes, Coordinated Programmes of Measures and Addressing Data and Knowledge Gaps in Mediterranean Sea». HCMR, Institute Oceanography, NKUA, ΕΚΠΑ, Department of Chemistry/ 1.247.050 €, 2012 - 2015, ΓΓΕΤ – EU
- ARISTEIA ISMET/COMAREN 640 "Integrated Study of trace metals biogeochemistry in the coastal marine environment": National and Kapodistrian University of Athens, Greece 495.000 €, 05/2013 – 10/2015
- European Science Foundation _MedCLIVAR, Reference Number 2177: "Identification of long-chain alkenones as paleotemperature indicators in sediment cores from the Aegean Sea and calibration of alkenone unsaturation ratios (Uk'37) for paleotemperature estimation in eastern Mediterranean''». Laboratoire d'Oceanographie et du Climat Experimentation et Approches Numeriques (LOCEAN), Paris, France. 7.700 €, 01/2009 – 07/2009

REVIEWER OF SCIENTIFIC JOURNALS

Frontiers in Marine Science

ADDITIONAL INFORMATION

- Presentations at conferences:**73**
- Supervision of doctoral theses: **1**
- Supervision of graduate students:**7**
- Supervision of undergraduate students: **8**
- PI in **10** Research Programs
- Collaboration/Participation in **20** Research Programs
- Reviewer in Research Programs: -

SELECTED PUBLICATIONS (link OF PUBLICATIONS)

- https://doi.org/10.3390/en17122808
- https://doi.org/10.3390/s24092809
- https://doi.org/10.3390/rs15051345
- https://doi.org/10.3390/w13243547
- https://doi.org/10.3390/w13192764
- https://doi.org/10.1016/j.apr.2019.03.007