



# Dr. George Z. Kyzas

Associate Professor

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## POSITION

**Associate Professor – Head at the Department of Chemistry**

Department of Chemistry, International Hellenic University, Kavala, Greece

## EXPERTISE

Chemical Technology; Materials Science; Nanotechnology; Sorption; Wastewater Treatment; Characterizations

## TEACHING

**Associate Professor**, Department of Chemistry, International Hellenic University, Kavala, Greece

Undergraduate courses:

- Chemical Technology
- Nanochemistry and Nanomaterials
- Inorganic Materials Chemistry
- Characterization Techniques

Postgraduate courses:

- Oil-Spills and Environment (MSc in Oil and Gas Technology)
- Hazard Identification and Risk Management (MSc in Oil and Gas Technology)
- Instrumentation (MPhil in Nanotechnology)
- Nanotechnology/Nanomaterials (MPhil in Nanotechnology)
- Wastewaters Management (MSc in Wastes Management)

## EDUCATION

**BSc in Chemistry**, Department of Chemistry, Aristotle University of Thessaloniki, Greece

**MSc in Industrial Chemistry**, Department of Chemistry, Aristotle University of Thessaloniki, Greece

**PhD in Chemical Technology**, Department of Chemistry, Aristotle University of Thessaloniki, Greece

## PUBLICATIONS

- **125 Papers (h-index 45, 5100 Citations)** ([click here for details](#))
- **70 Presentations in Conferences** ([click here for details](#))
- **37 Chapters in Books** ([click here for details](#))
- **8 Books** ([click here for details](#))
- **9 Guest Editor in Special Issues** ([click here for details](#))
- **2 Teaching notes**
- **1 Patents** ([click here for details](#))

- **820 Reviews in 230 Journals**
- **25 Distinctions as Author** ([click here for details](#))
- **10 Distinctions as Reviewer** ([click here for details](#))

## RESEARCH

### Now....

- 2020-21:** Assessment and measures of microplastics pollution in the marine environment of Kavala region
- 2020-22:** Extension of the commercial life of fresh with ice by using ozone micro- and nano- bubbles
- 2020-22:** Development of an integration methodology for treatment of micropollutants in wastewaters and leachates coupling adsorption, advanced oxidation processes and membrane technology
- 2019-21:** Adsorption capacity increase of activated carbon from agricultural residues under rotation field: Oil-spills cleaning application
- 2019-21:** Utilization of marble byproducts to enhance cement-based materials
- 2019-21:** Development of monitoring and removal strategies of emerging micro-pollutants in wastewaters
- 2018-21:** Nano-reinforced concrete for pavement deicing

### ....Past

- 2016-18:** Multifunctional super-adsorbent materials for efficient decontamination of oil spills and heavy metal effluents
- 2016:** Green composites and 3D objects
- 2015:** Use of chitosan and its derivatives for drug nano-encapsulation and their application in ophthalmic formulations
- 2014-15:** Advanced micro-extraction approaches based on novel nano- polymers to measure pharmaceuticals, personal care products and their transformation products in the aquatic environment
- 2013-15:** Advanced Molecularly Imprinted Polymers (MIPs) as materials for the selective binding and recovery of various high-added value environmental targets with application to industrial-scale adsorption columns
- 2013:** Implementation of monitoring program of biotic and abiotic parameters and support of self-supervision to the Lake Koronia Volvi
- 2013-14:** Synthesis, characterization and application of novel polymeric biosorbents for the environmental-friendly removal of various pollutants from industrial effluents
- 2012-13:** Nanocapillary©
- 2011-13:** Preparation and characterization of plastic pipes with enhanced performance and thermal conductivity for geothermal applications of heating and cooling by using conductive nanoparticles
- 2006-08:** Dyes removal from aqueous solutions by sorption onto molecularly imprinted polymers (MIPs)
- 2005-06:** Pollutants removal from aqueous solutions with super-adsorbents materials

## HONORS

- PostDoc Fellow** (Stavros Niarchos Foundation, Greece)
- PostDoc Fellow** (National State Scholarships Foundation of Greece)
- PostDoc Fellow** (Research Committee of Aristotle University of Thessaloniki)
- PhD Fellow** (Research Committee of Aristotle University of Thessaloniki)

- MEMEBRSHIPS**
- ✓ American Chemical Society (ID: 30067364)
  - ✓ Society for Molecular Imprinting (SMI)
  - ✓ Society of Petroleum Engineers (ID: 4082498)
  - ✓ Association of Greek Chemists (ID: 14214)
  - ✓ International Adsorption Society (ID: 198)
  - ✓ Swiss Chemical Society (ID: 107561)
  - ✓ Official delegate of Association of Greek Chemists for the period 2017-2020 in the Division of Solid State and Materials Chemistry in European Association for Chemical and Molecular Sciences (EuCheMS)
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