

Konstantinos Christoforidis is an Assistant Professor of "Environmental Chemistry – Analytical Chemistry" in the Department of Environmental Engineering at the Democritus University of Thrace since 2018 and is the head of the Environmental Chemistry Lab. He holds a degree from the department of Environmental and Natural Resources Management of the University of Ioannina and a Ph.D. Degree in Catalysis from the University of Ioannina. He worked as Senior Researcher at several institutes abroad such as Imperial College London, Institute of Catalysis and Petrochemistry (CSIC, Madrid, Spain), CNRS Strasbourg (France), University of Trieste (Italy). He has participated in more than 14 research project and is a winner of the prestigious call "Make Our Planet Great Again" from ANR (France) for a project related the development of technologies to mitigate climate change. He is the author of more than 45 articles. His research interests include: heterogeneous catalysis, photocatalysis, pollutants degradation, water splitting, CO₂ capture and conversion, development of sensors for pollutants detection, synthesis of novel nanomaterials for a variety of applications (catalysts, absorbers, sensors), depollution of aquatic environments.

Selected publications:

1. **K. C. Christoforidis**. "g-C₃N₄/Ag₃PO₄ based binary and ternary heterojunction for improved photocatalytic removal of organic pollutants". International Journal of Environmental Analytical Chemistry 2021. **doi:** <https://doi.org/10.1080/03067319.2021.1901282>
2. I. Barba-Nieto, **K.C. Christoforidis**, M. Fernández-García, A. Kubacka. "Promoting H₂ photoproduction of TiO₂-based materials by surface decoration with Pt nanoparticles and SnS₂ nanoplatelets" Applied Catalysis B: Environmental 2020, 277, 119246.
3. A. Crake, **K. C. Christoforidis**, B. Moss, A. Kafizas, S. Zafeiratos, C. Petit. "The effect of materials architecture in TiO₂/MOF composites on CO₂ photoreduction and charge transfer" Small 2019, 15, 1805473.
4. **K.C. Christoforidis**, P. Fornasiero. "Photocatalysis for hydrogen production and CO₂ reduction: The case of copper-catalysts" ChemCatChem 2019, 11, 368-382.
5. A. Crake, **K. C. Christoforidis**, R. Godin, B. Moss, A. Kafizas, S. Zafeiratos, J. R. Durrant, C. Petit. "Titanium dioxide/carbon nitride nanosheet nanocomposites for gas phase CO₂ photoreduction under UV-visible irradiation" Applied Catalysis B: Environmental 2019, 242, 369-378.
6. I.A. Vasiliadou, R. Molina, M.I. Pariente, **K.C. Christoforidis**, F. Martinez, J.A. Melero. "Understanding the role of mediators in the efficiency of advanced oxidation processes using white-rot fungi" Chemical Engineering Journal 2019, 359, 1427-1435.
7. **K.C. Christoforidis**, Z. Syrgiannis, V. La Parola, T. Montini, C. Petit, E. Stathatos, R. Godin, J.R. Durrant, M. Prato, P. Fornasiero. "Metal-free dual-phase full organic carbon nanotubes/g-C₃N₄ heteroarchitectures for photocatalytic hydrogen production" Nano Energy 2018, 50, 468-478.
8. A. Crake, **K.C. Christoforidis**, A. Kafizas, S. Zafeiratos, C. Petit. "CO₂ capture and photocatalytic reduction using bifunctional TiO₂/MOF nanocomposites under UV-vis irradiation" Applied Catalysis B: Environmental 2017, 210, 131-140.
9. **K.C. Christoforidis**, A. Pérard, V. Keller, N. Keller. "Single-step synthesis of SnS₂ nanosheets decorated TiO₂ anatase nanofibers as efficient photocatalysts for the degradation of gas phase diethylsulfide" ACS Applied Materials and Interfaces 2015, 7, 19324-19334.

Selected research projects

1. **Horizon 2020**. Scheme: Research and Innovation Actions. Project: "Novel photo-assisted systems for direct solar-driven reduction of CO₂" 2020-2023.
2. **Make Our Planet Great Again** (MOPGA) The French National Research (ANR). "Instant and long-term approaches for CO₂ reduction" 2019-2024. Principal investigator (**PI: Dr. K.**

Christoforidis). CNRS Strasbourg (Institute of Chemistry and Processes for Energy, Environment and Health (ICPEES)) - University of Strasbourg (FRANCE).