

# Maciej Thomas



**Academic degrees: PhD, DSc Eng.**

**Position: Assoc. Prof.**

**Engineering - technical field**

**Discipline: Environmental engineering, mining and energy**

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## **Academic qualifications:**

Academic teacher, Assoc. Prof. at the Department of Environmental Technologies, Member of the Scientific Council of the Faculty of Environmental Engineering and Energy

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## **Membership in professional and academic boards:**

Cracow Technical Society

Polish Chemical Society, Cracow Branch

Polish Association of Sanitary Engineers and Technicians, Cracow Branch

Polish Academy of Sciences, Division IV of Technical Sciences, Committee on Civil and Water Engineering, Section of Sanitary Engineering (as an invited scientist)

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## **Academic merits:**

Author and co-author of scientific papers, monographs, chapters in monographs, and oral and poster presentations at national and international conferences (including 67 scientific papers, 859 citations, and an H-index of 16 according to Scopus). Co-supervisor of four defended doctoral dissertations (including three with distinction) in the disciplines of environmental engineering, mining, and energy, concerning industrial wastewater treatment, the management of by-products and waste, and the recovery and reuse of waste components as reagents for industrial wastewater treatment. Currently, he is the co-supervisor of one doctoral thesis (for an international student). Co-investigator (investigator) in three research projects (two international and one domestic). Active reviewer of publications in high-impact international journals. Scientific collaborations include the Department of Physics and Chemistry - Emilio Segrè (DiFC), University of Palermo, Italy; the Department of Civil, Environmental Engineering, and Architecture, University of Cagliari, Italy; the Department of Chemistry, Faculty of Natural Sciences, Matej Bel University, Slovakia; the Department of Environmental Engineering, Faculty of Ecology and Environmental Sciences, Technical University in Zvolen, Slovakia; and the Faculty of Mining, Ecology, Process Control, and Geotechnologies, Technical University of Košice, Slovakia. Over fifteen years of practical experience in the treatment of industrial water and wastewater and related technological processes, including those from industrial paint shops, printed circuit board production, metal surface treatment plants, and other industrial facilities. Author and co-author of research and development studies, expert reports, professional opinions, and implementations for the industrial sector.

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## **Professional qualifications/language skills:**

Polish, German, English

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## **Research field:**

Physicochemical methods and technologies for industrial water and wastewater treatment. Advanced Oxidation Processes (AOPs). Advanced Precipitation Processes (APPs). Synthesis, study of properties and applications of potassium ferrate(VI) as a "green oxidizer". Synthesis, study of properties and applications of sodium trithiocarbonate (polythiocarbonate) as an effective reagent for the removal of heavy metals from industrial wastewater. Innovative coagulants based on zirconium, titanium, cerium and lanthanum salts. The ideas of Green Chemistry, Circular Economy, Zero Liquid Discharge (ZLD) and Sustainable Development in the context of their possible application in the design and implementation of conventional and advanced technologies for industrial wastewater treatment, the use of by-products and industrial waste for the recovery or synthesis of innovative reagents in the form of oxidizers, adsorbents, coagulants, flocculants, etc.

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## **Address:**

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**Useful links:**

[https://www.researchgate.net/profile/Maciej-Thomas?ev=hdr\\_xprf](https://www.researchgate.net/profile/Maciej-Thomas?ev=hdr_xprf)  
<https://scholar.google.com/citations?user=IT5pDNQAAAAJ&hl=pl>  
<https://www.scopus.com/authid/detail.uri?authorId=57195371256>  
<https://www.webofscience.com/wos/author/record/ABC-9407-2020>  
<https://cris.pk.edu.pl/info/author/CUT7d00a5b267bc47a09244fa5befcb3d09?r=author&ps=20&tab=&lang=pl&title=Profil%2Bosoby%2B%25E2%2580%2593%2BMaciej%2BThomas%2B%25E2%2580%2593%2BPolitechnika%2BKrakowska&pn=1&qp=openAccess%3Dfalse&cid=416480>