

Doctoral researcher in Catalytic Advanced Oxidation
Processes (AOPs)
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=262207>

Downloaded On: Sep. 9, 2025 2:00am

Posted Sep. 8, 2025, set to expire Jan. 8, 2026

Job Title Doctoral researcher in Catalytic Advanced Oxidation
Processes (AOPs)
Department T213 Built Environment
Institution Aalto University
, , Finland

Date Posted Sep. 8, 2025

Application Deadline Open until filled
Position Start Date Available immediately

Job Categories Post-Doc

Academic Field(s) Chemical/Petroleum

Job Website https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-researcher-in-Catalytic-Advanced-Oxidation-Processes--AOPs-_R44186

Apply By Email

Job Description

Aalto University is a community of bold thinkers where science and art meet technology and business. We are committed to identifying and solving grand societal challenges and building an innovative future. Aalto has six schools with nearly 11 000 students and a staff of more than 4000, of which 400 are professors. Our main campus is located in Espoo, Finland. Diversity is part of who we are, and we actively work to ensure our community's diversity and inclusiveness in the future as well. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

We are now looking for a

Doctoral researcher in the field of Catalytic Advanced Oxidation Processes (AOPs)

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If you are a passionate Scientist/Engineer about the emerging challenges facing water treatment industry particularly emerging micropollutants and have the motivation to take part in developing innovative solutions for such challenges, this position is a good fit for you.

In this role, you will be working with Assistant Prof. Raed Al-Juboory in the Water and Wastewater Research Group within the Department of Built Environment at the School of Engineering. This dynamic group stands out for its unique approach—combining rigorous fundamental research with practical, real-world applications. With strong ties to the Finnish water and wastewater industry, the group has successfully led numerous high-impact projects in collaboration with partners across Europe and around the world.

The selected candidate will be working on the development of catalytic hybrid AOP reactor and evaluate the combination of selected technologies for the removal of prominent pharmaceutical contaminants in Finnish water. The work will also include developing effective scalable catalyst design and studying metabolites and their toxicity.

Your experience and ambitions

The candidate is expected to have: *

Experience with AOPs and radicals' measurements (e.g. Electron Spin Resonance (ESR)) and/or willingness to be trained for learning the techniques. *

Experience with HPLC and LC-MS measurements. *

Experience with catalytic process.

Desirable experience *

DFT calculations and molecular dynamic simulations. *

Toxicity measurements. *

NMR measurements

Academic requirements *

A master's degree in Chemical Engineering, Chemistry, Materials Science, Environmental Engineering or other relevant disciplines. *

Proficient English communication skills

Applicants must fulfill the admission criteria of the Aalto Doctoral Programme in Engineering, and the selected candidate is expected apply for, obtain and accept the right to pursue doctoral studies at Aalto University. For more information on the general requirements and the application process for doctoral studies, please visit [[url=https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-engineering](https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-engineering)]<https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-engineering>.

What we offer

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The initial contract period is 2 years, with a possibility of extension. There will be a compulsory midterm review which will be completed during the second year. More info

[url=https://www.aalto.fi/en/programmes/aalto-doctoral-programme-in-engineering/midterm-review-of-doctoral-studies-eng]here.

The starting salary for a Doctoral Researcher is €2,960/month, with increases based on progress in the doctoral studies. The contract includes occupational health benefits and a holiday bonus. Finland offers a comprehensive social security system. The position can begin as soon as possible, with flexibility to agree on a later start date.

We work in a hybrid way with flexible office hours, and the primary workplace is at our active university campus in Otaniemi, Espoo.

Ready to apply?

If you want to join our community, please submit your application through our recruitment system by September 29, 2025. Click “Apply now”. If you wish to hear more about the position, you can reach out to Assistant Professor Raed Al-Juboori ([url=mailto:Raed.Al-Juboori@aalto.fi]Raed.Al-Juboori@aalto.fi)

To apply, please share the following application materials with us: *

A letter of motivation explaining how your background and expertise fit the position requirement *

A resume, including contact details for two references *

A copy of your master’s degree certificate and a transcript of your studies

More information about us

Visit the page of our School of Engineering on [url=https://www.aalto.fi/en/school-of-engineering/departments-of-the-school-of-engineering]https://www.aalto.fi/en/school-of-engineering/departments-of-the-school-of-engineering

Our department [url=https://www.aalto.fi/en/department-of-built-environment]https://www.aalto.fi/en/department-of-built-environment

And our group [url=https://www.aalto.fi/en/department-of-built-environment/wastewater-treatment-technologies]https://www.aalto.fi/en/department-of-built-environment/wastewater-treatment-technologies

Want to know more about us and your future colleagues? You can watch these videos:

[url=https://www.youtube.com/watch?v=#61;5k_og_6zUJQ]https://www.youtube.com/watch?v=#61;5k_og_6z

and [url=https://www.youtube.com/watch?v=#61;dUfEGVM-

ZP8&feature=#61;youtu.be]https://www.youtube.com/watch?v=#61;dUfEGVM-

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About Finland

Finland is a great place for living with or without family - it is a safe, politically stable and well-organized Nordic society. Finland is consistently ranked high in quality of life and was just listed again as the happiest country in the world: [\[url=https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/\]](https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/)<https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/>. For more information about living in Finland: [\[url=https://www.aalto.fi/services/about-finland\]](https://www.aalto.fi/services/about-finland)<https://www.aalto.fi/services/about-finland>

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Finland