Doctoral Researcher, developing hydrogen electrode to meet the circular economy principles
Aalto University

Job Title	Doctoral Researcher, developing hydrogen electrode to meet the circular economy principles
Department	T105 Chemistry and Materials
Institution	Aalto University , , Finland
Date Posted	Jun. 24, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Chemistry - General
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-Researcher--developing-hydrogen-electrode-to-meet-the-circular-economy-principles_R40144
Apply By Email	

Job Description

Aalto University is where science and art meet technology and business. We shape a sustainable future by making research breakthroughs in and across our disciplines, sparking the game changers of tomorrow and creating novel solutions to major global challenges. Our community is made up of 13 000 students, 400 professors and close to 4 500 other faculty and staff working on our dynamic campus in Espoo, Greater Helsinki, Finland. Diversity is part of who we are, and we actively work to ensure our community’s diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

[url=https://www.aalto.fi/en/school-of-chemical-engineering]The School of Chemical Engineering is one of the six schools of Aalto University. It combines natural sciences and engineering in a unique way.

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We are now looking for:

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The number electrolysers for hydrogen generation are expected to increase drastically as industry, energy and traffic sectors strive to cut emissions. Yet, electrolysers fabrication requires utilization of non-renewable minerals, e.g. platinum group metals for polymer electrolyte membrane electrolyser (PEMEL) electrodes to catalyse the reactions. Both mineral processing to fabricate these materials and their recycling after the end of the device lifespan consume energy and chemicals creating a tremendous pressure for developing more sustainable electrocatalysts and electrodes, which meet the circular economy principles.

We have a position for a doctoral student working on development of more sustainable electrocatalysis and recycling. Your project will focus on developing material and energy efficient electrocatalyst and electrodes for hydrogen generation in PEMELs alongside with development of a novel recycling method for these. This position is part of the doctoral school of [url=https://www.aalto.fi/en/aalto-university-h2-innovation-center]Aalto Hydrogen Innovation Center, which will be supported by common seminars, networking activities and contact with industry. You will work in two leading groups ([url=https://www.aalto.fi/en/department-of-chemistry-and-materials-science/electrochemical-energy-conversion-and-storage]https://www.aalto.fi/en/department-of-chemistry-and-materials-science/electrochemical-energy-conversion-and-storage and [url=https://www.aalto.fi/en/department-of-chemical-and-metallurgical-engineering/hydrometallurgy-and-corrosion-hydromet]https://www.aalto.fi/en/department-of-chemical-and-metallurgical-engineering/hydrometallurgy-and-corrosion-hydromet) in the fields of hydrogen electrocatalysis and recycling at the Aalto University School of Chemical Engineering enabling you to grow as a top scientist in both fields. Also top-level research infrastructure will support your research.

If you are creative and diligent and have completed a MSc degree in electrochemistry, chemical engineering, material science or equivalent field, you might be the doctoral student we are looking for to join our teams. We appreciate good research project management skills and collaboration skills, as you will work in the interphase of two research groups.

In the beginning of the employment, you will apply for the study right in doctoral studies at Aalto University School of Chemical Engineering. Please check the student information and admission criteria at [url=https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-chemical-engineering]https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-chemical-engineering. In particular, please pay attention to the mandatory skill level in English. The fist employment contract is made for two years and doctoral studies at Aalto University take approximately four years altogether.

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The contract includes occupational health benefits and Finland has a comprehensive social security system.

Starting date will be in Fall 2024, the exact date can be agreed with the selected candidate.

Ready to apply?
If you would like to join our community, please submit your application through our online recruiting system no later than August 9, 2024 by using the link provided. Please include the following documents in English.

If you are an employee at Aalto, please note: you should apply for the position via our internal system Workday (not via the external aalto.fi webpage on open positions). Use your existing Workday user account. *
Motivation letter: free form 1 page letter where you describe yourself and why you are interested in postgraduate studies and this particular position. *
CV describing education and employment history *
MSc degree certificate

If you have any questions, you can reach out to Professors Tanja Kallio (tanja.kallio(a)aalto.fi) and Mari Lundström (mari.lundstrom(a)aalto.fi).

Want to know more about us and your future colleagues? You can watch these videos: [url=https://www.youtube.com/watch?v=5k_og_6zUJQ]Aalto University - Towards a better world, [url=https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be]Aalto People, and [url=https://www.youtube.com/watch?v=ZK6pDWm1_CE]Shaping a Sustainable Future. You can also check out our webpage about Aalto and Finland: [url=https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package]https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package and our new virtual campus experience: [url=https://virtualtour.aalto.fi/]https://virtualtour.aalto.fi/.

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/. For more information about living in Finland: [url=https://www.aalto.fi/en/careers-at-aalto/why-finland]https://www.aalto.fi/en/careers-at-aalto/why-finland

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Contact Information

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

Contact

Finland