

Professor, Chemistries and Processes for Sustainable
Microelectronics
Aalto University

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Posted Nov. 4, 2025, set to expire Mar. 6, 2026

Job Title	Professor, Chemistries and Processes for Sustainable Microelectronics
Department	T105 Chemistry and Materials
Institution	Aalto University , , Finland
Date Posted	Nov. 4, 2025
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Professor
Academic Field(s)	Chemistry - General
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Professor--Chemistries-and-Processes-for-Sustainable-Microelectronics_R44269-3

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 120 nationalities, 14 000 students, 400 professors and close to 5000 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.

The School of Chemical Engineering is one of the six schools of Aalto University. It combines natural sciences and engineering in a unique way. The Department of Chemistry and Materials Science is one of the three departments at the School of Chemical Engineering, and its unique competitive edge is

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based on chemical synthesis and materials research. We have world class expertise in Atomic Layer Deposition (ALD), electrochemical materials, soft materials, and molecular modelling. The research in the Department focuses on advanced and functional materials, chemical synthesis, electrochemical energy conversion and storage, as well as molecular and materials modelling.

We are now looking for a

Assistant, Associate, or Full Professor,

Chemistries and Processes for Sustainable Microelectronics

The call is open for Assistant, Associate and Full Professor levels of the [\[url=https://www.aalto.fi/en/tenure-track\]](https://www.aalto.fi/en/tenure-track)Aalto University tenure track system. At the Assistant Professor level, the position is fixed term. At the Associate Professor level, the position can be fixed term or permanent, and at the Full Professor level the position is permanent. The position is full-time.

We are looking for outstanding candidates having strong expertise in thin-film materials and processes for microelectronics. Applicants are expected to demonstrate consideration of sustainability in thin-film deposition in a broad sense. This could be addressed by considering, for example, sustainable use of chemicals, material and energy efficient processing as well as high-performance sustainable and reliable thin films.

We expect you to develop chemical thin-film deposition processes such as atomic layer deposition (ALD), chemical vapor deposition (CVD), metal-organic CVD, plasma-assisted ALD, area-selective ALD, or atomic layer etching (ALE). Applications include, for example, components in integrated circuits, optoelectronics, power electronics, or quantum technologies.

Scientific environment

The [\[url=https://cmat.aalto.fi/\]](https://cmat.aalto.fi/)Department of Chemistry and Materials Science currently has 15 professors, 11 lecturers, and two staff scientists, and it is responsible for the bachelor-level chemistry and materials science education at Aalto University. The four defined strategic research areas of the Department are chemical synthesis, functional materials, energy storage and conversion, and molecular modelling. We offer an inspiring community of experts in closely related fields, such as thin-film technologies, microfabrication, inorganic materials chemistry, and materials modelling. Our chemistry and materials science research ranges from atomic and molecular level to functional materials and devices. The Department hosts world-class materials research infrastructure [\[url=https://www.aalto.fi/en/school-of-chemical-engineering/rami-raw-materials-research-infrastructure\]](https://www.aalto.fi/en/school-of-chemical-engineering/rami-raw-materials-research-infrastructure)RAMI with versatile ALD facilities. The unique competitive edge of the Department is

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access to the largest cleanroom infrastructure in the Nordic Countries, [[url=https://www.aalto.fi/en/otanano/micronova](https://www.aalto.fi/en/otanano/micronova)]Micronova, and close connection to semiconductor industry. We also have direct access to [[url=https://www.aalto.fi/en/otanano/nanomicroscopy-center](https://www.aalto.fi/en/otanano/nanomicroscopy-center)]OtaNano Nanomicroscopy Center and Finland's national supercomputing centre, [[url=https://csc.fi/en/](https://csc.fi/en/)]CSC.

Your role and our expectations

As a professor, we expect you to establish a high-level research group in the field of thin-film materials and processes for microelectronics. We appreciate research directions that are linked to the Department's strategic research areas mentioned above and commitment to close collaboration with research groups at Aalto University School of Electrical Engineering as well as with industry.

We value commitment to high-level teaching. You will be teaching at the B.Sc., M.Sc. and doctoral levels on topics related for example to thin films and functional inorganic materials. Typically, teaching accounts for 25-30% of working time.

A doctoral degree in chemistry, materials science, or in a related field is a prerequisite for the position. Track records of obtaining external funding, research supervision experience, and industrial collaborations are considered as merits.

What we offer

At Aalto University, you can work within a well-resourced learning community where the students are rigorously selected and highly motivated. This results in an interactive and intellectually challenging atmosphere. Aalto University supports teaching staff to develop further as a teacher by providing [[url=https://www.aalto.fi/en/services/aalto-university-pedagogical-training-for-faculty](https://www.aalto.fi/en/services/aalto-university-pedagogical-training-for-faculty)]pedagogical training for faculty.

The salary is determined based on the applicant's experience and qualifications. Aalto University provides its employees with occupational health care services and retirement benefits. Activities of the department are located on the Otaniemi campus of Aalto University in Espoo (Helsinki metropolitan area).

Finland is a healthy and safe living environment, offering many excellent state-subsidized services including affordable day care, free schools, and universities, which are consistently ranked among the best in the world. More information about living and working in Finland:

[[url=https://www.aalto.fi/en/careers-at-aalto/for-international-staff](https://www.aalto.fi/en/careers-at-aalto/for-international-staff)]<https://www.aalto.fi/en/careers-at-aalto/for-international-staff>.

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Tenure track at Aalto University

Since 2010, the tenure track at Aalto University has attracted a wide range of international applicants, enabling the recruitment of top experts and young talent to the Aalto University community. Throughout their careers, those in the tenure track system are expected to conduct and supervise scientific research, to provide related academic education, contribute to developing their field or discipline, as well as contribute to academic service at the university and beyond in the society. For more information on the tenure track system of Aalto University, please see [\[url=https://www.aalto.fi/en/tenure-track\]](https://www.aalto.fi/en/tenure-track)<https://www.aalto.fi/en/tenure-track>.

Ready to apply?

If you want to join our community, please submit your application no later than 4.1.2026 through our recruiting system by using the "Apply" link.

Please note: Aalto University's employees should apply for the position via our internal HR system Workday (Internal Jobs) by using their existing Workday user account (not via the external webpage for open positions). If you are a student or visitor at Aalto University, please apply with your personal email address (not aalto.fi) via [\[url=https://www.aalto.fi/en/careers-at-aalto\]](https://www.aalto.fi/en/careers-at-aalto)Aalto University open positions.

To apply, please share the following application materials with us in English and as PDF (the maximum size of each document is 5MB and the maximum number of documents is 5). *

Cover letter *

Curriculum Vitae - please use the [\[url=https://tenk.fi/en/advice-and-materials/template-researchers-curriculum-vitae\]](https://tenk.fi/en/advice-and-materials/template-researchers-curriculum-vitae)template recommended by The Finnish Advisory Board on Research Integrity. Please also include names and contact information for references. *

List of publications - please highlight 10 most significant publications and explain their importance and your role in them. *

Research portfolio - a concise (4-10 pages) reflection on the merits, long-term vision, and research plan. The portfolio should demonstrate consideration of sustainability in thin-film deposition in a broad sense. For general instructions, visit [\[url=https://www.aalto.fi/sites/g/files/flghsv161/files/2023-03/Liite%201%2020230222%20Aalto%20Tenure%20Track%20Policies%20and%20Procedures_ENG.pdf\]](https://www.aalto.fi/sites/g/files/flghsv161/files/2023-03/Liite%201%2020230222%20Aalto%20Tenure%20Track%20Policies%20and%20Procedures_ENG.pdf)

Tenure Track Policies and Procedures -document, page 25 *

Teaching portfolio according to Aalto University's guidelines - see [\[url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-04/Teaching-competence-assessment_Guidelines-for-a-candidate_2024_Aalto-University.pdf\]](https://www.aalto.fi/sites/g/files/flghsv161/files/2024-04/Teaching-competence-assessment_Guidelines-for-a-candidate_2024_Aalto-University.pdf)Teaching portfolio guidelines for candidate.

General instructions for applicants including evaluation criteria, language requirements and guidelines for compiling your CV are given at [\[url=https://www.aalto.fi/en/tenure-track/interested-in-joining-our-\]](https://www.aalto.fi/en/tenure-track/interested-in-joining-our-)

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tenure-track]<https://www.aalto.fi/en/tenure-track/interested-in-joining-our-tenure-track>.

Aalto University will use external reviewers and aptitude assessments to support the evaluation of applicants during the recruitment process and choose the most suitable applicants to visit the Department of Chemistry and Materials Science and deliver teaching demonstrations.

Further information

If you wish to hear more about the position, you can reach out to Professor Maarit Karppinen. In questions related to the recruitment process, contact HR Partner Tiina Torvinen. Emails: [firstname.lastname\(a\)aalto.fi](mailto:firstname.lastname(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 check out our 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://www.worldhappiness.report/news/world-happiness-report-2025-people-are-much-kinder-than-we-expect-research-shows/>]<https://www.worldhappiness.report/news/world-happiness-report-2025-people-are-much-kinder-than-we-expect-research-shows/>. For more information about living in Finland: [url=<https://www.aalto.fi/en/careers-at-aalto/for-international-staff>]<https://www.aalto.fi/en/careers-at-aalto/for-international-staff>.

Contact Information

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

Contact

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