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Department	Professor, Microfabrication T105 Chemistry and Materials Aalto University , , Finland
Date Posted	Sep. 3, 2024
Application Deadline Position Start Date	Open until filled Available immediately
Job Categories	Professor
Academic Field(s)	Materials Sciences/Polymer Sciences Chemistry - General
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi- Espoo-Finland/ProfessorMicrofabrication_R40009
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### **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.

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 based on chemical synthesis and materials developments. We have world class expertise on



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developing Atomic Layer Deposition (ALD) methods, electrochemical materials and molecular modelling. We also have several groups working on soft materials. 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

Associate or Full Professor, Microfabrication

The call is open for Associate and Full Professor levels of the [url=https://www.aalto.fi/en/tenuretrack]Aalto University tenure track system. At the Associate 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 a world-class academic leader in micro/nanofabrication. We expect you to develop micro/nanofabrication processes towards new functional materials and devices, and possess a clear vision of how to utilize the [url=https://www.aalto.fi/en/otanano/micronova]Micronova cleanroom facilities in your research. A modern experimental profile with knowledge on state-of-the-art micro/nanofabrication techniques and processes is valued. You will utilize techniques such as wafer engineering, patterning, thin film deposition, and surface preparation towards applications such as integrated circuits, microsensors, microfluidics, solar cells, flat-panel displays, or optoelectronics. The focus is on processing of wafers and other macroscopic substrates (e.g. glass, polymers) rather than e.g. nanoparticles.

#### Scientific environment

The [url=https://www.aalto.fi/en/department-of-chemistry-and-materials-science]Department of Chemistry and Materials Science currently has 14 professors, 10 lecturers and 4 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 inorganic materials chemistry, thin-film technologies, electrochemistry, and materials modelling. Our chemistry and materials science research ranges from atomic and molecular level to functional materials and devices. The unique competitive edge of the Department is access to the largest cleanroom infrastructure in the Nordic Countries,

[url=https://www.aalto.fi/en/otanano/micronova]Micronova, and close connection to semiconductor industry.

In addition to Micronova cleanroom infrastructure, our Department hosts world-class materials research infrastructure [url=https://www.aalto.fi/en/school-of-chemical-engineering/rami-raw-materials-



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research-infrastructure]RAMI, and we also have direct access to [url=https://www.aalto.fi/en/otanano/nanomicroscopy-center]OtaNano NanoMicroscopy infrastructure with versatile microscopic techniques, and Finland's national supercomputing centre, [url=https://csc.fi/en/]CSC.

#### Your role and our expectations

As a professor, we expect you to establish a high-level research group in microfabrication. You will utilize the research facilities of the [url=https://www.aalto.fi/en/otanano/micronova]Micronova cleanroom infrastructure and contribute to their development. We appreciate research directions that are linked to the Department's strategic research areas mentioned above and commitment to close collaboration with other research groups within Aalto University, as well as with industry.

We value commitment to high-level teaching and we expect you to have previous teaching experience. You will be teaching at the B.Sc., M.Sc. and doctoral levels on topics related to microfabrication and materials science. The teaching load in materials science is shared with four professors and three lecturers. Typically, teaching accounts for 25-30% of working time.

A doctoral degree in materials science, materials chemistry, applied physics, or in a related field is a prerequisite for the position. Proven ability to obtain external funding and experience of researcher supervision is required. Industrial collaborations are considered as a merit.

#### 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 unusually interactive and intellectually challenging atmosphere. Aalto University supports teaching staff to develop further as a teacher by providing pedagogics courses in broad variety.

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 in 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]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]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]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]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]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]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]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]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]https://wwww



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Tenure track in Aalto University

The position is a tenure track position. Individuals appointed to the tenure track can conduct research and/or artistic work and teach to build academic merits towards qualifying for an appointment to a tenured position.

Since 2010, the tenure track has attracted a wide range of international applicants, giving Aalto University the possibility of recruiting top experts and young talent to join the Aalto University community. Throughout their careers, those in the tenure track system are expected to conduct and supervise artistic/scientific research and/or artistic/design work, to provide related academic education, contribute to developing their field or discipline, as well as contribute to academic service 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.

Ready to apply?

If you want to join our community, please submit your application no later than 18.11.2024 through our recruiting system by using the "Apply" link.

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.

To apply, please share the following application materials with us in English and in 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-researcherscurriculum-vitae]template recommended by The Finnish Advisory Board on Research Integrity. Please also include names and contact information for references. \*

List of publications, with 10 most significant publications listed, an explanation of their importance and applicant role on them. \*

Research portfolio - a concise (4-10 pages) reflection on the merits, long-term vision, and research plan. For 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.pdf 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]Teaching portfolio guidelines for candidate



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

Aalto University will use external reviewers 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: [url=mailto:firstname.lastname@aalto.fi]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-toaalto-university-and-finland-info-package]https://www.aalto.fi/en/services/welcome-to-aalto-universityand-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://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-fi

#### **Contact Information**

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

#### Contact



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Finland