Professor in Energy Materials and Thin Films

Aalto University

Aalto University is a multidisciplinary community of bold thinkers where science and art meet technology and business.

Aalto University is a university where research, art and education are promoted hand in hand. We are committed to **identifying and solving grand societal challenges** and building an innovative future.

With high-quality research we aim at creating significant impact on the international scientific community, industry and business, as well as the society at large. Disciplinary excellence is combined with **multidisciplinary** activities, engaging both students and the local innovation ecosystem.

Aalto has nearly 12 000 students and **six schools** with more than 400 professors. We are an international community: more than 40% of our academic personnel have an international background.

Aalto University was **founded in 2010** as three leading Finnish universities, Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki, were merged. Our campuses are located in Espoo and Helsinki, Finland.

The University campus in Espoo is developing into a unique, open innovation hub and a center of collaboration that attracts partners from all around the world. It encourages sharing of ideas, inter-disciplinary encounters, creativity, growth and entrepreneurship. The core of the campus will be a vibrant city with versatile services and attractive places to meet.

Aalto University

More info at
aalto.fi

School of Chemical Engineering

Providing novel solutions to help society transform on a sustainable economy based on utilization of natural resources.

The School of Chemical Engineering combines natural sciences and engineering in a unique way. Research carried out at the School is focused on forest products technologies, chemical engineering, industrial biotechnology, materials science and nanotechnology, metals and minerals processing and energy technology. The activities cover the whole chain from scientific research and theory to processes resulting in innovative products and applications. The School is backed by strong cooperation with the business world: new knowledge created through research is used to reform industry and promote new forms of business.

The school has **three departments**: Bioproducts and Biosystems, Chemical and Metallurgical Engineering, Chemistry and Materials Science.

It hosts two infrastructures: Bioeconomy infrastructure that enables research from molecular level to biobased technology concepts; Raw Materials research infrastructure supports the research of circular economy targeting to closed metallurgical and hydrometallurgical processes and inorganic energy materials.

The school has **480 staff** members in total, 45 professors and 150 doctoral students and approximately 800 students annually. It educates a wide range of responsible, broad-minded experts for industry.

Aalto University
School of Chemical
Engineering

More info at
chem.aalto.fi

Department of Chemistry and Materials Science

The department of Chemistry and Materials Science (CMAT) is one of the three departments in the School of Chemical Engineering at Aalto University.

The research and education activities at the CMAT Department are based on expertise in chemistry (organic, inorganic, and physical), and in materials science of functional materials, nanomaterials, surfaces, and thin films. The approach is from molecules to functionality to systems. The activities may be grouped in four main areas: 1. Energy storage and conversion, 2. Soft functional materials, 3. Inorganic, silicon-based functional materials, and 4. Molecular modelling. CMAT has 12 professors and about 110 staff. The research groups are highly competitive and have achieved, for example, four ERC grants during the past 5 years.

The research in electrochemical energy storage and conversion and functional materials strongly supports CHEM School research focus areas. The strategic mission is to find solutions for sustainable use of energy and raw materials, attracting talents to become members in this science community as students and teachers.

Tenure track in Aalto University

The tenure track is open to talented individuals who have excellent potential for a scientific career. Individuals placed on the Aalto University professorial tenure track have the possibility to advance in their career through regular performance assessments, which take into account their merits in all areas of their scope of duty.

Launched in 2010, the tenure track has attracted a wide range of international applicants, giving Aalto University the possibility of recruiting top experts and young research talent to join the Aalto University community. Read more about the Aalto University tenure track system at www.aalto.fi/en/tenuretrack.

More info at:
https://www.aalto.fi/en/department-of-chemistry-and-materials-science

Professor in Energy Materials and Thin Films

The position will be filled at the Assistant, Associate or Full Professor level of the Aalto University tenure track system. The contract is full-time and either fixed-term or permanent depending on its positioning on the tenure track.

We are looking for a dedicated professional with ambition for ground-breaking academic work in the field of inorganic thin film fabrication. The application areas of thin films we are interested in are related to electrochemical energy storage and conversion, for instance batteries and hydrogen technologies. Such fabrication technologies as atomic layer deposition (ALD), chemical vapor deposition (CVD), and physical vapor deposition (PVD) could be utilized. Functionality, interphases, and structure of thin films are of interest. The professor will collaborate with other research groups working in electrochemical energy storage and conversion technologies and/or thin film fabrication techniques to solve challenging materials science problems.

Scientific environment
We offer inspiring community of experts in the closely related fields, such as electrochemistry, inorganic chemistry, microfabrication and molecular and transport modelling. Our chemistry and materials science research focuses from atomic and molecule level to functional systems while designing materials and devices for energy conversion is one of our research cornerstones. The unique competitive edge of the Department of Chemistry and Materials Science is the sustainability approach for designing more efficient functional materials with clear focus on electrochemical energy conversion and surface and thin film technologies which leans on access to world class research infrastructure (RAMI https://www.aalto.fi/en/school-of-chemical-engineering/rami-raw-materials-research-infrastructure and OtaNano https://www.aalto.fi/en/otanano).

Applicants will be reviewed on the basis of their research work, teaching and academic leadership and activity in the scientific community.

Further Information
Professor Tanja Kallio or HR Partner Tiina Torvinen (emails: firstname.lastname@aalto.fi)

How to apply
To apply, please submit your application through the online recruitment system. Your application should include the following application materials in English and in pdf-format:

- ✓ Cover letter
- ✓ Curriculum Vitae— please use the template recommended by The Finnish Advisory Board on Research Integrity. Please also include names and contact information for references.
- ✓ List of publications, with the most significant publications highlighted
- ✓ Research portfolio—a concise (4-10 pages) reflection on the merits, long-term vision, and research plan.
- ✓ Teaching portfolio according to Aalto University's guidelines—see Teaching portfolio guidelines for candidate

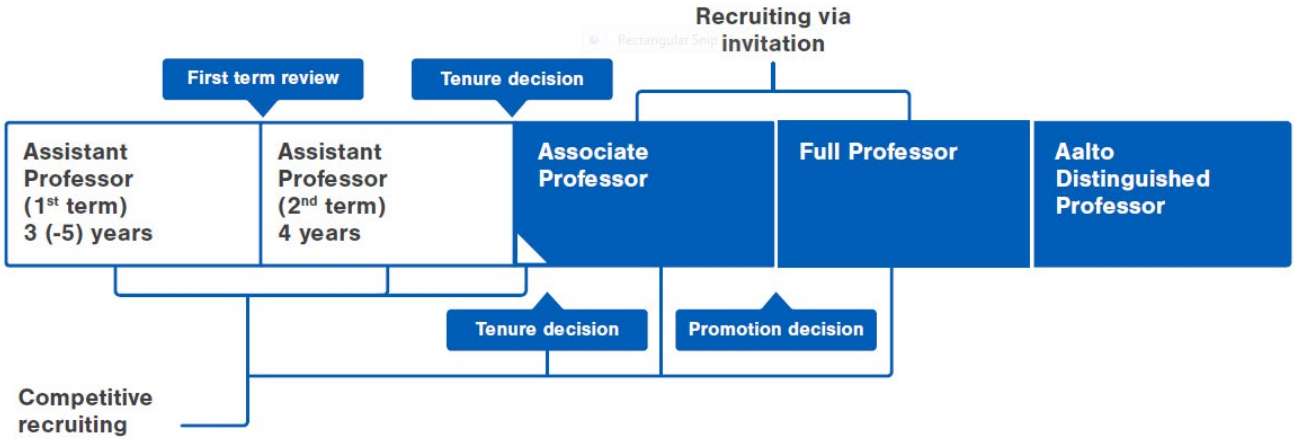
Application deadline
March 22nd, 2023

More info at
position.aalto.fi

Tenure Track Career

Aalto University's tenure track career system offers a well-supported and clear career path for professor-level academics towards a permanent professorship.

- **Clear and transparent** criteria and processes for recruitment, evaluation, and promotion.
- **Compensation of success** – Adequate salary and compensation to motivate towards Aalto's vision and objectives.
- **Equal opportunity to succeed** – Motivation and cooperation increase as people in tenure track compete only with themselves, not against one another.



More info at
aalto.fi/tenuretrack

Tenure Track

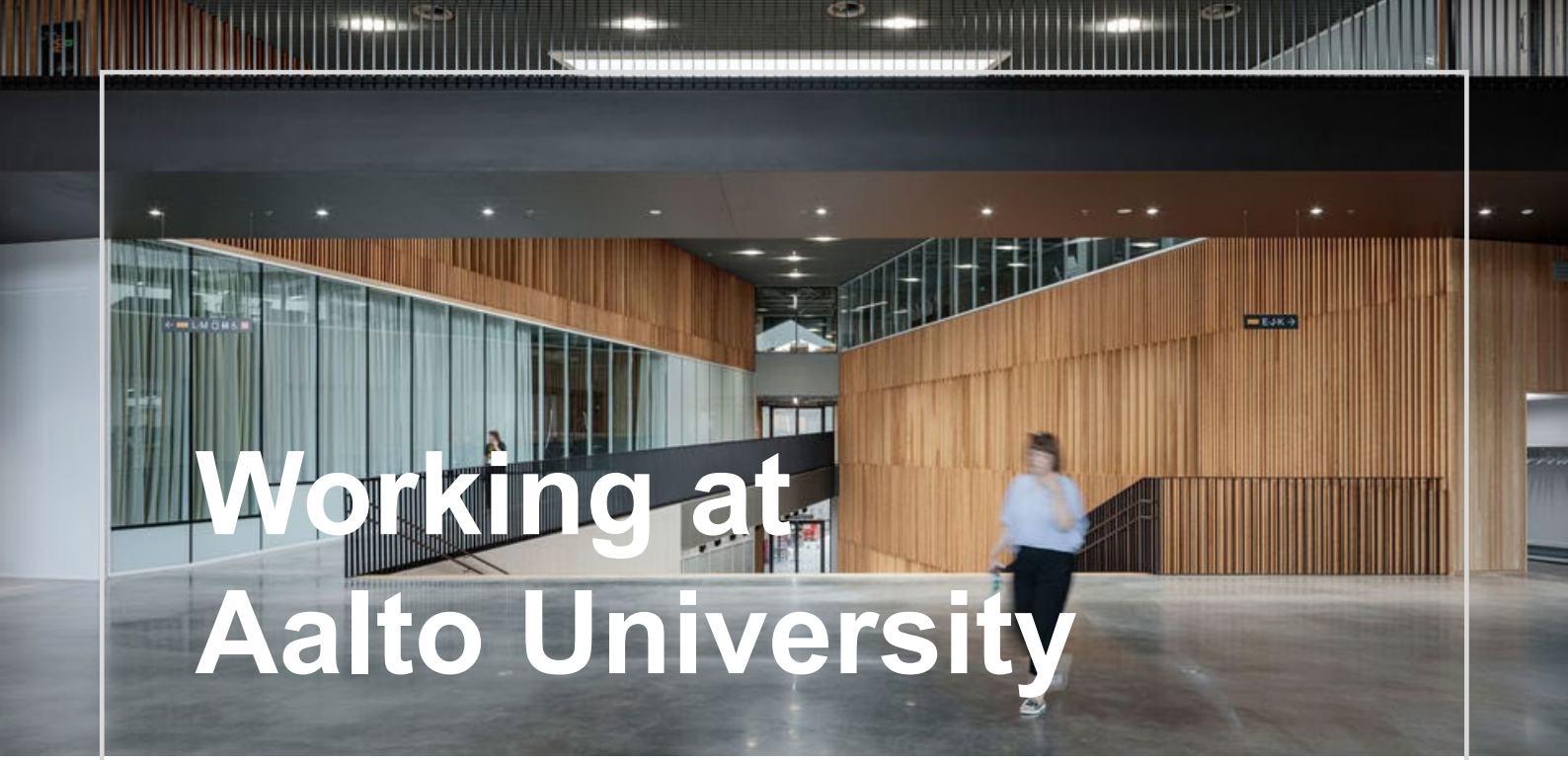
General time allocation for tenure track professors

☐ Fixed term ■ Permanent	Assistant Professor (1)	Assistant Professor (2)	Associate Professor	Full Professor	Aalto Distinguished Professor
Research/ artistic/ professional work	65% +/-10%	60% +/-10%	50% +/-10%	40% +/-15%	Negotiable
Teaching	30% +/-10%	30% +/-10%	30% +/-10%	30% +/-15%	30% +/-15%
Service	5% +5%	10% +/-5%	20% +/-10%	30% +/-15%	Negotiable

Key principles

- Research emphasis high in the beginning to obtain research portfolio.
- Teaching relatively constant to maintain required teaching scale and senior professors in touch with students.
- Contribution for academic leadership and collaboration in research and artistic community increase with seniority through increased leadership, committee membership and societal interaction.
- Mandatory teaching for Distinguished Professors, otherwise work profile negotiated.

More info at
aalto.fi/tenuretrack



Working at Aalto University

Why join us?

Established in 2010 as a merger of three leading Finnish Universities, we are both **challenger of the old, and traditional with strong history** and legacy.

Our unique combination of fields in **art and design, technology and business enable multi-disciplinarity** and finding clever solutions for the world's most wicked problems in the interfaces of these fields.

We aim for **societal impact**, educating game changers to drive sustainability.

We enjoy working at our evolving **collaborative campus close to the heart of Helsinki**, with good connections, great architecture and amazing nature.

We are **international and diverse**: more than 40 % of our faculty comes from outside of Finland. Our working environment is multi-cultural, widely English-speaking and its easy to settle in, despite of wherever you come from.

We have strong academic standing and reputation in our key fields – Aalto University is among top 10 of New Universities in the world (QS ranking).

Our **well-functioning and fair Tenure Track career system** enables building a successful academic career, providing support for fulfilling your professional ambitions.

Culture that inspires and includes everyone. It's the people that create Aalto, now and in the future. We want to be an open community where equality and inclusion enable curiosity, innovation, collaboration and wellbeing. We constantly keep learning to find the most impactful ways to empower – and invest in – our people.

What do we offer?

Meaningful and inspiring environment

We are proud of our purpose to shape a sustainable future. We spark the game changers of tomorrow, and renew society with research-based knowledge, creativity and an entrepreneurial mindset.

Culture that inspires and includes everyone

All our work is guided by the values of the university: responsibility, courage, and collaboration. It's the people that create Aalto, now and in the future. We want to be an open community where equality and inclusion enable curiosity, innovation, collaboration and wellbeing.

Collaboration reimagined

At Aalto University, a unique combination of science, art, tech, and business brings talent together. We have over 12 000 students and 4 000 employees joining forces to shape a sustainable future. Together with the surrounding companies, startups and technology parks at the Otaniemi campus, we are committed to driving ground-breaking research, educating the game changers of tomorrow, and renewing society.

Vibrant campus at a central location

The vibrant Otaniemi campus, only 10 km away from Helsinki city centre, is the home of a bold and curious community, where science and art meet technology, business and innovation. Finland is famous for being the Happiest Country in the World, and having the world's best education system, world class academic freedom*, cleanest air, high trust, and a low hierarchy – themes also important to Aalto.

Aalto University

Living in Finland

Finland is among the best countries in the world according to many quality of life indicators, including being the happiest country in the world (UN study 2018).

We are humble people, but dare to say we have **one of the most advanced education systems in the world.**

The Nordic values of **equality and co-operation** are rooted deeply into our society. We are one of the world's top countries in press freedom and consider the many voices in our society a strength.

With high investments in R&D, a strong innovation culture, open data and advanced state of digitalization, we are a nation of **innovation and entrepreneurship.**

Gender equality, flexibility and low hierarchy are at the core of our **Nordic working environment**. Professional ambitions can be combined with a fulfilling personal life.

We are one of the world's most **reliable and stable** nations with low levels of corruption and high level of safety. We are proud to provide exceptionally high standards of social security and healthcare, financed by the state.

Having four distinct seasons, clean air and thousands of lakes, we are some nature-loving people and take good care of our **unique environment.** We enjoy our midnight sun in the summer and northern lights in the winter.

Finnish language is known to be a bit on the complicated side, but don't worry, we Finns are fluent in English, and have an **international mindset.**

We have **wide and reliable transport networks**, with Helsinki airport serving over 100 direct destinations. The comprehensive public transport makes it easy to commute. Our campus is situated within a 10 minute metro ride from the heart of Helsinki.

Want to live in the best country in the world?

More about Helsinki
More about Espoo
More about Finland
More about working at Aalto

Aalto University – a community of game changers

aalto.fi

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