Professor in Physics of Transmission Electron Microscopy and Nanomaterials for Catalysis

DTU Physics invites applications for a position as Professor in Physics of Transmission Electron Microscopy and Nanomaterials for Catalysis. The professor will conduct research, teaching, and innovation within this field.

The professor will be part of the Section for Surface Science and Catalysis and collaborate closely with other sections, e.g. the Catalysis Theory Center and Section for Neutrons and x-rays of materials Physics, as well as with other relevant research environments at DTU, internationally, and in the private sector.

The research field is atomic-scale structure and dynamics of nanomaterials and catalysts using advanced in-situ Transmission Electron Microscopy (TEM) with a focus on applications in sustainable energy and protection of the environment.

Responsibilities and tasks
You will be responsible for further developing the TEM method to obtain the ultimate performance both regarding imaging at sub-Ångström resolution, time scales and environments relevant for interatomic interactions in catalysis, while preserving the chemical relevance of the observed processes.

Your overall responsibilities will be to perform research, disseminate results to the international research community, contribute with teaching at all levels and pursue innovative solutions and applications within your field of research.

The successful candidate is expected to take a lead role in teaching at the BSc, MSc and PhD levels. For international candidates, DTU can provide Danish language courses enabling the candidates to teach in Danish within 2-3 years.

More specifically, your responsibility will be to:

- aim for scientific breakthroughs within the research field described above
- produce and publish high-impact results
- raise the necessary funding for such research
- teach, supervise, and inspire students and post docs to develop into independent engineers and/or researchers
- enforce collaboration with national and international research environments, also in the private sector

You have the talent and drive to engage in collaboration with both local research environments within DTU Physics and at other departments, e.g. at DTU Energy, DTU Compute, DTU Chemistry, and DTU Chemical Engineering, as well as with leading international groups and strong R&D units in relevant companies.

Qualifications
You must have a PhD in physics and have outstanding qualifications in physics, catalysis, and materials science. In addition, you must be an expert user and developer of TEM methods and have extended experience with designing high-pressure cells to correlate structure and activity of catalytic systems.

Furthermore, you must have a personal drive for excellence, the ability to set and pursue ambitious goals, and thrive at motivating and engaging collaborators.

Successful candidates must document:

- Outstanding, original scientific output
- A strong background in and an innovative approach to developing new methods for following catalytic reactions under realistic conditions
- Preferably a strong track record of collaboration between industry and academia

Assessment
In the assessment of the candidates, consideration will be given to:

- Documented experience and quality of teaching and curriculum development
- Research impact and experience, funding track record and research vision
- Societal impact
- Documented innovation activities, including commercialization and collaboration with industry
- International impact and experience
- Leadership and collaboration
- Communication skills

We offer
DTU is a leading technical university globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.

Salary and terms of employment
The appointment will be based on the collective agreement with the Danish Confederation of Professional Associations. The allowance will be agreed upon with the relevant union.

Further information
Further information may be obtained from Head of Department Jane Hvolbæk Nielsen tel.: +45 4525 3222.

You can read more about DTU Physics at www.fysik.dtu.dk/English

Application procedure
Please submit your online application no later than **1 March 2019 (local time)**. Apply online at www.career.dtu.dk.

To apply, please open the link "Apply online", fill out the online application form. The following must be attached in English**:**

- Application (cover letter) addressed to the President
- CV
- A vision for future research
- Teaching and research statement, with a focus on the “Assessment” bullet points listed above
- Documentation of previous teaching and research, as related to the “Assessment” bullet points listed above
- List of publications indicating scientific highlights
- H-index, and ORCID (see e.g. http://orcid.org/)
- Diploma (MSc/PhD)

Applications and enclosures received after the deadline will not be considered.

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.