CNRS, Institut de Physique et Chimie des Matériaux

Strasbourg, France

Junior Professor Position in Electron Microscopy

The Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS) (https://www.ipcms.fr/en/home/) is searching candidates for a Junior Professor position (chaire professeur junior) of the Centre National de Recherche Scientifique (CNRS). It will be a tenure track leading to a permanent Research Director position after a successful period of 3-6 years. The position is open in four different research institutes in France that have recently acquired state-of-the-art microscopes. An external jury will select the best candidate based on her/his scientific project and research background. The candidate will then be hired by the respective laboratory. According to the tentative schedule, a detailed research plan will have to be submitted in May 2025 and the starting date of the position will be in the beginning of 2026. The research field should be in time-resolved TEM with focus on ultrafast TEM, in-situ and environmental techniques.

Context

The project should be carried out in the TEM group of the IPCMS which has a recognized expertise in ultrafast TEM (https://www.ipcms.fr/en/equipe/ultrafast-transmission-electron-microscopy-utem-2/), *in-situ* environmental TEM and electron tomography. The IPCMS is composed of five research departments and has strong expertise in surfaces, interfaces, magnetic materials, nonlinear optics, organic and inorganic synthesis. Extensive materials characterization facilities are available within the laboratory. The TEM platform currently consists of several high-resolution and analytical electron microscopes, among which is an ultrafast TEM equipped with a pump-probe laser system, a 200 kV Cs probe-corrected TEM and a last generation 300 kV TEM equipped with an image corrector, direct detection cameras and an electrostatic dose modulator.

The candidate should elaborate his/her own scientific project and develop new research topics to widen the activities of the team. This may include time-resolved studies of dynamic systems by using ultrafast or environmental electron microscopy, development of new microscopy techniques in relation with fast and in-situ analysis, or the development of artificial intelligence and computational techniques to manage large amounts of TEM data.

Requirements

- PhD in physics, chemistry, materials science or a related discipline.
- Several years of postdoc or researcher experience with a strong focus on electron microscopy.
- A good publication record in electron microscopy.

- Extensive experience in transmission electron microscopy, ideally with focus on in-situ and time-resolved techniques. Experience in ultrafast TEM would be advantageous (but is not mandatory).
- Ability to develop new research projects, leading a group and supervising PhD students, postdocs and technicians.
- Teaching skills are desirable but not mandatory.

Contact

For more information, please contact direction@ipcms.unistra.fr