



Job Posting Title: Postdoctoral Research Associate Position on In-situ (Scanning) Transmission Electron Microscopy

The University of Connecticut (UConn), one of the top 20 public universities in the nation, invites applications for a Postdoctoral Research Associate position in the Department of Materials Science and Engineering (MSE) in the School of Engineering and the Institute of Materials Science (IMS). Applicants with a strong background in (scanning) transmission electron microscopy ((S)TEM) and in-situ experiment experiences are encouraged to apply. In this position, you will have the opportunity to engage creative research on investigating structure-property dynamics in advanced functional and structural materials including but not limited to heterogeneous catalysts. You will have the opportunity to work in a state-of-the-art TEM center hosting a probe-corrected Titan Themis STEM, and perform in-situ (gaseous) environmental microscopy at our latest InToEM center (<https://today.uconn.edu/school-stories/intoem/>).

UConn is entering a transformational period of growth supported by the \$1.7B Next Generation Connecticut (<http://nextgenct.uconn.edu/>) and the \$1B Bioscience Connecticut (<http://biosciencect.uconn.edu/>) investments and a bold new Academic Plan: Path to Excellence (http://issuu.com/uconnprovost/docs/academic-plan-single-hi-optimized_1). As part of these initiatives, the new UConn-Thermo Fisher Scientific Center for Advanced Microscopy and Materials Analysis (CAMMA) has acquired seven new electron beam instruments including state-of-the-art TEM, SEM and FIB systems. These are housed in the UConn Technology Park as part of the purpose-built Advanced Characterization Laboratory.

DUTIES AND RESPONSIBILITIES

The successful candidate will share a deep commitment to transmission electron microscopy. Working under the supervision of Prof. Yuanyuan Zhu, the candidate will be expected to lead in-situ TEM researches to further the understanding of materials dynamics. The candidate will also contribute to TEM sample preparation, mentor graduate and undergraduate students; write research proposals and progress reports; interact with research collaborators; prepare and maintain lab equipment and supplies, submit and publish peer reviewed journal papers.

MINIMUM QUALIFICATIONS

An earned doctorate in Materials Science, Chemistry, Physics or a related discipline. A strong background and extensive research experience in TEM sample preparation and (scanning) transmission electron microscopy characterization. Good written and verbal communication skills. Good research capabilities as evidenced by a record of publication of results in peer-reviewed journals and external presentations at scientific conferences.

PREFERRED QUALIFICATIONS

Additionally, a strong background in one or several of these fields is desirable: heterogeneous catalysis, surface science, solid state physics. The candidate is expected to be proficient at three or more of the following techniques including but not limited to: SAED, Nanobeam Electron Diffraction, HRTEM, probe-corrected STEM, EDS mapping, core- (and low-) loss EELS, in-situ heating TEM. Skills and experience in in-situ gas-cell microscopy is highly desired. Strong interpersonal skills including the ability to interact effectively with staffs, students and collaborators.

APPOINTMENT TERMS

The selected candidate is expected to start immediately or upon mutual agreement. This is a full-time (12-month appointment) position, and is renewable every year. The successful candidate's primary academic appointment will be at the UConn main campus in Storrs, CT. Salary will commensurate with qualifications and experience.

Department of Materials Science and Engineering
97 NORTH EAGLEVILLE ROAD, UNIT 3136
STORRS, CT 06269-3136
www.ims.uconn.edu

TO APPLY

Please submit the following: a **cover letter; curriculum vitae (with a full list of publication), copies of two representative publications** to yuanyuan.2.zhu@uconn.edu, with a subject title “In-situTEMPostdoc_yourname”.

Evaluation of applicants will begin immediately and continue until the position is filled. Employment of the successful candidate will be contingent upon the successful completion of a pre-employment criminal background check.

All employees are subject to adherence to the State Code of Ethics, which may be found at <http://www.ct.gov/ethics/site/default.asp>.

The University of Connecticut is committed to building and supporting a multicultural and diverse community of students, faculty, and staff. The diversity of students, faculty, and staff continues to increase, as does the number of honors students, valedictorians and salutatorians who consistently make UConn their top choice. More than 100 research centers and institutes serve the University's teaching, research, diversity, and outreach missions, leading to UConn's ranking as one of the nation's top research universities. UConn's faculty and staff are the critical link to fostering and expanding our vibrant, multicultural, and diverse community. As an Affirmative Action/Equal Employment Opportunity employer, UConn encourages applications from women, veterans, people with disabilities, and members of traditionally underrepresented populations.