
Postdoctoral Research Associate: Advanced Electron Microscopy
NUANCE Center | Northwestern University

A postdoctoral research associate position is immediately available at Northwestern University in the area of advanced applications of in-situ and aberration-corrected S/TEM on various materials systems including all-solid-state batteries, catalysts, organic perovskite solar cells, and metal–organic frameworks. The candidate will perform research on the degradation/evolution process of these materials under different stimuli and environments utilizing advanced S/TEMs equipped with *in-situ* K2/K3 direct electron detectors. The candidate will also collaborate with Nano-Fabrication Facility (NUFAB) team to design and fabricate customized chips used in operando S/TEM experiments.

The candidate will be supervised by Dr. Xiaobing Hu and will primarily conduct research in the Northwestern University Atomic and Nanoscale Characterization Experimental (NUANCE) Center, which was founded and is directed by Prof. Vinayak P. Dravid. An NSF Center for Facility Excellence in the greater Midwest, NUANCE houses a comprehensive sample preparation, fabrication, and atomic-/nano-scale characterization capabilities for soft, hard and hybrid structures. In addition to independent research work, the candidate is encouraged to collaborate with high-impact faculty research groups in Northwestern’s departments of Materials Science & Engineering and Chemistry, among others.

The preferred candidate will:

- Hold a doctoral degree in Materials Science, Chemistry, Physics (or related).
- Demonstrate a strong background in the field of in-situ S/TEM and be familiar with various advanced S/TEM methods including atomic-resolution HAADF/ABF/BF/EDS/EELS analysis.
- Demonstrate a strong motivation, ambition, and passion for academic research. A proven high-impact publishing record is required.
- Have experience in cleanroom fabrication and/or coding for imaging processing a plus.

The position is available immediately for two years with the possibility for extension or promotion to a research faculty position.

Applicants will send as a single PDF to nuance@northwestern.edu:

CV, research statement (2-3 pages), and 3 academic reference letters

Northwestern University is an Equal Opportunity, Affirmative Action Employer of all protected classes, including veterans and individuals with disabilities. Women, racial and ethnic minorities, individuals with disabilities, and veterans are encouraged to apply. Hiring is contingent upon eligibility to work in the United States.