

Northwestern University Experimental Crystallographer:

The Integrated Molecular Structure Education and Research Center (IMSERC) at Northwestern University has an open position for an Experimental Crystallographer. IMSERC is the central analytical facility for characterizing novel synthetic compounds at Northwestern University (NU). IMSERC is part of the Chemistry Department, but it serves all of Northwestern for both research and education, and has a significant outreach component. In addition to three X-ray diffractometers, IMSERC maintains mass spectrometers, NMR spectrometers, optical spectrometers, and trace metals analysis equipment. The X-ray diffraction facility's charter is to provide structure determination service for small molecule research samples while supporting student-run data collections and structure determinations. The IMSERC XRD staff is responsible for maintaining the equipment, training users, and performing data collections as a service. In addition, the Experimental Crystallographer will be responsible for collaborating with faculty to develop extended capabilities for experiments to be run at national facilities and for teaching a graduate level course in X-ray Crystallography. Northwestern is slated to host the prestigious ACA Small Molecule Summer School in 2017 and 2019. The Experimental Crystallographer will be responsible for supporting the course both at Northwestern and at Notre Dame where it is held in off years.

A Ph.D. in Chemistry or a related field is required and the successful candidate should have extensive experience with data collection, structure solution, and refinement. Experience at synchrotron or other national facilities is highly desired. For more information on IMSERC, please visit <http://imserc.chem.northwestern.edu>. Interested candidates should send a resume and contact information for three references to: Dr. Andrew Ott, Dept. of Chemistry, Northwestern University, 2145 Sheridan Rd., Evanston, IL 60208-3113, a-ott@northwestern.edu. Evaluation will begin immediately and continue until the position is filled. Northwestern University is an equal opportunity, affirmative action educator and employer.

Job Summary

The Experimental Crystallographer performs all duties in support of chemical crystallography. Tasks include collaborating with students and faculty to provide additional crystallographic experimental capabilities; running routine samples in support of ongoing research projects; teaching a graduate level course in crystallography; and general maintenance and operation of the XRD facility.

Minimum Qualifications

- A Ph.D. in Chemistry or other related field
- Work experience in a service crystallography capacity
- Teaching or training experience

Preferred Qualifications

- Familiarity with SHELX, Olex2, Apex2 software
- Experience running samples at a synchrotron and/or neutron facility
- Knowledge of powder diffraction techniques, specifically Rietveld refinements and solving structures from powder data
- Experience with one or more of the following techniques:
 - High pressure crystallography
 - Incommensurate crystallography
 - Anomalous diffraction experiments
 - Electron diffraction
- Experience writing instrumentation grants