

# SCHOOL OF CHEMICAL SCIENCES George L. Clark X-Ray Facility AND 3M Materials Laboratory

University of Illinois at Urbana-Champaign



The 3M Materials Chemistry Laboratory provides complete structural characterization services. We use X-rays to determine distances, shapes, volumes, and relative order on atomic and molecular scales in solutions, colloids, liquid crystals, and solids. Our service helps scientists correlate their X-ray experiment results with other characterization methods, e.g. laser, EPR, NMR, MS, and microanalysis.

The X-ray facility has diverse capabilities. We are able to perform a variety of X-ray diffraction experiments including: single crystal, powder, and fiber diffraction. In addition, we maintain structural database systems that provide electronic search, retrieval, analysis, and graphics for inorganic and organic structures.

Facility personnel offer instruction on small molecule crystal growth, design of X-ray experiments, and strategies for data collection. We also help with the analysis and presentation of the results.

Faculty, staff, students, and visitors are welcome to use facility equipment and to utilize the expertise of the staff to help in experimental design and troubleshooting.



**Danielle Gray**  
*Director*  
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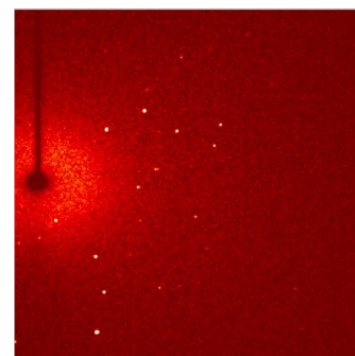
**Toby Woods**  
*Crystallography Specialist*  
*tobyw@illinois.edu*  
*217-300-1081*

❖ **Location:** 60 Noyes Laboratory

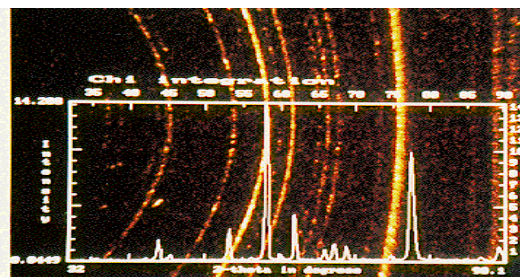
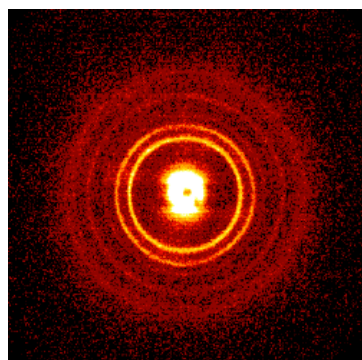
❖ **Hours:** 8:30 a.m. to 4:30 p.m. Monday thru Friday

❖ **Telephone:** 217-244-1708

## Single Crystal



## Powder



For more information, visit our website at: <http://scs.illinois.edu/x-ray/index.php>