**CAMCOR**

A large portion of the University of Oregon’s major research equipment is organized in a shared facility—the **Center for Advanced Materials Characterization in Oregon (CAMCOR**), which functions as a service center under the auspices of the UO’s Office of the Vice President for Research and Innovation. CAMCOR is supported by a combination of internal and external user fees, and grants. *The goal of CAMCOR is to maximize usage of state-of-the- art materials characterization equipment through 1) open access, 2) highly qualified, Ph.D.-level staff to assist users, and 3) attractive user charges.*

Its primary services include:

* High-resolution Analytical TEM Facility: State-of-the-art equipment to perform atomic-resolution imaging and nanoscale composition analyses of materials.
* Focused Ion Beam and Scanning Electron Microscopy Facility: Equipment supporting focused ion-beam and scanning electron microscopy (FIB-SEM), material characterization, and electron-beam lithography for nanofabrication.
* Microanalytical Facility: Resources for sample preparation and materials analysis by Electron Probe Micro Analysis (EPMA) and Environmental Scanning Electron Microscopy (ESEM).
* NMR Spectroscopy Facility: Diverse array of magnetic resonance research capabilities for routine and advanced analysis of both solutions and solid-state samples.
* Polymer Characterization and Thermal Analysis Laboratory: Equipment to to determine the processing behavior and thermal and mechanical properties of polymeric materials and polymer based composites.
* Microfabrication and Photovoltaic Characterization Facility: A shared user laboratory for the characterization, evaluation, and fabrication of photovoltaic cells.
* Surface Analytical Facility: Instrumentation for characterizing the composition of the outermost few nanometers of materials, and for imaging surface topography and chemistry.
* X-Ray Diffraction Lab: Equipment for using X-ray diffraction applications to study 3-D atomic structure and other characteristics for a wide range of materials.

The principle UO users include groups focused on the analysis of organic, inorganic, and biological samples. The facility also attracts a broad spectrum of the research and education community, including K-12, college, and university educators; college and university researchers; and industrial and national lab collaborators. In addition to the above user groups, open-access CAMCOR facilities are used routinely by a broad spectrum of external users from other institutions as well as local commercial clients and established regional/national/international companies.

These open-access facilities provide research training and support for undergraduate students, graduate students, postdoctoral researchers, staff scientists, and external researchers. Additionally, such services are often routinely used by multiple undergraduate and graduate courses within the Department of Chemistry & Biochemistry, Graduate Internship Program (GIP), the Advanced Materials Analysis and Characterization Master’s Program, and community outreach programs. The CAMCOR facilities also provide critical core instrumentation access and support for many UO spin-off or UO-related enterprises. Such access is integral in the University’s stated goal to serve as an incubator and catalyst for innovation in the basic sciences that lead to successful commercial ventures impacting residents in Oregon and beyond.