

FACILITIES

SAMPLE PREPARATION EQUIPMENTS

PETROGRAPHIC MICROSCOPES

METALLURGICAL MICROSCOPES

STEREO-MICROSCOPES

OTHER OPTICAL MICROSCOPES

ELECTRON MICROSCOPE

X-RAY DIFFRACTOMETER

X-RAY FLUORESCENCE

IMAGING

SAMPLE PREPARATION EQUIPMENTS

Sectioning Machines:

- MK Diamond's 14-in. bench top Masonry Saw (1)
- Covington Engineering's floor model 20-in. Slab Saw (1)
- Barranca Diamond's 10-in. Trim Saw (1)
- 10-in. Tile Saws (2)
- 6-in trim Saws (2)
- Logitech's CS-10 Trim Saw (1)
- Allied High Tech's "Techcut" (1)

Precision Sectioning Machines:

- Buehler's "Isomet" Low Speed Saw (2)
- Leco's Low Speed Saw (1)
- Buehler's "Isomet 1000" Precision Saws (3)
- Allied High Tech's "Techcut" Unit (1)

Lapping, Grinding, and Polishing Machines:

- 18-in. diameter floor model horizontal lapping machine (1)
- Lapmaster International's several 12-in. and 15-in. Model Lapping Machines with automated abrasive dispensing systems (4)
- Allied High Tech's "TechPrep" Double-wheel Grinding/Polishing Machine with Head and sample holders for circular and rectangular samples (1)
- Leco's "Spectrum 1000" Double-wheel Variable Speed Grinding Machine (1)
- Buehler's "Ecomet V" Double-wheel Grinding Machine (1)
- Buehler's Ecomet 3 variable speed Grinding Machine (1)
- Buehler's "Minimet" and "Minimet 1000" Grinder/Polishers (3)
- Buehler's "Ecomet" Grinder/Polisher (2)
- Buehler's "Vibromet" and "Vibromet 1000" Vibratory Polisher (2)
- Logitech's "PM2A" and "PS2000" Precision Grinding Machines with Polishing Jigs (2)
- Ameritool's Grinding Machine (1)
- Logitech's PM2A-WG2 and PS2000 Precision Automatic Polishing Machines (2)

Thin Sectioning Machines:

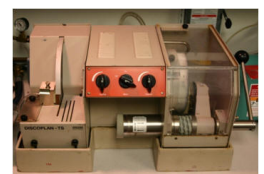
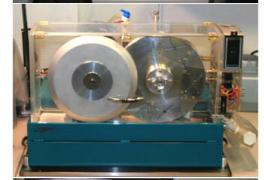
- Buehler's "Isomet" Low Speed and Isomet 1000 Saws (3)
- Buehler's "Petro-thin" thin sectioning Machines (2)
- Logitech's "CS-10" Precision Sectioning Machine (1)
- Microtec Engineering's "Microtrim" Thin Sectioning Machines (2)
- Ingram-Ward's Thin-section Grinder and Saw (2)
- Struers "Discoplan" Thin-sectioning Machine (1)
- Logitech's "PM2A" and "PS2000" Precision Grinding Machines (2)
- Buehler's "Petrovue" thin section viewers (3)
- GemTool's "Polariscope" Units (2)

Encapsulation and Impregnation Units:

- Several aluminum sample molds for preparing circular (25-40 mm diameter) and rectangular (25 by 45 and 46 by 72 mm size) urethane, EPDM, and silicone sample holders for encapsulation and impregnation
- Struers "Epovac" Vacuum Impregnation Unit (1)
- Buehler's Vacuum Impregnation Unit (1)
- Custom-made Vacuum Impregnation Units (2)
- VWR Vacuum Ovens (2)

Drying and Cleaning:

- Hotplates, Drying Ovens, and Hair-driers
- Several Ultrasonic Cleaners (4)



- Several Ultrasonic Cleaners (4)
- Water, alcohol, and acetone jets

Mounting Systems:

- Buehler's "Epothin" and "Epoxide"
- Palouse Petro Product's "Petropoxy 154"
- Conservation Resource International's Epo-Tek Epoxy 301
- Loctite 363
- Blue and fluorescent dyes

Grinding and Polishing Abrasives:

- Alumina and Silicon Carbide for coarse and fine grinding
- Alumina, Deagglomerated Alumina, and Diamond for coarse and fine polishing
- Water, oil, and glycol medium

PETROGRAPHIC MICROSCOPES

- Antique Petrographic Microscopes by - Busch and Lomb, Winkel-Zeiss, Unitron, Lomo, Struers and Sons, Zeiss, Nikon, John Swift & Co., and many others
- Nikon's Labophot 2-Pol and Optiphot 2-Pol (Reflected plus Transmitted-light)
- Olympus' BH-2 and BX-40 Polarizing Microscopes (Reflected plus Transmitted-light)
- Leitz Laborlux 12 Pol Petrographic Microscope
- Leitz Orthoplan Transmitted and Epi-fluorescent Polarized Light Microscope
- Carl Zeiss Standard Petrographic Microscopes (2)
- Carl Zeiss Universal Polarizing Microscopes (2)
- Meiji DM5000 Polarizing Microscope
- Radical Instrument's Polarizing Microscope (Reflected plus Transmitted-light)
- Leitz Projection Microscope
- Polavision Projection Polarizing Microscope
- XY-P Trinocular Polarizing Microscope

METALLURGICAL MICROSCOPES

- Olympus BHMJL Metallurgical Microscope
- Leitz's Metalloplan (Reflected plus Transmitted-light) Microscope
- Leitz's Ergolux Microscope
- Radical Instrument's Metallurgical Microscope
- Zeiss Metallurgical Microscope

STEREO MICROSCOPES

- Nikon's SMZ-10A, SM800, SZ-2T Stereomicroscopes
- Olympus SZH and SZX12 Research-grade Stereomicroscopes
- Busch and Lomb/Leica SZ-7 (2) Stereozoom Microscope
- Fisher Scientific's Stereomaster Microscope

OTHER OPTICAL MICROSCOPES

- Nikon's Microphot FX Phase Contrast and DIC Microscope
- Zeiss DIC Microscope

SCANNING ELECTRON MICROSCOPE

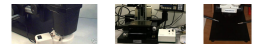
- Cambridge CamScan Series II Scanning Electron Microscope with Backscatter and Secondary Electron Detectors and 4Pi Image Analysis and EDS Elemental Analysis

X-RAY DIFFRACTOMETER

- Siemen's D5000 X-ray diffractometer (theta/two theta design)
- MDI's JADE, Datascan, and Search/Match Software
- MDI's "Mineral" and ICDD PDF-2 Mineral database
- McCrone Microsizing Mill for XRD Sample Preparation



- Microneutronizing Mill for XRD Sample Preparation



X-RAY FLUORESCENCE SPECTROMETER

- Spectra QuanX II Benchtop EDXRF with latest Analytical Software
- Fusion apparatus for preparation of fused discs



IMAGING AND PHOTOMICROGRAPHY

- Nikon Coolpix 990, 995, and 4500 Digital Cameras
- Diagnostic Instruments' Spot Digital Cameras with Image Analysis Software
- DVC Digital Cameras with Image Analyses Software
- Olympus' ALTRA20 Digital Cameras with Image Analyses Software (3)
- Several latest model USB-2 type, 3 to 5 MP digital cameras with advanced image analysis software
- Panasonic Color CCD Cameras with Epix, Inc. Image Acquisition boards and Image Analysis Software
- Media Cybernatics "ImagePro Plus" Image Analysis Software

