

## Chemical/Sample Preparation Laboratories

To use the chemical/sample preparation laboratories, you must attend the safety orientation.

Please contact Leilani Conradson {(505) 665-9505, leilani@lanl.gov} with questions.

Upon completion of the orientation, access will be granted and lab space will be assigned to you.

### Chemistry Laboratories

- Glove box - He atmosphere
- Tube and box furnaces
- Environmental chamber for sample annealing
- Solvent purification still
- Differential thermal analysis
- Hoods
- Vacuum line
- 500 W ultrasonic horn
- Atomic absorption spectrophotometer
- UV/VIS spectrophotometer
- Centrifuge
- pH/Conductivity/ISE meter
- Refrigerator/freezer
- Ball-milling machine (inert atmosphere)
- Autoclave for high-pressure synthesis
- Optical microscope
- Vacuum and drying oven
- High-purity water
- Ultrasonic bath
- Calorimetric bomb
- Sublimator
- Hardness indenter
- Diamond saw
- Polishing wheel
- Dessicator
- Filtration devices
- Gas-handling equipment
- Blender or homogenizer
- Thin-layer and liquid chromatography
- Solvent extractor
- Microscale lab equipment
- Distillation equipment
- Pressure regulators
- All standard chemistry lab equipment (glassware, balances, stirrers, etc.)
- Various solvents (acetone, methanol, hexane, chloroform, etc...)

### Clean Room

- Hoods
- Langmuir trough
- Atomic force microscope
- Optical microscope
- Tensiometer
- Spin coater

### High-Pressure Laboratory

- Diamond anvils
- ZAP-cell (for *in situ* diffraction at high P)
- TAP-98 (can be used for synthesis at high PT)
- TAPLUS (high P synthesis)
- Hydrostatic pressure cells
- Diamond saw
- Polishing wheel
- Binocular microscope
- Hardness indenter
- Ultrasonic spectroscopy

### X-ray Laboratory

- Rotating anode generators (reflectometry, residual stress, powder diffraction)

### Spectroscopy Laboratory

- Energy-dispersive Raman spectrometer
- Infrared spectrometer