

Eltron Water has access to the materials and equipment needed to meet its goals, and adds instruments as necessary.

Materials Processing

- Union Process Model 01-HD and 01-STD Attritors
- Fluitron Model CP2-10-60 Isostatic Press
- Lindberg 1500° and 1200°C Tube Furnaces/Model 59545 Control Console
- Lindberg 1200°C Box Furnace/Model BF51842
- DelTec Model DT-31-FL 1700°C Box Furnace
- Thermal Technologies 2000°C Tube Furnace
- Thermolyne 1100°C Muffle Furnaces
- 1200°C Reactor Furnaces
- Skutt Kiln Furnaces
- EPH Engineering Associates Inc. Model 22351 Tape Caster
- Table Top Tape Caster Model TTC-1000
- Ceramic Tube Extruder
- Dip Coating Apparatus
- W. S. Tyler RX-86 Sieve Shaker
- Norton Ball Miller
- Carver Laboratory Press with Heating 2101-1 Blocks
- Four Column Hydraulic Press with Heating Blocks
- United McGill Minibonder Autoclave
- Buehler Minimet Polisher
- Metaserve 2000 Grinder/Polisher
- Buehler Isomet 1000 Precision Diamond Saw
- PELCO SC-6 Sputter Coater
- Fluitron Model CP4-12-60 Isostatic Press
- CertiPrep SPEX 8000 Mixer/Mill
- Devilbiss 515DZ PSA 5L/min Oxygen Concentrator
- Vacuum Ovens: Napco Model 5851, Isotemp Model 285A and Isotemp Model 280A, two VWR Model 1415M
- Sepa CF Filtration Membrane Test Cell
- Pilot Scale Catalyst Synthesis Equipment
- Harrick PDC-32G Plasma Cleaner
- Büchi B-290 Mini-Spray Dryer

Analytical Instrumentation

- Analytical Balances
- Gow-Mac Model 750 & 850 FID and Model 580 TCD Gas Chromatographs
- Shimadzu GC-14A FID and TCD Gas Chromatographs
- Hewlett Packard 5890 TCD Gas Chromatographs
- Engine Exhaust Analyzer Model TIF 5GA
- Shimadzu TOC-5000A Total Organic Carbon Analyzer
- Computerized Waters Breeze System for HPLC and Size Exclusion Chromatography Unit consisting of: 1525 binary HPLC pump, 77251 1500 series P manual injector, 2410 refractive index detector, 1500 column heater and Breeze Software Kit software
- Shimadzu Atomic Absorption Spectrometer, Model AA-6701 Equipped with Flame, Graphite Furnace and Auto Sampler
- Shimadzu SALD-2001 Particle Size Analyzer
- Nicolet Impact 410 FTIR Spectrometer
- Nicolet Avatar 360 FTIR Spectrometer
- Johnson Matthey Magnetic Susceptibility Balance
- Phillips X-Ray Powder Diffractometer with Model PW 1830 X-ray Generator, Model 1050 Goniometer and Model PW 3710 Control Unit
- Quadrex 200 Quadrupole Mass Spectrometer

- Electrothermal 9300 Melting Point Apparatus
- Shimadzu DSC-50 Differential Scanning Calorimeter
- Shimadzu TGA-50H High Temperature Thermogravimetric Analyzer
- Shimadzu DTA-50 Differential Thermal Analyzer
- Shimadzu TMA-50 Thermomechanical Analyzer
- Shimadzu GC17A with QP-5000 Mass Spectrometer
- Quantachrome Instruments NOVA 2000e Multi-station Nitrogen Sorption Analyzer, Standard Model Version 7.70
- JEOL JSM 5610 Scanning Electron Microscope/PGT Energy Dispersive X-ray Analysis
- Leica Microlab Epifluorescence Microscope with Pixera Digital Camera
- Nikon SMZ-2T Zoom Stereo Microscopes/ equipped with Pixera Digital Camera
- Nikon Optiphot-2 Reflectance Microscope with Trinocular Head
- Bausch and Lomb Spectronic 21 Spectrometer
- InPhotonics Raman Spectrometer Model INP-36-785SR with Fiber Optic Raman Probe
- Ocean Optics SD-2000 Dual UV-VIS Spectrometer
- Melles Griot 6 mW HeNe Laser
- Oriel Model 77250 Monochromator
- Hewlett Packard Model 8453 UV-VIS Spectrophotometer
- Hach DR/820 and DR/890 Colorimeters
- Numerous pH/Potentiometric Meters and Ion Selective Probes

In-House Facilities

- Machine Shop and Welding
- Electronics Shop
- US Filter 18M Ω Deionized Water System
- Filtered Compressed Air Distribution System at each Workstation
- Twenty-three Chemical Fume Hoods

Microbiology Equipment

- Precision Scientific RT-70°C 5DM Thelco Laboratory Incubator
- Fisher Scientific 6500 rpm centrifuge with 24 Place Rotor for 15 mL Tubes
- Labconco Biosafety Level I Hood 375 with UV Light
- Forma Scientific 707 6-cubic foot -86°C Chest Freezer
- Labconco 36208-04 Biosafety Level IIA Hood with UV Light
- Napco 210A Controlled Temperature 8L Water Bath
- Labsystems 10-Channel 200-1000 μ L Digital Multipipetter
- IKA Minivortexer
- IKA Works KS250 Orbital Solution Shaker
- All American 25x Autoclave

Computational Facilities

- MS Windows based personal computers
- MS Office, WordPerfect, Photoshop Software
- Scientific Graphing and Analysis Software
- Chromatography Data Systems
- Labview Data Acquisition/Control Software
- Alibre Design, AutoCad LT/ IntelliCAD/ Algor Software
- MultiSimplex - Optimization Software
- Infometrix Inc Pirouette - Multivariate Data Analysis
- Hypercube - Hyperchem Molecular Modeling Environment