

Department of Chemistry Equipment**Boeckman**

- Gas chromatograph
- Polarimeter
- Solvent columns: Toluene, THF, Diethyl ether, Pentane, Dichloromethane, Dimethoxyethane
- UV-vis spectrophotometer
- Perkin-Elmer FT-IR
- Waters Analytical, SemiPrep, and Preparative HPLC Systems
- Spinning Band Distillation System
- Freeze Dryer
- 2 Chromatron Radial Analytical/Prep TLC Apparatus
- 1 Prep and 4 small Kugelrohr Apparatus

Bren

- -80° Freezer
- High-speed Centrifuge
- Floor Model Incubator-Shakers
- FPLC System
- Scanning UV/vis Spectrometer
- Thermal Cycler

Dinnocenzo

- HP 6890 N capillary gas chromatograph
- Varian 1720 preparative gas chromatograph
- Rayonet RPR-100 and RPR-200 photochemical reactors
- Two optical benches with high pressure mercury arc lamps
- HP 8452A diode array spectrophotometer
- Glassblowing torch
- Solvent columns: Diethyl ether, THF, acetonitrile

Eisenberg

- Potentiostat/Galvanostat
- Gas Chromatograph with FID & TC Detectors (H₂ detection)
- Spex Fluoromax 3 Fluorometer
- Vacuum Atmospheres Gloveboxes
- Photolysis apparatus
- Solvent columns: Diethyl ether, THF, hexane, dichloromethane

Fasan

- 96-Well Plate Incubator Shaker
- 96-well automated pipettors [2]
- PCR cycler
- Biosafety Cabinet for handling bacterial cultures
- Fast Protein Liquid Chromatography System
- Fluorescent/Luminescence/VIS multi-well plate reader
- Gas Chromatography System with FID detector and Autosampler
- Incubators, Shaker Incubators, Centrifuges, DNA/protein gel electrophoresis, Sonicator
- Shimadzu UV-VIS Spectrometer
- Ultra Fast Liquid Chromatography System with Photodiode Array and Autosampler

Frontier

- HPLC
- Gas Chromatograph
- Polarimeter
- Solvent columns: dichloroethane, dichloromethane, THF, diethyl ether, toluene

Holland

- Cary 50 UV/VIS spectrophotometer with software for collecting kinetic data, and Dewar for collection down to -80 °C
- Cypress Systems 1200 potentiostat and electrochemical equipment (interfaced to one glovebox for inert-atmosphere characterization)
- Double-station MBraun inert-atmosphere glove boxes under nitrogen & Single station MBraun glovebox under Argon
- Solvent columns: pentane, acetonitrile, diethyl ether and toluene
- Paar pressure reactor

Jones

- 2 Photolysis Apparatus
- 3 Dry Boxes
- Diode Array UV-vis Spectrometer
- GC & GCMS with autoinjector
- Solvent columns: THF, CH₂Cl₂, diethyl ether, pentane, hexane, benzene
- Electrochemical Apparatus
- Paar pressure reactors

Krauss

- Atomic Force Microscope (Digital Instruments Nanoscope IIIa)
- He Cryostat for Optical Microscopes (Cryovac)
- InGaAs Photodiode Array (Roper Scientific OMA V)
- Inverted Optical Microscopes (Nikon TE 300)
- Lock-in Amplifiers (EG&G) [2]
- Piezoelectric Scanning Stage (Mad City Labs)
- Silicon CCD Cameras (Roper Scientific VersArray 512 B and Spect-10)
- Spectrofluorometer System (Roper Scientific)
- Spectrometer Measurement System (Roper Scientific SpectraPro 300i)
- Various Lasers

McCamant

- Amplified femtosecond laser system for femtosecond transient absorption & Raman
- Triple-turret spectrograph (Acton SP-2300i) coupled to a CCD detector
- UV-Vis spectrometer

Nilsson

- CEM Liberty Microwave-equipped automated peptide synthesizer
- Shimadzu HPLC Systems (for peptide analysis and purification) [2]
- Solvent purification columns: THF, diethyl ether, dichloromethane, DMF, acetonitrile

Rothberg

- SPEX Fluorimeter for fluorescence and fluorescence excitation spectroscopy
- Charge modulation spectroscopy apparatus
- Nikon 3200 confocal microscope and scanning stage
- Transient photoluminescence
- PicoHarp 300 card with avalanche photodiodes for time-correlated photon counting
- Nd:YAG pulsed ns laser with gated Andor ICCD and cryostat for delayed luminescence
- Princeton instruments LN-cooled CCD
- Woollam spectroscopic ellipsometer
- Bioanalytic Systems BAS100B/W electrochemical workstation with AC impedance module
- Fixed angle spectroscopic ellipsometer
- CW diode laser
- HeNe lasers with appropriate filters to take Raman spectra
- Fianium photonic fiber laser that emits white light with picosecond durations throughout the visible and near-infrared regions of the spectrum
- Closed cycle refrigerator capable of cooling to 10 K with optical access and electrical feedthroughs for delayed luminescence experiments
- Lamp and spectrometer configured to study electroabsorption and charge modulation spectroscopy in organic devices
- Electrical probe station with an LRC meter and simple semiconductor parameter analyzer (HP4145B) for characterization of devices
- Thermally stimulated current apparatus and time-of-flight photoconductivity set up for charge transport measurements.
- Evaporator for metal and organic film deposition used to make electrical test structures, organic light emitting diodes and thin film transistors.

Schröder

- NIM/CAMAC electronics
- radioactive sources
- neutron generator
- vacuum pumps

Turner

- -80° Freezer
- High-speed Centrifuge
- Floor Model Incubator-Shakers
- Scanning UV/vis Spectrometer
- Thermal Cycler

Weix

- GC with Dual Autoinjectors, Dual Columns, and Dual FID Detectors
- Double-station Vacuum Atmospheres Glove Box with Freezer, Catalyst Bed for Oxygen and Water Removal, and Oxygen and Water Sensors
- Supercritical CO₂ HPLC equipped with Autosampler, Column Oven, Four Analytical Columns, and a Photodiode Array Detector (also capable of semi-preparative separations)
- Metrohm Karl-Fisher Coulombic Titrator for determination of water content in liquid samples
- Solvent Purification: THF, Benzene, Toluene, Ether, Pentane, and Dichloromethane