

**Department of Chemistry
Columbus State University
Instrumentation/Equipment List**

Instrument or Software/Model- Chemistry	Instrument/Model- Biology
Varian Cary Fluorescence Spectrophotometer/Eclipse	Bio-Rad Gel Doc w/Mac computer containing imaging analysis software Eppendorf Mastercycler Eppendorf 5430 centrifuge Mettler Toledo Five Easy FE20 pH meter Mettler Toledo PB153-S/FACT analytical balance Thermoscientific Precision Incubator MP Fastprep-24 Tuttnauer Brinkman 2340M tabletop autoclave 4°C Frigidaire refrigerator -20°C Frigidaire freezer
Shimadzu GC-2010	Cold room
Varian Cary UV-Visible Spectrophotometer/ 100Bio	Brightfield/Phase Contrast Microscopes (Olympus B-H2 and Zeiss Axioskop 40)
Varian Cary UV-Visible Spectrophotometer/ 300Bio	Stereographic Microscope (Olympus sZ-PT)
Shimadzu HPLC	Bio-Rad Gel Doc w/PC computer containing imaging analysis software
JASCO HPLC	MilliQ Biocel and Elix 5 water systems
Varian Spectrophotometer	Thermocycler (MJ Research PTC-100)
Shimadzu Spectrophotometer 7000 w/Graphite Furnace	Protein and DNA Gel Electrophoresis apparatus
TC12 Tubular Furnace/Mellen Company	-20°C Freezer (VWR brand by Revco)
Buck Scientific Educational GC	4°C Refrigerator (Beverage Air)
Glove Box	LiCor 4300 DNA Analyzer
Bomb Calorimeter Parr Instruments	Nanodrop ND-1000 spectrophotometer
Perkin Elmer FTIR Spectrum One w/ Diamond ATR	Fisher 550 Sonicator
Perkin Elmer FTIR Spectrum 100 w/ Diamond ATR	Olympus BX40F Fluorescent microscope with SONY CCD-IRIS video camera
Perkin Elmer Identichack FT-NIR	CO ₂ Incubator (NAPCO 4100)
Perkin Elmer 2400 CHNS/O Series II Elemental Analyzer	Bio-Rad iMark Microplate reader with thermal printer
Schlenk Line and Dry Box Apparatus	Incubator (NAPCO 302)
Two Agilent GC 6890	Tissue Culture Hood (NuAire Class 2 Type A2)
Two Agilent Mass Spectrometer 5973	-80°C Revco Chest Freezer
Two Agilent GC 6890	Olympus CH-2 Brightfield/Phase contrast microscope
Two Agilent Mass Spectrometer 5973	Cold Room
Thermo-Finnigan/Ion trap Mass Spec.	Autoclave (Getinge 522LS Gravity Steam Sterilizer)
Shimadzu Atomic Absorption/AA-6701 Flame Emission	4°C HOBART Refrigerator
Thermo Electron Corporation Precision Oven	Plant Growth Chambers-Environmental Control Rooms (Percival Scientific) (2)
VWR 1350G Oven	JASCO HPLC/PU289+
Fisher Isotemp Oven/300 Series/350G	UV spectrophotometer/Genesys10 Thermolectron Corp.
Corning Automatic Collection System for Distilled Water	Labconco Freeze Dryer
Agilent 6850 GC	
Perkin Elmer FTIR Spectrum 100 w/ Diamond ATR	
CEM MARS (Microwave Reaction System)	

Abraham Baldwin Agricultural College Instruments:

AVIO 200 ICP-OES
Shimadzu HPLC with UV detector
Agilent Tech Cary 60 UV-Vis Spec
Agilent Tech Cary Eclipse Fluorescence Spec
Shimadzu 2010 + GC-MS
Thermo Scientific Nicolet iS5 FTIR
ThermoScientific NanoDrop 2000c for quantification of DNA, RNA and Protein
BioRad ChemiDoc MP traditional imaging and stain free
Eppendorf BioPhotometer Plus
BioRad T100 Thermal Cycler
UV-1600PC Spectrophotometer
LabConoco CentriVap DNA Concentrator
BioRad iMark Microplate reader
AnalytikJena qTower for qPCR
EVOS Fluorescence Cell Imaging System (inverted lens. FITC filter)
3D printers: 1 Traditional and 1 Micron resolution printer

Valdosta State University Instruments

Chemistry

<https://www.valdosta.edu/chemistry/equipment.php>

Biology

<https://www.valdosta.edu/biology/resources-equipment.php>

Physics, Astronomy, and Geosciences and Engineering

<https://www.valdosta.edu/phy/facilities.php>