

## WWU Chemistry Instrumentation List

### **Chromatography**

- Agilent 6890-5973 GC-MS:
  - 100 position autosampler, EI ionization, 2-800 Da mass range
- Agilent 7890A GC:
  - 100 position autosampler, FID detector
- Agilent 6890N GC:
  - 8 sample autosampler, FID detector
- HP 5890-5971 GC-MS:
  - 100 position autosampler, EI ionization, 2-650 Da mass range
- HP 5890 GC:
  - In-line sampling, FID and TCD detectors
- Varian 3800 GC:
  - 50 position autosampler, FID detector
- Varian 3900 GC:
  - 10 position autosampler, FID detector
- Biorad NGC Chromatography System
- Dionex UltiMate 3000 UHPLC:
  - Diode array detector, Advion Expression Mass Spectrometer
- GE AKTAprime Plus Chromatography System (x2)
- GE AKTApurifier Chromatography System
- Varian ProStar HPLC:
  - Dual pump system, 84 position autosampler, PDA UV/Vis detector with a range of 190-800 nm, Refractive index detector

### **Microscopy**

- NanoScope III Scanning Probe Microscope

### **Spectroscopy**

- Thermo Nexus 6700 FT-IR:

- DTGS/KBr and MCT-A detectors, Smart iTR single bounce diamond ATR accessory
- Thermo iS10 FT-IR:
  - DTGS detector, Smart iTR single bounce diamond ATR accessory
- Jasco 4600 FT-IR:
  - DLaTGS detector, ATR-PRO One single bounce diamond ATR accessory
- Mattson Research Series FT-IR:
  - UHV transmission accessory, MCT detector
- Bruker Avance III FT-NMR:
  - Oxford AS500 500 MHz actively shielded magnet, 25 position autosampler,
- Varian Mercury FT-NMR:
  - Oxford 300 MHz magnet, SMS 100 position autosampler,
- HP 8452A UV/Vis (x3)
  - Diode array detector
- Agilent 8453 UV/Vis
  - Diode array detector
- HP 8453 UV/Vis:
  - 89090A Peltier temperature controller, Diode array detector
- Jasco V-670 UV/Vis:
  - 6 position linear cell changer with Peltier temperature control, 60 mm Integrating sphere
- Thermo Evolution 220 UV/Vis (x2):
  - 8 position linear cell changer with Peltier temperature control
- Olis DSM-100 Circular Dichroism Spectrometer
  - Stopped flow, Titrator, Peltier temperature control accessories
- PTI Fluorometer
  - 4 position autosampler with Peltier temperature control, Microlab 500 automatic titrator, Excitation and emission polarizers
- Horiba Fluorolog Fluorometer
- Beckman Coulter Delsa Nano HC Photo Correlation Spectrometer

- Sage 100 X-Ray Photoelectron Spectrometer
  - Dual Al and Mg anodes

### **Other Instrumentation**

- Rigaku XtaLab Pro X-Ray Diffractometer:
  - MicroMax Cu Source, Mo glass tube source
- Johnson Matthey MSB-1 Magnetic Susceptibility Balance
- Horiba Auto SE Ellipsometer
- Micromeritics ASAP 2020 Surface Area and Porosimetry System
- Micromeritics AutoChem HP Chemisorption Analyzer:
  - MKS Cirrus 2 mass spectrometer
- Micromeritics Pulse Chemisorb 2700
- Attension Tensiometer
- Biorad Gel Doc EZ Imager
- Ocean Optics NeoFox Oxygen Probes (x2)
- Pine WaveNow Potentiostats (x3)
- Pine WaveDriver 20 Bipotentiostat
- Rudolph Digital Automatic Polarimeter

### **Lab Equipment**

- Sorvall RC-6+ Superspeed Centrifuge (x2):
  - F10S-6x500y and F20S-8x50y fiberglass rotors
- Sorvall Lynx 4000 Superspeed Centrifuge:
  - F12-6x500 LEX and F20-12x50 LEX Rotors
- Beckman Coulter XPN-80 Ultracentrifuge:
  - TY-70 Ti fixed angle and SW-32 Ti swinging bucket rotors
- Sorvall MX-150 Micro-centrifuge
- CEM Discover Microwave Synthesizer
  - 24 position Explorer autosampler
- Labconco FreeZone Lyophilizer

- Millipore Milli-Q Advantage A-10 Nanopure System
- Market Forge Sterilmatic Autoclave
- Inert PureSolv Solvent Purification System
- MBraun MB-SPS Solvent Purification System
- Spraybase Electrospinner
- New Brunswick Scientific Incubated Shaker
- Amerex Instruments Gyromax 767R Incubated Shaker