

## Department of Chemistry

### Instrumentation list

#### Spectroscopy / Microscopy

- (1) JEOL ECS 400 MHz Nuclear Magnetic Resonance Spectrometer with autosampler
- (1) Biotek Synergy 2 UV-vis plate reader
- (3) Perkin Elmer Lambda 35 spectrometers
- (4) Agilent/Cary 8454 UV-Vis Spectrophotometers (coming Dec 2019)
- (1) Varian Cary Eclipse Fluorescence spectrometer
- (1) First Defender Raman hand-held spectrometer
- (1) Jordan Valley XRF EDX-6600
- (4) Perkin Elmer Spectrum 100 FTIRs: 2 with Diamond ATR and microscopes
- (16) Leica DM750P polarizing light microscopes equipped with Motic tablets
- (16) Leica stereoscopes
- (4) comparison microscopes
- (1) Agilent 5110 SVDV ICP-OES with autosampler
- (1) NeoScope JCM 5000 SEM
- (1) Leica DM2500LED Fluorescence microscope
- (1) Regula 4167 Light table
- (1) BioRad UMA 250 microspectrophotometer
- (1) Mettler Toledo RM40 Refractometer
- (1) Hitachi 5100 AFM
- (1) Hitachi FlexSEM (coming December 2019)

#### Chromatography / Mass Spectrometry

- (2) HP 6890 GC-FID (one operational, one set up for student practice)
- (2) Agilent 1100 HPLC with DAD detector (one operational, one set up for student practice)
- (1) Thermo Scientific LTQ XL Mass Spectrometer that can be interfaced to Dionex Ultimate 3000 LC using electrospray or nanospray (DART/DESI ionization also available for the LTQ)
- (2) Bio-Rad Gel Electrophoresis 2D System
- (1) Agilent GC-MS (Agilent 7820A GC with 5977E MSD) (Zyzak lab, ODP coming Spring 2020)
- (1) Agilent 7890B GC-FID with Headspace Autosampler (Blood Alcohol, near XRF)
- (1) Agilent 7890B GC with 5977B MS, equipped with either an autosampler or pyrolysis option (NIST Library)
- (1) Dionex Integrion HPIC with autosampler; equipped for anion exchange
- (1) Waters Aquity UHPLC with Xevo TQ-S micro mass spectrometer

#### Miscellaneous

- (2) Beckman Coulter, High Performance Centrifuge, Avanti J-E
- (2) Buchi Rotary Evaporator System (w/ vacuum pump), R-215
- (1) Milestone Ethos UP Microwave Digestion
- (2) CHI 400B Potentiostat
- (1) MBraun Labmaster 130 Glovebox