University of Florida - IFAS
Department of Soil, Water, and Ecosystem Sciences Core Laboratories
Organic Chemical Analytical Research Laboratory (OCARL)

Mission Statement - This core laboratory provides analytical capabilities for basic organic chemical and radiolabeled compound analyses in environmental matrices. Location - G176, 2146, and 3190A McCarty Hall A.

Conditions for Use – These laboratory facilities are open to anyone within the University. Use of these analytical facilities is a privilege, not a right. All users are expected to not misuse or abuse equipment, to clean up after themselves, follow UF laboratory safety procedures, and properly pretreat (cleanup) extracts before injecting into analytical equipment. Failure to comply will result in loss of privilege to use equipment/facilities and/or charges for equipment repairs (including core lab technician time and vendor technician time/travel).

Contributing Faculty – P. Chris Wilson (Coordinator)

Equipment – Liquid Chromatographs-Triple Quadrupole Mass Spectrometers (LC-MS/MS), Gas Chromatographs with Ion Trap and Triple Quadrupole Mass Spectrometers, Gas Chromatographs with Electron Capture (ECD), Flame Photometric (FPD), and Nitrogen-Phosphorus and Flame Ionization detectors; High Performance Liquid Chromatograph with UV-Visible Tunable Detector (HPLC); Ultraviolet-Visible Spectrophotometer (UV-Vis); Liquid Scintillation Counter (LSC); Biological Oxidizer; Temperature-Controlled Water Bath; Dissecting Microscope; pH and Conductivity Meters; Centrifuges, Sample Shakers, Ovens, Incubators, Electronic Balances; Accelerated Solvent Extractors (ASE), Ultrasonic Extractors (USE), Solid Phase Vacuum Manifold Extractor (SPVME) and Vacuum Pumps.

Instruments and Costs –

- GC and LC-MS/MS (bring your own column)
  1) Training/orientation: $500
  2) Method setup/technical help: $32/hr
  3) Costs
     - $20-35/sample (student analyzed)
     - $50-75/sample (technician analyzed, depending on complexity of analysis)
- GC
  1) Training/orientation: $250
  2) Method setup/technical help: $32/hr
  3) Instrument rental
     - $10-20/hr (student analyzed)
     - $42-52/hr (technician analyzed)
     - Gases and maintenance included. Charges differ based on detector system used and the frequency of routine maintenance needed for individual methods. Methods requiring more frequent injector/column maintenance will result in higher costs. Detectors such as NPD/TSD are more expensive to operated due to bead replacement costs.
- III. HPLC-UV
  1) Training/orientation: $250
  2) Technical help: $32/hr
  3) Instrument rental
     - $10-20/hr (student analyzed)
     - $42-52/hr (technician analyzed)

- UV-Vis Spectrophotometer
  1) Training/orientation: $125
  2) Technical help: $32/hr
  3) Instrument rental
    - $10/hr (student analyzed)
    - $32/hr (technician analyzed)
- Biological Oxidizer
    - Training: $200
    - Costs:
        - $5/sample (student analyzed)
        - $15/sample (technician analyzed)
    - Note: User must have current Radioactive Materials Training certificate from Environmental Health and Safety, and must keep a copy of their current RC1 form in McCarty Hall A, Rm. G-184 where biological oxidizer is located. Users need to supply their own quartz ladles, trapping cocktails, and ceramic combustion boats. Users must coordinate work through the OCARL.
- Extractors (ASE, USE, SPVME)
  1) Training: $250
  2) Technical help: $32/hr
  3) Instrument rental
    - $10/hr (student analyzed)
    - $32/hr (technician analyzed)
- Labconco Freeze-Zone Freeze Drier
    - $1/hr

Note: Fees are subject to change. Technical assistance may be available for method development and/or to prepare samples for additional fees. Students are expected to supply consumables such as columns, vials, vial caps, solvents, etc. Since this is a faculty-sponsored laboratory, some costs may be waived for collaborative research projects. For additional information contact:

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