University of Florida - IFAS
Soil and Water Science Department Core Laboratories
ICP-Mass Spectrometry Laboratory

Mission Statement- The Biogeochemistry of Trace Metals Laboratory (BTML) provides expertise and service for elemental analysis of environmental samples.

Location- 3183 McCarty Hall A
Equipment- NexION 300X inductively coupled plasma mass spectrometer (ICP-MS), Evolution 300 UV-VIS Spectrophotometer.

Procedures and Costs-

1. **Elemental analysis:**

	UF Accounts	External Pricing
(a) Experimental setup -	$165	$220
(b) Analysis of 1 element, per sample -	$7	$9
(c) Additional elements, per sample -	$4	$5

2. **Other procedures:**

(a) Digestion/Extraction, per sample -	$11	$17
(b) Filtration, per sample -	$11	$17

Note: Prices listed may be appropriately discounted for labor or materials provided from external sources. Use of the laboratory facilities by graduate students and post-doctoral associates will be accommodated to the extent possible.

For additional information contact:
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Basis for Establishing ICP-Mass Spectrometry Laboratory Analytical Prices for each procedure are established to cover the following costs on a per sample basis for the following:

(i) Use of expendable materials (tubing, standards, argon, chemicals, tips, gloves etc.).
(ii) Maintenance and operation costs of equipment required to conduct the procedure.
(iii) Labor costs for the level of expertise required for the procedure.
(iv) Overhead and incidental costs, on a time-proportional basis, that have to be paid by the core lab (e.g., electrical service and plumbing; safe chemical waste disposal, etc.).

The following are example cost analysis (UF accounts) for operation of an ICP-MS program:

Analysis of 10 samples, 4 elements: $165 setup, $19 per sample: $355
Analysis of 10 samples, 1 element: $165 setup, $7 per sample: $235
Analysis of 10 samples, 2 elements: $165 setup, $11 per sample: $275

Sample Preparation:

Solutions should be diluted so that the final acid concentration is approximately 1-3%, usually aqua regia or nitric acid **(NOT hydrofluoric**).

Solutions should be filtered so there is no particulate matter.

Minimum volume required is typically 5-10 mL.

Always include a blank digest prepared with the same protocols as your sample.

Let me know if you have any additional questions.