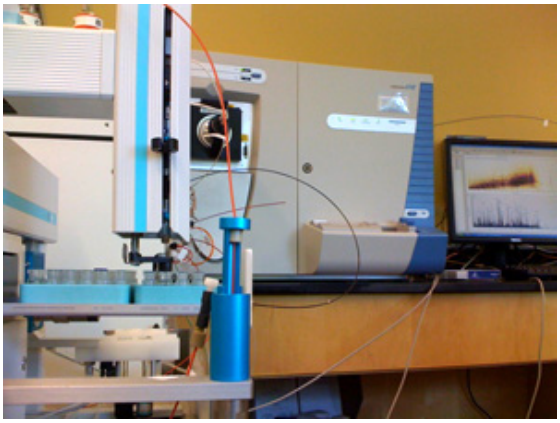
Print

Saito Lab Marine Bioinorganic Chemistry: Facilities

Our laboratory applies a combination of trace metal analytical measurements and biochemical protein measurements to our research. For metal analyses, we use a specialized dust-free clean room environment for sample preparation and analyses, voltammetric instrumentation for speciation measurements, and inductively coupled plasma mass spectrometers (ICP-MS) for total analyses. For the protein analyses, we operate liquid chromatography mass spectrometers for global and targeted quantitative proteomic analyses. We also operate a bioinformatic computer room with Linux and SEQUEST workstations, and are members of WHOI's shared High Performance Linux Cluster. Having access to this instrumentation allows the significant analytical method development that is critical to the adaptation of proteomic biomedical technology for marine research.



Enlarge Image

Linear Trap Mass Spectrometer.

As a self-contained proteomics research group, we often collaborate with other research groups on proteomic studies. For more information contact: proteomics[at]whoi.edu or visit our proteomics website at: www.whoi.edu/sites/proteomicslab

For a graphic representation of proteomic analysis see this Oceanus graphic.

Saito Laboratory Instrumentation

- Trace metal biogeochemistry clean laboratory
- Metrohm voltammetry systems for metal speciation and totals
- Phytoplankton and bacteria culture facilities
- Protein extraction equipment
- Q-Exactive Mass Spectrometer
- Fusion Tribrid Mass Spectrometer
- Vantage Triple Quadrapole Mass Spectrometer
- ICap-Q Inductively Coupled Mass Spectrometer
- Multi-Dimensional and Nanoflow Liquid Chromatography Systems
- Access to LTQ-FT high resolution mass spectrometer
- Access to Element 2 and Nepture Multi-Collector ICP Mass Spectrometers
- Access to 1200 CPU HPC Linux cluster
- Field Sampling Equipment for Trace Metal and Protein Sampling

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