

Name of lab user: _____

Stable Isotope Lab usage expectations

In order to be given access to the Stable Isotope Lab facilities, there are a few rules that have to be followed. Please read the lab rules outlined below. These rules apply to all lab users. They are designed to ensure that safe lab practices are followed. Ignoring these rules may lead to personal injury and/or damage to lab equipment. Ignoring the rules will also result in denied permission for lab access in the future.

Lab staff:

Lab ER5042 is supervised by the Stable Isotope Lab Coordinator (office ER5034). Lab ER4006 is supervised by the Research Lab Associate, Geert Van Biesen (office ER5028). These are your contacts for the respective labs.

Sample preparation:

- Students are expected to fully prepare their own samples and applicable calibration and check standards for analysis.
 - Lab staff will provide advice on the available standards currently in stock and what is appropriate for a student's initial work for a given sample type.
 - Students are expected to inquire about instrument detection limits and range and, using sample content information, properly prepare his/her samples for analysis.
- Instruction on use of the microbalance (room ER5042) will be provided by the Stable Isotope Lab Coordinator (J. Potter) for sample preparation for EA-IRMS (weighing and encapsulation) and Gas Bench (weighing into glass vials) analyses. The Research Lab Associate (G. Van Biesen) will provide instruction for TC/EA-IRMS sample preparation (weighing and encapsulation). Lab users should not rely on other students or faculty for proper sample weighing protocols.
 - There is signage near the microbalance to remind users of weighing protocols.
 - Do not hesitate to ask questions if uncertain about protocols. Lab staff are there to help you.
 - Take extra caution with cleanliness. Adhere to cleaning protocols. Contamination of sample and reference materials must be avoided at all times.
 - Some reference materials have health and safety hazards. Be aware of potential hazards and take appropriate safety precautions when handling these and all materials.
 - Do not try to rush or try to take short cuts. **This never works.** Err on the side of caution (and cleanliness).
 - Do not try to cover up mistakes. Mistakes can ruin an entire run or project.
- Users of the microbalance should sign up for a time on the calendar posted by the balance (or request by email for desired time slot).
 - The microbalance can get very busy at times. During these times, the lab coordinator may have to modify the schedule to accommodate certain projects.

Sample Analysis:

- For the instruments in ER5042, students are expected, and will be trained, to run their own analyses, under supervision of the lab coordinator.
 - Only lab users who have sufficient experience and competence will be permitted to run the

analytical instruments without supervision.

- Instruments in ER4006 are generally run by staff, but students can inquire about training and can work alongside staff to analyze their samples.
- Students should show up at their scheduled time, which will be communicated by email or phone.
 - Students who cannot be present or who must cancel a scheduled analysis time must give adequate notification.
- **The lab computers are used for data acquisition and control of the instruments only.** Do not attempt to use them for personal reasons such as reading email or internet use.
- You will receive instructions on setting up your analytical runs using the lab DAC software (sequence files). **Do not, however, modify, move or delete any other data files on the lab computers.** You may get a copy of your raw data if you wish. Excel files of analytical results are readily available. Ask the applicable lab staff to supply you with a copy.
- Students are reminded that they are only permitted access to their own samples and data. You are not permitted access to someone else's samples or analytical data.
 - Any student found accessing data they are restricted from perusing will be subject to disciplinary action.

Lab Safety:

- All lab users are required to have successfully completed WHMIS and Lab Safety Training. This may be from the online program offered by Memorial University (through the Desire2Learn system at DELT) or from another facility. Please provide proof of successful completion.
- Lab users should familiarize themselves with the safety data sheets for any chemicals they will be handling. These are located in the labs.
- Do not handle any materials not related to your specific project.
- Lab users must abide by safety precautions as outlined by the lab staff. There is signage throughout the labs to remind lab users of chemicals present in the labs and other safety issues.
- Notify staff immediately of any spills or other safety concerns.
- If the fire alarm sounds, you are to leave the lab immediately.

By signing below, you acknowledge that you have read the lab rules above and agree to comply with all lab rules and protocols.

Signature of lab user: _____ Date: _____

I acknowledge that the lab user above has received training on the following lab protocols:

_____ materials preparation using microbalance

_____ location of lab safety equipment

Signature of lab staff: _____ Date: _____