

Terms of use for the ICP room - ISTerre

ROOM MANAGERS

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1. PREAMBLE

This user charter aims to ensure the safety of individuals, the integrity of analyses and the preservation of equipment in the analysis room containing an Agilent ICP-MS 7900 and an Agilent ICP-OES 5800.

The ICP-MS/ICP-OES room is functionally and physically linked to the geochemistry clean room. As such, it must be considered a direct extension of the clean room in terms of cleanliness, contamination prevention, and safety requirements.

The same rules regarding cleanliness, material circulation, attire and handling as those defined in the geochemistry clean room charter apply in full to the ICP room. Any practice likely to introduce particulate or chemical contamination is prohibited.

Consequently, **no equipment, consumables, samples or containers that have been in the ICP room may be removed from the room**, except in the strict context of a controlled transfer to the geochemistry clean room, in accordance with the procedures in force. **Any unauthorised removal is prohibited.**

The room is considered a clean room. Samples must be prepared in advance in a clean chemistry room in accordance with the geochemistry clean room usage charter (except for powder weighing, which is subject to conditions and prior approval by the person in charge). Strict cleanliness and handling rules apply in order to limit the risk of cross-contamination and degradation of analytical performance.

👉 Collective cleaning of the rooms on Friday afternoons.

Compliance with this charter is mandatory for all users. Any breaches must be reported immediately to the venue managers.

2. OBJECTIVES

Ensure a clean and safe working environment – Guarantee the quality and reliability of analytical results – Preserve the performance and longevity of ICP-MS and ICP-OES equipment – Limit the risk of contamination and incidents

Access to the room and equipment is subject to signing the declaration at the end of this document. In the event of a breach of health and safety rules, access to the room may be suspended following a decision by those in charge.

👉 **IMPORTANT** : a duly completed service request form and/or purchase order must be sent to the relevant managers before any analysis can be carried out.

3. ACCESS TO THE ICP ANALYSIS ROOM

3.1 Terms and conditions of access

Access to the room is strictly reserved for authorised users who have received prior training approved by management. Access is conditional upon signing the certificate at the end of this document. Access via badge is only authorised for a limited number of permanent staff. A day pass may be offered to you.

3.2 Attendance register and restrictions

External users must complete an attendance register, indicating their arrival and departure times. Scales and refrigerators in certified laboratories are not freely accessible and require prior authorisation..

3.3 Introduction of samples

No powder samples may be brought in without prior approval from management.

✗ No powder weighing may take place while the ICP-MS is in operation.

4. TRAINING

All users must undergo initial training on the use of equipment, safety rules and cleanliness requirements. Annual refresher training may be required.

5. PROTECTIVE CLOTHING AND EQUIPMENT

5.1 Required attire

Wearing a clean smock, gloves, protective goggles and clogs designated for use in the laboratory is mandatory. Long hair must be tied back.

5.2 Prohibited items

Jewellery on hands and wrists is prohibited. No bags, boxes or objects that have been on the floor may be placed on the workbenches.

6. CONSUMABLES

The consumables in the room come from the clean room and are financed by specific credits. Their use is subject to payment of the corresponding access fee. Bottles intended for ICP-MS and ICP-OES must not be mixed and must not leave the room..

7. PREPARATION OF STANDARDS AND SAMPLES

Any preparation carried out outside the clean room or the ICP room must use a kit provided by the engineers in charge. This kit must be returned systematically..

8. CLEANLINESS AND HANDLING OF SAMPLES

8.1 General hygiene

Hands must be washed before entering the room. Eating, drinking, vaping, or chewing gum is strictly prohibited.

8.2 Prevention of contamination

● Samples must be handled using clean equipment and clearly labelled. Pencils (wooden, graphite) and associated notebooks are prohibited (carbon and metal contamination).

9. USE OF ICP-MS AND ICP-OES EQUIPMENT

● No use is permitted without prior approval from management regarding the matrix, load, dilution and calibration. The ignition, use and extinguishing procedures defined in the MOPs must be strictly adhered to.

The user is responsible for monitoring the proper functioning of the device and the quality of the results. Any negligence resulting in a breakdown or damage may be invoiced..

10. CLEANING AND MAINTENANCE

Work surfaces must be cleaned after each use. Equipment and samples must be tidied away. Any anomalies must be recorded in the instrument's laboratory logbook. Maintenance of equipment will be carried out solely by those responsible for the equipment.

11. WASTE MANAGEMENT

Liquid samples must be collected immediately after analysis. No storage is permitted in the room. Solid and chemical waste must be disposed of according to the designated channels.

12. SÉCURITÉ

12.1 Incidents and emergencies

In the event of an incident or spill, immediately alert the managers and prevention assistants..

European emergency number	112
Emergency medical services	15
Police emergency services	17
Fire brigade	18
Emergency number for deaf and hard-of-hearing people	114
SOS doctor	04 38 70 17 01
On-call pharmacy	04 76 63 42 55



12.2 Safety devices

⚠ There are no safety showers or eye wash stations in this room, therefore no concentrated acids are permitted, only HNO_3 & $\text{HCl} < 5\%$. mandatory PPE.

An oxygen detector is installed: in the event of an alarm, evacuate immediately..

⚠ 🖐 You are asked to turn on the light when you are in the room and, above all, to turn it off systematically when you leave the room. A presence detector is connected to the lighting and alerts the rear guards to the presence of a person if the fire alarm sounds.

13. DOCUMENTATION AND TRACEABILITY

All analyses must be subject to a complete service request. All operations, incidents and observations must be recorded in the laboratory notebook.

14. RESPECT & DISCIPLINE

Each user undertakes to comply with the rules and to leave the room in a spotless condition. The ICP room is not a storage area.

15. VALUATION OF RESULTS

The rules for associating technical staff and citing the ISTerre platform must be followed in scientific publications and communications.

16. ICP ROOM CERTIFICATE

I, the undersigned,,

present at the ISTERRE laboratory and using the ICP room No. 10 for the period

from / / to / / in the capacity of,

hereby certify that I have read and understood the charter governing the use of the ISTERRE laboratory's geochemistry clean room and all of its safety instructions, and I undertake to comply with them..

I also undertake to provide all information relating to my samples and the solvents used to dissolve them.

Any damage to equipment or consumables (torch, nebuliser, etc.) will be charged to me at a later date.

I undertake to provide a duly completed service request form before initiating an analysis. I undertake to complete the laboratory notebooks and attendance sheets (for external staff) correctly and systematically. Room access badges must be left in the room every evening.

For safety reasons, working alone is prohibited. Working on weekends and public holidays is not permitted. I evacuate the room in the event of an O₂ alarm.

Working conditions in the room require: wearing a clean lab coat, safety glasses, gloves and clean clogs specific to the room (personal footwear is prohibited). No dusty or fibrous clothing..

Contact details :

- Surname-First name:
- Phone number:
- E-mail :
- Person to contact in the event of an accident:

Done at, on

Signature :

Note: This certificate must be signed and submitted to Sylvain Campillo (preferably in digital format) **before any experimentation in clean rooms begins.**

APPENDIX A – USER CHECK-LIST FOR THE ICP-MS/ICP-OES LABORATORY

BEFORE ENTERING THE ROOM

- ☐ I have valid authorisation and approved ICP training.
- ☐ I have completed the attendance register if required.
- ☐ I am wearing a clean lab coat, gloves and protective goggles.
- ☐ I will not introduce any powder samples without authorisation.
- ☐ I have my mobile phone with me.

BEFORE STARTING ANALYSIS

- ☐ The service request has been submitted and approved.
- ☐ The matrix, dilution and calibration have been approved by a manager.
- ☐ Standards and solutions are correctly labelled.
- ☐ The consumables used are suitable for the instrument (ICP-MS or ICP-OES).
- ☐ Appropriate waste containers are available.

DURING ANALYSIS

- ☐ I strictly adhere to MOPs (start-up, use, shutdown).
- ☐ I monitor the proper functioning of the instrument.
- ☐ I do not modify any critical parameters without approval.
- ☐ In the event of an anomaly, I stop the analysis and inform a manager.

AFTER ANALYSIS

- ☐ Samples are collected immediately.
- ☐ Work surfaces are cleaned.
- ☐ Equipment is tidied away and instruments are secured.
- ☐ Waste is disposed of in the appropriate manner.
- ☐ Operations and incidents are recorded in the laboratory notebook.

SAFETY REMINDER

In the event of an O₂ alarm or incident: stop, secure, evacuate and alert those responsible.