

# USERS RULES GTC PLATFORMS

The platform GeoThermoChronology (GTC) provides technical and human resources for the acquisition of analytical data.

It is composed of 4 laboratories under the responsibility of dedicated personal. Each laboratory has its own organization. A simplified form chart for each laboratory is given at the end of this document.

## **GTC platform directors:**

Julien Carcaillet [julien.carcaillet@univ-grenoble-alpes.fr](mailto:julien.carcaillet@univ-grenoble-alpes.fr) 0476635930 (technical director)

Matthias Bernet [matthias.bernet@univ-grenoble-alpes.fr](mailto:matthias.bernet@univ-grenoble-alpes.fr) 04763514075 (scientific director)

## **Sample mechanical processing:**

Francis Coeur [francis.coeur@univ-grenoble-alpes.fr](mailto:francis.coeur@univ-grenoble-alpes.fr) 0613479222

## **Mineral separation:**

François Senebier [francois.senebier@univ-grenoble-alpes.fr](mailto:francois.senebier@univ-grenoble-alpes.fr) 0476635641

## **Fission track laboratory:**

Mélanie Balvay [melanie.balvay@univ-grenoble-alpes.fr](mailto:melanie.balvay@univ-grenoble-alpes.fr) 0476635964

Matthias Bernet [matthias.bernet@univ-grenoble-alpes.fr](mailto:matthias.bernet@univ-grenoble-alpes.fr) 04763514075

## **Cosmogenic nuclides laboratory:**

Julien Carcaillet [julien.carcaillet@univ-grenoble-alpes.fr](mailto:julien.carcaillet@univ-grenoble-alpes.fr) 0476635930

## **Before your arrival**

Before working in one of the laboratories of the GTC platform, you have to:

- Plan in advance the time you want use the laboratory with the laboratory responsible
- Complete the ISTerre administrative requirements (registration, proof of liability insurance etc.) if you are a visiting scientist or otherwise affiliated with ISTerre, or if you are linked to partner laboratories,
- Have an internship agreement for students or a valid contract with ISTerre (e.g. CDD),
- Read and understand the present rules,
- Read the intern rules of ISTerre, know the emergency numbers and the Assistants de Prévention (risk prevention advisors),
  - o Julien Carcaillet [julien.carcaillet@univ-grenoble-alpes.fr](mailto:julien.carcaillet@univ-grenoble-alpes.fr) 0476635930
  - o Nathaniel Findling [nathaniel.findling@univ-grenoble-alpes.fr](mailto:nathaniel.findling@univ-grenoble-alpes.fr) 0476514078

## General information

- The usual opening hours of the building are Monday to Friday 7:00 to 20:00. Outside the opening hours and during weekends the building is under alarm and the access to the building and the laboratories is strictly prohibited for internship students and researchers with contracts or visiting scientists.
- The presence of the responsible (of the laboratory or the project) is compulsory (except with his or her explicit agreement).
- The working hours in the different laboratories are summarized in the laboratory chart. The access to technical rooms are prohibited during the weekends (Permanent and non-permanent staff).
- The work schedule is assured by the responsible of the concerned laboratory. He/She is the only person who organizes it to satisfy the request. Occasionally, a modification may occur at his/her initiative to insure the timely finishing of Ph.D. theses or master student research internships.

## Communications

- All communications (congress, symposium and journal/book or webpage publications) must mention the collaboration with GTC. In the “method section”: *samples preparation was carried out at the ISTerre GeoThermoChronology platform (Grenoble, France).*

The technical partner will 1/ be co-authors if its participation concerns data production and their discussion in the scientific context or 2/ thank in the "Acknowledgments section": *We warmly thank [name] (GeoThermoChronology Platform, ISTerre) for technical support.*

Publication address: *Univ. Grenoble Alpes, Univ. Savoie Mont Blanc, CNRS, IRD, IFSTTAR, ISTerre, 38000 Grenoble, France*

## CHART OF THE FISSION-TRACK LABORATORY

<b>Name of the trainer</b>	Mélanie Balvay or Matthias Bernet
<b>Name of the trained person</b>	
<b>Date of the training</b>	

GENERAL INSTRUCTIONS	OK
Opening hours at ISterre (7:30 – 20:00 except week-end and bank holiday) Handling hours (8:15 – 17:00 with obligatory presence of a permanent personnel for chemistry)	
Do not eat, drink and smoke in the laboratory	
SAMPLE PREPARATION AND ANALYSIS	
Know the experimental protocol and identify all the samples	
Knowledge of operating the equipment before use: - Automatic polisher, micro-lathe, binocular, microscopes and FTstage system (room 361 et 366)	
Order : Signal any damage of equipment or accidents and the end of consumables or products out of stock	
HEALTH AND SAFETY	
<u>Chemical products</u> : read the risk sheets HNO <sub>3</sub> 5,5mol.L <sup>-1</sup> (apatite etching) NaOH-KOH eutectic mixing at 228°C (zircon etching) HF 48% (mica etching): manipulation only with Mélanie	
<u>Personal protective equipment (PPE)</u> : coat, gloves, glasses, facial screen, ear plug, fume hood	
<u>Chemical wastes</u> : Waste management and precautions (manipulation under fume hood with PPE)	
<u>Accidents</u> : <b>INFORM THE LABORATORY MANAGER IMMEDIATELY!</b> Portable shower (room 361), eye rinse (361), safety shower (365), eyewash station (365), absorbent cloths for chemicals (361), pharmacy (361/365), fire extinguisher (corridor), Emergency telephone number (361), incident file to be completed (secretariat)	
<u>Radioactivity</u> : Use low radioactive material (See radiation protection instruction on the door 361)	
<u>Equipment risk</u> : High temperature (oven and hot plates) Risk of cut (micro-lathe) Visual fatigue (binocular and microscope)	
<u>Cleanliness and storage</u> : bench, common spaces, used equipment and facility	

The trained person agrees not to intervene on the points where the competence is not acquired.

Location:

date:

Signatures: the trainer

the Trained person and its responsible

## CHART OF THE ROCK CHRUSHING LABORATORY

<b>Name of the trainer</b>	Francis Coeur
<b>Name of the trained person</b>	
<b>Date of the training</b>	

<b>GENERAL INSTRUCTIONS</b>	<b>OK</b>
Opening hours at ISterre (7:30 – 20:00 except week-end and bank holiday) Handling hours (07:30 – 16:00 with obligatory presence of a permanent)	
Do not eat, drink and smoke in the laboratory	
<b>MANIPULATIONS</b>	
Know the experimental protocol and identify all the samples	
Know the operating of the equipment before use: - Rock jaw crusher, disc pulverizer, agate pulverizer, sieving, oven, shaking table	
Order : Signal any damage of equipment or accidents and the end of consumables or products out of stock	
<b>HEALTH AND SAFETY</b>	
<u>Personal protective equipment (PPE)</u> : Ear plug, anti-dust mask	
<u>Accidents:</u> <b>INFORM THE LABORATORY MANAGER!</b> Emergency telephone number (switchboard), incident file to be completed (secretariat)	
<u>Equipment risk:</u> High temperature (oven) Risk of crushing (crusher) Risk of inhalation of dust	
<u>Cleanliness and storage</u> : bench, common spaces, used equipment and facility	

The trained person agrees not to intervene on the points where the competence is not acquired.

Location:  
Signatures: the trainer

date:  
the Trained person and its responsible

# CHART OF THE COSMOGENIC NUCLIDE LABORATORY

<b>Name of the trainer</b>	Julien Carcaillet
<b>Name of the trained person</b>	
<b>Date of the training</b>	

<b>GENERAL INSTRUCTIONS</b>	<b>OK</b>
Opening hours at ISterre (7:30 – 20:00 except week-end and bank holiday) Handling hours (8:15 – 19:00 with obligatory presence of a permanent for chemistry)	
Do not eat, drink and smoke in the laboratory	
<b>MANIPULATIONS</b>	
Know the experimental protocol and identify all the samples	
Knowledge of operating the equipment before use: - Magnetic separator, shacking table, oven, ultra-pure water system	
Order : Signal any damage of equipment or accidents and the end of consumables or products out of stock	
<b>HEALTH AND SAFETY</b>	
<u>Chemical products</u> : read the risk sheets HCL, H <sub>2</sub> SiF <sub>6</sub> , HNO <sub>3</sub> , NH <sub>4</sub> OH HF 48%: manipulation only with Julien	
<u>Chemical wastes</u> : Waste management and precautions (manipulation under hood with PPE)	
<u>Accidents</u> : <b>INFORM THE LABORATORY MANAGER!</b> Portable shower (room 361), eye rinse (365), safety shower (365), eyewash station (365), absorbent cloths for chemicals (361), pharmacy (361/365), fire extinguisher (corridor), Emergency telephone number (361), incident file to be completed (secretariat)	
<u>Equipment risk</u> : High temperature (oven and hot plates) Chemical product contacts Inhalation Risk (BeO)	
<u>Cleanliness and storage</u> : bench, common spaces, used equipment and facility	

The trained person agrees not to intervene on the points where the competence is not acquired.

Location:

Signatures: the trainer

date:

the Trained person and its responsible

## CHART OF THE MINERAL SEPARATION LABORATORY

<b>Name of the trainer</b>	François Senebier
<b>Name of the trained person</b>	
<b>Date of the training</b>	

GENERAL INSTRUCTIONS	OK
Opening hours at ISterre (7:30 – 20:00 except week-end and bank holiday) Handling hours (07:30 – 16:00 with obligatory presence of a permanent)	
Do not eat, drink and smoke in the laboratory	
MANIPULATIONS	
Know the experimental protocol and identify all the samples	
Knowledge of operating the equipment before use: - Frantz and Carpc magnetic separators, binocular microscope, vacuum pumps, fume hood	
Order : Signal any damage of equipment or accidents and the end of consumables or products out of stock	
HYGIENE ET SECURITE	
<u>Chemical products</u> : read the risk sheets LST, C <sub>3</sub> H <sub>6</sub> O, CH <sub>2</sub> I <sub>2</sub>	
<u>Personal protective equipment (PPE)</u> : Coat, gloves, chemical box	
<u>Accidents:</u> <b>INFORM THE LABORATORY MANAGER!</b> Emergency telephone number (switchboard), incident file to be completed (secretariat)	
<u>Equipment risk:</u> High temperature (oven) Magnetic risk	
<u>Cleanliness and storage</u> : bench, common spaces, used equipment and facility	

The trained person agrees not to intervene on the points where the competence is not acquired.

Location:

Signatures: the trainer

date:

the Trained person and its responsible