



Solution, support and expertise in
radioactivity measurements



Why working with LAFARA ?

- **25 years of experience** in gamma analysis
- University platform
 - **Expertise** in signal processing
 - **Training** in gamma spectrometry
- **Ultra sensitive equipments** coupled to **underground environnement**
 - **Very low** detection limits
 - **Low radioactivity** measurements
 - **Fast** signal acquisition
- **Automated laboratory**
 - Analysis **365 days/ year**

About the lab

- Radioactivity analysis in **all types of materials using gamma spectrometry**



A word cloud of various materials analyzed by the lab, including Sands, Terracotta, Waters, Sediments, Mushrooms, Mortars, Gas, Ceramics, Concretes, Bricks, Electronics, Polymers, Resins, Filters, Metals, Vegetals, Fishes, Food, Milk, and Cosmetics.

- **Environmental radioactivity** measurements expertise
- **Comprehensive service** for radiological characterisation of materials
- Quote at www.lafara.obs-mip.fr



Equipments

- **5 last-gen gamma spectrometers**
ultra-sensitive HPGe
 - **3 Well type SAGe-Well®**
 - **2 planar type**
- Liquid nitrogen-free electric cooling system : **CryoPulse-5®+ cryogenerators**
- Robotic **autosampler**
- **VLA selected 24 cm thick lead castles**
and underground environment
 - Cosmic ray reduction
 - Background signal decrease
- **1200 sample/ year** analytical capacity

Certifications

- Laboratory **certified by french Nuclear Safety Authority (ASN)** since 2020, in agreement with **ISO/CEI-17025** prerequisite.
- **11 ASN certifications** (matrix : water, soil & gas)
- **Continuous participation to inter-laboratory comparison** campaigns from the french Institute of Radioprotection and Nuclear Safety (**IRSN**)

Contact us :

lafara@legos.obs-mip.fr

| TYPE | MATRIX | CATEGORY | REF. | VALIDITY |
|------|----------------|--------------------------|------|------------|
| 1 | Water | Radium-226 & daughters | 1_11 | 12/31/2024 |
| 1 | Water | Radium-228 & daughters | 1_12 | 12/31/2024 |
| 1 | Water | Weight uranium | 1_17 | 12/31/2024 |
| 2 | Soil/ sediment | > 100 keV gamma emitters | 2_01 | 06/30/2021 |
| 2 | Soil/ sediment | < 100 keV gamma emitters | 2_02 | 06/30/2021 |
| 2 | Soil/ sediment | Radium-226 & daughters | 2_11 | 06/30/2025 |
| 2 | Soil/ sediment | Radium-228 & daughters | 2_12 | 06/30/2025 |
| 2 | Soil/ sediment | Weight uranium | 2_17 | 06/30/2025 |
| 5 | Gas | > 100 keV gamma emitters | 5_01 | 06/30/2022 |
| 5 | Gas | < 100 keV gamma emitters | 5_02 | 06/30/2022 |
| 5 | Gas | Halogens | 5_14 | 06/30/2022 |

Current ASN certifications

