

ANALYSIS AND DETERMINATION OF RADIOACTIVITY

Innovations and Benefits - Use of equipment and technologies that allow the analysis and evaluation of extremely low levels of contamination.

Analysis of Radioactive Noble Gases in the atmosphere as "Early Warning" of possible nuclear accidents.

Tritium analysis at low levels for the control of plants with Fusion technology.

Use of natural and artificial radionuclides as tracers for the study and evaluation of environmental processes.

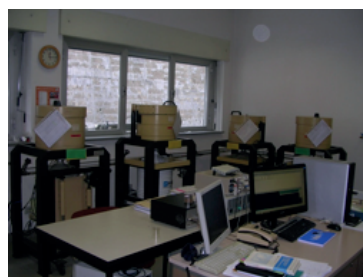
The laboratory has been ISO 9001 certified since 2003.

Use -

- Radiometric monitoring and surveillance in the event of a nuclear accident;
- Study and evaluation of environmental processes in ecosystems using natural and artificial radioactive elements;
- Determination and certification of radioactivity content in matrices of various kinds;
- Physical surveillance and radiological characterization of materials;
- Geological characterization of the land

Applications and ongoing Activities -

- Collection, analysis and storage of data coming from monitoring stations of the IMS-CTBTO (International Monitoring System - Comprehensive Nuclear Test Ban Treaty Organization) global network and support to MAECI (Ministry of Foreign Affairs) in relation to Radiometric aspects;
- Radiometric analysis in environmental, food and industrial matrices for the determination and certification of radioactivity content;
- Trace radioisotope analysis for physical surveillance and characterization of materials during the decommissioning of nuclear plants and radiological characterization of plants for the treatment of radioactive waste;
- Set up of sampling and measurement techniques/systems of some radionuclides for the monitoring of radioactive waste deposits;
- Determination of the natural gas emanation of Radon from the ground, to support the geological characterization of a site for the National Deposit of radioactive waste at low and medium activity;
- Validation of innovative technologies in the security sector, using radiometric techniques for "the identification of explosives", with the creation of a measurement prototype;
- Radio-ecological investigations, environmental radiometric monitoring and studies of migration and accumulation of radionuclides in the environment (soil, plants, air, aquatic systems);
- Training activities, through specialized courses, for students, researchers, professionals and companies.



Characteristics: CUSTOM

The Environmental Radiometry service can be flexibly adapted to different needs and contexts