

Details

Laboratory for radioactive Isotopes (LARI)

The Laboratory is a facility of the department of forest botany and tree physiology at the University of Göttingen. It allows users to work with radioactive material under the handling permission for radioactive material. Legal regulations regarding the handling of radioisotopes are observed by the LARI. The LARI offers as a service the measurement of samples for radioactivity. Thereby support is given by LARI staff with measurement instruments with radioactive sources and for radioactive substances. Further duties are the development of new methods for the application of radioisotopes as well as the development of environmental friendly replacement methods. The LARI with its staff are accredited as authorized experts under § 66 in Niedersachsen. The LARI conducts courses on the handling of radioisotopes. Staff participate in the technical instruction training of radiation protection at the University of Göttingen. The LARI has laboratory rooms and a measurement room in building Büsgenweg 2 as well as laboratory space for plant cultivation and fumigation at Burckhardtweg 2. The rooms at Büsgenweg have been refurbished in 2002 and are in excellent condition, the rooms at Burckhardtweg 2 were refurbished in 2005. All rooms are part of a handling permit for open source radioactive material from 2007. They conform to the current requirements in these area. The Handling Permit is not nuclide specific and allows handling of all radioactive materials within the threshold of Aktivitätsklasse SK2, furthermore the permission is not time limited. The total area of the Laboratories and measurement rooms inclusive of the airlock system are 336,05 m².

Address: Büsgenweg 2
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[To website](#)

Host Institution

Georg-August-Universität Göttingen
Wilhelmsplatz 1
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Scientific Domain

Primary Subjects:

- Biology
- Agriculture, Forestry, Horticulture and Veterinary Medicine

Secondary Subjects:

- Medicine
- Geosciences (including Geography)

Category

Analytical Facilities

Scientific Services

-Provision of laboratory work places to handle open radioactive substance for departments within the university and outside of the university. Accountability of all radiation protection services (applications, Person dosimetry and waste disposal, contamination controls, record keeping). - Radioactivity determination of samples, as well as the evaluation of the results. Quality control of the measuring instrumentation by participation of ring comparison analyses. Evaluation of existing testing methods, development of new methods. - Training in handling isotopes as well as in radiation protection; Technical instruction training - Cooperation on research projects and applications for own projects in collaboration with other facilities and departments.

Scientific Equipment

- 3 gamma spectrometer
- 3 Liquid Scintillation Spectrometers
- 1 Phosphor Imager
- 5 climate chambers for the use with radioactive materials
- 1 climate chamber for the use with radioactive gas
- 6 working places in the radioactive lab
- Sample preparation for low-level environmental analysis
- qRT-PCR
- Sample preparation for H-3 and C-14 in solids

Keywords

- radio nuclides
- isotope analytics
- Gamma-spectroscopy
- Beta-spectroscopy
- radiation protection
- emission monitoring
- environmental Analysis
- radiography
- Metabolism - Physiology
- Radiation protection experts
- Radiation protection training
- molecular Biology
- soil erosion
- composting
- Activity determination of radioactive waste

Networks

Users per annum

Internal Users: 35
External Users in total: 13
External Users: 11
External Users in the EU: 2
External Users outside of EU: 0