Lysimeter Research Group

A scientific community network for lysimeter research

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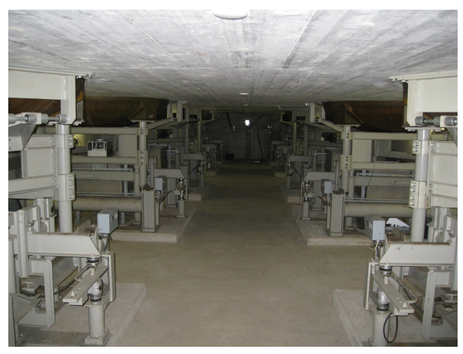
Excavated soil monoliths

A **lysimeter** is a vessel that isolates a volume of soil between ground surface and a certain depth. Commonly it includes a device to sample percolating water at its bottom.


Shafts for lysimeter vessels

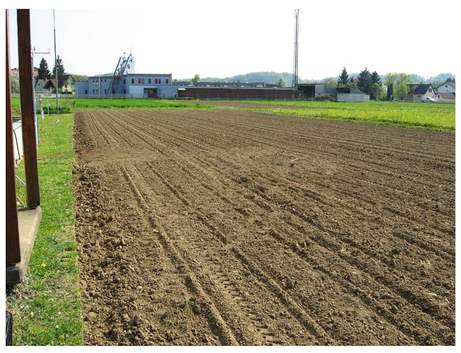

Longtime lysimeter facility


Modern lysimeter facility


Lysimeter station

Lysimeters are traditionally used to **study water and solute transport in the soil.**

Equipped with a weighing system, soil water sensors and temperature sensors, lysimeters are valuable instruments to investigate hydrological, chemical and biological processes in the system soil-plant-atmosphere, especially fluxes across its boundary layers, e.g. infiltration, evapotranspiration and deep drainage.

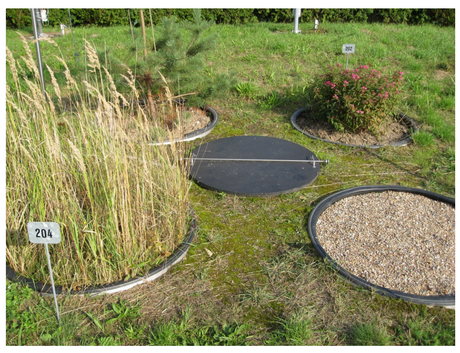

Field lysimeter


Forest lysimeter


Crop studies (large lysimeters)


Crop studies (small lysimeters)

Modern lysimeter facilities measure water balance components with high precision and high temporal resolution. Hence, they are used in **various research disciplines** – such as hydrology, hydrogeology, soil science, agriculture, forestry, contaminated site remediation, and climate change studies.



Evapotranspiration studies

The Lysimeter Research Group (LRG) was established in 1992 as a **registered nonprofit association with free membership** (ZVR nr: 806128239, Austria). It is organized as an executive board with an international scientific steering committee.

The main intentions of the LRG are

- advancing **interdisciplinary exchange of information** between researchers and users working in the field of lysimetry on an international level,
- **disseminating scientific knowledge** to the public and
- **supporting decision makers.**


Climate change research (increasing CO_2)


Climate change research (monitoring network)

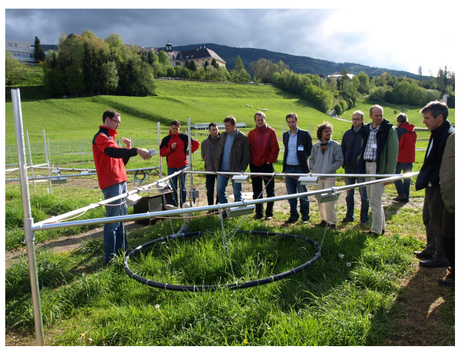

Climate change research (rainfall scenarios)

Main activities

- organizing a lysimeter **conference** every two years in Raumberg-Gumpenstein (Styria, Austria),
- organizing **excursions** to lysimeter stations and related research sites around Europe, and
- maintaining a **website** that contains useful information about numerous European lysimeter stations regarding their infrastructure, instrumentation and operation, as well as related links and references which may help scientists to find an appropriate research site for potential cooperation projects:


Lysimeter conference


Lysimeter excursion


Lysimeter excursion

Up to now the LRG counts **485 registered members from 54 countries**. Registration is possible free of charge via **www.lysimeter.at***. The LRG wants to attract new members from all over the world, intensify co-operation with other research groups, and enhance and support new and innovative ideas and technologies in lysimeter research.

*We thank our Sponsors
UMS München and
UGT Müncheberg!

www.lysimeter.at

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