Glovebox system for the diffusion experiment

Feature:

The glovebox system is composed of high-integrity argon-filled gloveboxes (VAC). In the glovebox system, the through/in-diffusion experiments of various elements through/into solid samples, e.g. cement hydrate monolith and rock, are carried out under simulated geological conditions for radioactive waste disposal.

Purpose:

The diffusion behaviour of radionuclides into cement materials is a very important parameter when considering the release of radionuclides from the near field of a cementitious repository in a long-term performance assessment and regulation.

Data from the diffusion experiments under simulated geological condition for radioactive waste disposal in the glovebox system give valuable input to discuss the barrier performance of the repository.

Specifications:

High-integrity argon-filled glovebox:

- Dual Sided (12 Ports), length W5300 x D1200 x H1950 mm.
- Gas Purification System: argon(Ar), O_2 < 1ppm.
- Power: AC 110 V, 15A (Operation)

Location and Date of Installation:

Komae Campus, March 2006