

Cryogenic Service Room

[Special Fluid Supply Facility]

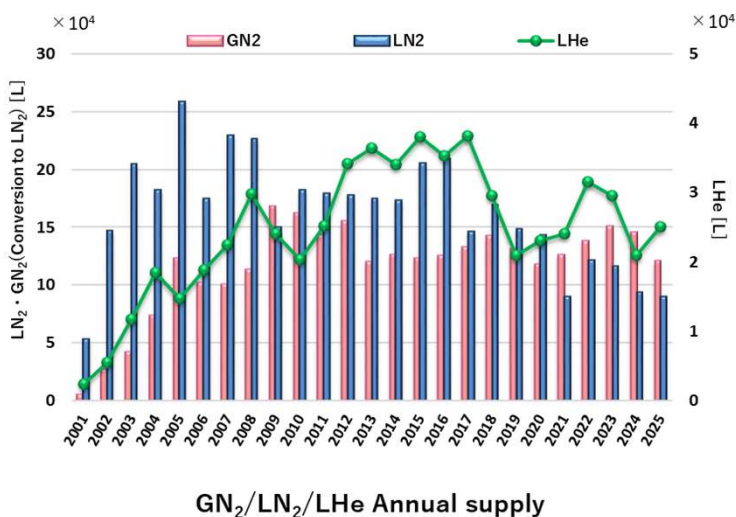
The Institute of Industrial Science Common Facilities

<https://sites.google.com/g.ecc.u-tokyo.ac.jp/ryuutai>

The Cryogenic Service Room is one of the common facilities in the Institute of Industrial Science and supplies liquid helium (-269 °C), liquid nitrogen (-196 °C), nitrogen gas (0.7 MPa) and primary pure water to the laboratories. Since helium is a scarce and expensive resource, we supply liquid helium through a recycling method in which evaporated helium gas is collected and re-liquefied.

Main Equipment

- Helium liquefier (LINDE - L140)
- Liquid helium storage tank (2,500 L)
- Long helium gas cylinders (2,085 m³)
- Compressor for helium gas recovery (50 m³/h)
- Liquid nitrogen storage tank (11,000 L)
- Automatic Liquid Nitrogen Supply System
- Primary pure water production unit (2.2 m³/h)



Main Activities

- Production and supply of liquid helium
- Liquid nitrogen supply
- Nitrogen gas supply
- Supply of primary pure water
- Maintenance and management of each facility
- Accounting for the use of special fluids
- Compliance with the High Pressure Gas Safety Act
- High Pressure Gas Safety Guidance