Cryogenic Service Room

[ Special Fluid Supply Facility ]

The Institute of Industrial Science Common Facilities

http://www.iis.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 (2,500L)
- Long helium gas cylinders (2,085㎥)
- Compressor for helium gas recovery (50㎥/h)
- Liquid nitrogen storage tank (11,000L)
- Automatic Liquid Nitrogen Supply System
- Primary pure water production unit (2.2㎥/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