

Cryogenics



DESCRIPTION

Cryogenic system includes cryostats, helium liquefiers and cryogenic temperature control.

Cryogenic temperature control

Cryogenic temperature control equipment is used to monitor and regulate the temperature of a device at low temperatures down to a one Kelvin or even below. For this task we offer cryogenic temperature controllers with up to four multi-purpose input channels, which support most temperature sensors (silicon diode, ruthenium oxide, platinum RTD, Cernox, rhodium iron, germanium, Carbon-Glass, GaAlAs diode and thermocouple), cryogenic temperature monitors with up to eight input channels supporting diode, platinum RTDs and all other cryogenic resistor temperature sensors, including an optional dual thermocouple input, as well as silicon diode and platinum RTD temperature sensors together with cryogenic accessories like heater, heater wires and low thermal conductance cables.

CRYOSTATS

BCL offers a large variety of cryostats which can be configured individually. Depending on the required temperature and cooling power, different combinations of cryostats like pulse tube, ADR or dilution refrigerator may be chosen. Various contacting options like electrical feed throughs, microwave conductors or fibers can be integrated.

Superconducting magnets can also be integrated.

HELIUM LIQUEFIER

The Advanced Technology Helium Liquefiers are a cryo-cooler based helium liquefier. They are lab-scale and mobile devices that allow you to recover and liquefy the helium gas currently being lost from the normal boil off and helium transfers of your cryogenic instruments.

OPTICAL CRYOSTATS

- Closed-cycle optical cryostats: It is perfectly suited for optical experiments for its high mechanical stability.
- Closed-cycle optical cryostat with intermediate sample chamber and integrated cold sample electronics size: This closed-cycle cryostat has the very high temperature and vibration stability of the Cryostation C2 and a sample space in between the Cryostation C2 and the Nanoscale Workstation.
- Closed-cycle optical cryostat with breadboard: The cooled breadboard offers the freedom to integrate a sample with multiple probes, nanopositioners and free-space optics right onto the cold platform.
- Ultra stable closed-cycle optical cryostat: The system features advanced vibration isolation consisting of a passively dampened platform with low natural frequency combined with a mass compensation technology for ultra sensitive measurements.