

Contact person: Prof. Dr. Iosif Gr. Deac (iosif.deac@ubbcluj.ro)

Laboratory for transport measurements in high magnetic fields

This laboratory is destined for the study of magnetotransport properties of the samples in high magnetic fields, up to 7 T and in the temperature range 5 – 300 K

The experimental setup consists of:

Cryogenic Ltd. (UK) cryostat equipped with: superconducting magnet, current source, Sumitomo (SHI) closed cycle refrigerator, Lake Shore 340 temperature controller, variable temperature insert, electrical measurement probe with temperature sensor.

The system is computer-controlled by a LabVIEW program to work at selected temperature levels and various magnetic fields.

The electrical measurements can be done by the four-probe method, by using a Keithley 2400 source operated by a Matlab program by means of a GPIB interface.

Voltage range: ± 20 mV – ± 200 V

Current range: ± 1 μ A – ± 1 A

Resistance measurement range: 0,001 Ω – 500 M Ω



Requests can be made by email or through a request addressed to the laboratory manager, in which they will mention: the nature of the samples, their dimensions, their number, the date of delivery, the type and number of measurements requested.

-requests can be made M-F, between the hours of 10-17.

The laboratory is available throughout the academic year, with the exception of the periods in which it is used for the laboratory's own research or that of doctoral students, master's students or students working on their diploma thesis.