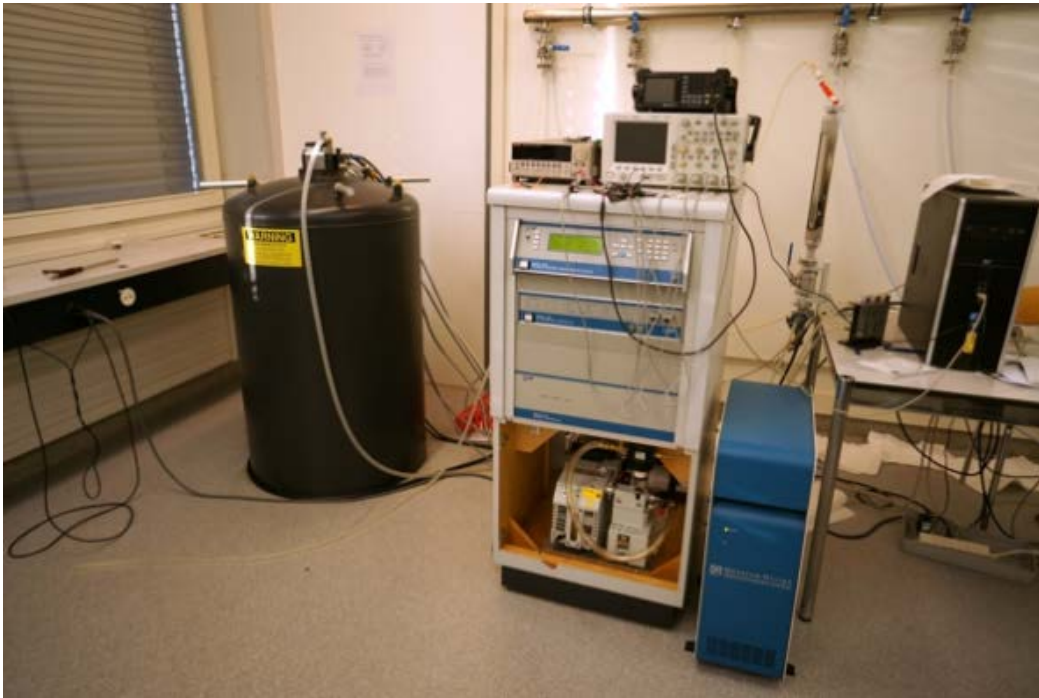




## Physical Properties Measurement System [PPMS]



**System (PPMS)**

Quantum Design PPMS allows performing several types of experiments in a controlled set of external conditions. A liquid helium based cryostat allows ranging the temperature from 2 to 350 K. Superconducting magnets produce a vertical magnetic field varying from -9 to +9 Tesla. PPMS is mainly used to perform:

- Transport measurements: resistivity vs. temperature/magnetic field curves at constant current can be acquired to determine the transport properties of samples;
- Vibrating Sample Magnetometry (VSM): hysteretic magnetisation vs. external magnetic field curves can be obtained at different temperatures.

Experiments can be done with both field parallel and perpendicular to the sample plane.

A Keithley generator can be coupled to the PPMS to increase the range of the applied current or bias voltage. An impedance vs. frequency station to measure samples' response up to 1 MHz is presently under development.