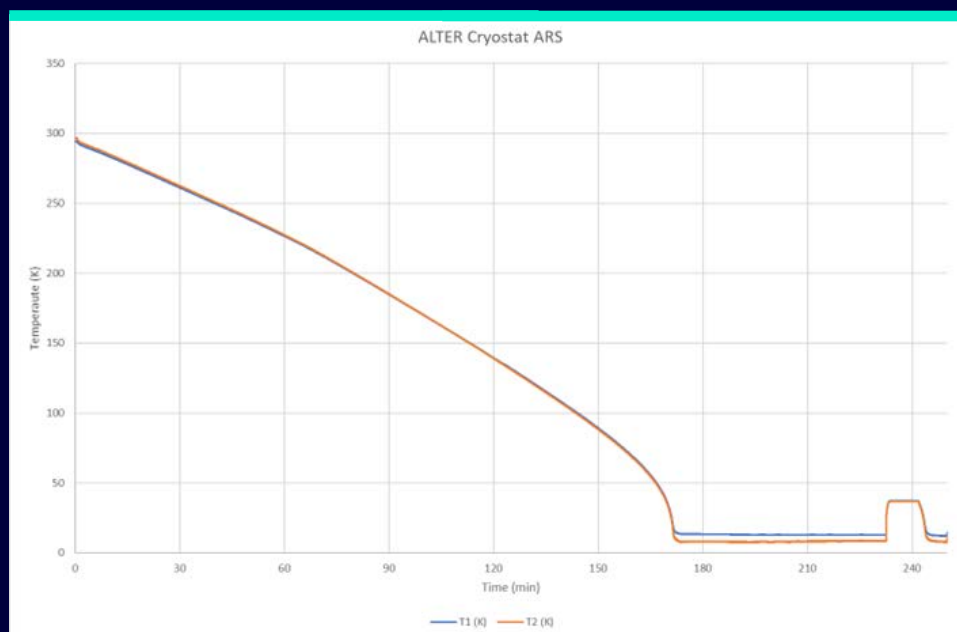


New Helium cryostat

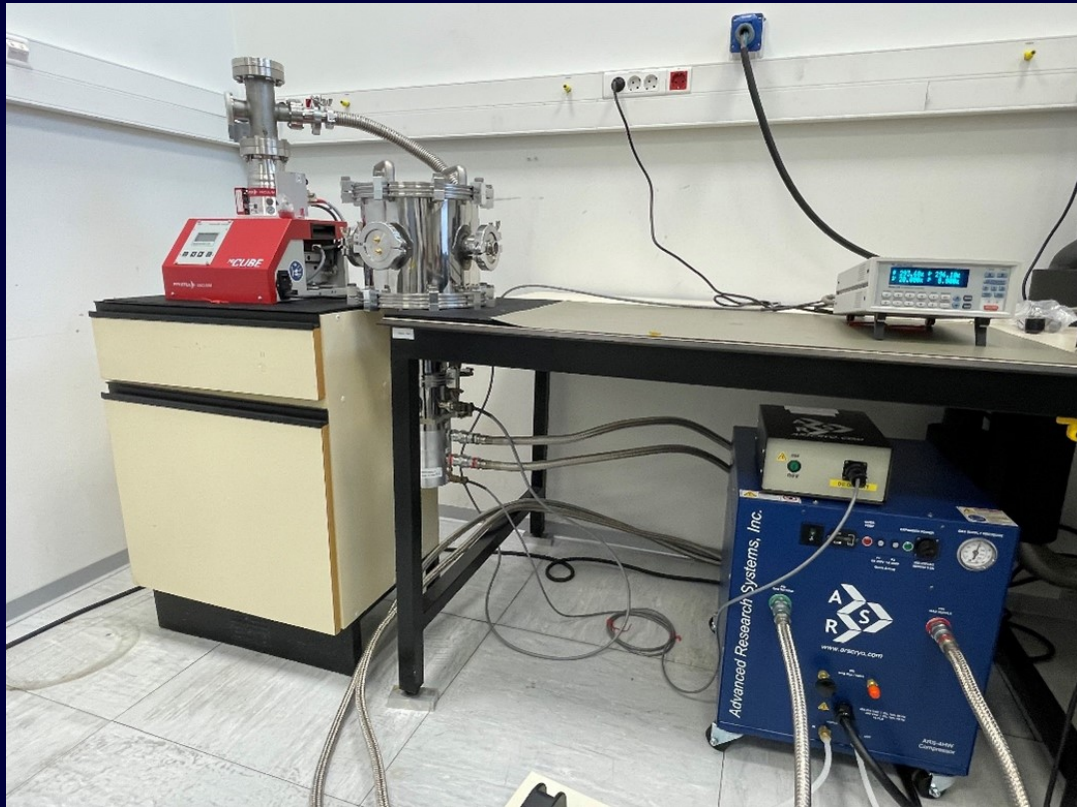
ALTER has recently updated the cryostat capacities adding a close loop Helium cryostat that will allow the characterization of components at low temperatures

The samples chamber has been customized to increase the size for placing samples up to a cylinder of 20cm diameter by 15cm high. The cryostat is equipped with DC and RF feedthroughs but any other feedthrough can be coupled through the four inputs in the lateral of the vacuum chamber.

This instrument gives ALTER the capacity to test temperatures as low as 10K and it is being used for the characterization of sample for the ARIEL (Atmospheric Remote-sensing Infrared Exoplanet Large-survey) mission. **The following graph** show the monitored temperature during the cooling phase with two temperature references, one placed internally that reaches 8K and one at the samples position that reaches 10K.



The following picture shows the cryostat with the Helium pump cooled with a water chiller and the turbomolecular vacuum system coupled to the cryostat.



The first sample being characterize is a mechanical switch that will be activated using a linear movement feedthrough as shown on the following diagram:

