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## **Sample environment @ PETRA III for in-situ & operando x-ray experiments**

*Tuesday 16 September 2025 17:00 (1 hour)*

The Sample Environment Team was established to bundle information, knowledge and expertise within Petra III, with the aim of speeding up the engineering process, reducing duplicate developments und promoting standardization wherever possible. Since the start of Petra III, the SaEn-Team has developed various devices. These devices are either specialised for a certain beamline or developed with feedback from several beamlines for our own pool of equipment that is available for user beamtimes. This poster will present a selection of the Sample Environment Team's completed, ongoing and future projects at Petra III, categorized by topic. These topics are: Cryogenic; High Temperature; High Pressure; Mechanical Devices; Automation; and Vacuum or Reactive Chambers. Each project will be briefly presented with images and specifications. Projects to be presented include an MBE-Insitu chamber, a multipurpose sample heater, diamond anvil cells and the automation of sample changes in closed chambers with focus on cryogenic chambers.

### **Footnotes**

### **Funding Agency**

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