THE TTK 600 LOW-TEMPERATURE CHAMBER: A NOVEL MULTIPURPOSE NON-AMBIENT XRD ATTACHMENT
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The TTK 600 Low-Temperature Chamber developed by Anton Paar GmbH, Austria allows fast and accurate XRD investigations in different environments and experimental setups. It is therefore best suited for scientific research as well as routine measurements.

The TTK 600 Low-Temperature Chamber is a versatile sample stage for X-ray diffraction studies between -190 °C and 600 °C depending on the measurement conditions and atmospheres (vacuum, air or inert gas). Heating and cooling of the sample is performed by a novel temperature control unit which provides temperature stability. The stage is equipped with a direct sample heater and a cryostat; both in combination with a liquid-nitrogen cooling system guarantee short heating and cooling cycles.

The chamber can be optionally equipped with sample holders for transmission and reflection geometries or with a capillary extension, the latter by simply exchanging the lid of the chamber. This makes the TTK 600 an appropriate tool for investigations of inorganic and organic powders and bulk samples as well as of foils and films.