A Unique Heating Attachment for Four-circle Goniometers

DHS 1100

The DHS 1100 is an advanced heating attachment for in-situ diffraction studies on four-circle goniometers up to 1100 °C. It fits all common four-circle goniometers, replacing the standard sample holder.

The instrument is extremely compact and lightweight. The design of the heating plate guarantees a high temperature uniformity and good position stability at elevated temperatures.

The unique dome-shaped X-ray window made of graphite allows the analysis of samples under vacuum and under inert gas conditions to avoid oxidation or other chemical reactions of the sample at high temperatures.

Extensive cooling of the dome and the DHS 1100 housing is achieved by using compressed air.

The unique design of the DHS 1100 is registered and provides all the features our customers have in mind - compactness, safety and high performance.

Typical applications

- Temperature-induced phase transition investigations
- Texture measurements
- Stress analysis
- Profile analysis
- Grazing incidence investigations
- High resolution studies
- Investigation of layered structures

Technical data

Temperature range:	25 to 1100 °C
Atmospheres:	air, inert gas, vacuum (10^{-1} mbar)
Diameter/Height/Weight:	128 mm/51 mm/450 g
X-ray geometry:	reflection