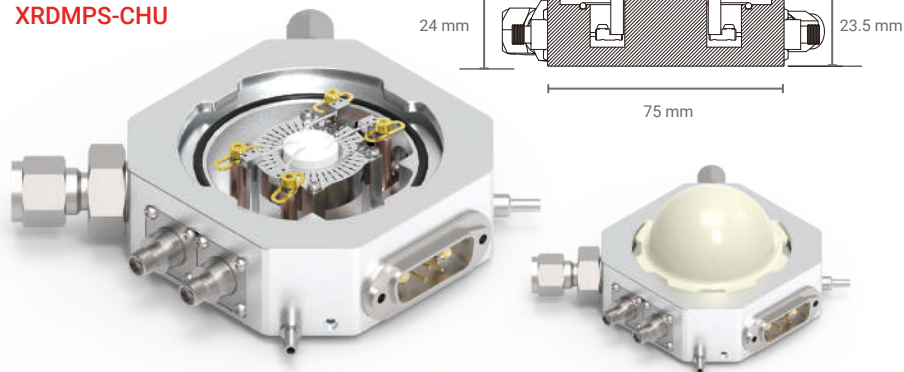


Environment System with Probes for Mounting XRD Machine

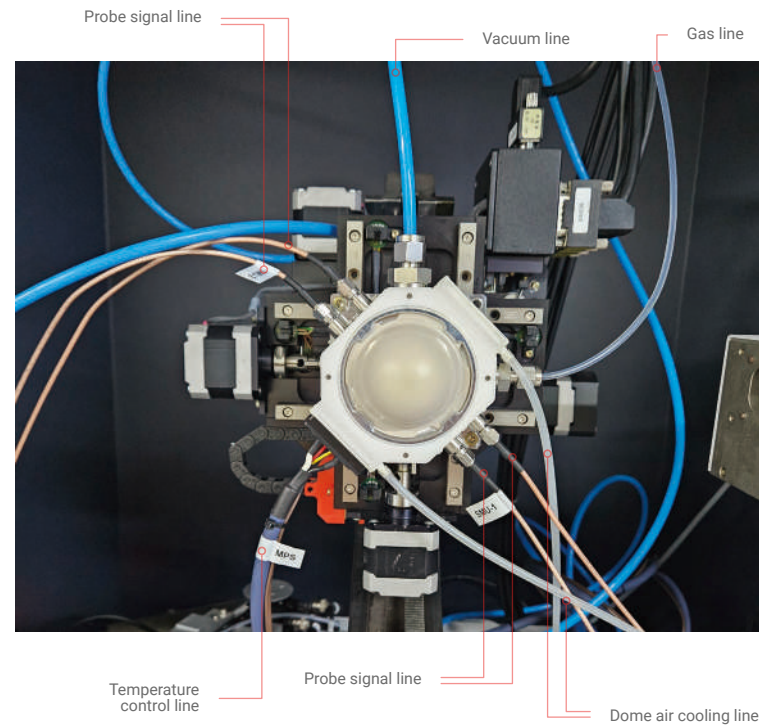


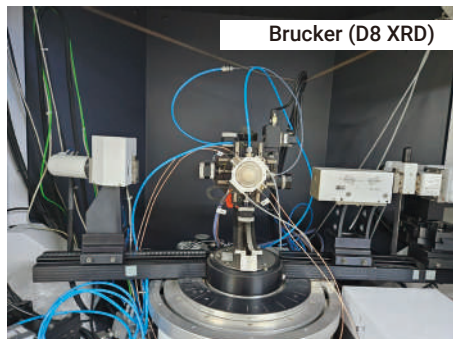
XRDMP5-CHU



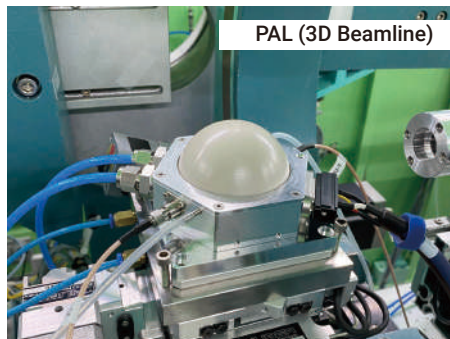
Properties	Specification	Properties	Specification	
Temperature Range	RT ~1000 °C	Angle	2θ	0 ~ 160°
Vacuum	~ 10 ⁻³ torr		ψ	0 ~ 85°
Heating Stage Size	Φ ½ inch		Φ	0 ~ 360°
Number of Probes	4 ea	Dome Material	PEEK	
Probe Material	Rhodium	Weight	450 g	

D8 Bruker XRD set up image

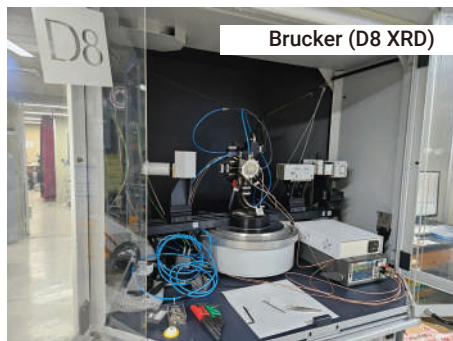




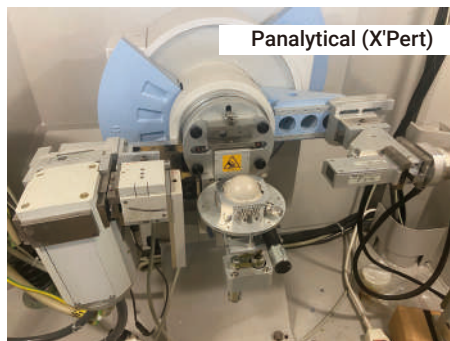
Brucker (D8 XRD)



PAL (3D Beamline)



Brucker (D8 XRD)



Panalytical (X'Pert)

Technical Specification

XRD Micro Probe System is a probe station for in-situ XRD measurement in high temperature and high vacuum. Nextron's unique manual probe makes it possible to apply voltage or read current. This system is **great for electric-field-induced phase transition in ferroelectric materials research, resistance analysis during PRAM phase change, ion-based battery analysis, etc.** **More Information: [p 66](#)**

Applications

The Micro Probe System for XRD can be utilized in various research fields as follows by applying the probe to the XRD chamber.

- In-situ analysis of phase transition according to an oxidizing or reducing gas atmosphere(using XRD), and electrical properties(using probes).
- In-situ analysis of crystal structure changes according to periodic temperature change of a battery cell.
- In-situ analysis of the crystal structure of anode or cathode from a battery cell after periodic charging and discharging through probes.
- In-situ analysis of phase transition during CVD (Chemical Vapor Deposition) process or thickness changes of thin film.
- In-situ analysis of phase transition while applying a field to the sample in various temperatures.
- In-situ analysis of phase transition according to the temperature(using XRD), and electrical properties(using probes).