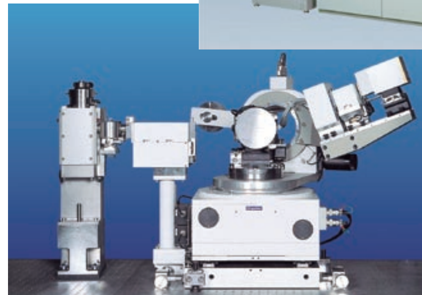
HR-XRD (High resolution X-ray diffractometry)

고분해능 X선 회절기

This diffractometer provides overall evaluation of surfaces and thin film. It allows you to analyze film thickness, surface roughness, and thin film internal structure. The incidence optics uses a parabolically curved artificial multilayer to obtain a strong parallel beam. When a beam parallelized by a multilayer is allowed to enter a four-crystal monochromator, you can obtain an X-ray beam that is further monochromatized and paralled. In such an instance, you can make crystallinity analysis (lattice constants, orientation, composition, and strain) of single-crystal thin films, and super lattice elements that are epitaxially grown relative to a substrate, film thickness evaluation, super lattice period analysis, and reciprocal lattice intensity map measurements.



Model

ATX-G

Location L1134 Tel.02-958-5958/5427

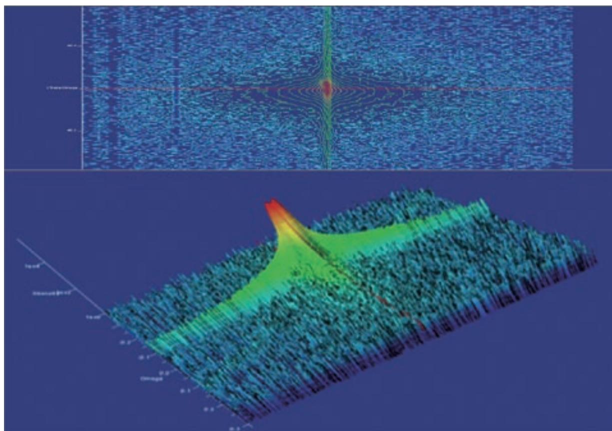
Specifications

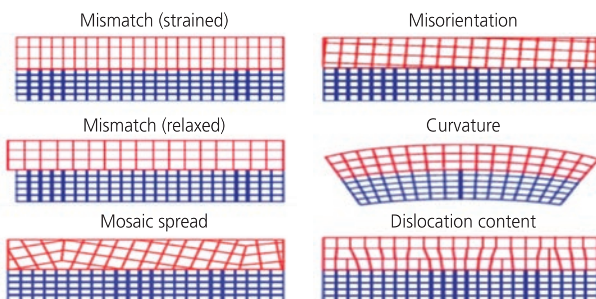
- Max. power : 18 kW (60 kV, 300 mA)
- Using power : 12 kW (40 kV, 300 mA)
- X-ray target : Cu
- Goniometer radius : 300 mm
- Parabolic multi-layer crystal
- 2θ scan range : -3° ~ 158°

Applications

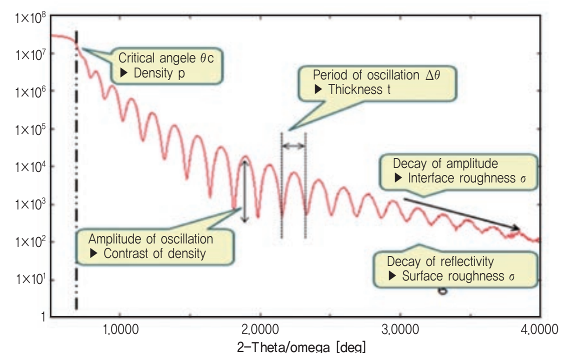
- XRR (X-ray reflectivity)
- RC (Rocking curve)
- RSM (Reciprocal space mapping)
- In-plane XRD

RSM analysis GaAs/GaAs (110)





X-ray reflectivity Mo/Si sub



Rocking curve analysis InGaN/GaN MQW