

PANALYTICAL XRD

 Villach

BRIEF DESCRIPTION

The PANalytical X'Pert Pro is a multipurpose x-ray diffractometer equipped with a Cu K α source. The X'Pert Pro is capable of both high-resolution and lower-resolution measurements and enables a wide range of thin film and powder sample analysis. The X'Pert Pro is a modular system, making it very easy to switch between different measurement modes.

RESEARCH SERVICES

- X-ray diffraction on thin films on small samples and wafers up to 200 mm
- Specular diffraction, high resolution XRD, grazing incidence XRD, etc. for phase analysis, crystal quality, mosaicity, etc.
- 200 mm mapping possibility
- X-ray reflectivity for film thickness, density and roughness
- In-situ heating experiments of small samples up to 1100 °C in nitrogen atmosphere or vacuum

METHODS & EXPERTISE ON THE RESEARCH INFRASTRUCTURE

Available hardware includes:

- Two-bounce Ge monochromators for high-resolution diffraction
- An automatic beam attenuator for the incident beam optics made of a Ni foil.
- Masks ranging from 2 mm to 20 mm.
- Automated anti-scatter and divergence slits.
- 200 mm stage for mapping
- Anton Paar domed hot stage for in-situ heating experiments up to 1100 °C

CONTACT

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