

X-ray powder diffractometer

Description/Parameters

Automated multipurpose X-ray diffractometer (XRD) SmartLab (RIGAKU, Japan) with Guidance software. Instrument could be switched between focusing (Bragg-Brentano) and parallel beam geometrics, source of radiation is Co tube. Instrument is equipped with the D/tex Ultra 250 1D silicon strip detector which decreases data acquisition time by almost 50% compared to competitive detectors. Evaluation software PDXL 2 is connected to the PDF-2 database for fast phase identification.

Utilization/Services

Qualitative and quantitative phase analysis of solid materials and thin layers.

- Identification and quantitation of phases in solid materials like catalysts, nanomaterials, slags, geological materials, residues of burning etc.
- Rietveld structure refinement.
- Thin layers analysis in the parallel beam.

