

COLIBRI Benchtop X-ray Diffractometer

COLIBRI portable XRD system is a new advanced solution of Bourevestnik JSC for scientific, educational and industrial applications.

The instrument is a convenient and mobile tool for phase identification and structural analysis of various polycrystalline materials.

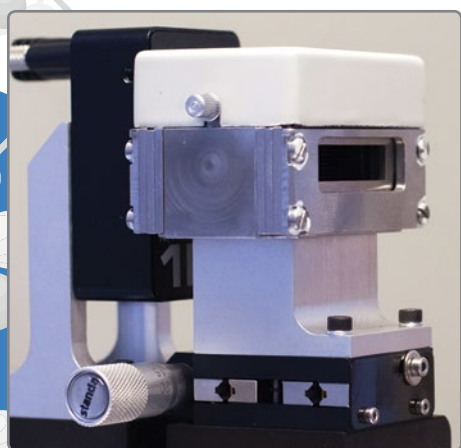


Vertical $\theta-\theta$ goniometer of unique design with horizontal sample position

Available configuration with Mythen 1D linear position-sensitive detector

Built-in cooling system

Pre-aligned and ready to use



Main technical specification

Goniometer	Vertical $\theta-\theta$
X-ray optical scheme	Bragg-Brentano
Goniometer radius, mm	150
Angular 2θ range, degree	from -5 to +160 (basic configuration) from -3 to +140 (with Mythen 1D PSD)
Slew speed, deg/min	1000
Scanning mode	discrete/continuous
Scanning 2θ speed, deg/min	from 0,01 to 100
Smallest selectable 2θ increment, degree	0,005
Angular accuracy of peak position determination, degree	0,02
High voltage power supply, maximal output power, W	600
Power requirements, V/Hz	220/50 single phase
Power consumption, VA	3500
Weight, kg	100

Software for instrument control, data acquisition and processing of XRD patterns

Access control to customized functions for different users

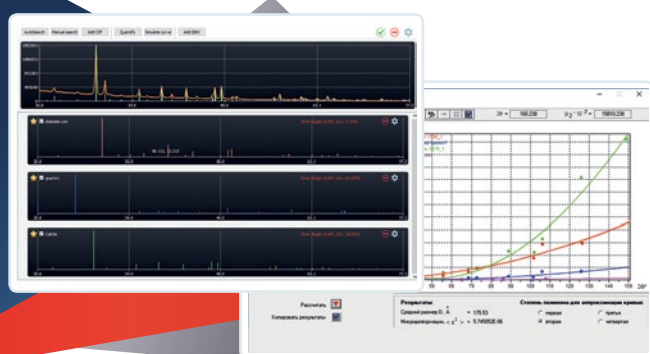
Push-button execution of high-voltage regime and measurement

Build-in touch screen for flexible operation

Remote operation and measurement control

Easy switch between minimum scan time and maximum resolution to get required data quality

Automated data processing after measurement



Application fields

Mineralogy and Mining

Metallurgy and Machinery

Cements and Refractories

Chemistry and Catalysis

Forensics and Expertise

Medicine and Pharmacy

Science and Education

Environmental control

Crystallographic software suite for analysis of powder diffraction data (optional)

Phase identification and quantification of mixtures

Degree of crystallinity estimation

Unit cell determination

Crystallite size & Lattice strain analysis

Rietveld refinement of crystal structure



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