

X-RAY Diffractometer with SAXS/WAXS



Technical description:

Panalytical Empyrean powder diffractometers with Cu lamp. It allows to carry out measurements in the geometry of the Bragg-Brentano beam with the use of collimating slits and in the geometry of the parallel beam (Goebel

mirror). Diffractometer equipped with highly sensitive detectors (PIXcel3D). It has various tables and a number of additional optical elements, enabling testing for various types of samples. The diffractometer is additionally equipped with a SAXS/WAXS chamber that allows for measurements in air and vacuum.

Trade name: X-RAY DIFFRACTOMETER EMPYREAN

More details: </equipment/aparatura-do-pracdyfraktometrii-empyrean-2/>

Access type: External

Type of accreditation / certificate: Not applicable

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Responsible body: Academic Centre for Materials and Nanotechnology

Group / laboratory / team: Department of Materials Engineering

Last update date: March 10, 2025, 1:43 p.m.

Year of commissioning: 2012

IDUB research areas:

(PRA 1) Sustainable energy technologies, renewable sources of energy, energy storage, and resource management. Design, production, application, synergy, and process integration

(PRA 5) Materials, technologies, and processes inspired by nature: biotechnology, bioinspirations in engineering and materials science, biosensors, bioenergetics, biocatalysis, biocomputers, and biocomputation

(PRA 7) Design, production, and testing of modern materials and the technologies of the future based on a multidisciplinary approach combining materials engineering with chemistry, physics, mathematics, and medicine

Research capabilities:

- phase analysis
- crystallographic texture
- stresses
- SAXS/WAXS (air and vacuum)
- XRR

Conditions for providing infrastructure:

Apparatus made available on the terms resulting from the Regulations for the Use of ACMiN Research Infrastructure. (https://acmin.agh.edu.pl/home/acmin/5_Wspolpraca/Aparatura/Zasady_i_koszty_korzystania_z_infrastruktury_badawczej_ACMiN.pdf)