

X-RAY Diffractometer with HT chamber



Technical description:

Panalytical Empyrean Powder Diffractometer with Co 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). They are equipped with highly sensitive detector (PIXcel1D). It has various tables and a number of additional optical elements, enabling testing for various types of samples. The diffractometer with a Co lamp is additionally equipped with a temperature chamber, enabling measurements in the range of -190 to 1200°C.

Trade name: X-RAY DIFFRACTOMETER EMPYREAN

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

Access type: External

Type of accreditation / certificate: Not applicable

Contact person: Jabłoński Piotr

Contact person url: <https://skos.agh.edu.pl/osoba/piotr-jablonski-9263.html>

Responsible body: Academic Centre for Materials and Nanotechnology

Group / laboratory / team: Laboratory of X-ray Diffraction

Last update date: Nov. 15, 2023, 9:22 a.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 2) New technologies for the circular economy: merging business models with ecoinnovations to improve productivity and minimise waste, as well as to create knowledge and use it

(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
- measurements in variable temperature conditions and various protective atmospheres as well as vacuum
- XRR

Conditions for providing infrastructure:

Apparatus made available on the terms resulting from the Regulations for the Use of ACMiN Research Infrastructure.