

IMN - Łukasiewicz

Institute of Non-Ferrous Metals - Łukasiewicz Research Network
Gliwice, Poland

**ABOUT**

The Łukasiewicz Research Network – Institute of Non-Ferrous Metals (Łukasiewicz-IMN) in Gliwice is the main research and development center of the Polish non-ferrous metals industry.

The Institute's complex activities comprise: research, development, consulting and implementation works. They also cover industrial and laboratory tests, modern engineering solutions and technical services in the field of treatment of non-ferrous metals ores and other mineral materials, pyrometallurgical and hydrometallurgical processes of metals recovery from ores, concentrates and secondary raw materials, recovery of the associated metals, wastes recovery and utilization, environment protection, new alloys and composites, processing of metals and alloys, and analytical chemistry.

The facilities, equipment and extensive contacts with industry provide Łukasiewicz-IMN with the potential to perform research works not only at laboratory scale, but also at pilot and even at industrial scale.

EXPERTISE

The Institute activities include all stages of metallic materials production: from ore treatment to technologies for production of modern products meeting all environmental standards. Łukasiewicz-IMN has conducted many research works for the metallurgical industry, developed technologies and equipment i.e. flotation machines for recovery of minerals from non-ferrous metals ores, technologies for recovery of metals i.e. Cu, Zn, Pb and by-product metals, e.g. Re, both from raw materials and from solutions and residues produced in the particular processes. Many of the Łukasiewicz-IMN technologies have been implemented into industrial practice, i.e. recovery of rhenium from acidic wastewaters produced at KGHM (Polish producer of copper).

The Institute, as a public institution, has also conducted a number of strategic development studies for the national economy. The Łukasiewicz-IMN's highly-qualified staff has great experience in managing research projects, developing works and implementing innovative technologies. The Institute specialists have participated in a number of national and international – EU projects.

FACILITIES & SERVICES

Łukasiewicz-IMN can perform research works at laboratory, pilot and industrial scale.

The Institute is equipped with laboratory and pilot infrastructure for:

- Enrichment of ores (crushing, grinding, screening, flotation, gravity and heavy media separation) – e.g. mills, crushers, hydrocyclones, separators, concentrating tables,
- Hydrometallurgical Laboratory and Pilot Installations for leaching – e.g. autoclave, leaching/filtration, Reactors, filtration – filtration press, SX, IX, mixer-settler type installation, electrowinning/electrorefining, Installation of various electrolytic cells, evaporation – various evaporators
- Pyrometallurgical equipment – e.g. electric arc-resistance furnace, induction furnace, electric furnace for low temperature pyrolysis with various capacities, electric furnace for examinations of softening and melting points, Waelz kiln, gas and oil furnaces, ISA furnace, briquetting machines, installation for high-temperature studies of viscosity, agitators, separators, shredders, moisture analyzers, granulators, screeners
- Equipment for studies related to environmental protection – e.g. desulphurisation, electro dialysis, nanofiltration installations, dust meters, gas analyzers, micromanometers

The important element of Łukasiewicz-IMN's infrastructure is the accredited Analytical Chemistry Centre, which provides complex classical and instrumental analytical services and develop complete analytical solutions, including suitable certified reference materials production for current and new technologies.

**MORE INFORMATION**

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