



ABOUT

The Institute of Non-Ferrous Metals (IMN) in Gliwice is the main research and development centre 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 utilisation, environment protection, new alloys and composites, processing of metals and alloys, and analytical chemistry.

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

EXPERTISE

The IMN activities include all stages of metallic materials production: from ore treatment to technologies for production of modern products meeting all environmental standards. 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 IMN technologies have been implemented into industrial practice, i.e. recovery of rhenium from acidic wastewaters produced at KGHM (Polish producer of copper).



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

FACILITIES & SERVICES

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, Laboratory Pilot Installation; 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 analysers, granulators, screeners
- equipment for studies related to environmental protection – e.g. desulphurisation, electrodialysis, nanofiltration installations, dust meters, gas analysers, micromanometers

The important element of IMN's infrastructure is the certified Analytical Department, which provides complex classical and instrumental analytical services – e.g. ICP, AAS, XRF.



MORE INFORMATION

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