Bioleaching / Bioremediation

ACIB HAS DEVELOPED

technology to environmentally friendly leach out valuable elements from ore and waste streams (bioleaching). This technology is also suitable for the removal of toxic compounds from the environment (bioremediation).

BACKGROUND

The extraction of metals using microorganisms allows for a much cleaner and environmentally-safer recovery than traditional methods. It is especially useful in case of mining low-grade ores, smaller deposits, remote and very deep underground locations where conventional mining would be too expensive, as well as sites with contaminants. Bioleaching is already well established and economically for several metals and accounts for 20 % of the world copper production.

TECHNOLOGY

acib has gathered substantial expertise and subsequently developed novel technologies which make it possible to optimise current production schemes, to widen the range of metals, as well as to use bioleaching for the extraction of metals from waste electro and electronic equipment (WEEE), ashes and slugs from waste incineration plants, shredder light fractions, as well as waste water and sludge. acib is also able to develop a method for bioleaching of P from phosphate, iron rock or sewage sludge. acib also offers to jointly develop solutions for bioremediation of sewage sludge, soil, water, etc. by removal of toxic compounds such as heavy metals.
The technology is suitable for various elements such as Cu, P, Zn, Au, Ag, Ni, Co, Cr, Pb, Sb, U … Additional elements can be included in further projects.

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OUR OFFER

acib seeks investors and industrial partners to develop this technology to commercial scale. Under protection of a CDA/NDA we provide you with details on bioleaching and bioremediation opportunities. Any IP developed in a joint project would fully belong to the investor/industrial partner.

EXPERTS

Prof. Dr. Georg Gübitz

AVAILABLE FOR

- Joint Research Project
- Contract Research
- Investment

DEVELOPMENT STATUS

Technology Readiness Level 3-4
(Experimental proof of concept - Technology validated in lab)

KEYWORDS

- Bioleaching
- Valuable elements
- Bioremediation
- Toxic compounds
- Heavy Metals
- Microorganisms
- Environment

CONTACT

acib GmbH, Petersgasse 14, 8010 Graz
☎ +43 664 88418895
✉ matthias.slatner@acib.at
🌐 www.acib.at