TECNICAS REUNIDAS

Manganese recovery via hydrometallurgical processes

PROJECT FICHE

RECUMAN

Call	IDI 2021
Funding institution	CDTI
Duration	2021-2023
Budget	614 k€
Partners	

PROJECT SUMMARY

Current zinc mining faces the problem of the increasingly lower grades of newly found mineral reserves. Indeed, the most widely implemented technologies nowadays, which is mainly Roasting Leaching and Electrowinning (RLE), are not suitable to treat grades below a certain threshold. This fact leaves a significant proportion of zinc reserves and the consequent market niche unexploited. Manganese, which is one of the most often metals in zinc ores, has seen an increase in its market value in recent times, with brings out renewed interest in developing new technologies to extract it.

To solve this problem, the RECUMAN project, awarded to Técnicas Reunidas by the Center for Industrial Technological Development (CDTI) and with a duration of 2 years, aims at the development of a flexible technology for the recovery of manganese from zinc ores in the form of a high market value species. The characteristics of the technology will be oriented to the extraction of manganese from low-grade ores that current technology cannot solve.

TR CONTRIBUTION

The objectives of Técnicas Reunidas are the following:

- Develop a flexible and compact hydrometallurgical process for the extraction of manganese from low-grade zinc ores
- Study and validate the purification and production process towards a high-grade, commercial manganese species
- Analyze the techno-economic viability of the overall process using a conceptual integration of the complete units and its conjunction with the ZINCEX™ technology