In non-ferrous smelting process the base metals of copper, lead and zinc as well as rare metals are produced from secondary materials such as scrap metals, alloys and residues. The valuable metals that result from the refining process provide the raw materials for a wide range of application possibilities in various fields.

We suggest a new and effective recovery process of rare metals in the non-ferrous extractive metallurgy.
◆ Copper enrichment based on liquid phase separations.
◆ Recycling of platinum group metals for used auto catalyst.
◆ Recovery of rare earth elements from magnet scrap by using B2O3 flux.
◆ High temperature calorimetry.

Copper enrichment of low grade copper scraps

3 phase separations of the RE(\Nd,\Dy,\Pr)-Fe-B-C-O system

Recovered rare earth oxides

New and efficient process for recovery of platinum group metals.

High temperature drop calorimeter