RECOVERY OF ELECTRONIC WASTE (LITHIUM BATTERY) FOR THE INDUSTRIAL COMPETITIVENESS OF ELECTRONIC RECYCLING

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Submission of abstract

Lithium batteries are one of the few elements that cannot pass to recovery processes in Chile since their physical-chemical characteristics do not allow it and consequently they are taken to final disposal in security deposits, devaluing valuable and limited resources such as lithium and other metals such as nickel, cobalt, and manganese. This work generates the capacity to make the Chilean electronic recycling industry more competitive, developing a hydrometallurgical extractive methodologies, based on low-cost chemical reagents, and currently in use in mineral extraction processes in Chile, and whose application will allow the recovery of most of the metallic elements contained in batteries. The metallic elements are collected as soluble (stable) salts of high purity, to be reused in the manufacture of new batteries, and in this way complete the sustainable virtuous circle of this type of device, so important for our society.