

Extracting precious metals from optical modules

Overview

A new method safely extracts valuable metals locked up in discarded electronics and low-grade ore using dramatically less energy and fewer chemical materials than current methods, report University of Illinois Urbana-Champaign researchers in the journal *Nature Chemical Engineering*.) A new method safely extracts valuable metals locked up in discarded. A novel process to simultaneously extract the precious metals such as gold, silver, platinum, palladium and rhodium from spent mobile phone printed circuit boards (PCBs) and honeycomb-type auto catalysts by smelting using waste-copper slag without adding any collector metals or by-products such as. Yet, hidden within discarded circuit boards and electronic components lies a treasure of precious metals such as gold, silver, palladium, and platinum. Recovering these metals not only supports sustainability but also reduces the environmental damage caused by traditional mining. Gold and platinum group metals such as palladium, platinum and iridium are in high demand for use in electronics. However, sourcing these. Discover the processes used to recover gold from circuit boards, connectors, and chips — from mechanical shredding to hydrometallurgical and pyrometallurgical extraction. The Electrolytic precious metal recovery machine (EPMRM) is equipment specially designed for extracting precious metals such as gold, silver, palladium.



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Postdoctoral researcher (and first author) Stephen Cotty says the method can pull gold and PGMs out of the stream, but also separate them from other metals like silver, nickel and copper, ...

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This study presents an innovative, green physical metallurgy process for extracting the precious metal Ag from EOL PV modules and separating and recovering the heavy metal Pb.

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Precious Metal Recovery Equipment

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Electrochemistry helps clean up precious metals

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A novel sustainable process for extracting precious metal Ag and separating and recovering heavy metal Pb from end-of-life photovoltaic modules

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