

## TREATMENT OF SECONDARY RAW MATERIALS BY INNOVATIVE PROCESSES

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**Abstract.** This paper presents an overview of the various innovative methodologies used in the recovery of valuable metals and critical raw materials (CRMs) from secondary sources. Valuable metals are interesting due to their vast industrial applications, high market prices and extensively used precious metal. The sanctuary value attributed to valuable metals such as gold during international political and economical crises and the limited resource of this metal, may explain the recent increasing gold share value. This article provides an overview of past achievements and presents scenario of studies carried out on the use of some promising methods which could serve as an economical means for recovering valuable metals and CRMs. The review also highlights the used varieties of application on large scale in real situations and hopes to provide insights into valorization of spent sources.

**Keywords:** critical raw material, precious metal, circular economy, bio-hydrometallurgy, electrowinning.

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