



*metals*



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## Sustainable Gold Production and Recycling

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### Message from the Guest Editors

Since its inception in the late 1800s, cyanidation has been the dominant process for gold production worldwide. Due to its simplicity and high cost efficiency, it nearly completely replaced all former processes. The main disadvantage of cyanide is related to environmental issues, which may occur through improper storage and transport or failed tailings management and storage. From a technical aspect, industrial gold recovery becomes more difficult, since most high-grade and easy-to-process ore deposits are already depleted. Gold producers are forced to use increasingly complex and low-grade ores. With regard to these limitations of cyanide, alternative reagents and processes often show better technical characteristics, such as a higher extraction rate, a higher selectivity and lower hazardousness.



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## Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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