Bridging the gaps in biomining research and application

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Abstract

Biohydrometallurgy is an important technology used by the mining industry, mainly for the recovery of copper from low-grade ores and in the pre-treatment of gold-bearing refractory concentrates. Despite the excitement of 40 years ago, it remains a niche technology; applied where it offers unique advantages or no alternative exists. Advances in competing hydrometallurgical processes, such as chloride leaching and HPAL mean bioleaching is at risk of losing ground. To halt this potential decline, and to make biomining more competitive in an increasingly busy space, serious scientific and technological advances are required. Biohydrometallurgy is incredibly exciting. Few other technologies combine so many different disciplines. However, research is rather disparate, with relatively few resources. More than ever, as a community we need to consider how best to advance the state of the art: how to avoid the no-man's land between academic knowledge and industrial needs and what are the key research questions.