

## BIOMINING - A USEFUL APPROACH TOWARD METAL EXTRACTION

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**ABSTRACT :** Biomining is the extraction of specific metals from their ores through biological means usually bacteria. Although it is a new technique used by the mining industry to extract minerals such as copper, uranium, and gold from their ores but nowadays biomining occupies an increasingly important place among the available mining technologies. Today biomining is no longer a promising technology but an actual economical alternative for treating specific mineral ores. Traditional extractions involve many expensive steps such as roasting and smelting, which requires sufficient concentrations of elements in ores while low concentrations are not a problem for bacteria because they simply ignore the waste which surrounds the metals, attaining extraction yields of over 90% in some cases.

**Key Words:** Biomining, microbial decomposition, pyrite, lixiviant, *Thiobacillus thiooxidans*, *Thiobacillus caldus*, *Leptospirillum ferrooxidans*