

Evaluation of bioleaching column test of sulphide copper ore and copper concentrate using preconditioned surface

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Abstract. Bacterial activity can be related to the presence of Fe^{+3} in the solution, which drives copper oxidation during the secondary copper low grade sulfide ore leaching process. The present work evaluates improvements in kinetics of leaching when *ferrooxidans* are preconditioned in an inert surface helping to build a biofilm which improves metabolism of the colony. The present work shows evaluation using laboratory columns to perform bioleaching during a 30 days period under three conditions: a base column with no inert surface, a column with loofa available for bacterial growth and conditioning, and finally a column with the loofa surface ground and distributed in the column among the particles.

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