

## عنوان مقاله:

Optimization of Chalcopyrite Concentrate Bioleaching using extremely Thermophilic Bacteria

## محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

تعداد صفحات اصل مقاله: 9

## نویسندگان:

Ghazi - Graduate student, mineral processing group, mining Eng.Dep, Shahid Bahonar of Kerman. Iran

Ranjbar - Associate Professor, Mining Eng,Dep,Shahid Bahonar of Kerman.Iran

manafi - Senior Scientists, R&D Department Sarcheshmeh Copper Complex, Iran

## خلاصه مقاله:

In This project, the bacterium (*Acidianus brierleyi*) was originally isolated from Sarcheshmeh copper mine and adapted on a 9k nutrient medium with a chalcopyrite concentrate. The experiments were carried out in flasks and an airlift reactor with a pulp density in the range of 1-15% concentrate. The results in shake flasks showed that the bacteria adapted themselves to the chalcopyrite concentrate with solid percentages of 1-15%. At 15% of solids, 85% of copper was recovered in airlift reactor in 33 days. Using multilevel experiment design technique for 10 and 15% solids in 68, 70 and 75°C, it was concluded that the maximum copper recovery in 10% and 15% of solid were achieved at 75°C and 80°C respectively.

## کلمات کلیدی:

Bioleaching, Chalcopyrite concentrate, *Acidianus brierleyi*, airlift reactor

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/45903>

