

عنوان مقاله:

IDENTIFICATION AND PURIFICATION OF MODERATE THERMOPHILIC BACTERIA ISOLATED FROM SARCHESHMEH COPPER MINE

محل انتشار:

نوزدهمین کنگره بین المللی میکروب شناسی ایران (سال: 1397)

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خلاصه مقاله:

Background and Aim: Bioleaching is one of the simplest and most effective technology for extraction of metals from low grade ore minerals and concentrates. Methods: The purpose of this study was to isolate and identify moderate thermophilic bacteria in soil and water samples from Sarcheshmeh copper mine in summer and autumn of 2016. After preparing and constructing a dedicated liquid culture medium of thermophilic bacteria and inoculation of water and soil samples growth of bacteria was compared in different synthetic media. The PCR method was used to identify bacteria using universal bacterial primers. The PCR products was sequenced and then the phylogenetic tree was drawn. Results: The results showed that thermophilic bacteria after incubation at 50°C in their environment showed a good and rapid growth in solid media and the bacteria identified is *Stenotrophomonas*. Conclusion: This bacterium can be used in the bioavailability of metal from waste water, which is important.

کلمات کلیدی:

Moderate thermophilic bacteria, Sarcheshmeh mine, PCR

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