

MICROBIAL OXIDATION OF THE MIXED PYRITE MILL TAILINGS

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The results of microbial oxidation under laboratory conditions of mixed pyrite mill tailings from power industry by *Acidithiobacillus ferrooxidans* bacteria have been presented in the paper. The analysis of the dynamics of Fe(II)/Fe(III) concentration changes, oxidizing-reducing potential Eh and pH as well as phase analysis revealed that despite a significant activity of microorganisms in microbial oxidation process, the level of iron releasing from wastes is limited by the process of precipitation of low-soluble iron(III) compounds. This process is connected with establishing the state of equilibrium in Fe-S-H₂O system.