

عنوان مقاله:

AQUEOUS-ORGANIC INTERFACE MONITORING IN THE SETTLERS OF THE SX PLANT BY ULTRASONIC METHOD

محل انتشار:

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خلاصه مقاله:

Heap leaching, solvent extraction, and electrowinning do extraction of copper from oxide ores at Sarcheshmeh Copper Complex. Sulfuric acid is the leaching agent, which is distributed on the ore heap. The pregnant leach solution (PLS) containing 3-3.5 g/l copper ions is delivered to the SX plant where an organic phase containing ACORGA or LIX extractant selectively extracts copper ion in mixer-settler units. Aqueous and organic phases are separated in the settlers. The system was originally designed to measure the depth of each phase in the settler manually by a graduated glass tube called DEEP, and the level of the phases were manually controlled utilizing an adjustable rotating weir. In this investigation, an ultrasonic system with appropriate software is designed for continuous measurement of the depth of the phases and the results are recorded in a computer. The results of this investigation show high accuracy of the operation of the system. Also several parameters such as; reduction of the organic phase loss, reduction of environmental pollution, safe operation for operators, and decreasing the organic phase entrainment .in the aqueous phase can be optimized with the new ultrasonic controlling system

کلمات کلیدی:

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