

## عنوان مقاله:

Hydrochemically separation of gold from Copper Anode Slime by means of Thiourea solution

## محل انتشار:

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## خلاصه مقاله:

However, the conventional gold recovery process is cyanidation, due to the recent environmental laws; researchers are looking for alternative methods for the recovery of gold. Furthermore, the copper anode slime is one of the most important secondary sources of gold (about ۱۲۰۰ ppm). So, the main objective of the current work is gold separation from copper anode slime as a rich secondary source of gold by determining the mechanism of the reaction between thiourea (TU) and Hydrogen peroxide ( $H_2O_2$ ) in the thiourea leaching of gold. Thiourea can form cationic complex with gold in gold extraction process from copper anode slime. Thiourea consumption levels were also examined during the leaching operations for different leaching parameters, i.e. solution volume, concentration ratio of thiourea/ $H_2O_2$ , pH, leaching time and Agitation rate. Ammonia was added to the gold containing solution, and consequently, gold was precipitated in the metallic form. X-Ray pattern confirms formation of metallic gold.

## کلمات کلیدی:

Recovery of gold, Thiourea, Copper anode slime

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