中国有色金属学报
中国有色金属学报(英文版)
中国科学技术协会 主管
中国有色金属学会 主办

论文摘要

中国有色金属学报
ZHONGGUO YOUSEJINSHUXUEBAO XUEBAO
第18卷 专辑1 2008年6月

[PDF全文下载] [全文在线阅读]

文章编号：1004-0609(2008)S1-0053-06

某难选金矿加温化学预氧化浸出技术

邱廷省[1, 2]，廖德华[1]，毛仁康[3]，尹艳芬[1]

(1. 江西理工大学 资源与环境工程学院，赣州 341000；
2. 北京科技大学 冶金与生态工程学院，北京 100083；
3. 广东高要市 河台金矿，高要 526100)

摘 要：以某实际含铜金矿为研究对象，在氯盐酸性加温体系下，分析浸出温度、时间、矿物粒度、NaCl浓度、H_2SO_4浓度、氧气流量等因素对化学预氧化浸出除铜和浸出渣氰化浸金的影响过程。结果表明：在90%矿样粒度小于37 μm、浸出温度95 ℃、初始H_2SO_4浓度0.75 mol/L、起始NaCl浓度0.7 mol/L、液固比51:、浸出时间24 h、搅拌速度750 r/min的条件下，可使铜的浸出去除率达到80%以上，预氧化渣金的氰化浸出率达98.23%。

关键字：含铜金矿；预处理；化学氧化；浸出工艺

Warming and chemical pre-oxidation leaching of refractory gold ores

QIU Ting-sheng[1, 2], LIAO De-hua[1], MAO Ren-kang[3], YIN Yan-fen[1]

(1. Faculty of Resource and Environment, Jiangxi University of Science and Technology, Ganzhou 341000, China;
2. School of Metallurgical and Ecological Engineering, University of Science and Technology Beijing, Beijing 100083, China;
3. Gold Mining of Hetai, Gaoyao Town in Guangdong Province, Gaoyao 526100, China)

Abstract: A certain refractory copper-bearing gold ores were studied. Under the acid and warming system of chlorine, the influence of some factors on process of chemical pre-oxidation leaching copper and cyanidation leaching gold from residue were researched, such as leaching temperature and time, mineral granularity, NaCl concentration, H_2SO_4 concentration and flow rate of oxygen. The results show that copper removing ratio is more than 80% and gold leaching ratio is more than 98.23%, under the condition of 90% of mineral granularity 37 μm, leaching temperature 95 ℃, initial NaCl concentration 0.7 mol/L, initial H_2SO_4 concentration 0.70 mol/L, leaching time 24 h, ratio of liquid to solid 51: and stirring rate 750 r/min.

Key words: copper-bearing gold ores; pretreatment; chemical oxidation; leaching

地 址：湖南省长沙市岳麓山中南大学内 邮编： 410083

电 话： 0731-8876765，8877197, 8830410 传真： 0731-8877197

电子邮箱： f-ysxb@mail.csu.edu.cn