

论文摘要

中国有色金属学报

ZHONGGUO YOUSEJINSHUXUEBAO XUEBAO

第11卷 第4期 (总第43期) 2001年8月

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文章编号: 1004-0609(2001)04-0712-04

捕收剂RL在铝土矿浮选中的应用

张国范, 卢毅屏, 欧乐明, 冯其明

(中南大学 矿物工程系, 长沙 410083)

摘要: 研究了一水硬铝石、高岭石及叶腊石等单矿物在RL为捕收剂时的浮选特性, 考察了各种调整剂、难免离子对浮选体系的影响, 在此基础上进行了人工混合矿和实际矿石的分离试验。实际矿石闭路试验结果表明: 采用RL为捕收剂, 碳酸钠和六偏磷酸钠为调整剂, 精矿中 Al_2O_3 和 SiO_2 的品位分别为70.74%和6.37%(精矿铝硅比为11.11), Al_2O_3 的回收率达到90.52%。

关键字: 捕收剂; 调整剂; 难免离子; 浮选特性; 铝土矿

A new collector RL for flotation of bauxite

ZHANG Guo-fan, LU Yi-ping, OU Le-ming, FENG Qi-ming

(Department of Mineral Engineering, Central South University,
Changsha 410083, P.R.China)

Abstract: The flotation properties of single minerals such as diaspore, kaolinite and pyrophyllite in bauxites have been investigated using RL as collector. Effects of regulators and unavoidable ion on flotation have also been studied. Based on the results of single minerals tests, the separation experiments of artificial mixed minerals and bauxite ore have been carried out. The concentrate with the grade of Al_2O_3 70.74% and SiO_2 6.37%, and the recovery of Al_2O_3 90.52% is obtained by means of closed circuit experiment of ore when using RL as collector, Na_2CO_3 and $(NaPO_3)_6$ as modifiers.

Key words: collector; modifier; unavoidable ion; flotation properties; bauxite

电 话： 0731-88876765, 88877197, 88830410 传真： 0731-88877197

电子邮箱： f-ysxb@mail.csu.edu.cn