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# 论文

基于高浓度煤泥水的柱式主再浮试验研究

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### 摘要:

分析了目前重介质选煤工艺下选煤厂入浮煤泥水浓度升高对浮选柱分选作业带来的不利影响,提出采用柱式主再浮工艺解决高浓度煤泥水浮选的思想,通过试验验证了柱式主再浮工艺的可行性。柱式主再浮工艺通过主浮保质、再浮保量可保证浮选效果,解决了浓度高煤泥水浮选效果差的问题。通过正交试验研究影响柱式主再浮工艺分选效果的工艺参数,对精煤产率的影响程度大小为主浮压力>再浮压力>浓度;对精煤灰分的影响程度大小为主浮压力>浓度>再浮压力;对浮选完善指标影响程度大小为主浮压力>来度。

关键词: 高浓度; 煤泥水; 浮选柱; 主再浮; 工艺参数

Experimental study on primary and secondary column flotation based on high concentration coal slurry

#### Abstract:

Adverse effect on separation operation of flotation column as the concentration of coal slurry increase in current dense medium coal cleaning process was analyzed in this study. A new thought to separate high concentration coal slurry by primary and secondary column flotation process was put forward, and its feasibility was verified by experiments. The whole flotation effect was warranted through maintaining quality by primary column flotation and maintaining quantity by secondary column flotation, which can be used to overcome the separation problems of high concentration coal slurry. In addition, the processing parameters, which influence on the separating effects, were studied through orthogonal experiments. The order of influence degree on clean coal yield is primary flotation pressure > secondary flotation pressure > concentration > secondary flotation pressure, and on flotation perfection index is primary flotation pressure > secondary flotation pressure > concentration.

Keywords: high concentration; coal slurry; flotation column; primary and secondary flotation; processing parameters

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