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微波预处理对载醋酸锌废触媒锌浸出的影响

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摘 要： 提出微波预处理废触媒—酸浸提锌新工艺，测定废触媒在微波场中的温升曲线，探索微波预处理温度和保温时间对浸出率的影响，并对微波预处理废触媒机理进行分析。结果表明：微波预处理可显著提高锌的浸出率，当微波预处理温度和时间分别为950 ℃和12 min时，锌的浸出率达到96.58%。微波预处理打开了堵塞的废触媒孔道，增大了浸出剂与锌的接触面积。

关键字： 微波预处理；废触媒；浸出率

Effects of microwave pretreatment on zinc leaching rate of spent catalyst saturated with zinc acetate

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Abstract: A new technology for microwave pretreatment of spent catalyst-leaching of zinc in hydrochloric acid solution was developed and the temperature-rising curves of catalyst was measured under microwave irradiation. The influence of microwave pretreatment temperature and microwave irradiation time on the leaching rate was studied. The mechanism of microwave pretreatment was also studied. The results show that microwave pretreatment can greatly improve the leaching efficiency of spent catalyst saturated with zinc acetate, and the microwave pretreatment temperature and the microwave irradiation time are 46 ℃ and 12 min, respectively. The leaching rate of Zn reaches 96.58% at above- mentioned conditions. The blind pores can be opened through microwave pretreatment, and the specific area of leaching reagent and zinc increases.

Key words: microwave pretreatment; spent catalyst; leaching rate

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