



论文摘要

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P350选择萃取草酸钴沉淀母液中的草酸

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摘要: 针对P350逆流萃取分离草酸钴沉淀母液中草酸和盐酸的可行性, 探讨其萃取机理, 考察P350浓度、盐酸浓度、草酸浓度对萃取分配比的影响, 设计采用多级逆流萃取草酸并用纯水反萃再生萃取剂。在有机相体积 V_0 与水相体积 V_A 之比(流比)为2.0, 6级逆流萃取条件下, 草酸萃取率大于95%, 萃余母液中的草酸含量可减至0.004 mol/L; 在流比 V_0/V_A 为1.0, 10级逆流反萃条件下, 草酸回收率为95%。

关键词: P350; 逆流萃取; 草酸; 反萃

Selective extraction of oxalic acid from cobalt mother-liquor with complexing agent P350

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Abstract: The solvent of P350 was applied to extract and separate the oxalic acid from the mother-liquor originated from the precipitation of cobalt by oxalic acid, and its extraction mechanism was deduced. The effects of the concentration of P350, the concentration of hydrochloric acid and the concentration of oxalic acid on extraction distribution coefficient were investigated to determine the best distribution coefficient of the oxalic acid. In the case of phase ratio (V_0/V_A) at 2.0, the extraction of the oxalic acid is more than 95%, and its concentration in the extraction raffinate lower than 0.004 mol/L after six-stage counter-current extraction; while the phase ratio (V_0/V_A) of the stripping at 1.0, the recovery of oxalic acid attains more than 95% after ten-stage counter-current stripping.

Key words: P350; counter-current extraction; oxalic acid; stripping

