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选择性沉淀法从钨酸盐溶液中除钼的工业试验

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摘 要： 对“选择性沉淀法从钨酸盐溶液中除钼”新工艺进行了工业试验。结果表明：对处理含$WO_3$130～244 g/L，含钼0.535～2.55 g/L的工业钨酸铵溶液，除钼后净液中Mo/WO_3达到2.00×10^{-5}～9.12×10^{-5}，除钼率达97.41%～99.64%，同时还能有效除去Sn等杂质；当结晶率为95%以上时，产品APT的质量完全达到GB10116-88APT-0级标准。本技术可大大简化APT结晶母液的处理，与经典的处理结晶母液工艺相比，母液中WO_3回收率提高5%以上，NH_4Cl的利用率达60%～70%，三废排放量减少60%～70%。

关键字： 钨酸盐溶液；钨钼分离；选择性沉淀

Commercial scale test of selective precipitation method for Mo removal from tungstate solution

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Abstract: The commercial scale test was conducted for impurity molybdenum removal from tungstate solution by selective precipitation method. The results show that after commercial $(NH_4)_2WO_4$ solutions containing 130～244 g/L WO_3 and 0.535～2.55 g/L Mo are treated, the Mo/WO_3 ratio in purified solution is 2.00×10^{-5}～9.12×10^{-5} and the Mo removal rate can reach 97.41%～99.64%. Impurity Sn can be removed simultaneously. The quality of product APT obtained after the evaporation crystallization of purified $(NH_4)_2WO_4$ solution can conform to GB10116-88APT-0 standard at 95.0%～98.0% crystallization rate. The treatment process of APT crystal liquor is simplified significantly using the technology. The increase of WO_3 recovery rate is over 5% in comparison with classical processes and the utilization ratio of NH_4Cl is 60%

～70%. The practice has expressed that the technology has outstanding characteristics of good adaptability for raw materials, simple process and equipments, high metal recovery and good economics profits.

Key words: tungstate solution; separation of Mo from tungstate solution; selective precipitation

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