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分光光度法测定高放废液处理工艺中的U

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摘要 用偶氮胂III分光光度法测定了TRPO流程处理高放废液热实验中水相和有机相的U含量。在pH =1 5的酒石酸存在下 ,水相样品可以直接显色测定 ,有机相样品用偶氮胂III溶液反萃其中的U并同时显色测定。本方法与U的激光荧光法、同位素稀释质谱法、ICP AES法进行了比较 ,分析结果符合良好。U的检测限为 0 0 2mg/L , 精密度为 3% ,重加回收率在 97%～ 10 5%之间

关键词 高放废液 U 分光光度法 偶氮胂III

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Spectrophotometric Determination of Uranium in High-level Liquid Waste and Its Separation Process With Arsenazo III

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Abstract The spectrophotometric determination of uranium in high level liquid waste and its separation process with arsenazo III are studied. In the presence of tartaric acid (pH=1.5), stripping and determination of uranium are completed. When the presence of rare earth elements and the concentration of uranium is lower than 0.6 mg/L in aqueous solution, uranium must be separated from the solution and then is determined. The detection limit of uranium is 0.02 mg/L, the precision of the method is 3 %, the recovery of added standard sample is 97 %～105 %,respectively.

Key words high level liquid waste uranium spectrophotometry arsenazo III

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通讯作者