

同位素源X射线荧光法对高放废液中铀的分析

@李纪民\$中国原子能科学研究院!北京 102413 @孙秀峰\$中国原子能科学研究院!北京 102413

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摘要 用 ^{109}Cd 源激发,Si(Li)探测器探测的能量色散X射线荧光法和薄膜技术法对高放废液样品中铀元素进行分析。测量中对Si(Li)探测器进行死时间校正。将原始样品稀释到可测量水平时,用外标法对铀进行分析,其精度好于3%。在样品中重加 $10\mu\text{g}$ 的铀,回收率是101%—107%。

关键词 [同位素源X射线荧光法](#) [高放废液](#) [铀](#)

分类号

ANALYSIS OF U IN THE HIGH-LEVEL LIQUID WASTE BY ISOTOPIIC SOURCE EXCITING X-RAY FLUORESCENCE SPECTROMETRY

LI JIMIN SUN XIUFENG (China Insitiute of Atomic Energy, P. O. Box 275, Beijing, 102413)

Abstract An energy dispersive X-ray fluorescence spectrometry with ^{109}Cd isotopic exciting source and S (Li) detector are used to analyse uranium in the high-level liquid waste. Film technique is used for preparation of the measured source. For the elimination of effect of radiation on Si (Li) detector, the dead time must be corrected in measurement. After the initial sample is dilluted to measurable range, uranium is analysed by external standard method. The precision of the method is better than 3%. The recovery of U is (101—107)% with $10\mu\text{g}$ uranium added to the sample.

Key words [X-ray fluorescence spectrometry](#)[Isotopic source exciting](#)[High-level liquid waste](#)[Uranium](#).

DOI

扩展功能

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