

A?

阳离子交换色谱分离ID-ICP-MS测量铀中痕量硼

@姚继军\$中国原子能科学研究院,放射化学研究所!北京102413 @李金英\$中国原子能科学研究院,放射化学研究所!北京102413

收稿日期 2002-5-18 修回日期 网络版发布日期:

摘要 文中概述了铀中硼的分析方法,研究了阳离子交换色谱分离同位素稀释电感耦合等离子体质谱法(ID-ICP-MS)测量铀中硼的方法,对样品溶解方法、仪器参数、记忆效应、分离方法和洗脱液等进行了研究和优化选择。GBW04204铀中硼标准物质的平均测量结果为0.54 μg/g U₃O₈,与参考值0.50 μg/g U₃O₈符合较好

关键词 [阳离子交换](#) [同位素稀释\(ID\)](#) [电感耦合等离子体质谱\(ICP-MS\)](#) [铀](#) [硼](#)

分类号 [0657.63](#) [0614.62](#) [0613.+81](#)

Determination of Boron in Uranium with ID-ICP-MS after Cation Ion-exchange Separation

YAO Ji-jun, LI Jin-ying (China)

Abstract Separation and determination methods of trace boron in uranium were outlined. The method of determination of boron in uranium with ID-ICP-MS after cation ion-exchange separation was established. The dissolving methods of U₃O₈, the operating parameters of ICP-MS, the memory effects, the separation methods of boron in uranium and the washing solutions were studied and optimized. The concentration of boron measured in GBW 04204 was 0.54 μg/g U₃O₈, agreeable with the reference value of 0.50 μg/g U₃O₈.

Key words [cation ion-exchange separation](#) [isotope dilution \(ID\)](#) [inductively coupled plasma mass spectrometry \(ICP-MS\)](#) [uranium](#) [boron](#)

DOI

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(273KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“阳离子交换”的 相关文章](#)
- ▶ [本文作者相关文章](#)

通讯作者