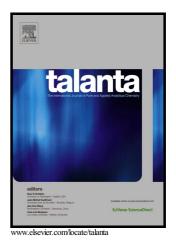
Author's Accepted Manuscript

An automated micro-separation system for the chromatographic removal of uranium matrix for trace element analysis by ICP-OES

E. Miller Wylie, Benjamin T. Manard, C. Derrick Quarles, Lisa A. Meyers, Ning Xu



 PII:
 S0039-9140(18)30668-4

 DOI:
 https://doi.org/10.1016/j.talanta.2018.06.063

 Reference:
 TAL18805

To appear in: Talanta

Received date: 16 May 2018 Revised date: 15 June 2018 Accepted date: 19 June 2018

Cite this article as: E. Miller Wylie, Benjamin T. Manard, C. Derrick Quarles, Lisa A. Meyers and Ning Xu, An automated micro-separation system for the chromatographic removal of uranium matrix for trace element analysis by ICP-OES, *Talanta*, https://doi.org/10.1016/j.talanta.2018.06.063

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

An automated micro-separation system for the chromatographic removal of uranium matrix for trace element analysis by ICP-OES

E. Miller Wylie^{1*}, Benjamin T. Manard¹, C. Derrick Quarles Jr.², Lisa A. Meyers¹,

Ning Xu¹

¹Los Alamos National Laboratory PO Box 1663; MS G740 Los Alamos, NM, 87545, USA

²Elemental Scientific Inc 7277 World Communications Dr. Omaha, NE, 68122,

USA

^{*}Corresponding author. 505-665-6021. ewylie@lanl.gov

Abstract:

An automated, miniaturized, off-line separation technique is presented here using an Elemental Scientific Inc. microFAST MC system with Uranium and TEtraValent Actinides resin to extract the uranium matrix from its trace element impurities in aqueous media. The collected fractions were analyzed for ~30 trace elements using inductively coupled plasma – optical emission

Download English Version:

https://daneshyari.com/en/article/7675109

Download Persian Version:

https://daneshyari.com/article/7675109

Daneshyari.com