

Isotope Ratio Measurements by Glow Discharge Spectroscopy

Shannon M. Mahurin<sup>1</sup>, Steve L. Allman<sup>1</sup>, Wendy Lyons<sup>2</sup>, and Robert W. Shaw<sup>1</sup>

- 1 Chemical Sciences Division, Oak Ridge National Laboratory, Oak Ridge TN 37831
- 2 Department of Chemistry, San Diego State University, San Diego CA 92182

We demonstrate the measurement of isotope ratios for Mo and U as gas phase hexafluorides using high resolution atomic absorption spectroscopy. The metal hexafluorides are introduced into an argon glow discharge where optogalvanic measurements are acquired using a tunable laser to scan over the isotope absorption lines.

-----  
Research sponsored by the U.S. Department of Energy, National Nuclear Security Administration, Office of Nonproliferation and International Security, under contract DE-AC05-00OR22725 with Oak Ridge National Laboratory, managed and operated by UT-Battelle, LLC.

"The submitted manuscript has been authored by a contractor of the U.S. Government under Contract DE-AC05-00OR22725. Accordingly, the U.S. Government retains a nonexclusive royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes."