

JEFFREY I. ZINK INORGANIC CHEMISTRY SEMINAR SERIES



Prof. Trevor Hayton

Department of Chemistry and Biochemistry, University of California, Santa Barbara

“Using NMR Spectroscopy to Evaluate Actinide- Ligand Bond Covalency”

Abstract: Understanding actinide-ligand bond covalency is at the center of efforts to design new separations schemes for spent nuclear fuel, and thus features considerable practical importance. NMR spectroscopy is a widely available means of measuring 5f covalency that is complementary to more established methods, such as optical spectroscopy and XANES. However, its use for this purpose is still in its infancy. Herein, I will discuss our efforts to develop multi-nuclear NMR spectroscopy for the evaluation of An-L covalency in a wide variety of diamagnetic actinide complexes, including those containing hydride, borohydride, and ketimide ligands.

Meet the Speaker

11:45 a.m. | YH 3096

Wednesday, December 2nd, 2026

4:00 p.m. | YH4222 - Collaboratory

Dongwon Yoo Seminar & Conference Hall

UCLA College | Physical Sciences
Chemistry & Biochemistry

More information: isaluo196@ucla.edu

This event is made possible by generous donations from our supporters and also through the gifts of the Bhaumik Centennial Collaboratory, Yoo Seminar & Conference Hall, Tsay Study Lab, and Centennial Collaboratory Donor Wall & Space Funds.