

UNIVERSITY OF NEVADA, LAS VEGAS

Thomas Hartmann

Harry Reid Center for Environmental Studies — Research Scientist, Director

Dr. Thomas Hartmann joined the Harry Reid Center for Environmental Studies at UNLV as a research scientist and director for Structure and Solid Phase Analysis (S-SPA) in October 2004. He received his master's degree as well as his Ph.D. in mineralogy at the University of Heidelberg, Germany. In his thesis, he investigated the ternary Pd-Rh-Te metal system in the vitrification process of radioactive high-level liquid waste concentrates deploying LFCM technology.

In 1995 he became staff member and team leader at the Research Center at Karlsruhe (FZK), Germany, in collaboration with the Siemens/KWU Company, coordinating and performing research at the Thermal Waste Recycling pilot plant of Siemens/KWU. In 1997 he joined Los Alamos National Laboratory as a postdoctoral fellow performing experimental work on the irradiation-induced structural damages in possible ceramic host phases for actinides. In 1999 he became technical staff and principal investigator for NTISV vitrification and in 2000 principal investigator for the LANL actinide chemistry program to support the DOE WIPP project at Carlsbad, N.M. His area of expertise is solid phase analysis and X-ray crystallography, using X-ray and neutron diffraction, Rietveld structure and least-square refinement, optical microscopy, electron microscopy (SEM, EPMA, TEM), thermal analysis (DTA, TGA, DSC), X-ray fluorescence, and Rutherford backscattering spectroscopy and channeling (RBS/c). Hartmann is an expert in waste vitrification, repository science and radiolysis. His research at UNLV HRC is focusing on the development, synthesis and performance of inert matrix nuclear fuel candidates, he will be principal investigator for the research task 28: "Crystal Structure and Nano Structure of Oxide-and Nitride Transmutation Fuel" starting in the 2005 – 2006 program year.

Education

Ph.D. Mineralogy, University of Heidelberg, Germany

Master of Science. Mineralogy, University of Heidelberg, Germany

INL Joint Appointment Sponsor: Tim Hyde