

NPRE 596 GRADUATE SEMINAR NOTICE
TUESDAY, OCTOBER 3, 2017

3:30 – 4:00 pm Donuts & Coffee – 220 Talbot Lab, Student Lounge

4:00 – 4:50 pm GRADUATE SEMINAR – 114 Transportation Building

**Experimental Emission Spectroscopy for Understanding Fallout
Formation and Uranium Chemistry**

The research culture at the DOE National Laboratories combines features of both academia and industry. Here, we present a brief overview of the DOE National Lab system and a perspective on working at the DOE National Labs based on personal experience at Lawrence Livermore National Laboratory (LLNL). Following this introduction, the majority of the talk will focus on the experimental results obtained as part of our collaboration with the UIUC NPRE department. At LLNL, we are studying emission spectra from uranium laser-ablation plasmas, which allow us to observe high-temperature uranium oxidation chemistry in real-time. These results serve as input parameters to a kinetics-based, semi-empirical computational model being developed at UIUC.



Harry Radousky

Physicist, Materials Science Division
Lawrence Livermore National Laboratory

Bio: Dr. Radousky received his Ph.D. in Physics from the University of Illinois, Chicago and performed his thesis research as an Educational Fellow at Argonne National Laboratory. He joined the Lawrence Livermore National Laboratory (LLNL) in 1982 and has published over 100 papers in the areas of magnetism, superconductivity, high-pressure physics, optical materials, energy harvesting and nanomaterials. Administratively at LLNL, Dr. Radousky has served as Deputy Director for the University Relations Program (URP); Division Leader for Recruiting Programs; founding Director of the Materials Research Institute and Director of Lab Collaborations at the University of California – Office of the President. He holds an adjunct appointment as Professor of Physics at the University of California, Davis, and since 1996 has periodically taught a freshman seminar on the Physics of Baseball. Dr. Radousky is a Fellow of the American Physical Society.



David Weisz

Post-Doctoral Fellow
Nuclear and Chemical Sciences Division
Lawrence Livermore National Laboratory

Bio: Dr. Weisz received his BS in Chemistry from Virginia Commonwealth University, his MS in Health Physics from Georgetown University, and his PhD in Nuclear Engineering from the University of California, Berkeley. He is currently a Dr. Ian Hutcheon Post-Doctoral Fellow in the Chemical and Isotopic Signatures Group at LLNL. His research is focused on the chemistry of nuclear fallout formation.