Weber State University Sigma Xi Chapter Presents

SIGMA XI
THE SCIENTIFIC RESEARCH SOCIETY

WEBER STATE UNIVERSITY

Monthly Wednesday Science Conversations and Physics Seminar Joint Presentation Featuring

Dr. Maciej Manecki,

AGH-University of Science and Technology, Krakow, Poland

Complementary applications of AFM and SEM microscopies in environmental studies

Lind Lecture Hall 121
September 30, 2009
Wednesday, 1:30 pm

Light refreshments will be served

Pb-contaminated soils are prevalent in the United States at sites such as small arms firing ranges, detonation sites or testing facilities.
The Phosphate-Induced Metal Stabilization (PIMS™) technology is an *in situ* stabilization technology that uses an amendment of phosphate fertilizers to the contaminated soil that immobilizes the metal without affecting soil permeability. Only recently, complementary use of modern Scanning Electron Microscopy (including environmental mode with imaging, elemental microanalysis and electron diffraction in low vacuum) together with Atomic Force Microscopy (including Environmental Fluid Cell) allowed for advance of our knowledge of the mechanisms of Pb neutralization by these modern reclamation techniques.