

ET 011
Nanoparticle Technology for Pesticide Treatment/Detoxification

Wei-xian Zhang

Associate Professor, Department of Civil and Environmental Engineering, Lehigh
University, Bethlehem, PA

Daniel Elliott

Graduate Student, Department of Civil and Environmental Engineering, Lehigh
University, Bethlehem, PA

Abstract

The objective of this work is to develop nanoscale metallic particle technologies for the treatment and detoxification of pesticides in soil and groundwater. The goal of this project is to explore the feasibility of nanoparticles for the treatment of pesticide residues in water and soil. Residual pesticides in soil and water pose significant threats to human health and environmental quality, as they often end up in our food and water supplies. Current treatment methods are either too expensive or ineffective. Partnering organizations on this project include Golder Associates in Philadelphia, PA and the US Environmental Protection Agency.