

Shawn M. Moderow, M.S.E, EIT

Environmental and Water Resources, C1786, University of Texas, Austin, TX 78712

Ph: 512-799-3570 Email: smoderow@mail.utexas.edu

EDUCATION

- University of Texas at Austin Environmental Engineering M.S.E. 2006
- University of Texas at Austin Civil Engineering B.S. 2004

PROFESSIONAL EXPERIENCE

- Research Assistant 1/05-12/06
- Engineering Aide, Texas Department of Transportation 5/02-8/02

RECENT HONORS AND AWARDS

2004 Eugene H. and Mary Duane Dawson Endowed Presidential Scholarship

Research Projects

I investigated the feasibility of chlorobenzene degradation by zero-valent iron employed as an active capping material for contaminated sediments. The project goal was to utilize zero-valent iron as a permeable reactive capping material between the sediment and water interface for degradation of chlorobenzenes. The investigation began with batch reactors designed to determine the effective reduction of several chlorobenzene isomers and their preferred degradation pathway at different pH levels. Unfortunately, the experiments have revealed that although chlorobenzene reduction by zero-valent iron is thermodynamically favorable, less than 5 % reduction will occur within a residence time of 24 – 48 hrs under optimal conditions.

Modeled the persistence and human health risks from Lead and Cadmium from acid mine drainage sites found in parts of Oklahoma, Kansas and Missouri. Funded by the National Science Foundation.

Developed a procedure and the experimental apparatus for measuring contaminant migration from river sediment consolidation brought on from capping.