



**For More Info
Contact:**

Yatin Karpe
Associate Director
Office of Technology
Transfer
(610) 758-5883 Phone
(610) 758-5888 Fax
ott@lehigh.edu

Inventors

Wei-xian Zhang
Lehigh University
Associate Professor,
Civil and Environmental
Engineering

**Licensing
Opportunities**

- Exclusive
- Non-exclusive
- Research
Sponsorship
- Product
Development
Partnerships
(PDP)

Lehigh Case # 082106-01

Use of Soy Proteins or Soy Derivatives and Zero-Valent Iron for Environmental Remediation

Overview

This technology involves the preparation of dispersions of zero-valence nanoscale iron particles and use of either soy protein, soy milk, or another soy derivative. Such dispersions can be used to treat contaminated soil or water. These particles have large surface areas, giving them increased reactivity with toxins. They are also very small, thus allowing them to follow toxic water through the ground and remove toxicity.

Advantages

- Dispersions can be injected directly into soil and groundwater for site remediation.
- Soy protein, a natural substance devoid of any known adverse environmental impact, can stabilize and enhance the mobility of the zero-valent iron particles in the subsurface environment.

Applications

- Treatment of contaminated soil
- Wastewater treatment

Status of Intellectual Property

This technology is protected under US Patent: 7,507,345

Lehigh ExpertNet

- **Wei-xian Zhang** -
<http://expert1.cc.lehigh.edu/LehighExperts/ExpertDetail.aspx?ExpertID=70122553>