Instructor: Zehra Semra Can

Project Title: Heavy Metal Removal by Magnetic Nanoparticles

Proposal No.: ZehraSCan-1

Number of Students: 3

Requirements (from students): Students should spend a minimum of 8 hours in the lab each week.

Scope of the Project:
The potential of iron oxide magnetic nanoparticles for adsorption of Cu(II) from aqueous solutions will be investigated. Batch adsorption experiments will be performed. The sorption process will be studied with regard to the effects of initial Cu(II) concentration, pH, contact time and temperature. The adsorption equilibrium will be evaluated using the adsorption models.

Hardware/Software/Lab/Equipment Requirements:
Temperate controlled shaker
Atomic absorption spectrophotometer

Development Plan:
Literature search on the subject to have a better understanding of the process.
To perform batch controlled adsorption tests.
To analyze the data and prepare an oral presentation and a written report.