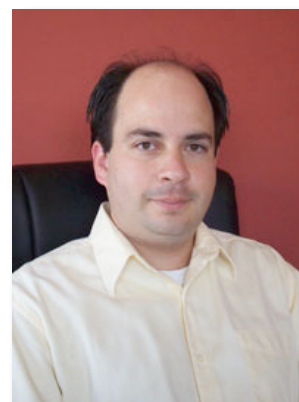


Chemistry Seminar

"New research opportunities at the interface between molecular inorganic chemistry, nanotechnology, and catalysis: The particular case of non-blinking, giant nanocrystals."

Dr. Javier Vela

Assistant Professor of Chemistry
Iowa State University



Wednesday, Sept. 30
12:00 p.m.
Wick Science Building-122

Dr. Vela will be available to meet with students
at 1:00 p.m. in WSB-344.

Abstract:

Nanotechnology is a young area of scientific research where the more traditional fields of inorganic chemistry, materials engineering, biology, and spectroscopy all converge to find a common theme: The study and control of matter at the nanoscale (a nanometer is a billionth of a meter). For the particular case of colloidal semiconductor nanocrystals (also known as quantum dots), the initial challenge has been to reliably produce samples that can be used to study and use their basic light absorption and emission

behavior: This is exemplified by the recent production of non-blinking, giant nanocrystals. The challenge remains to derivatize and assemble nanocrystals into higher order, functional materials in order to exploit their ability to harvest light and turn it into other forms of energy (electrical, chemical).