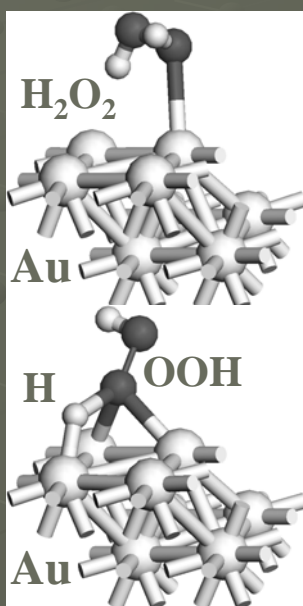


## NANO-555

Cross-listed with CHE, MT, CH and EN

# Catalysis and Characterization of Nanoparticles



- *Introduction to chemical catalysis with an emphasis on heterogeneous reactions.*
- *Characterization of metal and metal oxide nanoparticles.*
- *Heterogeneous catalysis in commercial technologies in petroleum and chemical industries.*
- *Challenges in the development of new nanomaterials and catalytic technologies for energy applications and green chemistry for sustainability.*

Most processes in petroleum and chemical industries utilize catalytic reactions. In addition, many emerging technologies in the energy sector and in green chemistry for sustainability rely on catalysis. This course provides the fundamentals of synthesis, characterization and testing of catalytic materials

The course is essential for anyone planning a career in the chemical industry. It is recommended for all professionals working with nanoparticles and also with diverse applications where the solid-gas interface is important.

Prof. Simon Podkolzin

**Fall Semester**

*Scan this code for a  
web site with more  
details*



<http://goo.gl/ZIOEP>  
(case sensitive)