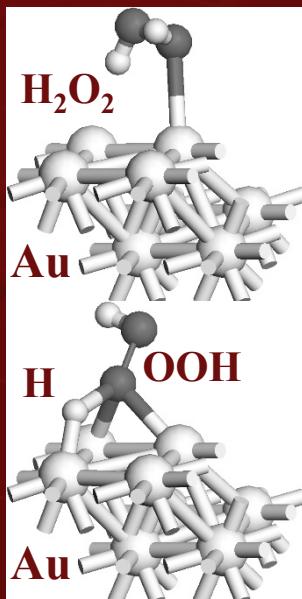


CHE, MT, CH, EN, NANO - 555

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, chemical and pharmaceutical industries.*
- *Challenges in the development of new nanomaterials and catalytic technologies for energy applications and green chemistry for sustainability.*

Most processes in petroleum refining, chemical and pharmaceutical industries utilize catalytic reactions. In addition, many emerging technologies in the energy sector and in green chemistry for sustainability rely on catalysis. Furthermore, adsorption and reactions on solid surfaces are important in multiple and diverse areas of science and technology. This course provides the fundamentals of synthesis, characterization and testing of catalytic materials.

Class is limited to 10 students.

Prof. Simon Podkolzin

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more details*

