DIPARTIMENTO DI CHIMICA

SAPIENZA
UNIVERSITÀ DI ROMA

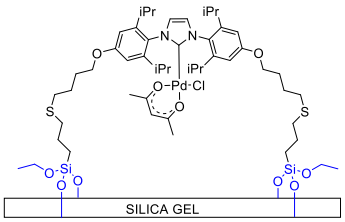
Società Chimica Italiana
Sezione Lazio

Al Direttore del Dipartimento di Chimica
Prof Aldo Laganà
Sede

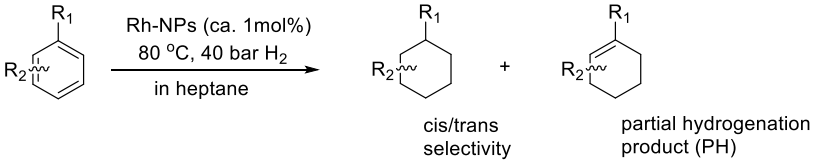
La Prof.ssa Carmen Claver (Department of Physical and Inorganic Chemistry, Universitat Rovira i Virgili, , Tarragona) nell'ambito del ciclo delle Giacomo Ciamician - Antonio Gonzalez Lectureship della SCI, **Martedì 14 aprile 2015**, in **Aula Parravano**, alle ore **12.00** terrà il seminario dal titolo

"Catalysis for Sustainable Chemistry: Homogeneous immobilized catalysts and nanocatalysts"

Abstract:
Metal transition homogenous catalysis allows low energetic conditions and provides high selectivity in many processes. Recovery and reuse of expensive catalysts however would be required for sustainability of most of the process. Strategies for overcome these difficulties involve catalysts immobilization on solids or related supports. Metal nanoparticles also provide recovery possibilities and behave as active catalysts in reactions where homogeneous catalysts are scarcely active. In this presentation examples of both approaches for sustainability in catalysis will be presented. The first part of the presentation will focus on Pd complexes with ligands modified for immobilization and application in Pd catalyzed C-C bond formation.(1) Preformed Pd complexes bearing triethoxysilyl functionalized NHC's immobilized onto silica and applied as recyclable precatalysts in the Suzuki-Miyaura coupling in batch and in continuous flow mode will be presented.



In the second part will focus in the preparation and characterization of Rh and Ru metal nanoparticles stabilized with ligands or polymers.



The utilization of these metal nanoparticles as catalysts in several hydrogenation processes will be presented focusing on the ligand effects in nanoparticle catalysed selective hydrogenations.(2)

J.L. Krinsky, A. Martínez, C. Godard, S. Castillón, C. Claver, Adv.Synth.Catal., 2014, 356, 460-474
J. Llop Castelbou, A. Gual, E. Mercade, C. Claver, C. Godard Catal. Sci. Technol., 2013, 3, 2828.

Proponente
Prof.ssa A. Dalla Cort