



UNIVERSITY OF SOUTHERN CALIFORNIA

DEPARTMENT OF CHEMISTRY

Organic / Materials Chemistry Seminar

“Be Practical! Development of Novel Homo- and Heterogeneous Catalysts for Fine and Bulk Chemical Synthesis”

Abstract:

Despite numerous important methodological advancements in all areas of chemistry, still most organic synthesis as well as the industrial production of chemicals can be improved. Currently, more than 80% of all products of the chemical industry are made via catalysis. In this regard, the development of new and more efficient catalysts constitutes a key factor for achieving a sustainable production of all kinds of chemical today and in the future. Here, several major challenges will be presented in the talk; e.g. the benign reduction of carboxylic acid derivatives. Furthermore, it will be shown that recently developed molecular-defined as well as nano-structured base metal catalysts enable us to perform catalytic hydrogenation and dehydrogenation processes in high yields and with unprecedented selectivity. Specific examples which demonstrate the potential of sustainable catalytic processes will also include examples from energy technology.

Professor Matthias Beller

Director
Leibniz-Institute for Catalysis
University of Rostock
Germany

Wednesday, February 22, 2017
12:00 PM
Olah Library

Hosted by: Professor Travis Williams

Scientific Community is Invited