

CORE-CM SEMINAR
Michigan State University

Prof. Christophe Copéret
Department of Chemistry and Applied Biosciences
ETH Zürich

**Molecular understanding and controlled functionalization of
surfaces towards single-site catalysts and beyond**

The rational design and development of catalysts require structure – reactivity relationship approach, hence the need for strategies to obtain well-defined surface sites and their detailed characterization. Here, we first discuss the method to control and understand the chemistry at the surface of materials towards the development of well-defined – so-called single-site – heterogeneous catalysts and show how this approach can bring about information about industrial catalysts. In this context, we will show how Dynamic Nuclear Polarization Surface Enhanced NMR spectroscopy can provide insightful information about material active site structures, which are not available by other characterization techniques. We will show how this approach can be used to bridge the gap with other disciplines, such as Magnetic Resonance Imaging (MRI).

Thursday, Oct. 6, 2016

12:00 NOON

Room 1400 – Biomedical & Physical Sciences

Hosted by Professor Mitch Smith