



Invité par le professeur Jean-Marie TARASCON,
chaire Chimie du solide et énergie et par l'Institut de Chimie.

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Single-Atom Catalysis

Conférences en anglais — Salle 2 de 11h à 12h

Single-Atom Catalysis has emerged as a new and possibly the most active frontier in heterogeneous catalysis since our team coined this new concept in 2011 (*Nature Chemistry* 2011, 3, 634-641). With the great potential for maximizing the atom efficiency and the well-defined active sites in a catalytic process, single-atom catalysts (SACs) have received incredibly increased attentions. Great advance has been achieved in the past decade in the preparation of highly efficient SACs, the exploration of new reactions, as well as the mechanism understanding of catalysis. In this lecture, I will introduce the fast progress of SACs and mainly focus on the research in my group to address some of the fundamental issues about single-atom catalysis, including the nature of the active sites in SACs, the essential role of coordination structure of single atoms, as well as the dynamics of SACs during reactions. Moreover, the significant opportunities and challenges in this new field of catalysis will be discussed.