

Novel transient X-ray spectroscopic methods to determine the structure of the true catalytic active site

Maarten NACHTEGAAL

(Paul Scherrer Institut, Villigen, SUISSE)

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Amphithéâtre SOLEIL

Catalysis is the enabling technology of the 21st century. To rationally design new catalysts and catalytic processes, a fundamental understanding of the electronic and geometric structures of the active catalytic site is required. Recent developments in synchrotron-based spectroscopic techniques allow to determine not only the different structures present under reaction conditions, but also the solid-state transient kinetics related to the different structures. When solid-state transient kinetics are combined with methods to determine the global reaction rate, such as mass spectrometry, the involvement of a specific structural site in the overall chemical reaction can be determined. This unique information can then be used to design new catalysts. Examples will be presented together with an introduction to the techniques that allow determining transient solid-state kinetics under reaction conditions.



Ce séminaire sera suivi d'une pause café

SEMINAIRE

Formalités d'entrée : accès libre dans l'amphi du pavillon d'Accueil.

Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès)

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L'Orme des merisiers - Saint-Aubin - BP48 - 91192 GIF S/YVETTE cedex

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CONTACT : sandrine.vasseur@synchrotron-soleil.fr