FOXSI
Functional Oxide Surfaces and Interfaces

EINLADUNG

zum Vortrag
von

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Interaction of Gas Phase Molecules with Nanostructured Model Supported Catalysts: Thermodynamics and Kinetics

am

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Technische Universität Wien, Institut für Angewandte Physik
Seminarraum 134A, Turm B (gelbe Leitfarbe), 5. OG
1040 Wien, Wiedner Hauptstraße 8-10

Abstract:

Our research activities are focused on atomistic-level understanding of kinetics and thermodynamics of heterogeneously catalyzed reactions and adsorption processes on model supported catalysts.
By employing pulsed mutli-molecular beam techniques, IRAS and synchrotron-based spectroscopies, we investigate the mechanistic details and kinetics of complex multi-pathway surface reactions, such as hydrocarbon transformation in presence of hydrogen or selective hydrogenation of multi unsaturated hydrocarbons, to obtain the correlations between the reactivity and the particular structure of the catalytic surface and it's chemical state under the reactions conditions. Complementary, we investigated the particles size effects on adsorption energies with single crystal adsorption calorimetry.

FWF SFB F45 „Functional Oxide Surfaces and Interfaces (FOXSI)"
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