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Structure-property Relationships in Ceria-based Model Catalysts

Bottom-up fabrication of supported nanostructures represents an efficient way of preparing model catalysts with atomically defined morphology and chemical composition. The character and the surface concentration of catalytically active sites - surface point defects, line defects, metal-oxide interface, and metal nanoparticles - can be controlled and correlated with physicochemical properties of the model catalysts.

In industrially important ceria and Pt-ceria model catalyst, a particularly rich spectrum of controlled morphological and chemical parameters allow to establish the structure-property relationships relevant for single-atom catalysis, hydrogen production, and redispersion of supported Pt nanoparticles.

All interested colleagues are welcome to this seminar lecture (45 min. presentation followed by discussion).

Friedrich Aumayr
(LVA-Leiter)

Martin Setvin
(Seminar Chair)