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Generation of Actives Sites on Surfaces:
A Chemist's View of Heterogeneous Catalysts

Heterogeneous catalysts are an important class of materials preferred by the chemical industry for catalytic reactions. Identification of the active site in most heterogeneous catalysts is challenging because available synthetic methods produce complex mixtures of active and dormant sites on a support surface. This ultimately results in empirical catalyst optimization strategies and less energy efficient reactions than those catalyzed by related homogeneous catalysts. This seminar will describe our efforts to generate well-defined active site structures on oxide surfaces. Well-defined active sites for the polymerization of olefins, and generation of very strong Lewis/Bronsted acid sites on surfaces will be discussed, with a particular emphasis on spectroscopic characterization of reactive intermediates.

Hosted by Professor Richard Brutchey

The scientific community is invited