FOXSI
Functional Oxide Surfaces and Interfaces

EINLADUNG

zum Vortrag
von

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The application of catalyst characterisation techniques to guide optimisation strategies for sustained product yields: methyl chloride synthesis over high surface area alumina catalysts

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Abstract:

Methyl chloride is an important industrial product with a global capacity of *ca.* 900 ktonne. This presentation will describe the development of a new generation of a methyl chloride synthesis catalyst that has recently been introduced in to large-scale operation.
The new catalyst is based upon a modified alumina that offers increased and sustained atom efficiency compared to the conventional catalyst.
The talk will show how a range of spectroscopic measurements (infrared spectroscopy, inelastic neutron scattering spectroscopy, temperature programmed desorption, *etc.*) coupled with conventional reaction testing were used to develop a site-specific reaction mechanism to account for the formation of product and by-product. This heightened awareness of the associated surface chemistry will then be used to explain how a catalyst modifier can be used to significantly improve catalytic performance.

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