

UniCat Colloquium

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Membranes and Membrane reactors for Energy applications

Inorganic membranes such as oxygen transport membranes and palladium-based membranes for hydrogen separation have been studied by several research groups especially for energy applications (both for pre-combustion and oxy-fuel combustion). Much effort has been paid to improve the flux of these membranes optimizing the supports, deposition/production techniques, etc. High flux and cheap membranes yet stable at different operating conditions are required for their exploitation at industrial scale.

The integration of membranes in membrane reactors (typical example of multifunctional reactors) increases the on the membranes. In fact, the integration of reaction and separation in a single devise, decreases the degree of freedom on the operating conditions, also interaction between the catalyst and the membrane surface can occur, damaging both membranes and catalyst.

In this work, the recent advances on inorganic membrane preparation, membrane reactor design and testing and the scale-up of these reactors are discussed in details, especially for energy related applications.

Wednesday, January 13, 2016 at 5:15 PM

TU Berlin, Institute of Chemistry
Straße des 17. Juni 115, 10623 Berlin

Building C, Lecture Hall **C 264**

Prof. Wozny (TUB)
Organizer

Coffee and cake will be served 30 minutes before the lecture. Guests are cordially invited to attend!
Prof. Dr. Matthias Driess - Chair of the Cluster of Excellence UniCat - www.unicat.tu-berlin.de



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