



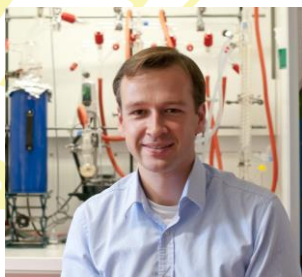
Univerzita Karlova v Praze, Přírodovědecká fakulta

Sekce chemie PŘF UK v Praze
zve všechny zájemce na přednášku z cyklu

Quo Vadis Chemie

Functional Microporous Organic Networks for Catalysis and Energy Applications

kterou přednese



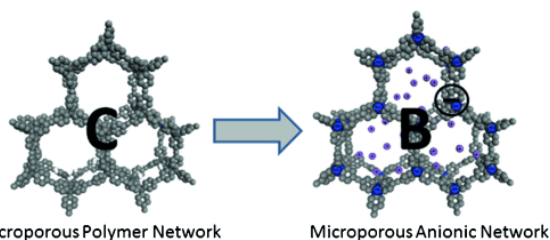
Prof. Dr. Arne THOMAS

Department of Chemistry, Functional Materials,
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dne 8.12. v 15:00 hod.
v posluchárně CH2, v budově chemických kateder PŘF UK
Hlavova 8, Praha 2

Abstrakt: Microporous materials, i.e. materials with pores < 2 nm and consequently very high surface areas, are of considerable interest for fundamental research and industrial applications. Despite the success of industrially used materials such as zeolites, it is widely recognised that the synthesis of entirely novel microporous materials can provide new opportunities in emerging technological areas.

Recently, microporous polymer networks have attracted considerable interest. Consisting exclusively from organic building blocks these structures allow for an exquisite control over the chemical nature of the structure and properties of the resulting networks.[1] This makes such materials highly interesting for catalytic and other applications, such as gas storage or organic electronics. For example the surface chemistry of the networks can be tailored to coordinate and stabilize catalytically active metal ions or metal nanoparticles[2], but also chiral moieties can be polymerized into the microporous polymer backbone yielding asymmetric heterogeneous organocatalysts.[3]



[1] A. Thomas, *Angew. Chem. Int. Ed.* **2010**, 49, 8328

[2] a) C. E. Chan-Thaw, A. Villa, L. Prati, A. Thomas, *Chem. Eur. J.* **2011**, 17, 1052 b) R. Palkovits, M. Antonietti, P. Kuhn, A. Thomas, F. Schueth, *Angew. Chem. Int. Ed.* **2009**, 48, 6909

[3] a) C. Bleschke, J. Schmidt, D. S. Kundu, S. Blechert, A. Thomas, *Adv. Synth. Cat.*, **2011**, 17, 3101 b) D. S. Kundu, J. Schmidt, C. Bleschke, A. Thomas, S. Blechert *Angew. Chem. Int. Ed.*, **2012**, 251, 5456