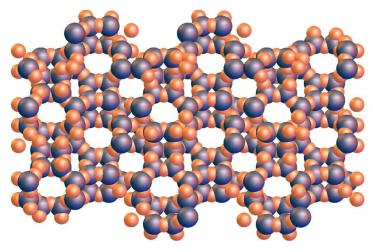
Speeding up catalysis

Catalysis is paramount for the large scale production of many vital chemicals and gasses. The Danish high-tech company Haldor Topsøe is world leading in developing and producing heterogeneous catalysts for the agricultural and petrochemical sectors, thanks to a major and sustained R&D effort. Together with the NXUS project, the formation of highly porous catalyst materials have been investigated down to the atomic level by using advanced solution based small-angle X-ray scattering (SAXS), performed at the Niels Bohr Institute.



View of a mature Zeolite structure, the formation of which has been investigated in detail

The data obtained by NXUS revealed new insights into the formation and self-assembly of high-porosity catalytic materials and their intermediate molecular structures. Through careful data analysis, it was possible to identify and characterize the nanometer sized molecular building blocks of the material. This type of information provides Haldor Topsøe with valuable input for the future development and optimization of high-performance catalytic materials.



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