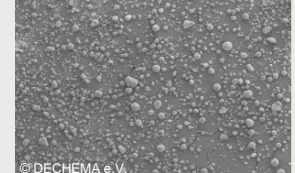
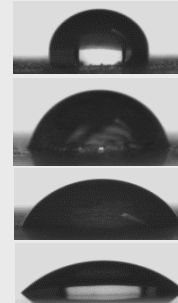




Functionalized nanoparticles, embedded in polymers or glasses, can significantly improve the mechanical, thermal, and optical properties of the matrices. The resulting **nanocomposites** are used in aerospace, in displays or other high-tech coatings.

This work will focus on the **selective functionalization** of **boehmite nanoparticles** with different types of ligands. After the establishment of a methodology on a laboratory scale, a **Scale-Up** in a reactor is also intended. In addition, a comprehensive **characterization** of the respective preparation steps, i.a. by TGA, FTIR, DLS, UV/VIS etc., is aimed as well.



The project offers a purposeful introduction to nanotechnology and nanochemistry with technical application.

Suitable for HiWi (research assistants) and all type of thesis's which can be done by students who work on their degree in chemistry, bio-/ chemical-/ pharmaceutical engineering, biotechnology or any similar studies with training in laboratory practice. The range of the project can be adjusted to suit the requirements each thesis type demands.

Beginn: individually arranged

Contact: Ajmal Zarinwall

Phone: 0531-391 65558

a.zarinwall@tu-braunschweig.de