

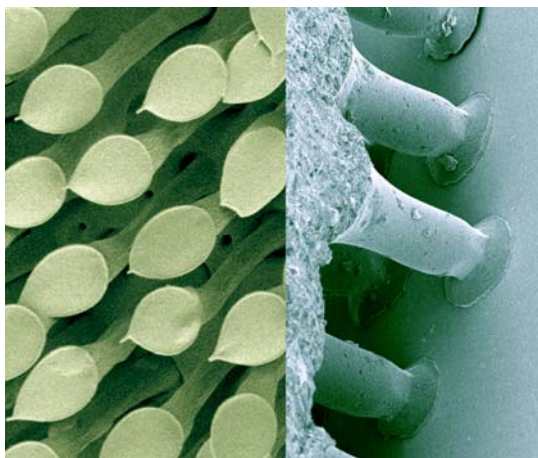


Di, 22.11.2011, 11 Uhr c.t.
Hörsaal für Physik

Biological Principles and Biomimetics: Adhesion and Interlocking in the Animal Kingdom

Prof. Dr. Stanislav N. Gorb

*Department of Functional Morphology and Biomechanics
Zoological Institute at the University of Kiel, Germany*



Why does not Gecko fall from the Wall? Animal possess attachment devices of remarkable quality. They

secret is based on the structure and material properties of adhesive surfaces. Modern high resolution techniques aided in both the precise structural analysis of these surfaces down to the nanometer scale and precise characterisation of their micromechanical properties. Recently obtained results are of big interest for technological applications. The basic-oriented research provided an essential information for industrial developments of bio-inspired material surfaces with enhanced adhesive properties, which enabled robots to climb up the wall.