

## Vortragsankündigung

- im Rahmen des UniCat-Kolloquiums -

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Es spricht: Prof. Dr.-Ing. W. Peukert, Institut für Feststoff-

und Grenzflächenverfahrenstechnik, Universität

Erlangen-Nürnberg

Zeit: Mittwoch, 28. Januar 2009 17:15 Uhr

Ort: TU Berlin

Institut für Chemie, Altes Chemiegebäude

Straße des 17. Juni 115

10623 Berlin Raum C 243

Thema: Engineering of Advanced Materials

- From Particles to Properties

Abstract: Product Design is structure design. Nanoparticles are used as building blocks

for the hierarchical organisation of functional materials and devices. Both structure-property and process-structure functions must be understood, tailored

and applied during production. Within nanotechnology, an in-depth

understanding for handling and production of nanoparticles and nanomaterials is still widely missing. Unifying concepts for product design comprise formation

of building blocks, characterization of particulate systems, interface engineering, structure design strategies and multiscale modelling and simulation. Since 2007, the excellence cluster "Engineering of Advanced Materials – Hierarchical the Design for Functional Structures (EAM)" is funded by the German Science Foundation within it's excellence initiative. EAM comprises 7 disciplines from basic science to production engineering in

electronics, photonics, catalysis and lightweight materials. These developments foster the breakdown of barriers between disciplines. Some of the related implications will be discussed. As specific examples, process chains for the fabrication of devices for electronic and photonic applications will be discussed.

Organisator: Prof. Dr. Schomäcker (TUB)

Gäste sind herzlich willkommen!

Prof. Dr. Matthias Drieß Sprecher des Exzellenz-Clusters UniCat