



EINLADUNG

zum

VERA - SEMINAR

von

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**Ordered and disordered nanomaterials investigated by
small-angle X-ray scattering**

Small-angle X-ray scattering (SAXS) is a powerful tool to describe the size, shape, orientation and arrangement of nanosized building blocks. This lecture shows the advantages of the method as well as its limitations. Selected examples from materials physics and materials chemistry demonstrate the advantages of SAXS such as the high resolution and the statistical accuracy of the acquired data together with the possibility to follow structural development *in-situ*.

The presented materials range from aerogels with a disordered pore structure, materials with short range order (e.g. clusters in anorganic-organic hybrid materials) to mesoporous structures with a perfect arrangement of molecular units in the nm-range. In particular, nature uses this scale size for designing biological materials. SAXS is thus able to characterize the structure of bone and tendons as well as the size and shape of non-crystallizable proteins.

Donnerstag, 19. November 2009, 16:30 Uhr

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",
1. Stock, Victor-Franz-Hess-Hörsaal**