



Contribution ID: 40

Type: **Poster**

## Scanning small-angle X-ray scattering at the cSAXS beamline

*Thursday, 15 September 2011 12:19 (2 minutes)*

Scanning small-angle X-ray scattering (SAXS) images the density and orientation of nanostructures. As a 2D imaging technique it can be applied to spatially resolved investigations on square centimeters large samples, i.e., information on nanoscale structures is imaged over comparatively large areas. In computed tomography mode 3D investigations are feasible as well. For each voxel the full SAXS pattern can be reconstructed. Therefore a rich set of information can be retrieved and several image representations result from a single SAXS scan.

As an example scanning SAXS tomography data on rat brains are presented. We show the extraction of a scattering peak corresponding to myelin, the layered material that surrounds the axons of nerve cells. Demyelination is for example causing multiple sclerosis and we hope that scanning SAXS data can contribute to a deeper understanding of diseases.

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**Session Classification:** Poster session I and lunch

**Track Classification:** Poster Session I (Thursday)