Small-Angle and Wide-Angle Scattering for Investigating Nanostructures

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Scattering methods permit the investigation of systems providing structural information on a broad range of length scales. The particular combination of Small Angle Scattering with Wide Angle Scattering (also known as SWAXS – Small/Wide Angle X-Ray Scattering) permits the characterization of systems on nanoscale (1-100nm / SAXS) and atomic scale (0.1-1nm / WAXS). When such experiments are performed at the same time one can obtain unique features for the investigate system since the obtained data is directly related to the same sample, which is crucial for a proper data interpretation and correlation.

In this work interesting applications of the use of SWAXS will be presented, obtained on our laboratory based instrument Xenocs-Xeuss at IFUSP. Several data will be shown, demonstrating the unique features of this technique with remarkable results.

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