Undoubtedly, X-ray scattering at small (SAXS) and wide angles (WAXS) is an important means for structur investigations. With the new instrument, SAXSess, both of the methods (SAXS and WAXS) can be applied in one experiment. It acquires scattering data of unprecedented high quality between scattering angles of 0.1 and 40 degrees.

The scattering data are useful to determine
1. sizes
2. shapes
3. internal structures
4. surface-to-volume ratios and
5. the crystallinity
of nanoparticles, biomaterials, and polymers. The performance of this novel laboratory instrument is shown with the experimental results from a selection of dispersions and polymer systems that are suited to demonstrate the current experimental possibilities. Other possible applications in the fields of research and quality control are discussed as well.