

# Beam-induced effects on surfaces and interfaces

*Harald Reichert*

ESRF, [reichert@esrf.fr](mailto:reichert@esrf.fr)

Long before structural damage sets in under irradiation with high intensity X-ray beams modifications of the electronic structure may occur that change the physical properties of the samples under investigation. Surfaces and interfaces are particularly susceptible to this kind of changes. We developed in-situ monitoring of such changes based on a kelvin probe integrated in the sample set-up. This allows one to follow beam-induced changes in real time. The setup and experiments on a variety of samples will be shown, which will serve to highlight the influence of the surface chemistry on the physical properties of the surfaces/interfaces as seen by the beam.