

# **Femtosecond X-ray Experiments at the European XFEL**

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Time-resolved structural tools such as X-ray absorption (XAS) or emission spectroscopy (XES), and diffuse scattering (XRD) techniques allow to monitor complementary information during the course of a chemical reaction. Combining these tools into one single experimental setup will thus permit to enhance our understanding of the elementary steps in chemical reactivity. At the European XFEL facility we will provide the user with such an advanced scientific instrument. The current design next to key experiments performed at the hard X-ray free electron laser LCLS and at other synchrotron radiation sources will be presented.