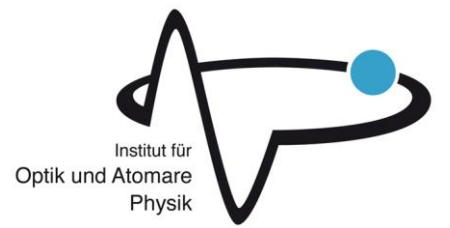


# AG Kanngießer

Analytical X-ray Physics



## Bachelor and Master Theses

Chemical Speciation with hard X-rays



We offer Bachelor and Master theses in the field of high-resolution X-ray absorption spectroscopy (XAS). With the element-specific method for chemical speciation, various chemical information of a sample can be determined, such as the oxidation state or the type, distance and number of neighboring atoms.

XAS is usually carried out at large research institutions, such as the specialized synchrotron radiation sources BESSY II or DESY. Crystal optics based on graphite also enable this method on a small scale, e.g. with X-ray tubes as a source. The BLiX (Berlin Laboratory for innovative X-ray technologies) at the TU Berlin has developed two XAS spectrometers with different areas of application.

With us you work on current research projects and answer interdisciplinary questions. Your task could be further methodical development of the structures or their application through XAS investigations in the field of material research, environmental analysis or catalysis research. For latter, we are part of the UniSysCat Cluster of Excellence. Your topics can have an experimental or computer-based focus.

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