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Study of multicomponent materials at the BAMline, a multipurpose synchrotron beamline

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The BAMline is the multipurpose beamline based at the BESSY II synchrotron facility in Berlin [1]. The beamline covers a broad range of energies from 4 up to 110 keV. Several techniques are available including X-ray absorption and fluorescence spectroscopy as well as computed tomography with various spatial resolution down to several μm -sized beam. In the current talk we summarize our experience with a combining of several analytical techniques to characterize multicomponent materials. Recent highlights from our beamline include studies of local structure in high-entropy alloys [2], quick homogeneous chemical reactions in water solution [3], as well as the formation of nanoparticles from organic medium [4] using X-ray absorption spectroscopy.

References

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