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Highlights from the CONRAD-2 beamline at HZB

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The material characterization by neutron imaging reached a new level after developing innovative techniques using different contrast mechanisms than the common beam attenuation. In this way properties of materials and complex systems can be resolved by position sensitive mapping of diffraction, small-angle scattering and refraction signals. In addition the improved spatial and time resolution of the detector systems allow for micro tomography studies and 3D dynamic investigations. Applications related to 2D and 3D visualization of material phase heterogeneities, texture, fluid dynamics, magnetic structures and phase transitions in applied materials from the CONRAD-2 neutron imaging instrument at the Helmholtz-Zentrum-Berlin (HZB) will be presented.

Primary author: Dr KARDJILOV, Nikolay (Helmholtz Centre Berlin for Materials and Energy (HZB))

Co-authors: Dr MANKE, Ingo (Helmholtz Centre Berlin for Materials and Energy (HZB)); Dr MARKOETTER, Henning (Helmholtz Centre Berlin for Materials and Energy (HZB)); Dr HILGER, André (Helmholtz Centre Berlin for Materials and Energy (HZB)); Dr ARLT, Tobias (Technical University Berlin); KHANH, Tran Van (Helmholtz Centre Berlin for Materials and Energy (HZB)); AL-FALAHAT, Alaa (Helmholtz Centre Berlin for Materials and Energy (HZB)); Mr OSENBERG, Markus (Technical University Berlin); Prof. BANHART, John (Technical University Berlin)

Presenter: Dr KARDJILOV, Nikolay (Helmholtz Centre Berlin for Materials and Energy (HZB))

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