



Contribution ID: 9

Type: **Poster**

SANS-1 Small-angle neutron scattering for materials research and strongly correlated electron systems

Thursday 4 December 2025 15:40 (20 minutes)

SANS-1 is a joint project of the TU München and the Helmholtz-Zentrum Hereon exploiting a classical pin-hole layout. Beside of being a general-purpose instrument it features distinguished characteristics for probing strongly correlated electron systems and materials science research. SANS-1 offers access to a large dynamic range with tuneable resolution including full polarization analysis. A chopper based TISANE setup allows for μ s time resolution for kinetic experiments. For in-situ and in-operando experiments under extreme conditions, SANS-1 features a flexible, spacious sample area with a heavy-duty goniometer hosting almost any complex sample environment like a set of superconducting magnets, furnaces and a bespoke quenching dilatometer. With the SANS-1MAX proposal, we plan to further extend the dynamical Q-range, and to increase the maximal momentum transfer to achieve a unique overlap to the diffraction/wide-angle neutron scattering regime. The upgrade will enable access to new research fields, particularly for modern materials science applications on energy materials.

Authors: HEINEMANN, Andre (Hereon); WILHELM, Andreas; Dr WITTMANN, Gilles (ADVMAT); MUEHLBAUER, Sebastian; Dr BUSCH, Sebastian (GEMS at MLZ, Helmholtz-Zentrum Hereon, Germany)

Presenter: MUEHLBAUER, Sebastian

Session Classification: Postersession

Track Classification: Restart posters