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Typ: Talk

High resolution crystal analyzers spectrometers for long pulse neutron sources

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We discuss different concepts to realize crystal analyzer spectrometers at long pulse neutron sources. For the novel High Current Accelerator driven neutron sources, crystal arrays designed for large acceptance enable resolutions down to 10 μ eV with reasonable detector count rates.

For the ESS we present a concept that might enable neV resolution by using GaAs monochromators and analyzers and the full pulse of the ESS. The design enables the use of elastic and inelastic fixed window scans. As a special feature it extends the dynamic range by combined analysis of the fundamental Bragg reflection and the second order.

Autor: VOIGT, Jorg (Forschungszentrum Jülich GmbH)

Vortragende(r): VOIGT, Jorg (Forschungszentrum Jülich GmbH)

Sitzung Einordnung: Quantum materials

Track Klassifizierung: Quantum materials under extreme conditions