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【107】 Resonant Ultrasound Spectroscopy Study of the Vortex Lattice Phase Diagram of Niobium

Tuesday 10 September 2024 15:30 (15 minutes)

Here, we will present the development of a novel resonant ultrasound spectroscopy (RUS) setup. Subsequently, we report our investigation of the superconducting vortex lattice of a commercially available single crystal of high purity (Nb - 99.999%). Based on our measurements, we determine the vortex lattice phase diagram, and compare it to results from electrical resistivity and neutron scattering studies.

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