LOW TEMPERATURE MAGNETOSTRICTION OF TRANSITION METAL DIHALCOGENIDE 2H - $NbSe_2$

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Magnetostriction measurements in the mixed state of superconducting niobium diselenide single crystals have revealed its irreversible dependence on magnetic field, peak effect, similar to that of magnetization, oscillatory part below and above the field of peak effect and monotonic reversible component. Comparison of the obtained results with magnetization measurements allows one to analyze variety of the processes in the mixed state of anisotropic superconductor, including peculiarities of the Fermi surface shape below CDW (charge density wave) transition and its pressure dependence, transformations in the structure of vortex matter, appearance of transverse component of magnetization in tilted fields.

9.7 cm

13.4 cm

Subject category :

1. Correlated Electrons and High Temperature Superconductors

Presentation mode :
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