

Structure of A-like Phase of ^3He in Anisotropic Aerogel

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In the A-like phase of ^3He in uniaxially deformed aerogel different spatial distributions of the Anderson-Brinkman-Morel order parameter can be realized. In case of stretching deformation two glass phases can exist. Both phases represent the anisotropic glass of the orbital vector \mathbf{L} (the orbital glass) and differ by the spin structure: the spin vector \mathbf{d} can be either in the ordered spin nematic (SN) state or in the disordered spin glass (SG) state. SN and SG states also exist in squeezed aerogel, while in the orbital space two states can be formed - orbital glass or orbital ferromagnet, the latter corresponding to homogeneous spatial distribution of \mathbf{L} oriented along the axis of squeezing. We demonstrate that NMR signatures of different states allow to measure the parameter of the global anisotropy of the \mathbf{L} -distribution. The case of biaxial anisotropy will be also considered in the talk.

INVITED PAPER