ONE DIMENSIONAL SPIN-GLASS-LIKE BEHAVIOR OF THE NONCOLLINEAR ISING COMPOUND $CsDy(MoO_4)_2$?

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9.7 cm

Caesium dysprosium molybdate $CsDy(MoO_4)_2$ belong to the family of low-dimensional Ising compounds with rhombic symmetry of crystal lattice. At $T_c = 1.3K$ the long order magnetic phase transition in noncollinear magnetic structure take place. This transition is confirmed by neutron scattering experiments. Nevertheless, at low temperature (3.6-0.3 K)the dc susceptibility along the c-axis is largely dependent of the cooling mode: zero field cooled or field cooled. Additionally ac susceptibility and time dependent magnetisation measurement in this direction show reminiscent spin-glass behavior with anomalous long relaxation time. No anomalies are found in a- and b-directions. Possible models are discussed.

13.4 cm

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