MAGNETIC PROPERTIES OF S=1/2 TWO-DIMENSIONAL QUANTUM ANTIFERROMAGNET $Cu(D_2O)_2(C_2H_6D_2N_2)SO_4$

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9.7 cm

The partial deuteration of $Cu(H_2O)_2(C_2H_8N_2)SO_4$ has been performed with the aim to tune ground state properties of the compound which was previously identified as a representative of an S=1/2 spatially anisotropic triangular antiferromagnet [1]. The studies of the magneto-structural correlations in $Cu(D_2O)_2(C_2H_6D_2N_2)SO_4$ involving specific heat and susceptibility measurements in zero magnetic field revealed only slight deviations from the magnetic behaviour observed in the original compound. The origin of the observed behaviour is discussed.

[1] M. Kajňaková et al., Phys. Rev. B 71, (2005) 014435.

13.4 cm

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