MAGNETIC PROPERTIES OF $DyMn_2$ SINGLE CRYSTAL

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9.7 cm

For RMn_2 compounds the instability of Mn magnetic moment is observed. $DyMn_2$ single crystals were obtained by the Czochralski method from the levitated melt. The sample's quality was checked by the X-ray powder diffraction using Siemens D-5000 diffractometer with Cu K_α radiation and Berg-Barrett topography with Fe K_α radiation. There were also taken the XPS spectra on the single crystalline sample. The electrical resistivity and ac magnetic susceptibility along growth [111] direction was measured within temperature range 4.2-300 K showing the change in slope at T_N=36 K. Lattice parameters temperature dependence was measured from T=10 K to the room temperature. Magnetic measurements in the International Laboratory of High Fields and Low Temperatures in Wrocław in the temperature range 4.2-300 K are in progress. The measurements of susceptibility χ_{ac} and χ_{dc} in the wide temperature range are in progress.

13.4 cm

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