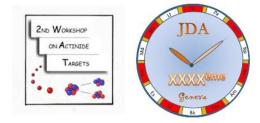
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Electrical transport properties of single crystalline U2Cu4As5

Sunday, 28 March 2010 16:30 (20 minutes)

The ternary uranium arsenide U2Cu4As5 crystallizes with a body-centred tetragonal structure of its own type (space group I4/mmm, lattice parameters: $a=3.990\ \text{Å}$, $b=24.299\ \text{Å}$) [1]. Magnetic susceptibility measurements revealed that the compound orders antiferromagnetically at TN = 189 K [1]. The onset of the ordered state is accompanied by a rapid drop in the electrical resistivity [1]. Here, we report on the results of our recent specific heat, electrical resistivity, magnetoresistivity and Hall coefficient measurements, performed in wide ranges of temperature and magnetic field on high-quality single crystals of U2Cu4As5 grown by chemical vapour transport method.

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