

Specific Heat of Zn-Doped YBCO

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Abstract

The magnetic field dependence of the specific heat of (per Cu) Zn-doped single crystal $\text{YBa}_2\text{Cu}_3\text{O}_{6.95}$ is compared to the specific heat of nominally pure single crystal $\text{YBa}_2\text{Cu}_3\text{O}_{6.95}$. We report measurements on samples with Zn concentration as high as 1 % with magnetic fields up to 8 T. Our result will be compared with the recent theory of Casanello and Fradkin (1) on the screening of magnetic impurities in d-wave superconductors.

(1) C.R.Cassanello, E. Fradkin, Phys. Rev. B 56, 11246 (1997)