

Abstract Submitted
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Magnetic correlations on full chains of ortho-II YBCO6.5 WEI CHEN, PETER J. HIRSCHFELD, Department of Physics, University of Florida — We propose that the ^{63}Cu NMR line shape of chain Cu in YBCO6.5 Ortho-II samples may be explained by assuming induced magnetization due to oxygen vacancies and strong correlations in the chain. The model consists of CuO chains coupled to CuO₂ plane with Hubbard correlations treated in unrestricted Hartree-Fock approximation, which induce magnetic moments around oxygen chain vacancies. The broadening and shift of NMR main line is consistent with increased chain magnetization at low temperature. Tunneling between chains and the plane induces magnetization on the planar coppers as well, which gives rise to quasi-1D like spin correlations in the plane.

Wei Chen
Department of Physics, University of Florida

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