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Singlet-ground-state paramagnetic centers in CuO2 layers as seen from Tm169 NMR in TmBa2Cu3O6+x superconductors

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Abstract

The Tm169 nuclear spin-lattice relaxation in oxygen-deficient TmBa2Cu3O6+x compounds, as quenched and room-temperature annealed, has been measured at low temperatures. The results are consistent with the existence of paramagnetic centers in the CuO2 double layer, which have a nonmagnetic (singlet) ground state separated from an excited magnetic state by an energy gap of the order of 1 K. © 1995 The American Physical Society.

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