

Title: The spin polarization of CrO₂ revisited

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Abstract: Here, we use Andreev reflection spectroscopy to study the spin polarization of high quality CrO₂ films. We study the spin polarization as a function of growth temperature, resulting in grain size and electrical resistivity. In these films low temperature growth appears to be a necessary but not sufficient condition to guarantee the observation of high spin polarization, and this is only observed in conjunction with suppressed superconducting gap values and anomalously low interface properties. We suggest that this combination of observations is a manifestation of the long range spin triplet proximity effect. (C) 2007 American Institute of Physics.

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