

Abstract Submitted  
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**Direct Electron Spectroscopy Investigation of the Spin State of LaCoO<sub>3</sub>** J. STANLEY, J. HINTON, N. SUNDARAM, University of California, Santa Cruz, B. S. MUN, A. BOSTWICK, E. ROTENBERG, Lawrence Berkeley National Laboratory, D. P. BELANGER, G.-H. GWEON, University of California, Santa Cruz — The spin state of LaCoO<sub>3</sub> and related properties have been a topic of high interest lately. Here we investigate the electronic structure of LaCoO<sub>3</sub> using core level and valence band photo-electron spectroscopy. We compare the competing spin models in the literature by using our data obtained as a function of incident photon energy and temperature. We are able to make an interesting contribution to the discussion of the spin state of this material.

Gey-Hong Gweon  
University of California, Santa Cruz

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