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The crystal-field scheme of CePt3Si: a combined polarized soft x-ray absorption and polarized neutron study THOMAS WILLERS, Institute of Physics II, University of Cologne, Germany, BJOERN FAK, CEA, INAC, SPSMS, Grenoble, France, LIU HAO TJENG, ANDREA SEVERING, Institute of Physics II, University of Cologne, Germany — CePt3Si crystallizes in the non-centro symmetric tetragonal space group P4/mm. When cooling it becomes antiferromagnetic at 1 and superconducting below 0.7 K. The knowledge of the crystal-field potential is crucial for the description of the low temperature properties. Here linear polarized soft X-ray absorption data at the Ce M4,5 edges will be presented. This technique is known to be sensitive to the symmetry of the initial state and through the polarization dependence direct spectroscopic information about the Jz admixtures of the ground state is obtained. Additional information concerning the sequence of states can be obtained from the temperature dependence of the polarization effect.

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