

Abstract Submitted  
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**Superconducting Critical Field Curves in Uranium-Niobium alloys** JASON C. COOLEY, Los Alamos National Laboratory, W. LARRY HULTS, JASON C. LASHLEY, JAMES L. SMITH, GEORGE M. SCHMIEDESHOFF, Occidental College — The uranium niobium binary alloy system exhibits a rich collection of phenomena for study. The composition range from 0 wt.% Nb to 10 wt.% Nb exhibits multiple crystallographic phases with interesting properties such as superconductivity, charge density waves and shape memory effects. We have extended the range of our resistivity measurements to as low as 400mK in order to map the critical field curves of these superconducting alloys. As a function of temperature some of the critical field curves have positive curvature which is somewhat correlated with the normal state temperature dependence of the resistivity. Work supported by the United States Department of Energy and the National Science Foundation.

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