

Abstract Submitted
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Ultrast study of Kondo-lattice coupling in the d-electron KENNETH BURCH, DIYAR TALBAYEV, MST-CINT, Los Alamos National Laboratory, B.C. SALES, D. MANDRUS, Condensed Matter Sciences Division, Oak Ridge National Laboratory, A.J. TAYLOR, R.D. AVERITT, MST-CINT, Los Alamos National Laboratory — We report our recent ultrafast optical measurements of the Zintl compound $\text{Yb}_{14}\text{MnSb}_{11}$, which was recently determined to be the first ferromagnetic Kondo lattice in the underscreened limit. The response at low temperatures to has two components, which we attribute to the underscreened nature of this Kondo system. In addition we measure the generation of coherent acoustic and optical phonons, that allow us to demonstrate a clear connection between the Kondo effect and lattice vibrations.

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