Abstract Submitted for the MAR14 Meeting of The American Physical Society

²⁹Si NMR study of the paramagnetic state of URu₂Si₂ under pressure KENT SHIRER, Univ of California - Davis, JASON HARALDSEN, Los Alamos National Lab, ADAM DIOGUARDI, JOHN CROCKER, CHING LIN, Univ of California - Davis, MARC JANOSCHEK, Los Alamos National Lab, KEVIN HUANG, NORAVEE KANCHANAVATEE, BRIAN MAPLE, Univ of California - San Diego, MATTHIAS GRAF, ALEXANDER BALATSKY, Los Alamos National Lab, NICHOLAS CURRO, Univ of California - Davis — We report ²⁹Si nuclear magnetic resonance measurements in a single crystal of URu₂Si₂ in the hidden order, antiferromagnetic, and paramagnetic phases under pressure. We find evidence for partial suppression of the density of states below 30 K at ambient pressure. We study how this behavior varies under pressure as hidden order gives way to antiferromagnetism. We analyze the data in light of various recent models.

Kent Shirer Univ of California - Davis

Date submitted: 15 Nov 2013 Electronic form version 1.4