

Abstract Submitted
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NMR, Thermodynamics and Magnetic Disorder in Kondo Intermetallics: UCu4Pd and UCu4Ni¹ OSCAR BERNAL, ARIANA VALDEZ, California State University, Los Angeles, CA, D.E. MACLAUGHLIN, University of California, Riverside, CA, G.R. STEWART, University of Florida, Gainesville, FL — We compare and contrast the static magnetic character of UCu4Pd and UCu4Ni as probed by local Cu-NMR and bulk thermodynamic measurements. For the Pd case, evidence for magnetic disorder has been well established by most bulk (magnetization, specific heat, etc.) and local measurements, particularly Cu-NMR. For the Ni case, on the contrary, the local Cu-NMR data appear to suggest that thermodynamic divergences are not directly controlled by static magnetic inhomogeneity, even though the Ni material possesses a higher degree of structural disorder than UCu4Pd. We discuss to what extent Cu-NMR can be used to elucidate differences between the two systems and shed light on the notion of disorder-driven quantum criticality.

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