

Abstract Submitted  
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**Differences in the Magnetic Susceptibility of  $\text{UCu}_{3.95}\text{Ni}_{1.05}$  due to Grinding**<sup>1</sup> CARLOS SANCHEZ, CARMEN QUEN, EDITH SOTO, California State University of Los Angeles — The effects on the magnetic susceptibility due to grinding a sample of  $\text{UCu}_{3.95}\text{Ni}_{1.05}$  are studied using the Vibrating Sample Magnetometry (VSM) technique. Peculiar differences between powder and ingot material are found in measurements of magnetic susceptibility as a function of temperature at a constant magnetic field of 500 Oe. The data shows a magnetic phase transition at around 150K, which appears to affect a polycrystalline ingot more than a powder sample. We suspect a relation between the observed effects and a second phase present in the system. We will discuss likely identities of the second phase including the possibility of extrinsic impurities. Some potential implications to interpreting powder and ingot data will be addressed as well as ways to separate the second phase contribution from the total susceptibility.

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