

Abstract Submitted  
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**The Effects of Nickel Substitution on Ferromagnetism in  $\text{Fe}_3\text{GeTe}_2$  Layered Structured Compound**<sup>1</sup> GIL DRACHUCK, MORGAN W. MASTERS, Iowa State University/Ames Laboratory, VALENTIN TAUFOR, UC Davis, TEJ N. LAMICHHANE, Iowa State University/Ames Laboratory, QISHENG LING, Ames Laboratory, SERGEY L. BUD'KO, PAUL C. CANFIELD, Iowa State University/Ames Laboratory — We have grown a series of nickel substituted single crystals of the layered structured ferromagnet  $\text{Fe}_3\text{GeTe}_2$ . The crystals were characterized with single crystal X-ray diffraction, magnetic susceptibility, magnetization under pressure, electrical resistivity and Mossbauer spectroscopy. We will report the changes in the ferromagnetic transition temperature, ordered magnetic moment size, Curie-Weiss temperature and the crystallographic and magnetic structure, as a result of the nickel substitution.

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