

Abstract Submitted
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Helimagnetism in Cr doped FeGe YUEN YIU, NIRMAL GHIMIRE¹,
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Oak Ridge Natl Lab — We have studied helimagnetism in Fe(1-x)Cr(x)Ge
via bulk magnetic measurements and Small Angle Neutron Scattering (SANS).
Cubic FeGe exhibits helimagnetism below $T_c = 276$ K. This transition is suppressed by
Cr doping, and cannot be detected above 4K for $x = 0.4$ or greater. SANS measure-
ments for samples with $x = 0.1, 0.2,$ and 0.3 shows clear evidence for helimagnetic
structures with characteristic periods of several hundred angstroms. The $x = 0.2$
and 0.3 samples show a hump in the susceptibility accompanied by an anomaly in
the SANS signal at a temperature below the onset of helimagnetic order.

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