

Abstract Submitted  
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**Effect of Ni substitution on the magnetic properties of Skymion  $\text{Cu}_2\text{OSeO}_3$**  CHUNG-LUN HUANG, HUNG-CHENG WU, KAKARLA DEVI CHANDRASEKHAR, HUNG-DUEN YANG, Natl Sun Yat Sen Univ, NATIONAL SUN YAT-SEN UNIVERSITY TEAM — Chiral magnetic lattice shows many exotic physical properties such as spin ice/spin liquid order, topological insulators and magneto-electric coupling. The chiral magnetic lattice of  $\text{Cu}_2\text{OSeO}_3$  exhibits such kind of unique magnetic ordering where spins form the vortex like ordering called as Skymion. In this poster, the effects of isovalent ion doping on the Skymion phase of  $\text{Cu}_2\text{OSeO}_3$  were presented. Polycrystalline  $(\text{Cu}_{1-x}\text{Ni}_x)_2\text{OSeO}_3$  ( $x=0.0$  to  $0.1$ ) samples were prepared by standard solid-state methods. Temperature and magnetic field dependent AC and DC magnetic measurements were performed. The Curie temperature decreases obviously with increasing Ni concentration by using ac susceptibility ( $\chi_{ac}$ -T). Systematic H-T phase diagrams indicating the effects of Ni doping are established and will be discussed.

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