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Spin Correlations in the quasi-triangular magnet, $\text{Cu}_2(\text{OH})_3\text{NO}_3$ JASON S. GARDNER, Indiana University, GEORG EHLERS, SNS, Oak Ridge National Laboratory, FLETCHER WERNER, S.A. SOLIN, Washington U in St. Louis — We have investigated the structural and magnetic properties of the spin $S = 1/2$ antiferromagnetic quasi-triangular lattice materials: $\text{Cu}_{2(1-x)}\text{Zn}_{2x}(\text{OH})_3\text{NO}_3$ ($0 < x < 0.65$) using a.c. susceptibility, heat capacity [1,2] and neutron scattering. After a brief introduction to the bulk properties of this family of materials, we will discuss recent inelastic neutron scattering results from the pure and doped materials. The temperature dependence of the quasielastic scattering reveals an abundance of slow spin dynamics at elevated temperatures. This scattering collapses as the system is cooled through its ordering temperature (11 K) and a \mathbf{Q} -independent mode is observed at finite energy. These results will be compared to those seen in other triangular systems with a Kagome motif.

[1] J. Wu, J.S. Wildeboer, F. Werner, A. Seidel, Z. Nussinov, and S.A. Solin, *Europhysics Letters*, **93**, 67001 (2011).

[2] J. Wu, A. K. Gangopadhyay, P. Kanjanaboos and S. A. Solin, *J. Phys.: Condens. Matter* **22**, 334211 – 334222 (2010).

Prefer Oral Session
 Prefer Poster Session

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