

Abstract Submitted
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The symmetry of the spin Hamiltonian in herbertsmithite, a spin-1/2 kagomé lattice OREN OFER, AMIT KEREN, Physics Department, Technion, Israel Institute of Technology, Haifa 32000, Israel — We present magnetization measurements on oriented powder of $\text{ZnCu}_3(\text{OH})_6\text{Cl}_2$ along and perpendicular to the orienting field. We find a dramatic difference in the magnetization between the two directions. It is biggest at low measurement fields H or high temperatures. We show that the difference at high temperatures must emerge from Ising-like exchange anisotropy. This allows us to explain muon spin rotation data at $T \rightarrow 0$ in terms of an exotic ferromagnetic ground state.

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