

Abstract Submitted
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Magnetic phase diagram of a 2D quantum Heisenberg antiferromagnetic compound $\text{Cu}(\text{pz})_2(\text{ClO}_4)_2$ FAN XIAO, Clark University, NAT FORTUNE, Smith College, CHRISTOPHER LANDEE, MARK TURNBULL, Clark University — $\text{Cu}(\text{pz})_2(\text{ClO}_4)_2$ is a 2D quantum Heisenberg antiferromagnet with an exchange strength of 17.5(5) K and a zero-field ordering temperature of 4.25 K. The ordering temperature has been found to be affected by an applied field. The phase diagram of $\text{Cu}(\text{pz})_2(\text{ClO}_4)_2$ is determined by measuring the magnetization and the in-field specific heat. The behavior of the ordering temperature can be interpreted as a field induced 2D Heisenberg to 2D XY crossover.

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