

Abstract Submitted
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Tuning magnetization avalanches in Mn₁₂-acetate¹ BO WEN, S. MCHUGH, XIANG MA, M. P. SARACHIK, City College of New York, Y. MYASOEDOV, H. SHTRIKMAN, E. ZELDOV, The Weizmann Institute of Science, R. BAGAI, G. CHRISTOU, University of Florida - Gainesville — We report the results of a systematic study of magnetic avalanches (abrupt magnetization reversals) in the molecular magnet Mn₁₂-acetate using a micron-sized Hall sensor array. Measurements were taken for: (a) fixed magnetic field (constant barrier against spin reversal); and (b) fixed energy release obtained by adjusting the barrier and ΔM . A detailed comparison with the theory of magnetic deflagration of Garanin and Chudnovsky [1] will be presented and discussed. [1] D. A. Garanin and E. M. Chudnovsky, Phys. Rev. B 76, 054410 (2007)

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