

Abstract Submitted
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Time Evolution of the Magnetization of Mn-12 Acetate above 1.8 K. REEM JAAFAR, Y. SUZUKI, D. GRAYBILL, M.P. SARACHIK, City College of New York, R. BAGAI, G. CHRISTOU, University of Florida, Gainesville — It is well known that the decay of the magnetization of the molecular magnet Mn12-acetate is not a simple exponential. From measurements using a commercial Quantum Design MPMS magnetometer between 3 K and 1.8 K, we present the results of a detailed study of the time evolution of the magnetization as it increases from zero (following zero-field cooling) in response to longitudinal magnetic fields up to 400 Oe. Fits to the data will be shown for distributions of characteristic times (Gaussian, Lorentzian and others) of different widths in response to magnetic fields near and away from a tunneling resonance. The effect of temperature and transverse field will be discussed.

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