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Electronic Transport Properties of Mn_{12}-Acetate Film Measured with Self-assembled Tunneling Junction LIANXI MA, CHI CHEN, GLENN AGNOLET, Texas A&M university — We measure the differential conductance of Mn_{12}-Acetate 2 monolayer film and found it is about 10^{-7}-10^{-8} S. We observed the Kondo resonance and transition from dip to peak as initial resistance decreases. We calculated the Kondo temperature of Mn_{12}-Acetate on the surface of Pt and it is 346±86 K. Sudden conductance change about 1.0×10^{-8} S was observed and as it is highly unlikely caused by mechanical instability, we speculate it is caused by the molecular configuration change between 2 states, which agree with Gregory's assumption.

Lianxi Ma
Texas A&M University

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