

Abstract Submitted
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Terahertz Spectroscopy of Mn12-Acetate¹ CLAIRE WATTS, BETH PARKS, Colgate University, CHRIS BEEDLE, DAVID HENDRICKSON, UC San Diego — Mn12-acetate is a single-molecule magnet with spin $S = 10$. It has been observed to exhibit quantum tunneling of the magnetization. The energy levels associated with this quantum tunneling have been probed using time-domain terahertz spectroscopy. We observe absorptions corresponding to excitations between spin states, but we also observe what seems to be emission at nearby frequencies. The emission frequency changes with applied field in the same way that absorptions do, but its explanation is unclear.

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