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Cold dipolar collisions in magnetically trapped OH[1] BENJAMIN STUHL, MARK YEO, MATT HUMMON[2], JUN YE, JILA / University of Colorado and NIST — A major open question in cold molecular physics is the universality of dipole-dipole scattering in real molecules. So far, the relationship between dipole strength and scattering cross-section has been investigated in only one system, ultracold KRb in its absolute ground state. We now report evidence for inelastic dipole-dipole scattering in magnetically trapped metastable OH molecules under a polarizing electric field, with an apparent d^2 dependence rather than the d^6 law observed in optically trapped KRb.

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