

Quantum state-to-state collisions of cold molecular ions

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Collisions at low temperature are strongly influenced by quantum mechanics: scattering cross sections show resonance structures and different internal quantum states may lead to qualitatively different collision properties. Cold ions in traps provide a well-suited environment to control and observe cold ion-atom collisions. In this talk I will present our recent investigations of cold OH⁻ anions colliding with helium and hydrogen.