

Abstract Submitted
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p-wave Feshbach Molecules.¹ JOHN GAEBLER, University of Colorado, Boulder, J. T. STEWART, J. L. BOHN, D. S. JIN — We present evidence for the production and detection of molecules using a p-wave Feshbach resonance between 40K atoms. We have measured the binding energies and lifetimes for these molecules. We find that the binding energies scale linearly with magnetic field near the resonance. At magnetic fields above the resonance we detect quasi-bound molecules with lifetimes set by the tunneling rate through the centrifugal barrier. We discuss the possibility of using a p-wave Feshbach resonance to study BEC-BCS crossover physics with finite angular momentum pairing.

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