

Abstract Submitted
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Dimer Photodissociation in the Presence of a Degenerate Fermi Gas¹ JOSH W. DUNN, CHRIS H. GREENE, Department of Physics and JILA, University of Colorado, Boulder, CO — We explore the effects of the presence of a degenerate Fermi gas on the photodissociation spectrum of a weakly bound dimer. For a dimer made up of fermionic atoms identical to those in the Fermi gas, Pauli-blocking effects reduce the available decay states for the dimer. This can lead to a narrowing of the width of the dimer photodissociation spectrum. We calculate such dissociation spectra and discuss applications to current experiments.

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