

Abstract Submitted
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Reduced dimensional model of ultracold molecule-molecule scattering CHRISTOPHER TICKNOR, BRIAN KENDRICK, JEFF LEIDING, Los Alamos Natl Lab — We study a reduced dimensional molecule-molecule scattering system. This work is an intermediate step in performing the complete scattering calculations as we develop tools to bring together the long range, ultracold 2-body scattering problem and the short range 4-body quantum chemistry problem. We use accurate ab initio electronic calculations to construct the Born Oppenheimer potentials for the nuclear motion. We focus on studying how vibrationally states are excited by the potential. We also present a first set of scattering calculations on these potentials.

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