

Abstract Submitted  
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**State-selected predissociation of H<sub>3</sub>** V. NGASSAM, A.E. OREL, Department of Applied Science, University of California Davis — Experimental studies of the predissociation of well-defined Rydberg states of H<sub>3</sub> have produced a complex three-body fragmentation pattern that is highly dependent on the initial state and show dramatic isotope effects. We present results of theoretical investigations for the fragmentation of selected Rydberg states of H<sub>3</sub> into three ground state hydrogen atoms as well as two-body predissociation into H + H<sub>2</sub><sup>+</sup>(v,j). The non-adiabatic couplings and the surfaces are taken from previous studies. The dynamics are carried out using a wave packet propagation method in full-dimensionality including the effects of the Jahn-Teller interaction. Work supported by the NSF PHY-02-44911

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