CLASSICAL STUDY OF ENERGY FLOW IN HEI$_2$

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The classical dynamics of energy flow within T-shaped HeI$_2$ is studied by numerically integrating the appropriate equations of motion. From this two dimensional study, a relationship is developed between the exchange of energy in the van der Waal degree of freedom and the initial phase of I$_2$. The breakdown in phase space is also examined by constructing Poincarè surface of section plots for various initial conditions. We show that these plots can also be generated from a perturbative formalism using the Morse oscillator as our zero order picture.