

Collison and reaction dynamics of cold molecular few-body systems

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In this lecture I will discuss the dynamics of inelastic and reactive collisions of polyatomic molecules and molecular ions. At first, the different long-range interactions and their influence on semi-classical and quantum mechanical scattering cross sections will be discussed. Then schemes to describe the short-range interaction will be treated depending on the type and the strength of this interaction. Finally, an experimental methods to study such dynamics will be presented.