PRODUCING AND USING VIBRATIONALLY EXCITED MOLECULES

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Spectroscopic research over the last few decades has shed much light on the nature of highly vibrationally excited molecules as well as methods to prepare them. Recent experiments in our laboratory seek to use what we understand about vibrationally excited species to promote chemical reactions in a selective manner and to develop sensitive new methods of spectroscopic detection. This talk will give an overview of the variety of ways in which we are using vibrational excitation in chemistry and spectroscopy.