

# Analyzing Roaming in Formaldehyde by Using Velocity Map Ion Imaging

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There are numerous pathways through which formaldehyde dissociation can occur. Of particular interest is a mechanism known as roaming. Better understanding of this mechanism can lead to better elucidation of many chemical reactions. Specifically, how velocity correlates with the rotation of the CO fragment (v-J correlation) is of interest. Our goal is to find speed-dependent vector correlation for CH<sub>2</sub>O dissociation, so the v-J correlations from roaming can be deduced. To do this, we use Velocity Map Ion Imaging technique. We are currently working on rearranging our optics set-up to increase the power output of the laser necessary for this experiment.