

## PHOTOINDUCED CHARGE TRANSFER IN CATION- $\pi$ COMPLEXES STUDIED WITH VMI

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The photodissociation charge transfer processes of  $\text{Ag}^+$  cation- $\pi$  complexes with small aromatics were studied using velocity map imaging. Ions formed by laser vaporization are pulse extracted and mass-selected in a linear time-of-flight mass spectrometer. The ion beam is then intersected with a UV laser causing dissociation, and the ions are detected using a fast-phosphor screen. The detector has spatial resolution which allows us to extract the total kinetic energy release of the dissociation process, which gives us information on the binding energy of the ion. Excitation with 355 nm lead to the dissociative charge transfer of  $\text{Ag}^+$ -toluene and  $\text{Ag}^+$ -furan, as seen previously with the  $\text{Ag}^+$ -benzene complex.