DETERMINATION OF DIFFERENTIAL CROSS SECTIONS OF THE STATE-TO-STATE INELASTIC COLLISIONS IN BULBS. A THREE-DIMENSIONAL SLICED FLUORESCENCE IMAGING STUDY

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Differential cross sections of the state-to state inelastic collisions can be determined by the three-dimensional sliced fluorescence imaging techniques in a flow cell. An optical-optical double resonance excitation scheme is employed in the state selection and detection of one of the colliding species. From the collision-induced fluorescence images, a double Legendre moment analysis framework is utilized to extract the state-to-state inelastic differential cross sections of CN in the A state with He.