

Abstract Submitted
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Channel Competition in Single Ionization of CS⁺ by Intense Laser Pulses¹ TIANA TOWNSEND, E. WELLS, Department of Physics, Augustana University, Sioux Falls, SD 57197 USA, BETHANY JOCHIM, T. SEVERT, K.D. CARNES, I. BEN-ITZHAK, J.R. Macdonald Laboratory, Department of Physics, Kansas State University, Manhattan, KS 66506 USA — Employing a coincidence three-dimensional momentum imaging technique, we investigate the ultrafast, intense laser-induced ionization of CS⁺. The analysis presented here focuses on the intensity-dependent branching ratio from 3×10^{14} to 3×10^{16} W/cm². The charge-symmetric C⁺ + S⁺ channel is dominant at all measured intensities, followed by CS²⁺ and then C + S²⁺, while C²⁺ + S is not observed. The branching ratio measurement is assisted by *in situ* determination of the detection efficiency of all the product channels.

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