

Abstract Submitted  
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**Channel Competition in Single Ionization of CS<sup>+</sup> by Intense Laser Pulses**<sup>1</sup> 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<sup>+</sup>. The analysis presented here focuses on the intensity-dependent branching ratio from  $3 \times 10^{14}$  to  $3 \times 10^{16}$  W/cm<sup>2</sup>. The charge-symmetric C<sup>+</sup> + S<sup>+</sup> channel is dominant at all measured intensities, followed by CS<sup>2+</sup> and then C + S<sup>2+</sup>, while C<sup>2+</sup> + 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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