

Ions” first author Steve Bromley

Abstract Submitted

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Charge Exchange with Highly Charged Ions JEREMY GLICK, KEVIN FERRI, JACLYN SCHMITT, JOSHUA HANSON, JOAN MARLER, Clemson University — A detailed study of the physics of highly charged ions (HCIs) is critical for a deep understanding of observed phenomena resulting from interactions of HCIs with neutral atoms in astrophysical and fusion environments. Specifically the charge transfer rates and spectroscopy of the subsequent decay fluorescence are of great interest to these communities. Results from a laboratory based investigation of these rates will be presented. The experiment takes advantage of an energy and charge state selected beam of HCIs from the recently on-line Clemson University EBIT (CUEBIT). Progress towards an experimental apparatus for retrapping HCIs towards precision spectroscopy of HCIs will also be presented.

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