Abstract Submitted
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Space and Time Resolved Continuum Correlation in the Post-Collision Interaction of Core-Photoionized Neon[1] A. BHANDARY, A.L. LANDERS, F. ROBICHEAUX, Auburn University, T. OSIPOV, M. HERTLEIN, M.H. PRIOR, A. BELKACEM, Lawrence Berkeley National Laboratory, P. RANITOVIC, I. BOCHAROVA, C.L. COCKE, Kansas State University, T. JAHNKE, M. SCHOFFLER, J. TITZE, R. DORNER, University of Frankfurt — We have used the COLTRIMS* technique to measure the momentum distribution of the photoelectron and the recoil ion produced by the core-photoionization of neon. Conservation of momentum allows us to determine the subsequent auger electron's momentum that is emitted when the Ne^+ relaxes to the Ne^{2+} state. Momentum space plots of the electrons and the recoil ion are then used to resolve the three-body correlated post-collision interactions in space and time. Finally, classical calculations have been performed which corroborate our interpretation of the experimental results.

*R. Dorner, V. Mergel, O. Jagutzki, L. Spielberger, J. Ull- rich, R. Moshammer, and H. Schmidt-Bäocking. Physics Reports, 330:96-192, 2000.

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