

Abstract Submitted
for the DPP17 Meeting of
The American Physical Society

Dielectronic Satellite Spectra of Na-like Mo Ions Benchmarked by LLNL EBIT with Application to HED Plasmas¹ A. STAFFORD, A.S. SAFRONOVA, V.L. KANTSYREV, U.I. SAFRONOVA, E.E. PETKOV, V.V. SHLYAPTSEVA, R. CHILDERS, I. SHRESTHA, University of Nevada, Reno, P. BEIERSDORFER, H. HELL, G.V. BROWN, Lawrence Livermore National Laboratory — Dielectronic recombination (DR) is an important process for astrophysical and laboratory high energy density (HED) plasmas and the associated satellite lines are frequently used for plasma diagnostics. In particular, K-shell DR satellite lines were studied in detail in low- Z plasmas. L-shell Na-like spectral features from Mo X-pinchs considered here represent the blend of DR and inner shell satellites and motivated the detailed study of DR at the EBIT-1 electron beam ion trap at LLNL. In these experiments the beam energy was swept between 0.6 – 2.4 keV to produce resonances at certain electron beam energies. The advantages of using an electron beam ion trap to better understand atomic processes with highly ionized ions in HED Mo plasma are highlighted.

¹This work was supported by NNSA under DOE grant DE-NA0002954. Work at LLNL was performed under the auspices of the U.S. DOE under Contract No. DE-AC52-07NA27344.

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Date submitted: 14 Jul 2017

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