Abstract Submitted
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X-ray Spectroscopy of High-Z Elements on Nike[1] Y. AGLITSKIY, SAIC, J.L. WEAVER, M. KARASIK, V. SERLIN, S.P. OBENSCHAIN, Plasma Physics Division, NRL, YU. RALCHENKO, NIST — Survey X-ray spectrometer covering a spectral range from 0.5 to 19.5 angstroms has been added to the spectroscopic suite of Nike diagnostics. That allows simultaneous observation of both M- and N- spectra of W, Ta and Au with high spectral resolution. Low energy test shots confirmed strong presence of 3-4 transitions of Ni-like W, Ta and Au with X-ray energies as high as 3.5 keV when above mentioned elements were used as the targets. In our continuous effort to support DOE-NNSA's inertial fusion program, the future campaign will cover a wide range of plasma conditions that result in relatively energetic X-ray production. Eventually, absolutely calibrated spectrometers of similar geometry will be fielded at NIF in cooperation with NIF diagnostic group.

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