

Abstract Submitted  
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**Measurements of the Polarization of Spectral Lines of Highly Ionized Ions Using a Two-Crystal Technique**<sup>1</sup> A.J. SMITH, Department of Physics, Morehouse College, Atlanta, GA 30314, P. BEIERSDORFER, K.J. REED, Lawrence Livermore National Laboratory, Livermore, CA 94550 — We Have measured the polarization of various spectral lines of highly ionized ion species including the intercombination line of heliumlike vanadium, the resonance lines of heliumlike and lithiumlike sulphur as well as of neonlike and fluorinelike iron. The lines were excited directly by electron impact in the LLNL electron beam ion trap (EBIT-I or EBIT-II) and the polarization measurements carried out using a two-crystal technique. The results of our measurements are important for the diagnostics of astrophysical as well as of laser-produced plasmas. In this presentation we compare our results with theory.

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