Abstract Submitted
for the DPP08 Meeting of
The American Physical Society

LoWEUS, the Long Wavelength Extreme Ultraviolet Spectrometer, on the NSTX tokamak[1] JAAN LEPSON, Space Sciences Laboratory, PETER BEIERSDORFER, Lawrence Livermore National Laboratory, MANFRED BITTER, LAYNE ROQUEMORE, GRETCHEN ZIMMER, Princeton Plasma Physics Laboratory — LoWEUS is a high-resolution ($\lambda/\delta\lambda =\sim 200$) grazing-incidence grating spectrometer from the LLNL electron beam ion trap program that was installed on the NSTX tokamak in the spring of 2008 to monitor emission lines in the long wavelength extreme ultraviolet band. As currently set up, LoWEUS covers the 55-225 Å region, which includes important emission lines of oxygen and iron, among others. Most importantly, it observes the emission from hydrogenlike and heliumlike lithium (Li^{2+} and Li^{+}, respectively). LoWEUS is thus complementary to the XEUS (also from LLNL) and SPRED spectrometers. The initial operation of LoWEUS, which was cut short by a valve issue, enabled us to perform a survey of emission lines of intrinsic impurities in NSTX.

[1]This work was performed under the auspices of the U.S. DOE by LLNL under contract DE-AC52-07NA27344 and by PPPL under contract DE-AC02-76CHO3073.

Jaan Lepson
Space Sciences Laboratory

Date submitted: 22 Jul 2008 Electronic form version 1.4