

Abstract Submitted
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Development of High-Resolution UV-VIS Diagnostics for Space Plasma Simulation¹ ANDREW TAYLOR, OLEG BATISHCHEV, Northeastern University — Non-invasive far-UV-VIS plasma emission allows remote diagnostics of plasma, which is particularly important for space application. Accurate vacuum tank space plasma simulations require monochromators with high spectral resolution (better than 0.01Å) to capture important details of atomic and ionic lines, such as Ly-alpha, etc. We are building a new system based on the previous work [1], and will discuss the development of a spectrometry system that combines a single-pass vacuum far-UV-NIR spectrometer and a tunable Fabry-Perot etalon.

[1] O. Batishchev and J.L. Cambier, Experimental Study of the Mini-Helicon Thruster, Air Force Research Laboratory Report, AFRL-RZ-ED-TR-2009-0020, 2009.

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Andrew Taylor
Northeastern University

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