

Abstract Submitted  
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**Reflectivity Tests for the High Threshold Čerenkov Counter Mirrors for the CLAS12 detector at JLab**<sup>1</sup> HARNEET GREWAL, California State University, Dominguez Hills, ANDREW PUCKETT, YOURI SHARABIAN, Thomas Jefferson National Accelerator Facility, JOHN PRICE, California State University, Dominguez Hills — The CEBAF accelerator at the Thomas Jefferson National Accelerator Facility is currently undergoing an energy upgrade from 6 to 12 GeV. As a result of this, the existing CLAS Čerenkov counter is not sufficient to distinguish electrons from pions. To alleviate this situation, a new, High-Threshold Čerenkov Counter (HTCC) is being built to allow  $e/\pi$  separation up to a momentum of 5 GeV. This new detector will utilize a mirror assembly to direct the Čerenkov photons into a region of the detector with a low magnetic field, and that is free from other detector elements. To maximize the efficiency of the HTCC, the mirror reflectivity is a critical parameter. It is also important to minimize the amount of material in the mirrors, to avoid degrading downstream measurements of the energy and momentum of the outgoing particles. Doing all of this, while maintaining the overall construction cost within stringent limits presented a challenge on several fronts. This talk will discuss the requirements for the HTCC, and will highlight the construction of the test stand currently in use for the mirror reflectivity tests. The present status of the reflectivity test will also be discussed.

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