

Abstract Submitted
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Development of Mirrors for the CLAS12 High Threshold Čerenkov Counter¹ EMMANUEL ANGULO, JOHN PRICE, CSU Dominguez Hills, YOURI SHARABIAN, Thomas Jefferson National Accelerator Facility — The Thomas Jefferson National Accelerator Facility (JLab) has begun an ambitious program to upgrade its beam energy from 6 GeV to 12 GeV. CLAS, one of the detectors at JLab, is being upgraded (to “CLAS12”) to accommodate the higher energy. The existing Čerenkov counter in CLAS will be unable to distinguish electrons from pions at the higher beam energy, which necessitates the construction of a new, High-Threshold Čerenkov Counter (HTCC). An important part of the HTCC is the light collection system, which utilizes high-quality, extremely lightweight mirrors to reflect the Čerenkov light to a set of photomultiplier tubes located at the back of the detector. To ensure uniformity in performance, it is important to simplify as much as possible the construction of these mirrors. This talk will discuss the properties of CLAS12 and the HTCC, and will describe the technique to be used in the construction of the mirrors.

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