Contribution ID: **52** Type: **not specified**

Studies of the Aging Properties of the Mu2e Cosmic Ray Veto System

The Muon-to-Electron Conversion experiment (Mu2e) operates at extremely high sensitivities, requiring a means of reducing experimental background. The Cosmic Ray Veto system (CRV) is a particle detector that will surround the Mu2e apparatus to veto penetrating particles that present background. The CRV must have a detection efficiency of 99.99% throughout the expected three year lifetime of the Mu2e experiment. The CRV is comprised of extruded polystyrene scintillating strips and fiber which degrade over time, decreasing the efficiency of the CRV. Using a standard accelerated aging technique, several scintillator and fiber samples were heated to increase their rate of degradation. The results of these studies and the impact of aging on the CRV will be presented.

Primary author: OKSUZIAN, Yuri (Virginia)

Co-author: GROUP, Craig (University of Virginia)

Presenter: OKSUZIAN, Yuri (Virginia)

Session Classification: Posters & welcome receiption