Muon Contribution to Cathodoluminescence Tests?

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MUON CONTRIBUTION TO CATHODOLUMINESCENCE TESTS?

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The chamber simulates the space environments:

- Pressure (<10^{-8} torr)
- Temperature (40K-340K)
- Electron energy (200eV-30keV)
- Electron flux (0.1-100 nA/cm^2)
Various detectors are used to capture photon emission caused by electron bombardment “Cathodoluminescence”
Short-duration (<<1 s), High intensity luminous electrostatic discharges between the insulator and ground.
Short-duration (<<1 s), High intensity luminous electrostatic discharges between the insulator and ground.
Lower intensity, continuous surface cathodoluminescent
Lower intensity, continuous surface cathodoluminescent
Intermediate-duration (10-100 s), Intense surface emissions
Intermediate-duration (10-100 s), Intense surface emissions
Muons are the product of pion interactions with atmospheric particles

Drake - Chasing a Cosmic Engine Science News July 14, 2012
Cosmic ray flux vs particle energy

*Solar Cosmic rays

*Galactic Cosmic rays

Extragalactic Cosmic rays

Maximum Likelihood occurs at ~ 30 deg off Zenith
Two coincident scintillator setups. Both arranged with the sample in the on axis path.
Thank you.

Questions?