Contribution ID: **324** Type: **Oral**

Properties of Cosmic Beryllium Isotopes: Results from the Alpha Magnetic Spectrometer

Tuesday 26 August 2025 15:05 (15 minutes)

Beryllium nuclei in cosmic rays are expected to be secondaries produced by the fragmentation of primary cosmic rays during their propagation in the Galaxy. Therefore, their fluxes contain essential information on cosmic ray propagation and sources. Secondary-to-primary flux ratios provide measurements of the material traversed by cosmic rays in their journey through the Galaxy. The 10Be/9Be ratio measures the cosmic ray propagation volume in the Galaxy. Current measurements of the 10Be/9Be ratios are limited to energies below 2 GeV/n (~5.5 GV) , and are affected by large uncertainties. Individual fluxes of 7Be, 9Be and 10Be, have only been measured below 0.4 GeV/n. (~1.9 GV). In this contribution, we present the measurement of the 7Be, 9Be, 10Be fluxes and their ratios, in the uncharted energy region ranging from 1.9 GV Gv to 40 GV based on data collected by AMS during its first 13.5 years of operation on the International Space Station.

Collaboration you are representing

AMS collaboration

Author: CHEN, Yao (山东高等技术研究院)

Presenter: CHEN, Yao (山东高等技术研究院)

Session Classification: High-Energy Astrophysics and Cosmic Rays

Track Classification: High-Energy Astrophysics and Cosmic Rays