

[IM-06] Measurements of relative abundance of high-energy cosmic-ray nuclei in the TeV/nucleon region

Shinwoo Nam, Jina Jeon, Gowoon Na, Jiwoo Nam, Il H. Park, Nahee Park, and
Jongmann Yang

Department of Physics, Ewha Womans University

We present data for the relative abundance of cosmic-ray nuclei measured in the TeV/nucleon region from the second flight of the Cosmic Ray Energetics And Mass (CREAM) balloon-borne experiment. Energy was determined using a sampling tungsten/scintillating-fiber calorimeter, while charge was identified precisely with a dual-layer silicon charge detector installed for this flight. The data for the primary-to-primary element ratios C/O, Ne/Si, and Mg/Si agree with measurements at lower energies. The source abundance of N/O is found to be $0.08 \pm 0.06 \pm 0.02^{+0.01}_{-0.02}$, assuming an escape parameter of 0.6. The comparison to local galactic abundance is made as a function of first ionization potential.