THE CNO CONCENTRATION IN COSMIC RAY SPECTRUM AS MEASURED FROM THE ATIC EXPERIMENT[1]

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We present preliminary results on the spectra of CNO nuclei in the cosmic radiation as measured in the first flight of the Advanced Thin Ionization Calorimeter Balloon Experiment (ATIC) which lasted for 16 days, starting in December, 2000 with a launch from McMurdo, Antarctica. ATIC is a multiple, long duration balloon flight, investigation for the study of cosmic ray spectra from below 50 GeV to near 100 TeV total energy, using a fully active Bismuth Germanate (BGO) calorimeter. It is equipped with the first large area mosaic of small fully depleted silicon detector pads capable of charge identification in cosmic rays from H to Fe. As a redundancy check for the charge identification and a coarse particle tracking system, three projective layers of x-y scintillator hodoscopes were employed, above, in the center and below a Carbon interaction 'target'.

[1]Work was supported by NASA, LA Borad of Regents, and Environmental Technology Consortium/DoE.