

PRELIMINARY RESULTS FROM THE FIRST FLIGHT OF ATIC: THE SILICON MATRIX

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The Advanced Thin Ionization Calorimeter (ATIC) uses a silicon matrix detector to determine charge in conjunction with a scintillator hodoscope that measures charge and trajectory. Cosmic rays that interact in a carbon target have their energy determined from the shower that develops within a fully active calorimeter composed of a stack of scintillating BGO crystals. The silicon matrix consists of 4480 individual silicon pads, each capable of measuring the signal from cosmic rays with atomic numbers from 1 to 26. Preliminary results will be presented describing the performance of the silicon matrix during the 16-day maiden flight of ATIC around Antarctica.