Contribution ID : **401** Type : **Poster**

# Revised Energy Spectra for Primary Elements, H - Si, above 50 GeV from the ATIC-2 Science Flight

*Wednesday, 4 July 2007 14:45 (0:00)*

## Abstract content

The Advanced Thin Ionization Calorimeter (ATIC) long duration balloon experiment had a successful science flight accumulating 18 days of data (12/02 - 1/03) during a single circumnavigation in Antarctica. ATIC measures the energy spectra of elements from H to Fe in primary cosmic rays using a fully active Bismuth Germanate calorimeter preceded by a carbon target, with embedded scintillator hodoscopes, and a silicon matrix charge detector at the top. Preliminary results from ATIC have been reported in previous conferences. The revised results reported here are derived from a new analysis of the data with improved charge resolution, lower background and revised energy calibration. The raw energy deposit spectra are de-convolved into primary energy spectra and extrapolated to the top of the atmosphere. We compare these revised results to previous data and comment upon the astrophysical interpretation of the data.

## If this papers is presented for a collaboration, please specify the collaboration

The ATIC Collaboration

## Summary

## Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 2 (OG part 1), pages 31-34

**Primary author(s) :** Prof. WEFEL, John (Louisiana State University)

**Co-author(s) :** Dr. ADAMS, JR., J. H. (Marshall Space Flight Center); Dr. ISBERT, J. (Louisiana State University); Dr. KIM, K. C. (University of Maryland); Dr. KOUZNETSOV, E. N. (Moscow State University); Prof. PANASYUK, M. I. (Moscow State University); Dr. PANOV, A. D. (Moscow State University); Dr. SCHMIDT, W. K. H. (Max-Planck Institut for Solar System Research); Prof. SEO, E-S (University of Maryland); Dr. SOKOLSKAYA, N. V. (Moscow State University); Dr. WATTS, J. W. (Marshall Space Flight Center); Dr. WU, J. (University of Maryland); Dr. AHN, H. S. (University of Maryland); Dr. ZATSEPIN, V. I. (Moscow State University); Dr. BASHINDZHAGYAN, G. L. (Moscow State University); Dr. CHANG, J. (Purple Mountain Observatory, Chinese Academy of Sciences); Dr.

CHRISTL, M. (Marshall Space Flight Center); Prof. FAZELY, A. R. (Southern University); Dr. GANEL, O. (University of Maryland); Dr. GUNASHINGHA, R. M. (Southern University); Dr. GUZIK, T. G. (Louisiana State University)

**Presenter(s) :** Prof. WEFEL, John (Louisiana State University)

**Session Classification :** Posters 1 + Coffee

**Track Classification :** OG.1.1