Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Abundance measurements of Zn, Ga, and Ge from the Cosmic Ray Isotope Spectrometer (CRIS) experiment on the Advanced Composition Explorer (ACE) satellite[1] W.R. BINNS, Washington University, St. Louis, MO 63130, A.C. CUMMINGS, California Institute of Technology, Pasadena, CA 91125, G.A. DENOLFO, NASA/Goddard Space Flight Center, Greenbelt, MD 20771, M.H. ISRAEL, Washington University, St. Louis, MO 63130, R.A. LESKE, R.A. MEWALDT, California Institute of Technology, Pasadena CA, 91125, T.T. VON ROSENVINGE, NASA/Goddard Space Flight Center, Greenbelt, MD 20771, E.C. STONE, California Institute of Technology, Pasadena CA, 91125, M.E. WIEDENBECK, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109 — The cosmic ray elemental abundances of Zn, Ga, and Ge provide important tests of the emerging model of the OB-association origin of galactic cosmic rays. These ultra-heavy (Z>29) nuclei are very rare and require an instrument with a large geometrical factor exposed over a long period of time. We have measured these abundances using the CRIS instrument, which has a large geometrical factor of about 250 cm2sr, on the NASA-ACE spacecraft. Over the 11+ years since launch in 1997 we have collected ∼400 nuclei with Z>29 at energies of ∼150 to 600 MeV/nucleon. These measured abundances relative to Nickel will be presented and compared with those expected if OB associations are the source of most galactic cosmic rays. Additionally, our measurements will be compared with results from the TIGER and HEAO-3 experiments.

[1]This research was supported by NASA under Grant NAG5-12929

Walter Binns
Washington University in St. Louis

Date submitted: 06 Jan 2009 Electronic form version 1.4