

Abstract Submitted
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Measurement of the Relative Abundances of the Ultra-Heavy Galactic Cosmic Rays ($30 \leq Z \leq 40$) at the Top of the Atmosphere with TIGER B.F. RAUCH, W.R. BINNS, M.H. ISRAEL, J.T. LINK, L.M. SCOTT, Washington University, St. Louis, 63130, USA, L.M. BARBIER, J.R. CUMMINGS, G.A. DE NOLFO, J.W. MITCHELL, R.E. STREITMATTER, NASA/Goddard Space Flight Center, Greenbelt, MD 20771, USA, S. GEIER, R.A. MEWALDT, S.M. SCHINDLER, E.C. STONE, California Institute of Technology, Pasadena, CA 91125, USA, C.J. WADDINGTON, University of Minnesota, Minneapolis, MN 55455, USA — Observations of Ultra-Heavy galactic cosmic rays (GCR) help to distinguish the possible origins of GCRs. The Trans-Iron Galactic Element Recorder (TIGER) is designed to measure the charge (Z) and energy of GCRs using a combination of scintillation counters, Cherenkov counters, and a scintillating fiber hodoscope. TIGER has accumulated data on two successful flights from McMurdo, Antarctica in December of 2001 and in December of 2003 with a total flight duration of ~ 50 days. The combined TIGER dataset achieved sufficient statistics and charge resolution to resolve ~ 140 particle with $Z > 30$, and provides the measurements to date for ${}_{30}\text{Zn}$, ${}_{31}\text{Ga}$, ${}_{32}\text{Ge}$, and ${}_{34}\text{Se}$. We present the preliminary abundances of the Ultra-Heavy GCRs derived from the combined dataset propagated to the top of the atmosphere, and discuss the results in the context of previous measurements and different GCR source models.

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