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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, MO 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 (UH) 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 four scintillation counters, two Cherenkov counters, and a scintillating fiber hodoscope. TIGER has accumulated data on two successful flights from McMurdo, Antarctica: the first launched in December of 2001 with a total flight duration of 31.8 days and the second in December of 2003 with a total flight duration of 18 days. The two flights of TIGER achieved sufficient statistics and charge resolution to resolve ∼140 particles with $Z > 30$, and have provided the best measurements to date for $_{30}$Zn, $_{31}$Ga, $_{32}$Ge, and $_{34}$Se. We present the relative abundances of the UH-GCRs as measured by TIGER and as propagated to the top of the atmosphere. These abundances are compared with GCR source models.

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