Abstract Submitted
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Ultra-Heavy Galactic Cosmic Ray Abundances from the SuperTIGER Instrument[1] RYAN MURPHY, W.R. BINNS, R.G. BOSE, P.F. DOWKONTT, M.H. ISRAEL, B.F. RAUCH, J.E. WARD, Washington Univ, T.J. BRANDT, G.A. DE NOLFO, T. HAMS, J.T. LINK, J.W. MITCHELL, K. SAKAI, M. SASAKI, NASA/GSFC, A.W. LABRADOR, R.A. MEWALDT, E.C. STONE, Caltech, C.J. WADDINGTON, Univ of Minnesota, M.E. WIEDENBECK, JPL — The SuperTIGER (Trans-Iron Galactic Element Recorder) experiment was launched on a long-duration balloon flight from Williams Field, Antarctica, on December 8, 2012. SuperTIGER flew for a total of 55 days at a mean atmospheric depth of 4.4 g/cm^2. The instrument measured the abundances of galactic cosmic rays in the charge (Z) range Z=10 to Z=40 with high statistical precision and excellent charge resolution, displaying well-resolved individual-element peaks at every charge up to and including Z=40. We will describe the instrument, data analysis techniques used, balloon flight, and payload recovery. The data that will be presented contain more than 600 events in the charge range from Z=30 to Z=40, with charge resolution at iron of <0.18 cu. Our results confirm with improved statistics the earlier results from TIGER supporting a model of cosmic-ray origin in OB associations, with preferential acceleration of refractory elements over volatile elements.

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