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CALET Ultra-Heavy Cosmic-Ray Analysis[1] WOLFGANG ZOBER, BRIAN RAUCH, Washington University, St. Louis, NICHOLAS CANNADY, UMBC/CRESST II/NASA GSFC, ANTHONY FICKLIN, Louisiana State University, AND THE CALET COLLABORATION — The Calorimetric Electron Telescope (CALET), launched to the ISS in August 2015, utilizes its main calorimeter charge detector to measure CR nuclei from $_{1}$H to $_{40}$Zr. In order to maximize the acceptance of the rare ultra-heavy (UH) CR above $_{30}$Zn, a special high duty cycle ($\sim 90\%$) UH trigger is used that does not require passage through the 27 radiation length deep total absorption calorimeter. This provides a $\sim 6\times$ increase in geometry factor, although reduced by ISS obstructions, allowing CALET to collect in 5 years a UHCR data set with statistics comparable to those from the first flight of the balloon-borne SuperTIGER instrument but without the need for atmospheric corrections. Previous CALET UHCR analyses using time and position corrections based on $_{26}$Fe and a geomagnetic vertical cutoff rigidity selection have shown abundances of even nuclei in agreement with SuperTIGER. To further improve resolution and maximize statistics a trajectory dependent geomagnetic rigidity selection is employed here as well as a novel independent analysis with L-shells. We present new results from the extended analysis of the UH spectra measured by CALET.

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