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Iron and Nickel fluxes measured by CALET on the International Space Station

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The study of the spectral behavior of heavy cosmic-ray elements may shed light on the details of propagation and acceleration phenomena in our Galaxy. The CALorimetric Electron Telescope (CALET) is measuring the spectra of heavy nuclei up to the highest directly observed energies on the International Space Station. In this contribution, based on the data collected during 7 years of operation, the measurement of the energy dependence of iron and nickel fluxes is presented. With respect to our previous published measurements, the analysis has been extended to a data sample enriched with more than 2.5 (1.5) extra years for iron (nickel). The results of the new analysis are reported together with a detailed assessment of systematic uncertainties. In the energy range explored so far, both spectra show a similar shape and energy dependence, suggesting that iron and nickel may follow almost identical acceleration and propagation mechanisms.

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