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Analyzing Cosmic Ray Elemental Spectra YUCA CHEN, EUN-SUK SEO, University of Maryland, College Park — Various balloon-borne and spacebased experiments have provided direct measurements of cosmic-ray elemental spectra for a wide energy range. Compiled for an element range from Z = 1 to 14 over an energy range of ~ 2 - 2 × 10⁵ GeV/n, the data were fit with a simple power-law $F = CE^{-\gamma}$ over small energy intervals. To examine the energy dependence of the individual fluxes of each element, detailed variations of the spectral indices were obtained as a function of energy in a model-independent way. Elements are classified into groups based on their energy-dependent behavior. Differences among groups will be presented and their implications will be discussed.

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