

SPECTRUM SCANS OF GLOBULAR CLUSTERS IN M87

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ABSTRACT

Spectrum scans at 10 Å resolution have been obtained for four likely clusters in the field of the giant elliptical galaxy NGC 4486 (M87), using the IPCS at the 4-metre Anglo-Australian Telescope. A wavelength range of 3500–7000 Å was covered, with the objects having brightnesses from $V=19.5$ to $V=19.8$ mag. Preliminary analysis suggests that one of these objects is comparable to the metal-richest known Galactic globular clusters, while the other three seem to be even more metal-rich. Alternative explanations, such as gross differences in the stellar mix within the M87 clusters compared to those in our own Galaxy, may account for the observed spectroscopic differences; quantitative analysis is just beginning.

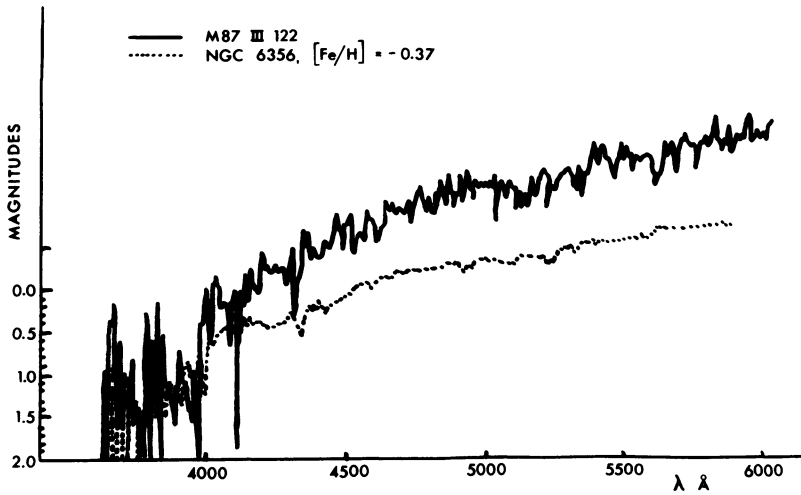


Figure 1. Comparison of a spectrum scan of NGC 6356, a metal-rich ($[Fe/H] = -0.37$) globular cluster in our own Galaxy, with a scan for a globular cluster in the M87 field. The pronounced continuum break at $\lambda \approx 4000$ Å and the broad continuum depression at $\lambda \lambda 5000$ - 5500 Å imply a much higher metallicity for this object than for NGC 6356. The clusters in M87 seem on average to be considerably metal-richer than those in our own Galaxy.