

Chemical Abundance Study of NGC 5694: A Globular Cluster with Dwarf Spheroidals' Chemical Signature?

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We report the abundance analysis of one red giant branch star in the metal-poor outer halo globular cluster NGC 5694. We obtain $[\text{Fe}/\text{H}] = -1.93$ dex and our metallicity measurement is in good agreement with previous estimates. We find NGC 5694 is very deficient in calcium, titanium, and copper. Comparisons of $[\text{Ca}+\text{Ti}/2\text{Fe}]$ and $[\text{Cu}/\text{Fe}]$ ratios with other globular clusters in our Galaxy and dwarf spheroidal galaxies are presented. Contributions from less massive Type II supernovae appear to yield low Ca, Ti, and Cu abundances in NGC 5694. It is most likely that NGC 5694 has an extragalactic origin.