

CEMP Stars as Probes of First-Star Nucleosynthesis, the IMF, and Galactic Assembly



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Observations of 200 New CEMP Stars from the South African Large Telescope

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Carbon-enhanced metal-poor stars belong to the second generation of stars to form in the Universe; as such, they are a valuable insight into nuclear processes and stellar environments that predate the formation of the Milky Way. At present, approximately one hundred and fifty CEMP stars have been studied via high-resolution spectroscopy. We have observed over 200 new CEMP stars at the South African Large Telescope and have analyzed a sizable subset of them thus far. We report the results of this analysis and discuss their implications for first star nucleosynthesis and Galactic chemical evolution.

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