

Abstract Submitted  
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**Using Chemical Compositions of Kinematically Selected Stars to Trace Galactic Mergers** DYLAN GREGERSEN, University of Utah — The chemical characteristic of low alpha element abundances distinguishes a few rare stars from their place among the halo population of our Milky Way. Encouraging the search for these stars, the unusual chemical nature is thought to distinguish them as remnants of a now merged extragalactic system. Until now, these stars have only been found serendipitously, on the order of a few in a thousand. In this talk, we report stars with low enhancements of alpha elements found within two kinematically distinct candidate moving clusters. Stars within these candidate moving clusters were distinguished from common halo stars by shared stellar characteristics: orbital energy, angular momentum, and overall chemical enrichment (Allen et al, 2007, Proc. IAU, 2: 405-413). We collected high-resolution spectra of these stars and employed multi-line analysis code with stellar models to determine their chemical compositions. This current research is part of a larger chemical composition investigation of these and other stars to search for other low alpha star tracers of the dynamic formation of our Galaxy.

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