

## Chemical abundances of light neutron-capture elements in metal-poor stars

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Metal-poor stars play a key role in understanding the nucleosynthesis of heavy elements in the early Universe, as their chemical abundances reflects the composition of the gas in which they formed.

High-resolution spectra show that metal-poor stars have robust chemical abundance patterns in the  $60 < Z < 70$  region, while variations are visible in region of the lighter heavy elements ( $30 < Z < 50$ ).

These abundance pattern variations seem to suggest that more than one formation site is responsible for the nucleosynthesis of these elements and/or that formation occurs under different physical conditions.

In this talk, I will present the abundances of heavy elements, including the poorly studied Mo, Ru, Pd and Ag, for a sample of 52 very metal-poor stars.

The talk will focus on exploring the impact of different neutron capture processes that synthesise heavy elements at low metallicity, comparing the observed chemical abundances with those predicted by theoretical models.

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