

Cobalt and copper in bulge moderately metal-poor stars

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The trans-iron elements with atomic numbers $27 < Z < 52$ are still not well understood (Peterson et al. 2020, A&A, 638, A64). There is some evidence for Ge to be classified rather as an iron-peak element than a neutron-capture element. In particular, abundances of Cobalt and Copper are of interest to elucidate their origin as neutron capture elements on iron-group nuclei during He burning and later burning stages, also called the weak-s component (Limongi & Chieffi 2003, ApJ, 592, 404), and the alpha-rich freeze-out in the deepest layers (Sukhbold et al. 2016, ApJ, 821, 38). Abundances in old stars of the Galactic bulge tend to show that conclude that both Co and Cu appear to be more dominantly produced rather by a weak s-process than by alpha-rich freeze-out.

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