The chemical composition of metal poor stars: Arcturus and HD221170

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We present the results of abundance determinations of heavy elements in the atmospheres of the brightest metal poor star Arcturus and HD221170. For Arcturus we used the spectral atlases of this star, for HD221170 several spectra obtained at 2 meter telescope of Terskol observatory (Nothern Caucases) with resolution 45000.

In the atmosphere of Acturus we found the abundances of r-, s-processes elements. The heaviest investigated elements are Th and U. We found Th/U ratio in Arcturus and estimated the age of this star. In the atmosphere of HD221170 we found the increasing of the abundances of heavy elements (with respect to iron abundance - [Fe/H] near -2).