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We present the results of stratification analysis for Mg, Si, Ca, Cr and Fe in the atmospheres of two Cr-type sharp-lined peculiar stars HD 133792 and HD 204411. Even in the absence of measurable magnetic fields their atmospheres are stable which is confirmed by zero microturbulence. Both stars are slightly evolved, their $\log g \approx 3.5$, their effective temperatures are 9200 and 8400 K, respectively. Moderate Cr and Fe stratification exists but abundances of these elements do not fall below the solar value throughout the atmosphere. Si and Ca are strongly stratified, in particular, in HD 133792, with large underabundance in the outer atmospheric layers. Abundance stratification in non-magnetic Ap stars is compared with the empirical stratification in the atmospheres of magnetic Ap stars in the same temperature range.
