## $\overline{\mathbf{FP19}}$ The $\Delta$ a research group

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We give a summary of more than 25 years of research within the three filter, intermediate-band,  $\Delta a$  photometric systems. It investigates the flux depression at 5200 Å found for magnetic chemically peculiar (CP) objects. Starting with photoelectric measurements it has steadily developed introducing new and more efficient filters as well as the modern CCD technique. Up to now, more than twenty papers were devoted to search for new CP stars in our Milky Way up to distances of 5000 pc and in the Large Magellanic Cloud. In the latter, the first extragalactical CP stars were detected. In addition, we have presented theoretical isochrones and synthetic colors from the newest available stellar atmospheres. The theoretical predictions agree very well with observations allowing not only to determine the reddening and age of open clusters from our photometry but also to investigate the flux depression at 5200 Å in more details. As an outlook, we present a new approach to search for chemically peculiar Field Horizontal Branch stars in globular clusters and to detect stellar variability of various objects observed during our photometric observations.

F: Chemically peculiar stars

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