

## STARS WITH ABNORMAL SPECTRA IN OPEN CLUSTERS

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From the literature a list of stars with abnormal spectra belonging to open clusters was compiled. This list is included in Lyngå's catalogue of open clusters. With this data it becomes possible to derive a correlation with the age, compiled by W. Buscombe and which appears also in Lyngå's catalogue.

The histograms for the Ap, Am and Be stars versus  $\log T$  are presented. The Ap stars appear in the clusters with a range of age,  $7 \leq \log T \leq 9$ . A maximum is present at about  $\log T = 8$ . For the Am stars, which total number is smaller than the Ap stars, the distribution includes ages between  $7.2 \leq \log T \leq 9$ . A very few additional stars are presented in clusters with ages  $\log T = 6.5$  and  $9.5$ .

In the case of Be stars, they are showing up in open clusters with ages  $5.6 \leq \log T \leq 8.4$ . A maximum appears at  $\log T = 7.2$ . It is obvious that all clusters with ages small enough to include B stars may have Be stars. The Wolf-Rayet stars appear in younger clusters, those with ages  $\log T < 7.1$ .

These statistics include slightly more than 200 stars with abnormal spectra belonging to 76 clusters, about half of the clusters listed with  $\log T$ .

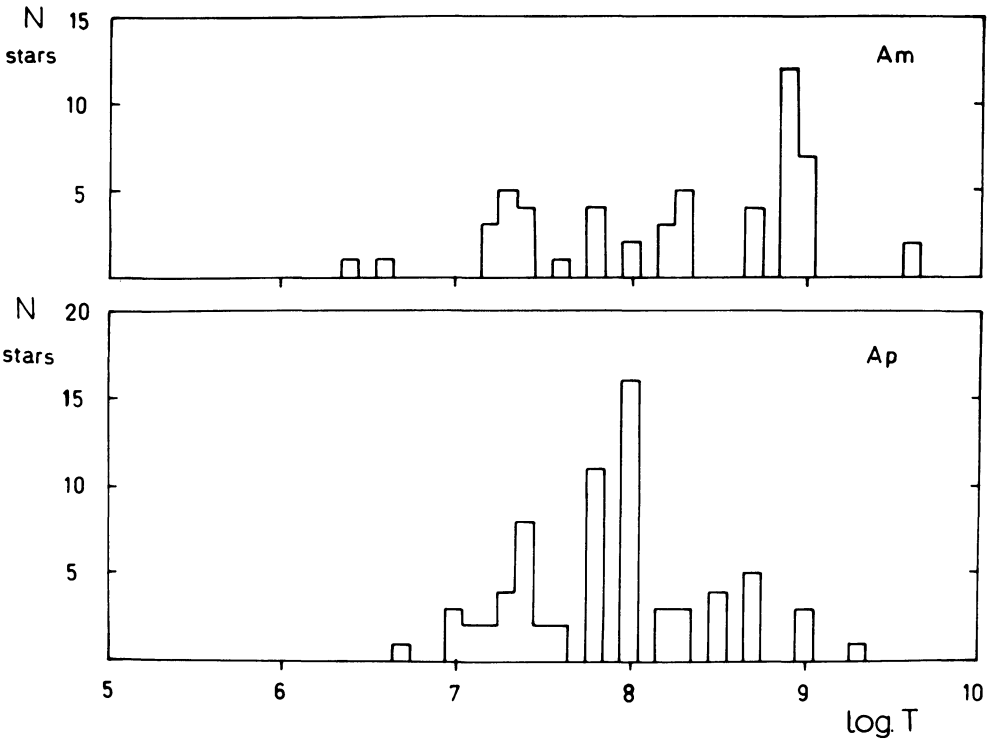


Figure 1. Histograms for the Ap and Am stars.

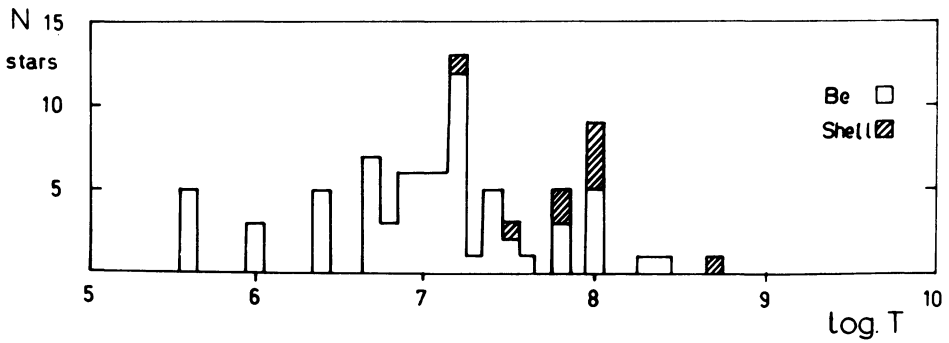


Figure 2. Histograms for the Be stars.