

K-LINE PHOTOMETRY: COMA AND NGC 6475

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ABSTRACT

Photometry of the K line of calcium in A-type stars is useful in segregation of Am stars and in estimating the metal abundance of field stars and of stars in clusters. To date, K-line photometry data for six clusters have been analyzed using uvby β data: Hyades, Pleiades, IC 2391, and IC 2602 (Hesser and Henry 1971), Orion (Hesser, McClintock, and Henry 1977), and Praesepe (Henry, Anderson, and Hesser 1977). We present similar analyses for the Coma and NGC 6475 star clusters, using the uvby β data of Crawford and Barnes (1969) and of Snowden (1976) respectively. The Coma stars closely resemble field stars. NGC 6475, on the other hand, is most remarkable. Of 31 stars for which complete data are available, 9 are metal-rich, 3 are metal-poor, and 19 (about 2/3 of the stars!) are Am.

REFERENCES

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DISCUSSION

SNOWDEN: I would like to comment on my four-color photometry of NGC 6475, which you used. These m_1 indices are probably more accurate than they are precise. In other words, they contain a fair amount of scatter. Also you should know that the observations were conducted differentially with respect to one or two cluster substandards. So, it would be easy to check my zero point simply by reobserving these two stars carefully.

ABT: NGC 6475 is a cluster with an unusually large number of Am stars of the early A type, like Sirius, that have primarily slightly weak K lines. Most of those stars are known spectroscopic binaries.