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SOME NEW POSSIBLE VARIABLE STARS

The Corralitos Observatory is at present involved in the photometric monitoring in BV colors of some 253 Be stars. In the course of the first year of this campaign it has been found that some of the comparison stars chosen for differential photometry of the Be stars may be variable in themselves. Normally two comparison stars are utilized for each potentially variable Be star in the event that one might prove to be inconstant in magnitude. Twenty-nine of these stars can no longer be used since they show deviations from mean magnitudes which suggest variability.

The criterion for variability in a comparison star was decided upon in the following way. Mean differences in V magnitude were found for (Comparison 1 - Comparison 2) and for each comparison star separately with the program Be star. Since 70% of the Be program stars appear to be nonvariable, it was usually easy to determine which of the comparison stars might be variable when the residuals from the means of all these differences were calculated. For the comparison stars whose magnitudes were considered to be constant, the average residual from the mean was found to be 0.008 magnitudes in V. For the purposes of this communication a comparison star was considered to be unusable for that purpose (and hence potentially variable in its own right) if the average residual from the mean was 0.020 magnitudes or greater. In those instances where the average residuals from the mean for both the comparison stars from each other and also from the program Be star were unacceptably great, it was indeterminable which comparison is potentially variable since the Be star may also be variable. Therefore, these stars are denoted with an asterisk in the table following.

The paucity of data and the non-uniform time intervals between observations prevent any statement on periodicity or total magnitude range from being made. The stars considered as possible variables and their spectral types follow. Spectral types are from the SAO CATALOG unless otherwise noted.

Table I

| STAR | SP. TYPE | | STAR | SP. TYPE |
|----------|----------------|-----|------------|------------|
| HD 27749 | Alm, F1 IIIIVs | (1) | HD 166053 | B9p Si (3) |
| 31342 | A0 | | 172948 | A2 |
| 32318 | A2 | | 177559 | B6 Vn (2) |
| 32640 | A2 | | 181414 | A2 |
| 34986 | B8 | | 192538* | A0 III (1) |
| 34974* | A0 | | 192605* | B9 V (1) |
| 34986* | B8 | | 198959* | G0 |
| 37200 | A3 | | 203169 | A2 |
| 40254* | B8 | | 204008 | A2 |
| 40366* | A3 | | BD+60 2231 | G5 V (4) |
| 50325 | A2 | | +54 2431* | G5 |
| 50772* | A0 V (2) | | +26 809 | A2 |
| 51331* | B8 | | +26 987 | A0 |
| 57297 | A | | +24 934 | A2 |
| 158440 | B8 | | | |

- (1) --- Kennedy, P.M. & Buscombe, W., MK SPECTRAL CLASSIFICATIONS PUBLISHED SINCE JASCHEK'S LA PLATA CATALOGUE (Evanston, IL), (1974).
- (2) --- Buscombe, W., MK SPECTRAL CLASSIFICATIONS: THIRD GENERAL CATALOGUE (Evanston, IL), (1977).
- (3) --- Buscombe, W., MK SPECTRAL CLASSIFICATIONS: FOURTH GENERAL CATALOGUE (Evanston, IL), (1980).
- (4) --- Buscombe, W., MK SPECTRAL CLASSIFICATIONS: FIFTH GENERAL CATALOGUE (Evanston, IL), (1981).

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