

SPECTRAL MORPHOLOGY IN SOUTHERN OPEN CLUSTERS AND ASSOCIATIONS
AT LA PLATA OBSERVATORY

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Our purpose is to describe the program on spectral classification of members of open clusters and associations started in January 1977 at La Plata Observatory. The program is essentially a continuation of the Abt and Levato studies made from Kitt Peak so, many details of it have been already described in Dr. Abt's paper in this volume. We have a list of 40 clusters and associations included in the program which consists in obtaining two sets of spectra in two dispersions, 39 Å/mm and 125 Å/mm, both sets 1.2 wide. These spectra, as has already been mentioned, are very useful for deriving accurate MK types and for discovering peculiar stars.

Since January 1977 we have completed at Cerro Tololo both sets of spectra in NGC 2287, NGC 6231, Bergh-Hagen N° 99 and the low dispersion set in Tr 16, Cr 228 and Praesepe. The faintest magnitude included is generally $B = 10.0$.

We have reduced this material in a preliminary way and we hope to make a definite spectral classification as soon as the Boller and Chivens spectracomparator, which has been ordered last March, arrives to La Plata. This is expected by the end of 1978.

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If the authorities of Cerro Tololo continue being so generous with the allocation of time as they have been until now, we hope to have in 5 or 6 years about fifty clusters with a good spectral morphology and rotational velocities determined. These are derived from the 39 Å/mm plates. This sample will permit us to discuss correlations, in particular with time scales, with a relatively large sample and, of course, any unexpected results may come up in a program like this.

The completion of the program can be speeded if La Plata 2.1m telescope and the Boller and Chivens Cassegrain spectrograph are available by the end of 1979 as it is scheduled.