SPECTRAL ENERGY DISTRIBUTIONS OF GALAXIES IN MODERATE REDSHIFT CLUSTERS

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ABSTRACT

We have observed 3 moderate redshift clusters using a combination of 7 intermediate band filters and 2 CCDs in order to derive photometric information for cluster galaxies from 400 nm to 900 nm. Preliminary results are presented for 2 clusters: Abell 1942 (z=0.224) and Abell 1525 (z=0.259) from 580 nm to 860 nm. The CCD photometry reaches a limit equivalent to R_F=21 mag with a precision of better than 0.1 mag. The galaxy colours derived from the intermediate band measurements are generally consistent with those expected at the appropriate redshift. However, in Abell 1525, and to a lesser extent in Abell 1942, a large proportion of cluster members have far red (720-860 nm) colours redder than expected. Many of these galaxies have blue photographic B_J-R_F colours. A possible explanation for the anomalous CCD colours is that these galaxies possess a strong emission line component which enters the far red filter at z=0.25.

G. O. Abell and G. Chincarini (eds.), Early Evolution of the Universe and Its Present Structure, 107.