REDDENING DISTANCES FOR PLANETARY NEBULAE FROM BROAD BAND BVIc CCD IMAGING

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If the zero age main sequence is expressed in the (V–I) versus (B–V)–(V–I) plane the reddening lines are found to lie at a great enough angle to allow reasonably accurate spectral type classification for stars later than $\sim$ F5. Earlier spectral types can also be identified but with lower accuracy. Comparison with the Q method of UBV photometry and with spectra of some of the program stars shows that the BVIc technique produces reliable results. As late–type stars constitute the most numerous spectral types and are plentiful in all galactic plane directions BVIc reddening distances can be derived close to the desired direction (although to smaller distances than techniques that utilize early type stars). The applicability of the technique is further enhanced by the use of CCDs which generally have a spectral response well suited for BVIc imaging observations. Using the new technique the distance to the PN NGC2440 was found to be (3100 ± 320)pc.

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