TABLE 7

COMPILED CHARACTERISTICS FOR NGC 6830 AND NGC 6811

Cluster	Source	log age	Reddening $E(B-V)$ [mag]	Distance [kpc]	Metallicity
NGC 6830	Barkhatova (1957)	–	–	1.68	–
	Hoag & Applequist (1965)	–	0.51	1.38	–
	Becker & Fenkart (1971)	–	0.58	1.47	–
	Moffat (1972)	8.0	0.56	1.70	–
	Glushkova et al. (1999)	–	0.12	1.24	–
	Dias et al. (2002)	7.57	0.50	1.64	–
	Kharchenko et al. (2005)	7.52	0.50	1.64	–
	Paunzen & Mermilliod (2007)	7.57	0.50	1.64	–
	PP	7.69	0.63	1.88	+0.13
NGC 6811	Luo et al. (2009)	8.76	0.12	1.31	+0.02
	Paunzen & Mermilliod (2007)	8.80	0.16	1.22	–
	PP	8.27	0.14	1.64	−0.02

studies of proper motion, photometry and position of the stars. Membership probabilities, if compared with those of Sanders' (1971), are in rough agreement: all but two stars (W92 and W146) that we assign cluster membership are not assigned as members according to Sanders' probabilities, but it is equally true that those which we define as non-members are determined to be members by Sanders (1971). When the comparison is done with those probabilities of the compilation of Kharchenko et al. (2005) the conclusions are equally in agreement. There are two stars, W18 and W45 we define as members that Kharchenko et al. (2005) find to be non-members from the proper motion studies but members with the other two criteria. In conclusion, the comparison of our results with the others support our findings particularly because the results obtained from $uvby-\beta$ photometry are more accurate.

The DM and reddening determined from our photometry, although discordant from those derived from UBV photometry, is in agreement with that of Glushkhova, Batyrshinova, & Ibragimov (1999) who, from radial velocity measurements for 60 late-type stars and $UBVRI$ photoelectric photometry refined the distance modulus of the cluster to be 10.47 ± 0.08 mag and $E(B-V)$ of 0.12 ± 0.02, in agreement with the values we derived.

We were able to determine membership to the NGC 6811 open cluster of several variable stars. We found that six stars V1, V4, V10, V11, V13 and V16 are cluster members. On the contrary, V12, V14 and V15 are definitely non-member stars. For the rest not much can be said. Accurate temperature determination was done for each star.

NGC 6830. Again, since no previous $uvby-\beta$ exists, knowledge of the cluster rests on UBV photometry. Both the color-color and the color-magnitude diagrams do not show a clear main sequence which make the distance, age and reddening determinations ambiguous. We only measured nineteen stars, but with this small sample we determined some clustering of stars. Our findings coincide, within the uncertainties, with the previous distance, reddening and age determinations. Of course, many more data are needed to unambiguously establish the true nature of this cluster, but we emphasize that, since we observed all the bright stars, our conclusions are correct.

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