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MAGNITUDES OF BRIGHT VARIABLES IN THE DRACO DWARF GALAXY

Magnitudes for several of the brighter variables in the Draco dwarf spheroidal galaxy have been measured on a series of plates (IIa-0 or 103a-0 + GG385 filter) which are centered on several regions in the vicinity of the galaxy. These magnitudes are listed in Table I in which those plates prefixed with an "A" were taken with the University of Western Ontario 1.2-m telescope and the remaining plates were taken with the 1.5-m telescope of the Observatoire du Mont Mégantic of the Université de Montréal. The plates were measured on the UWO iris photometer using a standard sequence given by Stetson (1979). Because the plates cover somewhat different regions all the variables do not appear on some of the plates.

TABLE I

Blue magnitudes of Draco variables

Period (days)	V36	V134	V141	V157	V194	V203
	0.625463	0.592284	0.900868	0.936465	1.59013	----

PLATE	HEL.JD	MAGNITUDES					
A 569	41161.708	---	19.4 :	19.3	19.6 :	---	18.9
A1545	44432.785	19.75	18.8	19.3	19.3	18.75	19.0
A1546	44433.641	20.5 :	19.3	19.3	19.4	18.35	18.8
A1550	44459.628	19.85	19.3	19.05	19.75	18.7	18.85
A1552	44459.835	19.9 :	19.2	19.4	19.5	18.9	18.85
A1553	44460.622	---	18.75	19.2	19.5	18.35	18.9
341	44469.651	19.3	---	19.3	---	---	---
375	44691.703	19.65	19.2	20.2	19.5	18.75	19.25
A1585	44816.783	20.25 :	19.15	20.05	19.3	18.2	19.3
A1586	44816.830	19.75 :	19.25	---	18.5	18.3	---
460	45082.780	---	19.65	19.95	18.55	18.9	19.4
593	45791.832	20.4	19.65	19.8	19.0	18.55	19.5
594	45792.586	---	18.65	---	18.9	18.4 :	---
595	45792.686	---	18.6	---	18.8	18.15	---
596	45792.773	---	---	---	19.35	18.3 :	---
598	45793.672	---	19.05	---	18.9	18.65	19.5
599	45793.751	19.75	---	19.6	19.0	19.0	19.3
600	45793.840	20.0	18.7	19.1	19.35	19.35	19.5
602	45794.692	---	19.5	19.3	19.2	18.3	19.5
603	45794.803	---	19.55	19.2	19.35	19.35	19.5

Four of the measured stars, variables 134, 141, 157, and 194, have been shown to be anomalous Cepheids while V36 is an RR Lyrae star. Variable 203, although blue in color, was reported by Baade and Swope (1961) to show a slow variation of half a magnitude. The star was not observed to vary on the plates of Zinn and Searle (1976) but our observations confirm the type of variation reported by Baade and Swope.

The periods given in Table I are those which best fit both our data and the data of Baade and Swope as well as the data of Zinn and Searle. The periods are close to those given by Baade and Swope with the exception of V134 for which our data confirm the new period found by Zinn and Searle.

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