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**THE FIRST PHOTOELECTRIC OBSERVATIONS
FOR THE DOUBLE-MODE CEPHEID BD $-10^{\circ}4669$**

Antipin (1997) recently analyzed photographic archival plates at the Sternberg Astronomical Institute in Moscow and found that the star BD $-10^{\circ}4669$ is a double-mode Cepheid with the elements:

$$\text{fundamental: Max } JD_{hel} = 2447733.42 + 4.84125 \times E,$$

$$\text{first overtone: Max } JD_{hel} = 2441177.37 + 3.3853 \times E.$$

We observed the Cepheid photoelectrically at the South African Astronomical Observatory in April-May 1997 using the 50-cm reflector. A total of 35 $V(RI)_c$ measurements were obtained (Table 1), the accuracy of the individual data being near $\pm 0^m01$ in all filters. The elements cited above are used in Figures 1a and 1b for plotting our new observations.

Table 1

JD_{hel}	V	$(V - R)_c$	$(V - I)_c$	JD_{hel}	V	$(V - R)_c$	$(V - I)_c$
2450500+				2450500+			
41.6167	9.630	.706	1.412	77.6427	9.837	.735	1.474
68.5836	9.798	.743	1.460	78.5217	9.720	.721	1.440
70.6007	9.709	.701	1.412	78.5880	9.717	.725	1.443
72.4674	9.848	.743	1.510	78.6386	9.721	.720	1.440
72.5547	9.874	.765	1.517	78.6450	9.717	.727	1.440
73.4990	10.024	.766	1.542	79.5696	9.920	.765	1.516
73.5937	10.046	.783	1.546	80.4662	9.776	.720	1.450
73.6662	10.038	.772	1.549	80.5775	9.739	.715	1.434
74.5287	9.683	.702	1.397	80.6273	9.722	.707	1.427
74.5901	9.659	.689	1.388	82.5589	9.842	.745	1.494
75.4888	9.662	.690	1.401	82.6064	9.886	.753	1.492
75.5739	9.692	.716	1.434	82.6545	9.884	.761	1.511
75.6374	9.698	.703	1.423	83.5498	10.074	.783	1.553
76.5343	9.902	.735	1.512	83.6062	10.052	.766	1.541
76.6163	9.915	.763	1.524	84.5415	9.638	.685	1.381
76.6528	9.917	.762	1.520	84.5977	9.620	.686	1.375
77.5437	9.865	.739	1.489	84.6454	9.593	.662	1.365
77.6024	9.849	.742	1.479				

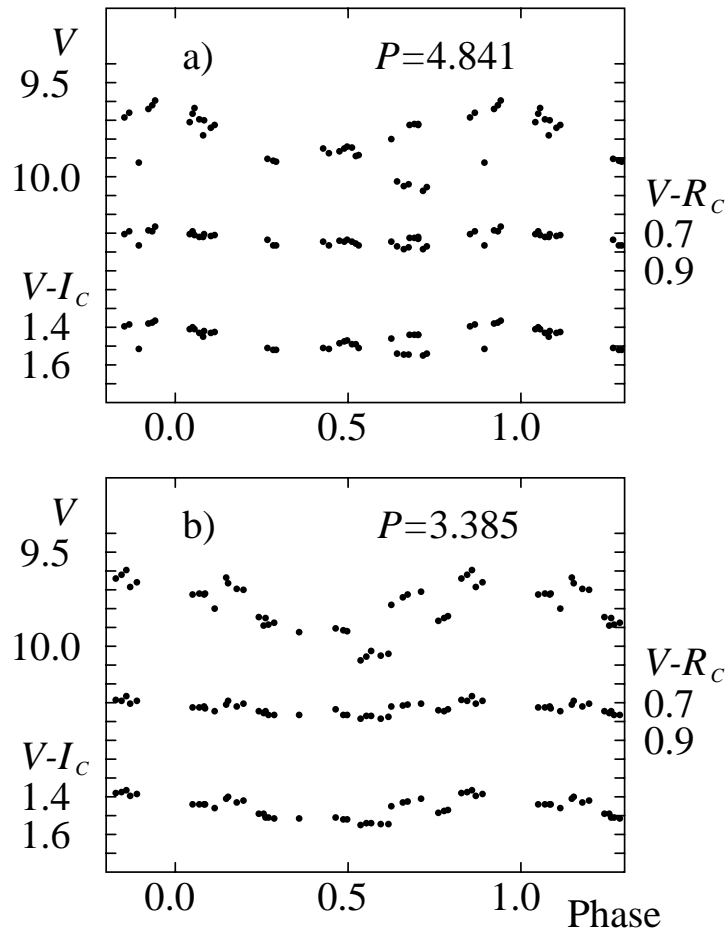


Figure 1

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Reference:

Antipin, S.V., 1997, *I.B.V.S.*, No. 4485