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**PHOTOELECTRIC OBSERVATIONS AND
NEW CLASSIFICATION OF V4061 Sgr**

V4061 Sgr was included in our program of photoelectric observations of Cepheids because it was listed in GCVS–IV as a possible Cepheid variable with light elements:

$$\text{Max JD}_{hel} = 2441842 + 92.2 \times E.$$

Our photoelectric $BV(RI)_c$ measurements were carried out at CTIO, Las Campanas, and Mt. Maidanak observatories from 1991 to 1995. Everywhere 60–cm reflectors were used, and 109 observations were obtained. Most of these observations have already been published (Berdnikov, 1992; Berdnikov and Vozyakova, 1995; Berdnikov and Turner, 1995a,b; Berdnikov, Vozyakova and Ignatova, 1996), and the rest is listed in Table 1, where the accuracy of the individual data is near 0.02 mag in all filters.

Table 1

JD hel 2400000+	V	$B - V$	$(V - R)_c$
48854.2256	11.380	1.729	0.944
48856.2081	11.438	1.645	0.958
48858.2059	11.433	1.654	0.941
48860.1985	11.441	1.685	0.903
48870.1877	11.409	1.666	0.915
48874.1417	11.314	1.795	0.852
48876.1505	11.390	1.680	0.892
48877.1457	11.465	1.667	0.963
48878.1704	11.381	1.726	0.924
48880.1404	11.391	1.697	0.918
48881.1362	11.395	1.666	0.932
48882.1459	11.453	1.633	0.956
48883.1455	11.404	1.632	0.935
48884.1446	11.492	1.651	0.919
48885.1439	11.371	1.639	0.944
48886.1443	11.419	1.647	0.926
48888.1451	11.382	1.688	0.901
48889.1634	11.496	1.619	0.910
48890.1358	11.439	1.632	0.974
48891.1356	11.366	1.640	0.900
48892.1360	11.445	1.701	0.883
48893.1332	11.375	1.691	0.879
48894.1433	11.427	1.631	0.899

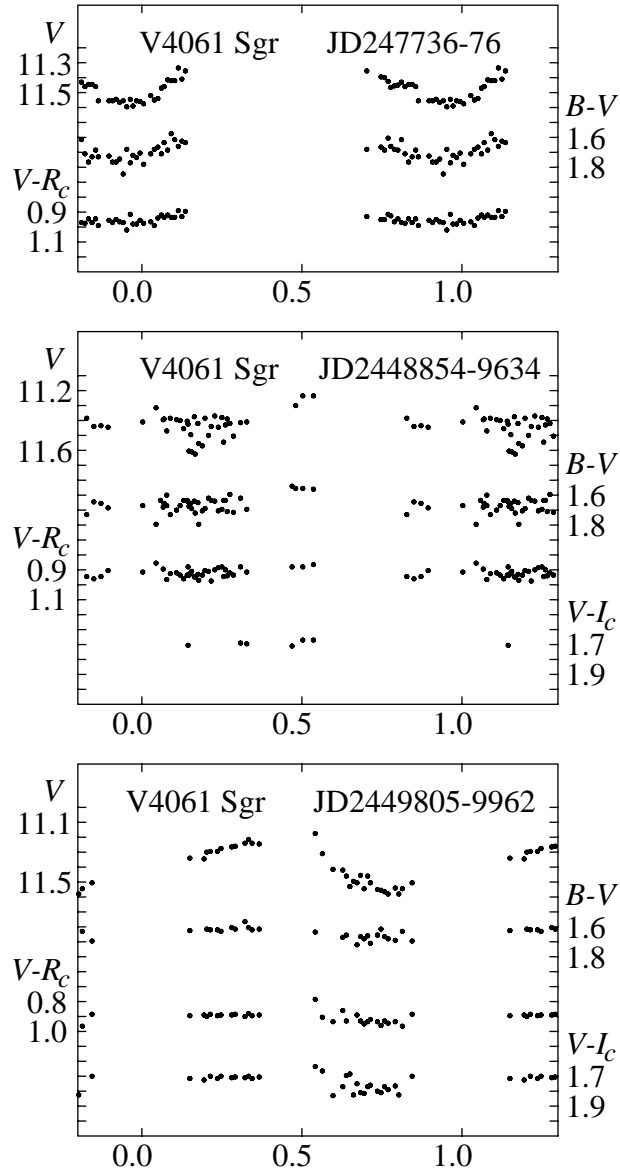


Figure 1

Moreover, the star was estimated by one of us (ENP) on 278 plates taken from JD 2441132 to 2448540 with the 40 cm astrograph in Crimea.

Both photoelectric and photographic light curves, constructed with the above elements, are shown in Figures 1 and 2 correspondingly. These Figures clearly show variations of the light curve shape. Therefore V4061 Sgr cannot be a Cepheid variable star. Most likely, it is a semiregular variable or an RV Tau type star. It is necessary to obtain more observations for certain classification.

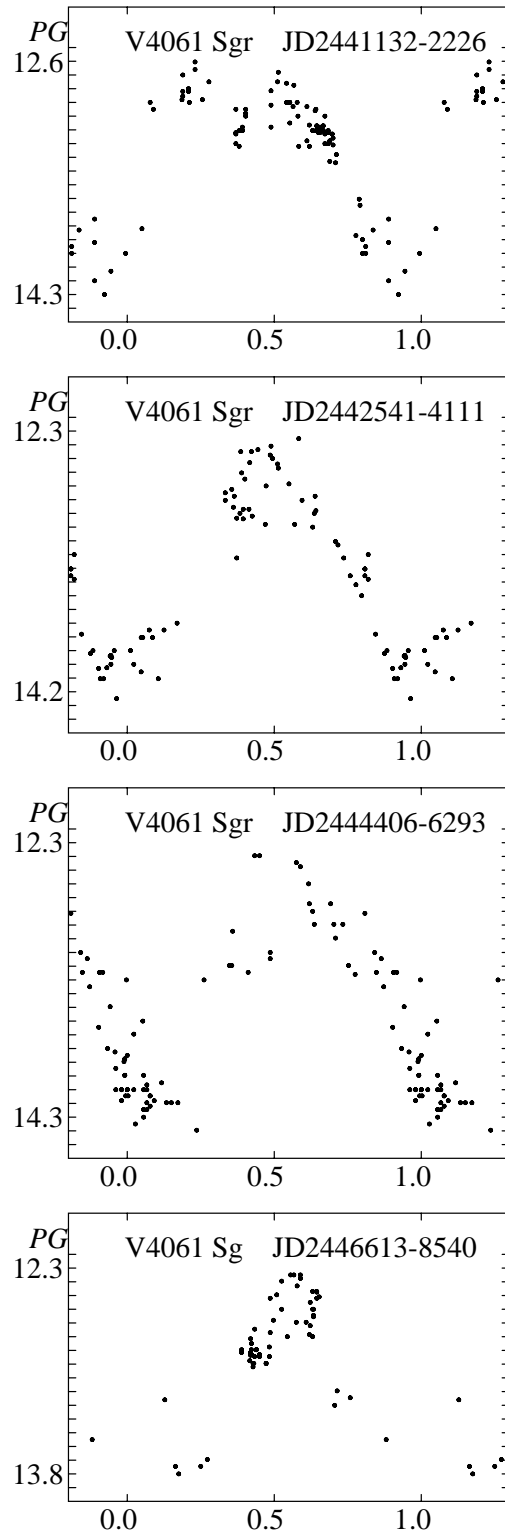


Figure 2

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