

New Short Periodic Eclipsing Binaries III

[A. V. Khruslov](#)

Russia, Tula

Received: 12.09.2008; accepted: 13.11.2008

(E-mail for contact: khruslov@bk.ru)

#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1		GSC 2283-00530	00 39 55.90, +34 14 52.6	EW	14.7	15.5	R	0.30510	2451469.814	min		Comm. 1	1.PNG	chart1.PNG	NSVS 6358239 NSVS 6346656
2		GSC 2275-01333	00 43 38.29, +30 12 44.9	EW	13.8	14.2	R	0.3189	2451453.702	min		Comm. 2	2.PNG	chart2.PNG	NSVS 6360549 NSVS 6389158
3		GSC 2797-01555	00 45 00.36, +38 43 56.0	EW	13.4	13.7	R	0.6480	2451486.803	min		Comm. 3	3.PNG	chart3.PNG	NSVS 3786351
4		GSC 2288-01173	00 45 38.63, +37 28 29.1	EW	13.8	14.6	R	0.394145	2451484.539	min		Comm. 4	4.PNG	chart4.PNG	NSVS 3786363 NSVS 6363342
5		GSC 2276-00403	00 46 37.74, +31 51 17.4	EW	13.6	14.4	R	0.34345	2451461.523	min		Comm. 5	5.PNG	chart5.PNG	NSVS 6363262
6		GSC 2288-01030	00 47 44.15, +36 02 23.2	EW	12.15	12.45	R	0.7752	2451464.040	min		Comm. 6	6.PNG	chart6.PNG	NSVS 6364807
7		GSC 2285-00896	00 54 53.20, +35 28 03.1	EW	13.9	14.3	R	0.36693	2451463.792	min		Comm. 7	7.PNG	chart7.PNG	NSVS 6370419
8		GSC 2277-00264	00 55 33.00, +31 32 57.8	EW	12.75	13.3	R	0.35621	2451486.775	min		Comm. 8	8.PNG	chart8.PNG	NSVS 6370664
9		GSC 2289-00267	00 56 11.68, +35 49 10.0	EW	13.3	13.6	R	0.49053	2451463.954	min		Comm. 9	9.PNG	chart9.PNG	NSVS 6371474
10		GSC 2281-01064	00 56 43.70, +32 53 36.0	EB	13.75	14.0	R	0.4563	2451479.532	min		Comm. 10	10.PNG	chart10.PNG	NSVS 6371700
11		GSC 2802-01663	00 57 28.89, +40 01 43.6	EW	13.5	13.9	R	0.36115	2451489.881	min		Comm. 11	11.PNG	chart11.PNG	NSVS 3798028
12		GSC 2277-01065	00 57 41.17, +31 09 15.7	EW	13.6	13.95	R	0.36755	2451478.637	min		Comm. 12	12.PNG	chart12.PNG	NSVS 6372333
13		GSC 2291-00266	01 19 15.03, +31 35 27.0	EW	13.4	13.7	R	0.43438	2451483.870	min		Comm. 13	13.PNG	chart13.PNG	NSVS 6441015
14		TYC 2291 01283 1	01 19 15.77, +30 13 39.0	EW	12.4	12.6	R	0.29028	2451493.572	min		Comm. 14	14.PNG	chart14.PNG	NSVS 6413244 NSVS 6441201
15		GSC 2304-00054	01 21 23.26, +35 50 12.3	EB	14.3	15.1	R	0.48558	2451478.609	min		Comm. 15	15.PNG	chart15.PNG	NSVS 6442191
16		TYC 2300 01607 1	01 22 35.69, +34 19 35.9	EW	10.65	11.05	R	0.70065	2451478.856	min		Comm. 16	16.PNG	chart16.PNG	NSVS 6443428
17		TYC 2300 00116 1	01 27 41.05, +33 51 55.5	EB	12.6	13.3	R	0.57723	2451479.632	min		Comm. 17	17.PNG	chart17.PNG	NSVS 6447718
18		TYC 2296 00441 1	01 29 47.93, +33 03 35.7	EW	10.75	10.95	R	0.32954	2451478.777	min		Comm. 18	18.PNG	chart18.PNG	NSVS 6449590
19		GSC 2814-00075	01 30 25.28, +39 18 29.6	EW	13.5	13.8	R	0.39902	2451462.747	min		Comm. 19	19.PNG	chart19.PNG	NSVS 3829896
20		GSC 2814-00799	01 31 30.48, +38 09 51.8	EB	13.8	14.4	R	0.6032	2451464.606	min		Comm. 20	20.PNG	chart20.PNG	NSVS 3831212 NSVS 6449773
21		GSC 2301-00477	01 31 30.52, +34 55 52.0	EW	14.2	14.6	R	0.4073	2451481.515	min		Comm. 21	21.PNG	chart21.PNG	NSVS 6450519 NSVS 6462391
22		GSC 2297-01518	01 32 30.76, +33 41 30.8	EW	14.1	14.5	R	0.3939	2451481.645	min		Comm. 22	22.PNG	chart22.PNG	NSVS 6451611 NSVS 6462740
23		GSC 2297-00616	01 34 21.89, +32 52 30.1	EA	13.7	14.3	R	0.76479	2451480.946	min		Comm. 23	23.PNG	chart23.PNG	NSVS 6453332 NSVS 6463781
24		GSC 2297-01430	01 34 30.92, +33 15 42.4	EW	14.0	14.4	R	0.3924	2451478.579	min		Comm. 24	24.PNG	chart24.PNG	NSVS 6453348 NSVS 6463987
25		GSC 2814-00762	01 36 14.68, +38 04 34.3	EW	13.9	14.3	R	0.51875	2451468.934	min		Comm. 25	25.PNG	chart25.PNG	NSVS 3835932

26	GSC 1762-00997	01 43 29.64, +29 52 40.5	EW	12.9	13.2	R	0.3843	2451506.570	min	Comm. 26	26.PNG	chart26.PNG	NSVS 6469942 NSVS 6498625
27	GSC 2294-00515	01 44 05.40, +30 51 22.7	EW	14.0	14.6	R	0.32657	2451491.775	min	Comm. 27	27.PNG	chart27.PNG	NSVS 6470618
28	GSC 2307-00239	01 53 07.96, +31 16 00.5	EW	12.3	12.65	R	0.54934	2451491.652	min	Comm. 28	28.PNG	chart28.PNG	NSVS 6478085
29	GSC 2820-00727	01 55 18.33, +40 55 33.1	EW	14.0	14.5	R	0.31596	2451493.621	min	Comm. 29	29.PNG	chart29.PNG	NSVS 3852939 NSVS 3962427
30	GSC 2816-01804	01 59 10.80, +38 12 32.7	EW	14.2	15.0	R	0.34744	2451507.780	min	Comm. 30	30.PNG	chart30.PNG	NSVS 3964576
31	GSC 2309-00569	02 10 15.47, +30 26 46.3	EW	14.2	14.8	R	0.2512	2451502.559	min	Comm. 31	31.PNG	chart31.PNG	NSVS 6542217
32	GSC 2314-00052	02 23 54.12, +32 49 44.8	EW	13.2	13.7	R	0.38292	2451495.822	min	Comm. 32	32.PNG	chart32.PNG	NSVS 6553449
33	GSC 2327-00544	02 29 41.03, +31 59 40.1	EA	11.7	12.15	R	0.57877	2451492.989	min	Comm. 33	33.PNG	chart33.PNG	NSVS 6558714
34	GSC 2849-00097	02 41 25.24, +39 47 28.4	EA	13.2	13.85	R	0.7153	2451478.755	min	Comm. 34	34.PNG	chart34.PNG	NSVS 4007915
35	GSC 2850-00871	02 55 48.24, +39 32 10.3	EW	13.6	14.2	R	0.31996	2451476.564	min	Comm. 35	35.PNG	chart35.PNG	NSVS 4022887
36	GSC 2850-01604	02 59 08.77, +40 36 20.2	EW	13.35	13.7	R	0.7738	2451486.772	min	Comm. 36	36.PNG	chart36.PNG	NSVS 4025921
37	GSC 4347-00937	05 34 48.31, +70 14 28.6	EW	13.9	14.7	R	0.38571	2451453.660	min	Comm. 37	37.PNG	chart37.PNG	NSVS 553685 NSVS 642447
38	GSC 4531-00915	07 43 19.35, +78 07 00.2	EB	14.4	14.9	R	0.47766	2451514.925	min	Comm. 38	38.PNG	chart38.PNG	NSVS 710928 NSVS 742664
39	GSC 4631-00275	09 08 49.08, +82 46 05.8	EW	13.8	14.5	R	0.33636	2451468.912	min	Comm. 39	39.PNG	chart39.PNG	NSVS 101360 NSVS 759243
40	TYC 4631 00110 1	09 10 26.81, +84 17 21.1	EW	12.7	13.3	R	0.34010	2451475.958	min	Comm. 40	40.PNG	chart40.PNG	NSVS 97741
41	GSC 4408-00474	13 43 13.80, +74 02 39.5	EW	14.4	15.1	R	0.38714	2451458.596	min	Comm. 41	41.PNG	chart41.PNG	NSVS 969665 NSVS 900857 NSVS 926915
42	GSC 3041-00445	14 20 14.72, +43 10 57.5	EW	14.3	14.8	R	0.27913	2451394.744	min	Comm. 42	42.PNG	chart42.PNG	NSVS 5100937
43	GSC 3502-00138	16 30 19.27, +48 13 43.6	EW	13.0	13.3	R	0.31008	2451391.579	min	Comm. 43	43.PNG	chart43.PNG	NSVS 5270256
44	GSC 4465-00277	21 33 17.11, +70 18 56.2	EW	13.7	14.2	R	0.61543	2451459.706	min	Comm. 44	44.PNG	chart44.PNG	NSVS 1356858

Comments:

1. MinII = 15.3. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
2. MinII = 14.15. Period P = 0.2750 d is not excluded.
3. MinII = 13.6.
4. MinII = 14.6.
5. MinII = 14.2.
6. MinII = 12.4.
7. MinII = 14.15.
8. MinII = 13.3.
9. MinII = 13.6:.
10. MinII = 13.85. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
11. MinII = 13.85.
12. MinII = 13.9. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

13. MinII = 13.65.
14. MinII = 12.6.
15. MinII = 14.6.
16. MinII = 11.05.
17. MinII = 13.0.
18. MinII = 10.93. Type ELL is not excluded. X-ray source 1RXS J012947.3+330349.
19. MinII = 13.75:.
20. MinII = 14.05. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
21. MinII = 14.6. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
22. MinII = 14.45. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
23. MinII = 14.3. D = 0.10P. The RS-type variability in maximum brightness is possible.
24. MinII = 14.3:.
25. MinII = 14.2. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
26. MinII = 13.2. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
27. MinII = 14.5: . The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
28. MinII =12.65. Very close pair of stars of similar brightness: 2MASS 01530806+3116012 and 2MASS 01530782+3115584. It is not possible to choose which star of the pair is variable. The amplitude of variability is underestimated.
29. MinII = 14.4.
30. MinII = 14.8.
31. MinII = 14.7. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
32. MinII = 13.6.
33. MinII = 12.07.
34. Independent discovery of variability. The period in Hoffman et al. (2008), $P = 0.55711$, is wrong. MinII = 13.4.
35. MinII = 14.1.
36. MinII = 13.7. Type EA is not excluded, D = 0.11P. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
37. MinII = 14.6. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.
38. MinII = 14.6.
39. MinII = 14.4. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

40. MinII = 13.2.

41. MinII = 15.1. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

42. MinII = 14.7.

43. MinII = 13.3.

44. MinII = 14.2. The ROTSE data with photometric correction flags (usually rejected) were kept for the analysis.

Remarks:

I present the discovery of 44 new short-period eclipsing binaries (mostly EW). A search for variables was carried out in the publicly available data of the Northern Sky Variability Survey (NSVS, Wozniak et al., 2004, also see <http://skydot.lanl.gov/nsvs>). These observations were analyzed using the period-search software developed by Dr. V.P. Goranskij for Windows environment. The coordinates were drawn either from the Tycho-2 or 2MASS catalogs.

References:

Hoffman, D.I., Harrison, T.E., Coughlin, J.L. et al., 2008, *Astron. J.*, 136, 1067
Wozniak, P.R., Vestrand, W.T., Akerlof, C.W. et al., 2004, *Astron. J.*, 127, 2436