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New estimates of SV Crucis (Errata: 10 146)

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TABLE 2 (continued).

B.D.	α 1950 ^o	δ 1950 ^o	dependences	B.D. or C.D.	α 1950 ^o	δ 1950 ^o	dependences
98 + 8 ^o 1826	^{h m s} 7 35 1 ^s 50	^{o ' "} 8 16 39 ["] 4	3515	103 + 9 ^o 1831	^{h m s} 7 56 32 ^s 71	^{o ' "} 9 1 24 ["] 6	1953 1889
+ 8 ^o 1842	7 37 10 ^s 69	8 44 1 ["] 8	4328	+ 9 ^o 1835	7 57 36 ^s 18	9 6 41 ["] 6	5084 5141
+ 8 ^o 1845	7 37 27 ^s 46	8 16 30 ["] 8	2158	+ 8 ^o 1945	7 58 31 ^s 56	8 30 59 ["] 9	2963 2970
99 + 9 ^o 1743	7 38 53 ^s 06	9 8 12 ["] 7	1935 1924	104 - 9 ^o 5709	21 16 28 ^s 28	9 22 53 ["] 7	5514 5623
LpzII 4066	7 40 58 ^s 48	8 23 44 ["] 9	2884 2859	- 9 ^o 5716	21 18 11 ^s 84	9 15 16 ["] 9	1897 1843
+ 8 ^o 1860	7 42 11 ^s 13	8 41 4 ["] 1	5182 5218	- 9 ^o 5724	21 19 17 ^s 73	9 32 25 ["] 5	2590 2534
100 + 9 ^o 1754	7 41 9 ^s 82	9 1 31 ["] 5	2985 2968	105 - 26 ^o 15887	21 52 32 ^s 53	25 49 21 ["] 8	2644 2665
+ 8 ^o 1871	7 44 32 ^s 37	8 29 4 ["] 8	3648 3634	- 25 ^o 15655	21 52 39 ^s 41	25 15 10 ["] 2	4119 4109
+ 9 ^o 1764	7 44 33 ^s 42	8 49 28 ["] 1	3368 3398	- 25 ^o 15690	21 56 16 ^s 71	25 35 36 ["] 6	3236 3227
101 + 8 ^o 1866	7 43 41 ^s 87	8 44 46 ["] 5	3930 3905	106 - 27 ^o 15622	21 44 36 ^s 26	27 5 10 ["] 7	6146 6151
+ 9 ^o 1768	7 45 24 ^s 75	8 57 35 ["] 5	3485 3499	- 26 ^o 15817	21 45 36 ^s 48	26 27 58 ["] 4	0098 0106
+ 8 ^o 1884	7 47 8 ^s 50	8 40 11 ["] 5	2584 2596	- 26 ^o 15858	21 49 43 ^s 98	26 15 29 ["] 7	3756 3743
102 + 8 ^o 1881	7 46 29 ^s 98	8 45 43 ["] 7	4236 4159	107 - 18 ^o 5815	20 54 32 ^s 92	18 2 14 ["] 2	0728 0732
+ 9 ^o 1774	7 46 49 ^s 56	9 4 50 ["] 9	2841 2857	- 18 ^o 5816	20 54 42 ^s 85	17 55 35 ["] 8	5032 5027
+ 8 ^o 1890	7 47 36 ^s 69	8 42 16 ["] 4	2923 2985	- 18 ^o 5836	20 59 3 ^s 98	18 21 11 ["] 2	4240 4241

New estimates of SV Crucis, by *J. de Kort*.

The variability of this star of the δ Cephei type was discovered and described by OOSTERHOFF ¹⁾. Estimates have now been made on 458 plates, including the plates discussed by OOSTERHOFF. The following comparison stars have been used:

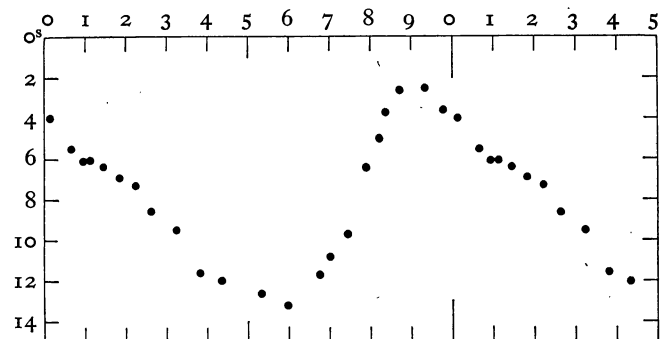
a	b	c	d
^s o	5 ^s 3	8 ^s 4	12 ^s 3
11 ^m 3	12 ^m 1	12 ^m 6	13 ^m 2

Of these a, b and c are the comparison stars adopted by OOSTERHOFF, the approximate coordinates of d as read from the diagram in his Figure 3 are 11^h 51^m 20^s8, - 61^o57'1 (1875). A comparison of these stars with S.A. 193 gave the zero point of the photographic magnitudes, the scale has been obtained from plates taken with a coarse grating in front of the objective.

TABLE 1. Epochs rising branch.

J.D. - 2420000	E	O-C	J.D. - 2420000	E	O-C
3800 ^o 95	- 336	- '70	6028 ^o 88	- 18	- '13
3941 ^o 81	- 316	+ '07	6028 ^o 92	- 18	- '09
3997 ^o 68	- 308	- '09	6113 ^o 26	- 6	+ '20
4285 ^o 23	- 267	+ '28	6113 ^o 13	- 6	+ '07
4285 ^o 11	- 267	+ '16	6119 ^o 90	- 5	- '17
4292 ^o 11	- 266	+ '16	6120 ^o 40	- 5	+ '33
4292 ^o 13	- 266	+ '18	8004 ^o 26	+ 264	+ '04
4292 ^o 21	- 266	+ '26	8004 ^o 46	+ 264	+ '24
4291 ^o 82	- 266	- '13	8003 ^o 87	+ 264	- '35
4291 ^o 76	- 266	- '19	8228 ^o 43	+ 296	+ '07
4585 ^o 88	- 224	- '25	8227 ^o 82	+ 296	- '54
4586 ^o 01	- 224	- '12	8249 ^o 10	+ 299	- '27
5328 ^o 77	- 118	+ '19	8249 ^o 41	+ 299	+ '04
5356 ^o 81	- 114	+ '21	8270 ^o 32	+ 302	- '06
5356 ^o 36	- 114	- '24	8641 ^o 97	+ 355	+ '36
5391 ^o 51	- 109	- '11	8641 ^o 93	+ 355	+ '32
5391 ^o 58	- 109	- '04	8662 ^o 63	+ 358	+ '01
5391 ^o 83	- 109	+ '21	8662 ^o 63	+ 358	+ '01
5616 ^o 36	- 77	+ '60	8662 ^o 33	+ 358	- '29

¹⁾ B.A.N. No. 148, 183 (1928), star σ .



The new elements derived for a point on the rising branch, where the brightness 8^s is reached, are

$$J.D. \text{ hel. M.A.T.Grw. } 2426155^{\text{d}}.09 + 7^{\text{d}}.00428 E \pm .04 \text{ (m.e.) } \pm .00018 \text{ (m.e.)}$$

This point precedes the equally bright point on the descending branch by P.476.

The present observations show the slight hump on the descending branch, which is characteristic of periods near 7^d 1).

For the phases of the mean light curve the following expression has been employed:

$$d^{-1} 14277 \text{ (J.D. hel. M.A.T.Grw. - 2420000)}$$

TABLE 2. Mean light curve.

n	\bar{P}	\bar{s}	n	\bar{P}	\bar{s}	n	\bar{P}	\bar{s}
23	0 ^o 13	3 ^s 97	23	3 ^o 24	9 ^s 50	10	7 ^o 88	6 ^s 42
20	0 ^o 66	5 ^s 49	30	3 ^o 83	11 ^s 59	10	8 ^o 19	4 ^s 97
20	0 ^o 95	6 ^s 10	32	4 ^o 35	12 ^s 00	20	8 ^o 36	3 ^s 73
20	1 ^o 13	6 ^s 06	30	5 ^o 32	12 ^s 63	20	8 ^o 71	2 ^s 60
23	1 ^o 46	6 ^s 39	31	5 ^o 98	13 ^s 21	19	9 ^o 32	2 ^s 52
22	1 ^o 84	6 ^s 92	20	6 ^o 76	11 ^s 68	20	9 ^o 79	3 ^s 58
20	2 ^o 25	7 ^s 29	13	7 ^o 01	10 ^s 81			
20	2 ^o 62	8 ^s 57	12	7 ^o 44	9 ^s 67			

¹⁾ B.A.N. No. 96, 115 (1926).