1998phae.proj..867F

KG
11365
866

HENRY DRAPER MEMORIAL.

Objects of Interest
found on
Southern Spectrum Plates

No 97 W.P.F.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

RG11865 866

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898pnae..proj...067F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

KG 11365.8.95

2

Objects of Interest on Southern Spectrum Plates.

HARVARD UNIVERSITY LIBRARY JUL 17 1956

Continued from B 95 p 218

No.	Plate	U.	Hr.	Object	Design.	R. A.	Dec.	Mag.	
Jan. 18, 1898	11191	20512	12.5	18.3 √ Mb	30181	21 58.8	-36 11	8	
	11192	"	14.4	12.2 √ Mb	29838	21 43.5	-37 10	8	
	11193	"	15.6	13.2 √ Mc	29901	21 46.2	-37 48	8¾	
	11194	"	20.1	15.8 √ Ma	-40° 14575	21 51.3	-40 7	8.0	
	11195	"	23.6	14.0 √ Mb	29939	21 48.2	-41 44	7¾	
	11196	20513	8.9	21.4 √ Ma	-14 6223	22 1.9	-14 36	8.2	1
	11197	"	9.1	14.7 √ Ma	-14 6163	21 48.3	-14 43	7.8	1
	11198	"	11.9	17.5 √ Ma	-16 6001	21 57.0	-16 5	8.5	1
	11199	"	17.1	16.3 √ Ma	-18 6047	21 51.5	-18 41	8.0	^
	11200	"	21.4	12.3 √ Mb	-20 6302	21 42.8	-20 52	8.0	1
	11201	"	23.4	14.5 √ Mb	-21 6120	21 47.5	-21 49	7.2	^
	11202	"	23.5	15.9 √ Mb	-21 6131	21 50.6	-21 52	6.2	^
	11203	20515	16.2	9.1 √ Ma	2202	2 3.2	-85 14	7.3	
	11204	"	21.6	15.4 √ Ma	Gilliss 4184	6 35.1	-88 20	7.6	(1850)
	11205	20516	15.2	21.7 √ Mb	7259	6 0.9	-60 6	7.0	
	11206	"	22.0	8.9 √ Ma	5971	5 6.8	-63 31	5.7	
	11207	20517	22.1	14.1 √ Mb	-3 3875	15 59.4	-3 29	7.5	^
	11208	20519	13.6	10.2 √ Ma	-1 99	0 39.8	-1 57	8.8	^
	11209	20520	17.1	18.3 √ Ma	32437	0 0.4	-43 27	7¾	8
	11210	"	22.4	10.6 √ Ma	32063	23 38.5	-46 1	7.1	
	11211	20521	11.6	20.5 √ Ma	2560	2 23.7	-30 53	8¼	
	11212	"	18.0	17.0 √ Ma	2378	2 15.4	-34 5	8	
	11213	"	21.4	10.8 √ Ma	2072	22 0.4	-35 45	7¾	
	11214	"	23.0	18.0 √ Ma	2434	2 17.9	-36 34	7¾	
	11215	20522	5.3	18.4 √ Ma	2C. 28	18 0.4	-47 38	8½	
	11216	"	5.5	16.5 √ Ma	24506	17 56.6	-47 43	8	
	11217	"	7.2	6.4 √ Ma	23761	17 26.6	-48 24	7¼	
	11218	"	9.6	14.0 √ Mc	C.P.D. -49 ~~10339~~ 10343	~~17 47.0~~ 17 47.3	~~-49 45~~ -49 47	~~10.0~~ 10.0	^
	11219	"	10.4	12.4 √ Ma	G.C. 2844	17 42.1	-50 9	8½	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1998phae..proj...867F

e. Dm. -47 12085 18 04 -47 ~~37.7~~ 38 8.6
e. Dm. -47 12024 17 54.7 -47 43.0 8.6
e. Dm. -48 11820 17 24.7 -48 22 8.1
e. Dm. -49 11810 17 47.3 -49 46 9.9 ✓
e. Dm. -50 11584 17 42.1 -50 9 9.1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	U. Hc.	Object	Design.	R. A.	Dec.	Magn.
11220	20522	10.6 12.1 ✓	Ma	24174	17 43.1	−50 16	7¾
11221	"	11.1 9.3 ✓	Mb	a.g.c. 23922	17 34.2	−50 27	6.9
11222	"	12.4 6.2 ✓	Pec	{C.P.D. −50 10154	17 22.4	−50 59	8.8}
11223	"	12.9 12.1 ✓	Ma	C.D.M. −51 11177	17 40.8	−51 23	9.6
11224	"	11.7 20.5 ✓	Ma	Z.C. 537	18 7.9	−50 46	8.0
11225	"	13.4 13.0 ✓	Md	~~Object~~ C.D.M. −51° 11224 1875 jan. 17	~~17 44.0~~ 17 43.7	~~−51.6~~ −51 38	9.8
11226	"	13.5 8.2 ✓	Mb	C.D.M. −51 11014	17 28.1	−51 ~~37.6~~ 36	9.1
11227	"	15.3 15.2 ✓	Mb	C.P.D. −52 10952	17 30.8	−52 37.7	9.9
11228	"	15.9 19.2 ✓	Mb	C.P.D. −52 11040	18 4.0	−52 52	9.2
11229	"	16.9 18.2 ✓	Mb	C.P.D. −53 8696	17 27.5	−53 19	9.5
11230	"	17.4 9.2 ✓	Cont.	{N.P.C. 6397 ~~a96 23883~~ ~~a86 23885~~	17 29.3 ~~17 32.5~~ ~~17 32.6~~	−53 ~~−53 36~~ ~~−53 37~~	1860 (1900) ~~10 (1900)~~ ~~10½ (1900)~~
11231	"	18.9 20.2 ✓	Ma	a.g.c. 24858	18 10.2	−54 22	7¼
11232	"	22.5 14.7 ✓	Mb	24355	17 51.2	−56 14	7¼
11233	"	22.6 15.8 ✓	Mb	Z.C. ~~17h 3586 36~~	17 53.9	−56 ~~19~~ 16	9
11234	20523	6.5 13.5 ✓	Mb	Z.C. 23h 709	23 26.2	−48 26	8½
11235	"	7.9 9.5 ✓	Ma	31596	23 13.7	−53 58	8
11236	"	20.0 16.8 ✓	Ma	32072	23 39.0	−55 0	7½
11237	"	22.8 17.4 ✓	Mb	32121	23 41.5	−56 22	7¼
11238	20525	7.8 12.6 ✓	Ma	−18 625	3 25.2	−18 58	8.4
11239	20526	5.8 15.9 ✓	Mb	C.D.M. −33 2029	4 53.5	−33 1	8.0
11240	"	6.3 15.7 ✓	Ma	5661	4 54.0	−33 14	7½
11241	"	12.7 11.6 ✓	Type IV	5429	4 43.8	−36 23	7½
11242	"	15.6 19.6 ✓	Ma	−37 2038	4h5 2.8	−37 52	8.5
11243	"	18.4 21.6 ✓	Ma	6000	5 8.9	−39 11	7¾
11244	"	24.2 17.2 ✓	Mb	Z.C. 4h 1975	4 57.0	−42 11	8
11245	20527	7.0 18.1 ✓	Ma	7755	6 19.2	−33 34	7
11246	"	14.5 20.5 ✓	Ma	7929	6 25.5	−37 17	8¼
11247	"	16.0 18.8 ✓	Ma	−38 2628	6 20.2	−38 1	8.7
11248	"	18.5 9.3 ✓	Ma	7134	5 56.7	−39 13	8¼

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

C.D.M.-50 11584 17 41.2 -50 15 7.5
C.Dm.-50 11474 17 32.3 -50 26 6.9
C.Dm.-50 11346 17 22.4 -50 58 8.5 New.

2.C. 5321 18h 7.8m -50 46.5 9½ superposed on "may affect class of spectrum".
C.Dm.-50 11826 18 7.9 -50 46 8.1
var ? 17 δ = 1.0 17 δ = 1.0? New on B 19961 Appnt. 17 47.0 -51.6
C.Dm.-51 11224 17 43.7 -51 38 9.8 N Arae.
See also B 21873

Cl. & neb? ~~In nebula.~~ Cluster
C.P.D.-54 8806 18 8.1 -54 22 8.0
C.P.D.-56 8524 17 49.1 -56 14 8.0
C.P.D.-56 8562 17 53.2 -56 16 8.5

Na 0.6 1.0, 0.5 0.5,

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Smithson Spectrum Plates.

No.	Plate	Y. No.	Object.	Design.	R. A.		Dec.		Magn.	
11249	20527	19.9	12.4 √ Ma	7360	6	4.8	-39	58	8¼	
11250	"	23.2	18.3 √ Ma	-41 2390	6	20.8	-41	36	8.1	
11251	"	24.1	15.0 √ Ma	Z.C. 6h 467	6	10.5	-42	4	9	
Jan. 19, 1898	11252	20528	6.0	11.3 √ Ma	Z.C. 18h 2196	18	38.4	-47	9	8.0
	11253	"	7.5	18.0 √ Bl. Lines	C.D.M.-48 12910	18	58.2	-48	46	9.2
					C.P.D.-48 10051	18	58.2	-48	46	9.8
	11254	"	14.0	10.1 √ Type IV	Z.C. 1935	18	33.2	-51	2	9.0
	11255	20529	6.3	11.8 √ Mb	27093	19	41.6	-38	5	7¾
	11256	"	7.3	14.9 √ Ma	27265	19	49.5	-38	35	7.0
	11257	"	6.3	16.8 √ Ma	27282		-			8 ?=
	11258	"	18.1	14.5 √ Ma	(2d. 1900)	19	48.2	-44	40	
					← C.Dm.-44 13614	19	46.6	-44	4	9.3
	11259	"	21.2	20.9 √ Ma	27655	20	6.8	-45	28	8
	11260	20530	5.6	15.8 √ Ma	30060	21	53.5	-37	45	8¼
	11261	"	7.3	15.4 √ Ma	-38 14814	21	50.9	-38	44	8.3
	11262	"	12.0	23.3 √ Ma	30459	22	13.4	-40	48	8¼
	11263	"	13.5	13.8 √ Mb	29939	21	48.2	-41	44	7¾
	11264	"	16.1	16.5 √ Ma	30111	21	55.8	-43	2	9½
	11265	"	17.5	20.2 √ Ma	30328	22	5.9	-43	38	8¼
	11266	"	22.5	16.8 √ Ma	30139	21	56.9	-46	12	8½
	11267	"	23.4	16.9 √ Ma?	30148	21	57.3	-46	37	7½
	11268	"	23.8	15.5 √ Ma?	30049	21	53.0	-46	49	7½
	11269	20531	11.2	9.9 √ Mb	30931	22	37.8	-40	39	8¼
	11270	"	12.5	17.6 √ Ma	31331	22	58.1	-41	21	6.9
	11271	"	16.8	18.9 √ Ma	31398	23	1.8	-43	31	8
	11272	"	16.9	20.3 √ Ma	31465	23	5.8	-43	31	8¼
	11273	20532	5.6	11.4 √ Ma	-17 547	2	43.0	-17	54	8.0
	11274	"	9.1	11.1 √ Ma	-19 533	2	42.2	-19	38	8.3
	11275	"	9.6	17.3 √ Ma	-19 591	2	55.3	-19	55	8.0
	11276	"	11.3	18.0 √ Ma	-20 575	2	56.8	-20	48	8.4
	11277	"	13.2	6.4 √ Ma	-21 470	2	32.0	-21	40	8.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

C.D.M.-47 12528 18 38.4 -47 55 7.7
var. ? Look up on another Sp. pl. ✓
Nd 0.7 1.0: 0.9 0.7 : 0.3 0.2 New on B19919 Announced later Type VI, Cir. 145
Z.C. 1935 18 33.2 -51.9
C.D.M.-51 11725 R 33.2 -51 52 9.3

C.D.M.-43 13746 19 53.1 -43 9 8.9

C.Dm.-43° 14845 21 54.2 -43 8.8 9.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U.	H.	Object.	Design.	R. A.		Dec.		Magn.	
11278	20532	14.0	8.2	√ Ma	−22 465	2	38.9	−22	5	8.3	1
11279	"	17.2	13.6	√ Ma	−23 1106	2	48.2	−23	40	8.0	1
11280	"	17.4	14.6	√ Ma	3147	2	51.5	−23	38	8½ (1900)	1
11281	"	19.2	20.7	√ Ma	3398	3	4.8	−24	31	8½	1
11282	"	22.8	14.4	√ Ma	3137	2	51.0	−26	21	7½	1
11283	20533	8.5	8.3	√ Ma	5291	4	37.8	−24	10	7½	
11284	20534	6.2	15.6	√ Ma	8762	6	54.9	−33	1	8¼	
11285	"	7.1	17.6	√ Ma	8897	6	59.8	−33	26	8	
11286	"	11.8	18.3	√ Mcsd	8954	7	1.7	−35	47	7½	
11287	"	12.6	14.2	√ Ma	8672	6	51.4	−36	12	8¼	
11288	"	22.2	14.4	√ Mb	C.D.M. −40° 2783	6	50.9	−40	60	8.5	
11289	"	22.7	16.5	√ Ma	G.C. 6h 2933	6	56.5	−41	13	8 9	
11290	"	24.7	14.3	√ Type IV	8670	6	51.3	−42	14	6.7	
11291	20535	6.4	16.2	√ Mb	−18 1498	6	32.7	−18	4	7.8	
11292	"	10.4	18.2	√ Mb	−20 1508	6	36.8	−20	1	8.7	
11293	"	10.6	10.4	√ Ma	−20 1386	6	20.1	−20	6	7.8	
11294	"	14.6	15.4	√ Mb	−22 1474	6	30.8	−22	9	8.3	
11295	"	18.0	23.4	√ Bilnis	8631	6	50.0	−23	48	7¼	
11296	"	18.9	18.3	√ Ma	−24 4356	6	38.0	−24	19	9.6	
11297	"	22.2	21.0	√ Ma	8480	6	45.0	−25	57	7¾	
11298	"	22.3	18.3	√ Ma	8307	6	39.1	−26	1	8½	
11299	"	24.2	12.0	√ Ma	−26 3056	6	24.2	−26	2	8.1	
11300	"	24.2	10.8	√ Ma	7848	6	22.5	−26	3	7½	
11301	20536	8.1	15.9	√ Ma	31616	23	14.4	−39	0	8½	
11302	"	12.9	9.7	√ Ma	31331	22	58.1	−41	21	6.9	
11303	"	14.5	19.9	√ Ma	C.D.M. −42° 16354 (1900)	23	23.9	−42	17	8.9	
11304	"	17.1	11.3	√ Ma	31398	23	1.8	−43	31	8	
11305	"	17.1	12.7	√ Ma	31465	23	5.8	−43	31	8½	
11306	"	19.3	13.3	√ Ma	31488	23	7.4	−44	36	8½	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

CDM -23° 1122	2	50.3	-23	43.6	8.1
CDM -24° 1462	3	3.8	-24	37.1	7.7
CDM -26° 1071	2	50.0	-26	27.0	7.6

var. ? New. (7 and on B7406 but not confirmed until now) A.G.C. 8954 7 1.7 -35.8

Na 0.8 1.0; 0.8 0.6; Known. A.G.C. 8670 6 51.3 -42.2

Type V. Known. A.G.C. 8631 6 50.0 -23.8

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U. H.	Object	Design.	R. A.	Dec.	Magn.	
11307	20537	14.9	13.7 ✓ Ma	A.G.C.	31551	23 11.2	-52 25	7¾ (1900)
11308	"	18.0	14.5 ✓ Ma	" " "	31596	23 13.7	-53 58	8 (1900)
11309	"	20.3	21.7 ✓ Ma	" " "	32072	123 39.0	-55 0	7.5 (1900
11310	20538	8.3	16.9 ✓ Ma	Z.C.	894	3 29.9	-79 6	8.5
11311	"	14.4	12.0 ✓ Mb	C.P.D.	-82 42	2 27.2	-82 7	9.0
11312	"	20.4	13.2 ✓ Mb	C.P.D.	-85 30	2 31.5	-85 10	8.6
11313	20539	5.2	13.5 ✓ Ma	C.P.D.	-67 198	2 56.6	-67 38	8.8
11314	"	8.9	11.5 ✓ Ma	Z.C.	1226	2 44.5	-69 25	9
11315	"	10.5	8.4 ✓ Mb	A.G.C.	2634	2 26.3	-69 58	7½ (1900)
11316	"	10.6	12.3 ✓ Ma	Z.C.	1326	2 48.5	-70 20	9
11317	"	21.9	17.1 ✓ Ma	Z.C.	504	3 17.5	-70 56	9
11318	"	12.8	9.8 ✓ Ma	A.G.C.	2789	2 32.8	-71 12	8 (1900)
11319	"	16.1	15.2 ✓ Ma	Z.C.	195	3 6.4	-73 6	9
11320	"	16.5	20.8 ✓ Ma	Z.C.	1359	3 44.8	-73	8.5
11321	"	18.1	12.9 ✓ Ma	Z.C.	1367	2 49.6	-74 5	8.5
11322	"	21.5	17.5 ✓ Ma	C.P.D.	-75 233	2 25.3	-75 43.2	9.2
11323	"	13.5	11.4 ✓ Mb	A.G.C.	2974	2 42.0	-71 38	7.5 (1900)
11324	20540	6.2	18.3 ✓ Br lines	Announced Dec. (Est. 1900)		5 22.5	-68.0 4	
11325	"	6.4	14.5 ✓ Ma	C.P.D.	-68 304	5 1.9	-68 12	9.1
11326	"	8.0	19.1 ✓ Br lines	Dec. C.P.D.	-69 379	5 28.5	-69 5	neb.
11327	"	8.7	21.2 ✓ Br lines	A.G.C.	6744	5 39.4	-69 9	6¼ (1900
11328	"	8.8	17.5 ✓ Br lines	Dec. C.P.D.	-69 456	5 39.6	-69 10	neb.
						5 18.9	-69 21	(1900
				C.P.D.	-69 356	5 19.1	-69 22	9.4
11329	"	8.8	13.2 ✓ Br lines	C.P.D.	-69 302	4 54.7	-69 24	9.6
11330	"	9.4	21.4 ✓ Br lines	-69° 1178 (Est. 1900)		5 41.0	-69 26	(1900) 10.1
11331	"	9.6	21.2 ✓ Br lines			5 40.7	-69 27	
11332	"	9.9	21.2 ✓ Br lines	C.P.D.	-69 466	5 39.9	-69 ~~38.6~~ 34	neb.
11333	"	9.7	17.7 ✓ Br lines	C.P.D.	-69 475	5 40.8	-69 42	9.9
						5 20.1	-69 45	(1900)
11334	"	9.9	20.5 ✓ Br lines	(Est. 1900)		5 36	-69.9	
11335	"	10.0	20.3 ✓ Br lines			5 35.2	-69 49	(1900)

-69 392 363 ?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

~~C.P.D.-52~~ C.D.M.	12133	23	9.8	-52	33 8.8
C.P.D.-54	10257	23	12.3	-54	6 8.2
C.P.D.-55	10080	23	37.6	-55	8 8.1
C.P.D. -79	102	3	29.9	-79	6 9.2

C.P.D.-67	198	2	56.6	-67	38 8.8
C.P.D. -69	149	2	44.5	-69	25 8.8
C.P.D.-70	155	2	25.9	-70	5 8.0
C.P.D.-70	182	2	48.5	-70	20 9.6
C.P.D.-70	220	3	17.5	-70	56 9.0
C.P.D.-71	144	2	32.5	-71	19 8.4
C.P.D.-73	202	3	6.4	-73	6 9.3
C.P.D.-72	260	3	44.8	-72	60 9.0
C.P.D.-74	233	3	49.6	-74	5 9.1
C.P.D.-75	233	3	25.3	-75	43 9.2
C.P.D.-71	159	2	41.8	-71	44 8.2

Gas net?

Gas net?

		Known as var. Type I, Hγ, Hβ, Hδ bright	5	18.9	-69	21
Gas net?	N.G.C. 1743	Known as Gas. Net.	4	54.6	-69	21
		Known as Type I, Hβ, Hγ, Hδ bright	5	41.0	-69	26
		Known as Gas. Net.	5	40.7	-69	27
		Known as Type V	5	20.1	-69	45
		Known as Type V	5	35.2	-69	49

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object.	Design.	R.A.			Dec.		Magn.	
11336	20540	10.1	21.6	✓ Bl nu ✓	(Est. 1900)	5	36	-69.9				
11337	"	10.1	12.7	✓ Ma ✓	C.P.D. -70	321	4	51.6	-70	2	8.9	
11338	"	10.4	18.5	✓ Mb	C.P.D. -70	389	5	25.4	-70	8	9.4	
11339	"	10.7	21.5	✓ Mb	C.P.D. -69	433	5	42.8	-69	5	9.8	
11340	20541	5.7	20.1	✓ Mb	a.G.C.	27615	20	3.5 / 20 5.7	-62 / -62	39 / 38	7.1 (1900)	
11341	"	6.5	11.0	✓ Mc	a.G.C.	26736	19	26.3	-62	58	8.5 (1900)	
11342	"	6.9	15.6	✓ Mb	J.C.	1854	19	44.3	-63	20	8.5	
11343	"	11.6	15.7	✓ Pec. Type IV	C.P.D.	3832	19	44.6	-65	41	9.2	
11344	"	14.3	16.9	✓ Ma	J.C.	2092	19	50.8	-67	2	9.0	
11345	"	15.6	18.8	✓ Ma	J.C.	40	20	1.3	-67	37	9.0	
11346	"	17.1	14.7	✓ Ma	J.C.	1671	19	39.4	-68	27	8.5	
11347	"	20.5	10.8	✓ Mc	C.P.D.	2644	19	16.9	-70	2	9.8	
11348	"	21.0	10.9	✓ Ma	a.G.C.	26576	19	19.8	-70	15	8 (1900)	
11349	"	22.2	10.8	✓ Mb	a.G.C.	26544	19	18.4	-70	52	8¼ (1900)	
11350	"	23.9	15.0	✓ Mcsd	Approx 1875 / C.P.D.-71	2486	19	41.4 / 41.5	-71	8 / 52	8.8	
11351	"	24.1	15.2	✓ Mb?	Approx 1875 / C.P.D.-71	2489	19	42.5 / 42.5	-71	9 / 54	9.4	
11352	"	16.6	23.3	✓ Ma	J.C.	841	20	25.1	-67	51	8½	
11353	20542	8.1	21.1	✓ Ma	J.C.	884	21	28.6	-63	54	8½	
11354	"	9.9	17.3	✓ Ma	J.C.	348	21	11.5	-64	56	8	
11355	"	11.7	22.0	✓ Type IV	Approx 1875		21	34.5	-65.6	37		
11356	"	15.0	9.8	✓ Ma	a.G.C.	28344	20	36.2	-67	15	8.5 (1900)	
11357	"	16.2	8.3	✓ Ma	J.C.	841	20	25.1	-67	51	8.5	
11358	"	17.7	20.9	✓ Ma	a.G.C.	29654	21	35.2	-68	31	7 (1900)	
11359	"	18.3	14.0	✓ Ma	a.G.C.	28823	20	57.3	-69	2	7.6 (1900)	
11360	"	20.2	17.9	✓ Mb	a.G.C.	29336	21	19.8	-69	57	5.9 (1900)	
11361	"	20.6	17.1	✓ V Type IV	a.G.C.	29252	21	15.2	-70	10	6.8 (1900)	
11362	"	21.2	14.9	✓ Ma	J.C.	1903	20	59.9	-70	35	9½ / 8½	
11363	"	24.3	16.5	✓ Ma	a.G.C.	29199	21	12.7	-72	0	7.4	
11364	20543	5.3	15.0	✓ Ma	J.C.	22649	22	21.8	-62	55	8½	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

C.P.D.-62 6147 20 3.5 -62 39 8.6

C.P.D.-63 4530 19 24.0 -63 2 8.9

C.P.D.-63 4549 19 44.3 -63 20 8.9
Count also on B 1901.3 and B 2044 near on B 1903
Compare with Nova Centaure on B 11451

C.P.D.-65 3832 19 44.6 -65 41 9.2
C.P.D. -65 3832 Appurt. for. 19 44.7 - 65.7
Wave Lengths of breaks in spectra do not coincide
announced later Type VI Cir 145

C.P.D.-67 3699 19 50.8 -67 2 9.8

C.P.D.-67 3716 20 1.3 -67 37 9.2

C.P.D.-68 3315 19 39.4 -68 27 9.1

C.P.D.-670 2644

C.P.D.-70 2646 19 17.1 -70 18 8.8

C.P.D.-70 2641 19 15.6 -70 55 9.1
Appurtenance 19 41.4 -71.8
var?
Appurtenance 19 42.5 -71.9
var?
The following plates have been examined and show a faint difference in the images on three plates. As both stars show a corresponding change it is probably a photographic effect due to color May be due to defect, look up on another Sp. pl. ~~Tolle objective plate~~ B1377 Shows no trace of bright hydrogen lines. They are probably and not to actual variation in light Feb. 26, 1898. due to defect on B20541.

C.P.D.-67 3748 20 25.2 -67 51 9.0

C.P.D.-63 4694 21 28.6 -63 54 9.2

C.P.D.-64 4124 21 11.5 -64 56 9.0

Na 0.7 1.0; 0.7 0.6; New. 1900 21 36.6 -65 30 Announced Type VI Cir 145 Appurt. for. 21 34.5 -65.6

C.P.D.-67 3757 21 33.9 -67 20 8.8

C.P.D.-67 3748 20 25.2 -67 51 9.0

C.P.D.-68 3440 21 33.1 -68 38 8.6

C.P.D.-69 3155 20 55.0 -69 8 8.5

C.P.D.-70 2850 21 17.5 -70 3 6.7

C.P.D.-70 2844 21 12.9 -70 16 8.15

Na known. A.G.C. 29252 21 15.2 -70.2

C.P.D.-70 2834 ~~21 0.5 -70 40 8.8~~ 3 20 59.8 -70 35 10.0 Type III conf. on B 38081

C.P.D.-72 2595 21 10.3 -72 6 8.1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U. H.	Object.	Design.	R. A.	Dec.	Magn.	
11365	20543	8.6 21.5	✓ Ma	J.C. 22h 1541	22 52.0	-64 22	8½	
11366	"	8.8 10.3	✓ Ma	J.C. 22h 78	22 2.3	-64 38	7	
11367	"	13.8 15.4	✓ Ma	J.C. 22h 720	22 24.2	-67 12	9	
11368	"	22.8 17.6	✓ Ma	31073	22 41.4	-71 28	7½	
11369	20544	6.5 15.9	✓ Ma	J.C. 21h 1404	21 45.0	-68 27	8½	
11370	"	6.9 13.8	✓ Ma	29654	21 35.2	-68 31	7	
11371	"	8.1 14.3	✓ Ma	J.C. 21h 1117	21 35.9	-69 15	8	
11372	"	9.8 11.2	✓ Mb	29336	21 19.8	-69 57	5.9	
11373	"	10.3 10.4	V ✓ Type IV	29252	21 15.2	-70 10	6.8	
11374	"	12.0 18.0	✓ Ma	J.C. 21h 1854	21 58.6	-71 8	9	
11375	"	14.0 10.4	✓ Ma	29199	21 12.7	-72 0	7.4	
11376	"	15.8 13.5	✓ Ma	J.C. 21h 916	21 29.6	-73 6	8½	
11377	"	16.3 16.8	✓ Mb sc	30087	21 55.2	-73 13	9	
11378	"	18.5 12.3	✓ Mb	29388	21 22.6	-74 20	7¾	
11379	"	18.5 16.3	✓ Ma	J.C. 21h 1569	21 50.0	-74 27	9	
11380	"	21.0 18.7	✓ Ma	30428	22 12.4	-75 29	8	
11381	20545	10.2 10.4	✓ Ma	double B.D. -10° 88	0 23.3	-10 13	7.7	
11382	"	14.7 9.3	✓ Mb sc	-12 72	0 20.7	-12 27	6.7	
11383	20546	21.9 18.9	✓ Ma	-5 1499	5 58.8	-5 52	7.0	
11384	"	12.1 17.9	✓ Ma	-5 1487	5 56.9	-5 58	8.5	
11385	"	12.5 14.8	✓ Ma	-6 1359	5 50.6	-6 6	6.5	
11386	"	12.9 12.7	✓ Ma	-6 1344	5 46.5	-6 18	8.0	
11387	"	14.6 21.7	✓ Ma	double -7 1318	6 4.4	-7 13	8.0	
11388	"	14.7 22.4	✓ Ma	-7 1325	6 5.8	-7 16	8.2	
11389	"	20.3 16.4	✓ Ma	-10 1341	5 53.8	-10 2	8.5	
11390	20547	11.6 21.7	✓ Ma	A.G.C. 8184	6 34.6	-50 24	1900	W C.
11391	"	13.9 11.9	✓ Mod	Appx 1900	6 3.8	-51.6		See note
11392	"	14.2 17.9	✓ Ma	C.D.M. -51 1897	6 22.4	-51 46.0	8.9	W
11393	"	15.1 7.8	✓ Ma	A.G.C. 6960	5 50.2	-52 5	7.5	W C.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Na 0.8 1.0; 0.8 0.6;

A.G.C. 29252 21 15.2 -70.2

C. DM.-50 2306 6 34.0 -50 22 8.4

var? { Reflection of a Carenae which is equally distant from centre of plate - 5 opposite. "sp. is really Type I inverted. Omit in III. Type cat" } Approx pos. 6 3.8 -57.6 "see note on plate #1076"

P.D.
C. DM.-52 799 5 49.6 -52 5 8.2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U.	Yb.	Object.	Design.	R.A.		Dec.		Magn.	
11394	20547	15.7	12.7	✓ Ma	a26 7401	6	6.1	−52	31	8 3/4	
11395	"	19.3	15.9	✓ Ma	a26 7690	6	16.3	−54	22	8 (1900)	
11396	"	23.3	16.9	✓ Ma	a26. 7794	6	19.8	−56	19	7½ (1900)	
11397	20452	7.0	9.0	✓ Ma	a26 25428	18	32.4	−43	16	5.8 (1900)	
11398	"	12.1	10.5	✓ Ma	z6. 1981	18	34.1	−45	54	9½	
11399	"	12.5	18.8	✓ Ma	a26 26118	18	59.6	−46	7	7½	
11400	"	13.5	11.1	✓ Ma	z.6. 2051	18	35.6	−64 46.38	7	9.0	
11401	"	21.3	19.7	✓ Ma	a26 26200	19	3.1	−50	30	8¾	
11402	20548	9.4	8.7	✓ Ma	5866	5	2.9	−54	33	6.7	
11403	"	15.0	9.3	✓ Ma	5889	5	3.6	−57	20	7	
11404	20549	14.8	21.7	✓ Ma	z.C. 22794	22	26.7	−42	22	9 = C.Dm.	
11405	"	17.5	13.5	✓ Mb	30328	22	5.9	−43	38	8½	
11406	"	18.4	20.8	✓ Ma	30708	22	26.0	−44	3	7.58	
11407	"	18.8	20.0	✓ Ma	30657	22	23.8	−44	15	4.4	
11408	"	23.2	17.3	✓ v Pec	30526	22	16.6	−46	27	6.7	
11409	20550	12.2	12.6	✓ Mb	31441	22	46	−41	8	6.2 = C.Dm.	
11410	"	12.7	10.1	✓ Ma	31331	22	58.1	−41	21	6.9 = C.D.m.	
11411	"	14.4	20.3	✓ Ma	C.Dm. −42 16354 (Ext. 1900)	23	23.9 25.1	−42	17	8.9 −42.2	
11412	"	17.6	11.6	✓ Ma	31398	23	1.8	−43	31	8.0 = cDm.	
11413	"	17.6	13.1	✓ Ma	31465	23	5.8	−43	31	8¼ = cDm	
11414	"	21.4	23.1	✓ Ma	B.C. 23h 898	23	32.9	−45	40	8½ = cDm.	
11415	20551	16.8	11.3	✓ Ma	32437	0	0.4	−43	27	7¾	
11416	"	23.6	14.9	✓ Ma	164	0	10.7	−46	48	8½	
11417	"	14.1	16.2	✓ Mb	225	0	14.3	−47	4	7¼	
11418	20552	13.1	10.7	✓ Ma	972	0	58.7	−41	33	7.0	
11418a	"			✓ Ma	1458	1	26.8	−38	56	8¼	
11419	"	19.2	10.5	✓ Ma	957	0	57.8	−44	38	8¼	
11420	20553	10.0	19.3	✓ Mb	2110	2	2.0	−40	1	7¼	
11421	"	16.8	16.3	✓ Ma	1960	1	54.8	−43	26	7¾	
11422	"	23.4	12.3	✓ Ma	1764	1	43.5	−46	45	7.2	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

C.D.
C. ~~Dm.~~ -52 864 6 5.5 -52 31 9.5
C.D.
C. ~~Dm.~~ -54 1011 6 15.8 -54 21 8.8
C.D.
C. ~~Dm.~~ -56 1066 6 19.5 -56 18 7.9
C.Dm. -43 12699 18 30.6 -43 17 5.8
C.Dm. -45 12699 18 34.1 -45 54 9.1
C.Dm. -46 12809 18 57.8 -46 9 8.2
C.Dm. -46 12558 18 35.6 -46 38 9.0
C.Dm. -50 12361 19 1.2 -50 32 8.4

Dm. -42 15971 22 26.7 -42 22 8.4
-43 14932 22 4.4 -43 45 8.4
-44 14949 22 24.5 -44 11 7.7
-44 14935 22 22.3 -44 23 4.4
-46 14732 22 15.1 -46 35. 6.7
Known as Type II Nova A.G.C. 30526 22 16.6 -46.4
Dm. -41° 15163 23 3.2 -41 16 6.2
D.m. -41 15121 23 56.7 -41 30 6.9

Dm. -43° 15270 23 0.4 -43 39 8.4
D.m -43° 15290 23 4.4 -43 40 8.2
Dm. -45 15095 23 32.9 -45 40 8.7

c.Dm. -41 260 0 57.5 -41 42 7.3
C.Dm. -39.439 1 25.7 -39 4 7.5
c.D.m. -44 299 0 56.7 -44 46 8.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	V.	H.	Object	Design.		R.A.	Dec.		Magn.
11423	20553	13.3	22.6	✓Ma	2295	2	11.4	-41	32	7.0
11424	20554	5.5	19.3	✓Ma	-32 452	1	2.8	-32	50	7.7
11425	"	6.9	18.8	✓Ma	1046	1	3.0 1.8	-33	21 29	8½
11426	"	13.4	8.6	✓Ma	642	0	37.8	-36	34	7¼
11427	"	23.3	16.9	✓Ma	972	0	58.7	-41	33	7.0
11428	20555	8.7	15.0	✓Ma	7565	6	12.2	-39	18	8¾
11429	"	10.0	12.2	✓Ma	7360	6	4.8	-39	58	8¼
11430	"	10.7	13.0	✓Ma	7416	6	6.9	-40	20	6.0
11431	"	17.2	21.5	✓Ma	G.C.6^{h}1347	6	29.1	-43	29	8
11432	"	22.2	19.4	✓Ma	CDM -45°2317	6	23.9	-45	59.9	8.8
11433	20556	14.4	14.7	✓Type IV	8669 78	6	51.3	-42	14	6.7
11434	"	19.0	21.7	✓Mb	9197	7	10.5	-44	28	var.
11435	"	21.6	19.0	✓Ma	8998	7	3.1	-45	49	8.
11436	20557	7.2	15.8	✓Ma	G.C.6^{h}536	6	12.0	-78	32	8¾
11437	"	18.5	15.8	✓Ma	~~G.C.56 452~~	~~6~~	~~10.2~~	~~-78~~	~~30~~	~~10~~
11438	"	19.4	17.0	✓Ma	Gilliss 4037 Gilliss 4426	6 6	25.0 52.5	-84 -84	11 32	9.0 (1850) 8.5 (1850)
11439	20558	10.2	10.3	✓Ma	29700	21	37.0	-54	57	7.1
11440	"	13.1	18.6	✓Ma	30332	22	6.3	-56	27	7½
11441	"	14.5	14.4	✓Ma	30001	21	51.1	-57	11	7½
11442	"	15.7	18.8	✓Mb	30351	22	7.3	-57	43	8
11443	"	16.5	19.3	✓Ma	30388	22	9.4	-58	4	7
11444	"	16.6	11.3	✓Ma	G.C.21^{h}1170	21	37.7	-58	15	8½
11445	"	21.3	20.4	✓Ma	30491	22	14.9	-60	27	8½
11446	20559	10.3	13.7	✓Mb	-10 6016	22	47.3	-10	9	8.7
11447	"	13.9	9.5	✓Ma	-11 5912	22	38.6	-11	56	7.2
11448	"	19.1	19.4	✓Ma	-14 6407	22	58.9	-14	32	8.6
11449	"	21.5	17.4	✓Ma	-15 6330	22	54.5	-15	45	8.0
11450	20580	7.2	12.7	✓Mc	-8 536	2	45.1	-8	52	7.8
11451	"	15.7	10.8	✓Mc	-13 530	2	41.0	-13	4	6.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

CPM -43° 2534 b 29.1 -43 29 mag. 8½ Type III See A 8552 spect. chart pl. B 31032 used for identification.

A 8552 spect + B 31032 chart used for identification.

Na 0.8 1.0; 0.9 0.7; 0.2 known A.G.C. 8670 b 51.3 -42.2

L_2 Puppis.

CPD -78° 218 b 12.0 -78 32.1 (1875) 9.4

= CPD -84° 87 b 20.8 -84 11.9 (1875) 9.3

= CPD -84° 93 b 48.0 -84 34.2 (1875) 8.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	U.H.	Obj.	Object.	Design.	R.A.		Dec.		Magn.
11452	20580	18.8	9.7	✓	Mbsc	-14 524	2	38.6	-14	36	8.3
11453	"	19.1	18.7	✓	Mbsc	-14 596	2	57.0	-14	48	9.1
11454	20581	14.0	12.0	✓	Ma	-12 1384	6	0.9	-12	1	8.5
11455	"	15.7	18.9	✓	Brlnis	-12 1453	6	15.0	-12	55	9.6
11456	"	15.8	22.1	✓	Pec	-12 1500	6	21.6	-12	58	7.7
11457	"	20.6	17.7	✓	Ma	-15 1342	6	12.4	-15	21	9.0
Jan. 25, 1898. 11458	20582	7.7	15.6	✓	Brlnis	-23° 4628	6	51.6	-23	48	9.4
11459	"	7.8	16.7	✓	Mc	8631	6	50.0	-23	48	7¼
11460	"	8.2	15.5	✓	Mc Pec?	8629	6	49.9	-24	4	3.9
11461	"	9.0	10.5	✓	Ma	-24 4356	6	38.0	-24	19	9.6
11462	"	12.3	10.7	✓	Ma	8307	6	39.1	-26	1	8½
11463	"	13.8	15.1	✓	Ma	8597	6	49.0	-26	50	7.0
11464	"	16.4	12.2	✓	Ma	8400	6	42.4	-28	6	8
11465	"	18.1	15.0	✓	Ma	8585	6	48.6	-28	59	8½
11466	"	18.9	21.4	✓	Ma	8995	6 7	3.3	-29	23	7¾
11467	"	21.9	19.4	✓	Ma	8800	6	56.5	-30	56	7¾
11468	"	15.5	21.6	✓	Ma	9063	7	5.7	-27	43	7½
Feb 24, 1898 11469	9810	6.9	9.9	✓	Ma	A.G.C. 23215	17	4.0	-48	45	6.6
11470	"	12.9	22.2	✓	Brlnis	C.P.D. -51° 10820 A.G.C. 6326	17	12.8	-51	9 40	(1900)
11471	"	13.9	8.7	✓	Ma	A.G.C. 22437	16	29.3	-52	10	7½ (1900)
11472	"	15.9	19.4	✓	Ma	A.G.C. 23220	17	4.2	-53	15	7½ (1900)
11473	"	16.0	23.9	✓	Ma	A.G.C. 23586	17	19.5	-53	9	7¼
11474	"	19.7	10.3	✓	Mb	Z.C. 2177	16	31.2	-55	3	8½
11475	"	19.9	10.6	✓	Ma	Z.C. 2242	16	32.2	-55	8	8½
11476	"	23.0	19.4	✓	Ma	A.G.C. 23259	17	5.8	-56	46	7.0
11477	20639	15.0	17.9	✓	Ma	-2 140 6135	0	53.3	-2	26	7.4
11478	20642	13.4	20.6	✓	Md	~~C.D.M. -33 2257~~	5	15.6	-33	48	8
11479	"	18.7	7.7	✓	Type IV	5429	4	43.8	-36	23	7½
11480	"	20.7	17.5	✓	Ma	5983	5	8.2	-37	31	6.8

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

New Gas neb ? "Strongest br. line greater λ than Hβ. also hydrogen lines bright and br. line at about Hδ6 See chart plate B 20 Hib" Dm-12° 1453 6 15.0 -12.9

New. Type I. Hβ bright Dm-12° 1500 6 21.6 -12 68

Type V known. H.P. 1311

var ? chart plates B series - H237 H629 7055 17686 17867 17866 18219 10826 7106 18107 18140 10487 20388 20457 10524 10523 IN905 IN777 H515 examined to show slight if any evidence of variation "H.P. 1312
01 Can. Maj. a.m. to A.C. to A.I. plates (See cover of plate) examined later for "slight if any evidence of var." fourth A.G.C. 8629 6 49.9 -24.1

Type V ? known as Gas. neb. N.G.C. 6326 17 12.8 -67.6

var ? known Hf = 1.0 ; Hδ = 0.8 τ Columbae 5 15.6 - 33.8
Na 0.6, 1.0 ; 0.5 0.3 known A.G.C. 5429 4 43.8 -36.4

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plate

No.	Plate	V.	H.	Object.	Design.	R.A.		Dec.		Mag.
11481	20643	9.2	12.1	✓ Nd	Z. 6418	5	11.6	-47	3.5	8½ (1875)
11482	"	9.4	13.8	✓ Ma	AG 6175	5	17.3	-47	9	7.5 (1900)
11483	"	24.3	9.9	✓ Ma	AG 5866	5	2.9	-54	33	6.7 (1900)
11484	20646	5.5	19.9	✓ Ma	1417	1	24.3	-37	21	7¼
11485	"	7.3	17.6	✓ Ma	1314	1	18.5	-38	13	7.4
11486	"	8.8	20.8	✓ Ma	1458	1	26.8	-38	56	8¼
11487	"	14.2	10.1	✓ Ma	972	0	58.7	-41	33	7.0
11488	"	17.5	18.2	✓ Ma	C.D.M. -43421 (Cat. 1900)	1	19.3 (20.2)	-43 (-43.2)	25	8.5
11489	"	23.8	18.4	✓ Ma a & c.	~~1358~~ 1359	1	~~21.0~~ 21.0	-46	28?	9 8
11490	20647	11.3	10.7	✓ Ma	4975	4	22.3	-40	3	7½
11491	"	11.4	11.8	✓ Ma	-40 1481	4	24.2	-40	12	8.3 1
11492	"	11.8	20.4	✓ Ma	-40 1611	4	46.6	-40	25	8.4 1
11493	"	11.9	13.4	✓ Ma	5133	4	29.2	-40	25	8½
11494	"	15.5	14.4	✓ Ma	5186	4	31.5	-42	14	8½
11495	"	17.5	21.0	✓ Ma	5565	4	49.5	-43	13	7½
11496	"	18.3	22.4	✓ Ma	5654	4	53.5	-43	36	8
11497	20648	6.1	13.1	✓ Ma	5983	5	8.2	-37	31	6.8
11498	"	11.3	14.3	✓ Cont.	6036	5	10.8	-40	9	neb.
11499	"	16.4	10.4	✓ Ma	5793	4	59.9	-42	38	7½
11500	"	17.4	18.5	✓ Ma	C.D.M. -43 1834 (Cat. 1900)	5	21.2 (21.)	-43 (-43.)	16	8.8
11501	"	18.2	16.8	✓ Ma	6183	5	17.6	-43	38	7.3
11502	"	18.4	18.2	✓ Ma	6283	5	21.3	-43	42	7¾
11503	"	23.3	20.8	✓ Pec. gC.5h	1005	5	28.0	-46	9	8
Feb. 25, 1898. 11504	20649	9.5	16.4	✓ Ma	7134	5	56.7	-39	13	8¼
11505	"	11.7	20.3	✓ Ma	7416	6	6.9	-40	20	6.0
11506	"	14.4	11.8	✓ Ma	6831	5	44.4	-41	37	7¼
11507	"	14.8	13.4	✓ Ma	-41 2108	5	47.8	-41	53	9.0
11508	"	18.5	9.4	✓ Ma	6664	5	37.2	-43	38	8
11509	20651	5.1	18.3	✓ Nd	-2 1581	6	15.4	-2	8	var.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

var ? New. $\Delta f = 1.0$; $\Delta \delta = 0.7$ Z. 418 5 11.6 -47.1

C.Dm. -47 1750 5 11.6 -47 4 8.9

C.Dm. -47 1787 5 16.6 -47 10 7.6

P.D.

C. ~~Dm.~~ -54 768 5 2.4 -54 35 7.8

~~1st type star~~ A.G.C. 1358 = m star 1 21.0 −46 28 7 magn- 8.0 Superposed. changed June 22, 1916.

Var. a neb?

"An examination of B 12756 shows this spectrum to be Class K with no peculiarity. The peculiarity on this plate (B 20648) is due to the superposition of the spectrum of A.G.C. 6454 5 28 m 8 s -46° 1.1 6½ mag. (1875)"

Look 2d Z.C. 1005 5 28 -461 up on another spectrum

var ? Known. V. Monocerotis Dm. -2° 1581 6 15.4 -

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	H	M.	Object.	Design.	R. A.		Dec.		Magn.
~~11510~~	20651	5.8	7.7	√Mc	−2 1448	5	54.5	−2	21	8.0
11511	"	12.8	10.1	√Ma	−5 1499	5	58.9	−5	52	7.0
11512	"	13.0	9.1	√Ma	−5 1487	5	56.9	−5	58	8.5
11513	"	15.4	12.8	√Ma Double	−7 1318	6	4.4	−7	13	8.0
11514	"	15.5	13.6	√Ma	−7 1325	6	5.8	−7	16	8.2
11515	20652	10.5	16.2	√Ma	G.C. 7h 550	7	8.1	−75	2	8½ 8 8½
11516	"	15.3	13.4	√Mb sc	8469	6	42.4	−77	27	8
11517	"	16.9	19.7	√Ma	G.C. 7h 3164	7	43.2	−78	4	9 8½
11518	"	18.0	10.5	√Ma	G.C. 6h 536	6	12.0	−78	32	8½ 9
11519	20656	5.1	14.6	√Ma?	a26. 1034	1	1.8	−72	16	7 (1900)
11520	"	6.3	18.3	√ Cent.	a26 8.22 C.P.D. −72 35	0 0	19.6 18.5	−72 −72	39 (1900) 46.4 neb	
11521	"	11.4	22.2	√ Ma	a26 2099	2	0.8	−74	56	6.9 (1900)
11522	"	11.7	13.6	√ Md	announced 1900 pos. new Atlas 1875 Pos.	0 0	53.1 53.2	−75 −75	32 40	
11523	"	16.9	17.5	√ Ma	a26. 1447	1	25.8	−75	33	7¼ (1900)
11524	"	14.6	18.3	√ Ma	a26 1628	1	35.2	−76	53	8¼ (1900)
11525	"	21.8	15.6	√ Ma	C.P.D. −80 20	1	15.4	−80	42.9	9.0
11526	20657	5.7	8.0	√ Ma	+7 1262	6	15.7	+7	41	8.7
11527	"	6.0	17.4	√ Ma	+7 1409	6	34.4	+7	32	7.3
11528	"	7.3	10.7	√ Ma	+6 1258	6	21.1	+6	51	9.0
11529	"	9.4	6.7	√ Ma	+5 1198	6	13.1	+5	48	8.3
11530	"	9.6	20.5	√ Ma	+5 1414	6	40.6	+5	42	8.7
11531	"	10.4	15.7	√ Ma	+5 1345	6	31.2	+5	19	8.7
11532	"	13.4	8.8	√ Ma	+3 1233	6	17.1	+3	50	8.8
11533	"	14.8	20.3	√ Ma	+3 1406	6	40.2	+3	5	8.5
11534	"	15.5	11.0	√ Ma	+2 1253	6	21.7	+2	44	6.8
11535	"	15.7	6.9	√ Ma	+2 1196	6	13.5	+2	38	7.8
11536	"	17.7	20.1	√ Ma	+1 1506	6	39.7	+1	40	9.0
11537	"	23.8	14.2	√ Ma	−1 1288	6	27.9	−1	24	8.3
11538	20658	13.0	17.1	√ Ma	−6 1664	6	33.2	−6	13	7.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

C.P.D. -72 83 1 1.0 -72 24 8.0
Cl. a ref?

C.P.D. -75 144 2 0.6 -75 3 8.4
var.? New $\Delta\alpha = \underline{1.0}$, $\Delta\delta = \underline{0.8}$.

Apparent pos. 0 53.1 -75.7

C.P.D. -75 88 1 25.3 -75 42 8.4

C.P.D. -77 58 1 34.9 -77 1 9.4

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	V.	Hg.	Object	Design.	R.A.	Dec.	Magn.
11539	20658	22.7	13.6 ✓	Ma	-11 1520	6 26.0	-11 4	7.0
11540	20671	9.7	13.6 ✓	Ma	C.D.M. -39° 3187	7 11.0	-39 38	8.7
11541	"	14.8	8.1 ✓	Ma	6h 2883	6 55.8	-42 5	9
11542	"	15.2	6.1 ✓	Type IV	8670	6 51.3	-42 14	6.7
11543	"	18.2	17.1 ✓	Ma	9509	7 21.0	-43 56	8½
March 2, 1898 11544	20670	13.0	9.2 ✓	MC	8954	7 1.7	-35 47	7½
11545	"	14.7	19.0 ✓	Ma	9647	7 25.9	-36 29	8
11546	"	20.6	13.5 ✓	Ma	-39 3187	7 11.0	-39 38	8.7
March 6, 1898 11547	20679	5.2	8.6 ✓	Ma	-2 1728	6 35.4	-2 9	9.2
11548	"	6.8	17.9 ✓	Type IV; Pec?	-3 1685	6 53.8	-3 3	7.7
11549	"	9.5	14.1 ✓	Type IV	-4 1708	6 46.0	-4 24	9.0
11550	"	13.2	16.3 ✓	Ma	1855	6 50.5	-6 14	
11551	"	13.3	18.9 ✓	Ma	-6 1901	6 55.6	-6 20	9.5
11552	"	16.0	16.7 ✓	Ma	-7 1655	6 57.1	-7 39	9.1
11553	"	18.2	15.5 ✓	Ma	-8 1626	6 48.7	-8 46	8.8
11554	"	24.1	21.8 ✓	Type IV	-11 1805	7 1.3	-11 42	7.6
11555	20669	7.2	7.9 ✓	Mcd	A.G. 2859	2 37.4	-23 2	8½ (1900)
11556	"	8.2	13.4 ✓	Ma	D.M. -23 1106	2 48.2	-23 39.6	8.0
11557	"	13.7	14.3 ✓	Ma	A.G. 3137	2 51.0	-26 21	7.5
11558		14.7	20.2 ✓	Mbc	A.G. 3390	3 4.3	-26 50	8¾
11559	20644	6.4	7.4 ✓	Mb	2099	2 0.8	-74 56	6.9
11560	20680	8.6	6.8 ✓	Mb	D.M. -8 1650	6 51.2	-8 50	7.7
11561	"	8.7	6.4 ✓	Mb	D.M. -8 1641	6 50.3	-8 53	8.0
11562	"	12.1	17.4 ✓	Mb	D.M. -10 1983	7 12.4	-10 39	8.9
11563	"	13.2	17.4 ✓	Ma	D.M. -11 1885	7 12.4	-11 12	9.0
11564	"	13.6	21.3 ✓	Type IV	D.M. -11 1941	7 20.3	-11 26 25.9	8.9 (1900)
11565	"	14.2	11.9 ✓	Type IV	D.M. -11 1805	7 1.3	-11 42 41.8	7.6 (1855)
11566	"	16.0	19.1 ✓	Ma	D.M. -12 1924	7 16.0	-12 38	9.1
11567	"	16.5	19.6 ✓	Ma	D.M. -12 1936	7 16.9	-12 52	9.4 ?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

−42° 2879 8.6
Na 0.9, 1.0; 0.8 0.7 Knnn a.g.C. 8670 6 57.3 −42.2

Nd 0.8 1.0, 0.6 0.7; 0.3 0.4; 0.2 0.2; Knnn as Type IV. announced later Type IV Cir. 145 Dm. −3° 1686 6 54 −3 3.3
Na 0.8 1.0; 0.7 0.6; 0.2 0.1; Knnn. Dm. −4° 1708 6 460 −4 24.2
The following S southern of two stars.

Na 0.9 1.0; 0.6 0.5; Knnn. Dm. −11° 1805 7 1.3 −11 41.8
var? New See also B 20855 a.g.C. 2859 2 37.4 −23 2
C.Dm. −23 1029 2 36.3 −23 8 7.8
C.Dm. −23 1106 2 48.2 −23 40 8.0
C.Dm. −26 1071 2 50.0 −26 27 7.6
C.Dm. −26 1159 3 3.2 −26 56 8.1

Na "var?" New 0.8 1.0; 0.7 0.7; "See examination of this object on B 20801 shows that it is not Type IV. It has some traces of the bands of the bands of an Ma star but the spectrum ends at a point of greater λ than Hγ. It shows some evidence of var. as compared with adjacent spectra on B 20800 & 20801." Dm. −11° 1941 7 20.3 −11 25.9 25.9
Na var? 0.9 1.0; 0.8 0.8; 0.2 Knnn as IV Type. New as var. Dm. −11° 1805 7 1.3 −11 41.8

Is this a DM star?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	X.	Y.	Object		R. A.		Dec.		Magn.
11568	20680	16.7	17.1	Bl nuc	Approx Pos.	7	41.8	-12	58	(1855)
11569	"	18.1	16.6	Ma	DM	+13	1920	7	40.8	-13	40	8.8
11570	20681	5.4	23.8	Ma	-2	2325	7	45.3	-2	15	7.8
11571	"	6.7	10.1	Type IV	-2	2101	7	18.0	-2	52	9.0
11572	"	8.9	9.1	Type IV	-3	1873	7	15.9	-3	57	9.2
11573	"	10.7	12.1	Ma	-4	2095	7	41.8	-4	54	9.1
11574	"	11.7	16.6	Ma	-5	2189	7	30.9	-5	23	9.1
11575	"	12.1	14.8	Ma	-5	2169	7	27.2	-5	34	9.4
11576	"	12.5	19.6	Ma	-5	2226	7	36.8	-5	48	9.3
11577	"	12.7	18.9	Ma	(Est.	1855	7	35.4	-5	52	
11578	20707	14.5	21.0	Ma		6380	5	25.2	-36	58	8
11579	"	15.6	14.3	Ma		5983	5	8.2	-37	31	6.8
11580	"	20.1	18.9	Ma		6246	5	20.1	-39	46	6.2
11581	20708	5.3	17.5	Ma	+7	1409	6	34.4	+7	32	7.3
11582	"	7.9	15.1	Ma ~~Ast~~ ?	+6	1309	6	29.6	+6	16	6.5
11583	"	8.6	11.7	Rec?	+5	1267	6	22.8	+5	58	7.1
11584	"	9.2	14.2	Ma	+5	1312	6	27.8	+5	37	8.5
11585	"	9.0	20.7	Ma	+5	1414	6	40.6	+5	42	8.7
11586	"	9.8	15.9	Mb	+5	1345	6	31.2	+5	19	8.7
11587	"	10.3	13.8	Ma double	+5	1306	6	26.9	+5	5	8.0
11588	"	15.0	11.4	Ma	+2	1253	6	21.7	+2	44	6.8
11589	"	15.2	7.2	Ma	+2	1196	6	13.5	+2	38	7.8
11590	"	19.7	10.4	Ma	+0	1426	6	19.8	+0	23	5.9
11591	"	23.2	14.5	Ma	-1	1288	6	27.9	-1	24	8.3
11592	20709	8.1	14.7	Ma	+11	1719	7	48.6	+11	26	8.0
11593	20710	4.6	19.9	Ma	+13	1912	8	18.7	+13	7	5.8
11594	"	6.6	14.9	Md	+12	1803	8	8.6	+12	10	var.
11595	"	21.0	19.5	Ma	+4	1972	8	17.5	+4	58	8.2
11596	20765	5.3	15.4	Ma		1034	1	1.8	-72	16	7

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..6f0j...867F

Type V: p Nev. "B line of shorter λ than Hβ see chart plate B 14776" approx. pos. 7 11.8 -12.5.8

Na 0.7 1.0; 0.7 0.4; Known — Dm.-2°2101 7 18.0 -2 51.7

Na 0.7 1.0; 0.4 0.3; — Dm.-3°1873 7 16.9 -3 56.8

Nev. Hβ Cr.? Hydrogen lines narrow & Cr. on edge of greater λ Dm.+6°1309 6 29.6 +6 16.5. Confirmed on I 499"

Nev Hβ Cr.? Hydrogen line narrow — "Dm.+6°1267 6 22.8+6 57.6 Rec confirmed on I 499 Cr. band bet. Hβ & Hγ; of shorter λ than Cr. lines in ζ Puppis."

var.? Known. Hγ = 1.0, Hδ = 5.0 R. Canceri Dm.+12°1803 8 8.6 +12 10

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No. Plate	D.	H.	Object.			R. A.	Dec.		Magn.	
11597	20765	6.5	9.1	N. Cont.	322	0	19.6	-72	39	4½	
11598	"	11.6	22.9	✓ Ma	2099	2	0.8	-74	56	6.9	
11599	20766	20.3	11.6	✓ Ma	-19 616	3	1.6	-19	52	7.8	
11600	20767	9.7	19.2	✓ Ma	-19 1878	7	19.2	-19	9	7.3	
11601	"	11.9	17.2	✓ Mb	-20 1889	7	16.1	-20	14	7.8	
11602	"	12.8	9.5	✓ Ma	-20 1706	6	58.6	-28	37	7.3	
11603	"	16.5	14.4	✓ Ma	-22 1767	7	8.8	-22	31	8.0	
11604	"	17.2	10.4	✓ Mb	-22 1702	7	0.3	-22	52	8.5	
11605	"	19.3	17.5	✓ Ma	9395	7	17.5	-24	8	8	
11606	"	22.7	17.3	✓ Ma	9378	7	16.9	-25	43	6.7	
11607	20784	15.3	12.8	✓ Ma	A.G. 5034	4	24.9	-42	11	6.9 (1900)	
March 28, 1898 11608	20785	11.0	20.4	✓ Ma	A.G. 10259	7	46.0	-40	0	7.5 (1900)	
11609	"	15.5	22.2	✓ Ma	A.G. 10418	7	51.2	-42	13	7⅞ (1900)	
11610	"	16.4	18.3	✓ Ma	A.G. 10084	7	40.8	-42	45	7⅞ (1900)	
11611	"	22.2	18.1	✓ Ma	A.G. 10078	7	40.5	-45	38	7⅞ (1900)	
11612	"	22.4	16.8	✓ Ma	~~A.G.~~ 2593	7	36.1	-45	41	8.5	
11613	"	11.8	19.8	✓ Ma	A.G. 10220	7	44.8	-40	24	var. (1900)	
11614	20786	5.7	18.1	✓ Ma	10084	7	40.8	-42	45	7¾	
11615	"	6.0	14.4	✓ Ma	9763	7	30.6	-42	54	7¼	
11616	"	7.8	19.6	✓ Ma	10227	7	44.9	-43	46	8	
11617	"	9.4	7.2	✓ Mb	9197	7	10.5	-44	28	var.	
11618	"	11.7	16.6	✓ Ma	G.C. 7h 2593	7	36.1	-45	41	8½	
11619	"	14.6	21.9	✓ Ma	10453	7	52.4	-47	3	7¾	
11620	"	19.9	21.9	✓ Type IV	10488	7	53.5	-43	43	8	
11620a		21.5	14.7	✓ Ma	G.C. 7h 2182	4	30.9	-50	34	7½	
11621	20800	16.8	10.5	✓ Mb	B.D. -12° 1269	5	40.5	-12	52	7.5	
11622	20801	8.0	16.5	✓ Ma	A.G. -8 1839	7	12.4	-8	31.3	7.5	
11623	"	8.8	6.0	✓ Mb	A.G. -8 1650	7	51.2	-8	50.0	7.7	
11624	"	8.9	5.6	✓ ✓ Md	A.G. -8 1641	7	50.3	-8	52.7	8.0	
11625	"	13.4	16.6	✓ Mb	A.G. -11 1885	7	12.4	-11	11.8	9.0	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Cl. a nebl? ξ Tucanae.

C.Dm.-42 1510 4 24.1 -42 14 6.9
C.Dm.-40 3520 7 45.4 -40 4 7.1
C.Dm.-42 3664 7 50.4 -42 9 7.7
C.Dm.-42 3471 7 40.0 -42 41 7.7
C.Dm.-45 3411 7 39.7 -45 34 7.7
C.Dm.-45 3362 7 36.1 -45 41 7.6
C.Dm.-40 3490 7 43.9 -40 21 6.5 T Puppis.

L_2 Puppis.

Type IV. 0.6 1.0, 0.4 0.4; Nnnnn A.G.C. 10488 7 35.5 -49 43

var.? Nnnnn X Monoc. Dm. -8° 1641 6 30.3 -8 52.7

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.,867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	Yb.	Object.				R.A.		Dec.		Magn.
11626	20801	13.8	9.0	B Blue	D.M.	-11	1760	6	56.9	-11	20.0	9.0
11627	"	14.4	11.1	Type IV	D.M.	-11	1805	7	1.3	-11	42	7.6
11628	"	17.0	8.0	Ma	D.M.	-12	1740	6	54.8	-12	56	8.2
11629	"	18.1	14.8	Ma	D.M.	-13	1901	7	8.7	-13	33	8.7
11630	"	18.4	15.8	Ma	D.M.	-13	1920	7	10.8	-13	40	8.8
11631	"	19.7	13.8	Ma	D.M.	-14	1776	7	6.7	-14	20	8.3
11632	20802	7.1	15.6	Ma		-3	1987	7	30.7	-3	8	8.2
11633	"	17.3	21.7	Ma		-8	2090	7	42.9	-8	13	8.1
11634	"	18.6	17.5	Ma		-8	2030	7	34.5	-8	53	8.2
11635	20803	11.4	14.9	Mc		-5	1699	6	28.6	-5	17	9.2
11636	"	12.8	18.0	Ma		-6	1682	6	34.7	-6	2	8.5
11637	"	13.2	17.2	Ma		-6	1664	6	33.2	-6	13	7.3
11638	"	16.8	11.8	Ma		-8	1448	6	22.3	-8	1	8.6
11639	"	18.3	13.6	Pec?		-8	1467	6	25.9	-8	46	8.5
11640	"	19.2	16.4	Ma		-9	1557	6	31.6	-9	12	8.5
11641	"	20.5	20.8	Ma		-9	1649	6	40.5	-9	48	8.5
April 4, 1898 11642	~~280~~ 20853	5.9	16.5	Mb		-12	183	0	53.3	-12	58	8.1
11643	"	20.8	15.8	Ma		-20	174	0	51.6	-20	25	7.0
11644	20854	6.0	16.4	Ma		-12	183	0	53.3	-12	58	8.1
11645	"	8.5	21.7	Mb		-14	225	1	4.1	-14	16	6.8
11646	"	20.8	15.7	Ma		-20	174	0	51.6	-20	25	7.0
11647	20855	7.0	8.3	Mc	Cl.		2859	2	37.4	-23	2	8.5
11648	"	7.9	13.8	Ma	Cl. D.M.	-23	1106	2	48.2	-23	40	8.0
11649	"	13.4	14.7	Ma	Cl.		3137	2	51.0	-26	21	7.5
11650	20856	4.9	17.2	Ma			9957	7	37.1	-22	6	6.9
11651	"	8.8	8.2	Ma			9395	7	17.5	-24	3	8
11652	"	12.1	8.1	Ma			9378	7	16.9	-25	43	6.7
11653	"	13.0	22.9	Mb			10371	7	49.8	-26	5	7½
11654	"	21.5	12.0	Ma			9625	7	25.4	-30	26	8½

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Type V.?
Known

Dm. -11°1805 7 1.3 -11 41.8

Blue Var.? New. ~~may be due to dupl.~~ D.M. -8°1467 6 26.9 -8 46

~~C.Dm.-26 1071 2 50.0 -26 29 7.6~~
C.Dm. -23 1029 2 36.3 -23 8 7.8
Var, New on B20669

A.G.C. 2859 2 37.4 -23 2

C.Dm.-23 1106/1029 2 48.2/36 -23 40 8.0

C.Dm.-26 1071 2 50.0-26 27 7.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	H. H.	Object		R.A.		Dec.		Magn.
11655	20856	22.9	15.2	✓ Mt	9821	27	32.7	-31 6	8
11656	"	24.0	18.8	✓ Bluish	-31° 5004	7	40.1	-31 37	9.2
11657	20857	7.1	14.6	✓ Ma	-13 2452	8	8.8	-13 11	7.0
11658	"	7.9	9.4	✓ Ma	-13 2375	7	58.1	-13 32	8.0
11659	"	9.1	11.6	✓ Ma	-14 2393	8	2.4	-14 9	8.0
11660	"	11.8	22.2	✓ Ma	-15 2475	8	24.4	-15 31	8.7
11661	"	12.7	14.6	✓ Ma	-15 2343	8	8.6	-15 59	8.1
11662	"	16.3	16.8	✓ Type IV	-17 2442	8	13.2	-17 49	9.1
11663	"	16.8	16.6	✓ Ma	-18 2277	8	12.7	-18 1	8.0
11664	20858	5.3	7.3	✓ Type IV	8670	6	51.3	-42 14	6.7
11665	"	20.8	14.5	✓ Mt	9188	7	9.9	-50 8	7½
11666	20863	5.6	13.5	✓ Ma	5983	5	8.2	-37 31	6.8
11667	"	8.9	13.9	✓ Ma	~~5983~~ 5950	5	8.2	-39 11	7¾
11668	"	10.1	18.8	✓ Ma	6246	5	20.1	-39 46	6.2
11669	"	15.0	9.9	✓ Ma	2 C 4 1975	4	57.0	-42 11	8
11670	"	15.9	10.7	✓ Ma	5793	4	59.9	-42 38	7½
11671	"	17.3	6.9	✓ Ma	5565	4	49.5	-43 13	7½
11672	"	17.8	17.2	✓ Ma	6183	5	17.6	-43 38	7.3
11673	"	18.0	8.4	✓ Ma	5654	4	53.5	-43 36	8
11674	"	18.0	18.5	✓ Ma	6283	5	21.3	-43 42	7¾
11675	20867	9.0	13.5	✓ Ma	+0 1719	6	49.3	+0 59	8.0
11676	"	17.0	15.8	✓ Type IV	-3 1685	6	53.8	-3 3	7.7
11677	20868	15.9	15.6	✓ Ma	10129	7	40.1	-77 25	7
11678	"	15.7	16.2	✓ Ma	10477	7	50.1	-82 20	7¼
11679	"	19.6	17.7	✓ Ma	Gilliss 5610	8	29.4	-83 58	7.2 (1850)
11680	20869	7.0	5.9	✓ Ma	10129	7	40.1	-77 25	7
11681	"	12.2	18.6	✓ Ma	13537	9	49.8	-80 36	8
11682	"	19.0	12.8	✓ Ma	Gilliss 5610	8	29.4	-83 58	7.2 (1850)
May 18, 1898 11683	20894	5.3	9.7	✓ Mc	-2 1448	5	54.5	-2 21	8.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type V? Known — C. Dm -31°5604. 7 41.1 -31 41

Nd New on B 18984 — Dm. -17°2442 8 13.2 -17 48.9

Na 0.8 ±10; 0.7 0.7; Known — A.J.C. 8670 6 61.3 -42 14

Nd 0.8 1.0; 0.6 0.8; 0.3 0.6; 0.1 0.2; Known Announced later Type III Cir. 145 — Dm. -3°1686 6 53.8 -3 33

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	H. H.	Object.		R. A.		Dec.		Magn.
11684	20894	6.2 18.9	√	Ma	-2°	1564 6	12.7	-2 52	5.5
11685	"	10.9 18.9	√	Ma	-5	1588 6	12.6	-5 14	9.0
11686	"	12.3 12.1	√	Ma	-5	1499 5	58.9	-5 52	7.0
11687	"	12.5 11.1	√	Ma	-5	1487 5	56.9	-5 58	8.5
11688	"	14.9 14.8	√	Ma	-7	1318 dd. 6	4.4	-7 13	8.0
11689	"	15.0 15.5	√	Ma	-7	1325 6	5.8	-7 16	8.2
11690	"	16.5 23.7	√	Ma	-8	1448 6	22.3	-8 1	8.6
11691	"	16.8 20.0	√	Ma	-8	1401 6	14.8	-8 10	7.3
11692	"	18.1 17.3	√	Ma	-8	1371 6	9.2	-8 47	9.1
11693	20895	6.6 18.0	√√	Type IV.	-3	1685 6	53.8	-3 3	7.7
11694	"	9.4 14.2	√√	Type IV	-4	1708 6	46.0	-4 24	9.0
11695	"	12.7 8.6	√	Ma	-6	1682 6	34.7	-6 2	8.5
11696	"	13.1 7.9	√	Ma	-6	1664 6	33.2	-6 13	7.3
11697	"	13.4 20.8	√	Ma	-6	1925 6	59.0	-6 25	9.0
11698	"	18.2 16.9	√	Ma-b	-8	1650 6	51.2	-8 50	7.7
11699	"	18.3 16.4	√	Md	-8	1641 6	50.3	-8 53	8.0
11700	"	19.1 7.2	√	Ma	-9	1557 6	31.6	-9 12	8.5
11701	"	20.2 11.6	√	Ma	-9	1649 6	40.5	-9 48	8.5
11702	"	21.8 16.5	√	Bl line	-10	1774 6	50.3	-10 38	7.2
11703	"	24.0 21.9	√	Type IV	-11	1805 7	1.3	-11 42	7.6
11704	20896	4.9 19.3	√	Ma	-7	2452 8	15.8	-7 5	6.5
11705	"	5.0 17.4	√	Ma	-7	2433 8	12.1	-7 6	7.2
11706	"	6.9 20.1	√	Md sd	-8	2343 8	17.4	-8 3	7.4
11707	"	9.2 13.2	√	Ma	-9	2404 8	3.6	-9 11	7.3
11708	"	12.9 17.6	√	Ma	-11	2313 8	12.3	-11 4	8.5
11709	"	15.6 9.1	√	Ma	-12	2283 7	54.9	-12 20	8.8
11710	"	17.2 15.9	√	Ma	-13	2452 8	8.8	-13 11	7.0
11711	"	18.0 10.7	√	Ma	-13	2375 8	58.1	-13 32	8.0
11712	"	19.2 12.8	√	Ma	-14	2393 8	2.4	-14 9	8.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Nd 0.7 1.0; 0.4 0.6; 0.2 0.3; Known announced Type VI Cir. 1145 Dm. -3°1685 6 63.8 -3 3.3
Na 0.4 1.0; 0.3 0.4; Known. Dm. -4°1778 6 46.0 -4 24.2

var? Known. Hγ = 1.0; Hδ = 1.0 Dm. -8°1641 6 50.3 -8 52.7

Known. Hβ Dr ? May be Type V superposed on Type I ? Dm. -10°1774 6 50.3 -10 38.4
Na. 0.9 1.0; 0.6 0.7 0.5; Known Dm. -11°1805 7 1.3 -11 41.8

var? New Dm. -8°2343 8 17.4 -8 3.2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj - 867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U. H.	Object		R. A.		Dec.		Magn.	
11713	20896	22.8	15.9	√ Ma	-15	2343.	8	8.6	-15	59	8.1	
11714	20986	6.5	14.5	√ Md	-3	353	2	12.0	-3	38	var.	
11715	20987	16.1	14.5	√ Md	-3	353	2	12.0	-3	38	var.	
March 4 99. 11716	21153	17.1	11.1	√ Ma	-2	2437	8	0.4	-2	60	7.0	
11717	"	19.4	11.9	√ Ma	-4	2235	8	2.0	-4	8	7.5	
11718	"	21.1	9.7	√ Ma	-5	2353	7	57.6	-5	0	7.0	double star
11719	21154	6.7	11.1	√ Ma	-55	3593	10	30.0	-55	56	9.2	
11720	"	6.7	15.1	√ Mb	-55	3876	10	43.9	-55	57	9.6	
11721	"	8.7	18.1	√ Ma	-56	4094	10	55.0	-56	53	8.2	
11722	"	9.3	18.0	√ Br. line	Comp. for 1900 ~~-57 4059~~		10	55.8	-57	~~8~~ 17		
					-57°	4002	10	51.1	-57	23	8.4	
11723	"	9.6	17.0	√ Ma	-57	4009	10	51.9	-57	23	9.2	
11724	"	9.8	6.5	√ Br. line	Comp. for ~~-57 2913~~		10	13.5	-57	27	(1900)	10.0
11725	"	10.4	22.9	√ Ma	-57	4555	11	13.2	-57	30	8.4	
11726	"	10.7	21.1	√ Ma	-57	4405	11	6.6	-57	45	8.3	
11727	"	11.0	9.2	√ Br. line	~~-58 3205~~ -57	3217	10	22.9	-58	8	(1900 Comp. for)	9.2
11728	"	11.1	13.1	√ Br. line	-58	2546	10	36.8	-58	7	8.8	
11729	"	11.2	12.5	√ Mb	-58	2474	10	34.2	-58	10	8.4	
11730	"	12.5	16.2	√ Br. line	-58	2845	~~11~~ 10	48.7	-58	51	9.8	
11731	"	12.9	14.0	√ Br. line	-59	2620	10	40.2	-59	2	8.4	
11732	"	12.5	14.2	√ Ma	-58	2683	10	41.0	-58	50	9.0	
11733	"	13.0	13.8	√ Br. line	-59	25~~73~~ 61	10	39.4	-59	4	8.6	
" 733a	"			√ Br. line	-59	24~~73~~ 50	10	~~38.8~~	-59	9	(1900)	~~8.5~~ 6.8
11734	"	14.0	21.0	√ Mb	-59	3201	11	~~8.1~~ 7.6	-59	~~25~~ 23	9.2	
11735	"	14.1	8.9	√ Ma	-58	2546	10	36.8	-58	7	8.8	
11736	"	14.3	16.7	√ Br. lines	-59	2855	10	51.0	-59	44	8.7	
11737	"	14.5	16.8	√ Br. line	-59	2860	10	51.2	-59	47	7.6	
11738	"	14.7	12.3	√ Mb	-59°	2356	10	33.5	-59	54	9.0	
11739	"	15.1	8.6	√ Ma	-60°	1873	10	18.6	-60	2	9.1	
11740	"	15.4	5.6	√ Br. line	-60°	1719	10	6.4	-60	2	9.4	
11741		15.8	20.1	√ Br. line	-60	2578	11	4.8	-60	18	8.0	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

var ? Known Hβ = 1.0 ; Hδ = 5.0 ; Hγ 1.0 Hη 0.7 HΘ 0.4 He 0.3 o Cet 2 14 -3.4
var ? Known (Also chromatic p) Hβ = 1.0 ; Hδ = 5.0 ; Hγ=1.0 ; Hη=0.7 ; HΘ=0.4 He =0.3 o Cet 2 14 -3.4

Type V ? Known

Type V ? Known 1875 pos.=10 12.6 -57 17a cpd.-57°2913

Type V ? Known = 1875 pos.=10 22.0 -58° 0' = cpd -58° 2205
Type V. Known

Type V. ~~Known~~
Known η Carinae

Type V. Known
Type V Known

Known similar to η Carinae. Hβ, Hγ Hδ He Hζ bright. Also intermediate br. lines
Known similar to η Carinae. Hβ Hγ Hδ He Hζ bright. Also intermediate br. lines.

Type V.? Known
Type V.? Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U	Yb	Object.	R.A.	Dec.	Magn.
11742	21154	15.8	20.0	✓Br.line C.P.D.-60	2570	11 4.4	-60 21 9.9 (?)
11743	"	16.4	7.8	✓Ma C.P.D.-60	1839	10 14.7	-60 45 9.2
11744	"	17.4	8.6	✓Mb C.P.D.-61	1606	10 17.9	-61 13 8.6
11745	"	17.5	15.9	✓Mb C.P.D.-61	1936	10 48.0	-61 21 9.3
11746	"	18.1	15.5	✓Br.line (announced Est. 1900)		10 47.9	-61.7 46
11747	"	19.1	7.8	✓Br.line (announced Est. 1900)		10 14.6	-62 9
11748	"	19.3	5.8	✓Br.line C.P.D.-61 1486 (announced Est. 1900)		10 6.1	-62 5 7
11749	"	20.0	19.0	✓Mb C.P.D.-62	1889	11 1.9	-62 26 9.1
11750	"	24.8	18.4	✓Br.line C.P.D.-64	1633	11 1.3 3.5	-64 50 45 8.6 3
11751	"	13.8	13.7	✓Br.line C.P.D.-59	2548	10 39.1	-59 28 6.8
11752	21155	9.6	11.6	✓Ma Dm.-9	3378	11 43.3	-9 8 8.5
11753	"	12.1	21.7	✓Mc Dm.-10	3353	11 43.7	-10 24 8.4
11754	"	17.3	9.4	✓Ma Dm.-12	3423	11 18.6	-12 57 7.0
11755	"	18.9	14.2	✓Rec. Dm.-13	3407	11 28.4	-13 47 8.5
11756	"	23.0	10.9	✓Ma Dm.-15	3275	11 21.6	-15 48 7.5
11757	"	23.0	15.8	✓Ma Dm.-15	3320	11 31.8	-15 49 8.0
11758	"	23.0	16.2	✓Ma Dm.-15	3323	11 32.5	-15 49.0 6.3
11759	21156	9.8	16.3	✓Ma	17319	12 37.9	-24 26 7
11760	"	13.3	14.7	✓Cont? -26	9257	12 32.9	-26 3 neb.
11761	"	15.6	15.5	✓Ma	17267	12 35.9	-27 21 7¼
11762	"	22.0	20.0	✓Ma	17486	12 46.3	-30 32 7.3
11763	"	23.3	15.4	✓Ma	17257	12 35.6	-31 11 7¾
11764	21189	5.5	15.0	✓Mb -9	3641	13 3.8	-9 44 8.0
11765	"	13.7	6.1	✓Ma -13	3612	12 45.4	-13 50 7.8
11766	"	20.6	10.2	✓Ma -17	3751	12 53.5	-17 21 7.0
11767	21190	13.1	7.7	✓Cont? -3	4031	16 49.5	-3 52 neb.
11768	21217	13.9	11.7	✓G-K - See note.			
11769	21407	7.8	17.3	✓Mb -18	3368	12 12.2	-18 24 7.8:
11770	"	10.9	14.2	✓Mb -19	3434	12 5.7	-19 56 8.7

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Type V ? May be defect. ? This is the second image of -60° 2578 11 4.8-60 18 magn. 8.0 No. 11741 see preceding page - It appears in the same way on plate B 21379

Type V Known
Type V ? Known as Gas neb. Herschel.
Type IV ? Known ~~as~~ proved to be Gas neb. ~~Herschel~~.

Type V Known
Type V Known

May be Type IV.? Known as Type IV

Cl. Neb ? Known ~~as~~

Cl. Neb?
Ghost. Miss Mills has written on cover - Probably reflection of Jupiter etc.
(Broken)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	V.	H.		Object		R.A.		Dec.		Magn.	
11771	21407	14.1	17.8	✓	Ma?	-21 3518	12	13.3	-21	31	8.6	
11772	"	21.5	19.1	✓	Ma?	16899	12	18.8	-25	27	8¼	
11773	"	22.9	17.2	✓	Ma	16811	12	14.7	-26	11	7	
11774	"	23.6	13.5	✓	Ma	16650	12	6.4	-26	31	8	
11775	21841	8.6	13.5	✓	Ma	DM. -3 3603	14	9.5	-3	40	8.0	
11776	"	17.7	9.4	✓	Ma	" -8 3705	14	~~0.1~~ 1.0	-8	10	8.5	
11777	"	20.9	10.8	✓	Mb	" -9 3870	14	3.6	-9	47	8.5	
11778	21828	11.4	19.9	✓	Ma?	Asb. 377	0	22.9	-33	34	5.2	
11779	"	22.2	8.0	✓	Ma	Asb. 854	0	51.1	-28	19	6.3	
11780	21218	5.9	9.3	✓	Ma	-17 3932	13	39.5	-17	8	6.0	
11781	"	7.3	9.6	✓	Ma	-17 3934	13	40.0	-17	51	7.7	
11782	"	8.6	19.6	✓	Ma	-18 3757	14	1.0	-18	33	7.3	
11783	"	23.0	13.3	✓	Mb	18909	13	49.7	-25	56	8¼	
11784	21219	7.9	19.1	✓	Mb	+11 2987	16	19.9	+11	19	7.2	
11785	"	12.7	10.2	✓	Mb	+9 3153	16	1.6	+9	1	7.5	
11786	"	12.8	10.1	✓	Mb	+8 3141	16	1.5	+8	56	6.4	
11787	"	14.4	11.3	✓	Ma	+8 3148	16	3.8	+8	10	8.9	
11788	21246	12.9	23.0	✓	Mb	-13 3824	13	58.9	-13	31	7.0	
11789	"	20.1	13.6	✓	Ma	-17 3932	13	39.5	-17	8	6.0	
11790	21248	11.7	7.0	✓	Br. line	Asb. 5882	15	10.0	-45	17	(1900	
11791	"	21.9	12.5	✓	Ma	Asb. 21005	15	25.0	-50	31	7½ (1900)	
11792	21249	8.4	21.5	✓	Ma	Asb 22937	16	51.0	-38	57	7½ (1900)	
11793	"	11.0	20.0	✓	Mb	C.D.M. -40 10889	16	45.5	-40	N.S	~~9.4~~ 8.0	
11794	"	12.5	20.2	✓	Br. line	Asb. 22843	16	48.0	-41	0	6.4 (1900)	
11795	"	13.0	17.1	✓	Ma	Asb. 22654	16	39.8	-41	18	7.5 (1900)	
11796	"	13.8	19.9	✓	Br. line	Asb. 22827	16	47.3	-41	40	7 (900)	
11797	"	13.9	19.2	✓	Br. line	Asb. 22763	16	45.3	-41	41	7.5 (1900)	
11798	"	16.2	19.6	✓	Mb	Asb. 22803	16	46.6	-42	53	6.6 (1900)	
11799	"	20.2	19.9	✓	Br. line	Asb. 22838	16	47.9	-44	50	8¼ (1900)	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

(Broken)

(Broken)
C.Dm.-27 288 0 49.9 -27 27 6.3
C.Dm.-33 152 0 21.7 -33 42 5.2

Type V.? known in Sar. neb. list C.Dm.-45 9789 15 8.3 -45 11 10
C.Dm.-50° 9527 15 23.2 -50 26 7.6
C.Dm.-38 11363 16 49.3 -38 55 7.2
C.Dm.-40 10889 16 45.5 -40 14 8.0
Type V.? known C.Dm.-40 10919 16 46.3 -40 56 6.4
C.Dm.-41 10863 16 38.1 -41 15 7.5
Type V. known C.Dm.-41 11036 16 45.4 -41 39 6.8 8.0
Type V. known C.Dm. -41 10972 16 43.6 -41 38 7.3
C.Dm.-42 11627 16 44.8 -42 50 6.6
Type V. known C.Dm.-44 11266 16 46.1 -44 47 8.7

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Objects of Interest on Southern Spectrum Plates.

	No	Plate	V.	H.	Object		R.A.	Dec.	Magn.	
March 7, 1899	11800	21250	15.5	22.0	✓ Ma	-27 12682	18 10.0	-27 23	7.7	
	11801	"	19.6	17.4	✓ Ma	-29 14520	17 59.7	-29 27	8.3	
	11802	"	20.4	20.7	✓ Ma	24829	18 8.7	-29 51	6¾	
	11803	21251	6.9	10.5	✓ Type IV	DM -8 4726	18 42.5	-8 4	7.1 (1855)	
	11804	"	17.4	16.1	✓ Br line	announced 1900 pub.	18 56.2	-13 18		
	11805	21252	9.8	21.4	✓ Mb	-14 3587	12 42.2	-14 17	6.8	
	11806	21253	13.2	9.0	✓ Ma	-11 3291	12 15.8	-11 0	6.8	
	11807	"	15.3	7.8	✓ Ma	-12 3613	12 13.4	-12 3	8.0	
	11808	"	15.9	8.5	✓ Ma	-12 3621	12 14.7	-12 22	8.3	
	11809	21254	11.6	14.0	✓ Ma	16243	11 49.2	-30 21	7½	
	11810	"	13.2	23.2	✓ Ma	16736	12 10.4	-31 8	7¾	
	11811	"	15.9	20.3	✓ Ma	-32 8529	12 2.6	-32 23	7.8	
	11812	"	21.9	11.9	✓ Mes2	16138	11 43.6	-35 26	7¼	
	11813	21255	19.0	12.2	✓ Ma	21960	16 6.7	-34 3	7¼	
	11814	21257	10.5	20.7	✓ Ma	DM -14 5099	18 24.5	-14 58.0	5.8	
	11815	"	11.4	9.6	✓ Ma	DM -15 4840	18 1.4	-15 18.2	8.3	
	11816	"	12.0	14.3	✓ Type IV	DM -15 4923	18 11.0	-15 40	9.0 (1855)	
	11817	"	15.6	11.1	✓ Ma	DM -17 5066	18 4.3	-17 27	9.0	
	11818	"	18.9	11.6	✓ Br line	(east 1855 -19) 1855 n26 6567	18 7.8	-19 5	(1900)	
	11819	"	19.6	8.8	✓ Br line	DM -19 4854	17 59.4	-19 25	9.6 (1855)	
	11820	"	19.4	21.8	✓ Ma	DM -19 5077	18 26.8	-19 22	7.0	
	11821	"	23.2	18.4	✓ Ma	DM -21 5013	18 19.5	-21 19.0	8.7	
	11822	"	23.3	9.2	✓ Br line	DM -21° 4864	17 59.8	-21 16	7.8	
	11823	"	24.1	16.2	✓ Ma	DM -21 4974	18 14.9	-21 44	8.3	
	11824	21258	5.3	7.1	✓ Ma	DM -7 4664	18 34.5	-7 28.8	7.3	
	11825	"	6.4	11.1	✓ Type IV	DM -8 4726	18 42.5	-8 4.1	7.1	
	11826	"	15.2	10.0	✓ Ma	DM -12 5168	18 39.6	-12 29	7.1	
	11827	"	16.9	16.9	✓ Br line	announced 1900. pub. 1855	18 56.2 53.8	-13 18 23		
	11828	21301	17.5	13.5	✓ Type IV	a26	19254	14 7.4	-53 28	7.5 (1900)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Na ×
~~Type V?~~ × Nova. 18 54.0 −13 25 (Appint 1855). M Fleming March 8, 1898

var? Chart plates examined show no evidence of var. See Book 75 page 109, Book 75 page 109, Book 95 page 115

Nd Known × Announced later as Type VI Cir. 1415

Type V? Known as Cam. Peb.
Type V Known

Type V Known ×

Na Known ×

Type V? × Nova.
Na Known × C.P.D.-53 5915 14 5.7 -53 21 9.2.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	D.	Hr.	Obj.			R.A.		Dec.		Magn.
11829	21301	21.6	16.0	✓	Mb	A.Hb. 19419	14	15.9	−55	30	8¼ (1900)
11830	"	22.5	19.1	✓	Type IV	A.Hb. 18947	13	51.6	−55	51	8 (1900).
11831	21334	14.2	8.1	✓	Ma	−11 3989	15	33.2	−11	24	8.5
11832	21335	16.9	15.2	✓	Mb	R.R. Librae (1855)	15	50.6	−18	0	(1900)
11833	"	17.9	14.8	✓	Ma	D.M. −18 4196	15	47.3	−18	21.8	8.6
11834	"	18.1	14.0	✓	Ma	" −18 4191	15	45.6	−18	30.8	7.5
11835	"	21.1	11.6	✓	Ma	" −20 4329	15	40.5	−20 (−18)	0.0	7.7
11836	"	21.9	14.4	✓	Ma	" −20 4355	15	46.3	−20	23.1	8.3
11837	21336	14.1	12.0	✓	Ma	17h 2109	17	31.0	−72	45	8
11838	21369	6.3	9.1	✓	Ma	15777	11	27.9	−30	32	5.8
11839	"	15.9	15.8	✓	Mc	16138	11	43.6	−35	26	7¼
11840	"	19.6	6.6	✓	Mb	15622 ✓ 15879	11	20.7 / 32.6	−37	12	6.5 / 7¼
11841	"	22.6	11.5	✓	Mb ✓						
11842	21372	12.7	11.9	✓	Ma	A.Hb. 7869 (7903)	6	22.4 (23.6)	−63	38 (44.9)	6.5 (9) (1900)
11843	"	16.8	9.8	✓	Ma	A.Hb. 7557	6	11.1	−65	34	5.5 (1900)
11844	21373	9.1	15.8	✓	Mb	14724	10	41.4	−46	56	7¼
11845	"	17.2	6.8	✓	Mb	14039	10	12.8	−50	42	6.9
11846	"	23.1	9.8	✓	Mb	14229	10	20.8	−53	49	7¾
11847	21375	13.5	9.8	✓	Mb	−13 3612	12	45.4	−13	50	7.8
11848	"	20.3	13.8	✓	Mb	−17 3751	12	53.5	−17	21	7.0
11849	21376	19.8	16.7	✓	Ma	−17 3932	13	39.5	−13	8	6.0
11850	21378	8.7	14.1	✓	Cont.	−3 4031	16	49.5	−3	52	neb.
March 8, 1899 11851	21379	5.2	10.6	✓	Ma	Z.C. 2035	10	28	−54	30	9
11852	"	6.5	8.9	✓	Ma	Z.C. (−55°) 1564	10	21.6	−55	7	9.2 ✓
11853	"	6.6	19.0	✓	Mb	A.Hb. 15105	10	57.9	−55	22	8.5 (1900)
11854	"	7.0	19.8	✓	Mb	C.P.D. −55 4114	10	59.7	−55	25.2	9.5
11855	"	7.2	7.8	✓	Br. line	Approx pos.	10	19	−55.6		(1900)
11856	"	7.4	6.0	✓	Ma	Z.C. (−55°) 849	10	11.4	−55	25	8.5
11857	"	7.9	15.3	✓	Mb	C.P.D. −55 3876	10	43.9	−55	57	9.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phot...proj...3672

C.P.D. -55 6001 14 14.2 -55 23 8.8
Na Known C.P.D -55 5802 13 49.9 -55 44 9.2

var. Known $\Delta y = \underline{1.0}$; $\Delta \delta' = \underline{10}$.

C.P.D. -63 561 6 ~~23.5~~ 22.2 -63 ~~43~~ 37 8.4 ^
C.P.D. -65 561 6 11.0 -65 34 6.7

Cl. n Neb?

C.P.D. -55° 3430 10 21.6 -55 7 9.4

Type V? Must be defect?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	X.	Y.	Object		R.A.		Dec.		Magn.	
11858	21379	10.4	18.2	✓ Br line	Computed pos.	10	55.8	-57	17	(1900)	
11859	"	10.9	22.4	✓ Type IV	Z.C. 742	11	10.2	-57	23	(1875)	9 (1900)
11860	"	11.1	6.8	✓ Br line	Computed pos.	10	13.3	-57	24	(1900)	
11861	"	11.5	23.2	✓ Ma	A.G. 15489	11	14.3	-57	38		7¼ (1900)
11862	"	11.8	21.3	✓ Ma	A.G. 15344	11	7.7	-57	53		7¼ (1900)
11863	"	12.2	9.5	✓ Br line	Computed pos.	10	22.9	-58	8	(1900)	
11864	"	12.3	13.4	✓ Br line	Z.C. 2684	10	36.8	-58	8		8¾
11865	"	13.1	16.5	✓ Br line	C.P.D. -58 2845	10	48.7	-58	51		9.8
11866	"	13.9	13.6	✓ Ma	Z.C. -58 2717	10	37.3	-58	54		8.6
11867	"	14.1	13.3	✓ Br line	A.G. 14626	10	37.4	-59	9		7.2 (1900)
11868	"	14.1	14.3	✓ Br line	A.G. 14720	10	41.2	-59	10		Var (1900
11869	"	14.2	14.1	✓ Br line	A.G. 14691	10	40.3	-59	12		8½ (1900)
11870	"	14.3	8.7	✓ Br line	Z.C. 1363	10	18.5	-58	59.6		8¾ (1875)
11871	"	14.9	14.0	✓ Br line	A.G. 14684	10	40.1	-59	36		6.9 (1900)
11872	"	15.3	17.0	✓ Br line	A.G. 14965	10	52.0	-59	51		8½ (1900)
11873	"	15.6	17.1	✓ Br line	A.G. 14971	10	52.2	-59	55		7¾ (1900)
11874	"	15.9	12.6	✓ Ma	C.P.D. 59 2356	10	33.5	-59	54		9.0
11875	"	16.0	8.2	✓ Ma	C.P.D. -59 2059 / Z.C. -59 1180	10	16	-59	57 / 50		9.2 / 8
11876	"	16.7	5.9	✓ Br line	Computed pos. C.P.D. -60° 1719	10	7.0	-60	8		9.7 (1900
11877	"	17.0	20.4	✓ Br line	A.G. 15305	11	5.8	-60	26		8 (1900)
11878	"	17.9	8.1	✓ Ma	Z.C. -60 1079	10	14.7	-60	45		8½
11879	"	18.7	16.2	✓ Ma	A.G. -61 14893	10	49.0	-61	29		8½ (1900
11880	"	19.3	15.8	✓ Br line	Computed pos.	10	47.9	-61	46		(1900)
11881	"	20.4	8.1	✓ Br line	Announced	10	14.6	-62	9		(1900)
11882	"	20.6	6.1	✓ Br line	" "	10	6.2	-62	5		(1900)
11883	21380	8.4	21.9	✓ Ma	-18 3757	14	1.0	-18	33		7.3
11884	21381	18.7	7.1	✓ Ma	-13 3869	14	11.4	-13	44		8.0
11856	[illegible]	7.4	6.0	✓ M[illegible]	-2 243[illegible]	[illegible]	[illegible]	-2[illegible]	25		8.0
11857	"	7.9	15.3	✓ Ma	C.P.D. -55 3876	10	42.0	-4	57		9.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phot. proj. 8672

Type V. Known
Na Known
Type V. Known

Type V Known = C.P.D. ?
Type V Known
Type V New on 21154 B

Type V Known
~~Type V~~ η Carinae
Type V Known
Type V.? Known as HB Sr. on B 19639
Type V. Known
Hydrogen lines bright. Similar to η Carinae Known
Hydrogen lines bright. Similar to η Carinae Known
~~Doubtful bright identification?~~ See A 5768 short + A 2549 chart.

" " " " "
Type V Known
Type V Known
= C.P.D. -60° 1839 Magn. 9.2

Type V. Known Herschel's Gas neb.
Type V Known Proved to be Gas neb.
Type V Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj:3867F

Objects of Interest on Southern Spectrum Plates.

No Plate	U. H.	Object	No. DM.	R. A.	Dec.	Magn.
11887 21394	10.4 10.6	✓ Mb	-4° 2218	7 59.4	-4 34	8.8
11888 "	11.3 9.8	✓ Ma	-5 2353	7 57.6	-5 0	7.0
11889 "	13.0 22.2	✓ Mc 5d	-5 2550	8 22.5	-5 50	8.4
11890 "	13.0 9.3	✓ Ma	-5 2348	8 56.6	-5 54	9.0
11891 "	13.9 12.5	✓ Ma	-6 2489	8 3.0	-6 19	7.5
11892 "	14.4 11.4	✓ Ma	-6 2483	8 0.9	-6 34	8.4
11893 "	15.5 18.8	✓ Mb?	-7 2452	8 15.8	-7 5	6.5
11894 "	17.5 19.6	✓ Mb 5c	-8 2343	8 17.4	-8 3	7.4
11895 "	19.1 10.4	✓ Ma	-8 2216	7 58.9	-8 55	9.0
11896 "	19.3 15.2	✓ Ma	-9 2445	8 8.6	-9 1	8.2
11897 "	19.4 12.4	✓ Ma	-9 2399	8 3.1	-9 5	9.4
11898 "	19.6 12.7	✓ Ma	-9 2404	8 3.6	-9 11	7.3
11899 "	22.0 11.8	✓ Ma	-10 2396	8 1.8	-10 23	9.3
11900 "	23.0 13.0	✓ Ma	-10 2413	8 4.3	-10 51	9.1
11901 "	23.5 17.0	✓ Mb 5c	-11 2313	8 12.3	-11 4	8.5
11902 "	23.6 10.6	✓ Ma	-11 2237	7 59.6	-11 10	8.8
11903 21395	5.1 11.5	✓ Ma	-7 2813	9 21.1	-7 5	7.2
11904 "	5.8 18.8	✓ Mb 5c	-7 2873	9 35.5	-7 26	9.0
11905 "	5.9 21.4	✓ Ma	-7 2895	9 40.9	-7 30	8.1
11906 "	15.0 12.5	✓ Ma	-12 2912	9 22.8	-12 6	8.3
11907 "	16.4 8.2	✓ Mb	-12 2872	9 14.2	-12 46	8.8
11908 "	16.8 12.0	✓ Ma	-12 2905	9 22.0	-12 56	8.2
11909 "	19.9 10.5	✓ Ma	-14 2850	9 18.8	-14 3	8.9
11910 "	22.3 17.5	✓ Mb	-15 2867	9 33.4	-15 42	8.3
11911 "	22.4 14.8	✓ Ma	-15 2837	9 27.8	-15 44	7.8
11912 "	23.1 16.5	✓ Mb 5c	-16 2845	9 31.3	-16 4	9.0
April 3, 1899. 11913 21396	5.6 11.6	✓ Mb	-34 11009	16 19.7	-34 50	8.4
11914 "	6.7 11.9	✓ Mb	22292	16 22.1	-35 29	8¼
11915 "	13.0 11.5	✓ cont.	-38 10997	16 19.2	-38 35	neb.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898pmae.proj..0675

var. ? known R. T. Hydrae

Cl. or neb?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Objects of Interest on Southern Spectrum Plates:

No.	Plate	V. No.	Object.		R. A.		Dec.		Magn.
11916	21396	19.3	20.8	√ Bl. Line	22763	16	43.3	-41 41	7½
11917	"	19.3	21.6	√ Bl. Line	22827	16	47.3	-41 40	7
11918	"	22.7	11.7	√ Type IV	Aspro. 1900 position	16	21.1	-43	2 (1875) (1900)
11919	"	23.6	12.5	√ Na	Aspro -43223	11	16 23.3	-43 54	8.5 (1900)
11920	21397	5.7	15.1	√ Na	SPD -77 14583 / Gillis 14979	20	57.5 / 58.8	-77 26 (1875) / 33 28 (1850)	9.0 / 9.0
11921	"	6.2	19.9	√ Na	B.C. 21h 1324	21	42.1	-77 32	8½ 8
11922	"	10.1	12.4	√ Na	SPD -79 1107 / Gillis 14680	20	27.5 / 23.8	-79 31.8 (1875) / 37 (1850)	9.3 / 9.0
11923	"	10.9	9.3	√ Na	B.C. 19h 2132	19	51.8	-79 36	8
11924	"	13.2	7.5	√ Na	SPD -80° 924 / Gillis 13955	19 / 20 19	23.7 / 19.3	-80 22 (1875) / -80 25 (1850)	8.5 / 7.5
11925	"	13.7	16.7	√ Na	SPD -81° 962 / Gillis 15173	21 / 21	18.2 / 14.5	-81 25 (1875) / -81 3 (1850)	9.2 / 9.2
11926	"	21.2	14.3	√ Na	SPD -85° 514 / Gillis 14799	20	32.9 / 26.6	-85 10 (1875) / -85 14 (1850)	8.9 / 8.7 √
11927	21399	18.8	15.2	√ Na	29191	21	11.5	-89 15	7.3
11928	21405	15.3	11.6	√ Na	-7 2813	9	21.1	-7 5	7.2
11929	"	16.9	12.2	√ Na	-12 2905	9	22.0	-12 56	8.2
11930	"	17.3	12.4	√ Na	-13 2866	9	22.3	-13 6	7.2
11931	"	22.5	15.0	√ Na	-15 2837	9	27.8	-15 44	7.8
11932	21406	12.9	5.5	√ Na	-10 3227	11	8.1	-10 48	7.2
11933	"	14.9	5.7	√ Na	-11 3063	11	8.4	-11 48	6.5
11934	"	17.1	10.8	√ Na	-12 3483	11	18.6	-12 57	7.0
11935	"	18.8	15.6	√ Pec.	-13 3407	11	28.4	-13 47	8.5
11936	"	22.8	12.3	√ Na	-15 3275	11	21.6	-15 48	7.5
11937	"	22.8	17.2	√ Na	-15 3320	11	31.8	-15 49	8.0
11938	"	22.8	17.6	√ Na	-15 3323	11	32.5	-15 49	6.3
11939	21408	13.4	8.6	√ Na	-11 3291	12	15.8	-11 0	6.8
11940	"	15.5	7.5	√ Na	-12 3613	12	13.4	-12 3	8.0
11941	"	18.9	23.2	√ Na	-13 3612	12	45.4	-13 50	7.8
11942	"	20.5	20.0	√ Na	-14 3573	12	38.9	-14 38	8.0
April 4, 1899 11943	21425	20.1	15.8	√ Na	-17 3932	13	39.5	-17 8	6.0
11944	"	21.5	16.1	√ Na	-17 3934	13	40.0	-17 57	7.7

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Type V Known
Type V Known
Na Known 0.1, 1.0; 0.4 0.5;

= 2C. -20^4 1624

Defect?

" Vieuburn as Type IV announced later - Type VI Cir 1145

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	D. H.	Object.			R. A.			Dec.		Magn.
11945	21432	9.2	18.3	✓	Ma	17319	12	37.9	-24	26	7
11946	"	12.7	15.3	✓	Ma	17159	12	31.2	-26	12	8 3/4
11947	"	12.7	16.6		Cont. -26	9257	12	32.9	-26	3	neb.
11948	"	12.9	9.4	✓	Mb -26	9114	12	16.8	-26	10	8.8
11949	"	13.3	12.6	✓	Ma	17040	12	25.1	-26	32	9
11950	"	15.0	17.4	✓	Ma	17267	12	35.9	-27	21	7 1/4
Oct. 11 1899	11950a			✓	mb -28	95/80	12	28.5	-28	6	8.8
11951	"	18.8	20.1	✓	Ma -29	9920	12	41.0	-29	7	7.8
11952	"	23.1	15.1	✓	Ma	17154	12	30.8	-31	24	8 1/2
11953	21433	7.8	8.5	✓	Ma +1	2839	13	35.0	+1	43	8.0
11954	21434	22.8	14.7	✓	Ma -15	4221	15	48.9	-15	36	6.8
11955	21436	12.2	15.7	✓	Mb	29634	21	33.5	-30	45	7 3/4
11956	"	20.6	16.4	✓	Mb?	29661	21	34.9	-34	58	8
11957	21437	16.5	15.5	✓	Md	R.R. Librae	15	50.6	-18	0	
11958	"	17.0	8.9	✓	Ma -18	4136	15	34.4	-18	8	8.0
11959	"	19.2	11.4	✓	Mb -19	4218	15	39.5	-19	15	8.8
11960	"	20.7	11.9	✓	Ma -20	4329	15	40.5	-20	0	7.7
11961	"	21.6	14.6	✓	Ma -20	4355	15	46.3	-20	23	8.3
11962	21438	15.9	12.1	✓	Ma -22	4101	16	0.8	-22	34	8.5
11963	"	16.0	15.9	✓	Cont. -22	4135	16	8.4	-22	36	neb.
11964	"	22.4	9.3	✓	Ma	21724	15	56.4	-25	52	8
11965	"	23.2	18.8	✓	Cont	22201	16	17.4	-26	17	7 1/4
April 10, 99.	11966	21440	5.2	11.3	✓	Mb -34	11009	16	19.7	-34	50	8.4
11967	"	6.3	11.7	✓	Mb	22292	16	22.1	-35	29	8 1/4
11968	"	8.2	17.8	✓	Ma -36	10938	16	35.6	-36	24	8.8
11969	"	15.4	12.8	✓	Berlin -39	10464	16	23.0	-39	59	9.6
11970	"	17.5	21.7	✓	Berlin	22843	16	48.0	-41	0	6.4
11971	"	18.0	18.6	✓	Ma	22654	16	39.8	-41	18	7 1/2
11972	"	18.8	20.6	✓	Berlin	22822	16	47.3	-41	40	7 1/2
11973	"	18.8	21.4	✓	Berlin	22763	16	45.3	-41	41	7 1/2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Cl. or neb.?

var.? Known Hγ=1.0 Hδ=1.0 (Hβ=05?)

Cl. or neb.?

Cl a neb?

Gas neb.? Known
Type V. Known

Type V. Known
Type V. Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	ℓ.	γ.	Obj.			R.A.	Dec.		Magn.
11974	21440	19.6	18.4	✓	Ma	~~C.P.D.-42 7502~~ C.D.M. -42°11818	16	37.6	-42	9.11
11975	"	21.2	21.0	✓	Ma	22803	16	46.6	-42	53 6.6
11976	"	22.3	11.6	✓	Type IV.	~~1900 Approx Position~~ C.D.M. -43° 10810	16	21.1	-43	26 27 (1900)
11977	"	23.2	12.5	✓	Ma	a.g.c. 4322311	16	23.3	-43	54 8.5 (1900)
11978	"	24.4	10.9	✓	Mb-	a.g.c. 22228	16	18.9	-44	30 9 (1900)
11979	21452	5.6	22.1	✓	Mesd	a.g.c.-62 13073	9	29.7	-62	21 Var.
11980	"	6.3	13.9	✓	Ma	C.P.D.-62 1135	8	53.9	-62	44 9.3
11981	"	6.6	14.9	✓	Ma	C.P.D.-62 1151	8	57.9	-62	51 9.3
11982	"	7.3	9.3	✓	Ma	a.g.c.-63 11651	8	33.6	-63	5 8¼ (1900)
11983	"	8.2	21.5	✓	Mb-	~~6h~~ 9h z.c. 2230	9	27.5	-63	32 9
11984	"	9.4	10.8	✓	Ma	~~6h~~ 8h z.c. 3224 ~~8~~ 8	9	39.2	-64	9 9
11985	"	9.6	15.5	✓	Ma	C.P.D.-64 990	9	0.7	-64	23 9.5
11986	"	9.6	17.5	✓	Cont.	a.g.c. 12588	9	10.1	-64	27 neb.
11987	"	10.6	12.2	✓	Ma	C.P.D.-64 941	8	45.0	-64	47 9.2
11988	"	12.3	18.1	✓	Type IV	? Approx 1900 pos.	9	13.5	-65	49 (1900)
11989	"	15.8	11.6	✓	Ma	C.P.D.-67 982	8	40.1	-67	22 9.2
11990	"	17.4	18.7	✓	Md	C.P.D.-68 921	9	17.8	-68	14 9.7
11991	"	17.4	7.7	✓	Ma	z.c.-67 1549	8	18.7	-67	56 9
11992	"	18.9	13.3	✓	Ma	C.P.D.-68 849	8	48.3	-68	58 10
11993	"	19.4	20.4	✓	Ma	C.P.D.-69 ~~1049~~ 1074	9	27.7	-69	8 9.4
11994	"	19.7	16.5	✓	Dr. line	~~approx Position~~	9	6.1	-69	33 (1900)
11995	"	20.9	19.6	✓	Ma	C.P.D.-69 1063	9	24.5	-69	54 9.5
11996	"	16.9	23.0	✓	Ma	a.g.c. 11322	8	21.5	-69	9 8.5 (1900)
April 17, '99. 11997	21453	5.9	18.9	✓	Ma	14323	10	24.7	-72	40 7 1/4
11998	"	6.4	20.9	✓	Ma	z.c. 10h 2752	10	37.8	-72	38 8
11999	"	7.8	8.3	✓	Ma	z.c. 9h 923	9	11.7	-73	12 8 1/2
12000	"	11.5	21.1	✓	Ma	z.c. 10h 3302	10	45.4	-75	7 9
12001	"	15.2	11.7	✓	Ma	13046	9	28.0	-77	15 8 3/4
12002										

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Na. Known

var ? Known

cl. or neb ?

Na ? Known

var ? New

Gas. neb ? Known

= CPD-77° 516 9.2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	V.	H.		Object		R.A.		Dec.		Magn.
12003	21453	16.6	9.1	✓	Ma	G.C. 9^h 174	9	2.1	-77	36	8½
12004	"	18.5	8.1	✓	Ma	Gilliss 5826	8	48.9	-78	19	9.2
12005	"	21.1	20.8	✓	Ma	G.C. 11^h 319	11	4.4	-79	47	9
12006	"	21.6	14.3	✓	Ma	13537	9	49.8	-80	36	8
12007	21454	8.5	18.8	✓	Type IV.	C.D.M. -48° 7401	12	19.8	-48	5X	3 (1875) (1900)
12008	"	12.7	15.6	✓	Type IV.	C.D.M. -50° 6814	12	9.4	-50	5	8 (1875) (1900)
12009	"	19.3	15.8	✓	Mb	G.C. 12^h 545	12	8.4	-54	7	8
12010	"	20.0	11.6	✓	Type IV.	C.P.D. -54° 4904	11	55.3	-54	3	4 (1875) (1900)
12011	"	24.0	20.2	✓	Ma	17048	12	25.6	-56	33	2.0
12012	"	24.3	9.1	✓	Br.line	16163	11	45.3	-56	37	9½
12013	21456	14.2	22.2	✓	Ma	G.C. 10^h 1299	10	17.7	-71	30	7½
12014	"	16.4	22.8	✓	Ma	14323	10	24.7	-72	40	7¼
12015	21457	11.8	21.3	✓	G	Probaly reflection of Jupiter See plate cover.					
12016	"	17.6	20.7	✓	Ma	DM-18 3368	12	12.2	-18	24	7.8
12017	21458	9.6	19.9	✓	Ma	17319	12	37.9	-24	26	7
12018	"	15.6	19.0	✓	Ma	17267	12	35.9	-27	21	7¼
12019	21459	7.3	21.2	✓	Mb-c	19587	14	23.2	-43	20	8
12020	"	9.8	8.4	✓	Ma	G.C. 13^h 2822	13	46.0	-44	13	9
12021	"	11.3	15.8	✓	Ma	19277	14	8.1	-45	18	8½
12022	"	12.5	6.5	✓	Mb	G.C. 13^h 2419 / 19603	13 / 14	39.9 / 23.8	-45 / -46	32 / 34	8½ / 8¼
12023	"	13.9	21.3	✓	Ma						
12024	21471	8.4	20.4	✓	Br.line	16163	11	45.3	-56	37	9½
12025	"	10.1	11.8	✓	Mb	15489	11	14.3	-57	38	7¼
12026	"	10.6	10.1	✓	Mb	15347 / 15348	11	6.6 / 7.7	-57	55 / 53	7¼
12027	"	15.2	15.9	✓	Mb	15828	11	30.2	-60	14	7¼
12028	"	15.5	16.6	✓	Mb	15890	11	32.9	-60	21	7.3
12029	"	15.8	9.9	✓	Br.line	15305	11	5.8	-60	26	8
12030	21472	15.0	9.8	✓	Ma	G.C. 17^h 2109	17	31.0	-72	45	8
12031	21490	9.5	14.2	✓	Mb	14724	10	41.4	-46	56	7¼

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

=CPD- 78° 381 8 48.2 -78 24.0 (1875) 9.8 Was F, numbering rubbed off plate - S.D cannot check ident. Location DRW Dec. 30 1916 Was, in measuring frame not here -

Na Known
Na. 0.7 1.0; 0.2 Known

Known 0.8 1.0; 0.2 0.2;
y Crucis.
Type V? Known as Gas neb.

Ghost

Gas. neb. ::: Known

Type V. Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object.		R. A.			Dec.		Magn.
12032	21491	6.1	16.5	✓Mb		16243	11	49.2	-30	21	7½
12033	"	6.7	17.5	✓Ma		16289	11	51.3	-30	38	9
12034	"	12.7	21.1	✓Ma		16496	12	0.1	-33	39	7
12035	"	16.2	14.3	✓Mc		16138	11	43.6	-35	26	7¼
12036	"	19.5	18.0	✓Mb		16327	11	52.7	-37	5	9
12037	"	23.0	10.1	✓Mb		15879	11	32.6	-38	48	7¼
April 21/1899 12038	21504	10.4	12.4	✓Pec.		20937	15	21.9	-24	49	8
12039	"	13.6	11.3	✓Ma		20872	15	19.2	-26	24	8
12040	"	18.7	18.5	✓Ma		21249	15	35.4	-28	59	7½
April 22/99 12041	21505	9.1	8.5	✓Ma		+0 2499	9	13.2	+0	47	7.5
12042	21507	10.2	13.6	✓Mcsd		19643	14	25.1	-29	39	8½
12043	"	13.3	17.3	✓Ma	-31°	11367	14	32.0	-31	7	8.6
12044	"	16.4	19.1	✓Ma	-32	10321	14	36.1	-32	39	8.5
12045	"	19.8	16.0	✓Ma		19757	14	30.0	-34	29	7½
12046	"	20.3	9.9	✓Ma	-34	9559	14	13.7	-34	26	9.1
12047	"	23.3	21.1	✓Ma		20052	14	42.4	-36	13	6.8
12048	21508	5.6	12.8	✓Ma	-32	10624	15	1.6	-32	22	7.8
12049	"	13.5	19.4	✓Ma	-36	10128	15	17.2	-36	26	9.1
12050	"	14.5	20.6	✓Ma		20927	15	21.8	-37	0	7½
12051	"	14.8	15.8	✓Ma		20683	15	9.8	-37	8	8½
12052	"	14.8	14.5	✓Ma		20597	15	6.4	-37	9	7.5
12053	"	14.9	14.8	✓Mast	-37	10049	15	5.7	-37	5	7.9
12054	"	15.0	12.8	✓Mb		20523	15	2.4	-37	12	7¾
12055	"	15.0	17.8	✓Ma	-37	10166	15	13.3	-37	9	8.5
12056	"	15.1	22.0	✓Ma	-37	10310	15	23.8	-37	14	8.4
12057	"	15.1	22.8	✓Ma		21059	15	27.3	-37	18	7¾
12058	"	17.6	19.4	✓Mb	-38	10283	15	17.1	-38	28	8.0
12059	"	20.0	22.7	✓Ma		21064	15	27.4	-39	43	6.6
12060	"	21.1	20.3	✓Ma		20913	15	21.2	-40	18	7¼

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type IV? !!! (End of last image). Known Type IV Announced later Type XI Cir. 145

ran 8 Known X Cent.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object.		R.A.		Dec.		Magn.
12061	21508	21.5	12.1	Ma	-40 9273	14	58.1	-40	20	8.3
12062	"	21.6	11.5	✓ Mb	-41 9503	14 58.2 / 14 59.3		-40 / -41	28 / 4	7.0 / 8.5
12063	"	23.0	12.6	✓ Ma						
12064	"	23.7	16.3	✓ Ma	-41 9708	15	9.1	-41	28	7.7
12065	"	14.3	8.3	✓ Ma	20242	14	51.2	-36	43	7 3/4
12066	"	15.8	9.5	✓ Ma	-37 9849	14	52.4	-37	22	8.5
April 28, '99. 12067	21529	6.3	13.4	✓ Ma S.D.M.	-22 2515	9	4.2	-22	31	8.0
12068	"	6.7	8.2	✓ Ma	-22 2464	8	53.1	-22	36	7.5
12069	"	9.8	12.8	✓ Ma	12442	9	4.7	-24	26	8 1/2
12070	"	13.0	14.4	✓ Ma	12524	9	8.2	-26	6	9
12071	"	14.7	12.5	✓ Ma	12419	9	3.7	-26	54	8 1/2
12072	"	15.3	9.4	✓ Ma	-27 6157	8	55.7	-27	2	7.3
12073	"	16.6	10.3	✓ Ma	12320	8	58.6	-27	48	8
12074	"	18.3	19.7	✓ Ma	12808	9	20.1	-28	45	8 1/2
12075	"	18.8	8.7	✓ Ma	-28 6791	8	53.8	-28	48	8.2
12076	"	20.3	15.6	✓ Mb	12583	9	10.5	-29	45	8
12077	"	24.2	12.7	✓ Ma	12420	9	3.6	-31	38	8 1/4
12078	14350	5.8	11.6	✓ Bright line	C.P.D. -45 306	15	8.3	-45	11	9.6
12079	"	6.4	6.4	✓ Ma	a2b. 20343	14	55.0	-45	26	8.5 (1900)
12080	"	18.0	16.4	? (Est. 1900)		15	24	-51.5		
12081	"	21.5	7.0	✓ Type IV	Zb. 3225	14	50.8	-52	54	8 1/2
12082	21530	6.5	10.0	✓ Ma	14323	10	24.7	-72	40	7 1/4
12083	"	6.5	12.1	✓ Ma	Gilliss 7251 ~~7254~~	10	37.2	-72	39 ~~36~~	6.5 ~~9.5~~
12084	"	13.3	20.5	✓ Mb-c	16124	11	42.7	-76	8	8
12085	"	22.9	9.9	✓ Ma	13537	9	49.8	-80	36	8
12086	21531	9.6	9.3	✓ Ma	18567	13	33.9	-39	15	6.7
12087	"	13.6	7.3	✓ Ma	19008	13	54.6	-41	23	8
12088	"	16.0	17.9	✓ Ma	G.C. 13h 3362	13	54.7	-42	26	9
12089	"	19.5	14.8	✓ Ma	G.C. 13h 2822	13	46.0	-44	13	9

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

C.Dm. -45 9789 15 8.3 -45 11 10.
Gas net.
Dm.
C.Dm. -45 9592 14 53.3 -45 20 8.5
Nova Normae N.S.?
C.P.D. -52 7681 14 50.8 -52 54 10.0
Na 0.9 1.0' 0.7 0.7'

= C.P.D. -72° 1008 10 37.8 -72 38 (1875) 8.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	D.	H.	Object.		R. A.		Dec.		Magn.
12090	21531	21.0	13.0	Ma	C.D.M.-44 8904	13	41.0	-45	56	8.7
12091	"	22.2	12.6	Ma	G.C. 13h 2419	13	39.9	-45	32	8½
12092	21532	5.2	13.6	Ma	20597	15	6.4	-37	9	7.5
12093	"	5.2	14.0	Ma	G.C. 15h 385	15	5.7	-37	4	8
12094	"	10.3	21.9	Ma	21064	15	27.4	-39	43	6.6
12095	"	10.5	23.5	Ma	21154	15	31.3	-39	47	8½
12096	"	11.4	19.5	Ma	20913	15	21.2	-40	18	7¼
12097	"	11.9	10.7	Mb	20429	14	58.2	-40	28	7.0
12098	"	14.0	15.5	Ma	C.P.D.-41 7114	15	9.0	-41	28	8.6
12099	"	14.8	9.5	Ma	20335	14	54.6	-41	53	8
12100	"	21.4	15.4	Bylinie	C.P.D.-45 7306	15	8.3	-45	11	9.6
12101	"	21.5	15.7	Ma	20702	15	11.0	-45	21	7½
12102	"	21.9	10.1	Ma	20343	14	55.0	-45	26	8½
12103	"	23.6	13.7	Ma	G.C. 15h 221	15	3.3	-46	17	8
12104	21563	17.2	9.3	Ma	-18 4136	15	34.4	-18	8	8.0
12105	"	17.6	15.5	Mb	-18 4196	15	47.3	-18	22	8.6
12106	"	17.8	14.7	Ma	-18 4191	15	45.6	-18	31	7.5
12107	"	20.9	12.3	Ma	-20 4329	15	40.5	-20	0	7.7
12108	21617	11.9	9.2	Mb	-13 3845	14	5.3	-13	10	7.0
12109	"	16.7	8.2	Ma?	-15 3817	14	2.9	-15	36	5.0
12110	21637	10.8	10.0	Ma	-4 2609	9	16.8	-4	51	7.5
12111	"	11.9	10.4	Ma	-5 2790	9	17.7	-5	23	8.4
12112	"	12.1	20.1	Ma	-5 2881	9	36.9	-5	31	8.4
12113	"	15.2	12.1	Ma	-7 2813	9	21.1	-7	5	7.2
12114	"	16.1	22.0	Ma	-7 2895	9	40.9	-7	30	8.1
12115	21639	10.2	21.3	Ma	-14 3573	12	38.9	-14	38	8.0
12116	"	10.8	16.7	Ma	-14 3544	12	29.4	-14	55	8.3
12117	21640	6.9	23.1	Mb	Z.C.-48 2161	16	31.0	-48	3	8
12118	"	9.1	14.4	Mb Sc	C.P.D.-49 9033	16	4.8	-49	17.5	±0.1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

C.P.D.-45° 8708, 8.6

Gas. ref.

C.Dm.-48 11047 1h 31.0 -48 3 8.2

C.Dm.-49 10420 1h 4.8 -49 18 9.9

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	V.	Hg.	Object.		R.A.	Dec.	Magn.	
12119	21640	13.0	17.6	✓	Br. line	C.P.D. -51 9469	16 14.9	-51 14.3	9.6
12120	"	13.8	17.9	✓	Type IV	C.P.D. -51°10147 Affect pos.	16 15.8	-51 38	(1875) 10.0
12121	"	15.1	15.2	✓	Mb	21999	16 9.0	-52 21	8½
12122	"	17.4	16.1	✓	Ma	C.P.D. -53 7745 (52)	16 10.1 (2)	-53 29	9.3 (10.1)
12123	"	20.9	22.2	✓	Mb	Zb. -55 2177	16 31.2	-55 3	8½
12124	"	23.6	16.4	✓	Ma	Zb. -56 799	16 11.2	-56 31	8½
12125	21641	12.3	17.5	✓	Ma	29634	21 33.5	-30 45	7¾
12126	21657	9.3	11.5	✓	Mb	14724	10 41.4	-46 56	7¼
12127	21658	6.6	9.6	✓	Ma	15777	11 27.9	-30 32	5.8
12128	"	19.9	7.3	✓	Mb	15622	11 20.7	-37 12	6.5
12129	21659	11.7	9.4	✓	Mb	-13 3845	14 5.3	-13 10	7.0
12130	"	12.4	6.3	✓	Mb	-13 3824	13 58.9	-13 31	7.0
12131	"	12.8	12.4	✓	Mb	-13 3868	14 11.4	-13 44	8.0
12132	21660	13.8	10.9	✓	Cont.	-3 4031	16 49.5	-3 52	neb.
12133	21675	15.4	9.5	✓	Ma	+6 2397	10 56.8	+6 0	8.2
12134	"	23.4	10.4	✓	Ma	+1 2519	10 58.6	+1 60	8.0
12135	21676	10.9	21.7	✓	Ma	18815	13 45.4	-30 5	8½
12136	"	14.5	20.1	✓	Ma	-31 10649	13 40.5	-31 48	8.3
12137	"	16.2	19.0	✓	Ma	18684	13 39.5	-32 47	8¼
12138	"	16.8	17.5	✓	Mb	18609	13 36.0	-33 6	6.9
April 29 '99	12139	21677	5.5	13.8	✓	Ma	Abb. 20569	15 4.9	-61 22	6.8 (1900)
	12140	"	7.4	16.4	✓	Br. line	Zb. 15h 934	15 13.7	-62 14½	9
	12141	"	10.3	8.4	✓	Ma	Zb. 14h 2416	14 37.9	-63 24	8
	12142	"	11.5	8.2	✓	Ma	C.P.D. -64 3008	14 36.3	-64 1	8.8
	12143	"	18.0	13.7	✓	Ma	Abb. 20505	15 2.1	-67 36	8¼ (1900)
	12144	"	19.9	18.0	✓	Ma	Abb. 20994	15 25.2	-68 33	8 (1900)
	12145	"	22.2	14.3	✓	Type IV	Abb. 20554	15 4.8	-69 42	6.2 (1900)
	12146	21679	14.8	18.7	✓	Ma	Zb. 18h 1000	18 15.8	-64 23	8½ / 8
	12147	21680	12.1	16.7	✓	Mb	27370	19 54.7	-58 44	8¼

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

B 13527 9685 21595 21060 12957 21191 20442 16381 19366 16825 5727 21958 3779 21893

Gas. Neb. = C.D.M. -51° 10119, 10
Na 0.8 1.0 : 0.8 0.8 : Var. See B 16325 and B 19366 Rate of var. as per Ist. 1900. E.C.P.
=CPD-52° 9455 16 7 5.0 -52 17.1 (1875) mag 9.2
See note on page 203 Book 85 (No 7668 or B 13835)

=C.P.D.-55 7643 9.0
=C.P.D.-56° 7599, 9.0

Cl. or Neb ?

Var ? Known Hγ = 1.0 ; Hδ = 1.0 Hε = 0.8 ; Hη = 0.4 Known T Cent.

C.P.D.-61° 4856 15 2.9 -61 16 8.6
C.P.D.-62 7470 15 13.7 -62 14 8.8
Type V ?
C.P.D.-63 3413 14 37.9 -63 24 8.9
C.P
C.P.D.-67 2776 14 59.9 -67 30 9.1
C.P.D.-68 2493 15 22.8 -68 28 8.5
C.P.D.-69 2267 15 2.4 -69 36 9.0
Na 0.6 1.0 : 0.3 0.3 :

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	H.	M.	Object.		R.A.		Dec.		Magn.
12148	21680	13.5	14.7	✓ Mc 5d	27193	19	46.8	-59	27	7½
12149	"	19.8	19.2	✓ Ma	27615	20	5.7	-62	35	7.1
12150	21695	5.6	11.5	✓ Ma	G.C. 11h 186	11	2.4	-52	8	{8, 8½
12151	"	7.7	21.4	✓ Ma	15962	11	35.9	-53	24	6.7
12152	"	8.8	19.4	✓ Mb	G.C. 11h 1984	11	28.3	-53	52	8½
12153	"	10.0	16.6	✓ Mb	G.C. 11h 1307	11	18.7	-54	27	9
12154	"	11.2	18.7	✓ Mb	G.C. 11h 1804	11	26.0	-55	3	{9½, 9½
12155	"	11.8	9.8	✓ Ma	15062	10	56.1	-55	19	8½
12156	"	11.9	10.4	✓ Mb	15105	10	57.9	-55	22	8½
12157	"	13.7	6.9	✓ Mb?	G.C. 10h 3207	10	43.9	-55	56	9
12158	"	14.5	13.7	✓ Br. line	16163	11	45.3	-56	37	9½
12159	"	15.2	10.1	✓ Ma	G.C. 10h 3992	10	55.0	-56	53	{7½, 8
12160	"	15.6	14.3	✓ Type IV	G.C. 11h 742	11	10.1	-57	15	9
12161	"	15.8	10.1	✓ Br. line	announced pos. (Cat. 1875) 10.9 55.8			-57.8	17½ (1900)	
12162	"	16.1	15.1	✓ Mb	15489	11	14.3	-57	38	7¼
12163	"	16.3	9.2	✓ Ma	14970	10	52.1	-57	31	7
12164	"	16.7	13.4	✓ Ma	15344	11	7.7	-57	53	7¼
12165	"	18.3	5.6	✓ Br. line	G.C. 10h 2623 84	10	36.1 8	-58	7 14	{8½, 8½, 8½, 9, 8½
12166	"	19.1	14.6	✓ Ma	G.C. 11h 790	11	10.9	-58	59	{8½, 8½, 8½
12167	"	19.9	6.7	✓ Br. line	14720	10	41.2	-59	10	var.
12168	"	20.0	5.8	✓ Br. line	14626	10	37.4	-59	9	7¼
12169	"	20.0	6.5	✓ Br. line	14691	10	40.3	-59	12	8½
12170	"	20.0	13.9	✓ Ma	G.C. 11h 582	11	8.1	-59	25	8½
12171	"	20.8	6.5	✓ Br. line	14684	10	40.1	-59	36	6.9
12172	"	21.0	9.6	✓ Br. line	14965	10	52.0	-59	51	8½
12173	"	21.1	9.7	✓ Br. line	14971	10	52.2	-59	55	7¾
12174	"	20.7	21.2	✓ Ma	16013	11	37.9	-59	52	7½
12175	"	21.4	19.2	✓ Ma	15828	11	30.2	-60	14	7¼
12176	"	21.6	19.9	✓ Ma	15890	11	32.9	-60	21	7.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

var? Unknown - S Pavonis

Gas. neb. + Gord sp. pl. for enl.

Na 0.8 1.0; 0.7 0.7;
Type V

Type V

Type V η Carinae.
Type V
Type V

Type V
Pec.
Pec.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	Y. H.	Object		R. A.	Dec.	Magn.
	12177	21695	21.7 16.0 ✓	Ma	15550	11 17.2	-60 26	8
	12178	"	21.8 13.2 ✓	Br. line	15305	11 5.8	-60 26	8
	12179	"	22.2 11.2 ✓	Ma	15094	10 57.5	-60 31	8
	12180	"	22.5 17.3 ✓	Ma	15659	11 22.5	-60 49	7 1/4
May 5, 99	12181	21678	5.4 14.6 ✓	Ma.	-12 4546	16 25.4	-12 15	7.0
	12182	"	19.0 21.9 ✓	Ma	-19 4436	16 40.8	-19 0	8.3
May 6, 99	12183	21696	4.9 16.1 ✓	Mb-C a2b	18925	13 50.7	-57 13	7 3/4 (1900)
	12184	"	9.2 12.2 ✓	Ma 3b. 2001		13 33.3	-59 8	9
	12185	"	9.8 16.2 ✓	Ma C.P.D.	-59 5306	13 49.0	-59 30	9.7
					-59 5307	13 49.1	-59 31	9.8
	12186	"	10.0 7.9 ✓	Mb-C.P.D.	-59 4965	13 16.8	-59 21	9.1
	12187	"	10.6 18.8 ✓	Ma 3b.	3660	13 59.4	-59 56	8.5
	12188	"	12.2 8.1 ✓	Ma a2b	18207	13 17.6	-60 34	9
	12189	"	12.6 10.8 ✓	Ma C.P.D.	-60 4776	13 26.8	-60 47	9.8
	12190	"	12.9 6.7 ✓	Ma a2b.	18071	13 11.9	-60 48	8
	12191	"	13.4 18.1 ✓	Ma a.2b.	19075	13 58.6	-61 27	7 1/2
	12192	"	13.5 6.6 ✓	Ma 3b.	570	13 9.4	-60 55	8.5
	12193	"	13.7 21.9 ✓	Ma a2b.	19381	14 14.6	-61 33	9 1/4 (1900)
	12194	"	13.8 14.8 ✓	Ma a2b.	18790	13 44.6	-61 38	9 (1900)
	12195	"	13.8 10.2 ✓	Ma a2b.	18377	13 25.5	-61 29	9 1/4 (1900)
	12196	"	14.0 9.9 ✓	Br. line C.P.D.	-61 3753	13 22.6	-61 26	9.6
	12197	"	14.3 18.3 ✓	Ma a2b	19091	13 59.5	-61 53	7.5 (1900)
	12198	"	14.5 10.5 ✓	Br. line C.P.D	3791	13 25.1	-61 40	9.6 (1900)
	12199	"	16.6 15.9 ✓	Mb 3b. 2909		13 47.3	-62 57	8 1/2
	12200	"	18.5 8.5 ✓	Type IV a2b.	18157	13 15.5	-63 42	8 (1900)
	12201	"	18.9 13.8 ✓	Ma a2b.	18667	13 39.4	-64 11	8 1/2 (1900)
	12202	"	21.7 11.3 ✓	Br. line	(Est. 1900.0)	13 26.	-65.5	(1900)
					Approx Pos.	13 24.7	-65 20	(1900)
	12203	"	22.6 15.4 ✓	Br. line	CPD-65° 2513	13 46.5	-66 1	(1900)
					~~D.M. 5315~~	~~13 47.0~~	~~-66 2~~	~~(1900)~~
	12204	"	24.5 13.4 ✓	Br. line C.P.D.	-66 2299	13 34.1	-66 46	9.0
	12205	"	21.2 5.8 ✓	Br. line a2b	17840	13 1.7	-64 46	6 (1900)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phas..proj...867F

Type V

C.P.D. -57 1410 13 49.0 -57 6 8.6
C.P.D. -59 5119 13 33.3 -59 8 9.2
Orl HH33 spect. B37583 spect B21733 spect these stars are not separated Peculiarity may be caused by superposition of the stars -

C.P.D. -59 5413 13 59.4 -59 56 9.6
C.P.D. -60 4640 13 16.0 -60 26 9.2

C.P.D. -60 4579 13 10.3 -60 40 8.7
C.P.D. -61 4321 13 56.8 -61 20 9.0
C.P.D. -60 4568 13 9.4 -60 55 9.0
C.P.D. -61 4497 4332 13 14 12.8 57.7 -61 26 46 9.4 8.8 -
C.P.D. -61 4074 13 42.9 -61 30 9.1
C.P.D. -61 3769 13 23.9 -61 21 9.4
Type V ? Known
C.P.D. -61 4332 13 57.7 -61 46 8.8
Gas. net ? Known as Type V
C.P.D. -62 3755 13 47.3 -62 57 9.0 "Following & ~~true~~ northern" marked.
Na 0.8 1.0 0.7 0.7 Known
C.P.D. -63 2720 13 13.9 -63 34 9.5
C.P.D. -64 2552 13 37.6 -64 3 9.0
Gas. net ? New
~~Gas. net ?~~ Known
~~C.P.D. -65 2513 13 44.7 -65 54 10.0~~
~~Type V~~ Known
Type V Known
C.P.D. -64 2183 13 0.1 -64 38 6.1 Prismatic companion.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	ℏ	ℋ	Object.	R.A.	Dec.	Magn.
May 24 '99	12206	21697	8.6	7.9 ✓	Ma C.D.M.-38 10735	15 46.7	-38 34.3	7.9
	12207	"	9.0	11.8 ✓	Mb Abs	21775	15 58.4	-38 56	7½ (1900) =
	12208	"	11.0	22.1 ✓	Br.line	-39 10464	16 23.0	-39 59	9.6
	12209	"	12.8	9.0 ✓	Ma Zb.	3404	15 48.6	-40 42	8½ =
	12210	"	17.8	20.5 ✓	Type IV Approx	C.Dm.-43 10810	16 19.3	-43 23	9.2
	12211	"	18.8	21.3 ✓	Ma Abs	22311	16 23.3	-43 54	8½ (1900) =
	12212	"	20.3	21.9 ✓	Ma Abs.	22343	16 24.8	-44 40	8¼ (1900) =
	12213	"	23.3	16.9 ✓	Ma Abs	22047	16 11.1	-46 12	8½ (1900) =
	12214	21698	6.9	21.0 ✓	Ma Abs	22803	16 46.6	-42 53	6.6 (1900)
	12215	"	8.3	14.6 ✓	Ma Abs	22440	16 29.4	-43 32	8½ (1900) =
	12216	"	10.6	13.1 ✓	Ma Abs	22343	16 24.8	-44 40	8¼ (1900) =
	12217	"	10.8	21.3 ✓	Br.line Abs	22838	16 47.9	-44 50	8¼ (1900) =
	12218	"	13.9	8.5 ✓	Ma Abs	22047	16 11.1	-46 12	8½ (1900) =
	12219	"	15.0	18.2 ✓	Br.line Abs	22640	16 39.2	-46 54	7.4 (1900)
	12220	"	17.4	16.0 ✓	Ma Zb.	2161	16 30.9	-48 3	8 =
	12221	"	20.0	13.7 ✓	Ma Abs	22357	16 25.7	-49 22	8 (1900) =
	12222	21699	12.9	8.7 ✓	Ma	~~Gillis -80° 928 14061 19 28.1 -81 43 7.0~~			=
	12223	"	13.2	21.6 ✓	Mb	30358	22 8.8	-80 57	5.6
	12224	"	22.8	16.3 ✓	Mb	28714	20 57.3	-86 3	7½
	12225	21700	13.8	15.0 ✓	Mb	29939	21 48.2	-41 44	7¾
	12226	"	15.4	18.0 ✓	Ma	3C.21 h 1730	21 54.8	-42 41	8
	12227	"	23.5	18.3 ✓	Ma	30148	21 57.3	-46 37	7½
	12228	"	24.0	16.8 ✓	Ma	30049	21 53.0	-46 49	7½
	12229	21701	12.7	13.7 ✓	Ma Abs	31441	23 4.6	-41 8	6.2 (1900)
	12230	"	13.3	11.3 ✓	Ma Abs.	31331	22 58.1	-41 21	6.9 (1900)
	12231	"	17.6	12.0 ✓	Ma Abs.	31357	22 59.4	-43 34	7¾ (1900)
	12232	"	22.6	13.6 ✓	Ma Abs.	31422	23 3.4	-46 3	7.8 (1900)
July 5, 1899	12233	21564	16.2	11.6 ✓	Ma	-22 4101	16 0.8	-22 34	8.5
	12234	"	16.2	15.1 ✓	Cont.	-22 4135	16 8.4	-22 36	neb.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1908pmae.proj..gaf

C.Dm.-38 10852 15 56.7 -38 52 7.8
Knowny as 3 as. neb.
Type V? "B 27930 chr. faint neb. ~~not note~~ & confirms CB pelands identification of neb." see note in 3 as. neb. list.

C.Dm.-40 10084 15 48.5 -40 42 8.0
Na 0.8 6.0; 0.2 0.2; Known

C.Dm.-43 10840 16 21.6 -43 50 7.7

C.Dm.-44 10926 16 23.0 -44 37 7.6

C.Dm.-46 10627 16 9.3 -46 8 7.5

C.Dm.-42 11627 16 44.8 -42 50 6.6

C.Dm.-43 10932 16 27.6 -43 29 8.1

C.Dm.-44 10926 16 23.0 -44 37 7.6

~~C.Dm.-44 11274 16 46.6 -44 54 7.3~~ C.Dm.-44° 11266 16 46.1 -44 47 (1875) 8.7
Type V. Known

C.Dm.-46 10627 16 9.3 -46 8 7.5

C.Dm.-46 11019 16 37.4 -46 52 7.7 Type V? Known in Per. Eu. V. as having Br. band Wave length about 4700

C.Dm.-48 11047 16 31.0 -48 3 8.2

C.Dm.-49 10765 16 23.8 -49 19 7.8

C.P.D.-80 924 19 23.7 -80 228.5

C.Dm.-41 15163 23 3.2 -41 16 6.2

C.Dm.-41 15121 23 56.7 -41 30 6.9

C.Dm.-43 15260 ~~23~~ 22 58.7 -43 45 7.2

C.Dm.-46 14553 23 2.0 -46 11 7.5

C. a Nebl? Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	ℏ	ℋ	Object.		R.A.	h		Dec.		Magn.	
12235	21564	17.9	11.1	Nb	21865	16	2.2		-23	31	9	
12236	"	23.3	18.1	Cont	22201	16	17.4		-26	17	7¼	
12237	21793	7.7	6.5	Nb	Akb	20052	14	42.4	-36	13	6.8	(1900)
12238	"	8.6	10.1	Nb	Akb	20242	14	51.2	-36	43	7¾	(1900)
12239	"	10.0	11.3	Nb	Akb 14h	3333	14	52.4	-37	22	8½	(1900)
12240	"	10.4	16.2	Brlnc	Nkb	5873	15	6.3	-37	43		(1900)
12241	"	12.1	14.6	Cont.	Approx pos.		15	2	-38	7		(1900)
12242	"	16.0	13.1	Nb	Akb.	20429	14	58.2	-40	28	7.0	(1900)
12243	"	21.3	9.6	Na	Zb. 14h	2985	14	46.8	-42	59	8?	
12244	21821	11.0	17.5	Na	Akb.	17319	12	37.9	-24	26	7	(1900)
12245	"	13.5	14.5	Na	Akb.	17159	12	31.2	-26	12	8¾	(1900)
12246	"	13.5	15.8	Cont.	C.D.M.-26	9257	12	32.9	-26	3.4	neb.	
12247	"	13.9	8.6	Na	Zb. 12h	1046	12	16.8	-26	10	9	
12248	"	14.3	11.8	Na	Akb	17040	12	25.1	-26	32	9	(1900)
12249	"	15.8	16.6	Na	Akb.	17267	12	35.9	-27	21	7½	(1900)
12250	"	17.6	13.9	Na	Zb. 12h	1744	12	28.5	-28	5	9	
12251	"	19.6	19.4	Na	Zb. 12h	2461	12	41	-29	7	8.3	
12252	21886	17.6	19.0	Na	Akb	32437	0	0.4	-43	27	7¾	(1900)
12253	22121	13.5	16.3	Nb	Dkb	+47 2003	12	48.3	+47	59	5.8	
12254	"	14.7	15.7	Nb	Dkb	+47 1998	12	46.7	+47	27	7.0	
12255	"	17.3	12.6	Type I	Dkb	+46 1817	12	38.3	+46	13	5.5	
12256	"	22.5	20.1	Na	Dkb	+43 2296	12	57.3	+43	47	6.0	
July 19, 1899 12257	21711	7.6	9.9	Na	Akb	15962	11	35.9	-53	24	6.7	(1900)
12258	"	8.5	11.2	Na	C.P.D.	-53 4742	11	39.1	-53	44	9.3	
12259	"	8.9	8.0	Na	Zb. 14h	1984	11	28.3	-53	52	8½	
12260	"	9.2	18.3	Nb	C.P.D.	-54 5011	12	3.1	-54	6	9.2	
12261	"	9.3	19.8	Nb	Zb.	545	12	8.4	-54	8	8.0	
12262	"	9.7	17.4	Nb	Akb	16540	12	1.6	-54	28	9¼	(1900)
12263	"	9.8	15.6	Type IV	C.P.D.	-54 4904	11	54.0	-54	25	9.8	

This is an I series plate. Examined with Bache plate & noted here by mistake.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...367F

Cl. or Neb.?

Gas. neb. ? Known = C.D.M. -37° 10033 15 6.4 -37 44 (1900)
Comet?

C.D.M. -24 10500 12 36.6 -24 18 7.5
C.D.M. -26 9220 12 29.9 -26 4 8.8
Cl. or Neb.?
C.D.M. -26 9114 12 16.8 -26 10 8.8
C.D.M. -26 9165 12 23.8 -26 24 7.6
C.D.M. -27 8811 12 34.6 -27 13 7.1
C.D.M. -28 9580 12 28.5 -28 6 8.8
C.D.M. -29 9920 12 41.0 -29 7 7.8
C.D.M. -43 15584 23 59.1 -43 35 7.5

Known Na 0,5 1.0; 0.4 0.4; × Enl (?)
D.M. +43° 2295 12 57.2 +43 42 9.1 superposed ? Probably not.
C.P.D. -53 4691 11 34.7 -53 16 7.7

C.P.D. -53 4627 11 28.3 -53 52 9.0

C.P.D. -54 5075 12 8.4 -54 8 8.8 ✓
C.P.D. -54 4969 12 0.2 -54 22 9.0 ✓
Na 0.7, 1.0; 0.3, 0.3; Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object.		R.A.		Dec.		Magn.
12264	21711	10.0	16.3	Ma	Abb	16449	11	57.9	-54	38	8½ (1900)
12265	"	12.8	11.3	Ma	Zb.	2690	11	38.8	-55	54	8½
12266	"	13.5	13.9	Ma	Abb	16249	11	49.4	-56	24	7 (1900
12267	"	13.9	13.8	Bz lines	Abb.	16163	11	45.3	-56	37	9½ (1900)
12268	"	14.8	15.6	Ma	Abb.	16400	11	55.6	-57	3	8½ (1900)
12269	"	16.8	15.4	Pec	Zb.	3668	11	53.6	-57	54	9.0
12270	"	18.0	21.5	Ma	Abb.	16962	12	22.0	-58	26	6.4 (1900)
12271	"	21.3	9.2	Ma	Abb.	15828	11	30.2	-60	14	7¼ (1900)
12272	"	21.5	9.9	Ma	Abb	15890	11	32.9	-60	21	7.3 (1900)
12273	"	21.5	16.6	Ma	Abb	16488	11	59.8	-60	24	6.6 (1900)
12274	"	21.9	13.4	Ma	Abb	16196	11	46.8	-60	36	8½ (1900)
12275	"	22.1	15.2	Ma	Abb	16368	11	54.2	-60	41	8½ (1900)
12276	"	22.1	17.4	Ma	Abb.	16575	12	3.3	-60	41	8 (1900)
12277	"	22.1	9.8	Ma	Zb.	2179	11	31.7	-60	29	8
12278	21712	4.8	12.8	Ma	Zb.	1962	13	32.6	-61	52	7.5
12279	"	5.0	14.2	Ma	Abb	18694	13	40.2	-62	6	6.8 (1900)
12280	"	5.8	17.4	Ma	Abb.	18994	13	54.3	-62	28	7½ (1900)
12281	"	8.4	18.7	Type I	Abb.	18157	13	15.5	-63	42	8 (1900
12282	"	9.1	14.0	Ma	Abb	18667	13	39.4	-64	11	8.5 (1900
12283	"	12.8	15.5	Bz lines	approx Pos		13	44.7	-64	53	(1875)
12284	"	14.6	13.4	Bz lines	C.P.D.-66 2299		13	34.1	-66	46	9.0
12285	"	15.8	6.8	Ma	Abb.	17848	13	1.8	-67	16	7.2 (1900)
12286	"	15.9	13.1	Mt	Zb.	1960	13	32.5	-67	27	9
12287	"	18.4	16.0	Ma	C.P.D.-68 2038		13	48.1	-68	41	9.5
12288	"	21.8	19.0	Ma	Zb. 14h 436		14	6.8	-70	16	8½
12289	"	23.5	13.1	Ma	Abb.	18548	13	33.3	-71	22	7.6 (1900)
12290	21713	18.3	19.3	Ma	DM -13 4741		17	37.6	-13	58	8.0
12291	"	18.5	15.7	Ma	DM -14 4707		17	30.2	-14	1.1	7.8
12292	21733	5.1	14.4	Ma	Abb	18925	13	50.7	-57	13	7¾ (1900)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

C.P.D.-54 4932 11 56.7 -54 30 9.1
C.P.D.-55 4600 11 38.8 -55 54 9.3
C.P.D.-56 4863 11 48.2 -56 16 8.5
Gas net & Known
C.P.D.-56 4818 11 44.1 -56 29 9.2
C.P.D.-56 4944 11 54.3 -56 55 9.1
Type IV? * somewhat resembles Nova Centauri? Announced later as Denk's band, Circular 60. Type VI. Cir. 145
C.P.D.-57 5169 11 53.7 -57 54 9.9
C.P.D.-58 4289 12 20.6 -58 18 8.3
C.P.D.-60 3069 11 29.0 -60 6 8.7
C.P.D.-60 3196 11 31.7 -60 13 8.2
C.P.D.-60 3697 11 58.5 -60 16 8.5
C.P.D.-60 3442 11 45.6 -60 28 9.3
C.P.D.-60 3549 11 53.0 -60 33 9.6
C.P.D.-60 3780 12 2.0 -60 33 9.2
C.P.D.-60 3178 11 31.1 -60 29 8.7
C.P.D.-61° 3897 13 32.6 -61 52 8.8
C.P.D.-61 4003 13 38.5 -61 58 8.3
C.P.D.-62 3839 13 52.5 -62 20 8.5
2 Na 0.7 10.04 03. Known
C.P.D.-63 2720 13 13.9 -63 34 9.5
C.P.D.-64 2552 13 37.6 -64 3 9.0
C.P.D.-65 2513 13 44.7 -65 54 10.0
Gas net. * Known
Type V? Known
C.P.D.-67 2192 13 0.2 -67 8 8.6
C.P.D.-67 2340 13 32.5 -67 27 9.4

C.P.D.-70 1732 14 6.8 -70 16 9.1
C.P.D.-71 1498 13 31.4 -71 14 9.1

C.P.D.-57 6410 13 49.0 -57 6 8.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U. H.	Object.		R.A.	Dec.	Magn.	
12293	21733	5.1	14.9	✓ ~~Type IV~~	C.P.D.-57	6427	13 50.7	-57 8.8	9.6	
12294	"	10.6	21.8	✓ Ma	7h. 14h. 1139		14 17.8	-59 43	8.2	
12295	"	12.2	23.5	✓ Ma	Asb. 19689		14 27.3	-60 32	7.8/4 (1900)	
12296	"	13.5	21.1	✓ Ma	7h. 1028		14 16	-61 11	9.0	
12297	"	13.9	20.2	✓ Ma	Asb 19381		14 14.6	-61 33	9.7/2 (1900)	
12298	"	13.9	13.1	✓ Ma	7h. 2616		13 42.9	-61 30	7.1/2	
12299	"	14.1	8.2	✓ Br line	C.P.D.-61	3753	13 22.6	-61 26	9.6	
12300	"	16.8	14.2	✓ Ma	7h 13h. 2909		13 47.3	-62 57	8.5/2	
12301	"	18.5	6.7	~~Type IV~~	Asb 18157		13 15.5	-63 42	8 (1900)	
12302	"	19.0	12.1	✓ Ma	Asb 18667		13 39.4	-64 11	8.5/2 (1900)	
12303	"	21.7	13.7	✓ Br line	C.P.D.-65	2513	13 44.7	-65 54	10	
12304	"	24.6	11.6	✓ Br line	C.P.D.-66	2299	13 34.1	-66 46	9.0	
(April 1910) 12304a	"			✓ Br. line	C.P.D.-61°	3787	13 24.7	-61 43	9.7	
12305	21734	4.7	11.9	✓ Mb-	Asb. 21382		15 41.8	-51 55	7.1/2 (1900)	
12306	"	10.1	10.8	✓ Ma	C.P.D.-54	4656	15 35.4	-54 28	9.6	
12307	"	13.0	16.6	✓ Ma	Asb. 21733		15 57.3	-56 4	7.8/4 (1900)	
12308	"	14.2	20.9	✓ Ma	7h 16h 799		16 11.2	-56 31	8.5	
12309	"	15.9	22.9	✓ Mb sc	7h. 16h.	1316	16 18.7	-57 15	8.5/2	
12310	"	17.9	18.8	✓ Ma	7h 16h	309	16 4.0	-58 23	9	
12311	"	19.0	8.7	✓ Ma	7h. 15h	1701	15 25.1	-58 53	9	
12312	"	19.5	10.8	✓ Ma	Asb. 21240		15 35.2	-59 18	8.9/2	
12313	"	21.2	12.1	✓ Mb-	7h. 15h	2637	15 37.9	-60 5	8.9/2	
12314	21735	1.0	10.2	✓ Ma	Asb. 29700		21 37.0	-54 57	7.1 (1900)	
12315	"	12.9	10.4	✓ Ma	Asb 29705		21 37.3	-55 56	7.0 (1900)	
12316	"	13.8	18.5	✓ Ma	Asb 30332		22 6.3	-56 27	7.5/2 (1900)	
12317	"	15.2	14.4	✓ Ma	Asb 30001		21 51.1	-57 11	7.5/2 (1900)	
12318	"	16.3	18.7	✓ Mb	Asb 30351		22 7.3	-57 43	8 (1900)	
12319	"	17.1	19.2	✓ Mb-	Asb 30388		22 9.4	-58 4	7 (1900)	
12320	21736	7.6	9.9	✓ Ma	-13	6407	23 19.9	-13 44	7.0	
12321	"	14.3	22.2	✓ Ma	-17	6836	23 45.2	-17 10	7.3	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

"M & N" 4433 2225 ~~Position to be measured on chart pl. B 1891.6 Dec. 1900.0 13 50 ± 59 7~~

~~Na ? Compared with~~ B 18916 (CH). Image ft? var? Sept. 25, 1899.

C.P.D.-59 5568 14 17.8 -59 43 9.4
C.P.D.-60 5432 14 25.4 -60 25 8.8
C.P.D.-61 4528 14 16.0 -61 11 9.4
C.P.D.-61 4497 14 12.8 -61 26 9.4
C.P.D.-61 4074 13 42.9 -61 30 9.1
Type V, ? Known
C.P.D.-62 3755 13 47.3 -62 57 9.0 (C.P.D.-62 3754, 9.4, superposed)
Na 0.8, Ca 0.6 0.6 × Known Type IV
C.P.D.-63 2726 13 13.9 -63 34 9.5
C.P.D.-64 2552 13 37.6 -64 3 9.0
Gas net. ? Known
Type V, ? Known
Type-V now.
C.P.M.-51 9521 15 39.9 -51 50 7.3

C.P.D.-58 7018 15 55.3 -55 60 8.2
C.P.D.-56 7599 16 11.2 -56 31 9.0
C.P.D.-57 8032 16 18.7 -57 15 9.0
C.P.D.-58 6670 16 4.0 -58 23 9.4
C.P.D.-58 6061 15 25.1 -58 53 9.2
C.P.D.-59 6246 15 33.2 -59 13 9.1
C.P.D.-60 6097 15 37.8 -60 5 9.2
C.P.D.-55 9670 21 35.2 -55 4 7.8
C.P.D.-56 9716 21 35.5 -56 3 7.5
C.P.D.-56 9835 22 4.6 -56 34 7.9
C.P.D.-57 10002 21 49.4 -57 18 8.4
C.P.D.-57 10071 22 5.6 -57 50 8.7
C.P.D.-58 7936 22 7.7 -58 11 8.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	H. M.	Object.	R.A.	Dec.	Magn.	
12322	21736	21.1 17.0	Ma −20 6636	23 34.2	−20 34	7.8	1
12323	21746	6.1 12.8	Ma C.P.D.−57 5715	12 41.0	−57 21	9.3	
12324	"	6.4 20.9	Blue Zb. 651	13 10.6	−57 29	9	
12325	"	8.4 7.6	Mb−Azb. 16962	12 22.0	−58 26	6.4 (1900)	=
12326	"	10.2 22.2	Ma C.P.D.−59 4965	13 16.8	−59 21	9.1	
12327	"	12.7 20.4	Ma Azb. 18071	13 11.9	−60 48	8 (1900)	=
12328	"	13.2 20.1	Ma Zb. 570	13 9.4	−60 55	8½	=
12329	"	14.6 23.2	Br. line C.P.D.−61 3753	13 22.6	−61 26	9.6	
12330	"	18.1 16.8	Ma Zb. 12h 3312	12 56	−63 26	9	=
12331	"	18.6 20.8	Type IV Azb. 18157	13 15.5	−63 42	8	
12332	"	19.0 17.3	Ma Zb. 12h 3432	12 58.2	−63 51	8½	=
12333	21747	5.3 18.5	Blue Zb. 15h 934	15 13.7	−62 14	9	=
12334	"	7.6 16.0	Mb Zb. 15h 203	15 3.1	−63 25	8½	
12335	"	9.2 22.2	Ma Zb. 15h 2107	15 30.7	−64 1	8½	
12336	"	13.6 12.0	Ma C.P.D.−66 2646	14 38.3	−66 19	9.3	
12337	"	14.3 8.9	Ma Zb. 14h 1773	14 27.6	−66 33	9	
12338	"	15.1 19.2	Ma Zb. 15h 1328	15 19.5	−67 6	8½	
12339	"	17.8 14.8	Ma Zb 14h 3609	14 56.8	−68 30	8½	
12340	"	17.8 19.6	Ma Azb. 15h 20995	15 25.2	−68 33	8 (1900)	
12341	"	18.5 18.8	Ma Zb. 15h 1289	15 18.9	−68 47	9½	
12342	"	20.0 15.8	Type IV Azb 20554	15 4.8	−69 42	6.2 (1900)	=
12343	"	20.0 9.2	Ma Zb 15h 660	15 9.5	−69 54	9.2	=
12344	"	20.6 17.0	Ma Azb 20648	15 9.4	−71 26	6.8 (1900)	
12345	"	23.5 16.5	Ma Azb 19680	14 27.1	−69 32	7¼ (1900)	
12346	21748	5.8 13.9	Ma Zb. 17h 1169	17 17.3	−52 29	9	
12347	"	7.0 12.7	Ma Zb. 17h 901	17 13.1	−53 5	9	
12348	"	7.0 14.0	Ma Azb 23586	17 19.5	−53 9	7¼	
12349	"	7.5 9.4	Ma Azb 23220	17 4.2	−53 15	7½	
12350	"	8.1 17.9	Cont. N.G.C. 6397	17 29.3	−53 35	(1860)	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

C.P.D. -57 5981 13 10.7 -57 29 8.6
Type V. Known
C.P.D. -58 4289 12 20.6 -58 18 8.3

C.P.D. -60 4579 13 10.3 -60 40 8.7
C.P.D. -60 4568 13 9.4 -60 55 9.0
Type V. Known
C.P.D. -63 2507 12 56.0 -63 26 9.3
Na 0.7 1.0 0.5 05. Known
C.P.D. -63 2720 13 13.9 -63 34 9.5
C.P.D. -63 2528 12 58.2 -63 52 9.2
Type V Known
C.P.D. -62 4470 15 13.7 -62 14 8.8
C.P.D. -63 3529 15 3.1 -63 25 8.8
-64 3244 15 30.7 -64 1 9.2
~~C.P.D. -63 3529 15 3.1 -63 25 8.8~~

C.P.D. -66 2588 14 27.6 -66 33 9.6
C.P.D. -67 2896 15 19.5 -67 6 9.7
C.P.D. -68 2299 14 56.8 -68 31 9.1
C.P.D. -68 2493 15 22.8 -68 28 8.5
C.P.D. -68 2458 15 18.9 -68 47 9.2
Na 0.7 1.0 0.6 0.5 Known
C.P.D. -69 2267 15 2.4 -69 36 9.0
C.P.D. -69 2317 15 9.5 -69 54 9.4
C.P.D. -71 1792 15 6.9 -71 20 8.4
C.P.D. -69 2068 14 24.9 -69 25 9.0
C.P.D. -52 10653 17 17.3 -52 29 9.3
C.P.D. -53 8572 17 13.2 -53 5 9.4
C.P.D. -53 8619 17 17.5 -53 7 8.0
C.P.D. -53 8445 17 2.2 -53 13 8.3
Cl. a Neb ? Cluster

Cluster

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	U.H.C.	Obj.			R.A.		Dec.		Magn.
12351	21748	14.3	14.9	✓	Ma	AGC 23645	17	22.3	−56	47	8½ (1904)
12352	"	14.4	10.3	✓	Ma	Abl 23259	17	5.8	−56	46	7.0 (1900)
12353	"	16.2	18.2	✓	Type IV	Abl 23935	17	34.7	−57	40	7.0 (1900)
12354	"	16.9	8.1	✓	Ma	Z.C. 16h 3903	16	54.7	−57	54	8.2
12355	"	16.8	18.4	✓	Ma	Abl 23955	17	35.5	−57	58	7½ (1900)
12356	"	18.7	14.3	✓	Ma	Abl 23598	17	20.3	−58	57	7½ (1900)
12357	"	21.8	18.3	✓	Ma	Z.C. 17h 2303	17	33.8	−60	27	8.8
12358	"	23.2	14.3	✓	Ma	Z.C. 17h 1207	17	17.8	−61	11	9
12359	21768	7.9	18.1	✓	Ma	Z.C. 14h 2416	14	37.9	−63	24	8
12360	"	7.9	15.6	✓	Ma	Z.C. 14h 1723	14	26.8	−63	31	8½
12361	"	13.1	6.9	✓	Br line	C.P.D. -65 2513	13	44.7	−65	54	10.0
12362	"	14.0	15.6	✓	Ma	Z.C. 14h 1773	14	27.6	−66	33	9
12363	"	18.5	20.8	✓	Ma	Z.C. 14h 3609	14	56.8	−65	31	8½
12364	"	19.8	14.9	✓	Ma	Abl 19680	14	27.1	−69	32	7½ (1900)
12365	"	20.0	14.3	✓	Ma	A.G.C. 19589	14	23.7	−69	39	9½ (1904)
12366	"	20.8	21.4	✓	Type IV	Abl 20554	15	4.8	−69	42	6.2 (1900)
12367	"	21.5	11.8	✓	Ma	Z.C. 14h 436	14	6.8	−70	15.6	8½
12368	"	22.6	12.0	✓	Ma	Abl. 19304	14	10.2	−70	56	8 (1900)
12369	"	20.9	13.2	✓	Ma	C.P.D. -69 2047	14	14.7	−69	58	9.4
12370	21769	11.2	10.9	✓	Mb	Z.C. 15h 2637	15	37.9	−60	5	8½
12371	"	15.6	14.6	✓	Br line	C.P.D. -62 5141	15	52.8	−62	20	8.8
12371a	"			✓	Bflame	Z.C. 15h 934	15	13.7	−62	14	9
12372	"	18.0	12.0	✓	Ma	C.P.D. -63 3699	15	41.2	−63	32	9.3
12373	"	18.5	12.3	✓	Ma	Z.C. 15h 3004	15	42.8	−63	45	8½
12374	"	18.7	15.5	✓	Ma	C.P.D. -63 3807	15	57.1	−63	52	9.3
12375	"	22.1	10.0	✓	Ma	Z.C. 15h 2149	15	31.3	−65	31	9
12376	"	23.9	13.9	✓	Ma	Abl. 21599	15	51.9	−66	33	7½ (1900)
12377	21770	10.0	22.0	✓	Ma	DM. +25 3825	19	6.6	+25	22.4	8.8
12378	"	10.9	21.7	✓	Ma	DM +24 4152	19	26.0	+24	43	7.2
12379	"	15.8	12.1	✓	Ma	DM +25 4190	19	26.6	+25	9	6.9

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

C.P.D.-56 8294 17 20.2 -56 46 8.8

C.P.D.-56 8098 17 3.7 -56 44 7.8

Na 0.5, 1.0 ; 0.4 0.K. Known

C.P.D.-57 8687 17 32.5 -57 39 8.8

C.P.D. -57 8272 +16 54.7 -57 54 8.6

C.P.D.-57 8692 17 33.3 -57 57 8.6

C.P.D.-58 7141 17 18.1 -58 55 8.4

C.P.D.-60 6924 17 33.8 -60 27 9.0

C.P.D.-61 5936 17 17.8 -61 11 9.3

C.P.D.-63 3413 14 37.9 -63 24 8.9

C.P.D.-63 3319 14 26.8 -63 31 9.2

Gas net? Known

C.P.D.-66 2589 14 27.6 -66 33 9.6

C.P.D.-68 2299 14 56.8 -68 31 9.1

C.P.D.-69 2068 14 24.9 -69 25 9.0

C.P.D.-69 2060 14 21.6 -69 32 9.2

Na C.P.D.-69 2267 15 2.4 -69 36 9.0 Known Type ~~IV~~ ~~VI~~

C.P.D.-70 1732 14 6.8 -70 16 9.1

C.P.D.-70 1735 14 8.0 -70 49 9.1

C.P.D.-69 2047

C.P.D.-60 6097 15 37.8 -60 5 9.2

Type V? or Neb? X Known Type ~~IV~~ V

Type V.? C.P.D.-62° 4470 15 13.7 -62 14 8.8

C.P.D.-63 3712 15 42.8 -63 45 9.1

C.P.D.-65 3122 15 31.3 -65 31 9.2

C.P.D.-66 2866 15 49.5 -66 29 8.9

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	H. M.	Object		R.A.	Dec.		Magn.	
12380	21771	5.4 13.1	Ma	+12	4139	19 48.3	+12 49	8.2	^
12381	"	5.7 14.8	Ma	+12	4163	19 51.8	+12 38	8.3	^
12382	"	6.2 20.6	Ma	+12	4241	20 3.5	+12 18	8.5	^
12383	"	7.5 14.0	Mb	+11	4057	19 49.9	+11 42	9.0	^
12384	"	7.8 13.7	Ma	+11	4052	19 49.2	+11 33	9.1	^
12385	"	12.6 16.2	Type IV	+9	4369	19 54.1	+9 7	8.1/7	^
12386	"	13.0 13.2	Ma	+8	4265	19 48.0	+8 57	8.5	^
12387	"	14.2 21.3	Ma	+8	4369	20 4.3	+8 18	7.5	^
12388	"	16.3 21.7	Ma	+7	4398	20 5.0	+7 15	7.2	^
12389	"	19.0 21.2	Ma	+5	4435	20 4.0	+5 56	7.9	^
12390	21781	6.4 12.4	Ma		3056	15 43.5	-37 47	9	
12391	"	7.3 11.4	Ma		21401	15 42.3	-38 18	8 1/4 (1900)	
12392	"	7.9 13.7	Mb		6293	15 46.7	-38 34	9.2	
12393	"	8.4 17.7	Mb		21775	15 58.4	-38 56	7 1/2 (1900)	
12394	"	10.4 7.2	Mb		21154	15 31.3	-39 47	8 1/2 (1900)	
12395	"	10.8 14.7	Mb		3445	15 49.1	-40 0	9.2	
12396	"	11.5 6.9	Ma		1964	15 28.5	-40 16	8	=
12397	"	12.1 14.5	Mb		3404	15 48.5	-40 42	8 1/2	=
12398	"	18.0 14.9	Mb		7399	15 49.3	-43 36	9	=
12399	"	9.9 16.8	Cl. A Probably reflection of δ Scorpius. See cover.						
12400	"	16.5 16.2	Cl. F.	"	"	"	"	"	
12401	21782	7.1 21.7	Type IV	-8	4426	18 42.5	-8 4	7.1	^
12402	"	17.9 18.8	Type IV	-13	5083	18 36.2	-13 22	9.1	^
12403	"	22.7 6.7	Type IV	-15	4923	18 11.0	-15 40	9.0	^
12404	"	23.8 7.4	Bilnie	-16	4820	18 12.4	-16 14	neb.	^
12405	21783	7.2 14.3	Ma DNb	+6	4202	19 27.8	+6 52	8.7	
12406	"	10.0 16.7	Ma DNb	+5	4229	19 32.5	+5 26	9.1	
12407	"	10.5 11.0	Ma DNb	+5	4154	19 21.1	+5 15	8.7	
12408	"	11.0 15.8	Mb DNb	+4	4169	19 30.5	+4 59	9.2	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Na Known 0.5 1.0 ; 0.6 0.6 ;

C.D.M.-37 10548 15 43.5 -37 47 8.1
C.D.M.-38 10672 15 40.7 -38 13 7.8
C.D.M.-38 10735 15 46.7 -38 34 7.9
C.D.M.-38 10852 15 56.7 -38 52 7.8
C.D.M.-39 10044 15 29.7 -39 42 7.7
C.D.M.-39 10248 15 49.1 -39 59 8.7
C.D.M.-40 9789 15 28.5 -40 16 8.0
C.D.M.-40 ~~9789~~ 10084 15 ~~28.5~~ 4 -40 ~~16~~ 42 8.0
C.D.M.-43 10415 15 49.3 -43 36 9.2
Ghost. 15 56 -39.7
(Est. 1900)
Ghost. 15 54 -43.0
(Est. 1900)
Na 0.8 1.0 ; 0.5 0.5 ; Known
Na 0.7 1.0 ; 0.5 0.5 ; New
Nb 0.7 1.0 ; 0.4 0.4 ; 0.2 Known. Announced Type VI Circ. 1145
Nebulosity

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	V.	H.	Object.	R. A.		Dec.		Magn.	
	12409	21783	11.3	15.0	Ma DM +4° 4164	19	29.0	+4°	49	9.2	
	12410	"	11.5	13.5	Ma DM. +4 4152	19	26.0	+4	43	7.2	
	12411	"	16.0	16.6	Ma DM. +2 3952	19	31.9	+2	26	8.5	
	12412	"	16.6	17.4	Ma DM. +2 3961	19	33.5	+2	10	9.2	
Sept. 26, 99	12413	21784	7.8	16.9	Ma 3 C. 14h 1723	14	26.8	-63	31	8 5/2	C.
	12414	"	9.6 8	6.7	Ma a.g.c. 18667	13	39.4	-64	11	8 5/2 (1900)	C.P.
	12415	"	13.1	8.1	Br. Lines C.P.D.-65 2513	13	44.7	-65	54	10.0	
	12416	"	15.2	6.3	Br. Lines C.P.D.-66 2299	13	34.1	-66	46	9.0	
	12417	"	19.7	16.2	Ma asb. 19680	14	27.1	-69	32	7 1/4 (1900)	C.
	12418	"	20.7	22.7	Type IV asb. 20554	15	48	-69	42	6.2 (1900)	= C.P.
	12419	"	24.1	7.5	Ma a.g.c. 18548	13	33.3	-71	22	7.6 (1900)	= C.P.
	12420	"	22.5	13.3	Ma asb 19304	14	10.2	-70	56	8 (1900)	C.
	12421	21785	5.9	9.6	Br. Lines 3 C 15h 934	15	13.7	-62	13.7	9	C.P.
	12422	"	5.7	18.8	Br. Lines C.P.D.-62 5141	15	52.8	-62	20	8.8	
	12423	"	8.5	7.6	Ma 3. C. 15h 203	15	3.5	-63	25	8 1/2	C.P.
	12424	"	9.1	13.8	Mb 3. C. 15h. 2107	15	30.7	-64	1	8 1/2	C.P.
	12425	"	12.1	14.0	Mb 3. C. 15h 2149	15	31.3	-65	31	9	C.P.
	12426	"	12.5	16.8	Md C.P.D. -65 3171	15	44.4	-65	47	9.2	
	12427	"	15.4	11.9	Mb 3. C. 15h 1328	15	19.5	-67	6	8 1/2	C.P.
	12428	"	13.9	17.8	Mb asb. 21599	15	51.9	-66	33	7 1/2 (1900)	C.P.
	12429	"	16.8	8.2	Ma a.g.c. 20505	15	2.1	-67	36	8 1/4 (1900)	C.P.
	12430	"	20.7	9.4	Na asb. 20554	15	4.8	-69	42	6.2 (1900)	C.P.
	12431	"	22.1	14.8	Ma 3 C. 15h 2297	15	33.3	-69 70	32	8.2	C.P.
	12432	"	24.1	10.6	Ma asb. 20648	15	9.4	-71	26	6.8 (1900)	C.P.
	12433	21786	5.5	16.9	Ma -17 4978	17	53.0	-17	9	6.0	^
	12434	"	10.0	20.0	Br. Lines -19 4854	17	59.4	-19	25	9.6	^
	12435	"	13.5	20.2	Br. Lines -21 4864	17	59.8	-21	16	7.8	^
	12436	"	15.3	19.4	Ma -22 4562	17	58.1	-22	3	8.4	^
	12437	21787	8.0	16.0	Md. Announced pos. for 1900	19	33.1[3]	+11	29		^

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

C.P.D.-63 3319 14 26.8 -63 31 9.2

C.P.D.-64 2552 13 37.6 -64 3 9.0

Gas. neb.? ~~Gas~~ Known

I Type. Known

C.P.D.-69 2068 14 24.9 -69 25 9.0

Nra. 0.8 10; 0.4 0.4; Known

C.P.D.-69 2267 15 2.4 -69 36 9.0

C.P.D.-71 1498 13 31.4 -71 14 9.1

C.P.D.-70 1735 14 8.0 -70 49 9.1

Type V ? Known

C.P.D.-62 4470 15 13.7 -62 14 8.8

Gas. neb.? Known as Type V ✓

C.P.D.-63 3529 15 3.1 -63 25 8.8

C.P.D.-64 3244 15 30.7 -64 1 9.2

C.P.D.-65 3122 15 31.3 -65 31 9.2

var.? {Hβ = 0.2, Hγ = 1.0, Hδ = 0.4 See also No. 8653 B 14351. Book 95 p. 57. Plates B 11784 11241, 20239 16875 16608, 16052, 15572, 15371, 13176, 17479, 17288, 13914, 22550, 22657, 21245, 21130, 21894, 18837, 18633, 16324, 9307, 15889 and 10965 examined. Show slight variation 3 to 4 grades. Measure? W. P. Fleet. Sept. 28, 1899.

C.P.D.-67 2896 15 19.6 -67 6 9.7

C.P.D.-66 2866 15 49.5 -66 29 8.9

C.P.D.-67 2776 14 59.9 -67 30 9.1

II Type. Known

C.P.D.-69 2267 15 2.4 -69 36 9.0

C.P.D.-70 2112 15 33.3 -70 33 9.3

C.P.D.-71 1792 15 6.9 -71 20 8.4

Type V ? Known

Type V ? * Known

var. ? Hγ = 1.0, Hδ 1.0.0 Known R.T Aquilae

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object		R.A.	Dec.	Magn.	
12438	21787	9.3	16.3	✓ Ma	+10 3402 (4002)	19 31.8	+10 45	8.7	↑
12439	"	10.2	11.6	✓ Mdb	+10 3916	19 22.2	+10 20	8.6	↑
12440	"	20.5	14.5?	✓ Mb	+5 4190	19 26.6	+5 9	6.9	↑
12441	"	21.4	13.7	✓ Mb	+4 4152	19 26.0	+4 43	7.2	↑
12442	"	12.2	11.3	✓ Ma	+9 4114	19 21.6	+9 20	8.1	↑
12443	21794	7.4	8.0	✓ Mb. Abs.	20052	14 42.4	−36 13	6.8 (1900)	
12444	"	9.2	16.1	✓ Mb Abs.	20523	15 2.4	−37 12	7 3/4 (1900)	=
12445	"	9.2	18.0	✓ Ma Z.C.	15h 385	15 5.7	−37 4.6	8	=
12446	"	15.7	14.5	✓ Mb Abs.	20429	14 58.2	−40 28	7 (1900)	=
12447	21809	11.9	11.8	✓ Ma Abs.	22292	16 22.1	−35 29	8 1/4 (1900)	
12448	"	14.5	11.3	Bl. Y. (Est. 1900)	See note on cover.	16 20.3	−36.7		
12449	"	21.0	13.0	✓ Br. Line	C.D.M.-39 10464	16 23.0	−39 59	9.6	
12450	"	21.2	20.0	✓ Ma Z.C.	2874	16 41 5	−40 7.6 (5)	8.8	
12451	"	21.2	20.7	✓ Ma	C.D.M.-40 10812	16 42.9	−40 6.0	8.0	
12452	"	23.5	18.8	✓ Ma Abs.	22654	16 39.8	−41 18	7 1/2 (1900)	
12453	21819	18.2	17.1	✓ Mb	−8 3401	12 33.7	−8 27	7.6	↑
12454	"	13.5	8.4	✓ Ma	−11 3291	12 15.8	−11 0	6.8	↑
12455	"	15.6	7.2	✓ Ma	−12 3613	12 13.4	−12 3	8.0	↑
12456	"	16.2	7.8	✓ Ma	−12 3621	12 14.7	−12 22	8.3	↑
12457	"	19.8	21.4	✓ Mb	−14 3587	12 42.2	−14 17	6.8	↑
12458	21820	10.9	10.2	✓ Mb	−9 4230	15 39.5	−9 51	8.0	↑
12459	"	22.4	14.9	✓ Mb	−15 4221	15 48.9	−15 36	6.8	↑
12460	21822	10.8	10.3	✓ Cont.	D.M.+2 2943	15 11.2	+2 37	neb.	
12461	"	19.7	8.6	✓ Mb	D.M.−1 3041	15 7.4	−1 52	8.0	
12462	21823	10.3	11.1	✓ Ma	−2 4425	17 32.7	−2 4	6.2	↑
12463	21824	5.5	17.6	✓ Br. Lines	Z.C. 15h 934	15 13.7	−62 14	9	
12464	"	10.3	15.7	✓ Ma	Approx 1875 Pos.	15 6.4 (2)	−64 42		↑
12465	"	10.3	17.4	✓ Ma	Approx 1875 Pos.	15 14.2	−64 35 (36)		↑
12466	"	8.5	20.9	✓ Ma	Z.C. 15h 2018	15 29.3	−63 35	9	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

D.M.
C.D.-36 9645 14 40.9 -36 7 6.8
D.M.
C.D.-37 9969 15 0.8 -37 6 7.5
D.M.
C.D.-37 10049 15 5.7 -37 5 7.9
D.M.
C.P.D. -40 9243 14 56.6 -40 22 7.0
C.D.M. -35 10969 16 20.6 -35 25 8.1
Ghost.
Type V Known as Gas. neb.
C.D.M. -40 10774 16. 41.1 -40 7 8.0
C.D.M. -40 10812
C.D.M. -41 10863 16 38.1 -41 15 7.5

Cl. or Neb. ?

C.P.D. -62 4470 15 13.7 -62 14 8.8
Type V Known
Not in C.P.D.
Not in C.P.D.

C.P.D. -63 3634 15 29.3 -63 35 10.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.,867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	ℓ	ℋ	Object.	R.A.		Dec.		Magn.	
12467	21824	12.4	20.8	✓ Mb	3.C. 15^h	2149	15 31.3	− 65 31	9	
12468	"	13.7	10.0	✓ Mb	C.D.-66	2646	14 38.3	−66 19	9.3	
12469	"	14.4	7.9	✓ Mb	3614h.	1773	14 27.6	−66 33	9	
12470	"	14.5	16.6	✓ Mb	Appears Par.		15 11.3	−66 44	(1875)	
12471	"	15.3	18.2	✓ Ma	3C. 15^h	3328	15 19.5	− 67 6	$8\frac{5}{2}$	
12472	"	15.5	20.8	✓ Ma	C.P.D.-67°	2939	15 32.3	− 67 4	9.4	
					~~Appears Par.~~	~~1875~~	~~15 32.9~~	~~− 67 2~~		
12473	"	16.0	15.4	✓ Ma	C.P.D.-67	2812	15 5.4	−67 32	9.7	
12474	"	18.0	13.8	✓ Ma	3.C. 14^h	3609	14 56.8	− 68 31	8.5	
12475	"	18.1	18.5	✓ Mb	A.G.C.	20994	15 25.2	− 68 33	8 (1900)	
12476	"	18.7	17.8	✓ Ma	3C. 15^h	1289	15 18.9	− 68 47	$9\frac{1}{2}$	
Oct. 9, 1906 12476a				✓ Mf	C.P.D.-68°	2289	14 55.5	−68 59	9.5	
12477	"	20.1	14.8	✓ Type IV Mb		20554	15 4.8	− 69 42	6.2 (1900)	
12478	"	20.2	8.2	✓ Ma	A.G.C.	19680	14 27.1	− 69 32	$7\frac{1}{4}$	
12479	"	23.0	13.4	✓ Mb	3.C. 14^h	3454	14 54.4	− 71 1	9	
12480	"	23.6	15.4	✓ Mb	A.G.C.	20648	15 9.4	− 71 26	6.8	
12481	"	24.2	18.2	✓ Br. Lines	C.P.D.-71	1889	15 24.1	− 71 29	9.0	
12482	21825	9.4	11.2	✓ Ma	Dm.-2	4425	17 32.7	− 2 4	6.2	
12483	"	10.3	17.7	✓ Mb	5 Dm.-2	4482	17 45.5	− 2 32	7.5	
12484	"	14.8	12.4	✓ Ma	Dm.-4	4332	17 34.9	− 4 46	6.5	
12485	"	18.5	16.2	✓ Br. Lines	Dm.-6	4661	17 42.4	− 6 39	9.5	
12486	21826	9.8	21.1	✓ Ma	3C. 19^h	1059	19 24.5	− 31 14	8.8	
					A.G.C.	26746	19 26.1	− 31 5	6.8 (1900)	
12487	"	11.9	16.7	✓ Ma	A.G.C.	26507	19 16.0	− 32 7	$7\frac{1}{4}$ (1900)	
12488	21827	6.8	15.6	✓ Mb	−0	4163	21 0.1	−0 44	7.2	
12489	"	7.8	6.9	✓ Mb	−1	4057	20 41.8	−1 6	6.8	
12490	"	13.0	8.6	✓ Mb	−3	5048	20 44.8	−3 46	8.0	
12491	"	13.0	11.1	✓ Mb	−3	5076	20 49.9	−3 48	8.5	
12492	"	14.7	13.3	✓ Mb	−4	5337	20 54.1	−4 42	7.8	
12493	"	16.8	7.4	✓ Md	−5	5390	20 42.3	−5 41	var.	
12494	21829	8.8	21.5	✓ Ma	A.G.C.	1323	1 18.9	− 31 28	6.1 (1900)	
12495	21830	6.2	8.7	✓ Ma	+4	2878	14 25.0	+4 48	7.5	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867E

C.P.D. -65° 3122 15 31.3 -65 31 9.2

C.P.D. -66 2646

C.P.D -66 2589 14 27.6 -66 33 9.6

Not in C.P.D.

C.P.D. -67 2896 15 19.5 -67 6 9.7

C.P.D. -67 2812

C.P.D. -68 2299 14 56.8 -68 31 9.1

Nra. 0.9 10; 0.6 0.5; Known

Gas. neb.? Known in Pec. list

Gas. neb. ? No. * Var. Sp. Peculiar Md (3) (R Lyncis). Nova ? Sept. 26, 1899.

var. ? Known Hγ = 1.0, Hδ = 0.7 T Aquarii

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	U. H.	Object		R. A.	Dec.	Magn.	
12496	21830	9.0	10.5	Ma + 2 2837	14 28.4	+2 53	8.4	
12497	"	21.5	11.8	Ma −2 3873	14 30.9	−2 59	7.0	
12498	21832	17.0	21.5	Mb 36.16h 2161	16 31	−48 3	8	
12499	"	8.5	11.4	Mb 36.5916h ~~0 48.9 −48~~		54.	8.2	
12500	"	11.8	21.3	Ma C.D.M.-50 10730	16 31.5	−50 26	9.3	
12501	"	13.2	16.0	Br. Lines C.D.M.-51 10119	16 14.9	−51 1.4	10	
12502	"	13.4	18.2h	Br. Line? Approx 1900 pos.	16 24.5	−51.N		
12503	"	15.2	13.6	Mb 5c Absb. 2199	9 16	9.0 −52 21	8½	
12504	"	16.0	20.3	Mb C.P.D.-52 10082	16 29.4	−52 36	9.1	
12505	"	16.1	19.7	Ma C.P.D.-52 10049	16 27.2	−52 40	9.4	
12506	"	16.9	16.4	Ma 22214	16 18.5	−53 13	8	
12507	"	18.3	19.1	Ma 21660	15 53.8	−53 51	8¼	
12508	"	18.4	10.2	Ma C.P.D.-53 7044	15 55.6	−53 50	8.9	
12509	"	19.5	16.5	Mb C.P.D.-54 7668 / 21660	16 15.7 / ~~15 53.8~~	−54 23 / ~~−53 51~~	10.1 / ~~8¼~~	
12510	"	20.4	13.8	Ma C.P.D.-54 7388	16 7.9	−54 54	8.7	
12511	"	21.0	20.5	Mb C.P.D.-55 7643	16 31.2	−55 3	9.0	
12512	"	21.2	20.8	Mb C.P.D.-55 7651	16 32.2	−55 8	9.3	
12513	"	21.4	11.1	Ma C.P.D.-55 7098	15 58.2	−55 21	9.6	
Sept. 27, 1899 12514	21833	9.5	11.3	Ma C.D.M.-5921	23 3.3	−34 35	7.9	
12515	"	11.9	19.9	Ma Abs. 31819	23 25.6	−35 40	7.4 (1900)	
12516	"	13.5	9.4	Ma Abs. 31353	22 59.2	−36 26	7½ (1900)	
12517	"	13.8	10.4	Ma Abs. 31403	23 2.1	−36 37	8 (1900)	
12518	"	15.8	10.5	Ma C.D.M.-37 15089	23 0.6	−37 44	8.3	
12519	21834	17.3	17.4	Ma Absb. 32437	23 0.4	−43 27	7¾ (1900)	
12520	21835	5.8	16.8	Ma Abs 698	0 41.0	−42 27	9 (1900)	
12521	"	15.2	7.7	Ma Absb 225	0 14.3	−47 4	7¼ (1900)	
12522	"	19.4	6.9	Ma 36.0h 263	0 9.9	−49 15	8.2	
12523	"	20.8	9.6	Ma Absb. 306	0 18.8	−49 55	8	
12524	"	21.7	21.3	Ma Abs. 926	0 55.4	−50 18	7½	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

= C.D.M. -48° 10576 1b 0.8 -48 54.0 8.3

Type I Known
Type V ? Bb trace of Be line on B 21640. Defect on B 21832.

the preceding + northern of, two stars

C.Dm.-34 15921 23 3.3 -34 35 7.9
C.Dm.-35 15821 23 24.2 -35 48 7.5
C.Dm.-36 15693 23 7.9 -36 34 7.1
C.Dm.-36 15718 23 0.7 -36 44 8.0
C.Dm.-37 15089 23 0.6 -37 44 8.3
C.Dm.-43 15584 23 59.1 -43 35 7.5
C.Dm.-42 249 0 39.8 -42 35 7.8
C.Dm.-47 68 0 13.2 -47 12 7.3
C.Dm.-49 44 0 9.9 -49 15 8.3
C.Dm. -50 70 0 17.6 -50 3 7.9
C.Dm.-50 270 0 54.3 -50 26 7.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	V.	H.	Object		R. A.	Dec.	Magn.	
12525	21837	8.1	20.1	✓ Mb	DM.-1 2674	12 21.7	-1 37	7.7	
12526	"	8.8	19.7	✓ Mb	DM.-1 2671	12 21.0	-1 58	8.8	
12527	"	11.5	20.1	✓ Mb	DM.-3 3304	12 21.7	-3 18	8.8	
12528	"	15.1	18.4	✓ Ma	DM.-4 3199 (5 3416)	11 57.3 (58.2)	-4 (-5) 58 (2)	8.7 (6.7)	1
12529	"	15.5	12.9	✓ Md	DM.-5 3456	12 7.2	-5 14	var.	
12530	"	17.0	9.3	✓ Mb	DM.-5 3424	11 59.8	-5 57	7.0	
12531	"	21.5	15.9	✓ Md	? DM.-8 3329	12 12.9	-8 12	9.0	
12532	21838	8.7	19.0	✓ Mb	-17 4453	15 47.8	-17 55	9.0	^ v
12533	"	9.4	8.8	✓ Ma	-18 4094	15 26.4	-18 15	9.8	^
12534	"	9.6	18.7	✓ Mb	-18 4196	15 47.3	-18 22	8.6	^
12535	"	9.9	17.9	✓ Ma	-18 4191	15 45.6	-18 31	7.5	^
12536	"	11.4	15.0	✓ Mb	-19 4218	15 39.5	-19 15	8.8	^
12537	"	11.6	15.5	✓ Ma	-19 4226	15 40.6	-19 22	8.7	^
12538	"	11.9	10.2	✓ Ma	-19 4161	15 29.4	-19 30	9.4	^
12539	"	12.9	15.5	✓ Ma	-20 4329	15 40.5	-20 0	7.7	^
12540	"	15.1	20.8	✓ Ma	-21 4247	15 51.9	-21 5	9.1	^
12541	"	15.7	23.4	✓ Mc	-21 4270	15 57.5	-21 20	9.1	^
12542	"	18.8	16.6	✓ Ma	-22 4040	15 43.0	-22 52	9.5	^
12543	"	19.4	11.1	✓ Ma	21222	15 33.8	-23 24	8.8	^
12544	"	19.7	7.7	✓ Mb	21040	15 26.4	-23 32	7½	^
12545	"	21.8	16.5	✓ Mb	C.D.M.-24° 12329	15 24.0	-24 28	9.5	
12546	"	24.5	21.4	✓ Ma	21724	15 56.4	-25 52	8.0	^
12547	21839	4.7	14.5	✓ Type IV	DM.-16 5272	19 10.9	-16 10	6.8	
12548	"	7.0	15.1	✓ Mb	D.M.-17 5588	19 12.2	-17 18	8.1	
12549	"	7.8	10.1	✓ Ma	DM.-17 5501	19 1.7	-17 44	8.5	
12550	"	10.3	20.5	✓ Ma	DM.-18 5404	19 23.5	-18 58	8.3	
12551	"	11.5	14.1	✓ Mb	DM.-19 5388	19 9.8	-19 37.0	8.5	
12552	"	14.7	14.7	✓ Md		19 11 (13.8)	-21.2 (-21)	6.6 (1900)	(1855)
12553	"	16.4	9.3	✓ Ma	DM.-22 4986	19 59.5	-22 0.6	8.7	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

var. Hγ = 1.0 Hδ = 5.0 T Virginis.

var ? New
This is not RR Librae 15 48.1 -17 53 ~~Approx~~ 1855 pos.)

Known Ira 0.5 1.0 ; 0.4 0.4 ;

var ? Hβ 0.2, Hγ = 1.0, Hδ = 1.2, Hε 0.2, Hη = 0.1 Known Z Sagittarii

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object.	R.A.	Dec.	Magn.	
12554	21839	18.2	7.3	✓ Mc	D16 -22 4958	18 55.0	-22 55	8.5
12555	21840	11.8	14.7	✓ Br. Line Approx Pos.		0 56.	-72 42 (1900)	
12556	"	16.5	20.6	Bl. ?	See Cover. Probably reflection of 0h 54.0 -57			
12557	"	17.4	14.5	✓ Md Approx Pos 1900		0 54.2	-75 32	
12558	"	20.5	19.2	✓ Mb Obsc	1628	1 35.2	-76 53	8 1/4 (1900)
12559	"	20.7	9.7	✓ Mb C.P.D. -77	6	0 10.0	-77 8	9.8
12560	21842	6.8	19.1	✓ Mb Obsc.	22503	16 46.6	-42 53	6.6
12561	"	8.9	10.6	✓ Ma Obsc.	22311	16 23.3	-43 54	8 1/2
12562	"	9.8	22.1	✓ Ma Z.C. 16h 3808		16 53.3	-44 16	8 1/2
12563	"	13.8	6.6	✓ Ma Obsc.	22047	16 11.1	-46 12	8 1/2
12564	21843	13.2	19.3	✓ Mb Obsc.	30358	22 8.8	-80 57	5.6
12565	"	14.9	9.1	✓ Mb C.P.D. -81	879 880	19 46.8	-81 47	8.7
12566	"	16.8	6.1	✓ Ma C.P.D. -82	763	18 56.8	-82 0	8.8
12567	"	21.3	16.9	✓ Mc 5d	C.P.D. -85 535 Illus 15580	20 1 N -85 21 56.5 -85	17. 24	9.1 (1875 pos.) 9 (1850 pos.)
12568	"	22.7	14.1	✓ Mb Obsc	28714	20 57.3	-86 3	7 1/2 (1900)
12569	"	13.0	6.5	✓ Ma C.P.D. -80	924	19 23.7	-80 22	8.5
12570	21852	10.9	10.0	✓ Ma	-9 4230	15 39.5	-9 51	8.0
12571	21853	7.3	21.6	✓ Mb	C.D.M. -48° 11047 Approx 1900 Pos.	16 31.0	-48 3	8.2
12572	"	8.9	11.6	✓ Md ?	Z.C. 59	16 0.8	-48 54	8 1/4
12573	"	11.4	15.5	✓ Md ?	C.D.M. -50 10442	16 12.7	-50 10	9.5
12574	"	12.1	21.5	✓ Mb.	-50 10730	16 31.5	-50 26	9.3
12575	"	13.5	16.2	✓ Br. Lines	C.D.M. -51 10119	16 14.9	-51 14.	10
12576	"	15.6	13.8	✓ Mc	C.P.D. -52 9443 51	16 7.1 6.8	-52 17 20	9.9
12577	"	16.4	20.6	✓ Mb	C.P.D. -52 10082	16 29.4	-52 36	9.1
12578	"	16.5	19.9	✓ Mb	C.P.D. -52 10049	16 27.2	-52 40	9.4
12579	"	18.8	10.4	✓ Ma	-53 7044	15 55.6	-53 50	8.9
12580	"	11.4	20.8	✓ Mb	C.P.D. -55 7643	16 31.2	-55 3	9.0
12581	"	24.1	15.0	✓ Ma	-56 7599	16 11.2	-56 31	9.0
12582	21854	5.7	9.5	✓ Ma Obsc	17 0	2.3	-57 24	7 3/4 (1900)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1999phae.proj...0097

var.? New

~~V Type?~~ Not in C.P.D. Known 04 A 2881 Type V

Ghost $1^h 42^m - 74.^\circ 8$ (1900)

var.? May be Nova. Spect. turned out Known Var.

C.P.D. -77 58 1 34.9 -77 1 9.4

C.Dm. -44 ~~11373~~ 11627 16 ~~54.0~~ 44.8 -44 ~~16~~ 42 59 ~~9.3~~ 6.6

C.Dm. -44 10840 16 21.6 -43 50 7.7

C.Dm. -44 11365 16 53.3 -44 16 9.2

C.Dm. -46 10627 16 9.3 -46 8 7.5

C.P.D. -81 995 22 5.9 -81 4 6.6

var.? Found before on B. 11989 + a few plates examined - showing no evidence of variation
More plates examined now. Sept. 1899 show star to be var.

C.P.D. -85 535 22 1.2 -85 17 9.1

C.P.D. -86 390 20 50.1 -86 9 8.7

var.? New

var.? New

Type V Known

C.P.D. -57 6 0 1.0 -57 32 8.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	H.	Hc.	Object.		R.A.	Dec.	Magn.	
12583	21854	15.1	14.1	Md. approx Pec	0	18.4	−62	14	(1900)
12583-a				Ma					c.P.D.−61 6768
12584	"	16.5	10.5	Ma Asb.	21 0	2.6	−62	53	7¼ (1900)
12585	"	17.7	21.2	Mb Asb	825 0	49.4	−63	25	6.0 (1900)
12586	"	19.0	11.2	Ma 3b. 0h 96	0	34	−64	17	8
12587	"	16.7	21.1	Ma a.3b. 736	0	45.5	−57	56	7¼ (1900)
12588	21855	8.1	10.8	Mb a.3b. 32437	23 0	0.4	−43	27	7¾ (1900)
12589	"	15.1	16.0	Ma a.3b. 225	0	14.3	−47	4	7¼ (1900)
12590	"	19.2	14.9	Ma 3.3b. 0h 263	0	9.9	−49	15	8.2
12591	"	20.8	17.5	Ma a.3b. 306	0	18.8	−49	55	8 (1900)
12592	"	23.0	16.1	Ma a.3b. 231	0	14.6	−50	59	7¼ (1900)
12593	21856	19.3	7.8	Ma 3.3b. 0h 263	0	9.9	−49	15	8.2
12594	"	20.7	10.4	Ma Asb. 306	0	18.8	−49	55	8
12595	"	22.9	9.2	Ma Asb. 231	0	14.6	−50	59	7¼ (1900)
12596	21857	11.1	11.6	Ma	10 88	0	23.3	−10	13 77
12597	"	15.6	10.4	Mb 5c	12 72 3	0	20 8 7	−12	27 6.7 8 5
12598	21858	6.0	12.7	Mb 3.3b. 1718	19	40.5	−57	32	8½
12599	"	8.5	16.0	Mb 5c a.3b. 27370	19	54.7	−56	44	8¼ (1900)
12600	"	9.9	13.9	Mc 5d a.3b. 27193	19	46.8	−59	27	7½ (1900)
12601	"	10.3	15.6	Mb Asb. 27330	19	53.3	−59	39	5.7 (1900)
12602	"	11.5	18.1	Mc 5d Asb. 27560	20	3.3	−60	14	9 (1900)
12603	"	12.7	14.7	Ma 6.3b. 60 7348	19	47.2	−60	55	8.8
12604	"	16.2	18.5	Ma a.3b. 27615	20	5.7	−62	35	7.1 (1900)
12605	"	17.2	9.5	Mb 5c Asb 26736	19	26.3	−62	58	8½ (1900)
12606	"	17.5	11.6	Ma 3.3b. 19h 1414	19	33.2	−63	16	8½
12607	"	17.5	14.1	Mf 3.3b. 19h 1854	19	44.3	−63	20	8½
12608	21859	14.6	13.3	Ma Asb. 29939	21	48.2	−41	44	7¾ (1900)
12609	"	18.9	19.8	Ma Asb 30328	22	5.9	−43	38	8¼ (1900)
12610	21860	5.6	11.2	Ma Asb 29838	21	43.5	−37	10	8 (1900)
12611	21860	15.0	16.5	Ma −2 140	0	53.3	−2.	26	7.4

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

var ? Hγ=1.0, Hδ=1.0 Known S Lucanae

6768 C.P.D.-62 28 23 43.2 61 50 8.4
C.P.D.-63 5 0 17.2 -62 22 9.3
C.P.D.-63 83 0 1.3 -63 1 8.8
C.P.D.-63 83 0 48.4 -63 33 7.8
C.P.D.-64 3 0 3.4 -64 17 8.6
C.P.D.-58 51 0 44.4 -58 4 8.2
C.Dm.-43 15584 23 59.1 -43 35 7.5
C.Dm.-47 68 0 13.2 -47 12 7.3
C.Dm.-49 44 0 9.9 -49 15 8.3
C.Dm.-50 70 0 17.6 -50 3 7.9
C.Dm.-58 69 0 13.4 -58 7 7.6
C.Dm.-49 44 0 9.9 -49 15 8.3
C.Dm. -50 70 0 17.6 -50 3 7.9
C.Dm.-51 69 0 13.4 -51 7 7.6

C.P.D.-57 9504 19 40.5 -57 32 8.9
C.P.D.-58 7699 19 52.6 -58 48 8.8
C.P.D.-59 7544 19 44.7 -59 31 9.2
var ? Known. S Pavonis
C.P.D.-60 59 7564 19 51.2 -59 43 7.0
C.P.D.-60a 7384 20 1.2 -60 18 9.4
var ? Known. X Pavonis
C.P.D.-60 7348 19 47.2 -60 55 8.8
C.P.D.-62 6147 20 3.5 -62 39 8.6
C.P.D.-63 4530 19 24.0 -63 2 8.9
C.P.D.-63 4540 19 33.2 -63 16 9.4
C.P.D.-63 4549 19 44.3 -63 20 8.9
C.Dm.-41 14682 21 46.6 -41 51 7.7
C.Dm.-43 14932 22 4.4 -43 45 8.4
C.Dm.-37 14494 21 42.0 -37 17 7.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object.	R. A.	Dec.	Magn.
12612	21868	8.4	10.7	✓Mb	Z.C. 16h 59.	16 0.8	-48 54 8.2
12613	"	13.1	15.3	✓Br. Lines	C.P.D.-51 9469	16 14.9	-51 14 9.6
12614	"	16.0	19.6	✓Mb	Z.C. 2040	16 29.4	-52 36 9
12615	"	18.3	9.7	✓Ma	Z.C. 3895	15 55.6	-53 50 8
12616	21869	10.4	22.8	✓Mc	Asb. 27193	19 46.8	-59 27 7½ (1900)
12617	"	11.4	11.5	✓Cont	Asb 26166	19 2.0	-60 9 neb (1900)
12618	"	16.7	20.0	✓Ma	Asb 26998	19 38.1	-62 42 7.2 1900
12619	"	17.0	17.3	✓Mc	Asb 26736	19 26.3	-62 58 8½ (1900)
12620	"	18.4	18.8	✓Ma	Asb 26463	19 15.1	-63 33 8½ (1900)
12621	21873	6.1	18.2	✓Mb	C.D.M.-42 12510	17 40.8	-42 34 8.3
12622	"	7.3	14.4	✓Ma	C.D.M.-43 11904	17 30.4	-43 5 8.0
12623	"	8.1	9.3	✓Br. Line	C.D.M.-43 11673	17 16.4	-43 22 10
12624	"	8.1	16.6	✓Ma	C.D.M.-43 11983	17 36.4	-43 33 8.8
12625	"	10.6	16.6	✓Br. Lines	Assumed (Est. 1900)	17 38.1	-44.8 52 ✓
12626	"	12.4	7.5	✓Br. Lines	C.D.M.-45 11392	17 10.3	-45 30 7.1
12627	"	13.1	16.6	✓Br. Lines	C.D.M.-46 11816	17 36.3	-46 2 9.9
12628	"	14.4	10.3	✓Mb	C.D.M.-46 11516	17 17.9	-46 36 8.8
12628a	"	14.3	6.1	✓Ma	C.D.M.-46 11315	17 6.6	-46 23 9.2
12629	"	15.1	19.7	✓Ma	C.D.M.-46 11935	17 45.2	-46 60 9.6
12630	"	15.2	21.1	✓Ma	C.D.M.-47 11952	17 49.5	-47 2 9.8
12631	"	16.8	14.0	✓Mb	C.D.M.-47 11684	17 28.6	-47 50 9.3
12632	"	17.6	19.6	✓Md	C.D.M.-48 12145 (1900) (Est. 1885)	17 47.3	-48.8 17 (1900)
12633	"	17.9	12.7	✓Ma	C.D.M.-48 11820	17 24.7	-48 22 8.1
12634	"	20.0	8.9	✓Br. Lines	C.D.M.-49 11366	17 12.7	-49 20 10
12635	"	20.2	17.3	✓Mc	C.D.M.-49 11716	17 38.5	-49 35 9.6
12636	"	21.4	18.5	✓Ma	C.D.M.-50 11584	17 42.1	-50 9 9.1
12637	"	21.6	18.2	✓Ma	C.D.M.-50 11573	17 41.2	-50 15 7.5
12638	"	22.0	15.3	✓Mb	C.D.M.-50 11474	17 32.3	-50 26 6.9
12639	"	24.2	14.0	✓Mc	C.D.M.-51 11015	17 28.1	-51 36 9.1
12640	"	24.7	15.5	✓Ma	C.D.M.-51 11074	17 32.8	-51 46 8.4

Plate broken. Cannot be found Oct. 1909. Not Dec. 1910.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Type V Known

C.P.D.-59 7544 19 44.7 -59 31 9.2
lol. or Neb.
C.P.D.-60 7271 18 59.8 -60 11 neb.
C.P.D.-62 6103 19 35.8 -62 45 7.9
C.P.D.-63 4530 19 24.0 -63 2 8.9
C.P.D.-63 4518 19 12.8 -63 36 8.7

Type V Known

New Gas. neb.? var? ~~Old?~~ "Ex. on chart pl. B 3887 Diffuser object - ident. uncertain. Prob. Gas. neb. ~~ident. O.N. (?)~~"
"On B 22862 sp. or B. 19083 ch. the images are more distinct. The object is a Gas. neb. the strongest Res. line being of gr. λ than Hβ. The object on B 19083 is O.N." See note of Mrs F. on cover of B 21879

Type V Known

var? ~~May be~~ Nova Hβ = 0.5, Hγ = 1.0, Hδ = 0.5, Hε = 0.2 Known as Peg. 1. Vir. γ Carinae
~~Plates~~ examn for var - see Bod V. 75 p. 141 9 Similar to η Carinae?

var? New Hγ = 1.0, Hδ = 10.0

Plates examd for var. Cert.
Jan 1, 1901. E. C. Pickering

Type V ? ~~May be Nova~~ New Announced later as Type VI See Circulars 60 & 1445
Br. line of shorter λ than Hβ, see note on cover of B 21879

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No. Plate	D.	H.	Object.		R. A.	Dec.	Magn	
	12641	21876	11.2	17.1 ✓ Ma	26507	19 16.0	-32 7	7¼	^
	12642	21878	10.0	12.0 ✓ Ma	-2 4425	17 32.7	-2 4	6.2	^
	12643	"	15.3	13.1 ✓ Ma	-4 4332	17 34.9	-4 46	6.5	^
Sept. 28, 1899	12644	21880	6.8	10.8 ✓ Mb	-38 12496	17 58.8	-38 13	8.3	
	12645	"	6.9	22.2 ✓ Ma	-38 12931	18 27.7	-38 15	7.5	
	12646	"	7.5	17.7 ✓ Mb	25070	18 18.0	-38 37	8	
	12647	"	8.5	14.7 ✓ Mb	-39 12413	18 8.8	-39 8	9.3	
	12648	"	9.0	10.0 ✓ Type III	-39 12196	17 56.5	-39 20	9.0	
	12649	"	9.2	9.4 ✓ Ma	24517	17 56.7	-39 24	8	
	12650	"	9.3	11.4 ✓ Ma	24652	18 1.9	-39 30	7¾	
	12651	"	10.2	10.9 ✓ Ma	-39 12242	17 58.0	-39 56	7.7	
	12652	"	10.4	9.7 ✓ Mb	-40 12116	17 55.7	-40 1	8.7	
	12653	"	11.3	19.5 ✓ Ma	-40 12547	18 21.2	-40 29	8.5	
	12654	"	11.6	16.8 ✓ Ma	-40 12433	18 14.1	-40 39	9.3	
	12655	"	12.3	10.5 ✓ Ma	-40 12142	17 57.5	-40 58	8.7	
	12656	"	12.9	17.1 ✓ Ma	-41 12782	18 15.0	-41 21	8.5	
	12657	"	16.5	13.5 ✓ Mb	-43 12373	18 5.3	-43 7	9.6	
	12658	"	16.6	20.5 ✓ Ma	-43 12617	18 24.4	-43 7	9.5	
	12659	"	17.1	22.7 ✓ Ma	25428	18 32.4	-43 16	5.8	
	12660	"	17.6	10.4 ✓ Mb	-43 12269	17 57.5	-43 38	8.6	
	12661	"	17.7	11.2 ✓ Contt	-43 12289	17 59.0	-43 44	neb.	
	12662	"	17.7	13.1 ✓ Type IV. Pec?	-43 12354	18 4.1	-43 43	10	
	12663	"	18.5	15.7 ✓ Ma	24941	18 13.2	-44 7	7¼	
	12664	"	20.2	14.3 ✓ Ma	-44 12467	18 7.6	-44 59	9.8	
	12665	"	21.0	16.4 ✓ Ma	-45 12414	18 12.0	-45 23	9.2	
	12666	"	21.1	15.5 ✓ Mb	-45 12397	18 10.8	-45 25	9.2	
	12667	"	22.0	19.6 ✓ Mb.	-45° 12533	18 22.7	-45 N5	8.5	
					~~-45 12555~~	~~18 24.7~~	~~-45 49~~	~~5.7~~	
	12668	"	7.3	19.8 ✓ Type IV.	-38 12843	18 21.6	-38 30	9.5	
	12669	"	8.9	23.9 ✓ Ma	25482	18 34.2	-39 11	8¼	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Ira 0.7 1.0; 0.8 0.8; Known Type IV

Cl. or Neb.
New Announced Later as Dark Bands Type VI Cir. 60 to Cir. 145

~~S2 Tele~~
~~S2 Telescopii~~
Ird 0.7 1.0; 0.7 0.8; 0.6 0.6; Known Announced Type VI Cir 145

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Objects of Interest on Southern Spectrum Plates.

No Plate	V.	Hr.	Object.	R.A.	Dec.	Magn.	
12670	21929	8.1	11.1	Mb	-10 5294	20 2.2	-10 57	8.8	^
12671	"	9.7	12.2	Ma	-11 5256	20 4.3	-11 46	8.7	^
12672	"	10.1	18.2	Mb	-11 5323	20 16.7	-11 58	8.5	^
12673	"	10.3	18.1	Mb	-12 5714	20 16.3	-12 4	8.5	^
12674	"	13.9	14.3	Mb	-13 5627	20 8.7	-13 51	9.0	^
12675	"	15.8	13.7	Mb	-14 5687	20 7.5	-14 48	9.1	^
12676	"	18.8	15.3	Mb	-16 5558	20 10.8	-16 18	8.0	^
12677	"	23.8	14.1	Mc	-18 5635	20 8.3	-18 51	9.1	^
12678	21930	18.0	14.0	Mc	-18 5635	20 7.9 8.3	-18 51	9.1	^
12679	"	11.3	17.9	Mb	-20 5936	20 16.6	-20 28	8.7	^
12680	"	13.9	14.2	Type IV	-21 5672	20 8.6	-21 46	7.7	^
12681	"	17.9	22.0	Mb	28169	20 28.3	-23 35.	8 2/4	^
12682	21931	10.2	23.1	Ma	-18 4191	15 45.6	-18 31	7.5	^
12683	"	11.7	20.1	Ma	-19 4218	15 39.5	-19 15	8.8	^
12684	"	11.9	20.7	Ma	-19 4226	15 40.6	-19 22	8.7	^
12685	"	13.2	20.6	Mb	-20 4329	15 40.5	-20 0	7.7	^
12686	"	14.0	23.4	Ma	-20 4355	15 46.3	-20 23	8.3	^
12687	"	19.6	16.2	Ma	21222	15 33.8	-23 24	8 3/4	^
12688	"	19.9	12.7	Mb	21040	15 26.4	-23 32	7 1/2	^
12689	"	22.5	10.7	Pec !!	20937	15 21.9	-24 49	8	^
12690	21932	4.8	16.3	Mb	-9 5587	20 41.5	-9 19	8.1	^
12691	"	7.3	22.9	Ma	-10 5578 / -11 5511	20 54.7 / 20 56.3	-10 34 / -11 56	6.8 / neb.	^
12692	"	10.0	23.7	Br. Lines	~~-11 5370~~	~~20 27.4~~	~~-11 50~~	~~8.4~~	
12693	"	10.2	10.3	Ma	-12 5784	20 29.1	-12 0	8.9	^
12694	"	12.5	11.2	Ma	~~-13 5725~~ / ~~-13 5724~~	~~20 30.8~~ / ~~20 30.8~~	~~-13 8~~ / ~~-13 9~~	~~8.5 96~~ / ~~8.5~~	^
12695	"	15.5	14.0	Ma	-14 5839	20 36.5	-14 42	7.1	^
12696	"	23.5	11.8	Mb	-18 5738	20 31.8	-18 38	5.5	^
12697	"	5.2	8.3	Ma	-9 5492	20 25.2	-9 30	8.3	^
12698	21933	8.8	11.0	Ma	A.G.C 28504	20 42.0	-23 51	8 (1900)	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Nva. 0.7 1.0; 0.5 0.5; Known

Known as Type ~~IV~~ Resembles Nova Centauri Announced later as Type VI. Cir. 145 *

Gas neb.? Known!

~~AM. -13° 57 24 20 30.8 -13 9 8.3~~ superposed. Which may account for Pec. in spectrum.

GDM. -23° 16 498 20 40.5 -23 56 7.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..967F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U.	H.	Object		R. A.		Dec.		Magn.		
12699	21933	12.0	7.9	Ma	Asb 28330	20	34.9	-25	24	7½ (1900)		C.D.
12700	"	16.3	10.7	Mb	Asb. 28479	20	40.7	-27	36	8 (1900)		C.D.
12701	22802	7.5	11.0	Mb	Asb 32437	0	0.4	-43	27	7¾ (1900)		C.D.
12702	"	14.6	16.8	Ma	Asb. 225	0	14.3	-47	4	7¼ (1900)		C.
12703	"	18.7	14.9	Mb	26.0h 263	0	9.9	-49	15	8.2		C.
12704	"	19.0	19.9	Ma	Asb. 438	0	26.3	-49	12	8 (1900)		C.
12705	"	20.4	17.4	Ma	Asb. 306	0	18.8	-49	55	8 (1900)		C.
12706	"	20.3	8.5	Ma	26.23h 1353	23	50.	-50	29	8½		C.
12707	"	22.5	16.0	Mb	Asb. 231	0	14.6	-50	59	7¼ (1900)		C.
12708	22018	4.5	13.6	Md	-16 6352	23	36.3	-16	5	var.		
12709	22023	8.5	17.1	Mb	+0 4382	19	53.3	+0	58	8.5		
12710	"	15.1	15.7	Md	Chandler's 1885 plate.	19	50.1	-2	18			
12711	"	19.2	17.5	Ma	-4 4880	19	33.5	-4	15	8.0		
12712	22024	22 54	17.9	Mb	-16 6379	23	44.8	-16	40	9.1		
12713	"	6.4	18.1	Mb	-17 6836	23	45.2	-17	10	7.3		
12714	"	12.0	9.0	Ma	-19 6472	23	25.9	-19	57	8.4		
12715	"	13.2	12.9	Ma	-20 6636	23	34.2	-20	34	7.8		
12716	"	17.7	19.6	Ma	-22 6225	23	48.6	-22	48	7.0		
12717	22025	8.9	12.7	Ma	Asb 31459	23	5.5	-34	10	8 (1900)		C.D.
12718	"	13.4	10.4	Ma	Asb 31353	22	59.2	-36	26	7½ (1900)		C.D.
12719	"	22.8	12.5	Ma	Asb. 31441	23	4.6	-41	8	6.2 (1900)		C.D.
12720	22026	17.5	19.0	Ma	Asb. 32437	0	0.4	-43	27	7¾ (1900)		
12721	22058	11.5	18.8	Ma	Asb. 854	0	51.1	-28	19	6.3 (1900)		
12722	"	22.0	6.8	Ma	Asb 377	0	22.9	-33	34	5.2 (1900)		
12723	22059	13.3	17.7	Mb	-14 225	1	4.1	-14	16	6.8		
12724	22068	5.5	9.4	Ma	Asb 17	0	23	-57	24	7¾ (1900)		
12725	"	7.9	20.0	Ma	Asb. 719	0	42.1	-58	36	8 (1900)		
12726	"	14.4	5.9	Ma	Asb. 32178	0 ~~23~~	~~23.7~~ 44.7	-61	42	8 (1900)		
12727	"	16.4	10.3	Ma	Asb. 21	0	2.6	-62	53	7¼ (1900)		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

C.Dm. -25 14957 20 33.4 -25 29 7.5
C.Dm. -27 15026 20 39.2 -27 41 7.9
C.Dm. -43 15584 23 59.1 -43 35 7.5
C.Dm. -47 68 0 13.2 -47 12 7.3
C.Dm. -49 44 0 9.9 -49 15 8.3
C.Dm. -49 12114 0 25.1 -49 20 8.0
C.Dm. -50 70 0 17.6 -50 3 7.9
C.Dm. -50 14082 23 0 50.0 -50 29 9.9
C.Dm. -51 69 0 13.4 -51 7 7.6
var. Hy=1.0, Hδ=10.0 R Aquarii
var.? Hy=1.0 Hδ=7.0 R R Aquilae

C.Dm. -44 15927 23 4.1 -44 18 7.5
C.Dm. -44 15163 23 3.2 -44 16 6.2
C.Dm. -36 15693 22 57.9 -36 34 7.1
C.Dm. 41 15163 23 3.2 -41 16 6.2
C.D.m. -43 15584 23 59.1 -43 35 7.5
C.Dm. -28 288 0 49.9 -28 27 6.3
C.Dm. -33 152 0 21.7 -33 42 5.2

C.P.D. -57 6 0 1.0 -57 32 8.0
C.P.D. -63 5 0 1.3 -63 1 8.8
C.P.D. -58 48 0 41.0 -58 44 8.2
C.P.D. -63 83 0 48.4 -63 33 7.8
C.P.D. -61 6768 23 43.2 -61 50 8.4
C.P.D. -63 5 0 1.3 -63 1 8.8

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	H.	M.	Object			R.A.		Dec.		Magn.	
	12728	22068	17.6	20.9	Mf	A.G.C.	825	0	49.4	-63	25	6.0	(1900)
	12729	"	18.9	10.9	Ma	Z. C.	0h 96	0	37	-64	17	8	
	12730	"	20.0	13.7	Mf	C.P.D.	-64 22	0	16.0	-64	53	9.5	
	12731	"	21.3	9.4	Ma	Z.	23h 1512	23	55.2	-65	27	9	
Sept. 29, 99.	12732	22069	6.5	13.4	Mb	A.G.C.	763	0	45.5	-57	56	7¼	(1900)
	12733	"	7.8	12.5	Ma	Abs.	719	0	42.1	-58	36	8	(1900)
	12734	"	7.9	20.2	Ma	C.P.D.	-58 90	0	10.2	-58	41	9.4	
	12735	"	10.9	13.9	Mc	Approx	1875 Pos.	0	~~45.8~~ 46.0	-60	17		
	12736	"	14.6	21.4	Ma	Abs.	1324	1	18.6	-61	51	7¾	(1900)
	12737	"	17.4	14.5	Ma	Abs	825	0	49.4	-63	25	6.0	(1900)
	12738	"	20.4	16.6	Mf	C.P.D.	-65 108	0	58.4	-65	2	9.5	
	12739	"	22.3	19.5	Mf	Abs	1237	1	14.0	-65	44	7.1	(1900)
	12740	"	22.6	16.4	Mf	Abs.	978	0	58.9	-66	0	6.7	(1900)
	12741	22104	11.2	13.1	Mf	-12	183	0	53.3	-12	58	8.1	
	12742	"	13.6	18.4	Mf	-14	225	1	4.1	-14	16	6.8	
	12743	22150	14.6	15.2	Ma	Abs.	3137	2	51.0	-26	21	7½	(1900)
	12744	22153	14.1	12.3	Mc	5d -1	546	3	44.1	-1	49	9.0	
	12746	"	21.5	13.5	Mf	-5	771	3	46.4	-5	27	8.9	
	12746	22155	10.8	15.0	Ma	Z. C.	0h 1382	0	53.4	-71	8	9	
	12747	"	10.9	16.1	Ma	Z.	1h 7	1	0.3	-71	13	8.5	1h 6m
	12748	"	16.3	16.7	Md	Computed Approx	1850 Pos.	1	4.8	-74	0	(1900)	1h 2m -73° 44
	12749	"	18.5	18.9	Ma	C.P.D.	-74 97	1	23.0	-74	53	10.0	
	12750	"	18.7	8.9	Ma	Z.	0h 183	0	6.9	-74	44	9.2	
	12751	"	19.2	23.2	Class A	See Plate Cover.		0	56.	-74.6	(1900)		
	12752	22165	6.4	14.6	Ma	Abs.	2697	2	29.5	-37	50	7¾	(1900)
	12753	"	6.4	20.0	Ma	Abs	2978	2	43.0	-37	46	8	(1900)
	12754	"	13.7	21.3	Ma	Abs.	3056	2	47.3	-41	23	7.1	(1900)
	12755	"	13.9	7.8	Ma	Abs.	2295	2	11.4	-41	32	7.0	(1900)
	12756	"	15.8	15.2	Mf	Abs.	2736	2	31.2	-42	33	7.3	(1900)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

C.P.D.-63 83 0 48.4 -63 33 7.8
C.P.D.-64 3 0 3.4 -64 17 8.6
C.P.D.-64 22 0 16.0 -64 53 9.5
C.P.D.-65 4192 23 55.2 -65 27 9.1
C.P.D.-~~49~~ 58 49 0 43.7 -58 7 8.8
C.P.D.-58 48 0 41.0 -58 44 8.2

C.P.D.-61 94 1 17.7 -61 59 8.6
C.P.D.-63 83 0 48.4 -63 33 7.8

C.P.D.-65 127 1 13.2 -65 52 8.2
C.P.D.-66 80 0 57.9 -66 8 7.8

C.Dm.-26 1071 2 50.0 -26 27 7.6
var.? New

C.P.D.-71 33 0 53.4 -71 8 9.4 H
C.P.D.-71 36 81 0.3 -71 13 9.6
Not in C.P.D.
var.? Hβ=0.1, Hγ=1.0, Hδ=0.7, Hε=0.4, Hζ=0.2, Hη=0.1 Similar to η Carinae?
Plates B series 5593 5715 6930 7139 7808 10284 10292 10321 10480 12185 18837 18866 20645 20880 21901 21840
examined & show "no evidence of variability"
This star was found on a 2881 & proved to be a Gas neb - on comparison with chart plate A 2187
C.P.D.-74 14 0 6.5 -74 47 10.0
Ghost

C.Dm.-37 962 2 28.5 -37 58 7.5
C.Dm.-37 1043 2 42.0 -37 52 7.5
C.Dm.-41 817 2 46.4 -41 29 7.1
C.Dm.-41 626 2 10.4 -41 39 7.0
C.Dm.-42 865 2 30.2 -42 40 7.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.867F

Objects of Interest on Southern Spectrum Plates

No	Plate	U. M.	Object.	R.A.	Dec.	Magn.	
12757	22166	13.1 12.8	Ma	−16 814	4 7.5	−16 22	7.2
12758	"	14.2 12.9	Ma	−16 815	4 7.6	−16 55	8.7
12759	"	14.6 16.0	Mb	−17 856	4 14.2	−17 11	7.0
12760	"	22.5 15.0	Mb.	−21 831	4 12.0	−21 4	6.2
12761	22167	7.3 14.9	Ma	−13 2452	8 8.8	−13 11	7.0
12762	"	8.1. 9.7	Ma	−13 2375	7 58.1	−13 32	8.0
12763	"	9.3 11.8	Ma	−14 2393	8 2.4	−14 9	8.0
12764	"	16.9 16.9	Ma	−18 2277	8 12.7	−18 1	8.0
12765	"	23.4 18.0	Ma	−21 2339	8 8.6	−21 14	8.2
12766	22168	13.0 19.2	Ma Absb	15440	11 10.5	−85 41	7½ (1900)
12767	22237	12.8 18.2	Md Zb.	2054	8 24.6	−75 56.9	8½
12767a	"		ma Zb	3024	7 44.4	−72 17	8½
12768	"	13.1 15.1	Ma Zb.	4511	7 58.9	−76 10	8.2
12769	"	14.9 10.7	Ma Zb.	1431	7 20.2	−76 48	8.8
12770	"	16.8 21.9	Ma Zb.	174	9 2.1	−77 36	8½
12771	"	17.0 13.6	Mb Zb.	3164	7 43.2	−78 4	8.8
12771a			ma Zb.	8469	46 42.4	−77 27	8 (1900)
12772	"	12.1 22.9	Ma Absb	12393	9 1.1	−75 20	7¾
12773	22238	5.8 10.6	Ma ? Absb.	10508	7 51.4	−82 6	7¾ (1900)
12774	"	6.3 10.6	Ma ? Absb.	10477	7 50.1	−82 20	7¼ (1900)
12775	"	9.2 20.1	Ma Absb	14457	10 29.6	−83 50	8½ (1900)
12776	"	9.2 13.5	Ma C.P.D.	−84 174	8 26.5	−84 3	8.7
12777	"	11.9 9.4	Ma C.P.D.	−84 93	6 48.0	−84 34	8.6
12778	"	13.3 20.1	Ma Absb.	15440	11 10.5	−85 41	7½ (1900)
12779	"	23.4 14.3	Ma Absb.	31129	22 53.9	−88 30	8.8 (1900)
12780	"	16.9. 18.3	Ma C.P.D.	−87 180	11 26.4	−87 34	9.0
12781	22239	5.4 11.5	Ma	−7 2813	9 21.1	−7 5	7.2
12782	"	15.4 12.6	Ma	−12 2912	9 22.8	−12 6	8.3
12783	"	16.7 18.5	Mb	−12 2967	9 34.9	−12 47	9.0
12784	"	16.9 13.2	Mb	−12 2917	9 24.0	−12 53	9.1
12785	"	16.8 8.4	Ma	−12 2872	9 14.2	−12 46	8.8

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

C.P.D. -85 276 11 10.8 -85 33 8.7
C.P.D. ... (Cat 1900) 8 25 -76.1
Var ? Hy = 1.0, Hd = 4.0. New Var.
C.P.D. -72 622 7 41.4 -72 17 8.8
C.P.D. -76 484 7 59.0 -76 10 9.3
C.P.D. -76 444 7 20.2 -76 48 9.1
C.P.D. -77 469 9 2.1 -77 36 9.3
C.P.D. -78 270 7 43.2 -78 4 9.5
C.P.D. -77 272 6 43.6 -77 25 9.1
C.P.D. -75 554 9 1.3 -75 14 8.9
C.P.D. -82 207 7 53.4 -82 2 N 8.8
C.P.D. -82 215 7 52.4 -82 16 8.4
C.P.D. -83 355 10 30.2 -83 42 8.8

C.P.D. -85 276 11 10.8 -85 33 8.7
C.P.D. -88 201 22 46.0 -88 38 9.2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	V.	H.	Object			R.A.			Dec.			Magn.	
12	86 87	✓	22239	17.0	12.2	✓	Ma	−12	2905	9	22.0	−12	56	8.2
12	87 88	✓	"	19.1	15.1	✓	Md	−14	2893	9	28.6	−14	3	9.6
12	88 89	✓	"	19.3	10.7	✓	Mf	−14	2850	9	18.8	−14	3	8.9
12	89 90	✓	"	22.5	17.9	✓	Mf	−15	2867	9	33.4	−15	42	8.3
12	90 91	✓	"	22.6	15.1	✓	Mf	−15	2837	9	27.8	−15	44	7.8
12	91 92	✓	"	6.0	21.4	✓	Ma	−7	2895	9	40.9	−7	30	8.1
12	92 93		22265	17.0	7.8	✓	Ma	Absb	1237	1	17.0	−65	44	7.1 (1900)
12	93 94		"	18.7	16.8	✓	Ma	Absb	2048	1	58.6	−66	50	8 (1900)
12	94 95		"	19.5	21.7	✓	Ma	Absb	2566	2	23.4	−66	56	6.9 (1900)
12	95 96		22266	5.0	19.8	✓	Ma	Absb	4353	3	48.8	−74	33	3.2 (1900)
12	96 97		22568	6.5	7.4	✓	Ma	Absb.	14457	10	29.6	−83	50	8½ (1900)
12	97 98		22564	12.2	12.4	✓	Ma	C.P.D.	−87 180	11	26.4	−87	34	9.0
12	98 99		"	13.5	8.1	✓	Ma	C.P.D.	−86 146	8	57.6	−86	22	9.5
12	99 800		"	14.1	23.1	✓	Ma	Absb.	25045	18	24.0	−85	40	8¾ (1900)
								C.P.D.	−85 485	18	15.9	−85	40	9.5
12	800 801		"	14.8	14.4	✓	Ma	Absb.	17241	12	40.9	−89	15	7½ (1900)
12	801 802		"	14.9	13.2	✓	Ma	Absb.	14444	10	18.9	−89	1	8¼ (1900)
12	802 803		"	17.4	11.6	✓	Ma	C.P.D.	−88 58	6	17.2	−88	21	8.3
12	803 804		"	18.7	16.4	✓	Ma	Absb.	31129	22	53.9	−88	30	9.2 (1900)
12	804 805		22565	7.9	11.3	✓	Mf	C.P.D.	−85 373	13 12	3.2	−85	13	9.5
12	805 806		"	11.0	8.2	✓	Ma	Absb.	15440	11	10.5	−85	41	7½ (1900)
12	806 807		"	15.1	14.3	✓	Mf	Absb.	17241	12	40.9	−89	15	7½ (1900)
12	807 808		"	18.1	17.5	✓	Ma	Absb.	31129	22	53.9	−88	30	9.2 (1900)
12	808 809		"	18.5	12.5	✓	Mf	C.P.D.	−88 58	6	17.2	−88	21	8.3
12	809 810		"	18.6	19.9	✓	Mf	C.P.D.	−88 327	22	7.	−87	28	9.0
12	810 811		22566	13.7	14.1	✓	Mf	Absb.	17241	12	40.9	−89	15	7½ (1900)
12	811 812		"	14.5	13.4	✓	Ma	Absb.	14444	10	18.9	−89	1	8¼ (1900)
12	812 813		"	17.5	13.9	✓	Ma	C.P.D.	−88 58	6	17.2	−88	21	8.3
12	813 814		22573	14.0	14.1	✓	Mf	Absb.	17241	12	40.9	−89	15	7½ (1900)
12	814 815		"	14.9	13.5	✓	Ma	Absb.	14444	10	18.9	−89	1	8¼ (1900)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

var ? Hγ = 1.0, Hδ = 10.0 Unknown ~~X~~ Hydrae

C.P.D. -65	127	1	13.2	-65	52	8.2
C.P.D. -66	~~131~~ 126	1	58.0	-66	57	8.5
C.P.D. -67	154	2	22.9	-67	4	8.0
C.P.D. -74	276	3	49.2	-74	37	6.1 γ Hydri.

C.P.D. -89	37	012	33.5	-89	7	8.3
C.P.D. -88	95	10	29.8	-88	53	8.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	U. H.	Obj.			R.A.	Dec.	Magn.	
12816	22573	17.8	14.3	Ma	C.P.D.	-88 58 6	17.2	-88 21	8.3
12816		18.1	23.8	Ma	Ast.	147 0	9.5	- 85 33	6.4 (1900)
12817	22574	5.2	11.9	Mf	C.P.D.	-84 531	16 30	- 84 5	8.9
12818	"	7.9	16.9	Mf	Ast	25045	18 24	- 85 40	8 3/4 (1900)
12819	"	10.8	12.8	Ma	C.P.D.	-86 329	15 56.3	-86 51	9.7
12820	"	10.9	22.8	Ma	Ast	29187	21 15.5	- 85 24	9 (1900)
12821	"	11.2	21.3	Ma	Ast	28714	20 57.3	- 86 3	7 1/2 (1900)
12822	"	12.1	19.9	Ma	C.P.D	-86 388	20 41.5	- 86 58	9.5
12823	"	12.9	21.4	Md?	Approx Pos.	~~21.8 -86.5~~	21 47	-86 31	(1900)
12824	"	13.2	6.6	Ma	C.P.D.	-85 373	13 3.9	- 85 12.6	9.5
12825	"	14.4	20.3	Ma	C.P.D.	-87 327	22 7	-87 28	9.0
12826	"	15.8	18.3	Ma	Ast.	31129	22 53.9	- 88 30	8 3/4 (1900)
12827	"	16.0	13.9	Mf	Ast.	17241	12 40.9	- 89 15	7 1/2 (1900)
12828	"	16.8	10.8	Mf	C.P.D.	-87 180	11 26.4	-87 34	9.0
12829	"	19.7	15.1	Ma	C.P.D.	-88 58	6 17.2	-88 21	8.3
12830	22575	7.5	14.8	Ma	A.G.C.	13537	9 49.8	- 80 36	8 (1900)
12831	"	14.1	17.1	Mf	A.G.C	14457	10 29.6	- 83 50	8 1/2 (1900)
12832	22576	9.2	11.6	Mf	Ast	30358	22 8.8	- 80 57	5.6 (1900)
12833	22577	19.8	9.8	Ma	Ast.	15440	11 10.5	- 85 41	7 1/2 (1900)
12834	22578	8.8	20.1	Ma	Ast.	25045	18 24	-85 40	8 3/4 (1900)
12835	"	10.0	8.7	Mf	C.P.D.	-85 373	13 3.9	- 85 13	9.5
12836	"	13.4	23.0	Ma	Ast.	28714	20 57.3	- 86 3	7 1/2 (1900)
12837	"	14.2	7.2	Ma	Ast	15440	11 10.5	- 85 41	7 1/2 (1900)
12838	"	14.9	11.2	Mf	C.P.D.	-87 180	11 26.4	- 87 34	9.0
12839	"	15.3	14.4	Mf	Ast.	17241	12 40.9	- 89 15	7 1/2 (1900)
12840	"	16.1	20.9	Ma	C.P.D.	-87 327	22 7	-87 28	9.0
12841	"	16.6	18.6	Ma	Ast.	31129	22 53.9	-88 30	8 3/4 (1900)
12842	"	18.8	9.0	Ma	C.P.D.	-86 146	8 ~~57~~ 57.6	-86 22	9.5
12843	"	19.1	14.2	Ma	C.P.D.	-88 58	6 17.2	- 88 21	8.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

C.P.D.-88 ~~60~~ 58 6 ~~22.~~ 17 ~~15.1~~ 13.8 -88 2½ 8.3

C.P.D.-85 2 0 8 31 -85 41 7.5

var ? { Chart plate B series H205 5597 6766 7019 7057 9316 9672 9877 9998 11852 11910 11966 12146 12183 12505 13242 12919 13858 14284 14489 14543 15118 15142 16194 16207 16338 17221 17387 19174 19800 20426 20770 21311 22067 22708 22771 examined — third slight if any evidence of variation

approx ~~1990~~ 1900 p.a. 21.8 - 86.5 Position to be measured on B 5597

C.P.D.-80 394 9 50.3 -80 29 8.8

C.P.D.-83 355 10 30.2 -83 42 8.8

C.P.D.-81 995 22 5.9 -81 4 6.6

C.P.D.-85 276 11 10.8 -85 33 8.7

Not Checked

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.1867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object			R.A.	Dec.	Magn.	
12844	22651	11.9	11.3	Ma	−0	1917	8 1.1	−0 37	8.5	
12845	"	16.6	11.0	Ma	−2	2437	8 0.4	−2 3 0	7.0	
12846	"	18.9	11.9	Ma	−4	2235	8 2.0	−4 8	7.5	
12847	"	20.6	9.7	Ma	−5	2353	7 57.6	−5 0	7.0	
12848	"	22.0	13.4	Ma	−5	2399	8 5.0	−5 40	8.0	
12849	22652	6.6	21.0	Ma	+2	2145	8 59.5	+2 3	6.8	
12850	"	7.9	15.5	Ma	+1	2204	8 48.5	+1 26	8.0	
12851	"	15.9	8.7	Ma	−2	2659	8 34.9	−2 32	7.5	
12852	"	21.0	8.7	Ma	−5	2609	8 34.6	−5 6	8.3	
12853	"	22.1	14.5	Ma	−5	2656	8 46.2	−5 40	7.8	
12854	22653	13.7	15.5	Ma	−1	2541	11 27.5	−1 26	8.2	
12855	22654	13.4	9.0	Mf	−11	3291	12 15.8	−11 0	6.8	
12855a	"	19.8	22.3	Mva	−14	3587	12 42.2	−14 17	6.8	
12856	22655	10.6	16.3	Ma	−9	4230	15 39.5	−9 57	8.0	
12857	"	13.8	13.3	Ma	−11	3989	15 33.2	−11 24	8.5	
12858	"	14.3	19.5	Ma	−11	4028	15 46.0	−11 41	9.0	
12859	"	22.1	21.0	Ma	−15	4221	15 48.9	−15 36	6.8	
12860	22713	20.0	14.9	Mb	Abb.	12583	9 10.5	−29 45	8(1900)	C.
12861	"	16.2	9.6	Ma	Abb.	12320	8 58.6	−27 48	8(1900)	C.
12862	22742	17.5	16.0	Ma	−0	2867	14 37.7	−0 48	6.0	
12863	22751	9.6	13.2	Ma	+0	2321	8 24.2	+0 50	8.5	
12864	"	16.2	18.6	Mb	−2	2658	8 34.9	−2 32	7.5	
12865	"	21.3	18.6	Ma	−5	2609	8 34.6	−5 6	8.3	
12866	"	23.3	18.6	Ma	−6	2690	8 34.5	−6 6	8.9	
12867	22752	9.8	7.6	Ma	+0	2499	9 13.2	+0 47	7.5	
12868	"	18.6	18.4	Ma	−3	2744	9 34.3	−3 37	8.0	
12869	"	21.1	9.6	Ma	−4	2609	9 16.8	−4 51	7.5	
12870	22753	5.6	13.8	Ma	+2	2367	10 45.3	+2 52	8.0	
12871	"	7.2	20.6	Ma	+1	2519	10 58.6	+1 +2 60 0	8.0	
12872	22754	17.0	10.5	Ma	−12	3423	11 18.6	−12 57	7.0	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

C.D.M.-29 7270 9 9.4 -29 39 7.6
C.D.M.-27 6185 8 57.5 -27 42 7.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U.	Hb.	Object		R.A.		Dec.		Magn.	
12873	22754	18.7	15.4	Pec.	-13 3407	11	28.4	-13	47	8.5	V
12874	22766	19.8	10.1	Mc	-2 3653	13	6.6	-2	2	8.2	1
12875	22767	9.5	12.0	Ma.	-2 4425	17	32.7	-2	4	6.2	1
12876	22768	6.0	20.8	Ma	-0 4186	21	7.2	-0	29	6.7	1
12877	"	6.5	17.2	Mb	-0 4163	21	0.1	-0	44	7.2	^
12878	"	7.4	8.1	Mb	-1 4057	20	41.8	-1	6	6.8	1
12879	"	14.3	14.3	Mb	-4 5337	20	54.1	-4	42	7.3	1
12880	"	16.2	7.3	Ma	-5 5378	20	40.1	-5	33	4.2	1
12881	22783	22.6	16.6	Ma	-15 3323	11	32.5	-15	49	6.3	V
12882	22784	9.4	22.1	Ma	-9 3378	11	43.3	-9	8	8.5	V
12883	"	11.9	22.3	Mc	-10 3353	11	43.7	-10	24	8.4	V
12884	"	15.7	10.7	Ma	-12 3432	11	20.3	-12	18	8.2	V
12885	"	17.0	9.9	Ma	-12 3423	11	18.6	-12	57	7.0	V
12886	"	18.6	14.7	Pec.! Type IV	-13 3407	11	28.4	-13	47	8.5	V
12887	"	22.6	11.4	Ma	-15 3275	11	21.6	-15	48	7.5	V
12888	"	22.7	16.4	Ma	-15 3320	11	31.8	-15	49	8.0	V
12889	"	22.7	16.7	Mb	-15 3323	11	32.5	-15	49	6.3	V
12890	"	22.8	17.3	Ma	-15 3330	11	33.9	-15	53	7.7	V
12891	22785	5.7	11.2	Ma	Diff. -17 3932	13	39.5	-17	8	6.0	V
12892	"	6.3	15.2	Pec.!	Diff. -17 3961	13	47.9	-17	32	8.0	V
12893	"	7.0	11.4	Ma	Diff. -17 3934	13	40.0	-17	51	7.7	V
12894	"	8.2	8.5	Ma	Diff. -18 3660	13	33.9	-18	24.0	8.2	V
12895	"	15.2	5.8	Ma	Diff. -21 3736	13	27.5	-21	53	7.5	V
12896	"	8.3	21.5	Ma	Diff. -18 3757	14	1.0	-18	33	7.3	V
12897	22786	6.3	9.2	Ma	-2 4242	16	37.6	-2	49	6.9	^
12898	"	8.3	15.2	Cont	-3 4031	16	49.5	-3	52	neb	^
12899	22816	10.2	12.0	Cont.	+2 2943	15	11.2	+2	37	neb.	^
12900	22817	8.8	18.5	Ma?	+3 2519	11	26.2	+3	19	7.2	V
12901	22822	7.7	17.8	Ma	-22 4101	16	0.8	-22	34	8.5	^

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

"~~IV~~ - VI"

Nd ? Known Type ~~IV~~ X announced later as Type VI

Var ? ~~or Nova ?~~ Sp Ma in B 21218. The Sp. apparently shows slight change. Similar object on B 22824

Cl. or neb.
Cl. or neb.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..067F

Objects of Interest on Southern Spectrum Plates.

	No	Plate	V.	H.	Object.			R.A.	Dec.	Magn.	
	12902	22822	10.5	12.1	Ma	−21	4247	15 51.9	−21 5	9.1	1
	12903	"	12.9	14.7	Mf	−20	4355	15 46.3	−20 23	8.3	1
	12904	"	12.5	17.5	Mb	−20	4329	15 40.5	−20 0	7.7	1
	12905	"	14.0	18.0	Mb	−19	4218	15 39.5	−19 15	8.8	1
	12906	"	15.6	15.2	Ma	−18	4191	15 45.6	−18 31	7.5	1
	12907	"	15.9	14.4	Ma	−18	4196	15 47.3	−18 22	8.6	1
	12908	"	16.1	20.6	Ma	−18	4136	15 34.4	−18 8	8.0	1
	12909	22823	11.0	13.3	Ma	Abb	16243	11 49.2	−30 21	7½ (1900)	
	12910	"	12.8	22.4	Ma	Abb	16736	12 10.4	−31 8	7¾ (1900)	
	12911	"	17.6	21.2	Mf	Abb.	16684	12 8.0	−33 34	69 (1900)	
	12912	"	12.7	17.9	Ma	Abb	16496	12 0.1	−33 39	7 (1900)	
	12913	"	21.1	16.8	Ma	~~Abb~~ 35	3854	11 56.4	−35 13	8½	
	12914	"	21.2	11.	Mc 5	Abb	16138	11 43.6	−35 26	7¼ (1900	
	12915	22824	8.1	17.0	Mf	−8	3401	12 33.7	−8 27	7.6	1
	12916	"	8.7	12.1	Ma	−8	3364	12 23.7	−8 41	8.7	1
	12917	"	13.4	8.3	Ma	−11	3291	12 15.8	−11 0	6.8	1
	12918	"	16.1	7.8	Ma	−12	3621	12 14.7	−12 22	8.3	1
	12919	"	19.9	21.3	Mf	−14	3587	12 42.2	−14 17	6.8	1
	12920	"	21.2	15.1	Pec N?	−14	3544	12 29.4	−14 55	8.3	1
Sept. 30, 99.	12921	22825	9.3	17.4	Ma	Abb	17319	12 37.9	−24 26	7 (1900)	
	12922	"	11.4	8.7	Ma	Abb	16899	12 18.8	−25 27	8.7 (1900)	
	12923	"	12.4	9.2	Ma	Zb	1159	12 18.5	−25 51	9	
	12924	"	13.5	11.6	Ma	Abb	17040	12 25.1	−26 32	9 (1900)	
	12925	"	15.1	16.4	Ma	Abb	17267	12 35.9	−27 21	7¼ (1900)	
	12926	"	16.9	13.7	Pec.	Zb	1744	12 28.5	−28 5	9	
	12927	"	19.0	19.2	Mf	Zb	2461	12 41	−29 7	8.3	
	12928	"	21.6	20.8	Ma	Abb	17486	12 46.3	−30 32	7.3 (1900)	
	12929	"	23.3	14.2	Mf	Abb	17154	12 30.8	−31 24	8½ (1900)	
Oct 21, 1899	12930	22851	9.3	17.6	Ma	Abb.	17319	12 37.9	−24 26	7 (1900)	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...0675

C.DM.-30 9530 11 47.8 -30 13 7.4
C.D.M.-30 9791 12 9.1 -30 59 7.5
C.Dm.-33 8252 12 6.7 -33 25 6.9
C.Dm.-33 8159 11 58.8 -33 31 7.4
C.Dm.-35 7643 11 56.4 -35 13 8.0
C.Dm.-35 7454 11 42.4 -35 18 7.1
var? Found before on other spectrum plates & chart plates examined show no evidence of var. see note on page HS. 170 #812

var? ~~or Nova?~~ *

Mason B 7 16 39 ~~1898~~. The sp. apparently shows slight change.

C.Dm.-24 10500 12 36.6 -24 18 7.5
-25 9216 12 17.5 -25 19 8.2
C.D.M.-~~27 8811~~ ~~12 34.6~~ -~~27~~ 13 7.1
C.DM.-25 9228 12 18.5 -25 51 8.9
C.DM.-26 9165 12 23.8 -26 24 7.6
C.DM.-27 8811 12 34.6 -27 13 7.1
C.DM.-28 9580 12 28.5 -28 6 8.8
Nova bright?

"mb ou B 21 h 03 Rec. not confirmed. Not to be announced as Rec. will bear more confirmation"

C.DM.-29 9920 12 41.0 -29 7 7.8
C.DM.-30 10168 12 45.0 -30 24 7.3
C.DM.-31 9787 12 29.5 -31 16 8.9
C.Dm.-24 10500 12 36.6 -24 18 7.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	V.	H.	Object.		R. A.	Dec.	Magn.	
	12931	22851	12.8	14.6	✓ Ma	A.G.C. 17159	12 31.2	−26	12	8¾ (1900).
	12932	"	13.4	11.8	✓ Ma	A.G.C. 17040	12 25.1	−26	32	9 (1900
	12933	"	15.1	16.6	✓ Ma	A.G.C. 17267	12 35.9	−27	21	7½ (1900)
	12934	"	16.8	13.9	✓ Ma	Z.C. 1744	12 28.5	−28	5	9
	12935	"	19.0	19.4	✓ Ma	Z.C. 2461	12 41	−29	7	8.3
	12936	"	20.3	8.0	✓ Ma	A.G.C. 16841	12 16.3	−29	55	8½ (1900)
	12937	"	23.2	14.3	✓ Ma	A.G.C. 17154	12 30.8	−31	24	8½ (1900)
March 3, 1900	12938	18300	6.7	18.0	✓ Ma	C.D.M. -43 4116	8 12.0	−43	15	9.0
	12939	"	14.0	15.6	✓ Bruce	A.G.C. 10863	8 6.5	−47	2	3 (1900)
	12940	"	15.7	16.8	✓ Mbsc	C.D.M. -47 3708	8 9.3	−47	45	9.4
	12941	"	16.6	15.3	✓ Mb	Z.C. 374	8 4.7	−48	15	9
	12942	"	19.4	11.4	✓ Type IV	A.G.C. 10488	7 53.5	−49	43	8 (1900)
	12943	"	19.5	16.2	✓ Ma	Z.C. 640	8 7.7	−49	40	8.8
	12944	22852	6.8	8.5	✓ Mb	C.D.M. -48	11047	16 31.0	−48	3 8.2
	12945	"	7.5	20.4	✓ Mb	C.D.M. -48	~~11541~~ 11544	~~17 6.4~~ 17 6.5	~~−48~~ −48	~~29~~ 30 ~~9.5~~ 9.5
	12946	"	9.2	11.6	✓ Ma	C.D.M.	~~−49 11366~~ −49 10986	~~17 12.7~~ 4716 39.8	~~−49~~ −49	~~20~~ 21 ~~10~~ 9.3
	12947	"	9.9	13.2	✓ Mb	C.D.M. -49	11027	16 44.5	−49	43 9.6
	12948	"	9.2	23.4	✓ ~~Type IV~~ Rec.	C.D.M. -49	11366	17 12.7	−49	20 10
	12949	"	11.2	10.9	✓ Ma	C.D.M. -50	10801	16 37.3	−50	20 9.8
	12950	"	13.8	21.5	✓ Bruce	C.D.M. -51	10820	17 10.9	−51	38 10
	12951	"	15.9	8.7	✓ Mb	C.P.D. -52	10082	16 29.4	−52	36 9.1
	12952	"	19.8	15.3	✓ Mb	C.P.D. -54	7964	16 51.0	−54	43 9.4
	12953	"	20.2	15.7	✓ Type IV	C.P.D. -54	7975	16 52.3	−54	53 10.1
	12954	"	20.5	19.6	✓ Mb	C.P.D. -54	8141	17 6.0	−54	59 9.5
	12956	"	20.7	9.6	✓ Mb	C.P.D. -55	7643	16 31.2	−55	3 9.0
	12956	"	20.9	18.3	✓ Bruce	announced ~~P.C.~~ (1900)		17 3.5	−55	16
	12957	"	22.3	14.4	✓ Ma	C.P.D. -55	7761	16 47.8	−55	55 10.1
	12958	"	22.8	11.1	✓ Ma	C.P.D. -56	7851	16 36.8	−56	9 9.5
	12969	"	23.0	15.2	✓ Mb	C.P.D. -56	7938	16 50.5	−56	17 8.8

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..0077

C.D.M.-26 9220 12 29.9 -26 4 8.8
C.D.M.-26 9165 12 23.8 -26 24 7.6
C.D.M.-27 8811 12 34.6 -27 13 7.1
C.D.M.-28 9580 12 28.5 -28 6 8.8
C.D.M.-29 9920 12 41.0 -29 7 7.8
C.D.M.-29 9686 12 15.0 -29 47 7.9
C.D.M.-31 9787 12 29.5 -31 16 8.9

Type V Known

Na 0.8 1.0; 0.5 0.5; 0.1 Known

Pec ~~Ad.~~ 0.5 1.0; 0.4 0.5; 0.5 0.5; 0.2 Dark bands. Circ. 60 announced as Type VI Circ. 145 See also No. 12634

Gas ret or Nova? Known Gas neb.

Na 0.7 1.0; 0.5 0.5; Known Type IV

Gas ret ~~Nova~~ New ? A comparison with the ~~cat~~ B 12 09.8 indicates that this object is a gas neb. following a star 17 min. 55 s. preceding and 1° 55' south. Spectrum is very different from that of the star following; a good spectrum with 90° prism reversed will probably be required to decide definitely the identification of the object as to class of spectrum. (Copied from Miss Fleming's notes on B 2858 April 15 1890) Announced later as Circular 60 - as Gas nel

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	D.	H.	Object.		R. A.	Dec.	Magn.	
April 11, 1900	12960	22853	7.2	9.4	✓ Pec. ?	C.D.M.	-33 11413	16 36.8	-33 8	9.0
	12961	"	9.5	23.4	✓ Br line	C.D.M.	-34 11622	17 10.1	-34 16	9.0
	12962	"	14.8	21.2	✓ Br lines	C.D.M.	-36 11341	17 53	-36 58	9.1
	12963	"	16.1	17.2	✓ Br line	Alsb.	23073	16 57.2	-37 42	7.1 (1900 ✓
	12964	"	18.6	17.2	✓ Ma?	C.D.M.	-38 11490	16 55.5	-38 54	7.7 ? Distinct star
	12965	"	18.6	14.8	✓ Ma	Alsb	22937	16 51.0	-38 57	7½ (1900)
	12966	"	21.3	13.4	✓ Ma	C.D.M.	-40 10889	16 45.5	-40 14	8.0
	12967	"	22.2	17.5	✓ Br line	C.D.M.	-40 11127	16 56.4	-40 42	9.9
	12968	"	22.7	13.7	✓ Br line	Alsb	22843	16 48.0	-41 0	6.4 (1900)
	12969	"	23.4	10.6	✓ Ma	Alsb	22654	16 39.8	-41 18	7½ (1900)
	12970	"	24.1	13.4	✓ Br line	Alsb	22827	16 47.3	-41 40	7 (1900)
	12971	"	24.2	12.7	✓ Br line	Alsb.	22763	16 45.3	-41 41	7½ (1900)
	12972	22854	7.6	11.3	✓ Ma		-18 4953	18 16.5	-18 36	8.0
	12973	"	8.9	16.2	✓ Ma		-19 5077	18 26.8	-19 22	7.0
	12974	"	9.0	19.8	✓ Mb		-19 5134	18 34.4	-19 25	6.5
	12975	"	9.6	21.2	✓ Mb		-19 5154	18 37.5	-19 45	6.8
	12976	"	10.5	17.9	✓ Ma		-20 5223	18 31.3	-20 12	6.5
	12977	"	12.1	8.7	✓ Nd?	(Est. 1855)		18 10.9	-20.9	
	12978	"	12.9	12.8	✓ Ma		-21 5013	18 19.5	-21 19	8.7
	12979	"	15.7	15.5	✓ Br line	(Est. 1855)	Announced 1900 Dec.	18 27.9	-22 43	
	12980	"	16.6	10.8	✓ Ma	C.Dm.	-23 14319	18 16.0	-23 6	8.6
	12981	"	16.7	11.7	✓ Br lines	C.Dm.	-23 14353	18 18.2	-23 18	9.2
	12982	"	17.1	9.1	✓ Ma	C.Dm. -23	23 14236	18 12.3	-23 22	8.0
	12983	"	18.0	16.9	✓ Ma	C.Dm.	-23 14543	18 29.2	-23 52	8.6
	12984	"	18.2	16.7	✓ Cont.	(Est. 1875)		18 29.	-24.0	
	12985	"	20.2	11.3	✓ Cont.	C.Dm.	-24 14289	18 16.9	-24 57	neb.
	12986	"	20.3	9.9	✓ Ma	C.Dm.	-24 14219	18 13.8	-24 58	7.5
	12987	"	20.7	14.9	✓ Br line	C.D.M.	-25 13223	18 24.9	-25 14	9.6
	12988	22862	5.7	11.7	✓ Mb	C.Dm.	-42 12516	17 41.1	-42 35	9.4 (8.3)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type V Unown
Gas. neb. Unown
~~Gas. neb. Type V~~ Unown
Nlas?

~~Type V~~ "The Hγ line appear to be of greater intensity than Hβ & indicates the object to be a gas. neb. see chart pl. B 15870" (Copied from note on cover of B 22853) New
~~Type V~~ Unown

Type V Unown
Type V Unown

"Bn. line may be due to defect on ~~plate~~ B 11252 ~~Sp.~~ ?"
Var? Hydrogen lines Cr. Chart plate B 23708 17650 14083 12952 11938 10695 9744 8925 8135 7804 7494 7239 7008 6794 6580 6386 6196 6024 5863 5714 5574 5444 examined & shows slight if any evidence of var.

~~Type V~~? "Gas neb." "Very faint identification difficult. Object marked on B 23708 shows slight nebulosity assumed to be a gas. neb. Bn. line of greater intensity than Hβ. April 17, 1900" also note copied from cover of plate B 22854 New

~~Gas. neb. a Nova?~~ "Assuming identification with object on chart pl. B 23708 to be correct. Bn. line of greater intensity than Hβ. April 17, 1900" also note copied from cover of B 22854 Unown

Cl a neb?
Cl. a neb.?

~~Gas neb. Type V~~ Unown

Identification made with chart plate B 27911

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	V.	H.	Object		R.A.	Dec.	Magn.
12989	22862	6.3	18.1	✓ B	? -42 12884	17 58.2	-42 56	9.7
12990	"	6.3	20.7	✓ Md?	announced 1900 (Est. 1900)	18 7.2	-42 53	
						18 5.4	-42.9	
12991	"	7.7	17.9	✓ Mb	C.Dm.-43 12269	17 57.5	-43 38	8.6
12992	"	7.9	18.4	✓ Cont	C.Dm.-43 12289	17 59.0	-43 44	neb.
12993	"	7.9	20.2	✓ Type IV	C.Dm.-43 12354	18 4.1	-43 43	10
12994	"	10.0	15.9	✓ Ma	C.Dm.-44 12254	17 51.9	-44 48	9.8
12995	"	10.3	10.3	✓ Br.line	announced (Est. 1900)	17 38.2	-44.9	52
12996	"	10.8	21.1	✓ Ma	C.Dm.-45 12333	18 6.6	-45 8	10
12997	"	11.3	19.0	✓ Mc	announced (Est. 1900)	18 2.6	-45.4	26
12998	"	11.5	22.5	✓ Mb	C.Dm.-45 12411	18 10.9	-45 25	9.2
12999	"	12.7	10.5	✓ Br.line	C.Dm. -46 11816	17 36.3	-46 2	9.9
13000	"	12.6	21.9	✓ Br.line	(Est. 1900)	18 11.1	-46 2	
13001	"	19.7	11.5	✓ Mb	C.Dm.-49 11719	17 38.5	-49 35	9.6
13002	"	20.0	14.4	✓ Mc	C.Dm.-49 11810	17 47.3	-49 46	9.9
13003	"	22.0	13.7	✓ Mb	C.Dm.-50 11622	17 45.0	-50 44	9.8
13004	"	22.4	15.2	✓ Ma	C.Dm.-50 11662	17 49.7	-50 59	9.8
13005	"	22.9	6.6	✓ Mb	C.Dm.-50 11346	17 22.4	-50 58	8.5
13006	"	23.3	12.4	✓ Ma	C.Dm.-51 11177	17 40.8	-51 23	9.6
13007	"	24.0	7.6	✓ Mb	C.Dm.-51 10980	17 25.2	-51 36	9.6
13008	"	23.4	12.3	✓ Ghost	(Est. 1900)	18 14	-51.5	
May 1, 1900	13009 ✓ 22902	5.7	18.5	✓ Ma	-12 4902	17 54.2	-12 18	7.5
	13010 ✓ "	9.1	10.4	✓ Ma	-13 4741	17 37.6	-13 58	8.0
	13011 ✓ "	11.8	17.9	✓ Ma	-15 4775	17 53.0	-15 21	8.2
	13012 ✓ "	11.7	22.0	✓ Ma	-15 4840	18 1.4	-15 18	8.3
	13013 ✓ "	12.5	19.6	✓ Ma	-15 4805	17 56.4	-15 43	9.0
	13014 ✓ "	15.0	19.1	✓ Mb	-16 4697	17 55.5	-16 56	9.3
(Where is 13016)	13015 ✓ "	18.4	10.0	✓ Type IV.	-18 4634	17 36.4	-18 36	8.5
	13017 ✓ "	19.4	23.7	✓ Br.line	N.G.C. 6567	18 7.8	-19 5	(1900)
	13018 ✓ "	20.0	20.9	✓ Br.line	-19 4854	17 59.4	-19 25	9.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

B 22479 4096 140+0 8817 19577 3895 23060

var.? New May be spec. similar to γ Cassiae, Hβ, Hγ, HS, Hε, & Hζ bright, also Hβ 3.25 HS 6e.

1904 Ed Pickering

Da Net?

Na? 0.8 0.8; 0.8 0.8; Announced later as Type VI

Gas neb, ~~Nova~~? Found on B 21873 compared with chart pl. B 19083 the object is a gas. neb. the star next Nr. line bearing of gr. N Hβ the object marked on B 19083 is O.K. see note on cover of B 21873

B 140+0 19324 23060 8817 19577 4096

Aug 6, 1901 Ed Pickering

var.? New

Nova? or var.? or similar to γ Cassiae Hβ, Hγ, & HS bright.
Gas. Neb. New

var.? New

Ghost of Sol. A.

Na 0.5 1.0; 0.9 0.9; Known
Type V. Known as Gas neb
Type V. Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	D. H.	Object.		R. A.	Dec.	Magn.	
13019	22902	23.7 21.1	Br Line	-21 4864	17 59.8	-21 16	7.8	
13020	22915	6.5 12.7	Nd ?	DM -27 6969	9 43.9	-27 46.1	9.5	
13021	"	14.1 15.9	Na	Z.C. 9h 3931	9 50.9	-31 39	8½	
13022	"	15.6 9.5	Na	Absb. 13215	9 36.9	-0 2 - 28	8½ (1900)	
13023	"	20.4 22.3	Type IV	Absb 13896	10 7.5	-34 50	7¼ (1900	
13024	"	21.6 14.6	Na	Z.C. 9h 3699	9 47.7	-35 23	9	
13025	22919	5.5 12.1	Na	-7 2813	9 21.1	-7 5	7.2	
13026	"	16.1 18.7	Na	-12 2963	9 34.0	-12 26	8.1	
13027	"	16.8 19.1	Nb	-12 2967	9 34.9	-12 47	9.0	
13028	"	16.9 9.0	Na	-12 2872	9 14.2	-12 46	8.8	
13029	"	19.4 11.3	Na	-14 2850	9 18.8	-14 3	8.9	
13030	"	22.7 18.4	Nb	-15 2867	9 33.4	-15 42	8.3	
13031	23822	20.0 15.0	Nb	-7° 6855	3 41.7	-7 28	7.0	
13032	"	13.8 13.3 -17.6 ?	Approx pos.		3 40	-3 0		
13033	22920	7.5 16.1	Na	C.P.D. -23 4987	10 31.2	-23 14	9.0	=
13033a			Na	Absb. 14080	10 15.1	-22 29	8 (1900)	
13034	"	22.9 20.6	Na	Absb 14762	10 42.9	-31 5	7¾ (1900)	
May 2, 1900 13035	22921	11.6 14.5	Na	Absb 16243	11 49.2	-30 21	7½ (1900)	
13036	"	15.9 20.9	Na	Z.C. 12h 163	12 2.6	-32 23	8½	
13037	"	18.0 22.6	Nb	Absb. 16684	12 8.0	-33 34	6.9 (1900)	
13038	"	18.1 19.3	Na	C.P.D. -33 3189	11 58.6	-33 30	9.6	8.4
13039	"	21.6 18.3	Na	Zb. 11h 3854	11 56.4	-35 13	8½	
13040	"	21.8 12.5	Nc	Absb 16138.	11 43.6	-35 26	7¼ (1900)	
13041	22922	8.1 18.2	Na	-8 3401	12 33.7	-8 27	7.6	
13042	"	12.9 17.7	Cont.	-10 3525	12 32.5	-10 50	neb	
13043	"	13.4 9.5	Na	-11 3291	12 15.8	-11 0	6.8	
13044	"	15.5 8.4	Na	-12 3613	12 13.4	-12 3	8.0	
13045	"	16.1 9.0	Na	-12 3621	12 14.7	-12 22	8.3	
13046	"	19.9 22.5	Na	-14 3587	12 42.2	-14 17	6.8	
13047	"	20.5 21.1 20.9 16.3	Na	-14 3573	12 38.9	-14 38	8.0	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type V. Known

var? very faint. $\Delta\gamma = \underline{1.0}$ $\Delta\delta = \underline{1.6}$ (?) Chart plate B Series 5073 5931 7508 9187 10927 13240 13693 15207 15753 15796 18022 18084 18423 21047 21178 21543 22460 22490 22775 22805 "Examined & show no evidence of Var."

Na 0.8 1.0; 0.8 0.8; Known

Peculiar trail. Meteor? Found Dec. 20, 1899. W.P.F.

C.D.M. -23 9421 10 31.2 -23 15 8.0
D.M. -22 2894 10 13.0 -22 14 7.4
C.D.M. -30 8723 10 41.7 -30 56 7.5
C.D.M. -30 9530 11 47.8 -30 13 7.4
C.D.M. -32 8529 12 2.6 -32 23 7.9
C.D.M. -33 8252 12 6.7 -33 25 6.9
C.D.M. -33 8159 11 58.8 -33 31 7.4
C.D.M. -35 7643 11 56.4 -35 13 8.0
C.D.M. -35 7454 11 42.4 -35 18 7.1
var? 27 plates exam. show no evidence of variation See Book V. 55 p. 159 Book V. 95 p. 115

Cl. a neb.?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...007F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	X.	Y.	Object	R.A.	Dec.	Magn.	
13048	"	~~20.5~~ 21.1	~~20.7~~ 16.3	✓ Mb	-14 3544	12 29.4	-14 55	8.3
13049	22925	~~8.1~~ 6.2	~~18.3~~ 19.9	✓ Ma Z.C. 14h	3127	14 49.3	-57 21	8.2
13050	"	15.1	14.6	✓ Ma Z.C. 14h	1896	14 29.6	-56 52	9
13051	"	6.7	18.2	✓ Ma Z.C. 14h	2728	14 43.1	-57 40	9.0
13052	"	7.0	21.0	✓ Mb Abb	20352	14 55.4	-57 50	8 (1900)
13053	"	7.1	20.3	✓ Mb Abb	20279	14 52.7	-57 54	8½ (1900)
13054	"	8.3	15.1	✓ Mb C.P.D. -58	5664	14 31.5	-58 25	9.8
13054a		7.7	23.8	✓ 9.7 appar. 1875 Poo.		Comp. 1.5 1.5	1.0 1.4 = 58 58	34 34 (1875)
13055	"	9.7	12.0	✓ Ma Abb	19548	14 21.2	-59 14	8½ (1900)
13056	"	10.3	9.1	✓ Mb ~~Z.C. 14h~~ Abb	19295 1137	14 ~~17.8~~ 9.4	-59 27	var. ~~8.2~~
13057	"	11.0	11.7	✓ Ma Z.C. 14h	1137	14 17.8	-59 43	8.2
13058	"	11.6	12.2	✓ Mb C.P.D. -60	5385	14 19.8	-60 5	9.7
13059	"	12.2	13.6	✓ Mb Abb	19689	14 27.3	-60 32	7¾ (1900)
13060	"	12.6	20.2	✓ Mb ~~appar. 1875~~ Comp. -60° 5443		14 ~~52.1~~ 51.9	-60 30	10½
13061	"	15.7	14.5	✓ Ma C.P.D. -62	4210	14 28.5	-62 10.3	9.7
13062	"	18.7	22.3	✓ Ma Z.C. 15h	203	15 3.1	-63 25	8½
13063	"	24.6	14.4	✓ Mb Z.C. 14h	1773	14 27.6	-66 33	9
13064	22928	6.7	13.9	✓ Ma	-7 4131	15 46.0	-7 51	8.2
13065	"	10.7	10.7	✓ Ma	-9 4230	15 39.5	-9 51	8.0
13066	"	13.9	7.7	✓ Ma	-11 3989	15 33.2	-11 24	8.5
13067	"	21.8	15.5	✓ Ma	-15 4217	15 48.5	-15 25	8.2
13068	"	22.2	15.7	✓ Mb	-15 4221	15 48.9	-15 36	6.8
13069	22952	10.3	11.9	✓ Cont.	+2 2943	15 11.2	+2 37	neb
13070	"	19.2	10.0	✓ Mb	-1 3041	15 7.4	-1 52	8.0
13071	22953	9.7	11.9	✓ Ma	-2 4425	17 32.7	-2 4	6.2
13072	"	10.5	18.4	✓ Mb sc	-2 4482	17 45.5	-2 32	7.5
13073	"	15.0	13.1	✓ Mb	-4 4332	17 34.9	-4 46	6.5
13074	"	6.4	21.7	✓ Br. line	-0 3398	17 52.2	-0 29	9.2
13075	22970	7.9	20.1	✓ Ma	+1 2403	10 0.1	+1 37	7.5
13076	"	10.1	13.7	✓ Ma	+0 2582	9 47.6	+0 30	8.2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

C.P.D.-57 6856 14 49.2 -57 21 9.0
C.P.D.-56 6363 14 29.6 -56 52 9.5
C.P.D.-57 6809 14 43.0 -57 40 9.8
C.P.D.-57 6890 14 53.6 -57 44 9.4
C.P.D.-57 6871 14 50.8 -57 48 8.8
C.P.D.-58 5664
either double star or body having motion. Two stars but not near enough to the double? cc B 27181
C.P.D.-59 5591 14 19.4 -59 7 10.0
C.P.D.-59 5476 14 7.6 -59 20 8.9
C.P.D.-59 5568 14 17.8 -59 43 9.4
C.P.D.-60 5381
C.P.D.-60 5432 14 25.4 -60 25 8.8
(CPDis cat. not published at time identification was first made) Chart plate B 25176 used for ident.
C.P.D.-60° 5593 14 52.2 -60 29 9.5 mag. follows ▽ is south
C.P.D.-62 4210
C.P.D.-63 3529 15 3.1 -63 25 8.8
C.P.D.-66 2589 14 27.6 -66 33 9.6

Cel. a neb?

var? or defect? "Sp. a on B 11351. Defect on B 22953"

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	D.	H.	Object.		R.A.	Dec.	Magn.	
13077	22970	18.3	17.0	Ma	−3 2744	9 34.3	−3 37	8.0	1
13078	"	19.5	15.8	bl. A	a/p/m7 1905 pos.	9 51.5	−4.5		
13079	"	22.1	8.3	Ma	−5 2881	9 36.9	−5 31	8.4	
13080	22971	15.7	17.5	Ma	Abb 14323	10 24.7	−72 40	7½ (1900)	
13081	"	14.0	13.5	Ma	Abb. 13658	9 55.5	−76 49	8 (1900)	
13082	"	16.6	7.9	Ma	J.C. 174	9 2.1	−7.7 36	8½	
13083	"	21.6	13.4	Ma	Abb 13537	9 49.8	−80 36	8 (1900)	
13084	"	23.4	12.1	Ma	Abb 13151	9 31.8	−81 24	8 (1900)	
13085	22972	8.0	15.4	Ma	−8 3401	12 33.7	−8 27	7.6	
13086	"	13.3	6.7	Ma	−11 3291	12 15.8	−11 0	6.8	
13087	"	18.8	21.2	Ma	−13 3612	12 45.4	−13 50	7.8	1
13088	"	19.7	19.7	Ma	−14 3587	12 42.2	−14 17	6.8	1
13089	"	20.4	18.1	Ma	−14 3573	12 38.9	−14 38	8.0	1
13090	"	21.0	13.4	Ma	−14 3544	12 29.4	−14 55	8.3	1
13091	22973	6.5	11.9	Reg! Ma	Dlb. −17 3961	13 47.9	−17 32	8.0	
13092	"	7.2	8.2	Ma	Dlb. −17 3934	13 40.0	−17 51	7.7	
13093	"	8.4	18.2	Ma	Dlb. −18 3757	14 1.0	−18 33	7.3	
13094	"	22.7	19.2	Ma	Abb. 19227	14 5.6	−25 52	8¼	
13095	"	22.8	12.0	Ma	Abb 18909	13 49.7	−25 56	8¼ (1900)	
13096	22974	10.8	8.8	Ma	−9 4230	15 39.5	−9 51	8.0	1
13097	"	22.2	13.6	Ma	−15 4221	15 48.9	−15 36	6.8	1
13098	22975	13.9	21.1	Ma	−11 4390	17 22.2	−11 30	8.5	
13099	"	16.4	13.1	Br line	1900 pos.	17 8.W	" 12 48		
13100	"	22.5	13.4	Ma	−15 4493	17 6.4	−15 44	8.8	
13101	"	23.3	15.1	Ma	−16 4470	17 10.0	−16 9	6.5	
June 21, 1900 13102	22976	8.3	16.9	Ma	−3 2744	9 34.3	−3 37	8.0	
13103	"	12.0	8.6	Ma	−5 2790	9 17.7	−5 23	8.4	
13104	"	12.1	18.3	Ma	−5 2881	9 36.9	−5 31	8.4	
13105	"	15.4	10.4	Ma	−7 2813	9 21.1	−7 5	7.2	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Ghost. Reflection of α Leonis which is 17° north of position in which it appears on this plate.

C.P.D.-72	959	10	24.0	-72	32	8.1
C.P.D.-76	606	9	55.4	-76	42	9.0
C.P.D.-77	469	9	2.1	-77	36	9.3
C.P.D.-80	394	9	50.3	-80	29	8.8
C.P.D.-81	347	9	32.7	-81	17	9.1

New

C.DM.-25	10209	14	4.2	-25	46	7.7
C.DM.-25	10071	13	48.3	-25	49	7.7

Type V.? Known Gas neb. (Not in DM. cat) N.G.C. 6309

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U. Y&C.	Object.		R.A.	Dec.	Magn.	
13106	22976	16.1 20.3	✓ Na	−7 2895	9 40.9	−7 30	8.1	↑
June 27, 1900 13107	22977	5.7 11.6	✓ Na	+2 2367	10 45.3	+2 52	8.0	↑
13108	"	7.3 18.3	✓ Na	+1 2519	10 58.6	+2 0	8.0	↑
13109	"	7.9 22.5	✓ Na	+1 2539	11 6.9	+1 41	8.3	↑
13110	"	11.4 19.6	✓ Na	−0 2407	11 1.0	−0 3	8.0	↑
13111	22978	6.6 8.8	✓ Na Abs	14327	10 24.7	−72 40	7½ (1900)	
13112	"	7.5 22.9	✓ Na Abs	16519	12 1.0	−73 0	7.1 (1900)	
13113	22979	6.4 8.3	✓ Mb	−2 4242	16 37.6	−2 49	6.9	↑
13114	"	8.4 14.3	✓ Cont.	−3 14031	16 49.5	−3 52	neb	↑
13115	22980	6.0 10.0	✓ Mb C.P.D.	−84 531	16 30	−84 5	8.9	
13116	"	6.4 14.0	✓ Na C.P.D.	−84 571	17 48.3	−84 46.0	9.3	
13117	"	10.4 13.3	✓ Md		17 25.9	−86 46	(1900)	
13118	"	11.0 19.9	✓ Na Abs	28714	20 57.3	−86 3	7½ (1900)	
13119	"	11.4 14.9	✓ Na C.P.D.	−87 282	18 7.5	−87 18	9.4	
13120	"	11.5 11.4	✓ Na C.P.D.	−86 329	15 56.3	−86 51	9.7	
13121	"	14.3 19.2	✓ Mb C.P.D.	−87 327	22 7	−87 28	9.0	
13122	"	15.8 17.4	✓ Mb Abs	31129	22 53.9	−88 30	8¾ (1900)	
13123	"	16.5 13.0	✓ Mb Abs	17241	12 33.4	−89 7	7½ (1900)	
13124	"	23.9 14.8	✓ Md	−86° 72	5 56.8	−86 26	(1900	
13125	22981	6.2 18.6	✓ Na	−7 4492	17 36.7	−7 48	8.5	↑
13126	"	18.5 18.9	✓ Na	−13 4741	17 37.6	−13 58	8.0	↑
13127	22982	14.0 16.0	✓ Brlne	−11 4593	18 11.0	−11 41	8.7	↑
13128	"	15.3 17.8	✓ Mb	−12 4902	17 54.2	−12 18	7.5	↑
13129	"	21.9 16.1	✓ Type IV	−15 4923	18 11.0	−15 40	9.0	↑
13130	22985	9.5 20.7	✓ Mb Abs	26746	19 26.1	−31 5	6.8 (1900)	↓
13131	"	11.5 16.3	✓ Na Abs	26507	19 16.0	−32 7	7¼ (1900)	
13132	22986	16.5 21.0	✓ Type IV DM.	−8 4726	18 42.5	−8 4	7.1	
13133	"	17.2 23.5	✓ Type IV DM.	−8 4764	18 47.6	−8 22	9.5	
13134	22987	8.7 17.5	✓ Mb	−4 4880	19 33.5	−4 15	8.0	↓

Badly hypered. Cannot find plate.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Cl. a Nebl?

var? δ Octantis $H_f = \underline{1.0}$; $H_S = \underline{1.0}$

var? Known $H_f = \underline{1.0}$, $H_S = \underline{1.2}$ R Octantis

Type V. Known

Nd 0.8 1.0; 0.3 0.4; 0.2 0.2; Known Cir. 1145 Type VI

C.D.M. -31 16797 19 24.5 -31 8 6.8

C.D.M. -32 15110 19 14.4 -32 10 7.3

Na 0.8 1.0; 0.4 0.3; Known

Na 0.8 1.0; 0.3 0.3; New Type IV + Var.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.:067F

Objects of Interest on Southern Spectrum Plates

	No.	Plate	″	″	H.	H.	Object.		R.A.		Dec.		Magn.	
	13135	22987	16.2	17.2	✓	Ma	−7 5026	19	32.7	−7	56	9.1		
	13136	"	22.2	7.4	✓	Mb	−10 5035	19	12.4	−10	49	7.3		
	13137	"	22.4	8.7	✓	Pec	−10 5057	19	15.2	−10	59	7.0		
	13138	22988	5.0	10.2	✓	Ma	A.G.C. 12756	9	17.8	−67	0	8½ (1900)		
	13139	"	9.1	24.1	✓	Ma	A.G.C. 14495	10	32.1	−68	50	7½ (1900)		
	13140	"	12.0	22.7	✓	Ma	Abb 14375	10	27.5	−70	23	7¾ (1900)		
	13141	"	14.2	20.8	✓	Mb	A.G.C. No 1299	10	17.7	−71	30	7½		
	13142	"	16.4	21.5	✓	Ma	A.G.C. 14323	10	24.7	−72	40	7¼ (1900)		
	13143	22989	18.4	14.1	✓	Type III.	−13 3407	11	28.4	−13	47	8.5	1	
	13144	"	22.4	16.1	✓	Mb	−15 3323	11	32.5	−15	49	6.3	1	
June 23, 1900	13145	23004	5.9	21.2	✓	Ma	C.P.D. −52° 10952	17	50.8	−52	38	9.9		
	13146	"	7.1	14.1	✓	Mb	C.P.D. −53 8696	17	27.5	−53	19	9.5		
	13147	"	8.3	15.6	✓	Mb	C.P.D. −53 8740	17	32.4	−53	54	9.6		
	13148	"	12.4	10.7	✓	Ma	~~−55 8103 17 15.0 −55 57 9.1~~ 8099 17 14.9 −55 52							
	13149	"	13.2	20.7	✓	Abe?	−56 8535 17 50.2 −56 23 9.8 10.1							
	13150	"	13.2	21.4	✓	Ma	−56 8536 17 58.2 −56 23 9.8 8.5							
	13151	"	13.4	20.6	✓	Ma	−56 8535 17 50.2 −56 23 9.8							
	13152	"	14.1	12.3	✓	Ma	−56 8294 17 20.2 −56 46 8.8							
	13153	"	15.4	20.5	✓	Ma	−57 8834 17 50.2 −57 22 9.8							
	13154	"	15.8	15.7	✓	Type IV	−57 8687 17 32.5 −57 39 8.8							
	13155	"	16.1	15.3	✓	Pec?	(Equ: Cat. 1875) 17 31.3 −57 51							Not C.P.D.
	13156	"	16.8	17.6	✓	Ma	Alpha 1875 Pos 17 39.7 −58 5 ~~−57 8759 17 39.7 −58 50 9.8~~							
	13157	"	17.5	19.3	✓	Ma	−58 7297 17 46.8 −58 27 9.8							
	13158	"	19.5	13.1	✓	Ma	−59 7059 17 22.3 −59 28 9.5							
	13159	"	22.6	6.1	✓	Ma	~~−60 6691 17 16 53.2 −60 51 9.4~~ 6692 16 53.4 −60 41 9.3							
	13160	23005	14.5	10.4	✓	Ma	A.G.C. 12419	9	3.7	−26	54	8½ (1900)		
	13161	"	15.1	7.3	✓	Ma	C.P.D. 3549	8	55.7	−27	18	8.5		
	13162	"	18.2	17.7	✓	Ma	A.G.C. 12808	9	20.1	−28	45	8½ (1900)		
	13163	"	20.2	13.5	✓	Mb	Abb 12583	9	10.5	−29	45	8.0 (1900)		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Type IV? Known as Pec. Announced later Type VI Dark bands Cir. 124 Cir. 145

C.P.D.-66 10059 17.4 -66 54 8.7
C.P.D.-68 12220 10 31.4 -68 42 8.4
C.P.D.-70 11108 10 26.8 -70 15 8.4
C.P.D.-71 976 10 17.7 -71 30 8.4
C.P.D.-72 959 10 24.0 -72 32 8.1
Nz 0,6 1.0; 0.9 0.9; 0.5 0.5; 0.2 0.2; Known

Hβ br? May be defect? New H β br.

Na 0.8 1.0; 0.7 0.7; Known
Md, var? Variation meas. by Miss Breslin Oct. 1900 Not enough evidence found.

C.P.D.

C.Dm.
C.P.D.-26 6752 9 2.6 -26 48 7.8
C.Dm.
C.P.D.-27 6157 8 55.7 -27 2 7.3
C.Dm.
C.P.D.-28 7219 9 19.0 -28 38 7.2
C.Dm.-29 7270 9 9.4 -29 39 7.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.1007F

Objects of Interest on Southern Spectrum Plates.

No	Plate	V.	Ye	Object		R.A.	Dec.		Magn.	
13164	23006	6.2	8.9	✓	Ma	A.G.C. 14323	10	24.7	-72	40 $7\frac{1}{4}$ (1900)
13165	"	7.2	23.1	✓	Ma	A.G.C. 16519	12	1.0	-73	0 7.1 (1900)
13166	"	12.8	19.5	✓	Mb sc	Abb 16124	11	42.7	-76	3 8 (1900)
13167	"	15.1	7.1	✓	Ma	Abb 13658	9	55.5	-76	49 8 (1900)
13168	23015	7.9	9.0	✓	Ma	~~Object 1875~~ 17 16 -28 18 C.Dm.-28 13088 17 15.9 -28 22 9.2				
13169	"	19.3	10.0	✓	Br. line	C.D.M.-34 11675 17 18.5 -34 6 10 (1900) 16.9 -34 4 (1875)				
13170	"	21.3	17.1	✓	Type IV	C.D.M.-35 11829 17 35.7 -35 12 9.9 (1900) 34.0 -35 11 (1875)				
13171	"	22.3	19.2	✓	Type IV	C.D.M.-35 11923 17 40.8 -35 40 8.0 (1900) 39.1 -35 39 (1875)				
June 26, 1900. 13172	23016	9.9	16.0	✓	Type IV	C.P.D.-54 4904 11 54.0 -54 25 9.8				
13173	"	14.1	13.3	✓	Br. line	C.P.D.-56 4818 11 44.1 -56 29 9.2				
13174	"	18.2	14.7	✓	Md	C.P.D.-58 3924 11 48.8 -58 34 9.8				
13175	"	21.6	9.8	✓	Mb	C.P.D.-60 3069 11 29.0 -60 6 8.7				
13176	"	23.0	8.1	✓	Mb	C.P.D.-60 2948 11 21.4 -60 41 8.8				
13177	"	24.5	12.3	✓	A Pec?	C.P.D.-61 2577 11 38.4 -61 35 9.9				
13178	23017	10.6	23.3	✓	Ma	Z.C. 1371 16 19.7 -34 50 $8\frac{1}{2}$				
13179	"	16.0	6.4	✓	Cont.	C.D.M.-37 10488 16 15 37.9 -37 23 neb.				
13180	"	18.1	12.9	✓	Cont.	C.D.M.-38 10997 16 19.2 -38 35 neb.				
13181	"	18.6	14.0	✓	Mb	Abb 21775 15 58.4 -38 56 $7\frac{1}{2}$ (1900)				
13182	23018	4.8	10.1	✓	Ma	Abb 19203 14 4.7 -51 49 $8\frac{1}{4}$ (1900)				
13183	"	8.0	11.1	✓	Type IV	Abb 19254 14 7.4 -53 28 $7\frac{1}{2}$ (1900)				
13184	"	8.2	9.2	✓	Ma	Z.C. 13h 3655 13 59.3 -53 23 $8\frac{1}{2}$				
13185	"	11.9	13.8	✓	Mb	Abb. 19419 14 15.9 -53 30 $8\frac{1}{4}$ (1900)				
13186	"	13.1	7.0	✓	Type IV	Abb 18947 13 51.6 -55 51 8 (1900)				
13187	"	15.8	7.1	✓	Ma	Abb. 18925 13 50.7 -57 13 $7\frac{3}{4}$ (1900)				
13188	"	19.9	12.4	✓	Mb sc	Abb. 19295 14 9.4 -59 27 var.				
13189	"	20.6	15.0	✓	Ma	Z.C. 14h 1137 14 17.8 -59 43 8.2				
13190	"	21.9	16.9	✓	Mb	Abb 19689 14 27.3 -60 32 $7\frac{3}{4}$ (1900)				
13191	"	24.0	13.9	✓	Ma	A.G.C. 19381 14 14.6 -61 33 $9\frac{1}{4}$ (1900)				
13192	23019	8.4	19.4	✓	Ma	C.D.M.-48 10576 16 0.8 -48 54 8.3				

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

C.P.D.-72 959 10 24.0 -72 32 8.1
C.P.D.-72 1204 11 59.7 -72 52 7.8
C.P.D.-75 754 11 41.6 -75 56 8.6
C.P.D.-76 606 9 55.4 -76 42 9.0

Type V. Known
Na. 0.9 1.0 ; 0.3 0.3 ;
Na. 0.8 1.0 ; 0.4 0.4 · Known Type IV
Na 0.9 1.0 ; 0.6 0.6 ; 0.2 0.2 · Known Type IV
Neb. or Nova ? * Known Gas neb.
var ? Known $H_\gamma = 1.0$; $H_\delta = 1.5$ W Centauri

H_β bc ? "Type V" Comp. with B 22644 shows that Ba. line is probably of shorter λ than H_β but definition is poor ; comparison is very difficult" See note on plate 20016 New Type V
C.D.M.-34° 11009 16 19.7 -34 50 8.4
Bl. or Neb ?
Bl. or neb ?
C.D.M.-38 10852 15 56.7 -38 ~~35~~ 52 7.8 ~~neb.~~
C.P.M.-51 8010 14 3.1 -51 42 7.6
Na 0.4 1.0 ; 0.2 0.1 · Known Type IV
C.P.D.-53 5915 14 5.7 -53 21 9.2
C.P.D.-53 5878 13 59.3 -53 23 9.1
C.P.D.-55 6001 14 14.2 -55 28 8.8
Na 0.6 1.0 · 0.3 0.3 · Known Type IV
C.P.D.-55 5802 13 49.9 -55 44 9.2
C.P.D.-57 6410 13 49.0 -57 6 8.6
C.P.D.-59 5476 14 7.6 -59 20 8.9 R Centauri.
C.P.D.-59 5568 14 17.8 -59 43 9.4
C.P.D.-60 5432 14 25.4 -60 25 8.8
C.P.D.-61 4497 14 12.8 -61 26 9.4

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...067F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	Hβ		Object		R.A.		Dec.		Magn.	
13193	23019	12.0	7.3	✓	Mb	C.D.M.-50 9527	15	23.2	-50	26	7.6	
13194	"	13.4	23.7	✓	Br.line	C.D.M.-51 10119	16	14.9	-51	14	10	
13195	"	15.3	21.1	✓	Ma	C.P.D.-52 9455	16	7.2	-52	16	9.7	
13196	"	18.4	7.6	✓	Br.line	(Est. 1900)	15	24	-53.8			
13197	"	19.9	11.4	✓	Ma	C.P.D.-54 6651	15	34.4	-54	35	7.9	
13198	"	22.6	17.5	✓	Ma	C.P.D.-55 7018	15	55.3	-55	60	8.2	
13199	"	23.1	11.1	✓	Mb	~~C.P.D.-56 6857~~ ~~C.P.D.-56 6898~~	~~15~~ 15	~~37.8~~ 37.8	~~-56~~ -56	~~38~~ 38	~~10.2~~ 9.9	
13200	"	24.0	12.6	✓	Md?	~~C.P.D. 56 6898~~	~~15~~ 15	~~37.8~~ 37.5	~~-56~~ -56	~~38~~ 35	~~10.2~~	
13201	"	24.3	17.7	✓	Ma	C.P.D.-56 7270	15	56.3	-56	48	9.6	
13202	23020	5.0	17.2	✓	Mb5c	C.D.M.-47 12488	18	34.6	-47	22	9.5	
13203	"	6.1	12.9	✓	Ma	C.P.D.-47 8908	18	22	-47	54.0	10.4	
13204	"	9.8	11.5	✓	Md	~~Announced 1900 Phot.~~ ~~Approx 1875 phot.~~	18	19.0	-49	42		
13205	"	10.5	7.7	✓	Mb	C.P.D.-49 10485	18	5.4	-49	58	10.0	
13206	"	13.6	11.2	✓	A	(Est. 1900)	18	18	-51.6			
13207	"	15.0	9.1	✓	Cont. Nb	(Est. 1900) 6584	18	11.	-52.3	(1900)	neb.	
13208	"	16.4	7.8	✓	Ma	C.P.D.-52 11040	18	4.1	-52	52	9.2	
13209	"	23.9	8.2	✓	Ma	Z.C. 230	18h	3	20 -	56	39	9½
13210	23021	4.7	22.1	✓	Mb	C.D.M.-51 9521	15	39.9	-51	50	7.3	
13211	"	5.4	20.8	✓	Ma	Z.C. 15h 2525	15	36.1	-52	10	8.2	
13212	"	5.6	13.5	✓	Ma Abb	20750	15	13.9	-52	21	8¼	(1900)
13213	"	6.1	11.5	✓	Mb	Z.C. 15h 381	15	5.7	-52	30	9	
13214	"	6.6	18.8	✓	Ma	Z.C. 15h 2030	15	29.5	-52	50	9	
13215	"	7.0	10.8	✓	Ma	C.P.D.-52 7959	15	3	22 -	52	54	9.6
13216	"	7.4	7.1	✓	Type IV	~~C.P.D.-52° 7681~~	~~14~~ 14h	~~52.2~~ 50.8	~~-53~~ -52	~~0~~ 54	10.0	(1900)
13217	"	7.8	13.3	✓	Mb	C.P.D.-53 6426	15	11.3	-53	22	9.8	
13218	"	8.3	17.3	✓	Mb	C.P.D.-53° 6561	15	24.7	-53	39	9.9	
13219	"	9.9	20.5	✓	Mb5c	C.P.D.-54° 6646	15	35.4	-54	28	9.6	
13220	"	10.2	10.1	✓	Ma	C.P.D.-54° 6352	14	59.9	-54	27	9.4	
13221	"	10.2	20.2	✓	Md	C.P.D.-54° 6651 ~~Approx 1900~~	15	34.5h	-54	35	(1875	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type V Known

Type V. May be var? in Nova? very ft. "Prob. due to defect." Not seen on B 11337 image on plate B 22455 or B 23466. No chart

T Normae.

var? very ft. { approx 1875 pos. 15, 37.5 −56 35 Position of Known Var. on B 16923
Chart plates B 16023 22505 13337 19815 9643 21892 10937 10964 21242 12777 23466 22453 11781 13177 2943 3893 3966 15842 23004 23915 examined show no evidence of var. except perhaps 23915 where the star appears to be slightly fainter. this may be a defective image on 23915 as it is slightly narrower than other stars on the same plate.

C.P.D.-47 11337 18 21.9 -47 54 9.5
var? New Hp = 1.0 Hs = 1.0.
Plates B 21920 23086 16116 14487 19176 16072 21282 21552 9892 9890 → Reis examined very carefully Jan 1, 1901. E.C. Pickering

C.P.D.-49 ~~12016~~ 11999 18 5.4 -49 57 10
Ghost. Bl A.
Bel or not?

C.P.D. -56 8674 18 3.3 -56 39 9.4

C.P.D-52 8827 15 36.1 -52 10 8.8 ✓
CPD-52° 8176 15 12.1 -52 15 8.6
C.P.D. -52° 8034 15 5.7 -52 30 9.4
C P D -52° 8661 15 29.5 -52 50.5 9.4

Na 14 52.6 -53 0 (1900) Known Type ~~III~~ IV
0.7 1.0; 0.4 0.4;

var? Known. Hp = 1.0; Hs = 1.2; T Normae

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..267F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object.		R.A.	Dec.	Magn.	
13222	23021	11.6	14.1	✓ Ma	C.P.D. -55°	6529	15 13.6	-55	17 9.8
13223	"	11.8	9.9	✓ Ma	C.P.D. -55°	6369	14 15 58.7	-55	15 9.2
13224	"	13.3	19.5	✓ Mb	C.P.D. -56°	6857	15 32.5	-56	8 9.9
13225	"	14.9	13.4	✓ Ma	C.P.D. -56°	6696	15 10.6	-56	56.4 8.1
13226	"	15.5	15.5	✓ Md?	~~C.P.D. -57° 7055~~		~~15~~ 15 18.1	-57	17 (1875)
13227	"	16.2	7.7	✓ Ma	C.P.D. -57°	6856	IN 49.3	-57	21 9.0
13228	"	16.9	20.1	✓ Mb	C.P.D. -57°	7192	15 35.5	-57	54 9.1
13229	"	16.9	9.0	✓ Masb	C.P.D. -57°	6890	14 ~~15~~ 53.6	-57	44.0 9.4
13230	"	17.0	8.2	✓ Masb	C.P.D. -57°	6871	14 ~~15~~ 50.8	-57	48.2 8.8
13231	"	17.2	16.8	✓ Ma	C.P.D. -58°	6014	15 22.8	-58	6 9.6
13232	"	18.8	17.4	✓ Mb	C.P.D. -58°	6061	15 25.1	-58	53 9.2
13233	"	19.5	19.4	✓ Ma	C.P.D. -59°	6246	15 33.2	-59	13 9.1
13234	"	19.9	12.2	✓ Brlnic	Ammonia ~~Asteroid~~ pos.		15 7.1 ~~5.0~~	-59	28 (1900) ~~23~~ (1875)
13235	"	20.5	16.6	✓ Ma	C.P.D. -59°	6082	15 22.1	-59	44 9.2
13236	"	20.5	18.6	✓ Mb	~~C.P.D. -59 6208~~ C.P.D.	~~6246~~ 6097	15 30.0 ~~14 38.3~~ 37.8	-59 ~~-66~~ -60	N5 9.4 ~~19 9.3~~ 5 9.2
13237	"	21.3	20.5	✓ Ma	~~C.P.D. 66 2589~~ C.P.D.		~~14 27.6~~ 15	~~-66~~ -60	~~33 9.1~~ 57 9.2
13238	"	21.9	16.3	✓ Masb	C.P.D. -60	5813	15 21.1	-60	26 8.9
13239	"	22.5	18.6	✓ Mb	C.P.D. -60	5991	15 30.5	-60	NN 8.9
13240	23022	8.2	22.0	✓ Brlnic	-33	12168	17 24.9	-33	32 9.8
13241	"	9.2	18.6	✓ Brlnic	-34	11675	17 16.9	-34	4 10
13242	"	9.7	15.8	✓ Brlnic	-34	11622?	17 10.1	-34	16 9.0
13243	"	15.1	14.0	✓ Brlnic	-36	11341	17 5.3	-36	58 9.1
13244	"	18.2	19.4	✓ Mb	-38	11891	17 18.8	-38	32 9.5
13245	"	20.2	20.5	✓ Mb	-39	11538?	17 22.4	-39	36 10.
13246	"	22.7	10.8	✓ Brlnic	-40	11127	16 56.4	-40	42 9.9
13247	"	24.4	17.4	✓ Mb	-41	11533	17 13.5	-41	37 8.3
13248	"	24.6	17.2	✓ Mb	-41	11503	17 12.2	-41	45 8.0
13249	23023	6.7	20.8	✓ Md?	(Est. 1855)		19 5.5	-8	≠ 4
13250	"	12.1	12.6	✓ Mb	-10	4876	18 48.5	-10	42 9.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

B 11783 23047 18178 20352 9639 22054 19363
Plates examined — van obs
Jan 22, 1901. E. C. Pickering

van ? New

Type V ? Rec ? very ft. New

Type V ? New
Type V Known
Type V Known
Gas neb ? Known

Gas neb ? New on B 22853

van ? Chart plates B 22981 21,294* 12850 6161 7879 19512 7881 8470 25445 16196 19846 22860 19383 13590 21521 examined & show slight if any evidence of van ?

1855

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.,867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	∆	Mc	Object		R.A.		Dec.		Magn.
13251	23023	16.6	15.1	√ Nd	(Est. 1855)	18	53.N	-12.	8	
13251a				√ Bright lines	~~(Est. 1855)~~ (1900)	18	~~53.9~~ 56.0		13.4	18
13252	"	23.0	23.6	√ Type IV	-16	5272	19	10.9	-16	10 6.8
13253	"	24.1	11.9	√ Nb 5c	-16	5074	18	46.5	-16	42 8.2
13254	"	24.4	16.8	√ Nb	-16	5135	18	56.8	-16	55 9.2
13255	23024	6.5	14.5	√ Type IV	C.Dm.	42	9465	14	27.9	42 49 8.3
13256	"	7.4	12.3	√ Nb 5c	C.Dm. ~~-51~~ 43		9089	14	21.6	~~-51~~ 43 13 8.2
13257	"	8.3	9.7	√ Br lines	C.Dm.	-43	9005	14	14.5	-43 34 10.
13258	"	8.3	11.1	√ Nb 5c	C.Dm. ~~-51~~ 43		9051	14	18.4	~~-51~~ 43 35 9.5
13259	"	9.3	18.2	√ Nb	C.Dm.	-44	9589	14	37.7	-44 12 9.8
13260	"	9.7	19.2	√ Na	C.Dm.	-44	9616	14	40.5	-44 25 9.7
13261	"	10.0	19.2	√ Nb	C.Dm.	-44	9615	14	40.5	-44 31 9.6
13262	"	10.3	17.6	√ Nb	C.Dm.	-44	9569	14	36.1	-44 42 9.9
13263	"	12.3	8.7	√ Nb	C.Dm.	-45	9072	14	10.7	-45 32 9.5
13264	"	12.3	13.6	√ Nb	C.Dm.	-45	9249	14	24.8	-45 42 10.
13265	"	15.0	10.5	√ Type IV	C.Dm.	-46	9289	14	15.3	-46 57 9.6
13266	"	15.9	21.1	√ Nb	C.Dm.	-47	9519	14	46.2	-47 28 9.2
13267	"	16.1	20.2	√ Na	C.Dm.	-47	9489	14	43.9	-47 37 9.1
13268	"	18.2	20.0	√ Nb	C.Dm.	-48	9416	14	43.6	-48 37 10.
13269	"	18.5	18.5	√ Nc	C.Dm.	-48	9338	14	39.1	-48 48 9.4
13270	"	18.9	16.2	√ Na	C.Dm.	-49	8941	14	32.0	-49 0 9.3
13271	"	19.6	10.3	√ Type IV	C.Dm.	-49	8685	14	14.1	-49 17 8.3
13272	"	21.1	20.1	√ Na	C.Dm.	-50	8870	14	43.8	-50 4 7.8
~~July 2~~ June 27 1900	13273	23025	5.7	7.8	√ Na	-12	4902	17	54.2	-12 18 7.5
13274	"		7.6	8.5	√ Na	-13	4840	17	55.4	-13 15 9.0
13275	"		10.3	17.0	√ Na	-14	5007	18	12.7	-14 43 9.5
13276	"		11.6	15.8	√ Nb	(Est. 1855)		18	10.3	-15.5 20
13277	"		12.2	16.2	√ Type IV	-15	4923	18	11.0	-15 40 9.0
13278	"		12.4	9.2	√ Na	-15	4805	17	56.4	-15 43 9.0
13279	"		13.3	16.8	√ Br lines	-16	4820	18	12.4	-16 14 neb.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

B 20614
17609
23107
19512
22705

Photographed in duplicate Jan. 17, 1901. E. C. Pickering

var? New 1853
Nova Sagittarii No. 1853 4 — 12 57 Pos. to be meas. on B 22705
Na 0.7 1.0; 0.5 0.5; 0.2 0.1; Known

Na 0.8 1.0; 0.6 0.6; Known.

Gas net? New

Na 0.8 1.0; 0.7 0.7; New Type III var.

Na 0.5 1.0; 0.4 0.4; Known

Type III confirmed on B 21169 Identified on chart plate B 23282
Nd Nova 2 0.7 1.0; 0.6 0.8; 0.4 0.6; 0.2 0.3; Known Type IV Announced later as Type VI Cir. 1145

Nebulosity. Known Gas. neb.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No. Plate	U. Y. C.	Object.		R.A.	Dec.	Magn.
	13280	23025	14.8 21.5 ✓ Type IV	-16 4904	18 22.0	-16 60	9.8
	13281	"	14.9 8.8 ✓ Mb	-16 4697	17 55.5	-16 56	9.3
	13282	"	19.1 13.5 ✓ Br lines	Approximated 1905 pos. (Cat. 1855)	18 5 7.8	-19 + 6	
	13283	"	19.8 10.8 ✓ Br lines	-19 4854	17 59.4	-19 25	9.6
	13284	"	23.5 11.1 ✓ Br lines	-21 4864	17 59.8	-21 16	7.8
	13285	"	23.5 20.3 ✓ Mb	-21 5013	18 19.5	-21 19	8.7
	13286	23026	8.0 20.4 ✓ Ma Abs	14849	10 47.2	-23 50	8 1/2 (1900)
	13287	"	22.5 18.4 ✓ Ma Abs	14762	10 42.9	-31 5	7 3/4 (1900)
	13288	23027	11.3 13.3 ✓ Ma Abs	16243	11 49.2	-30 21	7 1/2 (1900)
	13289	"	12.9 22.5 ✓ Ma Abs	16736	12 10.4	-31 8	7 3/4 (1900)
	13290	"	15.6 19.7 ✓ Ma Zc.	12h 163	12 2.6	-32 23.4	8 1/2
	13291	"	17.7 21.4 ✓ Mb Abs	16684	12 8.0	-33 34.	6.9 (1900)
	13292	"	17.9 18.0 ✓ Ma Abs	16496	12 0.1	-33 39	7 (1900)
	13293	"	21.5 11.3 ✓ Mb Abs	16138	11 43.6	-35 26	7 1/4 (1900)
July 4, 1900	13294	23028	5.8 13.7 ✓ Mb	C.D.M. -47 11124	16 45.6	-47 54	8.9 =
	13295	"	6.4 8.9 ✓ Mb sc	-48 11047	16 31.0	-48 3	8.2
	13296	"	8.7 22.7 ✓ Type IV	-49 11366	17 12.7	-49 20	10
	13297	"	9.4 13.5 ✓ Mb sc	-49 11027	16 44.5	-49 43	9.6
	13298	"	9.7 12.9 ✓ Mb	-49 11023	11008 16 42.4 / 16 43.2	-49 49 / -49 46	9.7 / 9.8
	13299	"	13.3 21.9 ✓ Br lines	C.P.D. -51° 10820	17 10.9	-51 38	10.0
	13300	"	15.4 12.2 ✓ Ma	C.P.D. -52° 10227	10236 16 39.3 / 16 39.1	-52 41 / -52 39	9.3 / 9.8
	13301	"	15.5 9.1 ✓ Mb	C.P.D. -52° 10082	16 29.4	-52 36	9.1
	13302	"	16.4 19.1 ✓ Ma	23220	17 4.2	-53 15	7 1/2
	13303	"	18.1 13.1 ✓ Mb	C.P.D. -54° 10711 1875 pos. (Cat. 1900)	16 43 N1.7 8	-54 2	10
	13304	"	19.4 15.8 ✓ Mb	22979	16 53.0	-54 45	9
	13305	"	19.7 16.2 ✓ Type IV	23005	16 54.3	-54 55	8 1/2
	13306	"	21.3 10.1 ✓ Mb	C.P.D. -55 7643	16 31.2	-55 3	9.0
	13307	"	20.5 10.4 ✓ Mb	C.P.D. -55 7651	16 32.2	-55 8	9.3
	13308		20.4 18.8 ✓ Br lines	Approximated (Cat. 1900)	17 3.5 4	-55 2 16	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Na New Type IV var.
0.5 1.0 ; 0.2 0.4 ;

Gas neb, a Type V ? Known as Gas neb.
Type V. Known
Type V Known

var ? Suspected many times 27 chart plate shows no evidence of variation see (Book 55 p. 159 Book 95 p. 115
-Z.C.

Nb 0.8 1.0 ; 0.6 0.6 ; 0.4 0.5 ✳ Announced later as Type VI Dark bands.
Resembles Nova Centauri ! = B 21873 No 1263 ✳ Type V.

Gas neb ? Known 1900 pos. (reduced from C.P.D.) 17 12.9 – 51 40

(Diff not publ. when ident. was first made on the plate.
(Not in C.P.D.) chart plate B 30189 used for ident.

Na 0.8 1.0 ; 0.7 0.8 · var ? Known Type IV var.

Pec ? Nova ? ✳ New Gas neb. found on B 22852

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	H.	M.	Object.		R.A.	Dec.	Magn.	
13309	"	21.8	14.9	✓ Ma	C.P.D.-55° 7761	16 47.8	-55 55	10.1	
13310	23029	10.3	15.1	✓ Mb	approx 1875 pos. 1900	19 49.5	-49 42		✓
13311	"	10.5	13.6	✓ Mb	C.P.D. -49 12894	19 44.9	-49 47	8.5	
13312	"	11.4	22.0	✓ Type IV	C.Dm.-50 12918	20 11.1	-50 13	10.	
13313	"	11.6	12.5	✓ Md	Announced pos (1900)	19 43.1	-50 15		
13314	"	13.2	21.9	✓ Mc	C.Dm.-51 12487	20 11.0	-51 6	9.5	
13315	"	14.0	16.7	✓ Mb	C.Dm.-51 12355	19 54.6	-51 34	9.0	
13316	"	15.6	20.1	✓ Mc	C.D.M. No. 1875 pos. -52 9424 1900	20 5.6	-52 20	11¼	✓ ^
13317	"	17.0	21.1	✓ Md	1900 pos.	20 11.3	-52 56		
13318	"	17.4	9.2	✓ Mc	C.P.D.-53 9621	19 29.7	-53 8	10.0	
13319	"	19.8	13.9	✓ Ma	C.P.D.-54 9520	19 45.2	-54 27	10.0	
13320	"	20.9	19.9	✓ Mbsc	C.P.D.-54 9644	20 5.8	-54 59	9.4	
13321	"	21.2	18.5	✓ Mb	C.P.D.-55 9338	20 1.1	-55 8	9.4	
13322	"	23.5	16.0	✓ Mbsc	C.P.D.-56 9377	19 52.4	-56 18	9.6	
13323	✓ "	24.2	10.7	✓ Mb	C.P.D.-56 9260	19 33.0	-56 33	8.4	
13324	23030	10.9	10.5	✓ Ma	-9 4230	15 39.5	-9 51	8.0	^
13325	✓ "	14.1	7.5	✓ Ma	-11 3989	15 33.2	-11 24	8.5	^
13326	✓ "	22.3	15.4	✓ Ma	-15 4221	15 48.9	-15 36	6.8	^
13327	✓ 23031	6.6	8.7	✓ Mb	-2 4242	16 37.6	-2 49	6.9	^
13328	✓ "	8.6	14.7	✓ Cont.	-3 4031	16 49.5	-3 52	neb	^
13329	23032	11.2	11.7	✓ Mb	C.Dm. 47 -40 11455	17 17.9	-40	9.0	
13330	"	5.2	6.4	✓ Br. line	-36 11341	17 5.3	-36 58	9.1	
13331	"	14.3	10.2	✓ Mb	-41 11533	17 13.5	-41 37	8.3	
13332	"	14.5	9.7	✓ Mb	-41 11503	17 12.2	-41 45	8.0	
13333	"	17.7	11.5	✓ Br line	-43 11673	17 16.4	-43 22	10.	
13334	"	18.4	11.5	✓ Md	-43 11672	17 16.3	-43 42	10	
13335	"	20.1	15.4	✓ Cont.	-44 11898	17 27.2	-44 39	neb.	
13336	"	20.2	9.5	✓ Ma	-44 11596	17 10.4	-44 34	9.3	
13337	"	20.5	18.7	✓ Br. lines	Announced (Cont. 1900)	17 38.1	-44 52		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Identified on chart plate B 30311

Na 0,8 1.0; 0,4 0.4. New
var ? New $H_\gamma = 1.0$; $H_\delta = 2.0$.

B 22075 23539 38-81 9697
Photographed on chart plate
Jan 9, 1901. E.C. Pickering

cp. m. -52° not pub. when plate was first identified
Identified on chart plate B 28241
var. ? New $H_\gamma = 1.0$; $H_\delta = 1.2$;

B 22752 23 8 23 22 934 23879
Photographed on chart plate
Jan 14, 1901. E.C. Pickering

Cl. a Neb.?

Gas neb.? Known

Rec. like ζ Puppis ? * Known as Type V
var ? New $H_\gamma = 1.0$; $H_\delta = 1.0$.
Cl. a Neb?

B 9165 19218 170 75 2 30922 8710 5704 3833
Photographed on chart plate
Jan 3, 1901. E.C. Pickering

Rec. Nova ? * Gas. neb. found on B 21873

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.1.867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	U. H.	Object.			R. A.		Dec.		Magn.	
13338	23032	24.2	12.3	Mbt	C.Dm. -46	11516	17	17.9	-46	36	8.8
13339	23033	13.4	10.8	✓ Ma	~~C.D.~~ C.Dm. -26	13786 ~~6641~~	18	58.4	-26	26	9.2 8.2
13340	"	18.2	19.0	✓ Ma	Abl C.Dm. -28	26571 18766	19	18.3 16.7	-28	48 51	8 (1900) 7.8
13341	"	19.1	18.3	✓ Ma	Ab. C.Dm. -29	26524 16059	19	16.7 15.5	-29	15 18	7¾ (1900) 7.3
13342	23035	6.0	8.7	✓ Ma	+4	2878	14	27.0	+4	48	7.5
13343	"	16.8	15.4	✓ Ma	-0	2867	14	37.7	-0	48	6.0
13344	23036	10.1	12.2	✓ bout.	+2	2943	15	11.2	+2	37	neb
13345	23037	9.6	13.7	✓ Mast	-2	4425	17	32.7	-2	4	6.2
13346	23039	12.5	15.9	✓ Ma	+1	2403	10	0.1	+1	37	7.5
13347	23040	10.7	11.5	✓ bout.	+2	2943	15	11.2	+2	37	neb
13348	"	19.6	9.7	✓ Mbsc	-1	3041	15	7.4	-1	52	8.0
13349	23041	9.6	12.4	✓ Ma	-2	4425	17	32.7	-2	4	6.2
13350	"	10.4	18.8	✓ Mbsc	-2	4482	17	45.5	-2	32	7.5
13351	"	14.9	13.6	✓ Mast	-4	4332	17	34.9	-4	46	6.5
13352	23042	6.7	15.9	✓ Ma	-8	4819	19	9.4	-8	7	9.5
13353	"	9.2	15.5	✓ Br. line	-9	5069	19	8.5	-9	18	10
13354	"	9.9	13.1	✓ Ma	-9	5028	19	3.5	-9	42	9.4
13355a		9.8	19.3	✓ Ma	-9	5121	19	16.2	-9	42	9.7
13355b	"	11.6	9.4	✓ Ma	-10	4931	18	56.0	-10	28	8.8
13356	"	11.6	18.5	✓ Mb	-10	5052 ~~4946~~	19	14.6	-10	33	9.1
13357	"	12.1	5.7	✓ Mb	-10	4876	18	48.5	-10	42	9.0
13358	"	12.1	9.5	✓ Ma	-10	4933	18	56.1	-10	45	9.1
13359	"	12.1	17.5	✓ Mb	-10	5035	19	12.4	-10	49	7.3
13360	"	12.0	18.9	✓ Mb	-10	5059	19	15.3	-10	47	9.2
13361	"	12.4	18.8	✓ Pec	-10	5057	19	15.2	-10	59	7.0
13362	"	13.1	18.0	✓ Ma	-11	4963	19	13.4	-11	18	9.0
13363	"	14.4	13.4	✓ Mb	-11	4900	19	4.0	-11	56	9.3
13364	"	15.6	20.3	✓ Ma	-12	5398	19	18.2	-12	34	8.9
13365	"	16.5	8.2	✓ Mbsc	(~~Cat. 1855~~ 1900)		18	~~55.9~~ 53	-12	~~54~~	
13366	"	17.3	8.4	✓ Br. line	(~~Cat. 1855~~ 1900)		18	~~56.2~~ 54	-13	~~18~~	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Bl. a Neb.?

Bl. a Neb.?

Type V? New Gas neb.

Known as Pec. Announced later as Type VI

Pec.? Nova in Neb.? Known Nova Sagittarii

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.1967F

Objects of Interest on Southern Spectrum Plates

No.	Plate	H.	M.	Object		R.A.			Dec.		Magn.	
13367	23042	17.9	19.7	✓	Na	−13	5345	19	17.0	−13	43	7.9
13368	"	18.5	10.4	✓	Nb	−13	5219	18	57.8	−13	58	9.6
13369	"	19.6	11.2	✓	Na	−14	5291	18	59.4	−14	31	9.5
13370	"	21.1	12.8	✓	Nb	−15	5259	19	2.6	−15	19	7.5
13371	"	22.8	16.8	✓	Type IV.	−16	5272	19	10.9	−16	10	6.8
13372	"	23.7	12.6	✓	Na	−16	5183	19	20	−16	32	9.0
13373	"	24.0	12.8	✓	Na	−16	5186	19	2.5	−16	44	9.0
13374	23043	6.3	12.1	✓	Na	Abb	3	0	3.4	−26	32	8½ (1900)
13375	"	13.9	12.1	✓	Na	Abb.	39	0	3.4	−26	32	8½ (1900) = C.D.M
13376	"	21.6	18.7	✓	Na	Abb.	300	0	18.4	−30	24	6.8 (1900) = C.D.M.
13377	23044	6.2	9.2	✓	Na	C.P.D.	−72 959	10	24.0	−72	32	8.1
13378	"	7.2	23.3	✓	Na	C.P.D.	−72 1204	11	59.7	−72	52	7.8
13379	"	12.8	19.7	✓	Nbsc	C.P.D.	−75 754	11	41.6	−75	56	8.6
13380	23045	6.1	15.0	✓	Na		−47 10646	16	10.0	−47	43	9.2
13381	"	8.5	12.1	✓	Nb		−48 10576	16	0.8	−48	54	8.3
13382	"	9.3	19.6	✓	Na		22357	16	25.7	−49	22	8
13383	"	13.1	16.7	✓	Blue	C.Dm.	−51 10119	16	14.9	−51	14	10
13384	"	13.8	8.7	✓	Na		21593	15	51.1	−51	28	8¼
13385	"	14.9	20.5	✓	Na		22437	16	29.3	−52	10	7½
13386	"	15.2	14.3	✓	Nb		21999	16	9.0	−52	21	8½
13387	"	16.0	21.1	✓	Nbsc	C.P.D.	−52 10082	16	29.4	−52	36	9.1
13388	"	16.9	17.2	✓	Na		22214	16	18.5	−53	13	8
13389	"	17.6	14.3	✓	Na		21995	16	8.8	−53	34	6.0
13390	"	20.4	14.6	✓	Na	C.P.D.	−54 7388	16	7.9	−54	54	8.7
13391	"	20.9	21.3	✓	Na	C.P.D.	−55 7643	16	31.2	−55	3	9.0
13392	"	21.1	21.6	✓	Na	C.P.D.	−55 7651	16	32.2	−55	8	9.3
13393	"	22.8	11.1	✓	Na		21733	15	57.3	−56	4	7¾
13394	23121	12.2	19.3	✓	Nb		−21 6213	22	15.6	−21	2	8.5
13395	"	14.2	6.2	✓	Na		−21 6120	21	47.5	−21	49	7.2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Ka Known 0.1 0.4; 0.9 1.0; 0.5 0.5; 0.2 0.1; ✗

-26° 22 0 2.1 -26 41 8.0
-30 101 0 17.1 -30 32 6.8

=Z.C.
-Z.C. 16h 89

Type V.? Known

-C.P.D. -52° 9151 ✓ 16h 7m 5.0 -52° 17.1 1/2 9.2 mag. ✓

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	U. H.	Object.		R. A.	Dec.	Magn.
13396	23121	14.2 7.7	✓	Mb	-21 6131	21 50.6	-21 52 6.2
13397	"	15.3 21.3	✓	Mb	-22 5916	22 19.9	-22 36 8.0
13398	"	15.7 19.1	✓	Mb	-22 ~~5899~~ 5901	22 ~~14.7~~ 15.2	-22 ~~54~~ 48 9.2 4
13399	"	22.9 15.3	✓	Mb	cDm -26° 16042	22 7.9	-26 14.5 8.4
13400	"	23.0 15.4	✓	Mb	cDm -26° 16043	22 8.1	-26 16.5 7.6
13401	23122	14.4 24.2	✓	Rec.	-21 6376	23 3.9	-21 47 9.0
13402	"	16.5 17.8	✓	Ma	-22 6034	22 50.2	-22 48 8.5
13403	"	17.3 16.1	✓	Ma	C.D.M. -23 17661	22 47.5	-23 8 8.5
13404	"	17.8 4 18.9	✓	Ma	-23 17699	22 53.7	-23 12 7.6
13405	"	17.3 21.3	✓	Mb	-23 17733	22 58.7	-23 9 7.3
13406	"	20.8 15.8	✓	Ma	-24 17383	22 46.8	-24 50 8.6
July 6, 1900 ~~23238~~ 13407	23238	5.5 17.5	✓	Ma	C.P.D. -54 5736	13 39.8	-54 15 9.6
13408	"	5.7 14.4	✓	Mb	-54 5666	13 28.9	-54 21 9.2
13409	"	6.6 17.9	✓	Mb	-54 5745	13 41.1	-54 45 9.2
13410	"	8.6 20.4	✓	Type IV	-55 5802	13 49.9	-55 44 9.2
13411	"	10.1 7.8	✓	Ma	~~-56 5620~~ 5622	~~13 3.2~~ 13 4.8	~~-56 16~~ -56 20 ~~9.7~~ 9.4
13412	"	11.5 8.5	✓	Ma	-57 5964	13 6.8	-57 6 9.2
13413	"	12.2 9.6	✓	Br.line	-57 5981	13 10.7	-57 29 8.6
13414	"	15.8 11.5	✓	Ma	-59 4965	13 16.8	-59 21 9.1
13415	"	18.6 10.0	✓	Ma	-60 4579	13 10.3	-60 40 8.7
13416	"	19.1 9.9	✓	Ma	-60 4563 8	13 9.4 8.5	-60 53 5 8.6 5 90
13417	"	19.9 13.1	✓	Br.line	~~-61 3756~~ -61° 3753 (Yam)	~~13 22.6~~ 13 24.2	~~-61 29~~ -61 31 (Yam) 9.8 9.6
13418	"	20.1 18.0	✓	Ma	~~-61 3791~~ -61 4074	~~13 25.1~~ 13 42.9	~~-61 40~~ -61 30 9.6 9.1
13419	"	20.4 13.7	✓	Br.line	-61 3791	13 25.1	-61 40 9.6
13420	"	22.6 12.0	✓	Mb5c	-62 3243	13 17.2	-62 46 9.6
13421	"	24.3 11.3	✓	Type IV	-63 2720	13 13.9	-63 34 9.5
13422	"	24.4 7.3	✓	Mb	-63 2507	12 56.0	-63 26 9.3
13423	23239	7.4 20.7	✓ Mc	Mb	~~-60 4993~~ +11 3848	~~13 40.5~~ 13 21.3	~~-60 6~~ +11 -59 29 47 ~~9.6~~ 8.8
13424	"	9.7 21.2	✓	Mb	+10 3916	19 22.2	+10 20 8.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

var ? New

Type IV. Nb a Nova, like Centauri ✕ Known Type IV announced later Type VI

Na Known Type IV
0.2 0.3; 0.9 1.0; 0.8 0.7; 0.3 0.3;

Type V. Known

Type V ? Known

Type V or Nova? Known Type V

Na 0.1 0.3; 0.7 1.0; 0.6 0.6; 0.1 Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..007F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	U.	H.	Object			R.A.		Dec.		Magn.	
13425	23239	10.9	22.9	Mb	+9	4142	19	25.6	+9	42	9.1	
13426	"	11.4	18.6	Mb	+9	4088	19	16.9	+9	30	9.3	
13427a	"	12.6	16.9	Mb	+8	4051	19	13.4	+8	58	9.5	
13427b	"	12.5	22.5	Sylvia	(+9 1855)		19	25.6 26.8	+8 9	1	(1900)	
13428a	"	14.1	8.1	Me	+8	3953	18	53.8	+8	13	9.0	
13428b		15.3	7.7	Me	+7	3934	18	54.8	+7	37	8.3	
13429	"	16.7	10.2	Me	+6	4025	18	59.9	+6	56	9.3	
13430	"	17.2	13.1	Mb	+6	4050	19	5.5	+6	42	9.0	
(April 1900) 13430a	"			Sylvia	announced pos.		19	13.6	+6	21	(1900 pos.)	
13431	"	19.9	20.9	Mb	+5	4154	19	21.1	+5	15	8.7	
13432	"	20.0	23.6	Mb	+5	4190	19	26.6	+5	9	6.9	
13433	"	21.8	18.0	Ma	+4	4080	19	15.3	+4	20	9.4	
13434	23243	7.2	10.0	Ma	a.g.c.	32437	0	0.4	−43	27	7¾	(1900)
13435	"	14.4	15.0	Ma	a.g.c.	225	0	14.3	−47	4	7¼	(1900)
13436	"	18.5	13.9	Ma	z.c.	0h 263	0	9.9	−49	15	8.2	
13437	"	20.2	16.4	Ma	absb.	306	0	18.8	−49	55	8	(1900)
13438	"	22.3	15.0	Ma	absb.	231	0	14.6	−50	59	7¼	(1900)
13439	23244	18.8	19.2	Ma	a.g.c.	30708	22	26.0	−44	3	7⅜	(1900)
					C.Dm.−44	14949	22	24.5	−44	11	7.7	
13440	"	23.5	15.8	Pec.	absb.	30526	22	16.6	−46	27	6.7	(1900)
					C.Dm.−46	14292	22	15.1	−46	35	6.7	
13441	23245	13.2	9.9	Ma	absb.	31353	22	59.2	−36	26	7½	(1900)
13442	"	22.5	12.2	Ma	absb.	31441	23	4.6	−41	8	6.2	(1900)
13443	"	23.0	9.8	Ma	absb.	31331	22	58.1	−41	21	6.9	(1900)
13444	23246	7.5	10.5	Mb	absb.	32437	0	0.4	−43	27	7⅜	(1900)
13445	"	14.6	15.6	Ma	absb.	225	0	14.3	−47	4	7¼	(1900)
13446	"	18.7	14.5	Ma	z.c.	0h 263	0	9.9	−49	15	8.2	
13447	"	20.3	17.0	Ma	absb.	306	0	18.8	−49	55	8	(1900)
13448	"	22.5	15.6	Ma	absb.	231	0	14.6	−50	59	7¼	(1900)
13449	23252	9.5	7.7	Mb	C.Dm.−29	12753	16	34.3	−29	8	9.0	
13450	"	9.7	19.4	Mb	−29	13233	16	0.8	−29	22	9.6	
13451	"	9.9	18.1	Mb	−29	13185	16	57.9	−29	29	8.3	
13452	"	9.9	16.0	Mb	−29	13106	16	53.1	−29	29	7.5	
13453	"	10.8	16.1	bmt	−29	13109	16	53.3	−29	56	nieb.	
13453a				mcsa	−29	11477	16	34.1	−29	52	8.6	
13453b				ma	−29	11484	16	35.1	−29	57	7.9	
March 1909												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Gas neb? Known ?
18 55 6 +8 15 (1855)

Gas neb Known (Diff. Nebulosity - on this plate)

C.D.M.-43 15584 23 59.1 -43 35 7.5
C.D.M.-47 68 0 13.2 -47 12 7.3
C.D.M.-49 44 0 9.9 -49 15 8.3
C.D.M.-50 70 0 17.6 -50 3 7.9
C.D.M.-51 69 0 13.4 -51 7 7.6

π Gruis. P
C.D.M.-36 15693 22 57.9 -36 34 7.1
C.D.M.-41 15163 23 3.2 -41 16 6.2
C.D.M.-41 15121 22 56.7 -41 30 6.9
C.D.M.-43 15584 23 59.1 -43 35 7.5
C.D.M.-47 68 0 13.2 -47 12 7.3
C.D.M.-49 44 0 9.9 -49 15 8.3
C.D.M.-50 70 0 17.6 -50 3 7.9
C.D.M.-51 69 0 13.4 -51 7 7.6

Gas Neb?
Type III Var? New

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	h m	Object		R.A.		Dec.		Magn.	
13464	23252	11.2 13.9	✓ Na	-30	13620	16	48.2	-30	7	8.9
13465	"	11.8 22.1	✓ Mb-5c	~~-29~~ 30	13953	17	7.2	~~-29~~ 30	24	8.0
13466	"	15.3 20.3	✓ Mb	-32	12429	17	3.2	-32	10	7.5
13467	"	15.8 14.6	✓ Mb	-32	12196	16	49.7	-32	22	9.7
13468	"	19.6 23.2	✓ Br lines	-34	11622	17	10.1	-34	16	9.0
13469	"	24.0 9.1	✓ Na	-36	10938	16	35.6	-36	24	8.8
13460	23253	5.3 9.9	✓ Mb	+2	3776	18	57.5	+2	47	8.8
13461	"	6.0 14.4	✓ Mb-5c	+2	3825	19	6.6	+2	22	8.8
13462	"	7.0 21.3	✓ Mb	+1	4003	19	20.3	+1	46	9.5
13463	"	8.0 10.0	✓ Mb	+1	3880	18	57.8	+1	24	8.8
13464	"	8.1 19.0	✓ Br lines	+1	3979	19	15.6	+1	14	9.4
13465	"	10.1 23.5	✓ Na	+0	4236	19	24.4	+0	14	9.0
13466	"	11.4 17.7	✓ Br lines Pec.	~~Est. 1855~~ Arr. 1900.0		19 18	15.3 60.0	-0.8	19	(1900)
13467	"	13.4 11.2	✓ Na	-1	3657	19	0.0	-1	20	7.5
13468	"	17.6 10.4	W bel A	(Est. 1855)		18	58	-13.4		
13469	"	19.9 9.5	✓ Br lines	-4	4678	18	56.3	-4	32	9.5
13470	"	21.7 9.6	✓ Mb	-5	4857	18	56.5	-5	28	9.1
13471	"	22.5 9.7	✓ Type IV? Pec?	-5	4858	18	56.7	-5	54	7.0
13472	23336	6.9 20.8	✓ Na Abs	763	0	45.5	-57	56	7½	(1900)
13473	"	8.1 19.8	✓ Na Abs	719	0	42.1	-58	36	8	(1900)
13474	"	16.5 9.9	✓ Na Abs	21	0	2.6	-62	53	7¼	(1900)
13475	"	17.9 20.5	✓ Mb Abs	825	0	49.4	-63	25	6.0	(1900)
13476	"	19.0 10.5	✓ Mas?	3.C.0	96	0	3.4	-64	17	7.8	(1900)
13477	23373	12.3 12.5	✓ Na Abs	31452		23	4.8	-35	57	7¾	(1900)
13478	"	13.3 10.3	✓ Na Abs	31353		22	59.2	-36	26	7½	(1900)
13479	"	22.7 12.7	✓ Mb Abs	31441		23	4.6	-41	8	6.2	(1900)
13480	"	23.2 10.2	✓ Na Abs	31331		22	58.1	-41	21	6.9	(1900)
13481	23374	17.6 17.9	✓ Na Abs	32437		0	0.4	-43	27	7¾	(1900)
13482	"	7.5 21.0	✓ Na A.G.C.	118		0	8.2	-38	23	7.0	(1900)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Type V. Known

Yes not? Known

Nova? a var? ✕ Looked up early chart Plates. Nova

Ghost.

Type V. ✕ New Bn line of shorter λ than Hβ. see chart plate B 20613" copied from note by Mrs F. on plate cover

✕ look up early chart Plates. Known as Type IV a var.

C.P.D.-58 51 0 44.4 -58 4 8.2
C.P.D.-58 48 0 41.0 -58 44 8.2
C.P.D.-63 5 0 1.3 -63 1 8.8
C.P.D.-63 83 0 48.4 -63 33 7.8
C.P.D.-64 3 0 3.4 -64 17 8.6
C.Dm.-36 15740 23 3.4 -36 5 7.7
C.Dm.-36 15693 22 57.9 -36 34 7.1
C.Dm.-41 15163 23 3.2 -41 16 6.2
C.Dm.-41 15123 23 56.7 -41 30 6.9
C.DM.-43 15584 23 59.1 -43 35 7.5
C.Dm.-38 40 0 6.9 -38 31 6.9

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No	Plate	U	Hb	Object		R.A.	Dec.	Magn.	
13483	23375	6.0	11.1 ✓	Ma A.G.C. 116	0	3.8	-22 45	7½ (1900)	
13484	"	21.3	17.8 ✓	Ma A.G.C. 300	0	18.4	-30 24	6.8 (1900)	=
13485	23381	10.7	10.6 ✓	Ma -9 4230	15	39.5	-9 51	8.0	
13486	"	22.2	15.4 ✓	Ma -15 4221	15	48.9	-15 36	6.8	
13487	23382	7.4	9.0 ✓	Ma -0 3176	16	37.5	-0 20	8.0	
13488	"	10.1	10.1 ✓	Cont. -1 3245	16	39.7	-1 42	neb.	
13489	"	12.3	9.1 ✓	Mb -2 4242	16	37.6	-2 49	6.9	
13490	"	14.4	15.1 ✓	Cont. -3 4031	16	49.5	-3 52	neb	
13491	23392	7.0	8.4 ✓	Ma -8 26	0	7.0	-8 35	5.8	
13492	"	10.0	16.5 ✓	Ma -10 88	0	23.3	-10 13	7.7	
13493	"	14.5	15.3 ✓	Mc -12 72	0	20.7	-12 27	6.7	
13494	"	23.2	13.1 ✓	Ma -16 58	0	15.7	-16 45	6.7	
13495	23393	5.7	17.1 ✓	Ma A.G.C. 763	0	45.5	-57 56	7¼ (1900)	
13496	"	7.1	16.2 ✓	Ma A.G.C. 709	0	42.1	-58 36	8 (1900)	
13497	"	6.7	7.6 ✓	Ma A.G.C. 21	0	2.6	-62 53	7¼ (1900)	
13498	"	6.7	18.2 ✓	Mb A.G.C. 825	0	49.4	-63 25	6.0 (1900)	
13499	"	9.1	18.5 ✓	Ma 3 h 0m 96	0	3.4	-64 17	8	
13500	"	21.9	20.2 ✓	Ma Abb 978	0	58.9	-66 0	6.7 (1900)	
13501	23394	15.2	19.1 ✓	Ma Dun. -17 159	0	48.0	-17 45	8.0	
13502	"	20.5	20.7 ✓	Ma Dun. -20 174	0	51.6	-20 25	7.0	
13503	23423	6.2	12.3 ✓	Ma A.G.C. 763	0	45.5	-57 56	7¼ (1900)	
13504	"	6.3	19.0 ✓	Ma A.G.C. 1176	1	10.6	-57 55	7½ (1900)	
13505	"	7.5	11.5 ✓	Ma A.G.C. 719	0	42.1	-58 36	8 (1900)	
13506	"	13.0	20.9 ✓	Ma Abb 1348	1	20.2	-61 9	8 (1900)	
13507	"	14.3	20.3 ✓	Ma Abb 1324	1	18.6	-61 51	7¾ (1900)	
13508	"	22.0	18.5 ✓	Ma Abb 1237	1	14.0	-65 44	7.1 (1900)	
13509	23424	7.8	10.0 ✓	Mb Abb 32437	0	0.4	-43 27	7¾ (1900)	
13510	"	14.3	13.9 ✓	Ma Abb 164	0	10.7	-46 48	8½ (1900)	
13511	"	14.9	15.2 ✓	Ma Abb 225	0	14.3	-47 4	7¼ (1900)	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

D.M. -22 7 0 1.5 -22 59 7.2 (1855)
C.D.M. -30 101 0 17.1 -30 32 6.8

Bl. a Neb?

Bl. or Neb?

C.P.D. -58 51 0 44.4 -58 4 8.2
C.P.D. -58 48 0 41.0 -58 44 8.2
C.P.D. -63 5 0 1.3 -63 1 8.8
C.P.D. -63 83 0 48.4 -63 33 7.8
C.P.D. -64 3 0 3.4 -64 17 8.6
C.P.D. -66 80 0 57.9 -66 8 7.8

C.P.D. -58 51 0 44.4 -58 4 8.2
C.P.D. -58 87 ½ 9.7 -58 3 8.6
C.P.D. -58 48 0 41.0 -58 44 8.2
C.P.D. -61 99 1 19.3 -61 17 8.9
C.P.D. -61 94 1 17.7 -61 59 8.6
C.P.D. -65 127 1 13.2 -65 52 8.2
C.D.M. -43 15584 23 59.1 -43 35 7.5
C.D.M. -46 51 0 9.4 -46 56 7.6
C.D.M. -47 68 0 13.2 -47 12 7.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Objects of Interest on Southern Spectrum Plates.

	No	Plate	V	H		Object	R.A.	Dec.	Magn.	
	13512	23424	17.2	20.8	✓	Ma	A.Gb 529	0 31.3	-48 8	8¼ (1900)
	13513	"	19.0	14.1	✓	Mb	Z.C. 0h 263	0 9.9	-49 15	8.2
	13514	"	20.6	16.1	✓	Ma	Alsb 306	0 18.8	-49 55	8 (1900)
	13515	"	22.7	15.2	✓	Ma	Alsb 231	0 14.6	-50 59	7¼ (1900)
July 17, 1900	13516	23432	5.8	10.5	✓	Ma	DM -17 3932	13 39.5	-17 7.6	6.0
	13517	"	7.2	10.8	✓	Ma	DM. -17 3934	13 40.0	-17 51.0	7.7
	13518	"	8.5	20.8	✓	Ma	DM. -18 3757	14 1.0	-18 33.0	7.3
	13519	23433	5.8	13.1	✓	Ma	-7 4082	15 34.5	-7 27	8.3
	13520	"	10.5	15.7	✓	Ma	-9 4230	15 39.5	-9 51	8.0
	13521	"	13.6	12.6	✓	Ma	-11 3989	15 33.2	-11 24	8.5
	13522	"	21.6	20.2	✓	Ma	-15 4217	15 48.5	-15 25	8.2
	13523	"	22.0	20.3	✓	Ma	-15 4221	15 48.9	-15 36	6.8
	13524	23434	9.5	12.0	✓	Ma	-2 4425	17 32.7	-2 4	6.2
	13525	"	14.8	13.2	✓	Ma	-4 4332	17 34.9	-4 46	6.5
	13526	23435	6.5	15.6	✓	Mc	-0 4163	21 0.1	-0 44	7.2
	13527	"	7.4	6.5	✓	Mb5c	-1 4057	20 41.8	-1 6	6.8
	13528	"	16.1	5.8	✓	Ma	-5 5378	20 40.1	-5 33	4.2
	13529	23436	7.2	8.9	✓	Ma	Alsb 461	0 27.6	-25 55	6.9 (1900)
	13530	"	22.4	7.2	✓	Ma	A.G.C. 377	0 22.9	-33 34	5.2 (1900)
	13531	23451	8.3	11.9	✓	Mb	C.DM -48 10576	16 0.8	-48 54	8.3
	13532	"	9.2	19.4	✓	Ma	22357	16 25.7	-49 22	8
	13533	"	13.0	16.4	✓	Bclmc	C.DM -51 10119	16 14.9	-51 14	10
	13534	"	13.4	8.4	✓	Ma	21593	15 51.1	-51 28	8¼
	13535	"	14.5	5.6	✓	Ma	21382 / 21995	15 41.8 / 16 8.8	-51 55 / -53 34	7½ / 6.0
	13536	"	14.9	20.3	✓	Ma	22437	16 29.3	-52 10	7½
	13537	"	16.8	16.8	✓	Ma	22214	16 18.5	-53 13	8
	13538	"	17.4	14.0	✓	Ma	21998	16 8.8	-53 34	6.0
	13539	"	17.5	12.2	✓	Ma	C.P.D. -53 7216	16 0.9	-53 35.2	9.0
	13540	"	18.2	9.5	✓	Ma	21660	15 53.8	-53 51	8¼

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

C.D.m.-48 124 0 30.1 -48 16 8.1
C.D.m. -49 44 0 9.9 -49 15 8.3
C.D.m. ~~-49~~ 50 70 0 17.6 ~~-49~~ 50 3 7.9
C.D.m. -51 69 0 13.4 -51 7 7.6

=C.D.m. -26 160 0 26.4 -26 3 6.9
=C.D.m. -33 152 0 21.7 -33 42 5.2
=2.C. $16^h 59$

Gas neb. n Nova. Known as Tebbe

(See A 3570 Spect. & A 1827 chart)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.1067F

Objects of Interest on Southern Spectrum Plates.

No	Plate	V.	H.		Object	R.A.	Dec.	Magn.	
13541	23451	20.3	14.3	✓	Ma C.P.D.-54 7388	16 7.9	-54 54	8.7	
13542	"	20.9	20.9	✓	Mb C.P.D.-55 7643	16 31.2	-55 3	9.0	
13543	"	21.3	11.4	✓	Ma C.P.D.-55 7098	15 58.2	-55 21	9.6	
13544	"	22.5	10.7	✓	Ma 21733	15 57.3	-56 4	7 3/4	
13545	"	22.7	15.4	✓	Ma 22125	16 14.3	-56 11	8 1/2	
13546	23452	5.7	11.5	✓	Ma A.G.C. 46	0 3.8	-22 45	7 1/2 (1900)	
13547	"	21.3	18.0	✓	Ma A.G.C. 300	0 18.4	-30 24	6.8 (1900)	
13548	23453	5.2	9.1	✓	Ma A.G.C. 32370	23 56.2	-42 3	7 1/2 (1900)	
13549	"	7.3	14.7	✓	Ma A.G.C. 166	0 11.1	-43 14	8 (1900)	
13550	"	7.9	10.8	✓	Ma A.G.C. 32437	0 0.4	-43 27	7 3/4 (1900)	
13551	"	15.0	15.9	✓	Ma A.G.C. 225	0 14.3	-47 4	7 1/4 (1900)	
13552	"	20.7	17.4	✓	Ma A.G.C. 306	0 18.8	-49 55	8 (1900)	
13553	"	22.9	16.0	✓	Ma A.G.C. 231	0 14.6	-50 59	7 1/4 (1900)	
13554	"	23.1	17.1	✓	Ma A.G.C. 299	0 18.3	-51 7	7.5 (1900)	
13555	23454	17.7	20.2	✓	Ma A.G.C. 1046	1 3.0	-33 21	8 1/2 (1900)	
13556	"	24.2	9.9	✓	Ma A.G.C. 642	0 37.8	-36 34	7 1/4 (1900)	
13557	23471	6.4	9.2	✓	Mb -2 4242	16 37.6	-2 49	6.9	
13558	"	8.3	15.2	✓	cont. -3 4031	16 49.5	-3 52	neb	
13559	"	10.2	19.2	✓	Ma -4 4225	16 57.5	-4 49	7.5	
13560	"	13.6	13.9	✓	Ma -6 4513	16 46.5	-6 28	8.5	
13561	"	16.8	14.5	✓	Ma -8 4352	16 47.7	-8 4	8.8	
July 20, 1900 13562	23472	9.1	17.4	✓	Ma A.G.C. 26524	19 16.7	-29 15	7 3/4 (1900)	
13563	"	12.8	21.4	✓	Mb A.G.C. 26746	19 26.1	-31 5	6.8 (1900)	
13564	"	14.8	17.1	✓	Ma A.G.C. 26507	19 16.0	-32 7	7 1/4 (1900)	
13565	23474	17.9	18.1	✓	Ma A.G.C. 32437	0 0.4	-43 27	7 3/4 (1900)	
13566	23475	20.7	16.3	✓	Ma -20 174	0 51.6	-20 25	7.0	
13567	23482	9.1	13.0	✓	Ma -2 4425	17 32.7	-2 4	6.2	
13568	"	10.1	19.4	✓	Mc -2 4482	17 45.5	-2 32	7.5	
13569	"	14.5	14.1	✓	Ma -4 4332	17 34.9	-4 46	6.5	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Dm. -22 7 0 1.5 -22 59 7.2 (1855)
C.Dm. -30 101 0 17.1 -30 32 6.8
C.Dm. -43° 16563 23 54.8 -43° 11 7.4
C.Dm. -43 50 0 9.8 -43 22 8.5
C.Dm. -43 15584 23 59.1 -43 35 7.5
C.Dm. -47 68 0 13.2 -47 12 7.3
C.Dm. -50 70 0 17.6 -50 3 7.9
C.Dm. -51 69 0 13.4 -51 7 7.6
C.Dm. -51 88 0 17.1 -51 14 8.0
C.Dm. -33 409 1 1.8 -33 29 7.7
C.Dm. -36 241 0 36.6 -36 42 7.1

Id. or ref?

C.Dm. -29 16059 19 15.1 -29 18 7.3
C.Dm. -31 16797 19 24.5 -31 8 6.8
C.Dm. -32 15110 19 14.4 -32 10 7.3
C.Dm. -43 15584 23 59.1 -43 35 7.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj:867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V.	H.	Object		R.A.		Dec.		Magn.	
13570	23483	5.7	18.8	Ma	−0 4186	21	7.2	−0	29	6.7	
13571	"	6.2	15.3	Mb	−0 4163	21	0.1	−0	44	7.2	
13572	"	7.0	6.1	Mb	−1 4057	20	41.8	−1	6	6.8	
13573	"	14.0	12.3	Mb	−4 5337	20	54.1	−4	42	7.3	
13574	"	24.2	19.5	Ma	−9 5700	21	8.5	−9	49	7.0	
13575	23484	10.8	19.2	Ma	Z.C. 23h 463	23	17.1	−35	17	8½	
13576	"	11.3	9.8	Ma	Z.C. 22h 1590	22	53.8	−35	27	9	
13577	"	11.9	9.4	Ma	Absb 31252	22	54.3	−35	35	8½ (1900)	
13578	"	13.8	12.6	Ma	Absb 31403	23	2.1	−35	37	8 (1900)	
13579	"	23.4	11.4	Ma	Absb 31331	22	58.1	−41	21	6.9 (1900)	
13580	23485	15.0	11.9	Mcd?	−12 72	0	20.7	−12	27	6.7	
Aug. 21, 1900 13581	23486	15.0	19.3	Ma	−2 140	0	53.3	−2	26	7.4	
13582	23524	15.2	9.6	Ma	Absb 225	0	14.3	−47	4	7¼ (1900)	
13583	"	19.3	18.8	Ma	Absb 263	0	9.9	−49	15	8.2 (1900)	
13584	"	23.0	10.1	Ma	Absb 231	0	14.6	−50	59	7¼ (1900)	
13585	23723	10.5	8.9	Ma	−9 4230	15	39.5	−9	51	8.0	
13586	"	13.6	17.3	Ma	−11 4056	15	56.4	−11	27	7.3	
13587	"	21.9	13.7	Ma	−15 4221	15	48.9	−15	36	6.8	
13588	23724	6.2	8.1	Mb	−2 4242	16	37.6	−2	49	6.9	
13589	"	8.2	14.1	Cont.	−3 4031	16	49.5	−3	52	neb	
13590	23725	6.6	20.3	Ma	26744	19	26.0	−27	38	8½	
13591	"	6.9	15.2	Mb	26466	19	14.4	−28	11	9	
13592	"	8.9	19.7	Mb	26716	19	24.9	−29	8	8¾	
13593	"	12.8	20.2	Mb	26746	19	26.1	−31	5	6.8	
13594	"	13.2	23.4	Cont.	26912	19	33.7	−31	12	neb.	
13595	"	14.2	9.5	Ma	C.DM.−31 16396	19	5.6	−31	58	9.0	8.3
13596	"	14.9	9.6	Ma	C.DM.−32 14879	18	59.8	−32	13	8.7	
13597	"	15.9	15.9	Ma	26515	19	16.3	−32	41	8¼	
13598	"	16.7	19.1	Ma	C.DM.−33 14266	19	22.3	−33	5	9.7	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

C.Dm.-35 15775 23 17.0 -35 17 7.9
C.Dm.-35 15609 23 53.8 -35 27 8.3
C.Dm.-35 15602 22 52.9 -35 42 8.3
C.Dm.-36 15718 23 0.7 -36 44 8.0
C.Dm.-41 15121 22 56.7 -41 30 6.9
var.? {See B 121199 (Book 95) p. 35 17 chart plates exam "show slight if any evidence of variation"
Confirmed Nov. 1909 see A 9698 & Book K 18 p. 97

C.Dm.-47 67 0 13.2 -47 12 7.3
C.Dm.-49 44 0 9.9 -49 15 8.3
C.Dm.-51 69 0 13.4 -51 7 7.6

Cl. or Neb?

Cl. or Neb?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	H. H.	Object.	R. A.	Dec.	Magn.
	13599	23725	17.0 15.1	✓ Ma C.D.M. -33° 14141	19h 13m.0	-33° 16′	9.0
	13600	"	23.4 14.7	✓ Ma 26447	19 13.6	-36 24	8¼
Aug. 23, 1900	13601	23746	6.4 11.7	✓ Ma A.G.C. 46	0 3.8	-22 45	7½ (1900)
	13602	"	19.8 10.1	✓ Ma Z.C. 23h. 1591	23 58.3	-29 03	8½
	13603	"	21.8 18.3	✓ Ma A.G.C. 300	0 18.4	-30 24	6.8 (1900)
	13604	23751	6.5 9.5	✓ Mb -2 4242	16 37.6	-2 49	6.9
	13605	"	8.5 15.4	✓ Cont. -3 4031	16 49.5	-3 52	neb
	13606	"	13.7 14.1	✓ Ma -6 4513	16 46.5	-6 28	8.5
	13607	23752	6.2 17.9	✓ Ma -0 4186	21 7.2	-0 29	6.7
	13608	"	6.7 14.4	✓ Mb -0 4163	21 0.1	-0 44	7.2
	13609	"	14.5 11.5	✓ Mb -4 5337	20 54.1	-4 42	7.3
	13610	"	24.6 18.8	✓ Mb -9 5700	21 8.5	-9 49	7.0
Sept. 28, 1901.	13611	23791	14.1 17.8	✓ Ma Z.C. 3h. 410	3 13.4	-46 39.6	8½ (1900)
	13612	"	14.9 12.6	✓ Ma Z.C. 2h. 1576	2 58.0	-47 3	8½
	13613	"	21.8 9.5	✓ Mc C.P.D. -50 860	2 49.7	-50 27	10
	13613a	24208		C.P.D. -57° 513	3 9.4	-57 27	7.4
	13614	23802	12.0 14.1	✓ Ma A.G.C. 4331	3 48.7	-60 44	8 (1900)
	13615	"	12.0 18.2	✓ Mb C.P.D. -60 294	4 5.3	-60 47	9.4
	13616	"	22.9 16.1	✓ Ma A.G.C. 4513	3 58.1	-66 10	7½ (1900)
	13616a	24250		Incls. D.M. -22° 4958	18h 55.0	-22 55	
Nov. 10, 1903.	13617	31795	7.6 11.1	✓ Br. lines C.P.D. -57 2420	9 50.8	-57 8	8.2
	13618	31795	7.8 17.1	✓ Br lines C.P.D. -57 2923	10 12.6	-57 17	10.0
	13619	"	7.9 15.6	✓ A Rec. C.P.D. -57 2781	10 7.4	-57 26	6.7
	13620	"	9.2 13.7	✓ Br. line } C.P.D. -58 1865	10 0.3	-58 4	9.0
	13621	"	9.4 13.8	✓ Br. line }			
	13622	"	9.5 15.6	✓ Mb. C.P.D. -58 1979	10 7.3	-58 13	8.2
	13623	"	9.3 19.5	✓ Br line C.P.D. -58° 2205 (1900)	10 22.9	-58 8	9.2
	13624	"	9.8 22.7	✓ Ma C.P.D. -58 2474	10 34.2	-58 10	8.4
	13625	"	9.9 23.4	✓ Br line C.P.D. -58 2546	10 36.8	-58 7	8.8
	13626	"	9.6 12.1	✓ Mb C.P.D. -58 1739	10 34.0	-58 16	8.4
	13627	"	11.5 23.1	✓ Br line C.P.D. -59 2450	10 36.5	-59 2	6.8

Not identified Dec. 1909 as Plate could not be found. C.P.D. used for all stars.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

= D.M. -22 7 0 1.5 -22 59 7.2 (1855)
= C.Dm. -29 18953 23 58.3 -29 33 8.5
= C.Dm. -30 1010 17.1 -30 32 6.8

Cl. or Neb. ?

C. D.M. -46 987 3 13.4 -46 40 8.8
C.D.M. -47 929 2 58.0 -47 2 9.4

var? { "Type V" var? or not? } Known s.w.Sagitt. " Known Type V

Type V Known

HB 6r. New

HB, prob Nr. Known HB Nr. see A 2229

Same star? var.? Chart plates B series 13880 10644 19467 18317 24949 19667 18173 22705 21118 21066 22414 29196 10608 11039 12400 15383 16446 15995 16213 16098 19468 18263 17777 15939 16102 15672 examined "and show slight if any evidence of variation".

Type V Known

Spect plate B 38749 com. with chart plate B 29009 shows this to be the preceding of two close stars.

Type V. Known

Type V. Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.:967F

Objects of Interest on Southern Spectrum Plates.

	No	Plate	ℏ	ℌ	Object		R.A.		Dec.		Magn.
Nov. 11, 1903.	13628	31795	11.7	24.0	✓ Br lines	C.P.D.	-59	2620	10	40.2	-59 2 8.4
	13629	"	12.2	18.7	✓ Mb	C.P.D.	-59	2101	10	20.0	-59 33 9.1
	13630	"	12.4	12.6	✓ Type IV	C.P.D.	-59	1591	9	55.9	-59 37 9.6
	13631	"	12.5	7.3	✓ Br lines	Alphonse 1875 Prob. C.P.D.	-59	1444	9	35.2 - 59 34 34.7	-59 29 9.2
	13632	"	12.6	23.6	✓ Br. lines	C.P.D.	-59	2548	10	39.1	-59 28 6.8
	13633	"	13.2	22.1	✓ Mb?	C.P.D.	-59	2356	10	33.5	-59 54 9.0
	13634	"	13.2	15.3	✓ Br. line	C.P.D.	-60	1719	10	6.4	-60 2 9.4
	13635	"	14.5	20.1	✓ Mb	C.P.D.	-60	1945	10	26.2	-60 43 8.6
	13636	"	14.6	17.3	✓ Ma	Announced (Cat. 1900) C.P.D.	-60	1539	10	14.7 - 60 45 15	-60.9 9.2
	13637	"	14.8	15.0	✓ Mb?	C.P.D.	-60	1701	10	5.4	-60 56 8.4
	13638	"	15.5	18.0	✓ Mb	C.P.D.	-61	1606	10	17.9	-61 13 8.6
	13639	"	17.0	15.0	✓ Br. line	Announced (Cat. 1900)			10	18.0 6.2	-61 13 9.4 -62 1 9 ✓
	13640	"	17.1	17.0	✓ Br line	Announced (Cat. 1900)			10	11.6	-62 9 ✓
	13641	"	20.1	19.3	✓ Ma	C.P.D.	-63	1440	10	24.7	-63 32 8.1
	13642	"	22.0	17.3	✓ Ma	C.P.D.	-64	1250	10	15.9	-64 30 8.2
June 21 1904	13643		22.2	19.2	✓ Ma Pec	C.P.D.	-64	1310	10	25.0	-64 32 8.6
1906	13643a	20 H8N					+4	949	5	22.7	+4 5 7.4
Feb. 5	13644	36515			✓ Br. lines	C.Dm.	-45°	9789	15	8.3	-45 11 10
" "	13645	36516			✓ Ma	C.Dm.	-48	11492	17	2.1	-48 43 6.6
" "	13646	"			✓ Br. lines	C.Dm.	-45	11392	17	10.3	-45 30 7.1
" "	13647	"			✓ Br. lines	C.Dm.	-41	11041	16	45.6	-41 36 8.0
" "	13648	"			✓ Br. lines	C.Dm.	-41	10972	16 17	43.6	-41 38 7.3
" "	13649	"			✓ Pec.	C.Dm.	-40	10919	16	46.3	-40 56 6.4
" "	13650	36517			✓ Ma	C.P.D.	-52°	10004	16	24.5	-52 21 8.9
" "	13651	"			✓ Ma			21995	16	8.8	-53 34 6.0
" "	13652	"			✓ Ma			21919	16	5.5	-53 25 6.5
" "	13653	36518			✓ Ma			24688	18	3.4	-55 23 7¾
" "	13654	"			✓ Ma			24858	18	10.2	-54 22 7¼
" "	13655	"			✓ Mb	C.Dm.	-50°	11826	18	7.9	-50 46 8.1
" "	13656	"			✓ Ma	C.Dm.	-46°	12266	18	8.4	-46 55 7.8

Oct. 29 1904 B 3 H 089 has 14 Objects of interest marked on it. They are entered directly

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

η Carinae

Na 0.8 1.0 ; 0.6 0.6 Known
~~Gas. neb.~~ / ~~not in C.P.M.~~ = C.P.M. -59° 2483 9 35.2 -59 31 1875.0
~~Type V.~~ New This C.P.M. Cat. published later
Type V. Known
checked on A 5768 shall- + A 2549 chart-
Type V. Known

Known Carinae

Type V.? Neb? Known as Type V Entered later in Gas. neb. list-
Type V. Known Gas. neb

var ? new ~~Gas. Neb.?~~
~~Type III~~ Gas. neb. Known
" ~~V~~
" ~~V~~ Known
" ~~V~~ Known
Br. lines Type V Known
Br. lines ~~Type III~~ Known as Type V Resembling ζ Puppis
" ~~III~~
" ~~III~~
" ~~III~~
" ~~III~~
" ~~III~~
" ~~III~~
" ~~III~~

in Card Catalogue of Type III stars. See Mrs. Fleming's order

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

Objects of Interest on Southern Spectrum Plates.

	No	Plate	U. H.	Object	R.A.		Dec.		Magn.
1906 Feb 5	13657	36518		✓ Nl	24575	17	58.8	-46 29	7.5
" "	13658	36519		✓ Nl	C.P.D.-53°9802	19	59.1	-53 52	8.9
" "	13659	"		✓ Na	28320	20	34.8	-50 37	7¾
" "	13660	"		✓ Nloc	27335	19	53.3	-49 53	9
" "	13661	"		✓ Nl	C.D.M.-49 12853	19	39.4	-49 50	8.0
" "	13662	"		✓ Nloc	27541	20	2.2	-47 28	7¾
" "	13663	36520		✓ Nl	C.D.M.-50 13671	22	18.0	-50 28	8.2
" "	13664	"		✓ Pec!!	C.D.M.-46 14292	22	15.1	-46 35	6.7
Mar. 7	13665	35926		✓ Nl	16090	11	41.2	-24 19	8¼
" "	13666	"		✓ Nl	16139	11	43.7	-26 11	5.8
" "	13667	35927		✓ Nl	-17 3934	13	40.0	-17 51	7.7
" "	13668	"		✓ Nl	-18 3757	14	1.0	-18 33	7.3
" "	13669	"		✓ Nloc	18909	13	49.7	-25 56	8¼
" "	13670	35928		✓ Nl	-20 4329	15	40.5	-20 0	7.7
" "	13671	35930		✓ Na	-10 3227	12	8.1	-10 48	7.2
" "	13672	"		✓ Na	-12 3218	10	30.4	-12 38	var.
" 8	13673	35803		✓ Nd	-22 3601	13	21.8	-22 32	var.
" "	13674	"		✓ Nl	-17 3751	12	53.5	-17 21	7.0
" "	13675	"		✓ Nl	-14 3668	13	6.0	-14 37	8.3
" "	13676	35804		✓ Nl	-18 3951	14	53.3	-18 14	8.0
" "	13677	35931		✓ Nl	-8 3449	12	46.8	-8 45	5.3
" "	13678	"		✓ Nl	-13 3612	12	45.4	-13 50	7.8
" "	13679	"		✓ Nloc	-14 3587	12	42.2	-14 17	6.8
" "	13680	35932		✓ Nl	-8 3947	15	11.6	-8 36	7.0
" "	13681	"		✓ Nc	-11 3841	14	49.9	-11 51	7.0
" "	13682	35936		✓ Nl	-9° 2836	9	56.5	-8 52	6.3
" "	13683	"		✓ Nl	-10 2940	9	44.6	-10 40	6.3
" "	13684	"		✓ Nl	-16 2921	9	48.7	-16 47	7.2
" "	13685	35937		✓ Nc	-10 3353	11	43.7	-10 24	8¼

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Type III

" "

" "

" "

" "

" "

" "

Known W' Geminorum

" "

" "

" "

" "

" "

" "

" "

Known Type II Var: IV

Known " III Var. β Hydrae

" III

" III

" III

" III

" III

" III

" III

" III

" III

" III

" III

" III

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	V. H.	Object	R.A.	Dec.	Magn.
1906 Mar. 8	13686	35937	✓ Nf	-15 3323	11 32.5	-15 49 6.3
" "	13687	35938	✓ Nf-	-7 3674	13 34.0	-7 58 5.3
" "	13688	"	✓ Na	-8 3639	13 39.6	-8 59 6.3
" "	13689	"	✓ Na	-17 3932	13 39.5	-17 8 6.0
" "	13690	"	✓ Na	-7 3748	13 52.4	-7 27 6.5
" "	13691	"	✓ Nf ~~Cl~~	-9 3870	14 3.6	-9 47 8.5
" "	13692	"	✓ Nf	-13 3845	14 5.3	-13 10 7.0
" "	13693	"	✓ Nf	-13 38~~45~~ 24	14 3 58.9	-13 31 7.0
" "	13694	"	✓ Na	-15 3817	14 2.9	-15 36 5.0
" "	13695	35759	✓ Br. lines	C.P.D.-57 5981	13 10.7	-57 ~~29~~ 286 8.6
" "	13696	"	✓ Nf	C.P.D.-59 ~~4781~~ 4778	~~14~~ 13 1.5	-59 38.3 8.5
" "	13697	"	✓ Nf	C.P.D.-60 4579	~~14~~ 13 10.3	-60 40.1 8.7
" "	13698	"	✓ Nf	C.P.D.-61 4074	13 42.9	-61 30.2 9.1
" "	13699	"	✓ Nf	C.P.D.-61 3777	13 24.2	-61 41.9 8.1
" "	13700	"	✓ Br. lines	C.P.D.-61 3753	13 22.6	-61 25.9 9.6
" "	13701	"	✓ Rec. Br. lines	C.P.D.-61 3793	13 25.2	-61 40.~~4~~ 3 8.6
" "	~~13702~~	"	~~Br. lines~~ "Axe to defect. Omit"			
" "	13703	"	✓ Hβ h.	C.P.D.-62 3270	13 19.1	-62 0.0 8.1
" "	13704	"	✓ Na	C.P.D.-63 2720	13 13.9	-63 33.7 9.5
" "	13705	"	✓ Nf	C.P.D.-64 2552	13 37.6	-64 3.0 9.0
" "	13706	"	✓ Nf	C.P.D.-63 2507	12 56.0	-63 25.6 9.3
" "	13707	"	✓ Nf	C.P.D.-63 2528	12 58.2	-63 51.5 9.2
" "	13708	"	✓ ?	C.P.D.-64 2183	13 0.1	-64 38.1 6.1
" "	13709	"	✓ ~~Na~~ ?			
" "	13710	"	✓ Br. lines	C.P.D.-66 2297	13 34.1	-66 46.1 9.0
" "	13711	"	✓ Br. lines	Ext. (1875)	13 0.	-67.0
" "	~~13711a~~	"	✓ ~~Br. lines~~	C.P.D.-65 2513	13 44.7	-65 53.8 10.0
" 10	13712	35800	✓ Nf	C.P.D.-60 5853	15 21.1	-60 26.4 8.9
" "	13713	"	✓ Br. lines	C.P.D.-62 4470	15 13.7	-62 13.7 8.8
" "	13714	"	V ✓ Br. lines	C.P.D.-62 ~~5~~ 4141	15 52.8	-62 20.3 8.8

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Type III
" "
" "
" "
" "
" "
" "
" "
" "
" V Known
" III
" III
" III
" III
" III
" V Known
Known Type V
" V "
New
" IV Known
" III
" III
" III
" V ? Velorum?
"Probably due to three spectra of Band-type one of Class F. superposed" Copied from Mrs Fa note on cover 35759
" V Known
Las. neb. " V New
" V
" III
" V Known
" V or Vac? Known Type V

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...267F

Objects of Interest on Southern Spectrum Plates.

No.	Plate	D. H.	Object	R.A.	Dec.	Magn.
1906 March 10	13715	35800	✓ Mt	C.P.D.-63 3529	15 3.1 -63	25 8.8
" "	13716	35939	✓ Ma	-9 4230	15 39.5 -9	51 8.0
" "	13717	"	✓ Mt	-15 4221	15 48.9 -15	36 6.8
" "	13718	35944	✓ Ma	C.P.D.-71 986	10 18.9 -71	38 8.4
" "	13719	"	✓ Ma	12368	9 0.0 -68	17 6.5
" "	13720	35945	✓ Mcsd	C.P.D.-67 ~~1931~~ 2005	12 ~~10.8~~ 27.6 -67	~~16 6.6~~ 4 8.2
" "	13721	"	✓ Mt	C.P.D.-67 1931	12 10.8 -67	16 6.6
" "	13722	"	✓ Mt	C.P.D.-67 1858	11 49.5 -67	51 8.7
" "	13723	"	✓ Mt	C.P.D.-67 1703	11 12.2 -67	8 8.5
" "	13724	"	✓ Ma	C.P.D.-68 1430	11 1.5 -68	6 8.4
" "	13725	"	✓ Ma	C.P.D.-72 1143	11 30.4 -72	9 8.4
" "	13726	"	✓ Ma	C.P.D.-72 1157	11 39.2 -72	27 8.3
" "	13727	35946	✓ Ma	C.P.D.-68 2014	13 42.1 -68	47 8.0
" "	13728	"	✓ Ma	C.P.D.-69 1784	13 6.8 -69	1 7.7
" "	13729	"	✓ Mt	C.P.D.-69 2068	14 24.9 -69	25 9.0
" "	13730	"	✓ Mt	C.P.D.-70 1735	14 8.0 -70	49 9.1
" "	13731	"	✓ Ma	C.P.D.-69 1834	13 15.7 -69	46 8.0
" "	13732	"	✓ Mt	C.P.D.-71 1498	13 31.4 -71	14 9.1
" "	13733	"	✓ Mt	C.P.D.-75 949	14 54 -75	30 8.9
" "	13734	"	✓ Mcsd	C.P.D.-76 799	13 53.2 -76	11 7.4
" "	13735	"	✓ Ma	C.P.D.-76 826	14 16.5 -76	10 7.5
" "	13736	35949	✓ Ma	12753	9 18.1 -41	46 6.4
" "	13737	"	✓ Mt	12836	9 21.3 -43	32 7¼
" "	13738	35950	✓ Mt	C.Dm.-38 7237	11 31.4 -38	40 7.1
" "	13739	"	✓ Ma	C.Dm.-39 7168	11 26.7 -39	45 6.2
" "	13740	"	✓ Ma	C.Dm.-42 6933	11 16.8 -42	16 7.7
" "	13741	"	✓ Mt	C.Dm.-46 7203	11 29.6 -46	29 8.4
" "	13742	"	✓ Mt	C.Dm.-46 7199	11 29.2 -46	41 6.0
" "	~~13743~~	"	~~Mt~~			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Type III

" "

" "

" "

" "

" " Dac.? Chart plate exam by L.D.W. who finds slight if any evidence See cover B 35945

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

" " Dac. ? θ Apodis - Known

" "

" "

" " 'c

" "

" "

" "

" "

" "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.1067F

Objects of Interest on Southern Spectrum Plates.

1906	No	Plate	I. H.	Object	R.A.	Dec.	Magn.	
Mar. 10	13744	35958		Ma	DM. -12° 3218	10 32.6	-12 52 (1900.0)	
"	13745	"		Ma	DM -15° 3087	10 29.2	-15 35.8 (1855.0)	6.3
"	13746	35959		ML	-9 3870	14 3.6	-9 47.1	8.5
"	13747	"		Ma	-11 3697	14 8.1	-11 30.6	8.2
"	13748	"		ML	-13 3845	14 5.3	-13 10.4	7.0
"	13749	"		ML	-13 3824	13 58.9	-13 30.6	7.0
"	13750	"		ML	-13 3869	14 11.4	-13 44.1	8.0
"	13751	35957		Ma	C.DM. -44 12514	18 11.4	-44 7.3	7.2
"	13752	35962		ML	-14 3587	12 42.2	-14 17	6.8
"	13753	35947		Ma	C.P.D. -68 2598	15 48.4	-68 18.9	8.7
"	13754	"		ML	C.P.D. -68 2493	15 22.8	-68 ~~28~~ 27.7	8.5
"	13755	"		Bl. lines	C.P.D. -71 1889	15 24.1	-71 29.4	9.0
"	13756	"		ML	C.P.D. -71 1792	15 6.9	-71 ~~20~~ 19.6	8.4
"	13756a	"		ML	C.P.D. -73 1572	15 15.7	-73 41.6	8.7
"	14 13757	35951		ML	C.DM. -39 8390	13 32.4	-39 6.3	6.7
"	13758	35952		Bl. line	C.P.D. -62 5141	15 52.8	-62 20.3	8.8
"	13759	"		ML	C.P.D. -66 2866	15 49.5	-66 29.2	8.9
"	13760	36002		ML	C.P.D. -71 1792	15 6.9	-71 19.6	8.4
"	13761	"		ML	C.P.D. -69 2068	14 24.9	-69 25.0	9.0
"	13762	"		Md?	C.P.D. -69 2267	15 2.4	-69 36.3	9.0
"	13763	"		Ma	C.P.D. -68 2493	15 22.8	-68 27.7	8.5
"	13764	"		ML	C.P.D. -63 3529	15 3.1	-63 25.0	8.8
"	13765	"		Bl. line?	C.P.D. -62 4470	15 13.7	-62 13.7	8.8
"	13766	36003		ML	C.P.D. -68 2875	16 51.5	-68 5.6	8.1
"	13767	"		Ma	C.P.D. -66 3111	17 15.4	-66 10.0	9.0
"	13768	"		ML	C.P.D. -63 4194	17 46.0	-63 36.5	8.6
"	13769	36049		Bl. line	DM -19° 4854	17 59.4	-19 24.8	9.6
"	13770	"		Bl. line	DM -21° 4864	17 59.8	-21 ~~-19~~ 15.7	7.8
"	13771	"		Bl. line	DM -24° 13806	17 56.0	-24 23.3	9.9
"	13772	36119		Bl. lines	C.P.D. -64 1629	11 1.3	-64 50.1	8.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type IV Known U Hydrae.
" III
" "
" "
" "
" "
" "
" "
" "
" "
" "
Known assimilation Cas. Cii. 32
Type III
Found on many other plates. See Type III catalogue.
" III Broken in transit. Known away Dec. 1912
Gas. Net. ? Known Type V
Type III
" "
" "
" " Var. & Known Type IV Var.
" "
" "
" ▽ Known
" III
" "
" "
" ▽ Known
" ▽ Known
Gas. Net. Known
" " or Nova? Known Type V

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No	Plate	V	H	Object		R.A.	Dec.	Magn.	
1906, March 15	13773	36119			Br. lines	north of	(Cat. 1875) 10	55.5	-64 34	
						C.P.D.-64 1588	10	55.6	-64 35.7	9.5
" "	13774	"			Na	C.P.D.-64 1475	10	41.6	-64 57.3	9.5
" "	13775	"			Ma	C.P.D.-64 1310	10	25.0	-64 32.2	8.6
" "	13776	"			Ma	C.P.D.-65 1649	11	10.3	-65 49.9	8.8
" "	13777	"			ML	C.P.D.-66 1507	10	58.3	-66 27.2	9.1
" "	13778	"			Ma	C.P.D.-67 1703	11	12.2	-67 8.4	8.5
" "	13779	"			Ma	C.P.D.-68 1430	11	1.5	-68 6.5	8.4
" "	13780	"			Ma	C.P.D.-68 1220	10	31.4	-68 42.1	8.4
" "	13781	"			ML	C.P.D.-71 1114	10	40.6	-71 24.4	8.8
" "	13782	36120			Na	C.P.D. -63° 2720	13	13.9	-63 33.7	9.5
" "	13783	"			Br. line	C.P.D. -64° 2183	13	0.1	-64 38.1	6.1
" "	13784	"			Br. line	C.P.D. -65° 2513	13	44.7	-65 53.8	10.0
" "	13785	"			Br. line	C.P.D.-66 2299	13	34.1	-66 46.1	9.0
" "	13786	"			Br. line	Announced prov. 1900	13	2.2	-67 6	
" "	13787	"			ML	C.P.D.-67 2192	13	0.2	-67 7.7	8.6
" "	13788	"			ML 5c	C.P.D. -67° 2005 ~~2183~~	12 ~~13~~	27.6 ~~0.1~~	-67 4.1 ~~-64 38.1~~	8.2 ~~6.1~~
" "	13789	"			Ma	C.P.D.-68 1793	12	47.2	-68 13.6	8.6
" "	13790	"			ML	C.P.D. -71° 1376	12	37.6	-71 1.7	8.8
" "	13791	"			ML	C.P.D.-71 1358	12	32.5	-71 27.2	8.7
" "	13792	"			Ma	C.P.D.-71 1498	13	31.4	-71 14.0	9.1
" 16	13793	36147	10.4	17.5	Na	-15 4923	18	11.0	-15 40	9.0
" "	13794	"	11.5	18.2	Br. lines	-16 4820	18	12.4	-16 14	neb.
" "	13795	"	16.2	17.3	Ma	(Est. 1855)	18	10	-18.7	
" "	13796	"	16.3	12.2	Ma	-18 4799	17	59.9	-18 34	7.4
" "	13797	"	17.3	14.2	Br. line	Announced 1900 prov. (Est. 1855)	18	7.8 5	-19 26	6 not cat. also
" "	13798	"	18.1	12.0	Br. line	-19 4854	17	59.4	-19 25	9.6
" "	13799	"	21.7	12.2	Br. line	-21 4864	17	59.8	-21 16	7.8
" 19	13800	36020	7.5	10.4	Mb 5c	C.P.D. -70 2641	19	15.6	-70 55	9.1
" "	13801	"	8.0	15.9	Ma	-70 2588	18	42.0	-70 38	8.7

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

not cat. star. Gas. Neb.? New Br. lines of g.c. λ than Hβ.
Type IV Var.? Known Type New var.
" III
" "
" "
" "
-68 14 29/30, 8.4 superposed " "
" "
" "
" IV Var.? Known Type IV New var.
" V Known
" V Known Gas. neb.
" V Known
" V Known Gas neb.
" III
" III
" III
" "
" "
" "
" IV Known Announced Type VI Cir 1145
Gas. Neb. Known
Type III
" "
" V? Known Gas neb.
" V Known
" V Known
" III
" III

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	Y.	Yc.	Object.	R A	Dec.	Magn.
1906 March 19	13802	360 20	21.9	10.0	✓ Mb.	C.P.D.-63 4518	19 12.8	-63 36	8.7
" "	13803	360 73	12.5	15.4	✓ Ma	-21 3264	11 6.2	-21 15	7.7 ↑
" "	13804	"	12.3	16.7	✓ Ma	-21 ~~3276~~ 3277	11 ~~9.1~~ 9.2	-21 ~~13~~ 13	~~8.3~~ 8.3 ↑
" "	13805	"	12.6	17.4	✓ Mb.	-21 3280	11 10.6	-21 21	7.2 ↑
" "	13806	"	20.4	16.0	✓ Mb.	a.g.c. 15388	11 9.7	-25 32	8
						cDM-25°8542	11 ~~8.5~~	- 25	23.3	8.0
" "	13807	36 103	18.0	19.4	✓ Mb	16090	11 41.2	-24 19	8¼
						cDM-24°9940	11 ~~9.5~~	- 24	10.5	7.5
" "	13808	"	21.7	13.1	✓ Mb	15764	11 27.4	-26 11	6.6
						cDM-26°8620	11 26.2	- 26	3.2	6.6
" "	13809	"	21.8	20.4	✓ Mb	16139	11 43.7	-26 11	5.8
						cDM-26°8789	11 42.5	-26 2.7	5.8
" "	13810	36 104	20.0	20.8	✓ Mc 5d?	16138	11 43.6	-35 26	7¼
						cDM-35°7454	11 42.4	-35 17.8	7.1
" "	13811	36105	18.0	17.0	✓ Mb.	17659	12 53.6	-29 27	7¼
						cDM-29°11904	3 12 52.2	-29 18.18	7.2
" "	13812	"	10.1	13.9	✓ Ma	17486	12 46.3	-30 32	7.3
						cDM-30°10168	12 45.0	-30 24.0	7.3
" "	13813	36106	12.8	12.3	✓ Ma	20042	14 41.8	-31 49	8½
" "	13814	"	21.4	12.7	✓ Mb. 5c	20052	14 42.4	-36 13	6.8
" "	13815	"	22.5	16.2	✓ Mb.	20247	14 51.2	-36 43	7¾
" "	13816		24.0	17.3	✓ Mb.	ZC.14 3333	14 52.4	-37 22	8½
	13816a	36 498			✓ Br. Lines	CPD-71°1889	15 26.7	-71 35	(1900) 9.0
" "	13817	36121	6.4	7.3	✓ Mb.	C.P.D.-63 3529	15 03.1	-63 25	8.8
" "	13818	"	6.6	17.5	✓ Mb	C.P.D -63 3643	15 31.0	- 63 46	8.1
" "	13819	"	10.0	17.7	✓ Mb.	C.P.D.-65 3122	15 31.3	- 63 31	9.2
" "	13820	"	12.0	17.4	✓ Mb.	CPD-66 2866	15 49.5	-66 29	8.9
" "	13821	"	15.7	17.0	✓ Ma	C.P.D-68 2598	15 48.5	- 68 20	8.7
" "	13822	"	16.0	12.2	✓ Mb	CPD-68 2493	15 22.8	- 68 28	8.5
" "	13823	"	18.5	8.8	~~Pec. Dam?~~	CPD-69 2267	15 2.3	- 69 36	9.0
" "	13824	"	22.0	12.8	✓ Br. lines	C.P.D.-71 1889	15 24.1	- 71 29	9.0
" "	13825	36122	13.0	23.4	✓ Mb.	C.P.D.-71 ~~2353~~ 2374	18 ~~28.4~~ 23.6	- 71 ~~32~~ 24	~~6.0~~ 8.9
" "	13826	"	14.8	14.2	✓ Ma	C.P.D.-72 2090	17 31.0	-72 45	8.9
" "	~~13827~~	~~35 970~~ 36126			✓ ~~Mb.~~	plate 35-970 ident. on page 196	plate 36126 ident. on page 184		
" "	13828				✓ Mb.				
March 31	13828a	36859			✓ Mb.	cDM.-29° 16646	19 49.7	-29 27	(1900)
April 24	13829	36132	5.3	14.1	✓ Mb	C.P.D.-68 2875	16 51.5	-68 6	8.1
" "	13830	36133	5.8	14.2	✓ Ma	C.P.D.-68 3440	21 33.1	-68 38	8.6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867E

Type III

" III

" III

" III

" III

" III

" III

" III

" III Var ? About 27 chart plates shows no evidence of variation see BvoV.155 p.159 BvoV. 90 p. 115

" III

" III

" III

" III

" III

" III

Nova? var? Known Hyd. Lines In. see Cir xx 92

" III

" III

" III

" III

" III

" III

" III

Var. ? Known Type IV Var.

Nova or Var.? Hβ, Hγ, Hδ bright. Known Hyd lines In.

Type III

" III

" III Pnb

var ? Known R.B. "Sag" III Pnb

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	V.	H.	Object.	R.A.		Dec.		Magn.	
1906 April 24	13831	36133	8.7	11.6	✓ Mb5c	C.P.D. -70 2850	21	17.5	-70	3	6.7
"	13832	"	9.2	10.8	✓ Na	C.P.D -70 2844	21	12.9	-70	16	8.5
"	13833	"	10.1	9.1	✓ Ma	C.P.D.-70 2835	21	1.6	-70	38	6.7
"	13834	"	15.1	17.2	✓ Mb	C.P.D.-73 2247	21	52.9	-73	20	9.0 (?)
"	13835	"	17.3	12.6	✓ Mb	C.P.D.-74 1994	21	20.0	-74	26	9.0
"	13836	36134	16.8	18.8	✓ Ma	16863	12	17.2	-23	41	7 3/4
						GDM -23° 10516	12	16.0	-23	22.6	7.5
"	13837	"	22.5	13.8	✓ Ma	16650	12	6.4	-26	31	8
						GDM -26° 9015	12	5.1	-26	22.6	7.9
"	13838	36135	7.0	12.1	✓ Ma	-18 3757	14	1.0	-18	33	7.3 ^
April 27	13839	36136	21.4	12.0	✓ Ma	2.1860	16	2.0	-26	3	6.0
						GDM -25° 11369	16	0.5	-25	59.7	6.0
May 21	13840	36138	16.0	20.4	✓ Ma	-22 4161	16	15.3	-22	2	9.0 ^
	13841	"	13.5	10.8	✓ Ma	-18 4315	16	35.6	-18	16	8.0 ^
	13842	36139	10.4	8.8	✓ Pec.	-15 4923	18	11.0	-15	40	9.0 ^
	13843	"	11.4±	9.5±	✓ Bright	-16 4820	18	12.4	-16	14	neb. ^
	13844	"	13.3	19.3	✓ Ma	-17 5288	18	32.9	-17	12	8.0 ^
	13845	"	17.6	16.4	✓ Mb5c	-19 5077	18	26.8	-19	22	7.0 ^
	13846	"	17.6	20.0	✓ Mb5c	-19 5134	18	34.4	-19	25	6.5 ^
	13847	"	18.3	21.4	✓ Mb5c	-19 5154	18	37.5	-19	45	6.8 ^
	13848	36140	8.4	22.0	✓ Mb5c	-14 3587	12	42.2	-14	17	6.8 ^
May 22	13849	36141	7.4	7.3	✓ Mb	-13 3869	14	11.4	-13	44	8.0
	13850	36142	15.6	11.0	✓ A Pec?	-18 4282	16	18.6	-18	7	5.3 ^
May 23	13851	36143	9.6	22.9	✓ Ma	Dm -15° 5259	19	2.6	-15	18.7	7.5
	13852	"	12.3	15.1	✓ Mb	Dm -16° 5074	18	46.5	-16	42.1	8.2
	13853	"	17.6	5.9	✓ Mb5c	Dm -19° 5077	18	26.8	-19	22.3	7.0
	13854	"	17.6	9.4	✓ Mb5c	Dm -19° 5134	18	34.4	-19	25.3	6.5
	13855	"	17.7	17.2	✓ Mb5c	Dm -19° 5255	18	50.9	-19	28.1	7.0
						~~Dm -19° 5154~~	~~18~~	~~37.5~~	~~-19~~	~~45.0~~	~~6.8~~
	13856	"	18.3	10.8	✓ Mb5c	Dm -19 5154	18	37.5	-19	45.0	6.8
	13857	36313	10.0	8.0	✓ Mb	C.P.D. GDM -53° 7594	16	7.0	-53	29.7	7.5
	13858	"	13.5	16.3	✓ Ma	GDm -51° 9521	15	39.9	-51	49.6	7.3
	13859	36312	10.4	9.0	✓ Na	C.P.D. ~~GDM~~ -53° 5915	14	5.7	-53	20.6	9.2

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type IV. Known

Known Type IV ~~Announced later as Dark bands Type VI Cin. 1415~~
Nd! or may be dark bands, Pec!
nebulosity. Known Gas. neb.

Fine bright. Known

Type IV. var? Known Type IV ~~Nebulous~~

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.:867F

Objects of Interest on Southern Spectrum Plates

1906	No.	Plate	U	H	Object	RA		Dec		Magn.	
	13860	36312	16.9	20.0	✓ Ma	6Dm -49°	8072	13 30.2	-49 57.7	7.2	V
	13861	"	18.2	19.4	✓ Mb5c	6Dm -49°	8095	13 32.3	-49 18.9	6.8	V
	13862	"	24.3	16.7	✓ Ma	6Dm -46°	8870	13 41.0	-46 21.0	7.6	V
	13863	"	25.0	14.1	✓ Ma	6Dm -45°	8815	13 48.6	-45 58.4	6.6	V
	13864	36130	13.0	9.6	✓ Mb	C.P.D.-66	~~2867~~ 2866	~~15 49.7~~ 15 49.5	~~-66 20~~ -66 29	~~9.6~~ 8.9	
	13865	"	15.0	19.0	✓ Na	C.P.D.-67	3220	16 37.3	-67 33.	9.7	
	13866	36144	12.3	12.9	✓ Ma	-16	3396	12 1.4	-16 21	8.5	^
	13867	"	16.4	18.1	✓ Mb	-18	3368	12 12.2	-18 24	7.8	^
	13868	"	19.4	15.0	✓ Ma	-19	3434	12 5.7	-19 56	8.7	^
	13869	"	19.5	17.5	✓ Ma	-20	3619	12 10.9	-20 0	8.0	^
	13870	"	22.0	16.2	✓ Ma	-21	3497	12 8.3	-21 15	8.0	^
	13871	36145	6.0	14.8	✓ Mb	-13	3845	14 5.3	-13 10	7.0	^
	13872	"	6.7	11.6	✓ Mb	-13	3824	13 58.9	-13 31	7.0	^
	13873	"	7.1	17.7	✓ Mb	-13	3869	14 11.4	-13 44	8.0	^
	13874	"	10.8	13.7	✓ Ma	-15	3817	14 2.9	-15 36	5.0	^
	13875	"	11.1	16.6	✓ Mb5c	-15	3839	14 9.1	-15 46	8.5	^
	13876	"	16.2	18.5	✓ Ma	-18	3799	14 13.0	-18 19	8.5	^
	13877	"	16.6	12.8	✓ Mb	-18	3757	14 1.0	-18 33	7.3	^
	13878	"	21.6	19.7	✓ Ma	-21	3891	14 15.8	-21 3	8.0	^
	13879	36146	10.8	6.9	✓ Ma	-15	4221	15 48.9	-15 36	6.8	^
	13880	36149	14.4	10.8	✓ Na	C.P.D.-68	3220	16 37.3	-68 33.2	9.7	
	13881	"	15.3	13.5	✓ Mb	C.P.D.-68	2875	16 51.5	-68 5.6	8.1	
May 24,	13882	36151	18.4	17.7	✓ Ma	C.P.D.-64	4124	21 11.5	-64 56.2	9.0	
	13883	"	13.9	17.0	✓ Mb	C.P.D.-67	3787	21 9.5	-67 46.8	9.8	
	13884	"	16.1	21.2	✓ Ma	C.P.D.-68	3440	21 33.1	-68 38.0	8.6	
	13885	"	18.5	18.1	✓ Mb5c	C.P.D.-70	2850	21 17.5	-70 2.6	6.7	
	13886	"	18.9	17.3	✓ Rec.	C.P.D.-70	2844	21 12.9	-70 15.9	8.5	
Aug. 20, 1906	13887	36305	14.5	21.2	✓ Ma	C.P.D. -56°	8562	17 53.2	-56 16	8.5	
	13888	36153	21.9	16.8	✓ Mb	C.P.D.-71	1792	15 6.9	-71 19.6	8.4	

For more plates marked in May 1906 see Page 194

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867E

Type IV. var.? Known Type IV. var.

Type IV var.? Known Type IV var.

Type IV ? Na ? var.? Known Type IV New Var.
Spect. plate A 5520 shows the following + southern star to be Ha -

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	H	Hc	Object	R A	Dec	Magn.	
	13889	36153	12.4	19.6	Br. lines	C.P.D.-71 1889	15 24.1	-71 29.4	9.0	
	13890	"	22.4	7.7	M6 5c	C.P.D.-76 799	13 53.2	-76 11.4	7.4	
Aug. 29, 1906	13891	36126	7.8	14.3	M6	C.P.D.-63° 2246	12 13.4	-63 57.2	8.2	
	13892	"	10.1	24.4	Br lines	C.P.D.-64° 2183	13 0.1	-64 38.1	6.1	
	13893	"	14.0	17.3	M6 5c	C.P.D.-67° 2005	12 27.6	-67 4.1	8.2	
	13894	"	14.4	14.0	M6 5c	C.P.D.-67° 1931	12 10.8	-67 15.8	6.6	
	13895	"	22.1	18.6	M6	C.P.D.-71° 1376	12 37.6	-71 1.7	8.8	
	13896	36127	4.6	11.1	Ma	C.P.D.-62 3941	13 59.0	-62 36.7	7.6	M 8.8 star superposed
	13897	"	9.6	15.3	Ma	C.P.D.-65 2732	14 17.2	-65 15.2	7.9	
	13898	"	11.3	8.7	Br line	C.P.D.-65 ~~2425~~ 2583	13 44.8 / 44.7	-65 53.6 / 53.8	7.3	10.
	13899	"	13.4	6.8	Br. line	C.P.D.-66 2299	13 34.1	-66 46.1	9.0	
	13900	"	14.3	17.5	B, Pec.	C.P.D.-67 2622	14 28.8	-67 39.6	7.0	
	13901	"	17.9	16.7	M6	C.P.D.-69 2068	14 24.9	-69 25.0	9.0	
	13902	"	18.5	12.3	Ma	C.P.D.-69 2012	14 0.1	-69 42.6	8.5	
	13903	"	20.6	13.7	Ma	C.P.D.-70 1735	14 8.0	-70 48.9	9.1	
	13904	"	19.1	23.1	Type IV	C.P.D.-69 2267	15 2.4	-69 36.3	9.0	
	13905	36128	6.2	17.8	Ma	C.~~D.~~P.D.-63 4088	17 9.3	-63 26.8	8.0	
	13906	"	15.4	14.2	M6	C.~~D.~~P.D.-68 ~~2875~~	16 51.5	-68 5.6	8.1	
	13907	"	24.1	13.8	Ma	C.P.D.-72 2014	16 47.6	-72 ~~25~~ 28	8.1	
Aug. 30, 1906	13908	36164	6.7	16.5	Pec.	C.P.D.-81 782	16 53.6	-81 23.4	9.6	-81 783, 9.1 superposed.
	13909	"	7.9	15.4	M6	C.P.D.-80 828	17 8.1	-80 44.2	7.4	
	13910	"	11.9	21.8	M6	C.P.D.-78	1092 16 1.7	-78 22.5	7.0	
							~~1093 16 1.9~~	~~-78 20.9~~	~~7.3~~	
	13911	"	13.0	9.5	M6	C.P.D.-77 1292	18 1.1	-77 42.4	9.1	
	13912	"	22.2	16.6	M6	C.P.D.-73 1797	16 55.3	-73 30.5	9.0	
	13913	"	23.5	11.3	Ma	C.P.D.-72 2090	17 31.0	-72 45.4	8.9	
	13914	36165	7.1	15.8	M6	C.P.D.-81 995	22 6.9	-81 3.6	6.6	
	13915	"	13.9	9.4	M6	C.P.D.-77 1563	23 1.6	-77 8.4	8.6	
	13916	"	14.1	18.1	M6	C.P.D.-77 1523	21 42.1	-77 31.5	8.7	
	13917	"	20.2	17.3	M6	C.P.D.-74 2025	21 50.0	-74 27.4	9.6	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867E

Gas neb ? Known as Vee ✓ Hβ, Hγ, Hδ, Hε, Hζ bright.
θ Aphodis

Type V. Known

Type V Known as Gas. neb.
Type V Known
Hβ bright? New

Na Known var. ? Known

Dark bands, ? ~~or may be~~ New See B7700 Na. Examine on Bruce or Bpl. Cl. O.

C.P.D.-78° 1093 1h 1.9 -78 20.9 Magn. 7.3 superposed. B7700 shows this.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.:867F

Objects of Interest on Southern Spectrum Plates.

	No.	Plate	V.	Hb.	Object.	R A	Dec.	Magn.	
Aug. 30, 1906	13918	36165	22.4	17.0	√Mb	C.P.D. -73 2247	21 52.9	-73 20.5	9.0
	13919	36170	17.7	18.5	√Mb 5c	C.P.D. -70 2850	21 17.5	-70 2.6	6.7
	13920	"	18.7	15.7	√ Ma	C.P.D. -70 2835	21 1.6	-70 37.9	6.7
	13921	"	10.9	10.1	√ Ma	C.P.D. -71 2566	20 26.0	-71 31.4	8.4
	13922	"	16.4	18.2	√ Mb	C.P.D. -74 1994	21 20.0	-74 26.1	9.0
	13923	"	15.1	23.1	√ Ma	C.P.D. -73 2247	21 52.9	-73 20.5	9.0
	13924	"	8.1	17.6	√ Na	C.P.D. -70 2844	21 12.9	-70 15.9	8.5
	13925	36171	10.7	16.1	√Mc 5d	C.P.D. -70 3001	23 8.6	-70 56.0	8.6
	13926	"	12.0	12.0	√ Ma	C.P.D. -72 2723	22 39.4	-71 35.5	8.3
	13927	"	12.7	13.7	√ Ma	C.P.D. -72 2739	22 50.4	-72 30.2	8.2
	13928	"	18.6	18.3	√ Ma	C.P.D. -74 2074	23 24.6	-74 53.4	8.8
	13929	"	20.4	8.9	√ Ma	C.P.D. -75 1746	22 10.1	-75 35.5	8.5
	13930	36211	9.4	7.4	√Br. line	C.P.D. -64 2183	13 0.1	-64 38.1	6.1
	13931	"	13.0	14.7	√Br. line	C.P.D. -66 2298	13 34.1	-66 46.1	9.0
	13932	"	14.2	8.2	√ Ma	C.P.D. -67 2192	13 0.2	-67 7.7	8.6
	13933	"	21.8	14.4	√Mb 5e	C.P.D. -71 1488	13 31.4	-71 14.0	9.1
	13934	36229	6.5	15.5	√ Ma	C.P.D. -56° 5624	13 4.0	-56 14.6	8.2
	13935	"	12.5	9.3	√ Pec.	C.P.D. -53° 5658	13 24.9	-53 11.1	9.4
	13936	"	14.4	17.8	√Mb 5c	C.P.D. -52° 6139	12 56.9	-52 13.3	8.4
	13937	"	14.6	15.5	√ Mb	C.P.D. -62° 6276	13 4.4	-52 8.8	8.4
	13938	"	15.9	17.5	√ Ma	C.D.M. -51° 7248	12 58.2	-51 26.6	6.9
	13939	"	15.9	12.3	√ Pec.	C.D.M. -51° 7465	13 14.7	-51 32.0	6.5
	13940	"	20.0	6.5	√Mb 5c	C.D.M. -49° 8095	13 32.3	-49 18.9	6.8
	13941	36247	8.5	13.0	√ Ma	C.D.M. -50° 7983	13 35.1	-50 9.5	6.5
	13942	"	8.5	15.1	√ Ma	C.D.M. -50° 7882	13 27.1	-50 9.0	7.5
	13943	"	8.8	14.6	√ Mb	C.D.M. -49° 8072	13 30.2	-49 57.7	7.2
	13944	"	10.1	13.9	√Mb 5c	C.D.M. -49° 8095	13 32.3	-49 18.9	6.8
	13945	"	11.8	22.2	Mb 3?				
	13946	"	13.3	13.5	√ Ma	C.D.M. -47° 8511	13 33.5	-47 40.9	8.0

C.D. M.-

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867E

Type IV Vnown 0.7 ~~1.0~~; 0.8, 06, var.? Found on B 36151
var? Not confirmed see cover B 36171 Very slight change which may be photographic

Type V. Vnown
Type V. Vnown

Dark bands ? or Type IV Ne. Vnown as Type IV Announced later as Dark band Type VI

Cl B, Pec. Hydrogen lines very narrow, and br. on edge of gr. 2.

C.D. M.-49° 8073, 9.8, adjacent.

~~var? Hγ & Hδ br.?~~ "Wrong object marked"

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.867F

Objects of Interest on Southern Spectrum Plates

No.	Plate	H.	M.	Object.	R A	Dec.	Magn.	
13947	36247	14.2	15.0	✓ Pec	Probably due to double star	{GDM -47° 8449 ? ; " " 8450 ?		
13948	"	15.5	9.1	✓ Pec	GDM -46° 8931	13 46.2	-46 30.6	6.6
13949	"	15.6	11.7	✓ Ma	GDM -46° 8845	13 38.6	-46 31.8	8.0
13950	"	17.5	11.2	✓ Mb 5c	GDM -45° 8700	13 39.9	-45 32.1	8.6
13951	36248	6.8	13.9	✓ Mb	GDM -51° 9373	15 32.6	-51 3.9	7.5
13952	"	8.0	16.9	✓ Mb 5c	GDM -50° 9527	15 23.2	-50 26.4	7.6
13953	"	8.3	10.4	✓ Md 3?	GDM -50° 9939	15 43.6	-50 14.0	6.3
13954	"	9.1	15.7	✓ Ma	GDM -49° 9783	15 26.8	-49 52.2	9.1
13955	"	10.6	15.7	✓ Mb	GDM -49° 9787	15 27.0	-49 5.2	var.
13956	"	11.2	13.6	✓ Md 3?	GDM -48° 10218	15 33.4	-48 48.6	7.3
13957	"	12.6	18.6	✓ Mb	GDM -48° 9954	15 18.3	-48 0.8	8.2
13958	"	18.1	22.3	✓ Br. line	GDM -45° 9789	15 8.3	-45 10.9	10.0
13959	36266	6.1	13.5	✓ Br line	CPD -61° 3753	13 22.6	-61 25.9	9.6
13960	"	7.5	16.5	✓ Mb	CPD -60° 4579	13 10.3	-60 40.1	8.7
13961	"	8.6	16.2	✓ Br line	(Cat. 1900) Announced pos. not cat. star	13 ~~12.~~ 13.2	-60.3 15	
13962	"	10.0	14.9	✓ Mb	CPD -59° 4965	13 16.8	-59 21.0	9.1
13963	"	13.9	16.4	✓ Br. line	CPD -57° 5981	13 10.7	-57 28.6	8.6
13964	"	16.2	18.3	✓ Ma	CPD -56° 5624	13 4.0	-56 14.6	8.2
13965	"	22.2	12.2	✓ Pec.	CPD -53° 5658	13 24.9	-53 11.1	9.4
13966	"	24.3	18.4	✓ Ma	CPD -52° 6276	13 4.4	-52 8.8	8.4
13967	36267	8.2	13.5	✓ Mb	CPD -60° 5853	15 21.1	-60 26.4	8.9
13968	"	13.4	10.3	✓ Mb	CPD -57° 7155	15 33.0	-57 42.6	8.5
13969	"	15.0	16.3	✓ Mb	CPD ~~-52° 3863~~ -56° 6696	15 10.6	-56 56.4	8.1
13970	"	18.0	24.1	✓ Ma	CPD -55° 6219	14 43.4	-55 11.9	9.2
13971	"	19.6	22.3	✓ Md 9?	(Cat. 1900) Announced not cat. star	14 52.3	-54.5 33	
13972	"	21.0	16.8	✓ Ma	CPD -53° 6408	15 9.5	-53 54.1	8.2
13973	"	24.3	16.1	✓ Mb	CPD -52° 8176	15 12.1	-52 15.3	8.6
13974	36285	6.2	9.2	✓ Mb	CPD -61° 4497	14 12.8	-61 25.6	9.4
13975	"	6.7	13.5	✓ Ma	CPD -61° 4321	13 56.8	-61 19.9	9.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1000phase_proj_0672

13 29.0 -47 12.2 10.
13 29.9 -47 13.1 9.9
very ff. may be defect. Look up on plate Cl. ? K on B 13448 No peculiarity.
Cl. A ff B bright.

var? "Br. lines may not be due to hydrogen and the spectrum is probably Class K ~~~
Eight chart plate exam. show no evidence of variability."

P Norma
var? "Br. lines may not be due to hydrogen - the spectrum is probably Class K.
Eight chart exam show no evidence of variability"
C.DM.-48 9956, 9.9 very close.

Gas neb. Known
Gas neb.? Known Type V

Type V ?, or may be Md var, ? New

Type V. Known

Dark bands ? or Nd? Known Type IV Announced as Type VI later - in Circ. 1955

var, ? New

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

	No. Plate	U. H.	Object.	RA	Dec	Magn.	
	13976 36285	10.4 10.2	✓ Mb	CPD -59° 5476	14 7.6	-59 19.9	8.9
	13977 "	14.9 15.0	✓ Mb	CPD -57° 6410	13 49.0	-57 5.9	8.6
	13978 "	16.7 18.9	✓ B Pec	CPD -56° 5891	13 34.8	-56 8.1	6.8
Oct. 4, 1906	13979 36287	8.5 8.6	✓ Ma	CPD -64° 3907	18 15.8	-64 22.7	8.7
	13980 "	19.1 22.3	✓ Ma	CPD -58° 7141	17 18.1	-58 55.3	8.4
	13981 "	21.9 18.7	✓ Na	CPD -57° 8687	17 32.5	-57 39.4	8.8
	13982 "	24.8 13.2	✓ Mb	CPD -56° 8562	17 59.2 (3)	-56 15.8	8.5
	13983 36303	13.2 19.1	✓ Ma	CPD -61° 4332	13 57.7	-61 46.3	8.8
	13984 "	14.0 19.4	✓ Ma	CPD -61° 4321	13 56.8	-61 19.9	9.0
	13985 "	15.6 7.7	✓ Ma	CPD -60° 5558	14 45.2	-60 33.8	8.9
	13986 "	16.1 12.5	✓ Mb	CPD -60° 5432	14 25.4	-60 24.7	8.8
	13987 "	17.4 14.4	✓ Ma	CPD -59° 5568	14 17.8	-59 43.4	9.4
	13988 "	18.1 17.0	✓ Mb	C.P.D. -59 5476	14 7.6	-59 19.9	8.9
	13989 "	22.1 22.3	✓ Mb	CPD -57° 6410	13 49.0	-57 5.9	8.6
	13990 36304	12.2 19.3	✓ Br. lines	CPD -62° 5141	15 52.8	-62 20.3	8.8
	13991 "	22.0 13.6	✓ Ma	CPD -57° 8035	16 19.3	-57 28.3	7.4
	13992 "	24.7 20.9	✓ Mb	~~-55° 7018~~ CPD -56 7228	15 ~~54.3~~ 55.3	~~-56~~ -55 ~~5.4~~ 59.7	~~8.4~~ 8.2
May 1907	13993 36137		✓ Ma	-19 ~~5056~~ 5059	18 ~~28.9~~ 24.0	-19 4	9.6 8.0
	13994 "		✓ Mb	-19 5077	18 26.8	-19 22	7.0
	13995 "		✓ Mb	-19 5134	18 34.4	-19 25	6.5
	13996 "		✓ Mb	-19 5154	18 37.5	-19 45	6.8
	13997 "		✓ Ind?	C.D.M. -23 14350	18 18.1	-23 17	9.9
	13998 "		✓ Ma	G.C. 25400	18 30.7	-23 51	8.1/2
	13999 "			C.D.M. -23° 14543	18 29.2	-23 51.6	8.6
	14000 "		✓ Gas Abs.	C.D.M. -25 13223	18 24.9	-25 14	9.6
1907 April 6	14001 35963		✓ H & K	G.C. 25217	18 23.2	-25 19	7.0
				C.D.M. -25° 13170	18 21.7	-25 19.9	7.6
	14002 35964		✓ Ma	-19 3991	14 50.4	-19 8	8.5
	14003 36344		✓ Br. lines	C.D.M. -21 4483	16 52.9	-21 36	9.5
	14004 "		✓ Ma	~~6692~~ CPD -60° ~~6376~~	16 ~~54.5~~ 53.4	-60	~~38.8~~ 41.1 ~~9.8~~ 9.3
			✓ Ma	CPD -57° 8157	16 43.4	-57 41.4	7.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867E

Known var.

Hydrogen lines bright on edge of gr. λ. New

Type IV. Known var. ? Known V Pavonis

Gas. neb. or Nova. Known as Type V

Type III
" "
" "
" "
Var? or Nova? Known as Gas. Stet. Type III?
Type III
Bl. lines. Known.

Known
Type III
Gas. Stet.? Known
Type III
" "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates

1907	No	Plate	V. No.	Object.	RA	Dec.	Magn.		
April 9	14005	36347		Ma	6PD-62°6348	22	24.5	-62	37.3 3 6.9 ~~8.2~~
" "	14006	"	✓	Ma	6PD-60°7654	23	15.7	-60	44.4 7.6
" "	14007	"	✓	Mpsd	6PD-58°8021	22	49.4	-58	4.0 8.0
" "	14008	36348	✓	Ma	6PD-64°4223	22	2.2	-64	37.6 8.2
" "	14009	"	✓	Ma	6PD-62°6348	22	24.5	-62	37.3 6.9
" "	14010	"	✓	Ma	6PD-62°6315	22	5.2	-62	3.9 8.8
" "	14011	36349	✓	Br. lines	6PD-62°4470	15	13.7	-62	13.7 8.8
" "	14012	"	✓	Mf	6PD-60°5558	14	45.2	-60	33.8 8.9
			✓	Mf	6PD-60°5432	14	25.4	-60	24.7 8.8
Mar. 30	14013	35970	✓	Mf	~~6PD-14°3587~~	12	42.2	-14	17.3 6.8
Oct. 24	14014	37402	✓	Ma	Dm.+12°2448	12	12.5	+12	24.4 8.1 7.0
" "	14015	"	✓	Ma	+11 2436	12	5.4	+11	54.7 8.2
Nov. 19	14016	37568	✓	Mf	6Dm-31°11896	15	14.4	-31	44.4 7.2
" "	14017	"	✓	Mf	6Dm-31°12073	15	27.7	-31	28.2 8.5
" "	14018	"	✓	Ma	6Dm-27°10541	15	38.1	-27	14.1 8.7
" "	14019	"	✓	Ma	6Dm-26°11044	15	41.2	-26	48.0 9.0
" "	14020	"	✓	Ma	6Dm-26°10860	15	17.7	-26	18.9 7.9
" "	14021	"	✓	Pec.	6Dm-24°12084	15	20.4	-24	44.1 7.6
" "	14022	"	✓	Md3	6Dm-23°12248	15	15.8	-23	37.0 9.3
" "	14023	"	✓	Mf 5c	6Dm-23°12359	15	24.9	-23	27.4 7.2
" "	14024	37570	✓	Br. line	6Dm-34 11622	17	10.1	-34	16.2 9.0
" "	14025	"			~~Approx. for 1900~~	~~17~~	~~11.8~~	~~-34~~	~~18~~ ~~9.4~~
			✓	Mf	6DM-W2°12510	17	10.8	-W2	34 8.3
" "	14026	37571			~~6DM-42°12516~~	~~17~~	~~41.1~~	~~-42~~	~~35.4~~ ~~9.4~~
" "	14027	"	✓	Mf	6Dm-28°14958	18	37.8	-28	1.1 8.7
" "	14028	"	✓	Mf	6Dm-27°12989	18	27.7	-27	26.4 7.8
" "	14029	"	✓	Br. lines	6Dm-25°11223 (13223)	18	24.9	-25	13.6 9.6
" "	14030	"	✓	Ma	6Dm-24°14219	18	13.8	-24	57.9 7.5
" "	14031	"	✓	Cont.	6Dm-24°14289	18	16.9	-24	56.6 neb.
" "	14032	"	✓	Cont.	6Dm-23°14537	18	28.8	-23	59.6 9.8 W. 6PD. (neb)
" "	14033	"	✓	Ma	6Dm-23°14733	18	41.1	-23	21.1 9.0
			✓	Mf	Dm-20°5252	18	36.5	-20	35.8 9.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867E

Type III

" "

" " Var.? Prob. var. shown in F. See cover B 36345

" "

" "

" "

Rec. Gas. net.? Known Type V

Type III

" "

" "

" "

" "

" "

" "

" "

" "

Known as rec. Dark lands Var? Announced Circ. 1145 as Type VI variability not conf. See cover B 37568

Var.? New

Type V? Known 17 11.8 -34 18 (1900)

" III

" "

" "

Gas. Net. Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

1907	No.	Plate	V. H.	Object	R.A.	Dec.	Magn.	
Nov. 19	14034	37571		✓ Mt	Dm -19° 5134	18 34.4	-19 25.3	6.5
" "	14035	"		✓ Mt	Dm -19° 5077	18 26.8	-19 22.3	7.0
" "	14036	37575		✓ Br line	cPD -66° 2299	13 34.1	-66 46.1	9.0
" "	14037	"		✓ " "	cPD -65° 2513	13 44.7	-65 53.8	10.0
" "	14038	"		✓ " "	(Est. 1900) not cat. star.	13 26.	-65.5	
" "	14039	"		✓ Type IV	cPD -63° 2720	13 13.9	-63 33.7	9.5
" "	14040	37576		✓ Nra	cPD -69° 2267	15 2.4	-69 36.3	9.0
" "	14040a	"		✓ Br. Lines	cPD -71° 1889	15 24.1	-71 29.4	9.0
" "	14041	"		✓ Mt	c.PD -68 2289	14 55.5	-68 59.3	9.5
" "	14042	"		✓ Mt	cPD -63° 3529	15 3.1	-63 25.0	8.8
" "	14043	37577		✓ Br. line	c.Dm -51 10119 not cat. star.	16 14.9	-51 14.1	10.
" "	14044	"		✓ Mt	cDM -48° 10576	16 0.8	-48 54.0	8.3
" "	14045	"		✓ Mt	cDM -46° 10505	15 51.8	-46 39.2	9.3
" "	14046	"		✓ Mt	cDM -46° 10627	16 9.3	-46 8.2	7.5
" "	14047	"		✓ Mt	cDM -43° 10415	15 49.3	-43 36.0	9.2
" "	14048	37578		✓ Cont.	Dm -17° 4794	17 15.1	-17 40.5	neb.
" "	14049	37579		✓ Br. lines	Dm -11° 4593	18 11.0	-11 41.3	8.7
" "	14050	37580		✓ Br. line	Announced (Est. 1855) Vogel	19 0.5	-6 8	✓
" "	14051	"		✓ Nra	Dm -5° 4858	18 56.7	-5 53.5	7.0
" "	14052	"		✓ Nra	(Est. 1855) not cat. star.	19 4.0	-1.6 37	✓
" "	14053	"		✓ Mt	Dm +0° 4164	19 11.0	+0 29.3	9.3
" "	14054	"		✓ Br. lines	Dm +1° 3979	19 15.6	+1 14.3	9.4
" "	14055	"		✓ Mt	Dm +1° 3931	19 5.9	+1 20.1	9.2
" "	14056	"		✓ Mt	Dm +1° 3880	18 57.8	+1 23.8	8.8
" "	14057	37581		✓ Mt	Dm +2° 3776	18 57.5	+2 47.3	8.8
" "	14058	"		✓ Mt	Dm +2° 3826	19 6.6	+2 22.4	8.8
" "	14059	37582		✓ Nra	cPD -72° 1204	11 59.7	-72 51.6	7.8
" "	14060	"		✓ Mt	cPD -71° 1498	13 31.4	-71 14.0	9.1
" "	14061	"		✓ Mt	cPD -67° 2005	12 27.6	-67 4.1	8.2
" "	14062	"		✓ Nra	cPD -63 2720	13 13.9	-63 33.7	9.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type V Known
Nova Gas. Ref. Known
Moving Object Comet? Group of Gas. neb. One Known
Known Var.? Known
Type IV Known Var.? Known
" V Rec. Var.? Known as similar to γ Cassiae var. not conf.
" III
" "
" V Known
" III
" "
" "
" "
" V Known
Gas. Ref. ? New
Var. ? Type IV Known
" " " New Type IV + Var.
" III
Gas. Ref. Known
Type III
" "
" "
" "
" "
" "
" "
" IV Var. ? Known

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.:367F

Objects of Interest on Southern Spectrum Plates

1907	No.	Plate	U. Ht.	Object	RA		Dec.		Magn.	
Nov. 19	14063	37582		✓ Mt 5-c	GPD -63° 2507	12	56.0	-63	25.6	9.3
" "	14064	37583		✓ Mt	(Est. 1900) Approx 1875 pos	13	59.9	-67	35	
" "	14065	"		Br. lines	GPD -66° 2299	13	34.1	-66	46.1	9.0
" "	14066	"		Br. lines	(Est. 1900)	13	27	-65.5		
" "	14067	"		✓ Ma	GPD -63° 2720	13	13.9	-63	33.7	9.5
" "	14068	"		✓ Br. lines	GPD -61° 3753	13	22.6	-61	25.9	9.6
" "	14069	"		✓ Ma	GPD -61° 3769	13	23.9	-61	20.7	9.4
" "	14070	"		✓ Ma	GPD -61° 4321	13	56.8	-61	19.9	9.0
" "	14071	"		✓ Mu	GPD -61° 4528	14	16.0	-61	10.7	9.4
" "	14072	"		✓ Mt	GPD -66° 4776	13	26.8	-66	46.9	9.8
" "	14072a	"		✓ Gas. neb.	GPD -65° 2513	13	44.7	-65	53.8	10.0
" "	14073	37584		✓ Mt	GPD -67° 2812	15	5.4	-67	31.9	9.7
" "	14074	"		✓ Mt	GPD -65° 2907	14	42.3	-65	33.9	9.4
" "	14075	"		✓ Mt	GPD -63° 3529	15	3.1	-63	25.0	8.8
" "	14076	"		✓ Mt	GPD -65° 3122	15	31.3	-65	31.0	9.2
" "	14077	"		✓ Br. lines	GPD -62° 4470	15	13.7	-62	13.7	8.8
" "	14078	"		✓ Mt	(Est. 1900) Approx pos. 1875 GPM -60° 5413	14	51.9 53.2	-60.6 -60.	30	10½
" "	14079	"		✓ Mt	GPD -60° 5558	14	45.2	-60	33.8	8.9
" "	14080	37585		✓ Ma	C.P.D. -67 3220	16	37.3	-67	33.2	9.7
" "	14081	"		✓ Mt	C.P.D. -64 3244	15	36.7	-64	1.3	9.2
" "	14082	"		✓ Br. lines	C.P.D. -62 4470	15	13.7	-62	13.7	8.8
" "	14083	"		✓ Br. lines	C.P.D. -62 5141	15	52.8	-62	20.3	8.8
" "	14084	"		✓ Mt 5-c	C.P.D. -60 6097	15	37.8	-60	5.1	9.2
" "	14085	37586		✓ Ma	GPD -67° 3220	16	37.3	-67	33.2	9.7
" "	14086	"		✓ Ma	GPD -62° 5516 GPD -62° 5517	17	7.0	-62	22.4	9.4
" "	14087	"		✓ Mt	GPD -60° 6651	16	39.3	-60	2.6	9.4
" "	14088	"		✓ Mt	GPD -58° 6957	16	49.3	-58	49.0	9.2
" "	14089	"		✓ Mt	GPD -57° 8272	16	54.7	-57	53.9	8.6
" "	14090	"		✓ Mt	GPD -58° 7072	17	10.4	-58	42.8	9.6
" 21	14091	37618		✓ Ma	GPD -60° 5558	14	45.2	-60	33.8	8.9

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Type III (Chart plate B25219 3 used for ident.

" V Known

Group of Gas. Ref. One Known

Type IV Gas. ? Known

" V Known

" III

" "

" "

" "

Known

" "

" "

" "

" "

" "

" V Known

Chart plate B25176 used for ident. Star identified in C.D.M. which was not published at time ident was first made.

" III (CPD-60° 5593 14 52.2 -60 29 follows a north)

" "

" IV Gas. ? Known V Triang Aust.

" III

" V Known

" V Known

" III

" IV Known V Triang. Austr.

CP.D-62°5516, 9.5, superposed.

" III Star superposed may cause True line or spot on plate. Of Faint Pair Limb BPD -62° 5516 to N the right one.

" "

" "

" "

" "

" "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...867F

Objects of Interest on Southern Spectrum Plates

1907	No.	Plate	U. H.	Object.	RA	Dec.		Magn.		
Nov. 21	14092	37618		✓ Nl	BPD -60° 5432	14	25.4	-60	24.7	8.8
" "	14093	"		✓ Nl	BPD -58° 5664	14	31.5	-58	25.1	9.8
" "	14094	"		✓ Na	BPD -56° 6696	15	10.6	-56	56.4	8.1
" "	140943	"		✓ Br. lines (Na into Ma)	BPD -54° 6139	14	35.6	-54	32.9	9.4
" "	140944	37619			BPD -54° 6352	15	59.9	-54	26.6	9.4
	14095				BPD -62° 5141	15	52.8	-62	20.3	8.8
" "	14096	"		✓ Nl	BPD -62° 5066	15	48.1	-62	10.3	9.2
" "	14097	"		Br. lines	(announced 1900)	15	39.3	-60	9.53	✓
" "	14098	"		✓ Na	BPD -60° 5853	15	21.1	-60	26.4	8.9
" "	14099	"		✓ Nl	BPD -59° 6208	15	30.0	-59	44.9	9.4
" "	14100	"		✓ Nl	BPD -58° 6061	15	25.1	-58	53.0	9.2
" "	14101	"		✓ Nl	BPD -58° 6466	15	45.8	-58	43.1	9.6
" "	14102	"		✓ Na	BPD -55° 7018	15	55.3	-55	59.7	8.2
" "	14103	"		Nd 6	BPD -54° 6651	15	34.4	-54	35.1	7.9
" "	14104	"		✓ Nl	BPD -54° 6656	15	35.4	-54	28.1	9.6
" "	14105	37620		✓ Nl	BPD -60° 6640	16	37.5	-60	4.8	9.6
" "	14106	"		✓ Nl	BPD -60° 6651	16	39.3	-60	2.6	9.4
" "	14107	"		✓ Nl	BPD -56° 7938	16	50.5	-56	17.1	8.8
" "	14108	"		✓ Nd 5	(not announced 1900) not cat. plan	16	45.0	-56	+6	✓
" "	14109	"		✓ Nl	BPD -55° 7643	16	31.2	-55	3.0	9.0
" "	14110	"		✓ Nl	BPD -55° 7651	16	32.2	-55	8.1	9.3
" "	14111	"		✓ Na	BPD -54° 7975	16	52.3	-54	53.1	10.1
" "	14112	"		✓ Nl	BPD -54° 7964	16	51.0	-54	42.8	9.4
" "	14113	37621		✓ Na	BPD -57° 8687	17	32.5	-57	39.4	8.8
" "	14114	"		✓ Nl	BPD -56° 8698	18	6.2	-56	51.1	9.2
" "	14115	"		✓ Nl	BPD -56° 8562	17	53.2	-56	15.8	8.5
" "	14116	"		✓ Na	BPD -55° 8263	17	31.7	-55	37.2	9.6
" "	14117	"		✓ Nl	BPD -52° 10952	17	50.8	-52	37.9	9.9
" "	14118	"		✓ Nl	C.Dm. BPD -50° 11474	17	32.3	-50	26.5	6.9
" "	14119	"		✓ Nl	C.Dm. BPD -49° 11810	17	47.3	-49	46.4	9.9
" "	14120	"		✓ Nl	C.Dm. BPD -49° 11985	18	3.6	-49	56.6	9.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Type III

" "

" "

" II

" V Unown

" III

Gas. Ref. New

Type III

" "

" "

" "

" "

Var. ? Unown T Normae.

Type III

" "

" "

" "

Var. ? New

Type III

" "

" IV Var. ? Unown T Arae.

" III

" IV Var. ? Unown V Pavonis

" III

" "

" "

" "

" "

" "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.0867F

Objects of Interest on Southern Spectrum Plates

1907	No. Plate	H. H.	Object	R.A.		Dec.		Magn.	
Nov. 21	14121	37622	✓ Mcod	DM -22° 4958	18	55.0	-22	54.8	8.5
" "	14122	37623	✓ ML	DM -19° 5388	19	9.8	-19	37.0	8.5
" "	14123	"	✓ ML	DM -20° 5577	19	21.7	-20	1.0	9.1
~~" "~~	~~14124~~	~~37623~~	~~ML~~						
~~" "~~	~~14125~~	~~"~~	~~ML~~						
" "	14126	37624	✓ ML	GPD -67° 2005	12	27.6	-67	4.1	8.2
" "	14127	"	✓ ML	GPD -58° 4289	12	20.6	-58	18.0	8.3
" "	14128	37625	✓ ML	GPD -72° 1497	14	0.7	-72	5.1	9.3
" "	14129	"	Bl. lines	GPD -66° 2299	13	34.1	-66	46.1	9.0
" "	14130	37626	Bl. lines	(Est. 1900)	18	1.	-25.9		
" "	14131	"	Cont.	GDM -24° 14289	18	16.9	-24	86.6	neb.
" "	14132	"	Bl. lines	GDM -23° 14350 / -23° 14353	18	18.1 / 18.2	-23	16.7 / 17.8	9.9 / 9.2
" "	14133	"	✓ ML	DM -21° 5013	18	19.5	-21	19.0	8.7
" "	14134	"	Bl. lines	DM -21° 4864	18	59.8	-21	15.7	7.8
" "	14135	"	✓ Bl. lines	DM -19° 4854	17	59.4	-19	24.8	9.6
" "	14136	37627	✓ ML	GDM -26° 13957	19	6.6	-26	47.2	9.1
" "	14137	"	✓ Mcod	DM -22° 4958	18	55.0	-22	54.8	8.5
" "	14138	"	✓ ML	DM -19° 5255	18	50.9	-19	28.1	7.0
" "	14139	37628	✓ ML	GDM -32° 15117	19	14.7	-32	44.1	8.3
" "	14140	"	✓ ML	GDM -32° 15110	19	14.4	-32	10.2	7.3
" "	14141	"	✓ ML	GDM -31° 16797	19	24.5	-31	7.8	6.8
" "	14142	"	✓ Cont.	GDM -30° 16412	18	47.1	-30	38.4	neb.
" 22	14143	37587	✓ ML	DM +3° 3588	17	59.0	+3	23.9	9.3
" "	14144	"	✓ Mca	DM +4° 3649	18	5.6	+4	6.8	8.6
" "	14145	"	✓ ML	DM +6° 3627	18	0.3	+6	31.7	7.5
" "	14146	"	Bl. lines	DM +6° 3649	18	5.1	+6	49.5	neb.
" "	14147	37588	✓ ML	DM +2° 3776	18	57.5	+2	47.3	8.8
" "	14148	"	✓ ML	DM +2° 3825	18	6.6	+2	22.4	8.8
" "	14149	"	✓ ML	DM +5° 4190	19	26.6	+5	9.3	6.9

Cannot find any star or object, defect?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Var. ? Known S U Sagitt
Type III
" "
" "
" "
" "
" "
" "
" V ? Known
Gas. Stet. Defect

Gas. Stet. Known
Type III
" V Known
" V Known
" III
" " Var. ? Known S U Sagittarii.
" "
" "
" "
" "

" "
" "
" "

Gas. Stet. Known.
Type III
" "
" "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

1907	No. Plate	H. H.	Object.	Design R.A. ~~Dec.~~	R.A.	Dec.	Magn.	
Nov. 22	14150	37589	Nra	DM -7° 5141	19 53.3	-7 45.8	9.8	
" "	14151	"	ML	DM -8° 5112	19 41.3	-8 14.6	8.8	
" "	14152	"	Mid	announced Pyx. ~~(Cat. 1855)~~ not cat. star	19 ~~50.~~ 52.4	-2.3	11 (1900)	
" "	14153	"	ML	DM -2° 5195	20 3.0	-2 3.3	9.5	
" "	14154	"	ML sc	DM -0° 3860	19 44.7	-0 43.0	9.5	
" "	14155	37590	Pec.	DM -0° 3883	19 50.2	-0 8.8	9.3	
" "	14156	"	ML	DM +5° 4344	19 48.7	+5 48.5	8.9	
" "	14157	37591	ML	C.P.D. -61 3078	12 11.5	-61 57	9.1	
" "	14158	"	Bl. lines	~~C.P.D. -61° 2945~~ ~~(Est. 1900)~~	11 58.9 ~~12.0~~	-61 21 ~~-61.4~~	9.6	
" "	14159	"	ML	C.P.D. -60 3549	11 53.0	-60 38	9.6	
" "	14160	"	Nra	C.P.D. -57 5169	12 53.7	-57 54	9.9	
" "	14161	"	ML	C.P.D. -55 5012	12 14.6	-55 60	9.4	
" "	14162	"	Mia	C.P.D. -55 4977	12 11.0	-55 56	9.4	
" "	14163	"	ML	C.P.D. -53 5071	12 13.5	-53 42	9.4	
" "	14164	37592	ML	C.P.D. -62° 3243	13 17.2	-62 46.1	9.6	
~~" "~~	~~14165~~	"	ML	~~unsatisfactory plate.~~				
" "	14166	"	ML sc	C.P.D. -59° 5228	13 42.6	-59 47.1	9.6	
" "	14167	"	Bl. lines	C.P.D. -57° 5981	13 10.7	-57 28.6	8.6	
" "	14168	"	ML	C.P.D. -57° 5964	13 6.8	-57 5.7	9.2	
" "	14169	"	ML	C.P.D. -56° 5650	13 6.1	-56 18.4	9.4	
" "	14170	"	Nra	C.P.D. -55° 5650	13 29.6	-55 50.3	9.9	
" "	14171	"	ML	C.P.D. -54° 5745	13 41.1	-54 45.3	9.2	
" "	14172	"	ML	C.P.D. -54° 5666	13 28.4 ?	-54 21.0	9.2	
" "	14173	"	Mia	C.P.D. -54° 5656	13 28.0	-54 22.4	9.4	? -54 5657, M. 9.7, position superposed.
" "	14174	"	Pec.	C.P.D. -53° 5658	13 24.9	-53 11.1	9.4	
" "	14175	37593	ML	C.P.D. -57° 6856	14 49.3	-57 20.7	9.0	
" "	14176	"	ML	C.P.D. -55° 6001	14 14.2	-55 23.3	8.8	
" "	14177	"	ML	C.P.D. -54° 6139	14 35.6	-54 32.9	9.4	
" "	14178	"	Nra	C.P.D. -53° 5915	14 5.7	-53 20.6	9.2	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Var? Type ~~IV~~ Known Type IV slight change. show Mss. ff. see cover B 37589

Type III

" " Var? Known R R Aquilae

" "

Dark Lands. New ~~Type III~~

Type III

" " New

" ~~V~~ ~~Gas. Ref.~~

" III

" IV Var. ? Known Sec. Dark Lands. 21 chart plates show no evidence variation see cover B 37591

" III

" "

" "

" "

" "

" "

" V Known

" III

" "

" IV Var. ? Known R V Cent.

" III

" "

" "

Dark Lands. Known Type IV announced later Type VI Cir. 160

Type III

" "

" "

" IV Known Type IV Known var.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.0867F

Objects of Interest on Southern Spectrum Plates.

1907	No.	Plate	V.	Yo.	Object.	R.A.		Dec.		Magn.	
Nov. 22	14179	37593			✓ Nl.	GDM -49° 8941	14	32.0	-49	0.2	9.3
" "	14180	37630			✓ Nl.	GDM -40° 9243	14	56.6	-40	21.9	7.0
" "	14181	"			✓ Nl.	GDM -36° 9645	14	40.9	-36	6.6	6.8
" "	14182	37631			✓ Nl 5c	GDM -38° 10852	15	56.7	-38	51.8	7.8
" "	14183	"			✓ Nl.	GDM -37° 10548	15	43.5	-37	47.0	8.1
" "	14184	"			✓ Cont.	GDM -37° 10488	15	37.9	-37	23.2	neb.
" "	14186	"			✓ Nl.	GDM -36° 10360	15	35.4	-36	46.0	8.3
" "	14186	37632			✓ Cont.	+8 2607	12	22.4	+8	48.7	neb.
" "	14187	"			✓ Nl.	+12 2448	12	12.5	+12	24.4	8.1
" "	14188	"			✓ Cont.	+13 2546	12	23.5	+13	10.6	neb.
" "	14189	"			✓ Cont.	+13 2531	12	17.7	+13	40.9	neb.
" "	14190	"			✓ Cont.	+13 2533	12	18.9	+13	42.6	neb.
" "	14191	"			✓ Cont.						
" "	14192	"			✓ Cont.	(Est. 1855)	12	11.	+15.4		
" "	14193	"			✓ Cont.	(Est. 1855)	12	15.	+16.5		
" "	14194	"			✓ Cont.	+15 2472	12	24.6	+15	13.1	9.5
" "	14195	37633			✓ Nl 5c	GDM -46° 10505	15	51.8	-46	39.2	9.3
" "	14196	"			✓ Nl.	GDM -43° 10415	15	49.3	-43	36.0	9.2
" "	14197	"			✓ Nl.	GDM -40° 10084	15	48.5	-40	42.0	8.0
" "	14198	"			✓ Nl.	GDM -39° 10248	15	49.1	-39	59.4	8.7
" "	14199	"			✓ Nl.	GDM -38° 10852	15	56.7	-38	51.8	7.8
" "	14200	"			✓ Nl.	GDM -38° 10735	15	46.7	-38	34.3	7.9
" "	14201	"			✓ Nl.	GDM -38° 10672	15	40.7	-38	13.4	7.8
" "	14202	37634			✓ Nc 5d	GDM -46° 11456	17	14.4	-46	9.4	9.2
" "	14203	"			✓ Nq.	GDM -45° 11383	17	9.8	-45	49.6	10.0
" "	14204	"			Bl. lines	GDM -45° 11392	17	10.3	-45	30.3	7.1
" "	14205	"			✓ Na	GDM -44° 11365	16	53.3	-44	15.7	9.2
" "	14206	"			✓ Na	GDM -42° 11788	16	55.1	-42	47.4	9.1
" "	14207	"			✓ Bl. lines	GDM -41° 11041	16	45.6	-41	36.0	8.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Type III

" "

" "

Type III

Type III

Type III

" "

" "

" "

" "

" "

" "

Var.? Not confirmed - See Cover B 37634

" IV Var.? Known

Type V

" III

" "

" V

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj.7867F

Objects of Interest in Southern Spectrum Plates

1907	No.	Plate	V.	H.	Object.	Design. R.A. Dec. ~~R.A. Dec.~~				Magn.	
Nov. 22	14208	37634			Ma	GDM-39° 10960	16	51.2	-39	59.6	9.3
" "	14209	37635			Mt	GDM-25° ~~9605~~ 9594	12	~~59.4~~ 58.8	-25	~~20.0~~ 21.0	~~8.7~~ 9.0
" "	14210	37636			Mt	GPD-76° 799	13	53.2	-76	11.4	7.4
" "	14211	"			Mt	GPD-71° 1717	14	52.6	-71	6.6	~~8.0~~ 9.6
" "	14212	"			Mt	GPD-71° 1726	14	54.4	-71	1.3	9.8
" "	14213	"			Ma	GPD-69° 2267	15	2.4	-69	36.3	9.0
" "	14214	"			Ma	GPD-68° 2493	15	22.8	-68	27.7	8.5
Dec. 5	14216	37594			Ma	GPD-57° 7155	15	33.0	-57	42.6	8.5
" "	14216	"			Mt	GDM-48° 10157	15	30.2	-48	12.2	7.9
" "	14217	"			Mt	GDM-48° 9954	15	18.3	-48	0.8	8.2
" "	14218	37595			Ma	~~Cumulated Char. (Ext. 1900)~~	16	~~28.3~~	~~-55.2~~	12	
" "	14219	"			Mt	GPD-55° 7643	16	31.2	-55	3.0	9.0
" "	14220	"			Mt	GPD-55° 7651	16	32.2	-55	8.1	9.3
" "	14221	"			Mt	GPD-54° 7964	16	51.0	-54	42.8	9.4
" "	14222	"			Ma	GPD-54° 7975	16	52.3	-54	53.1	10.1
" "	14223	"			Mt	GPD-52° 10082	16	29.4	-52	35.6	9.1
" "	14224	"			Mt	GPD-52° 10051	16	27.4	-52	7.2	8.1
" "	14225	"			Mt	GDM-50° 10730	16	31.5	-50	25.6	9.3
" "	14226	"			Mt	GDM-48° 11047	16	31.0	-48	3.4	8.2
" "	14227	37596			Mt	GPD-57° ~~8682~~ 8692	17	~~32.1~~ 33.3	-57	~~53.9~~ 56.8	~~8.8~~ 6
" "	14228	"			Ma	GPD-57° 8687	17	32.5	-57	39.4	8.8
" "	14229	"			Mt	GPD-56° 8562	17	53.2	-56	15.8	8.5
" "	14230	"			Mt	GPD-53° 8445	17	2.2	-53	13.0	8.3
" "	14231	"			Ma	GPD-53° 8571	17	~~13.9~~ 2	~~-53~~ 2	~~6.0~~ 4.9	~~9.8~~ 9.4
" "	14232	"			Mt	GPD-53° 8619	17	17.5	-53	6.6	8.0
" "	14233	"			Mt	GPD-52° 10952	17	50.8	-52	37.9	9.9
" "	14234	"			Mt	GDM-50° 11346	17	22.4	-50	58.4	8.5
" "	14235	"			Ma	GDM-48° 11820	17	24.7	~~-44~~ 48	22.4	8.1
" "	14236	37597			Mt	DM+3° 3713	18	19.7	+3	49.7	8.2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

Type III

" "

" " var. δ Aquilæ.

" "

" "

" IV Var. ? Known

" III

" "

" "

" "

Var ? New

Type III

" "

" "

Var ? Known T Aræ

Type III

" "

" "

" "

" "

Var. ? Known V Pavonis

Type III

" "

" "

" "

" "

" "

" "

" "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj - 867F

Objects of Interest on Southern Spectrum Plates.

1907	No. Plate	V. H.	Object.	Design. R.A.	Dec.	Magn.
Dec. 5	14237	37598	✓ Md	+9 4142	19 25.6	+9 42 9.1
" "	14238	"	✓ Md	+10 3916	19 22.2	+10 20 8.6
" "	14239	"	✓ Md	+11 3868	19 24.1	+11 19 9.1
" "	14240	"	✓ Md	announced 1900 pos! (Est. ~~1855~~)	19 81.3 33.3	+11.4 30
" "	14241	"	✓ Ma	+11 3942	19 34.1	+11 35 7.8
" "	14242	"	✓ Md	+11 3848	19 21.3 24.1	+11 29 8.8 ~~9.1~~
" 6	14243	37599	✓ Md	DM +3° 4238	19 57.6	+3 48.1 9.3
" "	14244	"	✓ Md	DM +4° 4335	19 57.9	+4 10.3 9.3
" "	14245	"	✓ Md	DM +7° 4398	20 5.0	+7 15.3 7.2
" "	14246	"	✓ Md	DM +7° 4422	20 8.8	+7 13.6 8.7
" "	14247	"	✓ Md	(Est. 1855)	20 16.2	+7.5 29
" "	14248	"	✓ Md	DM +8° 4420	20 16.1	+8 0.2 8.6
" "	14249	"	✓ Sa	DM +9° 4369	19 54.1	+9 7.0 8.7
" "	14250	"	✓ Md	DM +11° 4243	20 15.8	+11 14.3 8.2
" "	14251	37600	✓ Md	C.P.D.-59 2620	10 40.2	-59 1.6 8.4
" "	14252	"	✓ Md	C.P.D.-58° 2683	10 41.0	-58 49.9 9.0
" "	14253	"	Type V	C.P.D.-58° 2546	10 36.8	-58 7.2 8.8
" "	14254	"	✓ Md?	C.P.D.-57° 3915	10 47.7	-57 30.9 10.1
" "	14255	"	✓ Md	C.P.D.-57° 4405	11 6.6	-57 44.6 8.3
" "	14256	"	✓ Md	C.P.D.-57° 4556	11 13.2	-57 30.1 8.4
" "	14257	"	✓ Md	~~(Est. 1900)~~ approx 1875	~~10 55~~ 10 53.9	~~56.7~~ -56 27
" "	14258	"	✓ Md	C.P.D.-56° 3935	10 47.0	-56 15.6 9.6
" "	14259	"	✓ Sa	(Est. 1900)	11 16.8	-55.2 13
" "	14260	"	✓ Md	C.P.D.-55° 4114	10 59.7	-55 25.2 9.5
" "	14261	"	✓ Md	C.P.D.-55 4075	10 56.8	-55 14.4 9.3
" "	14262	"	✓ Md	C.P.D.-55 3919	10 46.4	-55 3.5 10.1
" "	14263	"	✓ Md	C.P.D.-55° 3855	10 42.8	-55 0.0 10.0
" "	14264	"	✓ Md	C.P.D.-54° 4020	10 40.7	-54 4.2 9.6
" "	14265	"	✓ Sa	(Est. 1900)	19 ~~31~~ 32.9	~~54.6~~ -54 35

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Type III

" " Var ? Not confirmed see cover B 37598

" " " R T Aquilae.

Type III

" "

" "

" "

" " Chart plate B 25456 used for ident:

" "

" IV Var ? Known

" III "

" "

" "

Var ? Not confirmed see cover B 37600

Type III

" "

Chart plate " " B 15919 used for ident.

" "

" IV Var ? Known

" III

" "

" "

" "

" "

" IV Var ? R Centauri.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

1907	No.	Plate	D.	Yb	Object	Design R.A. (1900)	Dec.	Mag.		
Dec. 6	14266	37600			Br. lines	10	58.3	-53	5.1	
" "	14267	"			~~CPD -50°4300~~ (Est. 1900)	10	57.3	-53	42.8	10.0
" "	14268	"			Nebulous star (Est. 1900)	10	50.8	-53	34	
" "	14269	"			CPD-53°4068	10	49.8	-53	26	
" "	14270	"			Br. lines not cat. star (Est. 1900)	10	37.0	-53	4.1	9.8
" "	14271	"			Sta. not cat. star	11	24.0	-52.4	23	
" "	14272	"			CPD-52°3915	10	48.6	-52	58.4	
" "	14273	"			CPD-52°3863	10	42.4	-52	41.8	10.0
" "	14274	"			CPD-53°4358	11	39.0	-52	26.2	9.2
" "	14275	"			CDM-51°5285	10	2.9	-53	11.6	9.4
" "	14276	37601			CDM-50°5655	10	58.7	-51	47.9	9.1
" "	14277	"			CDM-46°9362	14	59.0	-50	32.7	8.9
" "	14278	"			CDM-45°8904	14	22.2	-46	27.1	9.0
" "	14279	"			CDM-45°8936	13	56.3	-45	37.4	9.4
" "	14280	"			CDM-45°8989	13	59.0	-45	49.3	9.8
" "	14281	"			CDM-45°9072	14	3.9	-45	42.6	9.5
" "	14282	"			CDM-45°8994	14	10.7	-45	31.8	9.5
" "	14283	"			CDM-44°8960	14	4.2	-45	3.0	9.9
" "	14284	"			CDM-44°9356	13	46.0	-44	12.6	9.0
" "	14285	"			CDM-43°9051	14	20.6	-44	7.0	9.6
" "	14286	"			CDM -43 9005 Br. lines not cat. star	14	18.4	-43	34.9	9.5
" "	14287	"			CDM-43°9089	14	14.5	-43	34.2	10
" "	14288	"			Sta.	14	21.6	-43	13.0	8.2
" "	14289	"			CDM-42°9465	14	27.9	-42	49.2	8.3
" "	14290	"			CDM-41°8409	13	55.2	-41	23.1	8.7
" "	14291	37602			CDM-38°9138	14	3.3	-38	35.5	8.4
" "	14292	"			CDM-38°9322	14	14.8	-38	4.7	8.8
" "	14293	"			CDM-47°9837	15	8.0	-47	49.6	9.8
" "	14294	"			CDM-47°9749	15	1.9	-47	8.0	8.8
					~~CDM -46°9863~~ CDM -46°9864	15	3.3	-46	16.6	8.3
					CDM -45°9592	14	53.3	-45	19.6	8.5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Gas. Ref? Known Nova Velarum.
Type III Chart plate B 27225 used for ident-

not in CPD or CRW Gas. Ref.? (Lookup chart plate) New
" IV Var.? Known
" ~~III~~
" III
" "
" "
" "

Type III
" "
" "
" "
" "
" "
" "
" "
" "

Gas Ref. Known

Type ~~III~~ Known Type IV Var.? New var.
" III
" "
" "
" "
" "

Error in adj. star in Dec.?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

Objects of Interest on Southern Spectrum Plates.

Design. R.A. Dec.

1907	No.	Plate	V.	H.	Object.	R.A.	Dec.	Magn.		
						C.Dm.-45 9789	15 8.3	-45	10.9	10.
Dec. 7	14295	37602			Bl. lines	not cat. star.				
" "	14296	"			Ma	CDM-40° 9586	15 16.4	-40	49.8	8.5
" "	14297	"			Ma	CDM-39° 9696	15 8.4	-39	21.8	9.1
" "	14298	37603			ML	CDM-44° 10851	16 17.1	-44	26.1	9.1
" "	14299	"			Ra	CDM-43° 10810	16 19.3	-43	22.8	9.2
" "	14300	"			ML	CDM-40° 10084	15 48.5	-40	42.0	8.0
" "	14301	"			"	CDM-38° 10852	15 56.7	-38	51.8	7.8
" "	14302	37604			ML	CDM-46° 11516	17 17.9	-46	36.1	8.8
" "	14303	"			ML-C	CDM-46° 11462	17 14.6	-46	9.1	9.2
" "	14304	"			ML	CDM-44° 11364	16 53.3	-44	15.7	9.2
" "	14305	"			Bl. lines	C.Dm.-43 11673	17 16.4	-43	22.0	10.
" "	14306	"			ML	CDM-41° 11503	17 12.2	-41	44.6	8.0
" "	14307	"			Mc	CDM-41° 11533	17 13.5	-41	37.0	8.3
" "	14308	37605			Ma	CDM-47° 12117	18 3.5	-47	47.7	8.7
" "	14309	"			ML	CDM-47° 12085	18 0.4	-47	37.7	8.6
" "	14310	"			Ma	CDM-45° 12401	18 10.9	-45	24.8	9.2
" "	14311	"			Cont.	CDM-43° 12289	17 59.0	-43	43.7	neb.
" "	14312	"			ML	CDM-43° 12269	17 57.5	-43	38.0	8.6
" "	14313	"			Ma	CDM-40° 12142	17 57.5	-40	57.9	8.7
" "	14314	"			ML	CDM-40° 12116	17 55.7	-40	1.0	8.7
" "	14315	"			Ma	CDM-38° 12772	18 16.3	-38	38.0	8.0
" "	14316	"			ML	CDM-38° 12486	17 58.8	-38	13.2	8.3
" "	14317	"			ML	CDM-38° 12404	17 53.0	-38	26.5	D
" "	14318	37606			Pec.	DM-10° 5057	19 15.2	-10	58.6	7.0
" "	14319	37607			Pec.	DM-10 5057	19 15.2	-10	58.6	7.0
" "	14320	37608			Ma	CDM-42° 7643	12 20.3	-42	41.2	8.6
" "	14321	"			Ma	CDM-42° 7638	12 19.8	-42	34.1	8.1
" "	14322	"			ML	CDM-39° 7829	12 40.5	-39	26.4	8.5
" "	14323	37609			Mcod	CDM.-43° 8554	13 11.2	-43	53.5	9.7

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

Gas. Abs. Known

Type III

" "

" "

" IV Known Type III Var. ? var. not conf. see cover B 37603

" III

" III

" "

" "

" V Rec. Known Type V

" III

Var? not conf. see cover B 37613

Type III

" "

" "

" III

" "

" "

" "

" "

" "

Dark Lands Known Dark Lands.

" " Known Dark Lands Var ? var. not conf.

Var ? var. not conf.

Type III

" "

" "

Var. ? New 1900 reduced from C DM. 13 42.7 ± 44 1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj...367F

Objects of Interest on Southern Spectrum Plates.

1907	No.	Plate	V.	Ye.	Object.	Design. R.A.	Dec.	Mag.		
Dec. 7	14324	37610			Nl	6DM -49°8961	14 32.7	-49 10.3	9.5	
" "	14325	"			Nc	6DM -48°9338	14 39.1	-48 47.6	9.4	
" "	14326	"			Nra	6DM -48°9289	14 15.3	-46 57.3	9.6	
" "	14327	"			Nl	6DM -44°9615	14 40.5	-44 31.2	9.6	
" "	14328	"			Nl	6DM -44°9616	14 40.6	-44 24.8	9.7	
" "	14329	"			Nl	6DM -44°9421	14 24.7	-44 32.9	8.9	
" "	14330	"			Nl	6DM -43°9051	14 18.4	-43 34.9	9.5	
" "	14331	"			Nc	6DM -43°9089	14 21.6	-43 13.0	8.2	
" "	14332	"			Nra?	6DM -42°9465	14 27.9	-42 49.2	8.3	
" "	14333	37611			Nl	6DM -48°9954	15 18.3	-48 0.8	8.2	
" "	14334	"			Nl	6DM -43°10415	15 49.3	-43 36.0	9.2	
" "	14335	"			Nla	6DM -42°10841	15 43.3	-42 26.6	9.8	
" "	14336	"			Nl	6DM -41°10412	15 45.8	-41 37.5	9.4	
" "	14337	"			Nl	6DM -40°9789	15 28.5	-40 16.4	8.0	
" "	14338	"			Nl	6DM -39°10059	15 30.6	-39 0.9	9.1	
" "	14339	37612			Nl	6DM -48°11047	16 31.0	-48 3.4	8.2	
" "	14340	"			Nl	6DM -47°11124	16 45.6	-47 53.6	8.9	
" "	14341	"			Nl	6DM -44°10851	16 17.1	-44 26.1	9.1	
" "	14342	"			Nl	6DM -42°11627	16 44.8	-42 50.0	6.6	
" "	14343	"			Nla	6DM -41°10863	16 38.1	-41 14.7	7.5	
" "	14344	"			Nla	6DM -38°11189	16 36.8	-38 34.4	9.5	
" "	14345	37613			Nl	6DM -47°11684	17 28.6	-47 50.4	9.3	
" "	14346	"			Nl	6DM -46°11516	17 17.9	-46 36.1	8.8	
" "	14347	"			Bl. lines	6DM -46°11816	17 36.3	-46 2.0	9.9	
" "	14348	"			Bl. lines	(Ext. 1900)	17 38.1	-44.9 52		✓
" "	14349	"			Cont.	6DM -44°11898	17 27.2	-44 39.0	inb.	
" "	14350	"			Nla	6DM -44°11596	17 10.4	-44 34.3	9.3	
" "	14351	"			Nd 5	6DM -43°11672	17 16.3	-43 42.3	10.0	
" "	14352	"			Bl. lines	6DM -43°11673	17 16.4	-43 22.0	10.0	

Cont. in Book 22 L. 2

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867E

Type III
Var. ? Known
Type IV Var. ? Known
" III
" "
" "
" "
Var. ? Not confirmed see cover B 37610 see also B H1702
Var. ? Type IV ~~Known~~ Type III New var.
Type III
" "
" "
" "
" "
" "
" "
" "
" "
" "
" "
" "
" "
" "
" "
" "
Var. ? Known Hyd line Sr transferred to "Rec. list" May 1910
74 chart dates exam. no evidence found + covgr B 37613 see B vol 75 p. 149
Var. Ast. Known
K
Type III
" " Var. ? Known SW Scorpii
" V

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867-

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...067F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae.proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj...867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1898phae..proj..867F

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System