

PHOTOMETRIC RESEARCHES IN THE SELECTED KAPTEIN AREAS

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ABSTRACT. B and V magnitudes of 4437 stars from Kapteyn Areas No 64, 65, 86, 87, 88, 98 are obtained. The catalogue and the star maps are given.

Key words: Stars: catalogue, B-, V-magnitudes, Kapteyn Areas: individual: 64, 65, 86, 87, 88, 98.

The classical method of colour indices of stars is applied to study of distribution of interstellar absorbing substance in a Galaxy. This method enables to determine simply and reliably the size of complete interstellar absorption on all distance up to a star using the photometry data in two photometric systems (in our case it is systems B and V). Initial materials for researches on this method are the catalogues of star magnitudes and parameters of colour of stars.

In 1906 J. Kapteyn has offered the plan in regular intervals allocated on the sky «of the Selected Areas» for study of a structure of a Galaxy. This plan provided study of all accessible physical characteristics of stars in 252 small areas, from which 206 are in regular intervals allocated on all sky, and 46 - in addition in a strip of the Milky Way.

At Odessa Astronomical Observatory since 1967 in co-operation with Abastumany Astrophysical Observatory (AAO) the work on study of distribution of interstellar absorbing substance in a direction selected Kapteyn Areas is carrying out. For this purpose the catalogues B and V magnitudes of stars for researched Kapteyn Areas are created. The researched Areas KA-64, KA-65, KA-86, KA-87, KA-88, KA-98 are interesting to that are located near to an equatorial plane of a Galaxy, where basic weight of absorbing substance contains.

Equipment, observant material

The photographic material for researched Kapteyn Areas was obtained by M.S.Kazanymas, L.A.Zavershneva and L.Ph.Tomak on unaberrational Schmidt camera of AAO in 1981 - 1988.

Optical parameters of unaberrational Schmidt camera are the following: the diameter of a spherical mirror 444 mm, diameter of a correctional lens 360 mm, focal length of a spherical mirror 625 mm, hence, scale on a photoplate is equal 5', 5 arches on millimetre, and light-grasp of the tool is 1:1,74.

It is possible to consider the Schmidt chamber, despite of presence in it of a lens, almost free from chromatic aberration. It also hasn't spherical aberration, astigmatism and coma [1]. The detailed description of a telescope is given in works [1] and [2].

For reception of a photometric material in system B, V of Johnson-Morgan were used filter Schott GG11 in a combination with a film A - 600 (V- magnitudes) and filter Schott GG13 in a combination with a film A- 500 (B-magnitudes).

Technique of reception of stellar magnitudes

The photometric processing of the received photographic material was carried out on micro-photometer "МФ-2" with specially built - in round diaphragm. For all stars the measurements were carried out on three films.

The mistake of a field of the Schmidt camera was not taken into account, since on distance 2'20" from the centre of a photosnapshot, where was carried out photometry of stars, it does not exceed 0.01 stellar magnitude.

For areas Ka-86 and Ka-87 as standard the stars of a cluster NGC 6633, for a area KA-88 - star of a cluster NGC6940, for a area KA-98 - star of a cluster NGC 2264 and for KA-64, 65 a clusters NGC 6940, 6871 were used. The data for them were taken from the catalogue [5].

The standard technique was applied to reception of stellar magnitudes.

As numerous researches have shown, at use of films A - 500 and A - 600 in a combination with filters Schott GG13 and GG11 on the Schmidt' camera of AAO the standard photometric system BV is realized practically [3-6].

Table 1. The basic characteristics of areas

The name of a Areas	α	δ	b	l	N	V_{\max}	V_{\min}
KA-64	20 ^h 02 ^m	30°16'	68°	0°	478	6 ^m .63	12 ^m .34
KA-65	21 ^h 03 ^m	30°33'	71°	-12°	653	7 ^m .19	13 ^m .45
KA-86	18 ^h 15 ^m	15°00'	43°	14°	731	7 ^m .48	13 ^m .37
KA-87	19 ^h 15 ^m	15°11'	49°	1°	757	6 ^m .36	13 ^m .74
KA-88	20 ^h 14 ^m	15°26'	56°	-11°	970	7 ^m .25	13 ^m .75
KA-98	6 ^h 52 ^m	-0°15'	213°	1°	848	7 ^m .68	13 ^m .99

Results of photometry of stars in researched Kapteyn Areas

As a result of computer data processing photometry of stars for researched Kapteyn Areas the catalogues of star magnitudes V and parameters of colour B-V were created. The random errors of the definition B- and V- magnitudes are less than $\pm 0^m.04$.

The information on researched Kapteyn Areas and about the catalogues, received for them, is given in the Table 1. The names of Kapteyn Areas are specified in the first column, in second - the equatorial coordinates of their centres (epoch 2000.0) are given, in the third column the galactic coordinates of the centres of platforms are given, the amount of stars included in the catalogue is specified in the fourth column, in the seventh and eighth columns the meanings of the maximal and minimal magnitudes of stars of the catalogues are given.

On Fig. 1 the scheme of division of the image of each areas into the fragments is given, and on Fig. 2 - Fig. 55 the images of cards of researched areas are given. The coordinate grid on cards corresponds to epoch 2000.0, designation of axes is standard.

The catalogues are given in the Tables 2 - 7. In first column the serial number of a star appropriate to its number on a card is given. In second column the star magnitude V , in third - parameter of colour B-V is given.

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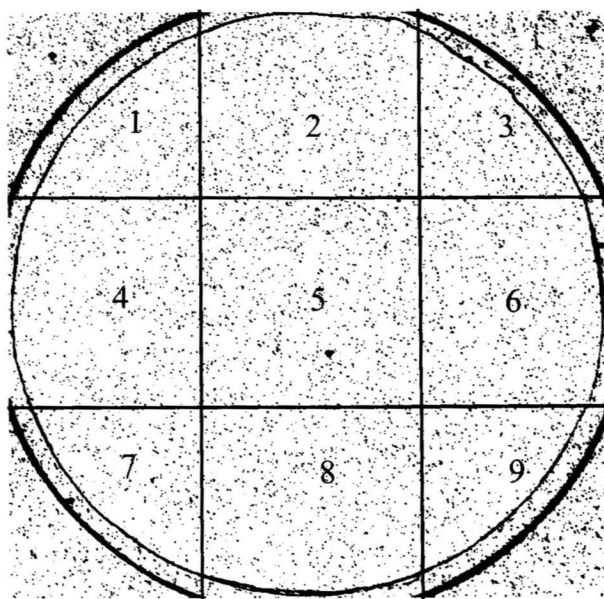


Fig. 1: The scheme of division of the image of each areas into the fragments

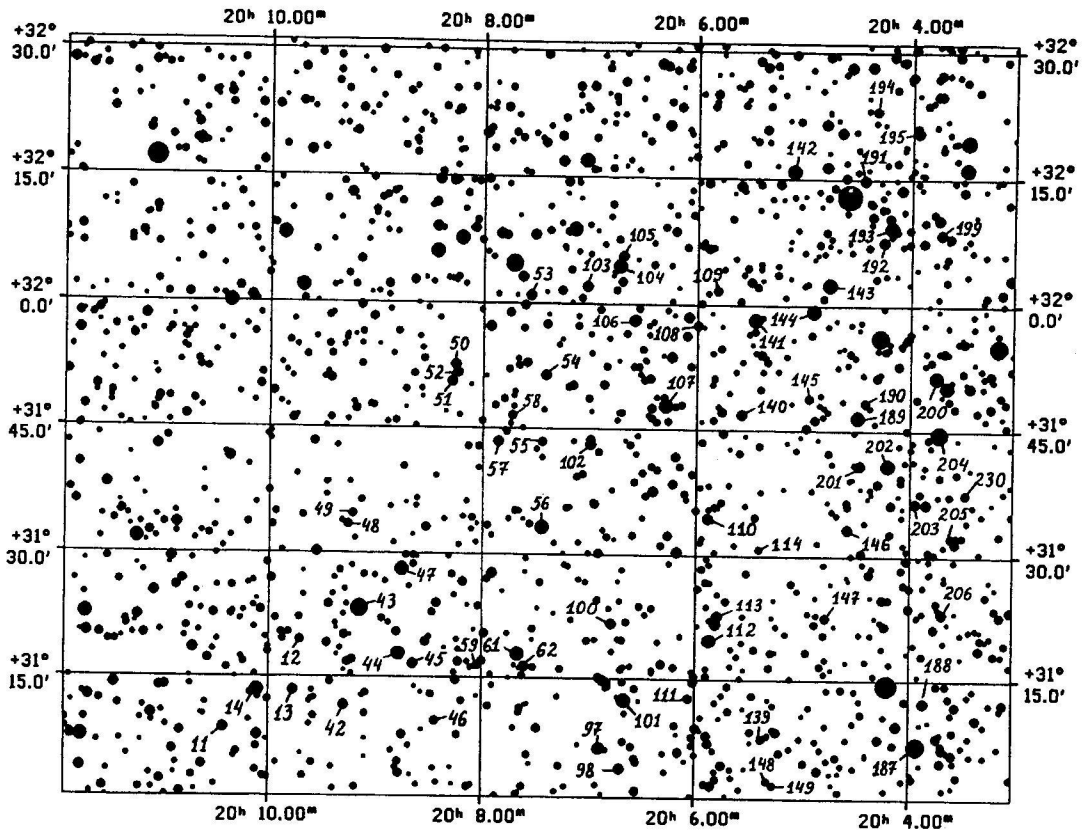


Fig. 2: KA-64, fragment 1

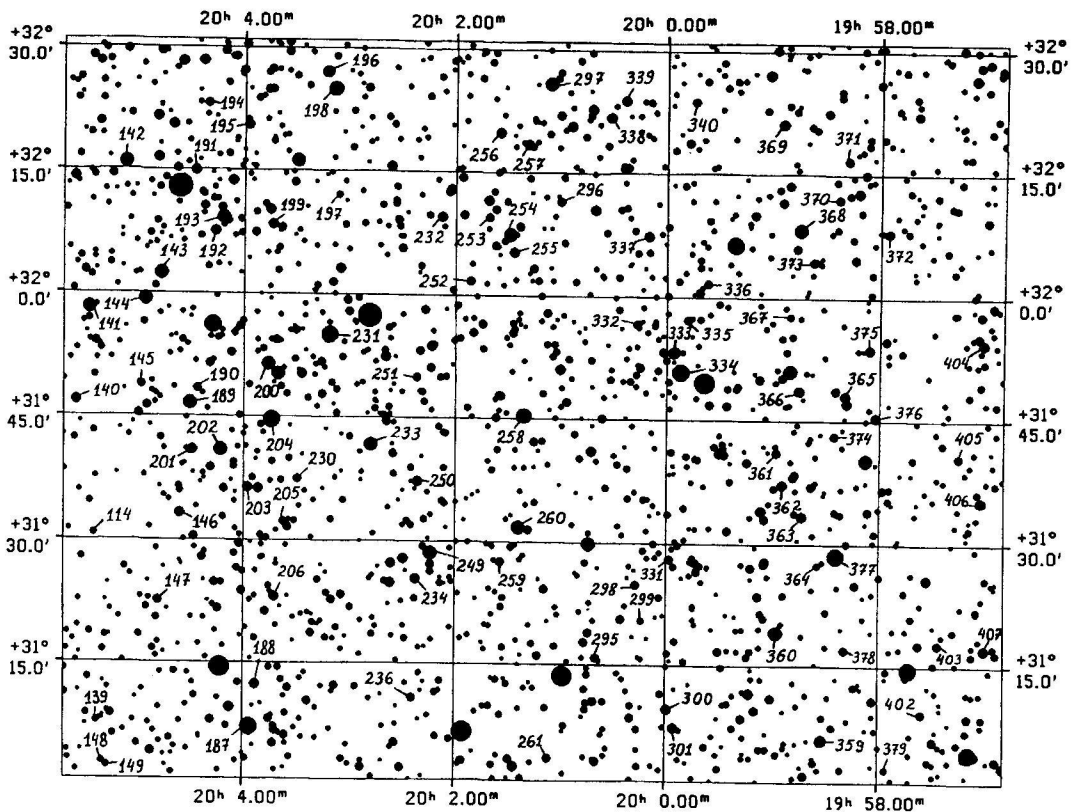


Fig. 3: KA-64, fragment 2

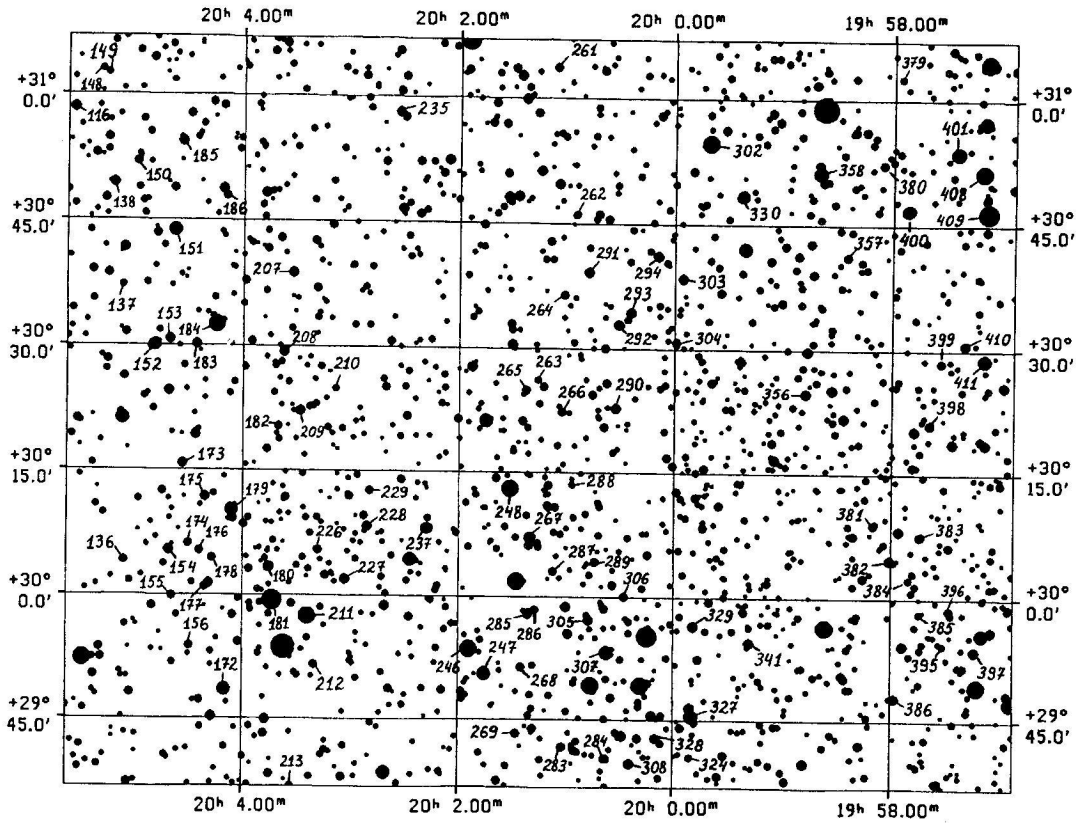


Fig. 6: KA-64, fragment 5

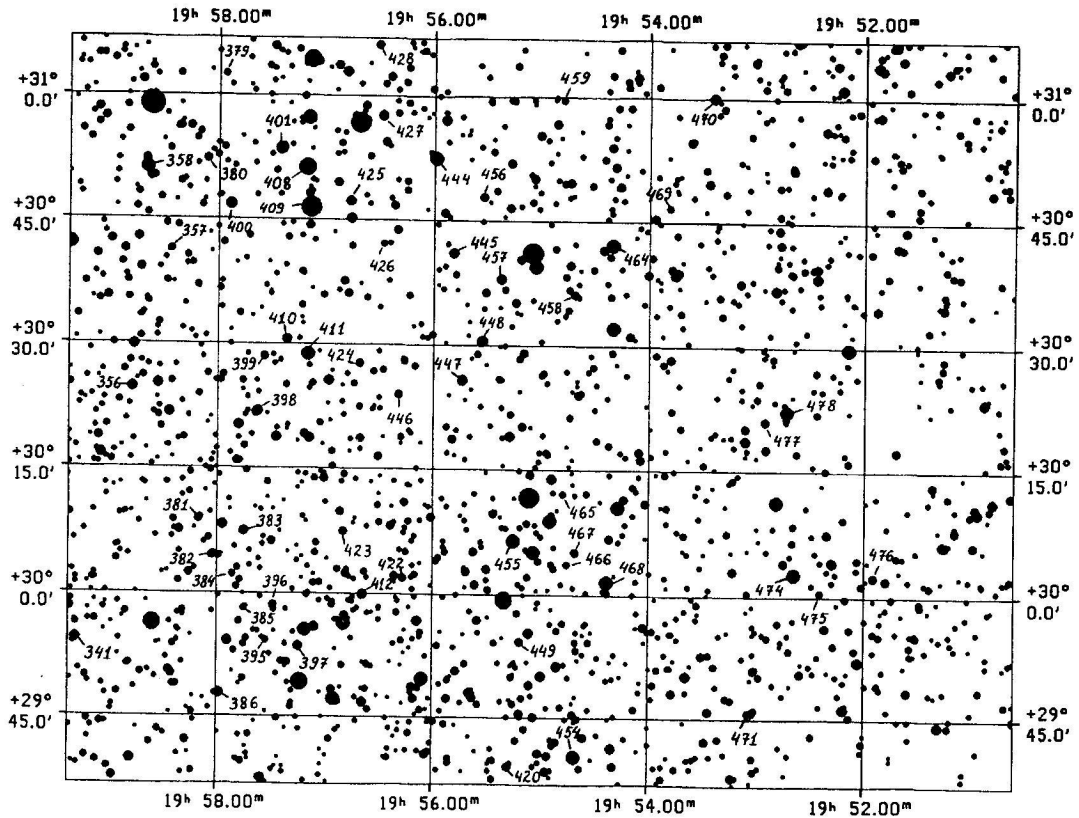


Fig. 7: KA-64, fragment 6

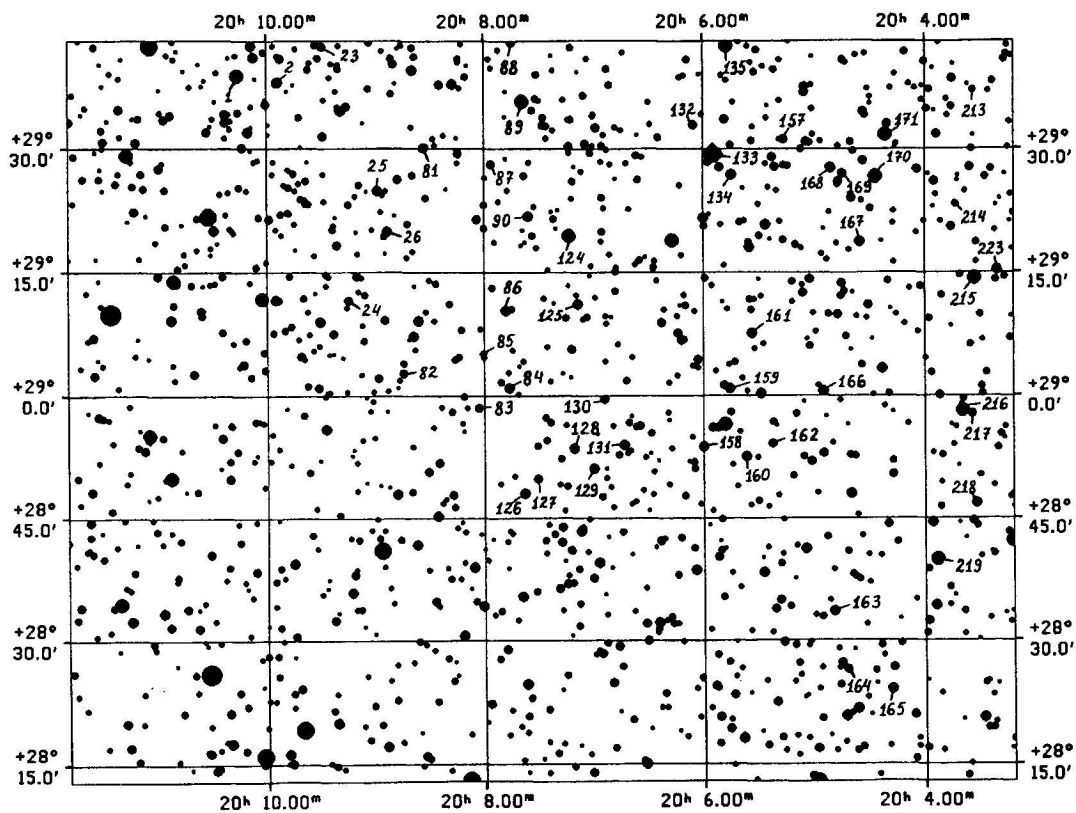


Fig. 8: KA-64, fragment 7

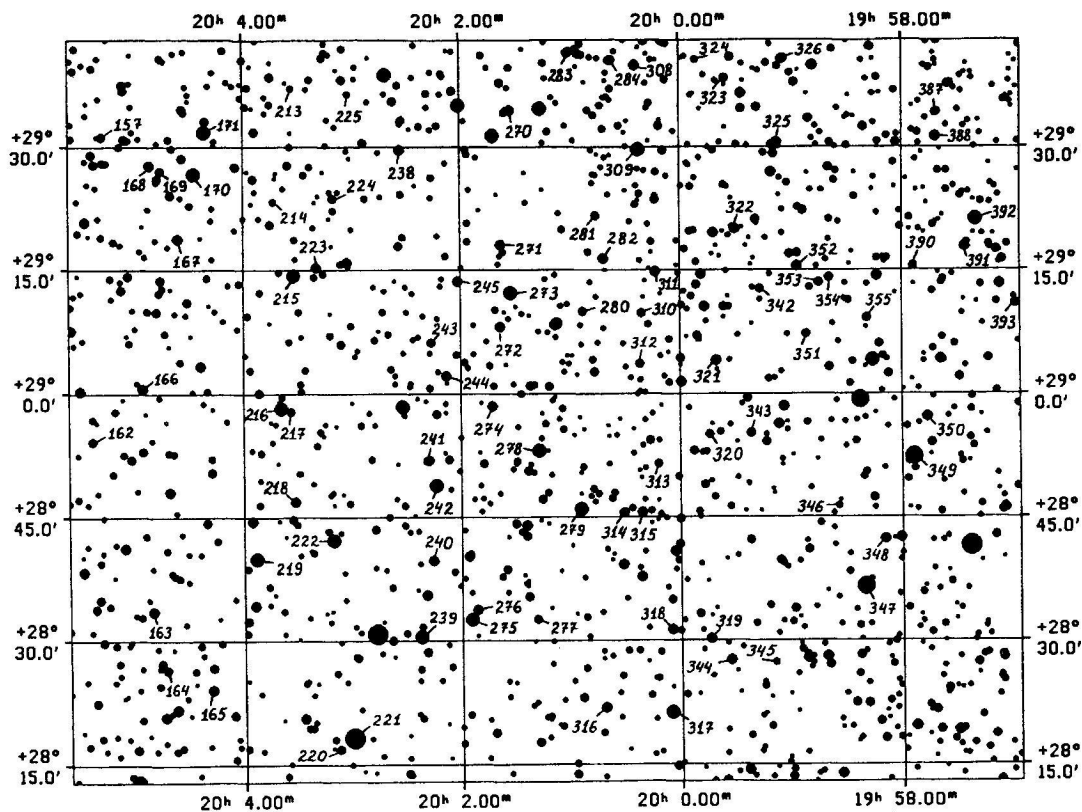


Fig. 9: KA-64, fragment 8

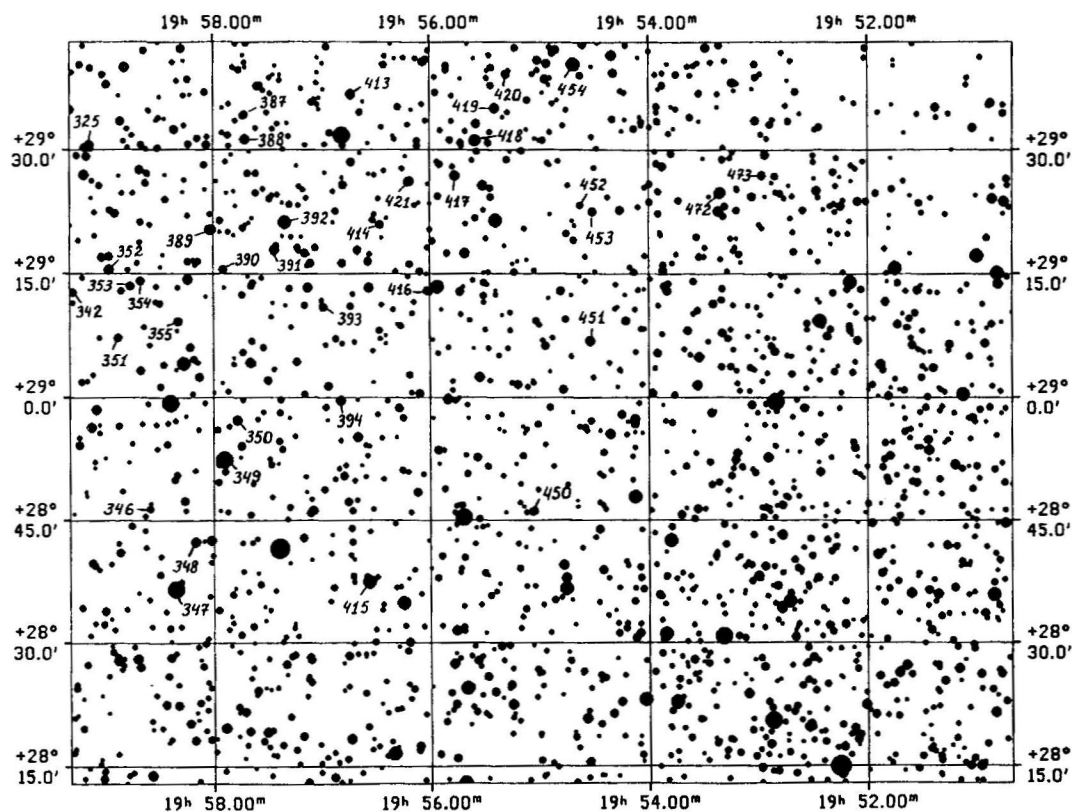


Fig. 10: KA-64, fragment 9

Table 2. Kapteyn Area KA-64: magnitudes and color indices of stars

No	V	B-V	No	V	B-V	No	V	B-V
1	8.11	0.94	161	10.21	0.29	321	10.34	-0.25
2	11.05	-0.05	162	10.99	0.29	322	9.31	0.60
3	8.50	0.98	163	10.35	-0.48	323	10.95	-0.28
4	10.20	0.23	164	11.55	-0.24	324	10.07	0.99
5	7.86	-0.27	165	10.18	-0.28	325	10.20	-0.26
6	10.35	-0.58	166	10.30	0.97	326	10.04	-0.01
7	11.23	-0.20	167	9.83	0.15	327	8.86	0.34
8	11.24	-0.42	168	9.45	0.28	328	10.84	0.06
9	9.38	-0.01	169	11.40	-0.05	329	9.17	1.23
10	11.13	-0.04	170	8.88	-0.29	330	9.35	0.01
11	9.83	0.12	171	9.25	1.14	331	11.06	-0.09
12	11.42	-0.32	172	9.75	1.67	332	10.83	0.03
13	10.66	-0.03	173	9.25	-0.22	333	9.88	-0.60
14	8.34	-1.03	174	10.89	0.07	334	8.04	1.83
15	10.25	-0.13	175	10.51	0.62	335	11.52	-0.49
16	8.56	0.79	176	10.70	-0.29	336	10.54	-0.24
17	9.86	1.32	177	10.93	-0.33	337	10.35	-0.38
18	8.87	0.60	178	11.17	-0.18	338	9.62	1.20
19	9.56	-0.12	179	9.35	0.93	339	10.19	-0.09
20	9.82	-0.02	180	8.82	0.02	340	10.59	0.07
21	9.23	1.05	181	6.63	1.58	341	9.57	2.07
22	7.72	1.23	182	10.83	0.00	342	10.69	-0.12
23	10.92	-0.47	183	9.85	0.05	343	10.92	0.11
24	11.08	-0.26	184	8.16	0.34	344	9.55	0.98

Table 2 (continued)

No	V	B-V	No	V	B-V	No	V	B-V
25	10.20	0.43	185	9.99	1.04	345	11.60	-0.42
26	10.41	-0.14	186	10.81	0.04	346	11.50	-0.14
27	10.62	0.15	187	7.77	-0.31	347	7.41	-0.34
28	11.49	0.51	188	9.47	0.08	348	9.41	0.47
29	10.76	0.13	189	8.49	0.03	349	7.07	-0.31
30	9.11	0.17	190	10.78	1.19	350	9.75	0.88
31	9.70	-0.18	191	9.86	-0.11	351	10.58	-0.25
32	9.35	-0.06	192	9.61	0.09	352	9.97	0.94
33	9.98	-0.15	193	8.56	0.20	353	11.52	-0.06
34	11.19	0.32	194	10.81	-0.18	354	11.42	-0.36
35	9.80	0.38	195	9.83	-0.38	355	11.08	-0.08
36	10.61	0.22	196	10.31	0.06	356	8.60	0.25
37	9.50	1.12	197	11.53	-0.55	357	10.70	0.55
38	9.74	-0.13	198	9.62	0.75	358	8.54	0.46
39	10.88	0.24	199	9.51	0.61	359	9.64	0.38
40	10.06	1.70	200	8.79	1.20	360	8.76	1.50
41	9.60	1.27	201	10.00	0.32	361	11.13	-0.05
42	9.39	0.75	202	8.78	0.08	362	9.59	0.17
43	7.75	1.62	203	10.10	0.44	363	10.31	-0.29
44	9.38	-0.38	204	8.14	-0.19	364	11.15	-0.16
45	9.82	1.14	205	10.74	-0.04	365	9.56	0.05
46	10.95	0.38	206	9.97	1.04	366	10.16	0.21
47	9.23	0.98	207	9.54	1.16	367	9.58	-0.10
48	11.50	0.07	208	10.05	1.12	368	9.02	2.39
49	10.62	0.14	209	10.87	1.50	369	9.53	-0.01
50	10.40	-0.39	210	11.68	0.04	370	10.77	-0.10
51	9.56	0.03	211	8.33	1.71	371	11.15	0.00
52	10.62	0.09	212	10.89	0.31	372	9.42	-0.02
53	9.84	-0.58	213	11.49	0.38	373	10.16	0.84
54	10.26	-0.22	214	11.57	-0.17	374	9.99	0.20
55	10.64	-0.11	215	9.48	0.32	375	10.21	-0.20
56	8.94	0.93	216	9.21	1.10	376	10.29	0.83
57	10.28	1.30	217	11.02	-0.27	377	8.18	1.75
58	10.89	-0.18	218	9.29	0.49	378	9.93	0.64
59	10.94	0.17	219	9.23	-0.17	379	11.25	0.12
60	10.61	0.06	220	10.44	-0.28	380	10.96	0.34
61	9.30	-0.06	221	7.41	-0.82	381	10.06	-0.01
62	10.26	-0.25	222	9.54	0.46	382	10.08	0.27
63	9.47	-0.06	223	9.57	1.16	383	10.46	0.15
64	8.42	1.11	224	10.56	0.31	384	11.42	0.29
65	9.11	-0.02	225	12.23	0.00	385	11.58	0.15
66	11.46	0.24	226	11.47	0.18	386	9.65	1.36
67	11.14	0.32	227	9.70	-0.06	387	11.32	-0.20
68	9.20	1.16	228	10.63	-0.38	388	10.25	0.24
69	8.90	0.76	229	10.87	-0.42	389	9.36	0.88
70	9.10	-0.35	230	10.94	0.05	390	11.02	-0.12
71	8.38	1.70	231	7.89	1.85	391	9.78	0.24
72	9.81	-0.29	232	9.79	-0.32	392	9.51	-0.61
73	9.11	1.34	233	9.07	0.35	393	11.42	-0.62
74	11.27	0.07	234	9.95	-0.03	394	9.15	0.68
75	10.06	0.23	235	9.35	0.00	395	11.38	-0.15
76	8.91	0.73	236	10.94	0.87	396	10.96	-0.14
77	10.54	-0.44	237	9.32	-0.16	397	9.13	0.57
78	11.19	0.00	238	10.20	0.03	398	10.59	0.12
79	10.20	-0.35	239	9.13	1.08	399	11.17	0.42

Table 2 (continued)

No	V	B-V	No	V	B-V	No	V	B-V
80	9.75	-0.03	240	10.18	-0.48	400	10.14	-0.10
81	10.10	-0.19	241	9.88	-0.24	401	9.25	-0.22
82	11.23	-0.72	242	8.38	-0.06	402	10.85	0.28
83	10.76	-0.14	243	10.84	-0.16	403	10.08	0.23
84	10.08	-0.35	244	10.37	-0.20	404	8.81	0.64
85	11.78	-0.43	245	9.88	0.02	405	10.71	1.42
86	10.19	0.78	246	8.02	1.10	406	10.02	0.14
87	10.41	-0.44	247	8.96	1.17	407	9.53	0.09
88	10.99	0.33	248	8.01	0.72	408	7.41	-0.77
89	9.18	0.99	249	9.24	0.00	409	6.83	-0.72
90	10.42	1.22	250	9.30	-0.23	410	11.41	0.27
91	10.69	-0.15	251	11.54	0.11	411	9.10	1.99
92	10.23	-0.36	252	11.02	-0.31	412	9.76	0.46
93	11.06	-0.18	253	10.79	-0.08	413	10.06	-0.17
94	11.53	-0.28	254	9.10	1.60	414	11.01	0.19
95	8.98	0.05	255	9.46	0.42	415	7.73	-0.56
96	10.65	-0.26	256	9.79	0.84	416	10.64	0.41
97	10.24	-0.37	257	10.07	0.14	417	10.12	-0.10
98	10.16	0.16	258	9.15	0.01	418	7.73	-0.67
99	10.02	2.00	259	10.65	0.12	419	10.29	-0.09
100	9.82	-0.39	260	8.94	0.12	420	10.64	-0.19
101	8.46	-0.01	261	11.55	0.04	421	10.40	0.22
102	10.30	0.16	262	11.24	0.30	422	10.81	-0.31
103	9.90	-0.38	263	12.15	-0.30	423	10.39	0.08
104	8.87	-0.39	264	10.84	-0.04	424	10.91	0.14
105	9.65	0.07	265	11.23	0.74	425	9.23	0.27
106	9.59	-0.22	266	11.10	0.10	426	11.38	-0.16
107	8.62	-0.25	267	10.04	-0.02	427	9.51	1.17
108	11.50	0.64	268	11.24	-0.37	428	10.64	1.09
109	10.79	-0.13	269	10.42	-0.03	429	11.48	0.49
110	9.94	-0.09	270	9.75	0.87	430	10.16	-0.08
111	10.43	0.25	271	10.24	0.21	431	8.65	0.09
112	9.90	0.26	272	9.46	0.73	432	11.28	-0.37
113	9.51	1.63	273	8.80	0.75	433	10.44	-0.21
114	11.25	-0.02	274	10.04	-0.28	434	10.46	-0.16
115	9.82	-0.18	275	8.63	-1.82	435	11.06	-0.25
116	10.04	-0.10	276	9.69	-0.47	436	10.13	0.67
117	10.80	-0.08	277	11.18	-0.17	437	7.76	2.17
118	10.65	0.29	278	9.27	0.91	438	10.29	-0.07
119	8.32	1.36	279	8.91	1.35	439	9.95	0.34
120	10.67	-0.07	280	10.85	-0.34	440	10.66	0.18
121	8.34	0.32	281	10.74	0.40	441	8.74	0.33
122	10.01	0.23	282	10.05	-0.25	442	8.96	1.12
123	8.64	0.94	283	10.78	-0.39	443	9.29	0.45
124	8.79	1.93	284	10.12	-0.01	444	8.88	1.45
125	10.41	-0.18	285	10.96	-0.17	445	10.15	0.11
126	10.46	-0.53	286	9.21	0.03	446	11.17	-0.18
127	11.16	-0.09	287	11.12	-0.19	447	11.04	0.29
128	9.97	0.38	288	11.46	0.16	448	8.89	0.50
129	10.31	-0.30	289	10.86	0.13	449	10.68	0.19
130	10.56	-0.52	290	9.99	0.38	450	9.92	0.12
131	10.12	1.27	291	10.20	0.45	451	9.65	1.01
132	10.97	-0.42	292	9.84	-0.20	452	9.75	0.40
133	8.54	0.90	293	9.94	-0.16	453	10.81	0.40
134	10.58	0.01	294	9.44	0.54	454	9.40	1.89

Table 2. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
135	9.04	-0.28	295	11.46	-0.16	455	9.09	2.07
136	10.40	0.27	296	10.84	-0.06	456	11.38	0.15
137	12.34	0.06	297	9.46	0.77	457	9.74	1.72
138	10.11	0.94	298	11.05	0.23	458	11.41	-0.14
139	11.48	0.43	299	10.12	-0.36	459	11.56	-0.26
140	9.89	-0.24	300	9.37	0.56	460	10.61	-0.60
141	8.55	-0.30	301	9.63	1.27	461	10.37	-0.39
142	9.36	1.38	302	7.37	-0.61	462	9.37	0.81
143	8.51	0.65	303	10.19	-0.05	463	8.71	0.46
144	9.31	0.93	304	10.78	0.27	464	8.51	-0.54
145	10.57	0.49	305	10.18	1.45	465	11.55	0.05
146	10.42	0.12	306	11.20	0.31	466	11.59	-0.10
147	11.41	0.44	307	8.11	-0.46	467	10.37	-0.03
148	11.21	0.20	308	10.76	-0.37	468	7.92	-0.67
149	10.36	0.41	309	8.89	1.16	469	11.23	0.06
150	11.37	-0.12	310	10.55	0.31	470	9.23	0.58
151	8.59	-0.22	311	10.29	0.52	471	10.98	0.14
152	7.87	1.67	312	10.92	0.03	472	10.19	0.34
153	10.31	0.79	313	11.17	-0.30	473	10.34	0.35
154	9.49	-0.03	314	10.14	1.28	474	8.71	2.05
155	10.51	-0.26	315	10.15	-0.31	475	11.29	0.64
156	10.74	0.06	316	9.50	-0.43	476	10.48	0.35
157	11.29	-0.32	317	9.05	0.94	477	9.78	0.61
158	10.38	-0.22	318	9.18	0.72	478	8.95	1.92
159	10.52	-0.03	319	8.72	0.86			
160	10.03	-0.37	320	11.45	-0.18			

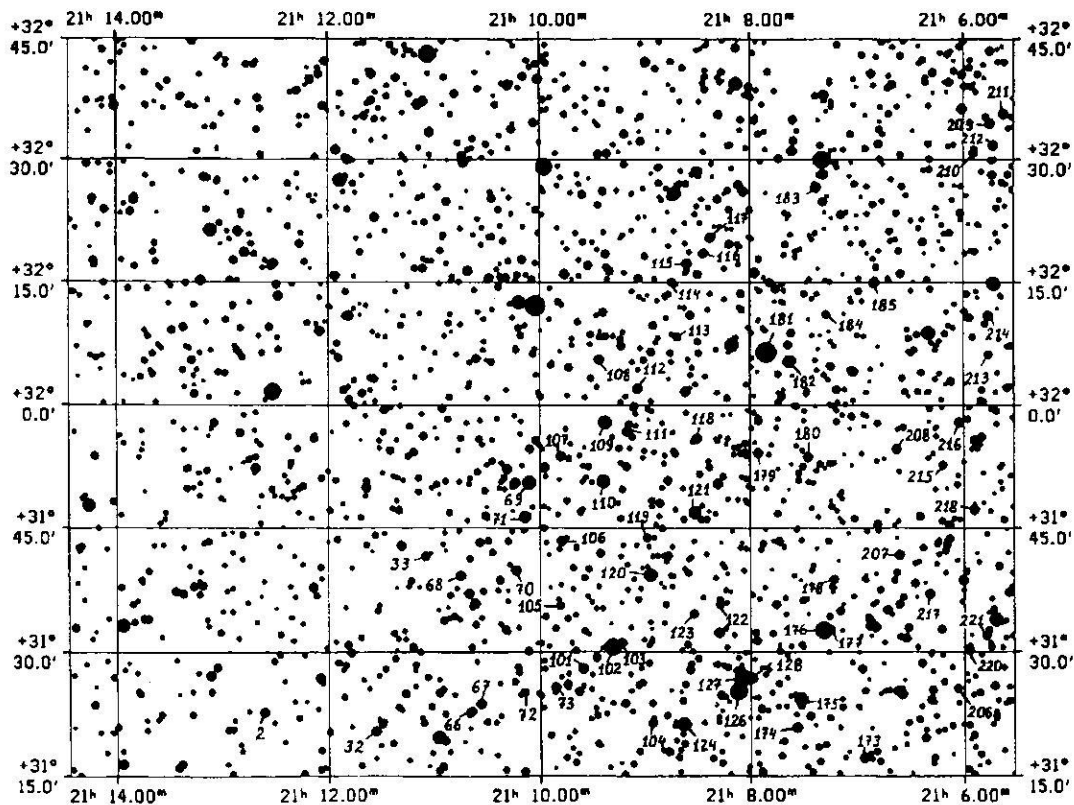


Fig. 11: KA-65, fragment 1

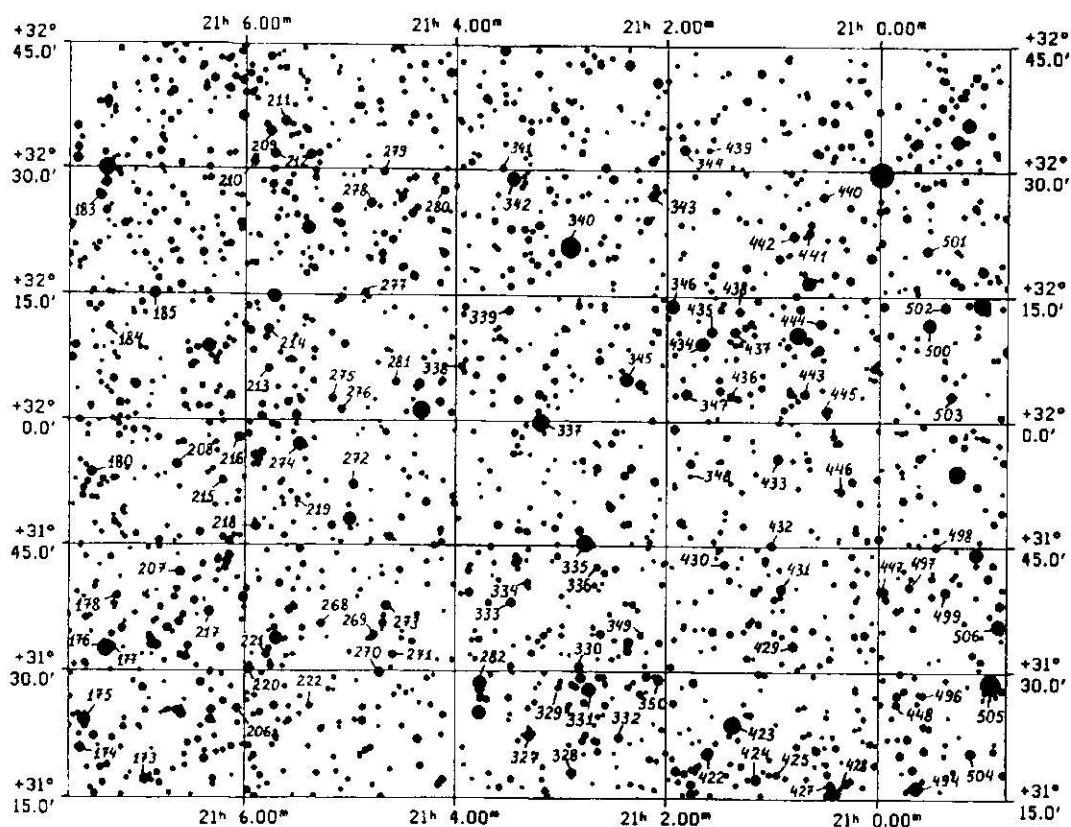


Fig. 12: KA-65, fragment 2

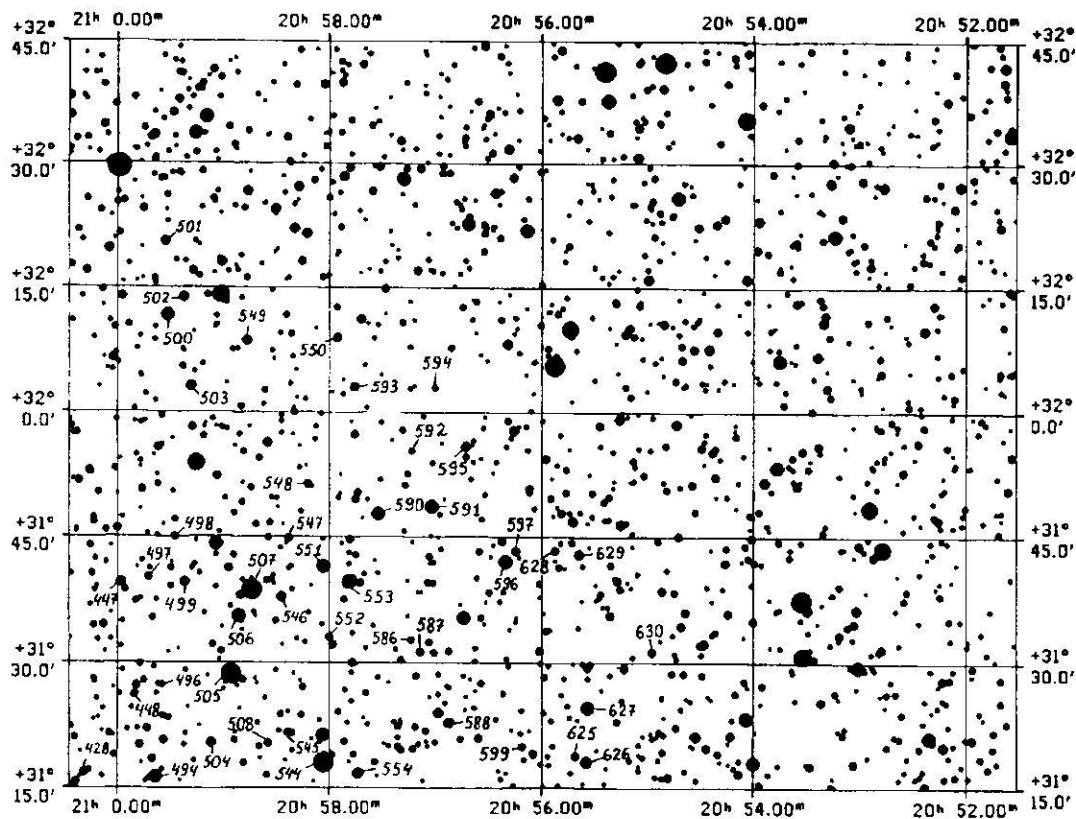


Fig. 13: KA-65, fragment 3

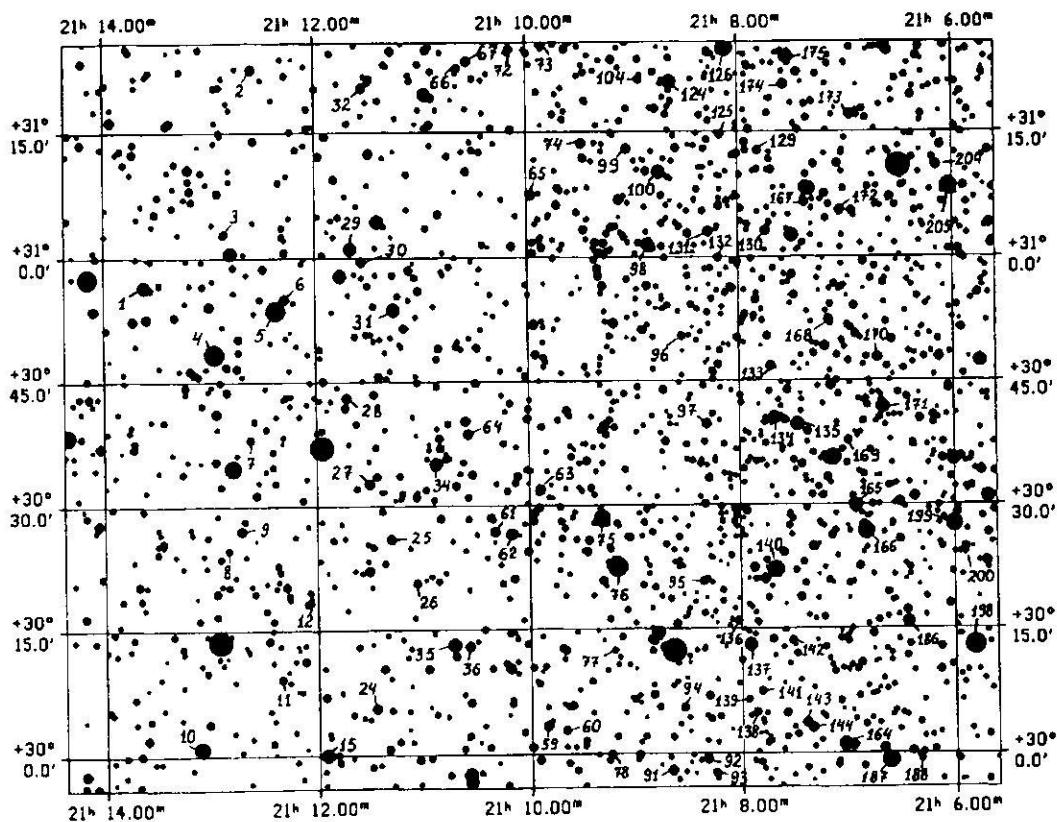


Fig. 14: KA-65, fragment 4

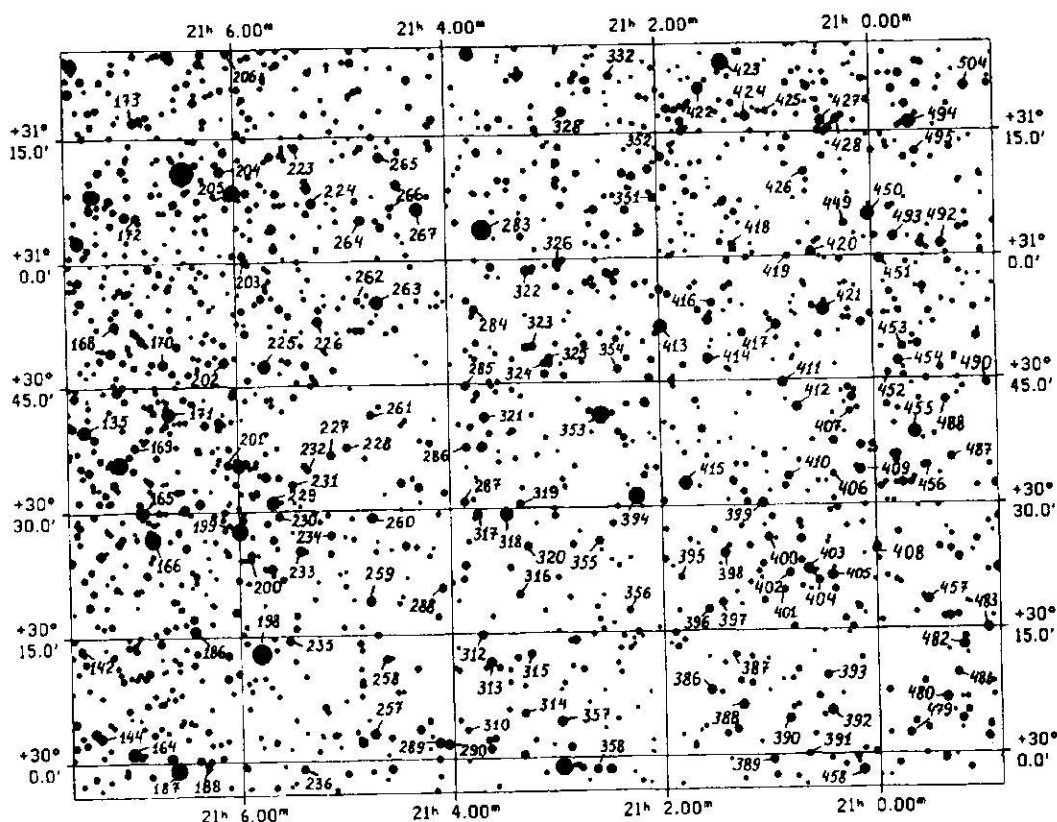


Fig. 15: KA-65, fragment 5

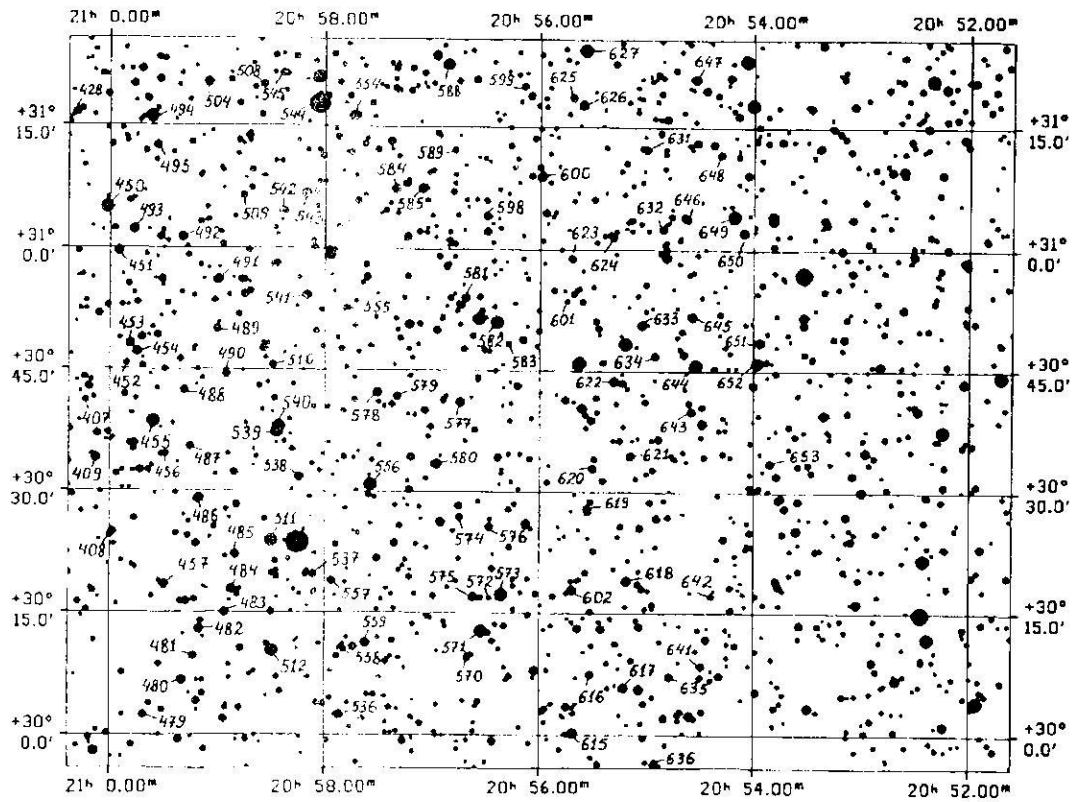


Fig. 16: KA-65, fragment 6

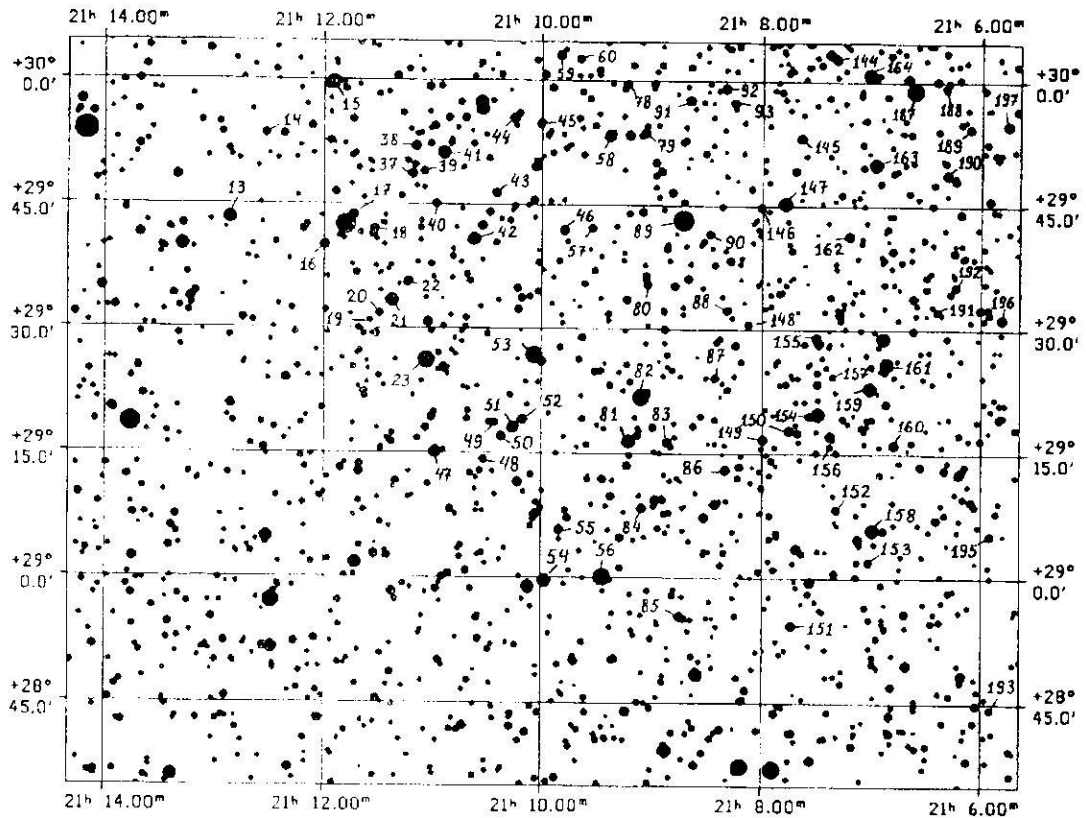


Fig. 17: KA-65, fragment 7

Table 3. Kapteyn area KA-65: magnitudes and color indices of stars

No	V	B-V	No	V	B-V	No	V	B-V
1	9.08	-0.12	219	11.12	0.00	438	10.87	-0.43
2	9.63	0.13	220	11.68	0.17	439	12.85	0.53
3	11.31	-0.47	221	11.49	0.25	440	11.09	0.18
4	7.46	0.58	222	11.76	0.15	441	11.81	-0.49
5	8.14	2.01	223	10.92	0.39	442	10.78	1.09
6	11.10	-0.29	224	10.08	0.78	443	11.13	0.18
7	11.07	0.80	225	9.16	0.14	444	10.23	0.81
8	11.01	0.98	226	10.84	1.79	445	11.41	0.23
9	9.62	0.82	227	11.35	0.18	446	11.38	0.61
10	8.21	1.40	228	10.97	0.27	447	9.81	1.63
11	11.52	0.12	229	10.78	0.17	448	10.52	0.18
12	12.08	0.06	230	10.94	-0.32	449	10.86	-0.12
13	10.02	0.11	231	11.10	1.40	450	9.63	0.32
14	11.50	-0.56	232	11.75	0.03	451	10.19	0.17
15	9.52	-0.45	233	10.16	1.08	452	11.90	0.21
16	10.81	-0.07	234	11.21	0.43	453	10.49	0.83
17	10.07	1.10	235	10.39	0.38	454	10.31	0.32
18	10.79	0.18	236	11.19	0.87	455	9.65	0.80
19	11.70	0.14	237	9.79	-0.29	456	11.52	0.21
20	10.81	-0.12	238	10.64	2.09	457	10.92	0.33
21	9.93	-0.16	239	11.78	1.05	458	10.73	0.18
22	11.36	-0.43	240	10.93	0.06	459	11.34	0.47
23	9.13	-0.17	241	10.49	0.83	460	11.19	1.02
24	11.02	1.42	242	11.92	0.10	461	11.17	1.36
25	10.39	1.16	243	8.11	1.88	462	9.23	0.19
26	11.46	0.20	244	12.12	0.14	463	10.62	0.45
27	10.92	0.27	245	11.71	0.47	464	10.58	-0.62
28	11.10	0.08	246	10.79	1.75	465	10.26	0.21
29	9.83	-0.30	247	9.31	1.01	466	10.76	0.99
30	11.40	1.46	248	11.00	0.91	467	12.67	1.17
31	9.66	0.23	249	10.14	0.71	468	10.52	0.59
32	10.22	-0.32	250	10.55	0.36	469	11.39	0.12
33	10.84	1.12	251	9.78	1.50	470	10.63	1.27
34	8.95	-0.11	252	11.91	0.26	471	11.27	0.38
35	9.85	0.04	253	9.97	1.19	472	10.37	0.59
36	10.84	0.03	254	11.59	0.05	473	11.06	-0.07
37	10.45	1.37	255	11.31	0.20	474	11.76	-0.07
38	11.14	1.34	256	10.32	1.20	475	10.23	0.35
39	11.38	0.08	257	10.51	0.32	476	12.33	0.16
40	11.19	-0.17	258	10.98	1.98	477	9.60	1.37
41	9.24	0.99	259	10.78	1.00	478	11.46	0.21
42	9.35	-0.56	260	10.30	1.72	479	11.20	0.06
43	11.24	0.03	261	11.75	1.21	480	10.94	0.95
44	11.31	1.09	262	11.90	0.21	481	11.47	0.67
45	11.71	-0.01	263	8.74	1.29	482	10.75	0.86
46	11.25	0.50	264	10.55	1.15	483	10.62	0.63
47	10.09	-0.19	265	9.98	-0.19	484	9.56	1.43
48	11.82	0.12	266	11.16	0.42	485	9.81	0.93
49	11.61	0.56	267	9.40	0.97	486	10.13	1.26
50	10.95	0.53	268	11.17	0.51	487	11.13	1.20
51	10.27	-0.66	269	11.38	0.71	488	11.61	0.39
52	11.13	-0.33	270	10.81	0.55	489	10.88	1.09
53	9.17	1.00	271	11.35	0.61	490	10.41	0.78
54	9.62	1.13	272	10.11	0.17	491	9.79	1.15

Table 3. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
55	10.68	0.73	273	10.19	0.20	492	10.24	0.19
56	8.76	-0.12	274	10.13	0.94	493	10.02	0.40
57	11.65	0.21	275	10.96	0.05	494	9.13	1.08
58	10.49	0.12	276	11.48	0.67	495	11.48	0.11
59	10.55	-0.25	277	11.21	0.21	496	11.88	0.23
60	11.72	-0.02	278	10.90	-0.10	497	11.23	0.02
61	11.21	0.48	279	11.30	1.11	498	11.12	-0.37
62	10.19	0.27	280	11.34	-0.26	499	10.85	-0.05
63	10.74	0.84	281	11.42	0.02	500	9.66	-0.51
64	10.77	-0.25	282	9.08	0.58	501	9.80	0.25
65	10.59	-0.30	283	7.68	1.48	502	10.87	0.23
66	11.38	-0.30	284	11.34	0.23	503	10.73	0.13
67	10.44	0.76	285	10.84	1.13	504	10.40	1.66
68	10.52	-0.23	286	11.05	2.07	505	7.85	2.02
69	10.32	0.87	287	11.49	1.90	506	9.88	0.82
70	10.54	1.58	288	11.77	1.18	507	7.39	-0.22
71	10.77	0.27	289	10.33	-0.19	508	11.61	0.18
72	11.52	0.10	290	9.84	-0.13	509	11.08	-0.49
73	10.90	-0.20	291	10.43	-0.05	510	11.06	0.65
74	11.35	0.89	292	10.29	1.10	511	9.34	0.49
75	9.36	0.14	293	10.48	0.28	512	9.61	-0.03
76	8.13	0.43	294	11.17	1.50	513	11.40	0.66
77	11.89	-0.02	295	7.23	0.74	514	9.80	0.28
78	11.64	0.04	296	10.02	-0.11	515	11.62	0.56
79	11.19	0.78	297	9.13	0.64	516	11.44	0.55
80	12.12	0.13	298	7.90	0.66	517	10.04	1.45
81	9.89	0.59	299	11.30	0.25	518	10.58	0.23
82	9.24	0.72	300	10.86	-0.12	519	11.71	0.74
83	10.90	0.57	302	11.03	1.32	520	11.44	0.13
84	10.58	0.77	303	10.93	0.06	521	10.16	1.34
85	10.92	1.35	304	12.10	0.64	522	10.92	-0.02
86	10.06	-0.31	305	9.81	1.80	523	9.25	0.78
87	10.95	0.21	306	11.04	0.45	524	9.75	0.82
88	11.51	0.45	307	11.11	-0.11	525	11.86	1.07
89	8.00	1.63	308	9.90	0.98	526	11.00	0.28
90	11.35	1.45	309	10.34	1.71	527	8.36	0.86
91	10.61	0.05	310	12.06	0.31	528	8.31	-0.11
92	10.77	0.01	311	11.21	0.97	529	10.98	1.69
93	11.52	0.48	312	11.11	0.50	530	8.34	-0.24
94	11.96	-0.08	313	10.87	1.48	531	10.98	0.24
95	11.02	-0.06	314	11.09	0.37	532	11.09	0.56
96	10.48	0.28	315	11.30	0.42	533	10.86	-0.16
97	10.81	1.10	316	11.63	1.46	534	11.30	0.93
98	10.42	0.27	317	10.43	0.22	535	11.95	0.30
99	11.17	0.21	318	9.16	0.50	536	10.88	0.31
100	10.05	-0.11	319	11.63	0.47	537	11.52	1.01
101	10.55	0.20	320	11.24	0.93	538	11.10	1.75
102	8.78	0.49	321	10.24	0.98	539	9.16	0.77
103	11.03	0.39	322	10.03	0.14	540	9.44	1.26
104	10.65	0.13	323	10.89	0.44	541	10.18	1.54
105	11.25	-0.04	324	11.97	0.18	542	11.27	0.28
106	10.67	0.45	325	12.54	0.55	543	10.69	1.24
107	10.37	0.67	326	10.43	1.21	544	7.76	1.84
108	10.90	-0.81	327	10.76	0.26	545	11.62	0.40
109	10.32	-0.24	328	10.18	0.25	546	10.28	0.99

Table 3. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
110	9.64	-0.03	329	10.95	0.27	547	11.13	1.23
111	10.73	-0.77	330	10.98	0.45	548	11.42	1.72
112	10.02	-0.12	331	9.03	-0.42	549	10.48	0.92
113	11.75	1.31	332	11.77	0.59	550	11.20	0.15
114	11.51	-0.08	333	10.71	1.04	551	9.82	1.35
115	11.39	0.10	334	12.01	0.33	552	11.48	-0.29
116	11.18	0.64	335	8.76	1.48	553	9.08	1.59
117	10.73	1.05	336	12.03	-0.02	554	9.84	0.95
118	10.63	0.02	337	8.11	1.29	555	11.23	1.36
119	11.73	-0.49	338	10.67	-0.20	556	9.84	1.08
120	9.93	0.74	339	10.56	0.20	557	11.77	0.24
121	9.01	1.68	340	7.19	1.56	558	10.35	0.12
122	11.49	-0.09	341	11.87	0.20	559	10.40	0.65
123	11.07	-0.12	342	9.90	-0.14	560	8.89	1.45
124	9.31	1.09	343	10.74	0.01	561	10.14	0.11
125	11.27	-0.04	344	10.40	0.70	562	10.76	2.19
126	9.65	1.28	345	9.79.0.93		563	10.54	0.95
127	9.03	1.87	346	8.92	-0.49	564	11.44	0.08
128	10.86	1.36	347	11.09	1.92	565	10.25	1.73
129	11.87	0.68	348	13.45	0.04	566	10.52	0.40
130	11.22	0.51	349	12.22	0.26	567	10.33	-0.22
131	11.13	0.95	350	10.58	0.88	568	10.74	1.36
132	11.29	0.33	351	11.26	0.38	569	9.32	0.97
133	10.05	-0.01	352	11.15	1.41	570	11.58	0.32
134	9.99	1.33	353	8.65	0.70	571	10.22	0.78
135	8.89	0.39	354	11.01	0.29	572	12.38	0.74
136	11.14	0.28	355	11.62	1.76	573	8.89	0.01
137	9.60	0.28	356	11.95	0.54	574	11.39	-0.07
138	11.18	2.07	357	8.80	1.31	575	10.11	1.10
139	11.89	-0.02	358	10.51	0.87	576	11.03	0.32
140	9.00	0.70	359	11.68	0.52	577	9.80	-0.13
141	11.35	0.64	360	10.90	1.76	578	11.00	0.51
142	11.10	0.98	361	10.50	1.85	579	11.08	0.21
143	9.83	1.75	362	11.56	0.70	580	10.62	-0.05
144	10.26	1.77	363	10.25	1.58	581	11.03	-0.13
145	11.07	1.28	364	10.66	1.89	582	9.30	1.10
146	11.31	1.77	365	10.42	0.01	583	11.76	0.16
147	9.72	0.99	366	10.09	0.75	584	10.78	1.63
148	11.11	0.19	367	10.26	-0.43	585	10.19	0.92
149	11.13	1.02	368	10.13	-0.99	586	12.01	0.09
150	9.99	0.72	369	10.37	0.80	587	11.42	-0.25
151	10.19	1.46	370	11.34	0.14	588	10.35	0.91
152	11.54	0.00	371	11.26	1.70	589	11.91	1.35
153	10.56	0.83	372	11.59	1.39	590	9.99	1.73
154	10.66	0.54	373	11.39	1.01	591	9.69	0.38
155	10.13	-0.49	374	11.44	1.50	592	11.87	0.22
156	12.42	0.51	375	8.79	1.35	593	10.65	-0.11
157	11.73	-0.11	376	10.44	1.53	594	11.95	-0.05
158	10.32	1.47	377	9.77	0.39	595	10.10	0.07
159	10.33	1.10	378	11.81	1.56	596	9.80	1.21
160	10.81	0.98	379	10.40	1.10	597	10.71	0.06
161	9.67	1.65	380	11.79	0.06	598	11.57	-0.03
162	10.99	0.31	381	10.51	0.96	599	11.51	0.48
163	10.38	0.12	382	12.17	0.37	600	10.71	-0.46
164	10.21	0.58	383	8.91	0.34	601	13.22	0.22

Table 3. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
166	8.96	1.09	385	8.71	1.96	603	11.01	0.43
167	11.80	0.39	386	10.86	1.06	604	9.67	1.94
168	9.80	0.58	387	12.23	0.16	605	11.07	2.10
169	11.21	0.70	388	10.64	-0.20	606	11.14	0.01
170	10.85	0.12	389	11.04	0.26	607	10.70	1.08
171	9.97	1.86	390	11.56	0.73	608	10.30	0.73
172	11.37	0.30	391	11.69	0.54	609	11.37	0.12
173	10.84	0.02	392	10.31	0.38	610	11.28	-0.22
174	10.45	0.31	393	11.17	-0.22	611	10.32	-0.72
175	10.51	1.63	394	8.03	0.15	612	11.30	-0.14
176	8.79	1.23	395	11.65	0.56	613	8.93	-0.57
177	10.84	0.28	396	11.13	1.91	614	10.39	1.11
178	11.83	0.45	397	11.55	0.45	615	10.60	0.75
179	11.01	0.30	398	10.44	0.32	616	11.38	0.50
180	10.00	-0.04	399	10.32	0.48	617	10.13	1.12
181	8.27	0.83	400	11.02	0.41	618	10.22	0.89
182	9.47	0.01	401	11.94	0.50	619	11.37	0.23
183	10.59	0.15	402	11.53	0.59	620	11.11	0.37
184	11.40	0.17	403	10.13	1.55	621	11.52	0.06
185	10.45	0.32	404	11.26	0.54	622	10.46	0.52
186	9.51	0.18	405	9.94	0.36	623	11.32	-0.42
187	9.44	0.21	406	11.91	0.28	624	11.59	-0.49
188	11.27	0.12	407	12.57	0.78	625	11.49	0.42
189	10.76	0.14	408	12.17	0.58	626	10.33	1.05
190	10.12	1.23	409	10.98	1.10	627	10.12	1.40
191	10.77	1.33	410	11.59	0.79	628	11.05	0.00
192	10.99	0.43	411	10.29	1.37	629	10.36	0.30
193	11.78	0.04	412	10.46	1.20	630	11.21	0.31
194	10.31	1.30	413	9.36	0.44	631	11.14	0.72
195	11.25	1.00	414	10.02	-0.06	632	11.19	-0.42
196	10.55	0.21	415	9.47	0.62	633	10.57	1.42
197	11.69	0.87	416	11.14	1.40	634	11.08	0.32
198	8.85	1.94	417	10.54	0.29	635	11.06	-0.08
199	9.53	1.17	418	10.96	0.07	636	11.45	0.04
200	12.51	0.12	419	11.90	0.34	637	10.23	-0.35
201	11.35	0.39	420	9.94	2.20	638	11.22	-0.26
202	10.84	0.37	421	9.40	0.36	639	9.68	0.52
203	11.45	-0.08	422	9.70	1.05	640	11.30	-0.09
204	10.50	1.36	423	8.93	0.87	641	11.70	-0.11
205	8.68	1.66	424	9.94	-0.23	642	11.74	0.08
206	11.22	0.40	425	11.67	0.31	643	11.62	0.29
207	10.54	1.00	426	11.47	0.42	644	9.78	0.74
208	10.24	1.35	427	10.56	0.31	645	10.60	-0.15
209	10.47	0.40	428	11.63	0.04	646	11.51	-0.19
210	9.82	-0.19	429	9.84	0.94	647	10.33	0.46
211	10.40	1.48	430	11.39	0.80	648	11.02	0.99
212	10.31	0.88	431	10.65	-0.05	649	9.76	0.92
213	10.94	0.43	432	11.32	1.06	650	10.49	0.38
214	10.17	-0.34	433	9.96	-0.06	651	10.61	0.65
215	11.77	0.99	434	9.48	0.97	652	9.57	0.70
216	10.56	0.95	435	10.13	0.41	653	11.32	0.26
217	10.15	-0.01	436	11.29	0.39			
218	10.88	0.22	437	9.93	1.86			

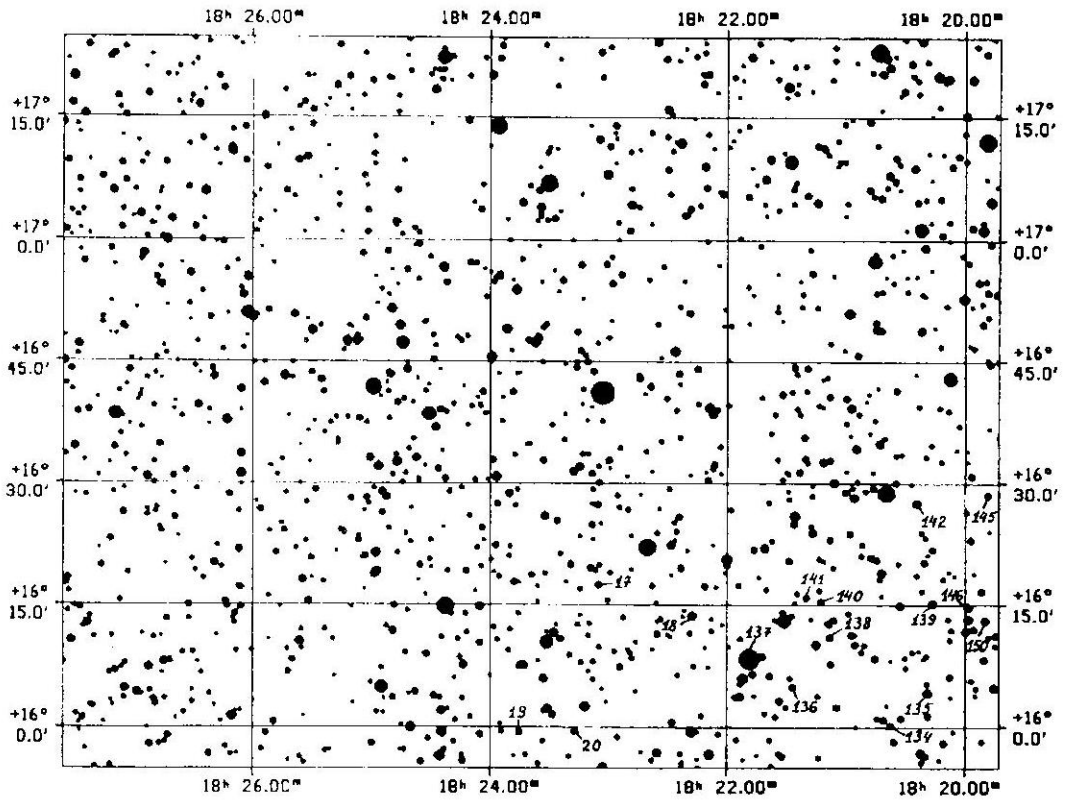


Fig. 20: KA-86, fragment 1

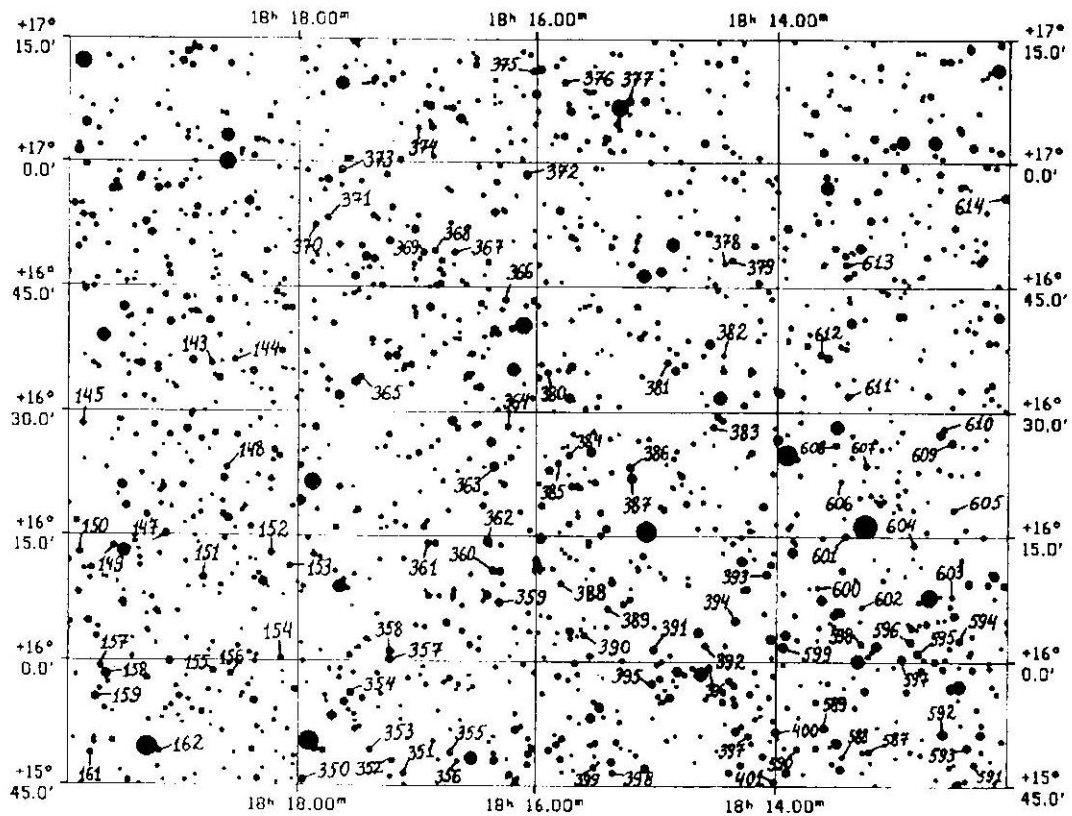


Fig. 21: KA-86, fragment 2

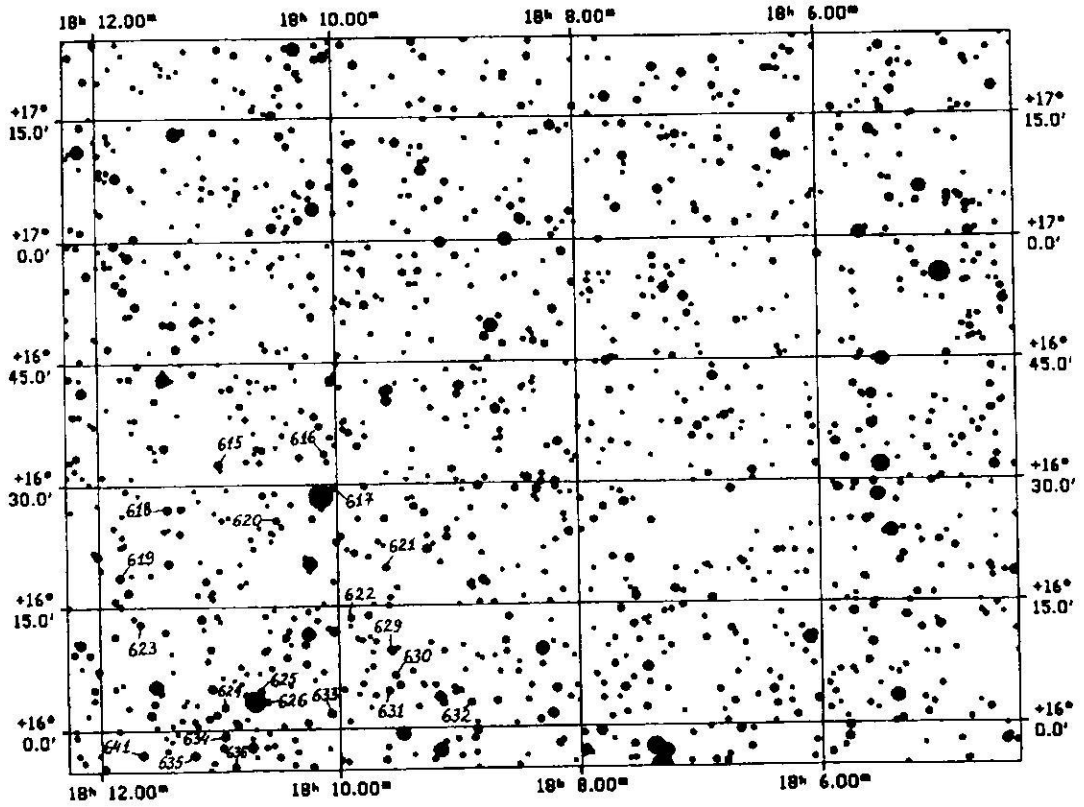


Fig. 22: KA-86, fragment 3

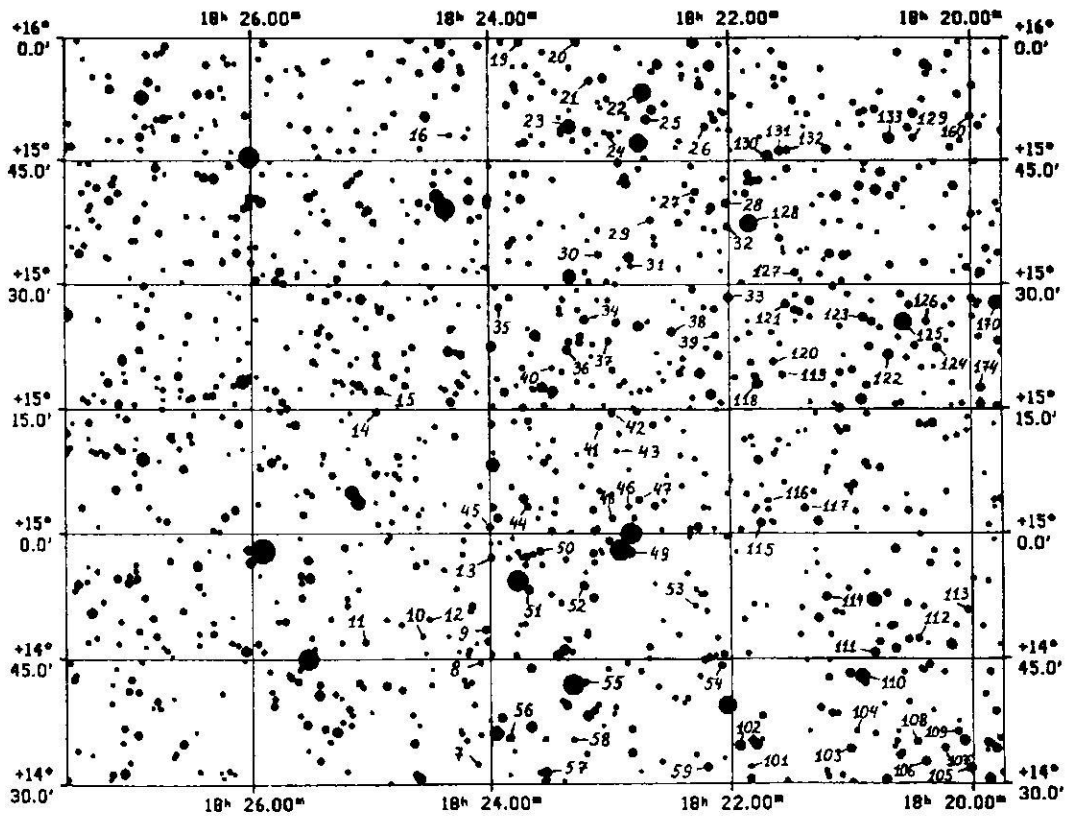


Fig. 23: KA-86, fragment 4

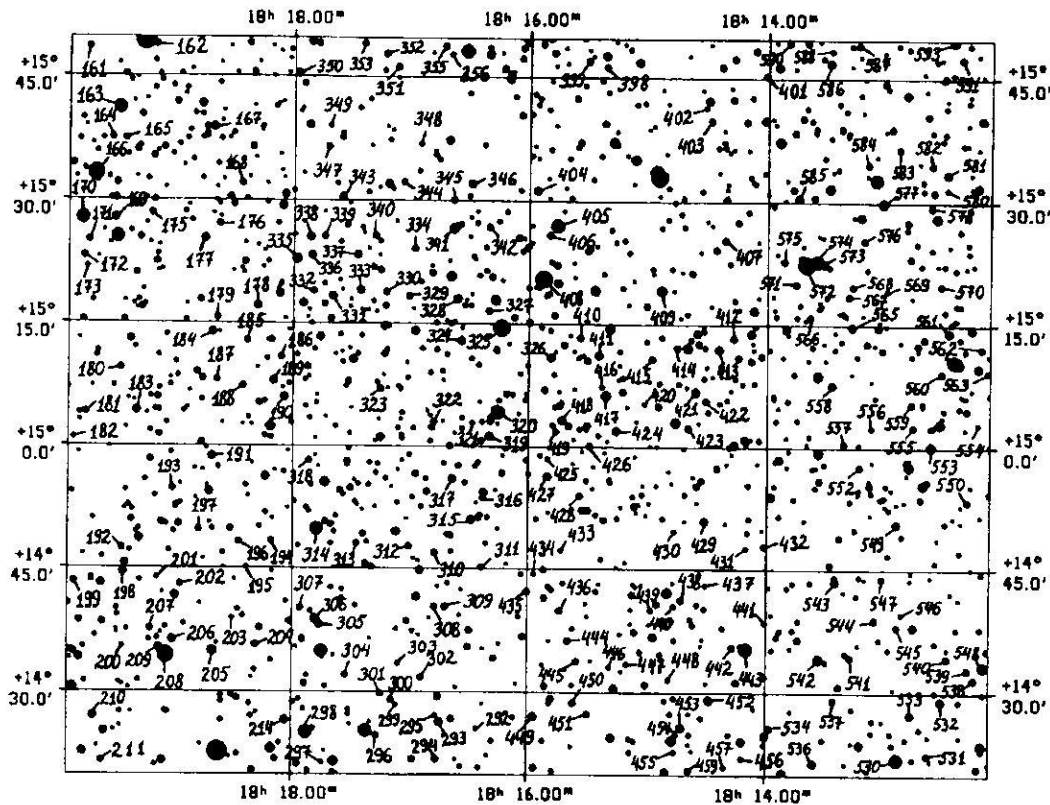


Fig. 24: KA-86, fragment 5

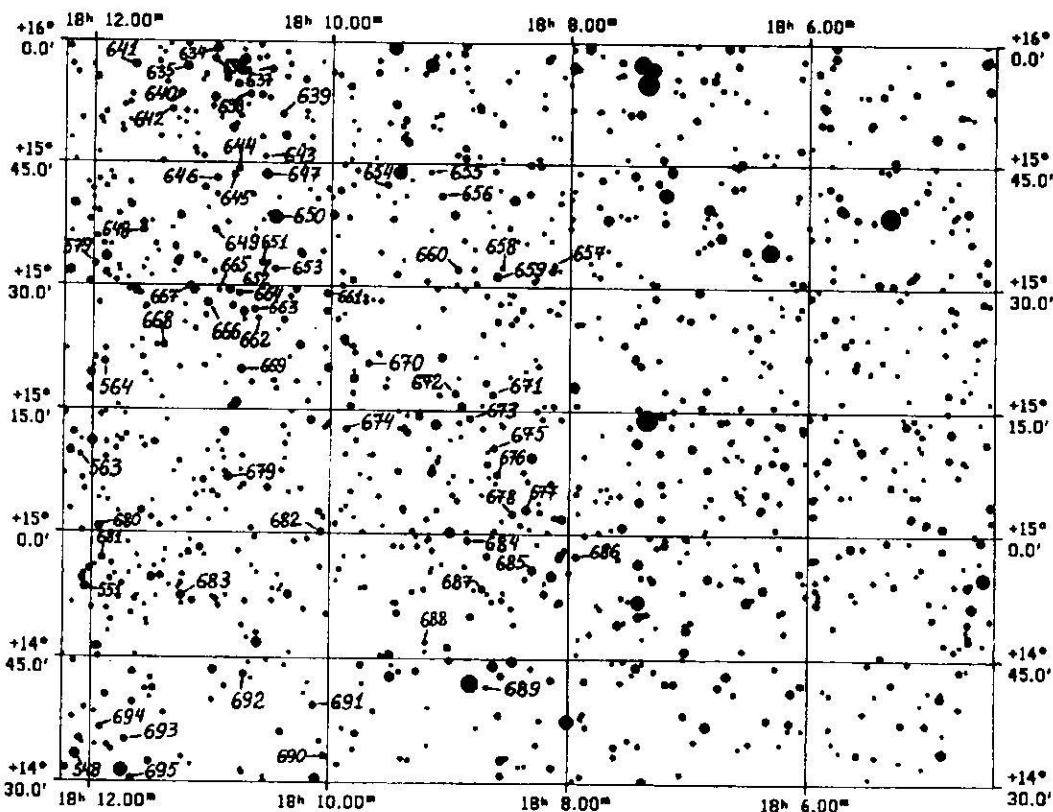


Fig. 25: KA-86, fragment 6

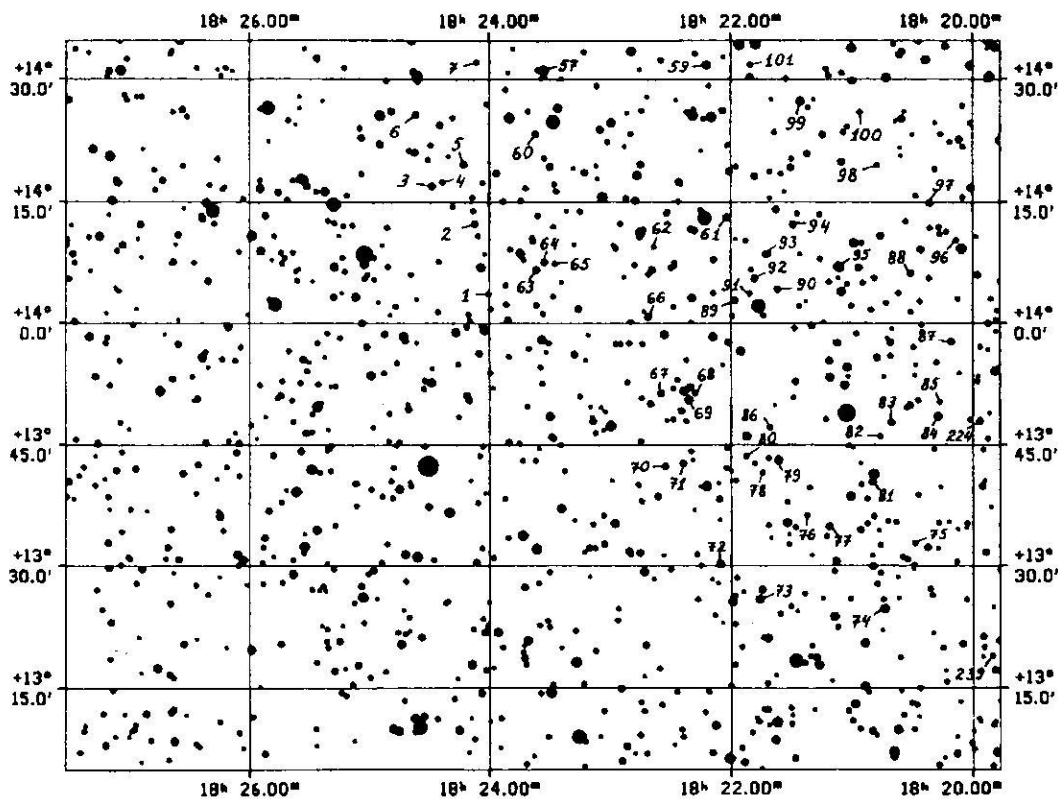


Fig. 26: KA-86, fragment 7

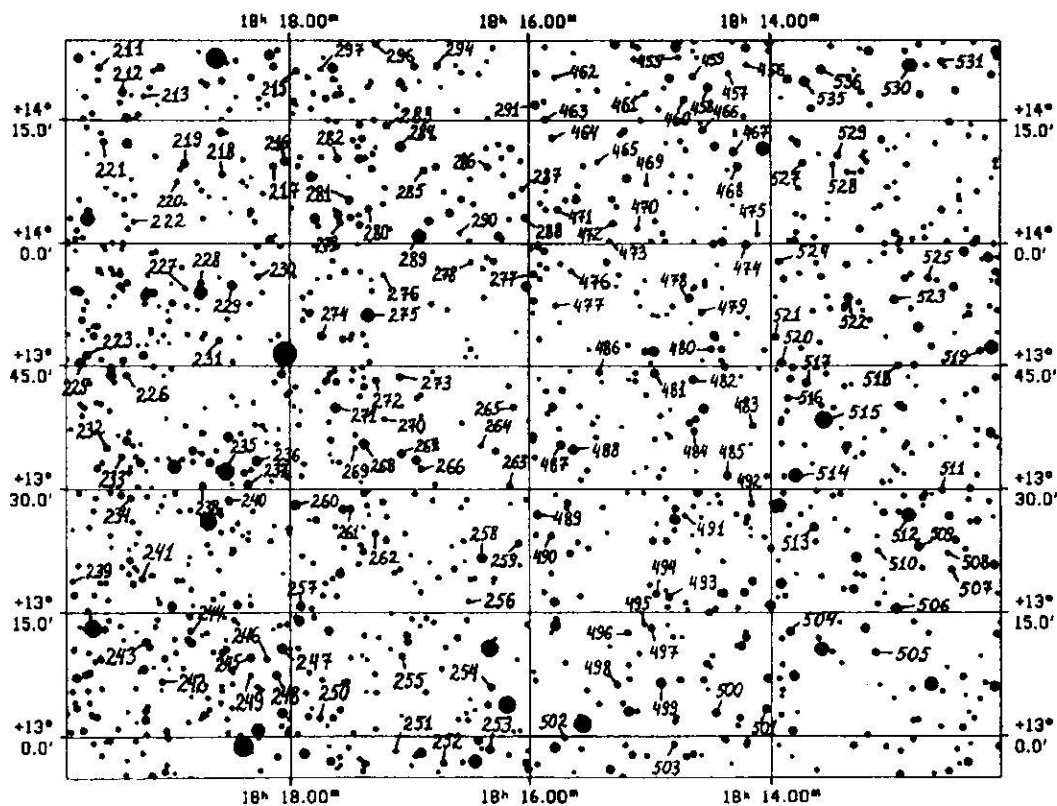


Fig. 27: KA-86, fragment 8

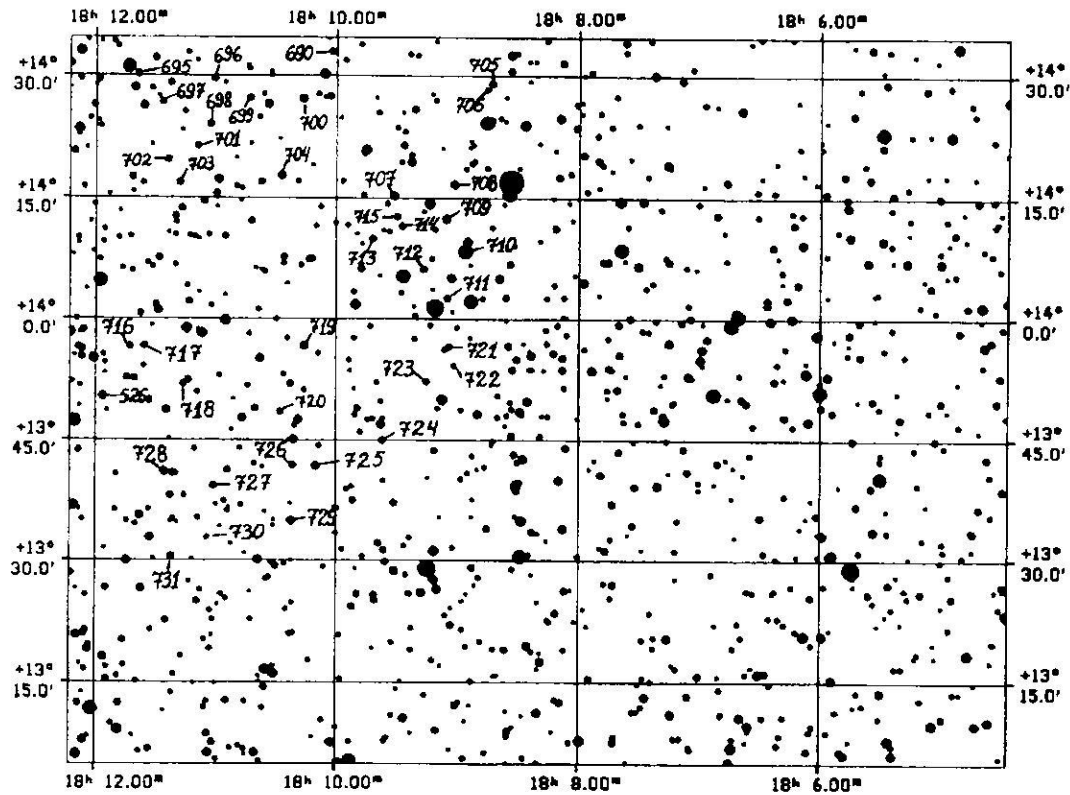


Fig. 28: KA-86, fragment 9

Table 4. Kapteyn Area KA-86: magnitudes and color indices of stars

No	V	B-V	No	V	B-V	No	V	B-V
1	13.22	1.73	246	12.64	0.47	491	12.79	1.26
2	11.54	0.90	247	9.73	0.66	492	12.16	1.46
3	11.56	1.98	248	10.80	2.39	493	11.88	1.44
4	13.04	0.96	249	12.46	0.64	494	12.50	1.20
5	12.71	1.07	250	11.89	0.11	495	12.60	0.72
6	12.58	1.76	251	12.05	2.25	496	11.15	0.57
7	12.87	1.98	252	11.68	0.64	497	12.17	0.35
8	12.60	2.06	253	11.20	1.18	498	12.29	1.24
9	12.71	1.44	254	12.30	0.99	499	10.06	1.88
10	13.01	0.60	255	12.04	0.21	500	10.98	0.94
11	10.95	0.71	256	12.27	0.86	501	10.64	2.48
12	12.69	1.64	257	11.78	1.27	502	12.73	0.59
13	11.18	0.55	258	9.71	1.84	503	12.27	1.73
14	12.01	0.70	259	11.38	0.87	504	10.62	1.12
15	11.27	1.60	260	9.49	1.08	505	11.68	0.67
16	12.49	0.60	261	11.93	0.44	506	9.73	2.53
17	11.63	2.31	262	11.20	0.94	507	12.42	0.67
18	11.27	1.85	263	11.53	2.13	508	12.71	0.78
19	12.70	0.36	264	12.27	2.09	509	11.03	1.07
20	12.53	1.15	265	12.84	1.68	510	12.69	0.63
21	11.79	1.12	266	11.55	1.28	511	12.79	-0.13
22	7.93	1.69	267	10.75	1.66	512	8.76	1.89
23	9.19	1.05	268	11.27	1.55	513	10.90	1.65
24	12.03	0.98	269	12.54	1.13	514	8.90	2.01
25	11.29	0.60	270	12.35	1.94	515	7.48	1.72

Table 4. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
26	12.42	1.40	271	11.04	1.82	516	12.57	1.36
27	12.26	1.10	272	11.31	1.66	517	10.32	2.48
28	11.32	1.50	273	11.53	0.20	518	12.63	0.21
29	12.12	2.11	274	11.75	1.25	519	11.52	0.84
30	12.47	0.93	275	9.39	1.47	520	11.56	1.56
31	12.83	0.73	276	12.81	1.54	521	12.81	1.22
32	12.01	1.10	277	12.56	1.87	522	11.16	0.77
33	11.07	1.74	278	13.21	0.74	523	11.72	0.36
34	11.41	1.73	279	12.06	1.73	524	11.96	1.57
35	12.35	2.31	280	12.37	1.16	525	11.95	1.72
36	11.70	1.55	281	11.92	0.87	526	11.25	1.65
37	12.01	1.12	282	12.79	0.71	527	12.28	1.00
38	10.68	2.12	283	11.96	0.59	528	12.53	0.98
39	12.74	0.59	284	9.16	1.77	529	12.21	1.68
40	13.21	1.68	285	11.70	1.41	530	8.88	0.82
41	12.90	1.79	286	11.46	2.00	531	12.72	1.17
42	12.69	1.43	287	12.80	1.00	532	11.30	1.89
43	12.76	1.04	288	11.80	2.00	533	11.53	2.07
44	13.05	1.70	289	8.58	1.79	534	12.28	0.63
45	13.29	0.23	290	12.73	0.95	535	9.87	1.45
46	12.83	1.86	291	10.05	1.50	536	10.78	1.52
47	12.17	1.56	292	12.45	0.66	537	12.18	1.51
48	12.08	1.49	293	11.23	1.24	538	12.23	0.91
49	9.93	1.61	294	12.06	1.25	539	11.92	0.95
50	12.55	0.51	295	13.03	-	540	11.73	1.09
51	11.00	1.33	296	12.27	1.38	541	12.64	1.85
52	10.63	2.46	297	12.55	1.47	542	9.89	0.72
53	12.93	1.65	298	9.04	0.51	543	10.88	1.27
54	11.92	1.47	299	12.80	1.68	544	12.66	1.91
55	11.72	1.76	300	11.44	1.26	545	12.90	1.35
56	12.32	1.39	301	11.23	1.41	546	13.16	0.57
57	9.93	2.02	302	12.35	1.15	547	11.80	0.91
58	12.63	-	303	12.71	0.54	548	9.84	1.17
59	11.19	0.56	304	12.33	1.15	549	11.68	1.38
60	11.94	1.78	305	11.03	1.77	550	12.82	1.23
61	11.93	0.28	306	10.42	1.94	551	11.58	0.91
62	12.87	0.65	307	11.56	2.33	552	12.36	0.81
63	11.72	1.77	308	12.14	0.87	553	10.38	1.80
64	11.83	0.32	309	12.12	0.90	554	13.25	1.39
65	12.50	0.64	310	11.04	0.85	555	12.67	0.61
66	11.29	0.88	311	11.93	0.76	556	13.16	1.09
67	11.91	1.17	312	11.39	0.53	557	12.00	1.78
68	13.09	1.42	313	12.57	2.31	558	11.58	0.88
69	11.05	1.05	314	10.36	1.36	559	12.58	0.68
70	12.35	1.31	315	11.97	0.73	560	11.73	1.12
71	11.30	0.71	316	11.93	1.58	561	11.83	0.94
72	11.11	1.28	317	11.09	1.06	562	12.48	0.41
73	10.63	0.71	318	12.76	1.44	563	12.80	0.76
74	10.72	1.61	319	11.84	0.94	564	12.18	0.64
75	12.72	1.75	320	9.20	1.54	565	11.62	1.78
76	12.61	1.47	321	13.03	0.41	566	12.18	0.47
77	12.04	1.62	322	12.11	1.35	567	12.99	1.46
78	13.19	-	323	11.64	2.06	568	12.79	0.76
79	10.75	2.10	324	11.34	1.43	569	12.89	0.70
80	13.03	-0.04	325	8.42	1.50	570	12.50	0.85

Table 4. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
81	12.10	1.32	326	11.59	2.34	571	12.59	1.63
82	12.44	1.13	327	12.58	1.97	572	8.33	0.67
83	12.17	1.67	328	11.15	1.55	573	11.72	1.12
84	10.52	2.27	329	12.15	1.71	574	8.99	0.67
85	12.81	0.77	330	12.39	1.04	575	12.52	0.73
86	13.16	0.65	331	12.19	2.22	576	12.19	0.98
87	11.25	1.31	332	12.51	1.65	577	10.66	2.07
88	12.39	0.91	333	11.43	1.78	578	11.52	1.27
89	11.68	1.44	334	11.96	0.90	579	11.91	0.84
90	12.09	1.18	335	10.38	1.68	580	13.00	1.26
91	12.85	0.43	336	11.84	0.55	581	10.87	1.05
92	12.20	0.51	337	11.50	0.78	582	12.25	0.59
93	12.45	1.52	338	12.17	1.05	583	12.76	1.61
94	12.19	1.03	339	12.60	1.56	584	12.00	1.43
95	9.70	1.25	340	12.61	1.97	585	12.02	1.18
96	12.45	0.60	341	10.63	1.43	586	11.36	1.21
97	12.50	0.28	342	12.20	1.29	587	12.79	1.16
98	12.82	0.50	343	11.01	1.42	588	13.12	1.85
99	11.52	1.93	344	12.17	2.16	589	10.85	1.08
100	12.70	1.40	345	12.42	1.13	590	12.38	0.62
101	12.50	0.50	346	11.98	1.50	591	13.01	0.92
102	10.04	1.36	347	12.25	1.85	592	10.45	0.51
103	10.57	2.11	348	12.76	1.74	593	11.84	0.53
104	12.54	1.69	349	13.07	1.55	594	12.61	0.82
105	11.77	1.56	350	11.54	0.90	595	11.71	0.26
106	11.57	1.83	351	12.62	1.01	596	11.63	0.67
107	12.48	1.79	352	11.52	0.94	597	11.15	0.39
108	11.62	1.35	353	12.11	2.02	598	12.46	0.77
109	12.68	0.78	354	11.79	1.60	599	9.67	2.27
110	9.54	1.56	355	12.84	1.36	600	13.24	0.93
111	11.63	2.13	356	12.75	1.59	601	12.42	2.32
112	12.48	1.61	357	11.22	1.15	602	12.74	1.32
113	12.03	1.05	358	11.57	2.06	603	12.93	1.13
114	11.15	0.35	359	11.32	1.19	604	12.35	0.39
115	11.43	0.90	360	11.06	2.07	605	12.16	1.92
116	12.74	1.53	361	12.19	1.70	606	13.18	1.08
117	12.30	1.57	362	10.51	0.50	607	12.48	1.75
118	10.61	1.55	363	9.59	1.72	608	12.44	2.01
119	12.02	2.17	364	12.76	0.66	609	10.59	0.89
120	13.05	1.68	365	12.26	0.87	610	11.99	0.24
121	11.49	0.79	366	12.73	0.76	611	12.89	1.81
122	10.64	0.57	367	12.61	0.65	612	12.40	0.87
123	11.56	1.92	368	12.60	0.68	613	12.24	0.48
124	10.98	1.62	369	12.72	0.70	614	11.43	2.51
125	8.26	0.47	370	11.31	2.10	615	11.67	1.39
126	12.74	2.19	371	12.00	2.35	616	12.47	1.27
127	12.07	1.02	372	10.68	2.39	617	11.60	1.21
128	7.73	0.86	373	10.97	1.17	618	11.33	1.29
129	12.14	1.82	374	11.58	0.45	619	11.01	-0.29
130	10.59	2.08	375	12.08	1.82	620	11.99	1.06
131	11.54	1.16	376	11.96	2.30	621	12.93	0.73
132	12.34	1.78	377	11.09	1.98	622	12.68	0.54
133	10.01	1.73	378	12.95	0.88	623	12.49	1.00
134	12.05	1.81	379	12.68	0.92	624	11.76	1.77
135	11.08	1.77	380	12.15	0.98	625	12.44	0.86

Table 4. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
136	12.06	0.79	381	12.42	1.18	626	12.63	1.97
137	7.60	1.31	382	11.52	-	627	12.42	0.74
138	11.81	1.72	383	12.22	0.91	628	12.01	-0.32
139	11.11	1.60	384	11.39	2.50	629	11.41	1.65
140	11.97	1.55	385	12.11	1.04	630	12.47	0.45
141	11.71	0.70	386	10.12	2.52	631	11.88	0.24
142	10.71	1.97	387	10.45	1.62	632	12.77	0.83
143	11.93	1.09	388	12.66	1.44	633	10.95	1.32
144	11.94	1.57	389	12.64	1.93	634	11.11	0.83
145	12.20	0.75	390	12.45	1.35	635	11.41	1.83
146	10.95	2.06	391	10.47	1.16	636	12.43	1.78
147	10.82	1.92	392	12.06	2.12	637	12.23	0.52
148	11.68	0.72	393	11.23	1.14	638	12.37	1.66
149	12.00	-0.04	394	11.89	1.33	639	12.44	0.44
150	12.53	1.78	395	11.30	0.54	640	12.70	1.96
151	11.03	2.15	396	12.58	1.19	641	10.93	1.17
152	12.83	1.72	397	12.07	0.73	642	11.90	0.88
153	11.92	0.96	398	12.72	0.81	643	12.94	1.11
154	12.49	1.70	399	12.18	2.37	644	12.71	1.20
155	12.60	0.61	400	10.41	2.00	645	12.88	1.54
156	12.80	0.49	401	12.05	1.98	646	12.66	1.17
157	12.01	0.59	402	13.16	1.18	647	9.90	2.35
158	10.42	2.00	403	12.59	1.23	648	12.31	0.34
159	11.08	1.89	404	10.60	1.29	649	12.57	0.92
160	12.11	1.79	405	9.30	1.47	650	8.75	1.95
161	12.06	2.15	406	12.50	0.84	651	11.08	1.41
162	12.18	1.78	407	12.71	0.82	652	12.33	0.62
163	9.61	1.07	408	8.08	1.22	653	12.35	0.57
164	12.71	0.32	409	10.42	0.57	654	11.58	1.24
165	12.39	1.53	410	11.70	0.51	655	13.00	0.31
166	8.55	1.26	411	11.30	0.69	656	12.34	1.86
167	11.46	0.66	412	12.11	1.28	657	12.70	0.65
168	12.30	0.89	413	12.47	0.68	658	12.49	2.00
169	11.47	0.66	414	12.88	1.17	659	10.30	1.18
170	9.39	2.23	415	12.47	1.06	660	12.11	1.36
171	12.33	1.03	416	12.85	1.18	661	11.71	0.77
172	12.02	1.44	417	10.17	1.58	662	12.88	0.27
173	13.26	0.81	418	11.71	2.09	663	12.73	0.32
174	11.54	0.65	419	12.75	1.67	664	12.85	2.05
175	12.08	0.84	420	13.11	0.95	665	13.11	0.92
176	12.58	1.06	421	11.37	1.34	666	11.02	1.53
177	11.05	0.85	422	12.10	0.95	667	11.15	1.09
178	11.69	1.49	423	12.13	0.21	668	11.73	1.41
179	12.08	2.30	424	11.46	1.22	669	10.67	0.87
180	12.47	1.53	425	13.37	0.71	670	12.20	1.07
181	12.69	1.66	426	11.63	0.71	671	12.60	0.61
182	12.63	0.97	427	10.50	1.03	672	12.62	0.29
183	11.26	1.39	428	11.65	2.06	673	12.39	1.28
184	11.84	0.93	429	12.13	0.49	674	11.49	2.25
185	12.31	1.97	430	13.06	0.50	675	12.54	0.42
186	12.40	0.91	431	12.89	1.20	676	11.93	2.43
187	12.26	0.86	432	12.48	1.31	677	11.13	1.50
188	12.13	1.92	433	12.61	1.20	678	12.43	0.18
189	11.31	0.97	434	12.48	0.65	679	11.15	2.22
190	12.49	1.55	435	11.52	1.17	680	11.81	1.59

Table 4. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
191	11.96	1.55	436	12.19	1.07	681	12.39	1.00
192	12.16	1.24	437	12.99	0.86	682	12.62	0.56
193	12.16	1.36	438	12.32	1.42	683	10.48	1.55
194	12.10	1.41	439	12.53	1.19	684	11.94	1.51
195	12.37	0.85	440	12.71	0.77	685	10.64	1.26
196	12.40	0.45	441	12.98	1.27	686	12.54	1.10
197	12.21	0.55	442	12.68	1.32	687	11.56	0.96
198	10.98	1.45	443	8.93	1.55	688	12.28	0.85
199	12.57	0.65	444	11.54	1.18	689	12.92	1.47
200	13.31	0.61	445	12.12	0.63	690	12.50	0.95
201	12.66	0.41	446	12.85	1.69	691	11.75	1.87
202	11.56	0.96	447	13.02	0.55	692	12.31	0.53
203	12.82	1.23	448	12.56	2.08	693	12.13	0.90
204	11.73	1.86	449	10.46	0.73	694	12.01	0.71
205	10.39	0.19	450	11.82	0.61	695	12.24	1.53
206	11.60	0.62	451	12.10	1.81	696	12.37	0.84
207	12.29	1.25	452	11.20	0.69	697	12.09	1.64
208	7.97	1.44	453	10.80	0.58	698	12.13	0.59
209	11.00	0.41	454	12.67	0.84	699	12.12	1.70
210	10.55	1.09	455	12.79	0.47	700	10.27	1.96
211	12.05	0.75	456	12.67	0.88	701	12.08	0.24
212	11.50	1.82	457	12.94	0.51	702	12.05	2.03
213	12.26	1.17	458	10.12	1.36	703	11.73	0.69
214	11.59	0.86	459	11.21	1.25	704	10.74	2.22
215	12.45	1.88	460	11.33	1.19	705	12.41	0.65
216	10.99	2.56	461	12.56	0.99	706	12.16	1.52
217	11.73	0.92	462	12.66	0.10	707	10.05	2.78
218	11.82	0.92	463	12.51	1.42	708	10.54	2.18
219	10.97	1.44	464	12.67	1.19	709	10.32	1.72
220	12.67	0.86	465	13.06	0.44	710	8.65	2.49
221	11.84	0.59	466	12.13	2.16	711	11.33	2.18
222	12.63	1.42	467	11.38	2.04	712	12.41	1.31
223	11.56	2.12	468	11.46	2.01	713	12.46	1.76
224	11.47	2.23	469	12.77	1.54	714	12.12	0.99
225	10.71	2.34	470	13.12	0.89	715	12.19	0.88
226	12.56	1.28	471	11.79	0.52	716	12.58	1.27
227	12.90	0.54	472	12.58	0.46	717	12.44	0.84
228	12.39	0.85	473	12.89	0.61	718	12.22	0.57
229	9.83	2.06	474	10.94	1.03	719	11.08	1.98
230	12.30	1.15	475	12.84	1.55	720	12.66	0.91
231	12.52	0.29	476	12.39	2.06	721	12.26	0.23
232	12.22	1.77	477	12.71	0.62	722	12.76	1.59
233	12.53	0.92	478	11.51	1.04	723	12.37	1.31
234	12.44	1.26	479	12.55	0.47	724	11.52	1.82
235	8.45	2.18	480	12.32	0.47	725	11.40	1.55
236	9.89	1.74	481	10.77	2.17	726	12.20	1.93
237	11.49	0.85	482	11.38	1.45	727	12.08	0.83
238	11.61	1.01	483	11.97	0.40	728	11.73	1.30
239	12.78	0.63	484	12.13	0.85	729	11.36	1.73
240	10.76	1.80	485	10.44	1.92	730	12.80	0.40
241	12.42	1.72	486	12.32	0.73	731	11.58	2.15
242	12.96	0.22	487	11.01	1.37			
243	11.23	1.85	488	10.36	1.23			
244	12.26	0.59	489	10.63	1.63			
245	10.82	2.12	490	12.22	1.35			

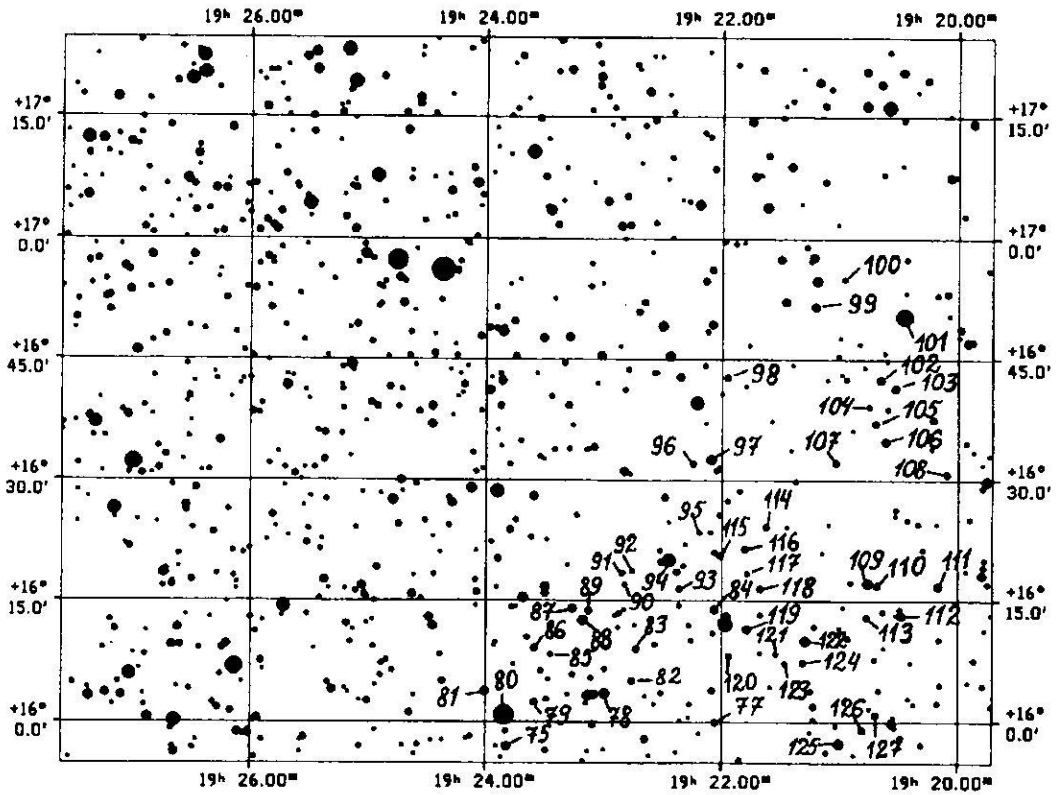


Fig. 29: KA-87, fragment 1

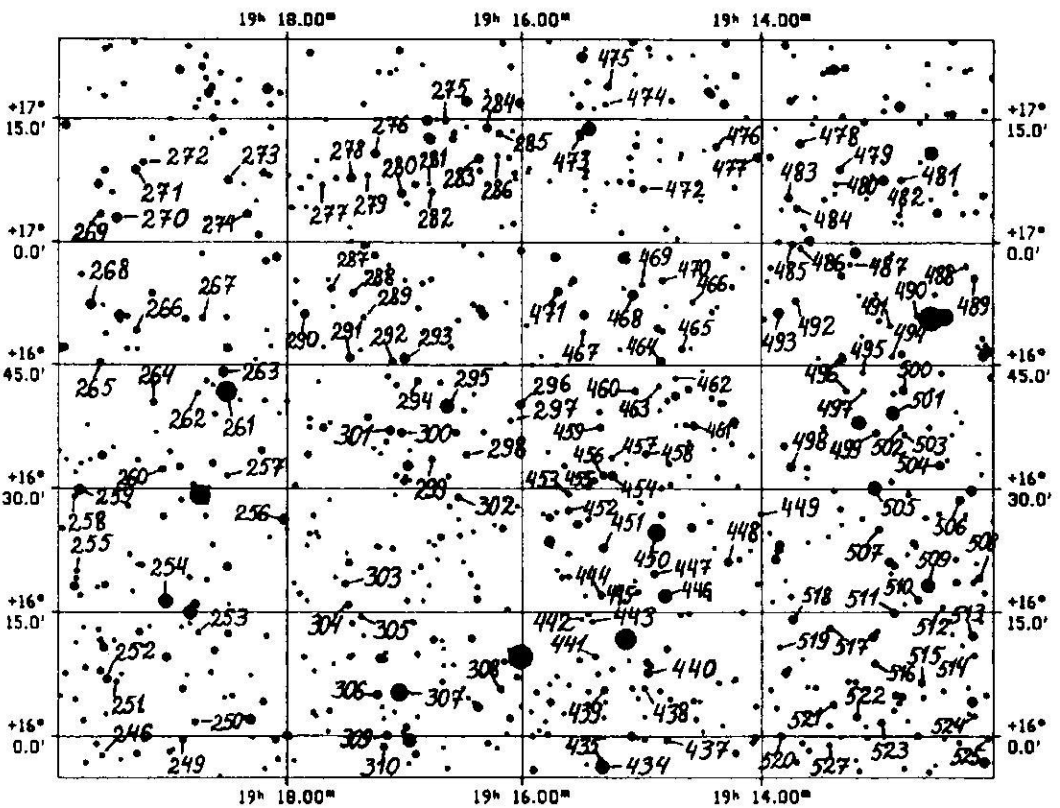


Fig. 30: KA-87, fragment 2

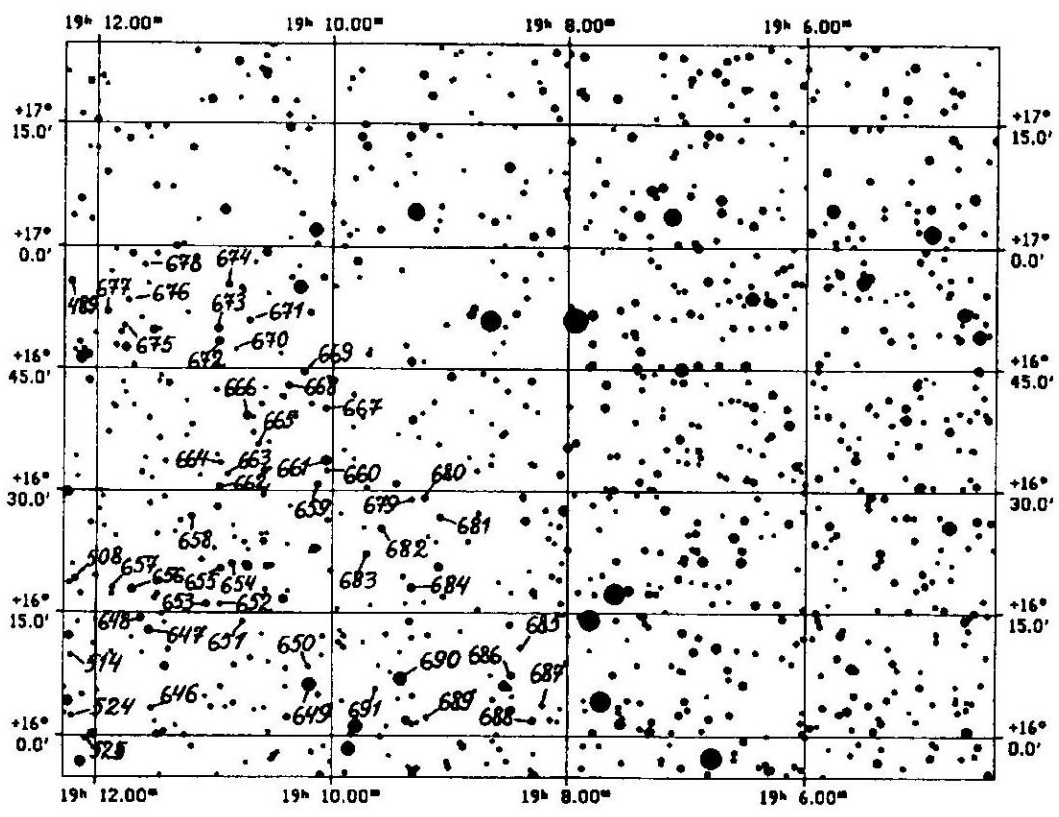


Fig. 31: KA-87, fragment 3

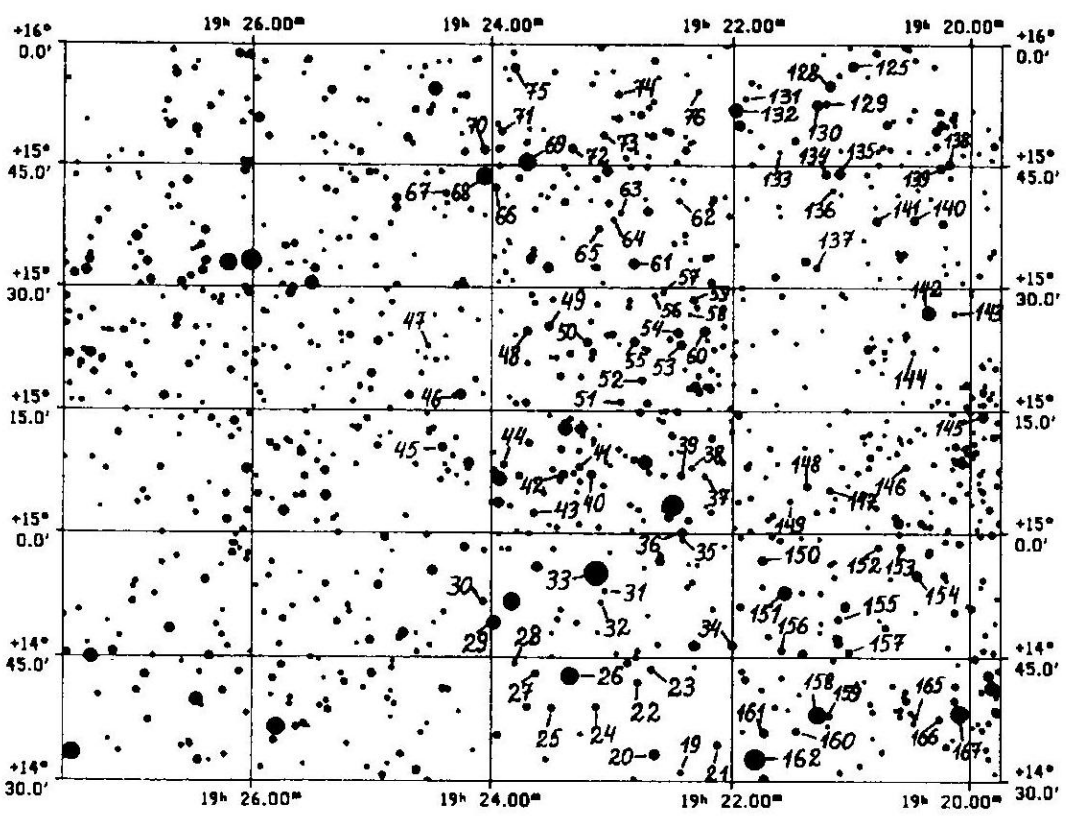


Fig. 32: KA-87, fragment 4

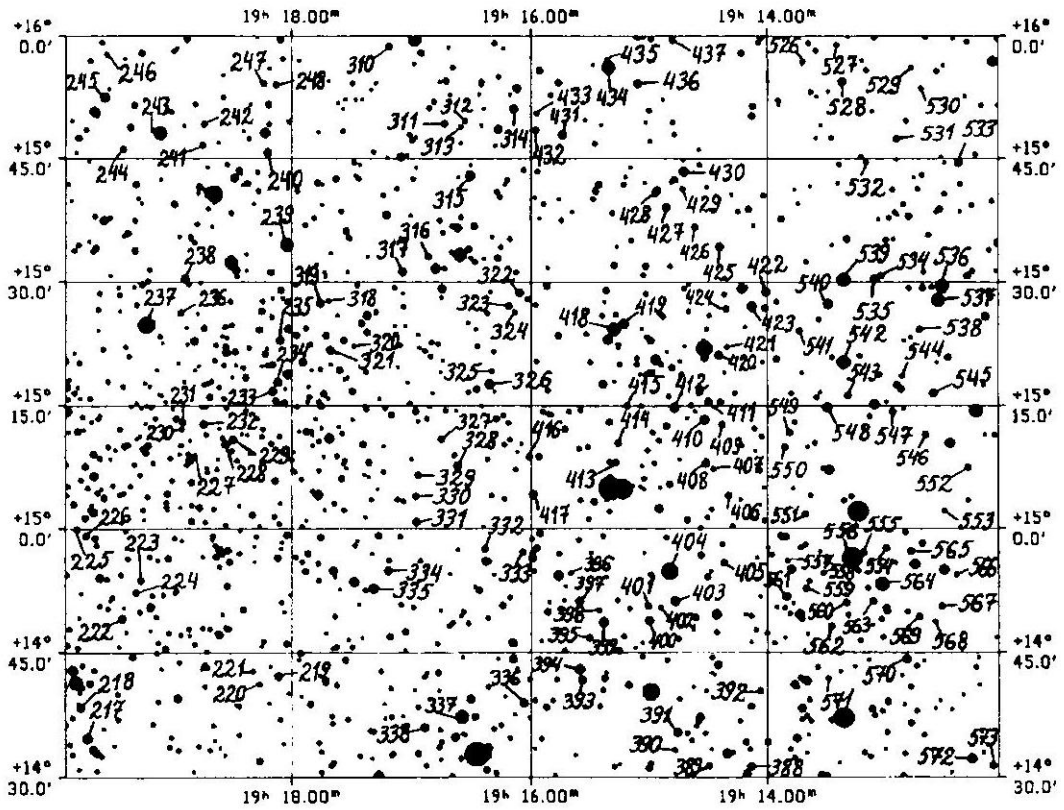


Fig. 33: KA-87, fragment 5

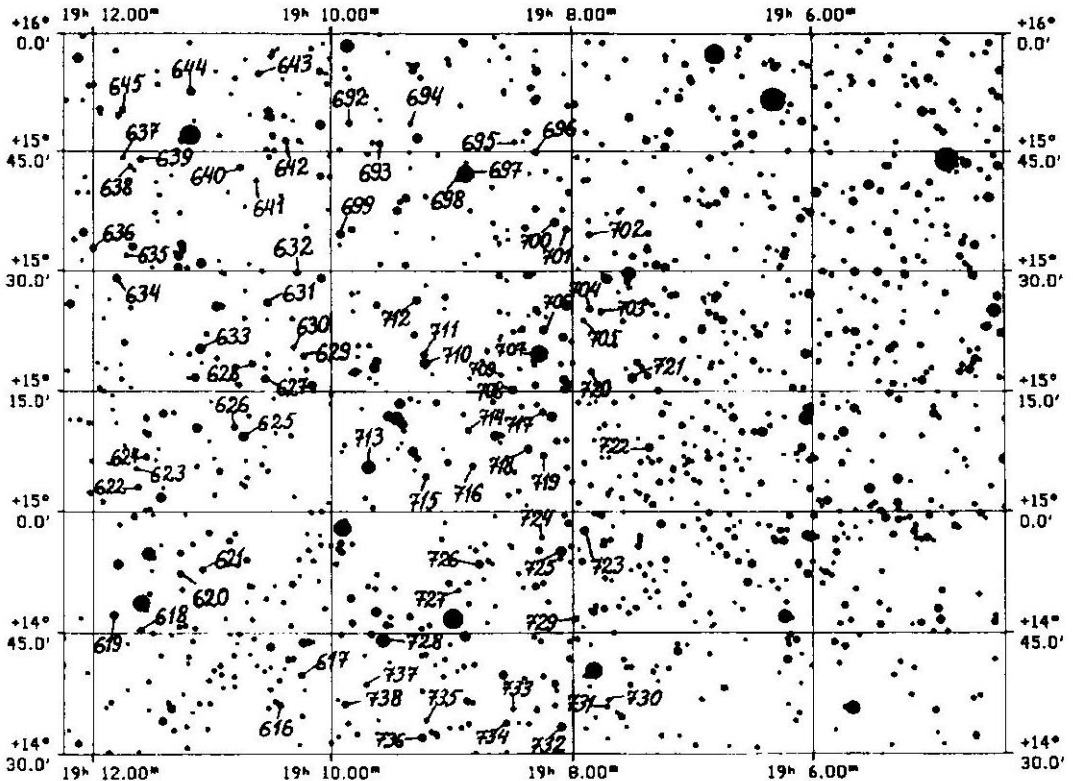


Fig. 34: KA-87, fragment 6

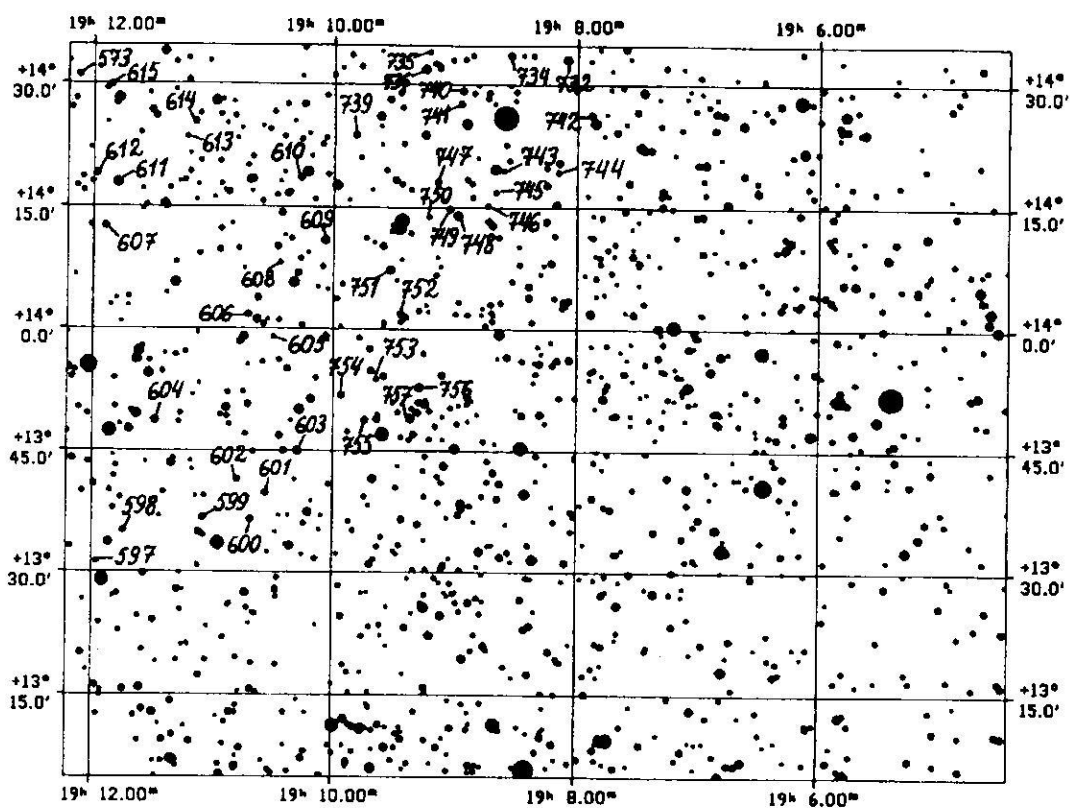


Fig. 37: KA-87, fragment 9

Table 5. Kapteyn Area KA-87: magnitudes and color indices of stars

No	V	B-V	No	V	B-V	No	V	B-V
1	11.99	0.60	254	9.02	1.07	507	11.83	2.00
2	12.90	-	255	13.01	0.79	508	11.93	0.65
3	11.88	0.34	256	10.35	1.73	509	9.15	0.39
4	9.08	-0.52	257	9.81	1.08	510	12.06	0.45
5	10.32	2.31	258	13.49	0.83	511	10.85	0.84
6	9.68	1.29	259	10.22	0.56	512	12.98	1.07
7	9.27	-0.41	260	11.89	2.50	513	11.16	1.30
8	10.45	-0.53	261	7.40	0.22	514	12.94	0.67
9	11.23	0.37	262	13.03	0.95	515	11.95	1.63
10	11.57	3.10	263	9.58	0.49	516	12.18	1.26
11	9.87	2.03	264	11.76	0.99	517	12.48	1.57
12	12.56	-	265	12.41	1.06	518	10.88	0.56
13	9.76	-0.30	266	12.49	1.22	519	12.94	0.53
14	12.61	0.52	267	11.45	1.01	520	12.15	0.46
15	13.04	1.22	268	9.93	0.33	521	11.87	0.93
16	12.45	-	269	11.72	0.69	522	11.69	0.63
17	11.18	0.50	270	10.36	1.91	523	12.46	0.47
18	11.26	1.88	271	10.40	0.19	524	12.77	0.91
19	12.71	0.92	272	12.14	1.49	525	12.79	0.65
20	9.54	-0.06	273	11.85	1.50	526	12.82	0.72
21	11.53	0.74	274	11.67	1.33	527	13.08	0.85
22	12.53	1.94	275	12.03	0.61	528	10.55	1.81
23	12.09	0.92	276	11.17	0.08	529	12.54	0.89
24	12.49	0.98	277	12.66	1.58	530	12.80	-
25	12.57	-	278	11.01	1.90	531	12.64	0.89

Table 5. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
26	8.23	-0.36	279	13.06	1.15	532	12.64	0.62
27	12.20	0.32	280	10.95	0.83	533	11.51	1.51
28	13.42	-	281	13.72	0.97	534	11.73	0.20
29	8.88	0.02	282	12.40	0.47	535	10.98	0.95
30	11.79	0.59	283	11.53	2.57	536	8.75	0.43
31	12.82	0.89	284	11.04	0.25	537	8.82	0.36
32	13.16	1.83	285	12.78	0.46	538	12.83	0.90
33	6.36	-0.58	286	12.73	1.38	539	9.50	0.61
34	10.40	0.79	287	12.27	0.88	540	10.52	1.80
35	12.84	0.87	288	11.97	0.67	541	12.97	1.71
36	11.11	0.71	289	12.97	1.10	542	9.69	0.83
37	13.25	1.17	290	11.35	2.74	543	11.90	0.44
38	12.70	2.11	291	11.42	1.78	544	13.33	-
39	12.62	1.89	292	13.02	-	545	11.35	0.51
40	10.87	1.73	293	9.89	0.39	546	12.84	1.04
41	12.07	1.87	294	11.95	0.40	547	12.39	0.53
42	10.94	0.63	295	8.96	0.89	548	10.09	0.25
43	11.98	2.22	296	10.58	0.95	549	12.57	1.85
44	11.79	0.52	297	12.37	1.01	550	12.85	0.55
45	11.64	0.94	298	12.19	2.07	551	12.41	0.62
46	12.67	1.43	299	11.66	0.42	552	12.59	1.41
47	13.07	1.13	300	11.52	0.60	553	13.07	0.70
48	11.14	1.41	301	11.37	0.70	554	12.92	-
49	11.29	0.06	302	11.49	0.59	555	11.81	0.78
50	10.45	-0.05	303	11.89	0.52	556	7.26	1.40
51	12.43	2.35	304	12.13	0.14	557	13.04	0.89
52	12.55	0.67	305	12.95	0.82	558	12.86	-
53	10.98	0.10	306	10.88	0.60	559	12.60	-
54	11.28	2.44	307	8.18	0.14	560	12.12	0.35
55	11.04	2.04	308	12.27	2.39	561	11.04	-0.30
56	13.26	0.46	309	10.94	0.66	562	11.69	0.72
57	13.00	0.66	310	11.49	0.68	563	11.87	0.44
58	13.74	0.77	311	12.82	-	564	9.65	1.08
59	12.05	2.38	312	12.88	0.53	565	11.97	0.03
60	11.24	2.19	313	13.22	1.96	566	13.22	0.87
61	10.55	2.00	314	11.12	0.61	567	13.07	-
62	12.97	0.46	315	10.45	0.61	568	13.19	0.95
63	12.48	0.75	316	12.38	2.16	569	12.08	0.86
64	13.12	1.19	317	10.77	0.72	570	11.20	1.91
65	11.96	1.85	318	13.23	-	571	12.93	-
66	11.71	0.20	319	10.99	0.62	572	10.00	2.17
67	12.40	0.46	320	13.01	1.04	573	11.98	1.25
68	8.27	-0.16	321	11.26	0.60	574	13.05	1.77
69	8.39	1.47	322	12.00	1.69	575	12.39	0.27
70	11.05	0.64	323	12.38	0.55	576	11.63	0.51
71	12.37	0.77	324	13.20	1.03	577	11.68	2.14
72	10.98	0.65	325	13.32	1.73	578	12.00	1.76
73	11.80	2.71	326	10.26	0.33	579	12.98	1.14
74	12.22	0.66	327	11.98	2.18	580	10.46	2.52
75	11.08	2.46	328	10.66	0.34	581	13.17	1.27
76	12.02	2.28	329	12.61	0.90	582	12.95	0.71
77	11.62	0.41	330	12.60	-	583	12.75	0.96
78	9.58	-0.01	331	10.54	0.77	584	12.17	2.17
79	12.73	-	332	12.18	0.25	585	11.23	2.56
80	7.60	-0.06	333	12.54	0.86	586	13.41	0.78
81	10.82	1.40	334	11.03	0.16	587	13.14	0.62
82	12.41	-	335	10.40	1.63	588	12.44	0.34
83	12.57	-	336	11.33	1.44	589	11.30	2.31

Table 5. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
84	10.97	2.94	337	8.66	-0.03	590	13.16	1.54
85	13.07	1.00	338	11.27	0.06	591	12.83	1.07
86	12.60	0.55	339	10.60	0.59	592	12.96	0.97
87	11.21	0.55	340	12.11	0.85	593	12.71	0.80
88	10.60	1.42	341	10.97	-0.20	594	12.47	0.87
89	12.38	2.48	342	11.62	0.70	595	11.39	1.29
90	12.94	0.71	343	12.36	0.55	596	11.11	1.98
91	13.07	0.73	344	12.39	1.85	597	13.17	-
92	13.15	1.21	345	9.28	2.36	598	12.56	0.59
93	12.44	1.51	346	10.59	1.93	599	12.11	0.90
94	9.20	-0.55	347	11.22	0.65	600	12.09	-
95	12.76	0.89	348	12.37	2.16	601	12.38	0.19
96	12.20	0.05	349	12.73	0.99	602	12.42	1.72
97	9.72	0.14	350	12.08	1.01	603	11.38	2.30
98	12.46	1.78	351	7.99	0.46	604	11.58	2.12
99	10.78	0.35	352	12.51	1.09	605	12.99	0.31
100	13.35	0.99	353	10.32	3.21	606	12.01	0.65
101	8.58	0.11	354	13.24	1.12	607	12.40	0.76
102	10.50	0.06	355	11.41	0.78	608	13.05	1.17
103	11.00	0.64	356	12.99	1.25	609	11.33	0.02
104	13.44	0.77	357	12.23	0.71	610	12.42	0.72
105	12.16	0.74	358	10.39	1.32	611	10.03	1.53
106	11.80	2.33	359	12.20	1.06	612	11.71	2.37
107	12.43	1.02	360	12.20	0.70	613	13.21	0.71
108	11.86	0.83	361	12.35	0.49	614	12.34	0.56
109	10.38	0.20	362	12.11	0.76	615	12.40	0.78
110	12.25	2.14	363	11.66	0.39	616	12.20	0.87
111	10.28	0.81	364	13.24	-	617	12.34	1.86
112	10.65	0.45	365	12.93	0.94	618	12.17	1.01
113	12.02	1.88	366	12.10	1.01	619	11.35	0.45
114	12.81	0.69	367	11.08	1.61	620	11.94	0.79
115	11.71	0.60	368	11.56	-0.01	621	12.39	0.81
116	12.54	0.62	369	12.59	1.21	622	11.69	0.63
117	13.14	1.39	370	11.54	1.97	623	13.29	1.16
118	12.35	0.73	371	12.00	0.47	624	12.53	0.33
119	11.37	0.19	372	12.60	0.41	625	10.47	2.28
120	12.48	0.86	373	11.22	0.48	626	12.00	2.49
121	13.06	0.96	374	12.78	0.90	627	11.91	2.04
122	10.41	2.11	375	10.30	1.58	628	12.51	1.27
123	13.20	-	376	12.57	0.66	629	12.34	1.65
124	12.59	0.97	377	13.00	1.96	630	13.01	-
125	10.21	1.51	378	11.88	0.84	631	11.70	0.26
126	11.60	1.00	379	12.52	0.79	632	12.36	0.83
127	11.84	0.47	380	11.88	0.45	633	10.11	0.36
128	10.16	0.64	381	12.51	1.61	634	11.47	1.85
129	11.61	0.95	382	11.51	1.36	635	13.09	-
130	9.52	0.14	383	11.23	0.99	636	12.89	0.83
131	13.40	-	384	12.49	1.31	637	12.85	-
132	8.77	0.93	385	12.47	2.32	638	13.09	0.41
133	13.32	1.23	386	11.52	0.38	639	12.09	1.09
134	11.73	2.01	387	12.54	2.15	640	11.80	0.27
135	9.65	0.68	388	11.18	0.26	641	12.61	2.03
136	13.03	0.96	389	12.47	0.92	642	11.76	0.46
137	12.72	0.83	390	12.37	0.91	643	12.03	1.20
138	10.53	0.49	391	11.64	1.62	644	11.54	2.33
139	10.83	1.85	392	11.83	0.19	645	11.97	1.30
140	10.75	1.69	393	11.20	0.59	646	13.05	1.16
141	11.35	0.79	394	10.30	2.50	647	10.76	0.87

Table 5. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
142	9.39	2.01	395	11.88	0.61	648	12.24	0.31
143	13.03	0.71	396	12.92	-	649	9.02	-0.01
144	13.12	0.62	397	11.25	0.69	650	13.05	-
145	10.75	0.12	398	13.15	1.24	651	12.80	0.95
146	13.02	0.73	399	10.61	1.10	652	12.96	1.25
147	11.92	2.27	400	11.65	0.33	653	11.58	0.40
148	12.35	0.56	401	12.37	0.31	654	12.64	1.92
149	12.94	1.21	402	12.41	0.71	655	12.85	1.97
150	11.49	2.00	403	10.64	0.78	656	10.30	0.10
151	9.74	1.35	404	8.48	0.87	657	12.47	1.21
152	12.71	2.08	405	12.43	0.04	658	11.62	1.66
153	11.05	-0.30	406	12.22	0.77	659	12.17	0.11
154	10.91	1.21	407	13.12	0.97	660	13.03	1.56
155	11.89	0.24	408	11.84	2.32	661	9.58	0.08
156	12.30	0.84	409	12.80	2.02	662	12.64	1.82
157	12.50	0.33	410	10.30	0.69	663	13.33	0.83
158	7.64	-0.08	411	11.59	1.63	664	13.25	0.99
159	12.10	0.66	412	10.21	0.87	665	13.19	1.73
160	11.64	0.70	413	11.81	2.19	666	10.73	0.27
161	10.28	-0.20	414	12.25	0.22	667	11.92	1.48
162	7.07	1.37	415	12.59	1.61	668	12.08	0.95
163	11.23	1.23	416	12.34	1.67	669	12.26	0.65
164	11.86	1.17	417	11.79	2.39	670	13.15	1.17
165	12.63	0.66	418	9.55	1.97	671	11.89	1.33
166	11.58	0.47	419	10.97	1.53	672	11.16	0.53
167	8.35	0.40	420	11.14	2.12	673	10.67	2.83
168	11.34	0.27	421	12.89	1.41	674	12.48	2.28
169	12.59	1.88	422	11.16	1.80	675	12.84	1.96
170	12.41	0.68	423	9.94	0.27	676	13.04	1.40
171	13.10	0.90	424	12.38	0.59	677	12.12	1.76
172	13.13	1.51	425	10.75	1.49	678	13.22	1.06
173	13.16	1.34	426	11.50	0.74	679	12.53	0.90
174	11.21	1.34	427	11.68	1.87	680	11.63	1.39
175	11.28	0.34	428	10.71	0.56	681	11.97	1.88
176	12.94	1.33	429	13.32	0.45	682	11.93	0.54
177	12.84	1.91	430	10.22	1.09	683	12.20	0.58
178	12.63	1.18	431	11.13	0.75	684	11.34	0.92
179	12.84	1.13	432	12.11	0.43	685	12.96	0.91
180	11.23	0.14	433	13.27	0.61	686	11.73	0.37
181	12.10	0.69	434	9.16	1.79	687	12.90	-
182	12.59	1.17	435	13.40	1.03	688	11.28	0.25
183	11.85	2.20	436	10.40	0.35	689	13.51	0.94
184	13.06	-	437	11.85	0.35	690	9.14	1.85
185	10.69	-0.09	438	12.95	-	691	12.96	0.51
186	9.34	-0.56	439	12.15	0.60	692	12.79	-
187	12.31	-	440	10.98	1.10	693	12.11	2.18
188	12.50	1.97	441	13.38	0.70	694	13.26	-0.07
189	12.72	-	442	13.62	1.15	695	12.64	1.50
190	12.08	0.91	443	13.31	-	696	12.23	0.11
191	11.87	2.27	444	12.06	0.18	697	8.45	1.20
192	11.18	0.72	445	13.06	-	698	12.93	0.97
193	12.40	0.56	446	9.38	1.44	699	11.21	2.58
194	12.60	0.82	447	11.87	0.15	700	11.26	1.77
195	12.66	2.06	448	11.55	2.32	701	12.40	0.44
196	11.76	0.46	449	12.55	0.58	702	12.12	1.22
197	11.18	1.69	450	8.09	1.46	703	12.53	0.81
198	11.98	2.06	451	11.12	0.53	704	12.21	2.35

Table 5. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
199	10.76	2.21	452	12.88	1.51	705	13.04	0.60
200	11.95	0.21	453	13.25	-	706	10.80	-0.18
201	12.06	0.90	454	11.11	1.38	707	8.83	0.68
202	12.41	1.36	455	13.21	-	708	11.29	0.26
203	12.52	0.03	456	12.10	-	709	12.73	-
204	13.06	1.27	457	12.72	-	710	9.91	1.14
205	11.57	-0.19	458	12.54	1.04	711	12.93	-
206	11.39	-0.38	459	11.78	2.58	712	11.49	0.66
207	8.61	0.96	460	12.46	-	713	9.22	0.06
208	12.79	2.24	461	10.75	0.30	714	11.87	1.46
209	12.57	0.78	462	12.47	1.85	715	12.70	1.81
210	11.03	1.80	463	13.18	1.31	716	12.65	0.39
211	12.63	0.99	464	11.06	1.15	717	12.38	1.76
212	12.30	0.27	465	12.33	0.78	718	12.12	-
213	12.29	0.77	466	12.49	0.91	719	13.05	-
214	11.01	0.47	467	12.62	0.62	720	12.05	-
215	11.27	0.77	468	10.63	2.42	721	12.47	1.40
216	7.25	1.25	469	13.00	0.89	722	11.91	0.53
217	10.21	0.06	470	12.14	1.85	723	12.74	0.81
218	11.50	0.09	471	11.69	1.50	724	13.17	-
219	11.99	1.64	472	12.83	0.87	725	9.81	1.78
220	13.28	-	473	12.43	0.81	726	11.67	2.65
221	13.12	-	474	12.55	0.79	727	12.67	1.13
222	11.77	-0.16	475	12.69	2.17	728	9.17	1.20
223	12.50	-	476	12.27	0.96	729	12.01	1.64
224	12.21	0.78	477	11.02	2.45	730	12.51	1.00
225	12.29	0.23	478	10.75	1.48	731	12.51	0.67
226	12.21	0.29	479	12.43	0.85	732	11.50	1.65
227	11.48	0.76	480	13.11	1.01	733	12.87	1.18
228	12.22	1.83	481	11.82	1.78	734	12.05	1.07
229	11.81	1.37	482	12.81	0.77	735	13.30	-
230	13.56	0.53	483	10.85	0.84	736	11.34	1.67
231	12.48	0.59	484	12.09	2.64	737	12.67	2.12
232	12.22	1.51	485	12.38	0.59	738	12.56	2.34
233	11.45	0.62	486	12.42	1.12	739	12.14	0.27
234	11.58	1.52	487	13.04	1.14	740	11.93	0.25
235	10.98	1.90	488	13.09	0.74	741	12.71	0.52
236	12.59	0.53	489	11.31	0.67	742	12.63	-
237	8.30	0.36	490	12.59	2.07	743	12.89	1.88
238	11.77	0.41	491	12.22	0.76	744	13.22	-
239	9.89	0.49	492	11.12	1.57	745	12.89	0.51
240	11.00	2.50	493	10.29	1.73	745	12.77	1.55
241	12.61	0.69	494	12.52	1.20	747	12.03	0.89
242	11.82	0.83	495	12.71	1.05	748	10.95	2.78
243	13.28	0.55	496	12.86	1.22	749	12.37	1.74
244	11.41	1.08	497	12.67	1.10	750	13.09	1.04
245	10.25	0.46	498	10.32	0.18	751	10.89	1.54
246	13.15	0.34	499	12.09	2.26	752	12.61	1.08
247	12.06	0.70	500	10.90	1.40	753	12.68	-
248	12.48	1.51	501	9.20	0.02	754	12.28	-
249	11.73	1.98	502	12.67	1.00	755	12.03	1.82
250	11.74	0.58	503	12.77	0.85	756	10.93	0.83
251	13.22	0.90	504	11.02	1.98	757	11.63	1.96
252	10.59	0.30	505	9.28	1.18			
253	12.72	0.90	506	10.66	0.29			

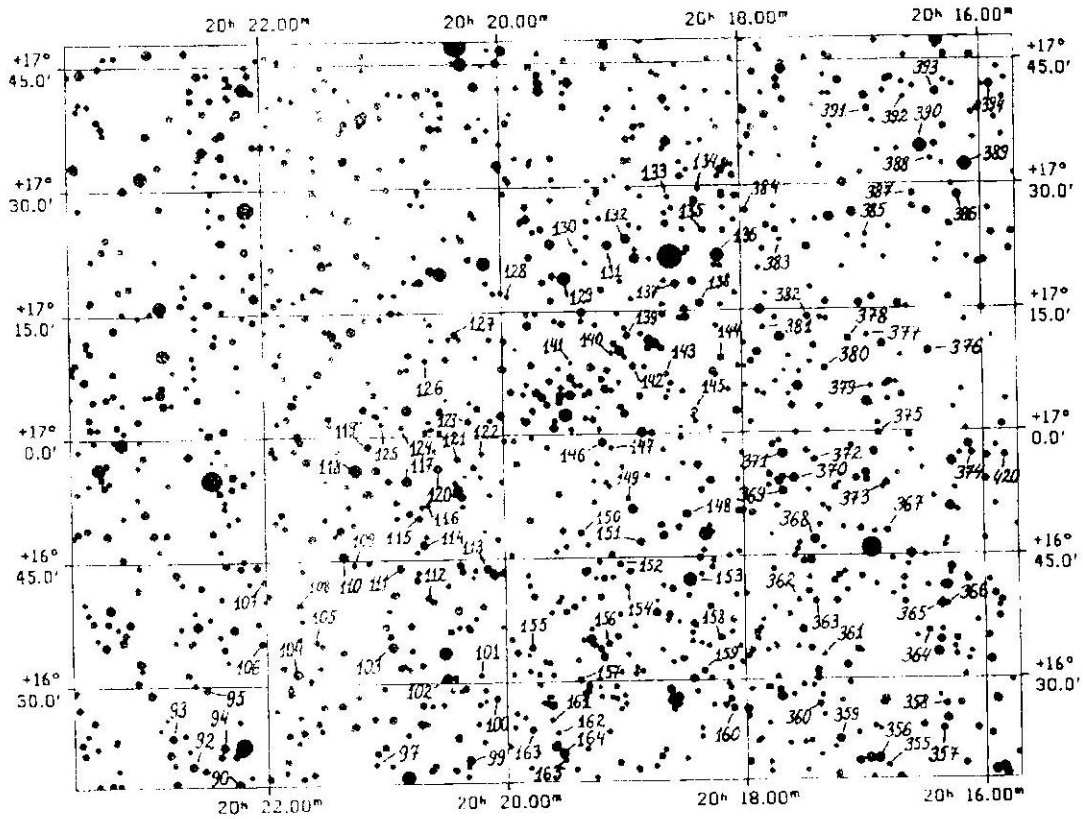


Fig. 38. KA-88, fragment 1

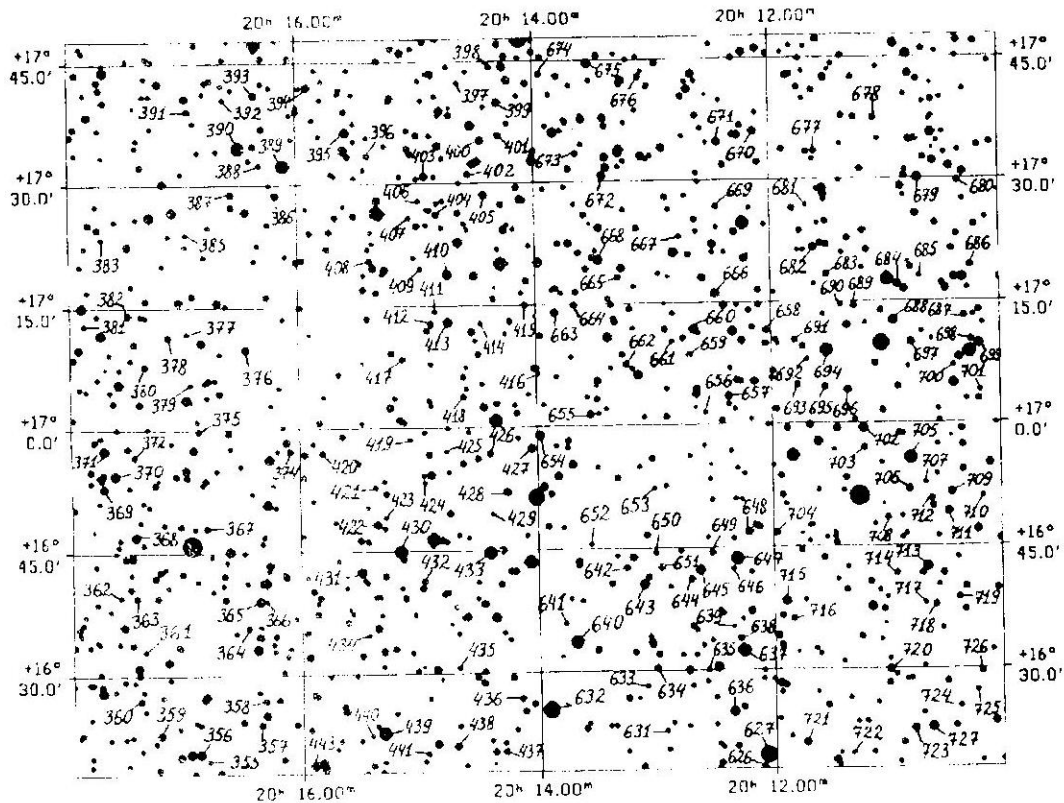


Fig. 39. KA-88, fragment 2

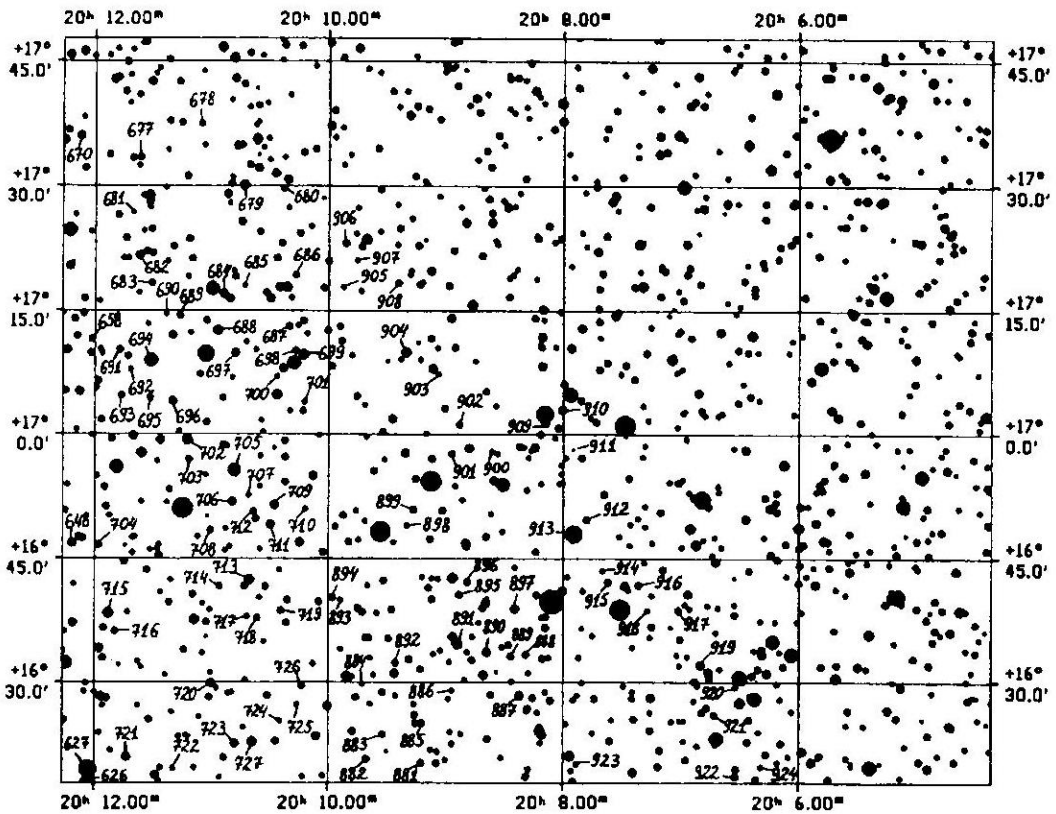


Fig. 40: KA-88, fragment 3

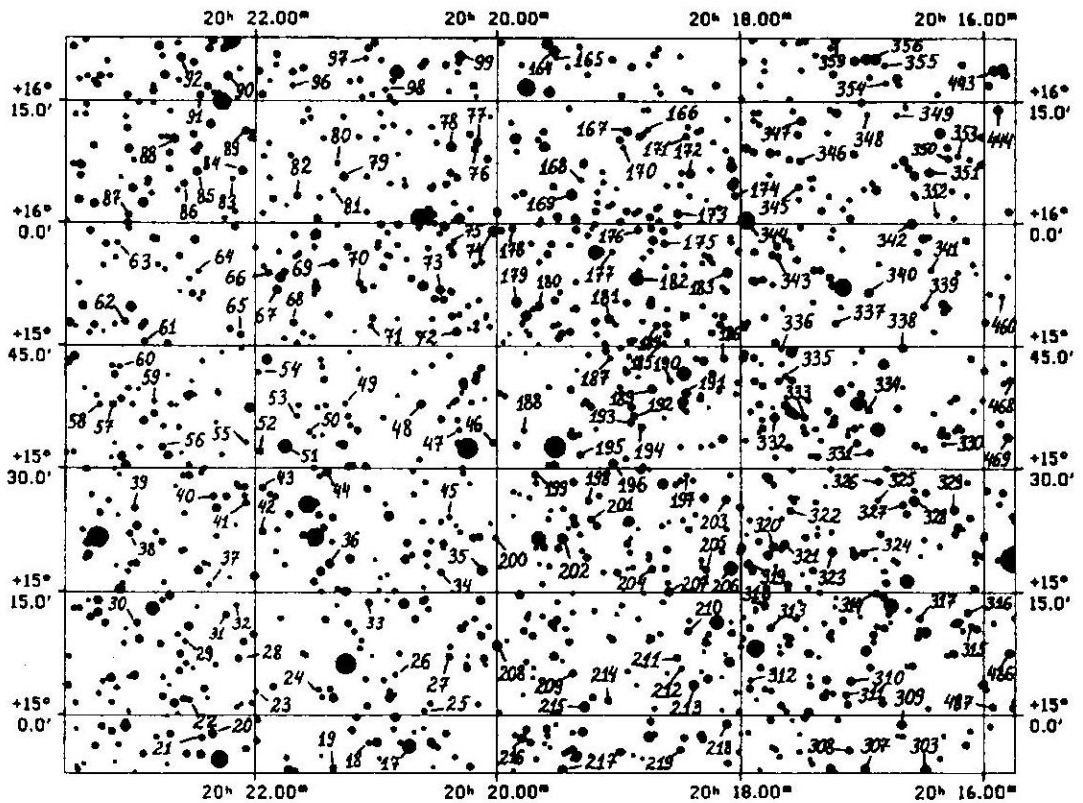


Fig. 41: KA-88, fragment 4

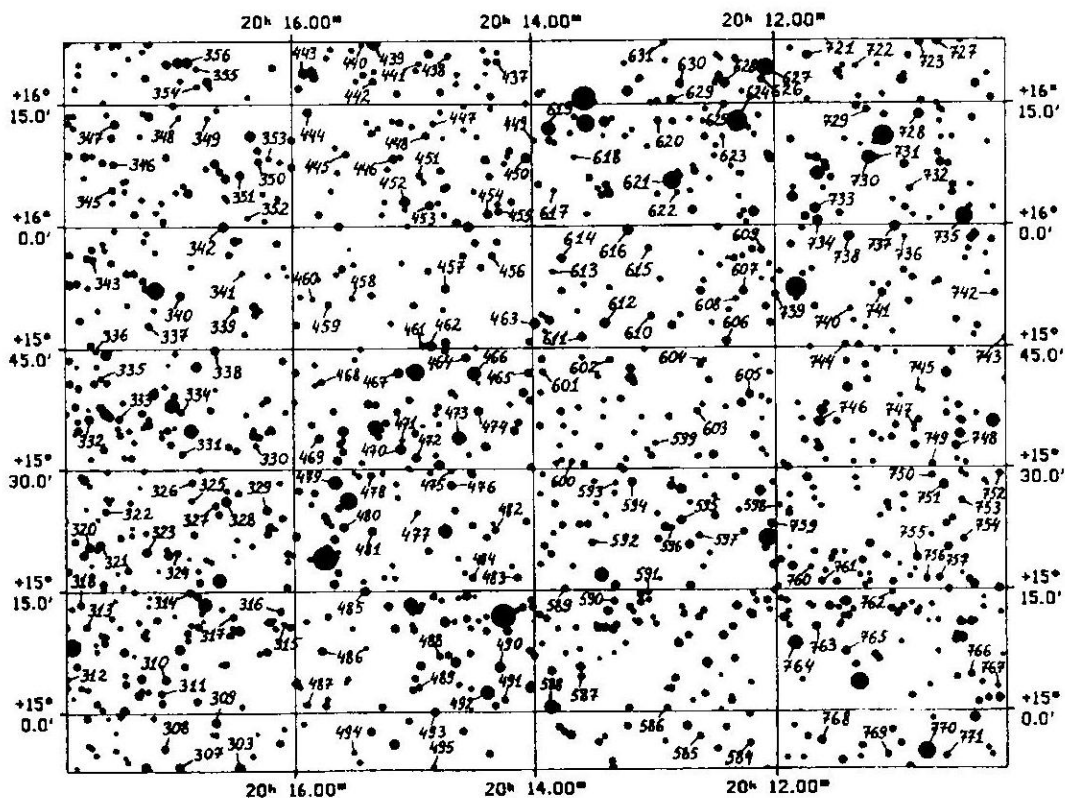


Fig. 42: KA-88, fragment 5

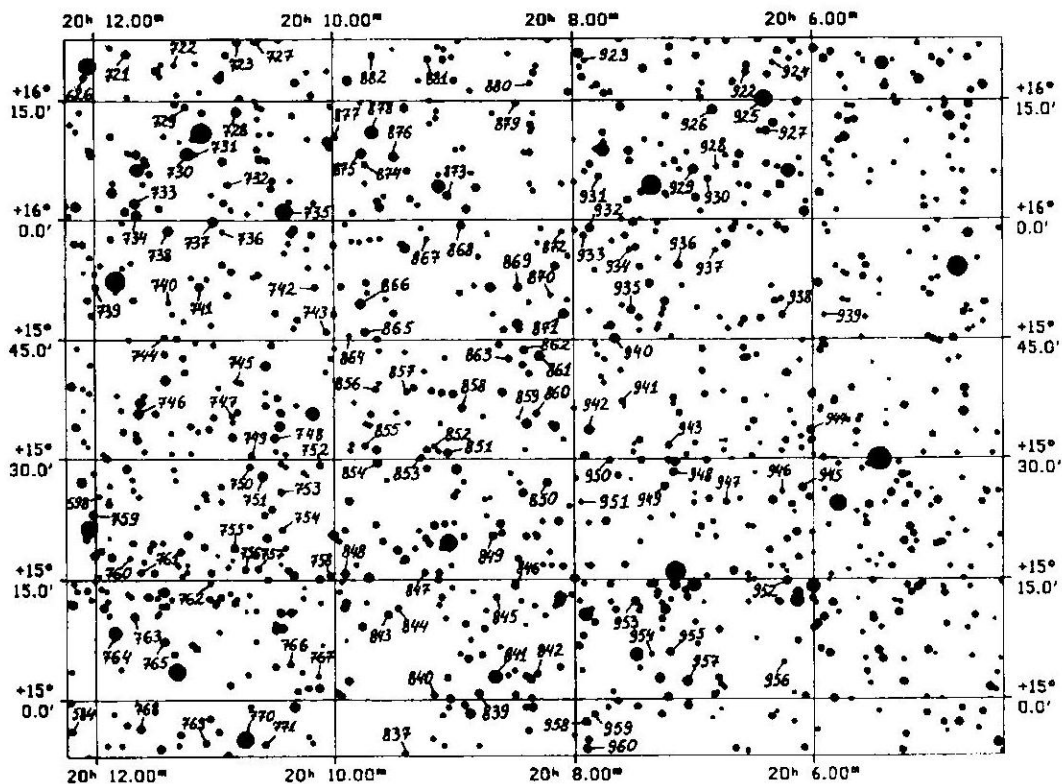


Fig. 43: KA-88, fragment 6

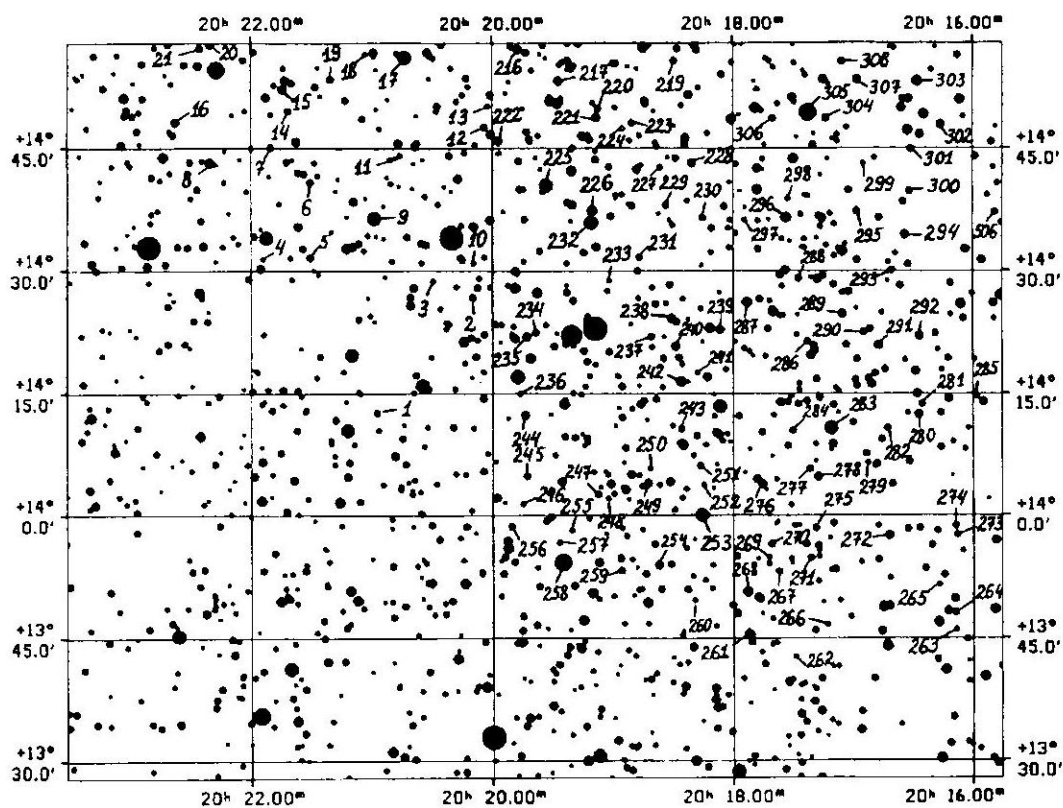


Fig. 44: KA-88, fragment 7

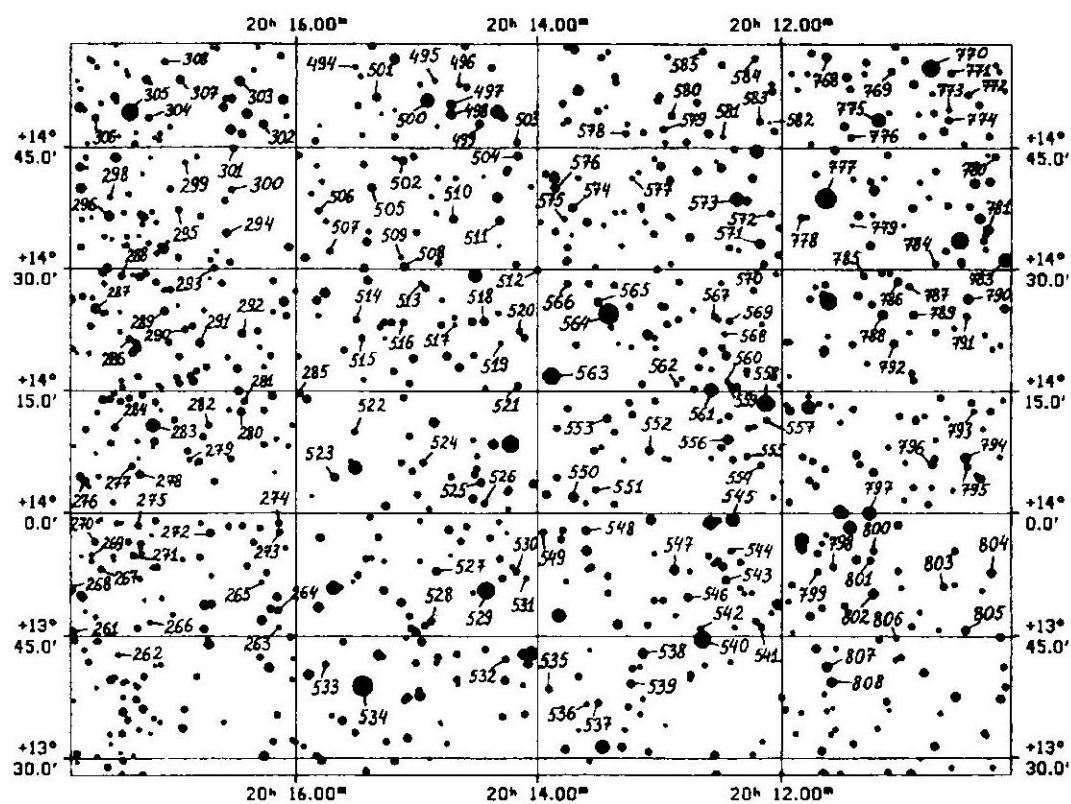


Fig. 45: KA-88, fragment 8

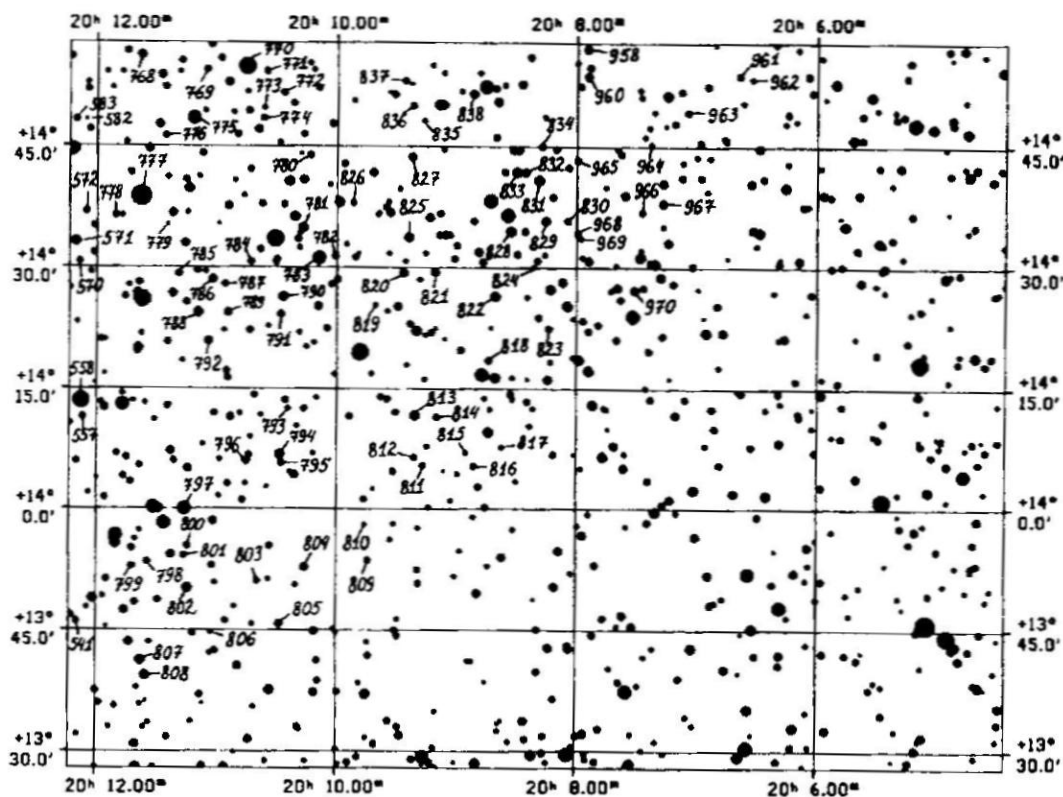


Fig. 46: KA-88, fragment 9

Table 6. Kapteyn Area KA-88: magnitudes and color indices of stars

No	V	B-V	No	V	B-V	No	V	B-V
1	12.03	1.26	325	12.96	1.64	649	12.54	0.74
2	12.03	0.35	326	12.28	0.34	650	13.06	0.55
3	12.64	0.70	327	12.80	1.87	651	12.97	1.73
4	12.63	1.26	328	9.81	1.23	652	11.54	0.29
5	12.54	0.63	329	10.65	0.10	653	12.52	0.58
6	11.89	1.53	330	13.03	0.94	654	10.12	0.09
7	11.57	1.29	331	12.41	0.76	655	11.11	0.46
8	9.69	0.37	332	11.26	1.18	656	13.04	0.51
9	8.99	0.87	333	12.03	0.13	657	10.71	0.45
10	13.00	-0.02	334	12.37	0.61	658	11.70	1.01
11	12.79	0.72	335	12.51	1.60	659	12.09	1.59
12	11.64	1.09	336	12.71	0.60	660	10.12	0.83
13	13.24	0.61	337	12.53	0.47	661	13.33	0.30
14	12.21	0.47	338	11.63	1.46	662	12.56	1.12
15	10.45	0.69	339	12.45	0.23	663	10.90	1.64
16	11.75	1.30	340	10.66	1.54	664	12.36	0.38
17	8.93	1.23	341	12.89	0.28	665	12.61	0.79
18	12.60	0.50	342	9.32	0.35	666	9.42	0.26
19	12.48	1.20	343	12.92	0.96	667	13.44	0.29
20	11.08	0.91	344	8.23	1.34	668	9.35	0.29
21	12.28	0.74	345	13.11	0.83	669	12.37	1.29
22	13.13	0.70	346	12.94	1.03	670	11.19	0.55
23	12.89	1.80	347	10.21	0.47	671	11.33	1.30
24	12.67	1.60	348	12.85	0.80	672	10.99	0.76
25	12.42	0.52	349	12.72	1.66	673	11.69	0.55

Table 6. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
26	12.57	0.73	350	11.55	0.53	674	12.33	0.94
27	12.33	0.30	351	11.00	1.35	675	10.12	0.36
28	12.20	0.30	352	12.39	0.91	676	12.39	0.36
29	12.67	0.64	353	12.67	1.23	677	12.50	0.96
30	12.23	1.27	354	12.68	0.74	678	12.55	0.34
31	11.91	1.04	355	12.52	0.49	679	9.84	0.48
32	12.77	0.32	356	10.05	1.10	680	11.99	0.39
33	11.77	0.87	357	11.93	0.42	681	12.62	0.89
34	11.98	0.66	358	11.79	1.09	682	11.51	1.08
35	9.32	0.16	359	10.71	1.55	683	12.00	1.08
36	11.59	1.43	360	12.83	0.54	684	12.00	1.33
37	13.32	0.47	361	12.60	0.79	685	12.95	2.03
38	13.38	0.96	362	12.66	1.09	686	11.87	0.48
39	12.37	0.93	363	12.42	0.94	687	11.82	2.00
40	12.60	1.29	364	11.78	0.13	688	10.37	0.96
41	11.96	0.42	365	10.26	0.97	689	11.84	0.48
42	11.77	1.20	366	12.64	0.51	690	12.72	0.74
43	11.46	0.54	367	12.10	0.65	691	12.10	1.40
44	11.62	1.43	368	10.45	1.68	692	13.01	0.48
45	12.43	0.79	369	11.39	0.57	693	12.99	0.88
46	11.55	0.08	370	9.42	0.54	694	8.83	0.00
47	12.58	0.83	371	9.81	1.23	695	12.18	1.65
48	11.41	1.01	372	11.80	0.91	696	11.23	0.36
49	12.71	0.90	373	12.39	0.36	697	11.20	0.51
50	12.67	0.55	374	12.28	0.43	698	12.74	1.47
51	9.01	0.57	375	11.60	1.20	699	10.59	1.11
52	12.30	1.37	376	11.55	1.11	700	13.12	1.44
53	12.75	1.27	377	12.43	0.68	701	13.05	0.97
54	13.14	0.98	378	11.60	1.23	702	9.76	0.97
55	12.52	0.19	379	11.69	0.83	703	12.05	0.37
56	12.46	1.70	380	11.72	1.22	704	11.59	0.05
57	12.08	1.40	381	13.23	0.60	705	8.93	1.60
58	13.09	1.36	382	12.63	0.43	706	11.51	0.42
59	13.08	0.51	383	12.70	0.31	707	12.56	0.29
60	13.38	1.07	384	11.79	1.72	708	11.83	0.64
61	12.23	0.69	385	12.78	0.19	709	10.56	0.61
62	12.03	0.63	386	10.71	1.00	710	13.05	0.83
63	13.13	1.22	387	11.99	1.23	711	11.45	0.44
64	13.62	1.02	388	12.75	1.00	712	11.57	0.49
65	12.65	0.27	389	8.80	1.07	713	10.44	1.12
66	12.24	0.76	390	9.04	1.43	714	12.28	0.48
67	11.75	1.65	391	11.92	0.09	715	10.33	1.67
68	12.60	1.20	392	12.62	1.20	716	11.86	0.74
69	11.17	0.76	393	10.47	0.43	717	13.18	1.02
70	12.80	0.47	394	11.37	0.08	718	11.88	1.05
71	12.93	0.86	395	10.01	0.70	719	12.46	0.47
72	10.67	0.79	396	12.30	0.64	720	10.65	0.25
73	11.27	1.67	397	12.38	0.37	721	11.25	1.52
74	10.58	1.63	398	11.71	0.81	722	12.89	1.16
75	13.25	0.41	399	11.27	1.38	723	11.04	0.48
76	12.44	0.51	400	11.25	0.75	724	13.33	0.38
77	11.57	1.23	401	12.01	0.67	725	12.59	0.59
78	10.66	1.29	402	12.43	1.10	726	11.82	0.39
79	11.05	0.86	403	10.95	1.16	727	10.16	1.51
80	12.67	1.68	404	11.89	0.75	728	9.82	1.18

Table 6. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
81	12.92	1.28	405	11.33	0.19	729	12.32	1.15
82	11.89	1.38	406	12.95	0.70	730	9.46	1.13
83	12.81	0.86	407	13.06	1.44	731	12.89	-0.36
84	11.27	1.23	408	11.72	0.33	732	11.60	1.24
85	11.44	1.75	409	13.06	0.55	733	10.12	0.32
86	11.71	0.63	410	9.69	0.61	734	10.23	0.85
87	12.23	0.79	411	12.85	1.24	735	8.22	0.23
88	11.59	0.71	412	12.19	1.19	736	13.05	0.48
89	12.18	1.90	413	10.00	0.39	737	9.80	0.77
90	10.75	0.61	414	12.62	0.65	738	9.83	1.29
91	12.84	0.35	415	12.34	0.63	739	11.24	0.44
92	11.38	1.11	416	12.95	0.96	740	12.96	1.08
93	11.10	0.66	417	11.76	0.17	741	10.92	0.50
94	11.78	1.71	418	11.56	0.93	742	11.85	0.52
95	12.51	0.26	419	12.44	1.63	743	12.29	0.40
96	13.49	1.25	420	12.12	0.63	744	12.21	0.97
97	12.67	0.46	421	12.74	1.16	745	12.49	1.33
98	12.61	0.42	422	10.61	1.43	746	9.66	0.53
99	10.15	1.62	423	13.12	0.12	747	12.77	1.13
100	10.15	1.62	424	12.70	0.51	748	11.25	1.06
101	12.60	0.17	425	12.85	1.18	749	12.03	1.45
102	10.59	0.32	426	11.91	1.57	750	12.48	0.50
103	10.73	0.41	427	11.59	0.65	751	10.36	0.21
104	10.06	1.20	428	10.38	0.49	752	12.32	0.75
105	13.31	1.49	429	13.23	1.17	753	12.57	1.38
106	11.94	0.58	430	9.33	1.46	754	11.63	0.98
107	12.96	0.47	431	9.62	1.70	755	11.57	1.08
108	11.70	1.03	432	11.35	0.28	756	12.40	0.75
109	12.67	1.10	433	9.44	0.85	757	12.43	1.49
110	9.69	0.42	434	13.23	0.60	758	12.15	0.32
111	11.67	1.50	435	12.83	1.75	759	11.68	1.10
112	12.58	1.59	436	12.01	1.30	760	13.04	0.27
113	10.93	0.30	437	12.40	0.26	761	12.50	0.49
114	10.55	0.16	438	11.90	0.22	762	13.75	1.12
115	12.43	0.44	439	8.99	0.09	763	11.34	0.51
116	13.49	1.06	440	12.86	0.40	764	9.50	0.45
117	9.66	0.51	441	13.13	0.52	765	11.48	1.11
118	9.54	0.52	442	12.30	0.14	766	11.81	0.40
119	10.98	0.53	443	9.75	0.55	767	13.01	1.21
120	10.99	1.11	444	10.82	1.32	768	11.48	1.05
121	12.59	0.45	445	11.86	0.96	769	12.37	0.73
122	13.30	1.30	446	10.77	1.26	770	8.72	1.61
123	12.04	1.49	447	12.59	1.29	771	11.94	0.58
124	12.63	1.56	448	12.59	1.02	772	12.57	1.03
125	12.70	0.58	449	12.83	0.54	773	12.96	0.49
126	12.11	1.92	450	10.15	-0.09	774	12.34	0.43
127	12.27	1.21	451	12.24	1.22	775	9.83	1.30
128	12.91	1.04	452	9.97	0.29	776	11.68	0.22
129	9.85	0.19	453	10.77	1.12	777	7.63	0.24
130	12.73	0.79	454	10.51	0.50	778	12.35	1.35
131	10.52	0.43	455	11.86	1.05	779	11.95	0.56
132	10.03	0.18	456	12.47	1.19	780	12.33	0.64
133	13.19	0.94	457	11.01	0.72	781	10.95	1.48
134	13.20	0.55	458	12.97	0.61	782	12.14	2.04
135	12.56	0.57	459	11.56	0.52	783	9.67	0.31

Table 6. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
136	9.24	1.00	460	13.16	0.85	784	11.93	1.44
137	11.21	0.78	461	12.14	1.32	785	12.76	-0.05
138	11.23	1.00	462	9.85	1.81	786	10.99	1.42
139	12.41	1.08	463	10.04	1.47	787	11.91	1.05
140	13.58	0.41	464	11.20	1.65	788	10.43	-0.14
141	11.36	1.38	465	11.18	1.06	789	11.54	1.66
142	12.28	0.85	466	9.19	0.11	790	10.82	1.08
143	12.99	0.80	467	10.70	0.49	791	12.39	1.17
144	11.89	1.16	468	11.49	1.03	792	11.69	0.56
145	12.27	0.52	469	11.67	0.36	793	12.70	0.14
146	11.69	0.11	470	10.68	1.82	794	10.36	0.97
147	12.99	1.16	471	12.63	2.01	795	11.89	0.76
148	11.22	0.60	472	11.52	1.14	796	11.36	0.50
149	12.86	0.77	473	10.09	1.41	797	8.84	0.04
150	12.73	0.24	474	11.79	1.86	798	11.95	1.26
151	11.36	1.15	475	13.23	1.00	799	11.55	0.46
152	12.58	0.82	476	11.43	1.12	800	11.47	0.20
153	8.83	1.18	477	12.86	1.52	801	11.97	0.75
154	12.85	0.91	478	12.58	1.28	802	9.65	0.18
155	12.53	1.34	479	10.28	0.99	803	11.88	1.09
156	12.41	1.39	480	11.39	1.85	804	11.90	1.69
157	12.37	0.70	481	11.31	0.19	805	10.90	0.00
158	12.59	1.41	482	12.65	1.06	806	13.08	1.27
159	11.47	0.78	483	12.23	1.31	807	10.01	1.58
160	11.99	1.09	484	12.24	0.39	808	10.57	1.56
161	13.68	0.56	485	11.97	1.01	809	12.10	-0.02
162	13.23	0.32	486	10.99	0.36	810	12.87	0.79
163	12.11	1.25	487	11.89	1.46	811	11.68	0.32
164	10.42	0.49	488	12.54	1.34	812	12.52	1.15
165	13.33	0.95	489	11.79	0.93	813	10.83	0.20
166	13.16	1.49	490	9.90	0.60	814	11.93	0.23
167	11.16	1.85	491	12.12	0.61	815	12.62	1.31
168	13.10	0.91	492	9.65	1.58	816	11.58	-0.01
169	10.19	0.75	493	11.27	0.56	817	12.42	0.55
170	13.49	0.47	494	13.06	0.48	818	12.12	0.10
171	12.21	0.24	495	12.61	0.33	819	12.37	0.67
172	11.03	0.96	496	12.14	0.45	820	11.60	1.48
173	11.00	0.64	497	10.72	0.37	821	11.55	0.34
174	11.87	0.98	498	10.54	0.95	822	10.37	0.76
175	12.29	0.67	499	11.75	0.83	823	11.78	0.46
176	12.25	1.61	500	9.67	1.29	824	12.88	1.07
177	12.71	0.29	501	11.62	1.30	825	10.63	1.30
178	12.57	0.89	502	11.30	1.50	826	12.36	0.54
179	9.97	0.48	503	11.74	0.29	827	11.28	0.81
180	11.34	1.57	504	10.80	1.12	828	10.37	0.22
181	11.18	0.14	505	11.38	1.66	829	11.38	0.12
182	10.00	0.88	506	11.68	1.05	830	12.09	1.20
183	10.20	0.49	507	11.37	1.13	831	10.53	0.93
184	12.36	1.03	508	10.65	0.43	832	11.44	1.54
185	12.57	0.72	509	12.74	1.31	833	10.03	1.26
186	12.15	1.19	510	11.08	1.06	834	12.44	0.76
187	12.98	0.97	511	11.17	0.92	835	12.66	0.25
188	13.43	0.88	512	11.99	0.63	836	12.41	0.51
189	11.44	1.08	513	13.19	0.97	837	11.98	0.47
190	12.95	0.47	514	12.23	1.26	838	10.97	1.56

Table 6. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
191	11.17	0.59	515	12.02	1.11	839	11.53	0.81
192	12.37	0.06	516	12.31	0.59	840	11.95	0.19
193	12.04	0.28	517	12.93	1.30	841	9.12	0.93
194	11.70	0.81	518	11.60	0.69	842	12.45	1.57
195	12.41	0.62	519	13.16	1.16	843	11.39	0.67
196	10.91	1.17	520	12.12	0.68	844	13.24	0.72
197	12.84	0.61	521	12.51	1.06	845	12.53	1.35
198	11.66	1.02	522	11.60	0.77	846	11.91	1.16
199	12.26	0.79	523	10.98	1.20	847	12.07	0.59
200	13.13	0.66	524	12.29	1.50	848	11.52	1.19
201	11.89	0.46	525	11.24	1.37	849	11.21	0.32
202	10.31	1.02	526	12.52	1.02	850	11.84	1.35
203	10.94	0.31	527	11.39	0.77	851	11.16	1.59
204	12.57	0.38	528	12.10	0.27	852	13.04	1.75
205	11.81	1.05	529	8.82	1.10	853	12.67	0.30
206	9.52	1.18	530	12.64	1.19	854	11.97	0.76
207	11.76	1.24	531	12.76	0.60	855	11.94	1.73
208	11.16	0.63	532	12.04	1.33	856	11.98	0.47
209	12.50	0.48	533	12.15	1.38	857	12.45	0.62
210	12.18	1.17	534	7.77	0.77	858	11.61	0.67
211	11.90	-0.09	535	11.82	0.47	859	13.28	2.10
212	12.76	0.65	536	12.62	0.74	860	12.39	0.50
213	10.69	0.88	537	11.75	0.34	861	10.17	1.72
214	12.70	0.66	538	10.55	1.70	862	11.14	1.84
215	11.31	0.73	539	11.51	1.27	863	12.10	0.64
216	11.78	1.69	540	8.79	1.05	864	12.21	0.64
217	11.94	0.81	541	12.37	1.47	865	10.47	0.44
218	11.46	1.34	542	11.81	1.36	866	10.30	1.22
219	11.93	1.14	543	10.94	0.05	867	12.41	1.21
220	12.12	2.14	544	11.68	1.63	868	10.98	1.34
221	11.31	1.18	545	9.24	-0.03	869	11.26	1.20
222	11.55	1.11	546	11.51	1.06	870	12.81	0.45
223	12.53	0.82	547	10.32	1.49	871	9.47	0.19
224	12.76	1.01	548	11.72	0.09	872	12.59	0.41
225	8.54	0.02	549	12.30	0.32	873	10.95	0.25
226	10.56	0.36	550	9.78	0.60	874	12.03	1.29
227	12.86	0.43	551	12.02	0.44	875	10.13	0.40
228	11.47	1.39	552	11.50	0.40	876	10.35	1.16
229	12.42	0.64	553	11.54	1.09	877	12.15	1.03
230	11.86	0.81	554	12.57	0.87	878	8.49	1.12
231	12.25	0.65	555	12.25	0.16	879	1.79	1.09
232	8.97	1.01	556	10.70	0.50	880	13.21	0.61
233	12.82	0.98	557	12.02	0.72	881	12.39	1.19
234	12.61	0.14	558	8.30	1.25	882	12.39	0.95
235	11.56	1.00	559	12.28	1.11	883	12.06	1.14
236	13.03	1.23	560	12.92	1.46	884	12.55	0.70
237	12.46	0.94	561	9.09	0.16	885	11.98	1.07
238	11.73	0.52	562	12.62	0.96	886	13.34	1.07
239	11.00	1.25	563	8.62	1.37	887	11.00	1.48
240	11.51	0.60	564	7.47	0.94	888	12.81	1.94
241	13.00	1.44	565	11.87	1.41	889	12.18	0.00
242	10.36	0.93	566	12.47	0.57	890	10.55	0.64
243	13.00	1.40	567	12.28	0.99	891	10.18	0.37
244	11.87	1.05	568	13.26	0.21	892	11.99	0.32
245	12.77	0.61	569	12.57	1.65	893	12.69	0.54

Table 6. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
246	12.75	0.02	570	12.20	0.46	894	12.66	1.20
247	11.96	0.72	571	10.11	1.09	895	12.64	1.45
248	13.01	0.43	572	12.45	1.38	896	11.99	0.23
249	11.66	0.72	573	10.05	1.06	897	11.33	1.16
250	13.53	1.39	574	11.27	1.31	898	13.27	0.68
251	12.18	1.74	575	12.72	1.45	899	12.73	1.11
252	13.00	0.35	576	11.19	0.36	900	13.21	0.92
253	9.58	0.72	577	13.43	1.86	901	12.17	0.54
254	11.82	1.62	578	12.13	1.20	902	12.13	0.76
255	11.11	0.81	579	12.22	1.68	903	13.01	1.08
256	11.66	1.22	580	11.81	0.48	904	10.22	0.71
257	12.94	0.51	581	12.83	1.13	905	12.61	0.12
258	8.34	-0.07	582	13.40	1.18	906	12.06	1.23
259	12.26	0.24	583	12.56	0.68	907	13.21	0.37
260	12.71	0.01	584	12.49	0.62	908	12.44	0.47
261	10.37	0.27	585	12.39	0.94	909	11.49	0.01
262	12.78	1.00	586	12.35	0.44	910	11.67	0.27
263	13.56	1.12	587	12.46	0.44	911	13.37	1.04
264	12.34	0.14	588	9.62	0.89	912	11.79	0.53
265	12.49	0.98	589	12.50	0.84	913	8.39	1.22
266	13.59	0.97	590	12.42	0.47	914	13.07	0.47
267	12.44	0.48	591	13.27	1.19	915	12.09	1.07
268	10.16	0.82	592	12.12	0.33	916	12.86	0.81
269	13.50	0.97	593	13.55	1.23	917	12.86	1.41
270	12.90	0.79	594	10.74	0.88	918	12.79	0.61
271	12.50	0.99	595	10.86	1.01	919	11.16	1.54
272	11.16	1.33	596	13.03	1.15	920	12.55	1.44
273	12.11	0.23	597	11.07	1.33	921	12.11	1.62
274	12.45	0.53	598	13.01	0.42	922	12.22	0.70
275	12.32	0.79	599	13.38	0.54	923	13.29	0.40
276	11.42	0.77	600	13.10	0.55	924	13.37	1.05
277	12.00	0.57	601	11.94	0.64	925	7.83	1.05
278	12.02	1.27	602	12.09	0.63	926	9.40	0.57
279	12.70	0.27	603	12.00	0.86	927	10.88	1.19
280	11.49	1.10	604	13.01	1.09	928	12.98	1.52
281	12.13	0.96	605	10.95	1.34	929	10.34	0.95
282	11.80	0.87	606	10.61	1.03	930	11.80	0.79
283	9.76	1.85	607	11.01	0.43	931	12.23	0.91
284	12.05	1.67	608	12.49	1.44	932	11.47	1.34
285	12.07	0.89	609	12.03	1.37	933	11.96	1.46
286	12.21	1.29	610	12.38	1.40	934	12.88	0.63
287	10.15	1.21	611	10.77	1.53	935	10.85	0.20
288	12.13	0.50	612	10.08	0.66	936	10.76	0.86
289	11.30	1.64	613	12.93	0.62	937	13.14	0.45
290	11.89	0.26	614	10.89	1.15	938	11.72	0.98
291	10.96	1.24	615	11.82	1.36	939	12.48	1.16
292	11.42	1.45	616	10.44	1.09	940	9.66	0.59
293	12.50	0.91	617	13.27	1.53	941	11.83	1.28
294	11.68	1.73	618	10.74	0.28	942	10.73	0.52
295	12.57	0.55	619	9.12	0.61	943	12.69	0.89
296	10.01	0.03	620	11.67	0.66	944	12.14	0.97
297	12.88	0.37	621	7.64	0.58	945	11.16	0.15
298	13.26	1.01	622	12.64	0.77	946	13.13	1.71
299	12.71	0.89	623	13.07	-0.15	947	12.13	0.42
300	12.86	1.30	624	7.25	0.75	948	11.75	0.30

Table 6. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
301	11.98	-0.05	625	11.94	1.36	949	12.44	0.47
302	11.07	0.01	626	12.20	0.91	950	12.52	1.51
303	10.34	1.04	627	8.48	1.18	951	13.00	0.36
304	12.14	1.10	628	10.24	1.64	952	11.14	0.59
305	8.73	1.68	629	10.07	0.14	953	11.66	0.21
306	12.14	1.42	630	11.45	0.34	954	12.84	1.38
307	11.23	0.53	631	12.30	0.92	955	11.90	1.24
308	12.09	0.83	632	8.30	1.26	956	12.80	0.92
309	11.20	0.17	633	12.96	0.53	957	11.22	1.46
310	11.55	0.59	634	12.36	1.44	958	11.29	0.33
311	12.26	0.60	635	12.71	0.42	959	12.56	1.03
312	12.50	0.57	636	10.29	0.55	960	11.44	0.18
313	13.34	0.86	637	9.03	0.43	961	12.22	1.07
314	12.36	1.57	638	12.59	0.81	962	12.88	1.93
315	13.55	0.38	639	12.96	0.85	963	12.22	0.80
316	12.82	0.88	640	8.85	1.00	964	13.16	0.04
317	12.54	0.99	641	12.87	1.87	965	12.43	1.53
318	12.40	0.49	642	11.97	1.53	966	12.32	0.34
319	10.90	0.24	643	10.17	1.68	967	11.20	0.81
320	11.48	1.51	644	11.96	1.00	968	12.24	0.56
321	11.13	1.24	645	9.53	1.55	969	13.03	1.68
322	12.64	0.75	646	12.20	0.56	970	10.85	0.38
323	11.06	0.90	647	9.26	1.05			
324	12.02	0.28	648	11.07	0.80			

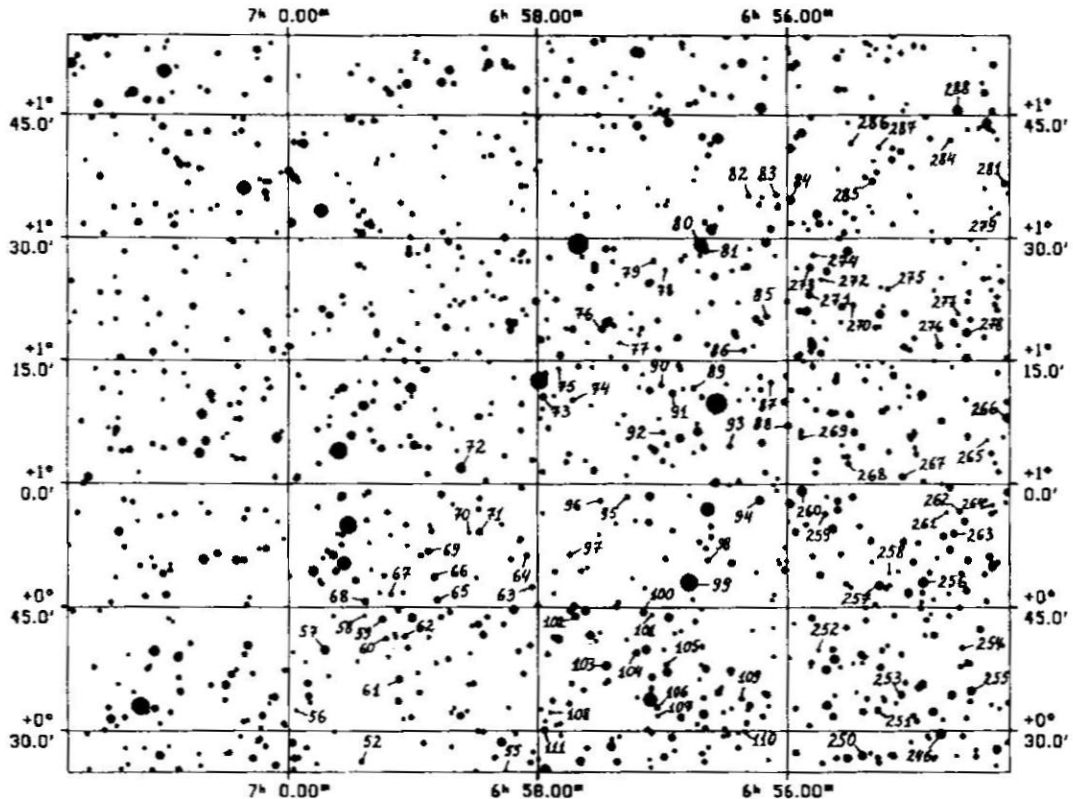


Fig. 47: KA-98, fragment 1

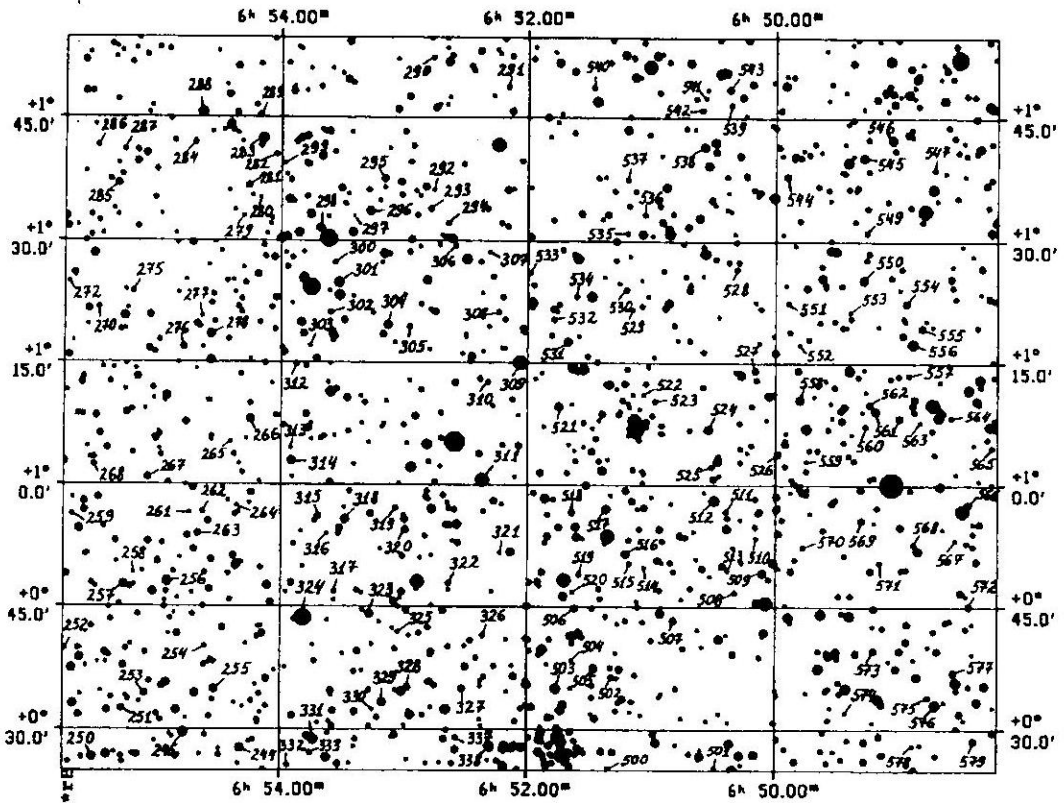


Fig. 48: KA-98, fragment 2

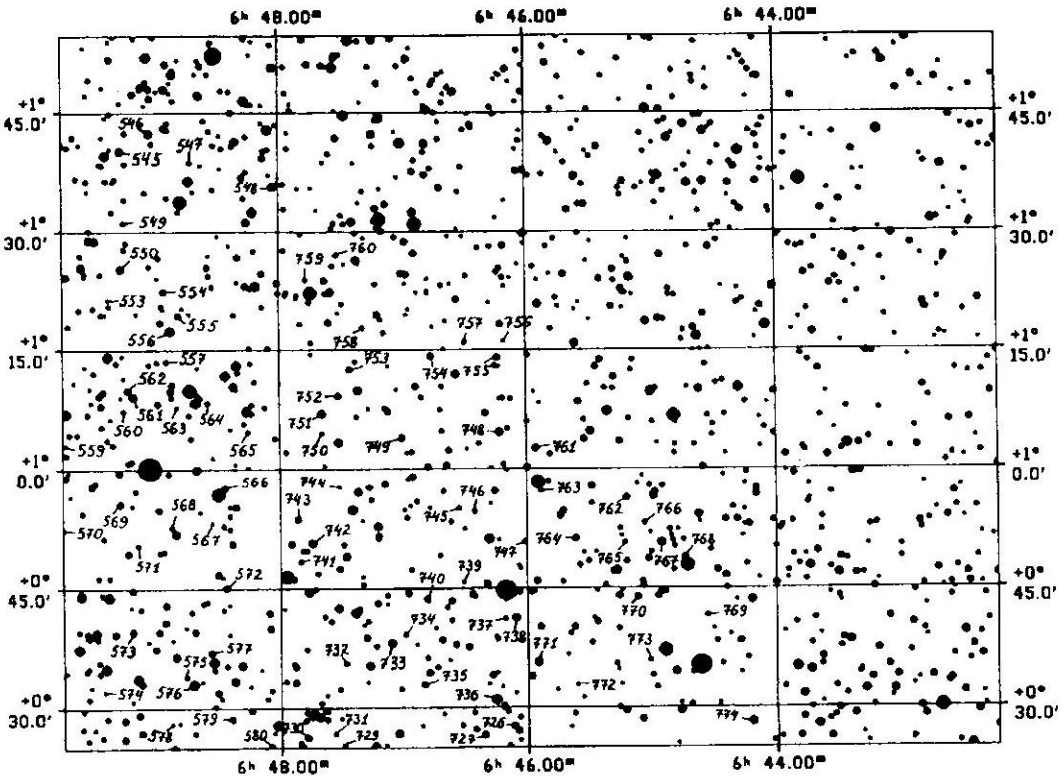


Fig. 49: KA-98, fragment 3

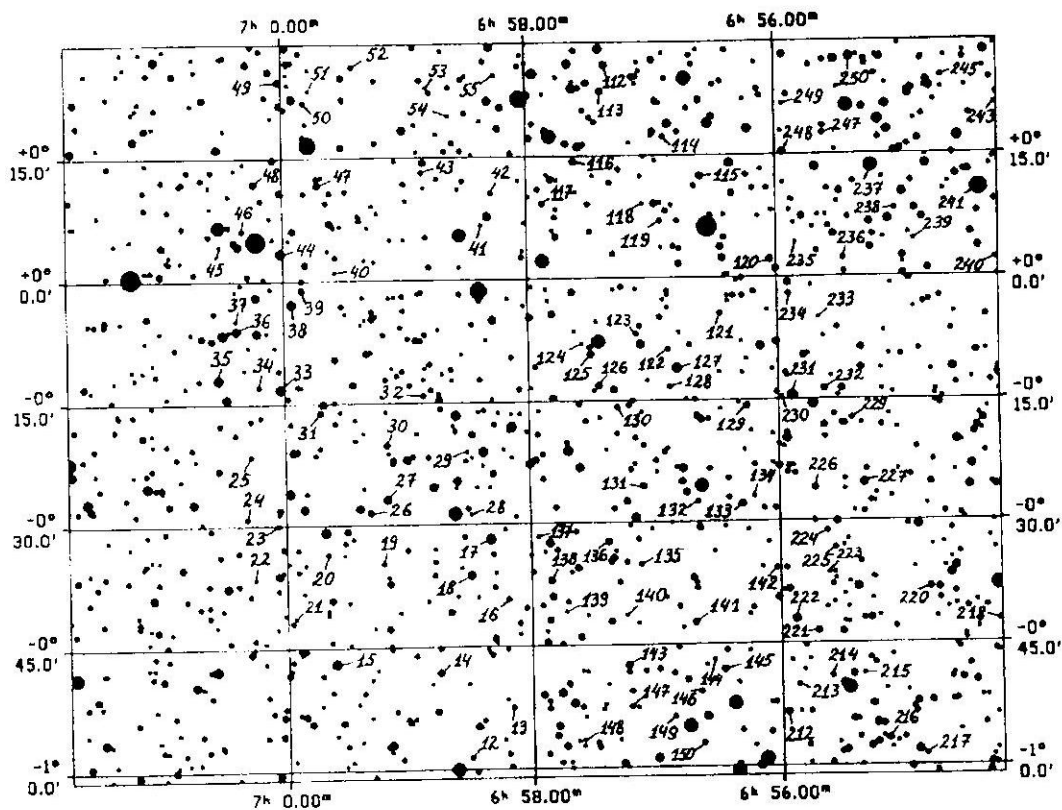


Fig. 50: KA-98, fragment 4

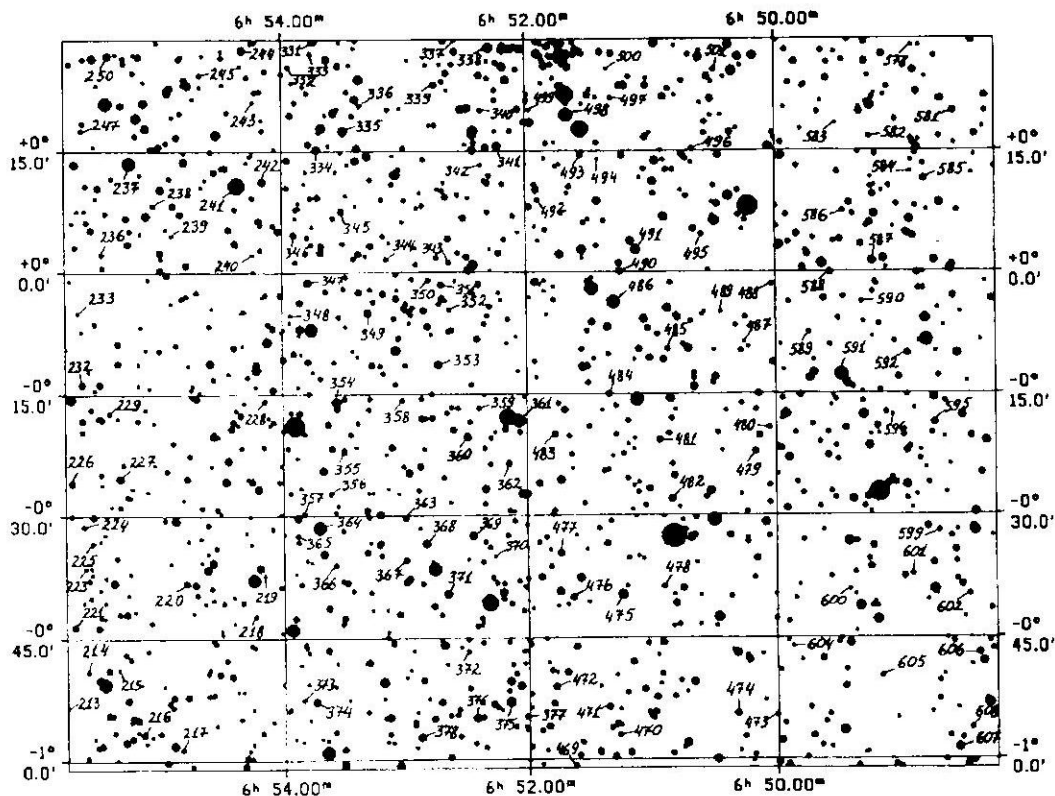


Fig. 51: KA-98, fragment 5

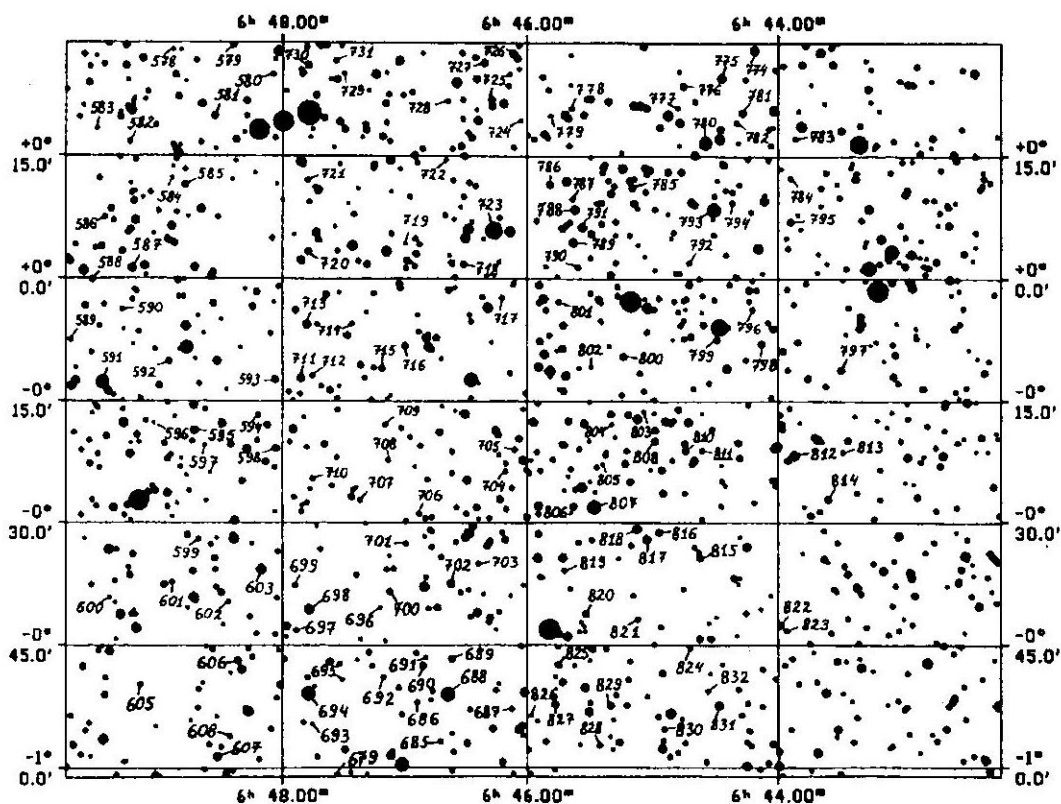


Fig. 52: KA-98, fragment 6

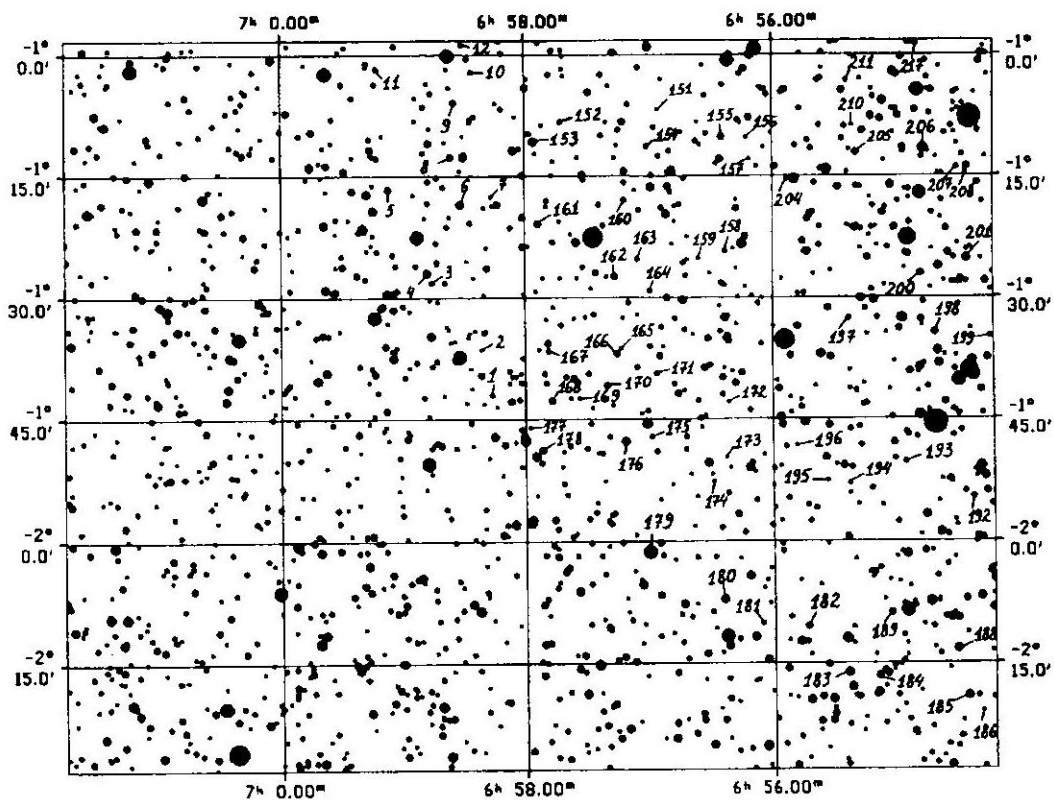


Fig. 53: KA-98, fragment 7

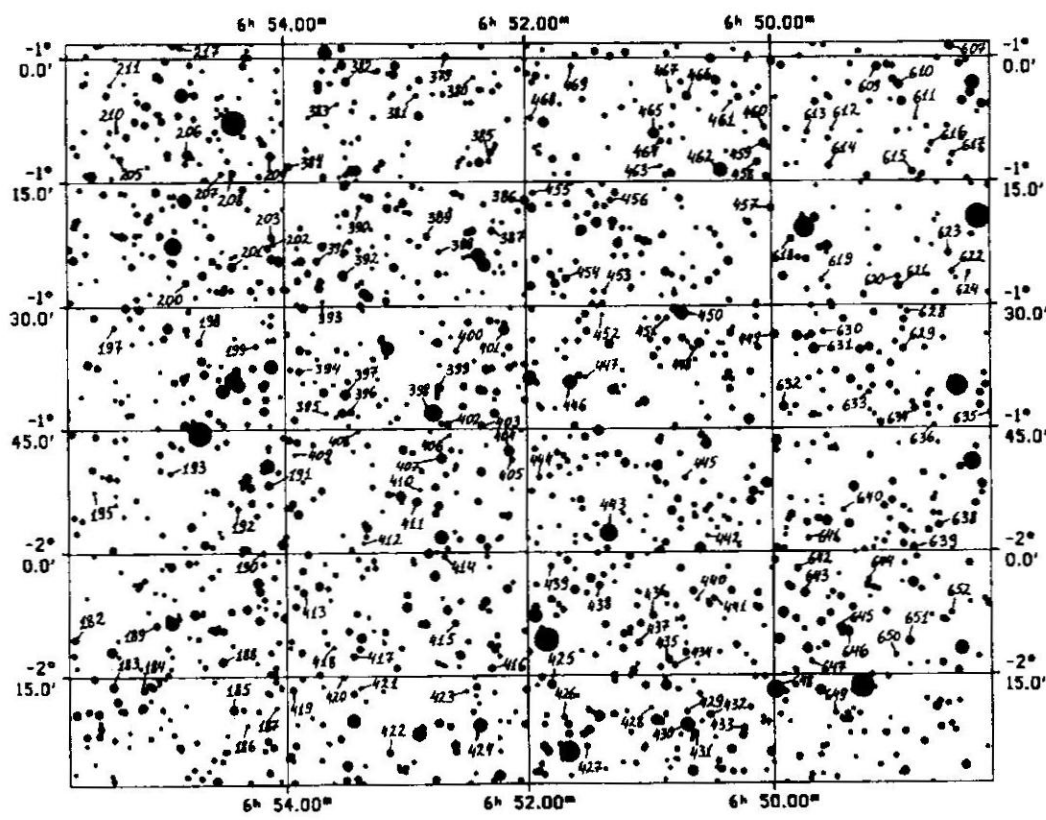


Fig. 54: KA-98, fragment 8

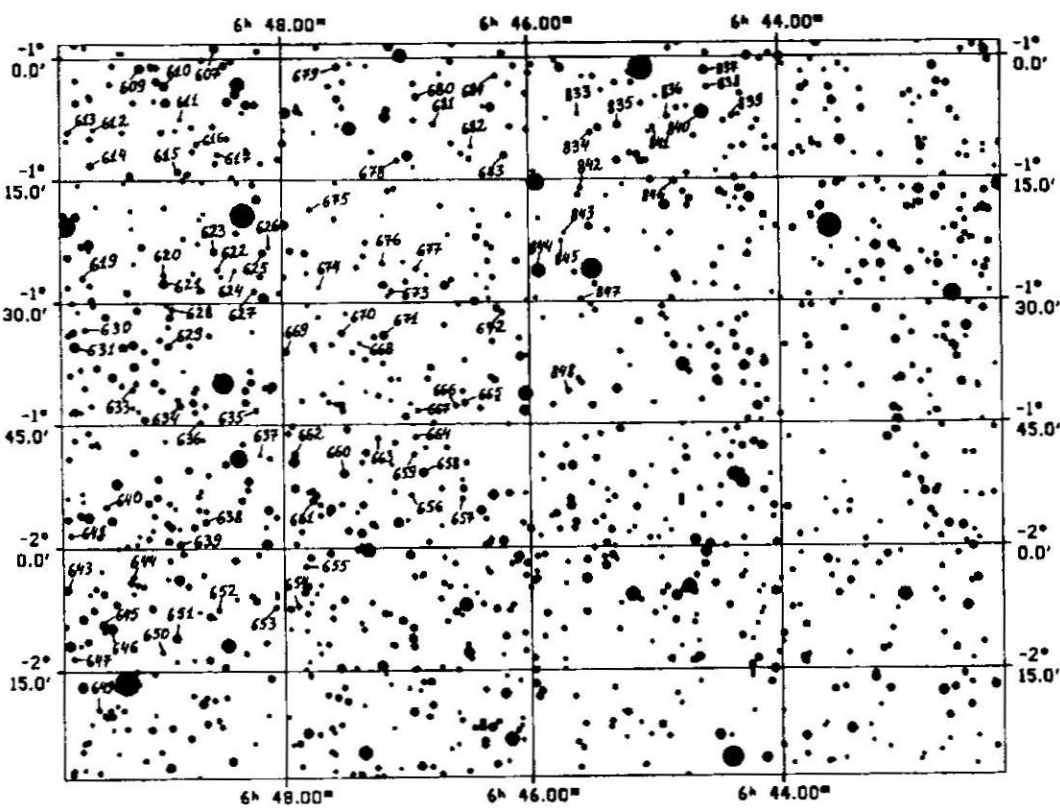


Fig. 55: KA-98, fragment 9

Table 7. Kapteyn area KA-98: magnitudes and color indices of stars

No	V	B-V	No	V	B-V	No	V	B-V
1	13.39	-0.39	284	12.63	0.64	567	13.31	0.43
2	13.32	-0.02	285	11.29	1.65	568	13.08	0.08
3	12.53	-0.09	286	12.28	0.28	569	11.54	0.71
4	11.36	-0.38	287	12.73	0.68	570	13.48	0.45
5	11.39	-0.17	288	9.49	1.02	571	11.36	1.68
6	11.21	-0.28	289	13.01	0.29	572	12.13	0.16
7	13.62	0.28	290	12.53	1.03	573	11.21	0.66
8	11.40	1.50	291	13.24	0.46	574	13.14	1.01
9	11.55	-0.40	292	13.70	0.20	575	12.73	0.52
10	12.38	0.33	293	12.64	0.24	576	9.90	0.17
11	13.42	-0.05	294	13.25	0.20	577	11.24	0.76
12	12.61	0.33	295	12.42	0.29	578	13.66	0.17
13	12.67	0.25	296	10.90	0.63	579	11.71	0.62
14	11.45	1.14	297	13.57	0.69	580	12.95	0.31
15	10.11	-0.14	298	10.12	0.84	581	12.03	0.47
16	13.11	0.42	299	13.21	1.06	582	12.97	0.14
17	10.07	-0.42	300	13.47	-0.17	583	13.48	0.26
18	10.59	0.16	301	9.58	0.54	584	13.23	0.70
19	12.83	0.70	302	12.42	0.34	585	10.73	1.02
20	13.12	0.14	303	13.75	0.22	586	13.58	0.22
21	13.30	0.48	304	10.10	1.03	587	10.42	0.33
22	13.43	0.26	305	12.81	0.38	588	11.99	0.64
23	11.85	1.41	306	13.02	-0.23	589	12.37	1.25
24	12.88	-0.06	307	13.99	-0.02	590	12.68	0.11
25	12.85	0.70	308	12.86	0.18	591	8.96	0.07
26	11.83	0.36	309	7.91	1.48	592	11.93	0.66
27	10.72	-0.08	310	12.89	0.04	593	11.25	1.57
28	13.59	0.23	311	7.84	1.15	594	12.46	1.37
29	13.17	0.53	312	12.46	0.88	595	11.43	0.25
30	12.46	-0.21	313	13.44	-0.17	596	13.50	0.25
31	11.17	0.14	314	9.98	1.28	597	13.86	0.28
32	12.75	0.10	315	11.37	0.46	598	12.25	0.58
33	10.62	-0.31	316	13.81	0.47	599	12.28	1.21
34	13.02	0.25	317	13.30	0.14	600	13.42	0.22
35	10.22	0.11	318	10.57	0.67	601	12.81	0.31
36	10.86	-0.15	319	11.56	1.06	602	12.86	0.18
37	13.51	0.47	320	11.82	0.56	603	10.06	0.15
38	9.08	0.69	321	13.41	0.41	604	12.54	0.63
39	12.06	-0.13	322	12.71	0.25	605	12.42	0.21
40	13.68	0.20	323	9.97	0.60	606	12.25	0.21
41	13.79	0.14	324	8.14	0.29	607	9.95	1.03
42	12.66	0.96	325	13.43	0.49	608	12.53	0.35
43	12.76	0.27	326	13.31	0.03	609	10.64	0.98
44	9.71	-0.08	327	11.16	0.84	610	10.27	0.52
45	13.92	0.10	328	11.86	0.72	611	13.55	0.45
46	13.21	-0.09	329	9.77	1.57	612	13.81	0.04
47	11.88	-0.10	330	13.80	0.80	613	13.17	0.17
48	11.47	0.90	331	10.07	0.25	614	12.03	0.17
49	12.25	0.32	332	12.49	0.41	615	11.72	0.14
50	13.04	0.58	333	11.95	0.66	616	12.71	0.35
51	13.37	0.18	334	11.57	0.55	617	13.11	0.29
52	12.89	0.59	335	8.99	0.81	618	11.53	0.63
53	13.60	0.00	336	12.04	0.57	619	13.22	0.30
54	13.42	0.32	337	13.27	-0.03	620	13.00	0.45
55	12.46	1.54	338	8.71	1.02	621	10.91	0.64
56	12.51	1.63	339	11.06	0.52	622	13.37	0.13

Table 7. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
57	11.49	-0.10	340	12.69	0.29	623	12.46	0.38
58	13.45	0.48	341	10.14	0.67	624	13.65	0.39
59	11.60	0.08	342	12.89	1.22	625	12.25	0.24
60	13.39	-0.18	343	12.14	0.24	626	13.68	0.23
61	11.65	-0.11	344	11.80	0.36	627	12.45	1.21
62	12.60	-0.11	345	12.78	0.17	628	12.78	0.40
63	13.00	-0.05	346	11.07	0.53	629	11.64	0.29
64	12.28	1.25	347	11.09	0.16	630	13.44	0.25
65	11.92	0.42	348	13.50	-0.14	631	9.95	-0.06
66	12.38	-0.10	349	11.08	0.79	632	11.20	0.34
67	12.80	0.34	350	13.94	-0.03	633	12.77	0.39
68	11.57	0.00	351	11.12	0.47	634	11.44	1.17
69	12.29	0.01	352	13.19	0.32	635	12.51	0.04
70	12.36	2.11	353	11.22	0.67	636	13.93	0.59
71	11.41	0.93	354	9.85	1.65	637	13.63	0.42
72	9.27	0.84	355	11.73	0.31	638	12.36	0.40
73	11.69	0.25	356	12.79	0.28	639	12.42	0.05
74	12.77	0.48	357	11.25	1.92	640	12.40	1.38
75	13.53	0.28	358	12.08	0.01	641	13.49	0.29
76	10.78	1.47	359	13.60	0.81	642	12.19	-0.03
77	13.53	0.31	360	11.33	0.29	643	11.95	-0.36
78	13.50	0.29	361	9.42	-0.11	644	13.30	0.24
79	12.25	1.31	362	12.79	0.02	645	11.02	-0.23
80	9.08	-0.35	363	12.86	0.03	646	10.45	-0.35
81	11.48	0.39	364	8.87	1.00	647	12.41	0.84
82	12.49	0.18	365	12.30	1.19	648	9.08	-0.63
83	12.40	0.25	366	13.21	0.30	649	13.18	0.56
84	9.67	1.59	367	11.75	0.21	650	12.99	-0.09
85	11.87	0.97	368	10.20	0.12	651	11.52	-0.15
86	12.43	0.32	369	10.80	0.48	652	12.63	0.67
87	12.90	-0.10	370	13.28	0.50	653	13.23	0.19
88	10.78	1.07	371	10.65	1.33	654	13.00	0.90
89	11.73	1.41	372	13.65	-0.10	655	13.02	0.39
90	12.95	0.35	373	13.04	0.73	656	12.49	1.24
91	11.62	0.16	374	10.58	1.09	657	12.34	1.07
92	13.12	0.02	375	9.96	0.23	658	11.03	0.04
93	12.84	0.30	376	10.41	1.54	659	12.93	0.56
94	10.79	-0.04	377	13.48	0.24	660	11.18	0.35
95	12.40	0.32	378	11.50	0.16	661	11.87	0.43
96	13.02	-0.21	379	12.47	0.02	662	11.75	1.12
97	12.79	0.27	380	13.26	0.01	663	13.20	0.14
98	12.65	0.17	381	12.00	0.22	664	12.84	0.19
99	7.68	1.51	382	11.29	0.10	665	11.25	0.79
100	11.49	1.21	383	13.63	0.11	666	12.75	0.03
101	13.13	0.98	384	11.25	0.31	667	13.27	0.22
102	11.09	1.60	385	12.60	0.28	668	13.61	0.57
103	11.63	-0.26	386	9.63	1.83	669	12.26	0.36
104	11.78	0.17	387	11.22	0.27	670	11.63	0.66
105	12.58	0.41	388	13.56	0.30	671	11.02	-0.05
106	13.18	-0.06	389	11.59	0.11	672	12.40	1.01
107	13.17	0.52	390	13.46	-0.01	673	13.00	-0.15
108	13.57	0.16	391	12.80	0.01	674	13.71	0.52
109	11.82	1.19	392	9.94	1.08	675	13.50	0.21
110	13.48	0.28	393	13.12	0.22	676	12.32	1.32
111	11.92	0.09	394	12.66	-0.17	677	12.57	0.32
112	11.93	-0.04	395	13.73	0.66	678	13.10	-0.17
113	12.12	-0.03	396	11.11	1.00	679	12.69	-0.01
114	12.40	0.57	397	10.10	-0.13	680	12.31	0.17

Table 7. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
115	11.52	1.14	398	8.86	-0.24	681	12.46	0.30
116	12.13	0.04	399	10.71	0.57	682	13.29	0.70
117	12.02	0.30	400	13.44	-0.04	683	11.73	0.24
118	13.71	0.24	401	9.87	0.07	684	12.49	0.28
119	12.10	1.09	402	12.02	0.00	685	12.23	0.38
120	12.18	0.13	403	11.92	0.08	686	13.00	0.45
121	13.27	-0.16	404	10.21	0.41	687	12.88	-0.01
122	13.05	0.12	405	13.13	-0.18	688	9.40	0.32
123	13.13	0.19	406	12.96	0.54	689	11.57	0.99
124	13.47	0.10	407	10.56	0.47	690	12.41	0.28
125	11.58	0.36	408	13.33	1.07	691	13.76	0.17
126	12.20	-0.20	409	12.29	1.11	692	11.63	1.72
127	10.20	-0.15	410	13.87	0.47	693	13.55	0.66
128	13.00	0.16	411	11.40	0.12	694	8.86	0.12
129	11.40	-0.09	412	12.76	0.65	695	13.45	1.60
130	12.51	0.46	413	12.21	0.09	696	13.60	0.01
131	11.82	-0.39	414	11.95	1.14	697	13.18	0.23
132	13.01	0.55	415	11.50	0.85	698	9.05	1.01
133	11.75	0.39	416	12.53	0.12	699	12.93	0.30
134	13.61	0.14	417	11.60	-0.07	700	11.66	0.21
135	12.16	-0.06	418	13.66	0.58	701	12.55	0.42
136	11.58	1.00	419	11.63	-0.32	702	9.84	1.20
137	13.52	0.52	420	12.74	-0.31	703	12.51	0.54
138	11.26	1.22	421	13.81	0.32	704	13.10	-0.04
139	13.29	0.39	422	11.80	0.63	705	13.01	0.28
140	13.41	0.24	423	13.58	0.45	706	13.48	0.38
141	12.56	-0.03	424	9.71	-0.57	707	13.07	0.00
142	12.76	0.11	425	10.78	0.51	708	12.26	0.19
143	12.55	-0.22	426	12.97	0.09	709	12.58	1.23
144	13.53	0.54	427	13.09	0.21	710	13.58	-0.19
145	11.94	0.64	428	13.99	0.38	711	10.71	0.79
146	12.51	1.77	429	11.83	0.97	712	12.56	0.29
147	12.71	0.24	430	10.33	-0.69	713	10.99	0.49
148	13.52	0.32	431	11.11	-0.19	714	12.63	0.16
149	12.98	-0.26	432	12.31	-0.40	715	11.95	0.48
150	13.27	-0.20	433	11.50	0.61	716	11.27	0.29
151	13.53	0.09	434	12.41	0.92	717	12.91	0.31
152	12.17	1.08	435	12.61	-0.17	718	11.72	0.10
153	10.41	0.19	436	12.59	-0.13	719	12.87	1.09
154	12.37	0.20	437	11.09	0.81	720	11.52	0.37
155	11.20	1.28	438	12.83	-0.23	721	12.16	0.29
156	12.87	1.27	439	12.51	0.36	722	13.58	-0.01
157	13.64	0.18	440	13.60	0.24	723	8.83	0.10
158	12.68	0.16	441	11.88	0.76	724	13.25	0.84
159	12.96	0.64	442	13.16	1.51	725	12.47	0.13
160	12.62	0.05	443	8.52	-0.20	726	11.01	1.08
161	12.13	0.11	444	12.96	-0.08	727	11.24	0.69
162	11.30	0.30	445	11.84	1.05	728	13.15	0.53
163	12.26	0.11	446	9.09	-0.10	729	13.27	0.99
164	13.28	-0.03	447	13.96	0.36	730	11.79	0.36
165	13.33	0.11	448	10.82	-0.12	731	12.55	0.27
166	12.09	-0.30	449	10.77	0.07	732	12.28	0.64
167	12.93	0.18	450	9.24	-0.08	733	10.32	0.70
168	12.12	-0.13	451	12.31	0.62	734	12.52	-0.07
169	13.08	0.61	452	13.59	0.21	735	12.53	0.32
170	11.61	-0.31	453	13.55	0.44	736	10.01	0.49
171	12.04	0.47	454	11.52	0.61	737	12.52	0.81
172	13.34	0.02	455	13.59	0.42	738	10.90	0.55

Table 7. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
173	13.51	0.14	456	12.96	0.13	739	13.32	0.47
174	13.60	0.24	457	11.40	0.02	740	11.41	1.06
175	12.40	0.01	458	10.44	1.21	741	12.80	0.32
176	11.20	-0.52	459	10.28	1.37	742	10.98	0.66
177	13.57	-0.33	460	12.61	0.79	743	11.31	0.71
178	12.23	-0.21	461	13.89	0.33	744	12.99	1.77
179	9.82	-0.56	462	9.40	0.33	745	12.58	1.50
180	11.59	-0.36	463	13.46	0.11	746	13.16	0.11
181	13.03	0.46	464	13.08	0.49	747	12.65	0.30
182	11.61	-0.41	465	9.66	0.18	748	11.32	0.39
183	11.37	0.06	466	10.98	0.33	749	11.81	0.42
184	12.71	0.14	467	13.07	0.16	750	13.74	0.13
185	11.37	0.78	468	12.04	0.03	751	11.27	0.26
186	0.53		469	12.49	0.41	752	12.01	0.49
187	13.28	0.53	470	13.13	0.35	753	11.89	0.38
188	10.41	0.37	471	10.86	0.20	754	11.98	0.05
189	13.05	0.07	472	10.67	1.22	755	11.76	0.18
190	13.32	0.21	473	13.03	0.22	756	13.38	0.62
191	10.42	0.98	474	10.58	1.30	757	12.86	1.00
192	12.37	0.07	475	10.21	0.57	758	12.82	0.06
193	13.12	0.45	476	11.07	1.87	759	13.24	0.29
194	13.15	0.58	477	12.62	0.26	760	13.50	-0.05
195	13.69	0.34	478	11.43	1.46	761	11.93	0.59
196	13.40	0.33	479	11.66	0.51	762	11.53	0.56
197	11.92	1.98	480	12.87	0.71	763	12.69	0.71
198	11.51	1.08	481	9.93	1.43	764	12.07	0.60
199	13.48	0.27	482	11.36	0.24	765	12.82	0.36
200	13.02	0.10	483	12.09	0.68	766	12.14	1.15
201	11.26	0.18	484	12.02	0.30	767	10.83	1.01
202	12.87	0.39	485	12.58	0.52	768	11.24	1.01
203	12.20	0.39	486	9.44	0.22	769	12.63	0.03
204	13.63	0.67	487	13.62	0.54	770	12.07	0.10
205	11.38	0.57	488	12.32	0.00	771	10.71	0.37
206	10.57	0.22	489	13.88	0.12	772	13.55	0.19
207	12.62	0.40	490	11.39	0.24	773	12.88	0.12
208	12.76	1.59	491	9.64	1.31	774	10.18	1.28
209	11.40	0.37	492	12.09	1.02	775	11.29	0.34
210	13.61	0.20	493	12.11	0.61	776	11.29	0.75
211	13.28	0.45	494	13.35	0.54	777	13.90	0.10
212	11.34	0.08	495	12.29	0.63	778	12.79	0.40
213	12.71	0.06	496	11.95	1.72	779	13.58	-0.21
214	13.11	-0.04	497	12.43	0.48	780	8.87	0.85
215	13.70	0.22	498	9.03	0.02	781	12.29	0.23
216	11.51	0.06	499	12.83	0.64	782	13.06	0.37
217	13.00	-0.18	500	13.16	0.05	783	12.02	1.53
218	13.06	0.18	501	12.89	0.18	784	13.17	-0.09
219	13.83	1.01	502	13.14	0.27	785	12.01	0.36
220	11.76	0.73	503	9.75	0.36	786	11.12	1.33
221	11.86	-0.37	504	13.14	0.44	787	13.64	0.10
222	11.43	-0.20	505	11.50	0.21	788	10.41	0.51
223	13.26	0.04	506	11.69	0.49	789	10.53	0.25
224	12.76	-0.14	507	11.11	0.34	790	12.77	0.42
225	12.94	-0.17	508	12.81	1.10	791	10.94	0.68
226	11.35	1.40	509	10.15	0.37	792	12.65	0.36
227	10.61	0.34	510	13.83	0.24	793	8.64	1.53
228	12.17	0.29	511	12.52	0.24	794	12.89	-0.05
229	12.88	0.31	512	8.96	0.89	795	11.42	0.71

Table 7. (continued)

No	V	B-V	No	V	B-V	No	V	B-V
230	13.67	0.27	513	13.64	0.21	796	12.49	0.14
231	10.59	-0.50	514	13.51	0.39	797	11.68	1.36
232	12.27	0.00	515	11.95	0.28	798	11.36	0.72
233	13.10	1.29	516	10.71	0.32	799	10.41	0.93
234	13.03	0.58	517	11.28	0.14	800	11.98	0.50
235	13.51	0.43	518	11.24	1.14	801	12.48	0.26
236	12.93	0.16	519	12.79	0.50	802	13.37	0.39
237	8.74	0.89	520	13.51	0.34	803	13.71	0.38
238	13.27	-0.08	521	10.29	0.20	804	13.27	0.84
239	13.69	0.07	522	13.39	0.19	805	12.97	1.07
240	13.34	0.52	523	12.33	0.43	806	11.18	1.24
241	8.79	-0.06	524	11.11	0.04	807	9.20	0.16
242	10.23	0.85	525	12.52	0.42	808	12.00	0.21
243	13.38	0.27	526	11.14	0.75	809	11.83	0.26
244	10.82	0.66	527	12.30	0.00	810	11.30	0.09
245	12.43	1.28	528	12.50	-0.12	811	13.54	0.25
246	10.25	0.12	529	13.67	0.11	812	10.43	0.15
247	12.23	0.24	530	12.61	0.01	813	11.96	1.12
248	10.76	1.79	531	10.76	0.21	814	11.93	0.12
249	12.99	1.03	532	13.02	0.54	815	11.54	0.40
250	11.01	0.38	533	13.24	0.38	816	11.60	0.53
251	11.14	0.68	534	13.08	0.18	817	10.90	0.27
252	12.77	0.92	535	12.96	0.20	818	10.41	1.41
253	11.25	0.54	536	12.93	-0.06	819	12.38	1.04
254	13.40	-0.14	537	13.01	0.37	820	11.71	0.63
255	10.67	0.51	538	11.63	-0.39	821	12.80	0.14
256	9.36	0.71	539	12.85	0.02	822	11.97	0.14
257	10.05	0.99	540	12.76	0.30	823	12.18	1.19
258	13.51	-0.10	541	13.37	0.22	824	13.18	0.44
259	12.70	-0.02	542	12.49	0.05	825	12.40	0.41
260	9.86	0.62	543	11.59	0.38	826	13.61	0.25
261	13.29	0.28	544	11.81	-0.05	827	11.94	0.05
262	12.98	0.07	545	11.49	-0.27	828	13.00	0.40
263	12.65	0.03	546	11.00	-0.02	829	11.51	0.09
264	13.49	-0.01	547	12.44	0.24	830	13.25	0.04
265	13.74	0.31	548	11.07	0.40	831	11.20	0.18
266	10.23	0.41	549	13.18	0.03	832	12.67	0.44
267	11.84	0.48	550	11.65	-0.22	833	13.43	0.38
268	11.98	1.86	551	13.05	-0.05	834	12.51	0.36
269	11.96	0.67	552	13.44	0.37	835	11.55	0.87
270	12.39	0.61	553	13.59	0.33	836	12.28	0.27
271	12.12	0.11	554	12.33	0.35	837	10.75	0.33
272	13.41	0.21	555	10.84	1.40	838	12.75	0.21
273	12.64	0.00	556	9.98	0.13	839	13.15	0.23
274	12.58	0.49	557	12.69	-0.03	840	9.26	0.07
275	13.06	0.36	558	10.59	0.18	841	13.49	0.82
276	11.90	0.45	559	13.45	0.08	842	12.36	1.38
277	13.33	0.55	560	12.27	1.90	843	13.43	0.33
278	9.81	1.75	561	10.83	0.37	844	9.57	0.00
279	13.39	0.62	562	12.62	0.19	845	13.21	0.68
280	13.81	0.05	563	13.68	0.11	846	12.14	0.33
281	11.39	0.92	564	11.66	1.30	847	13.32	0.24
282	12.71	0.17	565	11.84	1.36	848	13.27	0.20
283	10.24	0.39	566	11.65	1.16			