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A NEW LIST OF EFFECTIVE TEMPERATURES OF CHEMICALLY PECULIAR STARS. II

YU. V. GLAGOLEVSKIJ
Special Astrophysical Observatory of the Russian AS,
Nizhnij Arkhyz 357147, Russia

ABSTRACT. *A new list is presented of effective temperatures estimated for about 700 chemically peculiar stars from the photometric parameters, calibrated with the temperatures determined by Shallis-Blackwell method from the total flux of the energy emitted by the stars.*

INTRODUCTION

Investigations of chemically peculiar stars constantly demand reliable values of effective temperatures because many conclusions, estimations of chemical abundances and other parameters depend on their accuracy. We repeatedly investigated this problem (Glagolevskij et al., 1973; Glagolevskij and Chunakova, 1986; Glagolevskij, 1990 (Paper 1)) specifying the temperatures of the stars of interest and increasing their number. In our last two papers we reduced all our previous estimates to the temperatures of the well known series of Adelman's papers and added new data calculated from the UBV parameters and Geneva photometry. The shortcomings in Adelman's temperatures arise because they were obtained from a model calculation of the energy distribution in the continuum and may differ from the real values defined from the total flux of the emitted energy (in consequence of $\pi B=\sigma T^4$).

EFFECTIVE TEMPERATURES OF CP STARS

It is well known that magnetic, chemically peculiar stars have abnormal spectra due to the anomalous chemical abundance. Therefore the use of any parameters gives us unsatisfactory values of temperatures. But in the last time a large enough number of estimates of the effective temperatures determined from the total flux of the energy emitted by stars was accumulated. The total flux does not depend on any spectral anomalies and is determined by the effective temperature alone. This method can not pretend to be highly accurate for individual values of T_e, however the large enough number of stars used allows calibration with a satisfactory accuracy. Table 1 shows this calibration of $T_e(Q)$ and $T_e(X)$. Construction of these dependences is based on the papers by Megessier (1988), Stepien and Dominiczak (1989), Lamers (1981), Shallis et al. (1985) and Glushneva (1987). We have included also the data of the paper by Stepien and Dominiczak (1989), in which T_e is estimated from the distribution of energy in the continuum, but the anomaly in energy distribution has been taken into account. The scatter of data points makes it impossible to obtain the calibration dependences to an accuracy better than 200-300 K. Data for the temperature region T_e>30000 K are lacking.

As a result of the complex character of the dependence of T_e upon the Q and X parameters in the region of low temperatures (T_e< 10500 K), we have used, as earlier, the dependence of T_e upon the parameters of multicolour photometry (B2-G), as recommended in some papers. Hauck and North (1993) suggested that different calibrations should be used for metallic line stars and for magnetic chemically peculiar stars (namely (B2-V1)). The temperatures of Hg Mn stars have never been determined by Blackwell-Shallis method, which is why we estimate T_e with the help of the calibration for CP2 magnetic stars and then introduce corrections ΔT = +800 K (±60 K), which we estimate using the data of Table 5 from Hauck and North (1993).

Table 1.

Dependence of parameters Q and X upon the effective temperatures T_e

T_e	Q	X	T_e	Q	X
9000	-0.060	1.70	22000	0.725	0.33
10000	0.125	1.40	23000	0.745	0.29
11000	0.245	1.18	24000	0.765	0.26
12000	0.325	1.02	25000	0.780	0.23
13000	0.390	0.89	26000	0.795	0.20
14000	0.445	0.79	27000	0.810	0.17
15000	0.490	0.70	28000	0.820	0.15
16000	0.535	0.63	29000	0.835	0.12
17000	0.575	0.57	30000	0.845	0.10
18000	0.610	0.52	31000	0.855	0.08
19000	0.645	0.46	32000	0.865	0.06
20000	0.675	0.42	33000	0.875	0.05
21000	0.700	0.37	34000	0.885	0.04

In Table 2 are listed effective temperatures T_e^0 for about 700 stars estimated from the dependences discussed. All the necessary comments are given at the beginning of Table 2. We have not included in the average temperature values the data of Adelman because of their large dispersion in some cases. In the last column, apart from other comments, are presented the deviations of the average temperature values (Δ%) from the values being averaged, which define both the accuracy of the temperatures and that of the calibration dependences. It is seen that the values of Δ are, on the average, 1.45%, which shows that most temperatures are sufficiently accurate. In the cases where there is only one estimate the control of correctness of T_e is impossible. Let us adopt the following: Δ=0, if it is really smaller than 0.5%, then Δ=1, if it is between 0.6-1.4%, etc.

Table 2. Effective temperatures of chemically peculiar stars

$T_e(Q)$ - temperatures determined from the parameter Q;
$T_e(X)$ - temperatures determined from the parameter X of multicolour photometry;
$T_e(M)$ - temperatures determined from the total flux in (Megessier, 1988). "+" are the temperatures, averaged from $T_e(2100)$, $T_e(u - b)$ and $T_e(B2 - G)$;
$T_e(SD)$ - temperatures from (Stepien and Dominiczak, 1989);
$T_e(L)$ - temperatures from (Lanz, 1985);
$T_e(Sh)$ - temperatures from (Shallis et al., 1985);
$T_e(A)$ - temperatures from Adelman's serie of papers;
T_e^0 - average temperatures from $T_e(Q)$, $T_e(X)$, $T_e(M)$, $T_e(SD)$, $T_e(L)$, $T_e(Sh)$;
Δ - deviation of individual T_e from the average values T_e^0 (%).

Temperatures marked by * estimated for CP stars $T_e < 10500$ K from (B2-G), the metallic-line stars (marked "m") have own calibration (B2-V1)-T_e (see the text and paper by Hauck & North, 1993).

HD	$T_e(Q)$	$T_e(X)$	$T_e(M)$	$T_e(SD)$	$T_e(L)$	$T_e(Sh)$	$T_e(A)$	T_e^0	Δ%
315	12800	-	-	-	-	-	-	12800	-
358	13000	13900	-	-	-	-	10200	13450	4
952	9600	9500	-	-	-	-	-	9500	*
1048	10000	9200	-	-	-	-	-	9600	4
1909	12700	12200	-	-	-	-	-	12450	2
2054	11350	11300	-	-	-	-	-	11320	0
2453	9600	9700	-	-	-	-	8450	9070m	-
2888	-	10700	-	-	-	-	-	10700	-
3322	12100	12500	-	-	-	-	-	12300	2
3580	15100	13200	-	-	-	-	-	14150	7
3885	10900	10900	-	-	-	-	-	10900	*
3980	-	10200	-	-	-	-	-	10200	-
4335	12400	11500	-	-	-	-	-	11950	4
4778	9650	9850	-	-	-	-	-	9200	*
5342	12400	-	-	-	-	-	-	12400	-
5601	10300	10500	-	-	-	-	-	9850	*
5737	13500	13500	-	-	-	-	-	13500	0
5797	9500	9200	-	-	-	-	7500	7450	*
6164	-	10050	-	-	-	-	9500	10050	-
6322	9850	-	-	-	-	-	-	9850	-
6532	9550	9950	-	-	-	-	-	8100	*

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
6783	–	11900	–	–	–	–	–	11900	–
7374	13300	12900	–	–	–	–	–	13100	2
7546	11800	11900	–	–	–	–	–	11850	1
8374	9600	10350	–	–	–	–	–	7540m	–
8441	9300	8950	–	–	–	–	9000	9100	*
8783	9300	9050	–	–	–	–	–	8300	*
8855	12900	12900	–	–	–	–	–	10500m	–
9298	13000	12900	–	–	–	–	–	12950	0
9484	9650	9800	–	–	–	–	–	9950	*
9531	11150	10900	–	–	–	–	–	11030	1
9996	10000	10000	–	–	–	–	–	9700	*
10221	10800	10650	–	–	–	–	–	10730	1
10783	10200	10150	–	–	–	–	10000	9950	*
11187	10900	10500	–	–	–	–	9675	9800	*
11291	11100	10850	–	–	–	–	–	10970	1
11503	10000	–	–	–	–	–	–	10000	–
11905	13300	13400	–	–	–	–	–	13350	0
12288	9600	9400	–	–	–	–	–	8600	*
12447	10000	10200	–	–	–	–	–	9050	*
12767	12900	13400	12775	–	12840	–	–	12980	1
14392	11550	12100	12080$^{+)}$	–	–	–	–	11910	2
14437	–	10800	–	–	–	–	–	10800	–
15089	9550	9950	–	–	–	–	–	8400	*
15144	9350	9600	–	–	–	–	–	8350	*
16004	12150	–	–	–	–	–	–	12150	–
16504	–	9800	–	–	–	–	–	10150	*
16627	9850	9700	–	–	–	–	–	8800	*
16693	12600	12000	–	–	–	–	–	12300	3
16727	13900	14500	–	–	–	–	–	14200	2
237040	12500	11900	–	–	–	–	–	12200	2
18078	–	9050	–	–	–	–	7500	9050	–
18296	10900	11000	10910$^{+)}$	–	–	–	9675	10950	1
+59 597	13100	–	–	–	–	–	–	13100	–
18769	9600	9400	–	–	–	–	–	7590m	–
19400	12500	13300	–	–	–	–	–	12900	3
19653	9500	–	–	–	–	–	–	9500	–
19712	10150	10000	–	–	–	–	–	10150	*
19832	12150	12600	12620$^{+)}$	12200	–	–	12125	12390	2
20135	9500	9500	–	–	–	–	–	7700	*
20210	–	–	–	–	–	–	–	7650m	–
21590	13200	12400	12620$^{+)}$	–	–	–	–	12750	2
21699	16100	–	–	–	–	–	–	16100	–
21728	11200	–	–	–	–	–	–	11200	–
22316	11200	–	–	–	–	–	–	11200	–
22374	9400	9100	–	–	–	–	8250	8350	*
22401	10100	10000	–	–	–	–	–	9250	*
22470	13100	13400	–	–	13790	–	–	13450	2
22920	14400	14300	–	–	–	–	–	14350	0
23193	–	–	–	–	–	–	–	8960m	–
23281	–	–	–	–	–	–	–	7820m	–
23408	12500	12000	–	–	–	–	–	12250	0
23950	11900	12100	–	–	–	–	–	9250	*
24155	13800	14000	13825	–	13730	–	–	13840	1
24712	10700	11400	–	–	–	–	–	11050	3
25267	11900	12400	–	–	–	–	–	12150	2
25354	10450	10800	–	–	–	–	–	9000	*
+59 157	13600	–	–	–	–	–	–	13600	–

Table 2 (continued)

HD	$T_e(Q)$	$T_e(X)$	$T_e(M)$	$T_e(SD)$	$T_e(L)$	$T_e(Sh)$	$T_e(A)$	T_e^0	Δ%
25823	12900	13300	12740$^{+)}$	12900	–	–	13000	12960	1
26961	9500	9100	–	–	–	–	–	8950	*
27295	11400	11800	–	–	–	–	11750	11600	2
27309	11600	12150	11450$^{+)}$	12100	–	–	12500	11820	2
27376	12250	12600	–	–	–	–	–	12420	2
27463	9600	9650	–	–	–	–	–	8750	*
27483	12100	13500	–	–	–	–	–	12800	5
27628	9900	10600	–	–	–	–	–	7240m	–
27650	10300	10400	–	–	–	–	–	9050	*
27749	–	–	–	–	–	–	–	7450m	–
27962	9500	9200	–	–	–	–	–	9070m	–
28546	–	–	–	–	–	–	–	7630m	–
28843	14400	14400	–	–	14800	–	–	14530	1
28929	12900	12900	–	–	–	–	–	12900	0
29009	12800	12500	–	–	–	–	–	12650	1
29140	9400	9650	–	–	–	–	–	8100m	–
29305	11200	11700	–	–	–	–	–	11450	2
29573	–	–	–	–	–	–	–	8860m	–
29589	14100	14700	–	–	–	–	–	14400	2
30210	9500	9400	–	–	–	–	–	8150m	–
30466	10600	11200	–	–	–	–	–	10900	3
30584	10900	10900	–	–	–	–	–	10900	0
30612	12800	12700	–	–	–	–	–	12750	0
30849	9500	10400	–	–	–	–	–	7250	*
31295	9200	9500	–	–	–	–	–	8800	*
32549	9700	9500	9588$^{+)}$	–	–	–	–	10250	*
32633	12500	13000	–	–	–	–	12500	12750	2
32650	–	11500	11800$^{+)}$	–	–	–	13500	11650	1
33254	9600	9800	–	–	–	–	–	7770m	–
33647	12150	12300	–	–	–	–	–	12220	1
33904	12600	12500	–	–	–	–	–	12550	0
34060	10150	10100	–	–	–	–	–	10550	*
34452	13450	15100	13480$^{+)}$	14400	–	–	15750	14110	4
34719	–	12200	–	–	–	–	–	12200	–
34736	12800	12800	–	–	–	–	–	12800	0
34880	13200	12900	–	–	–	–	–	13050	1
34889	11800	11800	–	–	–	–	–	11800	0
34959	13900	13200	–	–	–	–	–	13550	3
35298	15100	15300	–	–	–	–	–	15200	1
35353	10200	10700	–	–	–	–	–	7850	*
35456	14250	13800	–	–	–	–	–	14020	2
35479	12400	12100	–	–	–	–	–	12250	1
35502	15950	15900	–	–	–	–	–	15920	0
35548	10200	10100	–	–	–	–	–	9900	*
35575	18000	18400	–	–	–	–	–	18200	1
35730	17100	17200	–	–	–	–	–	17150	0
35881	13600	13300	–	–	–	–	–	13450	1
35912	18200	18600	–	–	–	–	–	18400	1
36046	15000	14600	–	–	–	–	–	14800	1
36313	12500	12200	–	–	–	–	–	12350	1
36404	11900	11900	–	–	–	–	–	11900	0
36429	16600	16500	–	–	–	–	–	16550	0
36430	18300	18600	–	–	–	–	–	18450	1
36526	16950	15600	–	–	–	–	–	15770	1
36540	16100	15600	–	–	–	–	–	15850	2
36549	–	11800	–	–	–	–	–	11800	–
36629	20200	20500	–	–	–	–	–	20350	1

Table 2 (continued)

HD	$T_e(Q)$	$T_e(X)$	$T_e(M)$	$T_e(SD)$	$T_e(L)$	$T_e(Sh)$	$T_e(A)$	T_e^o	Δ%
36668	12800	12200	–	–	–	–	–	12500	2
36916	15700	13800	–	–	–	–	–	14750	6
36881	11200	10800	–	–	–	–	–	7850	*
290665	10000	–	–	–	–	–	–	10000	–
36955	9850	10000	–	–	–	–	–	8300	*
36958	–	16700	–	–	–	–	–	16700	–
36982	–	23600	–	–	–	–	–	23600	–
37017	20000	20100	–	–	–	–	–	20050	0
37043	15100	–	–	–	–	–	–	15100	–
37058	18400	19600	–	–	19610	–	–	19200	3
37129	18600	18400	–	–	16990	–	–	18000	4
37140	15200	15100	–	–	–	–	–	15150	0
37149	13600	13100	–	–	–	–	–	13350	1
37151	12300	12000	–	–	–	–	–	12150	1
37210	12650	12400	–	–	–	–	–	12520	1
37235	13000	12800	–	–	–	–	–	12900	1
37321	15000	14400	–	–	–	–	–	14700	2
37470	11900	11950	–	–	–	–	–	11920	0
37479	22200	22700	–	–	–	–	–	22450	1
37519	11850	11600	–	–	–	–	–	11720	1
37525	15800	15600	–	–	–	–	–	15700	1
37633	12800	13000	–	–	–	–	–	12900	1
37642	13600	15600	–	–	–	–	–	14600	9
37752	16000	15900	–	–	–	–	–	15950	0
37776	23700	23000	–	–	–	–	–	23350	1
37807	16900	16400	–	–	–	–	–	16650	1
37808	12600	13900	12860$^{+)}$	–	12710	–	–	13020	3
38104	9250	9000	–	–	–	–	8500	9050	*
38478	14100	13200	–	–	–	–	10125	13650	3
39082	9800	9900	–	–	–	–	–	9250	*
39283	9000	9100	–	–	–	–	–	9000	*
39317	9600	9000	9850$^{+)}$	–	–	–	10000	10250	*
40312	9950	9700	–	10200	–	–	–	10400	*
40383	–	10800	–	–	–	–	–	10800	–
40394	10000	9700	–	–	–	–	8950	9050	*
41269	10700	10700	–	–	–	–	–	10700	0
41357	–	–	–	–	–	–	–	7760m	–
42509	9800	9500	–	–	–	–	–	10200	*
42536	9400	9100	–	–	–	–	–	9250	*
42477	9300	9100	–	–	–	–	–	10150	*
42616	9400	9300	–	–	–	–	–	8400	*
42657	12700	12600	–	–	–	–	–	12650	0
43819	11100	10900	10775	–	10630	–	11000	10850	1
44691	–	–	–	–	–	–	–	7800m	–
44953	16100	16300	–	–	–	–	–	16200	0
45029	12600	12700	–	–	–	–	–	12650	0
45439	12100	13000	–	–	–	–	–	12650	4
45530	10700	11100	–	–	–	–	–	10900	2
45583	12600	13200	–	–	–	–	–	12900	2
45827	10300	9000	–	–	–	–	–	9650	7
46057	12500	–	–	–	–	–	–	12500	–
258686	13300	–	–	–	–	–	–	13300	–
46462	14050	14000	–	–	–	–	–	14020	0
260858	–	19200	–	–	–	–	–	19200	–
47152	9800	9800	–	–	–	–	9500	9400	*
47756	12800	12400	–	–	–	–	–	12600	2
47777	20600	22200	–	–	–	–	–	21400	4

Table 2 (continued)

HD	$T_e(Q)$	$T_e(X)$	$T_e(M)$	$T_e(SD)$	$T_e(L)$	$T_e(Sh)$	$T_e(A)$	T_e^0	Δ%
48754	9800	-	-	-	-	-	-	9800	-
49299	10300	9700	-	-	-	-	-	9750	*
49333	17400	16300	-	-	15940	-	-	16550	3
264111	-	21600	-	-	-	-	-	21600	-
49606	14100	13500	-	-	-	-	-	13800	2
49976	9500	9500	-	-	-	-	-	9200	*
50204	10300	10100	-	-	-	-	-	9800	*
50169	9550	9500	-	-	-	-	8900	9050	*
51088	-	12900	-	-	-	-	-	12900	-
51379	12800	13200	-	-	-	-	-	13000	1
51418	10900	10900	-	-	-	-	9000	10900	0
51688	13100	13000	-	-	-	-	-	13050	0
53116	-	13500	-	-	-	-	-	13500	-
53854	11900	11100	-	-	-	-	-	11500	3
54118	9800	10600	-	-	-	-	-	9950	*
55094	12900	13300	-	-	-	-	-	13100	1
55395	12300	12800	-	-	-	-	-	12550	2
55579	9700	9800	-	-	-	-	-	9550	*
55719	9300	9250	-	-	-	-	-	8950	*
55755	10150	10750	-	-	-	-	-	10450	3
55852	9850	10400	-	-	-	-	-	7450	*
56022	9700	9500	-	-	-	-	-	9750	*
56273	12300	12400	-	-	-	-	-	12350	0
56306	12800	12250	-	-	-	-	-	12520	2
56366	13700	14900	-	-	-	-	-	14300	4
56455	12900	12750	-	-	-	-	-	12820	1
56495	10500	11000	-	-	-	-	-	10750	2
56820	-	-	-	-	-	-	-	7550m	-
57219	15800	16900	-	-	-	-	-	16350	3
58260	19300	20100	-	-	-	-	-	19700	2
58661A	13100	13400	-	-	-	-	-	13250	1
59256	9850	9250	-	-	-	-	-	10500	*
60344	21900	-	-	-	-	-	-	21900	-
60431	13400	14100	-	-	-	-	-	13750	2
61641	-	18000	-	-	18160	-	-	18080	0
61966	12200	12400	-	-	-	-	-	12300	1
62140	9750	10400	-	-	-	-	8000	7550	*
62317	10550	10250	-	-	-	-	-	9000	*
62510	9500	9200	-	-	-	-	-	9400	*
62535	11450	10800	-	-	-	-	-	11120	3
62658	12300	12300	-	-	-	-	-	12300	0
62640	14650	14800	-	-	-	-	-	14720	0
62712	12600	13400	13450	-	13340	-	-	13200	2
62714	-	12800	-	-	-	-	-	12800	-
62752A	10550	11100	-	-	-	-	-	10820	2
62992	-	9100	-	-	-	-	-	8500	*
289186	12200	-	-	-	-	-	-	12200	-
63401	13750	13900	-	-	-	-	-	13820	0
63745	9950	10400	-	-	-	-	-	8350	*
64486	-	9300	10190+)	-	-	-	10550	10250	*
64740	23200	24500	-	-	-	-	-	23850	3
64901	13100	12700	-	-	-	-	-	12900	1
64972	14650	14600	-	-	-	-	-	14620	0
65208	11900	12400	-	-	-	-	-	12150	2
65339	9800	10250	-	8200	-	-	8500	8150	*
65950	12850	12700	-	-	-	-	-	12770	1
65949	13200	13200	-	-	-	-	-	13200	0

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
65987	12650	12800	–	–	–	–	–	12720	1
-60 978	11450	12000	–	–	–	–	–	11720	2
65943	9700	9300	–	–	–	–	–	10250	*
66295	10900	10900	–	–	–	–	–	10900	0
66318	–	9400	–	–	–	–	–	8550	*
66522	19500	19600	–	–	–	–	–	19550	0
66624	–	12500	–	–	–	–	–	12500	–
68351	9800	9400	–	–	–	–	10300	10350	*
68450	32300	35000	–	–	–	–	–	33650	4
69067	12800	12300	–	–	–	–	–	12550	2
69913	13100	13300	–	–	–	–	–	13200	1
70235	12700	12300	–	–	–	–	–	12500	2
70340	9600	9700	–	–	–	–	–	9250	*
71066	11050	11000	–	–	–	–	–	11020	0
71866	9600	9950	–	–	–	–	–	8650	*
72055	12500	12500	–	–	–	–	–	12500	0
72208	10850	10850	–	–	–	–	–	9950	*
72968	9500	9350	–	–	–	–	9600	9600	*
72976	13400	14000	–	–	–	–	–	13700	2
73340	14200	14500	–	–	–	–	–	14350	2
73731	–	–	–	–	–	–	–	8200m	–
74168	13100	13100	–	–	–	–	–	13100	0
74169	9700	10100	–	–	–	–	–	9650	*
74196	13500	13100	–	–	–	–	–	13300	1
74521	10500	10700	10120+)	–	–	–	10750	10450	2
74535	13750	14000	–	–	–	–	–	13870	1
75293	10600	10700	–	–	–	–	–	10650	0
75333	12300	12000	–	–	–	–	11500	12150	1
CPD-46° 3093	23000	–	–	–	–	–	–	23000	–
75989	11250	11100	–	–	–	–	–	11170	1
76164	11500	12000	–	–	–	–	–	11750	2
76256	12900	13600	–	–	–	–	–	13250	3
76756	9600	9000	–	–	–	–	–	8380m	–
76614	9450	–	–	–	–	–	–	9450	–
76424	13750	11900	–	–	–	–	–	12820	7
76439	13800	13700	–	–	–	–	–	13750	0
77350	9850	9500	9950+)	–	–	–	10375	10050	*
77653	12650	12900	–	–	–	–	–	12770	1
77754	10050	9850	–	–	–	–	–	10050	*
78316	13300	13300	–	–	13060	–	12000	13220	1
78362	9900	10400	–	–	–	–	–	7120m	–
78568	12650	12750	–	–	–	–	–	12700	0
78702	9450	9300	–	–	–	–	–	9400	*
79158	12900	12700	–	12300	–	–	–	12630	2
79416	13100	13200	–	–	–	–	–	13150	0
79447	15800	16500	–	–	–	–	–	16150	2
79606	13100	13400	–	–	–	–	–	13250	1
79752	9600	9350	–	–	–	–	–	9400	*
80282	12900	13100	–	–	–	–	–	13000	1
81009	9800	10100	–	–	–	–	8000	7800	*
81289	10500	10750	–	–	–	–	–	10620	1
81847	12400	12400	–	–	–	–	–	12400	0
82984	–	15200	–	–	–	–	–	15200	–
83368	9600	10500	–	–	–	–	–	7450	*
83373	9750	9600	–	–	–	–	–	9900	*
83625	11800	12100	–	–	–	–	–	11950	1

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
84046		12400	–	–	–	–	–	12400	–
84656	15200	–	–	–	–	–	–	12500	–
85453	12500	12500	–	–	–	–	–	12500	0
86995	9700	–	–	–	–	–	–	9700	–
87240	13200	12300	–	–	–	–	–	12750	3
87405	12650	12200	–	–	–	–	–	12420	2
88158	13300	–	–	–	–	–	–	13300	–
88385	10150	9850	–	–	–	–	–	9050	*
88603	13800	–	–	–	–	–	–	13800	–
88757	13100	12900	–	–	–	–	–	13000	1
89069	–	9600	–	–	–	–	9000	8950	*
89192	9700	9400	–	–	–	–	–	9100	*
89822	9950	9750	–	–	–	–	10250	10050	*
90044	9950	9600	–	–	–	–	10500	10500	*
90264	13150	14400	–	–	–	–	–	13770	4
90569	9800	9600	–	–	–	–	–	10150	*
90612	12200	12400	–	–	–	–	–	12300	1
90763	9450	9300	–	–	–	–	–	9150	*
91239	9850	10100	–	–	–	–	–	10400	*
92385	10900	10900	–	–	–	–	–	10900	0
92664	14400	14900	14400	–	14240	–	–	14490	1
92728	9800	9400	–	–	–	–	–	10100	*
92938	14700	14900	–	–	–	–	–	14800	1
93030	30500	30100	–	–	–	–	–	30300	1
94334	9500	9300	–	–	–	–	–	10100	*
94660	10600	10700	–	–	–	–	–	10650	0
95291	9500	–	–	–	–	–	–	9500	–
95413	10500	10600	–	–	–	–	–	10550	0
95608	–	–	–	–	–	–	–	9100m	–
96446	23000	23500	–	–	–	–	–	23250	1
96707	9550	9650	–	–	–	–	–	7750	*
97968	10300	–	–	–	–	–	–	10300	–
98088	9550	9950	–	–	–	–	–	7850	–
99824	12600	12850	–	–	–	–	–	12720	1
99992	25600	–	–	–	–	–	–	25600	–
CPD-62^0 2124	25800	–	–	–	–	–	–	25800	–
100340	24300	26300	–	–	–	–	–	25300	4
101189	–	–	–	–	–	–	–	9850	*
101391	11900	12900	–	–	–	–	–	12400	4
101724	14200	14700	–	–	–	–	–	14450	2
102009	25000	–	–	–	–	–	–	25000	–
102053	11400	11350	–	–	–	–	–	11370	0
103192	11200	10900	–	–	–	–	–	11050	1
103457	11600	12100	–	–	–	–	–	11850	2
103498	9450	9500	–	–	–	–	–	9000	*
104810	12900	12800	–	–	–	–	–	12850	0
105457	12200	13000	–	–	–	–	–	12600	3
106625	12000	11800	–	–	–	–	–	11900	1
106661	9300	9200	–	–	–	–	–	8900	*
107168	9400	9450	–	–	–	–	–	8200m	–
107612	9350	9300	–	–	–	–	–	8950	*
108651	9750	9950	–	–	–	–	–	7880m	–
108662	9850	9900	–	–	–	–	10125	9800	*
108945	9200	9050	–	8600	–	–	9000	8950	*
109026	15100	15700	–	–	15660	–	–	15490	2
109030	9400	9200	–	–	–	–	–	9050	*

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
109860	9500	9000	–	–	–	–	–	9250	*
110066	9600	9700	–	–	–	–	8500	8750	*
110073	13700	12700	–	–	–	–		13200	4
111133	9550	9350	–	–	–	–	9500	9750	*
111176	12500	12800	–	–	–	–	–	12650	1
112185	9300	8900	–	–	–	–	–	9800	*
112381	9950	10000	–	–	–	–	–	10500	*
112413	11000	11500	11130$^{+)}$	–	–	10850	–	11120	2
114365	11900	11900	–	–	–	–	–	11900	0
115606	10000	–	–	–	–	–	–	10000	–
115708	10150	10600	–	–	–	–	–	7500	*
116458	–	–	–	–	–	–	–	9450	*
116890	13750	13300	–	–	–	–	–	13520	2
117025	9550	9950	–	–	–	–	–	8450	*
117057	13400	13400	–	–	–	–	–	13400	0
118022	9600	9600	–	–	–	–	9500	9050	*
118242	11800	11600	–	–	–	–	–	11700	1
118816	11900	11700	–	–	–	–	–	11800	1
119213	9600	10000	–	–	–	–	–	8600	*
120198	9600	9850	–	10100	–	–	10600	10250	*
120377	10400	–	–	–	–	–	–	10400	–
120640	18700	19600	–	–	–	–	–	19150	2
120709A	15200	18200	–	–	–	–	–	16700	9
122532	–	11800	–	–	–	–	–	11800	–
122980	18100	19200	–	–	–	–	–	18650	3
123998	9850	10200	–	–	–	–	–	7650	*
124224	11900	12300	12775	–	12860	–	13000	12460	3
125248	9550	9800	–	9400	–	–	–	9400	*
125823	20500	19000	–	–	19010	–	–	19530	3
126515	9600	9700	–	–	–	–	–	6000	*
126759	11250	11600	–	–	–	–	–	11420	1
128775	11600	12000	–	–	–	–	–	11800	1
126876	–	12800	–	–	–	–	–	12800	–
127304	10000	9500	–	–	–	–	–	9950	*
128898	9800	10300	–	–	–	–	–	7650	*
129174	12850	12400	–	–	–	–	11250	12620	2
130158	10000	10250	–	–	–	–	–	9650	*
130557	9850	–	–	–	–	–	–	9850	–
130559	10000	9700	–	–	–	–	–	8900	*
130841	10100	9500	–	–	–	–	–	8250	*
131120	–	18300	–	–	–	–	–	18300	–
132058		22800	–	–	–	–	–	22800	–
133029	10600	10500	10170$^{+)}$	10800	–	–	11375	10520	2
133518	19300	19600	–	–	–	–	–	19450	1
133652	–	13300	–	–	–	–	–	13300	–
133811	–	10700	–	–	–	–	–	10700	–
133880	11750	12100	10740	–	10660	–	–	11310	5
134759	11600	11500	–	–	–	–	–	11550	0
134793	9650	9800	–	–	–	–	–	8300	*
134874	10100	10000	–	–	–	–	–	9950	*
135038	13300	–	–	–	–	–	–	13300	–
135297	9550	9600	–	–	–	–	–	9200	*
135382	9500	8900	–	–	–	–	–	9100	*
135415	12600	12700	–	–	–	–	–	12650	0
135485	–	15600	–	–	–	–	–	15600	–
136347	11200	11500	–	–	–	–	–	11350	1
137509	–	14400	–	–	–	–	–	14400	–

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
137909	9900	10500	–	–	–	–	–	7400	*
137949	10150	11200	–	–	–	–	7500:	7050	*
138167	–	14100	–	–	–	–	–	14100	–
138519	–	13500	–	–	–	–	–	13500	–
138729	23000	–	–	–	–	–	–	23000	–
139525	11900	12100	–	–	–	–	–	12000	1
140160	9300	9100	–	–	–	9150	–	9150	*
140728	9650	9900	–	–	–	–	–	10050	*
141556	10000	9800	–	–	–	–	–	9950	*
141795	9350	9500	–	–	–	–	–	8380m	–
142096	16900	17200	–	–	–	–	–	17050	1
142301	16850	16700	–	–	15990	–	–	16510	2
142884	14600	15300	–	–	–	–	–	14950	2
142990	17700	17900	–	–	18020	–	–	17800	0
143495	13750	–	–	–	–	–	–	13750	–
143699	14400	15300	–	–	15780	–	–	15160	3
143807	11000	10900	–	–	–	–	10500	10950	*
144206	11850	11800	–	–	–	–	11250	11820	0
144218	20700	19600	–	–	–	–	–	20150	3
144231	–	12000	–	–	–	–	–	12000	–
144334	15300	15500	–	–	14580	–	–	15130	2
144661	14800	15200	–	–	–	–	–	15000	1
144844	12200	12400	–	–	–	–	–	12300	1
144941	23100	23900	–	–	–	–	–	23500	2
145102	10800	11000	–	–	–	–	–	10900	1
145389	11700	11500	–	–	–	–	10250	11600	1
145501	14800	14400	–	–	–	–	–	14600	1
145788	9600	9100	–	–	–	–	–	8150	*
146001	13250	13300	–	–	13580	–	–	13380	1
146254	9600	9200	–	–	–	–	–	8450	*
146555	12500	12900	–	–	–	–	–	12700	2
146866	–	10800	–	–	–	–	–	10800	–
146971	–	9200	–	–	–	–	–	9200	–
146998	10100	10700	–	–	–	–	–	10400	3
147010	12600	13400	–	–	–	–	–	13000	3
147105	9800	9600	–	–	–	–	–	6100	*
147550	9400	–	–	–	–	–	8500	9400	–
147869	9600	9150	–	–	–	–	–	9450	*
147890	12100	10900	–	–	–	–	–	11500	3
148112	9650	9300	–	–	–	9100	–	9250	*
148117	10000	–	–	–	–	–	–	10000	–
148199	11250	11000	–	–	–	–	–	11120	1
148330	9950	9150	–	–	–	–	–	9500	*
148367	9500	9950	–	–	–	–	–	7070m	–
148898	9400	9100	–	–	–	–	–	8400	*
149228	13600	13500	–	–	–	–	–	13550	0
149257	24000	24800	–	–	–	–	–	24400	2
149822	10000	10200	–	–	–	–	10000	10350	*
149911	9500	9150	–	–	–	–	–	7900	*
150035	9600	9300	–	–	–	–	–	7300	*
150323	12400	12500	–	–	–	–	–	12450	0
150486	–	10900	–	–	–	–	–	10900	–
150500	15000	14650	–	–	–	–	–	14820	1
150549	13100	12500	–	–	–	–	–	12800	2
151199	9200	9100	–	–	–	–	–	8800	*
151346	15300	14000	–	–	–	–	–	14650	4
151525	9450	9050	–	–	–	9150	–	9350	*

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
151771	10900	10800	–	–	–	–	–	10850	0
151965	14600	14900	–	–	–	–	–	14750	1
152107	9600	9500	–	–	–	–	–	8700	*
152308	9550	9600	–	–	–	–	–	7500	*
152366	–	11800	–	–	–	–	–	11800	–
152387	9600	9100	–	–	–	–	–	7600	*
152564	12500	12700	–	–	–	–	–	12600	1
153286	–	–	–	–	–	–	–	7280m	–
153707	–	10400	–	–	–	–	–	8750	*
153882	9400	9200	–	–	–	–	–	8900	*
CPD-69° 2698	27500	–	–	–	–	–	–	27500	–
154645	–	9800	–	–	–	–	–	8350	*
154856	–	12600	–	–	–	–	–	12600	–
155127	–	9400	–	–	–	–	–	8900	*
155328	10200	–	–	–	–	–	–	10200	–
156300	–	10400	–	–	–	–	–	7000	*
156808	–	8400	–	–	–	–	–	7700	*
156853	–	12200	–	–	–	–	–	12200	–
157063	12100	11600	–	–	–	–	–	11850	1
157644	–	11100	–	–	–	–	–	11100	–
157746	11250	11350	–	–	–	–	–	11300	0
158175	11900	11900	–	–	–	–	–	11900	0
159376	10600	11800	–	–	–	–	–	11200	5
159545	–	11300	–	–	–	–	–	11300	–
159846	–	12200	–	–	–	–	–	12200	–
159975	12250	11800	–	–	–	–	–	12020	2
161480	–	13900	–	–	–	–	–	13900	
161701	13400	12500	–	–	–	–	–	12950	4
161733	–	14600	–	–	–	–	–	14600	
161841	13800	13800	–	–	–	–	–	13800	0
162374	17200	16700	–	–	17840	–	–	17250	2
162651	–	9700	–	–	–	–	–	7300	*
162725	9800	9500	–	–	–	–	–	9050	*
163555		12700	–	–	–	–	–	12700	
164224	10050	9900	–	–	–	–	–	7650	*
164258	9750	9000	–	–	–	–	–	8100	*
164429	10350	10300	–	–	–	–	–	10650	*
164769	33000:	–	–	–	–	–	–	33000:	–
165040	9400	9500	–	–	–	–	–	7750	*
165207	20900	–	–	–	–	–	–	20900	–
165429	–	–	–	–	–	–	7500	7500	–
165474	9600	10100	–	–	–	–	–	7300	*
166053	–	14200	–	–	–	–	–	14200	–
166968	12650	12800	–	–	–	–	–	12720	1
168252	–	14000	–	–	–	–	–	14000	–
168476	19500	20100	–	–	–	–	–	22100	8
168733	15150	13100	12770+)	–	13320	–	–	13580	6
168785	20200	24000	–	–	–	–	–	22100	8
168856	–	13000	–	–	–	–	–	13000	–
169027	–	–	–	–	–	–	10500	10500	–
169467	15600	16600	–	–	–	–	–	16100	3
170000	11250	–	–	–	–	–	–	11250	–
170397	10000	9800	–	–	–	–	–	9400	*
170973	10900	10500	–	–	–	–	9250	10700	2
171247	12000	11200	–	–	–	–	–	11600	3
171263	11800	–	–	–	–	–	–	11800	–

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
171279	–	9200	–	–	–	–	–	8400	*
171586	9350	9300	–	–	–	–	–	8600	*
171782	11000	–	–	–	–	–	14000	11000	–
172032	10350	11000	–	–	–	–	–	10670	3
172044	13300	13700	–	–	–	–	–	13500	1
172690	–	11400	–	–	–	–	–	11400	–
172883	11200	–	–	–	–	–	–	11200	–
173232	–	–	–	–	–	–	7650	7650	–
173524	10800	–	–	–	–	–	11350	10800	–
173648	9400	9800	–	–	–	–	–	8050m	–
173650	10050	9850	10220+)	–	–	–	–	8950	*
174779	–	10400	–	–	–	–	–	10400	–
174933	12650	12300	–	–	–	–	–	12470	1
175156	–	14600	–	–	–	–	–	14600	–
175362	17400	17900	16490*	–	16380	–	–	17040	4
175372	17400	17900	–	–	–	–	–	17650	1
175132	11000	10300	–	–	–	–	–	10650	3
175744	13450	12500	12725	–	12520	–	–	12800	2
175869	11400	10500	–	–	–	–	–	10950	4
176232	10000	10200	–	–	–	7700	–	7600	*
176332	–	12000	–	–	–	–	–	12000	–
177003	18700	–	–	–	–	–	–	18700	–
177410	13600	13900	–	–	–	–	–	13750	1
177517	11150	10800	–	–	–	–	–	10970	2
178628	–	12100	–	–	–	–	–	12100	–
179527	10900	10900	11170+)	–	–	–	9500	10990	1
179761	12500	12000	12560+)	–	–	–	–	12350	2
182308	14050	–	–	–	–	–	–	14050	–
182381	–	10000	–	–	–	–	–	10000	–
182568	19200	–	–	–	–	–	–	19200	–
183056	13250	12200	12420+)	–	–	–	13000	12620	3
183339	14050	13800	–	–	–	–	–	13920	1
183421	–	12700	–	–	–	–	–	12700	–
183614	13200	–	–	–	–	–	–	13200	–
184552	–	–	–	–	–	–	–	8220m	–
184905	10700	10800	10790+)	–	–	–	9675	10760	0
184927	20600	–	–	–	–	–	–	20600	–
184961	10900	10700	–	–	–	–	–	10800	1
186117	9300	–	–	–	–	–	–	9300	–
186205	–	20100	–	–	–	–	–	20100	–
187074	12600	–	–	–	–	–	–	12600	–
332701	12300	–	–	–	–	–	–	12300	–
187192	10200	–	–	–	–	–	–	10200	–
187474	10600	10100	–	–	–	–	–	9950	*
188041	9800	10200	–	–	–	–	–	8100	*
189160	13100	13100	–	–	–	–	–	13100	0
189394	12500	12300	–	–	–	–	–	12400	1
189502	10900	11000	–	–	–	–	–	10950	0
189849	–	–	–	–	–	–	–	8020m	–
190068	–	9600	–	–	–	–	9500	9300	*
190229	13200	12200	–	–	–	–	–	12700	4
191742	9300	9500	–	–	–	–	8000	7800	*
191796	9600	9400	–	–	–	–	–	9400	*
191980	–	16300	–	–	–	–	–	16300	–
191984	9600	9400	–	–	–	–	–	9000	*
192723	–	9000	–	–	–	–	–	8950	*
192913	10650	10500	10620+)	–	–	–	9675	10590	1

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
192666	–	–	–	–	–	–	–	9100	*
192678	9350	9400	–	9000	–	–	9000	9300	*
192686	12200	12000	–	–	–	–	–	12100	1
192698	12800	–	–	–	–	–	–	12800	–
192913	10650	10500	10620	–	–	–	–	10590	1
193344	10000	9700	–	–	–	–	–	9800	*
193722	12200	11100	11500+)	–	–	–	–	11600	3
196178	13800	13800	13150+)	–	–	–	13000	13580	2
196502	9250	9100	–	–	–	–	–	8650	*
197018	13600	–	–	–	–	–	–	13600	–
197376	10500	–	–	–	–	–	–	10500	–
198513	15600	–	–	–	–	–	–	15600	–
199728	–	12000	–	–	–	–	–	12000	–
200177	10000	10200	–	–	–	–	–	9250	*
200311	13600	13700	13070+)	–	–	–	12500	13460	2
200369	9800	–	–	–	–	–	–	9800	–
200405	9600	–	–	–	–	–	–	9600	–
201174	9700	9700	–	–	–	–	–	9000	*
201601	9950	10400	–	–	–	–	7500	7600	*
201834	12650	12700	–	–	–	–	–	12670	0
202149	11900	11500	–	–	–	–	–	11700	2
202627	9550	9600	–	–	–	–	–	8750	*
202671	14550	13700	–	–	–	–	–	14120	3
203006	10200	10100	–	–	–	–	–	8950	*
203585	10400	10500	–	–	–	–	–	10100	*
204131	9550	9300	–	–	–	–	–	9250	*
204411	9900	10400	–	–	–	–	8750	8700	*
205087	10700	10800	–	–	–	–	10500	10750	0
205795	9600	–	–	–	–	–	–	9600	–
206088	9600	9900	–	–	–	–	–	7250	*
206653	–	12600	–	–	–	–	–	12600	–
206742	9750	9700	–	–	–	–	–	10140	*
207098	–	–	–	–	–	–	–	7380m	–
207188	–	12500	–	–	–	–	–	12500	–
207538	34000	–	–	–	–	–	–	34000	–
207840A	12200	11400	12440+)	–	–	–	–	12010	3
207857	13400	13200	–	–	–	–	–	13300	1
208095	13300	13300	–	–	–	–	–	13300	0
208266	24300	–	–	–	–	–	–	24300	–
208340	10700	10700	–	–	–	–	–	10700	0
208513	11500	–	–	–	–	–	–	11500	–
209308	10800	11000	–	–	–	–	–	10900	1
209339	29500	–	–	–	–	–	–	29500	–
209515	9100	9400	–	–	–	–	–	9750	*
210071	12700	13000	–	–	–	–	–	12850	1
210833	10200	–	–	–	–	–	–	10200	–
210873	11500	10650	–	–	–	–	–	11070	4
211838	13000	12300	–	–	–	–	–	12650	3
212432	–	11700	–	–	–	–	–	11700	–
212454	14400	14300	–	–	–	–	–	14350	0
213232	–	9400	–	–	–	–	–	8250	*
213236	13200	12400	–	–	–	–	–	12800	3
213918	16600	15200	–	–	–	–	–	15900	4
214985	–	11500	–	–	–	–	–	11500	–
215038	13400	14200	–	–	–	–	–	13800	3
215441	15650	16100	–	–	–	–	14000	15870	1
215766	10800	10500	–	–	–	–	–	10650	1

Table 2 (continued)

HD	T_e(Q)	T_e(X)	T_e(M)	T_e(SD)	T_e(L)	T_e(Sh)	T_e(A)	T_e^0	Δ%
215907	9500	9100	–	–	–	–	–	9070	*
216533	9350	9500	–	–	–	–	8250	8500	*
216494	11900	11800	–	–	–	–	–	11850	0
216831A	13200	12800	–	–	–	–	–	13000	2
217477	12900	12800	–	–	–	–	–	12850	0
217833A	15200	15700	–	–	–	–	–	15450	2
217919	22800	–	–	–	–	–	–	22800	–
219749	11050	11000	–	–	–	–	–	11020	0
219855	10000	10100	–	–	–	–	–	11050	0
220147	–	10250	–	–	–	–	10000	8150	*
220825	9650	9900	9430$^{+)}$	–	–	9250	9500.	9070	*
220933	11600	10800	–	–	–	–	–	10530	*
221006	–	12900	13275	–	13250	–	–	13140	1
221394	9350	9200	–	–	–	–	–	9250	*
221507	12400	12300	–	–	–	–	–	12350	0
221568	10300	10800	–	–	–	–	–	10550	2
221760	9400	9100	–	–	–	–	–	8700	*
222853	9600	–	–	–	–	–	–	9600	–
223358	9600	–	–	–	–	–	–	9600	–
223640	12100	12400	12390	–	12340	–	13500	12310	1
224103	10200	10200	–	–	–	–	–	10550	*
224166	12600	11900	–	–	–	–	–	12250	3
224801	11600	12000	–	–	–	–	–	11800	2
224906	10900	11500	–	–	–	–	–	11200	3
224926	13400	13300	–	–	–	–	–	13350	0
225119	12200	11400	–	–	–	–	–	11800	3

DISCUSSION

Let us examine what the new calibration has resulted in. For this aim we have studied the dependence of the new temperatures T_e^0 on our previous T_e (Glagolevskij, 1990) shown in Fig. 1. In a first approximation both temperature values are the same, but there exist some systematic discrepancies in the two parts of the dependence. In the region $T_e^0 < 10000$ K a difference is observed, which gradually reaches a value of $\Delta T \sim 800$ K at $T_e \sim 7000$ K. A difference of $\Delta T_e \sim 400$ K is found in the region 10500-12000 K and in the region $T_e > 16000$ K. For large T_e the dependence behaviour is not clear because of the lack of data. Obviously these systematic differences occur as a result of the calibration error, while the scatter of individual temperatures arise in consequence of the low accuracy and individual peculiarities. In the new list the accuracy of temperatures is probably better than in the previous one due to the use of more homogeneous data. But it should be noted that at $T_e^0 < 10500$ K the temperatures may be less reliable because the parameters (B2-G) are not independent of the interstellar absorption and chemical peculiarity. The larger scatter of points at temperatures below 10000 K in Fig. 1 arises because in the previous list we used one and the same calibration for both metallic line stars and CP stars.

Interesting conclusions can be drawn from examination of the obtained temperatures.

Fig. 1. *Comparison of the new temperatures T^0_e with the old one T_e.*

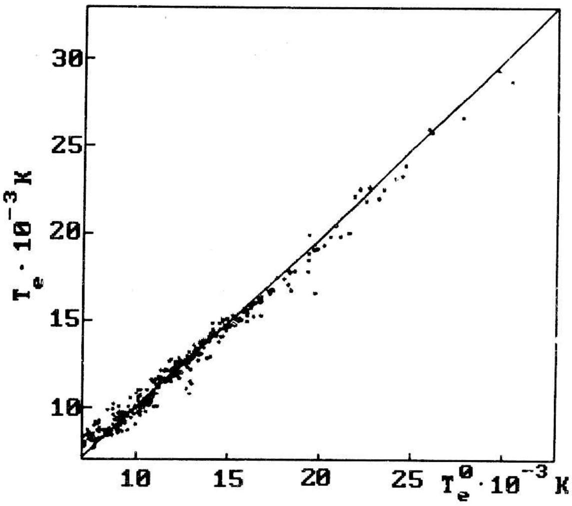

Fig. 2 shows a histogram of the number of stars with the different parameter Δ. It can be seen that for most stars this parameter ranges from 0 to 2. It shows that the differences in the T_e values determined from the Q and X parameters are not larger than about 2.5%, although they were measured at different moments. Consequently the existing opinion, that the effective temperatures estimated from the spectral energy distribution have low accuracy due to their variability, is wrong. The photometric errors are on the average about 1%. The calibrating dependences have approximately the same accuracy, which is why the maximum of the histogram coincides with $\Delta \sim 1$. It is not improbable that stars with $\Delta > 3$-4 have a strong variability, although in some cases errors are possible. When the investigator comes across large differences in effective temperatures in some papers, he is actually concerned with measurement errors or wrong calibrations.

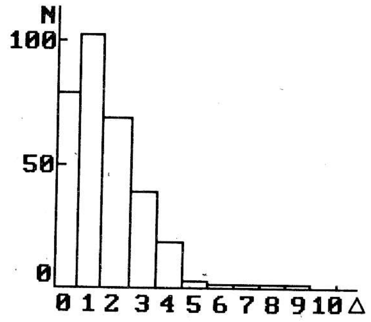

Fig. 2. *Histogram of the number of stars with the different parameter Δ.*

The average value of the Δ-parameter, as expected, depends upon temperature because, first, insufficient data are available for the construction of calibration dependences in the region of high temperatures, and, second, the photometry of hot stars has a lower accuracy. In the Table which follows are presented the average values of Δ for three temperature ranges.

In Fig. 3a a comparison of our T^0_e with the temperatures from a large list (Babu and Shylaja, 1981), calculated with the help of model atmospheres (Mihalas, 1966) from the energy distribution in the continuum is shown. A large scatter and some systematic deviation in the low temperature region can be seen. At the present time it is not expedient to use these temperatures.

Fig. 3b shows the data from (Floquet, 1981) where the temperatures for 69 stars estimated from the intensity of K CaII lines are presented. The scatter of points here is smaller than in the previous case, but a systematic displacement of about +500 K is noticeable. This graph once again supports the conclusion (Floquet, 1981) that the lines of K CaII have practically normal intensity.

In Fig. 3c are presented the data from Adelman's series of papers in which temperatures were determined from the distribution of energy in the continuum by the model atmosphere method (Mihalas, 1966). The discrepancies are absent. Therefore our previous lists (Glagolevskij and Chunakova, 1986; Glagolevskij, 1990) of temperatures are quite correct in general.

Fig. 3d, e, f shows a comparison of T_e^0 with T_e which are the main basis for the construction of the calibration dependences. These curves demonstrate that all the systems of temperatures are homogeneous.

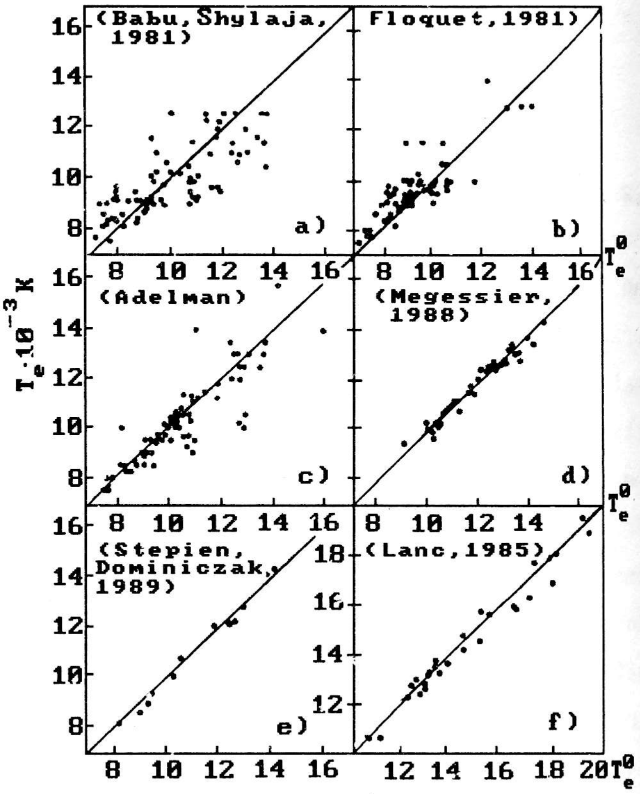

Fig. 3. *Comparison of the new temperatures T_e^0 with those determined by other authors.*

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