1924phae.proj.1114P

KG
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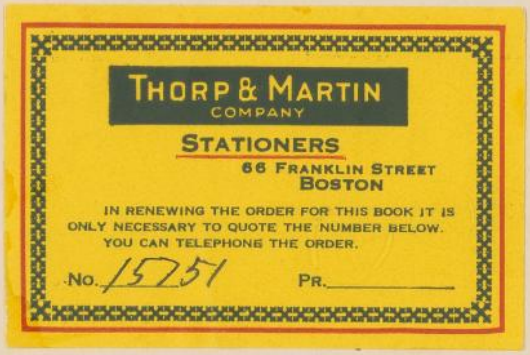
26

Angstrom Magnitudes

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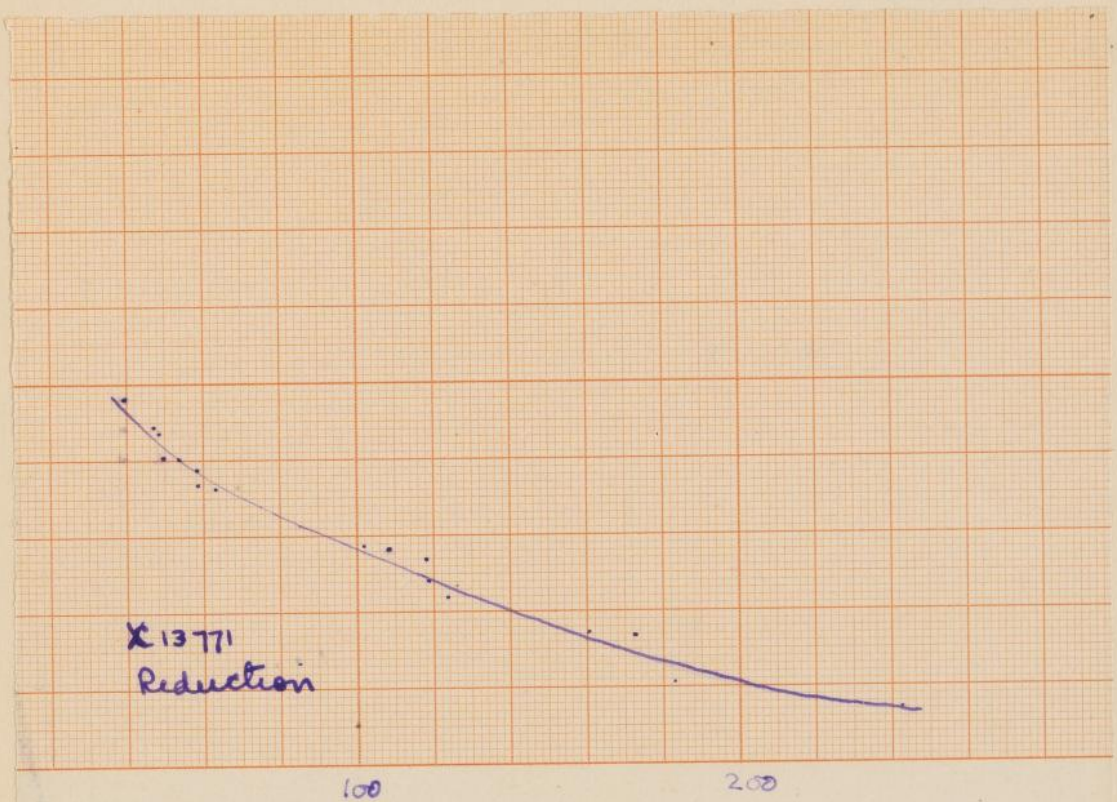
1924phae.proj.1114p

KG 11366.113



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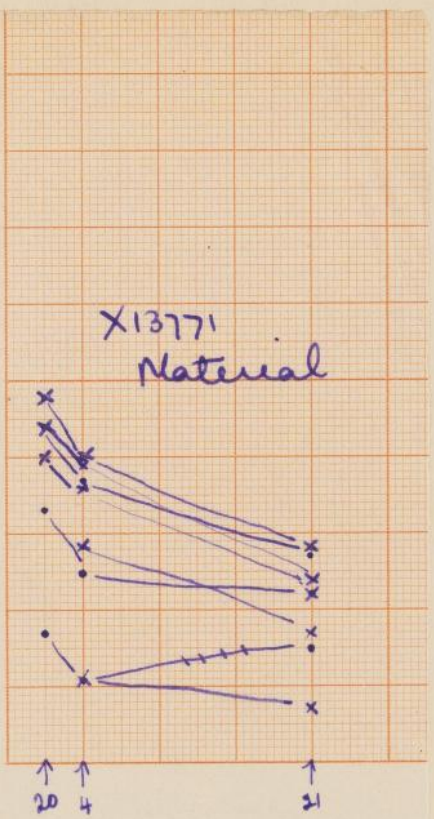
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1924phae.proj.1114P

Backgrounds for NGC 6231, 20 bright stars.

B0 is standard throughout



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Reduction I X13546

51	
50.5	1
50	10
49.5	21
49	32
48.5	46
48	60
47.5	70
47	81
46.5	95
46	104
45.5	115
45	122
44.5	126
44	130
43.5	133
43	137
42.5	140
42	143
41.5	147
41	150
40.5	153
40	166
39.5	157
39	160
38.5	163
38	165
37.5	167
37	169
36.5	171
36	173
35.5	175
35	177
34.5	179
34	181
33.5	183
33	185
32.5	187
32	189
31.5	191
31	194
30.5	196
30	198

29.5	200
29	203
28.5	206
28	208
27.5	210
27	213
26.5	215
26	218
25.5	220
25	222
24.5	225
24	228
23.5	231
23	234
22.5	236
22	239
21.5	242
21	245
20.5	247
20	250
19.5	253
19	255
18.5	258
18	261
17.5	264
17	267
16.5	271
16	274
15.5	278
15	282
14.5	286
14	292
13.5	297
13	302
12.5	307
12	311
11.5	315
11	320
10.5	325
10	330
9.5	335
9	340
8.5	345
8	350
7.5	355
7	360

6.5	366
6	376
5.5	387
5	398
4.5	406
4	416
3.5	426
3	436
2.5	450
2	463
1.5	476

X1354
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1924phae.proj.1114P

KG 11366.113.

X13946
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Material

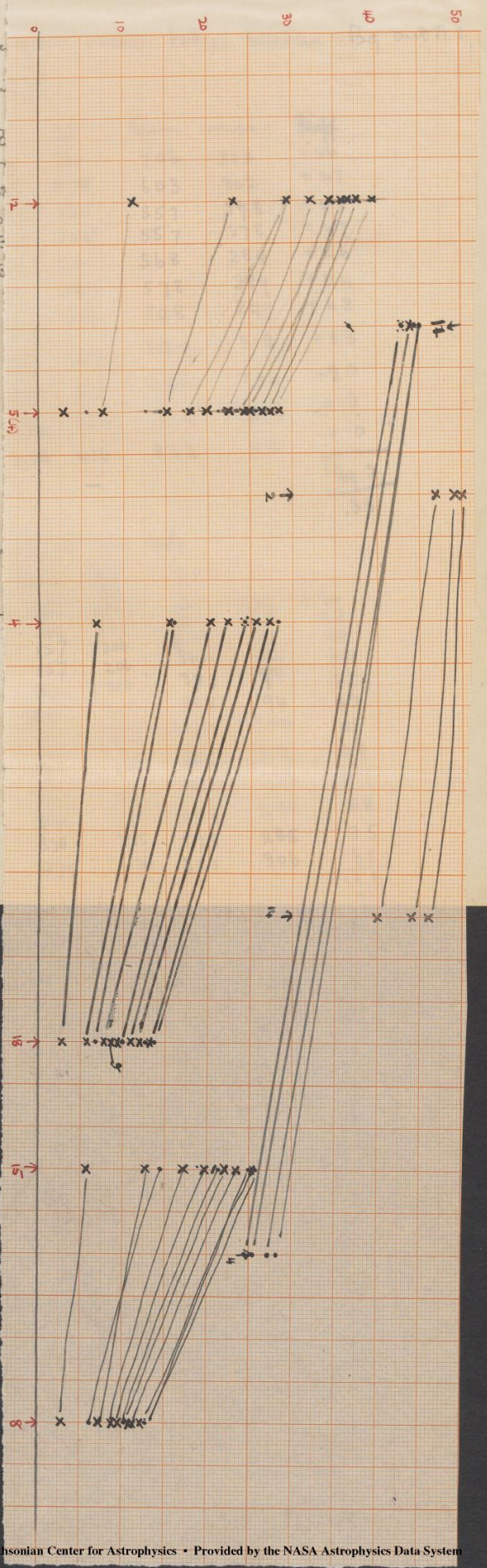
In absence

nos. 8 an

a b c d e f g h i k l m

These v

a b c d e f g h i k l m



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1924phas.proj..1114P

KG 11366.113.

In absence of A0, mean taken between Bq and A2, nos. 8 and 20

	8	20	Sum	mean	Diff.
a	376	330	706	353	+46
b	325	278	603	302	+47
c	302	255	557	298	+47
d	302	255	557	278	+47
e	307	261	568	284	+46
f	311	267	578	289	+44
g	320	278	598	299	+42
h	330	297	627	314	+33
i	340	320	660	330	+20
k	360	350	710	355	+10
l	426	416	842	421	+10
m		—			

392

.35

These inserted in red

Mean B0 = $\frac{6.9 + 6.4}{2}$ = 6.65

	5	12			
a	~~200~~	~~261~~	461	230	+60
b	169	222	391	195	53
c	157	206	363	182	49
d	157	206	363	182	49
e	167	210	377	198	43
f	173	215	388	194	42
g	177	222	399	200	45
h	187	236	423	212	49
i	203	250	453	226	47
k	234	282	516	258	48
l	320	355	575	288	35
m	475	436	611	306	61

581

48

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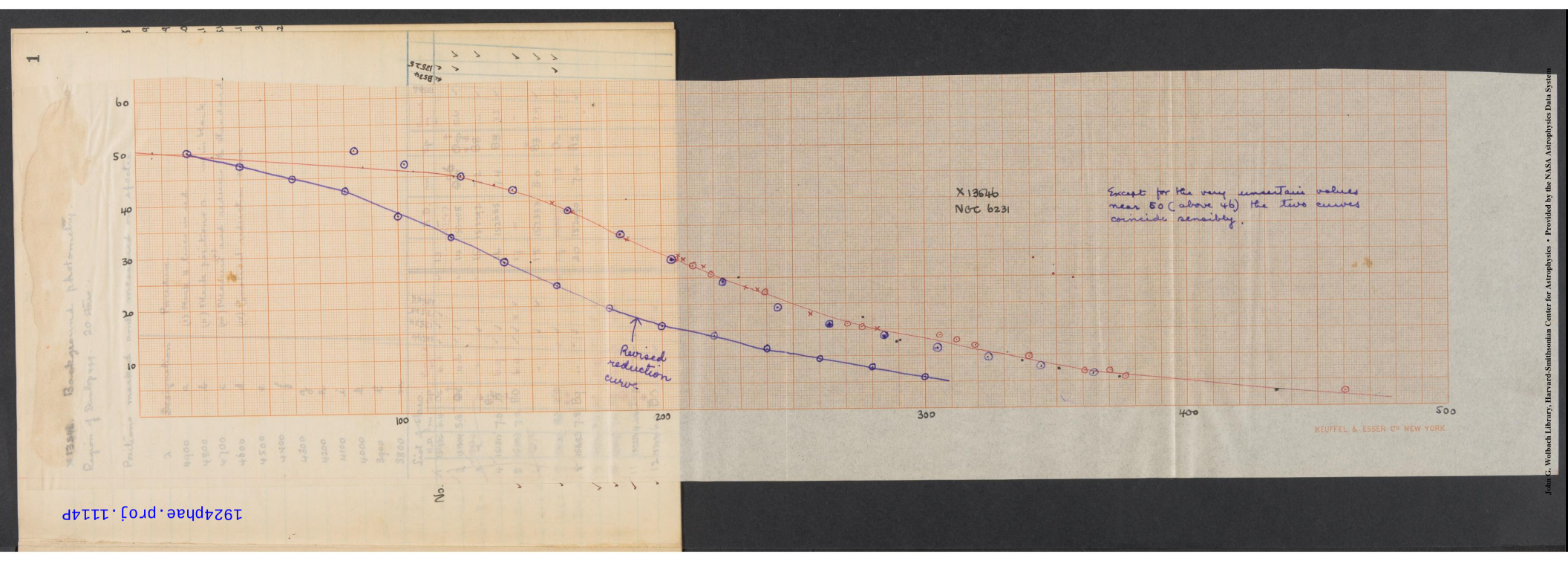
1924phae.proj.1114P

C 13889. Reduction Table.

1	285	1425	93
2	269	1345	92
3	255	1275	90
4	245	1225	90
5	239	1195	89
6	233	1165	88
7	226	1130	88
8	221	1105	87
9	216	1080	86
10	210	1050	86
11	204		85
12	198		84
13	192		83
14	186		82
15	179		
16	173		
17	168		
18	161 ~~158~~		
19	153		
20	147		

21	140
22	134
23	128
24	121
25	114
26	106
27	98
28	89
29	80
30	67
31	55
32	39
33	12

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Region of Dunlop 499. 20 stars.

Positions marked and measured on spectra

λ	Designation
4900	a
4800	b
4700	c
4600	d
4500	e
4400	f
4300	g
4200	h
4100	i
4000	k
3900	l
3800	m

Procedure.

(i) Mark H lines in red

(ii) Mark positions a.... m in black

(iii) Measure[(ii)] and reduce to standard

(iv) Construct reduction curve

List of stars.

No.	H.D.	m.	Sp	Revised m	13546	13534	13525	13668
✓ 1	151932	6.4	Oc †	6.3	✓	✓	✓	
✓ 2	151804	5.8	Oe †	4.6	✓	✓		
3	151564			–		✓		
4	151515	7.0	B2 *	6.9	✓	✓		
✓ 5	152003	7.2	B0 *	6.9	✓	✓	×	✓
6	152076			–		✓		✓
✓ 7	151767	8.0	K0	..	✓	✓		
8 ✓	151683	7.8	B9 **	..	✓	✓		
✓ 9	152334	5.6	K5	5.4	✓		✓	✓
✓ 10	152293	7.6	F5	6.2	✓		✓	✓
✓ 11	152236	4.66	B1p (*)	4.7	✓	✓	✓	
✓ 12	152424	6.9	B0 *	6.4	✓		✓	✓
✓ 13	–			–				
	152147			5.6				
✓ 14	152408		Oep † **	5.6	✓		✓	✓
✓ 15	152292	7.2	B8	..	✓			✓
16	152685	7.4	B5	7.3	✓			
17	–			–				✓
✓ 18	152333	8.0	B3 *	7.9	✓			✓
✓ 19	152270	7.2	Oa	7.1	✓		✓	✓
20	152490	7.4	A2	..	✓			

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1924phae.proj.1114P

2

Reduced to 53.0

No.1 .1st. Series H.D. 15 19 32, 0c, 6.4 Mean A Mean B AM

μμ 1201

a	128.4	153.0	28.4	206	353	+ 147	230	+24	6.1
b	35.5	52.9	35.6	175	302	127	195	20	6.3
c	37.8	52.8	37.9	165	278	113	182	17	6.5
d	37.5	53.0	37.5	167	278	111	182	15	6.5
e	36.0	53.0	36.0	173	284	111	188	15	6.5
f	34.2	53.0	34.2	181	289	108	194	13	6.5
g	33.0	53.0	33.0	185	299	114	206	11	6.5
h	30.6	53.0	30.6	196	314	118	212	16	6.4
i	28.4	53.0	28.4	206	330	124	226	20	6.3
k	21.9	53.0	21.9	239	355	116	258	19	6.3
l	9.5	53.0	9.5	335	421	86	288	~~50~~ - 47	
m	1.0	53.0	1.0	..			306		

Means from several plates

New Red.	Mean B	Diff.			Mean B			Σ	Mean	Sm
140	162	-22	147	130	+24	-19	51	56	19	(+19)
111	124	18	127	145	20	-36	61	45	15	14
99	115	16	113	154	17	-41	50	26	9	11
101	115	14	111	147	15	-46	57	26	9	5
108	122	14	111	140	5	-50	40	-5	-2	+2
118	128	10	108	132	13	-51	39	+1	0	-2
122	135	12	114	127	11	-51	36	-10	-3	+0
132	145	13	118	131	16	-44	42	+14	5	+3
140	158	18	124	129	20	-41	45	+24	8	+8
168	187	+19	116	118	19	-30	46	+35	12	(+10)
260	262	2	86	82	-47	-22	36			

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1924phae.proj.1114P

HD 151804, S.8, Oe

No. 2. 1st Series

		ℓ		$\bar{\ell}$	f				Mean A		Mean B		AM
Sep 12.11	a	7.9	52.8	7.9	48.6	54.9	47.0 ✓	81	353	272	230	149	4.9
	b	11.5	52.8	11.5	50.1	54.0	49.1 ✓	32	302	270	195	163	4.9
	c	13.7	52.8	13.7	51.5	54.2 ~~53.9~~	50.4 ~~50.8~~	16	278	277	182	181	4.8
	d	13.8	52.8	13.8	50.9	54.1 ~~53.8~~	49.9	10	278	268	182	172	4.9
	e	13.0	52.8	13.								158	4.9
	f	12.8	52.8	12.								162	5.0
	g	12.0	52.8	12.								154	5.1
	h	11.0	52.8	11.								152	5.1
	i	9.9	52.8	9.9								145	5.1
	k	7.7	52.6	7.7								132	5.3
	l	5.0	52.5	5.0								111	5.2
	m	2.5	52.4	2.5								042	

Mean

Station, X13546 Revised reduction Month

	Time of Beginning	Barometer: Att. Ther.	Barometer: Observed Reading	Barometer: Correction	Barometer: Corrected Reading	Thermometer: Dry	Thermometer: Wet	Vap. Pressure
1	-			32	126			
2	-			33	122			
3	-			34	118			
4	-			35	114			
5	307			36	108			
6	297			37	103			
7	286			38	99			
8	276			39	92			
9	266			40	88			
10	254			41	81			
11	242			42	76			
12	235			43	70			
13	226			44	65			
14	218			45	60			
15	210			46	54			
16	200			47	46			
17	194			48	39			
18	187			49	30			
19	182			50	22			
20	178			51	15			
21	173							
22	168							
23	164							
24	160							
25	156							
26	150							
27	147							
28	142							
29	138							
30	134							
31	130							
Sums								

Sm		Mean B			
(+19)	46	162	116	272	276
14	30	129	99	270	278
11	18	115	97	277	272
5	22	115	93	268	268
+2	22	122	100	274	266
-2	30	128	98	257	269
+0	34	135	101	253	264
+3	38	145	107	254	264
+8	46	158	112	249	269
(+10)	62	167	125	229	262
	114	262	148	244	282
	190				

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HD 151804, 5.8, Oe

No. 2. 1st Series

		l		$\bar{l}$			f		Mean A		Mean B		ATM
map 1211	a	7.9	52.8	7.9	48.6	54.9	47.0	81	853	272	230	149	~~4.9~~ 5.8
	b	11.5	52.8	11.5	50.1	54.0	49.1	32	302	270	195	163	4.9
	c	13.7	52.8	13.7	51.5	~~53.9~~ 54.2	~~50.8~~ 50.4	1	278	277	182	181	4.8
	d	13.8	52.8	13.8	50.9	~~53.8~~ 54.1	49.9	10	278	268	182	172	4.9
	e	13.0	52.8	13.0	50.9	~~53.2~~ 54.0	49.9	10	284	274	188	~~178~~ 178	4.9
	f	12.8	52.8	12.8	~~49.1~~ 50.1	53.9	49.1	32	289	257	194	162	5.0
	g	12.0	52.8	12.0	49.2	53.5	48.7	46	299	253	200	154	5.1
	h	11.0	52.8	11.0	48.4	53.4	48.0	60	314	254	212	152	5.1
	i	9.9	52.8	9.9	47.1	53.1	47.0	81	330	249	226	145	5.1
	k	7.7	52.6	7.7	44.5	53.0	44.5	126	355	229	258	132	5.3
	l	5.0	52.5	5.0	35.1	52.9	35.2	177	421	244	288	111	5.2
	m	2.5	52.4	2.5	17.3	52.7	17.3	264			306	042	

Means from several plates

	Mean B			
46	162	116	272	276
30	129	99	270	278
18	115	97	277	272
22	115	93	268	268
22	122	100	274	266
30	128	98	257	269
34	135	101	253	264
38	145	107	254	264
46	158	112	249	269
62	161	125	229	262
114	262	148	244	282
190				

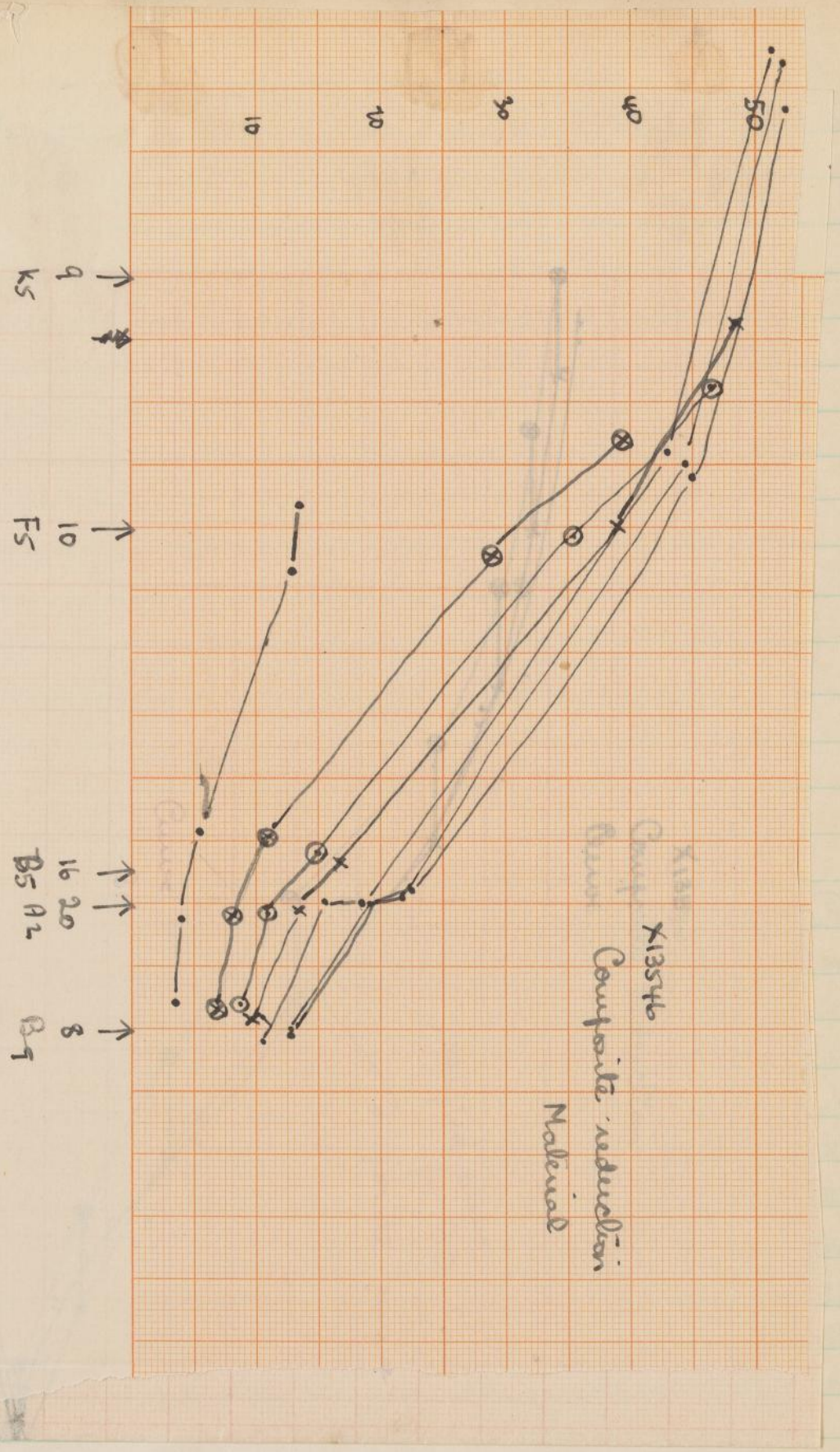
274
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4

No. 3

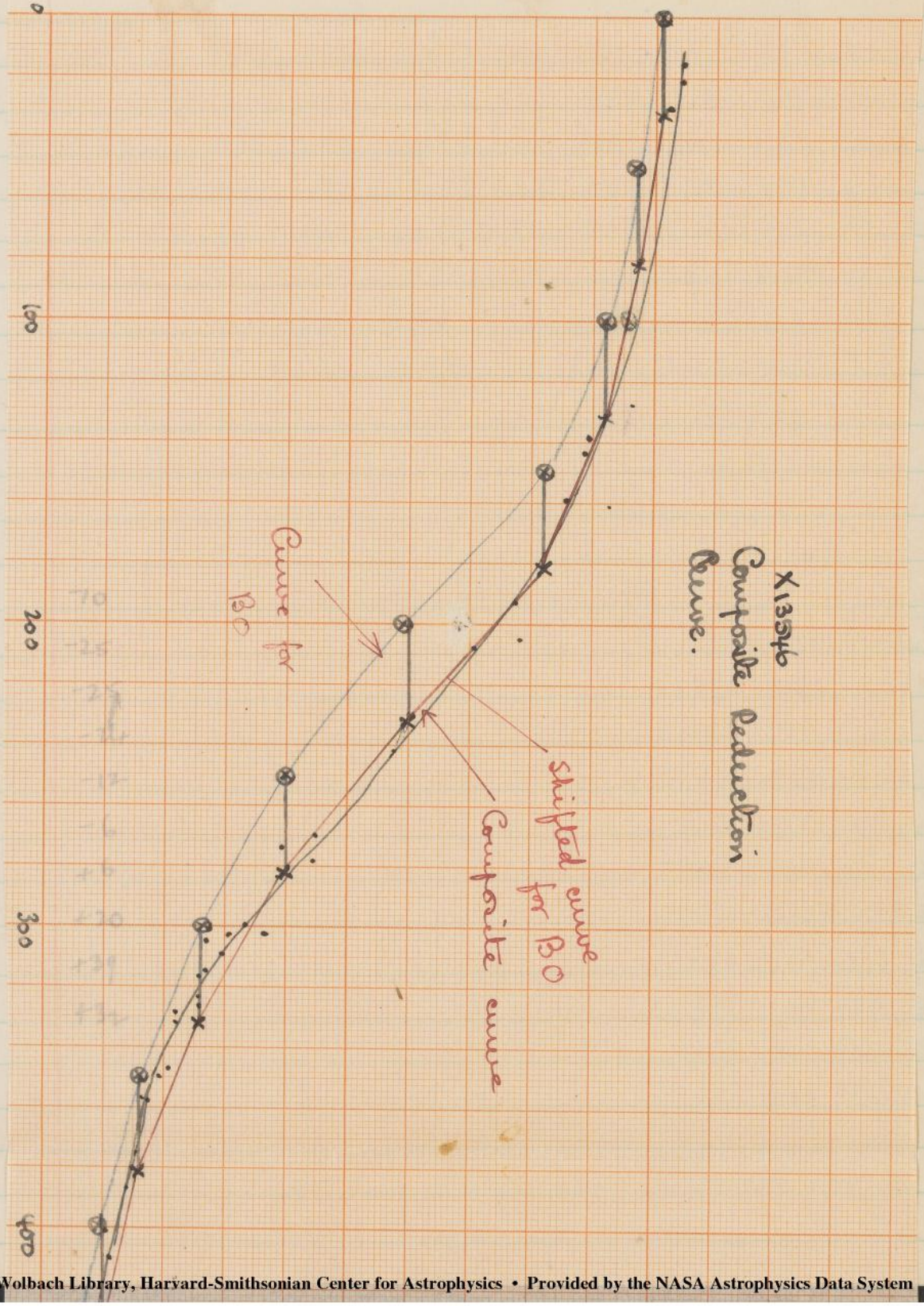


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4

No. 3



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No. 4 (1st Series) H.D. ISISIS 7.0 B2 Mean A Mean B AM

Sep 1211	a	3.3	52.5	3.3	17.2	54.9	16.	274	353	79	230	−44	6.8
	b	4.7	52.5	4.7	24.9	54.5	24.3	225	302	77	195	−30	6.8
	c	5.8	52.5	5.9	29.0	54.5	28.3	206	278	72	182	−24	6.9
	d	6.2	52.5	6.3	29.0	54.5	28.3	206	278	72	182	−24	6.9
	e	6.0	52.5	6.1	28.0	54.5	27.3	210	284	74	188	−22	6.9
	f	6.0	52.6	6.1	28.4	54.5	25.7	220	289	69	194	−26	6.9
	g	5.8	52.6	5.8	24.8	54.5	24.2	228	299	71	200	−28	6.9
	h	5.1	52.6	5.1	22.9	54.5	22.3	236	314	78	212	−24	6.8
	i	4.2	52.6	4.2	20.7	54.5	20.2	250	330	80	226	−24	6.8
	k	3.2	52.6	3.2	16.1	54.5	15.7	278	355	77	258	−20	6.8
	l	2.7	52.6	2.7	7.0	54.5	6.8	360	421	61	288	−	6.9
	m	0	52.6	0							306		

	Mean B			
200	162	−38	79	68
158	129	−29	77	81
140	115	−25	72	90
140	115	−25	72	90
144	122	−22	74	90
153	128	−25	69	82
160	135	−25	71	85
166	145	−21	78	86
178	158	−20	80	84
205	167	−38	77	75
286	262	−24	61	50

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No 15 HD 152792 7.2 B8 MeanA MeanB

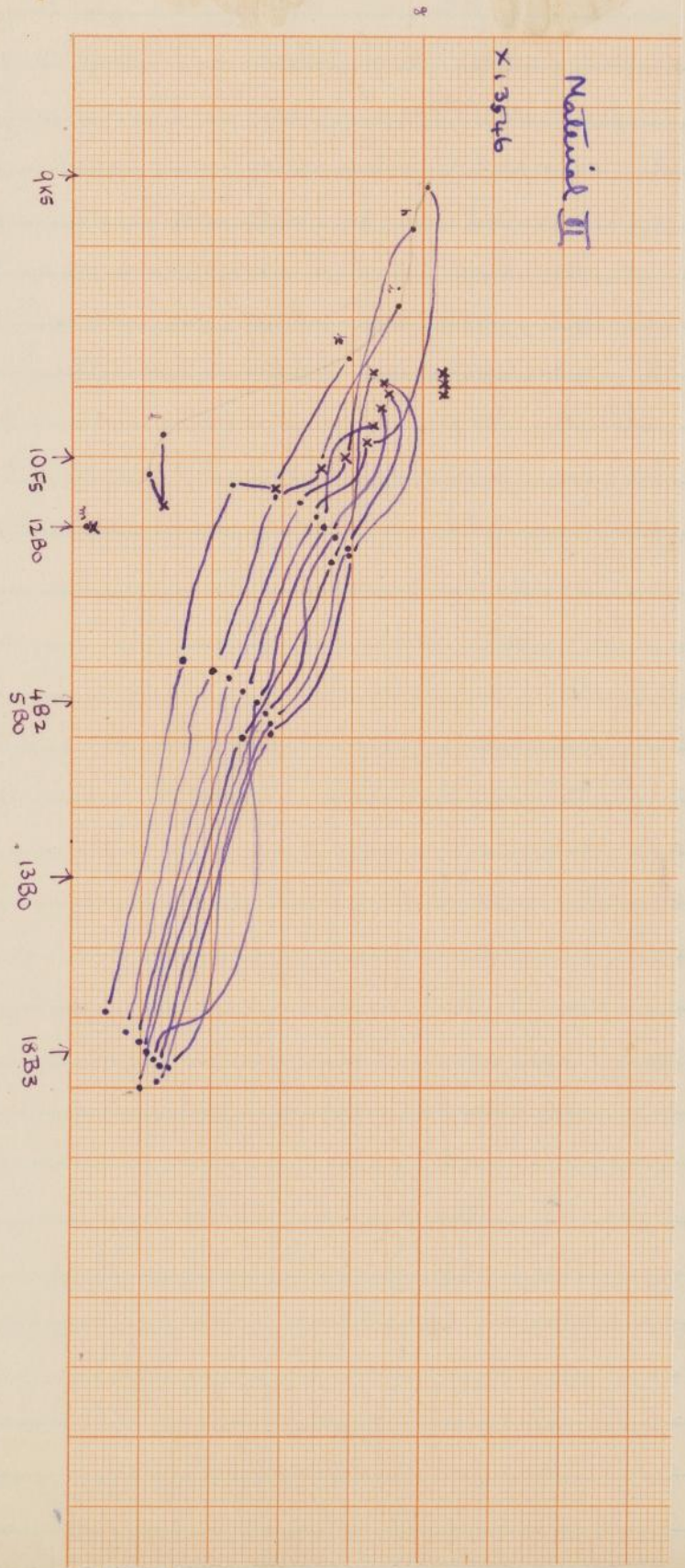
Mcp 1209	a	14.5	52.8	14.5 ✓	286	353	67	230	-56	6.9
	b	21.2	52.8	21.3 ✓	242	302	60	195	-47	7.0
	c	24.9	52.8	25.0 ✓	222	278	56	182	-40	7.0
	d	25.8	52.8	25.9 ✓	218	278	60	182	-36	7.0
	e	25.0	52.8	25.1 ✓	222	284	62	198	-24	7.0
	f	23.4	52.7	23.5 ✓	231	289	58	194	-37	7.0
	g	21.9	52.7	22.0 ✓	239	299	60	200	-39	7.0
	h	19.6	52.7	19.7 ✓	253	314	61	212	-41	7.0
	i	17.0	52.7	17.1 ✓	267	330	63	226	-41	7.0
	k	12.7	52.7	12.7 ✓	307	355	48	258	-49	7.1
	l	5.8	52.7	5.8	376	421	45	288	-88	7.1

	Mean B		
214	162	-52	67
170	129	-41	60
156	115	-41	56
150	115	-35	66
156	122	-34	62
162	128	-34	58
168	135	-33	60
180	145	-35	61
230	158	-82	63
299	187		48
			45

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No. 6



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No. 6



(½)

325
275
250
237
233
228
225
233
244
272

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1924phae.proj.1114P

No.7 H.D. 151707 8.0 K0 Mean A Mean B

sep 1210	a	12.1	53.9	12.0 ✓	311	353	-42	230	- 81	7.2
	b	17.1	53.9	16.9 ✓	267	302	35	195	- 72	7.3
	c	17.4	53.8	17.2 ✓	267	278	11	182	-85	7.5
	d	17.0	53.8	16.8 ✓	267	278	11	182	-85	7.5
	e	15.0	53.8	14.8 ✓	282	289	07	198	~~-88~~ -94	7.5
	f	12.0	53.7	11.9 ✓	311	299	- 12	194	-117	7.7
	g	8.9	53.6	8.8 ✓	340	314	-26	206	-134	7.9
	h	4.0	53.5	4.0 ✓	416	330	-86	242	- 204	8.5
	i	-	-	-						
	k	-	-	-						
	l	-	-	-						

T=3900

235	162	-73	42	28
194	129	-65	35	32
195	115	-80	11	32
193	115	-78	11	21
~~208~~ 212	122	-90	07	10
236	128	-108	-12	-9
268	135	-133	-26	-23
-			-86	-45
				-48
				-50
				-68

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16 2
8 2
-10 2
-24 2
-45 2
-48 2
-50 2
-68 2

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1924phae.proj.1114P

No. 8 H.D. 151683 Bq 7.8 Mean Bo

μφ 1210	a	6.1	53.6	6.1 ✓	376	353	−23	230	−146	7.8
	b	10.5	53.8	10.4 ✓	325	302	−23	195	−130	7.8
	c	13.0	53.9	12.8 ✓	302	278	−24	182	−120	7.8
	d	13.0	53.9	12.8 ✓	302	278	−24	182	−120	7.8
	e	12.6	54.0	12.4 ✓	307	284	−23	198	−109	7.8
	f	12.0	54.0	11.8 ✓	311	289	−22	194	−117	7.8
	g	11.1	54.0	10.9 ✓	320	299	−21	206	−114	7.8
	h	10.0	54.1	9.8 ✓	330	314	−16	212	−118	7.8
	i	9.1	54.2	8.9 ✓	340	330	−10	226	−114	7.7
	k	7.2	54.5	7.1 ✓	360	355	−05	258	−102	7.6
	l	3.5	54.7	3.4 ✓	426	421	−05	288	8	7.6

T = 12500

296	162−134	326	376
290	129−121	290	325
228	115−113	278	302
228	115−113	274	302
231	122−109	278	307
237	128−109	281	311
243	135−108	287	320
256	145−111	298	330
267	158−109	316	340
285	187−98	330	360
—		372	426

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1924phae.proj.1114P

No. 9. 1st Series H.D. 152334, K5, 5.6

					$\bar{A}$		$\bar{B}$		
μφ 1201	a	50.2	52.5	50.7	353	352	230	-229	4.1
	b	50.9	52.5	51.4	302	-	195		..
	c	51.5	52.4	52.0	278	-	182		..
	d	51.5	52.4	52.1	278	-	182		..
	e	50.9	52.3	50.5	284	-	198		..
	f	50.6	52.3	51.1	289	-	194		..
	g	49.9	52.3	50.4 ~~49.~~	299	298	200	-199	4.6
	h	47.9	52.2	48.6	314	268	212	-166	4.9
	i	45.8	52.2	46.5	330	235	226	-131	5.2
	k	39.0	52.5	39.3	355	208	258	-101	5.5
	l	14.0	52.7	14.0	421	129	286	+04	6.3
	m	2.0?	53.0	2.0			306	+157	

less than 3000°

- 162 -		352	
- 129 -		..	
- 115 -		..	
- 115 -		..	
- 122 -		..	
15	126 - 113	..	
18	135 - 117	298	
34	146 - 111	268	
50	156 - 106	235	
91	187 - 96	208	
218	..	129	

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1924phae.proj.1114P

No. 18 (1st Series) HD. 152236, ζ Scorpii B1p, 4.66

						A		Mean B		
Mφ 1202	a	47.2	52.0	47.7	70	353	283	230	160	4.8
	b	49.0	51.7	49.7	21	302	281	195	174	4.8
	c	49.4	51.2	50.1	10	278	268	182	172	4.9
	d	49.0	51.0	51.0	1	278	(277)	182	181	..
	e	48.5	50.7	50.7	1	284	(284)	198	..	..
	f	47.8	50.3	50.3	10	289	(279)	194	184	..
	g	47.0	50.0	50.0	10	299	(289)	206	196	..
	h	45.8	49.9	48.8	32	314	(282)	212	190	..
	i	44.2	49.3	46.9	81	330	249	246	145	5.1
	k	41.9	49.1	44.5	126	355	229	258	132	5.3
	l	31.1	49.0	33.5	183	421	238	288	105	5.2
	m	11.0	48.8	11.8	311					

very high

41	162	121	283	303	293
25	129	104	281	288	284
21	115	94	268	..	268
15	115	100	..	..	
18	122	104	..	..	
20	128	108	..	..	
22	135	113	..	..	
32	145	113	..	275	275
47	158	111	249	269	259
62	187	125	229	262	246
120		–	238	248	248
237		–			

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1924phae.proj.1114P

No. 10 (1st series) H.D. 152293, F5, 6.7 wrong star

Mean A Mean B

Rep 1202	a	29.0	52.3	36.8	52.9	36.9 ✓	169	353	194	230	61	5.9
	b	36.2	52.2	42.9	52.9	43.0 ✓	137	302	165	195	58	6.2
	c	39.0	52.0	44.4	52.9	44.5 ✓	126	278	152	182	56	6.3
	d	38.8	52.0	44.9	52.9	45.0 ✓	122	278	156	182	60	6.4
	e	37.1	51.9	44.2	52.9	44.3 ✓	126	284	158	198	62	6.3
	f	35.3	51.8	43.1	52.9	43.2 ✓	137	289	152	194	57	6.2
	g	34.2	51.8	41.6	52.9	41.7 ✓	147	299	152	200	53	6.1
	h	31.7	51.8	38.9	52.9	39.0 ✓	160	314	154	212	52	6.0
	i	28.2	51.8	35.6	52.9	35.7 ✓	175	330	155	226	51	5.8
	k	22.7	52.0	29.0	52.9	29.1 ✓	203	355	152	258	55	5.6
	l	11.0	52.2	13.1	52.9	13.1 ✓	302	421	119	288	-14	4.6
	m	12.0	52.4	2.8	52.9	2.8 ✓	436			306	-130	3.2

5000

103	162	59	169	194
70	124	54	137	165
62	115	53	126	152
60	116	56	122	156
64	122	58	126	158
69	128	59	137	152
78	135	57	147	152
92	145	53	160	154
110	158	48	175	155
136	187	49	203	152
225		-	302	119
-			436	

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1924phae.proj.1114P

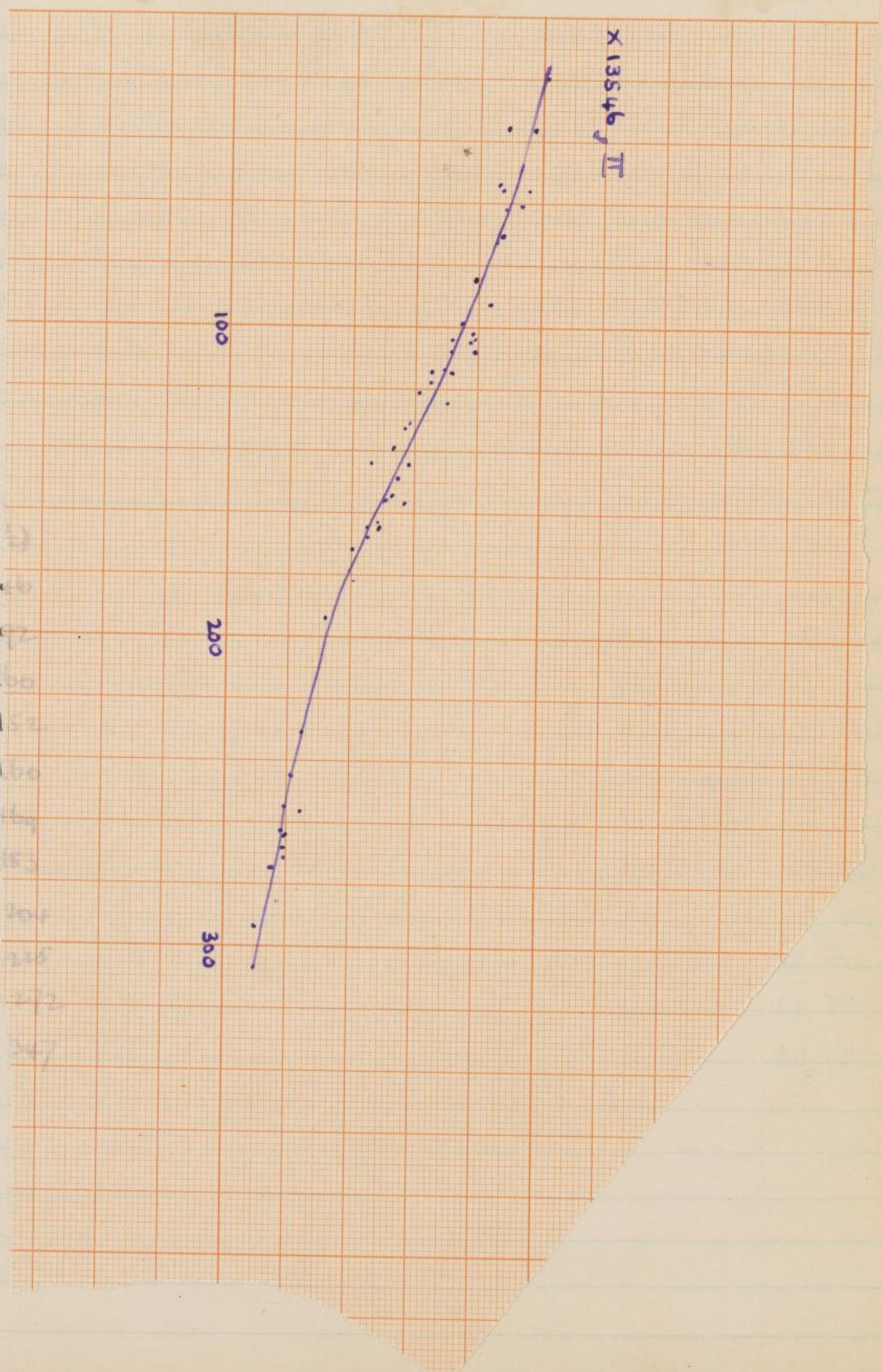
No. 12 (1st series)	H.D. 152424, Bo, 6.9			(A)		(B)		AM
up 1203 a	29.1	52.3	29.5 ✓	200	353	153	230	30	5.6
b	36.2	52.2	36.8 ✓	169	302	133	195	26	5.9
c	39.0	52.0	39.6 ✓	157	278	121	182	25	6.0
d	38.9	52.0	39.5 ✓	157	278	121	182	25	6.0
e	37.1	52.0	37.7 ✓	167	284	117	198	21 ?	5.9
f	35.5	51.9	36.1 ✓	173	289	116	194	21	
g	34.3	51.9	34.9 ✓	177	299	122	200	23	
h	31.8	51.9	32.4 ✓	187	314	127	212	25	
i	28.5	51.9	29.0 ✓	203	330	127	226	23	
k	22.8	52.0	23.2 ✓	234	355	121	258	24	
l	11.0	52.0	11.1 ✓	320	421	101	288	68	
m	1.4	52.8	1.4	475					

136	162	26	200	153
103	129	26	169	133
90	115	25	157	121
90	115	25	157	121
101	122	21	167	117
108	128	20		116
114	135	21		122
124	145	21		127
138	158	20		127
164	187	23		121
242				101

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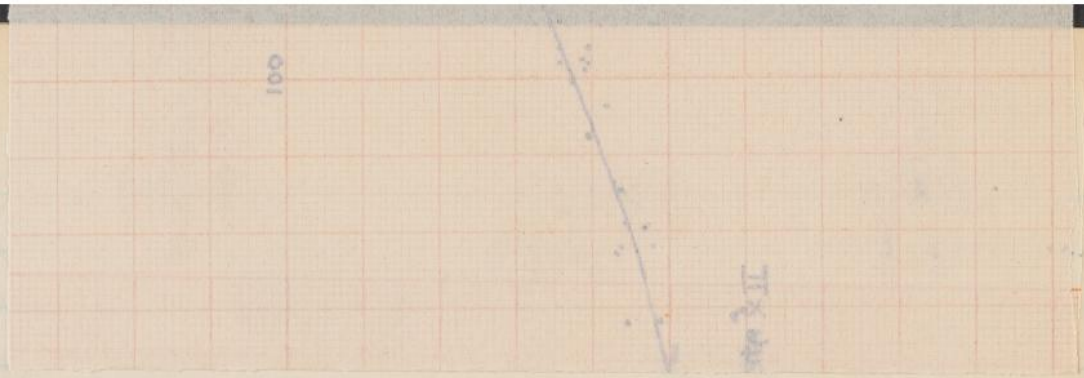
1924phae.proj.1114p

No. 13



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(½)

246

192

160

152

160

169

183

204

225

272

347

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1924phae.proj.1114P

No. 14 H.D. 152408. Oep, 5.6

Mφ 1207	a	40.0	53.0	40.0 ✓	155	353	198	230	75
	b	44.3	53.0	44.3 ✓	126	302	176	195	69
	c	46.4	53.0	46.4 ✓	95	278	183	182	87
	d	46.7	53.0	46.7 ✓	95	278	183	182	87
	e	46.1	53.1	46.0 ✓	104	284	180	188	84
	f	46.6	53.1	45.5 ✓	115	289	174	194	79
	g	44.7	53.2	44.5 ✓	126	299	173	200	74
	h	42.8	53.3	42.5 ✓	140	314	174	212	72
	i	41.2	53.4	40.9 ✓	150	330	180	226	76
	k	37.0	53.8	36.5 ✓	171	355	184	258	87
	l	25.2	53.8	24.8 ✓	222	421	199	288	66
	m	8.0	53.9	7.9 ✓	350			306	-44

88	162	74	198
62	129	67	176
50	115	65	183
49	115	66	183
54	122	68	180
57	128	71	174
62	135	73	173
73	145	72	174
82	158	76	180
106	187	81	184
155		..	199
277		..	

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1924phae.proj.1114P

No 16 HD. 152685 7.4 B5

μ&φ 1207									
μφ 1207	a	11.7	54.1	11.5	315	353	38	230	-85
	b	18.9	54.1	18.6	258	302	44	195	-63
	c	22.2	54.1	21.8	239	278	39	182	-57
	d	22.9	54.1	22.5	236	278	42	182	-54
	e	21.8	54.1	21.4	242	284	42	188	-54
	f	20.2	54.1	19.8	250	289	39	194	-56
	g	18.8	54.0	18.5	258	299	41	200	-58
	h	17.0	54.0	16.7	271	314	43	212	-59
	i	15.0	53.9	14.8	282	330	48	226	-56
	k	11.4	53.9	11.2	320	355	35	258	-62
	l	5.5	54.0	5.4	387	421	34	288	-99
	m	1.3	54.0	1.3	475		-	306	-169

239	162	-77	38
184	129	-55	44
169	115	-54	39
166	115	-51	42
171	122	-49	42
179	128	-51	39
184	135	-49	41
196	145	-51	43
212	158	-54	48
240	187	-53	35
300			34

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1924phae.proj.11149

No. 5 HD 152003 7.2 Bo Mean BO

μφ 1209

a	19.0	56.0	18.0	261	353	92	230	− 31
b	26.3	55.9	25.0	222	302	80	195	−27
c	30.0	55.9	28.5	206	278	72	182	−24
d	30.0	55.9	28.5	206	278	72	182	−24
e	29.1	55.9	27.6	210	284	74	188	−22
f	28.1	55.9	26.6	215	289	74	194	−21
g	26.1	55.9	24.8	222	299	77	200	−22
h	23.8	55.9	22.6	236	314	78	212	−24
i	21.0	55.9	20.0	250	330	80	226	−24
k	16.0	55.9	15.2	282	355	73	258	−24
l	8.0	55.9	7.6	355	421	66	288	−67
m	3.2	55.9	3.0	436		−	306	−130

			Mean BO (5)	Mean BO (12)	Σ	Mean	Diff
187	92	73	187	136	323	162	51
156	80	84	166	103	259	129	53
140	72	104	140	90	230	115	50
140	72	100	140	90	230	115	50
144	74	100	144	101	245	122	43
148	74	93	148	108	256	128	40
156	77	91	156	114	270	135	42
166	78	89	166	124	290	145	42
178	80	84	178	138	316	158	40
210	73	72	210	164	374	187	36
281	66	46	281	242	523	262	39

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19240hae.proj.1114P

No. 17

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1924phae.proj.1114P

No. 18 HD. 152333 B3 8.0

μφ 1208	a	6.4	53.0	6.4 ✓	366	353	− 13	230	-136
	b	10.0	53.0	10.0 ✓	330	302	-28	195	-135
	c	12.6	53.0	12.6 ✓	307	278	-29	182	-125
	d	13.9	53.0	13.9 ✓	292	278	-14	182	-110
	e	13.1	53.0	13.1 ✓	302	284	-18	188	-114
	f	12.0	53.0	12.0 ✓	311	289	−22	194	-117
	g	11.0	53.0	11.0 ✓	320	299	-21	200	-120
	h	9.8	53.0	9.8 ✓	330	314	-16	212	− 118
	i	7.9	53.0	7.9 ✓	350	330	-20	226	− 124
	k	5.3	53.0	5.3 ✓	387	355	-32	258	-129
	l	2.8	53.0?	2.8	436	421	−15	288	-148

293	162	-131	-13
254	129	-125	-28
229	115	-114	-29
219	115	-104	-14
225	122	-103	-18
235	128	-107	-22
242	135	-107	-21
256	145	-111	-16
277	158	-119	-20
304	187	-217	-32
			-15

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1924phae.proj.1114P

No. 19 (1st Series) H.D. 152270. Oa, 7.2

MP 1203

										AM
a	30.0	52.2	30.5	196	353	157	230	34		6.0
b	35.0	52.0	35.7	175	302	127	195	20		6.3
c	36.8	51.9	37.3	167	278	111	182	15		6.5
d	37.0	51.8	38.2	165	278	113	182	17		6.5
e	36.0	51.1	37.2	169	284	115	188	69		6.5
f	34.2	50.9	35.9	173	289	116	194	21		6.4
g	33.0	50.5	33.6	183	299	116	200	17		6.4
h	30.2	50.2	30.8	194	314	120	212	18		6.4
i	26.9	49.9	27.4	210	330	120	226	16		6.4
k	20.3	49.5	20.8	245	355	110	258	13		6.5
l	10.9	49.0	10.9	320	421	101	288	+32		6.6
m	1.2	48.9	1.2	475			306	-69		

AM too bright.

			Mean A	Mean B		
132	162	30	157	34	-3	+15
111	129	18	127	20	-21	0
101	115	14	111	15	-33	-8
97	115	18	113	17	-38	-10
101	122	21	115	09	-38	-15
109	128	19	116	21	-34	-7
120	135	15	116	17	-35	-8
131	145	14	120	18	-27	-4
145	158	13	120	16	-37	-10
174	187	13	110	13	-30	-8
243		-	101	-32	-21	-26
				-69		-69

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No. 20 HD. 152490, 7.4 A 2 RM

up 1208	a	9.8	53.1	9.8 ✓	330	353	23	230	-100	7.4
	b	15.5	53.2	15.5 ✓	278	302	24	195	-73	7.4
	c	18.9	53.2	18.9 ✓	255	278	23	182	-73	7.4
	d	19.1	53.2	19.1 ✓	255	278	23	182	-73	7.4
	e	18.0	53.2	18.0 ✓	261	284	23	188	-73	7.4
	f	17.0	53.2	17.0 ✓	267	289	22	194	-73	7.4
	g	15.8	53.3	15.7 ✓	278	299	21	200	-78	7.4
	h	13.5	53.3	13.5 ✓	297	314	17	212	-85	7.4
	i	11.0	53.4	11.0 ✓	320	330	10	226	-94	7.5
	k	7.8	53.6	7.8 ✓	350	355	05	258	-92	7.6
	l	3.9	53.7	3.9	416	421	05	288		7.6

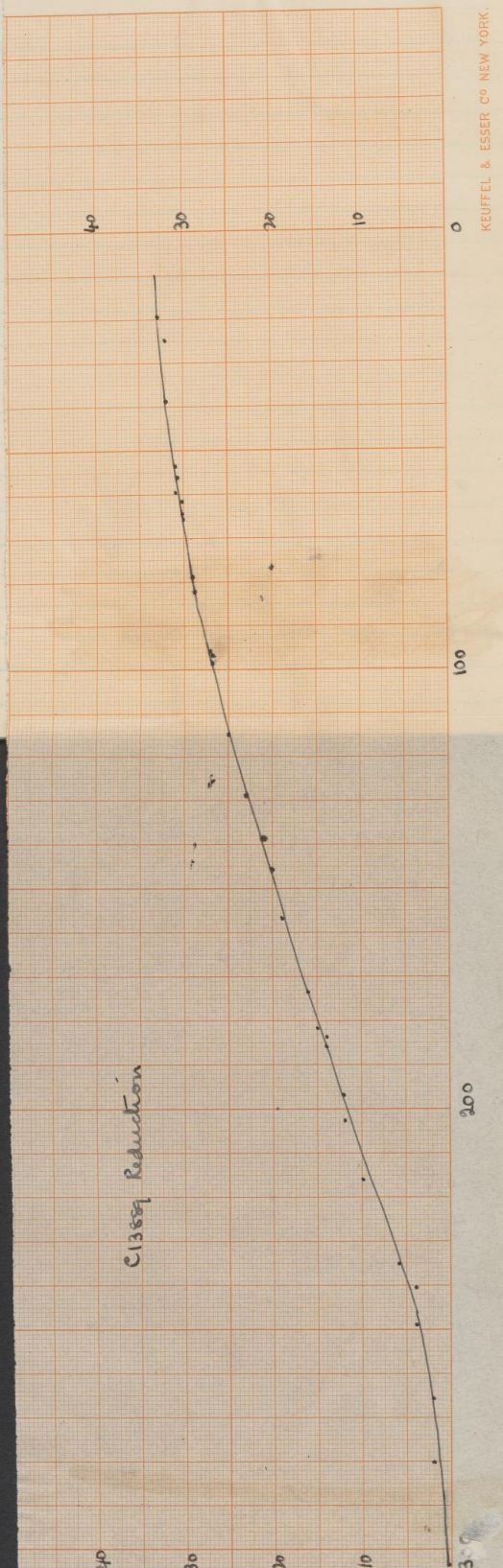
256	162	-94	23
205	129	-76 ~~-124~~ -68	24
183	115	~~-32~~	23
181	115	-66	23
187	122	-65	23
194	128	-66	22
203	135	-68	21
222	145	-77	17
242	158	-84	10
278	187	-91	5
			5

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X13889.

No.	Sp.	Mag
1	K0**	7.0
2	Ma,	6.9
3	K2**	
4	A2*	
5	A0*	
6	G5**	



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1924phae.proj.1114P

x 13889, 1 H.D. 173791, K0, 7.0 Deduced temperature = 5200°

	l	[l]	lB.		Mean A		Angstrom Mag
a	27	98	128	− 30	83	− 15	7.0
b	30	67	80	− 13	65	− 2	7.2
c	30	67	55	+ 12	54	− 13	7.4
d	31	55	61 55	6	45	− 10	7.3
e	29	80	67	+ 13	38	− 42	7.4
f	27	98	80	18	34	− 64	7.5
g	25	114	89	25	39	− 75	7.5
h	23	128	98	30	53	− 75	7.6
i	20	147	114	33	72	− 75	7.6
k	14	186	140	46	108	− 78	7.8
l	4	245	198	47	152	− 93	7.8
m	0	..	269	..			

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1924phae.proj.1114P

3889.2 HR. 7092, Ma, 6.9 Reduced T = < 3000°

		[ℓ]	ℓ_5		
a	31	55	128	− 73	6.6
b	32	39	80	− 41	6.9
c	34	0	55	− 55	6.7
d	33	12	55	−43	6.9
e	31	55	67	−12	7.1
f	27	98	80	+18	7.5
g	22	134	89	45	7.7
h	17	168	98	70	8.0
i	11	204	114	90	8.2
k	4	245	140	105	8.3
ℓ	1	285	198	[87]	..

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1924phae.proj.1114P

X13889.3 H.D. 173623, K2, 8.2 Deduced T = 4400° ? AM

		[R]	l_5		
a	10	210	128	+ ~~118~~ 82	8.1
b	14	186	80	+ 106	8.4
c	14	186	55	131	8.6
d	13	192	55	137	8.7
e	10	210	67	143	8.7
f	8	221	80	141	8.7
g	5	239	89	150	8.8
h	2	269	98	171	9.0
i	1	285	114	[171]	
k	0				
l	-				
m	-				

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1924hae.proj.1114P

13889.4		H.D. 174500, A 2, 6.9			Deduced T = 12000°	AM
	a	27	98	128	− 30	7.0
	b	31	55	80	− 25	7.1
	c	32	39	55	− 16	7.1
	d	33	12	55	− 43	6.9
	e	32	39	67	− 28	7.0
	f	32	39	80	− 41	6.9
	g	31	55	89	− 34	7.0
	h	30	67	98	− 31	7.0
	i	30	67	114	− 47	6.9
	k	27	98	140	− 42	6.9
	l	19	153	198	− 45	6.9
	m	4	245	269	[−24]	

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1924phae.proj.1114P

X13889.5 H.D. 174779, A0, 7.3 ~~Assumed~~ T = 10,000°

Standard

			AM
a	23	128	7.3
b	29	80	7.3
c	31	55	7.3
d	31	55	7.3
e	30	67	7.3
f	29	80	7.3
g	28	89	7.3
h	27	98	7.3
i	25	114	7.3
k	21	140	7.3
l	12	198	7.3
m	2	269	7.3

			[n]	[m+n]	diff	$\frac{\text{diff}}{3}$	$[m+n]+\frac{\text{diff}}{3}$	corr. m+m
β	17	26	168	106	62	21	127	23
γ	18	28	161	89	72	24	103	26.5
δ	13	25	192	114	88	29	143	20.5
ε	8	19	221	153	68	23	176	15.5
ζ	3	10	255	210	45	15	225	7
η	1	4	285	245	40	13	258	2.5
θ								
ι								

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λ13889.6 H.D. 173697 . G5, 8.2 Reduced T = 5200° ATM | No.3 Mean

a	11	204	128	76	8.1	10	10
b	16	173	80	93	8.2	14	15
c	17	168	55	113	8.4	14	16
d	16	173	55	118	8.5	13	14
e	13	192	67	125	8.5	10	12
f	11	204	80	124	8.5	8	10
g	8	221	89	132	8.6	5	6
h	5	239	98	141	8.7	2	4
i	3	255	114	[141]	8.7	1	2
						0	0

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X13534. Reduced to 104

Stars recorded:

1	Oc	6.3	
2	Oe	4.6	
3	B2	7.7	
4	B2	6.9	*
5	B0	6.9	*
6	B2	8.7	
7	K0	8.0	*
8	B9	7.8	*
11	B1p	4.7	*
13	B0	7.2	

For mean B, second reduction

	(5)	(13)	Σ	Mean	diff
a	166	201	367	184	35
b	98	144	242	121	46
c	49	110	159	79	61
d	49	98	147	74	49
e	54	110	164	82	56
f	70	120	190	95	50
g	81	134	215	108	53
h	105	156	261	130	51
i	129	180	309	154	51
k	176	229	405	202	53
l	268	312	580	290	44

Five stars used for reduction.
This plate is to receive half weight because the small number of stars available for standard and of the absence of the A2 star used for the previous plate.

Omit these stars from numerical means
The magnitudes used for reduction are uniform

Mean m for B0 = $\frac{1}{2}(6.9 + 7.4) = \frac{14.30}{2} = 7.15$

Third reduction made on 5th scheme. Results in green

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No. 1 Oc 6.3

				[l]	Mean A		Mean B*		Red. to mean B	
a	58	106	57 ✓	196	326	130	253	57	25	32
b	73	106	71 ✓	145	290	145	206	61		36
c	79	106	77 ✓	124	278	154	174	50		25
d	78	106	76 ✓	127	274	147	174	57		32
e	75	106	73 ✓	138	278	140	178	40		15
f	72	106	70 ✓	149	281	132	188	39		14
g	69	106	67 ✓	160	287	127	196	36		11
h	65	105	64 ✓	167	298	131	209	42		17
i	62	105	61 ✓	181	310	129	226	45		20
k	52	105	52 ✓	212	330	118	258	46		21
l	28	105	28 ✓	290	372	082	326	36		11
m										

omit from means

			[l]	Mean B		Corr to 5 Nl	
256	278	22	(81	184	103	50	53)
225	244	19	"	121	"		
212	226	14	"		"		
215	224	09	"		"		
221	230	09	"		"		
227	235	08	"		"		
233	244	11	"		"		
239	251	12	42	130	88		38
245	268	23	60	154	94		44 ~~39~~
270	294	24	110	202	92		42 ~~37~~
350	366	16	(220	240	70		20)

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32

13534

No. 2

	Oc	4.6			Mean A	Diff.	B	Diff.
a	95	105	94 ✓	50	326	276	253	203
b	98	104	98 ✓	12	290	278	206	194
c	99	104	99 ✓	6	278	272	174	168
d	99	104	99 ✓	6	274	268	174	168
e	98	104	98 ✓	12	278	266	178	166
f	98	104	98 ✓	12	281	269	188	176
g	97	104	97 ✓	23	287	264	196	173
h	96	104	96 ✓	34	298	264	209	175
i	95	104	95 ✓	41	310	269	226	185
k	91	104	91 ✓	68	330	262	258	190
l	78	104	78 ✓	120	372	262	326	206
m	45	104	45 ✓	236				

154	278	124
130	244	114
124	226	102
124	224	100
130	230	100
130	235	105
138	244	106
142	251	109
148	268	120
167	294	127
210	366	156
295		

omit from means

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No. 3 B2, 7·7

a	16	102	16 ✓	336	326	−10				
b	21	102	21 ✓	315	290	−25				
c	24	102	24 ✓	303	278	−25				
d	26	102	26 ✓	298	274	−24				50
e	28	102	28 ✓	290	278	−12	220	82	138	88
f	29	102	29 ✓	287	281	−06	214	95	119	69
g	31	102	31 ✓	281	287	+06	206	108	98	48
h	32	102	32 ✓	278	298	+20	201	130	71	21
i	34	102	34 ✓	271	310	+39	192	154	38	−12
k	26	101	26 ✓	298	330	+32	228	202	26	−24
l	6	101	6 ✓	390	372		..	290	..	
m	-									

omit from means

340 278 - 112
374 244 130
364 226 148
357 224 133
350 230 120
346 235 111
340 244 96
337 251 86
330 268 62
357 294 63
-

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34

13534

No. 4 $B^2_{a,6.9}$

				A			B				Mean B	
a	41	112	38 ✓	258	326	68	230	−28	253	−5	176	184 08
b	57	112	53 ✓	209	290	81	195	−14	206	−3	104	121 17
c	63	112	59 ✓	188	278	90	182	−6	174	−14	70	79 09
d	64	112	60 ✓	184	274	90	182	−2	174	−10	66	74 08
e	63	112	59 ✓	188	278	90	178	−10	178	−10	70	82 12
f	60	112	56 ✓	199	281	82	194	−5	188	−11	86	95 09
g	58	112	55 ✓	202	287	85	200	−2	196	−6	92	108 16
h	55	112	52 ✓	212	298	86	212	0	209	−3	110	130 20
i	51	112	48 ✓	226	310	84	226	0	226	0	129	154 25
k	42	112	39 ✓	255	330	75	258	+3	258	+3	172	202 30
l	21	112	29 ✓	322	372	50	248		326	+4	214	390 ..
m												

				Cor. to mean	omit from means
318	278	−40	08	−50	−42
268	244	−24	17		−33
250	226	−24	09		−41
248	224	−24	08		−42
250	230	−20	12		−38
259	235	−24	09		−41
262	244	−18	16		−34
270	251	−19	20		−30
284	268	−16	25		−25
314	294	−20	30		−20
380	366	−14			

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	No. 5	Bo, 6.9				V	Mean A	Mean B
08	a	40	105	40 ✓	253	326	73	
17	b	55	105	54 ✓	206	290	84	
09	c	64	105	63 ✓	174	278	104	
08	d	64	105	63 ✓	174	274	100	
12	e	62	104	62 ✓	178	278	100	
09	f	59	104	59 ✓	188	281	93	
16	g	57	104	57 ✓	196	287	91	
20	h	53	104	53 ✓	209	298	89	
25	i	48	105	48 ✓	226	310	84	
30	k	38	105	38 ✓	258	330	72	
	l	18	105	18 ✓	326	372	46	
	m							

311	278	23		omit from means	
284	244	20	[l]	Corr for std	
				-50	
241	226	15	166	116	
241	224	17	98	48	
243	230	13	49	-1	
250	235	15	49	-1	
256	244	12	54	+4	
268	251	17	70	20	
284	268	16	81	31	
318	294	14	105	55	
384	366	18	129	79	
		179	176	126	
Mean =		16	268	218	

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13534

No. 6 B2, 8.7

							Mean B		Corrected −50
a	15	105	15 ✓	340	325	286	184	102	52
b	25	105	25 ✓	300	275	234	121	113	63
c	31	105	31 ✓	281	250	206	79	127	77
d	34	104	34 ✓	271	237	192	74	118	68
e	35	104	35 ✓	268	233	188	82	106	56
f	36	104	36 ✓	264	228	184	95	89	39
g	37	103	37 ✓	262	225	180	108	72	22
h	35	102	35 ✓	268	233	188	130	58	8
i	33	102	33 ✓	274	241	196	154	42	−8
k	26	102	26 ✓	298	272	220	202	27	−23
l	17	101	17 ✓	330	323	274	290	−16	−66
m	6	101	6 ✓	390					

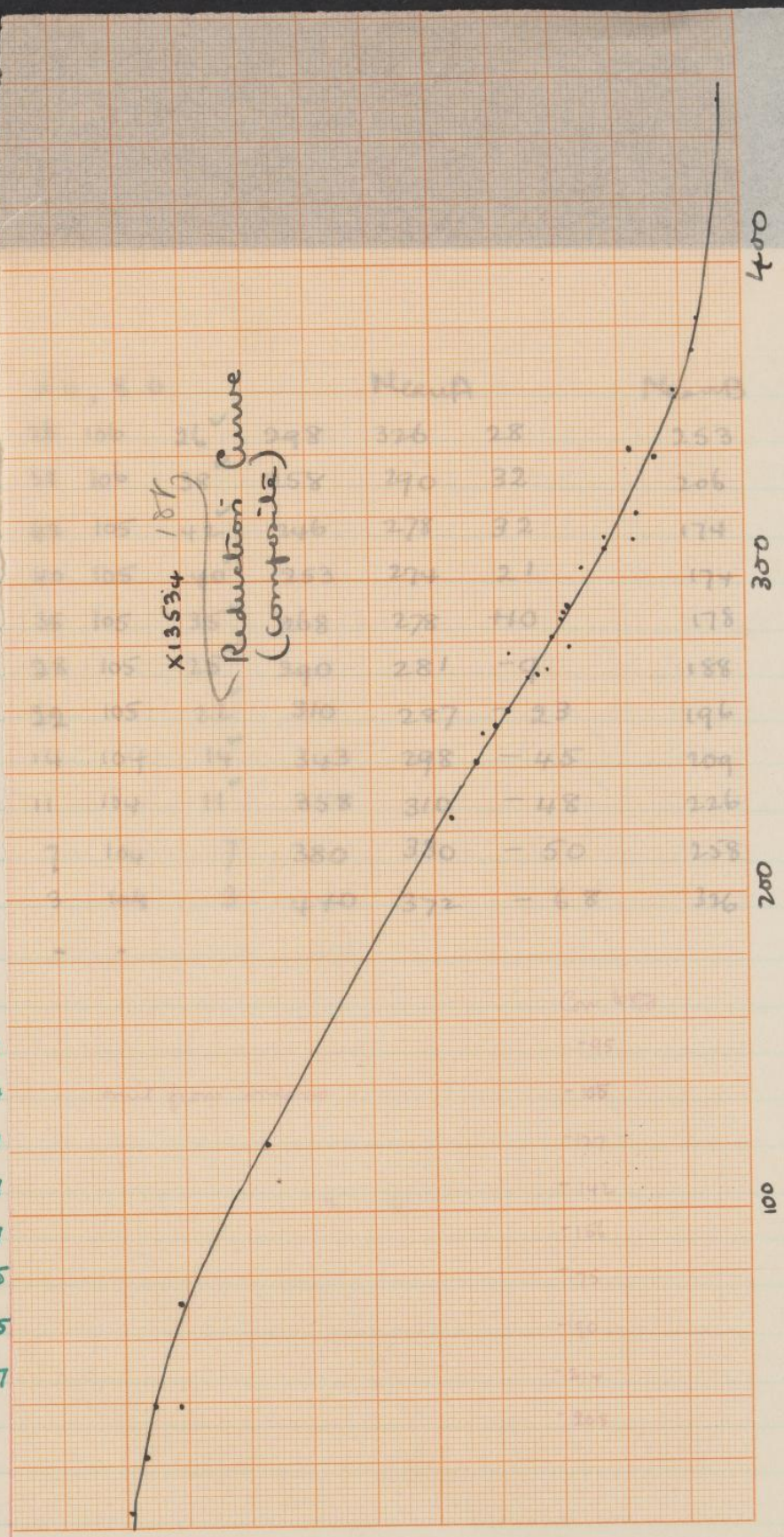
omit from means

210	278	+68
156	244	88
130	226	96
118	224	116
114	230	116
108	235	127
103	244	141
114	251	137
122	268	146
150	294	144
194	366	162

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No. 7



			Mean B
a		- 45	229 184-45
b		- 52	176 121-55
c		- 72	156 79-77
d		- 79	166 74-92
e		- 90	188 82-106
f		-102	220 95-125
g		-114	248 108-140
h		-134	294 130-164
i		-132	312 154-158
k		-122	
l		-114	
m			

387	278	-79
318	244	-74
305	226	-79
311	224	-87
327	230	-97
350	235	-115
370	244	-125
398	251	-147
412	268	

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No. 7 K0, 8.0

				Mean A		Mean B		Mean B
a	28 106	26 ✓	298	326	28	253	− 45	229 184 -45
b	38 106	38 ✓	258	290	32	206	− 52	176 121 -55
c	42 105	42 ✓	246	278	32	174	− 72	156 79 - 77
d	40 105	40 ✓	253	274	21	174	− 79	166 74 - 92
e	35 105	35 ✓	268	278	+10	178	− 90	188 82 - 106
f	28 105	28 ✓	290	281	−9	188	−102	220 95 - 125
g	22 105	22 ✓	310	287	− 23	196	−114	248 108 - 140
h	14 104	14 ✓	343	298	− 45	209	−134	294 130 - 164
i	11 104	11 ✓	358	310	− 48	226	−132	312 154 - 158
k	7 104	7	380	330	− 50	258	−122	
l	3 104	3	440	372	− 68	326	−114	
m	- -							

Cor to 87d

387	278	-79	-95
318	244	-74	-105
305	226	-79	-127
311	224	-87	-142
327	230	-97	-156
350	235	-115	-175
370	244	-125	-190
398	261	-147	-214
412	268		-208

omit from means

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13534

No. 8

	Bg	7.8		Mean A	Mean B			Mean B		-50 to 8th
a	18	105	18 ✓	326	280	253	-73	269	184	75	25
b	28	105	28 ✓	290	195	206	-84	220	121	99	49
c	32	105	32 ✓	278	182	174	-104	201	79	122	72
d	33	105	33 ✓	274	182	174	-100	196	74	122	72
e	32	104	32 ✓	278	178	178	-100	201	82	119	69
f	31	104	31 ✓	281	194	188	-93	206	95	111	61
g	29	104	29 ✓	287	200	196	-91	214	108	106	56
h	26	104	26 ✓	298	212	209	-89	229	130	99	49
i	22	104	22 ✓	310	226	226	-84	248	154	94	44
k	17	104	17 ✓	330	258	258	-72	274	202	72	22
l	8	104	8	372	288	326	-46				
m											

384 278 -106

350 244 -106 omit from means

337 226 -111

334 224 -110

337 230 -107

340 235 -105

346 244 -102

357 251 -106

370 268 -102

387 294 -93

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No. 11		Bip 4-7				Mean A		Mean B	
	a	95	102	97 ✓	23	326	303	253	230
	b	96	102	98 ✓	12	290	288	206	184
	c	97	102	99 ✓	6			174	..
	d	97	102	99 ✓	6			174	..
	e	97	102	99 ✓	6			178	..
	f	96	101	99 ✓	6			188	..
	g	96	101	99 ✓	6			196	..
	h	94	100	97 ✓	23	298	275	209	186
	i	92	100	95 ✓	41	310	269	226	185
	k	88	100	91 ✓	68	330	262	258	190
	l	74	100	77 ✓	124	372	248	326	202
	m	33	100	34 ✓	271				

138 278 140

130 244 114

124 226 102

124 224 100

124 230 106

124 235 111

124 244 120

138 251 113

148 268 120

167 294 127

212

330

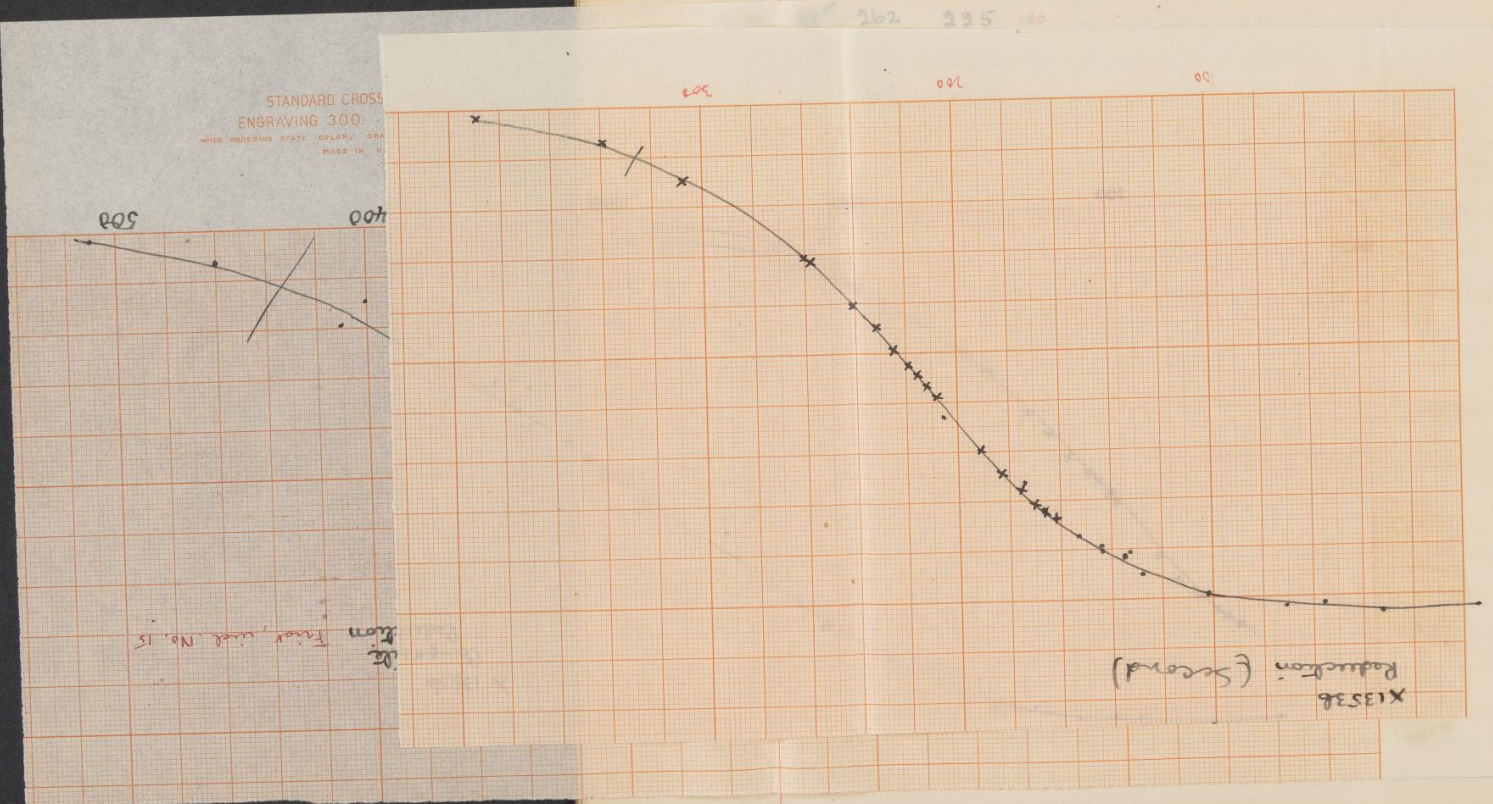
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13534

No. 13 Bo, 7.2 — No reduction made; "darkness" off tracing

					(-50)
a	32	278	246	201	151
b	45	236	192	144	94
c	52	212	160	110	60
d	54	206	152	98	48
e	52	212	160	110	60
f	50	219	169	120	70
g	47	230	183	134	84
h	42	246	204	156	106
		262	225	40	



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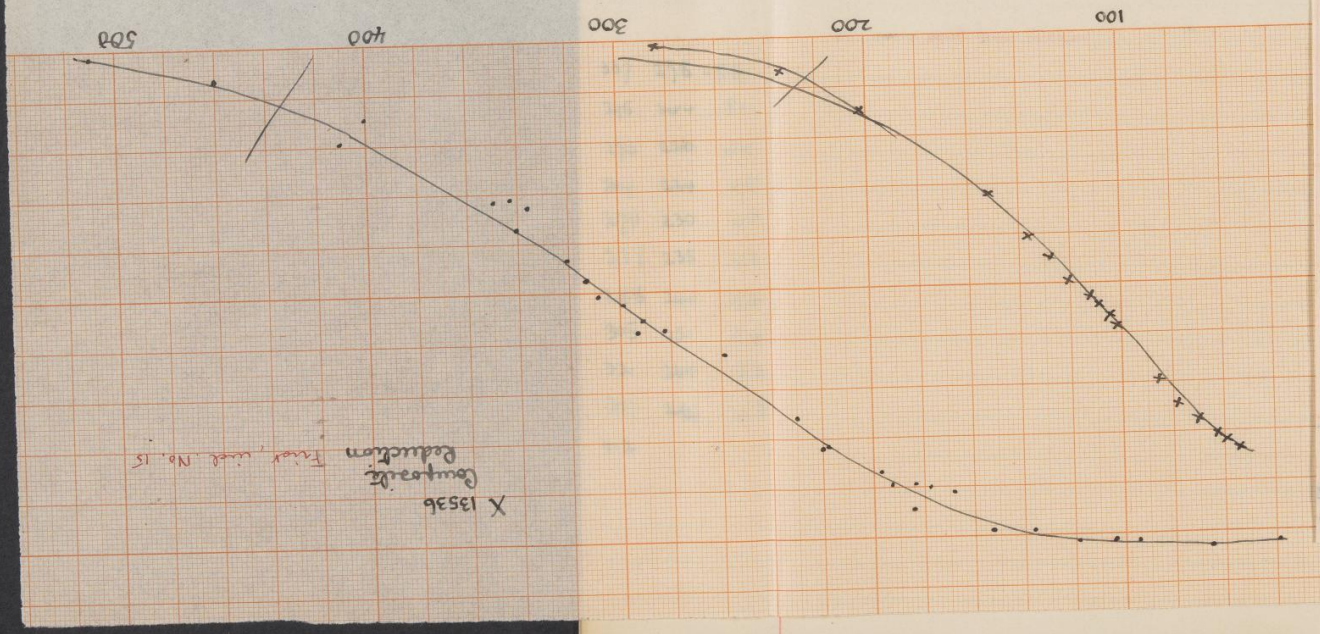
40

13524

No. 13 Bo, 7.2 No reduction made; "darkness" off tracing

a	32	278	246	201	151 (-50)
b	45	236	192	144	94
c	52	212	160	110	60
d	54	206	152	98	48
e	52	212	160	110	60
f	50	219	169	120	70
g	47	230	183	134	84
h	42	246	204	156	106

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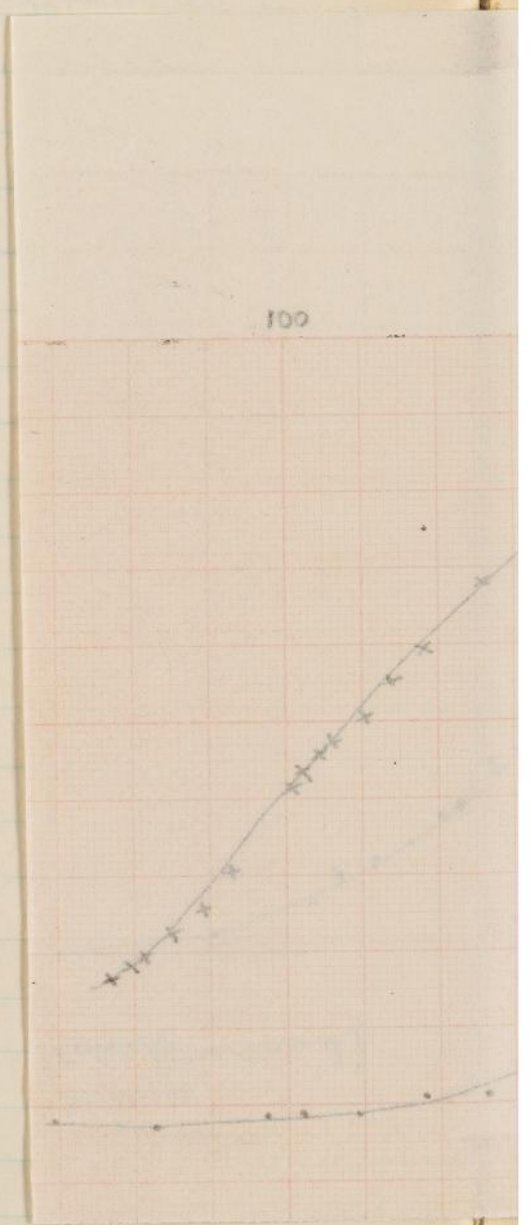
13534

No. 13 Bo, 7.2 No reduction made; "darkness" off tracing

a	32 ✓	278	246	201	151	(-50)
b	45 ✓	236	192	144	94	
c	52 ✓	212	160	110	60	
d	54 ✓	206	152	98	48	
e	52 ✓	212	160	110	60	
f	50 ✓	219	169	120	70	
g	47 ✓	230	183	134	84	
h	42 ✓	246	204	156	106	
i	37 ✓	262	225	180		
k	26 ✓	298	272	229		
l	11 ✓	358	347	312		
m						

omit from means

337	278	-59
295	244	51
270	226	44
264	224	40
270	230	40
277	235	42
288	244	44
305	251	54
321	268	53
357	294	63
412		



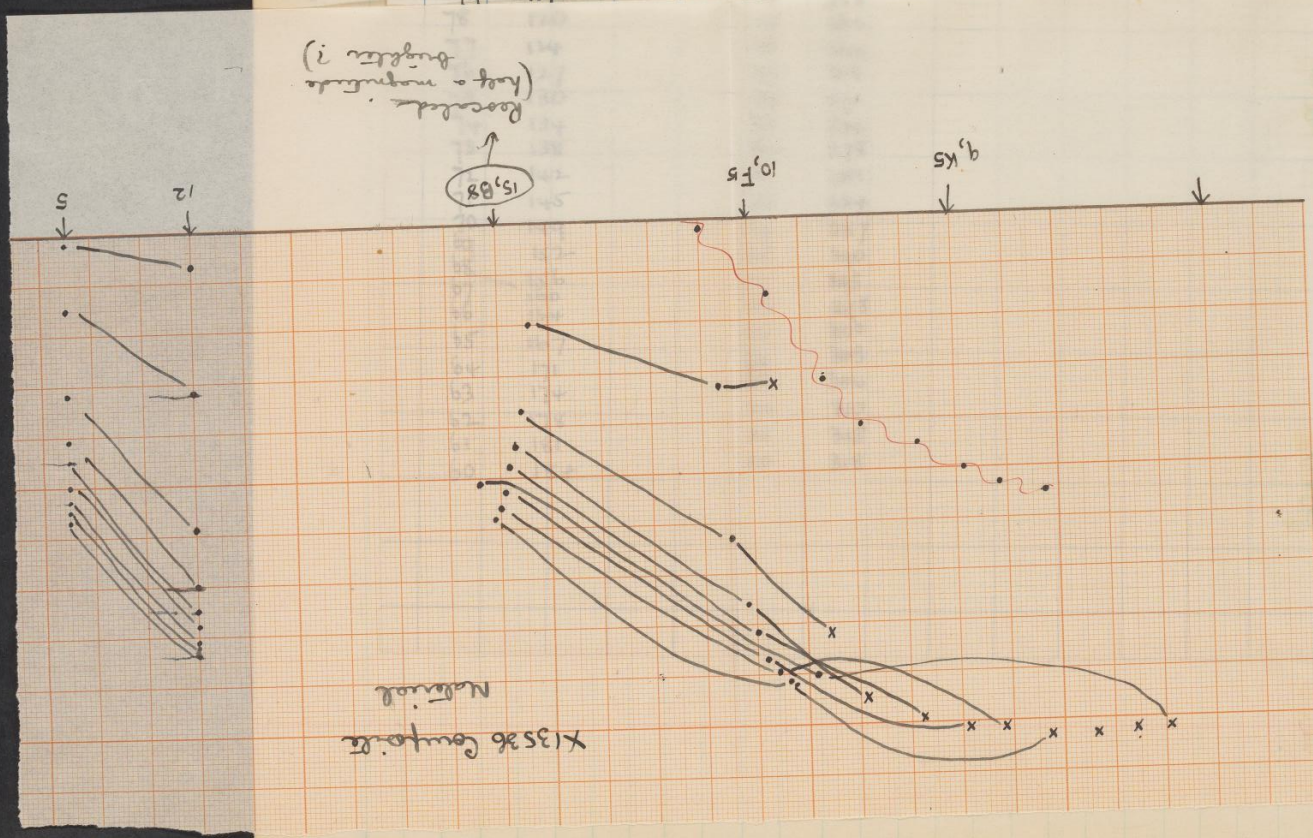
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X13534

Reduction Table I

100	..	59	188	19	322
99	06	58	192	18	326
98	12	57	196	17	330
97	23	56	199	16	336
96	34	55	202	15	340
95	41	54	206	14	343
94	50	53	209	13	348
93	56	52	212	12	352
92	62	51	216	11	358
91	68	50	219	10	360
90	72	49	222	9	366
89	78	48	226	8	372
88	82	47	230	7	380
87	86	46	234	6	390
86	90	45	236	5	404
85	94	44	239	4	420
84	98	43	242	3	440
83	102	42	246	2	–
82	106	41	249	1	–
81	109	40	253		
80	113	39	255		
79	117				

41



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X13534

Reduction Table I

100	..
99	06
98	12
97	23
96	34
95	41
94	50
93	56
92	62
91	68
90	72
89	78
88	82
87	86
86	90
85	94
84	98
83	102
82	106
81	109
80	113
79	117
78	120
77	124
76	127
75	130
74	134
73	138
72	142
71	145
70	149
69	152
68	156
67	160
66	164
65	167
64	171
63	174
62	178
61	181
60	184

59	188
58	192
57	196
56	199
55	202
54	206
53	209
52	212
51	216
50	219
49	222
48	226
47	230
46	234
45	236
44	239
43	242
42	246
41	249
40	253
39	255
38	258
37	262
36	264
35	268
34	271
33	274
32	278
31	281
30	284
29	287
28	290
27	295
26	298
25	300
24	303
23	306
22	310
21	315
20	318

19	322
18	326
17	330
16	336
15	340
14	343
13	348
12	352
11	358
10	360
9	366
8	372
7	380
6	390
5	404
4	420
3	440
2	–
1	–

41

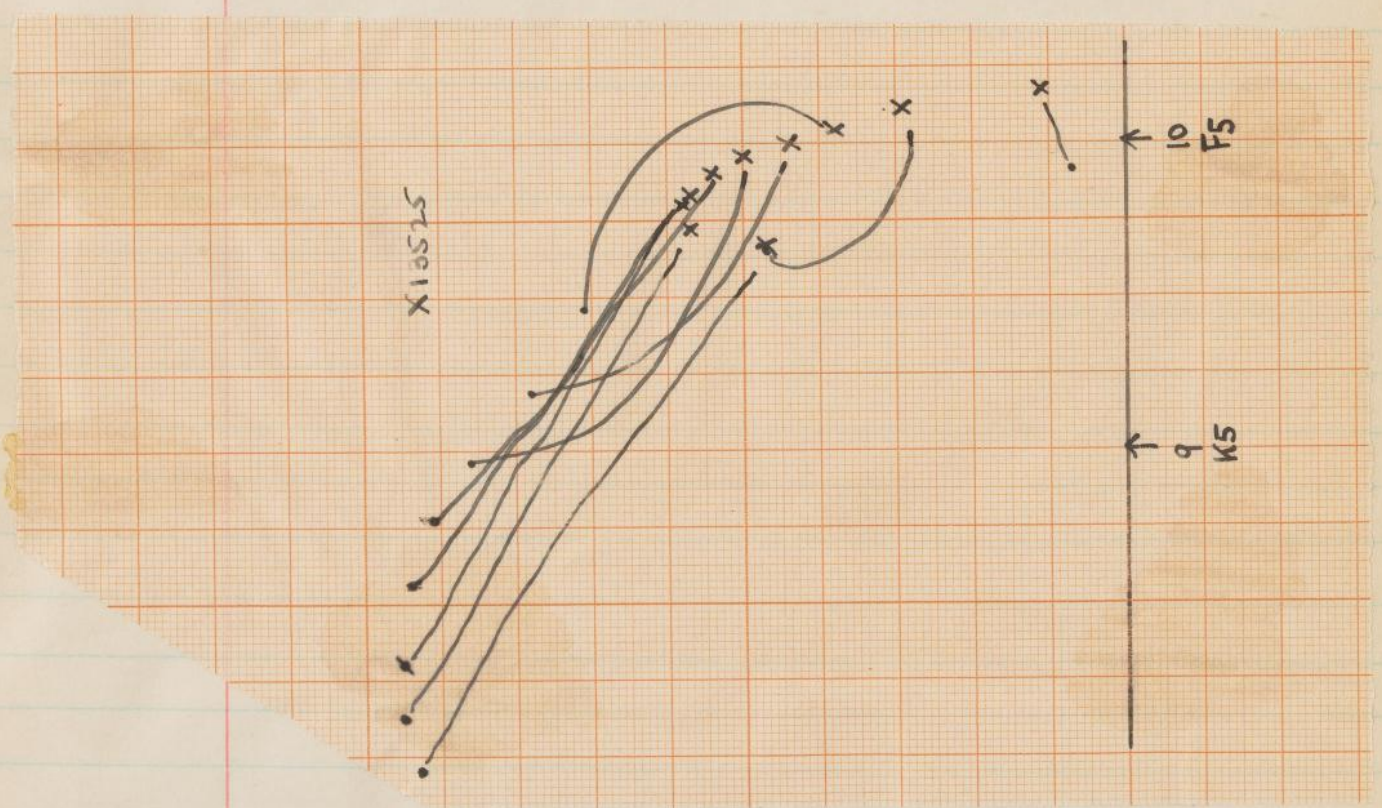
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13525

X13525 No. 1 Bz, 6.3

				Mean B		Reduction to mean B +25	
a	7	105	363	344	− 19		+ 6
b	16	105	321	285	−36		− 11
c	25	105	285	244	− 41		−16
d	27	105	276	230	− 46		−21
e	26	105	280	230	− 50		−25
f	25	105	285	234	−51		−26
g	24	105	288	237	−51		−26
h	22	105	297	253	−44		−19
i	20	105	305	264	−41		−16
k	14	105	330	300	−30		− 5
l	5	105	374	352	−22		+ 3
m							

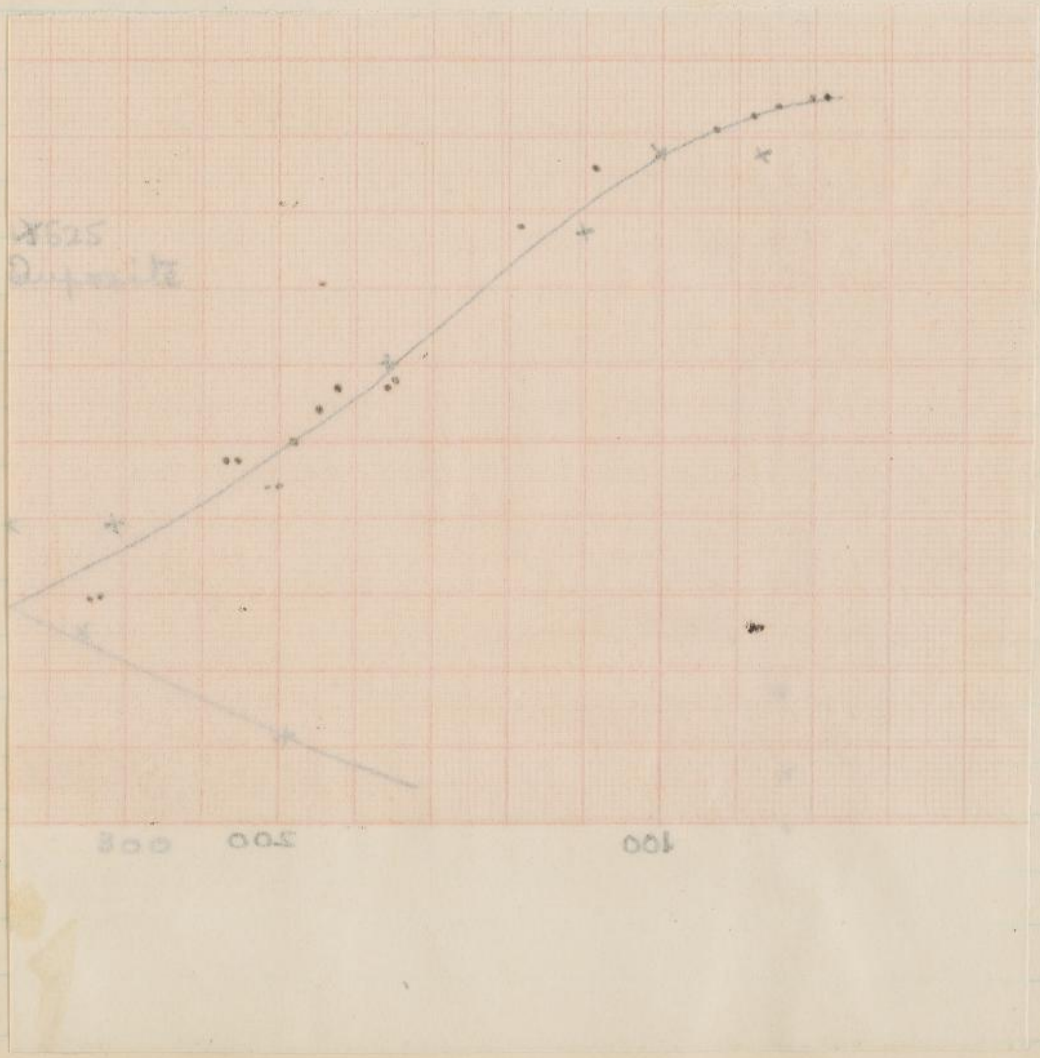


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No. 9

					Mean B	
a	89	106		-	344	
b	95	106	93	76	285	-209
c	97	106	95	58	344	-186
d	97	106	95	58	230	-172
e	96	106	94	68	230	-172
f	93	106	91	86	234	-148
g	88	106	86	104	237	-133
h	80	107	78	127	253	-126
i	73	107	71	145	264	-119
k	48	107	47	205	300	-95
l	7	107	7		352	



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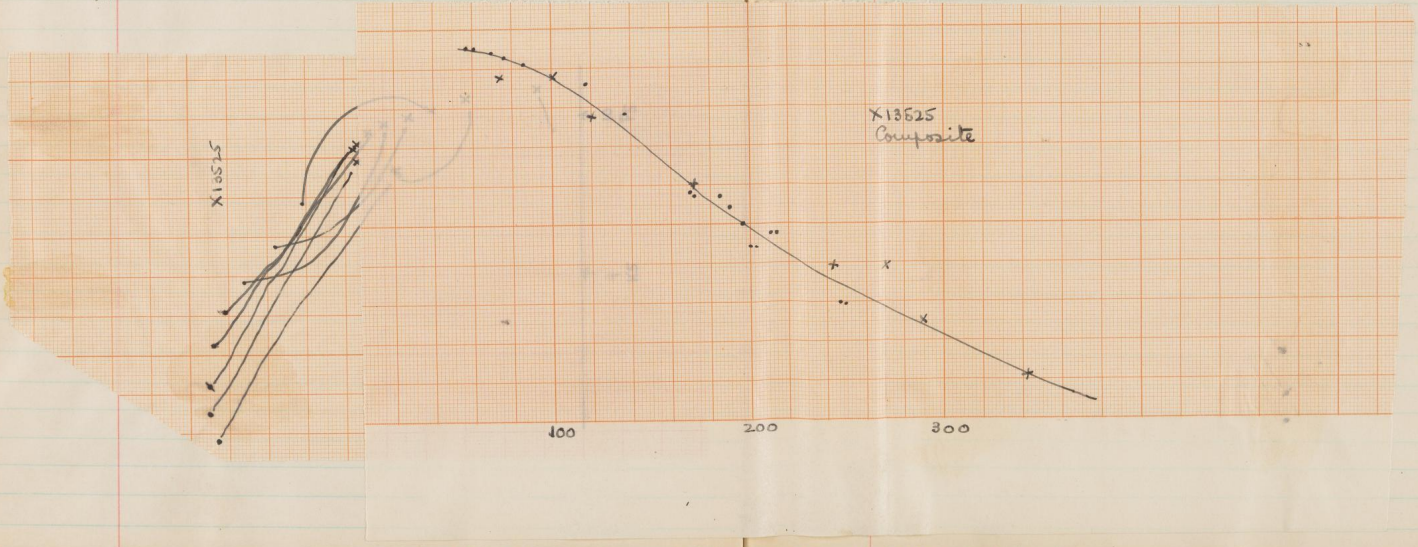
13525

X13525 No.1 Bz, 6.3

				Mean B		Reduction to mean B	
a	7	105	363	344	− 19	+25	+ 6
b	16	105	321	285	−36		− 11
c	25	105	285	244	− 41		−16
d	27	105	276	230	− 46		−21
e	26	105	280	230	− 50		−25
f	25	105	285	234	−51		−26
g	24	105	288	237	−51		−26
h	22	105	297	253	−44		−19
i	20	105	305	264	−41		−16
k	14	105	330	300	−30		− 5
l	5	105	374	352	−22		+ 3
m							

No. 9

					Mean B	
a	89	106		−	344	
b	95	106	93	76	285	−209
c	97	106	95	58	244	−186
d	97	106	95	58	230	−172
e	96	106	94	68	230	−172
f	93	106	91	86	234	−148
g	88	106	86	104	237	−133
h	80	107	78	127	253	−126
i	73	107	71	146	264	−119
k	48	107	47	205	300	− 95
l	7	107	7		352	



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44

13525

No. 10

a	26	104	26	280	344	+ 64
b	47	104	47	206	285	+ 79
c	57	104	57	176	244	+ 68
d	58	104	58	174	230	+ 56
e	57	104	57	176	230	+ 54
f	54	104	54	185	234	+ 49
g	50	104	50	196	237	+ 41
h	44	104	44	214	253	49
i	38	104	38	233	264	31
k	28	105	28	272	300	28
l	11	105	11	344	352	
m						

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No. 11

Mean B

a	60	104	60	170	344	284		167
b	77	104	77	130	285	208		155
c	84	103	85	108	244	159		136
d	86	103	87	101	230	143		129
e	86	103	87	101	230	143		129
f	85	103	86	105	234	148		129
g	84	103	85	108	237	152		129
h	81	103	82	117	253	171		136
i	78	103	79	125	264	185		139
k	71	103	72	142	300	228		158
l	45	103	45	211	352	207		141
m	10	103	10	347				

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13525

No. 12 (Mean) B

a	11	105	11	344
b	25	105	25	285
c	35	105	35	244
d	39	105	39	230
e	39	105	39	230
f	38	106	38	234
g	37	106	37	237
h	33	106	33	253
i	30	106	30	264
k	21	106	21	300
l	9	106	9	352

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No. 19

					Mean BO	B-A.
a	10	104	10	347	344	-03
b	20	104	20	306	285	-21
c	27	104	27	277	244	-33
d	29	104	29	268	230	-38
e	29	104	29	268	230	-38
f	29	104	29	268	234	-34
g	28	104	28	272	237	-35
h	26	104	26	280	253	-27
i	21	104	21	301	264	-37
k	14	104	14	330	300	-30
l	5	104	5	373	352	-21

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13538 4

X13538 4 NGC 6231

List of Stars:

5	Bo	6.9	†
6	..	..	
9	K5	5.4	*
10	F5	6.2	*
12	Bo	6.4	†
14	Oep	5.6	
15	B8	(7.2)	*
17	..	..	
18	B3	7.9	
19	Ba	7.1	

Two systems for reduction. Mean B between 5 and 12, as for X 13546

All first reduction material here is in blue, all second reduction in red.

	Mean (5)	Bo (12)	Σ	Mean	Diff	5	12	Σ	Mean	Diff
a	342	260	602	301	82	247	197	444	222	50
b	305	227	532	266	78	224	176	400	200	48
c	290	210	500	250	80	213	162	375	188	51
d	288	210	498	249	78	211	162	373	186	49
	293	216	509	254	77	215	167	382	191	48
	298	219	517	258	79	218	170	388	194	48
	305	224	529	264	81	224	176	400	200	48
	314	236	554	277	82	232	182	414	207	50
	329	249	578	289	80	240	190	430	215	50
	359	282	641	320	77	257	208	465	232	49
	416	359	775	387	57	366	257	563	282	49
	506	460	966	483	46	348	342	692	346	49

540

Clearly No. 5 is too weak from the tracing (this arose from assumed m for star no. 15 (not revised)) A second reduction curve was made omitting No. 15

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1924phae.proj..1114P

To 104

No. 5 Standard B0, b.9

						Mean B		Std	
a	37	104	37 ✓	342	247	222	−25	321	278	−43
b	50	104	50 ✓	305	224	200	−24	277	244	33
c	56	104	56 ✓	290	213	188	−25	259	226	33
d	57	104	57 ✓	288	211	186	−25	256	224	32
e	55	104	55 ✓	293	215	191	−24	262	230	32
f	53	104	53 ✓	298	218	194	−24	268	235	33
g	50	104	50 ✓	305	224	200	−24	277	244	33
h	45	104	45 ✓	318	232	207	−25	295	251	44
i	41	104	41 ✓	329	240	215	−25	308	268	40
k	32	104	32 ✓	359	257	232	−25	337	294	43
l	15	104	15 ✓	416	306	282	−24	394	366	28
m	2	104	2	506	348					

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50

No. 6 13538 4

					Mean B	
a	15	105	15	306	222	* -74
b	25	106	25	274	200	-74
c	30	105	30	261	188	-73
d	32	105	32	257	186	-71
e	33	105	33	255	191	-64
f	34	105	34	253	194	-59
g	35	104	35	251	200	-51
h	35	104	35	251	207	-44
i	33	104	33	255	215	-40
k	27	103	27	269	232	-37
l	18	103	18	294	282	-12
m	9	103	9	331		..

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No. 9 KS 5.4

							Reduction		
a	99	102	101	120	301	+(181)	80	222	142
b	100	102	102	90	266	(176)	60	200	140
c	100	102	102	90	250	(160)	60	188	(128)
d	101	102	103	65	249	(184)	32	186	(154)
e	101	102	103	65	254	(189)	32	191	(169)
f	100	103	101	120	258	(138)	60	194	(134)
g	100	103	101	120	264	+144	60	200	(140)
h	98	103	99	143	277	+134	104	207	103
i	94	103	95	168	289	+121	125	215	90
k	82	104	82	216	320	+114	168	232	64
l	33	104	33	355	387	+ 32	57	282	(125)

m		
100	278	178
76	244	168
76	226	150
50	224	174
50	230	180
100	235	135
100	244	144
124	251	127
148	268	120
199	294	95
334	366	32

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13538.4

No. 10

Neau B

a	83	104	83	165	222	57
b	90	104	90	144	200	56
c	92	104	92	138	188	50
d	92	104	92	138	186	48
e	91	104	91	141	191	50
f	89	104	89	148	194	46
g	87	104	87	154	200	46
h	84	105	83	165	207	42
i	77	105	76	180	215	35
k	64	105	63	202	232	30
l	33	105	33	255	282	27
m	5	105	5	360		

195	278	83
171	244	73
163	226	63
163	224	61
167	230	63
175	235	60
183	244	61
195	251	56
215	268	53
241	294	53
334	366	32

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No. 12

						Means		(12)	(5)	Σ	Mean	diff
a	65	102	66	260	197	222	25	235	321	556	278	86
b	76	102	78	227	176	200	24	210	277	487	244	67
c	82	102	84	210	162	188	26	192	259	451	226	67
d	82	102	84	210	162	186	24	192	256	448	224	64
e	80	102	82	216	167	191	24	199	262	461	230	63
f	79	102	81	219	170	194	24	202	268	470	235	66
g	76	102	78	224	176	200	24	210	277	487	244	67
h	73	102	75	236	182	207	25	217	295	502	251	78
i	69	103	70	249	190	215	25	227	308	535	268	81
k	58	103	59	282	208	232	24	250	337	587	294	87
l	32	103	32	359	257	282	25	337	394	731	366	57
m	7	104	7	460	342			—				

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No. 14 1353 b4

Means

a	83	102	85	160	222	56
b	90	102	92	138	200	62
c	92	102	94	130	188	58
d	92	102	94	130	186	56
e	91	102	93	134	191	57
f	90	102	92	138	194	56
g	89	102	91	141	200	59
h	88	102	90	145	207	62
i	86	102	88	150	215	65
k	80	102	82	168	232	64
l	59	102	60	207	282	75
m	28	102	28	266		

184	278	89
163	244	81
154	226	72
154	224	70
158	230	72
163	235	72
167	244	77
171	251	80
179	268	89
199	294	95
248	366	118
350		

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No. 15

a	37	103	37	247	222	− 25
b	51	103	51	222	200	-22
c	57	103	58	210	188	-22
d	59	103	60	207	186	-21
e	57	103	58	210	191	-19
f	55	103	56	213	194	-19
g	52	103	53	218	200	-18
h	48	103	48	227	207	-20
i	44	103	44	234	215	-19
k	37	103	37	248	232	-16
l	20	103	20	267	282	5
m						

321	278	-43
274	244	30
253	226	27
248	224	24
253	230	23
259	235	24
268	244	24
284	251	33
298	268	30
321	294	27
377	366	11

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No. 17 13538 4

a	9	103	9 ✓	331	222	-109
b	14	103	14 ✓	310	200	-110
c	18	103	18 ✓	294	188	-106
d	21	103	21 ✓	284	186	-98
e	20	103	20 ✓	287	191	-96
f	17	103	17 ✓	298	194	-104
g	15	103	15 ✓	306	200	-106
h	13	103	13 ✓	314	207	-107
i	11	103	11 ✓	322	215	-107
k	8	103	8 ✓	336	232	-104
l	4	103	4 ✓	366	282	
m						

-	278	-
398	244	54
384	226	58
374	224	50
377	230	47
387	235	52
394	244	50
402	251	51
412	268	44
-	294	
-		

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1924phae.proj.1114P

No. 18

a 20 103 20✓ 288 222 -66

b

c ation, X13534 Revised reduction Month of

d

e

f

g

h

i

k

l

m

	Time of Beginning	Barometer				Thermometer		Vapor Pressure	Rel. Hum.	Self-reg. Thermometers			
		Att. Ther.	Observed Reading	Correction	Corrected Reading	Dry	Wet			Max.	Min.	Max. Set	Min Set
1	-			32	337		63	241			94	154	
2	-			33	334		64	239			95	148	
3	-			34	330		65	237			96	142	
4	-			35	327		66	235			97	138	
5	-			36	324		67	233			98	130	
6	-			37	321		68	232			99	124	
7	-			38	318		69	230			100	116	
8	-			39	314		70	227			101	100	
9	-			40	311		71	225			102	76	
10	418			41	308		72	223			103	50	
11	412			42	305		73	221					
12	406			43	302		74	219					
13	402			44	298		75	217					
14	398			45	295		76	215					
15	394			46	291		77	212					
16	390			47	288		78	210					
17	387			48	284		79	207					
18	384			49	281		80	204					
19	380			50	277		81	202					
20	377			51	274		82	199					
21	374			52	270		83	195					
22	370			53	268		84	192					
23	368			54	264		85	189					
24	364			55	262		86	186					
25	360			56	259		87	183					
26	357			57	256		88	179					
27	354			58	253		89	175					
28	350			59	250		90	171					
29	346			60	248		91	167					
30	343			61	245		92	163					
31	340			62	243		93	158					
ns													

377 278 -99
340 244-96
327 226 101
324 224 100
330 230 100
337 235 102
346 244 102
357 251 106
370 268 102
394 294 100
-

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No. 18

a	20	103	20 ✓	288	222	-66
b	31	103	31 ✓	260	200	-60
c	35	103	35 ✓	251	188	-63
d	36	103	36 ✓	249	186	-63
e	34	103	34 ✓	253	191	-62
f	32	103	32 ✓	257	194	-63
g	29	103	29 ✓	264	200	-64
h	26	103	26 ✓	271	207	-64
i	22	103	22 ✓	282	215	-67
k	15	103	15 ✓	306	232	-74
l	7	103	7	341	282	-59
m						

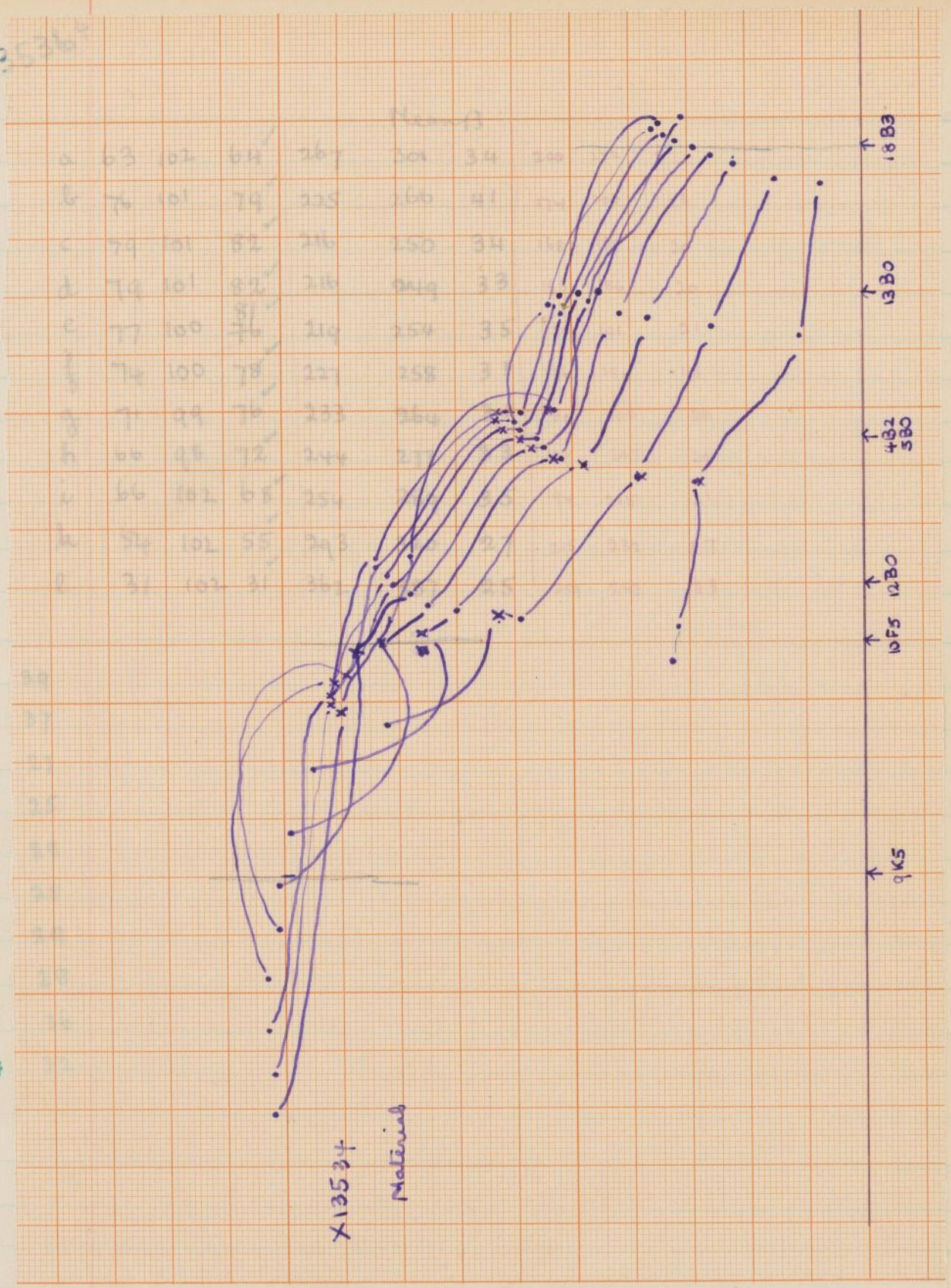
377 278 -99
340 244 -96
327 226 101
324 224 100
330 230 100
337 235 102
346 244 102
357 251 106
370 268 102
394 294 100

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58

No. 19



239 278
207 244
199 226
199 224
202 230
210 235
215 244
223 251
232 268
262 294
340

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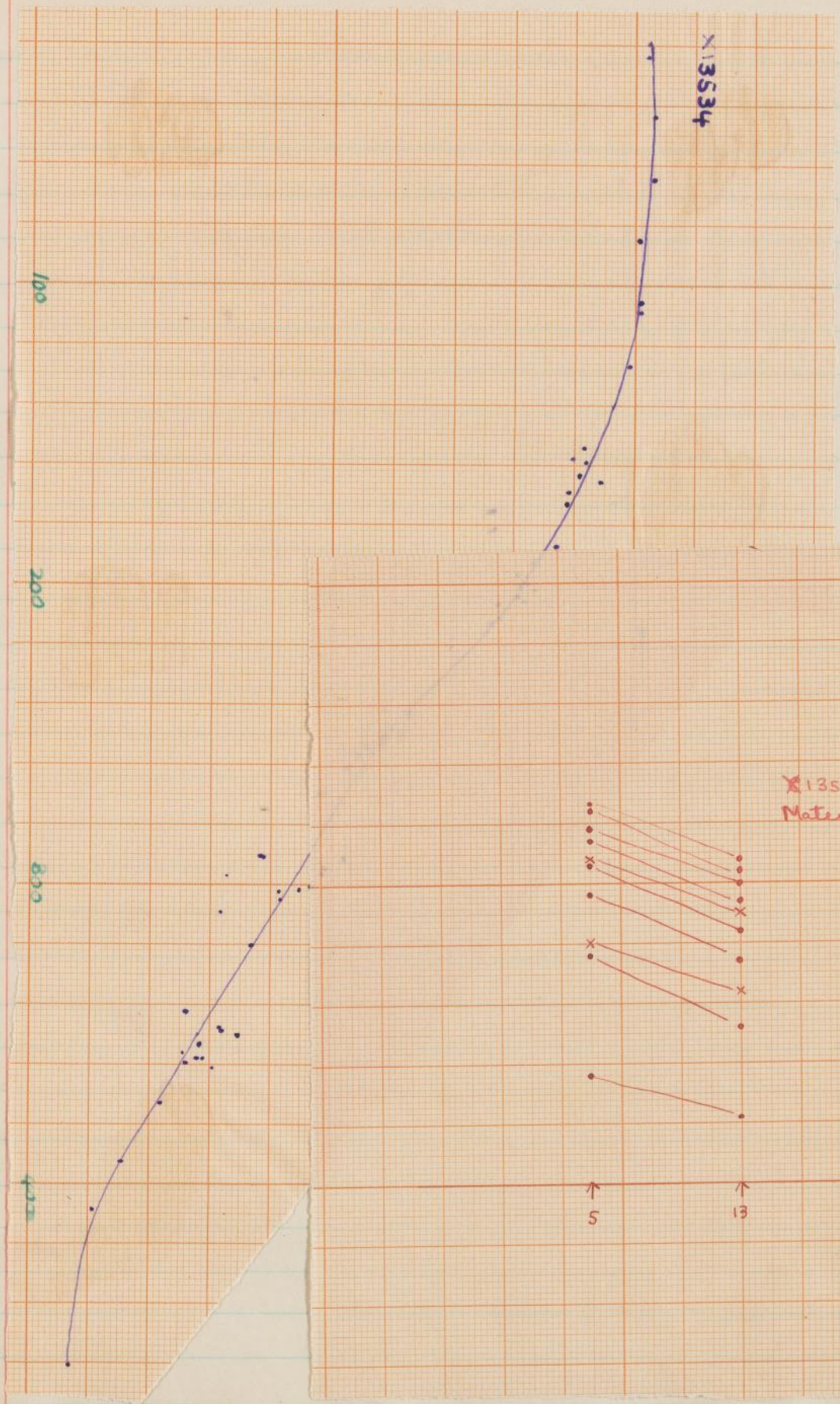
No. 19

					Mean β				
a	63	102	64	267	301	34	200	222	+22
b	76	101	79	225	266	41	174	200	26
c	79	101	82	216	250	34	168	188	20
d	79	101	82	216	249	33	168	186	20
e	77	100	81 ~~76~~	219	254	35	170	191	21
f	74	100	78	227	258	31	176	194	18
g	71	99	76	233	264	31	180	200	20
h	66	98	72	244	277	33	187	207	20
i	66	102	68	254	289	35	194	215	21
k	54	102	55	293	320	27	215	232	17
l	31	102	31	362	387	25	259	282	23

239	278	39
207	244	37
199	226	27
199	224	25
202	230	28
210	235	25
215	244	29
223	251	28
232	268	36
262	294	32
340		

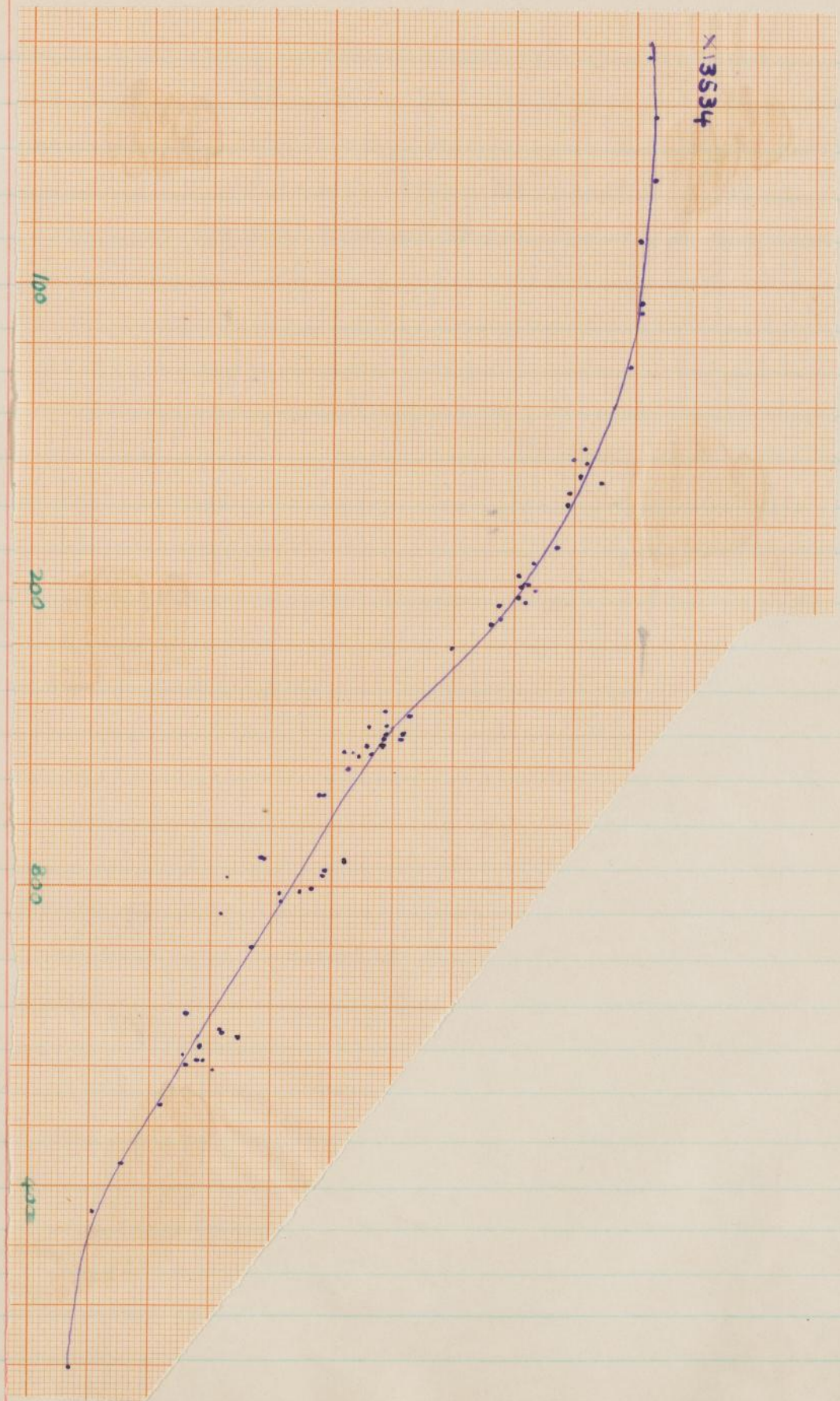
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X13536

Second series

Complete except

No. 6.

Whole series remeasured and new reductions constructed.

B0 * B2 B3 B5 4 KS, 5.4

5. (6.9) 4 (6.9) 18 (7.9) 16 (7.3) 10 F5 6.2

tion, X13536 Reduction Month of ..... 19.....

	Time of Beginning	Barometer: Att. Ther.	Barometer: Observed Reading	Barometer: Correction	Barometer: Corrected Reading	Thermometer: Dry	Thermometer: Wet	Vapor Pressure	Rel. Hum.	Self-reg. Thermometers: Max.	Self-reg. Thermometers: Min.	Self-reg. Thermometers: Max. Set	Self-reg. Thermometers: Min. Set	Range of Temp.	Mean Temp.	
1	–			32	332			63	239			94	126			
2	–			33	329			64	236			95	121			
3	–			34	326			65	233			96	116			
4	–			35	323			66	230			97	112			
5	–			36	320			67	227			98	106			
6	–			37	317			68	224			99	99			
7				38	314			69	221			100	93			
8	–			39	311			70	218			101	85			
9	–			40	308			71	215		78	102	78			
10	–			41	306			72	212		67	103	67			
11	–			42	303			73	209							
12	–			43	300			74	205							
13	–			44	297			75	202							Mean B
14	–			45	294			76	198							
15	395			46	291			77	194							284
16	390			47	288			78	1881							246
17	386			48	285			79	187							226
18	382			49	282			80	184							228
19	378			50	278			81	180							234
20	374			51	275			82	176							242
21	370			52	272			83	173							254
22	366			53	269			84	169							264
23	362			54	266			85	165							276
24	358			55	263			86	161							304
25	355			56	260			87	157							372
26	351			57	257			88	154							
27	348			58	254			89	150							
28	344			59	251			90	145							
29	341			60	248			91	140							
30	338			61	245			92	136							
31	334			62	242			93	132							
ims																

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X13536

Second series

Complete except

No. 6.

Whole series remeasured and new reductions constructed.

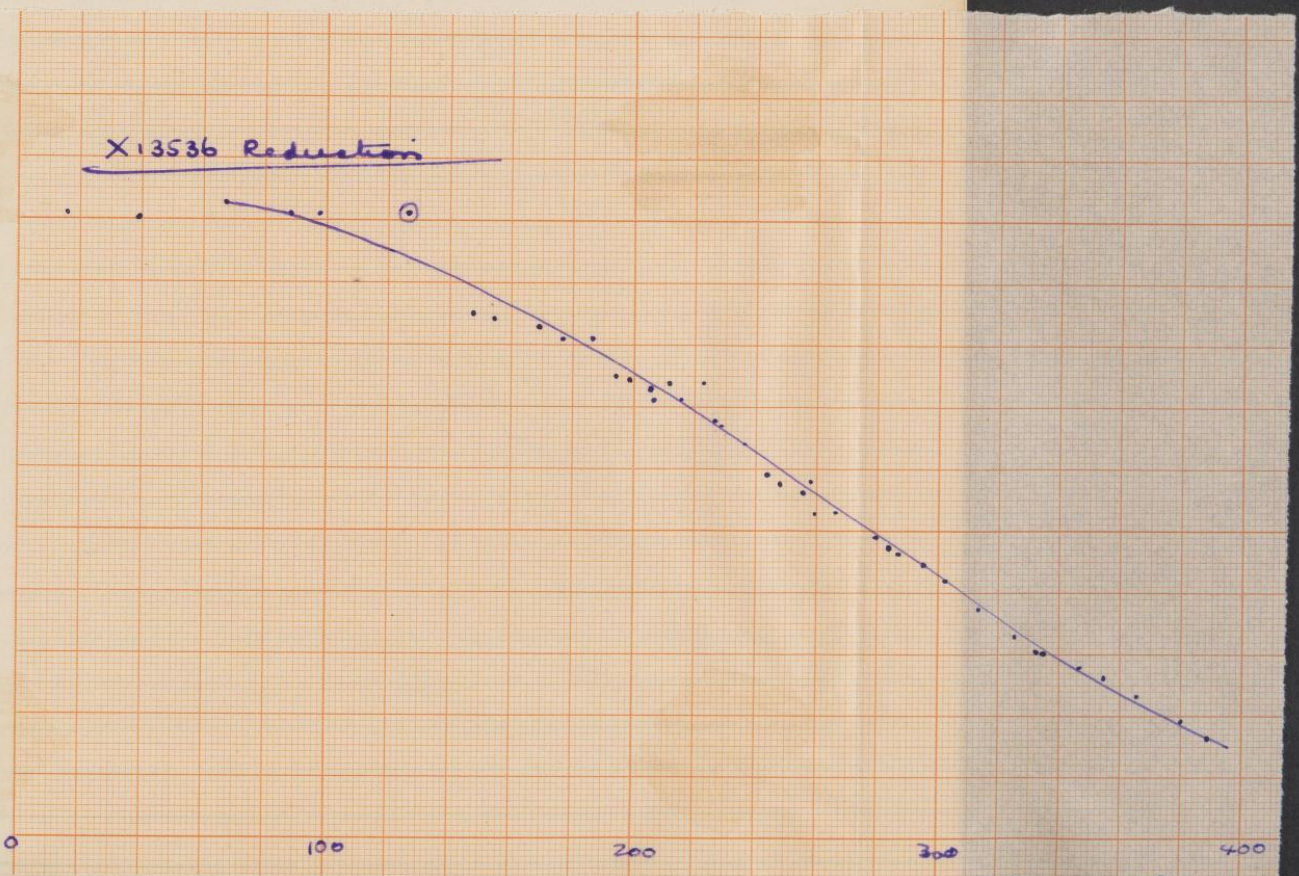
B0*	B2	B3	B5	
5. (6.9)	4 (6.9)	18 (7.9)	16 (7.3)	9 K5, 5.4
12 (6.4)				10 F5, 6.2
13 (7.4)				16 B5, 7.3

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Jo 104

No. 1

				Mean B		
a	54	106	53	269	284	15
b	65	106	64	236	246	10
c	71	107	69	221	226	5
d	72	106	70	218	228	10
e	66	106	65	233	234	01
f	64	106	63	239	242	03
g	61	106	60	248	254	06
h	57	106	56	260	264	04
i	54	106	53	269	276	07
k	47	106	46	291	304	13
l	24	106	24	358	372	14



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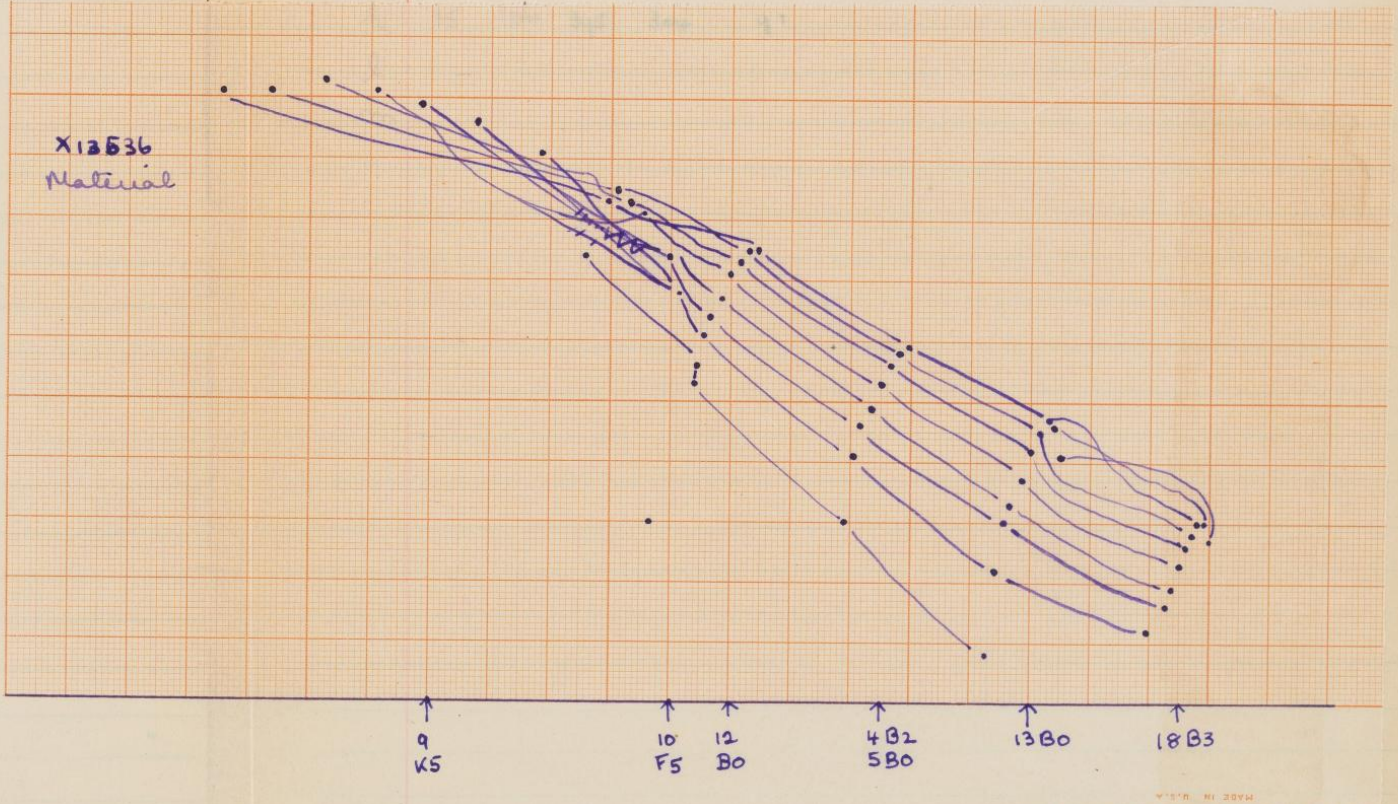
No. 2

				Mean B		
a	90	103	91	140	284	144
b	94	103	95	121	246	125
c	96	103	97	112	226	114
d	95	103	96	116	228	112
e	95	103	96	116	234	118
f	96	103	97	112	242	130
g	96	103	97	112	254	142
h	93	103	94	126	264	138
i	92	103	93	132	276	144
k	85	103	86	161	304	143
l	75	103	76	198	372	174
m						

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No. 3

a	13	107	..	284	—
b	21	107	370	246	-124
c	27	107	348	226	122
d	29	107	341	228	113
e	28	107	344	234	110
f	26	107	351	242	109
g	23	106	362	254	108
h	21	106	370	264	106
i	18	106	382	276	106



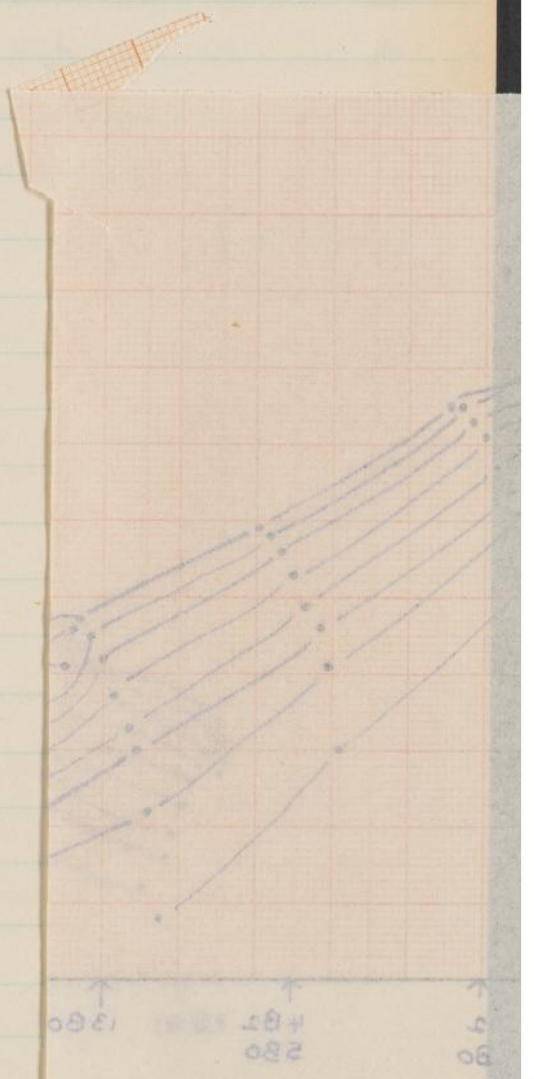
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No. 3

a	13	107	..	284	—
b	21	107	370	246	-124
c	27	107	348	226	122
d	29	107	341	228	113
e	28	107	344	234	110
f	26	107	351	242	109
g	23	106	362	254	108
h	21	106	370	264	106
i	18	106	382	276	106
k	15	106	345	304	91
l					
m					



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64

X3536

No. 4

a	39	103	39	311	284	-27
b	46	103	46	291	246	-45
c	52	103	52	272	226	-46
d	52	102	52	272	228	44
e	50	102	50	275	234	41
f	49	102	50	278	242	36
g	47	102	48	285	254	31
h	44	102	45	294	264	28
i	40	102	41	306	276	30
k	34	102	34	326	304	22
l	16	102	16	390	372	18

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No. 5 B0, 6-9

				for B0 Mean	No. 12	Σ	Mean	Diff	Diff from mean B0
a	40	106	39	311	257	568	284	54 46	+27
b	53	106	52	272	221	493	246	51	26
c	60	106	59	251	202	453	226	49	25
d	59	106	58	254	202	456	228	52	26
e	57	105	56	260	209	469	234	51	26
f	54	105	53	269	215	484	242	54	27
g	50	105	49	282	227	509	254	55	28
h	47	105	46	291	236	527	264	55	27
i	42	105	41	306	245	551	276	61	30
k	30	105	30	338	269	607	304	69	34
l	15	104	15	395	348	743	372	41	23
m								592 / 54	

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X13536

No. 6

Where?

a ~~Ep to~~

b

c

d

e

f

g

h

i

k

l

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No. 7

a	27	106	27	348	284	- 64
b	38	106	38	314	246	- 68
c	42	105	42	303	226	- 77
d	40	105	40	308	228	- 80
e	35	105	35	323	234	- 89
f	28	104	28	344	242	-102
g	21	104	21	370	254	-116
h	14	104	14	..		
i	11	104	11	..		
k	7	104	7	..		
l						

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X13536

No. 8

a	15	102	395	284	111
b	24	102	358	246	112
c	29	102	341	226	115
d	29	102	341	228	113
e	27	102	348	234	114
f	26	103	351	242	109
g	24	103	358	254	104
h	22	105	366	264	102
i	20	105	374	276	98
k	15	105	395	304	91
l					
m					

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X13536

No. 9

a	97	103	98	106	284	178
b	100	103	101	85	246	161
c	100	103	101	85	226	141
d	100	103	101	85	228	143
e	102	103	103	67	234	167
f	101	104	101	85	242	157
g	99	104	99	99	254	155
h	96	104	96	116	264	148
i	92	105	91	140	276	136
k	75	105	74	205	304	99
l	30	105	30	338	372	34

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70

X13536

No. 10

a	72	104	72	212	284	+72
b	81	104	81	180	246	66
c	84	105	83	173	226	53
d	86	105	85	165	228	63
e	85	106	83	173	234	61
f	83	106	81	180	242	62
g	81	106	79	187	254	67
h	76	107	74	205	264	59
i	70	107	68	224	276	52
k	58	108	55	263	304	41
l	29	109	28	344	372	28
m						

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X13536

NO. 11

a	90	101	93	132	284	152
b	92	101	95	121	246	125
c	94	101	97	112	226	114
d	94	101	97	112	228	116
e	94	101	97	112	234	122
f	93	101	96	116	242	126
g	93	101	96	116	254	138
h	91	102	93	132	264	132
i	91	102	93	132	276	144
k	86	103	87	157	304	147
l	89	103	90	218	372	154
m						

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X 1 36 36

No. 12 B0 6.4

a	57	104	57	257	284.	27
b	69	104	69	221	246	25
c	75	104	75	202	226	24
d	75	104	75	202	228	26
e	73	104	73	209	234	25
f	71	104	71	215	242	27
g	68	105	687	227	254	27
h	65	105	654	236	264	28
i	62	105	621	245	276	31
k	53	105	53	269	304	35
l	27	105	27	348	372	24
m						

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1924phae.proj..1114P

X13536

No. 13 B0, 7.4

a	27	102	27	348	284	-64
b	40	102	41	306	246	60
c	45	102	46	291	226	65
d	46	102	47	288	228	60
e	44	102	45	294	234	60
f	41	102	42	303	242	61
g	37	102	37	317	254	63
h	33	102	33	329	264	65
i	30	102	30	338	276	62
k	22	102	22	366	304	62
l	8	102	8	..		
m						

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No. 4

a	79	105	78	191	284	93
b	83	105	82	176	246	70
c	87	105	86	161	226	65
d	88	105	87	157	228	71
e	86	105	87	157	234	77
f	87	105	86	161	242	81
g	85	104	85	165	254	89
h	82	104	82	176	264	88
i	79	104	79	187	276	89
k	73	104	73	209	304	95
l	55	104	55	263	372	109
m						

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λ13536

No. 15

a	30	102	30	338	284	−54
b	44	102	45	294	246	48
c	50	102	51	275	226	49
d	51	102	52	272	228	44
e	50	102	51	275	234	41
f	49	102	50	278	242	36
g	46	102	47	288	254	34
h	42	103	42	303	264	39
i	38	103	38	314	276	38
k	30	103	30	338	304	34
l						
m						

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X13536
No. 16

a	26	104	351	284	-67
b	39	104	311	246	65
c	45	104	294	226	68
d	45	104	294	228	66
e	43	104	300	234	66
f	41	103	306	242	64
g	38	103	314	254	60
h	36	103	320	264	56
i	33	103	329	276	53
k	25	103	355	304	51
l					
m					

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No. 17 : all too faint

a -

b -

c

d

e

f

g

h

i

k

l

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No. 18

a	20	101	20	374	284	-90
b	26	101	27	348	246	102
c	29	102	30	338	226	112
d	30	102	30	338	228	110
e	28	102	28	344	234	110
f	26	102	26	351	242	109
g	23	103	23	362	254	108
h	19	104	19	378	264	114
i	16	104	16	390	276	114
k	12	105	12	-	304	
l						

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X13536

No. 19

a	57	103	58	254	284	+30
b	70	103	71	215	246	31
c	74	103	75	202	226	25
d	~~75~~	102	77	194	228	34
e	73	102	75	202	234	32
f	68	102	70	218	242	24
g	65	102	66	230	254	24
h	61	102	62	242	264	22
i	57	102	58	254	276	22
k	44	102	45	294	304	10
l	27	102	27	348	372	24
m						

Remeasured to pencil curve cutting absorption & emission equally Cor 1.5A

	60	103	61	245	284	69
	76	103	77	194	246	52 62
	83	103	84	169	226	57 63
	83	103	84	169	228	59 64
	77	103	78	191	234	43 46
	70	102	72	212	242	30 30
	67	102	69	221	254	33 30
	63		65	233	264	31 24
	60		62	242	276	34 25
	48		49	282	304	22 20

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No. 20

a	23	104	362	284	-78
b	34	104	326	246	80
c	40	105	308	226	82
d	41	105	306	228	78
e	38	105	314	234	80
f	36	105	320	242	78
g	34	105	326	254	72
h	31	105	334	264	70
i	28	105	344	276	68
k					
l					
m					

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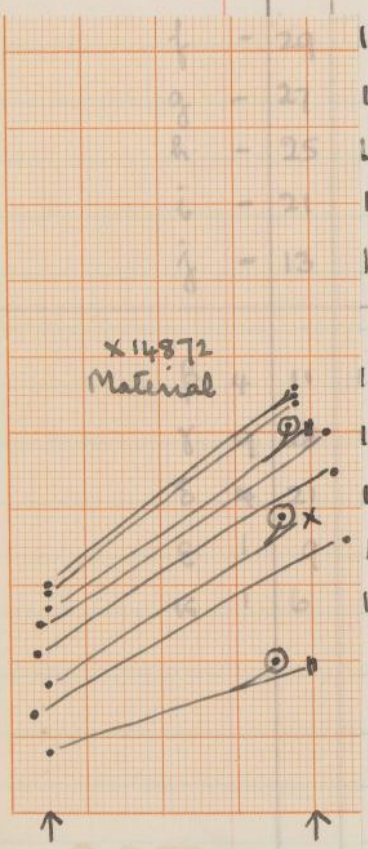
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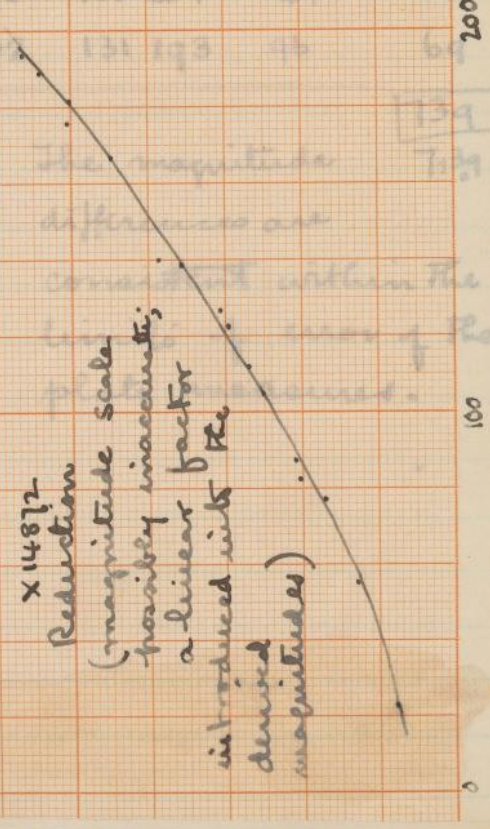
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X14872, analy
than spectru
As the magnit
knoron, the se
H.D. 96829 (7.9
The magnitude
H.D. 97557 stand

	n	mm	lmm	n̄	mm
a	-	8	101	-	8
b	-	17	101	-	17
c	-	27	101	-	27
d	-	30	101	-	30
e	-	30	101	-	30
			101	-	29
			101	-	27
			102	-	25
			102	-	21
			102	-	13
			101		
			101		
			102		
			102		
			102		



Fixed Wy & Cas at HB



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1924phae.proj.1114P

X14872, analyzing beam of microphotometer wider than spectrum.

As the magnitudes of the reference stars are not accurately known, the series is measured with reference to H.D. 96829 (7.9, B8) - H.D. 97557 (8.6, A2). The error in the magnitude scale is thus an arbitrary constant.

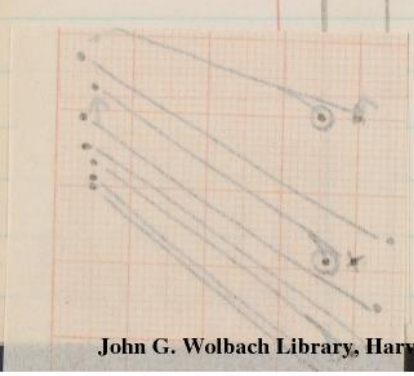
H.D. 97557 standard star, reduced to 101

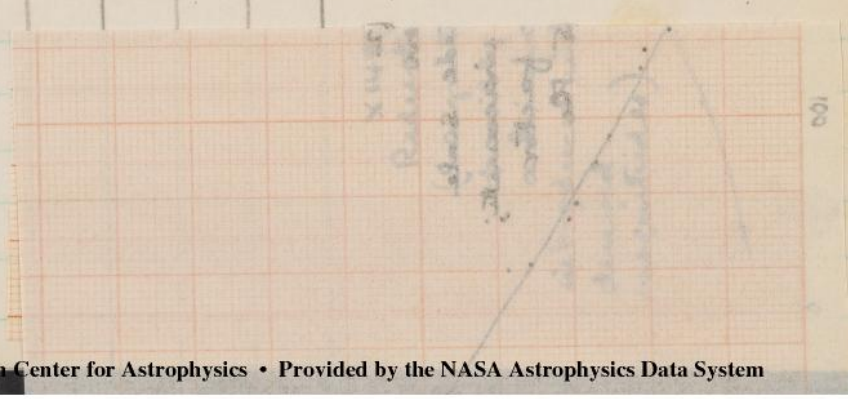
	n	mm	[illegible]	ñ	m̃m	[illegible]	[illegible]	dm	dl	Mean A0 Σ	Mean	Diff
a	-	8	101	-	8		26			24 96 120	60	72
b	-	17	101	-	17		75			74 157 231	116	83
c	-	27	101	-	27		111			111 189 300	150	78
d	-	30	101	-	30		120			120 198 318	159	78
e	-	30	101	-	30		120			120 194 314	157	74
f	-	29	101	-	29		117			118 190 308	154	72
g	-	27	101	-	27		111			112 188 300	150	76
h	-	25	102	-	25		104			106 176 282	141	70
i	-	21	102	-	21		90			93 161 254	127	68
j	-	13	102	-	13		58			62 131 193	96	69

739
7,39

β	4	11	101
γ	9	28	101
δ	4	21	102
ε	1	9	102
κ	1	6	102

The magnitude differences are consistent within the limits of error of the plate measures.





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HD. 96829 standard star

	n	mtn	ltmtn	$\bar{n}$	$\overline{mtn}$	[n]	[mtn]	dm	dl
a	-	20	102	-	20		86		
b	-	39	102	-	39		149		
c	-	52	102	-	51		183		
d	-	57	102	-	56		194		
e	-	56	102	-	55		192		
f	-	55	102	-	54		190		
g	-	54	101	-	54		190		
h	-	50	101	-	50		180		
i	-	45	100	-	45		167		
j	-	36	100	-	36		140		
k	-	16	100	-	16		71		
β	19	27	102						
1									
3									
5									
6									
γ	42	55	102						
8									
δ	33	46	101						
9									
10									
11									
ε	20	31	100						
3	8	14	100						

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HD 97152 Oa 7.9

	n	m-n	l-m-n	[m+n]	Mean A0	Diff	
a	-	4	101	4	60	..	..
b	-	16	101	16	~~116~~ 116	45	71
c	-	29	101	29	150	33	117
d	-	37	101	37	159	16	143
e	-	38	101	38	157	9	146
f	-	38	101	38	154	8	146
g	-	39	101	39	150	1	149
h	-	36	101	36	141	1	140
i	-	32	101	32	127	0	127
j	-	26	101	26	96	-12	108
k	-	11	101	11		..	48

Considerably hotter than Mean A0; approx. as B9, HD 96654

HD 97166 B2, 7.9

a	-	24	103	24	101	60	41
b	-	44	103	44	164	116	48
c	-	60	103	59	202	150	52
d	-	67	103	66	223	159	64
e	-	68	103	67	226	157	69
f	-	68	102	67	226	154	72
g	-	68	102	67	226	150	76
h	-	65	102	64	217	141	76
i	-	62	102	61	208	127	81
j	-	53	102	52	185	96	89
k	-	29	102	29	117	..	

This is of low weight because the reduction curve is extrapolated (see p. 82) The Oa star is at nearly the same temperature

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HD 96970, A0, 8.3

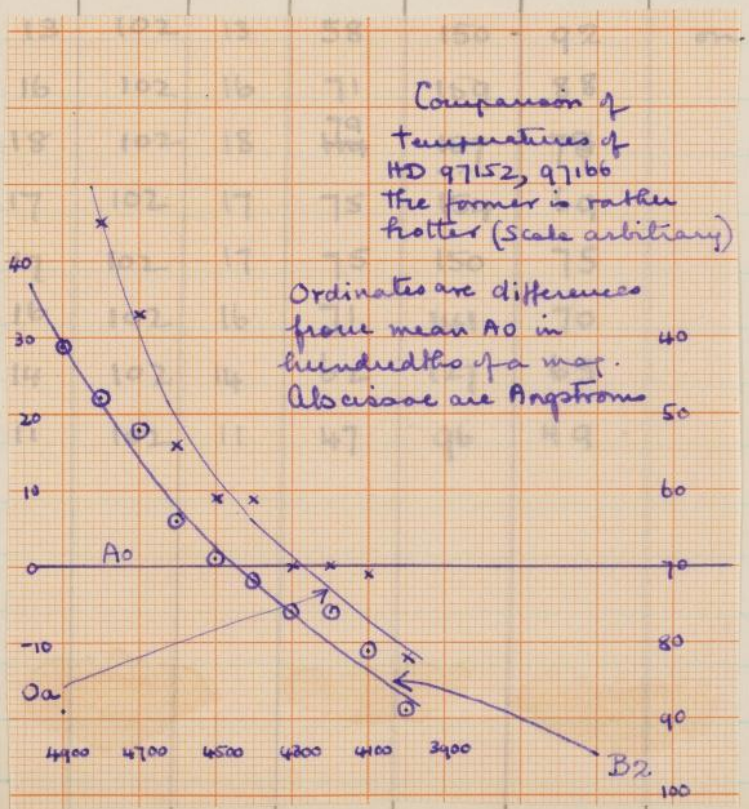
	n	mtn	ltmtn	$\overline{mtn}$	[mtn]	Mean A0	Diff
a	-	7	99	7	17	60	43
b	-	17	100	17	75	116	41
c	-	27	100	27	111	150	39
d	-	30	100	30	120	159	39
e	-	30	100	30	120	157	37
f	-	29	100	29	117	154	37
g	-	28	100	28	114	150	36
h	-	25	100	25	104	141	37
i	-	23	100	23	97	127	30
j	-	16	100	16	71	96	25

This A0 star is at a very slightly higher temperature than the mean A0. It checks the standard satisfactorily

HD 96654, 8.6, B9

a	-	-	-	-	-	60	-
b	-	-	-	-	-	116	-
c	-						
d	-						
e	-						
f	-						
g	-						
h	-						
i	-						
j	-						

This B9 star is rather hotter than the mean A0; as it should be. Check the standard



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HD 96970, A0, 8.3

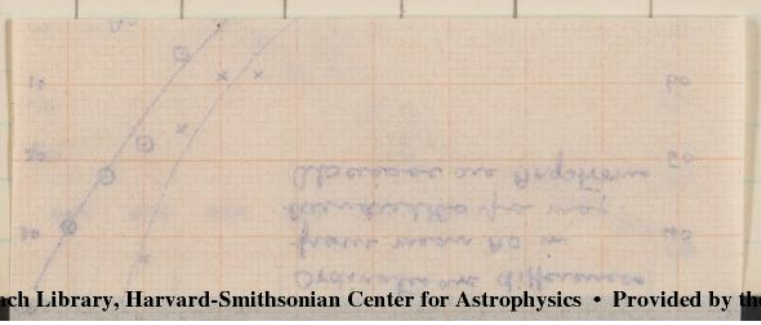
	n	mtn	ltmtn	$\overline{mtn}$	[mtn]	Mean A0	Diff
a	-	7	99	7	17	60	43
b	-	17	100	17	75	116	41
c	-	27	100	27	111	150	39
d	-	30	100	30	120	159	39
e	-	30	100	30	120	157	37
f	-	29	100	29	117	154	37
g	-	28	100	28	114	150	36
h	-	25	100	25	104	141	37
i	-	23	100	23	97	127	30
j	-	16	100	16	71	96	25

This A0 star is at a very slightly higher temperature than the mean A0. It checks the standard satisfactorily

HD 96654, 8.6, B9

a	-	-	-	-	-	60	-
b	-	-	-	-	-	116	-
c	-	13	102	13	58	150	92
d	-	16	102	16	71	159	88
e	-	18	102	18	~~114~~ 79	~~157~~	~~78~~
f	-	17	102	17	75	154	69
g	-	17	102	17	75	150	75
h	-	16	102	16	71	141	70
i	-	14	102	14	62	127	65
j	-	11	102	11	47	96	49

This B9 star is rather hotter than the mean A0; as it should be. check on the standard

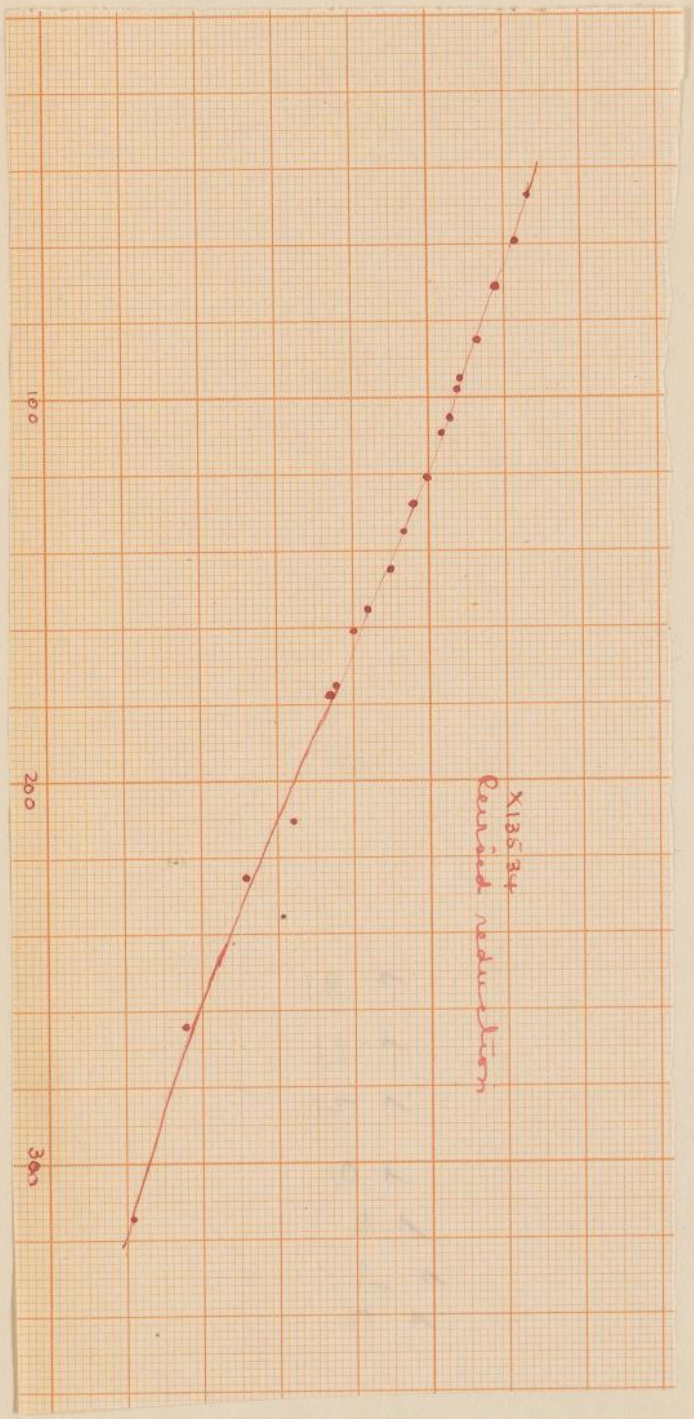


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