



BOSS 5535

(1900, $\alpha = 21^h 28^m \cdot 3$, $\delta = +60^\circ 01'$, mag. 5.52, type A)

This star is in Kapteyn's Area No. 48. It is listed as of A-type in *Harvard Annals*, vol. 50, but would more properly fall under the classification B2. Besides the hydrogen and helium series, there are the characteristic lines of this type at $\lambda\lambda$ 4089 and 4649 variously ascribed to argon, silicon and other substances. The third member of the group, that at λ 4446, does not appear on the plates. The three silicon lines $\lambda\lambda$ 4575.52, 4568.43 and 4552.89 are seen in the spectrum, the latter two being 0.5 as intense as $H\gamma$ or the helium λ 4474. The wave-lengths indicated for them are somewhat greater than the generally accepted values, but were adjusted to agree with the velocities obtained from the hydrogen and helium series. Other absorption lines, whose normal wave-lengths are approximately $\lambda\lambda$ 4366.9, 4620.5, 4630.7 and 4641.4, were noted but not used in the results.

Plate	Date, G. M. T.	Number of Lines	Velocity
S391	1917, Dec. 28.465	5	-28.3
S401	1918, Jan. 2.481	5	-18.7
S410	" 4.455	6	-19.4
S672	Oct. 23.605	7	-33.8

MEASURES OF BOSS 5535

λ	S394		S101		S410		S672		Vel.	Wt.	Vel.	Wt.	Vel.	Wt.
	Vel.	Wt.	Vel.	Wt.	Vel.	Wt.	Vel.	Wt.						
4568.43	-14.0	$\frac{1}{2}$	+19.1	$\frac{1}{4}$	-9.7	$\frac{1}{4}$	-38.6	$\frac{1}{2}$						
4552.89	12.3	$\frac{1}{2}$	-1.4	$\frac{1}{4}$	-5.3	$\frac{1}{2}$	31.0	$\frac{1}{2}$						
4471.676	19.7	$\frac{3}{4}$	-29.0	$\frac{1}{2}$	+1.8	$\frac{1}{2}$	22.3	$\frac{1}{4}$						
4388.100	19.6	$\frac{1}{4}$	-2.1	$\frac{1}{4}$	-0.9	$\frac{1}{2}$	26.1	$\frac{1}{4}$						
4340.634	-11.2	$\frac{1}{4}$	+4.6	$\frac{1}{4}$	-16.7	$\frac{1}{2}$	34.2	$\frac{1}{4}$						
4143.928					-18.4	$\frac{1}{4}$	17.3	$\frac{1}{2}$						
4121.016							-35.5	$\frac{1}{2}$						
Weighted mean	15.84		-6.20		-6.96		-29.01							
V_3	-12.07		-12.07		-12.04		-1.12							
V_4	-11		-14		-12		-0.09							
Curv	-28		-28		-28		-28							
Radiat Velocity	-28.3		-18.7		-19.4		-33.8							

Dominion Observatory
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