

LINES MEASURED IN ν ORIONIS

λ	Number of Times Measured	Average Residual	Corresponding Correction to Wave-length
4340.634	97	-1.39 km.	+ .020 l. m.
4388.100	94	0.43 "	+ .007 "
4471.676	94	+1.51 "	.022 "
4143.928	86	-0.03 "	.000 "
4026.352	75	+1.67 "	.022 "
4267.301	68	-2.45 "	+ .035 "
4121.016	63	-0.11 "	+ .002 "
4431.400	62	+1.95 "	.020 "
4101.890	56	+0.99 "	- .014 "
4713.308	20	-1.48 "	
4861.527	19	+3.70 "	
3933.825	13	+1.40 "	

No corrections to wave-length are given for the last three as the observations were deemed too few in number, and, furthermore, the ends of the spectrum may not always have been in focus, thereby causing these residuals to be abnormal. The residuals in the above table are, in general, small relative to the probable error of a plate, and while somewhat better accordance among the different lines on a plate would be secured by adopting an arbitrary set of wave-lengths based on the corrections, yet none of the residuals are so abnormal as to warrant such a procedure and accordingly the normal values have been retained. In subsequent measuring the first nine lines of the table were the only ones used, and the other hundred plates were recomputed, using these lines alone so that the results ought, at least from a consideration of wave-length, to be consistent.

Plates from 1140 to 2257 were made with the single-prism spectrograph II, as first constructed, the dispersion at H_γ being 30.2 tenth-metres per millimetre. The balance were made with the new single-prism instrument, designated I, whose dispersion is 33.4 tenth-metres per millimetre at the same region. Plates 3369, 3847, 3865 and 3890 were made on Seed 23 plates, the remainder on Seed 27 emulsion. The four Seed 23 plates were made at times of high positive velocity to see if any trace of the second spectrum could be detected. No indications of such were seen.