

due to the bright hydrogen lines, first by the actual measure of the positions of the red edge of the tips, and of the violet edge of the bright $H\gamma$ lines, and second, by the smaller velocities given by the short exposure, less intense plates, as compared with the plates exposed for the absorption spectrum, in which the emission lines were much over-exposed.

RADIAL VELOCITIES, α CETI.

From $H\gamma$ Emission line.—Reduced to the Sun.

NO. OF PLATE	EXPOSURE TIME	OBSER- VER	RED EDGE OF $H\gamma$ TO TIPS	TIPS OF $H\gamma$ TO VIO- LET EDGE	RAD. VEL.	REMARKS
			REVS.	REVS.		
452	18 min.	II	'086	'073	+ 48.5	
486	19 "	II	'099	'083	51.1	
493	20 "	P	'088	'076	46.7	
515	30 "	P	'083	'056	52.2	
521	30 "	P	'091	'078	48.8	
534	40 "	II	'075	'070	51.1	
555	60 "	P	'102	'046	37.9	Abnormal?
563	20 "	P	'067	'068	43.0	(Poor night
569	05 "	II			44.0	and change
579	20 "	P	'057	'055	45.4	of temp.)
580	10 "	P	'057	'038	46.8	
581	05 "	P	'046	'047	44.3	
582	02 "	P			45.7	
583	01 "	P			40.1	

Mean of 14 plates = + 46.1

Mean of plates exposed for absorption spectrum = + 48.0

" " " " " emission spectrum only = + 44.2

These measures show a fair agreement among themselves, but this accordance is considerably increased when they are divided into two sets—of the strongly and moderately exposed plates,—and when plate No. 555 is omitted. It is abnormal in the marked asymmetry of the bright line, as shown by the measure in columns 4 and 5, and its low velocity may be due to the long exposure on a poor night, where an instrumental displacement might have occurred through change of temperature.

The mean of the first six, exposed for the absorption spec-