

13 VULPECULAE

(1900, $\alpha = 19^h 49^m.2$, $\delta = +23^\circ 50'$, mag. 4.50, type A)

This star was announced a binary by Lee, in *Astrophysical Journal*, XXXII, 307, from eight plates giving a range from -15 to -36 . Campbell used as the velocity for the star, -28 . While the lines are in general fairly sharp there is a bare suspicion that $H\gamma$ on plate S221 is double.

Plate	Date, G.M.T.	Velocity	Lines	Weight
S202	1917, June 18.711	-37.8	1	1
S218	July 5.740	-24.2	4	2
S221	" 6.690	-30.8	2	1
S222	" 11.678	-30.4	5	2
S225	" 15.777	-32.5	5	2
S228	" 16.691	-24.1	1	1

MEASURES OF 13 VULPECULAE

λ	S202		S218		S221		S222		S225		S228			
	Vel.	Wt.	Vel.	Wt.	Vel.	Wt.	Vel.	Wt.	Vel.	Wt.	Vel.	Wt.	Vel.	Wt.
4584.018							-18.6	$\frac{1}{4}$	.....	.....	.....	.....	.....	.....
4519.713			-15.6	$\frac{1}{4}$			+35.3	$\frac{1}{4}$	-42.1	$\frac{1}{2}$	.....	.....	.....	.....
4181.477	-50.9	$\frac{1}{2}$	-41.0	$\frac{1}{2}$	-13.1	$\frac{1}{2}$	+51.5	$\frac{1}{2}$	+24.1	$\frac{1}{2}$	-28.1	$\frac{1}{4}$	.....	.....
4340.645			-25.8	$\frac{1}{4}$			+33.9	$\frac{1}{2}$	+40.0	$\frac{1}{4}$	.....	.....	.....	.....
4233.425			..	..					+41.5	$\frac{1}{4}$	.....	.....	.....	.....
3933.825			-31.2	$\frac{1}{4}$	-28.6	$\frac{1}{4}$	-36.6	$\frac{1}{4}$	-13.2	$\frac{1}{4}$	.....	.....	.....	.....
Weighted mean	-56.96		-31.93		-38.27		-35.15		-36.70		-28.10		.....	.....
V_s	+13.20		+7.99		+7.61		+4.96		+4.58		+4.20		.....	.....
V_d	+ .14		+ .01		+ .08		+ .08		- .08		+ .04		.....	.....
Curv.	- .28		- .28		- .28		- .28		- .28		- .28		.....	.....
Radial Velocity	-37.8		-24.2		-30.8		-30.4		-32.5		-24.1		.....	.....