OTTAWA MEASURES OF γ GEMINORUM

Plate	Date	Julian Date	Phase	Velocity	No. of Lines	Wt.	Residual
1099	1907, Oct. 8	2,417,857·9	1231·3	− 15·9	13	1	0·0
1255	1908, Jan. 22	7,963·5	1336·9	14·7	16	1	+ 0·5
1293	Jan. 27	7,968·8	1342·2	15·5	17	1	− 0·3
1305	Jan. 29	7,970·8	1344·2	13·8	16	1	+ 1·3
1330	Feb. 17	7,989·8	1363·2	16·9	17	1	− 1·8
1307	Feb. 28	8,000·7	1374·1	14·4	15	1	+ 0·5
1453	Apr. 3	8,035·7	1409·1	15·5	15	1	− 0·8
1872	Sept. 7	8,192·9	1566·3	12·6	10	1	+ 0·5
2074	Dec. 23	8,299·7	1673·1	10·4	14	1	+ 1·2
2208	1909, Jan. 30	8,337·7	1711·1	12·9	16	1	− 1·8
2281	Feb. 17	8,355·7	1729.1	11·9	14	1	− 1·1
2287	Feb. 20	8,358·7	1732·1	9·9	11	1	+ 0·8
2395	Mar. 20	8,386·7	1760·1	9·5	15	1	+ 0·7
3971	1911, Jan. 28	9,065·8	264·2	11·4	13	1	− 0·8
4734	Dec. 19	9,390·9	589·3	15·2	13	1	+ 0·3
4830	1912, Feb. 8	2,419,441·8	640·2	− 16·3	15	1	− 0·4

The spectrum is of the Sirian type, having many fine metallic lines of iron and titanium as well as the hydrogen series. The following table contains the lines most frequently measured.

LINES IN γ GEMINORUM

Element	Wave-Length	Element	Wave-Length
Fe	4584·018	Ti	4468·663
Ti	4572·156	Ti	4443·970
Ti	4563·939	Fe	4404·927
Cr	4558·827	Ti-V-Fe	4395·286
Fe-Cr	4556·202	Cr-Mg.	4352·006
Fe-Ti	4549·766	Ti	4340·634
Ti	4534·139	Fe	4325·039
Fe-Ti	4522·855	Fe	4308·081
Ti	4515·508	Ti	4300·211
Ti	4508·455	Fe	4294·290
Ti	4501·448	Fe	4233·328
Mg.	4481·400		

It has been the writer's custom for some time past to obtain wave-lengths for each star by itself, making the sum of the velocity residuals equal to zero. In the case of this star a summary of the residuals given by each line from the velocity