

## Positions moyennes des étoiles de comparaison.

*	RA. 1898.0	DP. 1898.0	Autorité	*	RA. 1898.0	DP. 1898.0	Autorité
1	21 <sup>h</sup> 8 <sup>m</sup> 6 <sup>s</sup> .60	96° 19' 54".2	Schj. 8561	14	6 <sup>h</sup> 9 <sup>m</sup> 38 <sup>s</sup> .32	81° 31' 22".0	Par. 7470
2	21 6 35.33	96 22 50.5	Schj. 8545	15	6 12 58.11	81 44 33.7	Anonyme; rapp. à * 14
3	21 1 45.7	96 10 11.6	M <sub>1</sub> 27215	16	17 43 18.51	75 12 36.8	Schj. 6398
4	20 47 11.99	96 18 7.7	M <sub>1</sub> 26345	17	17 45 58.59	76 48 48.3	Schj. 6415
5	20 50 2.67	96 25 25.6	M <sub>2</sub> 10992	18	17 50 21.49	78 36 32.3	Schj. 6453
6	20 46 37.20	96 18 56.6	M <sub>2</sub> 10916	19	17 51 9.98	80 13 44.6	Par. 23034
7	20 45 12.35	96 15 30.0	M <sub>2</sub> 10889	20	17 54 32.48	81 46 7.1	M <sub>2</sub> 6984
8	20 42 45.69	96 23 52.0	M <sub>2</sub> 10832	21	17 56 30.46	86 2 59.1	Schj. 6498
9	20 41 15.50	96 21 12.0	W <sub>1</sub> 20 <sup>h</sup> 997	22	18 1 47.47	87 22 19.8	Schj. 6543
10	23 44 50.62	90 52 12.6	M <sub>2</sub> 13106	23	18 4 18.02	89 37 26.1	M <sub>1</sub> 15509
11	23 42 58.57	91 20 27.3	$\frac{1}{2}$ (M <sub>1</sub> 32777 + Y. 10491)	24	18 6 1.40	90 40 43.6	Schj. 6582
12	23 42 8.58	92 4 29.4	$\frac{1}{2}$ (M <sub>1</sub> 32765 + Y. 10482)	25	18 7 58.09	91 44 42.1	Schj. 6600
13	6 10 43.11	80 56 18.6	W <sub>1</sub> 6 <sup>h</sup> 227				

\* 15 - \* 14:  $\Delta$ AR. = +3<sup>m</sup>19<sup>s</sup>.79;  $\Delta$ DP. = +13' 11".7; 6.6 comparaisons.

Besançon, le 26 Novembre 1898.

Le Directeur de l'Observatoire:  
L. J. Gruy.

## Beobachtungen des Cometen 1898... (Brooks Oct. 20)

am Refractor der Sternwarte in Kiel.

1898	M. Z. Kiel	$\Delta\alpha$	$\Delta\delta$	Vgl.	$\alpha$ app.	$\log p.\Delta$	$\delta$ app.	$\log p.\Delta$	Red. ad l. app.	*
Nov. 6	8 <sup>h</sup> 6 <sup>m</sup> 28 <sup>s</sup>	-0 <sup>m</sup> 19 <sup>s</sup> .62	-11' 23".4	7	17 <sup>h</sup> 37 <sup>m</sup> 43 <sup>s</sup> .02	9.553	+16° 44' 0".4	0.825	+2 <sup>s</sup> .01 + 4".9	1
6	8 6 28	-0 35.80	- 4 36.9	7	17 37 43.68	9.553	+16 43 58.2	0.825	+2.01 + 4.9	2

## Mittlere Oerter der Vergleichsterne.

*	$\alpha$ 1898.0	$\delta$ 1898.0	Autorität
1	17 <sup>h</sup> 38 <sup>m</sup> 0 <sup>s</sup> .63	+16° 55' 18".9	AG. Berlin A. 6404
2	17 38 17.47	+16 48 30.2	AG. Berlin A. 6405

Kiel, 1898 Nov. 14.

F. Ristenpart.

## Variations in the Spectrum of the Orion Nebula.

Some doubt having been expressed as to the reality of variations which have been observed in the spectrum of the Orion Nebula, I made some visual observations with reference to this question on the night of Dec. 12, with a spectroscope attached to the 36 inch refractor.

The slit was first placed on the nebulosity surrounding the star Bond 734. The night being hazy, only a single line was visible. It was occulted by the coarse micrometer wire, and, on throwing in the light from a hydrogen tube, was identified as  $H\beta$ .

The slit was then placed on the Huyghenian region, near the trapezium. The usual spectrum was well seen.  $H\beta$  and the second nebular line ( $\lambda = 4959$ ) were about equally

bright; the chief line ( $\lambda = 5007$ ) was several times brighter than either.

The intensity of the spectrum was then diminished by contracting the vertical aperture of the spectroscope, the resolving power remaining therefore unchanged. When the brightness was sufficiently reduced,  $H\beta$  and the second line disappeared, the chief nebular line being then alone visible.

In other words, with a sufficiently feeble spectrum the  $H\beta$  line was alone visible in one part of the nebula, and the chief line was alone visible in another part. This result is inexplicable on physiological grounds. It can only be due to real differences in the spectrum of the nebula.

Lick Observatory, University of California, 1898 Dec. 22.

James E. Keeler.

Inhalt zu Nr. 3541. H. Kimura. On the calculation of star-factors for the mean declination of a pair of stars in zenith telescope observations. 193. — S. Oppenheim. Bemerkung zu dem Aufsatz von Herrn Dziobek in A. N. 3514. 199. — O. Stone. Observations of the Satellites of Saturn. 201. — L. Cruls. Observations de Comètes. 203. — L. J. Gruy. Observations de planètes et comètes. 205. — F. Ristenpart. Beobachtungen des Cometen 1898... (Brooks Oct. 20). 207. — J. E. Keeler. Variations in the Spectrum of the Orion Nebula. 207.