

visual estimates, but that he took the proper precautions to eliminate the very effects which Professor Scheiner assumes he did not eliminate, as well as other physiological effects which Professor Scheiner has not mentioned.

Further evidence as to the observer's state of mind is afforded on page 494 of my same paper. Concerning the nebula BD.  $-12^{\circ}11'17''$  I wrote: »The relative intensities of the light in the three discs (corresponding to three nebular lines) were estimated at 10, 3, 7. A wedge photometer of increasing darkness was moved over the eyepiece at right angles to the line joining the three discs; and the fact that the disc at  $4861$  ( $H\beta$ ) disappeared before the disc at  $5007$  did, proves that the latter is the brighter.«

This nebula is near the Orion Nebula, and the photometer was used on the lines in both. It confirmed the results on the Orion Nebula previously obtained with the grating. The wedge was of neutral tint and its absorption curve would probably be no steeper at  $H\beta$  than the absorption curve for the prism.

It has been suggested that the question of variations in the Orion Nebula spectrum be verified by photography. Ordinary dry plates cannot be used to advantage in this problem, since their curve of sensitiveness is very steep between  $H\beta$  and  $\lambda = 5007$ . The image of  $H\beta$  is stronger than that of  $\lambda = 5007$  on my plates, even in the Trapezium region. Special plates, for which the curve between  $H\beta$  and  $\lambda = 5007$  is flatter, should be employed.

Lick Observatory, 1898 July 22.

W. W. Campbell.

### Beobachtungen des Cometen 1898 V (Giacobini Juni 18)

am 18. z. Refractor der Kais. Universitätssternwarte zu Strassburg i. E. von Dr. H. Kobold.

1898	M. Z. Str.	$\Delta\alpha$	$\Delta\delta$	Vgl.	$\alpha$ app.	$\log p.A$	$\delta$ app.	$\log p.A$	Red. ad l. app.	*
Juli 15	11 <sup>h</sup> 0 <sup>m</sup> 19 <sup>s</sup>	+2 <sup>m</sup> 24.583	-4' 18".1	10.4	14 <sup>h</sup> 57 <sup>m</sup> 34.571	9.507	-10° 20' 42".1	0.849	+3.55 -14".6	1
15	11 0 19	-3 9.70	-0 32.2	10.4	14 57 34.79	9.507	-10 20 37.9	0.849	+3.38 -14.3	2
16	10 44 35	+1 44.77	+2 54.4	20.8	14 51 49.36	9.498	-9 49 22.1	0.849	+3.30 -14.7	3
18	10 36 6	+3 42.67	+2 53.2	20.8	14 41 28.08	9.510	-8 51 55.3	0.845	+3.19 -14.8	4

Mittlere Oerter der Vergleichsterne.

*	$\alpha$ 1898.0	$\delta$ 1898.0	Autorität	*	$\alpha$ 1898.0	$\delta$ 1898.0	Autorität
1	14 <sup>h</sup> 55 <sup>m</sup> 6.53	-10° 16' 9".4	M <sub>1</sub> 10815	3	14 <sup>h</sup> 50 <sup>m</sup> 1.29	-9° 52' 1".8	A.N. 1637: Berlin Nr. 388
2	15 0 41.11	-10 19 51.4	M <sub>1</sub> 10925	4	14 37 42.22	-8 54 33.7	Paris 18104

Der Comet erschien am 16. Juli bei guter Luft als äusserst schwache Nebelmasse, in deren vorangegehendem Theile sich ein Kern 15<sup>m</sup> befand. Die Beobachtung war aber trotzdem nur mit grösster Anstrengung möglich. An den beiden anderen Tagen waren die Verhältnisse noch ungünstiger.

Strassburg i. E., 1898 Juli 20.

H. Kobold.

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

1898	M. Ortszeit	$\Delta\alpha$	$\Delta\delta$	Vgl.	$\alpha$ app.	$\log p.A$	$\delta$ app.	$\log p.A$	Red. ad l. app.	*
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Auf der Sternwarte in Göttingen von Prof. W. Schur.

Nov. 2	6 <sup>h</sup> 32 <sup>m</sup> 58 <sup>s</sup>	+3 <sup>m</sup> 33.521	+4' 29".0	..	17 <sup>h</sup> 19 <sup>m</sup> 35.524	9.552	+25° 43' 1".8	0.704	+1.565 + 4".2	1
4	7 17 56	-2 7.20	-4 37.1	..	17 29 32.71	9.572	+20 59 8.3	0.764	+1.86 + 5.1	2
6	6 38 41	-0 33.51	-4 6.6	..	17 37 29.64	9.528	+16 51 19.3	0.767	+2.02 + 4.9	3
7	6 9 43	+1 50.71	-5 51.1	8	17 40 54.85	9.468	+14 57 53.7	0.765	+2.06 + 4.6	4
8	6 12 26	+3 15.10	+4 30.2	8	17 44 7.16	9.490	+13 8 13.6	0.778	+2.13 + 4.2	5
9	6 55 49	-2 23.19	+12 15.7	8	17 47 6.90	9.534	+11 21 43.8	0.800	+2.20 + 4.7	6

Nov. 2. Helle Masse mit concentrischer Verdichtung, Durchmesser 70". — Nov. 4. Hell, ohne Schweif. — Nov. 6. Comet erheblich schwächer, Luft etwas dunstig. — Nov. 8. Comet schwächer, aber noch sehr gut zu beobachten.

Auf der Grossherzogl. Sternwarte in Jena von Prof. O. Knopf.

Nov. 2	6 13 1	+3 27.15	+7 13.6	12	17 19 29.14	9.532	+25 45 46.4	0.679	+1.61 + 4.2	1
6	6 30 10	-0 9.72	-12 39.5	12	17 37 27.30	9.524	+16 52 24.5	0.757	+2.00 + 4.9	7

Die Beobachtungen sind mit dem Glaskreismikrometer (helle Kreislinien im dunklen Feld) angestellt. — Nov. 6.  $\delta$  sicherer als  $\alpha$ .