

Mittlere Örter der Vergleichsterne.

*	α 1902.0	δ 1902.0	Autorität	*	α 1902.0	δ 1902.0	Autorität
1	1 ^h 59 ^m 5 ^s .12	+50° 10' 27".5	AG. Cambridge 969	12	17 ^h 29 ^m 25 ^s .74	— 1° 5' 7".8	AG. Nicolajew 4361
2	0 55 46.56	+54 41 8.1	» » 464	13	17 21 37	— 4 0	BD. — 3° 41' 02"
3	21 16 12.65	+51 54 35.9	» » 7006	14	17 14 5	— 6 29	BD. — 6° 45' 79"
4	19 50 56.60	+42 18 14.0	AG. Bonn 13525	15	17 10 0.02	— 7 5 14.6	Sj. 6153-4
5	19 8 32.24	+32 5 14.1	W ₂ 19 ^h 197	16	17 6 13.65	— 8 41 33.8	W ₁ 17 ^h 39
6	19 4 46.99	+31 54 21.6	Lal. 35948	17	17 8 15.35	— 9 10 0.8	Sj. 6146
7	18 34 8.98	+22 27 6.4	AG. Berlin B. 6577	18	17 4 22.85	— 10 23 38.4	W ₁ 17 ^h 3
8	18 33 49.26	+22 17 51.3	» » » 6576	19	16 59 7.48	— 10 57 0.7	Sj. 6078
9	18 16 24.64	+16 54 54.9	AG. Berlin A. 6740	20	16 55 5	— 11 36	BD. — 11° 42' 68"
10	18 9 43.35	+14 33 41.2	AG. Leipzig 6494	21	16 52 34.52	— 11 55 44.2	W ₁ 16 ^h 941
11	18 4 16.47	+12 26 59.0	» » 6445	22	16 52 1.97	— 12 31 49.3	W ₁ 16 ^h 930

Notes. 5 oct. Le tube est agité par le vent; la position de l'observateur est très incommode; comète près du zenith. — 8 oct. Le ciel se couvrit. — 16 oct. Le clair de la lune rend les observations difficiles. — 12 nov. Le ciel se couvrit subitement.

Nicolajew, 1902 Nov. 13.

F. Kortazzi.

Transparency of comet 1902 III (1902 b).

(Auszug aus Harvard College Observatory Circular No. 68).

The statement is frequently made that comets are perfectly transparent, even faint stars being visible through them. The observations on which this statement is based appear to be very vague, as even if careful comparisons were made large errors might be introduced by the effect of the bright background formed by the light of the comet. The rapid motion of comet 1902 b caused it to cover a large area and therefore rendered it easier to find a star

over which it would pass. After waiting for a suitable occasion, the observations given in the following table were made by Professor O. C. Wendell with the polarizing photometer attached to the 15-inch Equatorial. On the evening of Oct. 14, 1902, the comet passed within about 1' of the star BD. +21° 34' 83", photometric magnitude 7.12. This star was compared with +21° 34' 84", magnitude 8.19. Each set of observations was the mean of sixteen settings.

Gr. M. T.	Difference	Residuals	Distance
13 ^h 22 ^m 5	1 ^m .06	+0 ^m .01	2'.0
13 33.3	1.03	+0.04	1.1
13 44.7	1.10	—0.03	2.0
13 57.7	1.07	0.00	4.0

Gr. M. T.	Difference	Residuals	Distance
14 ^h 10 ^m 8	1 ^m .06	+0 ^m .01	5'.5
14 26.7	1.06	+0.01	7.9
14 46.9	1.08	—0.01	11.0
15 2.3	1.12	—0.05	13.1

The Greenwich Mean Time is given in the first column, the difference in magnitude of the two stars in the second, and the deviation of this magnitude from the mean value, 1.07, in the third column. A positive sign indicates that the star +21° 34' 83" was faint, a negative sign that it was bright. The fourth column gives the distance of the nucleus of the comet from the star. The diameter of the coma was about five or six minutes. The star was, therefore, covered by it in the first three observations. The nucleus resembled

a star of about the tenth magnitude and the brightness of the coma was about that of a star of the ninth magnitude when spread over a circle one minute in diameter. The largest residual —0.05 is the last one, when the altitude of the comet was only 22°. The mean of all the residuals is ± 0.02 . It appears, therefore, that the absorption of the light by the comet, if any, is insensible, and probably does not exceed one or two hundredths of a magnitude.

Harvard College Observatory, 27. January 1903.

Edward C. Pickering.

Notiz betr. die Helligkeit des Kometen 1903 a.

Nach Mitteilungen von Prof. *F. Deichmüller* vom 19. und 20. Februar ist der Komet in rapider Helligkeitszunahme begriffen. Am 20. d. Mts. hatte er nahezu die Helligkeit des Andromedanebels.

Kr.