

OBSERVATIONAL RESULT ON COSMIC OBJECTS: "Okean 7" (94-08-1), "Sich-1" (95-132-1)

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ABSTRACT: The results are represented of photometric observations of cosmic objects "Okean-7", "Sich-1", obtained at the Odessa Astronomical Observatory in September-October 1995.

Key words: cosmic object, photometry, light curve.

The given results represent observations of 12 transits of CO "Okean-7" and 22 transits of CO "Sich-1": In other dates of observations measurements were not carried out due to unfavourable weather conditions.

Observations were made in September-October 1995 and in June-August 1996 at the apparatus complex of photometric and coordinate observations of CO of space research department of Odessa Astronomical Observatory (KOD-1) certified by NPO "Astrofizika" in 1988 in process of joint work.

As a base tracking system, the cinetheodolite KT-50 is used - an azimuthal system of tracking fast moving objects. In mechanical part the following changes are made: sensor of turn units are built in, a platform of optico-mechanical photometer block etc is introduced. To register CO light a one-channel photometer at the photons' count with spring diaphragm is used. Electron parts of the photometric channel consists of a frequency meter, control unit, register device and a high-voltage power supply, all connected logically, algorithmically and constructively.

For automatic obtaining coordinate information on CO, an angle measuring device is developed and manufactured; it permits to yield coordinate information from KT-50 in real time scale and suitable for the input in the computer.

A list of objects observed is given in Table 1. For all the objects light curves are obtained in direct intensities in the instrumental system.

Besides CO observations, every night observations were made of calibration stars and stars for atmospheric extinction determination. By using the developed algorithms of the analysis of malfunctions and rejection data and algorithm of CO light curve formation in the instrumental system, the reduction of the data

Table 1: Observed object

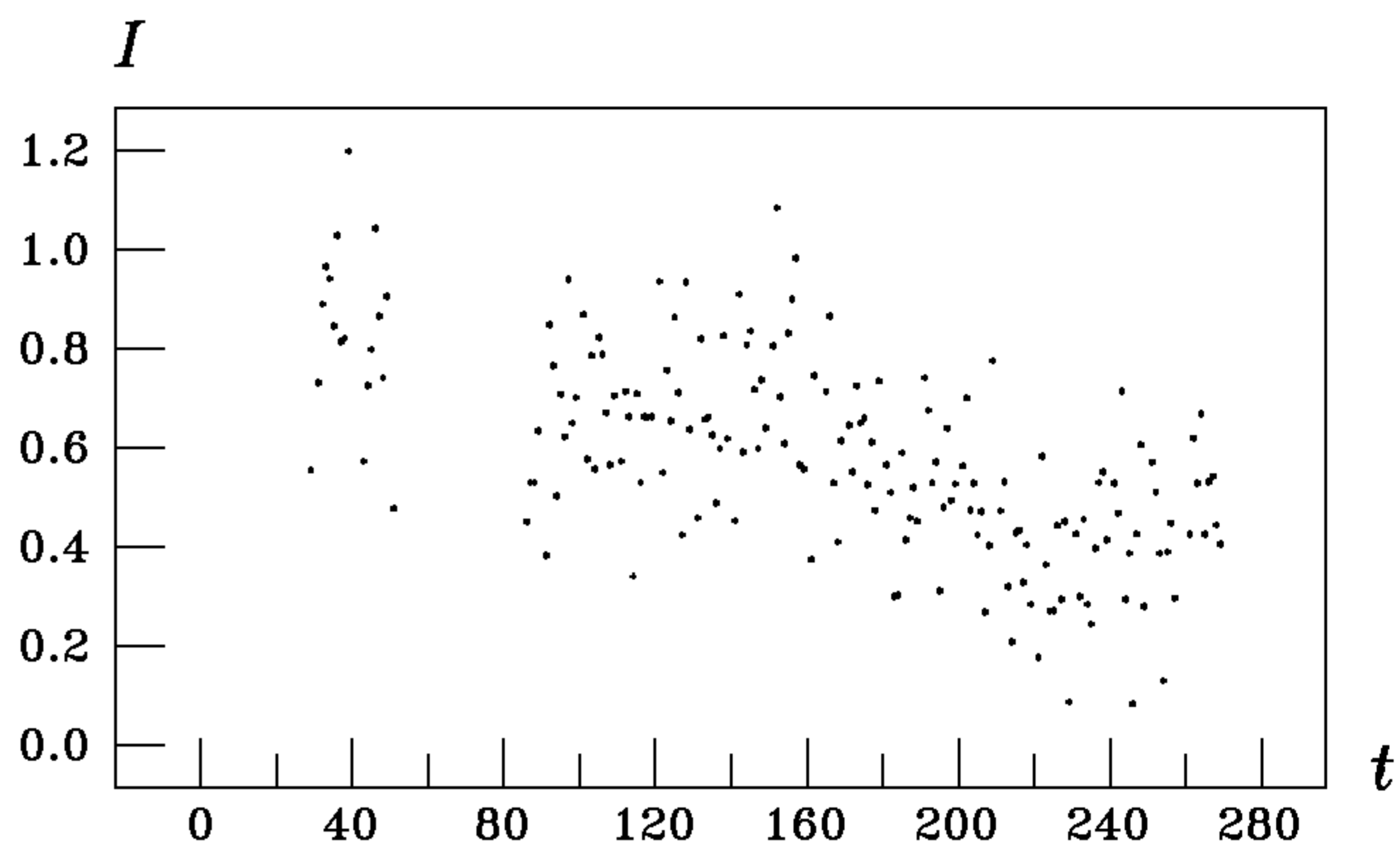
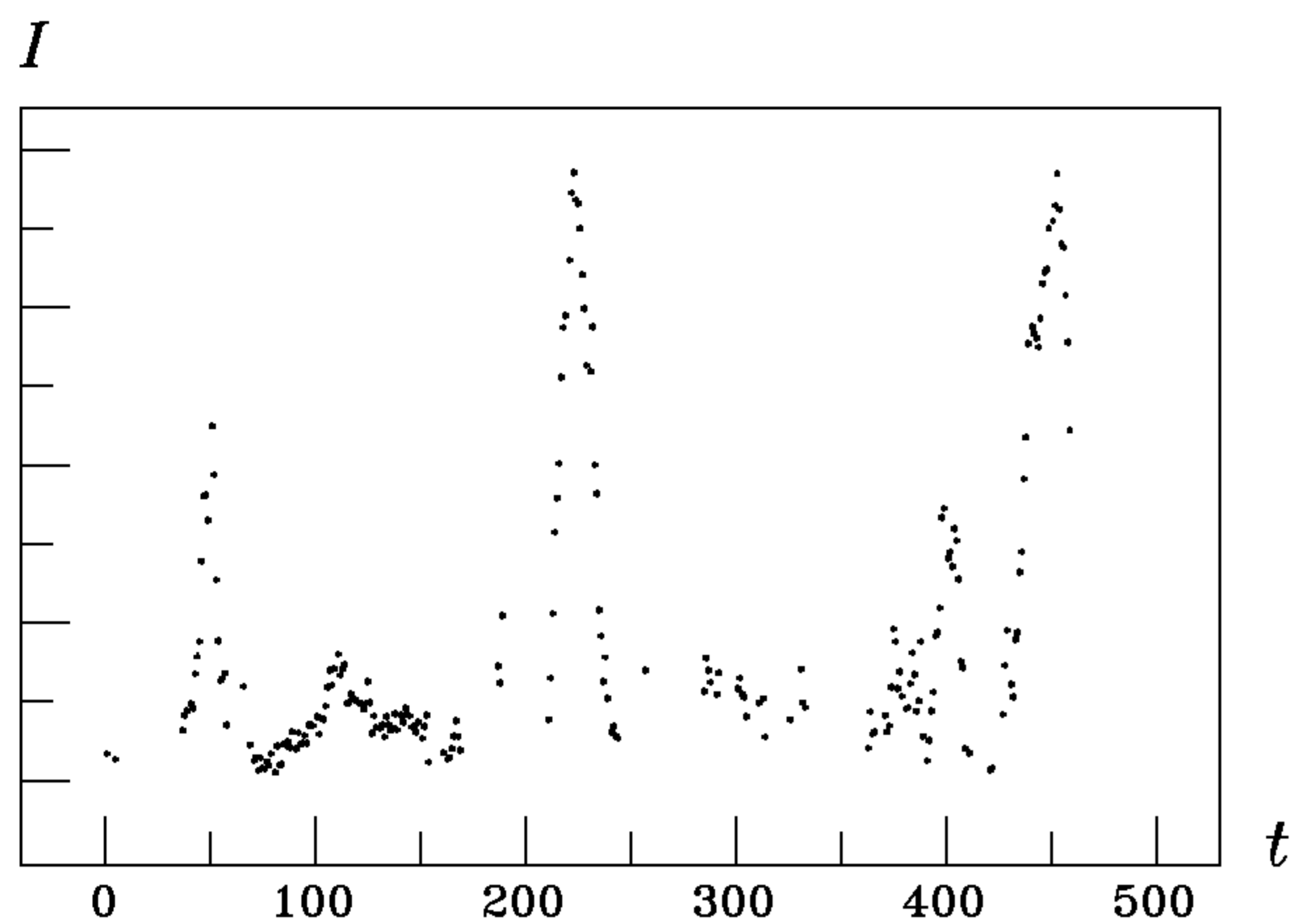
Name of CO	Date of obs.	Time of outset	stell. mag.	Ext. coef.
94-08-01	25.09.95	17 28 00	8	0.5
94-08-01	28.09.95	14 43 23	3	0.7
94-08-01	02.10.95	17 50 32	3	0.5
94-08-01	03.10.95	18 18 53	5	0.6
94-08-01	04.10.95	17 05 00	3	0.5
94-08-01	05.10.95	17 31 50	3	0.6
94-08-01	06.10.95	18 00 00	4	0.4
94-08-01	14.10.95	16 36 13	6	0.6
94-08-01	15.10.95	17 35 10	6	0.6
94-08-01	16.10.95	03 12 38	3	0.4
94-08-01	18.10.95	02 26 32	4	0.5
94-08-01	19.10.95	02 53 23	3	0.4
95-132-1	29.09.95	17 14 27	5	0.7
95-132-1	17.10.95	03 23 33	7	0.4
95-132-1	18.10.95	02 13 09	7	0.4
95-132-1	06.06.96	19 37 31	4	0.4
95-132-1	08.06.96	18 52 50	4	0.4
95-132-1	09.06.96	19 19 32	5	0.5
95-132-1	10.06.96	19 48 21	6	0.3
95-132-1	14.07.96	01 09 02	5	0.4
95-132-1	18.07.96	01 17 01	5	0.3
95-132-1	21.07.96	01 00 00	3	0.5
95-132-1	22.07.96	01 58 33	4	0.5
95-132-1	23.07.96	00 15 40	4	0.4
95-132-1	27.07.96	00 25 35	4	0.4
95-132-1	30.07.96	22 56 48	4	0.7
95-132-1	31.07.96	23 23 32	4	0.8
95-132-1	11.08.96	21 45 40	4	0.4
95-132-1	15.08.96	21 56 30	5	0.6
95-132-1	26.08.96	20 20 20	5	0.7
95-132-1	29.08.96	20 02 00	5	0.5

obtained is carried out. All the light curves are referred to the brightness standard. Coordinate information and tabulated light curves are in the CO data bank of Space Research Department of AO.

Analysis of coordinate and photometric information of CO data has shown stability of object's orbits as well as stability of their behaviour in orbit (i.e. that is, constancy of a light curve, color and other photometric characteristics).

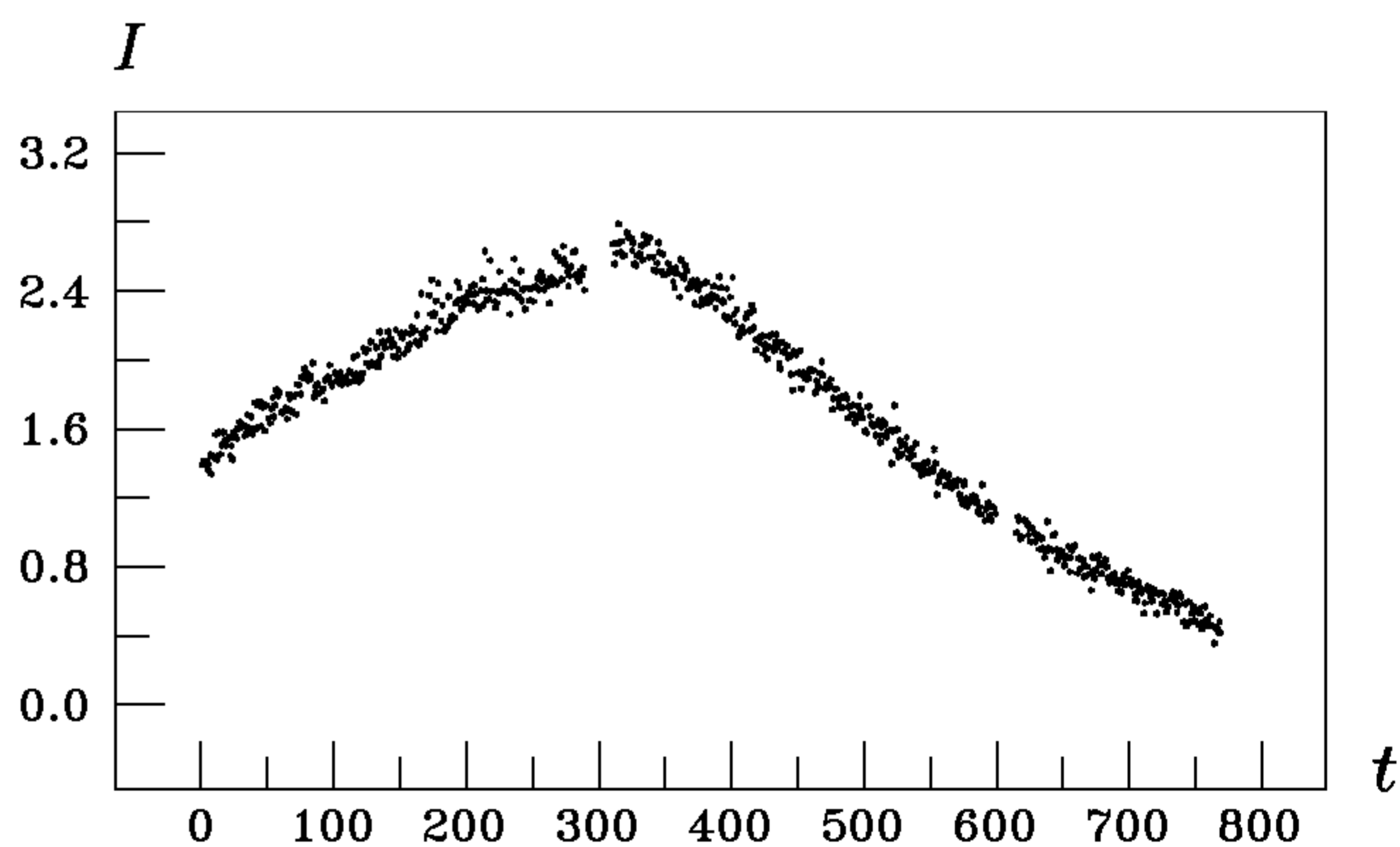
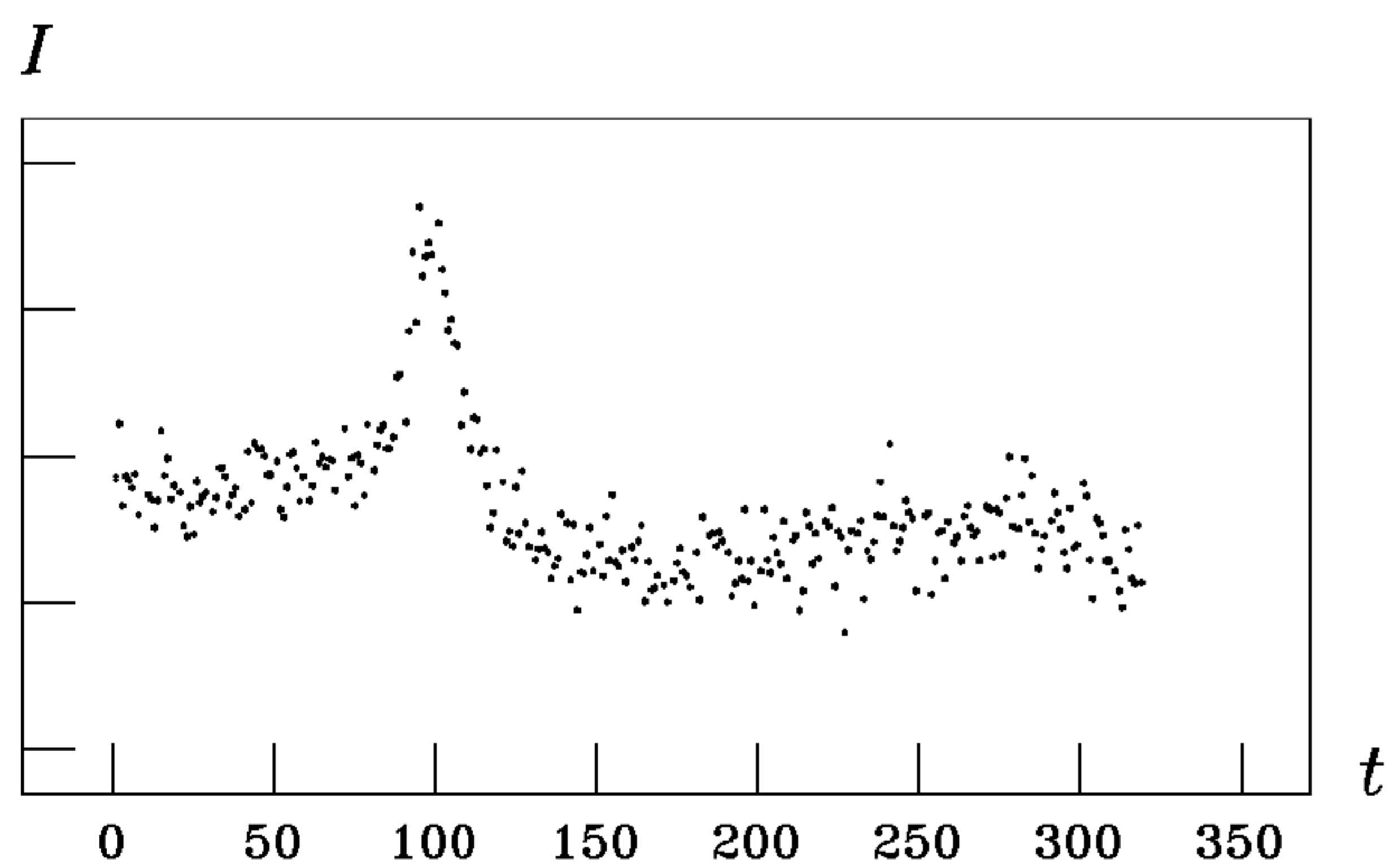
In observing CO "Sich-1" on August 13th 1996 two objects were discovered. The given fact was confirmed by observations made on August 14th 1996 and August 15th 1996.

The observations carried out are of important informational value for functioning the system of control of CO behaviour in orbit and systems of cosmic space control.



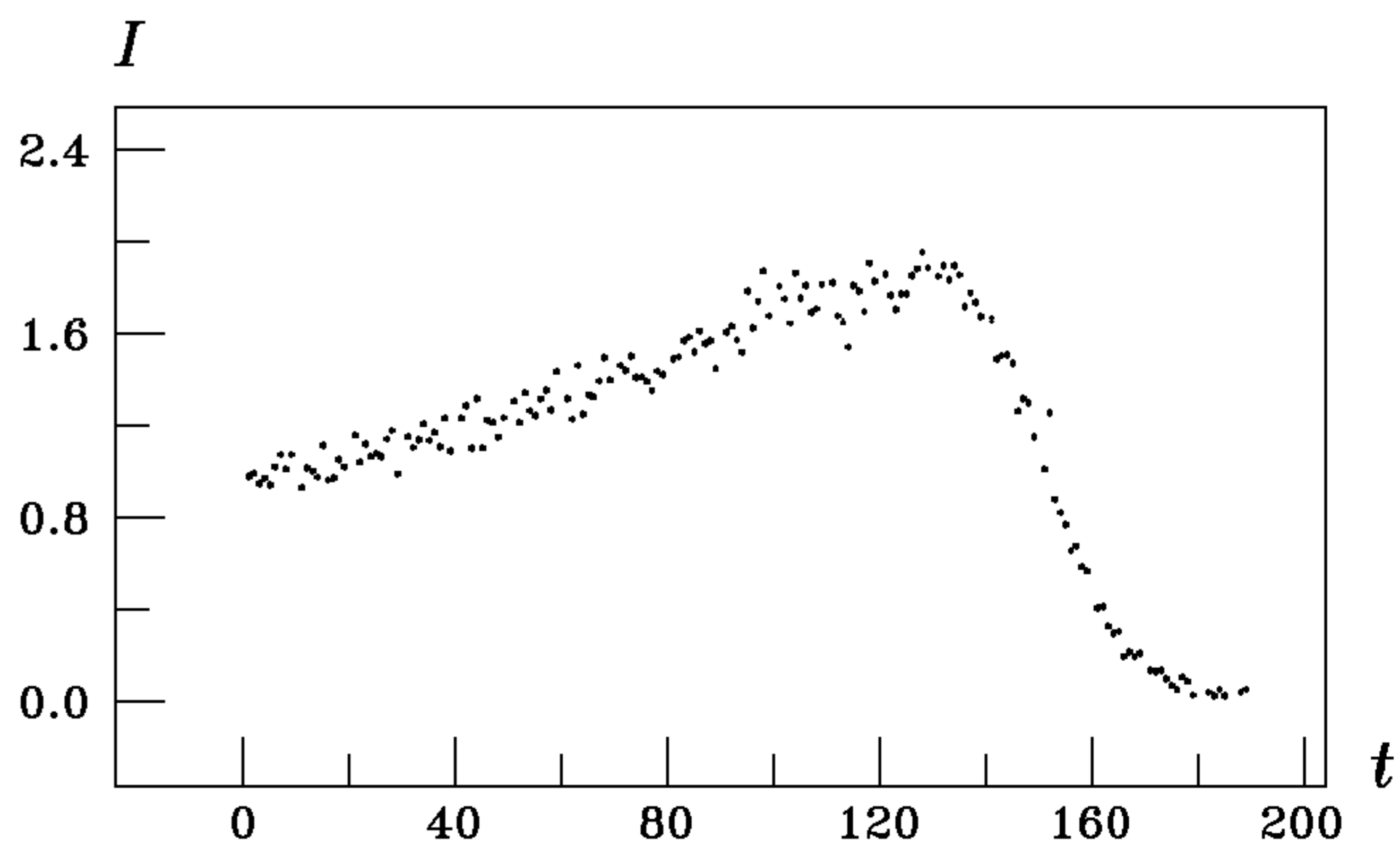
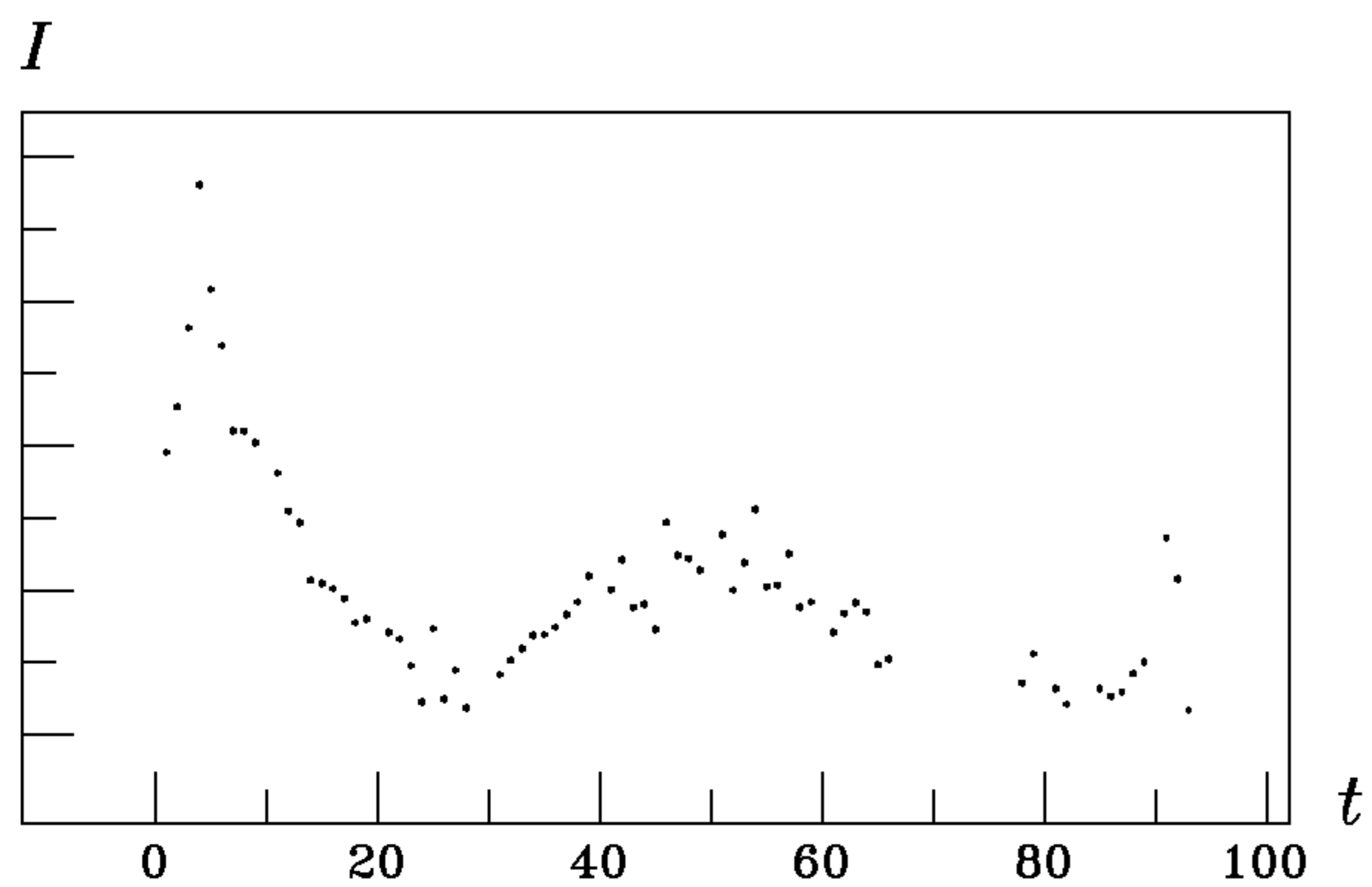
95-132-1, 28.09.95 UT=17^h15^m785, $\delta t=0^s349$, et.=1500

95-132-1, 22.07.96 UT=01^h28^m586, $\delta t=0^s349$, et.=149



95-132-1, 10.06.96 UT=19^h48^m324, $\delta t=0^s350$, et.=1580

95-132-1, 23.07.96, UT=00^h15^m638, $\delta t=0^s350$, et.=1490



95-132-1, 21.07.96 UT=23^h53^m317, $\delta t=0^s350$, et.=1410

95-132-1, 11.08.96 UT=21^h45^m695, $\delta t=0^s349$, et.=140

Figure 1. Finding charts for V Sge