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NEW SUPERNOVA 1983 ON MOSCOW PLATES

A new supernova was found in the course of the search for variable stars using the positive-negative method. Moscow collection plates taken with the 40 cm astrograph in Crimea were used for this study. The discovery was reported in IAU Circ. No 6439, where the supernova was designated as SN 1983ab.

The finding chart is given in Figure 1. The parent galaxy is not included in the major catalogues of bright galaxies (NGC, IC, UGC, MCG), but it has a Guide Star Catalogue designation (GSC 2586.0540, non-stellar object, $\alpha = 16^{h}22^{m}34^{s}.5$, $\delta = +36^{\circ}45'20''$, J2000.0). Moreover, coordinates of the galaxy's center and of the supernova were measured on our plates relative to GSC stars. The coordinates of the galaxy are in good agreement with those in the GSC, and the coordinates of the supernova are $\alpha = 16^{h}22^{m}34^{s}.0$, $\delta = +36^{\circ}45'25''$ (J2000.0). So the distance from the center of the galaxy to the supernova is 6''W and 5''N.

The supernova was seen and estimated on 24 plates. The results are given in Table 1. A standard sequence near M13 (Arp and Johnson, 1955; Forbes and Dawson, 1986) and a CCD standard (Field 2) from Crampton et al. (1988) were used to obtain the magnitudes of the comparison stars (Table 2). The light curve is shown in Figure 2. Open circles are uncertain observations. The maximum was reached on JD2445582 (September 4, 1983) and its brightness was 16.35B with an error of about ± 0.15 mag.

It is not possible to classify the supernova with certainty. Our observations are only near the maximum, and the author cannot say anything about the light curve's shape on the descending branch and about the rate of the brightness decrease.

Finally, note that no object on Palomar prints was seen at the supernova position. The author has looked through about 310 plates that include the investigated region. No sign of this star was found except the announced case.

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Table 1. Observations of the supernova						
JD 2445	В	JD 2445	В	JD 2445	В	
563.373	< 17.7	582.299	16.32	588.348	16.71	
574.260	17.07	582.344	16.29	589.260	16.66	
576.291	16.81	583.256	16.55	589.300	16.58	
578.268	16.71	583.298	16.42	589.336	16.76	
580.300	16.60	584.271	16.66	590.310	16.74	
581.271	16.39	586.265	16.76	591.350	16.71:	
581.321	16.50	587.265	16.60	592.348	16.86:	
581.365	16.47	588.262	16.55	605.218	< 17.7	
582.259	16.34	588.308	16.63			



Figure 1





Table	2. Con	Stars	
	Star	В	
	a	16.34	
	b	16.86	
	c	17.1	
	d	17.7	

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