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AN ATTEMPT TO DETECT THE POLARIZATION AND
TO EVALUATE THE INFRARED STELLAR MAGNITUDE
OF THE UNUSUAL VARIABLE OBJECT 3C 273

Unusual intensity distribution in the optical spectrum of the radio-source 3C 273 (1) suggests a possible contribution of the synchrotron mechanism of radiation. Therefore on May 13, 1963 an attempt has been made by the authors to detect the polarization of this object. We used a photoelectric photometer with a polaroid analyser attached to the 50 inch reflector at the Southern Crimean Station of the Sternberg Astronomical Institute. The effective spectral region of the Sb-Cs photomultiplier is 3500-5800 Å when used without filter. No polarization was detected within the limits of accuracy (1 %).

We made also an attempt to evaluate the infrared stellar magnitude of this object by means of a Cs-O multiplier combined with a red filter (spectral region 6400-1100 Å, effective wavelength 3850 Å). The star AGK2 + 2°1579 was used for comparison. The infrared stellar magnitude of the object is 12^m_5 in a system in which the infrared stellar magnitudes of the A0 stars are equal to the visual magnitudes. This observation was made on May 26, 1963. Assuming $I = 12^m_5$ and $V = 12^m_6$, the continuous spectrum of the object can be represented very roughly (through two points only) in the form $J \sim \nu^{0.4}$, that is in satisfactory accordance with the spectrophotometric investigations by Oke (1). These evaluations should be considered as tentative because the optical radiation of the object 3C 273 is variable (2,3).

Moscow, 6 May 1963

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- (1) J. B. Oke, Nature (in print)
- (2) A. S. Sharov and Yu. N. Efremov, Comm. 27. Inf. Bull. Var. Stars No. 23, 1963.
- (3) Harlan J. Smith and Dorrit Hoffleit, Nature, 18 May 1963