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THE IRAS SOURCE 04430-2356 = NSV 1710 IS A MIRA STAR

Recently Klemola (1990) directed the attention to the strong variability of the infrared source IRC-20062 = IRAS 04430-2356 in the blue range. The source had been included in the NSV Catalogue (Kukarkin et al. 1982) (NSV 1710) because of the large dispersion of the IRC measurements (Neugebauer et al. 1969). As was already noted by Klemola the star is identical with a red object of the POSS. It is, however, neither identical with CoD -24^o2554 (Neugebauer et al.) nor with CoD -24^o2552 (Bidelman 1980), but is situated nearly half-way between the two - see the Figure. It should be remarked that because of their faintness CoD -24^o2552 and -24^o2549 are not depicted on the CoD chart. The (wrong) spectral type K2 given originally also results in the erroneous identification by Neugebauer, as CoD -24^o2554 = HD 30271. An obviously correct spectral type M8 comes from Hansen and Blanco (1975); it corresponds to the colour index of B-V = 2^m.6 estimated by Klemola.

By examining about 300 Sonneberg blue sensitive Sky Patrol plates of the years 1952 to 1983 (centred at 5^h-20^o) I found that this is a Mira star with a period of approximately 447^d. On the POSS sheets (1953 Nov. 11/12) by chance the object is at maximum, this fact is confirmed by 4 Sonneberg plates of 1953 October to December. Seven further maxima could be found in the examined material. They include the very bright one of 1964 December, when the star reached the brightness of CoD -24^o2554 (10^m.3 pg. according to HD catalogue); consequently the amplitude in the blue spectral range amounts to 7.5 mag at least, if the Lick minimum of 17^m.5 - 18^m.0 mentioned by Klemola is taken into account. Possibly the maximum is double-peaked (Ludendorff class γ 2, see Hoffmeister, Richter, Wenzel 1985, p.59). The data fit well into Keenan's (1966) period-spectrum relationship.

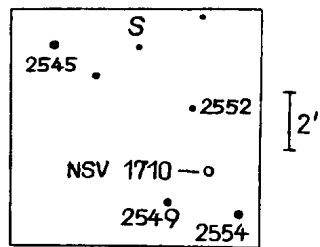


Figure 1

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