

PLANETARY NEBULA HE 2-467 TURNED OUT TO BE THE SYMBIOTIC STAR WITH A PERIOD ABOUT 500 DAYS

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ABSTRACT. By means of broad and narrow-band photometry in UBV spectral diapason the variability of the object He 2-467 earlier classified as peculiar central star of planetary nebula has been revealed. The light amplitude significantly decreases with the wavelength, from 1.7 in U-band to 0.3 in V. The brightness variations were found to be periodic, with $P \approx 500$ days. The observations of He 2-467 have been interpreted using the model of binary consisting of very hot subdwarf and G5 II giant. The parameters of both components have been derived. The hot star is probably the evolved low mass nucleus of planetary nebula already dissipated. The periodic variations in U-band may be the result of the reflection effect due to the presence of hot extended region on the side of cold star facing the subdwarf. The subdwarf UV-flux can heat and ionize the upper atmosphere of the giant giving birth to the emission lines and Balmer continuum. The yellow symbiotics to which He 2-467 belongs may be predecessors of red symbiotics with M-giants.

INFRARED ENERGY DISTRIBUTION OF SELECTED PLANETARY NEBULAE

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ABSTRACT. Using the IRAS and near-IR photometry obtained at the 1-m, 3.6-m ESO telescopes, and 1.5-m TIRGO telescope, we will discuss the 1 - 100 microns energy distribution of selected PNe.

In addition, 8 - 13 microns spectrophotometry and around the Br γ line (2.168 μm) taken with CVF is also reported for the selected PNe.