

times higher, than for models with $\eta=1.5$ and in 1.4 time less, than for models with $\eta=2.5$. n_0 decrease with grow of temperature faster for $\eta=1.5$, than for $\eta=2.0, 2.5$. Models for $v_{exp}=500$ km/s differ from models with $v_{exp}=100$ km/s, approximately by 4%. Models with different meanings are also different on 4%. In the Table 1 for models with $T_e=10^4$ K, $\eta=2.0$, $v_{exp}=100$ km/s and $\tau_c=3$ mass loss rates \dot{M} are presented for components of investigated systems, filling in their Roche lobe. We can see that \dot{M} matches the values obtained from the

optical data. This circumstance explains why all Algol-type binaries have been observed as weak single radiosources.

References

- Paragia N., Marcello F.: 1975, *As.Ap.*, **39**, 1.
 Umana G., Catalano S., Rodono M.: 1991, *As.Ap.*, **249**, 217.
 Woodworth A.W., Hughes V.A.: 1976, *M.N.R.A.S.*, **175**, 177.

SPECTRAL AND PHOTOMETRIC INVESTIGATION OF THE NEW POLAR RE 1149+28

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ABSTRACT. Spectral and photometric observations of the new polar RE 1149+28 at the 6-m telescope of the Special Astrophysical Observatory of RAS were carried out on 1993 February 14th. The spectra were obtained with a the TV scanner (Drabek et al. 1986) mounted on the spectrograph SP-124 at the secondary focus (N1) in the wavelength range (3950–4950 Å) with the spectral resolution 2Å. Photometric UBVR measurements and light curves in filter B, using NEF photometer (Vikuliev et al. 1991), were also performed. The brightness of the source in filter V was 17.20 ± 0.01 magnitude. The behaviour of the hydrogen and helium emission lines profiles (H_β , H_γ , He II 4686), equivalent widths, relative intensities, halfwidths and velocities, was investigated. Analysis of the velocity curves of the emission lines gives a mean period of

(90.00 ± 0.5) min. This is the first precise determination of the orbital period of the system, allowing a definitive choice between the two possible periods suggested from ROSAT X-ray observations (90 and 103 min) (Mittaz et al. 1992).

Key words: Stars: Cataclysmic: Polars

References

- Drabek S.V., Kopylov I.M., Somov N.N., Somova T.A.: 1986, *Astrofiz. Issled. (Izv. SAO)*, **22**, 64.
 Mittaz J.P.D., Rosen S.R., Mason K.O., Howell S.B.: 1992, *M.N.R.A.S.*, **258**, 277.
 Vikuliev N.A., Zinkovskij V.V., Levitan B.I., Nazarenko A.F., Neizvestny S.I.: 1991, *Astrofiz. Issled. (Izv. SAO)*, **33**, 158.