

sources.

Since the radiation of polarized sources is synchrotron in nature, the existence of preferable direction of polarization (determined by magnetic field direction) is the indication of stable magnetic fields in blazars.

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## THE EFFECTIVE TEMPERATURE DETERMINATION OF O-B STARS BY H AND He RADIO RECOMBINATION LINES OBSERVATIONS

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**ABSTRACT.** It is proposed to evaluate, on the basis of H and He radio recombination line observations, the number ratio of stellar photons, capable to ionize helium, to those capable to ionize hydrogen. Then, comparing this ratio with a prediction of model stellar atmospheres, the effective temperature and other stellar parameters are determined. Thus to the information about a total number of Ly- $\gamma$  quanta it adds the information about a spectrum slope in Ly- $\gamma$  wavelength range, which is not directly observable, but information about it is special importance for O-B stars. The choice of an object and angular radio telescope resolution needs to make so that ionizing photons (Ly- $\gamma$ ) should be absorbed completely in a region of investigation and beam should cover enough this region. Therefore it is proposed to use

compact HII regions and a central part (core) of such HII regions which have a "blister"-type structure. This way is applied to the galactic HII regions: Orion A (38500), DR-21 (36000), S106 (35300), Sgr B2(N3) (35100), W48 (38700), Orion B (36100), W3A (43000), there the obtained effective temperature of exciting stars are in parentheses. Results of it are discussed and compared with different model stellar atmospheres. For sources S106 and Sgr B2(N3) it has obtained the strong difference of total number of Ly- $\gamma$  photons between its determination by radio flux density and that by radio lines. Possibly this difference is needed to take into account in further study of these objects. Full paper was published in *Astronomicheskii Zhurnal* (1993, **70**, 72).

**Key words:** HII regions, O-B stars.