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NEW H $\alpha$  - EMISSION STARS IN THE REGION OF  $\gamma$  CYGNI

During the period 1977-1980 an H $\alpha$ -survey in the region of  $\gamma$  Cygni has been made with the 40in/52in Schmidt-telescope of Byurakan Astrophysical Observatory.

The spectral plates were obtained by a 4 $^{\circ}$  objective prism (275 A/mm at H $\gamma$ ) on Kodak II F, 103 aF, and 103 aE emulsions through an RG 610 filter. The exposure times were between 30 $^s$  and 70 $^{min}$  and the limiting magnitude was about 18 $^m.5$  (pg) for the exposure time of 60 min.

18 new H $\alpha$  - emission stars have been found which were not included in the complete lists of H $\alpha$  - emission stars of Dolidze (1975) and in the list of Coyne et al. (1976).

The data of observed new H $\alpha$  - emission stars are presented in Table I.

Table I

Designation	R.A.(1950.0)	D.(1950.0)	B <sub>p</sub>	I <sub>H<math>\alpha</math></sub>
1	20 <sup>h</sup> 12 <sup>m</sup> .2	40 <sup>o</sup> 15'	18 <sup>m</sup> .4	2
2	14.3	42 54	19.9	3
3	15.0	41 44	17.0	3
4	15.8	41 42	13.4	3
5	16.3	41 44	14.6	3
6	17.0	41 57	17.8	3
7	17.4	41 28	18.6	2
8	19.6	41 44	18.5	2
9	20.8	39 50	18.2	2
10	21.6	42 00	18.0	2
11	22.0	43 18	19.3	2
12	22.3	40 12	18.3	2
13	22.6	41 50	18.4	2
14	28.1	39 56	17.7	1
15	28.4	40 07	17.8	2
16	30.9	39 57	21:	1
17	31.0	40 24	17.9	2
18	31.7	41 25	16.7	2

Column 1: Serial number of H $\alpha$  - emission stars.

Column 2 and 3: Coordinates for 1950.0.

Column 4: Photographic magnitudes measured on the POSS blue prints  
(B<sub>p</sub>) according to the method of stellar diameters.

Column 5: Intensity of H $\alpha$  - line in emission: 5-very strong, 4-strong,  
3-medium, 2-weak and 1-very weak.

The H $\alpha$  - emission star No. 15 in this list is identical with the star  
V 1391 Cygni discovered by Romano (1969).

A more detailed study including the identification charts of the discovered H $\alpha$  - emission stars will be published elsewhere.

KATYA P. TSVETKOVA and M.K. TSVETKOV

Department of Astronomy with  
National Astronomical Observatory,  
Bulgarian Academy of Sciences  
Sofia-1184, Lenin Str.72  
Bulgaria

References:

- Coyne, G. et al.: 1976, Vatican Obs. Publ., 1, No.8.  
Dolidze, M.V.: 1975, Bull.Abastum.Astroph.Observ., 47.  
Romano, G.: 1969, Pubbl.Osser.Astronom.Padova, No.156.