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# Bp stars in the Orion OB1 association

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## Abstract

The presented study summarizes the results of our study of Ap and Bp stars in the nearby Orion OB1 association.

We have identified 59 Bp stars in the association, representing 13.4% of the total number of B stars in it. We found that the frequency of occurrence of peculiar B stars among normal stars is twice higher than the frequency of occurrence of peculiar A stars among the normal A stars of the association and the field stars.

Magnetic fields are reliably detected in 22 Bp stars. 17 of them are the objects with abnormal lines of helium. The magnetic stars are concentrated mainly in the central region of the association (in Orion's belt). No significant differences were detected between the magnetic field strength of Bp stars in association and the fields throughout the sample of Bp stars, although in general a certain tendency was revealed – magnetic fields of stars with enhanced helium lines (He-rich) are by 1.5 -2 times stronger than those in the stars with weakened helium lines (He-weak).

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