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A FLARE EVENT ON THE A-TYPE STAR BD+47°819

A flare phenomenon was detected on the 60/90cm Schmidt telescope of Beijing Astronomical Observatory on January 9, 1992. Kodak 103aO plates and UG2 filter were used during the observation. Each plate included 6 exposures of each object. The exposure time for every single point was 10 minutes. By using the CCD plate-measuring instrument, set up in the laboratory of the infrared astronomical group of BAO, I discovered a flare event and identified the star with BD+47°819. It is near the open cluster α Persei. Figure 1 presents the finding chart of the star.

The V magnitude of the star was 9.25, and $B-V=0.413$ (Prosser, 1992). Its spectral type was A7 in CSI Catalog, and A5 in Fehrenbach's list (1987). The normal U magnitude on the plates was about 10.0 mag., and the flare one was around 8.5 mag. Figure 2 shows the photographic reproduction of the flare event of BD+47°819. The maximum brightness appeared in the interval between $11^{\text{h}}41^{\text{m}}00^{\text{s}}$ and $11^{\text{h}}51^{\text{m}}00^{\text{s}}$ (U.T.).

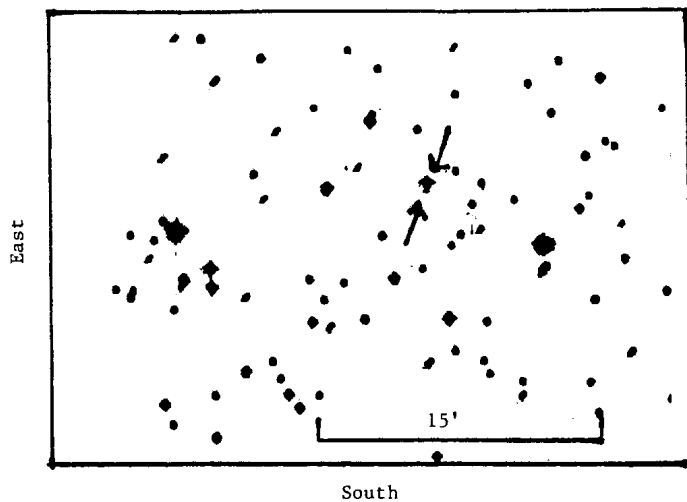


Figure 1. Finding chart of BD+47°819

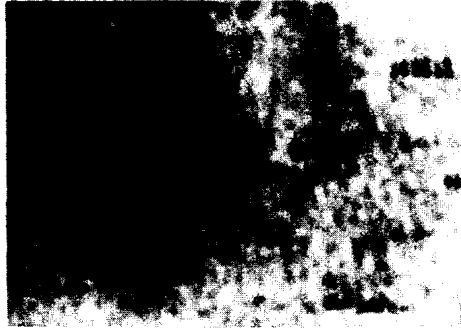


Figure 2. Photographic reproduction of the flare event of BD+47°819

I shall make further observations so as to understand the characteristics of the star better.

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References:

- Catalog of Stellar Identifications, CDS, Strasbourg, 1979
Fehrenbach, Ch. et al, 1987, *A. A. Suppl. Ser.*, **68**, 515
Prosser, C. F., 1992, *Astron. J.*, **103**, 488