

Ultraviolet Spectrophotometry of VV Cephei

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Abstract

The IUE archival spectra of VV Cephei were collected to investigate the eclipse nature in the ultraviolet. The temperature of the B star has been determined, as approximately 30,000K, based on the flux distributions during egress. Light curves of VV Cephei were reduced from the spectrophotometry of the IUE archival spectra. Three light curves at the center wavelengths of 2350A, 2550A and 2850A have been analyzed by the modified Wilson and Devinney light curve program. The radii of the B star and M star were deduced to 0.05 and 0.22 of unit separation, respectively. The UV light curves show an evidence that the light was attenuated by the highly opaque atmosphere of the M star.