

Analytical Study of the Ultraviolet Lines in the Spectra of Zeta Phoenicis

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The ultraviolet spectral lines of the double-line eclipsing binary Zeta Phoenicis consisting of a B6 star and a B8V star have analyzed. We have obtained from IUE observations fourteen Short Wavelength Prime(SWP) high-dispersion images during two intervals outside eclipses. Seven consecutive images cover the binary orbit phases from 0.590 to 0.666; the other seven from 0.186 to 0.269. We plan to analyze the blendings of the individual lines of the eclipsing pair and to compare the fourteen profiles of each line. The broadened line profiles will be computed using a line profile program which takes into account all major line broadening mechanisms and interacting-binary effects. This will be provided important information for the study of the atmospheres of B-type main sequence stars in binary systems.