D266: THE BINARY BLUE STRAGGLER IN NGC 2354

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We present spectroscopic observations of the recently discovered eclipsing binary blue straggler in the open cluster NGC 2354. A radial velocity curve of the brightest component of star D266 is obtained by means of 30 echelle spectrograms. The last versions of the Wilson-Devinney code were employed for the analysis of the older UBV light curves and the new velocity curve. The fundamental parameters of the system are determined including the rotational velocity $v.sin\ i$. It is shown that the present properties of star D266 are compatible with a binary star formed at the same time as the other cluster members and evolved with mass transfer while the secondary component was near the turn-off point. Our data provides a determination of the binary mean velocity which agrees well with previous values obtained for several red giants members of NGC 2354.

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THE UV SPECTRUM OF THE CP HGMN STARS μ LEPORIS AND 53 TAURI

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We have determined the abundances of the "iron peak" elements of two classical members of the HgMn group of the CP stars, μ Leporis and 53 Tauri, using *IUE* archive images provided by VILSPA. We have normalized each order of the *IUE* spectra to the continuum by using the interactive code NORMA.

Because the effective temperatures of these stars are higher than 10 000 K, the HgMn stars emit a large part of their flux below 3000A; moreover, the UV region of the spectrum is rich in strong absorption lines and offers the opportunity to analyze the behavior of elements whose lines in the optical region are too weak to allow accurate abundance determination.

The effective temperature (T_{eff}) and surface gravities (log g) of the stars were determined from calibrations of the Stromgren and Geneve photometric systems. We have also compared theoretical fluxes extracted from Kurucz's grid calculated with 5 times solar metal abundances, with the observed energy flux distributions taken from S2/68 experiment on the TD1 satellite and from Breger catalogue for UV and visual ranges, respectively. The values of T_{eff} and log g obtained for the two stars are similar to the ones published for studies in the visual region. Microturbulent velocity (ξ) values for both stars can be found the literature to be 0.0 km s^{-1}, however, we have made another test using Fe II lines and looking for no dependence of the abundances vs. excitation potential. An slight dependence exists for $\xi = 2$ km s^{-1}; on the other hand, this effect is not seen in the abundances derived from models with $\xi = 0$ km s^{-1}.

The abundances were determined by comparing the observed spectra to the synthetic spectra generated by the code SYNTHE. To determine the abundances of the observed elements we have compared the observed profiles of several lines with the profiles computed by changing the starting abundance at steps of about 0.1 dex. We finally retained the abundance for which the agreement between the observed and computed line seems best at visual inspection. We have finished the abundance determination of the "iron peak" elements and we will continue deriving the abundance of all species present in the *IUE* spectral range and comparing the results with the theoretical predictions.

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CHEMICAL ABUNDANCE STUDY OF THE CP STAR HD 133029

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We present an analysis of the magnetic CP star HD 133029, to study its elemental abundances for comparison with those theories which purport to explain their elemental abundances, such as the various radiative diffusion scenarios of Michaud and his collaborators. Four nitrogen-baked IIa-O 4.3 A/mm spectrograms obtained at Mount Wilson Observatory were used in this study.

To determine the atmospheric parameters, T_{eff} and log g, we used a comparison of:

i) the $uvby\beta$ colors observed with the calibration of Napiwotzki et al.

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