Spectroscopic Analysis of Single-Lined Spectroscopic Binaries with Unseen Companions

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Detailed abundance analyses have been carried out for 20 single-lined binaries with barium-star-like orbital elements using high-dispersion echelle spectra and the model atmosphere method. No substantial differences in the atmospheric abundances of 15 program stars relative to standard stars were found. Therefore, as a group, the single-lined spectroscopic binaries show atmospheric abundances similar to single stars, and the unseen companions did not have an influence on the atmospheric abundances of the primary stars studied.

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