

Stellar atmospheric parameters of FGK-type stars from high-resolution optical and near-infrared CARMENES spectra.

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Abstract

With the aim of using classic spectroscopic methods with high resolution and high signal-to-noise ratio in the NIR spectral window, we made a selection of 66 FGK-type stars observed with CARMENES, the brand-new, ultra-stable, double-channel spectrograph at the Spanish-German 3.5m Calar Alto telescope. These spectra are part of a CARMENES stellar library. We applied the equivalent width method to derive the spectroscopic stellar parameters (T_{eff} , $\log g$, ξ_{micro} , and $[\text{Fe}/\text{H}]$) using the StePar code along with four new iron line lists covering the whole CARMENES spectral range (550 - 1700 nm). (See poster).

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