

A GRID OF SYNTHETIC SPECTRA FOR SUBDWARFS: NON-LTE LINE-BLANKETED ATMOSPHERE MODELS

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A new grid of detailed atmosphere model spectra for hot and moderately cool subdwarf stars is presented. High-resolution spectra and synthetic photometry are calculated in the range from 1000 Å to 10,000 Å using Non-LTE fully line-blanketed atmosphere structures. Our grid covers eight temperatures within $10,000 \leq T_{\text{eff}} [\text{K}] \leq 65,000$, three surface gravities in the range $4.5 \leq \log g [\text{cgs}] \leq 6.5$, two helium abundances matching two extreme helium-rich and helium-poor scenarios, and two limiting metallicity boundaries regarding both solar ($[\text{Fe}/\text{H}] = 0$) and Galactic halo ($[\text{Fe}/\text{H}] = -1.5$ and $[\alpha/\text{Fe}] = +0.4$). Besides its application in the determination of fundamental parameters of subdwarfs in isolation and in binaries, the resulting database is also of interest for population synthesis procedures in a wide variety of stellar systems.