

## NLTE Spectral Analysis of Helium-Rich sdO Stars from the Southern HK Survey

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**Abstract.** We have determined effective temperatures, surface gravities, and helium-to-hydrogen abundance ratios by fitting NLTE model atmospheres to high signal-to-noise spectra of eight helium-rich sdO stars detected in the southern HK survey. Seven of the eight stars define a small region in  $T_{eff}$  -  $\log g$  plane:  $T_{eff} = 43$  to  $54$  kK and  $\log g = 5.8$  to  $6.2$ . All of these stars are He-rich ( $\log n_{He}/n_H > 0.5$ ), and four are extremely helium-rich ( $\log n_{He}/n_H > 2.0$ ). The other star, CS22943-127, is a lower gravity object with  $T_{eff} = 55$  kK,  $\log g = 4.4$ , and  $\log(n_{He}/n_H) = 1.0$ .