length parameter of $\alpha_{MLT} = 1.6$, and adopt f=0.01 for exponential diffusive overshoot (see §5.2) for convective regions that are either burning hydrogen or are not burning.

Most of this section consists of comparisons to results from other stellar evolution codes. However, for consistency (and completeness), we show in Figure 28 the H-R diagram and central condition evolution of $10-100 M_\odot$ stars from the PMS to the end of core Helium-burning. Though these are stars with $Z = 0.02$, we turned off mass loss during this calculation so that the plot would be easier to read and of some pedagogical use. The tendency of T_c to scale with $\rho_c^{1/3}$ (also a constant radiation entropy) during these stages of evolution is expected from hydrostatic balance with only a mildly changing mean molecular weight. The rest of the calculations in this section included mass-loss as described above.

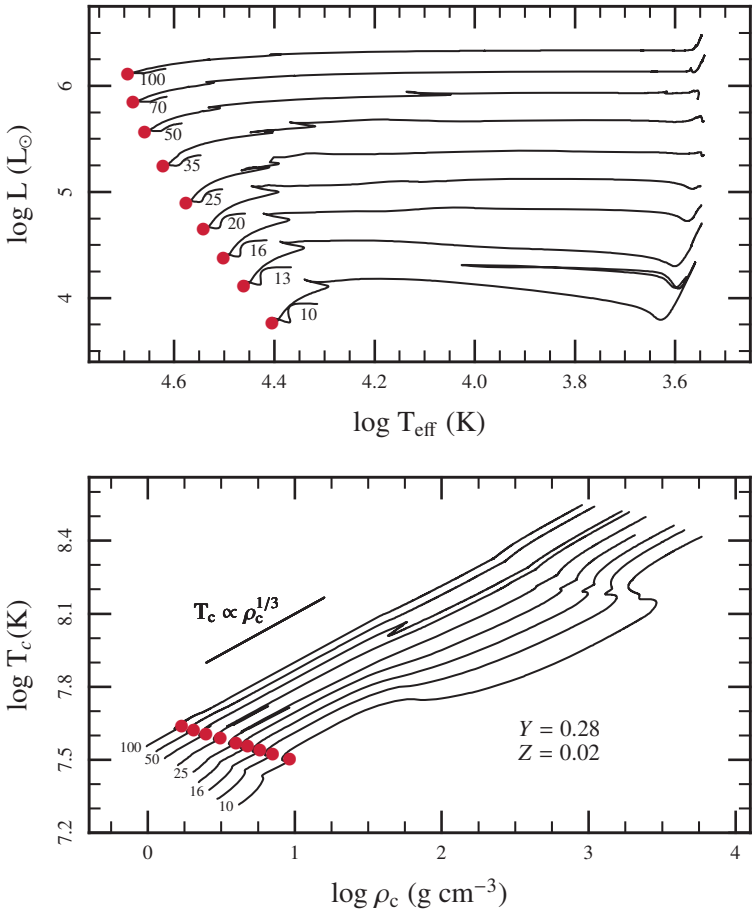

Fig. 28.— Top: H-R diagram for $10 - 100 M_\odot$ models from the PMS to the end of core Helium burning for $Z = 0.02$ but with zero mass loss. Bottom: trajectories of the central conditions in the $T - \rho$ plane over this same evolutionary period.