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5.4 The central H-burning phase in upper main sequence (UMS) stars5.5 The dependence of MS tracks on chemical composition and convection efficiency; 5.6 Very low-mass stars; 5.7 The mass-luminosity relation; 5.8 The Schonberg-Chandrasekhar limit; 5.9 Post-MS evolution; 5.9.1 Intermediate-mass and massive stars; 5.9.2 Low-mass stars; 5.9.3 The helium flash; 5.10 Dependence of the main RGB features on physical and chemical parameters; 5.10.1 The location of the RGB in the H-R diagram; 5.10.2 The RGB bump luminosity; 5.10.3 The luminosity of the tip of the RGB
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7.1 Introduction

Sommario/riassunto

Evolution of Stars and Stellar Populations is a comprehensive presentation of the theory of stellar evolution and its application to the study of stellar populations in galaxies. Taking a unique approach to the subject, this self-contained text introduces first the theory of stellar evolution in a clear and accessible manner, with particular emphasis placed on explaining the evolution with time of observable stellar properties, such as luminosities and surface chemical abundances. This is followed by a detailed presentation and discussion of a broad range of related techniques, that are widely