

# **I. Chemical Peculiarities as Probe of Stellar Evolution**

*Chair: C. de Jager and G. Michaud*

# MAIN SEQUENCE ABUNDANCES: OBSERVATIONAL ASPECTS

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Abstract: Although once it was thought that main-sequence stars are remarkably homogeneous with respect to their chemical composition, the upper main-sequence stars ( $30000 > T_e > 7000$ ) show a variety of chemically peculiar stars besides the so-called normal stars. Those include the Am, Ap,  $\lambda$  Bootis, He-deficient, and He-rich stars. This review summarizes the current data, which are necessary to construct and test the theoretical models of these stars. In the second half of the review we concentrate on Li. In the lower main-sequence stars abundances of Li have been determined in hundreds of stars. Some of the remarkable results are: (1) A uniform upper abundance value irrespective of stellar effective temperature, (2) abundance gap in the F stars of the Hyades, and (3) increasing depletion with smaller stellar mass for the Hyades.