Light elements depletion in view of the recent THM measurements: focus on the lithium problem

Livio Lamia*[1]

[1]Dipartimento di Fisica e Astronomia, UniCT – Italy

Abstract

Light elements lithium, beryllium and boron (LiBeB) constitute an unique benchmark for understanding
stellar structure and mixing phenomena, being they gradually destroyed at different depths of the

stellar interior mainly via (p,) reactions induced at temperature of 106K. For such a reason several

experiment have been performed in the last years by using the Trojan Horse Method (THM), an indirect

experimental technique particularly suitable for measuring the S(E)-factor overcoming the extrapolation

procedures typical of direct measurements. Here, in view of the recent measurements, the 6;7Li and

11B burning S(E)-factor and the corresponding Ue values will be discussed by applying the THM to the
corresponding quasi-free reactions. Astrophysical implications will be also discussed.

*Speaker