The origin of the rare 113In and 115Sn p-nuclei revisited

Wednesday 16 October 2024 16:20 (20 minutes)

The production of the light p-nuclei 113In and 115Sn has been a long-standing problem for γ -process nucleosynthesis [1,2]. The reaction flow in the Cd-In-Sn region is rather complicated due to the existance of several long-lived β -decaying isomers, which leads to a general underproduction of these isotopes compared to the other p-nuclei. In this talk, I will discuss the current status of the origin of 113In and 115Sn along with their different production mechanisms and a recent experimental measurement regarding the production of 113In [3].

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[1] Zs. Németh et al., Astrophys. J 426, 357 (1994).

[2] Ch. Theis et al., Astrophys. J 500, 1039 (1998).

[3] A. Psaltis et al., Phys. Rev. C 99, 065807 (2019).

Length of presentation requested

Oral presentation: 17 min + 3 min questions

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