

First results from HECTOR



The nucleosynthesis path of the γ -process is predominantly governed by the branching points at which the nucleosynthesis flow of the initial (γ, n) is redirected by either (γ, p) or (γ, α) reactions. In this work, the inverse reactions, proton and α capture on ^{108}Cd were studied in the search of potential branching point in the γ -process around mass $A \sim 110$. The results of the first measurement with a γ -summing detector, HECTOR, are compared with previous measurements found in the literature and with NON-SMOKER predictions. The results of this work will provide input for Hauser-Feshbach calculations to obtain the γ induced reaction rates.

