

Λ and Δ barions in ${}^6\text{Li}$ and ${}^{12}\text{C}$ by $K_{stop}^- A \rightarrow \pi^- pA'$ reaction

Stefano Piano
on behalf of FINUDA Collaboration

Abstract:

This work presents experimental results obtained from a study of the $K_{stop}^- A \rightarrow \pi^- pA'$ reaction, where $A : {}^6\text{Li}, {}^{12}\text{C}$. The study concerns the distributions of the $\pi^- p$ invariant mass, which allows the behavior of Λ and Δ barions in nuclear matter to be determined. The role of final state interactions of π^- and p particles with the residual nucleus A' is discussed. The experiment was performed at the DAΦNE ϕ -facility (LNF) by using the FINUDA spectrometer. The study depends on the capability of FINUDA to reconstruct the traces of all charged particles involved in the above reactions.

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