

Di-electron production in dp collisions at $E_{kin} = 2.5$ GeV

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Collaboration

HADES

Abstract content

Investigation of di-electron pair production in quasi-free $n - p$ interactions using deuterium beams on proton target at kinetic energy of 1.25 GeV/u will be presented. Detection of spectator proton from deuterium break-up at forward angles ($0.3^\circ < \theta < 7^\circ$) and electron-positron pairs and proton in High Acceptance Dielectron Spectrometer (HADES) located at GSI allows for detailed analysis of the exclusive pair production in the $np \rightarrow npe^+e^-$ reaction. Obtained exclusive distributions will be compared to the corresponding one obtained from pp collisions at the same energy. The results will be compared with predictions obtained from available calculations. In particular interpretations of a striking difference in the pair production in both reactions will be discussed.

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