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Measurement of the 11B target thickness by using the elastic scatterings with proton particles of 1.1 - 1.9 MeV energy

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The thickness of the ^{11}B target was determined by using ^{11}B(p,p$_0$) elastic reaction. The proton beams were accelerated up to the energy range from 1.1 - 1.9 MeV by the Pelletron 5SDH-2 accelerator at Hanoi University of Science. The measured ^{11}B target thickness is 65.45 ± 3.78 $\mu g/cm^2$, lower than the value of 74 $\mu g/cm^2$ from the target supplier. This result demonstrates the capability of this method in the target thickness determination.

Keywords: thickness, boron target, proton –nucleus elastic scattering, Pelletron.

Presentation type

Oral presentation

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