DREB2022 - Direct Reactions with Exotic Beams



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First results of the analysis of the reaction 22 $Mg(\alpha, \alpha)$ 22 Mg

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In this work, I will present the preliminary results of the study of the resonance states in 26 S by elastic scattering of 22 Mg(α , α) 22 Mg. Resonances in 26 S are important to determine the reaction rate of the 22 Mg(α ,p) 25 Al [1] and 25 Al(p, γ) 26 Si. The study of the resonances was performed using the active target ATTPC [2] with a re-accelerated radioactive beam produced in the ReA3 installation at NSCL (USA). A beam of 22 Mg at around 4.9 MeV/u impinged in the 4 He gaz volume in ATTPC. Information on the B ρ , and angle was used to deduce the excitation energy function in 26 Si.

Referencies

[1] Randhawa, Jaspreet Singh et al., Physical Review Letters, 125, (2020).

[2] Y.Ayyad et al., Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 954, 161341, (2020) .

Topic

Experiment

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