

Study of INC model for alpha inelastic scattering at 230 MeV/u/230MeV/u の α 粒子の非弾性散乱に関する INC 模型の研究

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The Intranuclear Cascade model has been improved for calculating alpha induced reaction. Alpha inelastic reaction is dominant for the alpha incident reaction, so that its cross section must be calculated accurately. However, it is difficult to optimize the inelastic reaction and fragmentation reaction for all fragment channel in parallel. Therefore, in this study, we focus on the inelastic reaction only and calculate the cross section for alpha particles using the break-up model having dependency of target mass density. The calculation results were compared with experimental data of double differential cross sections for the alpha particle at incident energy of 230 MeV/u on ^{27}Al . As a result, good agreements are obtained.

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