

Study of INC model for proton induced reaction near 0 degrees/0 度近傍における陽子入射反応に対する INC 模型の研究

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The intranuclear cascade model has been improved for calculating proton-induced reactions; the calculation results near 0 degrees remain unsatisfactory. It is known that several types of giant resonances exist near 0 degrees. In this study, giant resonances were incorporated, and comparisons with experimental data were conducted to examine mass and energy dependencies. The experimental data includes the double differential cross-section for the reactions, for example, $^{208}\text{Pb}(p,n)$ at 78 MeV and $^{208}\text{Pb}(p,p')$ at 295 MeV. As a result, good agreement was achieved.

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