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Study of INC model for alpha incident reaction at 230 MeV/u/230MeV/u のアルファ粒子入射反応に対する INC 模型の研究

Thursday, November 16, 2023 3:00 PM (2 hours)

The Intranuclear Cascade model have been improved for calculation of alpha incident reaction. The fragmentation reaction which is dominant in alpha incident reactions is calculated using the model that incident alpha particle is broke up according to the probability, which show cluster state in the alpha particle, and density distribution of targets. In addition, the direct knockout reaction is adopted to explain composite particles in low energy region. The calculation results were compared with experimental data of double differential cross sections of charged particles produced from the reaction of alpha particles at incident energy of 230 MeV/u on ^{12}C, ^{27}Al, and ^{59}Co. As a result, good agreements are obtained.

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