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## Faddeev-AGS Calculation of Neutron Induced Nuclear Reaction on Deuteron within Wave-Packet Continuum Discretization Approach

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The n+d reaction is one of the most fundamental three-body nuclear reactions, which is an important platform for examining the nucleon-nucleon interaction. The wave-packet continuum discretization approach is developed to solving three-nucleon scattering equations within a modified Faddeev-AGS equation framework, which is based on the discretization representation of the three-body continuum states and lattice representation of all scattering operators in momentum space. As an application, calculations were performed for n+d reactions with realistic nucleon-nucleon interactions. The calculated results, including the elastic scattering angular distributions, triple differential breakup cross section, double differential cross sections of the emitting neutrons and protons and so on, were in fair agreements with the experimental data as well as the evaluated data in CENDL-3.2, ENDF/B-VIII.0, JENDL-5 and JEFF-3.3.

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