

# Study of $^8\text{B}$ breakup reactions at intermediate energies in a three-body approach

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The nuclear-induced breakup reactions of  $^8\text{B}$  in carbon and lead targets at intermediate energies from 100 to 2000 MeV/nucleon are studied considering a three-body structure of  $^8\text{B}$ . Reaction cross sections of  $^8\text{B}$  and its fragments ( $p$ ,  $^3\text{He}$ ,  $^4\text{He}$ ), proton removal cross sections, and the breakup longitudinal momentum distributions of  $^7\text{Be}$  fragments are calculated in eikonal approximation of the Glauber model using a three-body wave function [1,2] of the  $^8\text{B}$  projectile. The results of the calculations are compared with results of the other calculations and available experimental data.

[1] L. V. Grigorenko, B. V. Danilin, V. D. Efros, *et al*, Phys. Rev. C **60** (1999) 044312.

[2] L. V. Grigorenko, B. V. Danilin, V. D. Efros, *et al*, Phys. Rev. C **57** (1998) R2099.