

Simulation Study of Beam Shaping Device for Accelerator based BNCT

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Beam shaping device (BSA) plays an important role in boron neutron capture therapy (BNCT). In this study, simulation study is investigated to estimate optimal BSA geometry in terms of IAEA requirement [1]. The deuteron bombardment onto beryllium target is considered to produce neutrons. The attenuation of fast neutron beam is simulated by using Geant4 simulation tool kit. The optimal design of BSA is suggested based on the simulation result. The designed BSA is founded to be satisfactory for accelerator based BNCT system.

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