

Abstract

In this work the excitation functions of ^{65}Zn from proton, deuteron, alpha and helium-3 induced reactions on natural copper ($^{\text{nat}}\text{Cu}$) have been evaluated. All cross section data for the said reactions have been taken from EXFOR data base of IAEA. The consistency of measured results available in the literature and EXFOR database was checked with the model calculations ALICE (IPPE) and TALYS 1.9. The thick target yield of the investigated radionuclide was calculated by using recommended excitation functions obtained by statistical procedure. Assessment of ^{65}Zn cross sections, yields and related radionuclide impurities suggest that $^{\text{nat}}\text{Cu}(d, x)^{65}\text{Zn}$ process over the energy range of 23-7 MeV could be of potential interest for the production of ^{65}Zn .