Bhabha Atomic Research Centre
BARC Training School, Mumbai

MINI-PROJECT PROPOSAL FORMAT

Name of Trainee: **Discipline: Physics**

Title of Mini-Project:

Influence of cluster-configuration in light nuclei induced reactions

Guide's Details

Name & Designation:	Dr. S. K. Pandit, SO(F)		
Division / Group:	NuclearDivisionPhysics		
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Brief Scope of Work

Collision in light nuclei is one of the promising tools to investigate the nucleonic configuration inside the nucleus. In our recent studies we have found that alpha-triton clustering in weakly bound ^{7}Li leads to a large triton-stripping reaction and consequently main source of the large alpha yields in reaction involving ^{7}Li. Recently, we have measured light particles Z=1,2,3 for ^{7}Li and ^{9}Be induced on ^{12}C and ^{93}Nb targets using a highly granular and large solid angle coverage strip detectors array. The trainee will get an opportunity to work with Si-strip-detectors and will analyse the available data to find out the energy-angle correlation of different reaction modes for the understanding of the reaction dynamics involving weakly bound nuclei ^{7}Li and ^{9}Be.

Anubha Shukla

04-05-2022

Signature and Seal of Head of Division / Coordinating Official

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