

PLPAC meeting 2024-1

Contribution ID : 7

Investigating the Cluster Structure of 10B

Monday 22 Apr 2024 at 09:35 (00h15')

PI info :

TANYA SINGH

local collaborator info :

DR. S. SANTRA

Collaborators Name :

S. Santra, P.C. Rout, A. Pal, Payal Taya, A. Baishya, M. Meher

Motivation :

In the proposed experiment, the aim is to accomplish the following measurements:

- (1) Sufficient ${}^6\text{Li}-\alpha$ coincidence events for the identification 10B states through which it breaks into ${}^6\text{Li}$ and α .
- (2) Detection of 2α -d coincidence events to establish the α - α -d cluster configurations.
- (3) A comprehensive study of all the possible breakup channels which may provide signatures of new cluster configurations in 10B.

Beam time requirement in shifts :

15

Beam :

10 B

Beam Energy :

33MeV, 45MeV

Beam Current :

4

Beam Port :

HALL-1, 30D

Buncher Required :

YES

Target / Sample Details :

${}^{120}\text{Sn}$

Whether the experiment is part of PhD work ? :

YES

Name of the PhD student and year of registration :

TANYA SINGH,1ST JAN 2022

Whether the experiment is part of Post-Doc work ? :

NO

information on the past beamtime at PLF :

Title: Measurement of $(n+\alpha)$ Breakup Cross Section in $^{112}\text{Sn}(^6\text{Li},^5\text{He})^{113}\text{Sb}$ Reaction

Beam Time:16 Sep,2023 - 21 Sep,2023

Publication information related to prior work at the PLF :

NONE

Primary authors : Ms. SINGH, TANYA (BARC)

Co-authors : Dr. SANTRA, Satyaranjan (Bhabha Atomic Research Centre)

Presenter : Ms. SINGH, TANYA (BARC)

Session classification : --not yet classified--

Track classification : --not yet classified--

Type : --not specified--