

PLPAC meeting 2024-1

Contribution ID : 11

Study of Neutron induced reaction cross section measurement up to 20 MeV relevant to nuclear data generation and covariance analysis.

Tuesday 23 Apr 2024 at 11:45 (00h15')

PI info :

Shivani Sharma

local collaborator info :

Prof. Vandana Nanal, Mr. M.S. Pose, Dr. Sanjoy Pal

Collaborators Name :

Dr. Pargin Bangotra (Research Supervisor, Netaji Subhas University Of technology, Delhi),

Prof. N.L. Singh (Co-Supervisor, NSUT, Delhi),

Dr. Rajnikant Makwana, Dr. Ratan K. Singh (MSU, Baroda),

Mr. Mayur Mehta, (IPR, Gandhinagar)

Ms. Vandana (NSUT, Delhi).

Motivation :

The experimental nuclear measurements are needed to validate as well as to get the appropriate data set which can complete the data for entire energy range for future nuclear reactor application. The current proposal, as part of my PH.D, aims for taking results of the systematic activation cross section for few pre-decided isotopes, for which the available nuclear data is discrepant.

Beam time requirement in shifts :

3-6 Shifts

Beam :

${}^7\text{Li}(p,n){}^7\text{Be}$

Beam Energy :

10-22 MeV

Beam Current :

300 nA

Beam Port :

6M irradiation setup

Buncher Required :

NO

Target / Sample Details :

As Per Annexure attached

Whether the experiment is part of PhD work ? :

YES

Name of the PhD student and year of registration :

Shivani Sharma, 2023

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

NO

information on the past beamtime at PLF :

NA

Publication information related to prior work at the PLF :

NA

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Session classification : --not yet classified--

Track classification : --not yet classified--

Type : --not specified--