PLPAC meeting 2024-1

Contribution ID : 4

Exploring E1 transitions at particle-emission threshold near N = 50 shell closure through neutron pickup reaction

Tuesday 23 Apr 2024 at 10:30 (00h15')

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Other Collaborators from TIFR

Motivation :

Following its discovery, numerous theoretical and experimental endeavors have been undertaken to unravel the microscopic structure of the Pygmy Dipole Resonance (PDR). However, despite these efforts, several unresolved questions persist, impeding a systematic understanding of the underlying microscopic structures of the PDR. These

inquiries include whether there exists an onset of single-particle characteristics within the PDR, discerning how nuclear level densities contribute to the fragmentation observed in the PDR strength, and investigating how the distribution of strength within the PDR is influenced by the deformed shapes of nuclei in their ground states.

Beam time requirement in shifts :
24

Beam :
1H

Beam Energy :
19-25

Beam Current :
1-5

Beam Port :
Cascade Hall port 30 Deg South

Buncher Required :
No

Target / Sample Details :
91Zr

Whether the experiment is part of PhD work ? :
Yes

Name of the PhD student and year of registration :
Shinjini Pal, 2022

Whether the experiment is part of Post-Doc work ? :
No

Name of the Post Doc fellow :
NA

information on the past beamtime at PLF :
NA

Publication information related to prior work at the PLF :
NA

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Presenter : Dr. BAGCHI, Soumya (IIT ISM Dhanbad)

Session classification : --not yet classified--

Track classification : --not yet classified--

Type : --not specified--