

Publications in Journals – 2024

(Calendar Year – January to December)

1. A. S. Roy, K. Banerjee, Pratap Roy, R. Shil, R. Ravishankar, R. Datta, A. Sen, S. Manna, T. K. Ghosh, G. Mukherjee, T. K. Rana, S. Kundu, S.S. Nayak, R. Pandey, D. Paul, K. Atreya, S. Basu, S. Mukhopadhyay, Deepak Pandit, M.S. Kulkarni, C. Bhattacharya, “Measurement of energy and directional distribution of neutron ambient dose equivalent for the ^7Li (p, n) ^7Be reaction”, *Applied Radiation and Isotopes* 204 (2024) 111140
2. Soumen Podder, Suman Pal, Debashree Sen, Gargi Chaudhuri, “Constraints on density dependent MIT bag model parameters for quark and hybrid stars”, *Nuclear Physics A* 1042 (2024) 122796
3. S Bhowmick, J Mukherjee, M Ghosal, C Nayak, B Satpati, G Pramanik, P. Karmakar, “Green to deep-red emissive carbon dot formation by C^+ ion implantation on nitrogen beam created self-masked nano-template”, *Nanotechnology* 35 (2024) 125301
4. S Moshat, D Sanyal, “Ab-initio calculation of magnetic properties of doped methylammonium lead chloride”, *Philosophical Magazine* 104 (2024) 406
5. M. Bhattacharjee, C. Giri, S. Masum, S. Hansda, S. Mitra, S. Haque, P. Chakraborty, S. Dechoudhury, A. Ray, M. Mondal, B. Nayan, V. Shukla, D. Sanyal, A. Bandyopadhyay, V. Naik, “Development of a gas jet coupled Electron Cyclotron Resonance ion source for Radioactive Ion Beam”, *Review of Scientific Instruments* 95 (2024) 23302
6. S. Moshat, J. Dhar, S. Sil and D. Sanyal, “Positron Annihilation Spectroscopic Studies of Ferromagnetic Methylammonium Lead Iodide Perovskite”, *Journal of Materials Science* 59 (2024) 3919
7. S. Ghosh, P. Nath, S. Moshat and D. Sanyal, “Adsorption and Evolution of Hydrogen Molecules on Hexagonal Boron Nitride Monolayer: A Combined DFT and Kinetic Monte-Carlo Simulations Study”, *Physica Scripta* 99 (2024) 45913
8. Snigdha Ghosh, Nilanjan Chaudhuri, Sourav Sarkar, Pradip Roy, “Mass and spectral function of scalar and pseudoscalar mesons in a hot and chirally imbalanced medium using the two-flavor NJL model”, *Physical Review D* 109 (2024) 16021

9. Devesh Kumar, Anandagopal Pal, Shefali Basak, Tumpa Bhattacharjee, S. S. Alam, L. Gerhard, L. Knafla, A. Esmaylzadeh, M. Ley, F. Dunkel, K. Schomaker, J.-M. Régis, J. Jolie, Y. H. Kim, and U. Köster, “Lifetime measurement for the $15/2-1$ and $13/2-1$ levels in ^{129}Sn ”, *Physical Review C* 109 (2024) 24304
10. Pallavi Kalikotay, Snigdha Ghosh, Nilanjan Chaudhuri, Pradip Roy, Sourav Sarkar, “Electrical conductivity and shear viscosity of a pion gas in a thermo magnetic medium”, *The European Physical Journal A* 60 (2024) 71
11. Vinay Shukla and Ayan Ray, “Two-photon coherence in a DROP-FWM medium”, *Physica Scripta* 99 (2024) 45406
12. Samuel Ajayi, Vandana Tripathi, E. Rubino, Soumik Bhattacharya, L. T. Baby, R. S. Lubna, C. Benetti, Catur Wibisono, MacMillan B. Wheeler, S. L. Tabor, Yutaka Utsuno, Noritaka Shimizu, J. M. Allmond, “Observation of collective modes of excitations in ^{59}Co , ^{59}Ni , and ^{61}Co and the influence of the $g_{9/2}$ orbital”, *Physical Review C* 109 (2024) 14305
13. Abhijit Bijanu, Rahul Arya, Gaurav Rajak, V. Sorna Gowri, ahitashya Shil, Kaushik Banerjee, Sarmishtha Bhattacharya, Supriya Mukhopadhyay, Sujoy Chatterjee, Raman Ravishankar, Deepti Mishra, “Flexible, Chemically Bonded Bismuth/Tungsten-based Polyvinyl alcohol-Polyvinyl pyrrolidone Composite for Gamma and Neutron Shielding Application”, *Journal of Applied Polymer Science* 141 (2024) e55435
14. S. Chattopadhyay, L. Barua, D.G. Mahesh, S. Ash, A. Mitra, S. Saha Das, S. Singha, Md. N. Alam, Madhusmita, S. Roy, P. Dhang, M. Jain, “Production of Pharmaceutical Grade $[^{201}\text{Tl}]$ Thallous Chloride using 30 MeV Cyclotron”, *Applied Radiation and Isotopes* 204 (2024) 111128
15. Biswajit Das, R. Palit, N. R. Khan Chowdhury, S. Saha, Md. S. R. Laskar, F. S. Babra, P. Dey, S. K. Jadhav, A. Kundu, Vishal Malik, B. S. Naidu, A. Sindhu, A. T. Vazhappilly, S. S. Ghugre, R. Raut, S. Bhattacharyya, G. Mukherjee, S. Mukhopadhyay, R. P. Singh, “A novel active collimator for compton-suppressed clover HPGe detector and its role in a hybrid gamma detector array”, *Nuclear Instruments and Methods in Physics Research A* 1060 (2024) 169030
16. Sneha Das, S. Bhattacharyya, Soumik Bhattacharya, S. Chakraborty, Sakshi Shukla, Praveen C. Srivastava, R. Banik, S. Nandi, G. Mukherjee, Indu Bala, S. S. Bhattacharjee, S. Das Gupta, A. Dhal, Debasish Mondal, S. Muralithar, R. Raut, A. Sharma, R. P. Singh, and V. Srivastava, “High-spin level structure of ^{209}Rn ”, *Physical Review C* 109 (2024) 14322

17. J. Lahiri, D. Atta and D. N. Basu, "Properties of glitching pulsars in the Skyrme-Hartree-Fock framework", *Pramana* 98 (2024) 17
18. G. Mukherjee, S. S. Nayak, J. Datta, S. Dasgupta, A. Choudhury, Adaityadev Behera, Saikat Chakraborty, Shabir Dar, Sneha Das, Sansaptak Basu, Snigdha Pal and S. Bhattacharyya, "Beta decay study of ^{126}Sb and ^{126m}Sb ", *Journal of Radioanalytical and Nuclear Chemistry* 333 (2024) 1531
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20. Namrata Singh, A. Gandhi, Mahesh Choudhary, Aman Sharma, Punit Dubey, Mahima Upadhyay, Rebecca Pachua, S. Dasgupta, J. Datta and A. Kumar, "Measurement of the excitation functions for nat Ni(α ,x) reactions with detailed covariance analysis", *The European Physical Journal A* 60 (2024) 24
21. STAR Collaboration, "Longitudinal and transverse spin transfer to Λ and $\bar{\Lambda}$ hyperons in polarized p+p collisions at $\sqrt{s} = 200$ GeV", *Physical Review D* 109 (2024) 12004
22. STAR Collaboration, "Observation of the electromagnetic field effect via charge-dependent directed flow in heavy-ion collisions at the Relativistic Heavy Ion Collider", *Physical Review X* 14 (2024) 11028
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24. Vikas, Kavita, K. S. Golda, T. K. Ghosh, A. Jhingan, P. Sugathan, A. Chatterjee, B. R. Behera, Ashok Kumar, Rakesh Kumar, N. Saneesh, Mohit2, Abhishek Yadav, C. Yadav, S. Appannababu, S. K. Duggi, Rakesh Dubey, Kavita Rani, Neeraj Kumar, A. Banerjee, A. Rani, Kajal, Shoaib Noor, Jaimin Acharya & Hardev Singh, "Measurement of mass-angle and mass-total kinetic energy distributions from the fission of ^{190}Pt compound nucleus", *Journal of Physics G* 51 (2024) 35103
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26. ALICE Collaboration, "Measurement of the radius dependence of charged-particle jet suppression in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV", *Physics Letters B* 849 (2024) 13841

27. ALICE Collaboration, “ $\psi(2S)$ suppression in Pb-Pb collisions at the LHC”, Physical Review Letters 132 (2024) 42301
28. ALICE Collaboration, “Measurements of long-range two-particle correlation over a wide pseudorapidity range in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”, Journal of High Energy Physics 1 (2024) 199
29. ALICE Collaboration, “System size dependence of the hadronic rescattering effect at energies available at the CERN Large Hadron Collider”, Physical Review C 109 (2024) 14911
30. ALICE Collaboration, “Pseudorapidity dependence of anisotropic flow and its decorrelations using long-range multiparticle correlations in Pb-Pb and Xe-Xe collisions”, Physics Letters B 850 (2024) 138477
31. ALICE Collaboration, “Measurements of inclusive J/ψ production at midrapidity and forward rapidity in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”, Physics Letters B 849 (2024) 138451
32. ALICE Collaboration, “Charged-particle production as a function of the relative transverse activity classifier in pp, p-Pb, and Pb-Pb collisions at the LHC”, Journal of High Energy Physics 1 (2024) 56
33. ALICE Collaboration, “ALICE luminosity determination for Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”, Journal of Instrumentation 19 (2024) P02039
34. ALICE Collaboration, “Skewness and kurtosis of mean transverse momentum fluctuations at the LHC energies”, Physics Letters B 850 (2024) 138541
35. ALICE Collaboration, “Prompt and non-prompt J/ψ production at midrapidity in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”, Journal of High Energy Physics 2 (2024) 66
36. ALICE Collaboration, “Multiplicity and event-scale dependent flow and jet fragmentation in pp collisions at $\sqrt{s} = 13$ TeV and in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”, Journal of High Energy Physics 3 (2024) 92
37. Joydip Nandi, A. K. Sikdar, Parnika Das, A. Ray, “Temporal evolution of electron cloud in a cylindrical Penning trap at room temperature”, Review of Scientific Instruments 95 (2024) 43202
38. Mahesh Choudhary, Aman Sharma, Namrata Singh, Punit Dubey, Mahima Upadhyay, Sriya Paul, Shweta Singh, Utkarsha Mishra, and A. Kumar S. Dasgupta and J. Datta, “Estimation of level density model parameters for ^{93}Nb using Unscented Transform Kalman Filter technique”, Physical Review C 109 (2024) L041603

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51. Payel Karmakar, Samir Kundu,, T. K. Rana, S. Manna, R. Pandey,, C. Bhattacharya, K. Banerjee, Pratap Roy, Arijit Sen, T. K. Ghosh, G. Mukherjee, S. Mukhopadhyaya, D. Paul, M. Shaikh, S. Nandi, S. Dalal, "Nuclear dissipation and isospin relaxation in $^{20}\text{Ne} + ^{116,124}\text{Sn}$ reactions", *Physical review C* 110 (2024) 14608
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71. V. Singh, Debasis Bhowmick, D N Basu, "Re-examining the Lithium abundance problem in Big-Bang nucleosynthesis", *Astroparticle Physics* 162 (2024) 102995
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