List of Publications

Publications in Peer-Reviewed Journals

Publications Related to Present Thesis

1. **Effect of neutron generator and monitor reactions on the (n, γ) and (n, 2n) cross-sections of fertile materials within 0.1-25 MeV**

   Siddharth Parashari and S. Mukherjee, (Review Article)
   Under Review in Annals of Nuclear Energy. ***Impact Factor 1.38***

2. **Measurement of the $^{58}Ni(n,p)^{59}Co$ and $^{58}Ni(n,2n)^{57}Ni$ reaction cross-sections for the fast neutron energies upto 18 MeV**

   Siddharth Parashari, S. Mukherjee, H. Naik, S.V. Suryanarayana, R. Makwana, B.K. Nayak, and N.L. Singh,
   Eur. Phys. Jour. A, 55 (2019) 51. ***Impact Factor 2.581***

3. **Systematic analysis of the neutron induced reaction cross sections for ^{nat}Mo isotopes within 10-20 MeV**

   Siddharth Parashari, S. Mukherjee, S.V. Suryanarayana, B.K. Nayak, R. Makwana, N.L. Singh, and H. Naik,
   Phys. Rev. C 99, 044602 (2019). ***Impact Factor 3.132***

4. **Excitation function of the $^{nat}Ti(p,x)^{48}V,^{47,46,44m}Sc$ reactions within the energy range of 10-22 MeV**

   Siddharth Parashari, S. Mukherjee, B.K. Nayak, H. Naik, S.V. Suryanarayana, R. Makwana, N.L. Singh,
   Nucl. Phys. A. 987 (2019) 128. ***Impact Factor 1.463***

5. **Excitation function of the $p +^{nat} Ag$ reactions in the energy range 10-22 MeV**

Siddharth Parashari, S. Mukherjee, S.V. Suryanarayana, R. Makwana, B.K. Nayak, A. Shanbhag, H. Naik,
Nucl. Phys. A 979 (2018) 102. ***Impact Factor 1.463***

6. **Excitation functions of the $p + ^{93}Nb$ reaction in the energy range 10-22 MeV**

   Siddharth Parashari, S. Mukherjee, B.K. Nayak, R. Makwana, S.V. Suryanarayana, H. Naik, S.C. Sharma,
   Nucl. Phys. A 978 (2018) 160. ***Impact Factor 1.463***

7. **Measurement of $^{232}Th(n,\gamma)$ reaction cross sections in the neutron energy range of 11–19 MeV**

   Siddharth Parashari, S. Mukherjee, A. P. Singh, Vibha Vansola, H. Naik, B. K. Nayak, Rajnikant Makwana, S.V. Suryanarayana, N. L. Singh, Mayur Mehta, Y. S. Sheela, M. Karkera, R. D. Chauhan, and S. C. Sharma,
   Phys. Rev. C 98, 014625 (2018). ***Impact Factor 3.132***

8. **Investigation of (n, p), (n, 2n) reaction cross sections for Sn isotopes for fusion reactor applications**

   Siddharth Parashari, S. Mukherjee, Vibha Vansola, Rajnikant Makwana, Nand Lal Singh, Bhawna Pandey,
   App. Rad. Iso 133, 31 (2018). ***Impact Factor 1.343***

Other Publications

9. **Measurement of (n, xn) reaction cross-sections on $^{113,115}In$ isotopes using quasi-monoenergetic neutrons within 10-20 MeV**

   Bhargav Soni, Siddharth Parashari, S. Mukherjee, Rajnikant Makwana, S. V. Suryanarayana, B. K. Nayak, H. Naik, and K. Katovsky ***Under Review in European Physical Journal Plus.***.

10. **Measurement of neutron induced $^{86}Sr(n,2n)^{85}Sr$ reaction cross sections at different neutron energies**

    Nidhi Shetty, Rajnikant Makwana, Mayur Mehta, S. Mukherjee, N.L. Singh, S.V. Suryanarayana, Siddharth Parashari, R. Singh, H. Naik, S.C. Sharma, S. Ayyala, B. Soni, R. Chauhan ***App. Rad. iso. 154 (2019) 108866***.

11. **Systematic study of the break-up fusion process in the $^{12}C + ^{165}Ho$ system and interplay of entrance channel parameters**

    Suhail A. Tali, Harish Kumar, M. Afzal Ansari, Asif Ali, D. Singh, Rahbar Ali, Pankaj K. Giri, Sneha B. Linda, R. Kumar, Siddharth Parashari S. Muralithar, and R. P. Singh ***Phys. Rev C 100 (2019) 024622***.

12. **Systematic study of low energy incomplete-fusion dynamics in the $^{16}O + ^{148}Nd$ system: Role of target deformation**

    Pankaj K. Giri, D. Singh, Amritraj Mahato, Sneha B. Linda, Harish Kumar, Suhail A. Tali, Siddharth Parashari, Asif Ali, M. Afzal Ansari, Rakesh Dubey, R. Kumar, S. Muralithar, and R. P. Singh, ***Phys. Rev C 100 (2019) 024621***.

13. **Systematic study of incomplete-fusion dynamics below 8 MeV/nucleon energy**

    Harish Kumar, Suhail A. Tali, M. Afzal Ansari, D. Singh, Rahbar Ali, Asif Ali, Siddharth Parashari, Pankaj K. Giri, Sneha B. Linda, R. Kumar, R. P. Singh, and S. Muralithar, ***Phys. Rev C 99 (2019) 034610***.

14. **Role of alpha cluster over non alpha cluster projectile in low energy inclomplete fusion reaction dynamics**

    Suhail A. Tali, Harish Kumar, M. Afzal Ansari, Asif Ali, D. Singh, Rahbar Ali, Pankaj K. Giri, Sneha B. Linda, R. Kumar, Siddharth Parashari, R. P. Singh, and S. Muralithar, ***Indian Journal of Pure and Applied Sciences 57 (2019) 544***.

15. **Measurement of ^{232}Th and ^{238}U neutron capture cross-sections in the energy range 5–17 MeV**

    S. Mukherjee, Vibha Vansola, Siddharth Parashari, R. Makwana, N.L. Singh, S.V. Suryanarayana, S.C. Sharma, B.K. Nayak, H. Naik,***App. Rad. Iso. 143 (2019) 72-78***.

16. **Neutron capture cross-sections for ^{159}Tb isotope in the energy range of 5 to 17 MeV**

    B.K. Soni, Rajnikant Makwana, S. Mukherjee, Siddharth Parashari, S.V. Suryanarayana, B.K. Nayak, H. Naik, M. Mehta ***App. Rad. Iso. 141 (2018) 10–14***.

17. **Measurement of excitation functions of evaporation residues in the $^{16}O + ^{124}Sn$ reaction and investigation of the dependence of incomplete fusion dynamics on entrance channel parameters**

D Singh, Sneha B Linda, Pankaj K Giri, Amritraj Mahato, R Tripathi, Harish Kumar, Suhail A Tali, Siddharth Parashari, Asif Ali, Rakesh Dubey, M Afzal Ansari, R Kumar, S Muralithar, RP Singh ***Phys. Rev. C 97 (2018) 064610***.

18. **Sensitivity of low-energy incomplete fusion to various entrance-channel parameters**

    Harish Kumar, Suhail A Tali, M Afzal Ansari, D Singh, Rahbar Ali, Kamal Kumar, NPM Sathik, Asif Ali, Siddharth Parashari, R Dubey, Indu Bala, R Kumar, RP Singh, S Muralithar ***Eur. Phys. Jour. A 54 (2018) 47***.

19. **Study of incomplete fusion reaction dynamics in $^{13}C + ^{165}Ho$ system and its dependence on various entrance channel parameters**

    Suhail A Tali, Harish Kumar, M. Afzal Ansari, Asif Ali, D. Singh, Rahbar Ali, Pankaj K. Giri, Sneha B. Linda, Siddharth Parashari, R. Kumar, R. P. Singh, S. Muralithar ***Nucl. Phys. A 970 (2017) 208-223***.

20. **Investigation of incomplete fusion dynamics at energy 4–8 MeV/nucleon**

    Harish Kumar, Suhail A Tali, M. Afzal Ansari, D. Singh, Rahbar Ali, Kamal Kumar, N.P.M. Sathik, Siddharth Parashari, Asif Ali, R. Dubey, Indu Bala, Rakesh Kumar, R.P. Singh, S. Muralithar, ***Nucl. Phys. A 960 (2017) 53-77***.

Publications in Proceedings of International Conferences

1. **Measurement of $^{100}Mo(n,2n)^{99}Mo$ reaction cross- sections using 10-20 MeV quasi-monoenergetic neutrons**

    Siddharth Parashari, Surjit Mukherjee, Rajnikant Makwana, N. L. Singh, Ratan K. Singh, Mayur Mehta, H. Naik, S. V. Suryanarayana, B. K. Nayak, S. C. Sharma, Sai Akhil Ayyala, Jan Varmuza, Karel Katovsky, ***19th International Scientific Conference on Electric Power Engineering (EPE) 2018*** doi: 10.1109/EPE.2018.8395960.

2. **Excitation function of the proton induced ^{nat}Sn reactions below 22 MeV for reactor applications**

    Siddharth Parashari, Surjit Mukherjee, B.K. Soni, R. Makwana, S.V. Suryanarayana, B.K. Nayak, and H. Naik, ***International Conference on Recent Issues in Nuclear and Particle Physics (RINP2) (2019).***

Publications in Proceedings of National Conferences

1. **Production cross-section of the ^{99m}Tc medical isotope by using the $^{nat}Mo(p,2n)$ reaction**

   Siddharth Parashari, S. Mukherjee, S.V. Suryanarayana, R. Makwana, B.K.Nayak, Ratan K. Singh, S.C. Sharma, M. Mehta, N.L. Singh, and H. Naik ***Proceedings of the DAE Symp. Nucl. Phys. 63 (2018) 464.***

2. **Measurement of the $^{115}In(n,2n)^{114m}In$ reaction cross-section using the quasi-monoenergetic neutrons**

   Bhargav K. Soni, Siddharth Parashari, S. Mukherjee, S.V. Suryanarayana, R. Makwana, B.K.Nayak, Ratan K. Singh, S.C. Sharma, M. Mehta, N.L. Singh, and H. Naik ***Proceedings of the DAE Symp. Nucl. Phys. 63 (2018) 466.***

3. **Measurement of neutron induced reaction cross-sections for ^{86}Sr at different neutron energies**

   Nidhi Shetty, Rajnikant Makwana, Mayur Mehta, N.L. Singh, S. Mukherjee, S.V. Suryanarayana, Siddharth Parashari, Ratan Kumar, Sai Akhil Ayyala, Chandani Menpara ***Proceedings of the DAE Symp. Nucl. Phys. 63 (2018) 598.***

4. **Low energy incomplete fusion study in the $^{16}O + ^{142}Nd$ system**

   Pankaj K. Giri, D. Singh, Sneha B. Linda, Amritraj Mahato, Harish Kumar, Suhail A. Tali, Siddharth Parashari, Asif Ali, M. Afzal Ansari, Rakesh Dubey, R. Kumar, S. Muralithar and R. P. Singh ***Proceedings of the DAE Symp. Nucl. Phys. 63 (2018) 630.***

5. **Probing of incomplete fusion by measurements of excitation functions in $^{14}N + ^{124}Sn$ system**

   Amritraj Mahato, D. Singh, Pankaj K. Giri, Sneha B. Linda, Harish Kumar, Suhail A. Tali, Siddharth Parashari, Asif Ali, Rakesh Dubey, M. Afzal Ansari, R. Kumar, S. Muralithar and R. P. Singh ***Proceedings of the DAE Symp. Nucl. Phys. 63 (2018) 632.***

6. **Measurement of $^{78}Se(n,p)^{78}As$ reaction cross-sections at different neutron energies**

RatanKumar Singh, Rakesh Chauhan, N. L. Singh, S. V. Suryanarayana, Siddharth Parashari, Rajnikant Makwana, S.K. Mukherjee, Mayur Mehta, Sai Akhil Ayyala, S. C. Sharma ***Proceedings of the DAE Symp. Nucl. Phys. 63 (2018) 632.***

7. **Measurement of $^{100}Mo(n,2n)^{99}Mo$ reaction cross-sections**

   Siddharth Parashari, S. Mukherjee, H. Naik, S. V. Suryanarayana, Rajnikant Makwana, Mayur Mehta, N. L. Singh, Ratan Kumar, and SaiAkhil Ayyala ***Proceedings of the DAE Symp. Nucl. Phys. 62 (2017) 400***.

8. **Cross-section measurement of $^{103}Rh(n,2n)^{102}Rh$ at 22 MeV**

   RatanKumar Singh, Siddharth Parashari, N. L. Singh, RajniKant Makwana, S.K. Mukherjee, Mayur Mehta, Sai Akhil Ayyala, Rakesh Chauhan, Chhavi joshi ***Proceedings of the DAE Symp. Nucl. Phys. 62 (2017) 634***.

9. **$^{238}U(n,\gamma)$ reaction cross-section at the neutron energy 8.96 MeV**

   Vibha Vansola, S Mukherjee, Siddharth Parashari, R Makwana, SV Suryanarayana, H Naik ***Proceedings of the DAE Symp. Nucl. Phys. 62 (2017) 570***.

10. **Measurement of the cross-section $^{107}Ag(n,2n)^{106}Ag$ reaction on neutron energy 13 MeV and 22 MeV**

    Chhavi Joshi, NL Singh, Siddharth Parashari, Rakesh Chauhan, Mayur Mehta, Rajnikant Makwana, SK Mukherjee ***Proceedings of the DAE Symp. Nucl. Phys. 62 (2017) 610***.

11. **Study of incomplete fusion sensitivity to projectile structure from forward recoil range distribution measurement**

    Harish Kumar, Suhail A Tali, M Afzal Ansari, D Singh, Rahbar Ali, Siddharth Parashari, Asif Ali, Pankaj K Giri, Sneha B Linda, R Kumar, RP Singh, S Muralithar ***DAE Symp. Nucl. Phys. 62 (2017) 362***.

12. **Projectile structure effect in low energy incomplete fusion reaction dynamics**

    Suhail A Tali, S Muralithar, Sneha B Linda, Asif Ali, D Singh, R Kumar, RP Singh, Rahbar Ali, Pankaj K Giri, Siddharth Parashari, Harish Kumar, M Afzal Ansari ***DAE Symp. Nucl. Phys. 62 (2017) 428***.

13. **Study of break-up fusion by measurement of excitation functions of evaporation residues formed in $^{16}O + ^{148}Nd$ system**

Pankaj K Giri, Suhail A Tali, D Singh, S Muralithar, Siddharth Parashari, Sneha B Linda, R Kumar, RP Singh, Rakesh Dubey, Amritraj Mahato, Asif Ali, Harish Kumar, M Afzal Ansari ***DAE Symp. Nucl. Phys. 62 (2017) 536***.

14. **Investigation of incomplete fusion dynamics by measurement of recoil range distributions in $^{16}O + ^{124}Sn$ system**

    Sneha Bharti Linda, Suhail A Tali, S Muralithar, Siddharth Parashari, Pankaj K Giri, D Singh, R Kumar, RP Singh, Rakesh Dubey, Amritraj Mahato, Asif Ali, Harish Kumar, M Afzal Ansari ***DAE Symp. Nucl. Phys. 62 (2017) 380***.

15. **Effect of projectile structure on angular distribution of recoiling residues**

    Siddharth Parashari, Harish Kumar, Suhail A. Tali, Asif Ali, M. Afzal Ansari, D. Singh, Rahbar Ali, Pankaj K. Giri, Sneha B. Linda, R. P. Singh, S. Muralithar and Rakesh Kumar, ***DAE Symp. On Nuclear Phys, 61 (2016) 448***.

16. **Comprehension of Incomplete Fusion Dynamics from Excitation Function Measurements**

    Suhail A. Tali, Harish Kumar, M. Afzal Ansari, Asif Ali, Siddharth Parashari, Pankaj K.Giri, Sneha B. Linda, D. Singh, Rahbar Ali, Rakesh Kumar, R. P. Singh and S. Muralithar, ***DAE Symp. On Nuclear Phys, 61 (2016) 366***.

17. **Alpha Q-value effect on incomplete fusion dynamics below 8 MeV/nucleon energies**

    Harish Kumar, Suhail A Tali, M. Afzal Ansari, D. Singh, Rahbar Ali, Siddharth Parashari, Asif Ali, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, Rakesh Kumar, R. P. Singh and S. Muralithar, ***DAE Symp. On Nuclear Phys, 61 (2016) 450***.

18. **Investigation of incomplete fusion by measurement of excitation functions in the $^{14}N + ^{27}Al$ system**

    Pankaj K. Giri, Sneha Bharti Linda, D. Singh, Harish Kumar, Suhail A. Tali, Siddharth Parashari, Asif Ali, Rakesh Dubey, Vivek Kumar, M. Afzal Ansari, R. Kumar, S. Muralithar and R. P. Singh, ***DAE Symp. On Nuclear Phys, 61 (2016) 522***.

19. **Study of complete and incomplete fusion dynamics in the interaction of ^{14}N with ^{148} Nd**

    Pankaj K. Giri, Sneha Bharti Linda, D. Singh, Harish Kumar, Suhail A. Tali, Siddharth Parashari, Asif Ali, Rakesh Dubey, M. Afzal Ansari, R. Kumar, S. Muralithar and R. P. Singh, ***DAE Symp. On Nuclear Phys, 61 (2016) 524***.

20. **Probing of complete and incomplete fusion dynamics by the measurement of excitation function in $^{16}O + ^{124}Sn$ system**

    Sneha Bharti Linda, Pankaj K. Giri, D. Singh, Harish Kumar, Suhail A. Tali, Siddharth Parashari, Asif Ali, Rakesh Dubey, M. Afzal Ansari, R. Kumar, S. Muralithar and R. P. Singh, ***DAE Symp. On Nuclear Phys, 61 (2016) 544***.

21. **Investigation of Incomplete Fusion Dynamics from the Measurement of Angular Distributions at E≈88 MeV**

    Siddharth Parashari, Harish Kumar, M. Afzal Ansari, D. Singh, Rahbar Ali, Suhail A. Tali, Asif Ali, Kamal Kumar, N. P. M. Sathik , R. Dubey, Indu Bala, R. P. Singh, S.Muralithar, Rakesh Kumar, ***DAE Symp. On Nuclear Phys, 60 (2015) 476***.

22. **Linear Momentum Transfer Effect on Incomplete Fusion Process at Energy ≈88 MeV**

    Harish Kumar, Siddharth Parashari, M. Afzal Ansari, D. Singh, Rahbar Ali, Suhail A. Tali, Asif Ali, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, R. P. Singh, S.Muralithar, Rakesh Kumar, ***DAE Symp. On Nuclear Phys, 60 (2015) 474***.

23. **Probing of Incomplete Fusion from the Measurement of Recoil Range Distributions**

    Suhail A. Tali, Harish Kumar, M. Afzal Ansari, D. Singh, Rahbar Ali, Asif Ali, Siddharth Parashari, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, Rakesh Kumar, R. P. Singh, S. Muralithar, ***DAE Symp. On Nuclear Phys, 60 (2015) 520***.

24. **Competition between Complete and Incomplete Fusion Reaction Mechanism below 8 MeV/nucleon energies**

    Asif Ali, Harish Kumar, M. Afzal Ansari, D. Singh, Rahbar Ali, Suhail A. Tali, Siddharth Parashari, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, Rakesh Kumar, R. P. Singh , S. Muralithar, **DAE Symp. On Nuclear Phys, 60 (2015) 554**.

25. **Angular Distribution: A probe for incomplete fusion investigation**

    Siddharth Parashari, Harish Kumar, M. Afzal Ansari, Suhail A. Tali, Asif Ali, D. Singh, Rahbar Ali, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, Rakesh Kumar, R. P. Singh, S. Muralithar Presented in **National Conference on Recent Trends in Nuclear Physics, held at Department of Physics, AMU, Aligarh during Feb. 15-16, 2016.**

26. **Study of projectile break-up process at intermediate energies**

    Harish Kumar, Siddharth Parashari, M. Afzal Ansari, Suhail A. Tali, Asif Ali, D. Singh, Rahbar Ali, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, Rakesh Kumar, R. P. Singh, S. Muralithar Presented in **National Conference on Recent Trends in Nuclear Physics, held at Department of Physics, AMU, Aligarh during Feb. 15-16, 2016.**

27. **An approach to understand incomplete fusion dynamics from recoil range distribution measurements**

    Suhail A. Tali, Harish Kumar, M. Afzal Ansari, Asif Ali, Siddharth Parashari, D. Singh, Rahbar Ali, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, Rakesh Kumar, R. P. Singh, S. Muralithar Presented in **National Conference on Recent Trends in Nuclear Physics, held at Department of Physics, AMU, Aligarh during Feb. 15-16, 2016.**

28. **Investigation of incomplete fusion dynamics below 8 MeV/nucleon energies**

    Asif Ali, Harish Kumar, M. Afzal Ansari, Suhail A. Tali, Siddharth Parashari, D. Singh, Rahbar Ali, Kamal Kumar, N. P. M. Sathik, R. Dubey, Indu Bala, Rakesh Kumar, R. P. Singh, S. Muralithar Presented in **National Conference on Recent Trends in Nuclear Physics, held at Department of Physics, AMU, Aligarh during Feb. 15-16, 2016.**

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