

List of Publications

A. Papers in International Journals

1. *Investigation of incomplete fusion in $^{20}\text{Ne} + ^{55}\text{Mn}$ reactions at 3-8 MeV/ nucleon.*
Rahbar Ali, D. Singh, M. Afzal Ansari, M. H. Rashid, R. Guin and S. K. Das
Journal of Physics G: Nucl. Part. Phys.; **37 (2010) 115101.**
2. *Reaction mechanism in the $^{20}\text{Ne} + ^{59}\text{Co}$ system at 3-7 MeV/ nucleon and observation of entrance channel mass-asymmetry of the incomplete fusion fraction.*
D. Singh, **R. Ali**, M. Afzal Ansari, B. S. Tomar, M. H. Rashid, R. Guin and S. K. Das
Phys. Rev. C 83 (2011) 054604.
3. *Incomplete fusion dynamics by spin distribution measurements.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, P. P. Singh, M. K. Sharma, B. P. Singh, Rishi K. Sinha, R. Kumar, S. Muralithar, R. P. Singh and R. K. Bhowmik
Phys. Rev. C 81 (2010) 027602.
4. *Reaction mechanism in the system $^{20}\text{Ne} + ^{165}\text{Ho}$: Measurement and analysis of forward recoil range distributions.*
D. Singh, **R. Ali**, M. Afzal Ansari, M. H. Rashid, R. Guin and S. K. Das
Phys. Rev. C 79 (2009) 054601.
5. *A Study of Excitation Functions for Some Residues Produced in $^{16}\text{O} + ^{74}\text{Ge}$ System Below 7 MeV/ nucleon.*
D. Singh, M. Afzal Ansari, **R. Ali**, N. P. M. Sathik and M. Ismail
Chinese Journal of Physics Vol. 46 (2008) 27.
6. *Complete and Incomplete Fusion Reactions in $^{16}\text{O} + ^{45}\text{Sc}$ System: Measurement and Analysis of Excitation Functions below 7 MeV/ nucleon.*
D. Singh, M. Afzal Ansari, **R. Ali**, N. P. M. Sathik and M. Ismail
J. Phys. Soc. Japn. 75, (2006) 104201.
7. *Study of incomplete fusion in $^{20}\text{Ne} + ^{159}\text{Tb}$ system at energy range ~ 4.3 -8.2 MeV/nucleon.*
Rahbar Ali, D. Singh, M. Afzal Ansari, M. H. Rashid, R. Guin and S. K. Das
(Submitted in Phys. Rev. C).

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8. *Spin distribution measurement in $^{16}\text{O} + ^{160}\text{Gd}$ at energy, $E \sim 5.6 \text{ MeV/nucleon}$.*
Rahbar Ali, D. Singh, M. Afzal Ansari, Rakesh Kumar, M. K. Sharma, Unnati, P. D. Shidling, D. Negi, S. Muralithar, R. P. Singh, B. P. Singh and R. K. Bhowmik.
(Submitted in Phys. Rev. C).

B. Papers in Conferences/ Symposia:

1. *Side-feeding intensity measurement for $^{16}\text{O} + ^{160}\text{Gd}$ system at 90 MeV energy.*
Rahbar Ali, D. Singh, M. Afzal Ansari, Naseef M. P. N., H. Kumar, Rakesh Kumar, M. K. Sharma, Unnati, B.P. Singh, D. Negi, P.D. Shidling, S. Murlithar, R. P. Singh, R. Prasad and R.K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, BIT, Pilani, India
Vol. 55 (2010) 258.
2. *Incomplete fusion studies using recoil range distribution measurement for $^{16}\text{O} + ^{156}\text{Gd}$ system at 86 MeV.*
Rahbar Ali, D. Singh, M. Afzal Ansari, Naseef M. P. N., H. Kumar, K. S. Golda, S. Muralithar, Rakesh Kumar, R. P. Singh and R. K. Bhowmik
DAE-BRNS International Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 54 (2009) 328.
3. *Spin distribution studies of evaporation residues produced through complete and incomplete fusion in the collision of $^{16}\text{O} + ^{160}\text{Gd}$ at 90 MeV.*
R. Ali, D. Singh, Dipti Pachouri, M. Afzal Ansari, Rakesh Kumar, M. K. Sharma, Unnati, Pushendra P. Singh, B.P. Singh, P. D. Shidling, S. Muralithar, R. P. Singh, and R.K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, IIT, Roorkee, India
Vol. 53 (2008) 371.
4. *Investigation of the Residues Produced in $^{16}\text{O} + ^{156}\text{Gd}$ Reaction at Energies $\approx 4.3\text{-}6.1 \text{ MeV/nucleon}$: Measurement of Excitation Functions.*
R. Ali, D. Singh, Dipti Pachouri, M. Afzal Ansari, K. S. Golda, S. Murlithar, Rakesh Kumar, J. J. Das, R. P. Singh and R.K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, IIT, Roorkee, India
Vol. 53 (2008) 481.
5. *Signature of the incomplete fusion reaction mechanism in ^{20}Ne -induced reactions with ^{159}Tb .*
R. Ali, D. Singh, M. Afzal Ansari and M. H. Rashid
DAE-BRNS Symposium on Nuclear Physics, Sambalpur University, Burla, India
Vol. 52 (2007) 407.

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6. *Fractional momentum transfer in incomplete fusion reaction: Measurement of recoil range distributions in $^{20}\text{Ne} + ^{159}\text{Tb}$ system.*
R. Ali, D. Singh, Dipti Pachouri, M. Afzal Ansari and M. H. Rashid
DAE-BRNS Symposium on Nuclear Physics, Sambalpur University, Burla, India.
Vol. 52 (2007) 409.
 7. *Complete and Incomplete Fusion Study of $^{20}\text{Ne} + ^{55}\text{Mn}$ System by Excitation Function Measurement.*
R. Ali, D. Singh, M. H. Rashid and M. Afzal Ansari
DAE-BRNS Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 50 (2005) 320.
 8. *Observation of pre-equilibrium emission particle emission in $^{16}\text{O} + ^{124}\text{Sn}$ system by measurement of yield ratio.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, P. P. Singh, M. K. Sharma, B. P. Singh, R. K. Sinha, Rakesh Kumar S. Muralithar, R. P. Singh and R. K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, BIT, Pilani, India
Vol. 55 (2010) 344.
 9. *Fusion incompleteness in ^{16}O induced reactions with ^{175}Lu between 70-100 MeV energy.*
M.P.N., Naseef, H. Kumar, **R. Ali**, M. Afzal Ansari, D. Singh, K. S. Golda, S. Murlithar, J. J. Das, R. P. Singh and R.K. Bhowmik
DAE-BRNS International Symposium on Nuclear Physics, BIT, Pilani, India
Vol. 55 (2010) 346.
 10. *Investigation of incomplete fusion dynamics in $^{16}\text{O} + ^{175}\text{Lu}$ system from the measurement of recoil range distributions.*
H. Kumar, M.P.N. Naseef, **R. Ali**, M. Afzal Ansari, D. Singh, K. S. Golda, S. Murlithar, Rakesh Kumar, J. J. Das, R. P. Singh and R.K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, BIT, Pilani, India
Vol. 55 (2010) 348.
 11. *How does projectile structure affect incomplete fusion? The case of $^{14}\text{N} + ^{169}\text{Tm}$*
R. Kumar, Abhishek Yadav, Pushpendra P. Singh, Avinash Agarwal, S. Appannababu, S. Mukherjee, S. Muralithar, **R. Ali**, B. P. Singh and R. K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, BIT, Pilani, India
Vol. 55 (2010) 254.

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12. *Incomplete fusion dynamics in $^{16}\text{O} + ^{124}\text{Sn}$ collisions.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, P. P. Singh, M. K. Sharma, B. P. Singh, R. K. Sinha, Rakesh Kumar, S. Muralithar, R. P. Singh and R. K. Bhowmik
DAE-BRNS International Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 54 (2009) 326.
 13. *Excitation function measurement of $^{16}\text{O} + ^{175}\text{Lu}$ system below 6 MeV/ nucleon.*
Naseef M. P. N, H. Kumar, **R. Ali**, M. Afzal Ansari, D. Singh, K. S. Golda, S. Muralithar, Rakesh Kumar, J. J. Das, R. P. Singh and R.K. Bhowmik
DAE-BRNS International Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 54 (2009) 330.
 14. *Linear momentum transfer in complete and incomplete fusion of ^{16}O with ^{175}Lu :
Forward recoil range distribution measurements.*
H. Kumar, Naseef M. P. N, **R. Ali**, M. Afzal Ansari, D. Singh, K. S. Golda, S. Muralithar, Rakesh Kumar, J. J. Das, R. P. Singh and R. K. Bhowmik
DAE-BRNS International Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 54 (2009) 332.
 15. *Measurement and Analysis of Excitation Functions in $^{20}\text{Ne} + ^{27}\text{Al}$ System.*
Dipti Pachouri, D. Singh, **R. Ali**, M. Afzal Ansari and M.H. Rashid;
DAE-BRNS Symposium on Nuclear Physics, IIT, Roorkee, India
Vol. 53 (2008) 435.
 16. *Spin distribution studies for incomplete fusion reactions in $^{16}\text{O} + ^{124}\text{Sn}$ collisions.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, P. P. Singh, M. K. Sharma, Unnati, B. P. Singh, R. K. Sinha, Rakesh Kumar S. Muralithar, R. P. Singh and R. K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, Sambalpur University, Burla, India
Vol. 52 (2007) 321.
 17. *Influence of the mass asymmetry on the incomplete fusion.*
D. Singh, **R. Ali**, Dipti Pachouri, M. Afzal Ansari and M. H. Rashid
DAE-BRNS Symposium on Nuclear Physics, Sambalpur University, Burla, India.
Vol. 52 (2007) 391.
 18. *Study of complete and incomplete fusion in $^{20}\text{Ne} + ^{165}\text{Ho}$ system by measurement of recoil range distributions of evaporation residues.*
D. Singh, **R. Ali**, M. Afzal Ansari and M. H. Rashid
DAE-BRNS Symposium on Nuclear Physics, Sambalpur University, Burla, India.
Vol. 52 (2007) 323.

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19. *Spin distribution and feeding intensity Measurement: Disentangling of fusion and incomplete fusion dynamics at $E/A \approx 4-7$ MeV.*
Pushpendra P. Singh, B. P. Singh, Unnati, M. K. Sharma, Devendra P. Singh, R. Kumar, D. Singh, **R. Ali**, P. D. Shidling, D. Negi, R. P. Singh, S. Muralithar, H. D. Bhardwaj, M. Afzal Ansari, R. Prasad and R. K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, Sambalpur University, Burla, india
Vol. 52 (2007) 327.
20. *Complete and Incomplete Fusion Reactions: Measurement and Analysis of Excitation Functions in $^{20}\text{Ne} + ^{165}\text{Ho}$ System.*
D. Singh, **R. Ali**, M. Afzal Ansari and M. H. Rashid
DAE-BRNS Symposium on Nuclear Physics, M S, University ,Vadodara, India
Vol. 51 (2006) 357.
21. *Study of Incomplete Fusion Reaction of ^{16}O -ion Beam with ^{124}Sn using Particle-Gamma Coincidence Technique.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, P. P. Singh, M. K. Sharma, Unnati, B. P. Singh, R. K. Sinha, Rakesh Kumar, S. Muralithar, R. P. Singh and R. K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, M. S. University, Baroda, India.
Vol. 51 (2006) 439.
22. *Search of fission products in ^{20}Ne -ion beam interaction with ^{165}Ho at 8 MeV/nucleon.*
D. Singh, **R. Ali**, M. Afzal Ansari and M. H. Rashid
DAE-BRNS Symposium on Nuclear Physics, M.S. University Baroda, India.
Vol. 51 (2006) 445.
23. *Recoil Range Distribution of Evaporation Residues in $^{20}\text{Ne} + ^{165}\text{Ho}$ System.*
D. Singh, **R. Ali**, M. Afzal Ansari and M. H. Rashid
DAE-BRNS Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 50 (2005) 328.
24. *Particle-Gamma Coincidence Measurements for the Study of Complete and Incomplete Fusion Reactions.*
D. Singh, **R. Ali**, M. Afzal Ansari, N. P. M. Sathik, Ajay K. Tyagi, K. S. Golda, Pankaj Kumar, P. Sugathan, S. Muralithar, and R. K. Bhowmik
DAE-BRNS Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 50 (2005) 338.

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25. *Study of Complete and Incomplete Fusion in $^{20}\text{Ne} + ^{59}\text{Co}$ System.*
D. Singh, **R. Ali**, M. H. Rashid and M. Afzal Ansari
DAE-BRNS Symposium on Nuclear Physics, BHU, Varanasi, India
Vol. 47B (2004) 248.
26. *Reaction Mechanism Study in ^{20}Ne -induced Reactions with ^{124}Sn by Excitation Function Measurement.*
D. Singh, **R. Ali**, M. H. Rashid and M. Afzal Ansari
DAE-BRNS Symposium on Nuclear Physics, BHU, Varanasi, India
Vol. 47B (2004) 278.
27. *Study of $^{16}\text{O} + ^{45}\text{Sc}$ System below 7 MeV/nucleon.*
D. Singh, G. N. Dar, **R. Ali**, N. P. M. Sathik, M. Ismail and M. Afzal Ansari
DAE-BRNS Symposium on Nuclear Physics, BARC, Mumbai, India
Vol. 46B (2003) 218.
28. *Forward recoil range distribution (FRRDs) measurement in $^{16}\text{O} + ^{156}\text{Gd}$ system at $\sim 72, 82$ and 93 MeV energies.*
Rahbar Ali, D. Singh, Harish Kumar, M. Afzal Ansari, K. S. Golda, S. Muralithar, D. Negi, Rakesh Kumar, P. Sugathan, R. P. Singh and R. K. Bhowmik
Submitted in DAE-BRNS Symposium on Nuclear Physics, Andhra University, Visakhapatnam, India. (2011)

C. Papers in Technical Reports:

1. *Spin Distribution Studies of evaporation studies produced through complete and incomplete fusion in the collision of $^{16}\text{O} + ^{160}\text{Gd}$ @ 90 MeV.*
R. Ali, D. Singh, Dipti Pachouri, M. Afzal Ansari, M.K.Sharma, Unnati, P.P. Singh, D. P. Singh, P.D. Shidling, B.P. Singh, Rakesh Kumar, R. P. Singh, S. Murlithar, M. A. Ansari, H.D. Bhardwaj, R. Prasad and R. K. Bhowmik
IUAC Annual Report (2007-2008) 127.
2. *Incomplete fusion dynamics in $^{16}\text{O} + ^{124}\text{Sn}$ system by spin distribution measurement.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, Pushpendra P. Singh, Manoj K Sharma, B. P. Singh, R. K. Sinha, Rakesh Kumar S. Muralithar, R. P. Singh and R. K. Bhowmik
IUAC Annual Report (2009-2010) 128.

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3. *Observation of pre-equilibrium particle emission by measurement of yield ratio.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, Pushpendra P. Singh, Manoj K Sharma, B. P. Singh, R. K. Sinha, Rakesh Kumar S. Muralithar, R. P. Singh and R. K. Bhowmik
IUAC Annual Report (2009-2010) 131.
 4. *Study of complete and incomplete fusion dynamics in $^{16}\text{O} + ^{124}\text{Sn}$ system at 6.3 MeV/nucleon energy by measurement of spin distributions.*
D. Singh, **R. Ali**, M. Afzal Ansari, K. Surendra Babu, P. P. Singh, M. K. Sharma, Unnati, B. P. Singh, R. K. Sinha, Rakesh Kumar S. Muralithar, R. P. Singh and R. K. Bhowmik
IUAC Annual Report (2007-2008) 121.
 5. *Disentangling of complete and incomplete fusion: Spin distribution measurement at 4-7 MeV/nucleon.*
P.P. Singh, B.P. Singh, Unnati, M.K.Sharma, D. P. Singh, R. Kumar, P.D. Shidling, D. Singh, Abhishek Yadav, **R. Ali**, R. P. Singh, S. Murlithar, M. Afzal Ansari, H. D. Bhardwaj, R. Prasad and R.K Bhowmik
IUAC Annual Report (2007-2008) 124.
 6. *Spin distribution studies at $E/A \approx 4-7$ MeV: a sensitive probe for incomplete fusion dynamics.*
P.P. Singh, B.P. Singh, Unnati, M.K.Sharma, D. P. Singh, R. Kumar, P.D. Shidling, D. Singh, J.K. Rana, P. S. Rao, **R. Ali**, R. P. Singh, S. Murlithar, M. Afzal Ansari, H. D. Bhardwaj, R. Prasad and R.K Bhowmik
IUAC Annual Report (2006-2007) 135.