

## *Publications in Physical Review Letters*

1. On the use of energy dependent barrier of heavy-ion fusion, A.K. Mohanty, S.V.S.Sastry, S.K.Kataria & V.S.Ramamurthy, *Phys. Rev. Lett.* **65**, 1096 (1990).
2. Entrance channel dependence of fission fragment anisotropies : A direct experimental signature of fission before equilibration, V.S. Ramamurthy, S.S.Kapoor, R.K. Choudhury, A. Saxena, D.M. Nadkarni, A.K. Mohanty, B.K. Nayak, S.V.S. Sastry, S. Kailas, A. Chatterjee, P. Singh and A. Navin, *Phys. Rev. Lett.* **65**, 25 (1990).
3. Consistency of angular momentum and cross section in near barrier fusion of  $^{28}\text{Si}+^{68}\text{Zn}$ ,  $^{32}\text{S}+^{64}\text{Ni}$  and  $^{37}\text{Cl}+^{59}\text{Co}$ , M. Dasgupta, A. Navin, Y.K. Agarwal, C.V.K.Baba, H.C.Jain, M.L.Jhingan and A.Roy, *Phys. Rev. Lett.* **66**, 1414 (1991).
4. Spin fluctuation and local magnetism of isolated Rh ions in paramagnetic dilute Pd(Fe) alloys, Sanghamitra Khatua, S.N. Mishra, S.H. Devare and H.G. Devare, *Phys. Rev. Lett.*, **68**, 1038 (1992).
5. Local magnetism of Dilute Ce impurities in U metal: Role of Ce-4f, Host-f Electron Interaction on 4f spin fluctuations, V. V. Krishnamurthy, S. N. Mishra, M. R. Press, and S. H. Devare, *Phys. Rev. Lett.* **74**, 1661-1664 (1995)
6. Anomalous peak-like structures in the fission fragment anisotropies at sub-barrier energies in  $^{11}\text{B}$ ,  $^{12}\text{C}$ ,  $^{16}\text{O}$ ,  $^{19}\text{F}+^{232}\text{Th}$  reactions, N. Majumdar, P. Bhattacharya, D.C. Biswas, R.K. Choudhury, D.M. Nadkarni and A. Saxena, *Phys. Rev. Lett.* **77**, 5027 (1996).
7. Shell Effects in Fission Fragment Anisotropies for  $^{12}\text{C} + ^{194, 198}\text{Pt}$ , Systems, A. Shrivastava, S.Kailas, A.Chatterjee, A.M.Samant, A.Navin, P.Singh, B.S.Tomar, *Phys. Rev. Lett.* **82**, 699 (1999).
8. Local magnetism of isolated Mo atoms at substitutional and interstitial sites in Yb metal: Experiment and Theory, A A Tulapurkar, S N Mishra, R G Pillay, H Salunke and G P Das, *Phys. Rev. Lett.* **85**, 1978 (2000).
9. Angular Momentum and Cross Sections for Fusion with Weakly Bound Nuclei: Breakup, a Coherent Effect, Vandana Tripathi, A. Navin, K. Mahata, K. Ramachandran, A. Chatterjee, and S. Kailas , *Phys. Rev. Lett.* **88**, 172701 (2002).
10. The effect of collective response on electron capture and excitation in collisions of highly charged ions with fullerenes, U. Kadhane, D. Misra , Y.P. Singh, L.C. Tribedi, *Phys. Rev. Lett.* **90**, 093401 (2003).
11. Interference effect in electron emission in heavy ion collisions with H<sub>2</sub>, by comparing the measured electron spectrum from atomic hydrogen, D. Misra , U. Kadhane, Y.P. Singh, L.C. Tribedi, P. Richard, P. Fainstein, *Phys. Rev. Lett.* **92**, 153201 (2004).
12. Direct observation of 4+ to 2+ gamma transition in  $^8\text{Be}$ , V.M. Datar, Suresh Kumar, D.R. Chakrabarty, V. Nanal, E.T. Mirgule, A. Mitra, H.H. Oza, *Phys. Rev. Lett.* **94**, 122502 (2005).
13. Exploring Fusion at Extreme Sub-Barrier Energies with Weakly Bound Nuclei, A. Shrivastava, A. Navin, A. Lemasson, K. Ramachandran, V. Nanal, M. Rejmund, K. Hagino, T. Ichikawa, S. Bhattacharyya, A. Chatterjee, S. Kailas, K. Mahata, V. V. Parkar, R. G. Pillay, and P. C. Rout, *Phys. Rev. Lett.* **103**, 232702 (2009)

14. Lattice Size Induced Moment Formation on Isolated Fe Atoms in Nanocrystalline Nb , S. N. Mishra, S. K. Mohanta, S. M. Davane, N. Kulkarni, and Pushan Ayyub, Phys. Rev. Lett. **105**, 147203 (2010)
15. Heavy Cluster Knockout Reaction  $^{16}\text{O}(^{12}\text{C},2^{12}\text{C})^4\text{He}$  and the Nature of the  $^{12}\text{C}$ - $^{12}\text{C}$  Interaction Potential, B. N. Joshi, Arun K. Jain, Y. K. Gupta, D. C. Biswas, A. Saxena, B. V. John, L. S. Danu, R. P. Vind, and R. K. Choudhury, Phys. Rev. Lett. **106**, 022501 (2011)