

## CV- Dr. B.R. Behera



- a. Name of the Faculty Member : Dr. Bivash Ranjan Behera.
- b. Designation : Professor of Physics
- c. Date of Joining Panjab University: 14 – 12 – 2004.
- d. Contact details including e-mail, phone. E-Mail: [bivash@pu.ac.in](mailto:bivash@pu.ac.in), Phone:  
0172-2534461.
- e. Area of Specialization : Accelerator based experimental Nuclear Physics,  
Detectors development for Nuclear Physics, application of particle accelerators.
- f. Award/ Honours/ Fellowship etc. : 1. INFN- Fellowship for Postdoctoral  
Research, 2. DAE Young Scientist Research Award (DAEYSRA), 3. Certificate  
of appreciation from Inter-university accelerator centre (IUAC) for the excellent  
research work in the field of Nuclear Physics using the ion beam and associated  
facilities of the Centre 4. Selected for the Special Invited Seminar at IUAC.
- g. Number of Ph.D. guided: 03 ; Number of Ph.D. Scholars currently working: 06  
  
Number of M.Phil guided: 02; Number of M.Sc. dissertation supervised : 12

h. Number of Research Projects Completed: 04 ; Number of Current Research Project: 03

i. Number of Major Conferences organized -03: Besides this I have been involved with the organizing committee of the several national and departmental conferences/workshop and meetings.

j. Highlight of Research work : My research group is engaged in the experimental nuclear physics using the National and International accelerator facilities. We do experiments in Fusion-fission, Quasi-elastic barrier distribution, Heavy-ion induced fusion, Light charged particle spectra from the compound nucleus using various multi-detector array and recoil mass separators. We are also engaged in detector fabrications for low energy nuclear physics experiments. My detail list of publications can be found below.

#### **k. Detail List of Publications in Refereed Journals**

**01.** Pramana 85, 323 (2015)

B.R. Behera

An overview of the recent results on fission dynamics from the NAND facility

**02.** Phys.Rev. C 92, 041601 (2015)

A.Chaudhuri, T.K.Ghosh, K.Banerjee, S.Bhattacharya, J.Sadhukhan, S.Kundu, C. Bhattacharya, J.K.Meena, G.Mukherjee, A.K.Saha, Md.A.Asgar, A.Dey, S.Manna, R.Pandey, T.K.Rana, P.Roy, T.Roy, V.Srivastava, P.Bhattacharya, D.C.Biswas, B. N.Joshi, K.Mahata, A.Shrivastava, R.P.Vind, S.Pal, B.R.Behera, V.Singh

No influence of a N=126 neutron-shell closure in fission-fragment mass distributions

**03.** Phys.Rev. C 92, 044609 (2015)

G.Kaur, B.R.Behera, A.Jhingan, P.Sugathan, K.Hagino

Influence of vibrational excitation on surface diffuseness of the internuclear potential: Study through heavy-ion quasielastic scattering at deep sub-barrier energies

**04.** Phys.Rev. C 92, 044308 (2015)

R.Chapman, A.Hodsdon, M.Bouhelal, F.Haas, X.Liang, F.Azaiez, Z.M.Wang, B.R. Behera, M.Burns, E.Caurier, L.Corradi, D.Curien, A.N.Deacon, Zs.Dombradi, E.F arnea, E.Fioretto, A.Gadea, F.Ibrahim, A.Jungclaus, K.Keyes, V.Kumar, S.Lunardi , N.Marginean, G.Montagnoli, D.R.Napoli, F.Nowacki, J.Ollier, D.O'Donnell, A.Papenberg, G.Pollarolo, M.D.Salsac, F.Scarlassara, J.F.Smith, K.M.Spohr, M.Stanoiu , A.M.Stefanini, S.Szilner, M.Trotta, D.Verney

Spectroscopy of neutron-rich  $^{34, 35, 36, 37, 38}\text{P}$  populated in binary grazing reactions

**05.** Phys.Rev. C 92, 034614 (2015)

H.S.Hans, A.Kumar, S.Verma, G.Singh, B.R.Behera, K.P.Singh, S.Ghosh

Particle-hole configurations in reaction mechanisms for single-particle level densities for target nuclei in (n, p) reactions at 14.8 MeV energy

**06.** Phys.Rev. C 91, 044621 (2015)

R.Sandal, B.R.Behera, V.Singh, M.Kaur, A.Kumar, G.Kaur, P.Sharma, N.Madhaban, S.Nath, J.Gehlot, A.Jhingan, K.S.Golda, H.Singh, S.Mandal, S.Verma, E.Prasad , K.M.Varier, A.M.Vinodkumar, A.Saxena, J.Sadhukhan, S.Pal

Probing nuclear dissipation via evaporation residue excitation functions for the  $^{16, 18}\text{O} + ^{198}\text{Pt}$  reactions

**07.** Eur.Phys.J. A 51, 54 (2015)

K.P.Singh, M.Oswal, B.R.Behera, A.Kumar, G.Singh

Study of lifetimes of low-lying levels in  $^{53}\text{Mn}$

**08.** EPJ Web of Conferences, 86, 00003, 2015

B.R. Behera

Recent results of measurements of evaporation residue excitation functions for  $^{19}\text{F} + ^{194,196,198}\text{Pt}$  and  $^{16,18}\text{O} + ^{198}\text{Pt}$  systems with HYRA spectrometer at IUAC

**09.** Phys.Rev. C 89, 034621 (2014)

M.Kaur, B.R.Behera, G.Singh, V.Singh, R.Sandal, A.Kumar, H.Singh, G.Singh, K.P.Singh, N.Madhavan, S.Nath, A.Jhingan, J.Gehlot, K.S.Golda, P.Sugathan, D.Siw al, S.Kalkal, E.Prasad, S.Appannababu

Anomalous deviations from statistical evaporation spectra for the decay of the  $^{73}\text{Br}$  and  $^{77}\text{Rb}$  compound systems

**10.** Eur.Phys.J. A 50, 5 (2014)

N.Kaur, A.Kumar, G.Mukherjee, A.Singh, S.Kumar, R.Kaur, V.Singh, B.R.Behera , K.P.Singh, G.Singh, H.P.Sharma, S.Kumar, M.K.Raju, P.V.M.Rao, S.Muralithar

R.P.Singh, R.Kumar, N.Madhvan, R.K.Bhowmik

High spin structure in  $^{130,131}\text{Ba}$

**11.** Phys.Rev. C 89, 024609 (2014)

V.Singh, B.R.Behera, M.Kaur, A.Kumar, K.P.Singh, N.Madhavan, S.Nath, J.Gehlot, G.Mohanto, A.Jhingan, IshMukul, T.Varughese, J.Sadhukhan, S.Pal, S.Goyal, A.Saxena, S.Santra, S.Kailas

Measurement of evaporation residue excitation functions for the  $^{19}\text{F} + ^{194,196,198}\text{Pt}$  reactions

**12.** Nucl.Phys. A913, 157 (2013)

K.S.Golda, A.Saxena, V.K.Mittal, K.Mahata, P.Sugathan, A.Jhingan, V.Singh, R.Sandal, S.Goyal, J.Gehlot, A.Dhal, B.R.Behera, R.K.Bhowmik, S.Kailas

Determination of shell correction energies at saddle point using pre-scission neutron multiplicities

**13.** Phys.Rev. C 87, 014604 (2013); Erratum Phys.Rev. C 87, 069901 (2013)

R.Sandal, B.R.Behera, V.Singh, M.Kaur, A.Kumar, G.Singh, K.P.Singh, P.Sugathan, A.Jhingan, K.S.Golda, M.B.Chatterjee, R.K.Bhowmik, S.Kalkal, D.Siwal, S.Goyal, S.Mandal, E.Prasad, K.Mahata, A.Saxena, J.Sadhukhan, S.Pal

Effect of N/Z in pre-scission neutron multiplicity for  $^{16,18}\text{O} + ^{194,198}\text{Pt}$  systems

**14.** Phys.Rev. C 87, 064601 (2013)

V.Singh, B.R.Behera, M.Kaur, A.Kumar, P.Sugathan, K.S.Golda, A.Jhingan, M.B.Chatterjee, R.K.Bhowmik, D.Siwal, S.Goyal, J.Sadhukhan, S.Pal, A.Saxena, S.Santara, S.Kailas

Neutron multiplicity measurements for  $^{19}\text{F} + ^{194,196,198}\text{Pt}$  systems to investigate the effect of shell closure on nuclear dissipation

**15.** Phys.Rev. C 85, 054614 (2012)

H.S.Hans, G.Singh, A.Kumar, K.P.Singh, B.R.Behera, S.Ghosh

Theoretical interpretation of the systematics of effective single-particle level densities from (n, p) reactions at 14.8 MeV energy

**16.** Phys.Rev. C 86, 014609 (2012)

V.Singh, B.R.Behera, M.Kaur, P.Sugathan, K.S.Golda, A.Jhingan, J.Sadhukhan, D.Siwal, S.Goyal, S.Santra, A.Kumar, R.K.Bhowmik, M.B.Chatterjee, A.Saxena, S.Pal, S.Kailas

Search for an effect of shell closure on nuclear dissipation via a neutron-multiplicity measurement

**17.** Phys.Rev. C 83, 054607 (2011)

S.Kalkal, S.Mandal, N.Madhavan, A.Jhingan, E.Prasad, R.Sandal, S.Nath, J.Gehlot, R.Garg, G.Mohanto, M.Saxena, S.Goyal, S.Verma, B.R.Behera, S.Kumar, U.D.Pramanik, A.K.Sinha, R.Singh

Multinucleon transfer reactions for the  $^{28}\text{Si}+^{90,94}\text{Zr}$  systems in the region below and near the Coulomb barrier

**18.** Proc.5th International Conference of Fusion11: Saint-Malo, France, May 2-6, 2011, Ch.Schmitt, et al. Eds. p.16014 (2011);EPJ Web Conf.v.17 (2011)

V.Singh, B.R.Behera, M.Kaur, D.Siwal, S.Goyal, P.Sugathan, K.S.Golda, A.Jhingan, A.Kumar, A.Saxena, R.K.Bhowmik, S.Kailas

Study of the effect of shell closure on the nuclear dissipation

**19.** Phys.Rev. C 83, 061304 (2011)

Z.M.Wang, R.Chapman, F.Haas, X.Liang, F.Azaiez, B.R.Behera, M.Burns, L.Corradi, D.Curien, A.N.Deacon, Zs.Dombradi, E.Farnea, E.Fioretto, A.Gadea, A.Hodsdon, F.Ibrahim, A.Jungclaus, K.Keyes, V.Kumar, A.Latina, N.Marginean, G.Montagnoli, D.R.Napoli, J.Ollier, D.O'Donnell, A.Papenberg, G.Pollarolo, M.-D.Salsac, F.Scarlassara, J.F.Smith, K.M.Spohr, M.Stanoiu, A.M.Stefanini, S.Szilner, M.Trotta, D.Verney

Collectivity in  $^{41}\text{S}$

**20.** Phys.Rev. C 81, 044610 (2010)

S.Kalkal, S.Mandal, N.Madhavan, E.Prasad, S.Verma, A.Jhingan, R.Sandal, S.Nath, J.Gehlot, B.R.Behera, M.Saxena, S.Goyal, D.Siwal, R.Garg, U.D.Pramanik, S.Kumar, T.Varughese, K.S.Golda, S.Muralithar, A.K.Sinha, R.Singh

Channel coupling effects on the fusion excitation functions for  $^{28}\text{Si}+^{90,94}\text{Zr}$  in sub- and near-barrier regions

**21.** Phys.Rev. C 81, 024318 (2010)

D.O'Donnell, R.Chapman, X.Liang, F.Azaiez, F.Haas, S.Beghini, B.R.Behera, M.Burns, E.Caurier, L.Corradi, D.Curien, A.N.Deacon, Z.S.Dombradi, E.Farnea, E.Fioretto, A.Gadea, A.Hodsdon, F.Ibrahim, A.Jungclaus, K.Keyes, A.Latina, N.Margi

nean, G.Montagnoli, D.R.Napoli, F.Nowacki, J.Ollier, A.Papenberg, G.Pollarolo, M.D.Salsac, F.Scarlassara, J.F.Smith, K.M.Spohr, M.Stanoiu, A.M.Stefanini, S.Szilner, M.Trotta, J.J.Valiente-Dobon, D.Verney, Z.M.Wang

$\gamma$ -ray spectroscopy of  $_{17}^{38}\text{Cl}$  using grazing reactions

**22.** Nucl.Phys. A834, 208c (2010)

E.Prasad, K.M.Varier, B.R.S.Babu, N.Madhavan, K.S.Golda, S.Nath, B.P.A.Kumar, J.J.Das, J.Gehlot, P.Sugathan, A.Jhingan, A.K.Sinha, B.R.Behera, R.Sandal, H.Singh, R.Singh, R.G.Thomas, S.Kailas

Study of fission fragment mass distribution for  $^{16}\text{O} + ^{194}\text{Pt}$  reaction.

**23.** Phys.Rev. C 81, 054305 (2010)

Z.M.Wang, R.Chapman, X.Liang, F.Haas, F.Azaiez, B.R.Behera, M.Burns, E.Caurier, L.Corradi, D.Curien, A.N.Deacon, Zs.Dombradi, E.Farnea, E.Fioretto, A.Gadea, A.Hodsdon, F.Ibrahim, A.Jungclaus, K.Keyes, V.Kumar, A.Latina, S.Lunardi, N.Marginean, G.Montagnoli, D.R.Napoli, F.Nowacki, J.Ollier, D.O'Donnell, A.Papenberg, G.Pollarolo, M.D.Salsac, F.Scarlassara, J.F.Smith, K.M.Spohr, M.Stanoiu, A.M.Stefanini, S.Szilner, M.Trotta, D.Verney

$\gamma$ -ray spectroscopy of neutron-rich  $^{40}\text{S}$

**24.** Phys.Rev. C 81, 064301 (2010)

Z.M.Wang, R.Chapman, X.Liang, F.Haas, M.Bouhelal, F.Azaiez, B.R.Behera, M.Burns, E.Caurier, L.Corradi, D.Curien, A.N.Deacon, Zs.Dombradi, E.Farnea, E.Fioretto, A.Gadea, A.Hodsdon, F.Ibrahim, A.Jungclaus, K.Keyes, V.Kumar, A.Latina, N.Marginean, G.Montagnoli, D.R.Napoli, F.Nowacki, J.Ollier, D.O'Donnell, A.Papenberg, G.Pollarolo, M.D.Salsac, F.Scarlassara, J.F.Smith, K.M.Spohr, M.Stanoiu, A.M.Stefanini, S.Szilner, M.Trotta, D.Verney

Intruder negative-parity states of neutron-rich  $^{33}\text{Si}$

**25.** Int.J.Mod.Phys. E18, 1917 (2009)

S.Adhikari, C.Basu, B.R.Behera, S.Ray, A.K.Mitra, M.S.Kumar, A.Chatterjee

The study of  $\alpha + {}^{14}\text{C}$  cluster states of  ${}^{18}\text{O}$  through the resonant breakup reaction  ${}^{12}\text{C}({}^{18}\text{O}, {}^{14}\text{C}\alpha)$  at  $E({}^{18}\text{O}) = 94.5$  MeV

**26.** Phys.Rev. C 80, 064615 (2009)

H.Singh, B.R.Behera, G.Singh, I.M.Govil, K.S.Golda, A.Jhingan, R.P.Singh, P.Sugathan, M.B.Chatterjee, S.K.Datta, S.Pal, Ranjeet, S.Mandal, P.D.Shidling, G.Viesti

Measurement of neutron multiplicity from fission of  ${}^{228}\text{U}$  and nuclear dissipation

**27.** Proc.4th.Intern.Conf.Fission and Properties of Neutron-Rich Nuclei, Sanibel Island, Florida (2007); J.H.Hamilton, A.V.Ramayya, H.K.Carter, Eds., p.273 (2008)

M.G.Itkis, S.Beghini, B.R.Behera, A.A.Bogatchev, L.Corradi, O.Dorvaux, E.Fioretto, A.Gadea, F.Hanappe, I.M.Itkis, J.Kliman, G.N.Knyazheva, N.A.Kondratiev, E.M.Kozulin, L.Krupa, A.Latina, G.Montagnoli, Yu.Ts.Oganessian, I.V.Pokrovsky, E.V.Prokhorova, N.Rowley, V.A.Rubchenya, A.Ya.Rusanov, R.N.Sagaidak, F.Scarlassara, A.M.Stefanini, L.Stuttge, S.Szilner, M.Trotta, W.H.Trzaska

The Reaction Mechanism in Heavy-Ion Collisions Leading to the Superheavy Compound Systems

**28.** Nucl.Phys. A801, 1 (2008)

M.D.Salsac, F.Haas, S.Courtin, A.Algora, C.Beck, S.Beghini, B.R.Behera, R.Chapman, L.Corradi, Z.Dombradi, E.Farnea, E.Fioretto, A.Gadea, D.G.Jenkins, A.Latina, D.Lebhertz, S.Lenzi, X.Liang, N.Marginean, G.Montagnoli, D.Napoli, P.Papka, I.Pokrovski, G.Pollarolo, M.Rousseau, E.Sahin, A.Sanchez i Zafra, F.Scarlassara, D.Sohler, A.M.Stefanini, S.Szilner, M.Trotta, C.Ur, F.Della Vedova, Z.M.Wang, K.T.Wiedemann

Decay of a narrow and high spin  ${}^{24}\text{Mg} + {}^{24}\text{Mg}$  resonance

**29.** Phys.Lett. B 670, 99 (2008)

P.D.Shidling, N.Madhavan, V.S.Ramamurthy, S.Nath, N.M.Badiger, S.Pal, A.K.Sinha, A.Jhingan, S.Muralithar, P.Sugathan, S.Kailas, B.R.Behera, R.Singh, K.M.Varier, M.C.Radhakrishna



Experimental signature of entrance channel effect in heavy mass region via evaporation residue cross section and spin distribution measurements

**30.** Phys.Rev. C 78, 024609 (2008)

H.Singh, K.S.Golda, S.Pal, Ranjeet, R.Sandal, B.R.Behera, G.Singh, A.Jhingan, R. P.Singh, P.Sugathan, M.B.Chatterjee, S.K.Datta, A.Kumar, G.Viesti, I.M.Govil

Role of nuclear dissipation and entrance channel mass asymmetry in pre-scission neutron multiplicity enhancement in fusion-fission reactions

**31.** Phys.Rev. C 76, 034609 (2007)

C.Basu, S.Adhikari, S.K.Ghosh, S.Roy, S.Ray, B.R.Behera, S.K.Datta

Reaction mechanisms in  $^{16}\text{O}+^{40}\text{Ca}$  at an incident energy of  $E(^{16}\text{O})=86$  MeV through inclusive measurements of  $\alpha$  and proton spectra

**32.** Phys.Rev. C 75, 064602 (2007)

G.N.Knyazheva, E.M.Kozulin, R.N.Sagaidak, A.Yu.Chizhov, M.G.Itkis, N.A.Kondratiev, V.M.Voskressensky, A.M.Stefanini, B.R.Behera, L.Corradi, E.Fioretto, A. Gadea, A.Latina, S.Szilner, M.Trotta, S.Beghini, G.Montagnoli, F.Scarlassara, F.Haas, N.Rowley, P.R.S.Gomes, A.Szanto de Toledo

Quasifission processes in  $^{40,48}\text{Ca}+^{144,154}\text{Sm}$  reactions

**33.** Proc.Intern.Symposium on Exotic Nuclei, Khanty-Mansiysk, Russia, 17-22 July, 2006, Yu.E.Penionzhkevich, E.A.Cherepanov, Eds. p.185 (2007); AIP Conf.Proc. 912 (2007)

G.N.Knyazheva, E.M.Kozulin, R.N.Sagaidak, M.G.Itkis, N.A.Kondratiev, A.M.Stefanini, B.R.Behera, L.Corradi, E.Fioretto, A.Gadea, A.Latina, S.Szilner, M.Trotta, S.Beghini, G.Montagnoli, F.Scarlassara, F.Haas, N.Rowley, P.R.S.Gomes, A.Szanto de Toledo

$^{40,48}\text{Ca}+^{144,154}\text{Sm}$ : Deformation and Shell

**34.** Phys.Rev. C 76, 044610 (2007); Erratum Phys.Rev. C 80, 019909 (2009)

H.Singh, A.Kumar, B.R.Behera, I.M.Govil, K.S.Golda, P.Kumar, A.Jhingan, R.P.Singh, P.Sugathan, M.B.Chatterjee, S.K.Datta, Ranjeet, S.Pal, G.Viesti

Entrance channel effects in fission of  $^{197}\text{Tl}$

**35.** Phys.Rev. C 76, 014610 (2007)

A.M.Stefanini, B.R.Behera, S.Beghini, L.Corradi, E.Fioretto, A.Gadea, G.Montagnoli, N.Rowley, F.Scarlassara, S.Szilner, M.Trotta

Sub-barrier fusion of  $^{40}\text{Ca}+^{94}\text{Zr}$ : Interplay of phonon and transfer couplings

**36.** Phys.Rev. C 76, 024604 (2007)

S.Szilner, C.A.Ur, L.Corradi, N.Marginean, G.Pollarolo, A.M.Stefanini, S.Beghini, B.R.Behera, E.Fioretto, A.Gadea, B.Guiot, A.Latina, P.Mason, G.Montagnoli, F.Scarlassara, M.Trotta, G.de Angelis, F.Della Vedova, E.Farnea, F.Haas, S.Lenzi, S.Lunardi, R.Marginean, R.Menegazzo, D.R.Napoli, M.Nespolo, I.V.Pokrovsky, F.Recchia, M.Romoli, M.-D.Salsac, N.Soic, J.J.Valiente-Dobon

Multinucleon transfer reactions in closed-shell nuclei

**37.** Nucl.Phys. A787, 134c (2007)

M.Trotta, A.M.Stefanini, S.Beghini, B.R.Behera, L.Corradi, E.Fioretto, A.Gadea, M.G.Itkis, G.N.Knyazheva, N.A.Kondratiev, E.M.Kozulin, N.Marginean, P.Mason, G.Montagnoli, I.V.Pokrovsky, R.N.Sagaidak, F.Scarlassara, R.Silvestri, S.Szilner

An overview of near-barrier fusion studies with stable beams

**38.** Proc.VI Latin American Symp, on Nuclear Physics and Applications, Iguazu, Argentina, 3-7 Oct. 2005, O.Civitarese, C.Dorso, G.Garcia Bermudez, A.J.Kreiner, A.J.Pacheco, N.N.Scoccola, Eds. p.195 (2007); AIP Conf.Proc. 884 (2007)

M.Trotta, G.N.Knyazheva, A.M.Stefanini, S.Beghini, B.R.Behera, A.Yu.Chizhov, L.Corradi, S.Courtin, E.Fioretto, A.Gadea, P.R.S.Gomes, F.Haas, I.M.Itkis, M.G.Itkis, N.A.Kondratiev, E.M.Kozulin, A.Latina, G.Montagnoli, I.V.Pokrovsky, N.Rowley, R.N.Sagaidak, F.Scarlassara, A.Szanto de Toledo, S.Szilner, V.M.Voskressensky

Influence of entrance channel on fusion hindrance and quasi-fission

**39.** Proc.Frontiers in Nuclear Structure, Astrophysics, and Reactions, Isle of Kos, Greece, 12-17 Sept. 2005, S.V Harissopoulos, P.Demetriou, R.Julin, Eds., p. 85 (2006); AIP Conf.Proc. 831 (2006)

A.Gadea, N.Marginean, E.Farnea, S.M.Lenzi, G.de Angelis, D.R.Napoli, L.Corradi, A.M.Stefanini, E.Fioretto, S.Szilner, M.Axiotis, B.R.Behera, A.Latina, C.Rusu, W.Zhimin, J.Valiente-Dobon, I.Pokrovsky, D.Bazzacco, S.Beghini, C.Ur, S.Lunardi, G.Montagnoli, R.Menegazzo, F.Scarlassara, F.Della Vedova, A.Bracco, F.Camera, S.Leoni, B.Million, M.Pignanelli, G.Pollarolo, M.Trotta, P.G.Bizzeti, A.M.Bizzeti-Sona, G.Duchene, D.Curien, R.Chapman, X.Liang, F.Azaiez, M.Stanoiu, S.J.Freeman, B.J.Varley, V.Pucknell

Spectroscopy of Moderately Neutron-rich Nuclei with the CLARA-PRISMA Setup

**40.** Proc.Fusion06: Reaction Mechanisms and Nuclear Structure at the Coulomb Barrier, San Servolo, Venice, Italy, 19-23 March 2006, L.Corradi, et al. Eds. p. 231 (2006); AIP Conf.Proc. 853 (2006)

M.G.Itkis, S.Beghini, B.R.Behera, A.A.Bogachev, V.Bouchat, L.Corradi, O.Dorvaux, E.Fioretto, F.Hanappe, I.M.Itkis, M.Jandel, J.Kliman, G.N.Knyazheva, N.A.Kondratiev, E.M.Kozulin, L.Krupa, A.Latina, T.Materna, G.Montagnoli, Yu.Ts.Oganessian, I.V.Pokrovsky, E.V.Prokhorova, N.Rowley, A.Ya.Rusanov, R.N.Sagaidak, F.Scarlassara, C.Schmitt, A.M.Stefanini, L.Stuttge, S.Szilner, M.Trotta

The Peculiarities of the Production and Decay of Superheavy Nuclei

**41.** Phys.Rev. C 74, 014311 (2006)

X.Liang, F.Azaiez, R.Chapman, F.Haas, D.Bazzacco, S.Beghini, B.R.Behera, L.Berti, M.Burns, E.Caurier, L.Corradi, D.Curien, A.Deacon, G.deAngelis, Zs.Dombradi, E.Farnea, E.Fioretto, A.Hodsdon, A.Gadea, F.Ibrahim, A.Jungclaus, K.Keyes, A.Latina, S.Lunardi, N.Marginean, R.Menegazzo, G.Montagnoli, D.R.Napoli, F.Nowacki, J.Ollier, A.Papenberg, G.Pollarolo, V.F.E.Pucknell, M.D.Salsac, F.Scarlassara, J.F.Smith, K.Spohr, M.Stanoiu, A.M.Stefanini, S.Szilner, N.Toniolo, M.Trotta, D.Verney, Z.Wang, J.Wrzesinski

Study of the neutron-rich nucleus  $^{36}\text{Si}$

**42.** Proc.Fusion06: Reaction Mechanisms and Nuclear Structure at the Coulomb Barrier, San Servolo, Venice, Italy, 19-23 March 2006, L.Corradi, et al. Eds. p. 37 (2006); AIP Conf.Proc. 853 (2006)

X.Liang, A.Hodsdon, F.Azaiez, R.Chapman, F.Haas, D.Bazzacco, S.Beghini, B.R. Behera, L.Berti, M.Burns, E.Caurier, L.Corradi, D.Curien, A.Deacon, G.de Angelis, Zs.Dombradi, E.Farnea, E.Fioretto, A.Gadea, F.Ibrahim, A.Jungclaus, K. Keyes, A.Latina, N.Marginean, R.Menegazzo, G.Montagnoli, D.R.Napoli, F.Nowacki, J.Ollier, A.Papenberg, G.Pollarolo, V.F.E.Pucknell, M.-D.Salsac, F.Scarlassara, J.F.Smith, K.Spohr, M.Stanoiu, A.M.Stefanini, S.Szilner, N.Toniolo, M.Trotta, D.Verney, Z.Wang, J.Wrzesinski

The Spectroscopy of Neutron-Rich sdf-Shell Nuclei Using the CLARA-PRISMA Setup

**43.** Phys.Lett. B 633, 696 (2006)

N.Marginean, S.M.Lenzi, A.Gadea, E.Farnea, S.J.Freeman, D.R.Napoli, D.Bazzacco, S.Beghini, B.R.Behera, P.G.Bizzeti, A.Bizzeti-Sona, D.Bucurescu, R.Chapman, L.Corradi, A.N.Deacon, G.de Angelis, F.Della Vedova, E.Fioretto, M.Ionescu-Bujor, A.Iordachescu, Th.Kroll, A.Latina, X.Liang, S.Lunardi, G.Montagnoli, R.Marginean, M.Nespolo, G.Pollarolo, C.Rusu, F.Scarlassara, J.F.Smith, K.Spohr, A.M.Stefanini, S.Szilner, M.Trotta, C.A.Ur, B.J.Varley, W.Zhimin

Shape transitions far from stability: The nucleus  $^{58}\text{Cr}$

**44.** Proc.Fusion06: Reaction Mechanisms and Nuclear Structure at the Coulomb Barrier, San Servolo, Venice, Italy, 19-23 March 2006, L.Corradi, et al. Eds. p. 165 (2006); AIP Conf.Proc. 853 (2006)

M.-D.Salsac, F.Haas, S.Courtin, C.Beck, M.Rousseau, A.Sanchez i Zafra, A.Algora, S.Beghini, B.R.Behera, R.Chapman, L.Corradi, Z.Dombradi, E.Farnea, E.Fioretto, A.Gadea, D.G.Jenkins, A.Latina, S.Lenzi, X.Liang, N.Marginean, G.Montagnoli, D.Napoli, P.Papka, I.Pokrovsky, G.Pollarolo, F.Scarlassara, A.M.Stefanini, S.Szilner, M.Trotta, Z.M.Wang

Nature and decay of a  $J^\pi = 36^+$  resonance in the  $^{24}\text{Mg} + ^{24}\text{Mg}$  reaction

**45.** Phys.Rev.C 74, 064603 (2006)

P.D.Shidling, N.M.Badiger, S.Nath, R.Kumar, A.Jhingan, R.P.Singh, P.Sugathan, S.Muralithar, N.Madhavan, A.K.Sinha, S.Pal, S.Kailas, S.Verma, K.Kalita, S.Mandal, R.Singh, B.R.Behera, K.M.Varier, M.C.Radhakrishna

Fission hindrance studies in  $^{200}\text{Pb}$ : Evaporation residue cross section and spin distribution measurements

**46.** Phys.Rev. C 73, 034606 (2006)

A.M.Stefanini, F.Scarlassara, S.Beghini, G.Montagnoli, R.Silvestri, M.Trotta, B.R.Behera, L.Corradi, E.Fioretto, A.Gadea, Y.W.Wu, S.Szilner, H.Q.Zhang, Z.H.Liu, M.Ruan, F.Yang, N.Rowley

Fusion of  $^{48}\text{Ca} + ^{90,96}\text{Zr}$  above and below the Coulomb barrier

**47.** Proc.Fusion06: Reaction Mechanisms and Nuclear Structure at the Coulomb Barrier, San Servolo, Venice, Italy, 19-23 March 2006, L.Corradi, et al. Eds. p. 43 (2006); AIP Conf.Proc. 853 (2006)

C.A.Ur, L.Corradi, A.M.Stefanini, S.Szilner, S.Beghini, B.R.Behera, E.Farnea, E.Fioretto, A.Gadea, F.Haas, A.Latina, N.Marginean, G.Montagnoli, F.Scarlassara, G.Pollarolo

Nuclear spectroscopy study of the isotopes populated via multinucleon transfer in the  $^{90}\text{Zr} + ^{208}\text{Pb}$  reaction

**48.** Eur.Phys.J. A 25, Supplement 1, 277 (2005)

C.Basu, S.Adhikari, P.Basu, B.R.Behera, S.Ray, S.K.Ghosh, S.K.Datta

Observation of pre-equilibrium alpha particles at extreme backward angles from  $^{28}\text{Si} + ^{\text{nat}}\text{Si}$  and  $^{28}\text{Si} + ^{27}\text{Al}$  reactions at  $E < 5$  MeV/A

**49.** Int.J.Mod.Phys. E14, 1063 (2005)

C.Basu, S.Adhikari, S.K.Ghosh, P.Basu, S.Ray, B.R.Behera, S.K.Datta

Study of statistical emissions in  $^{28}\text{Si} + \text{natSi}$  and  $^{28}\text{Si} + ^{27}\text{Al}$  reactions at 4-5 MeV/A incident energies

**50.** Phys.Rev. C 71, 014609 (2005)

L.Corradi, B.R.Behera, E.Fiochetto, A.Gadea, A.Latina, A.M.Stefanini, S.Szilner, M.Trotta, Y.Wu, S.Beghini, G.Montagnoli, F.Scarlassara, R.N.Sagaidak, S.N.Atutov, B.Mai, G.Stancari, L.Tomassetti, E.Mariotti, A.Khanbekyan, S.Veronesi

Excitation functions for  $^{208-211}\text{Fr}$  produced in the  $^{18}\text{O} + ^{197}\text{Au}$  fusion reaction

**51.** Eur.Phys.J. A 25, Supplement 1, 427 (2005)

L.Corradi, A.M.Stefanini, S.Szilner, S.Beghini, B.R.Behera, E.Farnea, A.Gadea, E.Fiochetto, F.Haas, A.Latina, N.Marginean, G.Montagnoli, G.Pollarolo, F.Scarlassara, M.Trotta, C.Ur, and the PRISMA-CLARA Collaboration

Multinucleon transfer reactions studied with the heavy-ion magnetic spectrometer PRISMA

**52.** J.Phys.(London) G31, S1443 (2005)

A.Gadea, N.Marginean, L.Corradi, S.M.Lenzi, C.A.Ur, E.Farnea, G.de Angelis, E.Fiochetto, D.R.Napoli, A.M.Stefanini, S.Szilner, M.Axiotis, B.R.Behera, A.Latina, C.Rusu, W.Zhimin, D.Bazzacco, S.Beghini, S.Lunardi, G.Montagnoli, R.Menegazzo, F.Scarlassara, F.DellaVedova, M.Nespolo, A.Bracco, F.Camera, S.Leoni, B.Million, M.Pignanelli, G.Pollarolo, M.Trotta, P.G.Bizzeti, A.M.BizzetiSona, D.Curien, P.Medina, M.Chambit, R.Chapman, X.Liang, S.J.Freeman, A.Smith, B.J.Varley, V.Pucknell, R.Lemmon

The CLARA-PRISMA setup installed at LNL: first results

**53.** Proc.Third Intern.Workshop on Nuclear Fission and Fission-Product Spectroscopy, Cadarache, France, 11-14 May 2005, H.Goutte, H.Faust, G.Fioni, D.Goutte, Eds., p. 305 (2005); AIP Conf.Proc. 798 (2005)

M.G.Itkis, S.Beghini, B.R.Behera, A.A.Bogatchev, V.Bouchat, L.Corradi, O.Dorvaux, E.Fiochetto, A.Gadea, F.Hanappe, I.M.Itkis, M.Jandel, J.Kliman, G.N.Knyazheva, N.A.Kondratiev, E.M.Kozulin, L.Krupa, A.Latina, V.G.Lyapin, T.Materna, G.Montagnoli, Yu.Ts.Oganessian, I.V.Pokrovsky, E.V.Prokhorova, N.Rowley, V.A.R

ubchenya, A.Ya.Rusanov, R.N.Sagaidak, F.Scarlassara, C.Schmitt, A.M.Stefanini, L.Stuttge, S.Szilner, M.Trotta, W.H.Trzaska, V.M.Voskressenski

Capture and Fusion-Fission Processes in Heavy Ion Induced Reactions

**54.** Eur.Phys.J. A 23, 473 (2005)

A.M.Stefanini, M.Trotta, B.R.Behera, L.Corradi, E.Fioretto, A.Gadea, A.Latina, S.Szilner, Y.W.Wu, S.Beghini, G.Montagnoli, F.Scarlassara, A.Yu.Chizhov, I.M.Itkis, N.A.Kondratiev, I.V.Pokrovsky, R.N.Sagaidak, G.N.Kniajeva, E.M.Kozulin, V.M.Voskressenski, S.Courtin, F.Haas, N.Rowley

Fusion-evaporation cross-sections for  $^{48}\text{Ca} + ^{154}\text{Sm}$  near the Coulomb barrier: Evidence for fusion enhancement and hindrance

**55.** Phys.Rev. C 71, 044610 (2005)

S.Szilner, L.Corradi, G.Pollarolo, S.Beghini, B.R.Behera, E.Fioretto, A.Gadea, F.Haas, A.Latina, G.Montagnoli, F.Scarlassara, A.M.Stefanini, M.Trotta, A.M.Vinodkumar, Y.Wu

Multinucleon transfer processes in  $^{40}\text{Ca} + ^{208}\text{Pb}$

**56.** Proc.Nuclei at the Limits, Argonne, Illinois, D.Seweryniak and T.L.Khoo, eds., p.93 (2005); AIP Conf. Proc 764 (2005)

D.Tonev, G.de

Angelis, P.Petkov, A.Dewald, A.Gadea, P.Pejovic, D.Balabanski, P.Bednarczyk, F.Camera, A.Fitzler, M.Axiotis, D.Bazzacco, E.Farnea, S.Lenzi, S.Lunardi, N.Marginean, T.Martinez, R.Menegazzo, O.Moller, D.R.Napoli, A.Paleni, C.Petrache, G.Prete, B.R.Behera, C.Rusu, C.Ur, K.O.Zell, Y.H.Zhang

Transition Probabilities And Chiral Symmetry In  $^{134}\text{Pr}$

**57.** Eur.Phys.J. A 25, Supplement 1, 615 (2005)

M.Trotta, A.M.Stefanini, S.Beghini, B.R.Behera, A.Yu.Chizhov, L.Corradi, S.Courtin, E.Fioretto, A.Gadea, P.R.S.Gomes, F.Haas, I.M.Itkis, M.G.Itkis, G.N.Kniajeva, N.A.Kondratiev, E.M.Kozulin, A.Latina, G.Montagnoli, I.V.Pokrovsky, N.Rowley

y, R.N.Sagaidak, F.Scarlassara, A.Szanto de Toledo, S.Szilner, V.M.Voskressensky, Y.W.Wu

Fusion hindrance and quasi-fission in  $^{48}\text{Ca}$  induced reactions: Implications for super-heavy element production

**58.** Nucl.Phys. A734, 249 (2004)

B.R.Behera, S.Kailas, K.Mahata, A.Chatterjee, P.Basu, S.Roy, M.Satpathy, S.K.Datta

Role of Entrance Channel Properties in Heavy Ion Induced Fission Fragment Angular Distribution Studies

**59.** Phys.Rev. C 69, 064603 (2004)

B.R.Behera, M.Satpathy, S.Jena, S.Kailas, R.G.Thomas, K.Mahata, A.Chatterjee, S.Roy, P.Basu, M.K.Sharan, S.K.Datta

Fission fragment angular distributions for the systems  $^{14}\text{N} + ^{232}\text{Th}$  and  $^{11}\text{B} + ^{235}\text{U}$  at near and sub-barrier energies

**60.** Prog.Theor.Phys.(Kyoto), Suppl. 154, 130 (2004)

L.Corradi, S.Szilner, S.Beghini, B.R.Behera, E.Fiochetto, A.Gadea, A.Latina, G.Montagnoli, G.Pollarolo, F.Scarlassara, A.M.Stefanini, M.Trotta, A.M.Vinodkumar, Y.W.Wu

Multinucleon Transfer Reactions Studied with Magnetic Spectrometers

**61.** Nucl.Phys. A734, E1 (2004)

A.Latina, A.M.Stefanini, S.Beghini, B.R.Behera, L.Corradi, G.De Angelis, A.De Rosa, E.Fiochetto, A.Gadea, M.Gulmini, G.Inglima, M.LaCommara, G.Maron, R.Menegazzo, N.Marginean, G.Montagnoli, D.R.Napoli, D.Pierrousakou, G.Pollarolo, M.Romoli, M.Sandoli, F.Scarlassara, S.Szilner, N.Toniolo, M.Trotta, Y.W.Wu

PRISMA - a magnetic spectrometer for heavy ions at LNL

**62.** Prog.Theor.Phys.(Kyoto), Suppl. 154, 31 (2004)



F.Scarlassara, G.Montagnoli, S.Beghini, R.Silvestri, A.M.Stefanini, L.Corradi, B.R. Behera, E.Fioretto, S.Szilner, M.Trotta, Y.W.Wu, Z.H.Liu, M.Ruan, F.Yang, H.Q. Zhang

Subbarrier Fusion and Barrier Distributions of  $^{48}\text{Ca} + ^{90,96}\text{Zr}$

**63.** Nucl.Phys. A746, 195c (2004)

F.Scarlassara, S.Beghini, G.Montagnoli, B.R.Behera, L.Corradi, E.Fioretto, A.Gadea, A.Latina, A.M.Stefanini, S.Szilner, M.Trotta, Y.W.Wu

Multinucleon transfer measured with the magnetic spectrometer Prisma

**64.** Nucl.Phys. A734, E49 (2004)

S.Szilner, L.Corradi, F.Haas, G.Pollarolo, S.Beghini, B.R.Behera, A.Gadea, A.Latina, G.Montagnoli, F.Scarlassara, A.M.Stefanini, M.Trotta, A.M.Vinodkumar, Y.W.Wu

Search for pairing-vibration states in multinucleon transfer reactions

**65.** Eur.Phys.J. A 21, 87 (2004)

S.Szilner, L.Corradi, F.Haas, G.Pollarolo, S.Beghini, B.R.Behera, E.Caurier, E.Fioretto, A.Gadea, A.Latina, G.Montagnoli, F.Nowacki, F.Scarlassara, A.M.Stefanini, M.Trotta, A.M.Vinodkumar, Y.W.Wu

Search for pairing-vibration states of even Ca isotopes in  $^{40}\text{Ca} + ^{208}\text{Pb}$  transfer reactions

**66.** Prog.Theor.Phys.(Kyoto), Suppl. 154, 37 (2004)

M.Trotta, A.M.Stefanini, B.R.Behera, L.Corradi, E.Fioretto, A.Gadea, S.Szilner, Y.W.Wu, S.Beghini, G.Montagnoli, F.Scarlassara, A.Yu.Chizhov, I.M.Itkis, G.N.Knijaeva, N.A.Kondratiev, E.M.Kozulin, I.V.Pokrovsky, R.N.Sagaidak, V.M.Voskresensky, F.Haas, N.Rowley

Fusion Hindrance and Quasi-Fission in  $^{48}\text{Ca}$  Induced Reactions

**67.** Phys.Rev. C 68, 067601 (2003)

M.Ray, A.Mukherjee, M.S.Sarkar, A.Goswami, S.Roy, S.Saha, R.Bhattacharya, B. R.Behera, S.K.Datta, B.Dasmahapatra

Fusion cross sections for  ${}^7\text{Li} + {}^{16}\text{O}$  at energies above barrier

**68.** Phys.Rev. C66, 047602 (2002).

B.R.Behera, S.Jena, M.Satpathy, S.Roy, P.Basu, M.K.Sharan, M.L.Chatterjee, S.Kailas, K.Mahata, S.K.Datta

Statistical model analysis of fission fragment angular distributions for the system  ${}^{16}\text{O} + {}^{181}\text{Ta}$ .

**69.** Phys.Rev. C66, 034601 (2002)

J.Kaur, I.M.Govil, G.Singh, A.Kumar, A.Kumar, B.R.Behera, S.K.Datta

Search for Entrance Channel Effects in Heavy Ion Induced Fusion Reactions Through the Compound System  ${}^{79}\text{Rb}^*$

**70.** Phys.Rev. C64, 041602 (2001) (**Rapid Communication**)

B.R.Behera, S.Jena, M.Satpathy, S.Kailas, K.Mahata, A.Shrivastava, A.Chatterjee, S.Roy, P.Basu, M.K.Sharan, S.K.Datta

Entrance-Channel Effect in Fission Fragment Anisotropies from  ${}^{11}\text{B} + {}^{235}\text{U}$  and  ${}^{14}\text{N} + {}^{232}\text{Th}$  Systems

**71.** Pramana 53, 563 (1999)

B.R.Behera, S.Roy, P.Basu, M.K.Sharan, S.Jena, M.Satpathy, S.K.Datta, L.Satpathy, M.L.Chatterjee

Fission Fragment Angular Distributions in  ${}^{16}\text{O} + {}^{181}\text{Ta}$

**72.** NIM A, Volume 416, 81 (1998)

B.R. Behera, M. Satpathy, P. Basu, M.L. Chatterjee

Role of catalyst to improve P-10 filled gas counter performance

+++++