



Dr. Davinder Siwal
Curriculum Vitae

Personal details

Father's Name Lt. Dalchand Siwal

Birth August 15, 1984

Address Department of Physics, Panjab University, Chandigarh

email ID: dsiwai.physics@gmail.com,

Education

- **University of Delhi**
Ph.D. *Completed on 2014*
 - Subject: Experimental Nuclear Physics
 - Ph.D. thesis Title: **Development of Empirical Mode Decomposition based signal improvement method and its implementation on Pulse Shape Analysis for a segmented HPGe detector**
(Under Indo-German NUSTAR-FAIR collaboration, for the future Germanium based DESPEC detector array at GSI, Germany)
- **University of Delhi**
M.Sc. Physics *Completed on 2007*
 - Undertaken Nuclear Physics as a special paper in M.Sc. final year
Registered at : Hans Raj College, University of Delhi
 - Post Graduated with 66% average
- **University of Delhi**
B.Sc. Physics (Honours) *Completed on 2005*
 - College : Hans Raj College, University of Delhi
 - Graduated with 71% average
- **G.D. Soni D.A.V. Senior Secondary School**
High School *Completed on 2002*
 - qualified with a 64% average

Carrer Profile

UGC-Dr. D. S. Kothari Postdoctoral Fellow 10th May 2016 – till date

Department of Physics, Panjab University, Chandigarh

Post-doctoral Research Associate 26th January 2015 – 29th Feb. 2016

Department of Chemistry, Indiana University, Bloomington, USA

Research Associate 21st October 2013 – 3rd January 2015

Inter University Accelerator Center, New Delhi

Assistant Professor (Adhoc basis) 3rd Jan – 22nd May 2013

Shri Guru Tegh Bahadur Khalsa College, North campus, University of Delhi

- **Have teached the following subjects of B.Sc. Physical Science course:**

- Digital Electronics
- Analog Electronics
- B.Sc. Physical Science practicals of sem IV
- B.Sc. Physical Science practicals of sem VI
- B.Sc. Physical Science practicals of sem II

- **UGC-CSIR NET Qualified**

2006

- **CSIR Senior research fellow**

at Department of Physics & Astrophysics , University of Delhi 2009-2012

- **CSIR Junior research fellow**

at Department of Physics & Astrophysics , University of Delhi 2007-2009

Research area of interest

- **Nuclear Detector Instrumentation** : Monte Carlo Simulation based study for gamma/neutron detector, development of faster pulse timing and energy algorithms, for a HPGe, Neutron, and Resistive Anode detector. Gamma Imaging with scintillator/MCP detector.

Research Experience

- **Detector handling** : Experience with HPGe, NaI and neutron detector, mild experience with Microchannel plate intensifiers.
- **Programming languages** : Experience in C++, C with Makefile knowledge for shared-object library development, their run-time implementation and interfacing to the FORTRAN function and subroutines.

- **Software experience** : Experience in [Geant4](#) based monte carlo simulation code developmente, [ROOT](#) based analysis software, and [IUAC](#) CANDLE and FREE-DOM analysis softwares.

Oral/Meeting/Paper Presentations

- **Simulating the growth of a charge cloud for a microchannel plate detector**

At Sent Fe, New Maxico, USA

APS DNP Fall Meeting *On 30th Oct. 2015*
- **Characterization of a two fold segmented HPGe clover detector**

At Saha Institute of Nuclear Physics, Kolkata, India

Young Physicists Colloquium 2014 *On 21st August 2014*
- **A VME based Data Acquisition Installation for γ -ray Pulse Shape recording at Department of Physics & Astrophysics, University of Delhi**

At Andhra University, India

DAE-BRNS Symposium *On 21st Dec. 2011*
- **Development of signal enhancement technique using EMD based time-series analysis and its application to Pulse Shape Analysis**

At Variable Energy Cyclotron Centre, Kolkata, India

FAIR-NUSTAR week *On 11th Oct. 2012*

Participation in Conferences/school/Meetings/Symposium/Colloquium and Workshop

- **APS DNP Fall Meeting** *28th-31st Oct 2015*
The American Physical society, Sent Fe, New Maxico, USA
- **Young Physicists Colloquium 2014** *21th-22th Aug. 2014*
The Indian Physical society, Saha Institute of Nuclear Physics, Kolkata, India
- **FUSION14 entitled "Nuclear reactions around the Coulomb barrier"**
IUAC, New Delhi, India *24th-28th Feb. 2014*
- **India-UK Seminar in Nuclear Physics at ISOLDE**
Panjab University, Chandigarh, India *22nd-24th Jan. 2014*
- **DAE-BRNS Nuclear Physics Symposium 2013**
Bhabha Atomic Research Center, Mumbai, India *2nd - 6th Dec. 2013*

- **DAE-BRNS Nuclear Physics Symposium 2012**
University of Delhi, Delhi, India 3rd - 7th Dec. 2012
- **International Conference on Recent Trends in Nuclear Physics**
Chitkara University, Himachal Pradesh, India 19th-21st Nov. 2012
- **NUSTAR week 2012**
Variable Energy Cyclotron Center, Kolkata, India 8th - 12th Oct 2012
- **DAE-BRNS Nuclear Physics Symposium 2011**
Andhra University, Andhra Pradesh, India 26th - 30th Dec. 2011
- **Advanced Detectors for Imaging in Physics and Medical Diagnosis**
Variable Energy Cyclotron Center, Kolkata, India 4th-5th March 2010
- **Physics with FAIR : Indian perspective**
Variable Energy Cyclotron Center, Kolkata, India 8th-10th March 2010
- **Seminar on Nuclear Energy for National Development**
University of Delhi, India 20th Oct. 2010
- **NN Interaction Meeting**
Tata Institute of Fundamental Research, Mumbai, India 21st-29th Nov. 2010
- **DAE-BRNS Nuclear Physics Symposium**
Birla Institute of Technology, Pilani, Rajasthan, India 19th-24th Dec.2010
- **National Workshop “Frontiers in Gamma Spectroscopy-FIG09”**
Tata Institute of Fundamental Research, Mumbai, India 2nd-4th March 2009
- **International DAE-BRNS Nuclear Physics Symposium**
Bhabha Atomic Research Center, Mumbai, India 8th-12th Dec. 2009
- **Final RISING symposium**
Technical University Darmstadt, Germany 5th – 7th Oct 2009
- **DST-SERC School on
“Exploring Symmetries in Nuclei using National Facilities”**
IUAC, New Delhi, India 1st-21st Sept. 2008

Selected Research Publications

Peer-Reviewed Journal Articles

1. **Using pulse shape analysis to improve the position resolution of a resistive anode microchannel plate detector**
Davinder Siwal, B.B. Wiggins, and R.T. deSouza
Nucl. Instr. and Meth. A **804** 144 (2015)
ISSN/ISBN Number : 0168-9002, Impact Factor : 1.142
2. **Optimizing the position resolution of a Z-stack microchannel plate resistive anode detector for low intensity signals**
B.B. Wiggins, E. Richardson, D. Siwal, S. Hudan, and R.T. deSouza
Rev. of Sci. Instrum. **86** 083303 (2015).
ISSN/ISBN Number : 0034-6748,1089-7623, Impact Factor : 1.602
3. **Pulse Shape Analysis of a two fold clover detector with an EMD based new algorithm: A Comparison**
Davinder Siwal, S.Mandal, R. Palit, J. Sethi, R. Garg, S. Saha, Awadhesh Prasad, P.B Chavan, B.S. Naidu, S. Jadhav , R.Donthi, H.Schaffner, J. Adamczweski-Musch, N. Kurz, H. J. Wollersheim, R. Singh
Nucl. Instr. and Meth. A **741** 108 (2014)
ISSN/ISBN Number : 0168-9002, Impact Factor : 1.142
4. **A new approach of denoising the regular and chaotic signals using Empirical Mode Decomposition : Comparison and application**
Davinder Siwal, Vinita Suyal, Awadhesh Prasad, S. Mandal, and R. Singh
Rev. Sci. Instrum. **84** 075117 (2013)
ISSN/ISBN Number : 0034-6748,1089-7623, Impact Factor : 1.602
5. **Interplay of fission modes in mass distribution of light actinide nuclei $^{225,227}\text{Pa}$**
R. Dubey, P. Sugathan, A. Jhingan, Gurpreet Kaur, Ish Mukul, G. Mohanto, D. Siwal, N. Saneesh, T. Banerjee, Meenu Thakur, Ruchi Mahajan, N. Kumar, M.B. Chatterjee
Phys. Lett. B **in Press** (2015).
ISSN/ISBN Number : 0370-2693, Impact Factor : 4.569
6. **Anomalous deviations from statistical evaporation spectra for the decay of the ^{73}Br and ^{77}Rb compound systems**
Maninder Kaur, B.R. Behera, Gulzar Singh, Varinderjit Singh, Rohit Sandal, A. Kumar, H. Singh, Gurpreet Singh, K.P. Singh, N. Madhavan, S. Nath, A. Jhingan, J. Gehlot, K.S. Golda, P. Sugathan, Davinder Siwal Sunil Kalkal, E. Prasad, S. Appannababu
Phy. Rev. C **89** 034621 (2014)
ISSN/ISBN Number : 0556-2813,1089-490X, Impact Factor : 3.715
7. **Neutron multiplicity measurements for $^{19}\text{F}+^{194,196,198}\text{Pt}$ systems to investigate the effect of shell closure on nuclear dissipation**
Varinderjit Singh, B. R. Behera, Maninder Kaur, A. Kumar, P. Sugathan, K. S. Golda, A. Jhingan, M. B. Chatterjee, R. K. Bhowmik, Davinder Siwal S. Goyal, Santanu Pal, A. Saxena, S. Santra, and S. Kailas
Phy. Rev. C **87** 064601 (2013)
ISSN/ISBN Number : 0556-2813,1089-490X, Impact Factor : 3.715

8. **Effect of N/Z in pre-scission neutron multiplicity for $^{16,18}\text{O} + ^{194,198}\text{Pt}$ systems**
 Rohit Sandal, B.R. Behra, Varinderjit Singh, Maninder Kaur, A. Kumar, G. Singh, K.P. Singh, P. Sugathan, A. Jhingan, K.S. Golda, M.B. Chatterjee, R.K. Bhowmik, Sunil Kalkal, **D. Siwal**, S.Goyal, S. Mandal, E. Prasad, K. Mahata, A. Saxena, Jhilam Sadhukhan and Shantanu Pal
Phy. Rev. C **87** 014604 (2013).
 ISSN/ISBN Number : 0556-2813,1089-490X, Impact Factor : 3.715
9. **New Isomers in the Full Seniority Scheme of Neutron-Rich Lead Isotopes: The Role of Effective Three-Body Forces**
 A. Gottardo, J. J. Valiente-Dobon,... **D. Siwal**,...*et al.*
Phy. Rev. Lett. **109** 162502 (2012).
 ISSN/ISBN Number : 0031-9007,1079-7114, Impact Factor : 7.943
10. **First measurement of beta decay half-lives in neutron-rich Tl and Bi isotopes**
 G. Benzoni, A.I. Morales,... **D. Siwal**,...*et al.*
Phy. Lett. B **715** 293 (2012)
 ISSN/ISBN Number : 0370-2693, Impact Factor : 4.569
11. **Search for an effect of shell closure on nuclear dissipation via a neutron-multiplicity measurement**
 Varinderjit Singh, B. R. Behera, Maninder Kaur, P. Sugathan, K. S. Golda, A. Jhingan, Jhilam Sadhukhan, **Davinder Siwal**, S. Goyal, S. Santra, A. Kumar, R. K. Bhowmik, M. B. Chatterjee, A. Saxena, Santanu Pal, and S. Kailas
Phys. Rev. C **86** 014609 (2012)
 ISSN/ISBN Number : 0556-2813,1089-490X, Impact Factor : 3.715
12. **Channel coupling effects on the fusion excitation functions for $^{28}\text{Si} + ^{90,94}\text{Zr}$ in sub-and near-barrier regions**
 Sunil Kalkal, S. Mandal, N. Madhavan, E. Prasad, Shashi Verma, A. Jhingan, Rohit Sandal, S. Nath, J. Gehlot, B. R. Behera, Mansi Saxena, Savi Goyal, **Davinder Siwal**, Ritika Garg, U. D. Pramanik, Suresh Kumar, T. Varughese, K. S. Golda, S. Muralithar, A. K. Sinha, and R. Singh,
Phys. Rev. C **81** 044610 (2010)
 ISSN/ISBN Number : 0556-2813,1089-490X, Impact Factor : 3.715

International Conference/Symposium Proceedings

1. **Fission excitation function for $^{19}\text{F} + ^{194,196,198}\text{Pt}$ at near and above barrier energies**
 Varinderjit Singh, B.R. Behera, Maninder Kaur, A. Jhingan, P. Sugathan, Santanu Pal, **Davinder Siwal**, M. Oswal, K.P. Singh, S. Goyal, A. Saxena, and S. Kailas
EPJ Web of Conferences **86** 00052 (2015)
2. **Spin distribution as a probe to investigate the dynamical effects in fusion reactions**
 Maninder Kaur, B.R. Behera, Gulzar Singh, Varinderjit Singh, N. Madhavan, S. Muralithar, S. Nath, J. Gehlot, G. Mohanto, Ish Mukul, **Davinder Siwal**, Meenu Thakur, Kushal Kapoor, Priya Sharma, Akhil Jhingan, T. Varughese, Indu Bala, M.B. Chatterjee, B.K. Nayak and A. Saxena

EPJ Web of Conferences **86** 00026 (2015)

3. **Effect of shell structure on neutron multiplicity of fissioning systems $^{220,222,224}\text{Th}$ nuclei**
Savi Goyal, S. Mandal, Akhil Jhingan, P. Sugathan, Santanu Pal, B. R. Behera, K. S. Golda, Hardev Singh, Sunil Kalkal, Varinderjit Singh, Ritika Garg, **Davinder Siwal**, Maninder Kaur, Mansi Saxena, Suresh Kumar, S. Verma, M. Gupta, Subinit Roy and R. Singh
EPJ Web of Conferences **86** 00013 (2015)
4. **Pulse Shape Analysis of a two fold clover detector with Empirical Mode Decomposition based algorithm**
Davinder Siwal, S. Mandal, R. Palit, H. Schaffner, J. Adamczewski, N. Kurz, B.S. Naidu, H.J. Wollersheim and R. Singh
AIP conference proceedings **1609** 25 (2014)
ISSN/ISBN Number : 978-0-7354-1245-3
5. **Development of EMD based signal improvement technique and its application to Pulse Shape Analysis**
Davinder Siwal, V. Suyal, A. Prasad, S. Mandal and R. Singh
AIP conference proceedings **1524** 271 (2013)
ISSN/ISBN Number : 0094-243X,1551-7616
6. **Compton imaging with a two fold clover HPGe detector**
Davinder Siwal, R. Palit and S. Mandal
DAE-BRNS Symp. on Nucl. Phys. **58** 894 (2013).
7. **Dipole bands in high spin states of $^{135}_{57}\text{La}_{78}$**
Ritika Garg, S. Kumar, Mansi Saxena, Savi Goyal, **Davinder Siwal**, S. Verma, R. Palit, Sudipta Saha, J. Sethi, Sushil K. Sharma, T. Trivedi, S. K. Jadav, R. Donthi, B. S. Naidu, and S. Mandal
AIP conference proceedings **1609** 125 (2014)
ISSN/ISBN Number : 978-0-7354-1245-3
8. **New Isomers in the Neutron-Rich Region Beyond ^{208}Pb**
A. Gottardo, J.J. Valiente-Dobn, ... **D. Siwal**, ... *et al.*
EPJ Web of Conferences **66** 02043 (2014).
ISSN/ISBN Number : 2100-014X
9. **Effect of N/Z in pre-scission neutron multiplicity for $^{16,18}\text{O}+^{194,198}\text{Pt}$ systems**
Rohit Sandal, B.R. Behera, Varinderjit Singh, Maninder Kaur, A. Kumar, G. Singh, K. P. Singh, P. Sugathan, A. Jhingan, K. S. Golda, M. B. Chatterjee, R. K. Bhowmik, Sunil Kalkal, **D. Siwal**, S. Goyal, S. Mandal, E. Prasad, J. Sadhukhan, K. Mahta, A. Saxena, Santanu Pal
EPJ Web of Conferences **66** 03006 (2014).
ISSN/ISBN Number : 2100-014X
10. **Evaporation residues spin distribution for $^{16}\text{O}+^{64}\text{Zn}$ and $^{32}\text{S}+^{48}\text{Ti}$ systems**
Maninder Kaur B.R. Behera, Gulzar Singh, Varinderjit Singh, N. Madhavan, S. Murlithar, S. Nath, J. Gehlot, G. Mohanto, I. Mukul, **Davinder Siwal**, Meenu

- Thakur, Kushal Kapoor, Priya Sharma, A. Jhingan, T. Varughese, Indu Bala, B.K. Nayak, A. Saxena and M. B. Chatterjee
DAE-BRNS Symp. on Nucl. Phys. **58** 436 (2013).
11. **Effect of fissility in fission time scales for $^{16,18}\text{O}+^{194,198}\text{P}$ systems**
 Rohit Sandal, B. R. Behera, V. Singh, A. Kumar, G. Singh, K. P. Singh, M. Kaur, K. S. Golda, A. Jhingan, P. Sugathan, M. B. Chatterjee, R. K. Bhowmik, S. Mandal, S. Kalkal, **D. Siwal**, S. Goyal, E. Prasad, K. Mahata, A. Saxena, and Santanu Pal
AIP conference proceedings **1524** 167 (2013)
ISSN/ISBN Number : 0094-243X,1551-7616
 12. **β decay of ^{102}Y produced in projectile fission of ^{238}U**
 A M Bruce, A M Denis Bacelar,... **Davinder Siwal**,... *et al.*
INPC Conference series, Journal of Physics **381** 012053 (2012).
ISSN/ISBN Number : 1742-6588,1742-6596
 13. **Study of the effect of shell closure on the nuclear dissipation**
 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 and S. Kailas
EPJ Web of Conferences **17** 16014 (2011).
ISSN/ISBN Number : 2100-014X
 14. **Isomers in neutron-rich lead isotopes populated via the fragmentation of ^{238}U at 1 GeV A**
 A. Gottardo, J.J. Valiente-Dobon,... **D. Siwal**,...*et al.*
INPC Conference series, Journal of Physics **312** 092026 (2011).
ISSN/ISBN Number : 1742-6588, 1742-6596
 15. **Fusion and transfer reactions around the Coulomb barrier for $^{28}\text{Si}+^{90,94}\text{Zr}$ systems**
 Sunil Kalkal, S Mandal, N Madhavan, A Jhingan, E Prasad, Rohit Sandal, J. Gehlot, S. Verma, Ritika Garg, Savi Goyal, Mansi Saxena, S Nath, Bivash Behera, Suresh Kumar, U D Pramanik, **Davinder Siwal**, Gayatri Mohanto, H.J. Wollersheim, A K Sinha and R Singh
INPC Conference series, Journal of Physics **312** 082027 (2011).
ISSN/ISBN Number : 1742-6588, 1742-6596

National Conferences/Symposium

1. **Development of Geant4 based simulation package for neutron array facility at IUAC**
Davinder Siwal, N. Saneesh, P. Sugathan
DAE-BRNS Symp. on Nucl. Phys. **59** 928 (2014).
2. **Pulse Shape Analysis of a two fold clover detector with EMD based algorithm**
Davinder Siwal, S. Mandal, R. Palit, J. Sethi, R. Garg, S. Saha, A. Prasad, P.B. Chavan, B.S. Naidu, S. Jadhav, R. Donthi, H. Schaffner, J. Adamczweski, N. Kurz, H.J. Wollersheim, and R. Singh
DAE-BRNS Symp. on Nucl. Phys. **57** 890 (2012).
3. **A VME based Data Acquisition system for Pulse Shape Recording of γ -ray detector**

- Davinder Siwal**, S.K. Mandal, N.Kurz, H. Schaffner, J. Adamczewski, H.J. Wollersheim, M. Saxena, R. Garg, S. Kumar and S.Verma *DAE-BRNS Symp. on Nucl. Phys.* **56** 1050 (2011).
4. **Pulse risetime correlation studies for two fold clover detector using standard GSI Multi-Branch System**
Davinder Siwal, S.K. Mandal, R. Palit, H. Schaffner, J. Adamczewski, B.S. Naidu and R. Singh
DAE-BRNS Symp. on Nucl. Phys. **56** 1144 (2011).
 5. **Geant4 simulation of two fold clover detector for position resolution calculation**
Davinder Siwal, S.K. Mandal, R. Palit, J. Adamczewski and R. Singh
DAE-BRNS Symp. on Nucl. Phys. **56** 1146 (2011).
 6. **Signal Noise Filtering of Gamma Tracking Detectors Using Emperical Mode Decomposition Method**
Davinder Siwal, Vinita Suyal, A. Prasad, S.K. Mandal, R. Palit, R. Singh
DAE-BRNS Symp. on Nucl. Phys. **55** 706 (2010).
 7. **In beam test of Neutron detector array facility at IUAC**
P. Sugathan, A. Jhingan, S. Saneesh, G. Mohanto, **D. Siwal**, R. Dubey, T. Banerjee, Kaur Gurpreet, M. Thakur, R. Mahajan, P. Sharma, K. Kapoor, B.R. Behera, N. Kumar, Kushboo, S. Geol, M. Shareef, H Singh
75-years of Nuclear Fission: Present status and Future Perspectives **F8** 103 (2014).
 8. **Facility Test Run for g factor measurement using Transient Field Method**
Mansi Saxena, S.Mandal, A.Mandal, Rajesh Kumar, P.Barua, R.Kumar, **Davinder Siwal**, Chandan Kumar, Savi Goyal, Ritika Garg, Anisur Rehman, Khushboo, Aman Rohilla, Minakshi Roy, Naveen Kumar, S. Kumar, S.Chamoli, R. Gujjar, Indu Bala, R.P. Singh, S. Muralithar
DAE-BRNS Symp. of Nucl. Phys. **57** 498 (2012).
 9. **Study of fission fragment angular distribution for $^{19}F + ^{194,196,198}Pt$ reactions at near and above barrier energies**
Varinderjit Singh, B.R. Behera, Maninder Kaur, A. Jhingan, P. Sugathan, **D. Siwal**, M. Oswal, S. Goyal, K.P Singh, A. Saxena, S. Kailas
DAE-BRNS Symp. on Nucl. Phys. **57** 400 (2012).
 10. **Measurement of the Fission Cross Sections for the $^{16,18}O + ^{194,198}Pt$ Systems**
Rohit Sandal, B.R. Behera, V. Singh, M. Kaur, S. Mandal, S. Kalkal, **D. Siwal**, S. Goyal, E. Prasad, P. Sugathan, A. Jhingan, A. Saxena
DAE-BRNS Symp. on Nucl. Phys. **57** 534 (2012).
 11. **Study of Magnetic Rotation in mass A = 135 region**
Ritika Garg, S. Kumar, Mansi Saxena, Savi Goyal, **Davinder Siwal**, S. Verma, R. Palit, S. Saha, J. Sethi, Sushil K. Sharma, T. Trivedi, S.K. Jadav, R. Donthi, B.S. Naidu and S. Mandal
DAE-BRNS Symp. on Nucl. Phys. **56** 218 (2011).
 12. **Magnetic Moment measurement of ^{140}Ba nuclei using transient field technique**
Mansi Saxena, S. Mandal, G. Rainvoski, J. Leske, H.J. Wollersheim, C. Bauer, T. Bloch, M. Danchev, A. Damyanova, K. Gladnishki, P. John, I. Kojouharov, N.

- Pietralla, S. Pietri, H. Schaffner, **Davinder Siwal**,
DAE-BRNS Symp. on Nucl. Phys. **56** 360 (2011).
13. **Effect of shell closure on nuclear dissipation at high excitation energy using neutron multiplicity as a probe**
Varinderjit Singh, B.R. Behra, Maninder Kaur, **Davinder Siwal**, Jhiliam Sadhukhan, S/ Goyal, P. Sugathan, K.S. Golda, A. Jhingan, S. Santra, A. Saxena, S. Pal, R.K. Bhowmik, M.B. Chatterjee, S. Kailash
DAE-BRNS Symp. on Nucl. Phys. **56** 484 (2011).
 14. **Effects of shell closure of target on neutron multiplicity for the $^{28}\text{Si}+^{204,206,208}\text{Pb}$**
Savi Goyal, S. Mandal, Ritika Garg, Mansi Saxena, Akhil Jhingan, P. Sugathan, K.S. Golda, S. Appannababu, D. Singh, Suresh Kumar, S. Verma, Maninder Kaur, Varinderjit Singh, **Davinder Siwal**, Sunil Kalkal, B.R. Behram mohini Gupta, Subinit Roy and R. Singh
DAE-BRNS Symp. on Nucl. Phys. **56** 604 (2011).
 15. **In beam spectroscopy of negative parity states in ^{135}Pr**
Ritika Garg, S.Kumar, Mansi Saxena, Savi Goyal, **Davinder Siwal**, Sunil Kalkal, S.Verma, S.Mandal, R.Singh, S.C.Pancholi, R.Palit, Deepika Chaudhary, A.K.Jain, S.S.Gugre, G.Mukherjee, R.Kimar, S.Muralithar, R.K.Bhowmik, R.P.Singh
DAE-BRNS Symp. on Nucl. Phys. **55** 64 (2010).
 16. **Role of neutrons and protons in MR, bands in ^{137}Nd and ^{137}Pr nuclei**
Deepika Chaudhary, A.K.Jain, S.Kumar, **D.Siwal**, R.Garg, S.Mandal, S.Verma, T.Trivedi, R.Palit, R.K.Sinha, Z.Naik, A.Dhal, D.Negi, G.Mohanto, S.Murlithar, R.P.Singh, S.C.Pancholi
DAE-BRNS Symp. on Nucl. Phys. **55** 66 (2010).
 17. **Investigation of fission reaction dynamics and neutron multiplicity in mass reigon 200**
Savi Gooyal, S.Mandal, P.Sugathan, K.S.Golda, Akhil Jhingan, Sunil Kalkal, Varinderjit Singh, **Davinder Siwal**, Ritika Garg, Maninder Kaur, Mansi Saxena, S.Verma, Suresh Kumar, Mohini Gupta, Subinit Roy, B.R.Behra, R.Singh
DAE-BRNS Symp. on Nucl. Phys. **55** 314 (2010).
 18. **Light Particle Emission in Fusion Reaction at High Excitation Energy and Angular Momentum**
Maninder Kaur, B.R.Behra, Varinderjit Singh, Gurpreet Singh, G.Singh, Rohit Sandal, A.Kumar, K.P. Singh, **D. Siwal**, Sunil Kalkal, N. Madhavan, S.Nath, A.Jhingan, J.Gehlot, K.S.Golda, P.Sugathan, Parad. E, A.Babu
DAE-BRNS Symp. on Nucl. Phys. **55** 316 (2010).
 19. **Role of N/Z in the Pre-scission Neutron Multiplicity for the $^{16,18}\text{O}+^{194,198}\text{Pt}$ Systems**
Rohit Sandal, B.R.Behra, Varinderit Singh, A.Kumar, G.Singh, K.P.Singh, M.Kaur, S.Mandal, S.Kalkal, **D.Siwal**, M.Saxena, S.Goyal, E.Prasad, P.Sugathan, A.Jhingan, K.S.Golda, R.P.Singh, R.K.Bhhowmik, M.B.Chatterjee, R.K.Chaudhary, K.Mehta, S.Santra, S.Kailash, A.Saxena
DAE-BRNS Symp. on Nucl. Phys. **55** 318 (2010).
 20. **Effect of Shell Closure on Neutron Multiplicity**
Varinderjit Singh, B.R.Behra, **D. Siwal**, S.Goyal, Maninder Kaur, P.Sugathan, K.S.Golda, A.Jhingan, A.Kumar, A.Saxena, R.K.Bhowmik, S.Kailash
DAE-BRNS Symp. on Nucl. Phys. **55** 320 (2010).

21. **Measurement of fusion excitation functions around the Coulomb barrier for $^{28}\text{Si} + ^{90,94}\text{Zr}$ systems.**
 Sunil Kalkal, S. Mandal, N. Madhavan, E. Prasad, S. Verma, A. Jhingan, Rohit Sandal, S. Nath, J. Gehlot, B.R. Behra, T. Varughese, U.D. Parmanik, Mansi Saxena, Savi Goyal, **Davinder Siwal**, Ritika Grag, Suresh Kumar, K.S. Golda, S. Murlithar, R. Singh
DAE-BRNS Symp. on Nucl. Phys. **54** 274 (2009).
22. **Neutron multiplicity measurements for $^{19}\text{F} + ^{194,198}\text{Pt}$ systems at high excitation energy to understand the fission dynamics**
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