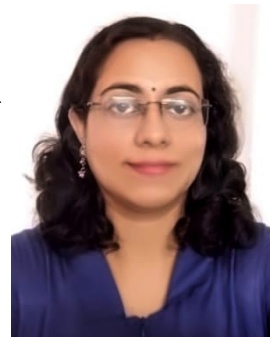


Curriculum Vitae

Name: Dr. Debasmita Bondyopadhaya
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1. Address:

- (a) *Residential Address* :P.O. Chotobazar, Nabapally , P.S. Barasat, Dist: North 24 Parganas, West Bengal, Pin - 700126,
- (b) *Office Address*: Department of Physics, Raiganj Surendranath Mahavidyalaya (College), Raiganj, North Dinajpur, West Bengal, Pin-733134 .
- (c) *Address for correspondence*: Same as Residential address.

2. Present Position:

Assistant Professor and Head of the Department of Physics, Raiganj Surendranath Mahavidyalaya (College), Raiganj, North Dinajpur.

3. Education:

- (a) B.Sc. from Jadavpur University, Kolkata, India in 2002.
- (b) M.Sc. from Jadavpur University, Kolkata, India in 2004.
- (c) Post M.Sc. scholar at Saha Institute of Nuclear Physics, Kolkata, India in 2004-2005.
- (d) **Ph.D.**(Science) from Saha Institute of Nuclear Physics -Jadavpur University, Kolkata, India on 2013. **Title of Thesis:** *Spectroscopy of Trans-Lead Nuclei*. **Name of the Supervisor:** Prof. Satyajit Saha.

4. Research experience with positions

- (a) **Research Associate** at Saha Institute of Nuclear Physics, Kolkata, India from 2016 to 2017.
- (b) **Guest Researcher** at Bose Institute, Kolkata, India in 2016.
- (c) **Senior Scientific Researcher** in Flerov Laboratory of Nuclear Reaction, Joint Institute of Nuclear Research, Dubna, Moscow Region, Russia in 2015.
- (d) **Senior Research Fellow (extended)** at Saha Institute of Nuclear Physics, Kolkata, India from 2013 to 2014.
- (e) **Senior Research Fellow** at Saha Institute of Nuclear Physics, Kolkata, India from 2006 to 2013.
- (f) **Junior Research Fellow** at Saha Institute of Nuclear Physics, Kolkata, India from 2005 to 2006.

5. Short-term visits

- (a) **Flerov Laboratory of Nuclear Reaction**, Joint Institute of Nuclear Research, Dubna, Moscow Region, **Russia** during 1st October - 13th October, 2017.
- (b) **Flerov Laboratory of Nuclear Reaction**, Joint Institute of Nuclear Research, Dubna, Moscow Region, **Russia** during 21st October - 6th November, 2016.

6. Employment:

- (a) Assistant Professor in Physics at Raiganj Surendranath Mahavidyalaya (College), Raiganj, West Bengal, India since April, 2017 onwards.

7. Scholarships and Awards:

- (a) National Scholarship awarded in 2002.
- (b) Qualified JEST in 2004.
- (c) Qualified GATE in 2004.
- (d) Qualified NET in 2005.

8. Present Research Interests:

- (a) Spectroscopic study of heavy isotopes near doubly-magic Lead nuclei.
- (b) Spectroscopy to Study Nucleosynthesis. Low energy nuclear Astrophysics.
- (c) Nuclear Data Evaluation.
- (d) Detector Simulation using Monte Carlo technique.
- (e) High energy gamma rays from extra galactic sources.

9. Programming Skills: C, Fortran, Python

10. Publications in International Journals:

- i) *"Search of effective interaction in dipole bands of an odd-odd trans-lead nucleus: The case of ^{204}At "*, **D. Kanjilal**, **International Journal of Modern Physics E** **33** (2024), 2450020.
- ii) *"High-spin states of ^{204}At : isomeric states and shears band structure"*, **D. Kanjilal**, S. K. Dey, S. S. Bhattacharjee, A. Bisoi, M. Das, C. C. Dey, S. Nag, R. Palit, S. Ray, S. Saha, J. Sethi, and S. Saha, **Eur. Phys. J. A** **58** (2022), 159.
- iii) *"Spectroscopic study of ^{38}K above the 31.67 μs isomer"*, Rozina Rahaman, Abhijit Bisoi, Y. Sapkota, Anik Adhikari, Ananya Das, S. Sarkar, M. Saha Sarkar, A. Goswami, S. Ray, M. Roy Basu, **Debasmita Kanjilal**, Somnath Nag, K. Selvakumar, N. Madhavan, S. Muralithar, and R. K. Bhowmik, **Phys. Rev. C** **102** (2020), 024315.
- iv) *"Nuclear Data Sheets for $A = 218$ "*, Balraj Singh, M.S. Basunia, Murray Martin, E.A. McCutchan, Indu Bala, R. Caballero-Folch, Rhiann Canavan, Ritwika Chakrabarti, A. Chekhovska, M.M. Grindler, Samra Kaim, **Debasmita Kanjilal**, D. Kasperovych, M.J. Kobra, H. Koura, Soumen Nandi, Adina Olacel, Abhilasha Singh, and B.P.E. Tee, **Nuclear Data Sheets** **160** (2019) 405-471.
- v) *"Superdeformation and α -cluster structure in ^{35}Cl "*, Abhijit Bisoi, M. Saha Sarkar, S. Sarkar, S. Ray, M. Roy Basu, **D. Kanjilal**, Somnath Nag, K. Selvakumar, A. Goswami, N. Madhavan, S. Muralithar, and R. K. Bhowmik, **Phys. Rev. C** **88** (2013), 034303.
- vi) *"First observation of high spin states and isomeric decay in ^{210}Fr "*, **D. Kanjilal**, S. Saha, S. Bhattacharya, A. Goswami, R. Kshetri, R. Raut, S. Muralithar, R. P. Singh, G. Mukherjee and B. Mukherjee, **Phys. Rev. C** **84** (2011), 064321.
- vii) *"High spin states and isomeric decays in doubly-odd ^{208}Fr "*, **D. Kanjilal**, S. Bhattacharya, A. Goswami, R. Kshetri, R. Raut, S. Saha, R. K. Bhowmik, J. Gehlot, S. Muralithar, R. P. Singh, G. Janeswari, G. Mukherjee, B. Mukherjee, **Nucl. Phys. A** **842** (2010), 1-14.
- viii) *"Electric field distribution and simulation of avalanche formation due to the passage of heavy ions in a parallel grid avalanche counter"*, **D. Kanjilal** and S. Saha, **Pramana** **72** (2009), 833-844.
- ix) *"An active drop counting device using condenser microphone for superheated emulsion detector"*, Mala Das, A. S. Arya, C. Marick, **D. Kanjilal** and S. Saha, **Rev. Sci. Instr.** **79** (2008), 113301.

11. Chapter Published in Book:

- i) "*Approaching the end of Mendeleev's Periodic Table: Super Heavy Elements*" in **Emerging Trends in Science, Social Science, Engineering and Management- A Multidisciplinary Approach**, Dr. M. A. Raffey (eds.), Red'shine Publication, London, UK., 2023, **pp. 373-386, ISBN: 978-1-387-57678-4.**
- ii) "*Impact of Environmental Radio Activity on Human*" in **Recent Trends in Multidisciplinary Research and Development**, Dr. M. A. Raffey (eds.), Red'shine Publication, 62/5834 Harplingegränd 110, LGH 1103. Älvsjö, 12573 Stockholm, Sweden, **pp. 460-474, ISBN: 978-91-89764-56-9.**

12. **Paper presentation in National / International Seminar / Conference / Workshop / School :**

- i) "Search for multiquasiparticle shears structure in ^{204}At " in **Joint ICTP-IAEA Workshop on Simulation of Nuclear Reaction Data with the TALYS Code** held at **The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy**, October 16-20, 2023.
- ii) "Investigation of high spin states and shears band structure of ^{204}At " at **The Fifth International Conference on 'Application of RadioTracers and Energetic Beams in Sciences, ARCEBS-2023'** held at **Sidho-Kanho-Birsha University, W. B., India**, in collaboration with **International Atomic Energy Agency**, January 31 - February 05, 2023.
- iii) "Exploration of magnetic Rotational band structure and new isomeric level in doubly odd ^{204}At " at **International Conference on 'Recent Issues in Nuclear and Particle Physics (RINP2)'** held at **Department of Physics, Visva-Bharati, Santiniketan, India**, February 3-5, 2019.
- iv) "Investigation of magnetic rotational band structure and new isomeric level in ^{204}At " in **Joint ICTP-IAEA Workshop on 'Nuclear Structure and Decay Data: Theory, Experiment and Evaluation'** held at **The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy**, October 15-26, 2018.
- v) Nuclear Physics Experiments and Data Analysis at SHELS Separator held at **FLNR, JINR, Dubna, Russia**, October 2-12, 2017.
- vi) "Observation of band structure and new isomeric levels in ^{204}At " at **DAE-BRNS Symposium on Nuclear Physics** held at **Saha Institute of Nuclear Physics, Kolkata, India**, December 5-9, 2016.
- vii) "High spin states in ^{205}At " at **DAE-BRNS International Symposium on Nuclear Physics** held at **Bhabha Atomic Research Centre (BARC), Trombay, Mumbai, India**, December 2-6, 2013.
- viii) "High spin states in ^{204}At " at **DAE-BRNS Symposium on Nuclear Physics**, held at **Department of Nuclear Physics, Andhra University, Visakhapatnam, A. P., India**, December 26-30, 2011.
- ix) "Investigation of the high spin states in trans-lead nuclei" at Reserach Scholars Workshop, held at **UGC-DAE CSR, Kolkata centre, India**, January 6 -7, 2011.
- x) "Investigation of high spin states and isomeric decays in doubly odd ^{210}Fr ", at **DAE-BRNS Symposium On Nuclear Physics**, held at **Birla Institute of Technology & Science, Pilani, Rajasthan, India**, December 20-24, 2010.
- xi) "Observation of excited states and isomeric decays in doubly-odd $^{208,210}\text{Fr}$ " at **XLV Zakopane Conference on "Nuclear Physics: Extremes of**

- the Nuclear Landscape**”, held at **Zakopane, Poland**, August 30-September 5, 2010.
- xii) “Observation of excited states and isomeric decays in doubly-odd ^{208}Fr ” at **DAE-BRNS International Symposium on Nuclear Physics**, held at **Bhabha Atomic Research Centre (BARC), Trombay, Mumbai, India**, December 8-12, 2009.
 - xiii) “Investigation of excited states and isomer decay in doubly odd ^{208}Fr ” at **DAE-BRNS Symposium on Nuclear Physics**, held at **Indian Institute of Technology, Roorkee, India**, December 22-26, 2008.
 - xiv) “Spectroscopy of trans-lead Nuclei” in **SERC School** on ”Exploring Symmetries in Nuclei using the national Accelerator Facilities” held at **Inter University Accelerator Centre (IUAC), New Delhi, India**, September 1-21, 2008.
 - xv) “Simulation studies of avalanche formation and propagation in a Parallel Grid Avalanche Counter” at **DAE-BRNS Symposium on Nuclear Physics**, held at **Sambalpur University, Burla, Orissa, India**, December 11-15, 2007.
 - xvi) “A segmented annular avalanche counter for evaporation residue and measurements” at **DAE-BRNS Symposium on Nuclear Physics**, held at **The Maharaja Sayajirao University of Boroda, Vadodara, India**, December 11-15, 2006.

13. Participation in Workshop/ Conference/ Seminar/ School:

- i) Theme Meeting on 'Nuclear Lifetimes, Transitions and Moments (NLTM2022)' at **Variable Energy Cyclotron Centre (VECC), Department of Atomic Energy, India**, February 1-3, 2022.
- ii) Workshop on 'Career Development for Women in Physics' at **The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy**, November 17-19, 2021.
- iii) 5th School cum Workshop on 'Low Energy Nuclear Astrophysics (SLENA)' at **Saha Institute of Nuclear Physics (SINP), Kolkata, India**, February 10-14, 2020.
- iv) 4th School cum Workshop on 'Low Energy Nuclear Astrophysics' at **Saha Institute of Nuclear Physics (SINP), Kolkata, India**, November 26-29, 2012.
- v) International Symposium on 'Accelerator and Radiation Physics' at **Saha Institute of Nuclear Physics (SINP), Kolkata, India** February 16-18, 2011.

- vi) 3rd School cum Workshop on 'Low Energy Nuclear Astrophysics' at **Saha Institute of Nuclear Physics (SINP), Kolkata, India**, November 15-19, 2010.
- vii) DAE-BRNS Theme Meeting on 'Advanced Detectors for Imaging in Physics and Medical Diagnosis' at **Variable Energy Cyclotron Centre (VECC), Kolkata, India**, March 4-5, 2010.
- viii) National Conference on 'X-Ray Fluorescence (XRF 2010)' at **Saha Institute of Nuclear Physics (SINP), Kolkata, India**, January 12-15, 2010.
- ix) DAE-BRNS Workshop on 'Cyclotrons: Rising Expectations and Mounting Challenges' at **Variable Energy Cyclotron Centre (VECC), Kolkata, India**, June 25-26, 2008.
- x) 2nd School cum Workshop on 'Low Energy Nuclear Astrophysics at **Saha Institute of Nuclear Physics (SINP), Kolkata, India**, February 19-22, 2008.
- xi) 17th National Symposium on 'Radiation Physics' at **Saha Institute of Nuclear Physics (SINP), Kolkata, India**, November 14-16, 2007.
- xii) DAE-BRNS Workshop on 'Ion Beams at VECC and their Applications in Basic and Applied Sciences' at **Variable Energy Cyclotron Centre (VECC), Kolkata, India**, September 12-14, 2007.
- xiii) Workshop on 'Nuclear Physics with LINAC beams' at **Inter University Accelerator Centre (IUAC), New Delhi, India**, September 14- 15, 2006.
- xiv) SERC School on 'Nuclear Dynamics at Low and Medium Energies and Nuclear Structure' at **Variable Energy Cyclotron Centre (VECC), Kolkata, India**, March 13 – April 2, 2006.
- xv) School cum Workshop on 'Low Energy Nuclear Astrophysics' at **Saha Institute of Nuclear Physics (SINP), Kolkata, India**, January 16-20, 2006.

14. Conference and symposium proceedings :

- i) *Investigation of High Spin States and Shears Band Structure of ^{204}At* , **D. Kanjilal**, S. K. Dey, S. Saha, M. Das, C. C. Dey, S. Ray, A. Bisoi, S. Nag, R. Palit, and S. Saha, The Fifth International Conference on Application of RadiotraCers and Energetic Beams in Sciences (ARCEBS 2023) **6**, 123 (2023).
- ii) *"Spectroscopic study of ^{32}S "*, Ananya Das, Abhijit Bisoi, S. Ray, M. Roy Basu, **D. Kanjilal**, S. Nag, K. Selva Kumar, A. Goswami, N. Madhavan, S. Muralithar, R. K. Bhowmik, and S. Sarkar, Proc. DAE Symp. on Nucl. Phys. **64**, 200 (2019).

- iii) *"Observation of band structure and new isomeric levels in ^{204}At "*, S. K. Dey, **D. Kanjilal**, A. Bisoi, Mala Das, C. C. Dey, S. Ray, R. Palit, S. Saha, J. Sethi, S. Nag, and S. Saha, Proc. DAE-BRNS Symp. on Nucl. Phys. **61**, 256 (2016).
- iv) *"High spin states in ^{38}K* , Abhijit Bisoi, S. Ray, M. Roy Basu, **D. Kanjilal**, S. Nag, K. Selva Kumar, A. Goswami, N. Madhavan, S. Muralithar, R. K. Bhowmik, S. Sarkar, and M. Saha Sarkar, Proc. DAE-BRNS Symp. on Nucl. Phys. **61**, 106 (2016).
- v) *"High spin states in ^{205}At "*, **D. Kanjilal**, A. Bisoi, M. Das, C. C. Dey, S. Ray, R. Palit, S. Saha, J. Sethi, T. Trivedi, S. Nag, S. Bhattacharya, and S. Saha, Proc. DAE Symp. on Nucl. Phys. **58**, 264 (2013).
- vi) *"High spin states in ^{204}At "*, **D. Kanjilal**, A. Bisoi, M. Das, C. C. Dey, A. Goswami, S. Ray, R. Palit, S. Saha, J. Sethi, T. Trivedi, S. Nag, S. Bhattacharya, and S. Saha, Proc. DAE Symp. on Nucl. Phys. **56**, 438 (2011).
- vii) *"Investigation of high spin states and isomeric decays in doubly-odd ^{210}Fr "*, **D. Kanjilal**, S. Bhattacharya, A. Goswami, R. Kshetri, S. Saha, R. Raut, R. K. Bhowmik, J. Gehlot, S. Muralithar, R. P. Singh, G. Mukherjee, and B. Mukherjee, Proc. DAE Symp. on Nucl. Phys. **55**, 16 (2010).
- viii) *"Are there Super-deformed states in ^{35}Cl ?"*, A. Bisoi, S. Ray, M. Roy Basu, **D. Kanjilal**, S. Nag, K. Selva Kumar, A. Goswami, N. Madhavan, S. Muralithar, R. K. Bhowmik, S. Sarkar and M. Saha Sarkar, Proc. DAE Symp. on Nucl. Phys. **55**, 4 (2010).
- ix) *"Observation of excited states and isomeric decays in doubly-odd ^{208}Fr "*, **D. Kanjilal**, S. Bhattacharya, R. K. Bhowmik, J. Gehlot, A. Goswami, G. Janeswari, R. Kshetri, B. Mukherjee, G. Mukherjee, S. Muralithar, R. Raut, R. P. Singh and S. Saha, Proc. DAE-BRNS International Symp. on Nucl. Phys. **54**, 102 (2009).
- x) *"Transition rates in mirror nuclei ^{35}Ar and ^{35}Cl "*, Sudatta Roy, Moumita Roy Basu, Abhijit Bisoi, **Debasmita Kanjilal**, Somnath Nag, K. Selva Kumar, Asimananda Goswami, N. Madhavan, S. Muralithar, R. K. Bhowmik, Sukhendusekhar Sarkar, M. Saha Sarkar, Proc. DAE-BRNS International Symp. on Nucl. Phys. **54**, 56 (2009).
- xi) *"Investigation of excited states and isomer decay in doubly odd ^{208}Fr "*, **D. Kanjilal**, S. Bhattacharya, R. K. Bhowmik, J. Gehlot, A. Goswami, G. Janeswari, R. Kshetri, B. Mukherjee, G. Mukherjee, S. Muralithar, R. Raut, R. P. Singh and S. Saha, Proc. DAE Symp. on Nucl. Phys. **53**, 265 (2008).
- xii) *"Spectroscopy of ^{37}Ar , ^{36}Cl and the role of fp orbitals"*, Sudatta Ray, I. Ray, Ritesh Kshetri, R. Raut, S. Ganguly, M. K. Pradhan, **D. Kanjilal**, M. Ray Basu, A. Chakraborty, Krishichayan, A. Mukherjee, G. Ganguly, S. S. Ghugre, S. Bhattacharya, P. Banerjee, A. Goswami, A. Deo, S. Kumar, H.

- C. Jain, I. Mazumdar, R. Palit, S. Sarkar, M. Saha Sarkar, Proc. DAE Symp. on Nucl. Phys., **53**, 353 (2008).
- xiii) “*Simulation studies of avalanche formation and propagation in a Parallel Grid Avalanche Counter*”, **D. Kanjilal**, M. Das, S. Saha, Proc. DAE Symp. on Nucl. Phys., **52**, 613 (2007).
- xiv) “*A segmented annular avalanche counter for evaporation residue and measurements*”, **D. Kanjilal**, Mala Das, C. Marick and S. Saha, Proc. DAE-BRNS Symp. on Nucl. Phys., **51**, 622 (2006).
- xv) “*Investigation on R134a as a sensitive liquid for superheated drop emulsion detector*”, Mala das, R. sarkar, P. K. Mondal, **D. Kanjilal**, S. Saha, S. C. Roy, Proc. DAE-BRNS Symp. on Nucl. Phys., **51**, 628 (2006).

15. **Administrative Experience :**

- i) Head of the Department of Physics at Raiganj Surendranath Mahavidyalaya since joining in April, 2017.
- ii) Member of Project Monitoring Unit of RUSA 2.0 scheme at Raiganj Surendranath Mahavidyalaya since 20th November, 2017.
- iii) Convener of Library Committee at Raiganj Surendranath Mahavidyalaya since March, 2022.
- iv) Member of Admission Committee at Raiganj Surendranath Mahavidyalaya since March, 2022.
- v) Member of Internal Quality Assurance Cell at Raiganj Surendranath Mahavidyalaya since June, 2023.

16. **Declaration :** I hereby confirm that the particulars mentioned above are true and correct to the best of my knowledge and belief.

Debasmita Bondyopadhyaya