

Personal Profile:

Name: Anagha Chakraborty
Designation: Assistant Professor, Department of Physics, Siksha Bhavana, Visva-Bharati, Santiniketan – 731 235, West Bengal, India
E-mail: anagha.chakraborty@gmail.com anagha.chakraborty@visva-bharati.ac.in
Contact No.: 6294251834
Date of Birth: 11th August, 1976
Teaching Experience: 15 years
Research Experience: 20 years
Web-link: GOOGLE SCHOLAR <https://scholar.google.com/citations?user=4r3IIEEAAAAAJ&hl=en>
RESEARCHGATE <https://www.researchgate.net/profile/Anagha-Chakraborty>
VIDWAN <https://vidwan.inflibnet.ac.in/profile/217469>
RESEARCHER ID <https://publons.com/researcher/4571390/anagha-chakraborty/>

Area of Research Interest:

- (a) Accelerator based Nuclear Physics research in the field of
(1) Nuclear level structure studies through gamma ray spectroscopic techniques
(2) Nuclear reaction dynamics studies using accelerated light- and heavy-ion beams
(b) Nuclear data base research related to critical evaluation of Nuclear Data for Nuclear Science and Technology

Educational Qualifications:

- Awarded the Ph. D. degree by the University of Calcutta, India in 2008. (Thesis work was carried out at the UGC – DAE Consortium for Scientific Research (UGC-DAE CSR, Kolkata, India).
- Qualified the Joint CSIR – UGC National Eligibility Test (NET) in 2001 and 2002.
- M. Sc. in Physics with specialization in Nuclear Physics and Cosmic Radiation, from Gauhati University, Guwahati, India in 2000.
- B. Sc. in Physics from Bholanath College, Dhubri, Assam (under Gauhati University, Guwahati, India) in 1997.

Research and Teaching Experience:

- Research Scholar at the UGC – DAE CSR, Kolkata Centre from 2001 – 2008.
- Assistant Professor at the Department of Physics, Krishnath College, Berhampore, Murshidabad, West Bengal, India from March, 2005 – February, 2014.
- Post-Doctoral scholar at the Department of Physics and Astronomy, University of Kentucky, Lexington, USA from June, 2009 – May, 2012.
- Visiting Fellow at the Department of Physics, McMaster University, Hamilton, ON, Canada L8S 4K1 from May, 2013 – June, 2013.
- Assistant Professor at the Department of Physics, Siksha Bhavana, Visva-Bharati, Santiniketan, West Bengal, India from February, 2014 – till date.

Number of Publications in Referred Journals: 47

Details of the publications can be found in **Annexure A**

Completed / Ongoing Research Projects:

- ❖ **Project Title:** Investigation of isospin and ground state deformation effects in the nuclear reactions involving rare earth nuclei
Funding Agency: DST-SERB, Govt. of India (File Number: CRG/2021/004680)
Status: Ongoing
- ❖ **Project Title:** Search for coexistence of different shapes and excitation mechanisms in transitional nuclei [Project Code No. UFR – 71344; Ref. No.: IUAC/XIII.3A/UFR-71344, dated January 6, 2022]
Funding Agency: Inter University Accelerator Centre (IUAC), New Delhi, India (funded under the UFUP scheme)
Status: Ongoing

- ❖ **Project Title:** Study of nuclear level density as a function of angular momentum, temperature and unveiling the role of collectivity and shell structure [Ref. No.: UGC-DAE-CSR-KC/CRS/19/NP10/0921/0963 dated 10.05.2019]
Funding Agency: UGC-DAE CSR, Kolkata, India (funded under the Collaborative Research Scheme (CRS))
Status: Completed

- ❖ **Project Title:** Spectroscopic Study of Rare Earth Nuclei [Ref. No.: 37(3)/14/17/2016-BRNS/37231 dated 20/02/2017]
Funding Agency: DAE-BRNS, India
Status: Completed

- ❖ **Project Title:** Search for Non-yrast Collective States in ^{150}Nd [Ref. No.: UGC-DAE-CSR-KC/CRS/13/NP04/02 dated 07.05.2014]
Funding Agency: UGC-DAE CSR, Kolkata, India (funded under the Collaborative Research Scheme (CRS))
Status: Completed

- ❖ **Project Title:** Revisiting High Spin Level Structure of Nuclei around $A \sim 150$ region: Issues of Octupole Oscillations and Deformations [Project Code No. UFR – 56317; Ref. No.: IUAC/XIII.7/UFR-56317 dated 22.08.2014]
Funding Agency: Inter University Accelerator Centre (IUAC), New Delhi, India (funded under the UFUP scheme)
Status: Completed

- ✓ **Number of research scholars supervised for PhD:** 2
- ✓ **Number of research scholars working for PhD at present:** 4
- ✓ **Number of Pre-PhD Dissertation Work Supervised:** 4
- ✓ **Number of MSc Dissertation Work Supervised:** 20

Annexure A

List of Publications

Refereed Journal:

- (1) **Evidence for competing bi-faceted compound nucleus fission modes in $^{232}\text{Th}(\alpha, f)$ reaction**
Aniruddha Dey, D.C. Biswas, A. Chakraborty, S. Mukhopadhyay, A. K. Mondal, K. Mandal, B. Mukherjee, R. Chakrabarti, B.N. Joshi, L.A. Kinage, S. Chatterjee, S. Samanta, S. Das, Soumik Bhattacharya, R. Banik, S. Nandi, Shabir Dar, R. raut, G. Mukherjee, S. Bhattacharyya, S.S. Ghugre, and A. Goswami
Physics Letters B 825 (2022) 136848 <https://doi.org/10.1016/j.physletb.2021.136848>

- (2) **Isospin dependence of nuclear level density at $A \approx 120$ mass region**
R. Shil, K. Banerjee, Pratap Roy, J. Sadhukhan, T.K. Rana, G. Mukherjee, S. Kundu, T.K. Ghosh, S. Manna, A. Sen, R. Pandey, A. Chakraborty, Deepak Pandit, S. Mukhopadhyay, Debasish Mondal, D. Paul, C. Bhattacharya, and S. Bhattacharya
Physics Letters B 831 (2022) 137145 <https://doi.org/10.1016/j.physletb.2022.137145>

- (3) **Inference on fission timescale from neutron multiplicity measurement in $^{18}\text{O} + ^{184}\text{W}$**
N.K. Rai, A. Gandhi, M.T. Senthil Kannan, S.K. Roy, N. Saneesh, M. Kumar, G. Kaur, D. Arora, K.S. Golda, A. Jhingan, P. Sugathan, T.K. Ghosh, Jhिलam Sadhukhan, B.K. Nayak, Nabendu K Deb, Saumyajit Biswas, A. Chakraborty, A. Parihari, and Ajay Kumar
Journal of Physics G: Nuclear and Particle Physics 49 (2022) 035103
[10.1088/1361-6471/ac4b3f](https://doi.org/10.1088/1361-6471/ac4b3f)

- (4) **Alignment effects in the medium-spin level structure of ^{78}Se**
K. Mandal, A. Chakraborty, A.K. Mondal, U. S. Ghosh, Aniruddha Dey, Saumyajit Biswas, B. Mukherjee, S. Rai, S. Chatterjee, S. K. Das, S. Samanta, R. Raut, S. S. Ghugre, S. Bhattacharyya, S. Nandi, S. Bhattacharya,

G. Mukherjee, S. Ali, A. Goswami, S. Mukhopadhyay, Krishichayan, R. Banik, R. Chakrabarti, V. Kumar, and A. Kumar

Phys. Rev. C **105** (2022) 034328 <https://doi.org/10.1103/PhysRevC.105.034328>

(5) Measurement of relative isotopic yield distribution of even-even fission fragments from $^{235}\text{U}(n_{\text{th}}, f)$ following γ -ray spectroscopy

Aniruddha Dey, D.C. Biswas, **A. Chakraborty**, S. Mukhopadhyay, A. K. Mondal, L. S. Danu, B. Mukherjee, S. Garg, B. Maheshwari, A. K. Jain, A. Blanc, G. de France, M. Jentschel, U. Köster, S. Leoni, P. Mutti, G. Simpson, T. Soldner, C. A. Ur, and W. Urban

Physical Review C **103** (2021) 044322 <https://doi.org/10.1103/PhysRevC.103.044322>

(6) Nuclear Data Sheets for A=23

M. Shamsuzzoha Basunia and **Anagha Chakraborty**

Nuclear Data Sheets **171** (2021) 1–252 <https://doi.org/10.1016/j.nds.2020.12.001>

(7) Fabrication and characterization of thin $^{142,150}\text{Nd}$ targets for the study of dynamics of heavy-ion induced reactions

Saumyajit Biswas, S.R. Abhilash, D. Kabiraj, Rohan Biswas, G.R. Umamathy, S. Ojha, and **A. Chakraborty**

Vacuum **186** (2021) 110053 (*Elsevier*) <https://doi.org/10.1016/j.vacuum.2021.110053>

(8) Quasielastic scattering measurements in the $^{28}\text{Si} + ^{142,150}\text{Nd}$ systems

Saumyajit Biswas, **A. Chakraborty**, A. Jhingan, D. Arora, B.R. Behera, Rohan Biswas, Nabendu Kumar Deb, S.S. Ghugre, Pankaj K Giri, K.S. Golda, G. Kaur, A. Kumar, M. Kumar, B. Mukherjee, B.K. Nayak, A. Parihari, N.K. Rai, S. Rai, R. Raut, Rudra N. Sahoo, and A.K. Sinha

Physical Review C **102** (2020) 014613 <https://doi.org/10.1103/PhysRevC.102.014613>

(9) Spectroscopic investigation of complex nuclear excitations in ^{66}Ga

U. S. Ghosh, S. Rai, B. Mukherjee, A. Biswas, A. K. Mondal, K. Mandal, **A. Chakraborty**, S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar, and R. P. Singh

Phys. Rev. C **102** (2020) 024328 <https://doi.org/10.1103/PhysRevC.102.024328>

(10) Investigation of different possible excitation modes in neutron-rich ^{78}As

A. K. Mondal, **A. Chakraborty**, K. Mandal, U. S. Ghosh, Aniruddha Dey, Saumyajit Biswas, B. Mukherjee, S. Rai, Krishichayan, S. Chatterjee, S. K. Das, S. Samanta, R. Raut, S.S. Ghugre, S. Rajbanshi, R. Banik, S. Bhattacharyya, S. Nandi, S. Bhattacharya, G. Mukherjee, S. Ali, A. Goswami, R. Chakrabarti, S. Mukhopadhyay, A.K. Sinha, V. Kumar, and A. Kumar

Phys. Rev. C **102** (2020) 064311 <https://doi.org/10.1103/PhysRevC.102.064311>

(11) Evolution of collectivity and shape transition in ^{66}Zn

S. Rai, U. S. Ghosh, B. Mukherjee, A. Biswas, A. K. Mondal, K. Mandal, **A. Chakraborty**, S. Chakraborty, G. Mukherjee, A. Sharma, I. Bala, S. Muralithar, and R. P. Singh

Phys. Rev. C **102** (2020) 064313 <https://doi.org/10.1103/PhysRevC.102.064313>

(12) Quasi-elastic scattering measurements of the $^{28}\text{Si} + ^{142}\text{Nd}$ system at back-angle

Saumyajit Biswas, **A. Chakraborty**, A. Jhingan, D. Arora, B. R. Behera, Rohan Biswas, Nabendu Kumar Deb, S. S. Ghugre, Pankaj K Giri, K. S. Golda, G. Kaur, A. Kumar, M. Kumar, B Mukherjee, B. K. Nayak, A. Parihari, N. K. Rai, S Rai, R. Raut, Rudra N Sahu & A K Sinha

Indian Journal of Pure & Applied Physics, Vol. 58, May 2020, pp. 409-414

<http://nopr.niscair.res.in/handle/123456789/54743>

(13) Probing the low-lying level structure of ^{94}Zr through β^- decay

K. Mandal, A. K. Mondal, **A. Chakraborty**, E. E. Peters, B. P. Crider, C. Andreoiu, P. C. Bender, D. S. Cross, G. A. Demand, A. B. Garnsworthy, P. E. Garrett, G. Hackman, B. Hadinia, S. Ketelhut, Ajay Kumar, K. G. Leach, M. T. McEllistrem, J. Pore, F. M. Prados-Estévez, E. T. Randi, B. Singh, E. R. Tardiff, Z-M. Wang, J. L. Wood & S. W. Yates

Indian Journal of Pure & Applied Physics, Vol. 58, April 2020, pp. 223-227

<http://nopr.niscair.res.in/handle/123456789/54506>

- (14) **In-beam spectroscopic study of ^{63}Zn**
 U.S.Ghosh, S.Rai, B.Mukherjee, A.Biswas, A.K.Mondal, K.Mandal, **A.Chakraborty**,
 S.Chakraborty, G.Mukherjee, A.Sharma, I.Bala, S.Muralithar, R.P.Singh
Phys. Rev. C **100**, 034314 (2019) <https://doi.org/10.1103/PhysRevC.100.034314>
- (15) **Inelastic neutron scattering studies of ^{76}Se**
 S.Mukhopadhyay, B.P.Crider, B.A.Brown, **A.Chakraborty**, A.Kumar, M.T.McEllistrem
 , E.E.Peters, F.M.Prados-Estevez, S.W.Yates
Phys. Rev. C **99**, 014313 (2019) <https://doi.org/10.1103/PhysRevC.99.014313>
- (16) **Emerging collectivity from the nuclear structure of ^{132}Xe : Inelastic neutron scattering studies and shell-model calculations**
 E.E.Peters, A.E.Stuchbery, **A.Chakraborty**, B.P.Crider, S.F.Ashley, A.Kumar, M.T.Mc Ellistrem, F.M.Prados-Estevez, S.W.Yates
Phys. Rev. C **99**, 064321 (2019) <https://doi.org/10.1103/PhysRevC.99.064321>
- (17) **Measurement of neutron multiplicity to investigate the role of entrance channel parameters on the nuclear dissipation**
 N.K.Rai, A.Gandhi, Ajay Kumar, N. Saneesh, M. Kumar, G.Kaur, A.Parihari, D.Arora, K.S.Golda, A.Jhingan, P.Sugathan, T.K.Ghosh, J.Sadhukhan, B.K.Nayak, N.K.Deb, S.Biswas, **A.Chakraborty**
Phys. Rev. C **100**, 014614 (2019) <https://doi.org/10.1103/PhysRevC.100.014614>
- (18) **Nuclear Data Sheets for A=217**
 F.G. Kondev, E.A. McCutchan, B. Singh, K.Banerjee, S.Bhattacharya, **A.Chakraborty**, S.Garg,
 N.Jovancevic, S.Kumar, S.K.Rathi, T.Roy, J.Lee, R.Shearman
Nucl. Data Sheets **147**, 382 (2018) <https://doi.org/10.1016/j.nds.2018.01.002>
- (19) **Seniority structure of $^{136}\text{Xe}_{82}$**
 E.E.Peters, P.Van Isacker, **A.Chakraborty**, B.P.Crider, A.Kumar, S.H.Liu, M.T.McEllistrem, C.V.Mehl,
 F.M.Prados-Estevez, T.J.Ross, J.L.Wood, S.W.Yates
Phys. Rev. C **98**, 034302 (2018) <https://doi.org/10.1103/PhysRevC.98.034302>
- (20) **High spin states in ^{63}Cu**
 S.Rai, B.Mukherjee, U.S.Ghosh, A.Biswas, **A.Chakraborty**, A.K.Mondal, S.Chakraborty, G.Mukherjee,
 I.Bala, R.P.Singh
Eur. Phys. J. A **54**, 84 (2018) <https://doi.org/10.1140/epja/i2018-12518-2>
- (21) **Excited negative parity bands in ^{160}Yb**
 A.Saha, T.Bhattacharjee, D.Curien, I.Dedes, K.Mazurek, S.R.Banerjee, S.Rajbanshi, A.Bisoi, G.de Angelis,
 S.Bhattacharya, S.Bhattacharyya, S.Biswas, **A.Chakraborty**, S.Das Gupta, B.Dey, A.Goswami,
 D.Mondal, D.Pandit, R.Palit, T.Roy, R.P.Singh, M.S.Sarkar, S.Saha, J.Sethi
Phys. Scr. **93**, 034001 (2018) <https://doi.org/10.1088/1402-4896/aaa1fa>
- (22) **Possible onset of multifaceted excitation modes in ^{29}Al**
 H.Sultana, R.Bhattacharjee, **A.Chakraborty**, M.A.Khan, S.S.Bhattacharjee, R.Chakrabarti, S.Das, U.Garg,
 S.S.Ghugre, R.Palit, R.Raut, S.Saha, S.Samanta, J.Sethi, A.K.Sinha, T.Trivedi
Phys. Rev. C **98**, 014330 (2018) <https://doi.org/10.1103/PhysRevC.98.014330>
- (23) **Nuclear structure of ^{76}Ge from inelastic neutron scattering measurements and shell model calculations**
 S. Mukhopadhyay, B.P.Crider, B.A.Brown, S.F.Ashley, **A.Chakraborty**, A.Kumar, M.T.McEllistrem,
 E.E.Peters, F.M.Prados-Estevez, S.W.Yates
Phys. Rev. C **95**, 014327 (2017) <https://doi.org/10.1103/PhysRevC.95.014327>
- (24) **Level lifetimes and the structure of ^{134}Xe from inelastic neutron scattering**

E.E.Peters, **A.Chakraborty**, B.P.Crider, S.F.Ashley, E.Elhami, S.F.Hicks, A.Kumar, M.T.McEllistrem, S.Mukhopadhyay, J.N.Orce, F.M.Prados-Estevez, S.W.Yates

Phys. Rev. C **96**, 014313 (2017)

<https://doi.org/10.1103/PhysRevC.96.014313>

(25) Collective quadrupole behavior in ^{106}Pd

F.M.Prados-Estevez, E.E.Peters, **A.Chakraborty**, M.G.Mynk, D.Bandyopadhyay, N.Boukharouba, S.N.Choudry, B.P.Crider, P.E.Garrett, S.F.Hicks, A.Kumar, S.R.Lesher, C.J.McKay, M.T.McEllistrem, S.Mukhopadhyay, J.N.Orce, M.Scheck, J.R.Vanhoy, J.L.Wood, S.W.Yates

Phys. Rev. C **95**, 034328 (2017)

<https://doi.org/10.1103/PhysRevC.95.034328>

(26) E0 transitions in ^{106}Pd : Implications for shape coexistence

E.E.Peters, F.M.Prados-Estevez, **A.Chakraborty**, M.G.Mynk, D.Bandyopadhyay, S.N.Choudry, B.P.Crider, P.E.Garrett, S.F.Hicks, A.Kumar, S.R.Lesher, C.J.McKay, J.N.Orce, M.Scheck, J.R.Vanhoy, J.L.Wood, S.W.Yates

Eur. Phys. J. A **52**, 96 (2016)

<https://doi.org/10.1140/epja/i2016-16096-y>

(27) 0^+ states in $^{130,132}\text{Xe}$: A search for E(5) behavior

E.E.Peters, T.J.Ross, S.F.Ashley, **A.Chakraborty**, B.P.Crider, M.D.Hennek, S.H.Liu, M.T.McEllistrem, S.Mukhopadhyay, F.M.Prados-Estevez, A.P.D.Ramirez, J.S.Thrasher, S.W.Yates

Phys. Rev. C **94**, 024313 (2016)

<https://doi.org/10.1103/PhysRevC.94.024313>

(28) Shape coexistence in ^{153}Ho

D.Pramanik, S.Sarkar, M.S.Sarkar, A.Bisoi, S.Ray, S.Dasgupta, **A.Chakraborty**, Krishichayan, R.Kshetri, I.Ray, S.Ganguly, M.K.Pradhan, M.R.Basu, R.Raut, G.Ganguly, S.S.Ghugre, A.K.Sinha, S.K.Basu, S.Bhattacharya, A.Mukherjee, P.Banerjee, A.Goswami

Phys. Rev. C **94**, 024311 (2016)

<https://doi.org/10.1103/PhysRevC.94.024311>

(29) Neutron scattering differential cross sections for ^{23}Na from 1.5 to 4.5 MeV

J.R. Vanhoy, S.F. Hicks, **A. Chakraborty**, B.R. Champine, B.M. Combs, B.P. Crider, L.J.Kersting, A. Kumar, C.J. Lueck, S.H. Liu, P.J. McDonough, M.T. McEllistrem, E.E. Peters, F.M.Prados-Estévez, L.C. Sidwell, A.J. Sigillito, D.W. Watts, and S.W. Yates

Nuclear Physics A **939**, 121 (2015)

<https://doi.org/10.1016/j.nuclphysa.2015.03.006>

(30) A study of measured neutron elastic differential neutron cross sections for ^{23}Na

A. Kumar, M. Balasubramaniam, **A. Chakraborty**, B.P. Crider, S.F. Hicks, C. Karthikraj, L.J. Kersting, C.J. Luke, P.J. McDonough, M.T. McEllistrem, E.E. Peters, F.M. Prados-Estévez, A.J. Sigillito, M.M. Upadhyay, J.R. Vanhoy, and S.W. Yates

J. Radiational Nucl. Chem. **302**, 1043 (2014) <https://doi.org/10.1007/s10967-014-3535-x>

(31) Collective Structure in ^{94}Zr and Subshell Effects in Shape Coexistence

A. Chakraborty, E.E. Peters, B.P. Crider, C. Andreoiu, P.C. Bender, D.S. Cross, G.A. Demand, A.B. Garnsworthy, P.E. Garrett, G. Hackman, B. Hadinia, S. Ketelhut, Ajay Kumar, K.G. Leach, M.T. McEllistrem, J. Pore, F.M. Prados-Estévez, E.T. Rand, B. Singh, E.R. Tardiff, Z.-M. Wang, J.L. Wood, and S.W. Yates

Phys. Rev. Lett. **110**, 022504 (2013) <https://doi.org/10.1103/PhysRevLett.110.022504>

(32) Level lifetimes in the stable Zr nuclei: Effects of chemical properties in Doppler-shift measurements

E. E. Peters, **A. Chakraborty**, B.P. Crider, B.H. Davis, M.K. Gnanamani, M.T. McEllistrem, F.M. Prados-Estévez, J.R. Vanhoy, and S. W. Yates

Phys. Rev. C **88**, 024317 (2013)

<https://doi.org/10.1103/PhysRevC.88.024317>

(33) Dipole response of ^{76}Se above 4 MeV

P.M. Goddard, N. Cooper, V. Werner, G. Rusev, P.D. Stevenson A. Rios, C. Bernards, **A.Chakraborty**, B.P. Crider, J. Glorius, R.S. Ilieva, J.H. Kelley, E. Kwan, E.E. Peters, N. Pietralla, R. Raut, C. Romig, D. Savran, L. Schnorrenberger, M.K. Smith, K. Sonnabend, A.P. Tonchev, W. Tornow, and S. W. Yates

Phys. Rev. C **88**, 064308 (2013)

<https://doi.org/10.1103/PhysRevC.88.064308>

- (34) **New Levels in the Structure of the ^{36}Cl by $^{72}\text{Ge}(^{35}\text{Cl}, n)$ Reaction**
G. Kiran Kumar, S. Mukherjee, S.S. Ghugre, Krishichayan, S. Ray, **A. Chakraborty**, N.S. Pattabiraman, A.K. Sinha, S. Zhu, U. Garg, A.V. Afanasjev, S. Frauendorf, B. Kharaj
Arabian Journal for Science and Engineering **38**, 181 (2013) <https://doi.org/10.1007/s13369-012-0389-9>
- (35) **New decay pattern of negative-parity states at $N = 90$**
A. Chakraborty, F.M. Prados-Estévez, S.N. Choudry, B.P. Crider, P.E. Garrett, W.D. Kulp, A. Kumar, M.T. McEllistrem, S. Mukhopadhyay, M.G. Nayak, J.N. Orce, E.E. Peters, J.L. Wood, and S.W. Yates
Phys. Rev. C **86**, 064314 (2012) <https://doi.org/10.1103/PhysRevC.86.064314>
- (36) **Status of vibrational structure in ^{62}Ni**
A. Chakraborty, J.N. Orce, S.F. Ashley, B.A. Brown, B.P. Crider, E. Elhami, M.T. McEllistrem, S. Mukhopadhyay, E.E. Peters, B. Singh, and S.W. Yates
Phys. Rev. C **83**, 034316 (2011) <https://doi.org/10.1103/PhysRevC.83.034316>
- (37) **Experimental study of nuclei in the vicinity of the “island of inversion” through the fusion-evaporation reaction**
R. Chakrabarti, S. Mukhopadhyay, Krishichayan, **A. Chakraborty**, A. Ghosh, S. Ray, S. S. Ghugre, A. K. Sinha, L. Chaturvedi, A. Y. Deo, P. K. Joshi, R. Palit, Z. Naik, S. Kumar, N. Madhavan, R. P. Singh, S. Muralithar, B. K. Yogi, and U. Garg
Phys. Rev. C **80**, 034326 (2009) <https://doi.org/10.1103/PhysRevC.80.034326>
- (38) **High spin states in ^{139}Pm**
A. Dhal, R. K. Sinha, L. Chaturvedi, P. Agarwal, S. Kumar, A. K. Jain, R. Kumar, I. M. Govil, S. Mukhopadhyay, **A. Chakraborty**, Krishichayan, S. Ray, S. S. Ghugre, A. K. Sinha, R. Kumar, R. P. Singh, S. Muralithar, R. K. Bhowmik, S. C. Pancholi, and J. B. Gupta
Phys. Rev. C **80**, 014320 (2009) <https://doi.org/10.1103/PhysRevC.80.014320>
- (39) **Triaxial shape coexistence and new aligned band in ^{178}Os**
R. Kumar, I. M. Govil, A. Dhal, L. Chaturvedi, C. R. Praharaj, A. K. Rath, G. Kiran Kumar, S. K. Basu, **A. Chakraborty**, Krishichayan, S. Mukhopadhyay, N. S. Pattabiraman, S. S. Ghugre, and A. K. Sinha
Phys. Rev. C **80**, 054319 (2009) <https://doi.org/10.1103/PhysRevC.80.054319>
- (40) **Level structure of the odd – odd nucleus ^{54}Mn**
G. Kiran Kumar, S. Mukherjee, S. Mukhopadhyay, Krishichayan, S. Ray, S.S. Ghugre, **A. Chakraborty**, A.K. Sinha, and S.K. Basu
J. Phys. G: Nucl. Part. Phys. **35**, 095104 (2008) <https://doi.org/10.1088/0954-3899/35/9/095104>
- (41) **High-spin states of ^{103}Ag**
S. Ray, N.S. Pattabiraman, Krishichayan, **A. Chakraborty**, S. Mukhopadhyay, S.S. Ghugre, S.N. Chintalapudi, A.K. Sinha, U. Garg, S. Zhu, B. Kharaja, and D. Almeded
Phys. Rev. C **77**, 024305 (2008) <https://doi.org/10.1103/PhysRevC.77.024305>
- (42) **High-spin structure and band termination in ^{103}Cd**
A. Chakraborty, Krishichayan, S. Mukhopadhyay, S. Ray, S.N. Chintalapudi, S.S. Ghugre, N.S. Pattabiraman, A.K. Sinha, S. Sarkar, U. Garg, S. Zhu, and M. Saha Sarkar
Phys. Rev. C **76**, 044327 (2007) <https://doi.org/10.1103/PhysRevC.76.044327>
- (43) **Spin-parity measurements in the neutron-rich $N \sim 20$ ^{34}P and ^{36}S nuclei**
Krishichayan, **A. Chakraborty**, S.S. Ghugre, R. Goswami, S. Mukhopadhyay, N.S. Pattabiraman, S. Ray, A.K. Sinha, S. Sarkar, P.V. Madhusudhana Rao, U. Garg, S.K. Basu, B.K. Yogi, L. Chaturvedi, A. Dhal, R.K. Sinha, M. Saha Sarkar, S. Saha, R. Singh, R.K. Bhowmik, A. Jhingam, N. Madhavan, S. Muralithar, S. Nath, R.P. Singh, and P. Sugathan
Eur. Phys. J. A. **29**, 151 (2006) <https://doi.org/10.1140/epja/i2006-10084-x>
- (44) **High spin states in ^{143}Sm**

R. Raut, S. Ganguli, R. Kshetri, P. Banerjee, S. Bhattacharya, B. Dasmahapatra, A. Mukherjee, G. Mukherjee, M. Saha Sarkar, A. Goswami, G. Gangopadhyay, S. Mukhopadhyay, Krishichayan, A. Chakraborty, S.S.Ghugre, T. Bhattacharjee, and S.K. Basu

Phys. Rev. C 73, 044305 (2006)

<https://doi.org/10.1103/PhysRevC.73.044305>

(45) Spectroscopy of ^{90}Nb at high spin

A. Chakraborty, Krishichayan, S.S. Ghugre, R. Goswami, S. Mukhopadhyay, N.S. Pattabiraman, S. Ray, A.K. Sinha, S. Sarkar, P.V. Madhusudhana Rao, U. Garg, S.K. Basu, L. Chaturvedi, A. Dhal, R.K. Sinha, I.M. Govil, M.B. Chatterjee, M. Saha Sarkar, R.K. Bhowmik, A. Jhingan, N. Madhavan, S. Muralithar, S. Nath, R.P. Singh, and P. Sugathan,

Phys. Rev. C 72, 054309 (2005)

<https://doi.org/10.1103/PhysRevC.72.054309>

(46) High-spin states in the odd-odd nucleus ^{146}Tb

Krishichayan, A. Chakraborty, S.S. Ghugre, R. Goswami, S. Mukhopadhyay, N.S. Pattabiraman, S. Ray, A.K. Sinha, S. Sarkar, P.V. Madhusudhana Rao, U. Garg, S.K. Basu, B.K. Yogi, L. Chaturvedi, A. Dhal, R.K. Sinha, M. Saha Sarkar, S. Saha, R. Singh, R.K. Bhowmik, A. Jhingan, N. Madhavan, S. Muralithar, S. Nath, R.P. Singh, and P. Sugathan

Phys. Rev. C 70, 044315 (2004)

<https://doi.org/10.1103/PhysRevC.70.044315>

(47) Lifetime measurements of microsecond isomers in the $N = 48$ nuclei ^{88}Zr and ^{90}Mo using recoil-isomer tagging

A. Chakraborty, Krishichayan, S.S. Ghugre, R. Goswami, S. Mukhopadhyay, N.S. Pattabiraman, S. Ray, A. K. Sinha, S. Sarkar, P.V. Madhusudhana Rao, U. Garg, S.K. Basu, L. Chaturvedi, A. Dhal, R.K. Sinha, I.M. Govil, M.B. Chatterjee, M. Saha Sarkar, R.K. Bhowmik, A. Jhingan, N. Madhavan, S. Muralithar, S. Nath, R.P. Singh, and P. Sugathan

Phys. Rev. C 70, 014311 (2004)

<https://doi.org/10.1103/PhysRevC.70.014311>

I do hereby declare that all the information given above is true to the best of my knowledge and belief.

Place: Santiniketan

Date: 6th December, 2022



(Dr Anagha Chakraborty)