

## Curriculum Vitae:

1. **Full Name:** NABANITA NASKAR
2. **Nationality:** Indian
3. **Date of Birth:** 09-04-1990
4. **Gender:** Female
5. **Father's & Mother's Name:** Sri Rupchand Naskar & Srimati Monika Naskar
6. **Permanent address:** C/o Rupchand Naskar,  
Mahamayapur, Beltala, P.O-Garia, Kolkata-  
700084 (P.S- Sonarpur, New P.S- Narendrapur)
7. **Present Work address:** Inspire Faculty (1<sup>st</sup> September 2022 onwards)  
Department of Botany  
Diamond Harbour Women's University  
Sarisha, 24 Parganas (S), West Bengal 743368
8. **E-mail:** g.nabanitanaskar94@gmail.com
9. **Phone No.:** +91 9433580581



### 10. Educational Qualification:

Sl. No.	Examination	Affiliation	Year of passing	Grade (%) obtained
1	Ph. D (Environmental Science)	University of Calcutta	Awarded: 26 <sup>th</sup> September, 2019	
2	MSc. (Microbiology)	University of Calcutta	2013	I (68%)
3	BSc. (Microbiology Hons.)	University of Calcutta	2011	I (72.7%)
4	Class XII (AISSCE)	Central Board of Secondary Education	2008	I (82.4%)
5	Class X (AISSE)		2006	I (86.4%)

11. **M.Sc. Dissertation title:** Biosorption of lead(II) from the aqueous phase using dry cells of *Rhizopus oryzae*

**Supervisor:** Late Professor Lalita Gauri Ray; Department of Food Technology & Biochemical Engineering, Jadavpur University, Kolkata-700032

### 12. Ph.D Thesis title:

Quantitative assessment of natural radioactivity with special reference to mangrove ecosystem of Indian Sundarban

**Ph.D Supervisor:** Dr. Punarbasu Chaudhuri (Associate Professor)

Department of Environmental Science, University of Calcutta, Kolkata-700019.

*Email: punarbasu\_c@yahoo.com*

**Ph.D Joint Supervisor:** Professor Susanta Lahiri (Senior Professor H+ and Head) Saha Institute of Nuclear Physics, Kolkata-700064.

*Email: susanta.lahiri.sinp@gmail.com*

**13. Area of research interests:**

- Measurement of Naturally Occurring Radioactive Materials (NORMs) and natural radiation, environmental monitoring
- Environmental geochemistry, green chemistry
- Trace and Ultra-trace level multi-elemental analysis and sample preparation, heavy metal analysis
- Accelerator Mass Spectroscopy, radiocarbon dating of archaeological samples
- Environmental bio-remediation, bio-sorption
- Production and separation of medically important radioisotopes
- Nanoparticle synthesis and application

**14. Entrance Examinations qualified:**

- Qualified National Eligibility Test (NET) for Junior Research Fellowship (JRF) & Lectureship (LS) in Life Science conducted by Council of Scientific and Industrial Research-University Grants Commission (CSIR-UGC, June 2014)
  - a. Junior Research Fellowship (JRF): 19-01-2015 to 18-01-2017
  - b. Senior Research Fellowship (SRF): 19-01-2017 to 16-04-2019
- Qualified Graduate Aptitude Test Engineering (GATE, 2014)

**15. Employment:**

- Assistant Professor in Microbiology at Sammilani Mahavidyalaya (01-03-2024 onwards).
- Inspire Faculty Fellow at Diamond Harbour Women's University (01-09-2022 to 29-02-2024).
- Research Associate at the Saha Institute of Nuclear Physics, Kolkata (RA I: 17-10-2019 – 16-10-2021; RA II: 17-10-2021 – 31-08-2022)
- UGC-Research Fellow at Department of Environmental Science, University of Calcutta, India (JRF: 19-01-2015 – 18-01-2017; SRF: 19-01-2017 – 16-04-2019)

**16. Teaching and guiding experience:**

- Inspire Faculty in Department of Botany, Diamond Harbour Women's University, Sarisha, 24 Parganas (S), West Bengal 743368. Teaching topic: Microbiology, Genetics.
- Guest Lecturer in the Department of Archaeology, Alipore Campus, University of Calcutta (2020 onwards). Teaching topic: Dating in archaeology
- Took MSc Semester II online class (2020) of Dept. of Environmental Science, University of Calcutta. Teaching topic: Radiation and radioactive pollution.

- Served as a resource person in a Training course on instruments for Mizoram University-PGDIT students from 20th-26th Jan 2019 held at Saha Institute of Nuclear Physics.
- Served as a resource person in the 6-day workshop- School on Trace Analysis, (STA-2017) from 27<sup>th</sup> Mar-2nd Apr 2017 organised jointly by Mizoram University and Saha Institute of Nuclear Physics.
- Guided ten summer project students (jointly supervised, 2016 onwards); six MSc dissertation students (2023 onwards)

## 17. Awards and Recognitions:

- Successfully completed the Radiological Safety Officer Certification Course organized by the Radiological Physics & Advisory Division (RP&AD) of Bhabha Atomic Research Centre (BARC) at Amity Institute of Nuclear Science and Technology, Noida from 05-06-2023 to 12-06-2023.
- Delivered an **Invited talk** at the 5<sup>th</sup> *International Conference on Applications of Radiotracers & Energetic Beams in Sciences (ARCEBS-23)* organized by Sidho-Kanho-Birsha University, Purulia in cooperation with IAEA, Jan 31-Feb 5, 2023
- Selected in the Young Scientist category of 108<sup>th</sup> Indian Science Congress in the discipline of Environmental Sciences, RTM University, Nagpur, Jan 3-7, 2023
- **Inspire Faculty Fellow (2021)** in the discipline of Earth and Atmospheric Sciences
- Delivered an **Invited talk** at the International Conference on Macrocosmos, Microcosmos, Accelerator and Philosophy (MMAP-2020) organized by Tagore Centre for Natural Sciences and Philosophy at Saha Institute of Nuclear Physics, Kolkata, May 9-13, 2022
- Recipient of **Young Scientist Award- V. Pandu Ranga Rao Award** for best oral presentation at 57<sup>th</sup> *Annual Convention of Chemists and International Conference on Recent Trends in Chemical Sciences* organized by Indian Chemical Society, Online platform, December 26-29, 2020
- Recipient of **Travel Grant** to participate in the 3<sup>rd</sup> *International Conference on Physics for Sustainable Development & Technology (ICPSDT-2019)* organized by Dept. of Physics, Chittagong University of Engineering & Technology, Chittagong, Bangladesh, Dec 18-19, 2019
- Recipient of **Young Scientist Award** for best oral presentation at *International Conference on Chemistry & Environmental Sustainability (ICCES-2019)* organized by Mizoram University, Aizawl, Feb 19-22, 2019
- Delivered an **Invited talk** at the 4<sup>th</sup> *International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS-18)* organized by Saha Institute of Nuclear Physics in cooperation with IAEA, Ffort Raichak, Kolkata, Nov 11-17, 2018

- Recipient of **IAEA Grant** to participate in the *4<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS-18)* organized by Saha Institute of Nuclear Physics in cooperation with IAEA, Ffort Raichak, Kolkata, Nov 11-17, 2018
- Recipient of **Young Scientist Award- Professor V S Tripathi Award** for best oral presentation at *52<sup>nd</sup> Annual Convention of Chemists and International Conference on Recent Advances in Chemical Sciences* organized by Indian Chemical Society, JECRC University, Jaipur, December 28-30, 2015
- **Chaired a session** at *International Conference on Modern Trends in Activation Analysis (MTAA-14)* Delft University of Technology, Delft, The Netherlands, August 23-28, 2015

### 18. Research Projects:

Sl. No.	Name of the project	Granting authority	Role	Duration of project	Grant amount (INR)
1	Absolute dating of archaeological samples from late Holocene western uplands (Sijua and Barind) of West Bengal	IUAC, New Delhi	CI	2023-2025	Travel & Beam time
2	Studies on PET-radioisotopes conjugation with compounds derived from Indian Spices	UGC-DAE	CI	2023-2026	
3	Geo-Environmental studies of past and present through radiotracer and stable isotope techniques [Sanction no: DST/INSPIRE/04/2021/003612]	DST	PI	2021-2026	1.1 crore
4	Absolute dating of bone samples of animal origin to complement <sup>14</sup> C-charcoal-age from the archaeological site of Erenda, West Bengal [AUC ID: 73136]	IUAC, New Delhi	PI	2023-2025	Travel & Beam time
5	Age dating of archaeological samples from coastal West Bengal: further investigation [AUC ID: 68328]	IUAC, New Delhi	CI	2022-2024	
6	Absolute age determination of archaeological sites from Palaeo-deltaic region of West Bengal coast [AUC ID: 67402]	IUAC, New Delhi	CI	2022-2024	
7	Application of <sup>14</sup> C bomb spike to understand the history of anthropogenic contaminations in Antarctica	IUAC, New Delhi	CI	2022-2025	

## 19. Participation:

- Attended “One-day National Symposium on Evolution of Homo Sapiens: Through the Looking-glass of Ancient DNA organized by INSA-Kolkata chapter in collaboration with Dept of Zoology, DHWU on 25-11-2022.
- Attended “*School and Symposium on Advances in Biomedical Mass Spectrometry (SSABMS)*” organized by Saha Institute of Nuclear Physics from 11<sup>th</sup>–14<sup>th</sup> Nov 2019 held at Meghnad Saha Auditorium, SINP, Kolkata
- Attended one-day workshop of “*Gender Integration in Urban Climate Change Initiative for Pilot City Kolkata*”, organized by All India Women’s Conference, East Calcutta Constituency on 24<sup>th</sup> Sept 2019 at The Stadel, Kolkata
- Attended workshop of “*Know Your Elements*” (KYE-2019), organized by Saha Institute of Nuclear Physics in cooperation with Indian Chemical Society and Society for Interdisciplinary Research in Materials and Biology from 4<sup>th</sup>–10<sup>th</sup> Aug 2019 held at Meghnad Saha Auditorium, SINP, Kolkata
- Performed one-month long experiment at CERN-MEDICIS program, Geneva, Switzerland from 2<sup>nd</sup>–27<sup>th</sup> Nov 2016 (completely funded by CERN-MEDICIS)
- Attended 3-day AMS workshop at IUAC, Delhi from 21<sup>st</sup>–23<sup>rd</sup> Apr 2016

## 20. Organizational:

- Worked as a Secretary in the 5th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS-23) from Jan 31- Feb 5, 2023 organized by Sidho-Kanho-Birsha University in cooperation with IAEA.
- Worked as an organizer in the International discussion meeting on the Future of Accelerator Applications and Radiotracers Research (FAARR-21) on 26<sup>th</sup>-27<sup>th</sup> July 2021 on an online platform.
- Worked as a joint-secretary in the 4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS-18) from 11<sup>th</sup>–17<sup>th</sup> November 2018 organized by Saha Institute of Nuclear Physics in cooperation with IAEA at Ffort Raichak, Kolkata
- Worked as a joint secretary in a 6-day long workshop- School on Trace Analysis, (STA-2017) from 27<sup>th</sup> March to 2<sup>nd</sup> April 2017 organized jointly by Mizoram University and Saha Institute of Nuclear Physics

## 21. Research publications in:

A. Refereed Journals:	55 (Vide Annexure I)
B. Book Chapter	1
C. Archived Article:	1
D. Popular Science Article:	2
E. Publications in Conferences:	60 (International 43, National 17) (Vide Annexure II)
F. Overseas academic visits:	6 (Vide Annexure III)

**22. *Reviewer:***

- Journal of Radioanalytical and Nuclear Chemistry
- Frontiers in Medicine

**23. *Dissertation guidance:*** 13 (Joint-supervision, 2016 onwards); 3 (2022 onwards)  
(Vide Annexure IV)

*Nabanita Naskar,*

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**(Nabanita Naskar)**

## ANNEXURE – I

### **Publications in International Peer-Reviewed Journals:**

1. S. Mitra, **N. Naskar**, D. Tamili, S. Lahiri, P. Bhattacharjee, R.K. Nandi, P. Chaudhuri, Gamma radiolytic degradation of catechin in aqueous solution. *Radiat. Phys. Chem.* (2024) 217: 111509. DOI 10.1016/j.radphyschem.2024.111509. [IF=2.9]
2. S. Mitra, **N. Naskar**, J. Mukherjee, S. Sutradhar, S. Lahiri, C. Barman, Assessment of NORMs (238U, 232Th, 40K) and Radiation Hazard Indices in Beldih Apatite Mine Region of Purulia District, West Bengal, India. (2023) Accepted. *Environ. Geochem. Health* [IF=4.2]
3. S. Mitra, **N. Naskar**, S. Lahiri, P. Chaudhuri, Synergistic aqueous biphasic separation of no-carrier-added <sup>71,72</sup>As from a gallium oxide target using green tea polyphenols. *Chemistry Select* (2024) 217: 111509. DOI 10.1002/slct.202302651.
4. S. Mitra, **N. Naskar**, J. Mukherjee, S. Sutradhar, S. Lahiri, S. Mondal, C. Barman, Estimation of gross  $\alpha$ - $\beta$  and tritium activities in groundwater samples using LSC-TDCR technique in and around the geothermal region of Eastern India. *Environ. Sci. Pollut. Res.* (2023) 30: 124053-124066. DOI 10.1007/s11356-023-31046-x. [IF=5.8]
5. **N. Naskar**, C. Shaha, A. Ghosh, K. Gangopadhyay, Study on distribution of radionuclides in soil and pottery samples of Archaeological Sites of Eastern India. *J. Radioanal. Nucl. Chem.* (2023) [IF=1.754; Corresponding author]
6. **N. Naskar**, M. Ghosh, M. Maity, R. Sarkar, A brief review of the distribution of Caesium-137 in natural vegetation. *J. Radioanal. Nucl. Chem.* (2023) 332: 4377-4390. DOI 10.1007/s10967-023-09166-y. [IF=1.754; Corresponding author]
7. S. Mitra, **N. Naskar**, S. Lahiri, P. Chaudhuri, A study on phytochemical profiling of *Avicennia marina* mangrove leaves collected from Indian Sundarbans. *Sustain. Chem. Environ.* (2023) 4: 100041. DOI 10.1016/j.scenv.2023.100041.
8. S. Mitra, **N. Naskar**, Separation of long-lived <sup>108m</sup>Ag from <sup>152</sup>Eu and <sup>60</sup>Co using polyethylene glycol based aqueous two phase systems. *J. Sol. Chem.* (2023) 52: 1289-1300. DOI 10.1007/s10953-023-01318-8 [IF=2.00; Corresponding author]
9. S. Mitra, **N. Naskar**, P. Samanta, P. Banerjee, S. Lahiri, K. Ghosh, P. Chaudhuri, Separation of <sup>71,72</sup>As from alpha induced reaction on gallium oxide target using naturally occurring alkaloid caffeine. *Radiochim. Acta* (2023) DOI 10.1515/ract-2023-0148 [IF=2.083]
10. S. Mitra, **N. Naskar**, P. Samanta, P. Banerjee, S. Lahiri, P. Chaudhuri, Separation of <sup>90</sup>Nb from bulk yttrium target using two food derived alkaloids. *J. Radioanal. Nucl. Chem.* (2023) DOI 10.1007/s10967-023-08982-6 [IF=1.754]

11. K. Ghosh, **N. Naskar**, S. Lahiri, Liquid-liquid extraction of no-carrier-added  $^{129}\text{Cs}$  with various extractants. *Appl. Radiat. Isot.* (2023) 196: 110777. DOI 10.1016/j.apradiso.2023.110777 [IF=1.787]
12. A. Manna, **N. Naskar**, K. Sen. K. Banerjee, A review on adsorption mediated phosphate removal and recovery by biomatrices. *J. Indian Chem. Soc.* (2022) 99: 100682. DOI 10.1016/j.jics.2022.100682 [IF=0.28]
13. **N. Naskar**, S. Lahiri, Production of neutron deficient rare earth radionuclides by heavy ion activation. *Radiochim. Acta* (2022) 110(6-9): 725-737. DOI: 10.1515/ract-2022-0018 [IF=1.44]
14. R. Bala, D. Das, Karanveer, **N. Naskar**, S. Lahiri, Vertical distribution and radiological risk assessment of natural radionuclides in the alluvial soil profile of south-west Punjab, India. *J. Radioanal. Nucl. Chem.* (2022) 331(6): 2561-2572. DOI 10.1007/s10967-022-08320-2 [IF=1.754]
15. S. Mitra, **N. Naskar**, Separation of  $^{133}\text{Ba}$  and  $^{137}\text{Cs}$  from mixture of  $^{133}\text{Ba}$ - $^{137}\text{Cs}$  by environmentally benign PEG based aqueous biphasic system. *J. Sol. Chem.* (2022) 51(10): 1209-1218. DOI 10.1007/s10953-022-01197-5 [IF=2.00; Corresponding author]
16. S. Mitra, **N. Naskar**, K. Ghosh, S. Lahiri, P. Chaudhuri, A. Dey, A. Saha, Studies on radiation stability of natural caffeine. *Appl. Radiat. Isot.* (2022) 183: 110148. DOI 10.1016/j.apradiso.2022.110148 [IF=1.787]
17. K. Chakraborty, S. Kar, B. Rai, R. Bhagat, **N. Naskar**, P. Seth, A Gupta, A. Bhattacharjee, Copper dependent ERK1/2 phosphorylation is essential for the viability of neurons and not glia. *Metallomics* (2022) 14(4): mfac005 DOI 10.1093/mtomcs/mfac005 [IF=4.636]
18. **N. Naskar**, S. Lahiri, A. Bombard, Separation of no-carrier-added  $^{71,72}\text{As}$  from 46 MeV alpha particle irradiated  $\text{Ga}_2\text{O}_3$  target by TK200 and DGA-N resins. *J. Radioanal. Nucl. Chem.* (2022) 331(1): 215-220. DOI: 10.1007/s10967-021-08110-2 [IF=1.754; Corresponding author]
19. K. Ghosh, **N. Naskar**, S. Lahiri, Separation of ultra-trace amount of  $^{44\text{m}}\text{Sc}$  from alpha particle activated KBr target. *J. Radioanal. Nucl. Chem.* (2022) 331(1): 483-490. DOI 10.1007/s10967-021-08088-x [IF=1.754]
20. T. Gaine, P. Tudu, S. Ghosh, S. Mahanty, M. Bakshi, **N. Naskar**, S. Chakraborty, S. Bhattacharya, S.G. Bhattacharya, K. Bhattacharya, P. Chaudhuri, Differentiating Wild and Apiary Honey by Elemental Profiling: a Case Study from Mangroves of Indian Sundarban. *Biol. Trace Elem. Res.* (2021) 200(10): 4550-4569. DOI 10.1007/s12011-021-03043-z [IF=4.081]
21. P. Singh, **N. Naskar**, Fabrication of In(III)-Alizarin Red S Complex Trap for Efficient Detection of Fluoride Ion in Aqueous Environs. *J. Anal. Sc. Technol.* (2021) 12(1), Article no:57, 1-10. DOI 10.1186/s40543-021-00308-z [IF=3.568; Corresponding author]



22. **N. Naskar**, K. Gangopadhyay, S. Lahiri, P. Chaudhuri, R. Sharma, P. Kumar, S. Ojha, S. Chopra, A. Ghosh, New AMS  $^{14}\text{C}$  dates of a multicultural archaeological site from the paleo-deltaic region of West Bengal, India: cultural and geoarchaeological implications. *Radiocarbon* (2021) 63(6): 1645-1655. DOI: 10.1017/RDC.2021.111 [IF=8.3]
23. S. Mandal, **N. Naskar**, A. Mandal, K. Ghosh, S. Lahiri, Separation of  $^{109}\text{Cd}$  impurity from a decayed  $^{110\text{m}}/^{108\text{m}}\text{Ag}$  source. *J. Radioanal. Nucl. Chem.* (2021) 330(3): 1281-1284. DOI 10.1007/s10967-021-08037-8 [IF=1.754]
24. S. Mitra, **N. Naskar**, P. Chaudhuri, A review on potential bioactive phytochemicals for novel therapeutic applications with special emphasis on mangrove species. *Phytomed. Plus* (2021) 1: 100107. DOI 10.1016/j.phyplu.2021.100107
25. **N. Naskar**, S. Lahiri, Separation of  $^{71,72}\text{As}$  from alpha particle induced gallium oxide target by solid cation and anion exchangers, DOWEX-50 and DOWEX-1. *Appl. Radiat. Isot.* (2021) 176: 109876. DOI 10.1016/j.apradiso.2021.109876 [IF=1.787]
26. S.K. Das, K. Gangopadhyay, A. Ghosh, O. Biswas, S. Bera, P. Ghosh, D.K. Paruya, **N. Naskar**, D. Mani, M.S. Kalpana, K. Yoshida, Organic geochemical and palaeobotanical reconstruction of a Late Holocene archaeological settlement in coastal eastern India. *The Holocene* (2021) 31(10): 1511-1524. DOI 10.1177/09596836211025970 [IF=2.769]
27. D. Choudhury, **N. Naskar**, S. Lahiri, Distribution of different no-carrier-added radionuclides in Pb and Bi fractions after separation of bulk components of lead bismuth eutectic. *J. Radioanal. Nucl. Chem.* (2021) 328(3): 1339-1347. DOI 10.1007/s10967-021-07748-2 [IF=1.754]
28. **N. Naskar**, S. Lahiri, Separation of  $^{206}\text{Po}$  from alpha particle irradiated lead bismuth eutectic target. *Appl. Radiat. Isot.* (2021) 173: 109717. DOI 10.1016/j.apradiso.2021.109717 [IF=1.787]
29. **N. Naskar**, S. Lahiri, Theranostic terbium radioisotopes: challenges in production for clinical application. *Front. Med.* (2021) 8: 675014. DOI 10.3389/fmed.2021.675014 [IF=5.091]
30. **N. Naskar**, S. Lahiri, Separation of no-carrier-added  $^{71,72}\text{As}$  from 46 MeV alpha particle irradiated gallium oxide target. *Radiochim. Acta* (2021) 109(5): 389-395. DOI 10.1515/ract-2020-0120 [IF=1.44]
31. S. Das, R. Raj, S. Maji, T. Saha, I. Bhattacharya, **N. Naskar**, A. Gupta, Retromer retrieves the Wilson Disease protein ATP7B from endolysosomes in a copper-dependent mode. *J. Cell Sci.* (2020) 133(24): jcs246819. DOI 10.1242/jcs.246819 [IF=4.573]
32. N. Singh, N. Khandelwala, E. Tiwari, **N. Naskar**, S. Lahiri, J. Lützenkirchen, G. K. Darbha, Interaction of metal oxide nanoparticles with microplastics: impact of

- weathering under riverine conditions. *Water Res.* (2021) 189: 116622. DOI 10.1016/j.watres.2020.116622 [IF=11.236]
33. S. Maity, **N. Naskar**, B. Jana, S. Lahiri, J. Ganguly, Fabrication of thiophene-chitosan hydrogel-trap for efficient immobilization of mercury (II) from aqueous solution. *Carbohydr. Polym.* (2021) 251: 116999. DOI 10.1016/j.carbpol.2020.116999 [IF=9.381]
  34. **N. Naskar**, S. Lahiri, S. Kaur, Optimization of counting time for measurement of naturally occurring  $^{238}\text{U}$  and  $^{232}\text{Th}$  by HPGe detector and determination of minimum counting time of 80% relative efficiency HPGe detector. *J. Radiat. Nucl. Appl.* (2020) 5: 201-204. DOI 10.18576/jrna/050306
  35. D. Choudhury, S. Lahiri, **N. Naskar**, M. Delonca, T. Stora, J. P. Ramos, E. Aubert, A. Dorsival, J. Vollaire, R. Augusto, A. Ferrari, Quantification of radioisotopes produced in 1.4 GeV proton irradiated lead-bismuth eutectic targets. *Eur. Phys. J. A* (2020) 56(8): 204. DOI 10.1140/epja/s10050-020-00191-z [IF=3.043]
  36. **N. Naskar**, K. Banerjee, Development of sustainable extraction method for long-lived radioisotopes,  $^{133}\text{Ba}$  and  $^{134}\text{Cs}$  using a potential biosorbent. *J. Radioanal. Nucl. Chem.* (2020) 325(2): 587-593. DOI: 10.1007/s10967-020-07241-2 [IF=1.371; Corresponding author]
  37. **N. Naskar**, S. Lahiri, S. Mitra, P. Chaudhuri, Radiogenic Quality Assessment of ground and riverine water samples collected from Indian Sundarbans. *Environ. Res.* (2020) 185: 109407. DOI: 10.1016/j.envres.2020.109407 [IF=6.498]
  38. K. Paul, C. Saha, M. Nag, D. Mandal, H. Naiya, D. Sen, S. Mitra, D. Bose, M. Kumar, G. Mukherjee, **N. Naskar**, S. Lahiri, U. Das Ghosh, S. Tripathi, M. Poddar Sarkar, M. Banerjee, A. Kleinert, A.J. Valentine, S. Tripathy, S. Sinharoy, A. Seal, A Tripartite interaction among the basidiomycete *Rhodotorula mucilaginosa*,  $\text{N}_2$ -fixing endobacteria and rice improves plant nitrogen nutrition. *The Plant Cell* (2020) 32(2): 486-507. DOI:10.1105/tpc.19.00385 [IF=11.277]
  39. **N. Naskar**, D. Choudhury, S. Basu, K. Banerjee, Separation of nca  $^{88}\text{Zr}$  from proton irradiated  $^{nat}\text{Y}$  target: a Novel approach using low cost bio-sorbent potato peel charcoal. *J. Radioanal. Nucl. Chem* (2019) 322(1): 231-235. DOI 10.1007/s10967-019-06637-z [IF=1.137]
  40. **N. Naskar**, S. Lahiri, P. Chaudhuri, Estimation of base line radiological indices in Indian Sundarbans: a mangrove habitat. *J. Radioanal. Nucl. Chem.* (2019) 322(1): 213-223. DOI 10.1007/s10967-019-06597-4 [IF=1.137]
  41. S. Maity, **N. Naskar**, S. Lahiri, J. Ganguly, Polysaccharide-derived hydrogel water filter for the rapid and selective removal of arsenic. *Environ. Sci.: Water Res. Technol.* (2019) 5(7): 1318-1327. DOI 10.1039/C9EW00247B [IF=3.449]

42. **N. Naskar**, S. Lahiri, P. Chaudhuri, Quantitative estimation of total potassium and  $^{40}\text{K}$  in surface soil samples of Indian Sundarbans. *J. Radioanal. Nucl. Chem.* (2019) 322(1): 11-17. DOI 10.1007/s10967-019-06472-2 [IF=1.137]
43. G. Mukherjee, C. Saha, **N. Naskar**, A. Mukherjee, A. Mukherjee, S. Lahiri, A. Lahiri Majumder, A. Seal, An endophytic bacterial consortium modulates multiple strategies to improve arsenic phytoremediation efficacy in *Solanum nigrum*. *Scientific Reports* (2018) 8(1) Article no.:6979: 1-16. DOI:10.1038/s41598-018-25306-x [IF=4.011]
44. D. Choudhury, **N. Naskar**, S. Lahiri, Production and separation of no-carrier-added  $^{181}\text{Re}$ - $^{184}\text{Re}$  radioisotopes from proton irradiated tungsten target. *Radiochimica Acta* (2018) 106(9):743-749. DOI 10.1515/ract-2017-2869 [IF=1.24]
45. **N. Naskar**, S. Lahiri, P. Chaudhuri, Anomalies in quantitative measurement of  $^{40}\text{K}$  in natural samples. *J. Radioanal. Nucl. Chem.* (2018) 316(2):709-715. DOI 10.1007/s10967-018-5777-5 [IF=1.186]
46. D. Choudhury, S. Lahiri, **N. Naskar**, Separation of lead and bismuth from proton irradiated lead-bismuth eutectic (LBE) target by differential precipitation. *J. Radioanal. Nucl. Chem.* (2017) 314(3):2551-2555. DOI 10.1007/s10967-017-5572-8 [IF=1.181]
47. A. Srivastava, V. Chahar, V. Sharma, Y. Sun, R. Bol, F. Knolle, E. Schnug, F. Hoyler, **N. Naskar**, S. Lahiri, R. Patnaik, Study of uranium toxicity using low-background gamma-ray spectrometry. *J. Radioanal. Nucl. Chem.* (2017) 314(2):1367-1373. DOI 10.1007/s10967-017-5466-9 [IF=1.181]
48. **N. Naskar**, S. Lahiri, P. Chaudhuri, A. Srivastava, Measurement of naturally occurring radioactive materials,  $^{238}\text{U}$  and  $^{232}\text{Th}$ - Part 3: Is efficiency calibration necessary for quantitative measurement of ultra-low level NORM? *J. Radioanal. Nucl. Chem.* (2017) 314(1):507-511. DOI 10.1007/s10967-017-5403-y [IF=1.181]
49. K. Banerjee, **N. Naskar**, D. Choudhury, S. Lahiri, Trace analysis at the backdrop of women welfare: assessment of heavy metals in Vermillion. *J. Indian Chem. Soc.* (2017) 94(9):1017-1022. [IF=0.204]
50. **N. Naskar**, S. Lahiri, P. Chaudhuri, A. Srivastava, Measurement of naturally occurring radioactive material,  $^{238}\text{U}$  and  $^{232}\text{Th}$ : Part 2- Optimization of counting time *J. Radioanal. Nucl. Chem.* (2017) 312(1):161-171. DOI 10.1007/s10967-017-5205-2 [IF=1.181]
51. P. Chaudhuri, **N. Naskar**, S. Lahiri, Measurement of background radioactivity in surface soil of Indian Sundarban. *J. Radioanal. Nucl. Chem.* (2017) 311(3):1947-1952. DOI 10.1007/s10967-016-5158-x [IF=1.181]
52. **N. Naskar**, S. Lahiri, P. Chaudhuri, A. Srivastava, Measurement of naturally occurring radioactive materials,  $^{238}\text{U}$  and  $^{232}\text{Th}$ : anomalies in photopeak selection

*J Radioanal. Nucl. Chem.* (2016) 310(3):1381-1396. DOI 10.1007/s10967-016-4988-x [IF=1.181]

53. K. Ghosh, S. Lahiri, K. Sarkar, **N. Naskar**, D. Choudhury, Ionic liquid-salt based aqueous biphasic system for rapid separation of no-carrier-added  $^{203}\text{Pb}$  from proton irradiated  $^{nat}\text{Tl}_2\text{CO}_3$  target. *J Radioanal. Nucl. Chem.* (2016) 310(3):1311-1316. DOI 10.1007/s10967-016-4982-3 [IF=1.282]
54. **N. Naskar**, S. Lahiri, P. Chaudhuri, HF-free microwave assisted dissolution technique of soil samples for quantitative assessment of potassium *J Indian Chem. Soc.* (2016) 93:799-803 [IF=0.18]
55. R. Patnaik, S. Lahiri, V. Chahar, **N. Naskar**, P.K. Sharma, D.K. Avhad, M.K.T. Bassan, F. Knolle, E. Schnug, A. Srivastava, Study of Uranium Mobilization from Himalayan Siwaliks to the Malwa Region of Panjab State in India *J Radioanal. Nucl. Chem.* (2016) 308(3):913-918. DOI 10.1007/s10967-015-4578-3 [IF=1.282]

#### **Book Chapter:**

1. S. Mitra, **N. Naskar**, A. Reeves, P. Chaudhuri, Prospects of mangrove-derived phytochemicals in cancer research. (2023) *Molecular Biomarkers in Cancer Detection and Monitoring of Therapeutics*, Chapter 24, 1-35. DOI: 10.1016/B978-0-323-95114-2.00020-0

#### **Archived Publication:**

1. K. Ghosh, **N. Naskar**, D. Choudhury, S. Lahiri, Natural flavonoids as superior reagents for separation of clinically important Zr radionuclides. (2019) ChemRxiv, preprint DOI 10.26434/chemrxiv.10043237.v1.

#### **Popular Science Publications in non-refereed Journals:**

1. **N. Naskar**, S. Lahiri, P. Chaudhuri, The Italian Navigator and the Oklo. *Science and Technology Journal* 2015, 3, 21-25.
2. **N. Naskar**, S. Lahiri, Nuclear Medicine-A historical sketch. *Monthly Bulletin of The Asiatic Society* Mar 2023, Vol LII, No. 3, 33-39.

## ANNEXURE – II

### Conference Symposia/ Seminars:

#### **A. International Conferences**

1. M. Ghosh, N. Naskar, Does high background radiation affect human health? International Symposium on Biotechnology, St. Xavier's College, Kolkata, Oct 12-13, 2023.
2. S. Mitra, N. Naskar, S. Lahiri, Separation of long-lived  $^{108m}\text{Ag}$  from  $^{152}\text{Eu}$  and  $^{60}\text{Co}$  using environmentally benign PEG based ABS. *3<sup>rd</sup> International Conference on Radioanalytical and Nuclear Chemistry (RANC 2023)*, Budapest, Hungary, May 7-12, 2023.
3. N. Naskar, K. Gangopadhyay, C. Shaha, A. Ghosh, Measurement of naturally occurring radionuclides at the archaeological sites of Eastern India. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023 [Invited Talk].
4. D. Das, R. Bala, N. Naskar, S. Lahiri, The radiological hazards of natural radioactivity in the Punjab plain, North-western India. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023.
5. P. Samanta, S. Show, P. Banerjee, RK. Nandi, N. Naskar, S. Lahiri, Prediction of nature resourced chemicals-metal conjugates by theoretical computational study. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023.
6. S. Mitra, N. Naskar, S. Lahiri, K. Ghosh, P. Chaudhuri, Synergistic aqueous biphasic separation of  $^{71,72}\text{As}$  from  $\alpha$ -particle irradiated gallium oxide target using catechins extracted from green tea leaves. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023.
7. S. Mitra, N. Naskar, S. Lahiri, P. Chaudhuri, Efficacy of black pepper derived alkaloid in separation of  $^{90}\text{Nb}$  from natural yttrium target. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023.
8. K. Ghosh, N. Naskar, S. Lahiri, Production and separation of no-carrier added  $^{129}\text{Cs}$  from alpha induced reactions on KI target. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023.
9. N. Chauhan, N. Naskar, S. Lahiri, R. Patnaik, A. Pal Toor, A. Srivastava, Depth Dependence Study of Naturally Occurring Radioactive Materials (NORM) in Soil of the Malwa Region of Punjab. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023.
10. S. Mitra, N. Naskar, J. Mukherjee, S. Sutradhar, S. Lahiri, S. Mondal, C. Barman, Assessment of gross  $\alpha$ - $\beta$  and  $^3\text{H}$  activities in groundwater samples in and around Tantloi geothermal region, Jharkhand, India. *5<sup>th</sup> International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 23)*, Sidho-Kanho-Birsha University, Purulia, India, Jan 31-Feb 5, 2023.
11. N. Naskar, S. Lahiri, The terbium quadruplet family – for the wellbeing of mankind. *17th International Symposium on Metal Ions in Biology and Medicine (METALIONS 2022)*, Nehru Science Centre, Mumbai, India, Nov 30-Dec 01, 2022.

12. N. Naskar, K. Gangopadhyay, C. Shaha, S. Lahiri, Measurement of naturally occurring radionuclides at the archeological site of Bahiri, East Midnapore, West Bengal, India. XXII Conference of PhD Students and Young Scientists. Wrocław University of Science and Technology, Poland, June 29-July 01, 2022, hybrid conference. [Oral presentation]
13. S. Mitra, N. Naskar, K. Ghosh, A. Dutta, S. Lahiri, P. Chaudhuri, A. Saha, Effect of  $\gamma$  radiation on Caffeine in aqueous solution. 58th Annual Convention of Chemists and International Conference on Recent Trends in Chemical Sciences (ACC-RTCS-2021). Organized by Indian Chemical Society, Kolkata, 21-24 Dec, 2021.
14. N. Naskar, S. Lahiri, High High Energy Accelerators: One stop solution for exotic radioisotopes of multiple uses – from therapy to neutrino mass measurement. International Conference on Macrocosmos, Microcosmos, Accelerator and Philosophy (MMAF-2020), Tagore Centre for Natural Sciences and Philosophy, Saha Institute of Nuclear Physics Auditorium, May 9-13, 2021 [Invited Talk]
15. N. Naskar, S. Lahiri, Separation of radioarsenic,  $^{71,72}\text{As}$  from alpha particle irradiated gallium oxide target. 57<sup>th</sup> Annual Convention of Chemists and International Conference on Recent Trends in Chemical Sciences (RTCS-2020), Indian Chemical Society, Dec 26-29, 2020. [Best Oral award]
16. S. Mitra, N. Naskar, S. Lahiri, Detection of alpha-emitting  $^{238}\text{U}$  using radiotracer by liquid scintillation counter-triple-to-double-coincidence ratio technique. *International Seminar on Recent Advances in Chemistry and Material Sciences (RACMS-2020)*, Indian Chemical Society, Aug 02-03, 2020. [Best Poster award]
17. R. Bala, N. Naskar, Karanveer, S. Lahiri, D. Das, Assessment of natural radioactivity in the unsaturated soil profile of Malwa region, South-West Punjab, India, 10<sup>th</sup> International Conference on Isotopes 2020, Kuala Lumpur, Malaysia, Feb 03-07, 2020.
18. P. Singh, N. Naskar, Radiometric Absorption Spectroscopy based Fluoride Ion Sensing using Alizarin Red S–In(III) Complex. Two-day International Seminar entitled *Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences (ICBS-2020)*, Dept. of Chemistry, Surendranath College, West Bengal, India, Jan 08-09, 2020.
19. N. Naskar, Adapting environmentally benign practice for separation of radioisotopes using PEG-based Aqueous Biphasic System. *One Day International Symposium on Current Trends in Chemistry (ISCTC 2020)*, Dept. of Chemistry, Diamond Harbour Women's University, West Bengal, India, Jan 10, 2020.
20. N. Naskar, K. Banerjee, Development of sustainable extraction method for long-lived fission products,  $^{133}\text{Ba}$  and  $^{134}\text{Cs}$  using potato peel charcoal a potential bio-sorbent. *3rd International Conference on Physics for Sustainable Development & Technology 2019 (ICPSDT 2019)*, Chittagong, Bangladesh, Dec 18-19, 2019. [Oral presentation]
21. N. Naskar, S. Basu, K. Banerjee, Analysis of isotherms and thermodynamic parameters for Zr(IV) adsorption from aqueous medium using potato peel charcoal (PPC). *15th International Symposium on Metal Ions & Organic Pollutants in Biology, Medicine and Environment (METALIONS 2019)*, NEERI, Nagpur, Maharashtra, India, Oct 30-31, 2019. [Oral presentation]
22. N. Naskar, S. Mitra, S. Banerjee, S. Lahiri, K. Sen, Separation of medically important Gallium from Germanium using aqueous biphasic system. *15th International Symposium on Metal Ions & Organic Pollutants in Biology, Medicine and Environment (METALIONS 2019)*, NEERI, Nagpur, Maharashtra, India, Oct 30-31, 2019.
23. N. Naskar, S. Lahiri, K. Sen, Analysis of  $^{35}\text{SO}_4^{2-}$  ions through liquid scintillation counting in an  $\text{Na}_2\text{SO}_4/\text{PEG}$  based aqueous biphasic system. *2<sup>nd</sup> International Conference on Radioanalytical and Nuclear Chemistry (RANC 2019)*, Budapest, Hungary, May 5-10, 2019.

24. N. Naskar, S. Lahiri, P. Chaudhuri, Studies on bioaccumulation of NORM in some mangrove components of Indian Sundarbans. *International Conference on Chemistry & Environmental Sustainability (ICCES 2019)*, Mizoram University, Aizwal, India, Feb 19-22, 2019. [Oral presentation, Best Oral award]
25. N. Naskar, Revisiting the protocols for low-level NORM measurement in environmental samples. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 18)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018 [Invited Talk].
26. D. Choudhury, S. Lahiri, N. Naskar, M Delonca, T. Stora, JP Ramos, E. Aubert, A. Dorsival, J. Vollaie, R. Augusto, A. Ferrari, Quantification of Short-Lived Radioisotopes from 1.4 GeV Proton Irradiated LBE Target. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 18)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018.
27. N. Naskar, S. Mitra, S. Lahiri, P. Chaudhuri, Measurement of gross  $\alpha$ ,  $\beta$  in water samples collected from Indian Sundarbans. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 18)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018 [Best Poster].
28. N. Naskar, D. Choudhury, S. Basu, K. Banerjee, Studies on extraction of Zirconium by potato peel, a potential bio-sorbent. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 18)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018.
29. S. Lahiri, D. Choudhury, N. Naskar, K. Ghosh, Studies on  $^{208}\text{Po}$ -Hesperidin association. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 18)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018.
30. N. Naskar, K. Gangopadhyay, S. Lahiri, A. Ghosh, P. Chaudhuri, R. Sharma, P. Kumar, S. Ojha, S. Chopra, New Dates from The Site of Erenda, East Medinipur District, West Bengal: Implications for Indian Protohistory. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018.
31. N. Naskar, S. Lahiri, P. Chaudhuri, Assessment of radiological hazards in Indian Sundarbans. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 18)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018.
32. N. Naskar, S. Lahiri, P. Chaudhuri, Measurement of  $^{40}\text{K}$  in Surface Soil Samples Collected from Sundarbans Biosphere Reserve, India. *4th International Conference on Applications of Radiotracers and Energetic Beams in Sciences (ARCEBS 18)*, Ffort Raichak, Kolkata, India, Nov 11-17, 2018.
33. N. Naskar, S. Lahiri, P. Chaudhuri, S. Mitra, Tritium measurement in water samples from mangrove habitat of Indian Sundarban. *9th International Conference on Isotopes (9ici)*, Doha, Qatar, Nov 12-16, 2017.
34. D. Choudhury, S. Lahiri, N. Naskar, M. Delonca, T. Stora, J.P. Ramos, E. Aubert, A. Dorsival, J. Vollaie, R. Augusto, A. Ferrari, Production and estimation of  $^{209}\text{At}$  by secondary particle reaction from 1.4 GeV proton irradiated lead-bismuth target. *9th International Conference on Isotopes (9ici)*, Doha, Qatar, Nov 12-16, 2017.
35. S. Lahiri, N. Naskar, Production and separation of non-standard rare earth PET isotopes by heavy ion activation. *9th International Conference on Isotopes (9ici)*, Doha, Qatar, Nov 12-16, 2017.
36. N. Naskar, D. Choudhury, S. Lahiri, Determination of  $^{99}\text{Tc}$  by LSC-TDCR technique. *14th International Symposium on Metal Ions in Biology and Medicine and 4th Green Health*

- Conference (METALIONS 2016)*, Mumbai University, India, Nov 28-30, 2016. [Oral presentation]
37. D. Choudhury, N. Naskar, S. Lahiri, Determination of dynamic dissociation constant of clinically important  $^{88}\text{Y}$ - and  $^{88}\text{Zr}$ - pvp complexes. *14th International Symposium on Metal Ions in Biology and Medicine and 4th Green Health Conference (METALIONS 2016)*, Mumbai University, India, Nov 28-30, 2016.
  38. G. Mukherjee, C. Saha, A. Mukherjee, N. Naskar, S. Lahiri, A. Lahiri Majumder, A. Seal, An endophytic bacterial consortium improves arsenic phytoremediation efficacy of an arsenic accumulator *Solanum nigrum*. *14th International Symposium on Metal Ions in Biology and Medicine and 4th Green Health Conference (METALIONS 2016)*, Mumbai University, India, Nov 28-30, 2016.
  39. K. Banerjee, N. Naskar, D. Choudhury, S. Lahiri, Assessment of selected heavy metals in Vermilion (Sindoor) commonly used in the Indian sub-Continent. *14th International Symposium on Metal Ions in Biology and Medicine and 4th Green Health Conference (METALIONS 2016)*, Mumbai University, India, Nov 28-30, 2016.
  40. S. Lahiri, N. Naskar, P. Chaudhuri, Revisiting NORM measurement. *99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition (CSC 2016)*, Halifax, Canada, Jun 05-09, 2016.
  41. D. Choudhury, N. Naskar, M. Maiti, S. Lahiri, Separation of lead and bismuth from proton irradiated lead-bismuth eutectic by differential precipitation. *99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition (CSC 2016)*, Halifax, Canada, Jun 05-09, 2016.
  42. N. Naskar, S. Lahiri, P. Chaudhuri, First report on primordial and anthropogenic radionuclides in Indian Sundarban Mangrove ecosystem. *1<sup>st</sup> International Conference on Radioanalytical and Nuclear Chemistry (RANC-2016)*, Budapest, Hungary, Apr 10-15, 2016.
  43. N. Naskar, S. Lahiri, P. Chaudhuri, A. Srivastava, Anomalies in NORM measurement. *11th International Conference on Nuclear Analytical Methods in the Life Sciences (NAMLS 11)*, TU Delft, The Netherlands, Aug 23-25, 2015. [Oral presentation]

## **B. National Conferences**

44. N. Naskar, C. Shaha, R. Jana, M. Halder, K. Gangopadhyay, S. Lahiri, T. Panigrahi, J. Biswas, Natural radionuclides and elemental profile in soil and pottery samples of an Archaeological Site, Erenda in Eastern India. *Recent Trends on Application of Radioisotopes and Radiation Technology (ARIRT-2023)*, Andhra University, Visakhapatnam, Sept 28-29, 2023.
45. N. Naskar, S. Lahiri, Production and separation of no-carrier-added  $^{90}\text{Nb}$  from 46MeV alpha particle irradiated yttrium target. *Recent Trends on Application of Radioisotopes and Radiation Technology (ARIRT-2023)*, Andhra University, Visakhapatnam, Sept 28-29, 2023.
46. S. Mitra, N. Naskar, S. Lahiri, P. Chaudhuri, Synergistic aqueous biphasic separation of  $^{90}\text{Nb}$  from natural yttrium. *16<sup>th</sup> Biennial DAE BRNS Symposium Nuclear and Radiochemistry (NUCAR-2023)*, BARC, Mumbai, May 1-5, 2023.
47. K. Ghosh, N. Naskar, R. Ravishankar, S. Lahiri, Production and separation of no-carrier-added  $^{129}\text{Cs}$  from alpha induced reaction on  $\text{Bi}_3$  target. *15<sup>th</sup> DAE-BRNS biennial symposium on Nuclear and (NUCAR 2021)*, BARC, Mumbai, Feb 22-26, 2022.
48. S. Mitra, N. Naskar, S. Lahiri, P. Chaudhuri, Efficacy of caffeine as a nature resourced reagent in separating  $^{71}\text{As}$  from alpha-irradiated gallium oxide target. *15<sup>th</sup> DAE-BRNS biennial symposium on Nuclear and (NUCAR 2021)*, BARC, Mumbai, Feb 22-26, 2022.



49. N. Naskar, S. Lahiri, Separation of Technitium from a complex radioisotopic matrix using hydrophobic ionic liquids. *DAE - BRNS 9<sup>th</sup> Biennial Symposium on Emerging Trends in Separation Science and Technology (e-SESTEC-2020)*, BARC, Mumbai, Mar 22-26, 2021.
50. S. Lahiri, N. Naskar, P. Chaudhuri, Potassium puzzle in mangrove estuaries. *One-day seminar on Emerging areas of Marine and Estuarine Research*, Dept. of Marine Science, University of Calcutta, Feb 20, 2020.
51. A. Manna, N. Naskar, K. Banerjee, Industrial and agricultural wastewater treatment for the removal of toxic anions using natural biosorbents: A green approach. *2 days National Conference on Science & Technology: Rural developments*, Dept. of Chemistry, Surendranath College, Kolkata, Jan 20-21, 2020.
52. N. Naskar, S. Lahiri, Investigation on adsorption behaviors of <sup>96</sup>Tc, <sup>97</sup>Ru and <sup>95</sup>Nb with Calcium Alginate hydrogel beads. *56<sup>th</sup> Annual Convention of Chemists and International Conference on Recent Advances in Chemical Sciences*, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, Nov 14-16, 2019.
53. N. Naskar, S. Lahiri, P. Chaudhuri, Study of long-lived radionuclides in Indian Sundarbans. *International seminar on Environmental Chemistry*, Department of Environmental Science, University of Calcutta, Feb 15, 2019. [Oral presentation]
54. P. Chaudhuri, N. Naskar, S. Lahiri, Measurement of natural radioactivity in Indian Sundarban. *National Seminar on Emerging trends in Environmental Research*, Department of Environmental Science, University of Calcutta, Mar 24, 2017. [Oral presentation]
55. N. Naskar, S. Lahiri, P. Chaudhuri, A. Srivastava, The optimization of counting time in NORM measurement. *13<sup>th</sup> DAE-BRNS biennial symposium on Nuclear and Radiochemistry (NUCAR 2017)*, KIIT University, Bhubaneswar, Odisha, Feb 6-10, 2017.
56. K. Ghosh, N. Naskar, D. Choudhury, S. Lahiri, Separation of no-carrier-added <sup>88</sup>Zr from proton induced bulk yttrium target by naturally synthesized hesperidin. *13<sup>th</sup> DAE-BRNS biennial symposium on Nuclear and (NUCAR 2017)*, KIIT University, Bhubaneswar, Odisha, Feb 6-10, 2017 [Best Poster].
57. D. Choudhury, K. Ghosh, K. Sarkar, N. Naskar, S. Lahiri, Ionic liquid-salt based aqueous biphasic system for quick separation of no-carrier-added <sup>203</sup>Pb from proton irradiated <sup>nat</sup>Tl<sub>2</sub>CO<sub>3</sub> target. *7<sup>th</sup> DAE-BRNS biennial symposium on emerging trends in separation science and technology (SESTEC 2016)*, Indian Institute of Technology, Guwahati, May 17-20, 2016.
58. N. Naskar, S. Lahiri, P. Chaudhuri, Assessment of primordial <sup>40</sup>K in Sundarban area. *52<sup>nd</sup> Annual Convention of Chemists and International Conference on Recent Advances in Chemical Sciences*, JECRC University, Jaipur, Dec 28-30, 2015 [Best oral presentation].
59. N. Naskar, S. Lahiri, P. Chaudhuri, First-time assessment of primordial radionuclides in the coastal region of Indian Sundarban. *National Symposium on Recent Advances in Chemistry & Industry*, Department of Chemistry, University of Calcutta, Jul 31-Aug 01, 2015. [Oral presentation]
60. N. Naskar, Natural Reactor: The ultimate source of naturally occurring radioactive materials. *Departmental presentation* in Dept. of Environmental Science, University of Calcutta, Mar 30, 2015.

## ANNEXURE – III

### Overseas Visits

<b>Country</b>	<b>Purpose of Visit</b>	<b>Period</b>
TU Delft, The Netherlands	Oral presentation at the 11 <sup>th</sup> International Conference on Nuclear Analytical Methods in the Life Sciences (NAMLS 11)	Aug 23-25, 2015
GSI, Germany	Discussion meeting at GSI; Accelerator visit at Mainz University	Sept 01-07, 2015
CERN, Switzerland	Discussion meeting on experimental designs at CERN-MEDICIS ISOLDE facility	Mar 30-Apr 7, 2016
Budapest, Hungary	Poster presentation at the 1 <sup>st</sup> International Conference on Radioanalytical and Nuclear Chemistry (RANC-2016)	Apr 10-15, 2016
CERN, Switzerland	Experiment at CERN-MEDICIS ISOLDE facility (1 month experiment, funded by CERN)	Nov 02-27, 2016
Chittagong University of Engineering & Technology, Bangladesh	Oral presentation at the 3 <sup>rd</sup> International Conference on Physics for Sustainable Development & Technology (ICPSDT-2019)	Dec 18-19, 2019

## ANNEXURE – IV

### Dissertation guidance

Name and Affiliation	Duration and Project Title
Ms. Monisha Ghosh MSc. Botany, Diamond Harbour Women's University, WB	13-03-23 to 04-07-23 An assessment of primordial radionuclides $^{238}\text{U}$ and $^{226}\text{Ra}$ in mushrooms, mosses, tea and grasses
Ms. Moumita Maity MSc. Botany, Diamond Harbour Women's University, WB	13-03-23 to 04-07-23 A literature survey on activity concentrations of $^{232}\text{Th}$ and $^{40}\text{K}$ in staple crops
Ms. Raima Sarkar MSc. Botany, Diamond Harbour Women's University, WB	13-03-23 to 04-07-23 A review of the distribution of anthropogenic $^{137}\text{Cs}$ in various plant species

### Dissertation guidance (joint-supervision)\*

Name and Affiliation	Duration and Project Title
Ms. Susmita Chakraborty MSc. Chemistry, Diamond Harbour Women's University, WB	15-03-23 to 02-08-23 Bioadsorption of europium on raw wheat bran: Isotherms and kinetic studies
Ms. Ritushree Jana MSc. Chemistry, Diamond Harbour Women's University, WB	15-03-23 to 02-08-23 Comparison of elemental concentration of soil and pottery sample collected from an archaeological (Bahiri) site using ED-XRF
Ms. Madhushree Halder MSc. Chemistry, Diamond Harbour Women's University, WB	15-03-23 to 02-08-23 Comparison of elemental concentration of soil and pottery sample collected from an archaeological (Erenda) site using ED-XRF
Mr. Madhusudhan P. MSc. Physics, Mysore University, Mysore	29-06-16 to 23-08-16 Studies on Gamma Spectrometry
Mr. Manas Kumar Pradhan MSc. Chemistry, Sambalpur University, Odisha	19-05-17 to 05-07-17 Analysis of soils by X-ray Fluorescence
Mr. Samrat Roy B.Tech Amity Institute Of Nuclear Science And Technology, Amity University, Noida, U.P.	22-05-17 to 07-07-17 Introduction to Radioactivity and Gamma-ray Spectrometry with special reference to Naturally Occurring Radioactive Materials (NORM)
Ms. Sayantani Mitra MSc. Environmental Science, University of Calcutta	10-6-17 to 10-08-17 Study on tritium levels in Indian Sundarban
Ms. Shalmali Basu MSc. Environmental Science, University of Calcutta	01-6-18 to 03-08-18 Studies on extraction of Zirconium by potato peel, a potential bio-sorbent
Ms. Reetta Sara George B.Tech Amity Institute Of Nuclear	May-June 2019 Production, purification and application of SPECT radioisotopes

Science And Technology, Amity University, Noida, U.P.	
Ms. Manisha Sadangi MSc. Chemistry, Utkal University, Bhubaneswar	02-06-19 to 27-09-19 Application of Biosorption in Removal of Heavy Metals from Environment
Ms. Simran MSc. Physics, Panjab University, Chandigarh	27-05-19 to 19-07-19 Analysis of Some Important Parameters in Gamma Spectroscopy Based on Theoretical and Experimental Calculations
Ms. Sneha Banerjee MSc. Environmental Science, University of Calcutta	13-06-19 to 12-08-19 Separation of gallium and germanium by environmentally benign aqueous biphasic system
Jyotismita Adhikari Department of Physics IIT Jodhpur	10-07-2021-10-09-2021 Brief Study on Arsenic Radiotracer

\*The dissertation experiments have been carried out under the joint supervision of Professor Susanta Lahiri and Dr. Nabanita Naskar.