Dr. Dibyasree Choudhury

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PERSONAL INFORMATION

Date of Birth: 18/01/1991
Permanent address: 28, Sonali Park, Garia, Kolkata-700084, West Bengal, India
Present Address: Flat No 7, Bhaskar Apartment, PailiPada, Sion-Trombay Road, Mumbai-400088, Maharashtra, India
Gender: Female
Nationality: Indian
Marital Status: Married

EDUCATION

- **Ph.D in Chemistry (2015-2021)**
  Saha Institute of Nuclear Physics (SINP)
  Registered Under University of Calcutta
  Analytical Chemistry
  Title: Converter Target Inspired Radioanalytical Chemistry

- **M.Sc. in Chemistry (2012-2014)**
  University of Delhi
  Inorganic Chemistry (Specialization) 70.09%

- **B. Sc in Chemistry (2009-2012)**
  University of Calcutta
  Chemistry (Honours), 65.75%
  Mathematics, Physics (Pass Subjects)

RESEARCH EXPERIENCE AND POSITIONS

- **Feb 2022-Present:** Research Associate, Bhabha Atomic Research Centre, Mumbai
- **August 2017-July 2020:** Senior Research Fellow, Chemical sciences Division, SINP
- **August 2016-July 2017:** Junior Research Fellow, Chemical sciences Division, SINP
- **August 2015-July 2016:** Post M.Sc Student (course work 74.4%), SINP
- **May 2013-July 2013:** Summer fellow, Chemical sciences Division, SINP

NATIONAL LEVEL EXAMINATIONS QUALIFIED

- Joint CSIR-UGC NET Lectureship (Chemical sciences), June 2014
- GATE 2021 (CHEMISTRY)
- GATE 2014 (CHEMISTRY)

LAST POSITION HELD

Assistant Professor, Department of Chemistry,
Institute: Ramsheth Thakur College of Commerce and science, Kharghar (Affiliated to University of Mumbai)
Courses Taught: BSc (Chemistry)
Tenure: August 2021-January 2022

*RESEARCH PUBLICATIONS

- Journal Publications in International Peer—Reviewed Journals: **18**
- Journal Publication in UGC listed Journal-**1**
- Conference Proceedings (International and National): **14**
  *(*Detailed list in Annexure 1)*

AWARDS AND REGOGNITIONS

- **D Choudhury**, K Ghosh, K Sarkar, N Naskar, S Lahiri, Ionic Liquid-Salt Based Aqueous Biphasic System for Quick Separation of No-Carrier-Added ^{203}Pb from Proton Irradiated $^{nat}Tl_2CO_3$ Target, *Proc. of the 7th DAE-BRNS Biennial Symp. Emerging Trends in Separation Science and Technology (SESTEC-2016)*, May 17-20, 2016, IIT Guwahati ***(Best poster award)***

- K Ghosh, N Naskar, **D Choudhury**, S Lahiri, Separation of no-carrier-added ^{88}Zr from proton induced bulk yttrium target by naturally synthesized hesperidin**,** *Proc. of the 13th DAE-BRNS Biennial Symp. on Nuclear and Radiochemistry (NUCAR),* February 6-10, 2017 KIIT, Bhubaneswar ***(Best poster award)***

- **D Choudhury**, S Lahiri, Research using LBE Target at SINP, Fourth International Conference on *Application of RadiotraCers and Energetic Beams* (ARCEBS), Ffort Raichak, Kolkata, November 11-17, 2018 ***(Invited Talk)***

INSTRUMENTAL SKILLS

- Gamma Spectroscopic detectors (HPGe)
- Liquid Scintillation Counter (LSC)
- Atomic Fluorescence Spectroscopy (AFS)
- Inductively coupled optical emission spectroscopy (ICPOES)
- High Performance Liquid Chromatography (HPLC)
- Other common Instruments: Microwave digester, pelletizer, pH metre, sonicator, centrifuge machine.

LABORATORY SKILLS

- Production and quantification of artificial radioisotopes
- Designing new routes of radioisotope production
- Experienced in working in the accelerators of BARC-TIFR (Mumbai, India), VECC (Kolkata, India) and CERN-ISOLDE (Geneva, Switzerland)
- Radiochemical Separations using traditional as well as green approaches
- Analysis of trace elements by ICP-OES

RESEARCH INTEREST

Isotope Production, Radiochemistry, Radiopharmacy, Green Chemistry, Trace Analysis

WORKSHOPS ATTENDED

- Know your Elements (KYE 2019), 4-10 August, 2019, SINP, Kolkata
- 7th DAE-BRNS workshop on compilation of Experimental Nuclear Data (EXFOR), March 6-10, 2017, North Eastern Hill University, Shillong
- School on Trace Analysis, March 27-April 2, 2017, SINP & Mizoram University, India
- User Interaction workshop on Accelerator Mass Spectrometry (AMS) workshop at Inter University Accelerator Centre, April 21-23, 2016, New Delhi
- Hands on training on Atomic Fluorescence spectroscopy (AFS), PS Analytical, United Kingdom, England, October 2016.

ORGANISATIONAL SKILLS

- ***Joint Secretary and Treasurer*** of the Fourth International Conference on *Application of RadiotraCers and Energetic Beams* (ARCEBS) with exceptional scientists and leaders from over 20 countries and total 150 participants during November 11-17, 2018 at Ffort Raichak, Kolkata, India.
- ***Joint Secretary and Treasurer*** of the School on Trace Analysis (STA-2017) organised by Mizoram University and Saha Institute of Nuclear Physics with 70 participants during March 27-April 2, 2017.

ADDITIONAL INFORMATION

Higher Secondary Score: 80.06% (Science)
Class 10 Boards Score: 82.3%
Communication skills: Equally proficient in English, Hindi, Bengali
Digital Competency: Microsoft Office (MS word, MS excel, MS Powerpoint), Origin and other basic software
Hobbies: Writing, watching movies, travelling

DECLERATION

I hereby declare that the above information is true to the best of my knowledge.

(Dr.Dibyasree Choudhury)
Date: 27.04.2021

ANNEXURE-1

List of Publications in International Peer-reviewed journals

- K Ghosh, **D Choudhury**, S Lahiri, Studies on production of ^{43,44,44m}Sc from ^{12}C+^{nat}Clreactions up to 64 MeV projectile energy, *Appl. Radiat. Isotopes,* 178, 109966, 2021.
- **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.* 328, 1339-1347, 2021.
- **D. Choudhury**, S. Lahiri, T. Nag, S. Sodaye, A. Bombard, Separation of no-carrier-added ^{195,195m,197m}Hg from proton irradiated Au target by TK-200 and DGA-N resins, *J. Radioanal. Nucl. Chem.* 327, 1299-1303, 2021.
- **D. Choudhury**, S. Lahiri, T. Nag, S. Sodaye, A. Bombard, Separation of bulk Pb and Bi from proton irradiated lead bismuth eutectic (LBE) target by DGA-N and TK-200 resins, *J. Radioanal. Nucl. Chem.* 324, 897-902, 2020.
- **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 from 1.4 GeV proton irradiated Lead-Bismuth Eutectic targets. *Eur. Phys. J. A,* 56, 204, 2020.
- **D. Choudhury**, S.Lahiri, Production cross section of $^{190-193}$Au from ^{nat}W target upto 63 MeV, *Eur. Phys. J. A*, 55, 168-174, 2019.
- N. Naskar, **D. Choudhury**, S. Basu, K. Banerjee, Separation of NCA ^{88}Zr from proton irradiated ^{nat}Y target: a novel approach using low cost bio-sorbent potato peel charcoal, *J Radioanal. Nucl. Chem.* 322, 231-235, 2019.
- K Ghosh, **D Choudhury**, S Lahiri, Production and separation of no-carrier-added ^{48}V from ^{16}O irradiated chlorine target, *J Radioanal. Nucl. Chem.* 321, 91-95, 2019.
- **D. Choudhury**, S. Lahiri, Estimation of polonium radionuclides in proton irradiated lead-bismuth eutectic (LBE) targets by LSC-TDCR technique and gamma spectrometry, *Eur. Phys. J. A*, 54, 212-219, 2018
- **D. Choudhury**, S. Lahiri, Converter Target Chemistry: A new challenge to Radioanalytical Chemistry, *Appl. Radiat. Isotopes*, 137, 33-40, 2018.
- **D. Choudhury**, S. Lahiri, Separation of Pb and Bi from proton irradiated lead–bismuth eutectic target using different anion exchangers, *J. Radioanal. Nucl. Chem.* 318, 1967-1972*, 2018*
- **D. Choudhury**, N.Naskar, S.Lahiri, Production and separation of no-carrier-added $^{181-184}$Re radioisotopes from proton irradiated tungsten target, *Radiochim. Acta*, 106, 743-749, 2018.
- S. Lahiri, **D. Choudhury**, K.Sen, Radio-green chemistry and nature resourced radiochemistry, *J Radioanal. Nucl. Chem.* 318, 1543-1558, 2018.
- D. Kumar, M. Maiti, **D. Choudhury**, S. Lahiri, Production yield of residues in ^{11}B+^{93}Nb reaction and separation of trace scale Pd from bulk Nb using liquid-liquid extraction, Sep. Sci Technol. 54, 1661-1668, 2018.
- S. Pakhira, C. Mazumdar, **D. Choudhury**, R. Ranganathan, S.Giri, Observation of short range order driven large refrigerant capacity in chemically disordered single phase compound $Dy_2Ni_{0.87}Si_{2.95}$, Phys. Chem. Chem. Phys. 20, 13580-13587, 2018.

- **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*. 314, 2551-2555, 2017.
- M. Maiti, S. Lahiri, D. Kumar, **D. Choudhury**; Separation of no-carrier-added astatine radionuclides from α-particle irradiated lead bismuth eutectic target, *Appl. Radiat. Isotopes* 127, 227-230, 2017
- 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}Pb from proton irradiated $^{nat}Tl_2CO_3$ target. *J Radioanal. Nucl. Chem.* 310, 1311-1316, 2016.

List of Publication in UGC-Listed Journals

- 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*. **94**, 1017-1022, 2017.

List of Publications in National and International Conferences and Seminars

- **D Choudhury**, S Lahiri, T Nag, S Sodaye, Use of DGA-N and TK-200 resins for separation of adjacent pairs of heavy elements using radiotracer technique, International seminar on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences (ICBS-2020), 8-9 January, 2020.
- **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 Short-Lived Radioisotopes from 1.4 GeV Proton Irradiated LBE Target, Fourth International Conference on Application of RadiotraCers and Energetic Beams (ARCEBS-18), Ffort Raichak, Kolkata, November 11-17, 2018.
- S Lahiri, **D Choudhury**, N Naskar, K Ghosh, Studies on ^{208}Po-Hesperidin association, Fourth International Conference on Application of RadiotraCers and Energetic Beams (ARCEBS-18), Ffort Raichak, Kolkata, November 11-17, 2018.
- K G Jana, **D Choudhury**, S Lahiri, Production and Separation of No-Carrier Added $^{43,44,44m}Sc$ from ^{12}C Irradiated $BaCl_2$ Target, Fourth International Conference on Application of RadiotraCers and Energetic Beams (ARCEBS-18), Ffort Raichak, Kolkata, November 11-17, 2018.
- **D Choudhury**, S Lahiri, Production of $^{190-193}Au$ radionuclides through ^{11}B Induced Reactions on Natural Tungsten Target, Fourth International Conference on Application of RadiotraCers and Energetic Beams (ARCEBS-18), Ffort Raichak, Kolkata, November 11-17, 2018.
- **D Choudhury**, S Lahiri, Separation of bulk components of converter targets by different anion exchangers, DAE–BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC–2018), BITS Pilani, Goa, May 23-26, 2018.
- KG Jana, **D Choudhury**, S Lahiri, Separation of no-carrier-added ^{48}V from ^{16}O irradiated chloride target, DAE – BRNS Biennial Symposium on Emerging Trends in

Separation Science and Technology (SESTEC – 2018), BITS Pilani, Goa, May 23-26, 2018.

- D Kumar, M Maiti, **D Choudhury**, S Lahiri, Separation of Pd from bulk Nb using liquid-liquid extraction, DAE – BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC – 2018), BITS Pilani, Goa, May 23-26, 2018.
- **D Choudhury**, S Lahiri, N Naskar, M Delonca, T Stora, J P Ramos, E Aubert, A Dorsival, J Vollaire, R Augusto, A Ferrari, Production and estimation of ^{209}At by secondary particle reaction from 1.4 GeV proton irradiated lead-bismuth target, 9th International Conference on Isotopes (9th ICI), Doha, Qatar November 12- 16, 2017.
- **D Choudhury**, S Lahiri, Estimation of α-emitting polonium radionuclides in proton irradiated lead bismuth targets by LSC-TDCR method, The Latest Advances in Liquid Scintillation Spectrometry (LSC-2017), May 1-5, 2017, Copenhagen, Denmark
- K Ghosh, N Naskar, **D Choudhury**, S Lahiri, Separation of no-carrier-added 88Zr from proton induced bulk yttrium target by naturally synthesized hesperidin, 13th DAE-BRNS Nuclear and Radiochemistry Symposium (NUCAR-2017), KIIT University, Bhubaneswar, Odisha, India, February 6-10, 2017.
- **D Choudhury**, N Naskar, M Maiti, S Lahiri, Separation of lead and bismuth from proton irradiated lead-bismuth eutectic by differential precipitation, 99th Canadian Chemistry Conference and Exhibition, Halifax, Canada June 05-09, 2016.
- **D Choudhury**, N Naskar, S Lahiri, Determination of dynamic dissociation constant of clinically important ^{88}Y- and ^{88}Zr- PVP complexes, 14th International Symposium on Metal Ions in Biology and Medicine and 4th Green Health Conference, Mumbai, India, November 28-30, 2016.
- M Maiti, S Lahiri, D Kumar, **D Choudhury**, A Singh, Low energy α-particle induced reaction on thick lead-bismuth eutectic target, 61st DAE-BRNS Symposium on Nuclear Physics, Saha Institute of Nuclear Physics, December 05-09, 2016.