

CV - INDRANIL CHAKRABORTY

Name: DR. INDRANIL CHAKRABORTY

Designation: Associate Professor

Department: Chemistry

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Degree	Name of the University	Year of passing	Marks obtained (%)	Class/ grade
B.Sc.	Vidyasagar University	1998	60.1	1 st Class
M.Sc	Vidyasagar University	2000	70.9	1 st Class

Degree	University	Awarded on	Title
Ph.D	Vidyasagar University	21.02.2008	Structural & Biological Investigation of Mushroom Polysaccharides

Teaching Experience: 13 years 6 months in Kharagpur College.

Research Experience and Area: Carbohydrate Chemistry, Biological Chemistry, COVID, Environment

Publications in International Journals:

1. A review on antiviral and immunomodulatory polysaccharides from Indian medicinal plants, which may be beneficial to COVID-19 infected patients ; Ipsita K Sen, **Indranil Chakraborty**, Amit Kumar Mandal, Sunil K.Bhanja, Sukesh Patra, PrasenjitMaity*, International Journal of Biological Macromolecules. [Volume 181](#), June 2021, 462-470; (Elsevier, Scopus indexed), **I.F: 6.953**
2. Biologically active polysaccharide from edible mushrooms: A review; Prasenjit Maity*¹, Ipsita K. Sen,¹**Indranil Chakraborty**,¹, Soumitra Mondal, Harekrishna Bar, Sunil K.

Bhanja , Soumitra Mandal, Gajendra Nath Maity , International Journal of Biological Macromolecules, [Volume 172](#), March 2021, 408-417 ; (Elsevier, Scopus indexed), I.F: **6.953**(N.B: **1 These authors contributed equally**)

3. 7..Structural studies of immunomodulatory (1→3)-, (1→4)-α glucan from an edible mushroom *Polyporusgrammocephalus*; Sukesh Patra , Prasenjit Maity , **Indranil Chakraborty** , Ipsita K Sen , Debosree Ghosh ,Dilip Rout , Sunil Kumar Bhanja* , International Journal of Biological Macromolecules, [Volume 168](#), January 2021, 649-655 (Elsevier, Scopus indexed) I.F: **6.953**
4. Traveller as a risk factor for migration of COVID-19 in India ; **Indranil Chakraborty**,Ipsita K Sen, Soumitra Mondal, Harekrishna Bar, AvijitNayek, Sunil K Bhanja,PrasenjitMaity*, Journal of Transport & Health [Volume 18](#), September 2020, 100915 (Elsevier, Scopus indexed), **IF :4.986**
5. COVID-19 outbreak: Migration, effects on society, global environment and prevention ;**Indranil Chakraborty**, Prasenjit Maity*, Science of the Total Environment; [Volume 728](#), 1 August 2020, 138882 (Elsevier, Scopus indexed) ; **IF: 7.963**
6. Structural characterization of a heteroglycan from an edible mushroom *Termitomycesheimii* ; Prasenjit Maity , Ashis K. Nandi , ManabendraPattanayak , Dilip K. Manna , Ipsita K. Sen , **Indranil Chakraborty** , Sunil K. Bhanja , Atish K. Sahoo , Nibha Gupta, Syed S. Islam* , International Journal of Biological Macromolecules, [Volume 151](#), May 2020 ; 305–311 (Elsevier, Scopus indexed), **I.F: 6.953**
7. Bioactive polysaccharides from natural sources: A review on the antitumor and immunomodulating activities; **Indranil Chakraborty**, Ipsita K. Sen , Soumitra Mondal , Dilip Rout , Sunil K. Bhanja , Gajendra Nath Maity , Prasenjit Maity* , Biocatalysis and Agricultural Biotechnology, [Volume 22](#), November 2019,101425 (Elsevier, Scopus indexed), No IF
8. Isolation and characterization of a heteroglycan from the fruits of *Astraeus hygrometricus*,Debabrata Maiti, Krishnendu Chandra, Subhas Mondal, Arnab K. Ojha, DebsankarDas,Sadhan K. Roy, Kaushik Ghosh, **Indranil Chakraborty** and Syed S. Islam* , **Carbohydrate Research, 2008, 343, 817-824.**
9. The structure of a polysaccharide from Fraction-II of an edible mushroom, *Pleurotusflorida*, Dilip Rout, Soumitra Mondal, **Indranil Chakraborty** and Syed S. Islam* **Carbohydrate Research, 2008, 343, 982-987.**
10. Chemical analysis of a new fucoglucan isolated from an edible mushroom, *Termitomycesrobustus* , Subhas Mondal, Krishnendu Chandra, Debabrata Maiti, Arnab K. Ojha, Debsankar Das, Sadhan K. Roy, Kaushik Ghosh, **Indranil Chakarborty and Syed S. Islam*Carbohydrate Research, 2008, 343, 1062-1070.**
11. Structural investigation of a heteropolysaccharide isolated from the pods (fruits) of *Moringa oleifera* (Sajina), SadhanK.Roy, Krishnendu Chandra, Kaushik Ghosh, Subhas Mondal, Debabrata Maiti, Arnab K.Ojha, Debsankar Das, Soumitra Mondal, **Indranil Chakraborty** and Syed S Islam* , **Carbohydrate Research, 2007, 342, 2380-2389.**
12. Structural analysis of a water-soluble glucan (Fr.I) of an edible mushroom, *Pleurotussajor-caju*, Malay Pramanik, **Indranil Chakraborty**, Soumitra Mondal and Syed S. Islam* , **Carbohydrate Research, 2007,342,2670-2675.**

13. Structural investigation of a heteroglycan isolated from the fruit bodies of an ectomycorrhizal fungus *Astraeus hygrometricus* **Indranil Chakraborty**, Soumitra Mondal, Dilip Rout, Krishnendu Chandra, Syed S. Islam*, *Carbohydrate Research*, **2007**, *342*, 982-987.
14. A water-insoluble (1→3)-β-D-glucan from the alkaline extract of an edible mushroom *Termitomyces eurhizus*, **Indranil Chakraborty**, Soumitra Mondal, Dilip Rout and Syed S. Islam*, *Carbohydrate Research*, **2006**, *341*, 2990-2993. (Among Top 25 hottest articles of *Carbohydrate Research* during Oct-Dec 2006.)
15. The structure of a polysaccharide, Fraction-II of an edible mushroom, *Pleurotus florida*, Dilip Rout, Soumitra Mondal, **Indranil Chakraborty** and Syed S. Islam*, *Carbohydrate Research*, **2006**, *341*, 995-1002. (Among Top 25 hottest articles of *Carbohydrate Research* during April-June 2006 and among Top 50 most downloaded article from *Carbohydrate Research* from Science Direct during 2006.)
16. Isolation and structural elucidation of a water-soluble polysaccharide (PS-I) of a wild edible mushroom, *Termitomyces striatus*, Soumitra Mondal, **Indranil Chakraborty**, Dilip Rout and Syed S. Islam*, *Carbohydrate Research*, **2006**, *341*, 878-886. (Among Top 25 hottest articles of *Carbohydrate Research* during April-June 2006 and among Top 50 most downloaded article from *Carbohydrate Research* from Science Direct during 2006.)
17. Chemical analysis of a new (1→3), (1→6) branched glucan isolated from an edible mushroom, *Pleurotus florida*, Dilip Rout, Soumitra Mondal, **Indranil Chakraborty**, Malay Pramanik and Syed S. Islam*, *Carbohydrate Research*, **2005**, *340*, 2533-2539. (Among Top 25 hottest articles of *Carbohydrate Research* during Oct-Dec 2005.)
18. Structural investigation of a polysaccharide (Fr.II) of aqueous extract isolated from an edible mushroom, *Pleurotussajor-caju*, Malay Pramanik, Soumitra Mondal, **Indranil Chakraborty**, Dilip Rout, and Syed S. Islam*, *Carbohydrate Research*, **2005**, *340*, 629-636. (Among Top 25 hottest articles of *Carbohydrate Research* during Jan-Mar 2005 & April-June 2006).
19. Structural studies of water-soluble polysaccharides of an edible mushroom, *Termitomyces eurhizus*. A reinvestigation, Soumitra Mondal, **Indranil Chakraborty**, Malay Pramanik, Dilip Rout and Syed S. Islam*, *Carbohydrate Research*, **2004**, *339*, 1135-1140.
20. Structural investigation of a water-soluble glucan from an edible mushroom, *Astraeus hygrometricus*, **Indranil Chakraborty**, Soumitra Mondal, Malay Pramanik, Dilip Rout and Syed S. Islam*, *Carbohydrate Research*, **2004**, *339*, 2249-2254.
21. Structural studies of an immunoenhancing polysaccharide isolated from mature pods (fruits) of *Moringa oleifera* (sajina), Soumitra Mondal, **Indranil Chakraborty**, Malay Pramanik Dilip Rout, and Syed S. Islam*, *Medicinal Chemistry Research*, **2004**, *13*, 390-400.
22. Structural characterisation of an immunomodulating polysaccharide isolated from aqueous extract of *Pleurotus florida* fruit-bodies, Dilip Rout, Soumitra Mondal, **Indranil Chakraborty**, Malay Pramanik and Syed S. Islam*, *Medicinal Chemistry Research*, **2004**, *13*, 509-517.

Publication in National (UGC Listed) Journals:

1. Environmental Rejuvenation: A silver lining amidst the disastrous situation of COVID-19; **Indranil Chakraborty**, Arnab Sinha, Chandan Kumar Pal, Prasenjit Maity, BIGYAN 1, 21 (2021), ISSN: 2583-0236
2. Nutritional and medicinal properties of edible mushrooms: A review; Prasenjit Maity, Sunil K. Bhanja and **Indranil Chakraborty**, BIGYAN 1, 33 (2021), ISSN: 2583-0236
3. Positive impact of COVID-19 in refining air and improving river water quality in Delhi, India, Prasenjit Maity, Mrinal Kanti Hudait, Raj Kumar Dutta, Debabrata Poria, **Indranil Chakraborty**, BIGYAN 1, 36 (2021), ISSN: 2583-0236
4. **Plastic dushon, manob sabhyatar jonyo ekti boro bipod** Indranil Chakraborty, June 2021, 135 Special Remembrance Volume 455-465 Ebong Mohua; (UGC Care list I 2021 Approved Journal)
5. Nutritional potential, health effects and structural diversity of bioactive polysaccharides from *Lagenaria siceraria*: a review; **Indranil Chakraborty**, Kaushik Ghosh*, Journal of Advanced Scientific Research, Volume 11 (3), August 2020, 34-42 ;(UGC care listed)

Books/Chapter in books Published:

1. **A chapter entitled** “A mushroom derived biologically active protein containing polysaccharide” published in the book **“Progress of Chemistry for the sustainable development of mankind”** 20 Nov, 2019, Page no 39-60, published by Techno World, Kolkata, ISBN: 978-81-926694-5-8.
2. **A chapter entitled:** “Biodegradable Polymers in the 21st Century: Properties & Applications.(Page No:111-130); in the book “Environment Friendly Biodegradable Polymer: Present & Future” Editor: Dr. B.C.Samanta & Dr.T .Maity: Publisher: Mallik Book Centre, (ISBN: 978-81-926694-03)
3. **A chapter entitled:** “Arsenic Poisoning: A threatening Challenge to Civilisation: Occurrence, Health Hazards & Remediation” (Page:244-267) in the book entitled: “Fluorosis & Arsenicosis: A Global Problem”, Edited by : Dr.B.C.Samanta&Dr.T .Maity: Publisher: NECTAR, (ISBN: 978-93-84241-08-7)
4. **A chapter entitled:** “Bacterial Exopolysaccharides & Their Applications(Page:74-80), in the book entitled : “Chemistry Today: Nano World to Macro World” Editor: B.Mandal,J.Chandra, S.K.Roy & S.Dalui, Published by: Sonamukhi College, Bankura, (ISBN: 978-81-930138-2-3)
5. **A chapter entitled:** “Pectins: Structurally Versatile Polysaccharides With Immense Biological Activities”: (Page No: 133-138); in the book entitled: “Recent Trends in Research in Chemical Sciences” Editor: Dr.K.Ghosh & Dr. I.Chakraborty: Publisher: Ghatal R.S. Mahavidyalaya, (ISBN:978-935267-187-8)

Book edited

1. Recent Trends in Research in Chemical Sciences” Editor: Dr. K.Ghosh & **Dr. I. Chakraborty**; Publisher: Ghatal R.S. Mahavidyalaya, (ISBN:978-935267-187-8)

Attended/Presented Paper/ in Seminar/Workshop/Webinar:

1. **Presented paper entitled** “Destiny of SARS CoV-2: Eradication or Cohabitation with the Humans” in an International Seminar and Hands on Training on “Advancement of science behind COVID and its Management” organized by Dept. of Chemistry & Dept. of BMLT Raja N.L. Khan Women’s’ College, During 28 & 29 Jan 2022.
2. **Presented paper entitled** “ Prevent COVID 19 & Stay safe” in a National Level Seminar on “ Chemistry & Biology, Sustainable Progress of Human Civilization” organized by the Department of Chemistry, PK College, Contai in collaboration with Indian Chemical Society during 29 & 30 June 2020.
3. **Presented paper entitled** “Nutraceuticals: Bridging the gap between Foods & Drugs” in a National Level Seminar on Recent advances in Plant Science organized by the Dept. of Botany (UG & PG), Midnapore College Autonomous During 2 & 3 March 2020.
4. **Presented paper entitled** “Beta Glucan: An important natural immunomodulator” in a National Level Seminar on “Frontiers in Chemical Sciences 2019 ” The Department of Chemistry, Vidyasagar University on 17 & 18 January 2019
5. **Presented paper entitled** “Global climatic change in the last 100 years: An alarming threat to civilization and biodiversity” in a National Level Seminar on “Climate Change & Biodiversity Management” organized by Sabang Sajanikanta Mahavidyalaya, in collaboration with West Bengal Biodiversity Board, Govt of West Bengal on 9 March 2018.
6. **Presented paper entitled** “Flavanoids: Renewable plant secondary metabolites for green synthesis of nanoparticles” in a two day International Level conference on “Green Engineering and sustainable development” organized by Mugberia Gangadhar Mahavidyalaya in collaboration with Indian Chemical Society during 20 & 21 August 2018
7. **Presented paper entitled** “Waste Management: A significant step to save environment” in a National Level Seminar on “Environmental Hazards & Waste management” organized by Mugberia Gangadhar Mahavidyalaya during 28 August 2018
8. **Presented paper entitled**, “Biosensors: Application and recent developments” in an international Seminar on “Recent Development in Biological Science & Chemical Science” organized by Garhbeta College on 1st April, 2017
9. **Presented paper entitled** “Mushroom: An important food source with multipurpose utility” in a National Level Seminar organized by Department of Chemistry& Chemical Technology, Vidyasagar University on 17 & 18 March 2015.

Research Projects: Sanctioned UGC Minor Research Project in 2015.

Fellowship/Award/recognition received:

2003: Senior Research Scholarship by “Lady Tata Memorial Trust”, Mumbai
2001: Junior Research Scholarship by “Lady Tata Memorial Trust”, Mumbai

2001: Qualified National Eligibility Test (NET) conducted jointly by Council of Scientific & Industrial Research and University Grants Commission.

2001: Qualified Graduate Aptitude Test in Engineering (GATE) organized by IIT, KGP

2009: Selected for Post Doctoral Research Scholarship by **Ministry of Italian University & Research (MIUR)** at University of **Napoli, Italy**.

2021: Enlisted in the world ranking of top 2 % scientists Published by Stanford University

2021: Enlisted in the AD Scientific index, World Scientists & University ranking ,2021

2022: Enlisted in the AD Scientific index, World Scientists & University ranking ,2022

2022: Received “ Young Teacher Award” by Kharagpur College

2023: Enlisted in the AD Scientific index, World Scientists & University ranking ,2023

Editor or Reviewer of a Journal: Reviewer of Journal of Environmental Science and Health, Part-A

Organized Workshop/ Seminar :

1. Webinar entitled “Body's fight against harmful invaders: How we fight Coronavirus and for how long?” in Collaboration with INSA, Kolkata Chapter dt 09.06.2021 .

2. Webinar entitled “Concepts, Innovations and Methods when Chemistry meets Biology” in Collaboration with NASI, Kolkata Chapter dt 17.07.2020 .

3. National level webinar on “Recent Development Of Chemistry, RDC 2020” on 20.07. 2020.

4. A UGC sponsored National Level Seminar on “Recent Trends in Research in Chemical Sciences” in collaboration with Ghatal R.S. Mahavidyalaya, during 2016.

Administrative responsibility:

1. Co-Coordinator IQAC, Kharagpur College
2. Coordinator UBA cell, Kharagpur College
3. Nodal officer, NIRF, Kharagpur College

Members in different Committee:

1. Joint Convener, Project & Seminar subcommittee , Kharagpur College
2. Joint Convener of UGC subcommittee , Kharagpur College
3. Member, PF sub committee
4. Member, TC
5. Member, committee for Code of conduct, Kharagpur College
6. Member, Career counseling & Placement cell, Kharagpur College
7. Member, Entrepreneurship Development Cell, Kharagpur College
8. Member, NSS advisory committee, Kharagpur College