

LIST OF PUBLICATIONS

Faculty Name: Dr Debajyoti Kundu

Department of Environmental Science and Engineering

Publication Summary

Category	Published
Research Papers	19
Review Papers	10
Book Chapters	12
Conference Proceedings	9
Patents	3
Total	53

RESEARCH PAPERS

1. **Dr Debajyoti Kundu and Dr Deblina Dutta** - "Safeguarding drinking water: A brief insight on characteristics, treatments, and risk assessment of contamination" in Environmental Monitoring and Assessment (Q1 Journal, IF 3) DOI: <https://doi.org/10.1007/s10661-024-12311-z>
2. Dutta D, **Kundu D**, Jana BB, Lahiri S and Bhakta JN (2022) *Greenhouse temperature induced manure driven low carbon footprint in aquaculture mesocosm*. Carbon Research. 1, 18.
3. Dutta D, **Kundu D**, Jana BB, Lahiri S and Bhakta JN (2022) (2022) *Growth dependent carbon sequestration proficiency of algal consortium grown in carbon dioxide enriched simulated greenhouse*. Bioresource Technology Reports. 18, 101090.
4. Sherpa KC, **Kundu D**, Banerjee S and Banerjee R. (2022) *An integrated biorefinery approach for bioethanol production from sugarcane tops*. Journal of Cleaner Production. 352. 131451.
5. Panigrahi S, **Kundu D**, Banerjee R and Dubey BK. (2022) *Enzyme pretreatment of yard waste to improve anaerobic biodegradability: Modeling the interactive effects of enzyme dose, treatment temperature and treatment duration on delignification*. Fuel. 317, 123313

5. **Kundu D**, Karmakar S and Banerjee R. (2022) *Simultaneous debittering and clarification of enzyme mediated mixed citrus juice production*. Applied Food Research. 2(1), 100031.
 6. **Kundu D**, Banerjee S, Karmakar S and Banerjee R. (2022) *A new insight on improved biomethanation using graphene oxide from fermented Assam lemon waste*. Fuel. 309, 122195.
 7. **Kundu D**, Banerjee S, Karmakar S and Banerjee R. (2021) *Enrichment of N and bioavailability of P and K of lemon wastes through biotechnological intervention with special reference to Mung bean production*. Bioresource Technology Reports. 15, 100794.
 8. **Kundu D**, Banerjee S, Karmakar S and Banerjee R. (2021) *Valorization of citrus lemon wastes through biorefinery approach: An industrial symbiosis*. Bioresource Technology Reports. 15, 100717.
 9. **Kundu D**, Karmakar S and Banerjee R. (2019) *In silico optimization of enzyme mediated debittering of Assam lemon: Biochemical and sensory evaluation studies*. Journal of Food Science and Technology. 56(4):2233-2243.
 10. Jana BB, **Kundu D**, Dutta D, Lahiri S, Bhakta JN and Bag SK. (2019) *Positive synergistic impacts of greenhouse temperature and manure driven total environment on breeding success of Tilapia during winter*. Indian Journal of Experimental Biology. 57(2):96-104.
 11. Mondal S, Smaranya Haque, **Kundu D** and Ghosh AR. (2017) *Isolation and identification of phosphate-solubilizing microorganisms and distribution of orthophosphate in different seasons from sewage-fed East Kolkata Wetland*. Lakes & Reservoirs: Research and Management. 23, 261-270.
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12. Mondal S, Kumar M, Haque S and **Kundu D**. (2017) *Phytotoxicity of glyphosate (N-(Phosphonomethyl)-Glycine) in the germination of pea seed (Pisum sativum) and its effect on biochemistry of germinated seedlings*. Environmental Health and Toxicology. 32: 1-7.
13. Sen A, Khan I, **Kundu D**, Das K and Datta JK. (2017) *Ecophysiological evaluation of tree species with seasonal variations and air pollution tolerance index*. Environmental Monitoring Assessment. 189(262): 1-15.
14. Das D, Maity S, **Kundu D**, Jana BB, Pandey S, Bhakta JN, Sharma J (2017) *Growth responses of Chlorella sp. to some selected variants of culture medium and in effluents of a Brewery*. International Journal of Environmental and Technological Sciences. 4s: 1-7.
15. Haque S, Mondal S, **Kundu D** and Ghosh AR. (2016) *Effect of multiple polycyclic aromatic hydrocarbons (PAHs) on liver of three teleostean fishes Labeo bata, Labeo rohita and Cirrhinus mrigala in Burdwan Loco tank, Burdwan, West Bengal, India*. Austin environmental Science. 2(1): 1-8.
16. Dutta D, **Kundu D** and Datta JK. (2016) *Evaluation of growth, physiology and yield of mung bean (Vigna radiata) by inoculating isolated nitrogen fixing bacteria from pharmaceutical wastewater*. Journal of Environmental Science and Pollution Research. 3(1): 149-152.
17. **Kundu D**, Mondal S, Dutta D, Haque S and Ghosh AR. (2016) *Accumulation and contamination of lead in different trophic levels of food chain in sewage-fed East Kolkata Wetland, West Bengal, India*. International Journal of Environmental and Technological Sciences. 2: 61-68.
18. Jana BB, **Kundu D**, Dutta D, Lahiri S, Bag S, Sarkar D and Bhakta JN. (2016) *Evidences of manure driven and C:N regulated enhanced carbon status and microalgal productivity in managed aquatic system under simulated green house conditions*. Journal of Earth Science and Climate Change. 7: 336.

19. Mondal S, **Kundu D**, Haque S, Senapati T and Ghosh AR. (2015) *Seasonal variation of zooplankton distribution in sewage-fed East Kolkata wetland, West Bengal, India*. Pollution Research. 34 (2): 477-787.

REVIEW PAPERS

1. Mondal T, Choudhury M, **Kundu D**, Dutta D, and Samanta P. (2023) *Landfill: An eclectic review on structure, reactions and remediation approach*. Waste Management, 164, 127-142.

2. Dutta D, Rautela R, Gujjala LKS, **Kundu D**, Sharma P, Tembhare M and Kumar S. (2023) *A review on recovery processes of metals from E-waste: A green perspective*. Science of the Total Environment. 859(2), 160391.

3. Samanta P, Dey S, **Kundu D**, Dutta D, Jambulkar R, Mishra R, Ghosh AR and Kumar S. (2022) *An insight on Characteristics, Sampling, Identification and Quantification of Microplastics in Solid Wastes*. Trends in Environmental Analytical Chemistry.36, e00181.

4. **Kundu D**, Dutta D, Samanta P, Dey S, Sherpa KC, Kumar S, Dubey B. (2022) *Valoriation of wastewater: A paradigm shift towards circular bioeconomy and sustainability*. Science of the Total Environment. 848. 157709.

5. Gujjala LKS, Dutta D, Sharma P, **Kundu D**, Vo DVN, Kumar S. (2022) *A state-of-the-art review on microbial desalination cells*. Chemosphere, 288, 132386.

6. Singh J, **Kundu D**, Rastogi A, Das M, Mahle R and Banerjee R. (2018) *Bioremediation of distillery waste: An overview*. International Journal of Environmental and Technological Sciences. 6: 202-216.

7. Das M, **Kundu D**, Singh J, Rastogi A Mukherjee G, Chatterjee A and Banerjee R. (2018) *Rejuvenation of metabolic cascades for controlling aging through bioactive compounds: A review*. Journal of Nutrition and Food Science Forecast. 1(1): 1-6.

8. Mondal T, Jana A and **Kundu D**. (2017) *Aerobic wastewater treatment technologies: A mini review*. International Journal of Environmental and Technological Sciences. 4: 135-140.

9. Das M, **Kundu D**, Singh J, Rastogi A and Banerjee R. (2017) *Physiology and Biochemistry of Indigenous Tribal Liquor Haria: A State of Art*. Advances in Biotechnology & Microbiology. 6(2): 1-5.
10. Dash A, **Kundu D**, Das M, Bose D, Adak S and Banerjee R. (2016) *Food biotechnology: A step towards improving nutritional quality of food for Asian countries*. Recent Patents on Biotechnology. 10: 43-57.

BOOK CHAPTERS

1. Samanta P, Dey S, **Kundu D** and Ghosh AR. (2023) *Effect of Co-Digestion and Pretreatment on the Bio-Hythane Production (S Kumar, R Rena eds)* In: Biofuels, CRC Press, Boca Raton. eBook ISBN: 9781003197737.
2. **Kundu D**, Das M, Mahle R, Biswas P, Karmakar S and Banerjee R. (2019) *Citrus fruits (C Galanakis ed)* In: Valorization of fruit processing by-products, Academic Press, Elsevier. Academic Press, USA. pp. 145-166. ISBN: 9780128171066.
3. **Kundu D**, Sarkar S, Mondal S, Dutta D, Mondal T, Mondal K, Bhakta JN and Jana BB. (2019) *Algal Carbon Sequestration: A Green Technology for Bioremediation of Carbondioxide Pollution (JN Bhakta, S Lahiri, BB Jana eds)* In: Green technology for bioremediation of environmental pollution. Nova Science Publishers, Inc., New York. pp. 153-172. ISBN: 9781536145298.
4. Bhakta JN, Rana S, **Kundu D**, Lahiri S, Jana BB, Mondal SK., Panigrahi AK, Pradhan C, Gorbatiuk L and Pasichna O (2019) *Bioremediation: Current Concepts of Microbial Metal Mobilization and its Application as Green Technology (JN Bhakta, S Lahiri, BB Jana eds)* In: Green technology for bioremediation of environmental pollution. Nova Science Publishers, Inc., New York. pp. 57-100. ISBN: 9781536145298.
5. Bhakta JN, **Kundu D**, Dutta D and Płaza GA (2019) *Bioremediation in Different Domains of Environment (JN Bhakta, S Lahiri, BB Jana eds)* In: Green technology for bioremediation of

environmental pollution. Nova Science Publishers, Inc., New York. pp. 1-16. ISBN: 9781536145298.

6. Singh J, **Kundu D**, Das M and Banerjee R (2019) *Enzymatic processing of juice from fruits/vegetables: An emerging trend and cutting edge research in food biotechnology (M Kuddus ed)* In book: Enzymes in food biotechnology. Academic Press, Elsevier. pp. 419- 432. ISBN: 9780128132807.

7. Rastogi A, Singh J, Das M, **Kundu D** and Banerjee R. (2018) *An understanding of bacterial cellulose and its potential impact on industrial application. (A Kuila, V Sharma, eds)* In: Principle and applications of fermentation technology. Scrivener Publishing LLC, Wiley. Beverly: USA. pp. 437-458. ISBN: 9781119460381.

8. Das M, **Kundu D**, Singh J, Rastogi A and Banerjee R. (2018) *Biotechnological exploitation of poly- lactide produced from cost effective lactic acid. (A Kuila, V Sharma, eds)*. In: Principle and applications of fermentation technology. Scrivener Publishing LLC, Wiley. Beverly: USA. pp. 401-416. ISBN: 9781119460381.

9. **Kundu D**, Singh J, Das M, Rastogi A and Banerjee R. (2018) *A sustainable process for nutrient enriched fruit juice processing: An enzymatic venture. (A Kuila, V Sharma, eds)*. In: Principle and applications of fermentation technology. Scrivener Publishing LLC, Wiley. Beverly: USA. pp. 387-400. ISBN: 9781119460381.

10. Singh J, Rastogi A, **Kundu D**, Das M and Banerjee R. (2018) *A new perspective on fermented protein rich food and its health benefits. (A Kuila, V Sharma, eds)* In: Principle and applications of fermentation technology. Scrivener Publishing LLC, Wiley. Beverly: USA. pp. 417-436. ISBN: 9781119460381.

11. Althuri A, Chintagunta AD, Sherpa KC, Rajak RC, **Kundu D**, Singh J, Rastogi A and Banerjee R. (2017) *Microbial Enzymes and Lignocellulosic Fuel Production. (A Kuila, V Sharma, eds)*. In: Lignocellulosic Biomass Production and Industrial Applications. Scrivener Publishing LLC, Wiley. Beverly: USA. Chapter 7. pp. 135-170. ISBN: 9781119323600.

12. **Kundu D**, Dutta D, Mondal S, Haque S, Bhakta JN and Jana BB. (2016) *Application of potential biological agents in green bioremediation technology: Case studies. (JN Bhakta, ed).* In: Handbook of Research on Inventive Bioremediation Techniques. IGI Global. Hershey: USA. Chapter 13. pp. 298-322. EISBN13: 9781522523260.

CONFERENCE PROCEEDINGS

1. **Kundu D** and Banerjee R. (2018) *Production of bioethanol from citrus fruit waste through partial consolidated bioprocessing (PCBP).* International Conference on Biotechnological Research and Innovation for Sustainable Development (BioSD-2018). 128.

2. **Kundu D** and Banerjee R. (2018) *Valorization of waste produced from processed Assam lemon,* J Fundam Renewable Energy Appl. DOI: 10.4172/2090-4541-C4-060. 11th World Bioenergy Congress and Expo at Berlin, Germany.

3. **Kundu D** and Banerjee R. (2017) *Bioethanol production through simultaneous saccharification and fermentation from citrus fruit waste,* J Fundam Renewable Energy Appl. DOI: 10.4172/2090-4541-C1-030. 5th World Bioenergy Congress and Expo at Madrid, Spain.

4. **Kundu D** and Banerjee R. (2016) *An enzymatic approach for debittering of citrus fruit juice,* International Conference on Emerging Technologies in Agricultural and Food Engineering (ETAE, 2016), at Indian Institute of Technology, Kharagpur, India.

5. Jana BB, **Kundu D**, Dutta D, Lahiri S, Bag S, Bhakta JN, Jana S and Gnanakan K. (2016) *Winter breeding of tilapia induced by the interactions of polyhouse raised temperature and manure driven holistic environment in small holding tanks.* International E-conference On Current Trends in Environmental Conservation and Adaptive Measures for Climate Change. 58-59.

6. Dutta D, **Kundu D**, Bhakta JN, Lahiri S and Jana BB. (2016) *Manure driven carbon status in a constructed Mesocosm under simulated greenhouse condition.* International E-conference On Current Trends in Environmental Conservation and Adaptive Measures for Climate Change. 53-55.

7. Dutta D, **Kundu D**, Datta JK and Senapati T. (2016) *Treatment of pharmaceutical wastewater by packed bed column.* International E-conference On Current Trends in Environmental Conservation and Adaptive Measures for Climate Change. 26-27.

8. **Kundu D**, Mondal S, Dutta D, Haque S and Ghosh AR. (2016) *Accumulation of Lead in Different Tropic Levels of Food Chain in Sewage-Fed East Kolkata Wetland, West Bengal, India*. International E-conference On Current Trends in Environmental Conservation and Adaptive Measures for Climate Change. 8-9.

9. **Kundu D** and Banerjee R. (2015) *Enzymatic debittering of citrus fruit juices and its value addition* on International Conference on New Horizon in Biotechnology at Trivandrum, India.

PATENTS

Process for de-bittering citrus fruit juice, Patent No. 201731019515, Date of Publication: 07-12-2018

A Novel hyper active α -amylase production process from *Bacillus amyloliquefaciens* and its unique applications in viscosity reduction and improved ethanol production, Patent No. 201731036265, Date of Publication: 19-04-2019

Production and application of hyperactive cellulase from a newly isolated strain of *Aspergillus* sp. (RB1313), Patent No. 201931042676, Date of Publication: 23.04.202
