

## LIST OF PUBLICATIONS

**Faculty Name: Dr Debajyoti Kundu**

**Department of Environmental Science and Engineering**

### Publication Summary

<b>Category</b>	<b>Published</b>
Publications	49
Patents	3
<b>Total</b>	<b>53</b>

1. Adak S, Ramalingam K, Bishai M, Jacob S, Kundu D. (2024). Advancements in Microbial Production of Polyhydroxyalkanoates (PHA) from Wastes for Sustainable Active Food Packaging: An Eclectic Review, *Biocatalysis and Agricultural Biotechnology*. 60, 103288.
2. Satpati GG, Devi A, Kundu D, Dikshit PK, Saravanabhupathy S, Rajlakshmi, Banerjee R, Rajak RC, Kamli MR, Lee S-Y, Kim J-W, Davoodbasha M. (2024). Synthesis, delineation and technological advancements of algae biochar for sustainable remediation of the emerging pollutants from wastewater-a review. *Environmental Research*, 119408.
3. Satpati GG, Kundu D, Rajak RC, Gupta S, Kim JW, Davoodbasha M. (2024). Algal-based membrane reactor for the remediation of emerging contaminants from wastewater: Mechanism, synthesis and technological advancement. *Algal Research*, 79, 103465.
4. Kundu D, Samanta P, Dey S, Dutta D, Rautela R, Chintagunta AD, Kumar NSS, Mishra R, Sherpa KC, Muneshwar S, Motghare A and Kumar S. (2024) Bioremediation and Biodegradation: Importance and Recent Development. (Gautam P, Kumar V, Kumar S eds) In: *Solid Waste Treatment Technologies Challenges and Perspectives*. CRC Press. Pp. 173-201. ISBN: 9781003851981
5. Kundu D, Dutta D, Joseph A, Jana A, Samanta P, Bhakta JN, and Alreshidi MA. (2024) Safeguarding drinking water: A brief insight on characteristics, treatments and risk assessment of contamination. *Environmental Monitoring and Assessment*, 196(2), 180.
6. Gujjala LK, Kundu D, Dutta D, Kumar A, Bal M, Kumar A, Singh E, Mishra R, Kumar S, and Vo DV. (2023) Advances in ionic liquids: Synthesis, environmental remediation and reusability. *Journal of Molecular Liquids*. 396, 123896.

7. Dey S, Samanta P, Dutta D, Kundu D, Ghosh AR and Kumar S. (2023) Face Masks: A COVID-19 Protector or Environmental Contaminant? *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-023-29063-x>
8. Ashok Kumar Nadda, Dutta D, Sharma K, Panda PK, Kundu D, Yadav D, Kudanga T and Kumar S. (2022) Co-operative CO<sub>2</sub>-philic materials and enzyme-based hybrid interfacial systems: Advanced strategies and applications. *Fuel Processing Technology*. 250. 107905.
9. 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.
10. 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.
11. Rautela R, Dutta D, Dagwar PP, Game M, Motghare A, Muneshwar S, Jambhulkar R. and Kundu D. (2023) Challenges and extended business opportunity associated with E-waste management options (S Kumar, S Arya eds) In: *Global E-Waste Management Strategies and Future Implications*. Elsevier, UK. pp. 31-49. ISBN: 978-0-323-99919-9
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. Dutta D, Kundu D, Jana BB, Lahiri S and Bhakta JN (2022) Growth dependent carbon sequestration proficiency of algal consortium grown in carbon dioxide enriched simulated greenhouse. *Bioresource Technology Reports*. 18, 101090.
18. 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.
19. 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.
  20. 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.
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  22. 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.
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  25. 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.
  26. 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.
  27. 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.
  28. Bhakta JN, Rana S, Kundu D, Lahiri S, Jana BB, Mondal SK., Panigrahi AK, Pradhan C, Gorbatiuk L and Pasichna O (2019) Bioleaching: 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,

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29. Bhakta JN, Kundu D, Dutta D and Plaza 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.
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  35. 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.
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  38. Mondal S, Smaranya Haque, Kundu D and Ghosh AR. (2017) Isolation and identification of

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  41. 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.
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  44. 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.
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## **PATENTS**

Process for de-bittering citrus fruit juice, Patent No. 201731019515, Date of Publication: 07-12-2018. Granting Date: 03-01-2024.

A Novel hyper active  $\alpha$ -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

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