

## PUBLICATIONS

SI No	Author	Paper Title	Journal Name	Year	DOI
1	Tanmay Dutta, Manabendra Ray	Site orientation, accessibility, and surface hydrophobicity control on AFC polymer to increase hexavalent chromium removal performance	Chemical Engineering Journal	6 November 2021,	<a href="https://doi.org/10.1016/j.cej.2021.133368">https://doi.org/10.1016/j.cej.2021.133368</a>
2	Payal Mazumder, Akhil PM, Jyoti, Meena Khwairakpam, Umesh Mishra, Ajay S. Kalamdhad	Enhancement of soil physico-chemical properties post compost application: Optimization using Response Surface Methodology comprehending Central Composite Design	Journal of Environmental Management	1 July, 2021	<a href="https://doi.org/10.1016/j.jenvman.2019.109990">https://doi.org/10.1016/j.jenvman.2019.109990</a>
3	Payal Mazumder, Anirban Das, Meena Khwairakpam, Ajay S. Kalamdhad	A comprehensive insight into ecological risk assessment and remediation of metal contaminated coal mine soil: Towards a cleaner and sustainable environment	Journal of Cleaner Production	15 November, 2021	<a href="https://doi.org/10.1016/j.jclepro.2021.129185">https://doi.org/10.1016/j.jclepro.2021.129185</a>
4	Deepti., Bora, U., Purkait, M.K	Promising integrated technique for the treatment of highly saline nanofiltration rejected stream of steel industry	Journal of Environmental Management	2021	<a href="https://doi.org/10.1016/j.jenvman.2021.113781">https://doi.org/10.1016/j.jenvman.2021.113781</a>
5	Prangan Duarah, Dibyajyoti haldar, Shyam Kumar Yadav, Mihir kumar purkait	Progress in the electrochemical reduction of CO <sub>2</sub> to formic acid: a review on current trend and future prospects	Journal of Environmental Chemical Engineering	Dec-21	<a href="https://doi.org/10.1016/j.jece.2021.106394">https://doi.org/10.1016/j.jece.2021.106394</a>
6	Rahul Verma, LM Kundu, LM Pandey	Enhanced melanoidin removal by amine-modified Phyllanthus emblica leaf powder	Bioresource Technology	Nov-21	<a href="https://doi.org/10.1016/j.biortech.2021.125572">https://doi.org/10.1016/j.biortech.2021.125572</a>
7	S Sharma, Rahul Verma, S Dhull, S K Maiti & LM. Pandey	Biodegradation of waste cooking oil and simultaneous production of rhamnolipid biosurfactant by Pseudomonas aeruginosa P7815 in batch and fed-batch bioreactor	Bioprocess and Biosystems Engineering	Nov-21	<a href="https://doi.org/10.1007/s00449-021-02661-0">https://doi.org/10.1007/s00449-021-02661-0</a>
8	A Jawed,P Karb, Rahul Verma, K Shukla, P Hemanth, VK Thakur,	Integration of biological control with engineered heterojunction nano-	Journal of Environmental	Dec-21	<a href="https://doi.org/10.1016/j.jece.2021.106976">https://doi.org/10.1016/j.jece.2021.106976</a>

	LM Pandey & RK Gupta	photocatalysts for sustainable and effective management of water hyacinth weed	Chemical Engineering		
9	SR Dash, SS Bag and A K Golder	Bio-inspired PtNPs/Graphene Nanocomposite based Electrocatalytic Sensing of Metabolites of Dipyrone	Analytica Chimica Acta	Jul-21	<a href="https://doi.org/10.1016/j.aca.2021.338562">https://doi.org/10.1016/j.aca.2021.338562</a>
10	SR Dash, SS Bag and A K Golder	Carbon dots derived from waste Psidium guajava leaves for electrocatalytic sensing of chlorpyrifos	Electroanalyses	1-Dec, 2021	<a href="https://doi.org/10.1002/elan.202100344">https://doi.org/10.1002/elan.202100344</a>
11	Poulomi Bose, C Mukherjee and AK Golder	Electrochemical Conversion of CO <sub>2</sub> to C <sub>2</sub> Oxygenates on Pb(II)-Salen Catalysts-Coated Graphite Electrodes: Role of Salen Ligand and Appended Ligand-Substituents to the Production	Chemical Engineering Journal	Dec-21	<a href="https://doi.org/10.1016/j.cej.2021.134092">https://doi.org/10.1016/j.cej.2021.134092</a>
12.	U Jayakrishnan, D Deka, G Das	Regulation of volatile fatty acid accumulation from waste: Effect of incolum pretreatment	Water Environment Research,	2021	<a href="https://doi.org/10.1002/wer.1490">https://doi.org/10.1002/wer.1490</a>
13.	<u>U Jayakrishnan, D Deka, G Das</u>	Waste as feedstock for polyhydroxyalkanoate production from activated sludge: Implications of aerobic dynamic feeding and acidogenic fermentation	<u>Journal of Environmental Chemical Engineering</u>	2021	<a href="https://doi.org/10.1016/j.jece.2021.105550">https://doi.org/10.1016/j.jece.2021.105550</a>
14	Banhisikha Debnath, Dibyajyoti Haldar, Mihir Kumar Purkait	A critical review on the techniques used for the synthesis and applications of crystalline cellulose derived from agricultural wastes and forest residues	Carbohydrate Polymers	1 December 2021	<a href="https://doi.org/10.1016/j.carbpol.2021.118537">https://doi.org/10.1016/j.carbpol.2021.118537</a>
15	Banhisikha Debnath, Dibyajyoti Haldar, Mihir Kumar Purkait	Potential and sustainable utilization of tea waste: A review on present status and future trends	Journal of Environmental Chemical Engineering	October 2021	<a href="https://doi.org/10.1016/j.jece.2021.106179">https://doi.org/10.1016/j.jece.2021.106179</a>

## BOOK CHAPTER

Sl No	Name of Author/s	Name of paper	Name of Book	Publisher	Volume and Issue No. (If any)	ISBN	Year
1	Payal Mazumder, Izharul Haq, Anirband Das, Ajay S. Kalamdhad	Microbial remediation of soil and water metal contaminants	Microbial Ecology of Wastewater Treatment Plants	Elsevier	<a href="https://doi.org/10.1016/B978-0-12-822503-5.00006-0">https://doi.org/10.1016/B978-0-12-822503-5.00006-0</a>	ISBN 9780128225035	2021
2	Payal Mazumder, Jyoti, Meena Khwairakpam, Ajay S. Kalamdhad	Metal Resistant Bacteria in Animal Manure Induces Bacterial Resistance to Antibiotics: Their Co-occurrence in Compost, Soil and Water	Integrated Approaches Towards Solid Waste Management	Springer, Cham	<a href="https://doi.org/10.1007/978-3-030-70463-6_3">https://doi.org/10.1007/978-3-030-70463-6_3</a>	978-3-030-70462-9	24 June, 2021
3	Aquib Jawed, Rahul Verma, Varun Saxena, Lalit M.Pandey	Photocatalytic metal nanoparticles: a green	Photocatalytic Degradation of Dyes Current	Elsevier	<a href="https://doi.org/10.1016/B978-0-12-823876-9.00003-2">https://doi.org/10.1016/B978-0-12-823876-9.00003-2</a>	978-0-12-823876-9	2021

		approach for degradation of dyes	Trends and Future Perspectives				
4	Aquib Jawed, Swati Sharma, Animes K.Golder, Lalit M.Pandey	Plant-polyphenol-mediated synthesis of iron oxide nanomaterials for heavy metal removal: a review	New Trends in Removal of Heavy Metals from Industrial Wastewater	Elsevier	<a href="https://doi.org/10.1016/B978-0-12-822965-1.00006-4">https://doi.org/10.1016/B978-0-12-822965-1.00006-4</a>	978-0-12-822965-1	2021
5	<b>Deepti</b> , Piyal Mondal, Mihir Kumar Purkait	Utilization of advanced ceramics towards treatment of wastewater	Advanced ceramics	Springer			<b>2021</b>
6	Prangan Duarah, Dibyajyoti haldar, Mihir kumar purkait	Potential of MOF based novel adsorbents for the removal of aquatic pollutants	Advanced Materials for Sustainable Environmental Remediation	Elsevier			2021
7	Dibyajyoti Haldar, Prangan Duarah, Mihir Kumar Purkait	Progress in the synthesis and applications of polymeric nanomaterials derived from waste	Advanced Materials for Sustainable Environmental Remediation	Elsevier			2021

		lignocellulosic biom					
8	Pranjal P. Das, Piyal Mondal, Prangan Duarah, and Mihir K. Purkait	Advanced surfactant based technologies for environmental remediation applications	Advances in Material Research and Technology	Springer		2662-4761	2021
9	RahulVerma Lal MohanKundu, Lalit M.Pandey	Decontamination of distillery spent wash through advanced oxidation methods	Advanced Oxidation Processes for Effluent Treatment Plants	Elsevier	<a href="https://doi.org/10.1016/B978-0-12-821011-6.00006-2">https://doi.org/10.1016/B978-0-12-821011-6.00006-2</a>	978-0-12-821011-6	2021
10	A Jawed, Rahul Verma, V Saxena, LM Pandey	Photocatalytic metal nanoparticles: a green approach for degradation of dyes	Photocatalytic Degradation of Dyes	Elsevier	<a href="https://doi.org/10.1016/B978-0-12-823876-9.00003-2">https://doi.org/10.1016/B978-0-12-823876-9.00003-2</a>	978-0-12-823876-9	2021

## PATENT

<b>Name of Faculty and co researcher</b>	<b>Name</b>	<b>Date Applied/Granted</b>	<b>Application No.</b>	<b>Remarks</b>
M. K. Purkait, <b>Deepti</b> , A Sinha, P. Biswas, S Sarkar	“Separation of ions from the rejected stream of industrial wastewater”	<b>Granted on 11/02/2021</b>	2.01831E+11	