PUBLICATIONS

Patents and Copyrights

1. Patent Title: AN IONIC LIQUID-BASED NANO-PHOTOCATALYST AND A METHOD OF PREPARATION THEREOF, Authors: Dr. Dipesh S Patle, Dr. Sushil Kumar, Dr. P.R. Bhagat, Ms. Aparna Gautam. Application No.: 202311049944, Filed on: 2023-07-25. (**Granted**: Patent No. 533205).
2. Patent Title: A Process of microbial decolorization of reactive textile dyes, Authors: Dr. Sushil Kumar; Dr. Radha Rani; Mrs. Ankita Srivastava. Application No.: 202311003682, Filed on 2023-01-18. **Published** on 2023-05-26.

Journals/Books Editors

1. **Kumar, S.,** Patle D.S., Ahmad Z. **(Guest editors)**, Technological interventions in biomass processing: thematic issue for an international conference "CHEM-CONFLUX[22]", *Biomass Conversion and Bio-refinery* Journal (Springer), (2023). https://doi.org/10.1007/s13399-023-04539-5
2. **Kumar, S.,** Patle D.S., Ahmad Z. **(Guest editors)**, Thematic issue on Technological interventions for promoting sustainability: selected extended papers from an international conference 'CHEM-CONFLUX[22] *Environmental Science and Pollution Research (Springer)* 30, 2023. https://doi.org/10.1007/s11356-023-26521-4
3. **Kumar, S.,** Patle D.S., Ahmad Z. **(Guest editors),** Special issue on "International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX 2022)" *Material Today: Proceedings Journal (Elsevier),* vol. 78(1), A1-A16, 1-208, 2023.
4. **Kumar, S.,** Patle D.S., Mungray A., **(Guest editors),** Special issue on "International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX 2022)" *Energy Nexus Journal (Elsevier)*, 2023.
5. **Kumar, S.,** Patle D.S. **(Guest editors),** Special issue on "CHEM-CONFLUX[22]", *Chemical Product and Process Modeling Journal (De Gruyter)* 16(2), 2023
6. **Kumar, S.,** Patle D.S., Zarghami R., **(Guest editors),** Special issue on "CHEM-CONFLUX[20]", *Chemical Product and Process Modeling Journal (De Gruyter)* 16(2), 2021.
7. **Kumar, S.,** Patle D.S., **(Guest editors),** *Journal of Indian Chemical Society (Elsevier)* vol. 97(10a) 2020.
8. **Kumar, S.,** Patle D.S., Katiyar P., Sawarkar A.N. (eds.) *Proceedings, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22),* Excellent Publishing House, New Delhi, April 14-16, 2022 (ISBN 9789394086166).
9. **Kumar, S.,** Patle D.S. (eds.) *Proceedings, International Conference on Energy and Environmental Technologies for Sustainable Development (CHEM-CONFLUX20),* Excellent Publishing House, New Delhi, February 14-16, 2020 (ISBN 9789386238863).
10. **Kumar, S.,** Jain, A. (eds.) Proceedings, *Conference on Technological Advancements in Chemical and Environmental Engineering*. Excellent Publishing House, New Delhi, March 23-24, 2012 (ISBN No.: 978519381583-31-9).

Book Chapters

1. Gautam, A., Kumar, S. and Patle, D.S., Process intensification opportunities in the production of microalgal biofuels. *Microalgae-Based Systems: Process Integration and Process Intensification Approaches*, p.377. Publisher: Walter de Gruyter GmbH & Co KG.r, 2023

2. Meena R.R., Soni, P., **Kumar, S.,** *Electrocoagulation of fluoride from water with Fe-based ion electrode* in Book entitled "Advanced Treatment Technologies for Fluoride Removal in Water" (Springer Nature) 2023, 978-3-031-38845-3
3. Wasewar K.S., **Kumar, S.,** *Life cycle assessment (LCA) of plastics* in Book titled "Plastic and Microplastic in the Environment: Management and Health Risks" https://doi.org/10.1002/9781119800897.ch13 (Elsevier) 2022.
4. Kamsonlian, S., Yadav, S., Wasewar K.S., Gaur A., **Kumar, S.,** *Treatment of contaminated water: membrane seperation and biologial processes,* Book titled "Contamination of Water: Health Risk Assessment and Treatment Strategies" (Elsevier) 2021, Pages 339-350, https://doi.org/10.1016/B978-0-12-824058-8.00034-7.
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7. Gehlaut A.K., Hasan S.U., **Kumar S.,** Gaur A. *"An overview of advance nano-materials for carbon dioxide capture and storage"* Excel India Publishers, New Delhi (2020) (978-93-89947-26-7)
8. Patle, D.S., Khajone, V., Bhagat, P.R., Jaiswal, A.K., **Kumar, S.** "*Functionalized ionic liquids for photodegradation of dyes*" the book entitled "Water Pollution and Remediation: Photocatalysis" M. Inamuddin (ed.) **Springer,** 2020.
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10. Nitin Sahai, Tanvi Jain, **Sushil Kumar** and P.K.Dutta *"Development and selection of porous scaffolds using computer aided tissue engineering: An important tool for regenerative medicine"* in New Springer book Series on "Polymer and Composite Materials" on Chitin & Chitosan for Regenerative Medicine Part II: Focus on therapeutics, functionalization & computer aided techniques. (ISBN No.: 978-81-322-2510-2) **Springer Pub**.
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International Journals

1. Rishi Kumar Verma, Sushil Kumar, Performance Evaluation of a Solar-Powered Electrocoagulation Treatment of Tannery Wastewater with Rotating Electrodes of Aluminium and Iron: Response Surface Methodology Optimization, Equilibrium Isotherms, Kinetics, and Economic Feasibility. *Environmental Science and Pollution Research (Springer)* 2025 *(Accepted in press)*.
2. Rishi Kumar Verma, Sushil Kumar, Tannery wastewater remediation for COD and Cr (VI) through rotating fins anode electrocoagulation reactor using response surface methodology and central composite experimental design. *Journal of Applied Electrochemistry (Springer; IF: 3.0)* 2025, 55, 3267–3282.
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configurations. *Chemical Engineering and Processing: Process Intensification (Elsevier; IF: 4.3),* 2025, 216, 110463.

4. Kumar S, **Kumar, S.** Potential of Deep Eutectic Solvents as Green and Sustainable Solvents for the Recovery of Carboxylic Acids from Aqueous Solution: A Review. *Journal of Chemical Technology & Biotechnology (John Wiley; IF: 2.4)* 2025, 10(8), 1541-1562.
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