Publications

1. SCI JOURNALS (50)

2025

1. **Singh[#], S.,** Parveen, S., Clarizia, L., Kumar, P., An insight into photo-catalytic degradation mechanism of persistent pollutants with transition metal oxides and their composites: Photocatalysis mechanism, rate affecting parameters, and removal pathways. **Catal. Rev. Sci. Eng. (2025).** https://doi.org/10.1080/01614940.2024.2440664. (IF: 8.2) (SCI: Q1).
2. **Singh[#] S.,** Sharma, P., Pandey, A., Garg, M.C., Lo, S.-L. Kumar, P. Challenges and contribution of electrochemical driven by-products in tannery wastewater treatment: Optimization, detection and distribution of reactive oxidation species. **J. Environ. Manage.** 376 **(2025)** 124381. https://doi.org/10.1016/j.jenvman.2025.124381(IF: 8.0) (SCI: Q1)
3. Sharma, R., Choudhary, P., Thakur, G., Pathak, A., **[#]Singh, S.**, Kumar, A., Lo, S.-L., Kumar, P. Sustainable Management of Biowaste to Bioenergy: A Critical Review on Biogas production and Techno-Economic Challenges. **Biomass and Bioenergy, (2025),** 196, 107734 https://doi.org/10.1016/j.biombioe.2025.107734 (IF: 5.5) (SCI: Q1).
4. Halligudra, G., Sabbanahalli, C., **Singh[#], S.**, Choudhary, P., Madhusudhana, R. Synthesis and catalytic activity of iron-based nanomaterials for the remediation of hazardous chemicals from wastewater: A Review. **Journal of Physics Chemistry and Solid. (2025)** https://doi.org/10.1016/j.jpcs.2025.112735 (IF: 4.5) (SCI: Q2).
5. **Singh[#], S.,** Choudhary, P., Pratap, S., Singh, S. K., Patidar, R., Kumar, A. Mechanistic insight into photocatalytic mineralization of dyes effluent with metal oxides- Parametric optimization and kinetic study. **Water Quality Research Journal (2025)** https://doi.org/10.2166/wqrj.2025.065. (IF: 2.5) (SCI: Q3).
6. Chaudhary, M., Choudhary, P., Tripathi, A., Pandey, V. K., Sharma, R., **Singh, S.,** Rustagi, S., Pathak, A., Pharmaceutical orientation and applications of silver/zinc oxide nanoparticles developed from various fruit peel extracts: an emerging sustainable approach. **Discover Sustainability (2025)** 6:7 https://doi.org/10.1007/s43621-024-00728-y. (IF: 2.5) (SCI: Q2).

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7. Kumari, S., **Singh**, **S.,** Sharma, P., Agarwal, A., Garg, M.C. Machine Learning and Modelling Approach for Organic Pollutant Remediation from Wastewater: Optimization, Kinetics and Thermodynamics Study. J. Taiwan Inst. Chem. Eng. (2024) pp 105361(https://doi.org/10.1016/j.jtice.2024.105361) (IF: 5.47) (SCI: Q1).
8. Hana, A., Awan, H.T. A., Bibi, F., Sulaiman, R.R.R., Wong, W. Y., Walvekar, R., **Singh**, **S.,** Khalid, M. MXenes and Heterostructures for Highly Efficient Water Splitting: A Review of Recent Advances and Future Prospects for Clean Energy Generation. J. Energy Chem. 92, **(2024)**, pp.176-206 (https://doi.org/10.1016/j.jechem.2024.01.038) (IF: 13.23) (SCI:Q1)
9. Nayak, A., Chaudhary, P., Bhushan, B., Ghai, K., **Singh**, **S.,** Sillanpää, M. Removal of emergent pollutants: A review on recent updates and future perspectives on polysaccharide-based composites vis-à-vis traditional adsorbents. International.Int. J. Biol. Macromol.258, 2, (2024), pp. 129092 https://doi.org/10.1016/j.ijbiomac.2023.129092 (IF: 8.9) (SCI: Q1).
10. Kumar, P., Kaur, R., Verma, S., **Singh**, **S.,** Stangar, U. L. Tuning the catalytic active sites of TiO_2/CeO_2 interactions to improve oxygen vacancy and lattice parameters for CO_2 conversion to green fuel additive. Catalysis Today. 433 (2024) pp.114652. (*https://doi.org/10.1016/j.cattod.2024.11465).* (IF:5.4) (SCI: Q1).
11. **Singh, S.,** Srivastava, V.C., Singh, A., Kumar, P., and Lo S.–L. Synthesis, characterization, and catalytic application of CuO for perfluorooctanoic acid decomposition with PMS activation. Materi.

Today Commun. (2023) 34, pp105-107 *(https://doi.org/10.1016/j.mtcomm.2022.105107)* (IF: 3.66) (SCI: Q2).

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13. **Singh, S.,** Srivastava, V.C., Singh, A., and Lo, S.–L. Parametric optimization and oxidative degradation of dye with the activation of peroxymonosulfate and δ-MnO_2/Mn_2O_3/Mn_3O_4. J. Environ. Sci. Pollution Res. (2023) (https://doi.org/10.1007/s11356-023-27422-2). (IF: 5.43 (SCI: Q1).
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18. **Singh, S.,** Rawat, S., Patidar, R. and S.-L. Lo. Photocatalystic degradation of bisphenol A with bismuth-based multimetal oxide: Kinetics of process optimization and degradation mechanism. Water Sci. Technol. ((2022)). 86 (12): PP 3248 3263. *(https://doi.org/ 10.2166/wst.2022.402)* (IF:2.73) (SCI: Q2).
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2. Book Chapters (SCI-07)

46. Singh, S., Kaur, R., Agarwal, N. K. **(2024).** The AI Cleanse: Transforming Wastewater Treatment Through Artificial Intelligence, Springer Water, https://doi.org/10.1007/978-3-031-67237-8_13
47. **Singh***, **S.,** Kumar, P. (Editors), Bismuth: Synthesis, Characteristics and Applications, under book series "Metal Oxides" by Ghenadii Korotcenkov (Series Editor), Elsevier 2023. Proposed Publication Date: July-25 (Under process).
48. **Singh, S.,** Shahana P., Lo, S.-L., Thakur, V. Advanced Oxidation Technology for Water and Wastewater Treatment published by Elsevier. Publisher by Elsevier. *(https://doi.org/10.2136/7 89861534811432-7*) (2023).

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Author Publications

3. SCI JOURNALS (50)

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53. Singh[#], S., Parveen, S., Clarizia, L., Kumar, P., An insight into photo-catalytic degradation mechanism of persistent pollutants with transition metal oxides and their composites: Photocatalysis mechanism, rate affecting parameters, and removal pathways. **Catal. Rev. Sci. Eng. (2025).** https://doi.org/10.1080/01614940.2024.2440664. (IF: 8.2) (SCI: Q1).
54. Singh[#] S., Sharma, P., Pandey, A., Garg, M.C., Lo, S.-L. Kumar, P. Challenges and contribution of electrochemical driven by-products in tannery wastewater treatment: Optimization, detection and distribution of reactive oxidation species. **J. Environ. Manage.** 376 **(2025)** 124381. https://doi.org/10.1016/j.jenvman.2025.124381(IF: 8.0) (SCI: Q1)
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58. Chaudhary, M., Choudhary, P., Tripathi, A., Pandey, V. K., Sharma, R., **Singh, S.,** Rustagi, S., Pathak, A., Pharmaceutical orientation and applications of silver/zinc oxide nanoparticles developed from various fruit peel extracts: an emerging sustainable approach. **Discover Sustainability (2025)** 6:7 https://doi.org/10.1007/s43621-024-00728-y. (IF: 2.5) (SCI: Q2).

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59. Kumari, S., **Singh**, **S.,** Sharma, P., Agarwal, A., Garg, M.C. Machine Learning and Modelling Approach for Organic Pollutant Remediation from Wastewater: Optimization, Kinetics and Thermodynamics Study. J. Taiwan Inst. Chem. Eng. (2024) pp 105361(https://doi.org/10.1016/j.jtice.2024.105361) (IF: 5.47) (SCI: Q1).
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