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Appendix Data

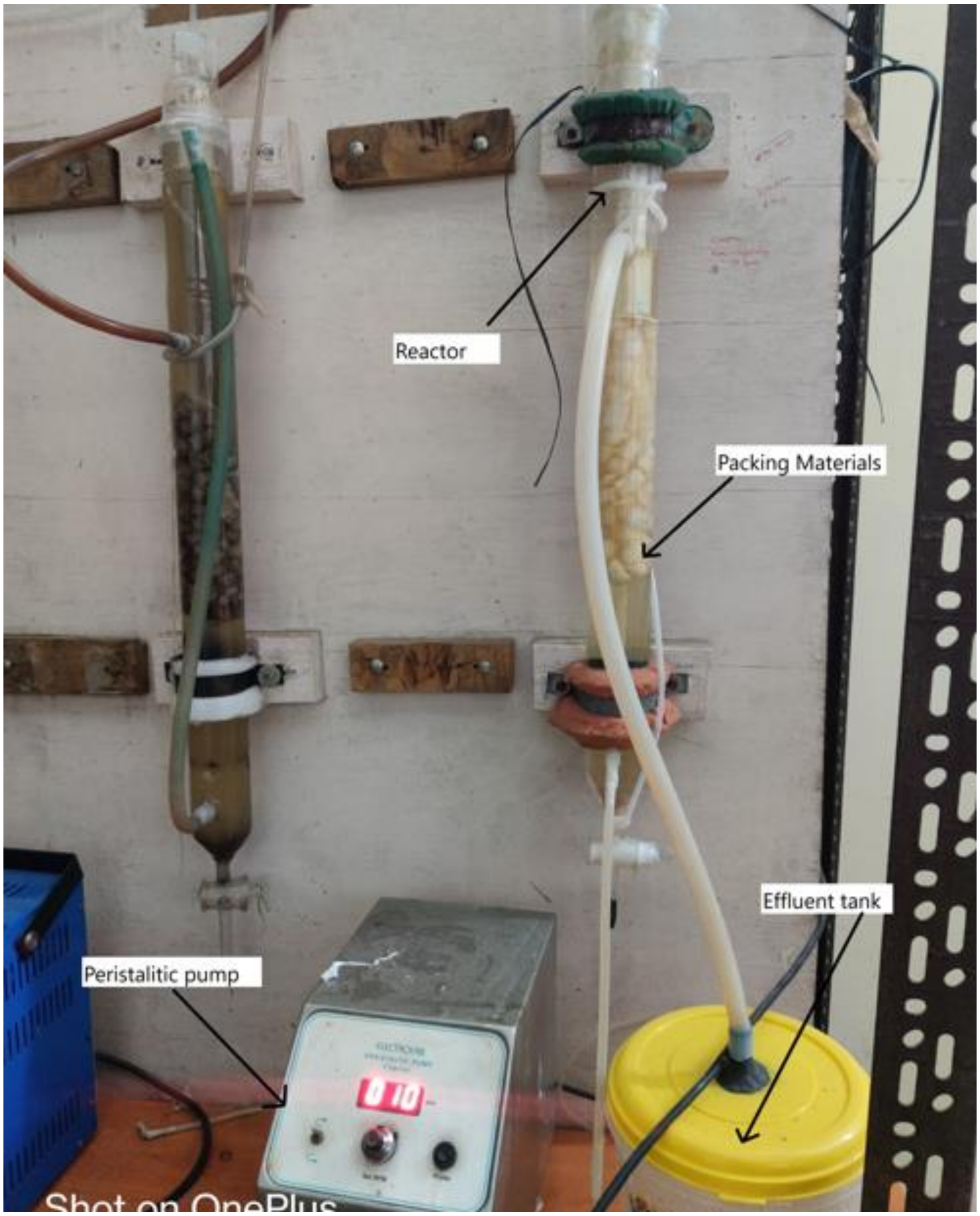

Fig A-1. Experimental setup for immobilization of packing material.

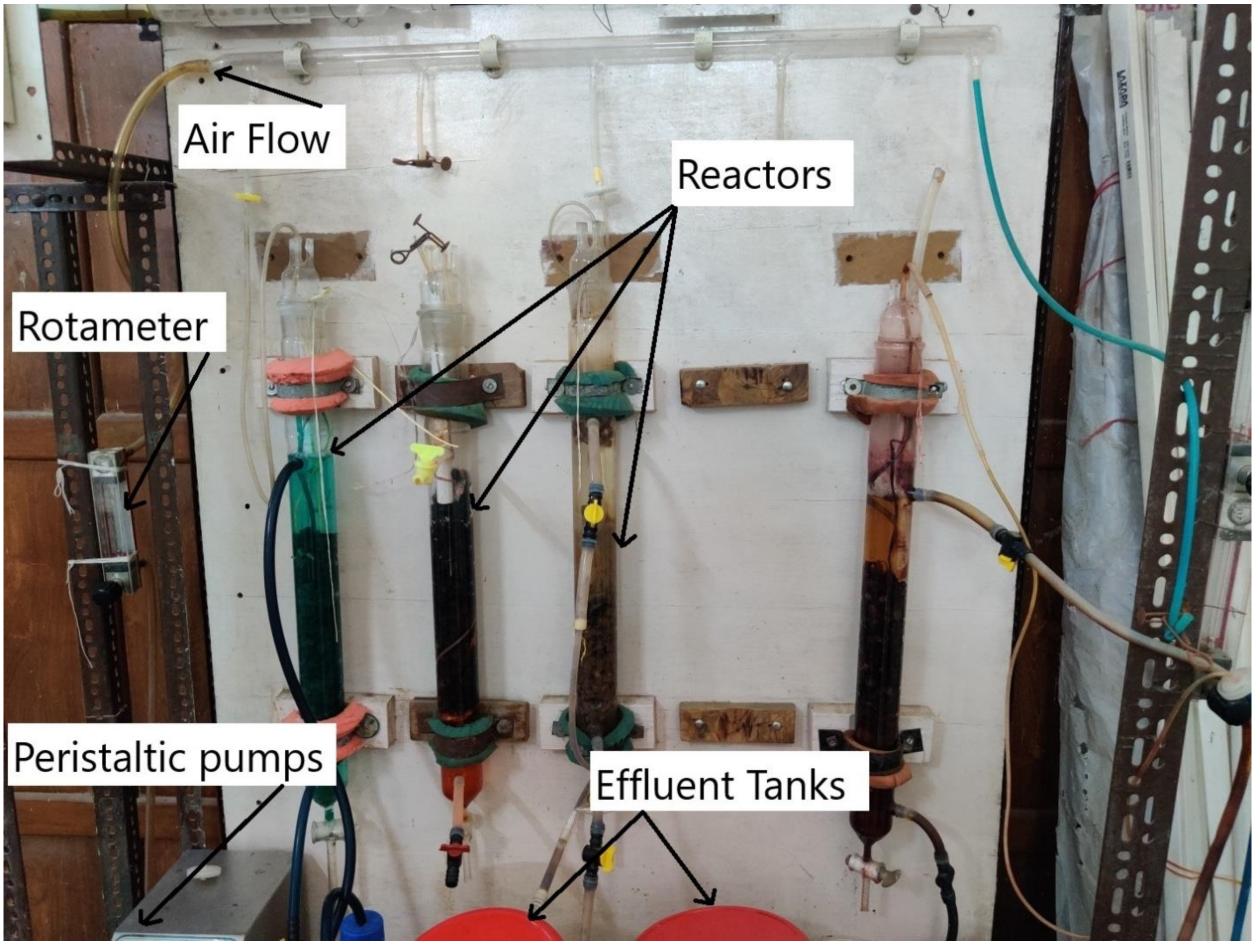

Fig. A-2. Experimental setup of a packed bed bioreactor.

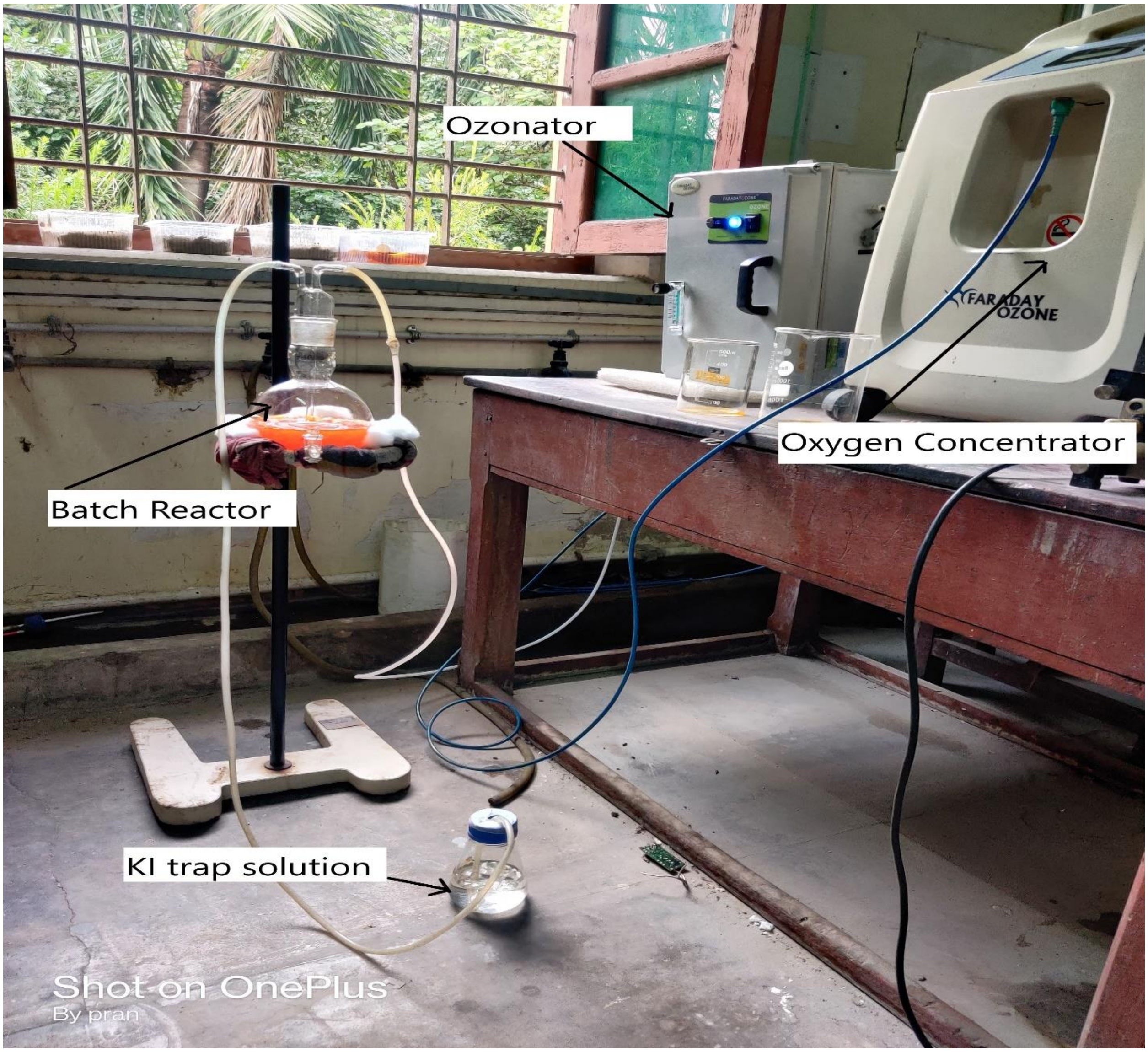

Fig. A-3. Experimental setup of a batch ozonation process.

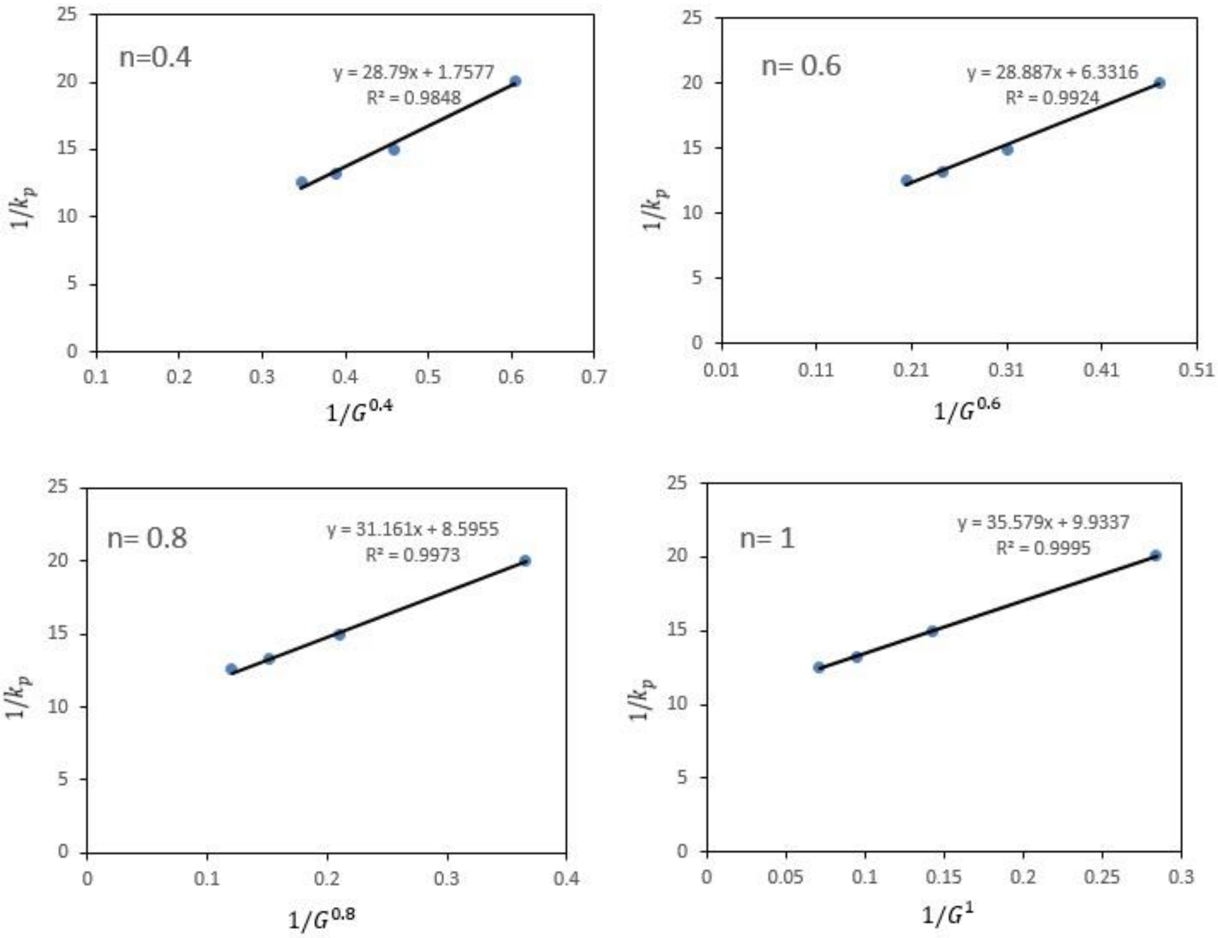

Fig. A-4. The observed profile of at different values of n (0.4, 0.6, 0.8, 1.0).

List of Publications

- **Tripathi, Pranjal**, Sonam Tiwari, Ravi Kumar Sonwani, and Ram Sharan Singh. "A step towards enhancing the efficiency of biofilm mediated degradation of brilliant green dye in packed bed bioreactor: Statistical and toxicity analysis." *Process Safety and Environmental Protection* (2022).
- **Tripathi, Pranjal**, Sonam Tiwari, Ravi Kumar Sonwani, and Ram Sharan Singh. "Assessment of biodegradation kinetics and mass transfer aspects in attached growth bioreactor for effective treatment of Brilliant green dye from wastewater." *Bioresource Technology* (2023): 129111.
- **Tripathi, Pranjal**, Sonam Tiwari, Himanshu Tiwari, Ravi Kumar Sonwani, and Ram Sharan Singh. "Techno-economic assessment of coupling ozonation and biodegradation process for the dye wastewater treatment." *Journal of Water Process Engineering* 56 (2023): 104286.
- **Tripathi, Pranjal**, and R. S. Singh. "Integration of Ozonation with biodegradation for dye wastewater treatment" *Advances in Biotechnology and Microbiology* (2022): DOI: 10.19080/AIBM.2022.17.555954.
- **Tripathi, Pranjal**, Sonam, Devendra Mohan, and R. S. Singh. "The Use of Microorganism for the Degradation of Azo Dyes." In *Microbial Remediation of Azo Dyes with Prokaryotes*, pp. 105-115. CRC Press.
- Tiwari, Sonam, **Pranjal Tripathi**, Devendra Mohan, and Ram Sharan Singh. "Imidacloprid biodegradation using novel bacteria Tepidibacillus decaturensis strain ST1 in batch and in situ microcosm study." *Environmental Science and Pollution Research* (2022): 1-11.
- Sonam Tiwari, **Pranjal Tripathi**, Devendra Mohan, and R. S. Singh. "Bioremediation of Imidacloprid in a Stirred Tank Reactor Using Bacterial Consortium: Kinetic Analysis and Toxicity Assessment." *Industrial & Engineering Chemistry Research* (2023): DOI: 10.1021/acs.iecr.3c01125.
- Tiwari, Himanshu, **Pranjal Tripathi**, Ravi Kumar Sonwani, and Ram Sharan Singh. "A synergistic approach combining Adsorption and Biodegradation for effective treatment of Acid Blue 113 dye by Klebsiella grimontii entrapped Graphene Oxide-Calcium Alginate Hydrogel Beads." *Bioresource Technology (2023)*: 129614.

Conferences and workshops attended

- International Conference on “New Horizons in Biotechnology” & 16th Convention of Biotech Research Society, India (**NHBT 2019**).
- International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (**BSAEH-2021**).
- International Conference on Advances in Sustainable Research for Energy and Environmental Management (**ASREEM-2021**)
- INTERNATIONAL CONFERENCE ON TECHNOLOGICAL INTERVENTIONS FOR SUSTAINABILITY (**Chemconflux-2022**)
- International Conference on Biotechnology for Sustainable Bioresources and Bioeconomy (**BSBB - 2022**).
- National Conference on "Advances in Chemical Engineering and Science (ACES**-2023**)".
- Attended Training program on “Wastewater Characterization, Treatment and Reuse (**WCTR-2023**)” Organized by IIPE Vishakhapatnam.
- Attended workshop on ‘COMSOL’ Organized by IIT Bombay.