

LIST OF PUBLICATIONS

Faculty: Dr Rangabhashiyam Selvasembian

Department of Environmental Science and Engineering

Publication Summary

Category	Published
Research Papers	119
Books	05
Book Chapters	12
Total	136

JOURNAL PUBLICATIONS

119. Rajamanickam, R., & Selvasembian, R. (2024). Mechanistic insights into the potential application of *Scenedesmus* strains towards the elimination of antibiotics from wastewater. *Bioresource Technology*, 131289. <https://doi.org/10.1016/j.biortech.2024.131289>

118. Ramlee, N. N., Illias, R. M., Toemen, S., Rahman, R. A., Selvasembian, R., Fatriasari, W., ... & Azelee, N. I. W. (2024). Co-immobilization of magnesium precursor and *Candida rugosa* lipase on alumina via covalent bonding for biodiesel production. *Fuel*, 377, 132774. <https://doi.org/10.1016/j.fuel.2024.132774>

117. Narayanan, K., Venkatachalam, P., Panakkal, E. J., Tantayotai, P., Tandhanskul, A., Selvasembian, R., ... & Sriariyanun, M. (2024). Exploring Ternary Deep Eutectic Solvent Pretreatment in a One-Pot Process with Napier Grass for Bioethanol Production. *BioEnergy Research*, 1-13. <https://doi.org/10.1007/s12155-024-10791-y>

116. Narayanan, I., Kumar, P. S., Franco, D. S., Georgin, J., Meili, L., & Selvasembian, R. (2023). Insight into the biosorptive removal mechanisms of hexavalent chromium using the red macroalgae *Gelidium* sp. *Biomass Conversion and Biorefinery*, 1-15. <https://doi.org/10.1007/s13399-023-04390-8>

115. Fatriasari, W., Daulay, I. R. S., Rajamanickam, R., Selvasembian, R., Farobie, O., Hartulistiyoso, E., ... & Hua, L. S. (2024). Recent advances in superhydrophobic paper derived from nonwood fibers. *Bioresource Technology Reports*, 101900. <https://doi.org/10.1007/s13399-024-05973-9>

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113. de Lima, R. S., Tonholo, J., Selvasembian, R., Fernandes, D. P., Georgin, J., de Paiva e Silva Zanta, C. L., & Meili, L. (2024). Enhancing methylene blue dye removal using pyrolyzed *Mytilus falcatus* shells: Characterization, kinetics, isotherm, and regeneration through

photolysis and peroxidation. *Environmental Management*, 73(2), 425-442. <https://doi.org/10.1007/s00267-023-01898-7>

112. Kaur, B., Soni, V., Kumar, R., Singh, P., Selvasembian, R., Singh, A., ... & Raizada, P. (2024). Recent advances in manipulating strategies of NH₂-functionalized metallic organic frameworks-based heterojunction photocatalysts for the sustainable mitigation of various pollutants. *Environmental Research*, 119575. <https://doi.org/10.1016/j.envres.2024.119575>

111. Soni, V., Dinh, D. A., Poonia, K., Kumar, R., Singh, P., Ponnusamy, V. K., Selvasembian, R., ... & Raizada, P. (2024). Upcycling of polyethylene terephthalate (PET) plastic wastes into carbon-based nanomaterials: Current status and future perspectives. *European Polymer Journal*, 113249. <https://doi.org/10.1016/j.eurpolymj.2024.113249>

110. Chawla, A., Sudhaik, A., Kumar, R., Raizada, P., Khan, A. A. P., Ahamad, T., Selvasembian, R., ... & Singh, P. (2024). Recent advances in synthesis methods and surface structure manipulating strategies of copper selenide (CuSe) nanoparticles for photocatalytic environmental and energy applications. *Journal of Environmental Chemical Engineering*, 113125. <https://doi.org/10.1016/j.jece.2024.113125>

109. Akshaya, K., & Selvasembian, R. (2024). Insights into the recent advances of chemical pretreatment of waste activated sludge to enhance biomethane production. *Journal of Environmental Chemical Engineering*, 113999. <https://doi.org/10.1016/j.jece.2024.113999>

108. UrpiCabrejos-Cardena, Gabriel Enrique De-la-Torre, Sina Dobaradaran, **Selvasembian Rangabhashiyam**, An ecotoxicological perspective of microplastics released by face masks, *Journal of Hazardous Materials*, Volume 443, Part B, 5 February 2023, 130273

107. Sasidharan V., Jordana Georgin, Dison S. P. Franco, Lucas Meili, Pardeep Singh, Ali H. Jawad, **Rangabhashiyam Selvasembian**, Hexavalent chromium adsorption onto environmentally friendly mesquite gum-based polyurethane foam, *Biomass Conversion and Biorefinery* (2022), <https://doi.org/10.1007/s13399-022-03528-4>

106. Anita Sudhaik, Pankaj Raizada, Tansir Ahamad, Saad M. Alshehri, Van-Huy Nguyen, Quyet Van Le, Sourbh Thakur, Vijay Kumar Thakur, **Rangabhashiyam Selvasembian**, Pardeep Singh, Recent advances in cellulose supported photocatalysis for pollutant mitigation: A review, *International Journal of Biological Macromolecules*, 2022. <https://doi.org/10.1016/j.ijbiomac.2022.11.241>

105. Nirakar Pradhan, Sanjay Kumar, **Rangabhashiyam Selvasembian**, Shweta Rawat, Agendra Gangwar, R. Senthamizh, Yuk Kit Yuen, Lijun Luo, Seenivasan Ayothiraman, Ganesh Dattatraya Saratale, Joyabrata Mal, Emerging trends in the pretreatment of microalgal biomass and recovery of value-added products: A review, *Bioresource Technology*, Volume 369, February 2023, 128395

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102. Monojit Mondal, Vineet Kumar, Amit Bhatnagar, Meththika Vithanage, **Rangabhashiyam Selvasembian**, Balram Ambade, Erik Meers, Punarbasu Chaudhuri, Jayanta Kumar Biswas, Bioremediation of metal(loid) cocktail, struvite biosynthesis and plant growth promotion by a versatile bacterial strain *Serratia* sp. *KUJM3: Exploiting environmental co-benefits*, *Environmental Research*, Volume 214, Part 3, November 2022, 113937
101. Nurfadhila Nasya Ramlee, Rosli Md Illias, Roshanida A. Rahman, Susilawati Toemen, **Rangabhashiyam Selvasembian**, Rabi'atul Adawiyah Ahmad, Nor Hasmaliana Abdul Manas, Nur Izyan Wan Azelee, Biochemical and Physical Characterization of Immobilized *Candida rugosa* Lipase on Metal Oxide Hybrid Support, *Catalysts* 2022, 12,854.<https://doi.org/10.3390/catal12080854>
100. Rohit Kumar, Pankaj Raizada, Tanisr Ahamad, Saad M.Alshehri, Quyet Van Le Taghrid S. Alomar, Van-Huy Nguyen, **Rangabhashiyam Selvasembian**, Sourbh Thakur, D.C.Nguyen, Pardeep Singh, Polypyrrole-based nanomaterials: A novel strategy for reducing toxic chemicals and others related to environmental sustainability applications, *Chemosphere*, Volume 303, Part 2, September 2022, 134993
99. Joshua O.Ighalo, **Selvasembian Rangabhashiyam**, Kanika Dulta, Chisom T.Umeh, Kingsley O.Iwuozor, Chukwunonso O.Aniagor, Steve O.Eshiemogie, Felicitas U.Iwuchukwu, Chinenye Adaobilgwegbe, Recent advances in hydrochar application for the adsorptive removal of wastewater pollutants, *Chemical Engineering Research and Design*, Volume 184, August 2022, Pages 419-456.
98. Yogesh Kumar, Rohit Kumar, Pankaj Raizada, Aftab Aslam Parwaz Khan, Van-Huy Nguyen, Soo Young Kim, Quyet Van Le, **Rangabhashiyam Selvasembian**, Archana Singh, Sourav Gautam, Chinh Chien Nguyen, Pardeep Singh, Recent progress on elemental sulfur based photocatalysts for energy and environmental applications, *Chemosphere*, Volume 305, October 2022, 135477.
97. Anita Sudhaik, Pankaj Raizada, **S. Rangabhashiyam**, Archana Singh, Van-Huy Nguyen, Quyet Van Le, Aftab Aslam Parwaz Khan, Chechia Hu, Chao-Wei Huang, Tansir Ahamad, Pardeep Singh, Copper sulfides based photocatalysts for degradation of environmental pollution hazards: A review on the recent catalyst design concepts and future perspectives, *Surfaces and Interfaces*. <https://doi.org/10.1016/j.surfin.2022.102182>
96. Jawad, A.H., Abdulhameed, A.S., **Selvasembian**, R. Zeid A. ALothman, Lee D. Wilson. Magnetic biohybrid chitosan-ethylene glycol diglycidyl ether/magnesium oxide/Fe₃O₄ nanocomposite for textile dye removal: Box–Behnken design optimization and mechanism study. *J Polym Res* 29, 207 (2022).<https://doi.org/10.1007/s10965-022-03067-6>

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95. C. Ramprasad, Willis Gwenzi, Nhamo Chaukura, Nurlzyan Wan Azelee, Anushka Upamali Rajapaksha, M.Naushad, **S. Rangabhashiyam**, Strategies and options for the sustainable recovery of rare earth elements from electrical and electronic waste, Chemical Engineering Journal. <https://doi.org/10.1016/j.cej.2022.135992>
94. Norhafiza Nordin, Nor Hasmaliana Abdul Manas, Aizi Nor MazilaRamli, **Rangabhashiyam Selvasembian**, Nur Izyan WanAzelee, Rajinikanth Rajagopal, Anand Thirupathi, Soon Woong Chang, Balasubramani Ravindran, Highly sustainable cascade pretreatment of low-pressure steam heating and organic acid on pineapple waste biomass for efficient delignification, Fuel, Volume 321, 1 August 2022, 124061.
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92. Shilpa Patial, Abhinandan Kumar, Pankaj Raizada, Quyet Van Le, Van-Huy Nguyen, **Rangabhashiyam Selvasembian**, Pardeep Singh, Sourbh Thakur, Chaudhery Mustansar Hussain, Potential of graphene based photocatalyst for antiviral activity with emphasis on COVID-19: A review, Journal of Environmental Chemical Engineering, Volume 10, Issue 3, June 2022, 107527
91. AnushaEkanayake, Anushka UpamaliRajapaksha, **Rangabhashiyam Selvasembian**, MeththikaVithanage, Amino-functionalized biochars for the detoxification and removal of hexavalent chromium in aqueous media, Environmental Research, Volume 211, August 2022, 113073
90. Joshua O.Ighalo, Pow-SengYap, Kingsley O.Iwuozor, Chukwunonso O.Aniagor, TianqiLiu, KanikaDulta, Felicitas U.Iwuchukwu, **Selvasembian Rangabhashiyam**, Adsorption of persistent organic pollutants (POPs) from the aqueous environment by nano-adsorbents: A review, Environmental Research, Volume 212, Part A, September 2022, 113123
89. A.Sethupathy, P.Sobana Piriya, R.Ranjith Kumar, M.Shanthi, **S.Rangabhashiyam**, C.Arun, K.Vasanth Ragavan, Assessment of methane enrichment efficacy of pre-disintegrated water hyacinth biomass using sonic wave assisted biosurfactant, Fuel, Volume 316, 15 May 2022, 123375
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behaviour, equilibrium, and kinetic modelling, Chemosphere, Volume 295, May 2022, 133797

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81. **S. Rangabhashiyam**, Pollyanna V. dos Santos Lins, Leonardo M.T. de Magalhães O, Pamela Sepulveda, Joshua O. Ighalo, Anushka Upamali Rajapaksha, Lucas Meili, Sewage sludge-derived biochar for the adsorptive removal of wastewater pollutants: A critical review, Environmental Pollution, Volume 293, 15 January 2022, 118581

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Viruses Using Graphitic Carbon Nitride-Based Photocatalysts: Virucidal Performance and Mechanism. *Catalysts* 2021, 11, 1448. <https://doi.org/10.3390/catal11121448>

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75. Rohit Kumar, Pankaj Raizada, Aftab Aslam Parwaz Khan, Van-Huy Nguyen, Quyet Van Le, Suresh Ghotekar, **Rangabhashiyam Selvasembian**, Vimal Gandhi, Archana Singh, Pardeep Singh, Recent progress in emerging BiPO 4 -based photocatalysts: Synthesis, properties, modification strategies, and photocatalytic applications, *Journal of Materials Science & Technology*, Volume 108, 10 May 2022, Pages 208-225

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61. Mohammad Saood Manzar, Gulraiz Khan, Pollyanna Vanessados Santos Lins, Mukarram Zubair, Saif Ullah Khan, **Rangabhashiyam Selvasembian**, Lucas Meili, Nawaf I.Blaisi, Muhammad Nawaz, Hamidi Abdul Aziz, T.S.Kayed, RSM-CCD optimization approach for the

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