

List of Publications

1. Saravanan, Anbalagan, **Ponnusamy Senthil Kumar**, Kilaru Harsha Vardhan, Sathasivam Jeevanantham, Suresh Babu Karishma, Ponnambalam Ragini Yaashikaa, and Parthasarathy Vellaichamy. "A review on systematic approach for microbial enhanced oil recovery technologies: opportunities and challenges." *Journal of Cleaner Production* (2020): 120777.
2. Foroutan, Rauf, Reza Mohammadi, Fariba MousaKhanloo, Soleyman Sahebi, Bahman Ramavandi, **Ponnusamy Senthil Kumar**, and Kilaru Harsha Vardhan. "Performance of montmorillonite/graphene oxide/CoFe₂O₄ as a magnetic and recyclable nanocomposite for cleaning methyl violet dye-laden wastewater." *Advanced Powder Technology* 31, no. 9 (2020): 3993-4004.
3. Saravanan, Anbalagan, **Ponnusamy Senthil Kumar**, Dai-Viet N. Vo, Ponnambalam Ragini Yaashikaa, Suresh Karishma, Sathasivam Jeevanantham, B. Gayathri, and V. Dhivya Bharathi. "Photocatalysis for removal of environmental pollutants and fuel production: a review." *Environmental Chemistry Letters* (2020): 1-23.
4. Christopher, Femina Carolin, **Ponnusamy Senthil Kumar**, Fetcia Jackulin Christopher, Ganesan Janet Joshiba, and Pavithra Madhesh. "Recent advancements in rapid analysis of pesticides using nano biosensors: A present and future perspective." *Journal of Cleaner Production* (2020): 122356.
5. Thiruselvi, Devaraj, **Ponnusamy Senthil Kumar**, Madhava Anil Kumar, Chyi-How Lay, Salma Aathika, Yuvarani Mani, D. Jagadiswary, Anuradha Dhanasekaran, Palaniyandi Shanmugam, Subramanian sivanesan, Pau-Loke show. "A critical review on global trends in biogas scenario with its up-gradation techniques for fuel cell and future perspectives." *International Journal of Hydrogen Energy* (2020).
6. Selvi, Jayaraj, Vellaichamy Parthasarathy, Sehar Mahalakshmi, Ramasamy Anbarasan, Michael O. Daramola, and **Ponnusamy Senthil Kumar**. "Optical, electrical, mechanical, and thermal properties and non-isothermal decomposition behavior of poly (vinyl alcohol)–ZnO nanocomposites." *Iranian Polymer Journal* (2020): 1-12.
7. Sridhar, Adithya, Muthamilselvi Ponnuchamy, **Ponnusamy Senthil Kumar**, and Ashish Kapoor. "Food preservation techniques and nanotechnology for increased shelf life of fruits, vegetables, beverages and spices: a review." *Environmental Chemistry Letters* (2020): 1-21.
8. Jahnvi, Nandakumar, Kumar Kanmani, **Ponnusamy Senthil Kumar**, and Sunita Varjani. "Conversion of waste plastics into low emissive hydrocarbon fuel using catalyst produced from biowaste." *Environmental Science and Pollution Research* (2020): 1-8.
9. Pavithra, Kirubanandam Grace, Vasudevan Jaikumar, **Ponnusamy Senthil Kumar**, and Panneerselvam Sundarrajan. "Cleaner strategies on the effective elimination of toxic chromium from wastewater using coupled electrochemical/biological systems." *Environmental Progress & Sustainable Energy* (2020): e13399.
10. Rawoof, Salma Aathika Abdur, **Ponnusamy Senthil Kumar**, Kubendran Devaraj, Thiruselvi Devaraj, and Sivanesan Subramanian. "Enhancement of lactic acid production

from food waste through simultaneous saccharification and fermentation using selective microbial strains." *Biomass Conversion and Biorefinery* (2020): 1-12.

11. Rathankumar, Abiram Karanam, Kongkona Saikia, **Senthil Kumar Ponnusamy**, María del Rayo Sánchez, and Vaidyanathan Vinoth Kumar. "Rhamnolipid-assisted mycoremediation of polycyclic aromatic hydrocarbons by *Trametes hirsuta* coupled with enhanced ligninolytic enzyme production." *Journal of the Air & Waste Management Association* (2020).
12. Rajamohan, Natarajan, **Ponnusamy Senthil Kumar**, Fatma Al Qasmi, and Manivasagan Rajasimman. "Separation of manganese from water using hybrid nanocomposite to control water pollution: kinetic and equilibrium modelling." *International Journal of Environmental Analytical Chemistry* (2020): 1-16.
13. Mary Rosana, Nalzala Thomas, Duvvuru Joshua Amarnath, **Ponnusamy Senthil Kumar**, and Kaniyambatti Lourdasamy Vincent Joseph. "Potential of plant-based photosensitizers in dye-sensitized solar cell applications." *Environmental Progress & Sustainable Energy* 39, no. 3 (2020): e13351.
14. Jayaraj, Selvi, Parthasarathy Vellaichamy, Mahalakshmi Sehar, Anbarasan Ramasamy, **Senthil Kumar Ponnusamy**, and Michael O. Daramola. "Enhancement in thermal, mechanical and electrical properties of novel PVA nanocomposite embedded with SrO nanofillers and the analysis of its thermal degradation behavior by nonisothermal approach." *Polymer Composites* 41, no. 4 (2020): 1277-1290.
15. Saranya, Jayaraman, Balakrishnapillai Suseela Sreeja, Gurunathan Padmalaya, Sankararajan Radha, and **Ponnusamy Senthil Kumar**. "CdO nanoparticles, c-MWCNT nanoparticles and CdO nanoparticles/c-MWCNT nanocomposite fibres: in vitro assessment of anti-proliferative and apoptotic studies in HeLa cancer cell line." *IET nanobiotechnology* 14, no. 8 (2020): 695-700.
16. Anitha, Rajagopal, Rajakannu Subashini, and **Ponnusamy Senthil Kumar**. "In silico and in vitro approaches to evaluate the bioactivity of *Cassia auriculata* L extracts." *IET nanobiotechnology* 14, no. 3 (2020): 210-216.
17. Saikia, Kongkona, **Ponnusamy Senthil Kumar**, Abiram Karanam Rathankumar, Sundar SaiLavanyaa, Lakshmi Srinivasan, Sivanesan Subramanian, Hubert Cabana, Mathilde Gosselin, and Vaidyanathan Vinoth Kumar. "Amino-functionalised mesoporous silica microspheres for immobilisation of *Candida antarctica* lipase B—application towards greener production of 2, 5-furandicarboxylic acid." *IET nanobiotechnology* 14, no. 8 (2020): 732-738.
18. Rosana, Nalzala Thomas Mary, Duvvuru Joshua Amarnath, **Ponnusamy Senthil Kumar**, and Kaniyambatti Lourdasamy Vincent Joseph. "Potential of plant-based photosensitizers in dye-sensitized solar cell applications." *Environmental Progress & Sustainable Energy* 3, no. 39 (2020): n-a.
19. Vardhan, Kilaru Harsha, **Ponnusamy Senthil Kumar**, and Rames C. Panda. "A review on heavy metal pollution, toxicity and remedial measures: Current trends and future perspectives." *Journal of Molecular Liquids* 290 (2019): 111197.
20. Hemavathy, Raghava Reddiar Venkatakrishnan, **Ponnusamy Senthil Kumar**, Subburaj Suganya, Vaidyanathan Swetha, and Sunita J. Varjani. "Modelling on the removal of toxic

metal ions from aquatic system by different surface modified Cassia fistula seeds." *Bioresource technology* 281 (2019): 1-9.

21. Bonyadi, Ziaeddin, **Ponnusamy Senthil Kumar**, Rauf Foroutan, Raheleh Kafaei, Hossein Arfaeina, Sima Farjadfard, and Bahman Ramavandi. "Ultrasonic-assisted synthesis of Populus alba activated carbon for water defluorination: application for real wastewater." *Korean Journal of Chemical Engineering* 36, no. 10 (2019): 1595-1603.
22. Saravanan, Anbalagan, **Ponnusamy Senthil Kumar**, Ponnambalam Ragini Yaashikaa, Selvaraj Kanmani, Ravi Hamsha Varthine, Chinakannu Marimuthu Mathan Muthu, and Dinakarkumar Yuvaraj. "Modelling on the removal of dye from industrial wastewater using surface improved Enteromorpha intestinalis." *International Journal of Environmental Research* 13, no. 2 (2019): 349-366.
23. Kumar, Jagadeesan Aravind, Duvuru Joshua Amarnath, S. Anuradha Jabasingh, **Ponnusamy Senthil Kumar**, Kabali Vijai Anand, Gopakumaran Narendrakumar, Selvaraj Karthick Raja Namasivayam, Krithiga Thangavelu, Samson Sunny, Purna Pushkala, Somasundaram, Yuvarajan, Devarajan. "One pot Green Synthesis of Nano magnesium oxide-carbon composite: Preparation, characterization and application towards anthracene adsorption." *Journal of Cleaner Production* 237 (2019): 117691.
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25. Joshiba, Ganesan Janet, **Ponnusamy Senthil Kumar**, Femina Carolin Christopher, Gowri Pooja, and Vaidyanathan Vinoth Kumar. "Fabrication of novel amine-functionalized magnetic silica nanoparticles for toxic metals: kinetic and isotherm modeling." *Environmental Science and Pollution Research* (2019): 1-9.
26. Periyaraman, Premkumar Manickam, Sowmya Karan, **Senthil Kumar Ponnusamy**, Vinothkumar Vaidyanathan, Sathyaselvabala Vasanthakumar, Anuradha Dhanasekaran, and Sivanesan Subramanian. "Adsorption of an anionic dye onto native and chemically modified agricultural waste." *Environmental Engineering & Management Journal (EEMJ)* 18, no. 1 (2019).
27. **Kumar Ponnusamy Senthil**, Sunita J. Varjani, and Subburaj Suganya. "Treatment of dye wastewater using an ultrasonic aided nanoparticle stacked activated carbon: kinetic and isotherm modelling." *Bioresource technology* 250 (2018): 716-722.
28. Kaveeshwar, Aditya Rajeev, **Senthil Kumar Ponnusamy**, Emmanuel D. Revellame, Daniel D. Gang, Mark E. Zappi, and Ramalingam Subramaniam. "Pecan shell based activated carbon for removal of iron (II) from fracking wastewater: adsorption kinetics, isotherm and thermodynamic studies." *Process Safety and Environmental Protection* 114 (2018): 107-122.
29. Kaveeshwar, Aditya R., Melanie Sanders, **Senthil Kumar Ponnusamy**, Dilip Depan, and Ramalingam Subramaniam. "Chitosan as a biosorbent for adsorption of iron (II) from fracking wastewater." *Polymers for Advanced Technologies* 29, no. 2 (2018): 961-969.
30. Christopher, Femina Carolin, **Senthil Kumar Ponnusamy**, Janet Joshiba Ganesan, and Racchana Ramamurthy. "Investigating the prospects of bacterial biosurfactants for metal

nanoparticle synthesis—a comprehensive review." *IET nanobiotechnology* 13, no. 3 (2018): 243-249.

31. **Kumar, Ponnusamy Senthil**, Akshaya S. Nair, Ananya Ramaswamy, and Anbalagan Saravanan. "Nano-zero valent iron impregnated cashew nut shell: a solution to heavy metal contaminated water/wastewater." *IET nanobiotechnology* 12, no. 5 (2018): 591-599
32. Sharma, Gaurav, Zeid Abdullah ALothman, Amit Kumar, Shweta Sharma, **Senthil Kumar Ponnusamy**, and Mu Naushad. "Fabrication and characterization of a nanocomposite hydrogel for combined photocatalytic degradation of a mixture of malachite green and fast green dye." *Nanotechnology for Environmental Engineering* 2, no. 1 (2017): 4.
33. Saravanan, Anbalagan, **Ponnusamy Senthil Kumar**, Christopher Femina Carolin, and Subramanian Sivanesan. "Enhanced adsorption capacity of biomass through ultrasonication for the removal of toxic cadmium ions from aquatic system: temperature influence on isotherms and kinetics." *Journal of Hazardous, Toxic, and Radioactive Waste* 21, no. 3 (2017): 04017004.
34. Nithya, Kamaraj, Asha Sathish, **Ponnusamy Senthil Kumar**, and Thiagarajan Ramachandran. "Functional group-assisted green synthesised superparamagnetic nanoparticles for the rapid removal of hexavalent chromium from aqueous solution." *IET Nanobiotechnology* 11, no. 7 (2017): 852-860.
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37. Prabu, Deivasigamani, Rangasamy Parthiban, **Senthil Kumar Ponnusamy**, Saravanan Anbalagan, Reni John, and Tani Titus. "Sorption of Cu (II) ions by nano-scale zero valent iron supported on rubber seed shell." *IET Nanobiotechnology* 11, no. 6 (2017): 714-724.
38. **Kumar Ponnusamy Senthil**, Anbalagan Saravanan, Kodyingil Anish Kumar, Ramesh Yashwanth, and Sridharan Visvesh. "Removal of toxic zinc from water/wastewater using eucalyptus seeds activated carbon: non-linear regression analysis." *IET nanobiotechnology* 10, no. 4 (2016): 244-253.
39. Gerard, Neeraj, Raghunandan Santhana Krishnan, **Senthil Kumar Ponnusamy**, Hubert Cabana, and Vinoth Kumar Vaidyanathan. "Adsorptive potential of dispersible chitosan coated iron-oxide nanocomposites toward the elimination of arsenic from aqueous solution." *Process Safety and Environmental Protection* 104 (2016): 185-195.
40. Anbalagan, Saravanan, **Senthil Kumar Ponnusamy**, Sundar Rajan Panneer Selvam, Abishek Sankaranarayan, and Abhishek Dutta. "Influence of ultrasonication on preparation of novel material for heavy metal removal from wastewater." *Korean Journal of Chemical Engineering* 33, no. 9 (2016): 2716-2731.

41. Thekkudan, Vinni Novi, Vinoth Kumar Vaidyanathan, **Senthil Kumar Ponnusamy**, Christy Charles, SaiLavanyaa Sundar, Dhanya Vishnu, Saravanan Anbalagan, Vasanth Kumar Vaithyanathan, and Sivanesan Subramanian. "Review on nanoadsorbents: a solution for heavy metal removal from wastewater." *IET nanobiotechnology* 11, no. 3 (2016): 213-224.
42. Gunasundari, Elumalai, and **Ponnusamy Senthil Kumar**. "Higher adsorption capacity of *Spirulina platensis* alga for Cr (VI) ions removal: parameter optimisation, equilibrium, kinetic and thermodynamic predictions." *IET nanobiotechnology* 11, no. 3 (2016): 317-328.
43. Christopher, Femina Carolin, Saravanan Anbalagan, **Ponnusamy Senthil Kumar**, Sundar Rajan Pannerselvam, and Vinoth Kumar Vaidyanathan. "Surface adsorption of poisonous Pb (II) ions from water using chitosan functionalised magnetic nanoparticles." *IET nanobiotechnology* 11, no. 4 (2016): 433-442.