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List of Publications in the last 5 years

Bioconversion of municipal solid waste into bio-based products: A review on valorisation and sustainable approach for circular bioeconomy PR Yaashikaa, PS Kumar, A Saravanan, S Varjani, R Ramamurthy	2020
Science of The Total Environment 748, 141312	
Modern Treatment Strategies for Marine Pollution: Recent Innovations S Kumar	2020
Elsevier	2020
Effective Removal of Excessive Fluoride from Aqueous Environment using Activated pods of Bauhinia variegata: Batch and Dynamic analysis DE Jayashree, PS Kumar, PT Ngueagni, DVN Vo, KW Chew	2020
Environmental Pollution, 115969	
Conversion of waste plastics into low emissive hydrocarbon fuel using catalyst produced from biowaste	2222
N Jahnavi, K Kanmani, PS Kumar, S Varjani	2020
Environmental Science and Pollution Research, 1-8	
A Review on Effective Removal of Emerging Contaminants from Aquatic Systems: Current Trends and Scope for Further Research	2020
BS Rathi, PS Kumar, PL Show	2020
Journal of Hazardous Materials, 124413	
Amino-functionalised mesoporous silica microspheres for immobilisation of <i>Candida</i> antarctica lipase B – application towards greener production of 2,5	
K Saikia, PS Kumar, AK Rathankumar, S SaiLavanyaa, L Srinivasan,	2020
IET nanobiotechnology 14 (8), 732-738	

A critical review on global trends in biogas scenario with its up-gradation techniques for fuel cell and future perspectives		
D Thiruselvi, PS Kumar, MA Kumar, CH Lay, S Aathika, Y Mani,		2020
International Journal of Hydrogen Energy		
Sequential production of hydrogen and methane by anaerobic digestion of organic wastes: a review		
SAA Rawoof, PS Kumar, DVN Vo, S Subramanian		2020
Environmental Chemistry Letters, 1-21		
Separation of manganese from water using hybrid nanocomposite to control water pollution: kinetic and equilibrium modelling		
N Rajamohan, PS Kumar, F Al Qasmi, M Rajasimman		2020
International Journal of Environmental Analytical Chemistry, 1-16		
Magnetite encapsulated alginates tailored material for the sustainable treatment of electroplating industrial wastewater: column dynamics and mass transfer studies		
K Nithya, A Sathish, PS Kumar		2020
Clean Technologies and Environmental Policy, 1-14		
A Review on Biosynthesis of Metal Nanoparticles and its Environmental Applications		
A Saravanan, PS Kumar, S Karishma, DVN Vo, S Jeevanantham,		2020
Chemosphere, 128580		
Potential of nanoscale size zero valent iron nanoparticles impregnated activated carbon prepared from palm kernel shell for cadmium removal to avoid water pollution		
D Prabu, PS Kumar, M Varsha, S Sathish, K Vijai Anand, J Mercy, A Tiwari		2020
International Journal of Environmental Analytical Chemistry, 1-17		
Effective adsorption of Cu (II) ions on sustainable adsorbent derived from mixed biomass (Aspergillus campestris and agro waste): Optimization, isotherm and kinetics study		
A Saravanan, TR Sundararaman, S Jeevanantham, S Karishma,	<u>1</u>	2020
Groundwater for Sustainable Development 11, 100460		
Enhanced Zn (II) ion adsorption on surface modified mixed biomass—Borassus flabellifer and Aspergillus tamarii: Equilibrium, kinetics and thermodynamics study	<u>3</u>	2020
A Saravanan, S Jeevanantham, PS Kumar, S Varjani, PR Yaashikaa,		

Industrial Crops and Products 153, 112613

A review on three-dimensional eletrochemical systems: analysis of influencing parameters and cleaner approach mechanism for wastewater		2020
K GracePavithra, PS Kumar, V Jaikumar, PS SundarRajan		
Reviews in Environmental Science and Bio/Technology, 1-24		
Enhancement of lactic acid production from food waste through simultaneous		
saccharification and fermentation using selective microbial strains		2020
SAA Rawoof, PS Kumar, K Devaraj, T Devaraj, S Subramanian		
Biomass Conversion and Biorefinery, 1-12		
Techniques of lipid extraction from microalgae for biofuel production: a review		
SY Lee, I Khoiroh, DVN Vo, PS Kumar, PL Show	<u>2</u>	2020
Environmental Chemistry Letters, 1-21		
Sustainable approach to decolourize methyl orange dye from aqueous solution using novel bacterial strain and its metabolites characterization		
CF Carolin, PS Kumar, GJ Joshiba		2020
Clean Technologies and Environmental Policy, 1-9		
Production of optically pure lactic acid by microbial fermentation: a review		
SAA Rawoof, PS Kumar, DVN Vo, K Devaraj, Y Mani, T Devaraj,	<u>2</u>	2020
Environmental Chemistry Letters, 1-18		
Performance of montmorillonite/graphene oxide/CoFe2O4 as a magnetic and recyclable nanocomposite for cleaning methyl violet dye-laden wastewater		
R Foroutan, R Mohammadi, F MousaKhanloo, S Sahebi, B Ramavandi,		2020
Advanced Powder Technology 31 (9), 3993-4004		
Photocatalysis for removal of environmental pollutants and fuel production: a review		
A Saravanan, PS Kumar, DVN Vo, PR Yaashikaa, S Karishma,		2020
Environmental Chemistry Letters, 1-23		
Microbial electrolysis cells and microbial fuel cells for biohydrogen production: current advances and emerging challenges		2020
A Saravanan, S Karishma, PS Kumar, PR Yaashikaa, S Jeevanantham,		

Biomass Conversion and Biorefinery, 1-21	

Adsorption of copper ions from polluted water using biochar derived from waste renewable resources: static and dynamic analysis	
K Harsha Vardhan, PS Kumar, RC Panda	2020
International Journal of Environmental Analytical Chemistry, 1-22	
Analytical Aspects of Biosensor Based on Enzyme Inhibition	
A Saravanan, S Jeevanantham, PS Kumar, PR Yaashikaa	2020
Enzyme Inhibition-Environmental and Biomedical Applications 1, 17-35	
Enzyme Inhibition in Therapeutic Applications	
A Saravanan, R Jayasree, TR Sundaraman, RV Hemavathy,	2020
Enzyme Inhibition-Environmental and Biomedical Applications 1, 5-16	
Methods of detection of food-borne pathogens: a review	
A Saravanan, PS Kumar, RV Hemavathy, S Jeevanantham, R Kamalesh, <u>1</u>	2020
Environmental Chemistry Letters, 1-19	
A fuzzy cognitive map approach to predict the hazardous effects of malathion to environment (air, water and soil)	
S Poomagal, R Sujatha, PS Kumar, DVN Vo	2020
Chemosphere 263, 127926	
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	2020
J Saranya, BS Sreeja, G Padmalaya, S Radha, PS Kumar	
IET nanobiotechnology 14 (8), 695-700	
Analysis and removal of pharmaceutical residues from wastewater using membrane bioreactors: a review	
CF Carolin, PS Kumar, GJ Joshiba, VV Kumar	2020
Environmental Chemistry Letters, 1-15	
Water quality analysis in a lake using deep learning methodology: prediction and validation	2020
VVD Prasad, LY Venkataramana, PS Kumar, G Prasannamedha,	

INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY

Cleaner production on electrochemical removal of sulphonamide from wastewater using three-dimensional electrode system: characterisation and kinetics KG Pavithra, V Jaikumar, PS Kumar, P Sundarrajan International Journal of Environmental Analytical Chemistry, 1-17		2020
Microalgae for biofuel production and removal of heavy metals: a review KG Pavithra, PS Kumar, V Jaikumar, KH Vardhan, PS SundarRajan Environmental Chemistry Letters, 1-19	<u>2</u>	2020
Adsorptive behaviour of surface tailored fungal biomass for the elimination of toxic dye from wastewater V Karthik, PS Kumar, K Harsha Vardhan, K Saravanan, N Nithyakala International Journal of Environmental Analytical Chemistry, 1-16		2020
Feasibility of naphthol green-B dye adsorption using microalgae: thermodynamic and kinetic analysis E Gunasundaria, PS Kumara, N Rajamohanb, P Vellaichamyc DESALINATION AND WATER TREATMENT 192, 358-370		2020
Bioremediation of 2, 4-Diaminotoluene in Aqueous Solution Enhanced by Lipopeptide Biosurfactant Production from Bacterial Strains C Femina Carolin, P Senthil Kumar, G Janet Joshiba, R Ramamurthy, Journal of Environmental Engineering 146 (7), 04020069	<u>3</u>	2020
Adsorption of Pb (II) and Cd (II) ions onto modified biogenic slaughterhouse waste: equilibrium and kinetic analysis PT Ngueagni, PS Kumar, ED Woumfo, SM Prasanth International Journal of Environmental Analytical Chemistry, 1-20		2020
Production of pigment using Aspergillus tamarii: New potentials for synthesizing natural metabolites A Saravanan, R Jayasree, PS Kumar, S Varjani, RV Hemavathy, Environmental Technology & Innovation, 100967	1	2020

Recent advancements in rapid analysis of pesticides using nano biosensors: A present and future perspective		
FC Christopher, PS Kumar, FJ Christopher, GJ Joshiba, P Madhesh	<u>3</u>	2020
Journal of Cleaner Production, 122356		
Practice on treating pharmaceutical compounds (antibiotics) present in wastewater using biosorption techniques with different biowaste compounds. A review	<u>2</u>	2020
N Magesh, A Renita, PS Kumar		
Environ Prog Sustain Energy		
Potential of plant-based photosensitizers in dye-sensitized solar cell applications		
NTM Rosana, DJ Amarnath, PS Kumar, KLV Joseph		2020
Environmental Progress & Sustainable Energy 3 (39), n/a-n/a		
Optimization and modeling of reactive yellow adsorption by surface modified Delonix regianseed: Study of nonlinear isotherm and kinetic parameters		
A Saravanan, S Karishma, S Jeevanantham, S Jeyasri, AR Kiruthika,	<u>7</u>	2020
Surfaces and Interfaces, 100520		
Evaluation of mechanical, optical and thermal properties of PVA nanocomposites embedded with Fe2O3 nanofillers and the investigation of their thermal decomposition		2020
V Parthasarathy, J Selvi, PS Kumar, R Anbarasan, S Mahalakshmi		2020
POLYMER BULLETIN		
Potential of plant-based photosensitizers in dye-sensitized solar cell applications		
NT Mary Rosana, D Joshua Amarnath, P Senthil Kumar,		2020
Environmental Progress & Sustainable Energy 39 (3), e13351		
Electrodeionization theory, mechanism and environmental applications. A review		
BS Rathi, PS Kumar	<u>2</u>	2020
Environmental Chemistry Letters, 1-19		
Enhancement in thermal, mechanical and electrical properties of novel PVA nanocomposite embedded with SrO nanofillers and the analysis of its thermal degradation behavior by		2020
S Jayaraj, P Vellaichamy, M Sehar, A Ramasamy, SK Ponnusamy,		
out and a surface of the surface of		

Polymer Composites 41 (4), 1277-1290

opportunities and challenges

Rhizoremediation—A promising tool for the removal of soil contaminants: A review		
A Saravanan, S Jeevanantham, VA Narayanan, PS Kumar, PR Yaashikaa,	<u>6</u>	2020
Journal of Environmental Chemical Engineering 8 (2), 103543		
Optical, electrical, mechanical, and thermal properties and non-isothermal decomposition behavior of poly (vinyl alcohol)–ZnO nanocomposites		
J Selvi, V Parthasarathy, S Mahalakshmi, R Anbarasan, MO Daramola,	<u>3</u>	2020
Iranian Polymer Journal, 1-12		
Conversion of green algal biomass into bioenergy by pyrolysis. A review		
S Aravind, PS Kumar, NS Kumar, N Siddarth	<u>15</u>	2020
Environmental Chemistry Letters, 1-21		
A review on contamination and removal of sulfamethoxazole from aqueous solution using cleaner techniques: Present and future perspective G Prasannamedha, PS Kumar Journal of Cleaner Production 250, 119553	<u>10</u>	2020
Adsorptive separation of Cu (II) ions from aqueous medium using thermally/chemically treated Cassia fistula based biochar RV Hemavathy, PS Kumar, K Kanmani, N Jahnavi	<u>23</u>	2020
Journal of Cleaner Production 249, 119390		
Mathematical modelling and simulation for decomposition of agro-herbicide in accelerated reaction calorimeter to avoid water pollution M Arivalagan, RC Panda, PS Kumar DESALINATION AND WATER TREATMENT 179, 92-97		2020
Synthesis and application of porous oil-sorbent microspheres: Characterization, retention capacity and sorption kinetics ALA Abirami, PS Kumar, DG Prakash, A Ravirajan, A Umasankaran, Separation and Purification Technology 234, 116095	<u>3</u>	2020
A review on systematic approach for microbial enhanced oil recovery technologies: opportunities and challenges	<u>6</u>	2020

A Saravanan, PS Kumar, KH Vardhan, S Jeevanantham, SB Karishma,		
Journal of Cleaner Production, 120777		
Structural, optical, thermal and non-isothermal decomposition behavior of PMMA nanocomposites		
V Parthasarathy, RS Nakandhrakumar, S Mahalakshmi, B Sundaresan	<u>3</u>	2020
Journal of Inorganic and Organometallic Polymers and Materials, 1-16		
Packed bed column optimization and modeling studies for removal of chromium ions using chemically modified Lantana camara adsorbent K Nithura, A Carbish, DC Kurrani	10	2020
K Nithya, A Sathish, PS Kumar		
Journal of Water Process Engineering 33, 101069		
In silico and in vitro approaches to evaluate the bioactivity of Cassia auriculata L extracts		
R Anitha, R Subashini, PS Kumar		2020
IET nanobiotechnology 14 (3), 210-216		
Adsorption of Cu (II) ions by modified horn core: effect of temperature on adsorbent preparation and extended application in river water		
PT Ngueagni, ED Woumfo, PS Kumar, M Siéwé, J Vieillard, N Brun,	<u>14</u>	2020
Journal of Molecular Liquids 298, 112023		
Cleaner strategies on the effective elimination of toxic chromium from wastewater using coupled electrochemical/biological systems		
KG Pavithra, V Jaikumar, PS Kumar, P Sundarrajan	<u>1</u>	2020
Environmental Progress & Sustainable Energy, e13399		
Biosorptive Removal of Toxic Pollutants from Contaminated Water		
A Saravanan, PS Kumar		2020
Methods for Bioremediation of Water and Wastewater Pollution, 213-224		
Certifications for Sustainability in Footwear and Leather Sectors		
PS Kumar, CF Carolin		2020
Leather and Footwear Sustainability, 181-197		2020
Environmental and Chemical Issues in Tanneries and Their Mitigation Measures		2020

PS Kumar, GJ Joshiba	

AA Renita, PS Kumar		2020
Springer, Berlin, Heidelberg		
Sustainability in the Spinning Process		
PS Kumar, GJ Joshiba		2020
Sustainability in the Textile and Apparel Industries, 197-207		
Sustainability in Dyeing and Finishing		
PS Kumar, GJ Joshiba		2020
Sustainability in the Textile and Apparel Industries, 165-177		
<u>Sulphonamide: Distribution, Toxicology, Environmental Characteristics, and Analysis - A</u> <u>Review</u>		
GP Kirubanandam, J Vasudevan, P Senthil Kumar, SR PanneerSelvam		2020
Current Analytical Chemistry 16, 1-13		
Membrane separation technologies for downstream processing		
A Saravanan, PS Kumar, R Jayasree, S Jeevanantham		2020
Biovalorisation of Wastes to Renewable Chemicals and Biofuels, 389-400		
Recent trends and challenges in bioleaching technologies		
PS Kumar, PR Yaashikaa	<u>2</u>	2020
Biovalorisation of Wastes to Renewable Chemicals and Biofuels, 373-388		
Rhizoremediation of Cu (II) ions from contaminated soil using plant growth promoting bacteria: an outlook on pyrolysis conditions on plant residues for methylene orange dye		
PR Yaashikaa, P Senthil Kumar, S Varjani, A Saravanan	2	2020
Bioengineered 11 (1), 175-187		
Synthesis and characterization of ultrasonic-assisted Delonix regia seeds: modelling and application in dye adsorption	<u>3</u>	2020
D Sivakumara, R Parthibanb, PS Kumarb, A Saravananc		

DESALINATION AND WATER TREATMENT 173, 427-441

industrial effluent: Bioremedial activity

Food industry waste biorefineries		
PS Kumar, A Saravanan, R Jayasree, S Jeevanantham		2020
Refining Biomass Residues for Sustainable Energy and Bioproducts, 407-426		
Sources and operations of waste biorefineries		
PS Kumar, PR Yaashikaa	<u>2</u>	2020
Refining Biomass Residues for Sustainable Energy and Bioproducts, 111-133		
Solid waste biorefineries		
A Saravanan, RV Hemavathy, TR Sundararaman, S Jeevanantham,		2020
Refining Biomass Residues for Sustainable Energy and Bioproducts, 3-17		
Test Methods and Identification of Recycled Polyester		
PS Kumar, S Suganya		2020
Recycled Polyester, 69-88		
Properties of Recycled Polyester		
PS Kumar, GJ Joshiba	<u>2</u>	2020
Recycled Polyester, 1-14		
Advancements in Recycled Polyesters		
A Saravanan, PS Kumar	<u>1</u>	2020
Environmental Footprints of Recycled Polyester, 31-48		
Case Studies on Recycled Polyesters and Different Applications		
PS Kumar, PR Yaashikaa		2020
Environmental Footprints of Recycled Polyester, 85-99		
<u>Treatment of Dye Containing Wastewater Using Agricultural Biomass Derived Magnetic Adsorbents</u>		
A Saravanan, PS Kumar, PR Yaashikaa	<u>1</u>	2020
Green Materials for Wastewater Treatment, 149-169		
Molecular characterization of chromium resistant gram-negative bacteria isolated from	<u>1</u>	2019

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Journal of Industrial and Engineering Chemistry 80, 640-64	al and Engineering Chemistry 80, 640-64	0,640-64	hemistry 80	neering (nd Eng	trial a	Indus	l of	Journal	J
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Journal of Industrial and Engineering Chemistry 80, 040-040		
A critical review on recent developments in the low-cost adsorption of dyes from wastewater		
PS Kumara, GJ Joshibaa, CC Feminaa, P Varshinia, S Priyadharshinia,	<u>5</u>	2019
Desalin Water Treat 172, 395-416		
Analysis of entrance region flow of Bingham nanofluid in concentric annuli with rotating inner cylinder		
SM Venthan, IJ Amalraj, PS Kumar		2019
Micro & Nano Letters 14 (13), 1361-1365		
One pot Green Synthesis of Nano magnesium oxide-carbon composite: Preparation, characterization and application towards anthracene adsorption AK Jagadeesan, JA Duvuru, SA Jabasingh, SK Ponnusamy, VA Kabali, J. Clean. Prod 237, 117691	<u>6</u>	2019
One pot Green Synthesis of Nano magnesium oxide-carbon composite: Preparation, characterization and application towards anthracene adsorption JA Kumar, DJ Amarnath, SA Jabasingh, PS Kumar, KV Anand, Journal of Cleaner Production 237, 117691	<u>6</u>	2019
Advances in production and application of biochar from lignocellulosic feedstocks for remediation of environmental pollutants PR Yaashikaa, PS Kumar, SJ Varjani, A Saravanan Bioresource technology 292, 122030	<u>39</u>	2019
Ultrasonic-assisted synthesis of <i>Populus alba</i> activated carbon for water defluorination: Application for real wastewater Z Bonyadi, PS Kumar, R Foroutan, R Kafaei, H Arfaeinia, S Farjadfard, Korean Journal of Chemical Engineering 36 (10), 1595-1603	<u>10</u>	2019
A review on photochemical, biochemical and electrochemical transformation of CO2 into value-added products PR Yaashikaa, PS Kumar, SJ Varjani, A Saravanan Journal of CO2 Utilization 33, 131-147	<u>40</u>	2019

Facile hydrothermal bio-synthesis of cellulose acetate templated CuS nanorods like fibres: antibacterial, cytotoxicity effects and DNA cleavage properties against A549 lung T Manikandan, G Padmalaya, S Mahalakshmi, AS Nivethitha, V Pavithran, IET nanobiotechnology 14 (1), 47-52	1	2019
A review on heavy metal pollution, toxicity and remedial measures: Current trends and future perspectives KH Vardhan, PS Kumar, RC Panda Journal of Molecular Liquids 290, 111197	<u>129</u>	2019
Redemption of acid fuchsin dye from wastewater using de-oiled biomass: kinetics and isotherm analysis AA Renita, PS Kumar, SA Jabasingh Bioresource Technology Reports 7, 100300	<u>10</u>	2019
A review on cleaner strategies for chromium industrial wastewater: present research and future perspective K GracePavithra, V Jaikumar, PS Kumar, PS SundarRajan Journal of Cleaner Production 228, 580-593	<u>39</u>	2019
Polymer Electrolyte Membranes FCC P. Senthil Kumar Thermo-Mechanical Properties of Polymer Composites 23, 82-89		2019
PRY P. Senthil Kumar Thermo-Mechanical Properties of Polymer Composites 23, 64-74		2019
Carbon Nanotube Composites GJJ P. Senthil Kumar Thermo-Mechanical Properties of Polymer Composites 23, 75-81		2019
Critical review on biological treatment strategies of dairy wastewater GJ Joshiba, PS Kumar, CC Femina, E Jayashree, R Racchana, Desalination and Water Treatment 160, 94-109	<u>4</u>	2019

Biosorption—An Elective Strategy for Wastewater Treatment: An Eco-Friendly Approach		
A Saravanan, PS Kumar, PR Yaashikaa		2019
Biochemical and Environmental Bioprocessing, 1-16		
An investigation of adsorption parameters on ZVI-AC nanocomposite in the displacement of Se (IV) ions through CCD analysis	4	2019
S Suganya	<u>4</u>	2019
Journal of Industrial and Engineering Chemistry 75, 211-223		
Removal of colorants from wastewater: A review on sources and treatment strategies		
KG Pavithra, V Jaikumar	<u>101</u>	2019
Journal of Industrial and Engineering Chemistry 75, 1-19		
<u>Treatment of fluoride-contaminated water. A review</u>		
PS Kumar, S Suganya, S Srinivas, S Priyadharshini, M Karthika, RK Sri,	<u>5</u>	2019
Environmental Chemistry Letters, 1-20		
Modeling and Cr(VI) ion uptake kinetics of <i>Sorghum bicolor</i> plant assisted by plant growth-promoting <i>Pannonibacter phragmetitus</i> : an ecofriendly approach		
PR Yaashikaa, PS Kumar, A Saravanan	<u>3</u>	2019
Environmental Science and Pollution Research, 1-12		
Phytoremediation of Cr (VI) ion contaminated soil using Black gram (Vigna mungo): Assessment of removal capacity		
A Saravanan, R Jayasree, RV Hemavathy, S Jeevanantham, S Hamsini,	<u>16</u>	2019
Journal of Environmental Chemical Engineering 7 (3), 103052		
Modelling on the removal of toxic metal ions from aquatic system by different surface modified Cassia fistula seeds		
RRV Hemavathy, PS Kumar, S Suganya, V Swetha, SJ Varjani		
Bioresource technology 281, 1-9		