

# Saravanan Pichiah

## List of Publications by Year in descending order

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109  
papers

3,000  
citations

147801

31  
h-index

189892

50  
g-index

109  
all docs

109  
docs citations

109  
times ranked

4059  
citing authors

#	ARTICLE	IF	CITATIONS
1	Accelerated sunlight photocatalysis through improved electron mobility between g-C <sub>3</sub> N <sub>4</sub> and BiPO <sub>4</sub> nanomaterial. <i>Environmental Science and Pollution Research</i> , 2022, 29, 86068-86076.	5.3	2
2	In-situ growth of manganese oxide on self-assembled 3D- magnesium hydroxide coated on polyurethane: Catalytic oxidation mechanism and application for Mn(II) removal. <i>Journal of Hazardous Materials</i> , 2022, 424, 127267.	12.4	13
3	Polydopamine modified silk fibroin 3-D anode for enhanced microbial fuel cell operation. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 49, 101696.	2.7	7
4	S-Scheme/Type-1 heterostructure stimulated WO <sub>3</sub> /g-C <sub>3</sub> N <sub>4</sub> -WS <sub>2</sub> ternary photocatalyst with improved charge transfer mechanism for full solar spectrum photocatalysis. <i>Journal of Alloys and Compounds</i> , 2022, 903, 163951.	5.5	26
5	Thermo-photodynamic perspective of the simultaneous S-Scheme ternary heterostructure through Ag <sub>3</sub> VO <sub>4</sub> shuttle for the increased photo-redox ability. <i>Applied Materials Today</i> , 2022, 27, 101435.	4.3	1
6	Construction of highly efficient separable p-n junction based light driven composite (NiFe <sub>2</sub> O <sub>4</sub> /MnWO <sub>4</sub> ) for improved solar light utilisation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 642, 128716.	4.7	10
7	Heterojunction formation between AgNbO <sub>3</sub> and Co <sub>3</sub> O <sub>4</sub> for full solar light utilization with improved charge-carrier separation. <i>Photochemical and Photobiological Sciences</i> , 2022, 21, 1735-1750.	2.9	2
8	Granular Mg-Fe layered double hydroxide prepared using dual polymers: Insights into synergistic removal of As(III) and As(V). <i>Journal of Hazardous Materials</i> , 2021, 403, 123883.	12.4	29
9	Recent progress on visible active nanostructured energy materials for water split generated hydrogen. <i>Journal of Nanostructure in Chemistry</i> , 2021, 11, 69-92.	9.1	7
10	Facile green synthesis of fingernails derived carbon quantum dots for Cu <sup>2+</sup> sensing and photodegradation of 2,4-dichlorophenol. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104622.	6.7	20
11	Challenges and implication of full solar spectrum-driven photocatalyst. <i>Reviews in Chemical Engineering</i> , 2021, 37, 533-560.	4.4	18
12	Active layer modification of commercial nanofiltration membrane using <sc>CuBTC</sc>/<sc>PVA</sc> matrix for improved surface and separation characteristics. <i>Journal of Applied Polymer Science</i> , 2021, 138, app50508.	2.6	7
13	Design of homemade photoreactor for dye removal upon irradiation by sunlight. <i>AIP Conference Proceedings</i> , 2021, , .	0.4	0
14	Design of photoreactor with high sunlight concentration for improved photocatalytic degradation of dye pollutant. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 646, 012012.	0.3	0
15	Significance of rod shape transformation of tetrahedral TiO <sub>2</sub> under thermal influence for enhanced solar photocatalysis. <i>Research on Chemical Intermediates</i> , 2021, 47, 2339.	2.7	2
16	A subtle review on the challenges of photocatalytic fuel cell for sustainable power production. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 22877-22906.	7.1	24
17	Biocatalyst physiology and interplay: a protagonist of MFC operation. <i>Environmental Science and Pollution Research</i> , 2021, 28, 43217-43233.	5.3	3
18	Nanoremediation: Sunlight mediated dye degradation using electrospun PAN/CuOâ€ZnO nanofibrous composites. <i>Environmental Pollution</i> , 2021, 280, 116964.	7.5	18

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19	Improved charge carrier dynamics through a type II staggered Ce MOF/mc BiVO <sub>4</sub> n-n heterojunction for enhanced visible light utilisation. <i>Applied Surface Science</i> , 2021, 553, 149556.	6.1	16
20	Novel Ag decorated, BiOCl surface doped AgVO <sub>3</sub> nanobelt ternary composite with Z-scheme homojunction-heterojunction interface for high prolific photo switching, quantum efficiency and hole mediated photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2021, 293, 120224.	20.2	82
21	Z-scheme induced g-C <sub>3</sub> N <sub>4</sub> /WS <sub>2</sub> heterojunction photocatalyst with improved electron mobility for enhanced solar photocatalysis. <i>Solar Energy</i> , 2021, 228, 53-67.	6.1	33
22	Metal free and sunlight driven g-C <sub>3</sub> N <sub>4</sub> based photocatalyst using carbon quantum dots from Arabian dates: Green strategy for photodegradation of 2,4-dichlorophenol and selective detection of Fe <sup>3+</sup> . <i>Diamond and Related Materials</i> , 2021, 120, 108679.	3.9	14
23	Review of Hybrid 1D/2D Photocatalysts for Light-Harvesting Applications. <i>ACS Applied Nano Materials</i> , 2021, 4, 11323-11352.	5.0	36
24	Amalgamation of g-C <sub>3</sub> N <sub>4</sub> with KNbO <sub>3</sub> for enhanced removal of Bisphenol A under sunlight irradiation. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 945, 012052.	0.3	0
25	In situ growth of g-C <sub>3</sub> N <sub>4</sub> on TiO <sub>2</sub> nanotube arrays: Construction of heterostructures for improved photocatalysis properties. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 103611.	6.7	21
26	Visible light responsive BiPO <sub>4</sub> /g-C <sub>3</sub> N <sub>4</sub> for enhanced photocatalysis of 2-4 dichlorophenol under solar irradiation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 917, 012007.	0.6	2
27	Graphite nanopowder functionalized 3-D acrylamide polymeric anode for enhanced performance of microbial fuel cell. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 23411-23421.	7.1	15
28	Intramolecular orbital engineered hetero bimetallic Ce-Fe MOF with reduced transition energy and enhanced visible light property. <i>Applied Organometallic Chemistry</i> , 2020, 34, e5728.	3.5	20
29	Water hyacinth derived carbon quantum dots and g-C <sub>3</sub> N <sub>4</sub> composites for sunlight driven photodegradation of 2,4-dichlorophenol. <i>SN Applied Sciences</i> , 2020, 2, 1.	2.9	18
30	C-Dot TiO <sub>2</sub> nanorod composite for enhanced quantum efficiency under direct sunlight. <i>RSC Advances</i> , 2020, 10, 19490-19500.	3.6	5
31	Mechanism insight of dual synergistic effects of plasmonic Pd-SrTiO <sub>3</sub> for enhanced solar energy photocatalysis. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	2.3	16
32	Environmental remediation using nano-photocatalyst under visible light irradiation: the case of bismuth phosphate. , 2020, , 193-207.		7
33	Industrial application of light-driven nanomaterial. , 2019, , 151-179.		4
34	Black carbon aerosols from the coal seam of eastern India: A real-time analysis with statistical validation. <i>Journal of Earth System Science</i> , 2019, 128, 1.	1.3	1
35	Polymeric Materials for 3D Bioprinting. , 2019, , 63-81.		8
36	Novel self-assembled 3D flower-like magnesium hydroxide coated granular polyurethane: Implication of its potential application for the removal of heavy metals. <i>Journal of Cleaner Production</i> , 2019, 216, 495-503.	9.3	39

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37	Sonocatalytic reduction of nitrate using magnetic layered double hydroxide: Implications for removal mechanism. <i>Chemosphere</i> , 2019, 218, 799-809.	8.2	6
38	Critical insight on the hydrothermal effects toward exfoliation of g-C <sub>3</sub> N <sub>4</sub> and simultaneous in-situ deposition of carbon quantum dots. <i>Applied Surface Science</i> , 2019, 471, 703-713.	6.1	36
39	Amalgamation of N-graphene quantum dots with nanocubic like TiO <sub>2</sub> : an insight study of sunlight sensitive photocatalysis. <i>Environmental Science and Pollution Research</i> , 2019, 26, 3455-3464.	5.3	27
40	Sonophotocatalytic degradation of bisphenol A and its intermediates with graphitic carbon nitride. <i>Environmental Science and Pollution Research</i> , 2019, 26, 1082-1093.	5.3	63
41	Perspective View on Materialistic, Mechanistic and Operating Challenges of Microbial Fuel Cell on Commercialisation and Their Way Ahead. <i>ChemistrySelect</i> , 2019, 4, 1601-1612.	1.5	5
42	Perovskite Oxide-Based Photocatalysts for Excellent Visible Light-Driven Photocatalysis and Energy Conversion. <i>Nanotechnology in the Life Sciences</i> , 2019, , 35-54.	0.6	3
43	Carbon Dots Synthesized from Green Precursors with an Amplified Photoluminescence: Synthesis, Characterization, and Its Application. <i>Nanotechnology in the Life Sciences</i> , 2019, , 1-33.	0.6	0
44	FACILE TECHNIQUE FOR THE IMMOBILISATION OF TiO <sub>2</sub> NANOPARTICLES ON GLASS SUBSTRATES FOR APPLICATIONS IN THE PHOTOCATALYTIC SELF-CLEANING OF INDOOR AIR POLLUTANTS. <i>Malaysian Journal of Analytical Sciences</i> , 2019, 23, .	0.1	0
45	Engineered Carbon Nanotubes: Review on the Role of Surface Chemistry, Mechanistic Features, and Toxicology in the Adsorptive Removal of Aquatic Pollutants.. <i>ChemistrySelect</i> , 2018, 3, 1040-1055.	1.5	5
46	Improved solar light stimulated charge separation of g-C <sub>3</sub> N <sub>4</sub> through self-altering acidic treatment. <i>Applied Surface Science</i> , 2018, 430, 355-361.	6.1	30
47	Solar Light Harvesting N-Graphene Quantum Dots Decorated TiO <sub>2</sub> for Enhanced Photocatalytic Activity. <i>E3S Web of Conferences</i> , 2018, 65, 05014.	0.5	2
48	Bioinspired Synthesis of Carbon Dots/g-C <sub>3</sub> N <sub>4</sub> Nanocomposites for Photocatalytic Application. <i>E3S Web of Conferences</i> , 2018, 65, 05015.	0.5	2
49	A review on the progress of nanostructure materials for energy harnessing and environmental remediation. <i>Journal of Nanostructure in Chemistry</i> , 2018, 8, 255-291.	9.1	93
50	A ligand strategic approach with Cu-MOF for enhanced solar light photocatalysis. <i>New Journal of Chemistry</i> , 2018, 42, 11124-11130.	2.8	16
51	M/g-C <sub>3</sub> N <sub>4</sub> (M=Ag, Au, and Pd) composite: synthesis via sunlight photodeposition and application towards the degradation of bisphenol A. <i>Environmental Science and Pollution Research</i> , 2018, 25, 25401-25412.	5.3	49
52	A Review on the Synergistic Features of Hexagonal Boron Nitride (White Graphene) as Adsorbent-Photo Active Nanomaterial. <i>ChemistrySelect</i> , 2018, 3, 8023-8034.	1.5	19
53	Sugarcane juice derived carbon dot-graphitic carbon nitride composites for bisphenol A degradation under sunlight irradiation. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 353-363.	2.8	38
54	Mechanistic insights into plasmonic photocatalysts in utilizing visible light. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 628-648.	2.8	54

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55	Microbial fuel cell: a prospective sustainable solution for energy and environmental crisis. <i>International Journal of Biosensors &amp; Bioelectronics</i> , 2018, 4, .	0.2	4
56	Symbiotic Interaction of Amalgamated Photocatalysts with Improved Day Light Utilisation and Charge Separation. <i>ChemistrySelect</i> , 2017, 2, 84-89.	1.5	12
57	Titanium dioxide-based sonophotocatalytic mineralization of bisphenol A and its intermediates. <i>Environmental Science and Pollution Research</i> , 2017, 24, 15488-15499.	5.3	29
58	Metal Organic Frameworks: A New Generation Coordination Polymers for Visible Light Photocatalysis. <i>ChemistrySelect</i> , 2017, 2, 6163-6177.	1.5	23
59	Titania with Alkaline Treated Graphitic Carbon Nitride (g-C <sub>3</sub> N <sub>4</sub> ) to Improve Photocatalysis Properties. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 205, 012023.	0.6	2
60	Ag <sup>+</sup> , Fe <sup>3+</sup> and Zn <sup>2+</sup> -intercalated cadmium( <i>ii</i> )-metal-organic frameworks for enhanced daylight photocatalysis. <i>RSC Advances</i> , 2017, 7, 51272-51280.	3.6	24
61	Dopant-free oxygen-rich titanium dioxide: LED light-induced photocatalysis and mechanism insight. <i>Journal of Materials Science</i> , 2017, 52, 11630-11642.	3.7	21
62	Iron oxide nano-material: physicochemical traits and in vitro antibacterial propensity against multidrug resistant bacteria. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 45, 121-130.	5.8	43
63	Facile reconstruction of microbial fuel cell (MFC) anode with enhanced exoelectrogens selection for intensified electricity generation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 1661-1671.	7.1	32
64	Mechanistic Characteristics of Surface Modified Organic Semiconductor g-C <sub>3</sub> N <sub>4</sub> Nanotubes Alloyed with Titania. <i>Materials</i> , 2017, 10, 28.	2.9	29
65	Facile Biosynthesis of ZnO and Iron Doped ZnO Nano-Catalyst: Physicochemical Traits and Multifunctional Applications. <i>Journal of Bionanoscience</i> , 2017, 11, 114-122.	0.4	10
66	A Review on Advanced Oxidation Processes for Effective Water Treatment. <i>Current World Environment Journal</i> , 2017, 12, 469-489.	0.5	72
67	Synergized mechanistic and solar photocatalysis features of N-TiO <sub>2</sub> ; functionalised activated carbon. <i>AIMS Materials Science</i> , 2017, 4, 800-813.	1.4	3
68	Light Driven Nanomaterials for Removal of Agricultural Toxins. <i>Sustainable Agriculture Reviews</i> , 2016, , 225-242.	1.1	6
69	Synthesis and characterization of proton exchange membrane employing waste polystyrene as precursor. <i>Natural Resources &amp; Engineering</i> , 2016, 1, 35-42.	0.3	2
70	Palladium nanoparticles anchored to anatase TiO <sub>2</sub> for enhanced surface plasmon resonance-stimulated, visible-light-driven photocatalytic activity. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 428-437.	2.8	133
71	Nano-Structured Magnesium Oxide Coated Iron Ore: Its Application to the Remediation of Wastewater Containing Lead. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 9603-9611.	0.9	1
72	Nanocrystal TiO <sub>2</sub> Engulfed SiO <sub>2</sub> -Barium Hexaferrite for Enhanced Electrons Mobility and Solar Harvesting Potential. <i>Materials Science Forum</i> , 2015, 819, 226-231.	0.3	3

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73	Synergetic effect of conductive polymer poly(3,4-ethylenedioxythiophene) with different structural configuration of anode for microbial fuel cell application. <i>Bioresource Technology</i> , 2015, 189, 364-369.	9.6	68
74	Rapid thermal reduced graphene oxide/Pt@TiO <sub>2</sub> nanotube arrays for enhanced visible-light-driven photocatalytic reduction of CO <sub>2</sub> . <i>Applied Surface Science</i> , 2015, 358, 122-129.	6.1	119
75	Reduced graphene oxide and Ag wrapped TiO <sub>2</sub> photocatalyst for enhanced visible light photocatalysis. <i>APL Materials</i> , 2015, 3, .	5.1	62
76	Magnetised nanocomposite mesoporous silica and its application for effective removal of methylene blue from aqueous solution. <i>Separation and Purification Technology</i> , 2015, 153, 67-75.	7.9	26
77	Surface reconstruction of titania with g-C <sub>3</sub> N <sub>4</sub> and Ag for promoting efficient electrons migration and enhanced visible light photocatalysis. <i>Applied Surface Science</i> , 2015, 358, 370-376.	6.1	63
78	Synthesis, Features and Solar-Light-Driven Photocatalytic Activity of TiO <sub>2</sub> Nanotube Arrays Loaded with SnO <sub>2</sub> . <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 7001-7009.	0.9	5
79	Highly efficient magnetically separable TiO <sub>2</sub> @graphene oxide supported SrFe <sub>12</sub> O <sub>19</sub> for direct sunlight-driven photoactivity. <i>Chemical Engineering Journal</i> , 2014, 235, 264-274.	12.7	34
80	Solar photocatalytic activity of anatase TiO <sub>2</sub> nanocrystals synthesized by non-hydrolytic sol-gel method. <i>Solar Energy</i> , 2014, 101, 321-332.	6.1	109
81	Synthesis of surface plasmon resonance (SPR) triggered Ag/TiO <sub>2</sub> photocatalyst for degradation of endocrine disturbing compounds. <i>Applied Surface Science</i> , 2014, 319, 128-135.	6.1	149
82	Graphene oxide and Ag engulfed TiO <sub>2</sub> nanotube arrays for enhanced electron mobility and visible-light-driven photocatalytic performance. <i>Journal of Materials Chemistry A</i> , 2014, 2, 5315-5322.	10.3	158
83	Adsorption of mercury (II) ion from aqueous solution using low-cost activated carbon prepared from mango kernel. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2013, 8, 1-10.	1.5	35
84	A review on potential applications of carbon nanotubes in marine current turbines. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 28, 331-339.	16.4	39
85	Adsorption isotherm, kinetic and thermodynamic studies of activated carbon prepared from <i>Garcinia mangostana</i> shell. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2013, 8, 811-818.	1.5	17
86	Surface chemistry and adsorption mechanism of cadmium ion on activated carbon derived from <i>Garcinia mangostana</i> shell. <i>Korean Journal of Chemical Engineering</i> , 2013, 30, 1904-1910.	2.7	14
87	Preparation, characterisation and solar photoactivity of titania supported strontium ferrite nanocomposite photocatalyst. <i>Journal of Experimental Nanoscience</i> , 2013, 8, 295-310.	2.4	19
88	Preparation of Improved p-n Junction NiO/TiO <sub>2</sub> Nanotubes for Solar-Energy-Driven Light Photocatalysis. <i>International Journal of Photoenergy</i> , 2013, 2013, 1-10.	2.5	35
89	Various fabrication methods of porous ceramic supports for membrane applications. <i>Reviews in Chemical Engineering</i> , 2013, 29, .	4.4	33
90	Intimate coupling of electro and biooxidation of tannery wastewater. <i>Desalination and Water Treatment</i> , 2013, 51, 6617-6623.	1.0	15

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91	Responses of surface modeling and optimization of Brilliant Green adsorption by adsorbent prepared from Citrus limetta peel. Desalination and Water Treatment, 2012, 50, 367-375.	1.0	15
92	Visible light improved, photocatalytic activity of magnetically separable titania nanocomposite. Chemical Engineering Journal, 2012, 183, 349-356.	12.7	34
93	Enhanced magnetic separation and photocatalytic activity of nitrogen doped titania photocatalyst supported on strontium ferrite. Journal of Hazardous Materials, 2012, 199-200, 143-150.	12.4	48
94	Biodegradation kinetics of phenol by predominantly Pseudomonas sp. in a batch shake flask. Desalination and Water Treatment, 2011, 36, 99-104.	1.0	8
95	Studies on growth kinetics of predominantly Pseudomonas sp. in internal loop airlift bioreactor using phenol and m-cresol. Korean Journal of Chemical Engineering, 2011, 28, 1550-1555.	2.7	5
96	Photocatalytic decolourization of basic green dye by pure and Fe, Co doped TiO <sub>2</sub> under daylight illumination. Desalination, 2011, 269, 249-253.	8.2	78
97	Hydrodynamics and batch biodegradation of phenol in an Internal Loop Airlift Reactor. International Journal of Environmental Engineering, 2010, 2, 303.	0.1	4
98	Treatment of phenolics containing synthetic wastewater in an internal loop airlift bioreactor (ILALR) using indigenous mixed strain of Pseudomonas sp. under continuous mode of operation. Bioresource Technology, 2009, 100, 4111-4116.	9.6	27
99	Batch growth kinetics of an indigenous mixed microbial culture utilizing m-cresol as the sole carbon source. Journal of Hazardous Materials, 2009, 162, 476-481.	12.4	58
100	Degradation of phenol by TiO <sub>2</sub> -based heterogeneous photocatalysts in presence of sunlight. Journal of Hydro-Environment Research, 2009, 3, 45-50.	2.2	24
101	Feasibility of m-cresol degradation using an indigenous mixed microbial culture with glucose as co-substrate. Clean Technologies and Environmental Policy, 2008, 10, 303-308.	4.1	12
102	Growth kinetics of an indigenous mixed microbial consortium during phenol degradation in a batch reactor. Bioresource Technology, 2008, 99, 205-209.	9.6	156
103	Biodegradation of phenol and m-cresol in a batch and fed batch operated internal loop airlift bioreactor by indigenous mixed microbial culture predominantly Pseudomonas sp.. Bioresource Technology, 2008, 99, 8553-8558.	9.6	57
104	Kinetics of phenol and m-cresol biodegradation by an indigenous mixed microbial culture isolated from a sewage treatment plant. Journal of Environmental Sciences, 2008, 20, 1508-1513.	6.1	39
105	Kinetics of growth and multi substrate degradation by an indigenous mixed microbial culture isolated from a wastewater treatment plant in Guwahati, India. Water Science and Technology, 2008, 58, 1101-1106.	2.5	1
106	Preparation and characterization of zeolite polymer composite proton exchange membrane. Desalination and Water Treatment, 0, , 1-9.	1.0	3
107	Sunlight Photodeposition of Gold nanoparticles onto Graphitic Carbon Nitride (g-C <sub>3</sub> N <sub>4</sub> ) and Application Towards the Degradation of Bisphenol A. IOP Conference Series: Materials Science and Engineering, 0, 409, 012008.	0.6	4
108	Physical Mixing Of N-Doped Graphene Quantum Dots Functionalized TiO <sub>2</sub> For Sustainable Degradation Of Methylene Blue. IOP Conference Series: Materials Science and Engineering, 0, 409, 012009.	0.6	3

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109	Green Carbon Dots for Metal Sensing. Materials Science Forum, 0, 962, 36-40.	0.3	1