

Sethumathavan Vadivel

List of Publications by Year in descending order

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91
papers

3,262
citations

126708

33
h-index

168136

53
g-index

94
all docs

94
docs citations

94
times ranked

3955
citing authors

#	ARTICLE	IF	CITATIONS
1	Rare earth element (REE) lanthanum doped zinc oxide (La: ZnO) nanomaterials: Synthesis structural optical and antibacterial studies. <i>Journal of Alloys and Compounds</i> , 2017, 723, 1155-1161.	2.8	229
2	Enhanced magneto-optical and photo-catalytic properties of transition metal cobalt (Co ²⁺ ions) doped spinel MgFe ₂ O ₄ ferrite nanocomposites. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 452, 380-388.	1.0	180
3	Fine cutting edge shaped Bi ₂ O ₃ rods/reduced graphene oxide (RGO) composite for supercapacitor and visible-light photocatalytic applications. <i>Journal of Colloid and Interface Science</i> , 2017, 498, 449-459.	5.0	121
4	Facile large scale synthesis of Bi ₂ S ₃ nano rods/graphene composite for photocatalytic photoelectrochemical and supercapacitor application. <i>Applied Surface Science</i> , 2015, 351, 635-645.	3.1	111
5	Photocatalytic and antibacterial activities of gold and silver nanoparticles synthesized using biomass of <i>Parkia roxburghii</i> leaf. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2016, 154, 1-7.	1.7	111
6	Graphene oxide/BiOBr composite material as highly efficient photocatalyst for degradation of methylene blue and rhodamine-B dyes. <i>Journal of Water Process Engineering</i> , 2014, 1, 17-26.	2.6	106
7	Green synthesis of gold nanoparticles using <i>Pogostemon benghalensis</i> (B) O. Ktz. leaf extract and studies of their photocatalytic activity in degradation of methylene blue. <i>Materials Letters</i> , 2015, 148, 37-40.	1.3	105
8	Facile synthesis of novel CaFe ₂ O ₄ /g-C ₃ N ₄ nanocomposites for degradation of methylene blue under visible-light irradiation. <i>Journal of Colloid and Interface Science</i> , 2016, 480, 126-136.	5.0	104
9	Constructing novel Ag nanoparticles anchored on MnO ₂ nanowires as an efficient visible light driven photocatalyst. <i>RSC Advances</i> , 2016, 6, 61357-61366.	1.7	100
10	Novel TiO ₂ /Ag ₂ CrO ₄ nanocomposites: Efficient visible-light-driven photocatalysts with n heterojunctions. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 341, 57-68.	2.0	95
11	Fabrication of novel g-C ₃ N ₄ nanosheet/carbon dots/Ag ₆ Si ₂ O ₇ nanocomposites with high stability and enhanced visible-light photocatalytic activity. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 103, 94-109.	2.7	68
12	Fabrication of TiO ₂ /CoMoO ₄ /PANI nanocomposites with enhanced photocatalytic performances for removal of organic and inorganic pollutants under visible light. <i>Materials Chemistry and Physics</i> , 2019, 224, 10-21.	2.0	63
13	Solvothermal synthesis of BiPO ₄ nanorods/MWCNT (1D-1D) composite for photocatalyst and supercapacitor applications. <i>Ceramics International</i> , 2016, 42, 14196-14205.	2.3	59
14	Highly active novel CeTi ₂ O ₆ /g-C ₃ N ₅ photocatalyst with extended spectral response towards removal of endocrine disruptor 2, 4-dichlorophenol in aqueous medium. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 592, 124583.	2.3	55
15	Facile synthesis of spinel CuCr ₂ O ₄ nanoparticles and studies of their photocatalytic activity in degradation of some selected organic dyes. <i>Journal of Alloys and Compounds</i> , 2015, 648, 629-635.	2.8	52
16	Exceptional photocatalytic activity for g-C ₃ N ₄ activated by H ₂ O ₂ and integrated with Bi ₂ S ₃ and Fe ₃ O ₄ nanoparticles for removal of organic and inorganic pollutants. <i>Advanced Powder Technology</i> , 2019, 30, 524-537.	2.0	52
17	One-pot green synthesis of gold nanoparticles and studies of their anticoagulative and photocatalytic activities. <i>Materials Letters</i> , 2016, 185, 143-147.	1.3	50
18	<i>Paederia foetida</i> Linn . promoted biogenic gold and silver nanoparticles: Synthesis, characterization, photocatalytic and in vitro efficacy against clinically isolated pathogens. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2017, 173, 210-215.	1.7	48

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19	Development of novel Ag modified BiOF squares/g-C ₃ N ₄ composite for photocatalytic applications. <i>Materials Science in Semiconductor Processing</i> , 2016, 41, 59-66.	1.9	47
20	Synthesis of novel AgCl loaded g-C ₃ N ₅ with ultrahigh activity as visible light photocatalyst for pollutants degradation. <i>Chemical Physics Letters</i> , 2020, 738, 136862.	1.2	47
21	d-Pencillamine assisted microwave synthesis of Bi ₂ S ₃ microflowers/RGO composites for photocatalytic degradation – A facile green approach. <i>Ceramics International</i> , 2014, 40, 14051-14060.	2.3	46
22	Visible light active LaFeO ₃ nano perovskite-RGO-NiO composite for efficient H ₂ evolution by photocatalytic water splitting and textile dye degradation. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104675.	3.3	44
23	Facile synthesis and characterization of zinc oxide nanoparticles and studies of their catalytic activity towards ultrasound-assisted degradation of metronidazole. <i>Materials Letters</i> , 2016, 168, 158-162.	1.3	43
24	Boosted visible-light photocatalytic performance of TiO ₂ -x decorated by BiOI and AgBr nanoparticles. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 384, 112066.	2.0	41
25	Green synthesis of silver nanoparticles using dried biomass of <i>Diplazium esculentum</i> (retz.) sw. and studies of their photocatalytic and anticoagulative activities. <i>Journal of Molecular Liquids</i> , 2015, 212, 813-817.	2.3	39
26	Facile hydrothermal synthesis of ultrasmall W ₁₈ O ₄₉ nanoparticles and studies of their photocatalytic activity towards degradation of methylene blue. <i>Materials Chemistry and Physics</i> , 2017, 188, 1-7.	2.0	39
27	One-pot hydrothermal synthesis of CuCo ₂ S ₄ /RGO nanocomposites for visible-light photocatalytic applications. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 123, 242-253.	1.9	39
28	State of the art on the photocatalytic applications of graphene based nanostructures: From elimination of hazardous pollutants to disinfection and fuel generation. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 103505.	3.3	39
29	Development of reduced graphene oxide/CuBi ₂ O ₄ hybrid for enhanced photocatalytic behavior under visible light irradiation. <i>Ceramics International</i> , 2015, 41, 6164-6168.	2.3	38
30	Facile one-pot strategy to prepare Ag/Fe ₂ O ₃ decorated reduced graphene oxide nanocomposite and its catalytic application in chemoselective reduction of nitroarenes. <i>Journal of Alloys and Compounds</i> , 2016, 681, 316-323.	2.8	37
31	Biomolecule-assisted solvothermal synthesis of Cu ₂ SnS ₃ flowers/RGO nanocomposites and their visible-light-driven photocatalytic activities. <i>RSC Advances</i> , 2016, 6, 74177-74185.	1.7	36
32	Size-controlled synthesis of NiFe ₂ O ₄ nanospheres via a PEG assisted hydrothermal route and their catalytic properties in oxidation of alcohols by periodic acid. <i>Applied Surface Science</i> , 2016, 370, 469-475.	3.1	36
33	Anchoring carbon spheres on BiOBr/g-C ₃ N ₄ matrix for high-performance visible light photocatalysis. <i>Ceramics International</i> , 2018, 44, 23320-23323.	2.3	34
34	Î±-Fe ₂ O ₃ /reduced graphene oxide nanorod as efficient photocatalyst for methylene blue degradation. <i>Materials Research Innovations</i> , 2015, 19, 258-264.	1.0	32
35	One-pot green synthesis of zinc oxide nano rice and its application as sonocatalyst for degradation of organic dye and synthesis of 2-benzimidazole derivatives. <i>Journal of Physics and Chemistry of Solids</i> , 2017, 104, 152-159.	1.9	32
36	Novel ternary g-C ₃ N ₄ /Ag ₃ VO ₄ /AgBr nanocomposites with excellent visible-light-driven photocatalytic performance for environmental applications. <i>Solid State Sciences</i> , 2018, 78, 133-143.	1.5	32

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37	Novel ZnO/Ag ₆ Si ₂ O ₇ nanocomposites for activation of persulfate ions in photocatalytic removal of organic contaminants under visible light. <i>Materials Chemistry and Physics</i> , 2020, 239, 121988.	2.0	32
38	Solvothermal synthesis of Sm-doped BiOBr/RGO composite as an efficient photocatalytic material for methyl orange degradation. <i>Materials Letters</i> , 2014, 128, 287-290.	1.3	31
39	Facile synthesis of γ -Fe ₂ O ₃ nanoparticles and their catalytic activity in oxidation of benzyl alcohols with periodic acid. <i>Catalysis Communications</i> , 2015, 69, 48-54.	1.6	31
40	One-pot hydrothermal synthesis and characterization of CoFe ₂ O ₄ nanoparticles and its application as magnetically recoverable catalyst in oxidation of alcohols by periodic acid. <i>Materials Chemistry and Physics</i> , 2016, 181, 99-105.	2.0	31
41	Facile solvothermal synthesis of BiOI microsquares as a novel electrode material for supercapacitor applications. <i>Materials Letters</i> , 2018, 210, 109-112.	1.3	31
42	Fabrication of nanostructured NiO/WO ₃ with graphitic carbon nitride for visible light driven photocatalytic hydroxylation of benzene and metronidazole degradation. <i>New Journal of Chemistry</i> , 2019, 43, 14616-14624.	1.4	31
43	Influence of secondary oxide phases in enhancing the photocatalytic properties of alkaline earth elements doped LaFeO ₃ nanocomposites. <i>Journal of Physics and Chemistry of Solids</i> , 2020, 140, 109377.	1.9	30
44	γ -Fe ₂ O ₃ immobilized benzimidazolium tribromide as novel magnetically retrievable catalyst for one-pot synthesis of highly functionalized piperidines. <i>Chinese Chemical Letters</i> , 2016, 27, 1725-1730.	4.8	29
45	Facile large scale synthesis of CuCr ₂ O ₄ /CuO nanocomposite using MOF route for photocatalytic degradation of methylene blue and tetracycline under visible light. <i>Applied Organometallic Chemistry</i> , 2020, 34, e5365.	1.7	28
46	Supercapacitors studies on BiPO ₄ nanoparticles synthesized via a simple microwave approach. <i>Journal of Taibah University for Science</i> , 2017, 11, 661-666.	1.1	27
47	Novel S-scheme 2D/2D Bi ₄ O ₅ Br ₂ nanoplatelets/g-C ₃ N ₅ heterojunctions with enhanced photocatalytic activity towards organic pollutants removal. <i>Environmental Research</i> , 2022, 213, 113736.	3.7	26
48	Photocatalytic oxidation of aromatic alcohols over silver supported on cobalt oxide nanostructured catalyst. <i>Journal of Alloys and Compounds</i> , 2019, 783, 583-592.	2.8	25
49	Enhanced photocatalytic activity of degradation of azo, phenolic and triphenyl methane dyes using novel octagon shaped BiOCl discs/MWCNT composite. <i>Journal of Water Process Engineering</i> , 2016, 10, 165-171.	2.6	24
50	A Novel [Fe(acac) ₃] Interspersed g-C ₃ N ₄ Heterostructure for Environmentally Benign Visible-Light-Driven Oxidation of Alcohols. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 4819-4825.	1.0	24
51	Preparation of novel ternary TiO ₂ QDs/CDs/AgI nanocomposites with superior visible-light induced photocatalytic activity. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 385, 112070.	2.0	23
52	Photovoltaic performance of TiO ₂ using natural sensitizer extracted from <i>Phyllanthus Reticulatus</i> . <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 18455-18462.	1.1	22
53	Synthesis of yttrium doped BiOF/RGO composite for visible light: Photocatalytic applications. <i>Materials Science for Energy Technologies</i> , 2019, 2, 112-116.	1.0	22
54	Facile Solvothermal Synthesis of Novel CuCo ₂ S ₄ /g-C ₃ N ₄ Nanocomposites for Visible-Light Photocatalytic Applications. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2018, 28, 1276-1285.	1.9	21

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55	Advances in preparation, mechanism and applications of various carbon materials in environmental applications: A review. <i>Chemosphere</i> , 2022, 300, 134596.	4.2	21
56	Metal organic framework derived magnetically recoverable CuFe ₂ O ₄ porous cubes for efficient photocatalytic application. <i>Inorganic Chemistry Communication</i> , 2021, 125, 108405.	1.8	20
57	Improved visible-light-driven photocatalytic removal of Bisphenol A using V ₂ O ₅ /WO ₃ decorated over Zeolite: Degradation mechanism and toxicity. <i>Environmental Research</i> , 2022, 212, 113136.	3.7	19
58	Removal of harmful algae in natural water by semiconductor photocatalysis- A critical review. <i>Chemosphere</i> , 2022, 302, 134827.	4.2	19
59	Visible light photocatalysis of Methylene blue by graphene-based ZnO and Ag/AgCl nanocomposites. <i>Desalination and Water Treatment</i> , 2015, 54, 2748-2756.	1.0	18
60	Room temperature catalytic reduction of nitrobenzene to azoxybenzene over one pot synthesised reduced graphene oxide decorated with Ag/ZnO nanocomposite. <i>Catalysis Communications</i> , 2019, 124, 71-75.	1.6	18
61	Facile synthesis of YbVO ₄ , and YVO ₄ nanostructures through MOF route for photocatalytic applications. <i>Inorganic Chemistry Communication</i> , 2020, 115, 107855.	1.8	18
62	Facile synthesis of broom stick like FeOCl/g-C ₃ N ₅ nanocomposite as novel Z-scheme photocatalysts for rapid degradation of pollutants. <i>Chemosphere</i> , 2022, 307, 135716.	4.2	18
63	Development of Highly Efficient and Durable Three-Dimensional Octahedron NiCo ₂ O ₄ Spinel Nanoparticles toward the Selective Oxidation of Styrene. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 18168-18177.	1.8	17
64	Activation of persulfate ions by TiO ₂ /carbon dots nanocomposite under visible light for photocatalytic degradations of organic contaminants. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 12510-12522.	1.1	16
65	Efficient Cr(VI) photoreduction under natural solar irradiation using a novel step-scheme ZnS/SnIn ₄ S ₈ nanoheterostructured photocatalysts. <i>RSC Advances</i> , 2021, 11, 29433-29440.	1.7	15
66	Preparation and characterization of WO ₃ bonded imidazolium sulfonic acid chloride as a novel and green ionic liquid catalyst for the synthesis of adipic acid. <i>RSC Advances</i> , 2016, 6, 99044-99052.	1.7	14
67	Facile synthesis of perovskite type BiYO ₃ embedded reduced graphene oxide (RGO) composite for supercapacitor applications. <i>Ceramics International</i> , 2020, 46, 3471-3478.	2.3	14
68	CuO-ZnO-PANI a lethal p-n-p combination in degradation of 4-chlorophenol under visible light. <i>Journal of Hazardous Materials</i> , 2021, 416, 125989.	6.5	14
69	Disinfection by-products in drinking water: detection and treatment methods. , 2020, , 279-304.		12
70	Room temperature photocatalytic conversion of aldehydes to esters using gold supported cerium oxide nanoparticles under visible light irradiation. <i>Materials Letters</i> , 2019, 237, 113-117.	1.3	11
71	<i>Paederia foetida</i> Linn. promoted synthesis of CoFe ₂ O ₄ and NiFe ₂ O ₄ nanostructures and their photocatalytic efficiency. <i>IET Nanobiotechnology</i> , 2018, 12, 235-240.	1.9	10
72	Synthesis of Polyaniline/Graphene Oxide Composite via Ultrasonication Method for Photocatalytic Applications. <i>Materials Focus</i> , 2016, 5, 393-397.	0.4	9

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73	Hexamethonium bis(tribromide) (HMBTB) a recyclable and high bromine containing reagent. Tetrahedron Letters, 2015, 56, 5646-5650.	0.7	8
74	Fabrication of a Novel ZnO/NiMoO ₄ Nanocomposite and Evaluation of Its Visible Light Driven Photocatalytic Performance. IEEE Nanotechnology Magazine, 2018, 17, 743-750.	1.1	8
75	A co-catalyst free, eco-friendly, novel visible light absorbing iron based complex oxide nanocomposites for enhanced photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2018, 43, 14417-14426.	3.8	8
76	Low-cost fabrication of BiO ₂ COOH microflowers for high-performance supercapacitors applications. Journal of Materials Science: Materials in Electronics, 2019, 30, 8903-8910.	1.1	8
77	Novel Protocol for the Synthesis of Organic Ammonium Tribromides and Investigation of 1,1'-bis(2-(tribromomethyl)ethyl)ethane-2,2'-diyl Dipiperidinium Bis(tribromide) in the Silylation of Alcohols and Thiols. Chemistry Letters, 2014, 43, 1545-1547.	0.7	7
78	Facile Solvothermal Synthesis of CuCo ₂ S ₄ Yolk-Shells and Their Visible-Light-Driven Photocatalytic Properties. Materials, 2018, 11, 2303.	1.3	7
79	Integration of C-dots with g-C ₃ N ₄ nanosheet/Ag ₂ CO ₃ nanocomposites as effective Z-scheme visible-light photocatalysts for removal of hazardous organic and inorganic contaminants. Journal of Materials Science: Materials in Electronics, 2020, 31, 13392-13407.	1.1	6
80	Facile Synthesis of Visible-Light-Active MoO ₃ /Ag ₂ CrO ₄ Heterojunction Photocatalyst with Remarkably Enhanced Photocatalytic Activity Towards Tartrazine. Science of Advanced Materials, 2019, 11, 1162-1167.	0.1	6
81	Facile synthesis of rGO@ CoO nanocomposites electrode material for photocatalytic hydrogen generation and supercapacitor applications. Inorganic Chemistry Communication, 2022, 139, 109345.	1.8	5
82	Graphene quantum dot-based nanostructures for water treatment. , 2020, , 193-215.		4
83	Novel Metal- and Mineral-Acid-Free Synthesis of Organic Ammonium Tribromides and Application of Ethylenephenthrolium Bistribromide for Bromination of Active Methylene Group of 1,3-Diketones and β -Ketoesters. Synthetic Communications, 2015, 45, 714-726.	1.1	3
84	Enhanced electrochemical performance of copper oxide nanobeads a potential electrode material for energy storage devices. Chemical Physics Letters, 2020, 749, 137472.	1.2	3
85	Magnetically Recoverable Graphene Oxide Wrapped CuCo ₂ S ₄ /Iron Oxides Composites for Supercapacitor Application and Fenton Degradation of Organic Molecules. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 1978-1991.	1.9	3
86	Effective degradation of aqueous bisphenol-A using novel Ag ₂ C ₂ O ₄ /Ag@GNS photocatalyst under visible light. International Journal of Hydrogen Energy, 2023, 48, 6510-6520.	3.8	2
87	Effect of Zeta Potential on Chitosan Doped Cerium Oxide in the Decolorization of Cationic Dye under Visible Light Irradiation. Fibers and Polymers, 2019, 20, 1418-1423.	1.1	1
88	Bismuth Enriched Materials for Pseudo Capacitor Applications. , 2020, , .		1
89	Facile Synthesis of CuBi ₂ O ₄ Microspheres for Catalytic Oxidation of Alcohols Photocatalyst and Supercapacitor Applications. Energy and Environment Focus, 2016, 5, 274-286.	0.3	0
90	TiO ₂ Decorated Reduced Graphene Oxide Photocatalyst for the Degradation of Rhodamine-B: Optimization of Experiment Using Response Surface Methodology. Energy and Environment Focus, 2017, 6, 15-21.	0.3	0

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91	Facile synthesis of novel AgBr/Ag/AgCoO ₂ composite coated petrocoke beads for the visible light degradation of organic effluents. <i>Inorganic Chemistry Communication</i> , 2022, 139, 109337.	1.8	0