

Jaganathan Madhavan

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papers

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89
ext. papers

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ext. citations

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avg, IF

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L-index

#	Paper	IF	Citations
87	A review on BiVO ₄ photocatalyst: Activity enhancement methods for solar photocatalytic applications. <i>Applied Catalysis A: General</i> , 2018 , 555, 47-74	5.1	321
86	Combined advanced oxidation processes for the synergistic degradation of ibuprofen in aqueous environments. <i>Journal of Hazardous Materials</i> , 2010 , 178, 202-8	12.8	214
85	Synthesis of a visible-light active V ₂ O ₅ /g-C ₃ N ₄ heterojunction as an efficient photocatalytic and photoelectrochemical material. <i>New Journal of Chemistry</i> , 2015 , 39, 1367-1374	3.6	152
84	Physical and chemical effects of acoustic cavitation in selected ultrasonic cleaning applications. <i>Ultrasonics Sonochemistry</i> , 2016 , 29, 568-76	8.9	130
83	Recent Progress in Non-Platinum Counter Electrode Materials for Dye-Sensitized Solar Cells. <i>ChemElectroChem</i> , 2015 , 2, 928-945	4.3	125
82	Recent development on carbon based heterostructures for their applications in energy and environment: A review. <i>Journal of Industrial and Engineering Chemistry</i> , 2018 , 64, 16-59	6.3	109
81	Ultrasound assisted photocatalytic degradation of diclofenac in an aqueous environment. <i>Chemosphere</i> , 2010 , 80, 747-52	8.4	109
80	Degradation of orange-G by advanced oxidation processes. <i>Ultrasonics Sonochemistry</i> , 2010 , 17, 338-43	8.9	103
79	Fundamental aspects and recent advances in transition metal nitrides as electrocatalysts for hydrogen evolution reaction: A review. <i>Current Opinion in Solid State and Materials Science</i> , 2020 , 24, 100805	12	102
78	Recent advances in hydrogen evolution reaction catalysts on carbon/carbon-based supports in acid media. <i>Journal of Power Sources</i> , 2018 , 398, 9-26	8.9	101
77	Sonoelectrochemistry for energy and environmental applications. <i>Ultrasonics Sonochemistry</i> , 2020 , 63, 104960	8.9	95
76	Photocatalytic degradation of Acid Red 88 using Au-TiO ₂ nanoparticles in aqueous solutions. <i>Water Research</i> , 2008 , 42, 4878-84	12.5	94
75	Degradation of acid red 88 by the combination of sonolysis and photocatalysis. <i>Separation and Purification Technology</i> , 2010 , 74, 336-341	8.3	85
74	Sonophotocatalytic degradation of monocrotophos using TiO ₂ and Fe ³⁺ . <i>Journal of Hazardous Materials</i> , 2010 , 177, 944-9	12.8	83
73	Highly active MoS ₂ /carbon electrocatalysts for the hydrogen evolution reaction - insight into the effect of the internal resistance and roughness factor on the Tafel slope. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 1988-1998	3.6	80
72	A robust visible-light driven BiFeWO ₆ /BiOI nanohybrid with efficient photocatalytic and photoelectrochemical performance. <i>Applied Surface Science</i> , 2017 , 412, 85-95	6.7	76
71	Synthesis of Hierarchical Cobalt Phosphate Nanoflakes and Their Enhanced Electrochemical Performances for Supercapacitor Applications. <i>ChemistrySelect</i> , 2017 , 2, 201-210	1.8	75

70	A low cost additive-free facile synthesis of BiFeWO/BiVO nanocomposite with enhanced visible-light induced photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2017 , 506, 553-563	9.3	71
69	Recent progress and emerging challenges of transition metal sulfides based composite electrodes for electrochemical supercapacitive energy storage. <i>Ceramics International</i> , 2020 , 46, 14317-14345	5.1	65
68	Synthesis of Ni ₃ V ₂ O ₈ @graphene oxide nanocomposite as an efficient electrode material for supercapacitor applications. <i>Journal of Solid State Electrochemistry</i> , 2018 , 22, 527-536	2.6	65
67	Highly Electroactive Ni Pyrophosphate/Pt Catalyst toward Hydrogen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 4969-4982	9.5	64
66	Sonophotocatalytic degradation of paracetamol using TiO ₂ and Fe ³⁺ . <i>Separation and Purification Technology</i> , 2013 , 103, 114-118	8.3	63
65	Effect of tetrabutylammonium iodide content on PVDF-PMMA polymer blend electrolytes for dye-sensitized solar cells. <i>Ionics</i> , 2015 , 21, 2889-2896	2.7	56
64	Synthesis and characterization of (Ni _{1-x} Co _x)Se ₂ based ternary selenides as electrocatalyst for triiodide reduction in dye-sensitized solar cells. <i>Journal of Solid State Chemistry</i> , 2016 , 238, 113-120	3.3	54
63	Heteroatom-doped graphene-based materials for sustainable energy applications: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 143, 110849	16.2	52
62	Insights on Tafel Constant in the Analysis of Hydrogen Evolution Reaction. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 23943-23949	3.8	48
61	An efficient visible light driven bismuth ferrite incorporated bismuth oxyiodide (BiFeO ₃ /BiOI) composite photocatalytic material for degradation of pollutants. <i>Optical Materials</i> , 2018 , 84, 227-235	3.3	47
60	Hybrid Advanced Oxidation Processes Involving Ultrasound: An Overview. <i>Molecules</i> , 2019 , 24,	4.8	45
59	Facile synthesis of BiFe ₂ O ₃ /WO ₃ composite with an enhanced photocatalytic and photo-electrochemical performance. <i>Ionics</i> , 2018 , 24, 3673-3684	2.7	43
58	Synthesis of BiFeWO ₆ /WO ₃ nanocomposite and its enhanced photocatalytic activity towards degradation of dye under irradiation of light. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018 , 559, 83-91	5.1	43
57	Electrochemical decolorization and biodegradation of tannery effluent for reduction of chemical oxygen demand and hexavalent chromium. <i>Journal of Water Process Engineering</i> , 2017 , 20, 22-28	6.7	38
56	Synthesis of various carbon incorporated flower-like MoS ₂ microspheres as counter electrode for dye-sensitized solar cells. <i>Journal of Solid State Electrochemistry</i> , 2017 , 21, 581-590	2.6	33
55	Nanofiber NiMoO ₄ /g-CN Composite Electrode Materials for Redox Supercapacitor Applications. <i>Nanomaterials</i> , 2020 , 10,	5.4	32
54	Single-Step Electrodeposited Molybdenum Incorporated Nickel Sulfide Thin Films from Low-Cost Precursors as Highly Efficient Hydrogen Evolution Electrocatalysts in Acid Medium. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 11108-11116	3.8	28
53	Studies of solvent effect on the conductivity of 2-mercaptopyridine-doped solid polymer blend electrolytes and its application in dye-sensitized solar cells. <i>Journal of Applied Polymer Science</i> , 2015 , 132, n/a-n/a	2.9	27

52	Superior Oxide Ion Conductivity of Novel Acceptor Doped Cerium Oxide Electrolytes for Intermediate-Temperature Solid Oxide Fuel Cell Applications. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 18452-18461	3.8	26
51	Bioengineered silver nanoparticles as potent anti-corrosive inhibitor for mild steel in cooling towers. <i>Environmental Science and Pollution Research</i> , 2018 , 25, 5412-5420	5.1	25
50	Synthesis of TiMo_2C by Carburization of TiMoO_3 Nanowires and Its Electrocatalytic Activity towards Tri-iodide Reduction for Dye-Sensitized Solar Cells. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 1339-1344	9.1	24
49	A straightforward synthesis of visible light driven $\text{BiFeO}_3/\text{AgVO}$ nanocomposites with improved photocatalytic activity. <i>Environmental Pollution</i> , 2021 , 269, 116067	9.3	24
48	Anthracene-based fluorescent probe: Synthesis, characterization, aggregation-induced emission, mechanochromism, and sensing of nitroaromatics in aqueous media. <i>Environmental Research</i> , 2021 , 194, 110741	7.9	24
47	Organic dopant added polyvinylidene fluoride based solid polymer electrolytes for dye-sensitized solar cells. <i>Journal of Physics and Chemistry of Solids</i> , 2016 , 89, 78-83	3.9	23
46	Hydrothermally synthesized nickel molybdenum selenide composites as cost-effective and efficient trifunctional electrocatalysts for water splitting reactions. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 22796-22805	6.7	23
45	Electrochemical deposition of carbon materials incorporated nickel sulfide composite as counter electrode for dye-sensitized solar cells. <i>Ionics</i> , 2017 , 23, 1017-1025	2.7	22
44	Iron and iron oxide nanoparticles are highly toxic to <i>Culex quinquefasciatus</i> with little non-target effects on larvivorous fishes. <i>Environmental Science and Pollution Research</i> , 2018 , 25, 10504-10514	5.1	22
43	Performance characteristics of guanine incorporated PVDF-HFP/PEO polymer blend electrolytes with binary iodide salts for dye-sensitized solar cells. <i>Optical Materials</i> , 2016 , 58, 357-364	3.3	22
42	Metal-doped molybdenum nitride films for enhanced hydrogen evolution in near-neutral strongly buffered aerobic media. <i>Electrochimica Acta</i> , 2018 , 283, 1525-1533	6.7	21
41	A sensitive electrochemical detection of hydroquinone using newly synthesized Fe_2O_3 -graphene oxide nanocomposite as an electrode material. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 10081-10091	2.1	19
40	Role of thermophilic bacteria (and) on crude oil degradation and biocorrosion in oil reservoir environment. <i>3 Biotech</i> , 2019 , 9, 79	2.8	19
39	Role of Bacterial Plasmid on Biofilm Formation and Its Influence on Corrosion of Engineering Materials. <i>Journal of Bio- and Tribo-Corrosion</i> , 2016 , 2, 1	2.9	18
38	Electrodeposited carbon-supported nickel sulfide thin films with enhanced stability in acid medium as hydrogen evolution reaction electrocatalyst. <i>Journal of Solid State Electrochemistry</i> , 2018 , 22, 365-374	2.6	17
37	Enhancement of hydrogen evolution activities of low-cost transition metal electrocatalysts in near-neutral strongly buffered aerobic media. <i>Electrochemistry Communications</i> , 2017 , 83, 6-10	5.1	17
36	Degradation of formetanate hydrochloride by combined advanced oxidation processes. <i>Separation and Purification Technology</i> , 2010 , 73, 409-414	8.3	17
35	An overview of cephalosporin antibiotics as emerging contaminants: a serious environmental concern. <i>3 Biotech</i> , 2019 , 9, 231	2.8	16

34	Simple and low cost electrode material based on Ca ₂ V ₂ O ₇ /PANI nanoplatelets for supercapacitor applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 17354-17362	2.1	16
33	Fabrication of novel AgVO/BiOI nanocomposite photocatalyst with photoelectrochemical activity towards the degradation of Rhodamine B under visible light irradiation. <i>Environmental Research</i> , 2021 , 200, 111365	7.9	16
32	A study of photocatalytic and photoelectrochemical activity of as-synthesized WO ₃ /g-C ₃ N ₄ composite photocatalysts for AO7 degradation. <i>Materials Science for Energy Technologies</i> , 2020 , 3, 43-50	5.2	14
31	Carbon supported nickel phosphide as efficient electrocatalyst for hydrogen and oxygen evolution reactions. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 622-632	6.7	14
30	Influence of pyrazole on the photovoltaic performance of dye-sensitized solar cell with polyvinylidene fluoride polymer electrolytes. <i>Ionics</i> , 2016 , 22, 425-433	2.7	13
29	High performance dye-sensitized solar cell based on 2-mercaptobenzimidazole doped poly(vinylidene fluoride-co-hexafluoropropylene) based polymer electrolyte. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2016 , 53, 245-251	2.2	13
28	Kinetics of the sonophotocatalytic degradation of orange G in presence of Fe(3+). <i>Water Science and Technology</i> , 2009 , 60, 2195-202	2.2	13
27	Fabrication of visible-light active BiFeWO ₆ /ZnO nanocomposites with enhanced photocatalytic activity. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020 , 586, 124294	5.1	13
26	Highly Water Dispersible Polymer Acid-Doped Polyanilines as Low-Cost, Nafion-Free Ionomers for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2018 , 1, 1512-1521	6.1	12
25	Synthesis of W, Nb and Ta doped Mo ₂ C and Their Application as Counter Electrode in Dye-sensitized Solar Cells. <i>Materials Today: Proceedings</i> , 2016 , 3, S65-S72	1.4	12
24	Highly efficient Ni _{0.5} Fe _{0.5} Se ₂ /MWCNT electrocatalyst for hydrogen evolution reaction in acid media. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 7838-7847	6.7	11
23	Application of derivative voltammetry in the quantitative determination of alloxan at single-walled carbon nanotubes modified electrode. <i>Electrochimica Acta</i> , 2019 , 317, 182-190	6.7	10
22	Electrodeposited Co _{1-x} Mo _x S thin films as highly efficient electrocatalysts for hydrogen evolution reaction in acid medium. <i>Journal of Solid State Electrochemistry</i> , 2018 , 22, 2641-2647	2.6	9
21	Cost-Effective Synthesis of Efficient CoWO ₃ /Ni Nanocomposite Electrode Material for Supercapacitor Applications. <i>Nanomaterials</i> , 2020 , 10,	5.4	9
20	N-doped carbon embedded Ni ₃ S ₂ electrocatalyst material towards efficient hydrogen evolution reaction in broad pH range. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020 , 603, 125194	5.1	8
19	Bismuth Oxyiodide Nanoflakes Showed Toxicity Against the Malaria Vector Anopheles stephensi and In Vivo Antiplasmodial Activity. <i>Journal of Cluster Science</i> , 2018 , 29, 337-344	3	7
18	Carbon supported Ni ₃ N/Ni heterostructure for hydrogen evolution reaction in both acid and alkaline media. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 30739-30749	6.7	7
17	Solution Combustion Synthesis of Hierarchically Structured V ₂ O ₅ Nanoflakes: Efficacy Against Plasmodium falciparum, Plasmodium berghei and the Malaria Vector Anopheles stephensi. <i>Journal of Cluster Science</i> , 2017 , 28, 2337-2348	3	6

16	Effect of nano-zerovalent iron incorporated polyvinyl-alginate hybrid hydrogel matrix on inhibition of corrosive bacteria in a cooling tower water environment. <i>SN Applied Sciences</i> , 2019 , 1, 1	1.8	4
15	Effect of MWCNTs on Improvement of Fracture Toughness of Spark Plasma Sintered SiC Nano-Composites. <i>Current Analytical Chemistry</i> , 2021 , 17, 849-856	1.7	4
14	Synthesis of new series of quinoline derivatives with insecticidal effects on larval vectors of malaria and dengue diseases.. <i>Scientific Reports</i> , 2022 , 12, 4765	4.9	4
13	Phosphorus co-doped reduced graphene oxide embedded flower-like CoS/CoS ₂ heterostructure as an efficient electrocatalyst for hydrogen evolution reaction in acidic media. <i>Journal of Alloys and Compounds</i> , 2022 , 907, 164506	5.7	4
12	The Contribution of Nanotechnology to Hydrogen Production111-136		3
11	Insecticidal Activity of Nanoparticles and Mechanism of Action 2020 , 243-266		3
10	Graphitic Carbon Nitride-Based Nanostructured Materials for Photocatalytic Applications 2019 , 291-307		2
9	The Contribution of Nanotechnology to Hydrogen Production 2013 , 233-258		2
8	Complete photocatalytic degradation of tetracycline by carbon doped TiO supported with stable metal nitrate hydroxide. <i>Environmental Research</i> , 2021 , 207, 112188	7.9	2
7	Design and Fabrication of Carbon-based Nanostructured Counter Electrode Materials for Dye-sensitized Solar Cells193-219		2
6	Graphene supported flower-like NiS ₂ /MoS ₂ mixed phase nano-composites as a low cost electrode material for hydrogen evolution reaction in alkaline media. <i>Materials Chemistry and Physics</i> , 2022 , 280, 125839	4.4	1
5	One-pot synthesis of bismuth yttrium tungstate nanosheet decorated 3D-BiOBr nanoflower heterostructure with enhanced visible light photocatalytic activity.. <i>Chemosphere</i> , 2022 , 133993	8.4	1
4	One-step synthesis of rod-on-plate like 1D/2D-NiMoO/BiOI nanocomposite for an efficient visible light driven photocatalyst for pollutant degradation.. <i>Environmental Science and Pollution Research</i> , 2022 , 1	5.1	0
3	Future prospects of oxide-free materials for energy-related applications 2022 , 451-466		
2	Multijunction solar cells based on IIIV and IIIV semiconductors 2022 , 307-328		
1	Pt Electrocatalysts for I-Mediated Dye-Sensitized Solar Cells 2018 , 27-46		