

# Jayaraman Theerthagiri

## List of Publications by Citations

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86  
papers

3,039  
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30  
h-index

53  
g-index

90  
ext. papers

4,040  
ext. citations

5.9  
avg, IF

6.04  
L-index

#	Paper	IF	Citations
86	A review on ZnO nanostructured materials: energy, environmental and biological applications. <i>Nanotechnology</i> , <b>2019</b> , 30, 392001	3.4	215
85	Photocatalytic and photoelectrochemical studies of visible-light active $\beta$ -Fe <sub>2</sub> O <sub>3</sub> -C <sub>3</sub> N <sub>4</sub> nanocomposites. <i>RSC Advances</i> , <b>2014</b> , 4, 38222-38229	3.7	177
84	Recent advances in MoS <sub>2</sub> nanostructured materials for energy and environmental applications [A review]. <i>Journal of Solid State Chemistry</i> , <b>2017</b> , 252, 43-71	3.3	171
83	Synthesis of a visible-light active V <sub>2</sub> O <sub>5</sub> -C <sub>3</sub> N <sub>4</sub> heterojunction as an efficient photocatalytic and photoelectrochemical material. <i>New Journal of Chemistry</i> , <b>2015</b> , 39, 1367-1374	3.6	152
82	Recent Advances in Metal Chalcogenides (MX <sub>n</sub> ; = , ) Nanostructures for Electrochemical Supercapacitor Applications: A Brief Review. <i>Nanomaterials</i> , <b>2018</b> , 8,	5.4	148
81	Recent Progress in Non-Platinum Counter Electrode Materials for Dye-Sensitized Solar Cells. <i>ChemElectroChem</i> , <b>2015</b> , 2, 928-945	4.3	125
80	Synthesis and characterization of a CuS/WO <sub>3</sub> composite photocatalyst for enhanced visible light photocatalytic activity. <i>RSC Advances</i> , <b>2015</b> , 5, 52718-52725	3.7	109
79	Sonoelectrochemistry for energy and environmental applications. <i>Ultrasonics Sonochemistry</i> , <b>2020</b> , 63, 104960	8.9	95
78	Application of advanced materials in sonophotocatalytic processes for the remediation of environmental pollutants. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 412, 125245	12.8	88
77	Highly active MoS <sub>2</sub> /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> , <b>2017</b> , 19, 1988-1998	3.6	80
76	Recent advances in 2-D nanostructured metal nitrides, carbides, and phosphides electrodes for electrochemical supercapacitors [A brief review]. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2018</b> , 67, 12-27	6.3	78
75	Synthesis of Hierarchical Cobalt Phosphate Nanoflakes and Their Enhanced Electrochemical Performances for Supercapacitor Applications. <i>ChemistrySelect</i> , <b>2017</b> , 2, 201-210	1.8	75
74	Synthesis of Ni <sub>3</sub> V <sub>2</sub> O <sub>8</sub> @graphene oxide nanocomposite as an efficient electrode material for supercapacitor applications. <i>Journal of Solid State Electrochemistry</i> , <b>2018</b> , 22, 527-536	2.6	65
73	One-step electrochemical deposition of Ni <sub>1-x</sub> MoxS ternary sulfides as an efficient counter electrode for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 16119-16127	13	65
72	Highly Electroactive Ni Pyrophosphate/Pt Catalyst toward Hydrogen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 4969-4982	9.5	64
71	Growth of iron diselenide nanorods on graphene oxide nanosheets as advanced electrocatalyst for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 13020-13030	6.7	62
70	Ionic Liquid-Based Electrolytes for Energy Storage Devices: A Brief Review on Their Limits and Applications. <i>Polymers</i> , <b>2020</b> , 12,	4.5	61

69	Effect of tetrabutylammonium iodide content on PVDF-PMMA polymer blend electrolytes for dye-sensitized solar cells. <i>Ionics</i> , <b>2015</b> , 21, 2889-2896	2.7	56
68	Synthesis and characterization of (Ni <sub>1-x</sub> Co <sub>x</sub> )Se <sub>2</sub> based ternary selenides as electrocatalyst for triiodide reduction in dye-sensitized solar cells. <i>Journal of Solid State Chemistry</i> , <b>2016</b> , 238, 113-120	3.3	54
67	Integrated technique of pulsed laser irradiation and sonochemical processes for the production of highly surface-active NiPd spheres. <i>Chemical Engineering Journal</i> , <b>2021</b> , 411, 128486	14.7	52
66	Cu <sub>2</sub> S-incorporated ZnS nanocomposites for photocatalytic hydrogen evolution. <i>RSC Advances</i> , <b>2015</b> , 5, 30175-30186	3.7	49
65	Insights on Tafel Constant in the Analysis of Hydrogen Evolution Reaction. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 23943-23949	3.8	48
64	Hybrid Advanced Oxidation Processes Involving Ultrasound: An Overview. <i>Molecules</i> , <b>2019</b> , 24,	4.8	45
63	Facile synthesis of Fe <sub>2</sub> O <sub>3</sub> /WO <sub>3</sub> composite with an enhanced photocatalytic and photo-electrochemical performance. <i>Ionics</i> , <b>2018</b> , 24, 3673-3684	2.7	43
62	Rapid and highly selective electrochemical sensor based on ZnS/Au-decorated f-multi-walled carbon nanotube nanocomposites produced via pulsed laser technique for detection of toxic nitro compounds. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 418, 126269	12.8	43
61	Enhanced photocatalytic activity at multidimensional interface of 1D-BiS@2D-GO/3D-BiOI ternary nanocomposites for tetracycline degradation under visible-light. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 404, 123868	12.8	36
60	Synthesis of a hierarchically structured Fe <sub>3</sub> O <sub>4</sub> @Bi nanocomposite for the highly sensitive electrochemical determination of bisphenol A in real samples. <i>New Journal of Chemistry</i> , <b>2020</b> , 44, 18633-18643	3.6	34
59	Synthesis of various carbon incorporated flower-like MoS <sub>2</sub> microspheres as counter electrode for dye-sensitized solar cells. <i>Journal of Solid State Electrochemistry</i> , <b>2017</b> , 21, 581-590	2.6	33
58	Nanofiber NiMoO <sub>4</sub> /g-CN Composite Electrode Materials for Redox Supercapacitor Applications. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	32
57	Synthesis of TiO <sub>2</sub> /RGO with plasmonic Ag nanoparticles for highly efficient photoelectrocatalytic reduction of CO to methanol toward the removal of an organic pollutant from the atmosphere. <i>Environmental Pollution</i> , <b>2021</b> , 281, 116990	9.3	32
56	Robust bifunctional catalytic activities of N-doped carbon aerogel-nickel composites for electrocatalytic hydrogen evolution and hydrogenation of nitrocompounds. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 13334-13344	6.7	29
55	Cubic fluorite phase of samarium doped cerium oxide (CeO <sub>2</sub> ) <sub>0.96</sub> Sm <sub>0.04</sub> for solid oxide fuel cell electrolyte. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 1566-1573	2.1	29
54	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> , <b>2015</b> , 132, n/a-n/a	2.9	27
53	Synthesis of hierarchical structured rare earth metal doped Co <sub>3</sub> O <sub>4</sub> by polymer combustion method for high performance electrochemical supercapacitor electrode materials. <i>Ionics</i> , <b>2020</b> , 26, 2051-2061	2.7	27
52	Physicochemical and electrochemical properties of Gd <sup>3+</sup> -doped ZnSe thin films fabricated by single-step electrochemical deposition process. <i>Journal of Solid State Electrochemistry</i> , <b>2018</b> , 22, 1197-1207	2.6	24

51	Anthracene-based fluorescent probe: Synthesis, characterization, aggregation-induced emission, mechanochromism, and sensing of nitroaromatics in aqueous media. <i>Environmental Research</i> , <b>2021</b> , 194, 110741	7.9	24
50	Solvent-mediated synthesis of BiOI with a tunable surface structure for effective visible light active photocatalytic removal of Cr(VI) from wastewater. <i>Environmental Research</i> , <b>2021</b> , 197, 111080	7.9	23
49	Electrochemical deposition of carbon materials incorporated nickel sulfide composite as counter electrode for dye-sensitized solar cells. <i>Ionics</i> , <b>2017</b> , 23, 1017-1025	2.7	22
48	Synthesis and characterization of ZnO nanoflakes anchored carbon nanoplates for antioxidant and anticancer activity in MCF7 cell lines. <i>Materials Science and Engineering C</i> , <b>2019</b> , 102, 536-540	8.3	22
47	Fabrication strategies and surface tuning of hierarchical gold nanostructures for electrochemical detection and removal of toxic pollutants. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 420, 126648	12.8	22
46	Lignin-mediated green synthesis of functionalized gold nanoparticles via pulsed laser technique for selective colorimetric detection of lead ions in aqueous media. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 420, 126585	12.8	22
45	Production of copper nanoparticles exhibiting various morphologies via pulsed laser ablation in different solvents and their catalytic activity for reduction of toxic nitroaromatic compounds. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 409, 124412	12.8	20
44	Comparative study of structural, optical and electrical properties of electrochemically deposited Eu, Sm and Gd doped ZnSe thin films. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2018</b> , 29, 5638-5648	2.1	18
43	Surface functionalized highly porous date seed derived activated carbon and MoS nanocomposites for hydrogenation of CO into formic acid. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 409, 124980	12.8	18
42	Optical, magnetic, and photoelectrochemical properties of electrochemically deposited Eu <sup>3+</sup> -doped ZnSe thin films. <i>Ionics</i> , <b>2017</b> , 23, 2497-2507	2.7	17
41	Influence of chromium content on microstructural and electrochemical supercapacitive properties of vanadium nitride thin films developed by reactive magnetron co-sputtering process. <i>Ceramics International</i> , <b>2019</b> , 45, 12643-12653	5.1	17
40	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> , <b>2018</b> , 22, 365-374	2.6	17
39	ZIF-8 templated assembly of La-anchored ZnO distorted nano-hexagons as an efficient active photocatalyst for the detoxification of rhodamine B in water. <i>Environmental Pollution</i> , <b>2021</b> , 272, 116018	9.3	17
38	Simple and low cost electrode material based on Ca <sub>2</sub> V <sub>2</sub> O <sub>7</sub> /PANI nanoplatelets for supercapacitor applications. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2017</b> , 28, 17354-17362	2.1	16
37	Photocatalytic Degradation of Rhodamine B Dye Using Biogenic Hybrid ZnO-MgO Nanocomposites under Visible Light. <i>ChemistrySelect</i> , <b>2019</b> , 4, 5178-5184	1.8	15
36	Influence of pyrazole on the photovoltaic performance of dye-sensitized solar cell with polyvinylidene fluoride polymer electrolytes. <i>Ionics</i> , <b>2016</b> , 22, 425-433	2.7	13
35	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> , <b>2016</b> , 53, 245-251	2.2	13
34	Highly Water Dispersible Polymer Acid-Doped Polyanilines as Low-Cost, Nafion-Free Ionomers for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 1512-1521	6.1	12

33	Investigations on acceptor (Pr <sup>3+</sup> ) and donor (Nb <sup>5+</sup> ) doped cerium oxide for the suitability of solid oxide fuel cell electrolytes. <i>Ionics</i> , <b>2016</b> , 22, 2461-2470	2.7	12
32	Microstructural and supercapacitive properties of reactive magnetron co-sputtered Mo <sub>3</sub> N <sub>2</sub> electrodes: Effects of Cu doping. <i>Materials Letters</i> , <b>2018</b> , 220, 201-204	3.3	11
31	Effect of Polyurea Coating on Corrosion Resistance Over Mild Steel and Aluminium Substrates for Liquid Storage Applications. <i>Molecular Crystals and Liquid Crystals</i> , <b>2018</b> , 670, 60-73	0.5	11
30	Enhanced performance of dye-sensitized solar cell using 2-mercaptobenzothiazole-doped poly(vinylidene fluoride-co-hexafluoropropylene) polymer electrolyte. <i>Ionics</i> , <b>2016</b> , 22, 1225-1230	2.7	10
29	Nickel hexacyanoferrate film coated pencil graphite electrode as sensor and electrode material for environment and energy applications. <i>International Journal of Energy Research</i> , <b>2020</b> , 44, 10206-10221	4.5	9
28	Electrodeposited Co <sub>1-x</sub> Mo <sub>x</sub> S thin films as highly efficient electrocatalysts for hydrogen evolution reaction in acid medium. <i>Journal of Solid State Electrochemistry</i> , <b>2018</b> , 22, 2641-2647	2.6	9
27	Cost-Effective Synthesis of Efficient CoWO/Ni Nanocomposite Electrode Material for Supercapacitor Applications. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	9
26	Tungsten doped titanium dioxide as a photoanode for dye sensitized solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2017</b> , 28, 3428-3439	2.1	8
25	Bifunctional electrocatalysts for water splitting from a bimetallic (V doped-Ni <sub>x</sub> Fe <sub>y</sub> ) Metal-Organic framework MOF@Graphene oxide composite. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	8
24	One-step synthesis of hierarchical structured nickel copper sulfide nanorods with improved electrochemical supercapacitor properties. <i>International Journal of Energy Research</i> , <b>2021</b> , 45, 9983-9998	4.5	8
23	Carbon nanohorns functionalized PEDOT:PSS nanocomposites for dye sensitized solar cell applications. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 4050-4056	2.1	7
22	Flower-Like Copper Sulfide Nanocrystals are Highly Effective Against Chloroquine-Resistant Plasmodium falciparum and the Malaria Vector Anopheles stephensi. <i>Journal of Cluster Science</i> , <b>2017</b> , 28, 581-594	3	7
21	Enhanced electrochemical behavior of ceria based zirconia electrolytes for intermediate temperature solid oxide fuel cell applications. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 10980-10992	2.1	7
20	Solution Combustion Synthesis of Hierarchically Structured V <sub>2</sub> O <sub>5</sub> Nanoflakes: Efficacy Against Plasmodium falciparum, Plasmodium berghei and the Malaria Vector Anopheles stephensi. <i>Journal of Cluster Science</i> , <b>2017</b> , 28, 2337-2348	3	6
19	Reconciling of experimental and theoretical insights on the electroactive behavior of C/Ni nanoparticles with AuPt alloys for hydrogen evolution efficiency and Non-enzymatic sensor. <i>Chemical Engineering Journal</i> , <b>2022</b> , 435, 134790	14.7	6
18	Single-step electrochemical deposition of Mn <sup>2+</sup> doped FeS <sub>2</sub> thin films on ITO conducting glass substrates: physical, electrochemical and electrocatalytic properties. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2019</b> , 30, 3268-3276	2.1	6
17	Modeling and optimization of process parameters of biofilm reactor for wastewater treatment. <i>Science of the Total Environment</i> , <b>2021</b> , 787, 147624	10.2	6
16	Multiscale design of 3D metal-organic frameworks (MBTC, M: Cu, Co, Ni) via PLAL enabling bifunctional electrocatalysts for robust overall water splitting. <i>Chemical Engineering Journal</i> , <b>2022</b> , 446, 137045	14.7	6

15	Nanogap-tailored Au nanoparticles fabricated by pulsed laser ablation for surface-enhanced Raman scattering. <i>Biosensors and Bioelectronics</i> , <b>2022</b> , 197, 113766	11.8	5
14	Dye-sensitized solar cell using 4-chloro-7-nitrobenzofurazan incorporated polyvinyl alcohol polymer electrolyte. <i>Indian Journal of Physics</i> , <b>2016</b> , 90, 1265-1270	1.4	5
13	Kinetics and degradation of camphene with OH radicals and its subsequent fate under the atmospheric O and NO radicals - A theoretical study. <i>Chemosphere</i> , <b>2021</b> , 267, 129250	8.4	4
12	Fabrication of Pd/MnFe <sub>2</sub> O <sub>4</sub> bifunctional 2-D nanosheets to enhance the yield of HCOOH from CO <sub>2</sub> cathodic reduction paired with anodic oxidation to CH <sub>3</sub> OH. <i>Fuel</i> , <b>2022</b> , 311, 122619	7.1	3
11	Facile one-pot synthesis of CuCN by pulsed laser ablation in nitrile solvents and mechanistic studies using quantum chemical calculations. <i>Scientific Reports</i> , <b>2021</b> , 11, 14389	4.9	3
10	In-situ thermal phase transition and structural investigation of ferroelectric tetragonal barium titanate nanopowders with pseudo-cubic phase. <i>Chemosphere</i> , <b>2021</b> , 283, 131218	8.4	3
9	A simple, economical, and quick electrochemical deposition of rare-earth metal ion doped ZnSe/FeS <sub>2</sub> double-layer thin films with enhanced photoelectrochemical performance. <i>Ionics</i> , <b>2019</b> , 25, 6115-6122	2.7	2
8	Graphitic Carbon Nitride-Based Nanostructured Materials for Photocatalytic Applications <b>2019</b> , 291-307		2
7	Improved visible light photocatalytic degradation of yttrium doped NiMgAl layered triple hydroxides for the effective removal of methylene blue dye.. <i>Chemosphere</i> , <b>2021</b> , 290, 133299	8.4	2
6	Design and Fabrication of Carbon-based Nanostructured Counter Electrode Materials for Dye-sensitized Solar Cells 193-219		2
5	Method development and mechanistic study on direct pulsed laser irradiation process for highly effective dechlorination of persistent organic pollutants. <i>Environmental Pollution</i> , <b>2021</b> , 291, 118158	9.3	1
4	Silane-treated BaTiO ceramic powders for multilayer ceramic capacitor with enhanced dielectric properties. <i>Chemosphere</i> , <b>2022</b> , 286, 131734	8.4	1
3	Basic principles in energy conversion and storage <b>2020</b> , 1-14		
2	A facile one-step hydrothermal synthesis of Ni <sub>1-x</sub> Co <sub>x</sub> S as active electrode material in non-aqueous electrolyte for supercapacitors application. <i>Materials Today: Proceedings</i> , <b>2021</b> , 47, 1065-1071	1.4	
1	Pt Electrocatalysts for I-Mediated Dye-Sensitized Solar Cells <b>2018</b> , 27-46		