## Raji Atchudan

List of Publications by Year in descending order

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118 papers	7,348 citations	46984 47 h-index	81 g-index
118	118	118	5595
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Facile synthesis of molybdenum disulfide adorned heteroatom-doped porous carbon for energy storage applications. Journal of Nanostructure in Chemistry, 2023, 13, 545-561.	5.3	5
2	Preparation of 2D Graphene/MXene nanocomposite for the electrochemical determination of hazardous bisphenol A in plastic products. Chemosphere, 2022, 287, 132106.	4.2	39
3	Utilization of waste biomass of Poa pratensis for green synthesis of n-doped carbon dots and its application in detection of Mn2+ and Fe3+. Chemosphere, 2022, 286, 131764.	4.2	114
4	Simultaneous removal of heavy metal ions using carbon dots-doped hydrogel particles. Chemosphere, 2022, 286, 131760.	4.2	42
5	Tunable fluorescent carbon dots from biowaste as fluorescence ink and imaging human normal and cancer cells. Environmental Research, 2022, 204, 112365.	3.7	78
6	Morus nigra-derived hydrophilic carbon dots for the highly selective and sensitive detection of ferric ion in aqueous media and human colon cancer cell imaging. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 635, 128073.	2.3	14
7	Facile synthesis of nitrogen-doped porous carbon materials using waste biomass for energy storage applications. Chemosphere, 2022, 289, 133225.	4.2	40
8	Recent Advancements in Polysulfone Based Membranes for Fuel Cell (PEMFCs, DMFCs and AMFCs) Applications: A Critical Review. Polymers, 2022, 14, 300.	2.0	38
9	Smartphone-Operated Wireless Chemical Sensors: A Review. Chemosensors, 2022, 10, 55.	1.8	21
10	Electrochemical Sensing of Glucose Using Glucose Oxidase/PEDOT:4-Sulfocalix [4]arene/MXene Composite Modified Electrode. Micromachines, 2022, 13, 304.	1.4	28
11	Fabrication of High-Performance Asymmetric Supercapacitor Consists of Nickel Oxide and Activated Carbon (NiO//AC). Catalysts, 2022, 12, 375.	1.6	26
12	Synthesis of various dimensional metal organic frameworks (MOFs) and their hybrid composites for emerging applications – A review. Chemosphere, 2022, 298, 134184.	4.2	82
13	Sustainable Synthesis of N/S-Doped Porous Carbon from Waste-Biomass as Electroactive Material for Energy Harvesting. Catalysts, 2022, 12, 436.	1.6	13
14	Comparative investigation on antibacterial studies of Oxalis corniculata and silver nanoparticle stabilized graphene surface. Journal of Materials Science, 2022, 57, 11630-11648.	1.7	7
15	A Review of Polymeric Micelles and Their Applications. Polymers, 2022, 14, 2510.	2.0	65
16	Reviewâ€"Recent Trends on the Synthesis and Different Characterization Tools for MXenes and their Emerging Applications. Journal of the Electrochemical Society, 2022, 169, 077501.	1.3	9
17	Facile synthesis of novel molybdenum disulfide decorated banana peel porous carbon electrode for hydrogen evolution reaction. Chemosphere, 2022, 307, 135712.	4.2	15
18	Controlled Synthesis of Platinum and Silver Nanoparticles Using Multivalent Ligands. Nanomaterials, 2022, 12, 2294.	1.9	1

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19	Synthesis and Characterization of Monodispersed Spherical Calcium Oxide and Calcium Carbonate Nanoparticles via Simple Pyrolysis. Nanomaterials, 2022, 12, 2424.	1.9	7
20	A Critical Review on Artificial Intelligence for Fuel Cell Diagnosis. Catalysts, 2022, 12, 743.	1.6	14
21	Electrochemical Detection of H <sub>2</sub> O <sub>2</sub> Using an Activated Glassy Carbon Electrode., 2022, 1, 034401.		73
22	A review on bismuth-based materials for the removal of organic and inorganic pollutants. Chemosphere, 2022, 306, 135521.	4.2	12
23	Sustainable synthesis of carbon quantum dots from banana peel waste using hydrothermal process for in vivo bioimaging. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 126, 114417.	1.3	158
24	Poly[2-(methacryloyloxy)ethyl phosphorylcholine]-Stabilized graphene-iron oxide composites for water splitting. International Journal of Hydrogen Energy, 2021, 46, 10850-10861.	3.8	11
25	Exfoliation and Noncovalent Functionalization of Graphene Surface with Poly-N-Vinyl-2-Pyrrolidone by In Situ Polymerization. Molecules, 2021, 26, 1534.	1.7	12
26	A Short Review on Recent Advances of Hydrogel-Based Adsorbents for Heavy Metal lons. Metals, 2021, 11, 864.	1.0	24
27	Synthetic disposable material derived-carbon supported NiO: Efficient hybrid electrocatalyst for water oxidation process. Fuel, 2021, 294, 120558.	3.4	16
28	Biowaste-originated heteroatom-doped porous carbonaceous material for electrochemical energy storage application. Journal of Industrial and Engineering Chemistry, 2021, 98, 308-317.	2.9	51
29	N-Doped Mesoporous Carbon Prepared from a Polybenzoxazine Precursor for High Performance Supercapacitors. Polymers, 2021, 13, 2048.	2.0	16
30	Electrochemically exfoliated graphene sheets as electrode material for aqueous symmetric supercapacitors. Surface and Coatings Technology, 2021, 416, 127150.	2.2	32
31	Biocompatible MXene (Ti3C2Tx) Immobilized with Flavin Adenine Dinucleotide as an Electrochemical Transducer for Hydrogen Peroxide Detection in Ovarian Cancer Cell Lines. Micromachines, 2021, 12, 862.	1.4	15
32	Recent Studies on Dispersion of Graphene–Polymer Composites. Polymers, 2021, 13, 2375.	2.0	32
33	Leftover Kiwi Fruit Peel-Derived Carbon Dots as a Highly Selective Fluorescent Sensor for Detection of Ferric Ion. Chemosensors, 2021, 9, 166.	1.8	54
34	Deep eutectic solvent assisted electrosynthesis of ruthenium nanoparticles on stainless steel mesh for electrocatalytic hydrogen evolution reaction. Fuel, 2021, 297, 120786.	3.4	32
35	Sustainable synthesis of multifunctional carbon dots using biomass and their applications: A mini-review. Journal of Environmental Chemical Engineering, 2021, 9, 105802.	3.3	61
36	Chitin and chitosan based biopolymer derived electrode materials for supercapacitor applications: A critical review. Journal of Industrial and Engineering Chemistry, 2021, 104, 155-171.	2.9	82

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37	Zirconium oxide intercalated sodium montmorillonite scaffold as an effective adsorbent for the elimination of phosphate and hexavalent chromium ions. Journal of Environmental Chemical Engineering, 2021, 9, 106053.	3.3	22
38	The synthesis of mechanically stable polybenzoxazine-based porous carbon and its application as high-performance supercapacitor electrodes. New Journal of Chemistry, 2021, 45, 8738-8746.	1.4	7
39	Highly Fluorescent Carbon Dots as a Potential Fluorescence Probe for Selective Sensing of Ferric Ions in Aqueous Solution. Chemosensors, 2021, 9, 301.	1.8	15
40	Betel leaf derived multicolor emitting carbon dots as a fluorescent probe for imaging mouse normal fibroblast and human thyroid cancer cells. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 136, 115010.	1.3	10
41	Photocatalytic degradation of persistent brilliant green dye in water using CeO2/ZnO nanospheres. Chemical Engineering Research and Design, 2021, 156, 457-464.	2.7	14
42	Sustainable Synthesis of Silver Nanoparticles Using Marine Algae for Catalytic Degradation of Methylene Blue. Catalysts, 2021, 11, 1377.	1.6	22
43	Facile hydrothermal synthesis of nitrogen rich blue fluorescent carbon dots for cell bio-imaging of Candida albicans. Process Biochemistry, 2020, 88, 113-119.	1.8	35
44	Influence of annealing temperature in nitrogen doped porous carbon balls derived from hypercross-linked polymer of anthracene for supercapacitor applications. Journal of Energy Storage, 2020, 28, 101196.	3.9	36
45	Eco-friendly synthesis of tunable fluorescent carbon nanodots from Malus floribunda for sensors and multicolor bioimaging. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 390, 112336.	2.0	38
46	Pulsed laser rusted stainless steel: a robust electrode material applied for energy storage and generation applications. Sustainable Energy and Fuels, 2020, 4, 1242-1253.	2.5	11
47	Metal-free nitrogen-rich glassy carbon as an electrocatalyst for hydrogen evolution reaction. Materials Research Bulletin, 2020, 124, 110734.	2.7	15
48	Rapid response and highly selective sensing of adenosine based on novel photoluminescent vanadium nanoclusters anchored on MoS2 nanosheets. Sensors and Actuators B: Chemical, 2020, 306, 127581.	4.0	10
49	Multicolor-emitting carbon dots from Malus floribunda and their interaction with Caenorhabditis elegans. Materials Letters, 2020, 261, 127153.	1.3	19
50	A review on porous carbon electrode material derived from hypercross-linked polymers for supercapacitor applications. Journal of Energy Storage, 2020, 32, 101831.	3.9	102
51	Catalytic degradation of organic dyes using green synthesized N-doped carbon supported silver nanoparticles. Fuel, 2020, 280, 118682.	3.4	67
52	Facile synthesis of a novel nitrogen-doped carbon dot adorned zinc oxide composite for photodegradation of methylene blue. Dalton Transactions, 2020, 49, 17725-17736.	1.6	70
53	Novel 13X Zeolite/PANI electrocatalyst for hydrogen and oxygen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 28337-28349.	3.8	38
54	Solid Waste-Derived Carbon Fibers-Trapped Nickel Oxide Composite Electrode for Energy Storage Application. Energy & Storage &	2.5	27

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55	Graphene oxide-embedded chitosan/gelatin hydrogel particles for the adsorptions of multiple heavy metal ions. Journal of Materials Science, 2020, 55, 9354-9363.	1.7	39
56	Antibacterial and antibiofilm activities of diphyllin against fish pathogens. Microbial Pathogenesis, 2020, 145, 104232.	1.3	13
57	Green Synthesis of SnO2 Nanoparticles for Catalytic Degradation of Rhodamine B. Iranian Journal of Science and Technology, Transaction A: Science, 2020, 44, 661-676.	0.7	18
58	One-pot synthesis of Fe3O4@graphite sheets as electrocatalyst for water electrolysis. Fuel, 2020, 277, 118235.	3.4	26
59	Novel electrode material derived from porous polymeric organic framework of phloroglucinol and terephthaldehyde for symmetric supercapacitors. Journal of Energy Storage, 2020, 28, 101283.	3.9	39
60	Hydrophilic nitrogen-doped carbon dots from biowaste using dwarf banana peel for environmental and biological applications. Fuel, 2020, 275, 117821.	3.4	273
61	A novel binder-free electro-synthesis of hierarchical nickel sulfide nanostructures on nickel foam as a battery-type electrode for hybrid-capacitors. Fuel, 2020, 276, 118077.	3.4	34
62	Synthesis and properties of polytriazoleimide containing anthracene, pyridine and 1, 2, 3â€triazole groups and their nanocomposites with titanium dioxide. Polymer Engineering and Science, 2019, 59, 129-138.	1.5	8
63	Enhanced solubility of guanosine by inclusion complexes with cyclodextrin derivatives: Preparation, characterization, and evaluation. Carbohydrate Polymers, 2019, 224, 115166.	5.1	48
64	Green synthesis of nitrogen-doped carbon nanograss for supercapacitors. Journal of the Taiwan Institute of Chemical Engineers, 2019, 102, 475-486.	2.7	53
65	Betel-derived nitrogen-doped multicolor carbon dots for environmental and biological applications. Journal of Molecular Liquids, 2019, 296, 111817.	2.3	161
66	Polyaniline–13X zeolite compositeâ€supported platinum electrocatalysts for direct methanol fuel cell applications. Polymer International, 2019, 68, 929-935.	1.6	8
67	Direct electro-synthesis of MnO2 nanoparticles over nickel foam from spent alkaline battery cathode and its supercapacitor performance. Journal of the Taiwan Institute of Chemical Engineers, 2019, 97, 414-423.	2.7	26
68	Spherical Chitosan/Gelatin Hydrogel Particles for Removal of Multiple Heavy Metal Ions from Wastewater. Industrial & Engineering Chemistry Research, 2019, 58, 9900-9907.	1.8	64
69	Sustainability and antimicrobial assessments of apigenin based polybenzoxazine film. Polymer, 2019, 172, 100-109.	1.8	23
70	Fabrication of ZnO nanoparticles adorned nitrogen-doped carbon balls and their application in photodegradation of organic dyes. Scientific Reports, 2019, 9, 19509.	1.6	53
71	Electrocatalytic and energy storage performance of bio-derived sulphur-nitrogen-doped carbon. Journal of Electroanalytical Chemistry, 2019, 833, 357-369.	1.9	50
72	Green synthesized multiple fluorescent nitrogen-doped carbon quantum dots as an efficient label-free optical nanoprobe for in vivo live-cell imaging. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 372, 99-107.	2.0	112

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73	Effect of microwave power irradiation on TiO2 nano-structures and binder free paste screen printed dye sensitized solar cells. Ceramics International, 2019, 45, 4667-4673.	2.3	20
74	Electro-synthesis of sulfur doped nickel cobalt layered double hydroxide for electrocatalytic hydrogen evolution reaction and supercapacitor applications. Journal of Electroanalytical Chemistry, 2019, 833, 105-112.	1.9	47
75	An ultrasensitive photoelectrochemical biosensor for glucose based on bio-derived nitrogen-doped carbon sheets wrapped titanium dioxide nanoparticles. Biosensors and Bioelectronics, 2019, 126, 160-169.	5.3	121
76	Direct growth of iron oxide nanoparticles filled multi-walled carbon nanotube via chemical vapour deposition method as high-performance supercapacitors. International Journal of Hydrogen Energy, 2019, 44, 2349-2360.	3.8	60
77	Facile synthesis of carbon encapsulated RuO2 nanorods for supercapacitor and electrocatalytic hydrogen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 2323-2329.	3.8	98
78	Polybenzoxazine originated N-doped mesoporous carbon ropes as an electrode material for high-performance supercapacitors. Journal of Alloys and Compounds, 2018, 750, 384-391.	2.8	52
79	Synthesis, characterization, and antiproliferative and apoptosis inducing effects of novel <i>s</i> -triazine derivatives. New Journal of Chemistry, 2018, 42, 1698-1714.	1.4	11
80	High-performance glucose biosensor based on green synthesized zinc oxide nanoparticle embedded nitrogen-doped carbon sheet. Journal of Electroanalytical Chemistry, 2018, 816, 195-204.	1.9	97
81	Concurrent synthesis of nitrogen-doped carbon dots for cell imaging and ZnO@nitrogen-doped carbon sheets for photocatalytic degradation of methylene blue. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 350, 75-85.	2.0	114
82	One-pot dual product synthesis of hierarchical Co3O4@N-rGO for supercapacitors, N-GDs for label-free detection of metal ion and bio-imaging applications. Ceramics International, 2018, 44, 2869-2883.	2.3	49
83	Highly fluorescent nitrogen-doped carbon dots derived from Phyllanthus acidus utilized as a fluorescent probe for label-free selective detection of Fe3+ ions, live cell imaging and fluorescent ink. Biosensors and Bioelectronics, 2018, 99, 303-311.	5.3	537
84	Indian Gooseberry-Derived Tunable Fluorescent Carbon Dots as a Promise for In Vitro/In Vivo Multicolor Bioimaging and Fluorescent Ink. ACS Omega, 2018, 3, 17590-17601.	1.6	76
85	Interaction of Zwitterionic and Ionic Monomers with Graphene Surfaces. Langmuir, 2018, 34, 6737-6747.	1.6	11
86	Hydrothermal conversion of Magnolia liliiflora into nitrogen-doped carbon dots as an effective turn-off fluorescence sensing, multi-colour cell imaging and fluorescent ink. Colloids and Surfaces B: Biointerfaces, 2018, 169, 321-328.	2.5	134
87	In-situ green synthesis of nitrogen-doped carbon dots for bioimaging and TiO2 nanoparticles@nitrogen-doped carbon composite for photocatalytic degradation of organic pollutants. Journal of Alloys and Compounds, 2018, 766, 12-24.	2.8	120
88	Binder-free electro-synthesis of highly ordered nickel oxide nanoparticles and its electrochemical performance. Electrochimica Acta, 2018, 283, 1609-1617.	2.6	44
89	Facile one-pot synthesis of novel structured IONP@C-HIOP composite as superior electrocatalyst for hydrogen evolution reaction and aqueous waste investigation of bio-imaging applications. Journal of Molecular Liquids, 2018, 268, 343-353.	2.3	20
90	Direct synthesis of nitrogen-rich carbon sheets via polybenzoxazine as highly active electrocatalyst for water splitting. International Journal of Hydrogen Energy, 2018, 43, 13266-13275.	3.8	30

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91	Direct solvothermal synthesis of zinc oxide nanoparticle decorated graphene oxide nanocomposite for efficient photodegradation of azo-dyes. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 337, 100-111.	2.0	87
92	Facile green synthesis of nitrogen-doped carbon dots using Chionanthus retusus fruit extract and investigation of their suitability for metal ion sensing and biological applications. Sensors and Actuators B: Chemical, 2017, 246, 497-509.	4.0	301
93	Green synthesized N-doped graphitic carbon sheets coated carbon cloth as efficient metal free electrocatalyst for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2017, 42, 14390-14399.	3.8	82
94	Energy and environmental applications of ultrasonically sulfur doped copper-nickel hydroxides with heterostructures. Journal of Alloys and Compounds, 2017, 729, 126-136.	2.8	16
95	Ultrasonic synthesis, characterization and energy applications of Ni–B alloy nanorods. Journal of the Taiwan Institute of Chemical Engineers, 2017, 80, 901-907.	2.7	18
96	Effective photocatalytic degradation of anthropogenic dyes using graphene oxide grafting titanium dioxide nanoparticles under UV-light irradiation. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 333, 92-104.	2.0	123
97	Effect of preparation methods on structure and catalytic activity of Ni loaded Ce $\times$ Zr1â°'x O2 catalysts for hydrogen production via autothermal reforming of ethane. Research on Chemical Intermediates, 2017, 43, 2817-2837.	1.3	7
98	Green synthesis of nitrogen-doped graphitic carbon sheets with use of Prunus persica for supercapacitor applications. Applied Surface Science, 2017, 393, 276-286.	3.1	146
99	Microwave assisted green synthesis of fluorescent N-doped carbon dots: Cytotoxicity and bio-imaging applications. Journal of Photochemistry and Photobiology B: Biology, 2016, 161, 154-161.	1.7	261
100	Catalytic Influence of Bimetallic Bifunctional Ni-Pd/H- $\hat{l}^2$ and H-Mordenite Nanoporous Catalysts for Hydroisomerisation of n-Octane. Journal of Cluster Science, 2016, 27, 1109-1129.	1.7	3
101	Caulerpa racemosa: a marine green alga for eco-friendly synthesis of silver nanoparticles and its catalytic degradation of methylene blue. Bioprocess and Biosystems Engineering, 2016, 39, 1401-1408.	1.7	126
102	Efficient synthesis of highly fluorescent nitrogen-doped carbon dots for cell imaging using unripe fruit extract of Prunus mume. Applied Surface Science, 2016, 384, 432-441.	3.1	177
103	Supercapacitor performance of carbon supported Co3O4 nanoparticles synthesized using Terminalia chebula fruit. Journal of the Taiwan Institute of Chemical Engineers, 2016, 68, 489-495.	2.7	72
104	Nitrogen-doped carbon dots originating from unripe peach for fluorescent bioimaging and electrocatalytic oxygen reduction reaction. Journal of Colloid and Interface Science, 2016, 482, 8-18.	5.0	268
105	Reductive-degradation of carcinogenic azo dyes using Anacardium occidentale testa derived silver nanoparticles. Journal of Photochemistry and Photobiology B: Biology, 2016, 162, 604-610.	1.7	143
106	Facile synthesis of zinc oxide nanoparticles decorated graphene oxide composite via simple solvothermal route and their photocatalytic activity on methylene blue degradation. Journal of Photochemistry and Photobiology B: Biology, 2016, 162, 500-510.	1.7	203
107	Optical Sensor for Dissolved Ammonia Through the Green Synthesis of Silver Nanoparticles by Fruit Extract of Terminalia chebula. Journal of Cluster Science, 2016, 27, 683-690.	1.7	45
108	Turn-off fluorescence sensor for the detection of ferric ion in water using green synthesized N-doped carbon dots and its bio-imaging. Journal of Photochemistry and Photobiology B: Biology, 2016, 158, 235-242.	1.7	271

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109	Facile synthesis of monodisperse hollow carbon nanospheres using sucrose by carbonization route. Materials Letters, 2016, 166, 145-149.	1.3	47
110	Synthesis and characterization of graphitic mesoporous carbon using metal–metal oxide by chemical vapor deposition method. Microporous and Mesoporous Materials, 2015, 215, 123-132.	2.2	59
111	Highly graphitic carbon nanosheets synthesized over tailored mesoporous molecular sieves using acetylene by chemical vapor deposition method. RSC Advances, 2015, 5, 93364-93373.	1.7	59
112	Effects of Nanofillers on the Thermo-Mechanical Properties and Chemical Resistivity of Epoxy Nanocomposites. Journal of Nanoscience and Nanotechnology, 2015, 15, 4255-4267.	0.9	59
113	Synthesis and characterization of graphenated carbon nanotubes on IONPs using acetylene by chemical vapor deposition method. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 74, 355-362.	1.3	32
114	An efficient synthesis of graphenated carbon nanotubes over the tailored mesoporous molecular sieves by chemical vapor deposition. Materials Research Bulletin, 2013, 48, 2205-2212.	2.7	37
115	Synthesis of multilayer graphene balls on mesoporous Co-MCM-41 molecular sieves by chemical vapour deposition method. Microporous and Mesoporous Materials, 2013, 175, 161-169.	2.2	52
116	Growth of ordered multi-walled carbon nanotubes over mesoporous 3D cubic Zn/Fe-KIT-6 molecular sieves and its use in the fabrication of epoxy nanocomposites. Microporous and Mesoporous Materials, 2013, 167, 162-175.	2.2	33
117	Synthesis of MWCNTs by the decomposition of acetylene over mesoporous Ni/Cr-MCM-41 catalyst and its functionalization. Journal of Porous Materials, 2012, 19, 797-805.	1.3	13
118	The use of bimetallic MCM-41 mesoporous catalysts for the synthesis of MWCNTs by chemical vapor deposition. Journal of Molecular Catalysis A, 2012, 355, 75-84.	4.8	22