Zhi-Yong Gao

List of Publications by Year
in descending order

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99 papers	4,855 citations	87843 38 h-index	106281 65 g-index
99 all docs	99 docs citations	99 times ranked	5963 citing authors

#	Article	IF	Citations
1	A green and scalable route to yield porous carbon sheets from biomass for supercapacitors with high capacity. Journal of Materials Chemistry A, 2018, 6, 1244-1254.	5.2	360
2	Activated porous carbon prepared from paulownia flower for high performance supercapacitor electrodes. Electrochimica Acta, 2015, 157, 290-298.	2.6	223
3	Nitrogen-doped two-dimensional porous carbon sheets derived from clover biomass for high performance supercapacitors. Journal of Power Sources, 2017, 363, 375-383.	4.0	192
4	Synthesis of ZnO/CdS hierarchical heterostructure with enhanced photocatalytic efficiency under nature sunlight. CrystEngComm, 2012, 14, 3615.	1.3	181
5	Grapheneâ€“CdS composite, synthesis and enhanced photocatalytic activity. Applied Surface Science, 2012, 258, 2473-2478.	3.1	177
6	Biomass derived nitrogen-doped hierarchical porous carbon sheets for supercapacitors with high performance. Journal of Colloid and Interface Science, 2018, 523, 133-143.	5.0	170
7	Chemically grafted graphene-polyaniline composite for application in supercapacitor. Electrochimica Acta, 2014, 133, 325-334.	2.6	154
8	Porous Co3S4@Ni3S4 heterostructure arrays electrode with vertical electrons and ions channels for efficient hybrid supercapacitor. Chemical Engineering Journal, 2018, 343, 572-582.	6.6	154
9	Nitrogen-Doped Porous Carbons As Electrode Materials for High-Performance Supercapacitor and Dye-Sensitized Solar Cell. ACS Applied Materials & Interfaces, 2015, 7, 20234-20244.	4.0	129
10	Nanocage-Based N-Rich Metalâ€“Organic Framework for Luminescence Sensing toward Fe³⁺ and Cu²⁺ Ions. Inorganic Chemistry, 2021, 60, 671-681.	1.9	97
11	Boron and nitrogen Co-doped holey graphene aerogels with rich Bâ€“N motifs for flexible supercapacitors. Carbon, 2020, 159, 94-101.	5.4	92
12	Mesocrystalline Cu2O hollow nanocubes: synthesis and application in non-enzymatic amperometric detection of hydrogen peroxide and glucose. CrystEngComm, 2012, 14, 6639.	1.3	91
13	Fluorescent carbon dots as nanoprobe for determination of lidocaine hydrochloride. Sensors and Actuators B: Chemical, 2018, 262, 928-937.	4.0	88
14	Ultra-thin Bi2WO6 porous nanosheets with high lattice coherence for enhanced performance for photocatalytic reduction of Cr(VI). Journal of Colloid and Interface Science, 2018, 525, 97-106.	5.0	84
15	Graphene incorporated, N doped activated carbon as catalytic electrode in redox active electrolyte mediated supercapacitor. Journal of Power Sources, 2017, 337, 25-35.	4.0	81
16	Catalytic electrode-redox electrolyte supercapacitor system with enhanced capacitive performance. Chemical Engineering Journal, 2018, 335, 590-599.	6.6	76
17	Ultrasonic-assisted synthesis of two dimensional BiOCl/MoS2 with tunable band gap and fast charge separation for enhanced photocatalytic performance under visible light. Journal of Colloid and Interface Science, 2019, 533, 539-547.	5.0	75
18	CoS2â€“graphene composite as efficient catalytic counter electrode for dye-sensitized solar cell. Electrochimica Acta, 2013, 114, 173-179.	2.6	71

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19	Fish-scale-derived carbon dots as efficient fluorescent nanoprobes for detection of ferric ions. RSC Advances, 2019, 9, 940-949.	1.7	71
20	Oxygen-incorporated few-layer MoS2 vertically aligned on three-dimensional graphene matrix for enhanced catalytic performances in quantum dot sensitized solar cells. Carbon, 2017, 123, 756-766.	5.4	67
21	Br doped porous bismuth oxychloride micro-sheets with rich oxygen vacancies and dominating {0â€¯0â€¯1} facets for enhanced nitrogen photo-fixation performances. Journal of Colloid and Interface Science, 2019, 556, 111-119.	5.0	66
22	Synthesis of ZnO/Ag/graphene composite and its enhanced photocatalytic efficiency. Materials Research Bulletin, 2013, 48, 2066-2070.	2.7	61
23	Enhanced cycleability of faradic CoNi2S4 electrode by reduced graphene oxide coating for efficient asymmetric supercapacitor. Electrochimica Acta, 2018, 281, 394-404.	2.6	59
24	Mesoporous Cu2O submicro-spheres, facile synthesis and the selective adsorption properties. Chemical Engineering Journal, 2012, 185-186, 151-159.	6.6	58
25	Revealing the chirality origin and homochirality crystallization of Ag14 nanocluster at the molecular level. Nature Communications, 2021, 12, 4966.	5.8	57
26	Two dimensional graphitic-phase C3N4 as multifunctional protecting layer for enhanced short-circuit photocurrent in ZnO based dye-sensitized solar cells. Chemical Engineering Journal, 2015, 280, 441-447.	6.6	56
27	Enhanced faradic activity by construction of p-n junction within reduced graphene oxide@cobalt nickel sulfide@nickle cobalt layered double hydroxide composite electrode for charge storage in hybrid supercapacitor. Journal of Colloid and Interface Science, 2021, 590, 114-124.	5.0	53
28	Application of hierarchical TiO2 spheres as scattering layer for enhanced photovoltaic performance in dye sensitized solar cell. CrystEngComm, 2013, 15, 3351.	1.3	52
29	ZnCo2O4-reduced graphene oxide composite with balanced capacitive performance in asymmetric supercapacitors. Applied Surface Science, 2018, 442, 138-147.	3.1	52
30	Fluorine anion-enriched nickel hydroxyl oxide as an efficient oxygen evolution reaction electrocatalyst. Chemical Communications, 2019, 55, 3406-3409.	2.2	50
31	Grapheneâ€“Au composite sensor for electrochemical detection of para-nitrophenol. Research on Chemical Intermediates, 2012, 38, 2443-2455.	1.3	47
32	Nitrogen doped porous graphene as counter electrode for efficient dye sensitized solar cell. Electrochimica Acta, 2016, 188, 441-449.	2.6	47
33	Balanced energy density and power density: Asymmetric supercapacitor based on activated fullerene carbon soot anode and graphene-Co3O4 composite cathode. Electrochimica Acta, 2018, 260, 932-943.	2.6	46
34	Synthesis of ZnO/CdSe hierarchical heterostructure with improved visible photocatalytic efficiency. Applied Surface Science, 2013, 274, 39-44.	3.1	45
35	Green synthesis of boron and nitrogen co-doped TiO2 with rich B-N motifs as Lewis acid-base couples for the effective artificial CO2 photoreduction under simulated sunlight. Journal of Colloid and Interface Science, 2021, 585, 95-107.	5.0	44
36	Au nanoparticle decorated WO₃ photoelectrode for enhanced photoelectrochemical properties. RSC Advances, 2015, 5, 60339-60344.	1.7	42

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37	Multi-dimensional titanium dioxide with desirable structural qualities for enhanced performance in quantum-dot sensitized solar cells. Journal of Power Sources, 2015, 282, 202-210.	4.0	40
38	Promoting sulphur conversion chemistry with tri-modal porous N, O-codoped carbon for stable Liâ€“S batteries. Journal of Materials Chemistry A, 2021, 9, 5497-5506.	5.2	40
39	Toward Controlled Syntheses of Diphosphine-Protected Homochiral Gold Nanoclusters through Precursor Engineering. ACS Nano, 2021, 15, 16019-16029.	7.3	40
40	Solvothermal synthesis of graphene-Sb2S3 composite and the degradation activity under visible light. Materials Research Bulletin, 2013, 48, 538-543.	2.7	39
41	Hierarchically porous carbons with graphene incorporation for efficient supercapacitors. Electrochimica Acta, 2016, 213, 382-392.	2.6	39
42	CoNi alloy incorporated, N doped porous carbon as efficient counter electrode for dye-sensitized solar cell. Journal of Power Sources, 2017, 348, 158-167.	4.0	39
43	Nitrogen-doped porous carbon encapsulated nickel iron alloy nanoparticles, one-step conversion synthesis for application as bifunctional catalyst for water electrolysis. Electrochimica Acta, 2021, 389, 138785.	2.6	39
44	Hierarchical titania mesoporous sphere/graphene composite, synthesis and application as photoanode in dye sensitized solar cells. Journal of Colloid and Interface Science, 2013, 394, 231-236.	5.0	37
45	ZnO Nanorods with Tunable Aspect Ratios Deriving from Oriented-attachment for Enhanced Performance in Quantum-dot Sensitized Solar Cells. Electrochimica Acta, 2017, 231, 1-12.	2.6	36
46	Cobalt nanoparticles embedded nitrogen doped carbon, preparation from alkali deprotonation assisted ZIF-67 and its electrocatalytic performance in oxygen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 12787-12797.	3.8	36
47	Anatase TiO₂nanocrystals enclosed by well-defined crystal facets and their application in dye-sensitized solar cell. CrystEngComm, 2013, 15, 516-523.	1.3	35
48	Ni and nitrogen-codoped ultrathin carbon nanosheets with strong bonding sites for efficient CO2 electrochemical reduction. Journal of Colloid and Interface Science, 2020, 570, 31-40.	5.0	33
49	Precise Implantation of an Archimedean Ag@Cu₁₂ Cuboctahedron into a Platonic Cu₄Bis(diphenylphosphino)hexane₆ Tetrahedron. ACS Nano, 2021, 15, 8733-8741.	7.3	33
50	Realâ€Time Fluorescent Monitoring of Kinetically Controlled Supramolecular Selfâ€Assembly of Atomâ€Precise Cu₈ Nanocluster. Angewandte Chemie - International Edition, 2022, 61, .	7.2	32
51	Janus Cluster: Asymmetric Coverage of a Ag₄₃ Cluster on the Symmetric Preyssler P₅W₃₀ Polyoxometalate. Chemistry of Materials, 2021, 33, 9708-9714.	3.2	32
52	A significant cathodic shift in the onset potential and enhanced photoelectrochemical water splitting using Au nanoparticles decorated WO3 nanorod array. Journal of Colloid and Interface Science, 2015, 458, 194-199.	5.0	30
53	Preparation of TiO2 microspheres with tunable pore and chamber size for fast gaseous diffusion in photoreduction of CO2 under simulated sunlight. Journal of Colloid and Interface Science, 2019, 539, 194-202.	5.0	29
54	Co3O4@Ni3S4 heterostructure composite constructed by low dimensional components as efficient battery electrode for hybrid supercapacitor. Electrochimica Acta, 2020, 353, 136501.	2.6	29

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55	Solvent-Induced Isomeric Cu₁₃ Nanoclusters: Chlorine to Copper Charge Transfer Boosting Molecular Oxygen Activation in Sulfide Selective Oxidation. ACS Nano, 2022, 16, 9598-9607.	7.3	28
56	Electrochemical energy storage and adsorptive dye removal of Platanus fruit-derived porous carbon. RSC Advances, 2015, 5, 15969-15976.	1.7	27
57	Solventâ€Controlled Condensation of [Mo₂O₅(PTC4A)₂]^{6â^'} Metalloligand in Stepwise Assembly of Hexagonal and Rectangular Ag₁₈ Nanoclusters. Angewandte Chemie - International Edition, 2022, 61, .	7.2	27
58	Fluorescent carbon quantum dots, capacitance and catalysis active porous carbon microspheres from beer. RSC Advances, 2015, 5, 48665-48674.	1.7	26
59	In Situ Capture of a Ternary Supramolecular Cluster in a 58-Nuclei Silver Supertetrahedron. CCS Chemistry, 2022, 4, 1788-1795.	4.6	26
60	Keggin-Type Tridecanuclear Europium-Oxo Nanocluster Protected by Silsesquioxanes. Chemistry of Materials, 2022, 34, 4186-4194.	3.2	26
61	Nitrogen Doped Microporous Carbons with Tunable and Selective performances in Supercapacitor and Heterogeneous Catalysis. Electrochimica Acta, 2016, 190, 912-922.	2.6	25
62	Micelles directed preparation of ternary cobalt hydroxide carbonate-nickel hydroxide-reduced graphene oxide composite porous nanowire arrays with superior faradic capacitance performance. Journal of Colloid and Interface Science, 2019, 534, 563-573.	5.0	25
63	Sealed pre-carbonization to regulate the porosity and heteroatom sites of biomass derived carbons for lithium-sulfur batteries. Journal of Colloid and Interface Science, 2020, 579, 667-679.	5.0	24
64	Graphene sheets anchored with high density TiO₂nanocrystals and their application in quantum dot-sensitized solar cells. RSC Advances, 2014, 4, 2068-2072.	1.7	23
65	Robust Heterometallic Co^{II}La^{III}₂â€“Organic Framework for the Highly Efficient Separation of Acetylene from Light Hydrocarbon Mixtures. Inorganic Chemistry, 2021, 60, 2878-2882.	1.9	23
66	Anionic passivation layer-assisted trapping of an icosahedral Ag13 kernel in a truncated tetrahedral Ag89 nanocluster. Science China Chemistry, 2021, 64, 1482-1486.	4.2	23
67	Nanosheet-based hierarchical ZnO structure decorated with TiO2 particles for enhanced performance in dye-sensitized solar cell. CrystEngComm, 2012, 14, 7934.	1.3	22
68	Hierarchical TiO2 Structures Derived from Fâ^' Mediated Oriented Assembly as Triple-functional Photoanode Material for Improved Performances in CdS/CdSe Sensitized Solar Cells. Electrochimica Acta, 2017, 248, 79-89.	2.6	22
69	In-situ synthesis of molybdenum sulfide/reduced graphene oxide porous film as robust counter electrode for dye-sensitized solar cells. Journal of Colloid and Interface Science, 2018, 524, 475-482.	5.0	22
70	Highly fluorescent carbon dots as an efficient nanoprobe for detection of clomifene citrate. RSC Advances, 2019, 9, 6084-6093.	1.7	21
71	The effect of Fe(III) cations in electrolyte on oxygen evolution catalytic activity of Ni(OH)2 electrode. Journal of Colloid and Interface Science, 2020, 569, 50-56.	5.0	21
72	Pyrolytic synthesis of carbon quantum dots, and their photoluminescence properties. Research on Chemical Intermediates, 2015, 41, 813-819.	1.3	20

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73	Ultrathin NiAl layered double hydroxide-reduced graphene oxide composite nanosheets array with high battery performances for hybrid supercapacitor and hybrid battery. Applied Surface Science, 2021, 538, 148106.	3.1	20
74	Octagold selenido nanoclusters: Significance of surface ligands on tuning geometric and electronic structure of Au8Se2 kernel. Nano Research, 2021, 14, 3343-3351.	5.8	19
75	Molybdenum oxide-iron, cobalt, copper alloy hybrid as efficient bifunctional catalyst for alkali water electrolysis. Journal of Colloid and Interface Science, 2022, 606, 1662-1672.	5.0	19
76	Nuclearity enlargement from [PW9O34@Ag51] to [(PW9O34)2@Ag72] and 2D and 3D network formation driven by bipyridines. Nature Communications, 2022, 13, 1802.	5.8	19
77	Nitrogen, phosphorus, sulfur tri-doped porous carbon derived from covalent polymer with versatile performances in supercapacitor, oxygen reduction reaction and electro-fenton degradation. Microporous and Mesoporous Materials, 2021, 325, 111335.	2.2	18
78	Heterogeneous three-dimensional TiO2/ZnO nanorod array for enhanced photoelectrochemical water splitting properties. Journal of Nanoparticle Research, 2017, 19, 1.	0.8	17
79	Al doped Co hydroxyl fluoride nanosheets arrays as efficient faradaic electrode for hybrid supercapacitor. Electrochimica Acta, 2019, 323, 134815.	2.6	17
80	Bi-functional nitrogen-doped carbon protective layer on three-dimensional RGO/SnO2 composites with enhanced electron transport and structural stability for high-performance lithium-ion batteries. Journal of Colloid and Interface Science, 2019, 542, 81-90.	5.0	17
81	Core engineering of paired core-shell silver nanoclusters. Science China Chemistry, 2021, 64, 2118-2124.	4.2	17
82	Tunable synthesis of single-crystalline-like TiO2 mesocrystals and their application as effective scattering layer in dye-sensitized solar cells. Journal of Colloid and Interface Science, 2015, 456, 125-131.	5.0	16
83	Room-temperature synthesis of pompon-like ZnO hierarchical structures and their enhanced photocatalytic properties. Research on Chemical Intermediates, 2012, 38, 1579-1589.	1.3	15
84	Enhanced photoelectrochemical performance with in-situ Au modified TiO2 nanorod arrays as photoanode. Journal of Alloys and Compounds, 2016, 688, 914-920.	2.8	14
85	Plasmon resonance energy transfer and hot electron injection induced high photocurrent density in liquid junction Ag@Ag₂S sensitized solar cells. Dalton Transactions, 2016, 45, 16275-16282.	1.6	14
86	Heterostructured nickel, iron sulfide@nitrogen, sulfur co-doped carbon hybrid with efficient interfacial charge redistribution as bifunctional catalyst for water electrolysis. Applied Catalysis A: General, 2022, 630, 118459.	2.2	14
87	Solvothermal synthesis of antimony sulfide dendrites for electrochemical detection of dopamine. Dalton Transactions, 2013, 42, 11411.	1.6	12
88	A Carbonate-Templated Decanuclear Mn Nanocage with Two Different Silsesquioxane Ligands. Inorganic Chemistry, 2021, 60, 14866-14871.	1.9	11
89	Green synthesis of N-doped porous carbon/carbon dot composites as metal-free catalytic electrode materials for iodide-mediated quasi-solid flexible supercapacitors. Inorganic Chemistry Frontiers, 2022, 9, 2530-2543.	3.0	9
90	N, P-dual doped carbonaceous catalysts derived from bifunctional-salt activation for effective electro-Fenton degradation on waterborne organic pollutions. Electrochimica Acta, 2021, 389, 138732.	2.6	8

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91	Carboxylic acid-tuned nickel(<scp>ii</scp>) clusters: syntheses, structures, solution behaviours and magnetic properties. Dalton Transactions, 2021, 50, 4355-4362.	1.6	7
92	Room temperature synthesis of grapheneâ€“platinum composite as counter electrode for efficient dye-sensitized solar cell. RSC Advances, 2015, 5, 32096-32102.	1.7	6
93	Silicaâ€“Organometallic One-Dimensional Hybrid Employing a Agâ^'Ï€_{Câ•C} Bond Connecting Alternating Ag₄(NO₃)₄ and Octavinylsilsesquioxane. Inorganic Chemistry, 2021, 60, 2899-2904.	1.9	6
94	Thermally Hypsochromic or Bathochromic Emissions? The Silver Nuclei Does Matter. Small, 2022, 18, e2104524.	5.2	6
95	Realâ€Time Fluorescent Monitoring of Kinetically Controlled Supramolecular Selfâ€Assembly of Atomâ€Precise Cu₈ Nanocluster. Angewandte Chemie, 2022, 134, .	1.6	6
96	Bare Ni foam electrode-ferricyanides redox electrolyte system with high capacitive performance. International Journal of Hydrogen Energy, 2019, 44, 10554-10560.	3.8	5
97	Structural rearrangement of Ag60 nanocluster endowing different luminescence performances. Journal of Chemical Physics, 2021, 155, 234303.	1.2	5
98	4,4,5,5-Tetramethyl-2-(4-pyridinio)-2-imidazoline-1-oxyl-3-oxide perchlorate. Acta Crystallographica Section E: Structure Reports Online, 2009, 65, o1062-o1062.	0.2	1
99	Precipitation of mixed Caâ€“Ba, Caâ€“Cd and Caâ€“Mn carbonates with distinct morphologies under cooperativity of divalent metal ions and protein. Research on Chemical Intermediates, 2016, 42, 6733-6743.	1.3	0