Zhenghui Kang

List of Publications by Year
in descending order

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308 papers	31,703 citations	6254 80 h-index	4774 169 g-index
314 all docs	314 docs citations	314 times ranked	25224 citing authors

#	Article	IF	Citations
1	Metal-free efficient photocatalyst for stable visible water splitting via a two-electron pathway. Science, 2015, 347, 970-974.	12.6	3,803
2	Carbon nanodots: synthesis, properties and applications. Journal of Materials Chemistry, 2012, 22, 24230.	6.7	2,339
3	Waterâ€Soluble Fluorescent Carbon Quantum Dots and Photocatalyst Design. Angewandte Chemie - International Edition, 2010, 49, 4430-4434.	13.8	2,258
4	One-step ultrasonic synthesis of water-soluble carbon nanoparticles with excellent photoluminescent properties. Carbon, 2011, 49, 605-609.	10.3	783
5	Large scale electrochemical synthesis of high quality carbon nanodots and their photocatalytic property. Dalton Transactions, 2012, 41, 9526.	3.3	684
6	Carbon quantum dots/Ag3PO4 complex photocatalysts with enhanced photocatalytic activity and stability under visible light. Journal of Materials Chemistry, 2012, 22, 10501.	6.7	676
7	Highly efficient hydrogen evolution from seawater by a low-cost and stable CoMoP@C electrocatalyst superior to Pt/C. Energy and Environmental Science, 2017, 10, 788-798.	30.8	629
8	In Vivo NIR Fluorescence Imaging, Biodistribution, and Toxicology of Photoluminescent Carbon Dots Produced from Carbon Nanotubes and Graphite. Small, 2012, 8, 281-290.	10.0	625
9	One-step ultrasonic synthesis of fluorescent N-doped carbon dots from glucose and their visible-light sensitive photocatalytic ability. New Journal of Chemistry, 2012, 36, 861.	2.8	493
10	Carbon Quantum Dot/NiFe Layered Double-Hydroxide Composite as a Highly Efficient Electrocatalyst for Water Oxidation. ACS Applied Materials & Interfaces, 2014, 6, 7918-7925.	8.0	440
11	Large-scale fabrication of heavy doped carbon quantum dots with tunable-photoluminescence and sensitive fluorescence detection. Journal of Materials Chemistry A, 2014, 2, 8660.	10.3	405
12	C₃Nâ€”A 2D Crystalline, Holeâ€Free, Tunableâ€Narrowâ€Bandgap Semiconductor with Ferromagnetic Properties. Advanced Materials, 2017, 29, 1605625.	21.0	350
13	Carbon quantum dots/Cu2O composites with protruding nanostructures and their highly efficient (near) infrared photocatalytic behavior. Journal of Materials Chemistry, 2012, 22, 17470.	6.7	322
14	Metal Nanoparticle/Carbon Quantum Dot Composite as a Photocatalyst for High-Efficiency Cyclohexane Oxidation. ACS Catalysis, 2014, 4, 328-336.	11.2	297
15	Coupling surface plasmon resonance of gold nanoparticles with slow-photon-effect of TiO2 photonic crystals for synergistically enhanced photoelectrochemical water splitting. Energy and Environmental Science, 2014, 7, 1409.	30.8	288
16	Near-infrared light controlled photocatalytic activity of carbon quantum dots for highly selective oxidation reaction. Nanoscale, 2013, 5, 3289.	5.6	283
17	Carbon quantum dot sensitized TiO2 nanotube arrays for photoelectrochemical hydrogen generation under visible light. Nanoscale, 2013, 5, 2274.	5.6	281
18	Carbon dots as solid-state electron mediator for BiVO4/CDs/CdS Z-scheme photocatalyst working under visible light. Applied Catalysis B: Environmental, 2017, 206, 501-509.	20.2	270

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19	Carbon dots: advances in nanocarbon applications. Nanoscale, 2019, 11, 19214-19224.	5.6	267
20	Graphitic carbon quantum dots as a fluorescent sensing platform for highly efficient detection of Fe3+ ions. RSC Advances, 2013, 3, 3733.	3.6	246
21	Degradable Carbon Dots with Broad-Spectrum Antibacterial Activity. ACS Applied Materials & Interfaces, 2018, 10, 26936-26946.	8.0	246
22	Silicon Quantum Dots:â€‰ A General Photocatalyst for Reduction, Decomposition, and Selective Oxidation Reactions. Journal of the American Chemical Society, 2007, 129, 12090-12091.	13.7	232
23	Carbon Dots: A Small Conundrum. Trends in Chemistry, 2019, 1, 235-246.	8.5	232
24	Facile fabrication of a CoO/g-C₃N₄ pâ€“n heterojunction with enhanced photocatalytic activity and stability for tetracycline degradation under visible light. Catalysis Science and Technology, 2017, 7, 3325-3331.	4.1	224
25	Highly efficient hydrogen evolution triggered by a multi-interfacial Ni/WC hybrid electrocatalyst. Energy and Environmental Science, 2018, 11, 2114-2123.	30.8	224
26	Carbon dots enhance the stability of CdS for visible-light-driven overall water splitting. Applied Catalysis B: Environmental, 2017, 216, 114-121.	20.2	217
27	Study on highly enhanced photocatalytic tetracycline degradation of type â…¡ AgI/CuBi2O4 and Z-scheme AgBr/CuBi2O4 heterojunction photocatalysts. Journal of Hazardous Materials, 2018, 349, 111-118.	12.4	213
28	Installing earth-abundant metal active centers to covalent organic frameworks for efficient heterogeneous photocatalytic CO2 reduction. Applied Catalysis B: Environmental, 2019, 254, 624-633.	20.2	212
29	Advances in carbon dots: from the perspective of traditional quantum dots. Materials Chemistry Frontiers, 2020, 4, 1586-1613.	5.9	208
30	A metal-free photocatalyst for highly efficient hydrogen peroxide photoproduction in real seawater. Nature Communications, 2021, 12, 483.	12.8	193
31	Carbon Quantum Dots with Photoenhanced Hydrogen-Bond Catalytic Activity in Aldol Condensations. ACS Catalysis, 2014, 4, 781-787.	11.2	192
32	Pt-O bond as an active site superior to Pt0 in hydrogen evolution reaction. Nature Communications, 2020, 11, 490.	12.8	184
33	Ultra-High Quantum Yield of Graphene Quantum Dots: Aromatic-Nitrogen Doping and Photoluminescence Mechanism. Particle and Particle Systems Characterization, 2015, 32, 434-440.	2.3	182
34	Carbon dots promote the growth and photosynthesis of mung bean sprouts. Carbon, 2018, 136, 94-102.	10.3	182
35	CoO and g-C3N4 complement each other for highly efficient overall water splitting under visible light. Applied Catalysis B: Environmental, 2018, 226, 412-420.	20.2	176
36	Construction of CDs/CdS photocatalysts for stable and efficient hydrogen production in water and seawater. Applied Catalysis B: Environmental, 2019, 242, 178-185.	20.2	174

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37	Carbon quantum dots enhance the photocatalytic performance of BiVO4 with different exposed facets. Dalton Transactions, 2013, 42, 6285.	3.3	164
38	Fluorescent N-doped carbon dots for both cellular imaging and highly-sensitive catechol detection. Carbon, 2015, 91, 66-75.	10.3	161
39	Crystallized RuTe2 as unexpected bifunctional catalyst for overall water splitting. Applied Catalysis B: Environmental, 2020, 278, 119281.	20.2	161
40	Controllable Fabrication of Carbon Nanotube and Nanobelt with a Polyoxometalate-Assisted Mild Hydrothermal Process. Journal of the American Chemical Society, 2005, 127, 6534-6535.	13.7	160
41	Fluorescent carbon nanoparticles: electrochemical synthesis and their pH sensitive photoluminescence properties. New Journal of Chemistry, 2011, 35, 2666.	2.8	143
42	Impacts of Carbon Dots on Rice Plants: Boosting the Growth and Improving the Disease Resistance. ACS Applied Bio Materials, 2018, 1, 663-672.	4.6	143
43	Carbon Dots as Fillers Inducing Healing/Selfâ€Healing and Anticorrosion Properties in Polymers. Advanced Materials, 2017, 29, 1701399.	21.0	142
44	A Co3O4-CDots-C3N4 three component electrocatalyst design concept for efficient and tunable CO2 reduction to syngas. Nature Communications, 2017, 8, 1828.	12.8	140
45	Cable-like Ru/WNO@C nanowires for simultaneous high-efficiency hydrogen evolution and low-energy consumption chlor-alkali electrolysis. Energy and Environmental Science, 2019, 12, 2569-2580.	30.8	137
46	One-Step Water-Assisted Synthesis of High-Quality Carbon Nanotubes Directly from Graphite. Journal of the American Chemical Society, 2003, 125, 13652-13653.	13.7	132
47	One-step conversion from metalâ€“organic frameworks to Co3O4@N-doped carbon nanocomposites towards highly efficient oxygen reduction catalysts. Journal of Materials Chemistry A, 2014, 2, 8184.	10.3	130
48	One-step hydrothermal synthesis of chiral carbon dots and their effects on mung bean plant growth. Nanoscale, 2018, 10, 12734-12742.	5.6	128
49	Advances, challenges and promises of carbon dots. Inorganic Chemistry Frontiers, 2017, 4, 1963-1986.	6.0	127
50	Mesoporous nitrogen, sulfur co-doped carbon dots/CoS hybrid as an efficient electrocatalyst for hydrogen evolution. Journal of Materials Chemistry A, 2017, 5, 2717-2723.	10.3	126
51	Peering into water splitting mechanism of g-C3N4-carbon dots metal-free photocatalyst. Applied Catalysis B: Environmental, 2018, 227, 418-424.	20.2	126
52	Fluorescent N-Doped Carbon Dots as in Vitro and in Vivo Nanothermometer. ACS Applied Materials & Interfaces, 2015, 7, 27324-27330.	8.0	122
53	Carbon dot and BiVO₄quantum dot composites for overall water splitting via a two-electron pathway. Nanoscale, 2016, 8, 17314-17321.	5.6	121
54	A new mild, clean and highly efficient method for the preparation of graphene quantum dots without by-products. Journal of Materials Chemistry B, 2015, 3, 6871-6876.	5.8	120

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55	Tunable Ternary (N, P, B)-Doped Porous Nanocarbons and Their Catalytic Properties for Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2014, 6, 22297-22304.	8.0	117
56	N,S co-doped carbon dots as a stable bio-imaging probe for detection of intracellular temperature and tetracycline. Journal of Materials Chemistry B, 2017, 5, 3293-3299.	5.8	117
57	Non-metal single/dual doped carbon quantum dots: a general flame synthetic method and electro-catalytic properties. Nanoscale, 2015, 7, 5955-5962.	5.6	116
58	Carbon quantum dots/SnO2â€“Co3O4 composite for highly efficient electrochemical water oxidation. Carbon, 2015, 92, 64-73.	10.3	114
59	Facile electron delivery from graphene template to ultrathin metal-organic layers for boosting CO2 photoreduction. Nature Communications, 2021, 12, 813.	12.8	114
60	Efficient production of H2O2 via two-channel pathway over ZIF-8/C3N4 composite photocatalyst without any sacrificial agent. Applied Catalysis B: Environmental, 2020, 278, 119289.	20.2	110
61	Hydroxyl decorated g-C3N4 nanoparticles with narrowed bandgap for high efficient photocatalyst design. Applied Catalysis B: Environmental, 2019, 244, 262-271.	20.2	109
62	Carbon quantum dots modified MoS2 with visible-light-induced high hydrogen evolution catalytic ability. Carbon, 2016, 99, 599-606.	10.3	108
63	Photocatalyst for Highâ€Performance H₂ Production: Gaâ€Doped Polymeric Carbon Nitride. Angewandte Chemie - International Edition, 2021, 60, 6124-6129.	13.8	108
64	High-Performance Metalâ€“Organic Framework-Based Single Ion Conducting Solid-State Electrolytes for Low-Temperature Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2019, 11, 43206-43213.	8.0	104
65	Bioinspired Photoelectric Conversion System Based on Carbon-Quantum-Dot-Doped Dyeâ€“Semiconductor Complex. ACS Applied Materials & Interfaces, 2013, 5, 5080-5084.	8.0	103
66	Carbon dots anchored on octahedral CoO as a stable visible-light-responsive composite photocatalyst for overall water splitting. Journal of Materials Chemistry A, 2017, 5, 19800-19807.	10.3	100
67	Carbon quantum dots with photo-generated proton property as efficient visible light controlled acid catalyst. Nanoscale, 2014, 6, 867-873.	5.6	98
68	Emancipating Targetâ€Functionalized Carbon Dots from Autophagy Vesicles for a Novel Visualized Tumor Therapy. Advanced Functional Materials, 2018, 28, 1800881.	14.9	97
69	Carbon dots decorated the exposing high-reactive (111) facets CoO octahedrons with enhanced photocatalytic activity and stability for tetracycline degradation under visible light irradiation. Applied Catalysis B: Environmental, 2017, 219, 36-44.	20.2	96
70	Tuning Laccase Catalytic Activity with Phosphate Functionalized Carbon Dots by Visible Light. ACS Applied Materials & Interfaces, 2015, 7, 10004-10012.	8.0	95
71	Enhanced Activity for CO₂ Electroreduction on a Highly Active and Stable Ternary Au-CDots-C₃N₄ Electrocatalyst. ACS Catalysis, 2018, 8, 188-197.	11.2	94
72	Fabrication of a CuBi₂O₄/g-C₃N₄ pâ€“n heterojunction with enhanced visible light photocatalytic efficiency toward tetracycline degradation. Inorganic Chemistry Frontiers, 2017, 4, 1714-1720.	6.0	93

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73	High-yield fabrication of Ti₃C₂T_x MXene quantum dots and their electrochemiluminescence behavior. Nanoscale, 2018, 10, 14000-14004.	5.6	93
74	High-performance NiO/g-C₃N₄ composites for visible-light-driven photocatalytic overall water splitting. Inorganic Chemistry Frontiers, 2018, 5, 1646-1652.	6.0	92
75	Phosphorus-doped porous carbon nitride for efficient sole production of hydrogen peroxide via photocatalytic water splitting with a two-channel pathway. Journal of Materials Chemistry A, 2020, 8, 3701-3707.	10.3	89
76	The design of room-temperature-phosphorescent carbon dots and their application as a security ink. Journal of Materials Chemistry C, 2019, 7, 10605-10612.	5.5	88
77	Simple Strategy for Preparation of Core Colloids Modified with Metal Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 3651-3657.	3.1	87
78	A nickel nanoparticle/carbon quantum dot hybrid as an efficient electrocatalyst for hydrogen evolution under alkaline conditions. Journal of Materials Chemistry A, 2015, 3, 18598-18604.	10.3	87
79	Carbon nitride assisted 2D conductive metal-organic frameworks composite photocatalyst for efficient visible light-driven H2O2 production. Applied Catalysis B: Environmental, 2021, 289, 120035.	20.2	84
80	Carbon Nanodot Surface Modifications Initiate Highly Efficient, Stable Catalysts for Both Oxygen Evolution and Reduction Reactions. Advanced Energy Materials, 2016, 6, 1502039.	19.5	83
81	Hydroxyl-Group-Dominated Graphite Dots Reshape Laser Desorption/Ionization Mass Spectrometry for Small Biomolecular Analysis and Imaging. ACS Nano, 2017, 11, 9500-9513.	14.6	79
82	Total photocatalysis conversion from cyclohexane to cyclohexanone by C₃N₄/Au nanocomposites. Green Chemistry, 2014, 16, 4559-4565.	9.0	78
83	One-step synthesis of chiral carbon quantum dots and their enantioselective recognition. RSC Advances, 2016, 6, 59956-59960.	3.6	78
84	Photocatalytic H₂O₂ and H₂ Generation from Living Chlorella vulgaris and Carbon Micro Particle Comodified gâ€C₃N₄. Advanced Energy Materials, 2018, 8, 1802525.	19.5	78
85	Inside Cover: Ultrastable, Highly Fluorescent, and Water-Dispersed Silicon-Based Nanospheres as Cellular Probes (Angew. Chem. Int. Ed. 1/2009). Angewandte Chemie - International Edition, 2009, 48, 2-2.	13.8	77
86	A CO₂ adsorption dominated carbon defect-based electrocatalyst for efficient carbon dioxide reduction. Journal of Materials Chemistry A, 2020, 8, 1205-1211.	10.3	75
87	Highly Efficient Oxygen Evolution by a Thermocatalytic Process Cascaded Electrocatalysis Over Sulfurâ€Treated Feâ€Based Metalâ€“Organicâ€Frameworks. Advanced Energy Materials, 2020, 10, 2000184.	19.5	75
88	Carbon Dots Derived from Citric Acid and Glutathione as a Highly Efficient Intracellular Reactive Oxygen Species Scavenger for Alleviating the Lipopolysaccharide-Induced Inflammation in Macrophages. ACS Applied Materials & Interfaces, 2020, 12, 41088-41095.	8.0	74
89	Enhanced RuBisCO activity and promoted dicotyledons growth with degradable carbon dots. Nano Research, 2019, 12, 1585-1593.	10.4	73
90	Carbon dots decorated magnetic ZnFe 2 O 4 nanoparticles with enhanced adsorption capacity for the removal of dye from aqueous solution. Applied Surface Science, 2018, 433, 790-797.	6.1	72

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91	Highly sensitive humidity sensing properties of carbon quantum dots films. Materials Research Bulletin, 2013, 48, 790-794.	5.2	71
92	All-solid-state Z-scheme system of NiO/CDs/BiVO4 for visible light-driven efficient overall water splitting. Chemical Engineering Journal, 2019, 358, 134-142.	12.7	71
93	Carbon Quantum Dot/Silver Nanoparticle/Polyoxometalate Composites as Photocatalysts for Overall Water Splitting in Visible Light. ChemCatChem, 2014, 6, 2634-2641.	3.7	70
94	Carbon quantum dot/CuS_xnanocomposites towards highly efficient lubrication and metal wear repair. Nanoscale, 2015, 7, 11321-11327.	5.6	70
95	Convenient Controllable Synthesis of Inorganic 1D Nanocrystals and 3D High-Ordered Microtubes. European Journal of Inorganic Chemistry, 2003, 2003, 370-376.	2.0	69
96	Chiral evolution of carbon dots and the tuning of laccase activity. Nanoscale, 2018, 10, 2333-2340.	5.6	68
97	A 4e-â€“2e- cascaded pathway for highly efficient production of H2 and H2O2 from water photo-splitting at normal pressure. Applied Catalysis B: Environmental, 2020, 270, 118875.	20.2	68
98	Control Strategy on Two-/Four-Electron Pathway of Water Splitting by Multidoped Carbon Based Catalysts. ACS Catalysis, 2017, 7, 1637-1645.	11.2	66
99	Carbon-Supported Oxygen Vacancy-Rich Co₃O₄ for Robust Photocatalytic H₂O₂ Production via Coupled Water Oxidation and Oxygen Reduction Reaction. ACS Applied Energy Materials, 2019, 2, 8737-8746.	5.1	66
100	Fluorescent carbon dots with tunable negative charges for bio-imaging in bacterial viability assessment. Carbon, 2017, 120, 95-102.	10.3	65
101	A Ptâ€“Co₃O₄â€“CD electrocatalyst with enhanced electrocatalytic performance and resistance to CO poisoning achieved by carbon dots and Co₃O₄ for direct methanol fuel cells. Nanoscale, 2017, 9, 5467-5474.	5.6	65
102	Carbon quantum dots coated BiVO4 inverse opals for enhanced photoelectrochemical hydrogen generation. Applied Physics Letters, 2015, 106, .	3.3	64
103	Synergetic effect of carbon dots as co-catalyst for enhanced photocatalytic performance of methyl orange on ZnIn2S4 microspheres. Separation and Purification Technology, 2017, 174, 282-289.	7.9	63
104	Rhodium Nanoparticles/F-Doped Graphene Composites as Multifunctional Electrocatalyst Superior to Pt/C for Hydrogen Evolution and Formic Acid Oxidation Reaction. ACS Applied Materials & Interfaces, 2018, 10, 33153-33161.	8.0	63
105	Carbon dots mediated charge sinking effect for boosting hydrogen evolution in Cu-In-Zn-S QDs/MoS2 photocatalysts. Applied Catalysis B: Environmental, 2022, 301, 120755.	20.2	63
106	Near-infrared light photocatalytic ability for degradation of tetracycline using carbon dots modified Ag/AgBr nanocomposites. Separation and Purification Technology, 2017, 174, 75-83.	7.9	62
107	Quantitative and real-time effects of carbon quantum dots on single living HeLa cell membrane permeability. Nanoscale, 2014, 6, 5116.	5.6	61
108	Polyoxometalate-based electron transfer modulation for efficient electrocatalytic carbon dioxide reduction. Chemical Science, 2020, 11, 3007-3015.	7.4	61

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109	Achieving electroreduction of CO₂to CH₃OH with high selectivity using a pyriteâ€"nickel sulfide nanocomposite. RSC Advances, 2017, 7, 1376-1381.	3.6	60
110	Carbonâ€Dotâ€Based Whiteâ€Lightâ€Emitting Diodes with Adjustable Correlated Color Temperature Guided by Machine Learning. Angewandte Chemie - International Edition, 2021, 60, 12585-12590.	13.8	60
111	Cobalt phosphide/carbon dots composite as an efficient electrocatalyst for oxygen evolution reaction. Dalton Transactions, 2018, 47, 5459-5464.	3.3	58
112	Bifunctional Pd-O_x Center at the Liquidâ€"Solidâ€"Gas Triphase Interface for H₂O₂ Photosynthesis. ACS Catalysis, 2022, 12, 2138-2149.	11.2	58
113	Synthesis of carbon quantum dots/SiO2 porous nanocomposites and their catalytic ability for photo-enhanced hydrocarbon selective oxidation. Dalton Transactions, 2013, 42, 10380.	3.3	57
114	Carbon Dots Enhance the Nitrogen Fixation Activity of Azotobacter Chroococcum. ACS Applied Materials & Interfaces, 2018, 10, 16308-16314.	8.0	57
115	Selective inactivation of Gram-negative bacteria by carbon dots derived from natural biomass: Artemisia argyi leaves. Journal of Materials Chemistry B, 2020, 8, 2666-2672.	5.8	57
116	Fluorescent carbon dots with highly negative charges as a sensitive probe for real-time monitoring of bacterial viability. Journal of Materials Chemistry B, 2017, 5, 6008-6015.	5.8	56
117	Maltase Decorated by Chiral Carbon Dots with Inhibited Enzyme Activity for Glucose Level Control. Small, 2019, 15, e1901512.	10.0	56
118	Convenient and sensitive detection of norfloxacin with fluorescent carbon dots. Journal of Materials Chemistry B, 2014, 2, 7964-7970.	5.8	55
119	Nitrogen and sulfur co-doped chiral carbon quantum dots with independent photoluminescence and chirality. Inorganic Chemistry Frontiers, 2017, 4, 946-953.	6.0	55
120	Carbon dots enhance the interface electron transfer and photoelectrochemical kinetics in TiO2 photoanode. Applied Catalysis B: Environmental, 2022, 304, 120983.	20.2	55
121	The Pivotal Role of sâ€, pâ€, and fâ€Block Metals in Water Electrolysis: Status Quo and Perspectives. Advanced Materials, 2022, 34, e2108432.	21.0	55
122	One-step catalase controllable degradation of C₃N₄for N-doped carbon dot green fabrication and their bioimaging applications. Journal of Materials Chemistry B, 2014, 2, 5768.	5.8	54
123	Ultraâ€Bright and Stable Pure Blue Lightâ€Emitting Diode from O, N Coâ€Doped Carbon Dots. Laser and Photonics Reviews, 2021, 15, 2000412.	8.7	54
124	Charge storage of carbon dot enhances photo-production of H2 and H2O2 over Ni2P/carbon dot catalyst under normal pressure. Chemical Engineering Journal, 2021, 409, 128184.	12.7	54
125	Interface photo-charge kinetics regulation by carbon dots for efficient hydrogen peroxide production. Journal of Materials Chemistry A, 2021, 9, 515-522.	10.3	53
126	Advanced hydrogen evolution electrocatalysts promising sustainable hydrogen and chlor-alkali co-production. Energy and Environmental Science, 2021, 14, 6191-6210.	30.8	53

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127	Carbon dots from PEG for highly sensitive detection of levodopa. Journal of Materials Chemistry B, 2015, 3, 2378-2387.	5.8	52
128	Carbon-dots-mediated highly efficient hole transfer in I-III-VI quantum dots for photocatalytic hydrogen production. Applied Catalysis B: Environmental, 2021, 292, 120154.	20.2	52
129	Porous cobalt, nitrogen-codoped carbon nanostructures from carbon quantum dots and VB12 and their catalytic properties for oxygen reduction. Physical Chemistry Chemical Physics, 2014, 16, 25350-25357.	2.8	51
130	New Insight of Water-Splitting Photocatalyst: H₂O₂-Resistance Poisoning and Photothermal Deactivation in Sub-micrometer CoO Octahedrons. ACS Applied Materials & Interfaces, 2017, 9, 20585-20593.	8.0	51
131	Adsorption dominant catalytic activity of a carbon dots stabilized gold nanoparticles system. Dalton Transactions, 2014, 43, 10920.	3.3	50
132	Carbon dots with positive surface charge from tartaric acid and m-aminophenol for selective killing of Gram-positive bacteria. Journal of Materials Chemistry B, 2021, 9, 125-130.	5.8	50
133	Pyrrolic nitrogen dominated the carbon dot mimic oxidase activity. Carbon, 2021, 179, 692-700.	10.3	50
134	Keplerate-type polyoxometalate/semiconductor composite electrodes with light-enhanced conductivity towards highly efficient photoelectronic devices. Journal of Materials Chemistry A, 2016, 4, 14025-14032.	10.3	49
135	Cu-CDots nanocorals as electrocatalyst for highly efficient CO₂reduction to formate. Nanoscale, 2017, 9, 298-304.	5.6	49
136	Degradable Carbon Dots from Cigarette Smoking with Broad-Spectrum Antimicrobial Activities against Drug-Resistant Bacteria. ACS Applied Bio Materials, 2018, 1, 1871-1879.	4.6	49
137	One-step synthesis of cobalt, nitrogen-codoped carbon as nonprecious bifunctional electrocatalyst for oxygen reduction and evolution reactions. Science Bulletin, 2016, 61, 68-77.	9.0	48
138	Ultrasmall C-TiO_{2â”x} nanoparticle/g-C₃N₄ composite for CO₂ photoreduction with high efficiency and selectivity. Journal of Materials Chemistry A, 2018, 6, 21596-21604.	10.3	48
139	Imaging Cellular Aerobic Glycolysis using Carbon Dots for Early Warning of Tumorigenesis. Advanced Materials, 2021, 33, e2005096.	21.0	48
140	Chiral Control of Carbon Dots via Surface Modification for Tuning the Enzymatic Activity of Glucose Oxidase. ACS Applied Materials & Interfaces, 2021, 13, 5877-5886.	8.0	48
141	Composition Engineering of Amorphous Nickel Boride Nanoarchitectures Enabling Highly Efficient Electrosynthesis of Hydrogen Peroxide. Advanced Materials, 2022, 34, .	21.0	48
142	Reduced polyoxometalates and bipyridine ruthenium complex forming a tunable photocatalytic system for high efficient CO2 reduction. Chemical Engineering Journal, 2020, 398, 125518.	12.7	47
143	Defects induced efficient overall water splitting on a carbon-based metal-free photocatalyst. Applied Catalysis B: Environmental, 2018, 237, 166-174.	20.2	46
144	Negatively Charged Carbon Nanodots with Bacteria Resistance Ability for Highâ€Performance Antibiofilm Formation and Anticorrosion Coating Design. Small, 2019, 15, e1900007.	10.0	46

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145	Single atoms or not? The limitation of EXAFS. Applied Physics Letters, 2020, 116, .	3.3	46
146	Template-free fabrication of mesoporous carbons from carbon quantum dots and their catalytic application to the selective oxidation of hydrocarbons. Nanoscale, 2014, 6, 5831.	5.6	45
147	Fluorescent carbon dots for sensitive determination and intracellular imaging of zinc(II) ion. Mikrochimica Acta, 2015, 182, 2443-2450.	5.0	45
148	Carbon Defect-Induced Reversible Carbonâ€“Oxygen Interfaces for Efficient Oxygen Reduction. ACS Applied Materials & Interfaces, 2018, 10, 39735-39744.	8.0	45
149	Pristine Carbon Dots Boost the Growth of Chlorella vulgaris by Enhancing Photosynthesis. ACS Applied Bio Materials, 2018, 1, 894-902.	4.6	45
150	Carbon dots regulate the interface electron transfer and catalytic kinetics of Pt-based alloys catalyst for highly efficient hydrogen oxidation. Journal of Energy Chemistry, 2022, 66, 61-67.	12.9	45
151	Robust carbon-dot-based evaporator with an enlarged evaporation area for efficient solar steam generation. Journal of Materials Chemistry A, 2020, 8, 14566-14573.	10.3	44
152	Cascaded photo-potential in a carbon dot-hematite system driving overall water splitting under visible light. Nanoscale, 2018, 10, 2454-2460.	5.6	43
153	Synergistic Cu@CoOx core-cage structure on carbon layers as highly active and durable electrocatalysts for methanol oxidation. Applied Catalysis B: Environmental, 2019, 244, 795-801.	20.2	42
154	In-situ photovoltage transients assisted catalytic study on H2O2 photoproduction over organic molecules modified carbon nitride photocatalyst. Applied Catalysis B: Environmental, 2021, 285, 119817.	20.2	42
155	A function-switchable metal-free photocatalyst for the efficient and selective production of hydrogen and hydrogen peroxide. Journal of Materials Chemistry A, 2020, 8, 11773-11780.	10.3	42
156	Tunable synthesis of metalâ€“graphene complex nanostructures and their catalytic ability for solvent-free cyclohexene oxidation in air. Nanoscale, 2012, 4, 4964.	5.6	41
157	A g-C₃N₄ based photoelectrochemical cell using O₂/H₂O redox couples. Energy and Environmental Science, 2018, 11, 1841-1847.	30.8	41
158	Polyaniline/Carbon Dots Composite as a Highly Efficient Metal-Free Dual-Functional Photoassisted Electrocatalyst for Overall Water Splitting. ACS Applied Materials & Interfaces, 2021, 13, 24814-24823.	8.0	41
159	In-situ transient photovoltage study on interface electron transfer regulation of carbon dots/NiCo2O4 photocatalyst for the enhanced overall water splitting activity. Nano Research, 2022, 15, 1786-1795.	10.4	41
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