Zhu-Rui Shen

List of Publications by Year
in descending order

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71 papers	3,914 citations	117625 34 h-index	123424 61 g-index
72 all docs	72 docs citations	72 times ranked	4817 citing authors

#	Article	IF	Citations
1	0D/2D Heterojunctions of Vanadate Quantum Dots/Graphitic Carbon Nitride Nanosheets for Enhanced Visibleâ€Lightâ€Driven Photocatalysis. Angewandte Chemie - International Edition, 2017, 56, 8407-8411.	13.8	421
2	A blackâ€“red phosphorus heterostructure for efficient visible-light-driven photocatalysis. Journal of Materials Chemistry A, 2015, 3, 3285-3288.	10.3	232
3	Red Phosphorus: An Earth-Abundant Elemental Photocatalyst for â€œGreenâ€•Bacterial Inactivation under Visible Light. Environmental Science & Technology, 2015, 49, 6264-6273.	10.0	226
4	An Elemental Phosphorus Photocatalyst with a Record High Hydrogen Evolution Efficiency. Angewandte Chemie - International Edition, 2016, 55, 9580-9585.	13.8	171
5	Atomic Insights for Optimum and Excess Doping in Photocatalysis: A Case Study of Fewâ€Layer Cuâ€ZnIn₂S₄. Advanced Functional Materials, 2019, 29, 1807013.	14.9	165
6	Enhancing Charge Separation in Metallic Photocatalysts: A Case Study of the Conducting Molybdenum Dioxide. Advanced Functional Materials, 2016, 26, 4445-4455.	14.9	154
7	Unraveling the Interfacial Charge Migration Pathway at the Atomic Level in a Highly Efficient Zâ€Scheme Photocatalyst. Angewandte Chemie - International Edition, 2019, 58, 11329-11334.	13.8	152
8	Phosphorus containing materials for photocatalytic hydrogen evolution. Green Chemistry, 2017, 19, 588-613.	9.0	148
9	Covalent Fixation of Surface Oxygen Atoms on Hematite Photoanode for Enhanced Water Oxidation. Chemistry of Materials, 2016, 28, 564-572.	6.7	118
10	The Role of Alkali Metal in Î±â€MnO₂ Catalyzed Ammoniaâ€Selective Catalysis. Angewandte Chemie - International Edition, 2019, 58, 6351-6356.	13.8	110
11	Converting Carbohydrates to Carbon-Based Photocatalysts for Environmental Treatment. Environmental Science & Technology, 2017, 51, 7076-7083.	10.0	107
12	Boosting the activation of molecular oxygen and the degradation of tetracycline over high loading Ag single atomic catalyst. Water Research, 2021, 201, 117314.	11.3	99
13	Enhanced activation of molecular oxygen and degradation of tetracycline over Cu-S4 atomic clusters. Applied Catalysis B: Environmental, 2020, 272, 118966.	20.2	97
14	Rational shape control of porous Co3O4 assemblies derived from MOF and their structural effects on n-butanol sensing. Journal of Hazardous Materials, 2019, 371, 352-361.	12.4	96
15	Crystalline phosphorus fibers: controllable synthesis and visible-light-driven photocatalytic activity. Nanoscale, 2014, 6, 14163-14167.	5.6	91
16	MOF-derived Fe2O3: Phase control and effects of phase composition on gas sensing performance. Sensors and Actuators B: Chemical, 2019, 292, 171-179.	7.8	83
17	Fullerene (C60)/CdS nanocomposite with enhanced photocatalytic activity and stability. Applied Surface Science, 2017, 403, 151-158.	6.1	80
18	Isolated Platinum Atoms Stabilized by Amorphous Tungstenic Acid: Metalâ€“Support Interaction for Synergistic Oxygen Activation. Angewandte Chemie - International Edition, 2018, 57, 9351-9356.	13.8	80

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19	2020 Roadmap on gas-involved photo- and electro- catalysis. Chinese Chemical Letters, 2019, 30, 2089-2109.	9.0	71
20	Strategic Defect Engineering of Metalâ€“Organic Frameworks for Optimizing the Fabrication of Singleâ€Atom Catalysts. Advanced Functional Materials, 2021, 31, 2103597.	14.9	68
21	Efficient Electrochemical Nitrogen Fixation over Isolated Pt Sites. Small, 2020, 16, e2000015.	10.0	63
22	Photoassisted highly efficient activation of persulfate over a single-atom Cu catalyst for tetracycline degradation: Process and mechanism. Journal of Hazardous Materials, 2022, 429, 128398.	12.4	58
23	A nanostructured chromium(iii) oxide/tungsten(vi) oxide pâ€“n junction photoanode toward enhanced efficiency for water oxidation. Journal of Materials Chemistry A, 2015, 3, 14046-14053.	10.3	57
24	Modulating the oxidative active species by regulating the valence of palladium cocatalyst in photocatalytic degradation of ciprofloxacin. Applied Catalysis B: Environmental, 2022, 306, 121092.	20.2	53
25	Enhanced acetone sensing properties of Co3O4 nanosheets with highly exposed (111) planes. Journal of Materials Science: Materials in Electronics, 2016, 27, 2086-2095.	2.2	51
26	A CuOâ€“ZnO nanostructured pâ€“n junction sensor for enhanced N-butanol detection. RSC Advances, 2016, 6, 2504-2511.	3.6	48
27	Facile preparation of Pd/organoclay catalysts with high performance in solvent-free aerobic selective oxidation of benzyl alcohol. Green Chemistry, 2009, 11, 1499.	9.0	47
28	0D/2D Heterojunctions of Vanadate Quantum Dots/Graphitic Carbon Nitride Nanosheets for Enhanced Visibleâ€Lightâ€Driven Photocatalysis. Angewandte Chemie, 2017, 129, 8527-8531.	2.0	44
29	A WO3 nanorod-Cr2O3 nanoparticle composite for selective gas sensing of 2-butanone. Chinese Chemical Letters, 2018, 29, 538-542.	9.0	43
30	An Elemental Phosphorus Photocatalyst with a Record High Hydrogen Evolution Efficiency. Angewandte Chemie, 2016, 128, 9732-9737.	2.0	41
31	BiVO₄ quantum dot-decorated BiPO₄ nanorods 0D/1D heterojunction for enhanced visible-light-driven photocatalysis. Dalton Transactions, 2018, 47, 10288-10298.	3.3	37
32	Mechanistic insights for efficient inactivation of antibiotic resistance genes: a synergistic interfacial adsorption and photocatalytic-oxidation process. Science Bulletin, 2020, 65, 2107-2119.	9.0	37
33	Bottom-up synthesis of ceriumâ€“citric acid coordination polymers hollow microspheres with tunable shell thickness and their corresponding porous CeO₂ hollow spheres for Pt-based electrocatalysts. CrystEngComm, 2014, 16, 3387-3394.	2.6	34
34	Atomic structure-dominated enhancement of acetone sensing for a ZnO nanoplate with highly exposed (0001) facet. CrystEngComm, 2017, 19, 6711-6718.	2.6	34
35	Conjugated Ï€ Electrons of MOFs Drive Charge Separation at Heterostructures Interface for Enhanced Photoelectrochemical Water Oxidation. Small, 2021, 17, e2100367.	10.0	33
36	Amorphous carbon-linked TiO2/carbon nanotube film composite with enhanced photocatalytic performance: The effect of interface contact and hydrophilicity. Chinese Chemical Letters, 2021, 32, 2151-2154.	9.0	33

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37	Solvent induced rapid modulation of micro/nano structures of metal carboxylates coordination polymers: mechanism and morphology dependent magnetism. Scientific Reports, 2014, 4, 6023.	3.3	32
38	Intrinsic defect based homojunction: A novel quantum dots photoanode with enhanced charge transfer kinetics. Applied Catalysis B: Environmental, 2017, 203, 829-838.	20.2	30
39	The role of Cs dopants for improved activation of molecular oxygen and degradation of tetracycline over carbon nitride. Chinese Chemical Letters, 2022, 33, 4756-4760.	9.0	30
40	Fabrication of lanthanide oxide microspheres and hollow spheres by thermolysis of pre-molding lanthanide coordination compounds. Chemical Communications, 2009, , 1742.	4.1	29
41	Hydrothermal Synthesis and Formation Mechanism of Micrometer-sized MoO2 Hollow Spheres. Chinese Journal of Chemical Physics, 2006, 19, 543-548.	1.3	28
42	Interfacial charge dominating major active species and degradation pathways: An example of carbon based photocatalyst. Journal of Colloid and Interface Science, 2019, 554, 743-751.	9.4	22
43	Unraveling the Interfacial Charge Migration Pathway at the Atomic Level in a Highly Efficient Zâ€Scheme Photocatalyst. Angewandte Chemie, 2019, 131, 11451-11456.	2.0	22
44	A WO3-CuWO4 nanostructured heterojunction for enhanced n-butanol sensing performance. Chinese Chemical Letters, 2020, 31, 1114-1118.	9.0	21
45	A nanostructured Cr2O3/WO3 pâ€“n junction sensor for highly sensitive detection of butanone. Journal of Materials Science: Materials in Electronics, 2017, 28, 12056-12062.	2.2	19
46	Hydrothermal Carbonation Carbon-Coated CdS Nanocomposite with Enhanced Photocatalytic Activity and Stability. Catalysts, 2017, 7, 194.	3.5	19
47	Bandâ€Gap and Charge Transfer Engineering in Red Phosphorusâ€Based Composites for Enhanced Visibleâ€Lightâ€Driven H₂ Evolution. Chemistry - A European Journal, 2020, 26, 2285-2292.	3.3	19
48	Lanthanum-based coordination polymers microplates using a â€œgreen ligandâ€•EDTA with tailorable morphology and fluorescent property. RSC Advances, 2014, 4, 12844.	3.6	18
49	Enhanced localized dipole of Pt-Au single-site catalyst for solar water splitting. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	17
50	Elemental phosphorus for recent sustainable processes: rules and strategies in preparation and applications. Green Chemistry, 2022, 24, 3475-3501.	9.0	14
51	Induced morphology control of Lnâ€“asparagine coordination polymers from the macro to nanoscopic regime in polar solventâ€“water mixtures. Dalton Transactions, 2013, 42, 1174-1179.	3.3	11
52	Cobalt oxide 2D nano-assemblies from infinite coordination polymer precursors mediated by a multidentate pyridyl ligand. Dalton Transactions, 2016, 45, 7866-7874.	3.3	10
53	Eosin Y sensitized BiPO4 nanorods for bi-functionally enhanced visible-light-driven photocatalysis. Photochemical and Photobiological Sciences, 2019, 18, 1408-1418.	2.9	10
54	Transparent luminescent bulk nanocomposites of polysiloxane embedded with CdS nanocrystallines by a direct dispersion process. Nanoscale, 2012, 4, 1652.	5.6	9

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55	In-situ-formed red phosphorus nanosheet on bulk red phosphorus for boosting charge separation in photocatalysisï¼šThe role of multiple interfacial effects. Applied Catalysis B: Environmental, 2022, 312, 121373.	20.2	9
56	Isolated Platinum Atoms Stabilized by Amorphous Tungstenic Acid: Metalâ€“Support Interaction for Synergistic Oxygen Activation. Angewandte Chemie, 2018, 130, 9495-9500.	2.0	7
57	A photo-assisted electrochemical-based demonstrator for green ammonia synthesis. Journal of Energy Chemistry, 2022, 68, 826-834.	12.9	7
58	Identification of the Stable Pt Single Sites in the Environment of Ions: From Mechanism to Design Principle. Advanced Materials, 2022, 34, e2108504.	21.0	6
59	Synthesis of nanoporous silica with interior composite cells with synthetic block copolypeptide as template. Science Bulletin, 2006, 51, 493-497.	1.7	5
60	Hyperbranched microspheres formed by an EDTA-based coordination polymer with ternary architectures assembled by ultrathin nanoribbons and their tricolor luminescent properties. CrystEngComm, 2012, 14, 3653.	2.6	5
61	Novel Ceriumâ€Based Sulfide Nanoâ€Photocatalyst for Highly Efficient CO₂Reduction. Small, 2022, 18, e2201332.	10.0	5
62	Hydrothermal preparation of nanostructured MnO2 and morphological and crystalline evolution. Frontiers of Chemistry in China: Selected Publications From Chinese Universities, 2008, 3, 128-132.	0.4	4
63	The Role of Alkali Metal in Î±â€MnO₂ Catalyzed Ammoniaâ€Selective Catalysis. Angewandte Chemie, 2019, 131, 6417-6422.	2.0	4
64	Porous lanthanide oxides via a precursor method: Morphology control through competitive interaction of lanthanide cations with oxalate anions and amino acids. Dalton Transactions, 2010, 39, 6112.	3.3	3
65	Ultra-Thin Red Phosphor Nanosheets as an Efficient Photocatalyst for Hydrogen Evolution Under Visible Light. Topics in Catalysis, 2021, 64, 559-566.	2.8	3
66	InnenrÃ¼cktitelbild: An Elemental Phosphorus Photocatalyst with a Record High Hydrogen Evolution Efficiency (Angew. Chem. 33/2016). Angewandte Chemie, 2016, 128, 9947-9947.	2.0	2
67	Nanostructured Elemental Photocatalysts: Development and Challenges. Nanostructure Science and Technology, 2016, , 295-312.	0.1	2
68	One-step hydrothermal method to synthesize Bi/Bi2MoO6 composite for photoelectric catalyst. Functional Materials Letters, 2017, 10, 1750053.	1.2	2
69	Enhanced sensing performance toward alcohols using copper oxide based on exposed crystal facet driven catalytic oxidation. Journal of Materials Science: Materials in Electronics, 2021, 32, 26676-26687.	2.2	2
70	Metallic Photocatalysts: Enhancing Charge Separation in Metallic Photocatalysts: A Case Study of the Conducting Molybdenum Dioxide (Adv. Funct. Mater. 25/2016). Advanced Functional Materials, 2016, 26, 4444-4444.	14.9	1
71	Template-free synthesis of dispersed MoOxhollow microspheres toward enhanced reversible capacity of lithium storage. Integrated Ferroelectrics, 2016, 170, 168-174.	0.7	0