## Bin Liu

## List of Publications by Year in descending order

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3149 3094 37,707 262 92 187 citations h-index g-index papers 273 273 273 35339 citing authors all docs docs citations times ranked

| #  | Article  | IF          | Citations |
|----|--|-------------|-----------|
| 1  | Growth of Oriented Single-Crystalline Rutile TiO <sub>2</sub> Nanorods on Transparent Conducting Substrates for Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2009, 131, 3985-3990.                    | 6.6         | 2,243     |
| 2  | Bioprobes Based on AIE Fluorogens. Accounts of Chemical Research, 2013, 46, 2441-2453.   | 7.6         | 1,607     |
| 3  | Atomically dispersed Ni(i) as the active site for electrochemical CO2 reduction. Nature Energy, 2018, 3, 140-147.  | 19.8        | 1,594     |
| 4  | Hydrothermal Synthesis of ZnO Nanorods in the Diameter Regime of 50 nm. Journal of the American Chemical Society, 2003, 125, 4430-4431.  | 6.6         | 1,323     |
| 5  | ldentification of catalytic sites for oxygen reduction and oxygen evolution in N-doped graphene<br>materials: Development of highly efficient metal-free bifunctional electrocatalyst. Science Advances,<br>2016, 2, e1501122. | 4.7         | 1,078     |
| 6  | Single Cobalt Atoms Anchored on Porous N-Doped Graphene with Dual Reaction Sites for Efficient Fenton-like Catalysis. Journal of the American Chemical Society, 2018, 140, 12469-12475.  | 6.6         | 1,044     |
| 7  | Mesoscale Organization of CuO Nanoribbons:  Formation of "Dandelions― Journal of the American<br>Chemical Society, 2004, 126, 8124-8125.   | 6.6         | 800       |
| 8  | In Operando Identification of Geometrical-Site-Dependent Water Oxidation Activity of Spinel Co <sub>3</sub> O <sub>4</sub> . Journal of the American Chemical Society, 2016, 138, 36-39.                                       | 6.6         | 787       |
| 9  | Recent advances in heterogeneous selective oxidation catalysis for sustainable chemistry. Chemical Society Reviews, 2014, 43, 3480.  | 18.7        | 653       |
| 10 | Symmetric and Asymmetric Ostwald Ripening in the Fabrication of Homogeneous Core-Shell Semiconductors. Small, 2005, 1, 566-571.  | <b>5.</b> 2 | 604       |
| 11 | Carbon nanotube catalysts: recent advances in synthesis, characterization and applications. Chemical Society Reviews, 2015, 44, 3295-3346.   | 18.7        | 586       |
| 12 | Fabrication of ZnO "Dandelions―via a Modified Kirkendall Process. Journal of the American Chemical Society, 2004, 126, 16744-16746.  | 6.6         | 539       |
| 13 | A Fully Integrated Nanosystem of Semiconductor Nanowires for Direct Solar Water Splitting. Nano<br>Letters, 2013, 13, 2989-2992.   | 4.5         | 506       |
| 14 | Atomically dispersed antimony on carbon nitride for the artificial photosynthesis of hydrogen peroxide. Nature Catalysis, 2021, 4, 374-384.  | 16.1        | 474       |
| 15 | Hierarchical Ni-Mo-S nanosheets on carbon fiber cloth: A flexible electrode for efficient hydrogen generation in neutral electrolyte. Science Advances, 2015, 1, e1500259.   | 4.7         | 427       |
| 16 | A p-type Ti( <scp>iv</scp> )-based metal–organic framework with visible-light photo-response. Chemical Communications, 2014, 50, 3786-3788.  | 2.2         | 424       |
| 17 | Enabling Direct H2O2 Production in Acidic Media through Rational Design of Transition Metal Single<br>Atom Catalyst. CheM, 2020, 6, 658-674.   | 5.8         | 418       |
| 18 | Layer-by-Layer Self-Assembly of CdS Quantum Dots/Graphene Nanosheets Hybrid Films for Photoelectrochemical and Photocatalytic Applications. Journal of the American Chemical Society, 2014, 136, 1559-1569.                    | 6.6         | 413       |

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|----|--|------|-----------|
| 19 | Recent advances in methanation catalysts for the production of synthetic natural gas. RSC Advances, 2015, 5, 22759-22776.  | 1.7  | 411       |
| 20 | Ni <sup>3+</sup> â€Induced Formation of Active NiOOH on the Spinel Ni–Co Oxide Surface for Efficient Oxygen Evolution Reaction. Advanced Energy Materials, 2015, 5, 1500091.                             | 10.2 | 408       |
| 21 | Photoelectrochemical Properties of TiO <sub>2</sub> Nanowire Arrays: A Study of the Dependence on Length and Atomic Layer Deposition Coating. ACS Nano, 2012, 6, 5060-5069.                              | 7.3  | 378       |
| 22 | Nickel–Cobalt Diselenide 3D Mesoporous Nanosheet Networks Supported on Ni Foam: An Allâ€pH Highly Efficient Integrated Electrocatalyst for Hydrogen Evolution. Advanced Materials, 2017, 29, 1606521.    | 11.1 | 370       |
| 23 | Use of Platinum as the Counter Electrode to Study the Activity of Nonprecious Metal Catalysts for the Hydrogen Evolution Reaction. ACS Energy Letters, 2017, 2, 1070-1075.                               | 8.8  | 366       |
| 24 | Single-Atom Catalysis toward Efficient CO <sub>2</sub> Conversion to CO and Formate Products. Accounts of Chemical Research, 2019, 52, 656-664.  | 7.6  | 348       |
| 25 | Identification of Surface Reactivity Descriptor for Transition Metal Oxides in Oxygen Evolution<br>Reaction. Journal of the American Chemical Society, 2016, 138, 9978-9985.                             | 6.6  | 345       |
| 26 | Layered Structure Causes Bulk NiFe Layered Double Hydroxide Unstable in Alkaline Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1903909.  | 11.1 | 345       |
| 27 | Breaking Long-Range Order in Iridium Oxide by Alkali Ion for Efficient Water Oxidation. Journal of the American Chemical Society, 2019, 141, 3014-3023.  | 6.6  | 337       |
| 28 | Graphdiyne: A Metal-Free Material as Hole Transfer Layer To Fabricate Quantum Dot-Sensitized Photocathodes for Hydrogen Production. Journal of the American Chemical Society, 2016, 138, 3954-3957.      | 6.6  | 335       |
| 29 | NiFe Hydroxide Lattice Tensile Strain: Enhancement of Adsorption of Oxygenated Intermediates for Efficient Water Oxidation Catalysis. Angewandte Chemie - International Edition, 2019, 58, 736-740.      | 7.2  | 335       |
| 30 | Large-Scale Synthesis of Transition-Metal-Doped TiO <sub>2</sub> Nanowires with Controllable Overpotential. Journal of the American Chemical Society, 2013, 135, 9995-9998.                              | 6.6  | 326       |
| 31 | Elucidating the Electrocatalytic CO <sub>2</sub> Reduction Reaction over a Model Singleâ€Atom Nickel Catalyst. Angewandte Chemie - International Edition, 2020, 59, 798-803.                             | 7.2  | 315       |
| 32 | In Situ/Operando Techniques for Characterization of Single-Atom Catalysts. ACS Catalysis, 2019, 9, 2521-2531.  | 5.5  | 296       |
| 33 | Layer-by-layer assembly of versatile nanoarchitectures with diverse dimensionality: a new perspective for rational construction of multilayer assemblies. Chemical Society Reviews, 2016, 45, 3088-3121. | 18.7 | 294       |
| 34 | A flexible high-performance oxygen evolution electrode with three-dimensional NiCo2O4 core-shell nanowires. Nano Energy, 2015, 11, 333-340.  | 8.2  | 291       |
| 35 | Room Temperature Solution Synthesis of Monodispersed Single-Crystalline ZnO Nanorods and Derived Hierarchical Nanostructures. Langmuir, 2004, 20, 4196-4204.   | 1.6  | 283       |
| 36 | Orbital coupling of hetero-diatomic nickel-iron site for bifunctional electrocatalysis of CO2 reduction and oxygen evolution. Nature Communications, 2021, 12, 4088.                                     | 5.8  | 259       |

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|----|--|------|-----------|
| 37 | Doping high-surface-area mesoporous TiO <sub>2</sub> microspheres with carbonate for visible light hydrogen production. Energy and Environmental Science, 2014, 7, 2592.                 | 15.6 | 253       |
| 38 | Identifying Active Sites of Nitrogenâ€Doped Carbon Materials for the CO <sub>2</sub> Reduction Reaction. Advanced Functional Materials, 2018, 28, 1800499.                               | 7.8  | 244       |
| 39 | A General Method to Probe Oxygen Evolution Intermediates at Operating Conditions. Joule, 2019, 3, 1498-1509.   | 11.7 | 243       |
| 40 | Metalâ€Clusterâ€Decorated TiO <sub>2</sub> Nanotube Arrays: A Composite Heterostructure toward Versatile Photocatalytic and Photoelectrochemical Applications. Small, 2015, 11, 554-567. | 5.2  | 237       |
| 41 | The nonmetal modulation of composition and morphology of g-C3N4-based photocatalysts. Applied Catalysis B: Environmental, 2020, 269, 118828.   | 10.8 | 237       |
| 42 | Identification of the Electronic and Structural Dynamics of Catalytic Centers in Single-Fe-Atom Material. CheM, 2020, 6, 3440-3454.  | 5.8  | 231       |
| 43 | Iron Vacancies Induced Bifunctionality in Ultrathin Feroxyhyte Nanosheets for Overall Water<br>Splitting. Advanced Materials, 2018, 30, e1803144.  | 11.1 | 225       |
| 44 | Formation of porous SnO2 microboxes via selective leaching for highly reversible lithium storage. Energy and Environmental Science, 2014, 7, 1013.                                       | 15.6 | 221       |
| 45 | Coordination engineering of iridium nanocluster bifunctional electrocatalyst for highly efficient and pH-universal overall water splitting. Nature Communications, 2020, 11, 4246.       | 5.8  | 221       |
| 46 | Coordination Engineering of Singleâ€Atom Catalysts for the Oxygen Reduction Reaction: A Review. Advanced Energy Materials, 2021, 11, 2002473.  | 10.2 | 217       |
| 47 | Nitrogen-doped cobalt phosphate@nanocarbon hybrids for efficient electrocatalytic oxygen reduction. Energy and Environmental Science, 2016, 9, 2563-2570.                                | 15.6 | 216       |
| 48 | Microenvironment modulation of single-atom catalysts and their roles in electrochemical energy conversion. Science Advances, 2020, 6, .  | 4.7  | 214       |
| 49 | Oneâ€Dimensional Hybrid Nanostructures for Heterogeneous Photocatalysis and Photoelectrocatalysis. Small, 2015, 11, 2115-2131.   | 5.2  | 213       |
| 50 | Transferable and Flexible Nanorod-Assembled TiO <sub>2</sub> Cloths for Dye-Sensitized Solar Cells, Photodetectors, and Photocatalysts. ACS Nano, 2011, 5, 8412-8419.                    | 7.3  | 209       |
| 51 | Supported Nobleâ€Metal Single Atoms for Heterogeneous Catalysis. Advanced Materials, 2019, 31, e1902031.   | 11.1 | 207       |
| 52 | Amorphous versus Crystalline in Water Oxidation Catalysis: A Case Study of NiFe Alloy. Nano Letters, 2020, 20, 4278-4285.  | 4.5  | 201       |
| 53 | Amorphous/Crystalline Heterostructured Cobaltâ€Vanadiumâ€Iron (Oxy)hydroxides for Highly Efficient<br>Oxygen Evolution Reaction. Advanced Energy Materials, 2020, 10, 2002215.           | 10.2 | 198       |
| 54 | Optimization of High-Yield Biological Synthesis of Single-Crystalline Gold Nanoplates. Journal of Physical Chemistry B, 2005, 109, 15256-15263.  | 1.2  | 197       |

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|----|---|------|-----------|
| 55 | An Earthâ∈Abundant Catalystâ∈Based Seawater Photoelectrolysis System with 17.9% Solarâ∈toâ∈Hydrogen Efficiency. Advanced Materials, 2018, 30, e1707261.   | 11.1 | 189       |
| 56 | Carbon Nanotubes Supported Mesoporous Mesocrystals of Anatase TiO2. Chemistry of Materials, 2008, 20, 2711-2718.  | 3.2  | 188       |
| 57 | Selective photoelectrochemical oxidation of glycerol to high value-added dihydroxyacetone. Nature Communications, 2019, 10, 1779.   | 5.8  | 185       |
| 58 | Adaptive Bifunctional Electrocatalyst of Amorphous CoFe Oxide @ 2D Black Phosphorus for Overall Water Splitting. Angewandte Chemie - International Edition, 2020, 59, 21106-21113.                    | 7.2  | 182       |
| 59 | Atomically Dispersed Fe–Heteroatom (N, S) Bridge Sites Anchored on Carbon Nanosheets for Promoting Oxygen Reduction Reaction. ACS Energy Letters, 2021, 6, 379-386.                                   | 8.8  | 167       |
| 60 | Progress of Nonpreciousâ€Metalâ€Based Electrocatalysts for Oxygen Evolution in Acidic Media. Advanced Materials, 2021, 33, e2003786.  | 11.1 | 166       |
| 61 | TiO <sub>2</sub> â€"B/Anatase Coreâ€"Shell Heterojunction Nanowires for Photocatalysis. ACS Applied Materials & Discrete Section 1, 3, 4444-4450.   | 4.0  | 162       |
| 62 | Stable Quantum Dot Photoelectrolysis Cell for Unassisted Visible Light Solar Water Splitting. ACS Nano, 2014, 8, 10403-10413.   | 7.3  | 162       |
| 63 | Nanowire Photoelectrochemistry. Chemical Reviews, 2019, 119, 9221-9259.   | 23.0 | 158       |
| 64 | Revealing Energetics of Surface Oxygen Redox from Kinetic Fingerprint in Oxygen Electrocatalysis. Journal of the American Chemical Society, 2019, 141, 13803-13811.                                   | 6.6  | 151       |
| 65 | In-situ phase transition of WO3 boosting electron and hydrogen transfer for enhancing hydrogen evolution on Pt. Nano Energy, 2020, 71, 104653.  | 8.2  | 149       |
| 66 | Unraveling Oxygen Evolution Reaction on Carbon-Based Electrocatalysts: Effect of Oxygen Doping on Adsorption of Oxygenated Intermediates. ACS Energy Letters, 2017, 2, 294-300.                       | 8.8  | 145       |
| 67 | A new surfactant-introduction strategy for separating the pure single-phase of metal–organic frameworks. Chemical Communications, 2015, 51, 9479-9482.  | 2.2  | 142       |
| 68 | Bridging the Gap: Electron Relay and Plasmonic Sensitization of Metal Nanocrystals for Metal Clusters. Journal of the American Chemical Society, 2015, 137, 10735-10744.                              | 6.6  | 141       |
| 69 | Oriented single crystalline titanium dioxide nanowires. Nanotechnology, 2008, 19, 505604.   | 1.3  | 138       |
| 70 | In Situ Spectroscopic Identification of $\hat{l}$ /4-OO Bridging on Spinel Co <sub>3</sub> O <sub>4</sub> Water Oxidation Electrocatalyst. Journal of Physical Chemistry Letters, 2016, 7, 4847-4853. | 2.1  | 136       |
| 71 | Polarization Engineering of Covalent Triazine Frameworks for Highly Efficient Photosynthesis of<br>Hydrogen Peroxide from Molecular Oxygen and Water. Advanced Materials, 2022, 34, e2110266.         | 11.1 | 136       |
| 72 | Tuning chemical bonding of MnO2 through transition-metal doping for enhanced CO oxidation. Journal of Catalysis, 2016, 341, 82-90.  | 3.1  | 132       |

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|----|--|------|-----------|
| 73 | In Situ/Operando Characterization Techniques to Probe the Electrochemical Reactions for Energy Conversion. Small Methods, 2018, 2, 1700395.  | 4.6  | 131       |
| 74 | Recent advances in single atom catalysts for the electrochemical carbon dioxide reduction reaction. Chemical Science, 2021, 12, 6800-6819.   | 3.7  | 130       |
| 75 | Progress of Electrochemical Hydrogen Peroxide Synthesis over Single Atom Catalysts. , 2020, 2, 1008-1024.  |      | 129       |
| 76 | One-pot synthesis of ordered mesoporous Ni–V–Al catalysts for CO methanation. Journal of Catalysis, 2015, 326, 127-138.  | 3.1  | 127       |
| 77 | ZIF-8 derived carbon (C-ZIF) as a bifunctional electron acceptor and HER cocatalyst for g-C <sub>3</sub> N <sub>4</sub> : construction of a metal-free, all carbon-based photocatalytic system for efficient hydrogen evolution. Journal of Materials Chemistry A, 2016, 4, 3822-3827. | 5.2  | 127       |
| 78 | Semiconductor Rings Fabricated by Self-Assembly of Nanocrystals. Journal of the American Chemical Society, 2005, 127, 18262-18268.   | 6.6  | 121       |
| 79 | Electrochemical Reduction of CO <sub>2</sub> to CO over Transition Metal/Nâ€Doped Carbon Catalysts: The Active Sites and Reaction Mechanism. Advanced Science, 2021, 8, e2102886.  | 5.6  | 121       |
| 80 | Hierarchical αâ€MnO <sub>2</sub> Nanowires@Ni <sub>1â€x</sub> Mn <sub>x</sub> O <sub>y</sub> Nanoflakes Core–Shell Nanostructures for Supercapacitors. Small, 2014, 10, 3181-3186.   | 5.2  | 118       |
| 81 | Direct and selective hydrogenation of CO <sub>2</sub> to ethylene and propene by bifunctional catalysts. Catalysis Science and Technology, 2017, 7, 5602-5607.   | 2.1  | 118       |
| 82 | Atomically Dispersed Nickel(I) on an Alloyâ€Encapsulated Nitrogenâ€Doped Carbon Nanotube Array for Highâ€Performance Electrochemical CO <sub>2</sub> Reduction Reaction. Angewandte Chemie - International Edition, 2020, 59, 12055-12061.   | 7.2  | 117       |
| 83 | Photoelectrochemical CO <sub>2</sub> reduction to adjustable syngas on grain-boundary-mediated a-Si/TiO <sub>2</sub> /Au photocathodes with low onset potentials. Energy and Environmental Science, 2019, 12, 923-928.   | 15.6 | 114       |
| 84 | Tuning reactivity of Fischer–Tropsch synthesis by regulating TiOx overlayer over Ru/TiO2 nanocatalysts. Nature Communications, 2020, 11, 3185.   | 5.8  | 114       |
| 85 | Salt-Assisted Deposition of SnO2 on α-MoO3 Nanorods and Fabrication of Polycrystalline SnO2<br>Nanotubes. Journal of Physical Chemistry B, 2004, 108, 5867-5874.   | 1.2  | 111       |
| 86 | Iridium Oxideâ€Assisted Plasmonâ€Induced Hot Carriers: Improvement on Kinetics and Thermodynamics of Hot Carriers. Advanced Energy Materials, 2016, 6, 1501339.  | 10.2 | 111       |
| 87 | Atomically-precise dopant-controlled single cluster catalysis for electrochemical nitrogen reduction. Nature Communications, 2020, 11, 4389.   | 5.8  | 110       |
| 88 | Threading Chalcogenide Layers with Polymer Chains. Angewandte Chemie - International Edition, 2015, 54, 546-550.   | 7.2  | 102       |
| 89 | Spatially branched hierarchical ZnO nanorod-TiO $<$ sub $>$ 2 $<$ /sub $>$ nanotube array heterostructures for versatile photocatalytic and photoelectrocatalytic applications: towards intimate integration of 1Dâ $\in$ "1D hybrid nanostructures. Nanoscale, 2014, 6, 14950-14961.  | 2.8  | 101       |
| 90 | Metal–Organic Frameworks as Promising Photosensitizers for Photoelectrochemical Water Splitting. Advanced Science, 2016, 3, 1500243.   | 5.6  | 100       |

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|-----|--|-------------|-----------|
| 91  | Unraveling the Mechanism on Ultrahigh Efficiency Photocatalytic H <sub>2</sub> O <sub>2</sub><br>Generation for Dualâ€Heteroatom Incorporated Polymeric Carbon Nitride. Advanced Functional<br>Materials, 2022, 32, .                      | 7.8         | 100       |
| 92  | Achieving stable and efficient water oxidation by incorporating NiFe layered double hydroxide nanoparticles into aligned carbon nanotubes. Nanoscale Horizons, 2016, 1, 156-160.   | 4.1         | 99        |
| 93  | Hollow ZnO Microspheres with Complex Nanobuilding Units. Chemistry of Materials, 2007, 19, 5824-5826.  | 3.2         | 98        |
| 94  | Size Effects of Platinum Nanoparticles in the Photocatalytic Hydrogen Production Over 3D Mesoporous Networks of CdS and Pt Nanojunctions. Advanced Functional Materials, 2016, 26, 8062-8071.  | 7.8         | 98        |
| 95  | Electron transport and recombination in dye-sensitized solar cells made from single-crystal rutile TiO2 nanowires. Physical Chemistry Chemical Physics, 2009, 11, 9648.  | 1.3         | 92        |
| 96  | Electrochemical fabrication of ZnO–CdSe core–shell nanorod arrays for efficient photoelectrochemical water splitting. Nanoscale, 2013, 5, 11118.   | 2.8         | 92        |
| 97  | Metallic Nanocatalysis: An Accelerating Seamless Integration with Nanotechnology. Small, 2015, 11, 268-289.  | 5.2         | 92        |
| 98  | Plasmonâ€Dictated Photoâ€Electrochemical Water Splitting for Solarâ€toâ€Chemical Energy Conversion: Current Status and Future Perspectives. Advanced Materials Interfaces, 2018, 5, 1701098.   | 1.9         | 92        |
| 99  | Van der Waals heterojunction for selective visible-light-driven photocatalytic CO2 reduction. Applied Catalysis B: Environmental, 2021, 284, 119733.   | 10.8        | 92        |
| 100 | Rational design of carbon-based metal-free catalysts for electrochemical carbon dioxide reduction: A review. Journal of Energy Chemistry, 2019, 36, 95-105.  | 7.1         | 91        |
| 101 | A solution-processed, mercaptoacetic acid-engineered CdSe quantum dot photocathode for efficient hydrogen production under visible light irradiation. Energy and Environmental Science, 2015, 8, 1443-1449.                                | 15.6        | 90        |
| 102 | Bifunctional N-CoSe <sub>2</sub> /3D-MXene as Highly Efficient and Durable Cathode for Rechargeable Zn–Air Battery. , 2019, 1, 432-439.  |             | 90        |
| 103 | Strong Metal–Support Interaction Boosts Activity, Selectivity, and Stability in Electrosynthesis of H <sub>2</sub> O <sub>2</sub> . Journal of the American Chemical Society, 2022, 144, 2255-2263.  | 6.6         | 90        |
| 104 | Self-assembly of hierarchically ordered CdS quantum dotsâ€"TiO2 nanotube array heterostructures as efficient visible light photocatalysts for photoredox applications. Journal of Materials Chemistry A, 2013, 1, 12229.                   | 5.2         | 89        |
| 105 | Advances in Thermodynamic-Kinetic Model for Analyzing the Oxygen Evolution Reaction. ACS Catalysis, 2020, 10, 8597-8610.   | <b>5.</b> 5 | 89        |
| 106 | In situ etching-induced self-assembly of metal cluster decorated one-dimensional semiconductors for solar-powered water splitting: unraveling cooperative synergy by photoelectrochemical investigations. Nanoscale, 2017, 9, 17118-17132. | 2.8         | 88        |
| 107 | Hierarchical carbon@Ni <sub>3</sub> S <sub>2</sub> @MoS <sub>2</sub> double core–shell nanorods for high-performance supercapacitors. Journal of Materials Chemistry A, 2016, 4, 1319-1325.  | 5.2         | 87        |
| 108 | Sulfur-Mediated Self-Templating Synthesis of Tapered C-PAN/g-C <sub>3</sub> N <sub>4</sub> Composite Nanotubes toward Efficient Photocatalytic H <sub>2</sub> Evolution. ACS Energy Letters, 2016, 1, 969-975.                             | 8.8         | 86        |

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|-----|---|------|-----------|
| 109 | Electrochemical construction of hierarchically ordered CdSe-sensitized TiO <sub>2</sub> nanotube arrays: towards versatile photoelectrochemical water splitting and photoredox applications. Nanoscale, 2014, 6, 6727-6737.   | 2.8  | 85        |
| 110 | Fabrication of 3D mesoporous networks of assembled CoO nanoparticles for efficient photocatalytic reduction of aqueous Cr(VI). Applied Catalysis B: Environmental, 2018, 221, 635-644.  | 10.8 | 85        |
| 111 | Oneâ€Step Hydrothermal Tailoring of NiCo <sub>2</sub> S <sub>4</sub> Nanostructures on Conducting Oxide Substrates as an Efficient Counter Electrode in Dyeâ€Sensitized Solar Cells. Advanced Materials Interfaces, 2015, 2, 1500384.   | 1.9  | 83        |
| 112 | Unique role of Mössbauer spectroscopy in assessing structural features of heterogeneous catalysts. Applied Catalysis B: Environmental, 2018, 224, 518-532.  | 10.8 | 83        |
| 113 | Ordered clustering of single atomic Te vacancies in atomically thin PtTe2 promotes hydrogen evolution catalysis. Nature Communications, 2021, 12, 2351.   | 5.8  | 83        |
| 114 | Enhancement of photocatalytic properties of TiO2 nanoparticles doped with CeO2 and supported on SiO2 for phenol degradation. Applied Surface Science, 2015, 331, 17-26.   | 3.1  | 82        |
| 115 | Carbonâ€based cathode materials for rechargeable zincâ€air batteries: From current collectors to bifunctional integrated air electrodes. , 2020, 2, 370-386.  |      | 82        |
| 116 | Anchoring Mn <sub>3</sub> O <sub>4</sub> Nanoparticles on Oxygen Functionalized Carbon Nanotubes as Bifunctional Catalyst for Rechargeable Zinc-Air Battery. ACS Applied Energy Materials, 2018, 1, 963-969.  | 2.5  | 80        |
| 117 | <i>In situ</i> growth of single-layered α-Ni(OH) <sub>2</sub> nanosheets on a carbon cloth for highly efficient electrocatalytic oxidation of urea. Journal of Materials Chemistry A, 2018, 6, 13867-13873.   | 5.2  | 80        |
| 118 | Highly efficient and durable MoNiNC catalyst for hydrogen evolution reaction. Nano Energy, 2017, 37, 1-6.   | 8.2  | 79        |
| 119 | Cesium Carbonate Functionalized Graphene Quantum Dots as Stable Electron-Selective Layer for Improvement of Inverted Polymer Solar Cells. ACS Applied Materials & Electron Selective Layer for Improvement of Inverted Polymer Solar Cells. ACS Applied Materials & Electron Selective Layer for Improvement of Inverted Polymer Solar Cells. ACS Applied Materials & Electron Selective Layer for Improvement of Inverted Polymer Solar Cells. | 4.0  | 77        |
| 120 | Electrostatic self-assembly of a AgI/Bi <sub>2</sub> Ga <sub>4</sub> O <sub>9</sub> p–n junction photocatalyst for boosting superoxide radical generation. Journal of Materials Chemistry A, 2020, 8, 4083-4090.  | 5.2  | 73        |
| 121 | Rational design of donor-acceptor conjugated polymers with high performance on peroxydisulfate activation for pollutants degradation. Applied Catalysis B: Environmental, 2022, 316, 121611.  | 10.8 | 73        |
| 122 | High-Performance Ni–Fe Redox Catalysts for Selective CH <sub>4</sub> to Syngas Conversion via Chemical Looping. ACS Catalysis, 2018, 8, 1748-1756.  | 5.5  | 72        |
| 123 | Direct growth of enclosed ZnO nanotubes. Nano Research, 2009, 2, 201-209.   | 5.8  | 71        |
| 124 | Tuning the Electronic Spin State of Catalysts by Strain Control for Highly Efficient Water Electrolysis. Small Methods, 2018, 2, 1800001.   | 4.6  | 70        |
| 125 | Self-assembly of aligned rutile@anatase TiO <sub>2</sub> nanorod@CdS quantum dots ternary core–shell heterostructure: cascade electron transfer by interfacial design. Materials Horizons, 2014, 1, 259-263.  | 6.4  | 69        |
| 126 | All Inorganic Semiconductor Nanowire Mesh for Direct Solar Water Splitting. ACS Nano, 2014, 8, 11739-11744.   | 7.3  | 67        |

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|-----|--|------|-----------|
| 127 | Revisiting one-dimensional TiO2 based hybrid heterostructures for heterogeneous photocatalysis: a critical review. Materials Chemistry Frontiers, 2017, 1, 231-250.  | 3.2  | 67        |
| 128 | Anatase TiO2 films with reactive {001} facets on transparent conductive substrate. Chemical Communications, 2011, 47, 9507.  | 2.2  | 66        |
| 129 | Multilayer TiO2 nanorod cloth/nanorod array electrode for dye-sensitized solar cells and self-powered UV detectors. Nanoscale, 2012, 4, 3350.  | 2.8  | 66        |
| 130 | Controllable synthesis of $\hat{l}$ ±-MoC1-x and $\hat{l}$ 2-Mo2C nanowires for highly selective CO2 reduction to CO. Catalysis Communications, 2016, 84, 147-150.   | 1.6  | 66        |
| 131 | Dynamic Restructuring of Cuâ€Doped SnS <sub>2</sub> Nanoflowers for Highly Selective Electrochemical CO <sub>2</sub> Reduction to Formate. Angewandte Chemie - International Edition, 2021, 60, 26233-26237.   | 7.2  | 66        |
| 132 | Graphene quantum dots-incorporated cathode buffer for improvement of inverted polymer solar cells. Solar Energy Materials and Solar Cells, 2013, 117, 214-218.   | 3.0  | 64        |
| 133 | Self-assembly of a Ag nanoparticle-modified and graphene-wrapped TiO <sub>2</sub> nanobelt ternary heterostructure: surface charge tuning toward efficient photocatalysis. Nanoscale, 2014, 6, 11293-11302.  | 2.8  | 64        |
| 134 | Recent Advances in Carbonâ€Supported Nobleâ€Metal Electrocatalysts for Hydrogen Evolution Reaction: Syntheses, Structures, and Properties. Advanced Energy Materials, 2022, 12, .  | 10.2 | 64        |
| 135 | Highly Concentrated, Ultrathin Nickel Hydroxide Nanosheet Ink for Wearable Energy Storage Devices.<br>Advanced Materials, 2017, 29, 1703455.   | 11.1 | 62        |
| 136 | High performance Ni catalysts prepared by freeze drying for efficient dry reforming of methane. Applied Catalysis B: Environmental, 2020, 275, 119109.   | 10.8 | 60        |
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