

Shuyan Gao

List of Publications by Year in descending order

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145
papers

12,959
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15504

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147
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times ranked

12236
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| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Interfacing Manganese Oxide and Cobalt in Porous Graphitic Carbon Polyhedrons Boosts Oxygen Electrocatalysis for Zn–Air Batteries. <i>Advanced Materials</i> , 2019, 31, e1902339. | 21.0 | 363 |
| 2 | A versatile biomass derived carbon material for oxygen reduction reaction, supercapacitors and oil/water separation. <i>Nano Energy</i> , 2017, 33, 334-342. | 16.0 | 352 |
| 3 | One-Pot Synthesis of Ag/ZnO Self-Assembled 3D Hollow Microspheres with Enhanced Photocatalytic Performance. <i>Journal of Physical Chemistry C</i> , 2008, 112, 16792-16800. | 3.1 | 331 |
| 4 | Ambient N ₂ fixation to NH ₃ at ambient conditions: Using Nb ₂ O ₅ nanofiber as a high-performance electrocatalyst. <i>Nano Energy</i> , 2018, 52, 264-270. | 16.0 | 331 |
| 5 | A general dual-templating approach to biomass-derived hierarchically porous heteroatom-doped carbon materials for enhanced electrocatalytic oxygen reduction. <i>Energy and Environmental Science</i> , 2019, 12, 648-655. | 30.8 | 318 |
| 6 | Transforming organic-rich amaranthus waste into nitrogen-doped carbon with superior performance of the oxygen reduction reaction. <i>Energy and Environmental Science</i> , 2015, 8, 221-229. | 30.8 | 307 |
| 7 | Designed Formation of Double-Shell Ni–Fe Layered-Hydroxide Nanocages for Efficient Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2020, 32, e1906432. | 21.0 | 305 |
| 8 | Iron-based phosphides as electrocatalysts for the hydrogen evolution reaction: recent advances and future prospects. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19729-19745. | 10.3 | 295 |
| 9 | Identifying the Origin of Ti ³⁺ Activity toward Enhanced Electrocatalytic N ₂ Reduction over TiO ₂ Nanoparticles Modulated by Mixed-Valent Copper. <i>Advanced Materials</i> , 2020, 32, e2000299. | 21.0 | 278 |
| 10 | Nickel–Iron Layered Double Hydroxide Hollow Polyhedrons as a Superior Sulfur Host for Lithium–Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10944-10948. | 13.8 | 269 |
| 11 | Rationally Designed Three-Layered Cu ₂ S@Carbon@MoS ₂ Hierarchical Nanoboxes for Efficient Sodium Storage. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7178-7183. | 13.8 | 232 |
| 12 | Aqueous electrocatalytic N ₂ reduction for ambient NH ₃ synthesis: recent advances in catalyst development and performance improvement. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1545-1556. | 10.3 | 226 |
| 13 | Functional Groups and Pore Size Distribution Do Matter to Hierarchically Porous Carbons as High-Rate-Performance Supercapacitors. <i>Chemistry of Materials</i> , 2016, 28, 445-458. | 6.7 | 221 |
| 14 | Large scale production of biomass-derived N-doped porous carbon spheres for oxygen reduction and supercapacitors. <i>Journal of Materials Chemistry A</i> , 2014, 2, 3317. | 10.3 | 208 |
| 15 | Nitrogen-Doped Cobalt Pyrite Yolk–Shell Hollow Spheres for Long-Life Rechargeable Zn–Air Batteries. <i>Advanced Science</i> , 2020, 7, 2001178. | 11.2 | 206 |
| 16 | N-doped-carbon-coated Fe ₃ O ₄ from metal-organic framework as efficient electrocatalyst for ORR. <i>Nano Energy</i> , 2017, 40, 462-470. | 16.0 | 198 |
| 17 | Phosphorized CoNi ₂ S ₄ Yolk–Shell Spheres for Highly Efficient Hydrogen Production via Water and Urea Electrolysis. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22885-22891. | 13.8 | 191 |
| 18 | Synthesis of Cobalt Sulfide Multi-Shell Nanoboxes with Precisely Controlled Two to Five Shells for Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2675-2679. | 13.8 | 182 |

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|----|---|------|-----------|
| 19 | Synthesis of Copper-Substituted CoS ₂ @Cu _x S Double-Shelled Nanoboxes by Sequential Ion Exchange for Efficient Sodium Storage. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 2644-2648. | 13.8 | 182 |
| 20 | Green Fabrication of Hierarchical CuO Hollow Micro/Nanostructures and Enhanced Performance as Electrode Materials for Lithium-ion Batteries. <i>Journal of Physical Chemistry C</i> , 2008, 112, 19324-19328. | 3.1 | 181 |
| 21 | High-Performance Electrochemical NO Reduction into NH ₃ by MoS ₂ Nanosheet. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 25263-25268. | 13.8 | 180 |
| 22 | Self-assembly-template engineering nitrogen-doped carbon aerogels for high-rate supercapacitors. <i>Nano Energy</i> , 2016, 28, 206-215. | 16.0 | 174 |
| 23 | Ambient Ammonia Synthesis via Electrochemical Reduction of Nitrate Enabled by NiCo ₂ O ₄ Nanowire Array. <i>Small</i> , 2022, 18, e2106961. | 10.0 | 171 |
| 24 | High-performance non-enzymatic glucose detection: using a conductive Ni-MOF as an electrocatalyst. <i>Journal of Materials Chemistry B</i> , 2020, 8, 5411-5415. | 5.8 | 170 |
| 25 | Tyrosine-assisted preparation of Ag/ZnO nanocomposites with enhanced photocatalytic performance and synergistic antibacterial activities. <i>Nanotechnology</i> , 2008, 19, 445711. | 2.6 | 168 |
| 26 | Honeysuckles-derived porous nitrogen, sulfur, dual-doped carbon as high-performance metal-free oxygen electroreduction catalyst. <i>Nano Energy</i> , 2015, 12, 785-793. | 16.0 | 167 |
| 27 | Recent advances in electrospun nanofibers for supercapacitors. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16747-16789. | 10.3 | 166 |
| 28 | Recent Advances in 1D Electrospun Nanocatalysts for Electrochemical Water Splitting. <i>Small Structures</i> , 2021, 2, 2000048. | 12.0 | 157 |
| 29 | A-site perovskite oxides: an emerging functional material for electrocatalysis and photocatalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6650-6670. | 10.3 | 146 |
| 30 | ZnO-Based Hollow Microspheres: Biopolymer-Assisted Assemblies from ZnO Nanorods. <i>Journal of Physical Chemistry B</i> , 2006, 110, 15847-15852. | 2.6 | 137 |
| 31 | A green one-arrow-two-hawks strategy for nitrogen-doped carbon dots as fluorescent ink and oxygen reduction electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6320. | 10.3 | 136 |
| 32 | Nitrogen-doped carbon shell structure derived from natural leaves as a potential catalyst for oxygen reduction reaction. <i>Nano Energy</i> , 2015, 13, 518-526. | 16.0 | 132 |
| 33 | Biomass-derived interconnected carbon nanoring electrochemical capacitors with high performance in both strongly acidic and alkaline electrolytes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 181-188. | 10.3 | 130 |
| 34 | Rational design of carbon materials as anodes for potassium-ion batteries. <i>Energy Storage Materials</i> , 2021, 34, 483-507. | 18.0 | 130 |
| 35 | Ordered Co ₃ O ₄ hierarchical nanorod arrays: tunable superhydrophilicity without UV irradiation and transition to superhydrophobicity. <i>Journal of Materials Chemistry</i> , 2009, 19, 8366. | 6.7 | 129 |
| 36 | Self-power electroreduction of N ₂ into NH ₃ by 3D printed triboelectric nanogenerators. <i>Materials Today</i> , 2019, 28, 17-24. | 14.2 | 127 |

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|----|---|------|-----------|
| 37 | A cobalt-phosphorus nanoparticle decorated N-doped carbon nanosheet array for efficient and durable hydrogen evolution at alkaline pH. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3884-3887. | 4.9 | 127 |
| 38 | Metal-based electrocatalytic conversion of CO ₂ to formic acid/formate. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21947-21960. | 10.3 | 125 |
| 39 | Flower-like open-structured polycrystalline copper with synergistic multi-crystal plane for efficient electrocatalytic reduction of nitrate to ammonia. <i>Nano Energy</i> , 2022, 97, 107124. | 16.0 | 125 |
| 40 | Rational Design and Engineering of One-Dimensional Hollow Nanostructures for Efficient Electrochemical Energy Storage. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20102-20118. | 13.8 | 123 |
| 41 | Recycling the biowaste to produce nitrogen and sulfur self-doped porous carbon as an efficient catalyst for oxygen reduction reaction. <i>Nano Energy</i> , 2015, 16, 408-418. | 16.0 | 119 |
| 42 | Hierarchically porous carbon materials with controllable proportion of micropore area by dual-activator synthesis for high-performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15340-15347. | 10.3 | 116 |
| 43 | An ultrasmall Ru ₂ P nanoparticles-reduced graphene oxide hybrid: an efficient electrocatalyst for NH ₃ synthesis under ambient conditions. <i>Journal of Materials Chemistry A</i> , 2020, 8, 77-81. | 10.3 | 115 |
| 44 | Recent advances in electrospun one-dimensional carbon nanofiber structures/heterostructures as anode materials for sodium ion batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 11493-11510. | 10.3 | 113 |
| 45 | CoFe-LDH nanowire arrays on graphite felt: A high-performance oxygen evolution electrocatalyst in alkaline media. <i>Chinese Chemical Letters</i> , 2022, 33, 890-892. | 9.0 | 110 |
| 46 | Engineering white light-emitting Eu-doped ZnO urchins by biopolymer-assisted hydrothermal method. <i>Applied Physics Letters</i> , 2006, 89, 123125. | 3.3 | 108 |
| 47 | In situ grown Fe ₃ O ₄ particle on stainless steel: A highly efficient electrocatalyst for nitrate reduction to ammonia. <i>Nano Research</i> , 2022, 15, 3050-3055. | 10.4 | 108 |
| 48 | Ambient electrohydrogenation of N ₂ for NH ₃ synthesis on non-metal boron phosphide nanoparticles: the critical role of P in boosting the catalytic activity. <i>Journal of Materials Chemistry A</i> , 2019, 7, 16117-16121. | 10.3 | 105 |
| 49 | High-Performance Electrochemical NO Reduction into NH ₃ by MoS ₂ Nanosheet. <i>Angewandte Chemie</i> , 2021, 133, 25467-25472. | 2.0 | 102 |
| 50 | Loading Single Ni Atoms on Assembled Hollow Ni-Rich Carbon Plates for Efficient CO ₂ Electroreduction. <i>Advanced Materials</i> , 2022, 34, e2105204. | 21.0 | 100 |
| 51 | Why and how to tailor the vertical coordinate of pore size distribution to construct ORR-active carbon materials?. <i>Nano Energy</i> , 2019, 58, 384-391. | 16.0 | 97 |
| 52 | Hierarchical Ag/ZnO micro/nanostructure: Green synthesis and enhanced photocatalytic performance. <i>Journal of Solid State Chemistry</i> , 2011, 184, 764-769. | 2.9 | 94 |
| 53 | Recent Progress in Electrocatalytic Methanation of CO ₂ at Ambient Conditions. <i>Advanced Functional Materials</i> , 2021, 31, 2009449. | 14.9 | 92 |
| 54 | Triboelectric Nanogenerator Powered Electrochemical Degradation of Organic Pollutant Using Pt-Free Carbon Materials. <i>ACS Nano</i> , 2017, 11, 3965-3972. | 14.6 | 91 |

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|----|--|------|-----------|
| 55 | A universal strategy for carbon-based ORR active electrocatalyst: One porogen, two pore creating mechanisms, three pore types. <i>Nano Energy</i> , 2019, 62, 628-637. | 16.0 | 91 |
| 56 | Ti ₂ O ₃ Nanoparticles with Ti ³⁺ Sites toward Efficient NH ₃ Electrosynthesis under Ambient Conditions. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 41715-41722. | 8.0 | 89 |
| 57 | Pd ₂ nanoparticles reduced graphene oxide for electrocatalytic N ₂ conversion to NH ₃ under ambient conditions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 24760-24764. | 10.3 | 81 |
| 58 | Nitrogen-enriched carbon from bamboo fungus with superior oxygen reduction reaction activity. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18263-18270. | 10.3 | 78 |
| 59 | An advanced electro-Fenton degradation system with triboelectric nanogenerator as electric supply and biomass-derived carbon materials as cathode catalyst. <i>Nano Energy</i> , 2018, 45, 21-27. | 16.0 | 77 |
| 60 | Marriage of an Ether-Based Electrolyte with Hard Carbon Anodes Creates Superior Sodium-Ion Batteries with High Mass Loading. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41380-41388. | 8.0 | 76 |
| 61 | Nitrogen-Doped Porous Carbon Derived from Malachium Aquaticum Biomass as a Highly Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Electrochimica Acta</i> , 2016, 220, 427-435. | 5.2 | 73 |
| 62 | CoS ₂ graphene composite as efficient catalytic counter electrode for dye-sensitized solar cell. <i>Electrochimica Acta</i> , 2013, 114, 173-179. | 5.2 | 71 |
| 63 | An innovative electro-fenton degradation system self-powered by triboelectric nanogenerator using biomass-derived carbon materials as cathode catalyst. <i>Nano Energy</i> , 2017, 42, 314-321. | 16.0 | 71 |
| 64 | Greatly Enhanced Electrocatalytic N ₂ Reduction over V ₂ O ₃ /C by P Doping. <i>ChemNanoMat</i> , 2020, 6, 1315-1319. | 2.8 | 71 |
| 65 | High-efficiency electrohydrogenation of nitric oxide to ammonia on a Ni ₂ P nanoarray under ambient conditions. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24268-24275. | 10.3 | 68 |
| 66 | Highly Stable Au Nanoparticles with Tunable Spacing and Their Potential Application in Surface Plasmon Resonance Biosensors. <i>Advanced Functional Materials</i> , 2010, 20, 78-86. | 14.9 | 67 |
| 67 | Hierarchically micro/nanostructured porous metallic copper: Convenient growth and superhydrophilic and catalytic performance. <i>Journal of Materials Chemistry</i> , 2012, 22, 21733. | 6.7 | 64 |
| 68 | Pyrrolic-nitrogen-rich biomass-derived catalyst for sustainable degradation of organic pollutant via a self-powered electro-Fenton process. <i>Nano Energy</i> , 2019, 64, 103940. | 16.0 | 62 |
| 69 | Ni ₂ P nanosheet array for high-efficiency electrohydrogenation of nitrite to ammonia at ambient conditions. <i>Journal of Colloid and Interface Science</i> , 2022, 606, 1055-1063. | 9.4 | 62 |
| 70 | Peanut-Shell-like Porous Carbon from Nitrogen-Containing Poly-N-phenylethanolamine for High-Performance Supercapacitor. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22238-22245. | 8.0 | 61 |
| 71 | High-Performance Electrochemical Nitrate Reduction to Ammonia under Ambient Conditions Using a FeOOH Nanorod Catalyst. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 17312-17318. | 8.0 | 58 |
| 72 | Functional integration of hierarchical core-shell architectures via vertically arrayed ultrathin CuSe nanosheets decorated on hollow CuS microcages targeting highly effective sodium-ion storage. <i>Journal of Materials Chemistry A</i> , 2021, 9, 27615-27628. | 10.3 | 56 |

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|----|---|------|-----------|
| 73 | Electrochemical two-electron O_2 reduction reaction toward H_2O_2 production: using cobalt porphyrin decorated carbon nanotubes as a nanohybrid catalyst. <i>Journal of Materials Chemistry A</i> , 2021, 9, 26019-26027. | 10.3 | 55 |
| 74 | One stone, two birds: <i>Gastrodia elata</i> -derived heteroatom-doped carbon materials for efficient oxygen reduction electrocatalyst and as fluorescent decorative materials. <i>Nano Energy</i> , 2013, 2, 1261-1270. | 16.0 | 54 |
| 75 | Engineering flexible 3D printed triboelectric nanogenerator to self-power electro-Fenton degradation of pollutants. <i>Nano Energy</i> , 2020, 74, 104908. | 16.0 | 54 |
| 76 | Sn dendrites for electrocatalytic N_2 reduction to NH_3 under ambient conditions. <i>Sustainable Energy and Fuels</i> , 2020, 4, 4469-4472. | 4.9 | 54 |
| 77 | MnO_2 nanoarray with oxygen vacancies: An efficient catalyst for NO electroreduction to NH_3 at ambient conditions. <i>Materials Today Physics</i> , 2022, 22, 100586. | 6.0 | 54 |
| 78 | Self-Powered Electrochemical Oxidation of 4-Aminoazobenzene Driven by a Triboelectric Nanogenerator. <i>ACS Nano</i> , 2017, 11, 770-778. | 14.6 | 53 |
| 79 | Enabling electrochemical conversion of N_2 to NH_3 under ambient conditions by a CoP_3 nanoneedle array. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17956-17959. | 10.3 | 53 |
| 80 | Application of hierarchical TiO_2 spheres as scattering layer for enhanced photovoltaic performance in dye sensitized solar cell. <i>CrystEngComm</i> , 2013, 15, 3351. | 2.6 | 52 |
| 81 | Sustainable self-powered electro-Fenton degradation of organic pollutants in wastewater using carbon catalyst with controllable pore activated by EDTA-2Na. <i>Nano Energy</i> , 2019, 59, 346-353. | 16.0 | 51 |
| 82 | $FeOOH$ quantum dots decorated graphene sheet: An efficient electrocatalyst for ambient N_2 reduction. <i>Nano Research</i> , 2020, 13, 209-214. | 10.4 | 48 |
| 83 | Hierarchical porous biomass-derived carbon framework with ultrahigh surface area for outstanding capacitance supercapacitor. <i>Renewable Energy</i> , 2021, 179, 1826-1835. | 8.9 | 48 |
| 84 | Pore-structure regulation of biomass-derived carbon materials for an enhanced supercapacitor performance. <i>Nanoscale</i> , 2021, 13, 10051-10060. | 5.6 | 47 |
| 85 | Biomass <i>Juncus</i> derived carbon decorated with cobalt nanoparticles enables high-efficiency ammonia electrosynthesis by nitrite reduction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2842-2848. | 10.3 | 47 |
| 86 | Greatly Facilitated Two-Electron Electroreduction of Oxygen into Hydrogen Peroxide over TiO_2 by Mn Doping. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46659-46664. | 8.0 | 46 |
| 87 | A gradient hexagonal-prism $Fe_3Se_4@SiO_2@C$ configuration as a highly reversible sodium conversion anode. <i>Journal of Materials Chemistry A</i> , 2022, 10, 4087-4099. | 10.3 | 46 |
| 88 | Electrocatalytic N_2 reduction to NH_3 with high Faradaic efficiency enabled by vanadium phosphide nanoparticle on V foil. <i>Nano Research</i> , 2020, 13, 2967-2972. | 10.4 | 45 |
| 89 | Chemical crosslinking engineered nitrogen-doped carbon aerogels from polyaniline-boric acid-polyvinyl alcohol gels for high-performance electrochemical capacitors. <i>Carbon</i> , 2017, 123, 471-480. | 10.3 | 43 |
| 90 | Sustainable self-powered electro-Fenton degradation using N, S co-doped porous carbon catalyst fabricated with adsorption-pyrolysis-doping strategy. <i>Nano Energy</i> , 2021, 81, 105623. | 16.0 | 43 |

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| 91 | Rationally Designed Three-Layered Cu ₂ S@Carbon@MoS ₂ Hierarchical Nanoboxes for Efficient Sodium Storage. <i>Angewandte Chemie</i> , 2020, 132, 7245-7250. | 2.0 | 42 |
| 92 | Self-catalyzed growth of Zn/Co-N-C carbon nanotubes derived from metal-organic frameworks as efficient oxygen reduction catalysts for Zn-air battery. <i>Science China Materials</i> , 2022, 65, 653-662. | 6.3 | 42 |
| 93 | Biomolecule-assisted in situ route toward 3D superhydrophilic Ag/CuO micro/nanostructures with excellent artificial sunlight self-cleaning performance. <i>Journal of Materials Chemistry</i> , 2011, 21, 7281. | 6.7 | 39 |
| 94 | Surface chemistry of gold nanoparticles determines interactions with bovine serum albumin. <i>Materials Science and Engineering C</i> , 2019, 103, 109856. | 7.3 | 39 |
| 95 | Platelet-like CuS impregnated with twin crystal structures for high performance sodium-ion storage. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8049-8057. | 10.3 | 38 |
| 96 | A MnS/FeS ₂ heterostructure with a high degree of lattice matching anchored into carbon skeleton for ultra-stable sodium-ion storage. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24024-24035. | 10.3 | 38 |
| 97 | Highly efficient two-electron electroreduction of oxygen into hydrogen peroxide over Cu-doped TiO ₂ . <i>Nano Research</i> , 2022, 15, 3880-3885. | 10.4 | 38 |
| 98 | Self-assembly of cuprous oxide nanoparticles supported on reduced graphene oxide and their enhanced performance for catalytic reduction of nitrophenols. <i>RSC Advances</i> , 2015, 5, 71259-71267. | 3.6 | 36 |
| 99 | Anatase TiO ₂ nanocrystals enclosed by well-defined crystal facets and their application in dye-sensitized solar cell. <i>CrystEngComm</i> , 2013, 15, 516-523. | 2.6 | 35 |
| 100 | Oxidation of diclofenac by potassium ferrate (VI): Reaction kinetics and toxicity evaluation. <i>Science of the Total Environment</i> , 2015, 506-507, 252-258. | 8.0 | 35 |
| 101 | Nickel-Iron Layered Double Hydroxide Hollow Polyhedrons as a Superior Sulfur Host for Lithium-Sulfur Batteries. <i>Angewandte Chemie</i> , 2018, 130, 11110-11114. | 2.0 | 35 |
| 102 | Effects of gold nanoparticle morphologies on interactions with proteins. <i>Materials Science and Engineering C</i> , 2020, 111, 110830. | 7.3 | 35 |
| 103 | Hierarchical plasmonic-metal/semiconductor micro/nanostructures: green synthesis and application in catalytic reduction of p-nitrophenol. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1. | 1.9 | 31 |
| 104 | Self-Powered Electrochemistry for the Oxidation of Organic Molecules by a Cross-Linked Triboelectric Nanogenerator. <i>Advanced Materials</i> , 2016, 28, 5188-5194. | 21.0 | 31 |
| 105 | A treasure map for nonmetallic catalysts: optimal nitrogen and fluorine distribution of biomass-derived carbon materials for high-performance oxygen reduction catalysts. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18251-18259. | 10.3 | 31 |
| 106 | Unique gold sponges: biopolymer-assisted hydrothermal synthesis and potential application as surface-enhanced Raman scattering substrates. <i>Nanotechnology</i> , 2005, 16, 2530-2535. | 2.6 | 29 |
| 107 | Preparation of porous carbon electrodes from semen cassiae for high-performance electric double-layer capacitors. <i>New Journal of Chemistry</i> , 2018, 42, 6763-6769. | 2.8 | 29 |
| 108 | Synthesis of Cobalt Sulfide Multi-shelled Nanoboxes with Precisely Controlled Two to Five Shells for Sodium-Ion Batteries. <i>Angewandte Chemie</i> , 2019, 131, 2701-2705. | 2.0 | 29 |

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|-----|---|------|-----------|
| 109 | Synthesis of Copper-Substituted CoS ₂ @Cu _x S Double-Shelled Nanoboxes by Sequential Ion Exchange for Efficient Sodium Storage. <i>Angewandte Chemie</i> , 2020, 132, 2666-2670. | 2.0 | 29 |
| 110 | CoTe nanoparticle-embedded N-doped hollow carbon polyhedron: an efficient catalyst for H ₂ O ₂ electro-synthesis in acidic media. <i>Journal of Materials Chemistry A</i> , 2021, 9, 21703-21707. | 10.3 | 29 |
| 111 | Old tree with new shoots: silver nanoparticles for label-free and colorimetric mercury ions detection. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1. | 1.9 | 28 |
| 112 | Nitrogen-Doped Carbon with Mesopore Confinement Efficiently Enhances the Tolerance, Sensitivity, and Stability of a Pt Catalyst for the Oxygen Reduction Reaction. <i>Particle and Particle Systems Characterization</i> , 2013, 30, 864-872. | 2.3 | 27 |
| 113 | Electrochemical oxidation degradation of azobenzene dye self-powered by multilayer-linkage triboelectric nanogenerator. <i>Nano Energy</i> , 2016, 30, 52-58. | 16.0 | 27 |
| 114 | Self-sacrificial template synthesis of Fe, N co-doped porous carbon as efficient oxygen reduction electrocatalysts towards Zn-air battery application. <i>Chinese Chemical Letters</i> , 2022, 33, 2171-2177. | 9.0 | 26 |
| 115 | Template-assisted self-activation of mesoporous carbon with active nitrogen/oxygen configurations for sustainable triboelectric nanogenerator powered electro-Fenton degradation. <i>Nano Energy</i> , 2021, 83, 105825. | 16.0 | 25 |
| 116 | Bioinspired synthesis of well faceted CuI nanostructures and evaluation of their catalytic performance for coupling reactions. <i>Green Chemistry</i> , 2010, 12, 1442. | 9.0 | 24 |
| 117 | Cauliflower-like CuI nanostructures: Green synthesis and applications as catalyst and adsorbent. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011, 176, 1021-1027. | 3.5 | 24 |
| 118 | Innovative Platform for Transmission Localized Surface Plasmon Transducers and Its Application in Detecting Heavy Metal Pd(II). <i>Analytical Chemistry</i> , 2009, 81, 7703-7712. | 6.5 | 23 |
| 119 | Template-assisted polymerization-pyrolysis derived mesoporous carbon anchored with Fe/Fe ₃ C and Fe ^{NX} species as efficient oxygen reduction catalysts for Zn-air battery. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 37895-37906. | 7.1 | 23 |
| 120 | Effects of precursor treatment on the structure and electrochemical properties of spinel LiMn ₂ O ₄ cathode. <i>Journal of Alloys and Compounds</i> , 2013, 566, 16-21. | 5.5 | 20 |
| 121 | Transferrable Superhydrophobic Surface Constructed by a Hexagonal CuI Powder without Modification by Low-Free-Energy Materials. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 2080-2085. | 8.0 | 19 |
| 122 | Self-powered electro-Fenton degradation system using oxygen-containing functional groups-rich biomass-derived carbon catalyst driven by 3D printed flexible triboelectric nanogenerator. <i>Nano Energy</i> , 2021, 83, 105720. | 16.0 | 19 |
| 123 | Nitrogen, phosphorus, sulfur tri-doped porous carbon derived from covalent polymer with versatile performances in supercapacitor, oxygen reduction reaction and electro-fenton degradation. <i>Microporous and Mesoporous Materials</i> , 2021, 325, 111335. | 4.4 | 18 |
| 124 | Favorable pore size distribution of biomass-derived N, S dual-doped carbon materials for advanced oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 12964-12974. | 7.1 | 18 |
| 125 | Electrocatalysis enabled transformation of earth-abundant water, nitrogen and carbon dioxide for a sustainable future. <i>Materials Advances</i> , 2022, 3, 1359-1400. | 5.4 | 17 |
| 126 | Cotton-assisted dual rotor-stator triboelectric nanogenerator for real-time monitoring of crop growth environment. <i>Nano Energy</i> , 2022, 101, 107578. | 16.0 | 17 |

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|-----|---|------|-----------|
| 127 | 3D printed triboelectric nanogenerator self-powered electro-Fenton degradation of orange IV and crystal violet system using N-doped biomass carbon catalyst with tunable catalytic activity. Nano Energy, 2021, 83, 105824. | 16.0 | 15 |
| 128 | Bioinspired synthesis of hierarchically micro/nano-structured CuI tetrahedron and its potential application as adsorbent for Cd(II) with high removal capacity. Journal of Hazardous Materials, 2012, 211-212, 55-61. | 12.4 | 14 |
| 129 | Phosphorized CoNi ₂ S ₄ Yolk-Shell Spheres for Highly Efficient Hydrogen Production via Water and Urea Electrolysis. Angewandte Chemie, 2021, 133, 23067-23073. | 2.0 | 14 |
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| 131 | Rational Design and Engineering of One-Dimensional Hollow Nanostructures for Efficient Electrochemical Energy Storage. Angewandte Chemie, 2021, 133, 20262-20278. | 2.0 | 13 |
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