# Single Atom Hot-Spots at Auâ€“Pd Nanoalloys for Elect H<sub>2</sub>O<sub>2</sub> Production

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| # | Article | IF | Citations |
|---|---|---|---|
| 5 | Trisoctahedral Auâ€“Pd Alloy Nanocrystals with Highâ€Index Facets and Their Excellent Catalytic Performance. Chemistry - A European Journal, 2012, 18, 16626-16630. | 1.7 | 42 |
| 6 | Potential-Dependent Structural Memory Effects in Auâ€“Pd Nanoalloys. Journal of Physical Chemistry Letters, 2012, 3, 315-321. | 2.1 | 39 |
| 7 | Enhancement in Aerobic Alcohol Oxidation Catalysis of Au<sub>25</sub> Clusters by Single Pd Atom Doping. ACS Catalysis, 2012, 2, 1519-1523. | 5.5 | 358 |
| 8 | Electrocatalytic reduction of coreactant by highly loaded dendrimer-encapsulated palladium nanoparticles for sensitive electrochemiluminescent immunoassay. Chemical Communications, 2012, 48, 9159. | 2.2 | 32 |
| 9 | First-principles investigations of O2 dissociation on low-coordinated Pd ensembles over stepped Au surfaces. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3432-3438. | 0.9 | 11 |
| 10 | Synthesis and catalytic properties of bimetallic nanomaterials with various architectures. Nano Today, 2012, 7, 448-466. | 6.2 | 463 |
| 11 | Reduction of Oxygen on Dispersed Nanocrystalline CoS<sub>2</sub>. Journal of Physical Chemistry C, 2012, 116, 24436-24444. | 1.5 | 60 |
| 12 | Mesoporous Nitrogen-Doped Carbon for the Electrocatalytic Synthesis of Hydrogen Peroxide. Journal of the American Chemical Society, 2012, 134, 4072-4075. | 6.6 | 609 |
| 13 | One-pot, seedless synthesis of flowerlike Auâ€“Pd bimetallic nanoparticles with core-shell-like structure via sodium citrate coreduction of metal ions. CrystEngComm, 2012, 14, 7036. | 1.3 | 33 |
| 14 | Facile synthesis of trimetallic AuPtPd alloy nanowires and their catalysis for ethanol electrooxidation. Journal of Materials Chemistry, 2012, 22, 14851. | 6.7 | 73 |
| 15 | BrÃ¸nstedâ€“Evansâ€“Polanyi Relations for H2O2 Synthesis on Gold Surfaces. Catalysis Letters, 2012, 142, 601-607. | 1.4 | 6 |
| 16 | Core/shell Ni@Pd nanoparticles supported on MWCNTs at improved electrocatalytic performance for alcohol oxidation in alkaline media. Electrochimica Acta, 2012, 77, 237-243. | 2.6 | 97 |
| 17 | CO oxidation on Cu-doped Ag clusters. Theoretical Chemistry Accounts, 2013, 132, 1. | 0.5 | 9 |
| 18 | Au@Pd Coreâ€“Shell Nanobricks with Concave Structures and Their Catalysis of Ethanol Oxidation. ChemSusChem, 2013, 6, 1945-1951. | 3.6 | 32 |
| 19 | Hydrodechlorination catalysis of Pd-on-Au nanoparticles varies with particle size. Journal of Catalysis, 2013, 298, 206-217. | 3.1 | 60 |
| 20 | Understanding the synergistic effects of gold bimetallic catalysts. Journal of Catalysis, 2013, 308, 258-271. | 3.1 | 178 |
| 21 | Hybrid Pt Nanostructures by Metallization of Organic Films. Journal of Physical Chemistry C, 2013, 117, 22746-22755. | 1.5 | 6 |
| 22 | Enabling direct H2O2 production through rational electrocatalyst design. Nature Materials, 2013, 12, 1137-1143. | 13.3 | 1,031 |

| # | Article | IF | Citations |
|---|---|---|---|
| 23 | Componentâ€Controlled Synthesis of Smallâ€Sized Pdâ€Ag Bimetallic Alloy Nanocrystals and Their Application in a Nonâ€Enzymatic Glucose Biosensor. Particle and Particle Systems Characterization, 2013, 30, 549-556. | 1.2 | 27 |
| 24 | Validation of binuclear descriptor for mixed transition metal oxide supported electrocatalytic water oxidation. Catalysis Today, 2013, 202, 114-119. | 2.2 | 32 |
| 25 | Selectivity of cobalt-based catalysts towards hydrogen peroxide formation during the reduction of oxygen. Catalysis Today, 2013, 202, 135-143. | 2.2 | 45 |
| 26 | CO Oxidation on the Ag-Doped Au Nanoparticles. Catalysis Letters, 2013, 143, 84-92. | 1.4 | 21 |
| 27 | Electrocatalysis of oxygen reduction on electrodeposited Pd coatings on gold. Journal of Electroanalytical Chemistry, 2013, 691, 35-41. | 1.9 | 22 |
| 28 | DFT study on stability and H2 adsorption activity of bimetallic Au79â^'Pd (n= 1â€“55) clusters. Chemical Physics, 2013, 415, 179-185. | 0.9 | 20 |
| 29 | Tandem cathode for proton exchange membrane fuel cells. Physical Chemistry Chemical Physics, 2013, 15, 9326. | 1.3 | 53 |
| 30 | Single-Atom Catalysts: A New Frontier in Heterogeneous Catalysis. Accounts of Chemical Research, 2013, 46, 1740-1748. | 7.6 | 3,405 |
| 31 | Heterogeneous Catalysis by Gold-based Bimetallic Catalysts. Recent Patents on Catalysis, 2013, 2, 2-46. | 0.2 | 4 |
| 32 | Oxygen reduction reaction on Cu-doped Ag cluster for fuel-cell cathode. Journal of Molecular Modeling, 2014, 20, 2454. | 0.8 | 16 |
| 33 | Hydrogen Peroxide Synthesis via Enhanced Two-Electron Oxygen Reduction Pathway on Carbon-Coated Pt Surface. Journal of Physical Chemistry C, 2014, 118, 30063-30070. | 1.5 | 248 |
| 34 | From single crystal surfaces to single atoms: investigating active sites in electrocatalysis. Nanoscale, 2014, 6, 4012-4026. | 2.8 | 60 |
| 35 | Promotional effect of Pd single atoms on Au nanoparticles supported on silica for the selective hydrogenation of acetylene in excess ethylene. New Journal of Chemistry, 2014, 38, 2043. | 1.4 | 151 |
| 36 | Efficient and Durable Au Alloyed Pd Single-Atom Catalyst for the Ullmann Reaction of Aryl Chlorides in Water. ACS Catalysis, 2014, 4, 1546-1553. | 5.5 | 221 |
| 37 | Structure, Redox Chemistry, and Interfacial Alloy Formation in Monolayer and Multilayer Cu/Au(111) Model Catalysts for CO<sub>2</sub> Electroreduction. Journal of Physical Chemistry C, 2014, 118, 7954-7961. | 1.5 | 68 |
| 38 | Single Crystal (Mn,Co)3O4 Octahedra for Highly Efficient Oxygen Reduction Reactions. Electrochimica Acta, 2014, 144, 31-41. | 2.6 | 35 |
| 39 | Nanoscale Electrocatalysis: Visualizing Oxygen Reduction at Pristine, Kinked, and Oxidized Sites on Individual Carbon Nanotubes. Journal of the American Chemical Society, 2014, 136, 11252-11255. | 6.6 | 139 |
| 40 | Colloidal Au single-atom catalysts embedded on Pd nanoclusters. Journal of Materials Chemistry A, 2014, 2, 13498-13508. | 5.2 | 65 |

| # | Article | IF | Citations |
|---|---|---|---|
| 41 | Highly Selective Two-Electron Oxygen Reduction Catalyzed by Mesoporous Nitrogen-Doped Carbon. ACS Catalysis, 2014, 4, 3749-3754. | 5.5 | 351 |
| 42 | Trends in the Electrochemical Synthesis of H<sub>2</sub>O<sub>2</sub>: Enhancing Activity and Selectivity by Electrocatalytic Site Engineering. Nano Letters, 2014, 14, 1603-1608. | 4.5 | 521 |
| 43 | Subâ€5â€…nm Pdâ€“Ru Nanoparticle Alloys as Efficient Catalysts for Formic Acid Electrooxidation. ChemCatChem, 2014, 6, 1731-1736. | 1.8 | 44 |
| 44 | Intermetallic Alloys as CO Electroreduction Catalystsâ€”Role of Isolated Active Sites. ACS Catalysis, 2014, 4, 2268-2273. | 5.5 | 101 |
| 45 | The Power of Singleâ€Atom Catalysis. ChemCatChem, 2015, 7, 2559-2567. | 1.8 | 289 |
| 47 | Determination of Coreâ€“Shell Structures in Pdâ€Hg Nanoparticles by STEMâ€EDX. ChemCatChem, 2015, 7, 3748-3752. | 1.8 | 9 |
| 48 | In Situ Growth of Surfactant-Free Gold Nanoparticles on Nitrogen-Doped Graphene Quantum Dots for Electrochemical Detection of Hydrogen Peroxide in Biological Environments. Analytical Chemistry, 2015, 87, 1903-1910. | 3.2 | 525 |
| 49 | Chemical synthesis and application of palladium nanoparticles. Journal of Materials Science, 2015, 50, 2337-2354. | 1.7 | 158 |
| 50 | Fabrication of hollow Cu<sub>2</sub>O@CuO-supported Auâ€“Pd alloy nanoparticles with high catalytic activity through the galvanic replacement reaction. Journal of Materials Chemistry A, 2015, 3, 4578-4585. | 5.2 | 89 |
| 51 | Theoretical Studies on the Synergetic Effects of Auâ€“Pd Bimetallic Catalysts in the Selective Oxidation of Methanol. Journal of Physical Chemistry C, 2015, 119, 16072-16081. | 1.5 | 45 |
| 52 | Biosynthesis of Pdâ€“Au alloys on carbon fiber paper: Towards an eco-friendly solution for catalysts fabrication. Journal of Power Sources, 2015, 291, 132-137. | 4.0 | 38 |
| 53 | Highly Efficient AuPd/Carbon Nanotube Nanocatalysts for the Electroâ€Fenton Process. Chemistry - A European Journal, 2015, 21, 7611-7620. | 1.7 | 30 |
| 54 | Highâ€Yield Electrosynthesis of Hydrogen Peroxide from Oxygen Reduction by Hierarchically Porous Carbon. Angewandte Chemie - International Edition, 2015, 54, 6837-6841. | 7.2 | 419 |
| 55 | Kinetic analysis of the reduction of 4-nitrophenol catalyzed by Au/Pd nanoalloys immobilized in spherical polyelectrolyte brushes. Physical Chemistry Chemical Physics, 2015, 17, 28137-28143. | 1.3 | 83 |
| 56 | Catalysis on Single Supported Atoms. , 2015, , 263-274. | | 4 |
| 57 | Applications of Electron Microscopy in Heterogeneous Catalysis. , 2015, , 193-238. | | 1 |
| 58 | Efficient Mineralization of Perfluorooctanoate by Electro-Fenton with H<sub>2</sub>O<sub>2</sub> Electro-generated on Hierarchically Porous Carbon. Environmental Science & Technology, 2015, 49, 13528-13533. | 4.6 | 174 |
| 59 | Interconnected 1D Co3O4 nanowires on reduced graphene oxide for enzymeless H2O2 detection. Nano Research, 2015, 8, 469-480. | 5.8 | 129 |

| # | Article | IF | Citations |
|---|---|---|---|
| 60 | Synthesis and Catalytic Activity of Crown Jewelâ€Structured (IrPd)/Au Trimetallic Nanoclusters. Advanced Materials, 2015, 27, 1383-1388. | 11.1 | 40 |
| 61 | One-pot synthesis of goldâ€“palladium@palladium coreâ€“shell nanoflowers as efficient electrocatalyst for ethanol electrooxidation. Journal of Power Sources, 2015, 278, 430-435. | 4.0 | 42 |
| 62 | Mechanistic aspects in the direct synthesis of hydrogen peroxide on PdAu catalyst from first principles. Catalysis Today, 2015, 248, 142-148. | 2.2 | 35 |
| 63 | Oxygen Electroreduction on Electrodeposited PdAu Nanoalloys. Electrocatalysis, 2015, 6, 77-85. | 1.5 | 35 |
| 64 | Regenerable Subnanometer Pd Clusters on Zirconia for Highly Selective Hydrogenation of Biomass-Derived Succinic Acid in Water. Catalysts, 2016, 6, 100. | 1.6 | 2 |
| 65 | Au-Based Catalysts: Electrochemical Characterization for Structural Insights. Molecules, 2016, 21, 261. | 1.7 | 8 |
| 66 | Bimetallic Catalysts Containing Gold and Palladium for Environmentally Important Reactions. Catalysts, 2016, 6, 97. | 1.6 | 54 |
| 67 | Continuously photocatalytic production of H 2 O 2 with high concentrations using 2-ethylanthraquinone as photocatalyst. Journal of Molecular Catalysis A, 2016, 420, 66-72. | 4.8 | 17 |
| 68 | Atomically dispersed Pd catalysts for the selective hydrogenation of succinic acid to Î³-butyrolactone. Catalysis Today, 2016, 276, 55-61. | 2.2 | 41 |
| 69 | Nanoporous Mn-based electrocatalysts through thermal conversion of cyano-bridged coordination polymers toward ultra-high efficiency hydrogen peroxide production. Journal of Materials Chemistry A, 2016, 4, 9266-9274. | 5.2 | 51 |
| 70 | Quantum Mechanical Screening of Single-Atom Bimetallic Alloys for the Selective Reduction of CO<sub>2</sub> to C<sub>1</sub> Hydrocarbons. ACS Catalysis, 2016, 6, 7769-7777. | 5.5 | 190 |
| 71 | Epitaxial Growth of Auâ€“Ptâ€“Ni Nanorods for Direct High Selectivity H<sub>2</sub>O<sub>2</sub> Production. Advanced Materials, 2016, 28, 9949-9955. | 11.1 | 205 |
| 72 | Determination of the Electron Transfer Number for the Oxygen Reduction Reaction: From Theory to Experiment. ACS Catalysis, 2016, 6, 4720-4728. | 5.5 | 513 |
| 73 | Density functional theory (DFT) studies of CO oxidation reaction on M<sub>13</sub> and Au<sub>18</sub>M clusters (M = Au, Ag, Cu, Pt and Pd): the role of co-adsorbed CO molecule. RSC Advances, 2016, 6, 55867-55877. | 1.7 | 26 |
| 74 | Vertical Î±-FeOOH nanowires grown on the carbon fiber paper as a free-standing electrode for sensitive H2O2 detection. Nano Research, 2016, 9, 2260-2269. | 5.8 | 41 |
| 75 | The bifurcation point of the oxygen reduction reaction on Auâ€“Pd nanoalloys. Faraday Discussions, 2016, 188, 257-278. | 1.6 | 26 |
| 76 | Exceptional size-dependent catalytic activity enhancement in the room-temperature hydrogen generation from formic acid over bimetallic nanoparticles supported by porous carbon. Journal of Materials Chemistry A, 2016, 4, 1887-1894. | 5.2 | 64 |
| 77 | Active sites and mechanisms for H <sub>2</sub> O <sub>2</sub> decomposition over Pd catalysts. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1973-82. | 3.3 | 171 |

| # | Article | IF | Citations |
|---|---|---|---|
| 78 | Electrocatalytic hydrogen peroxide formation on mesoporous non-metal nitrogen-doped carbon catalyst. Journal of Energy Chemistry, 2016, 25, 251-257. | 7.1 | 107 |
| 79 | Simple wet-chemical synthesis of coreâ€“shell Auâ€“Pd@Pd nanocrystals and their improved electrocatalytic activity for ethylene glycol oxidation reaction. International Journal of Hydrogen Energy, 2016, 41, 2547-2553. | 3.8 | 60 |
| 80 | Towards multifunctional coating in the boron-doped graphene/copper system. Carbon, 2017, 115, 375-379. | 5.4 | 1 |
| 81 | Electrocatalytic synthesis of hydrogen peroxide on Au-Pd nanoparticles: From fundamentals to continuous production. Chemical Physics Letters, 2017, 683, 436-442. | 1.2 | 112 |
| 82 | Combining theory and experiment in electrocatalysis: Insights into materials design. Science, 2017, 355, . | 6.0 | 7,837 |
| 83 | Development of a reactor with carbon catalysts for modular-scale, low-cost electrochemical generation of H<sub>2</sub>O<sub>2</sub>. Reaction Chemistry and Engineering, 2017, 2, 239-245. | 1.9 | 157 |
| 84 | Recent Advances in Atomic Metal Doping of Carbonâ€based Nanomaterials for Energy Conversion. Small, 2017, 13, 1700191. | 5.2 | 290 |
| 85 | Bimetallic core-based cuboctahedral coreâ€“shell nanoclusters for the formation of hydrogen peroxide (2e<sup>â^'</sup>reduction) over water (4e<sup>â^'</sup>reduction): role of core metals. Nanoscale, 2017, 9, 9537-9547. | 2.8 | 20 |
| 86 | Einzelatomâ€Elektrokatalysatoren. Angewandte Chemie, 2017, 129, 14132-14148. | 1.6 | 99 |
| 87 | Singleâ€Atom Electrocatalysts. Angewandte Chemie - International Edition, 2017, 56, 13944-13960. | 7.2 | 1,040 |
| 88 | CO Oxidation on Metal Oxide Supported Single Pt atoms: The Role of the Support. Industrial & Engineering Chemistry Research, 2017, 56, 6916-6925. | 1.8 | 94 |
| 89 | Addressing stability challenges of using bimetallic electrocatalysts: the case of goldâ€“palladium nanoalloys. Catalysis Science and Technology, 2017, 7, 1848-1856. | 2.1 | 35 |
| 90 | A rapid synthesis of high surface area PdRu nanosponges: Composition-dependent electrocatalytic activity for formic acid oxidation. Journal of Energy Chemistry, 2017, 26, 703-711. | 7.1 | 23 |
| 91 | Atomicâ€Levelâ€Designed Catalytically Active Palladium Atoms on Ultrathin Gold Nanowires. Advanced Materials, 2017, 29, 1604571. | 11.1 | 52 |
| 92 | Preparation, characterization and catalytic performance of single-atom catalysts. Chinese Journal of Catalysis, 2017, 38, 1528-1539. | 6.9 | 65 |
| 93 | Palladiumâ€“gold single atom alloy catalysts for liquid phase selective hydrogenation of 1-hexyne. Catalysis Science and Technology, 2017, 7, 4276-4284. | 2.1 | 100 |
| 94 | DFT study reveals geometric and electronic synergisms of palladium-mercury alloy catalyst used for hydrogen peroxide formation. Applied Catalysis A: General, 2017, 547, 69-74. | 2.2 | 16 |
| 95 | PdRu alloy nanoparticles of solid solution in atomic scale: outperformance towards formic acid electro-oxidation in acidic medium. Electrochimica Acta, 2017, 251, 588-594. | 2.6 | 35 |

| # | Article | IF | Citations |
|---|---|---|---|
| 96 | CoA-dependent coordination polymer as a novel electrochemical sensing platform for sensitive detection of hydrogen peroxide in biological environments. Journal of Electroanalytical Chemistry, 2017, 801, 306-314. | 1.9 | 7 |
| 97 | Atomic Fe Embedded in Carbon Nanoshellsâ€“Graphene Nanomeshes with Enhanced Oxygen Reduction Reaction Performance. Chemistry of Materials, 2017, 29, 9915-9922. | 3.2 | 64 |
| 98 | Goldâ€“Palladium Bimetallic Catalyst Stability: Consequences for Hydrogen Peroxide Selectivity. ACS Catalysis, 2017, 7, 5699-5705. | 5.5 | 76 |
| 99 | Atomically Precise Clusters of Noble Metals: Emerging Link between Atoms and Nanoparticles. Chemical Reviews, 2017, 117, 8208-8271. | 23.0 | 1,694 |
| 100 | Catalysis by Supported Single Metal Atoms. ACS Catalysis, 2017, 7, 34-59. | 5.5 | 1,047 |
| 101 | Destruction of tetracycline hydrochloride antibiotics by FeOOH/TiO2 granular activated carbon as expanded cathode in low-cost MBR/MFC coupled system. Journal of Membrane Science, 2017, 525, 202-209. | 4.1 | 63 |
| 102 | Environment-Friendly Approach in the Synthesis of Metal/ Polymeric Nanocomposite Particles and Their Catalytic Activities on the Reduction of p-Nitrophenol to p-Aminophenol. , 0, , . | | 3 |
| 103 | Efficient Electrochemical Hydrogen Peroxide Production from Molecular Oxygen on Nitrogen-Doped Mesoporous Carbon Catalysts. ACS Catalysis, 2018, 8, 2844-2856. | 5.5 | 372 |
| 104 | Direct growth of ultrasmall bimetallic AuPd nanoparticles supported on nitrided carbon towards ethanol electrooxidation. Electrochimica Acta, 2018, 269, 441-451. | 2.6 | 41 |
| 105 | Metal Catalysts for Heterogeneous Catalysis: From Single Atoms to Nanoclusters and Nanoparticles. Chemical Reviews, 2018, 118, 4981-5079. | 23.0 | 3,103 |
| 106 | Highly effective electrosynthesis of hydrogen peroxide from oxygen on a redox-active cationic covalent triazine network. Chemical Communications, 2018, 54, 4433-4436. | 2.2 | 55 |
| 107 | Carbon catalysts for electrochemical hydrogen peroxide production in acidic media. Electrochimica Acta, 2018, 272, 192-202. | 2.6 | 63 |
| 108 | Oxygen Reduction by Homogeneous Molecular Catalysts and Electrocatalysts. Chemical Reviews, 2018, 118, 2340-2391. | 23.0 | 483 |
| 109 | High-efficiency oxygen reduction to hydrogen peroxide catalysed by oxidized carbon materials. Nature Catalysis, 2018, 1, 156-162. | 16.1 | 1,120 |
| 110 | N-Doped Graphitized Carbon Nanohorns as a Forefront Electrocatalyst in Highly Selective O2 Reduction to H2O2. CheM, 2018, 4, 106-123. | 5.8 | 348 |
| 111 | Efficient hydrogen peroxide generation using reduced graphene oxide-based oxygen reduction electrocatalysts. Nature Catalysis, 2018, 1, 282-290. | 16.1 | 699 |
| 112 | Toward the Decentralized Electrochemical Production of H<sub>2</sub>O<sub>2</sub>: A Focus on the Catalysis. ACS Catalysis, 2018, 8, 4064-4081. | 5.5 | 663 |
| 113 | Mesoporous carbon doped with N,S heteroatoms prepared by one-pot auto-assembly of molecular precursor for electrocatalytic hydrogen peroxide synthesis. Catalysis Today, 2018, 301, 2-10. | 2.2 | 40 |

| # | Article | IF | Citations |
|---|---|---|---|
| 114 | Solarâ€Driven Production of Hydrogen Peroxide from Water and Dioxygen. Chemistry - A European Journal, 2018, 24, 5016-5031. | 1.7 | 106 |
| 115 | Defective Carbon-Based Materials for the Electrochemical Synthesis of Hydrogen Peroxide. ACS Sustainable Chemistry and Engineering, 2018, 6, 311-317. | 3.2 | 236 |
| 116 | Selective catalytic two-electron O2 reduction for onsite efficient oxidation reaction in heterogeneous electro-Fenton process. Chemical Engineering Journal, 2018, 332, 486-498. | 6.6 | 141 |
| 117 | Enhanced H2O2 production by selective electrochemical reduction of O2 on fluorine-doped hierarchically porous carbon. Journal of Catalysis, 2018, 357, 118-126. | 3.1 | 252 |
| 118 | Supported single-atom catalysts: synthesis, characterization, properties, and applications. Environmental Chemistry Letters, 2018, 16, 477-505. | 8.3 | 96 |
| 119 | Direct synthesis of H2O2 on Pd and AuxPd1 clusters: Understanding the effects of alloying Pd with Au. Journal of Catalysis, 2018, 357, 163-175. | 3.1 | 106 |
| 120 | Die facettenreiche ReaktivitÃt heterogener Einzelatomâ€Katalysatoren. Angewandte Chemie, 2018, 130, 15538-15552. | 1.6 | 36 |
| 121 | Descriptor study by density functional theory analysis for the direct synthesis of hydrogen peroxide using palladiumâ€“gold and palladiumâ€“mercury alloy catalysts. Molecular Systems Design and Engineering, 2018, 3, 896-907. | 1.7 | 8 |
| 122 | First-Principles Modeling in Heterogeneous Electrocatalysis. Catalysts, 2018, 8, 424. | 1.6 | 27 |
| 123 | Selective Electrochemical H<sub>2</sub>O<sub>2</sub> Production through Twoâ€Electron Oxygen Electrochemistry. Advanced Energy Materials, 2018, 8, 1801909. | 10.2 | 498 |
| 124 | The Multifaceted Reactivity of Singleâ€Atom Heterogeneous Catalysts. Angewandte Chemie - International Edition, 2018, 57, 15316-15329. | 7.2 | 261 |
| 125 | Progress Towards Direct Hydrogen Peroxide Fuel Cells (DHPFCs) as an Energy Storage Concept. Australian Journal of Chemistry, 2018, 71, 781. | 0.5 | 33 |
| 126 | One-Pot Pyrolysis Method to Fabricate Carbon Nanotube Supported Ni Single-Atom Catalysts with Ultrahigh Loading. ACS Applied Energy Materials, 0, , . | 2.5 | 19 |
| 127 | Understanding the Effect of Au in Auâ€“Pd Bimetallic Nanocrystals on the Electrocatalysis of the Methanol Oxidation Reaction. Journal of Physical Chemistry C, 2018, 122, 21718-21723. | 1.5 | 43 |
| 128 | Self-Powered and Highly Efficient Production of H<sub>2</sub>O<sub>2</sub> through a Znâ€“Air Battery with Oxygenated Carbon Electrocatalyst. ACS Applied Materials & Interfaces, 2018, 10, 31855-31859. | 4.0 | 43 |
| 129 | In-situ electrosynthesis of hydrogen peroxide and wastewater treatment application: A novel strategy for graphite felt activation. Applied Catalysis B: Environmental, 2018, 237, 392-400. | 10.8 | 148 |
| 130 | Colloidal Synthesis of Au@Pd Coreâ€“Shell Nanorods with Tunable Dimensions and Enhanced Electrocatalytic Activities. Topics in Catalysis, 2018, 61, 949-957. | 1.3 | 3 |
| 131 | Highly Active, Selective, and Stable Direct H<sub>2</sub>O<sub>2</sub> Generation by Monodispersive Pdâ€“Ag Nanoalloy. ACS Applied Materials & Interfaces, 2018, 10, 21291-21296. | 4.0 | 37 |

| # | Article | IF | Citations |
|---|---|---|---|
| 132 | Recent progress in single-atom electrocatalysts: concept, synthesis, and applications in clean energy conversion. Journal of Materials Chemistry A, 2018, 6, 14025-14042. | 5.2 | 224 |
| 133 | Impact of Palladium Loading and Interparticle Distance on the Selectivity for the Oxygen Reduction Reaction toward Hydrogen Peroxide. Journal of Physical Chemistry C, 2018, 122, 15878-15885. | 1.5 | 53 |
| 134 | Mixed AuPd Nanoparticles as Highly Active Catalysts for Alkyne Zâ€Semihydrogenation. European Journal of Organic Chemistry, 2018, 2018, 3403-3409. | 1.2 | 13 |
| 135 | Structure, Activity, and Faradaic Efficiency of Nitrogenâ€Doped Porous Carbon Catalysts for Direct Electrochemical Hydrogen Peroxide Production. ChemSusChem, 2018, 11, 3388-3395. | 3.6 | 148 |
| 136 | Designing Boron Nitride Islands in Carbon Materials for Efficient Electrochemical Synthesis of Hydrogen Peroxide. Journal of the American Chemical Society, 2018, 140, 7851-7859. | 6.6 | 310 |
| 137 | The Rise of Hydrogen Peroxide as the Main Product by Metalâ€Free Catalysis in Oxygen Reductions. Advanced Materials, 2019, 31, e1802920. | 11.1 | 251 |
| 138 | Electrocatalytic Production of H<sub>2</sub>O<sub>2</sub> by Selective Oxygen Reduction Using Earth-Abundant Cobalt Pyrite (CoS<sub>2</sub>). ACS Catalysis, 2019, 9, 8433-8442. | 5.5 | 167 |
| 139 | High-efficiency electrogeneration of hydrogen peroxide from oxygen reduction by carbon xerogels derived from glucose. Electrochimica Acta, 2019, 320, 134569. | 2.6 | 22 |
| 140 | Carbon Black Oxidized by Air Calcination for Enhanced H<sub>2</sub>O<sub>2</sub> Generation and Effective Organics Degradation. ACS Applied Materials & Interfaces, 2019, 11, 27846-27853. | 4.0 | 106 |
| 141 | Pyrrolic-nitrogen-rich biomass-derived catalyst for sustainable degradation of organic pollutant via a self-powered electro-Fenton process. Nano Energy, 2019, 64, 103940. | 8.2 | 62 |
| 142 | In Situ Deposition of Pd during Oxygen Reduction Yields Highly Selective and Active Electrocatalysts for Direct H<sub>2</sub>O<sub>2</sub> Production. ACS Catalysis, 2019, 9, 8453-8463. | 5.5 | 60 |
| 143 | Direct Methane Conversion under Mild Condition by Thermo-, Electro-, or Photocatalysis. CheM, 2019, 5, 2296-2325. | 5.8 | 331 |
| 144 | Direct electrosynthesis of pure aqueous H <sub>2</sub> O <sub>2</sub> solutions up to 20% by weight using a solid electrolyte. Science, 2019, 366, 226-231. | 6.0 | 573 |
| 145 | Electrosynthesis of Hydrogen Peroxide by Phase-Transfer Catalysis. Joule, 2019, 3, 2942-2954. | 11.7 | 89 |
| 146 | Supported Transition Metal Phosphides: Activity Survey for HER, ORR, OER, and Corrosion Resistance in Acid and Alkaline Electrolytes. ACS Catalysis, 2019, 9, 11515-11529. | 5.5 | 245 |
| 147 | N-Doped Mesoporous Carbons: From Synthesis to Applications as Metal-Free Reduction Catalysts and Energy Storage Materials. Frontiers in Chemistry, 2019, 7, 761. | 1.8 | 22 |
| 148 | Highly selective oxygen reduction to hydrogen peroxide on transition metal single atom coordination. Nature Communications, 2019, 10, 3997. | 5.8 | 528 |
| 149 | Secondary phosphine oxides stabilized Au/Pd nanoalloys: metal components-controlled regioselective hydrogenation toward phosphinyl (Z)-[3]dendralenes. Chemical Communications, 2019, 55, 11699-11702. | 2.2 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 150 | Ensemble Effect in Bimetallic Electrocatalysts for CO<sub>2</sub> Reduction. Journal of the American Chemical Society, 2019, 141, 16635-16642. | 6.6 | 238 |
| 151 | Electrochemical H<sub>2</sub>O<sub>2</sub> Production and Accumulation from H<sub>2</sub>O by Composite Effect of Al<sub>2</sub>O<sub>3</sub> and BiVO<sub>4</sub>. Journal of the Electrochemical Society, 2019, 166, H644-H649. | 1.3 | 19 |
| 152 | Highly efficient electro-generation of H2O2 by adjusting liquid-gas-solid three phase interfaces of porous carbonaceous cathode during oxygen reduction reaction. Water Research, 2019, 164, 114933. | 5.3 | 113 |
| 153 | Simultaneously Achieving High Activity and Selectivity toward Two-Electron O<sub>2</sub> Electroreduction: The Power of Single-Atom Catalysts. ACS Catalysis, 2019, 9, 11042-11054. | 5.5 | 314 |
| 154 | Kinetic Understanding of the Reduction of Oxygen to Hydrogen Peroxide over an N-Doped Carbon Electrocatalyst. Journal of Physical Chemistry C, 2019, 123, 4590-4596. | 1.5 | 42 |
| 155 | Cu-Based Single-Atom Catalysts Boost Electroreduction of CO<sub>2</sub> to CH<sub>3</sub>OH: First-Principles Predictions. Journal of Physical Chemistry C, 2019, 123, 4380-4387. | 1.5 | 68 |
| 156 | Tuning the Selectivity of AuPd Nanoalloys towards Selective Dehydrogenative Alkyne Silylation. Chemistry - A European Journal, 2019, 25, 5870-5874. | 1.7 | 19 |
| 157 | Pdâ€“Auâ€“Y as Efficient Catalyst for Câ€“C Coupling Reactions, Benzylic Câ€“H Bond Activation, and Oxidation of Ethanol for Synthesis of Cinnamaldehydes. ACS Catalysis, 2019, 9, 5860-5875. | 5.5 | 35 |
| 158 | The Role of Supported Atomically Distributed Metal Species in Electrochemistry and How to Create Them. ChemElectroChem, 2019, 6, 3860-3877. | 1.7 | 11 |
| 159 | Electrochemical synthesis of hydrogen peroxide from water and oxygen. Nature Reviews Chemistry, 2019, 3, 442-458. | 13.8 | 544 |
| 160 | The Direct Synthesis of H2O2 and Selective Oxidation of Methane to Methanol Using HZSM-5 Supported AuPd Catalysts. Catalysis Letters, 2019, 149, 3066-3075. | 1.4 | 30 |
| 161 | Palladium Singleâ€Atom Catalysts Supported on C@C<sub>3</sub>N<sub>4</sub> for Electrochemical Reactions. ChemElectroChem, 2019, 6, 4757-4764. | 1.7 | 70 |
| 162 | High-Concentration Single Atomic Pt Sites on Hollow CuSx for Selective O2 Reduction to H2O2 in Acid Solution. CheM, 2019, 5, 2099-2110. | 5.8 | 279 |
| 163 | Understanding the high activity of mildly reduced graphene oxide electrocatalysts in oxygen reduction to hydrogen peroxide. Materials Horizons, 2019, 6, 1409-1415. | 6.4 | 51 |
| 164 | Recent progress in theoretical and computational investigations of structural stability and activity of single-atom electrocatalysts. Progress in Natural Science: Materials International, 2019, 29, 256-264. | 1.8 | 27 |
| 165 | A COOH-terminated nitrogen-doped carbon aerogel as a bulk electrode for completely selective two-electron oxygen reduction to H<sub>2</sub>O<sub>2</sub>. Chemical Communications, 2019, 55, 6173-6176. | 2.2 | 66 |
| 166 | Hydrogen peroxide generation from O2 electroreduction for environmental remediation: A state-of-the-art review. Chemosphere, 2019, 225, 588-607. | 4.2 | 211 |
| 167 | Single-Atom Catalysts for Photocatalytic Reactions. ACS Sustainable Chemistry and Engineering, 2019, 7, 6430-6443. | 3.2 | 121 |

| # | Article | IF | Citations |
|---|---|---|---|
| 168 | Electrocatalytic Activities towards the Electrochemical Oxidation of Formic Acid and Oxygen Reduction Reactions over Bimetallic, Trimetallic and Coreâ€“Shell-Structured Pd-Based Materials. Inorganics, 2019, 7, 36. | 1.2 | 23 |
| 169 | Electrosynthesis of Hydrogen Peroxide Synergistically Catalyzed by Atomic Coâ€“N<sub>x</sub>â€“C Sites and Oxygen Functional Groups in Nobleâ€Metalâ€Free Electrocatalysts. Advanced Materials, 2019, 31, e1808173. | 11.1 | 252 |
| 170 | Sensitive amperometric immunosensor with improved electrocatalytic Au@Pd urchin-shaped nanostructures for human epididymis specific protein 4 antigen detection. Analytica Chimica Acta, 2019, 1069, 117-125. | 2.6 | 32 |
| 171 | Enhanced electrocatalytic activity for H2O2 production by the oxygen reduction reaction: Rational control of the structure and composition of multi-walled carbon nanotubes. Chinese Journal of Catalysis, 2019, 40, 523-533. | 6.9 | 37 |
| 172 | Synergetic electrocatalytic activities towards hydrogen peroxide: Understanding the ordered structure of PdNi bimetallic nanocatalysts. Electrochemistry Communications, 2019, 101, 93-98. | 2.3 | 12 |
| 173 | Selective Electrocatalytic H<sub>2</sub>O<sub>2</sub> Generation by Cobalt@Nâ€Doped Graphitic Carbon Coreâ€“Shell Nanohybrids. ChemSusChem, 2019, 12, 1664-1672. | 3.6 | 40 |
| 174 | Finely dispersed Au nanoparticles on graphitic carbon nitride as highly active photocatalyst for hydrogen peroxide production. Catalysis Communications, 2019, 123, 69-72. | 1.6 | 63 |
| 175 | Simultaneously Providing Iron Source toward Electro-Fenton Process and Enhancing Hydrogen Peroxide Production via a Fe<sub>3</sub>O<sub>4</sub> Nanoparticles Embedded Graphite Felt Electrode. ACS Applied Materials & Interfaces, 2019, 11, 45692-45701. | 4.0 | 36 |
| 176 | N-doped three-dimensional carbon foam as binder-free electrode for organic pollutants removal by electro-Fenton in neutral medium. Blue-Green Systems, 2019, 1, 86-101. | 0.6 | 2 |
| 177 | Electronic Tuning of Metal Nanoparticles for Highly Efficient Photocatalytic Hydrogen Peroxide Production. ACS Catalysis, 2019, 9, 626-631. | 5.5 | 84 |
| 178 | CaSnO<sub>3</sub>: An Electrocatalyst for Two-Electron Water Oxidation Reaction to Form H<sub>2</sub>O<sub>2</sub>. ACS Energy Letters, 2019, 4, 352-357. | 8.8 | 148 |
| 179 | Rational Design of TiC-Supported Single-Atom Electrocatalysts for Hydrogen Evolution and Selective Oxygen Reduction Reactions. ACS Energy Letters, 2019, 4, 126-132. | 8.8 | 104 |
| 180 | In-Plane Carbon Lattice-Defect Regulating Electrochemical Oxygen Reduction to Hydrogen Peroxide Production over Nitrogen-Doped Graphene. ACS Catalysis, 2019, 9, 1283-1288. | 5.5 | 216 |
| 181 | Active Edgeâ€Siteâ€Rich Carbon Nanocatalysts with Enhanced Electron Transfer for Efficient Electrochemical Hydrogen Peroxide Production. Angewandte Chemie, 2019, 131, 1112-1117. | 1.6 | 22 |
| 182 | Active Edgeâ€Siteâ€Rich Carbon Nanocatalysts with Enhanced Electron Transfer for Efficient Electrochemical Hydrogen Peroxide Production. Angewandte Chemie - International Edition, 2019, 58, 1100-1105. | 7.2 | 244 |
| 183 | Coordination-Dependent Catalytic Activity and Design Principles of Metalâ€“Organic Frameworks as Efficient Electrocatalysts for Clean Energy Conversion. Journal of Physical Chemistry C, 2019, 123, 214-221. | 1.5 | 10 |
| 184 | Selective Hydrogenation over Supported Metal Catalysts: From Nanoparticles to Single Atoms. Chemical Reviews, 2020, 120, 683-733. | 23.0 | 871 |
| 185 | 2D Electrocatalysts for Converting Earthâ€Abundant Simple Molecules into Valueâ€Added Commodity Chemicals: Recent Progress and Perspectives. Advanced Materials, 2020, 32, e1904870. | 11.1 | 76 |

| # | Article | IF | Citations |
|---|---|---|---|
| 186 | 2â€‰D Hybrid of Niâ€LDH Chips on Carbon Nanosheets as Cathode of Zincâ€“Air Battery for Electrocatalytic Conversion of O<sub>2</sub> into H<sub>2</sub>O<sub>2</sub>. ChemSusChem, 2020, 13, 1496-1503. | 3.6 | 30 |
| 187 | Tailoring the Electrochemical Production of H<sub>2</sub>O<sub>2</sub>: Strategies for the Rational Design of Highâ€Performance Electrocatalysts. Small, 2020, 16, e1902845. | 5.2 | 114 |
| 188 | The Synergy of Dilute Pd and Surface Oxygen Species for Methane Upgrading on Au<sub>3</sub>Pd(111). Energy Technology, 2020, 8, 1900732. | 1.8 | 3 |
| 189 | Structural Regulation with Atomic-Level Precision: From Single-Atomic Site to Diatomic and Atomic Interface Catalysis. Matter, 2020, 2, 78-110. | 5.0 | 221 |
| 190 | Hydrogen peroxide synthesis on porous graphitic carbon nitride using water as a hydrogen source. Journal of Materials Chemistry A, 2020, 8, 124-137. | 5.2 | 18 |
| 191 | Janus Electrode of Asymmetric Wettability for H<sub>2</sub>O<sub>2</sub> Production with Highly Efficient O<sub>2</sub> Utilization. ACS Applied Energy Materials, 2020, 3, 705-714. | 2.5 | 44 |
| 192 | Constructing efficient WO3-FPC system for photoelectrochemical H2O2 production and organic pollutants degradation. Chemical Engineering Journal, 2020, 389, 123427. | 6.6 | 23 |
| 193 | Oxygen and nitrogen co-doped ordered mesoporous carbon materials enhanced the electrochemical selectivity of O2 reduction to H2O2. Journal of Colloid and Interface Science, 2020, 562, 540-549. | 5.0 | 46 |
| 194 | Insights into Practical-Scale Electrochemical H2O2 Synthesis. Trends in Chemistry, 2020, 2, 942-953. | 4.4 | 85 |
| 195 | Conversion of Methane into Liquid Fuelsâ€”Bridging Thermal Catalysis with Electrocatalysis. Advanced Energy Materials, 2020, 10, 2002154. | 10.2 | 57 |
| 196 | Increased Stability of Palladiumâ€iridiumâ€Gold Electrocatalyst for the Hydrogen Oxidation Reaction in Polymer Electrolyte Membrane Fuel Cells. Electroanalysis, 2020, 32, 2893-2901. | 1.5 | 2 |
| 197 | A review of advanced metal-free carbon catalysts for oxygen reduction reactions towards the selective generation of hydrogen peroxide. Journal of Materials Chemistry A, 2020, 8, 20849-20869. | 5.2 | 88 |
| 198 | Electrochemical oxygen reduction for H<sub>2</sub>O<sub>2</sub> production: catalysts, pH effects and mechanisms. Journal of Materials Chemistry A, 2020, 8, 24996-25016. | 5.2 | 94 |
| 199 | Photoelectrochemical H<sub>2</sub>O<sub>2</sub>Production from Oxygen Reduction. ACS Symposium Series, 2020, , 93-109. | 0.5 | 0 |
| 200 | A comparative perspective of electrochemical and photochemical approaches for catalytic H<sub>2</sub>O<sub>2</sub> production. Chemical Society Reviews, 2020, 49, 6605-6631. | 18.7 | 308 |
| 201 | Tuning the electrocatalytic 2- and 4-electron reduction of oxygen by electrodeposited hybrid graphene-Co/Mn porphyrin coatings. Electrochimica Acta, 2020, 356, 136792. | 2.6 | 6 |
| 202 | Ni3B as a highly efficient and selective catalyst for the electrosynthesis of hydrogen peroxide. Applied Catalysis B: Environmental, 2020, 279, 119371. | 10.8 | 48 |
| 203 | Scalable neutral H2O2 electrosynthesis by platinum diphosphide nanocrystals by regulating oxygen reduction reaction pathways. Nature Communications, 2020, 11, 3928. | 5.8 | 101 |

| # | Article | IF | Citations |
|---|---|---|---|
| 204 | Carbon Anode in Carbon History. Molecules, 2020, 25, 4996. | 1.7 | 4 |
| 205 | A Î²-cyclodextrin Modified Graphitic Carbon Nitride with Au Co-Catalyst for Efficient Photocatalytic Hydrogen Peroxide Production. Nanomaterials, 2020, 10, 1969. | 1.9 | 15 |
| 206 | Heterogeneous Atomic Catalysts Overcoming the Limitations of Single-Atom Catalysts. ACS Nano, 2020, 14, 14355-14374. | 7.3 | 97 |
| 207 | Electrocatalytic Synthesis of Hydrogen Peroxide over Au/TiO<sub>2</sub> and Electrochemical Trace of OOH* Intermediate. Chemistry - an Asian Journal, 2020, 15, 4280-4285. | 1.7 | 4 |
| 208 | Atomically dispersed Lewis acid sites boost 2-electron oxygen reduction activity of carbon-based catalysts. Nature Communications, 2020, 11, 5478. | 5.8 | 114 |
| 209 | Insights into the zinc effect on radio-cobalt deposition on stainless steel piping surfaces under BWR conditions from experiment guided 1st principles modelling. Journal of Nuclear Materials, 2020, 540, 152361. | 1.3 | 3 |
| 210 | Room temperature and atmospheric pressure aqueous partial oxidation of ethane to oxygenates over AuPd catalysts. Catalysis Science and Technology, 2020, 10, 6679-6686. | 2.1 | 2 |
| 211 | Recent advances in electrochemical 2e oxygen reduction reaction for on-site hydrogen peroxide production and beyond. Chemical Communications, 2020, 56, 12109-12121. | 2.2 | 82 |
| 212 | Design of Thiazolo[5,4-d]thiazole-Bridged Ionic Covalent Organic Polymer for Highly Selective Oxygen Reduction to H<sub>2</sub>O<sub>2</sub>. Chemistry of Materials, 2020, 32, 8553-8560. | 3.2 | 23 |
| 213 | Recent Progress of Singleâ€atom Catalysts in the Electrocatalytic Reduction of Oxygen to Hydrogen Peroxide. Electroanalysis, 2020, 32, 2591-2602. | 1.5 | 23 |
| 214 | Facile one-step deposition of Co3O4-MoS2 nanocomposites using a vacuum kinetic spray process for non-enzymatic H2O2 sensing. Surfaces and Interfaces, 2020, 21, 100748. | 1.5 | 9 |
| 215 | Z-Scheme 2D/3D hierarchical MoS<sub>2</sub>@CoMoS<sub>4</sub> flower-shaped arrays with enhanced full spectrum light photoelectrocatalytic activity for H<sub>2</sub>O<sub>2</sub>/p-aminophenol production and contaminant degradation. Journal of Materials Chemistry A, 2020, 8, 25890-25903. | 5.2 | 19 |
| 216 | Electrochemical Degradation of Lignin by ROS. Sustainable Chemistry, 2020, 1, 345-360. | 2.2 | 9 |
| 217 | Extendable Machine Learning Model for the Stability of Single Atom Alloys. Topics in Catalysis, 2020, 63, 728-741. | 1.3 | 25 |
| 218 | Building and identifying highly active oxygenated groups in carbon materials for oxygen reduction to H2O2. Nature Communications, 2020, 11, 2209. | 5.8 | 281 |
| 219 | Heteroatom Dopants Promote Twoâ€Electron O<sub>2</sub> Reduction for Photocatalytic Production of H<sub>2</sub>O<sub>2</sub> on Polymeric Carbon Nitride. Angewandte Chemie, 2020, 132, 16343-16351. | 1.6 | 59 |
| 220 | Heteroatom Dopants Promote Twoâ€Electron O<sub>2</sub> Reduction for Photocatalytic Production of H<sub>2</sub>O<sub>2</sub> on Polymeric Carbon Nitride. Angewandte Chemie - International Edition, 2020, 59, 16209-16217. | 7.2 | 270 |
| 221 | Recent Advances in Electrochemical Oxygen Reduction to H<sub>2</sub>O<sub>2</sub>: Catalyst and Cell Design. ACS Energy Letters, 2020, 5, 1881-1892. | 8.8 | 185 |

| # | Article | IF | Citations |
|---|---|---|---|
| 222 | Two-electron oxygen reduction reaction by high-loading molybdenum single-atom catalysts. Rare Metals, 2020, 39, 455-457. | 3.6 | 40 |
| 223 | Carbon-based dots for the electrochemical production of hydrogen peroxide. Chemical Communications, 2020, 56, 7609-7612. | 2.2 | 14 |
| 224 | Partially Pyrolyzed Binary Metalâ€“Organic Framework Nanosheets for Efficient Electrochemical Hydrogen Peroxide Synthesis. Angewandte Chemie, 2020, 132, 14479-14483. | 1.6 | 17 |
| 225 | Partially Pyrolyzed Binary Metalâ€“Organic Framework Nanosheets for Efficient Electrochemical Hydrogen Peroxide Synthesis. Angewandte Chemie - International Edition, 2020, 59, 14373-14377. | 7.2 | 127 |
| 226 | Mesoporous Carbon Hollow Spheres as Efficient Electrocatalysts for Oxygen Reduction to Hydrogen Peroxide in Neutral Electrolytes. ACS Catalysis, 2020, 10, 7434-7442. | 5.5 | 123 |
| 227 | Catalyst Design for Electrochemical Oxygen Reduction toward Hydrogen Peroxide. Advanced Functional Materials, 2020, 30, 2003321. | 7.8 | 170 |
| 228 | A Review on Challenges and Successes in Atomic-Scale Design of Catalysts for Electrochemical Synthesis of Hydrogen Peroxide. ACS Catalysis, 2020, 10, 7495-7511. | 5.5 | 254 |
| 229 | In Situ Formation of Gold Nanoparticles Decorated Ti<sub>3</sub>C<sub>2</sub> MXenes Nanoprobe for Highly Sensitive Electrogenerated Chemiluminescence Detection of Exosomes and Their Surface Proteins. Analytical Chemistry, 2020, 92, 5546-5553. | 3.2 | 170 |
| 230 | Graphitic N in nitrogen-Doped carbon promotes hydrogen peroxide synthesis from electrocatalytic oxygen reduction. Carbon, 2020, 163, 154-161. | 5.4 | 131 |
| 231 | Graphene-Supported Single Nickel Atom Catalyst for Highly Selective and Efficient Hydrogen Peroxide Production. ACS Applied Materials & Interfaces, 2020, 12, 17519-17527. | 4.0 | 99 |
| 232 | Nitride or Oxynitride? Elucidating the Compositionâ€“Activity Relationships in Molybdenum Nitride Electrocatalysts for the Oxygen Reduction Reaction. Chemistry of Materials, 2020, 32, 2946-2960. | 3.2 | 57 |
| 233 | Atomic site electrocatalysts for water splitting, oxygen reduction and selective oxidation. Chemical Society Reviews, 2020, 49, 2215-2264. | 18.7 | 582 |
| 234 | Controlled coassembly of dumbbell-like Au nanoparticles with a porous nitrogen doped carbon aerogel for cancer cell H2O2 detection. Analytica Chimica Acta, 2020, 1126, 100-105. | 2.6 | 10 |
| 235 | The oxygen reduction reaction on palladium with low metal loadings: The effects of chlorides on the stability and activity towards hydrogen peroxide. Journal of Catalysis, 2020, 389, 400-408. | 3.1 | 25 |
| 236 | Single atom alloy: An emerging atomic site material for catalytic applications. Nano Today, 2020, 34, 100917. | 6.2 | 91 |
| 237 | Progress of Electrochemical Hydrogen Peroxide Synthesis over Single Atom Catalysts. , 2020, 2, 1008-1024. | | 129 |
| 238 | Electrocatalyst design for promoting two-electron oxygen reduction reaction: Isolation of active site atoms. Current Opinion in Electrochemistry, 2020, 21, 109-116. | 2.5 | 39 |
| 239 | Design of hierarchical, threeâ€dimensional freeâ€standing singleâ€atom electrode for H<sub>2</sub>O<sub>2</sub> production in acidic media. , 2020, 2, 276-282. | | 56 |

| # | Article | IF | Citations |
|---|---|---|---|
| 240 | Prospects of Valueâ€Added Chemicals and Hydrogen via Electrolysis. ChemSusChem, 2020, 13, 2513-2521. | 3.6 | 70 |
| 241 | Electrocatalytic oxygen reduction to hydrogen peroxide by oxidized graphene aerogel supported cubic MnCO3 for antibacteria in neutral media. Electrochimica Acta, 2020, 340, 135880. | 2.6 | 22 |
| 242 | Accelerating CO<sub>2</sub> Electroreduction to CO Over Pd Singleâ€Atom Catalyst. Advanced Functional Materials, 2020, 30, 2000407. | 7.8 | 173 |
| 243 | On the Controlled Loading of Single Platinum Atoms as a Coâ€Catalyst on TiO<sub>2</sub> Anatase for Optimized Photocatalytic H<sub>2</sub> Generation. Advanced Materials, 2020, 32, e1908505. | 11.1 | 189 |
| 244 | Atomic-level tuning of Coâ€“Nâ€“C catalyst for high-performance electrochemical H2O2 production. Nature Materials, 2020, 19, 436-442. | 13.3 | 725 |
| 245 | Enabling Direct H2O2 Production in Acidic Media through Rational Design of Transition Metal Single Atom Catalyst. CheM, 2020, 6, 658-674. | 5.8 | 418 |
| 246 | High-yield electrochemical hydrogen peroxide production from an enhanced two-electron oxygen reduction pathway by mesoporous nitrogen-doped carbon and manganese hybrid electrocatalysts. Nanoscale Horizons, 2020, 5, 832-838. | 4.1 | 40 |
| 247 | Visible-light-driven H2O2 production from O2 reduction with nitrogen vacancy-rich and porous graphitic carbon nitride. Applied Catalysis B: Environmental, 2020, 273, 119064. | 10.8 | 135 |
| 248 | Promoting H2O2 production via 2-electron oxygen reduction by coordinating partially oxidized Pd with defect carbon. Nature Communications, 2020, 11, 2178. | 5.8 | 209 |
| 249 | Palladiumâ€Based Bimetallic Nanocrystal Catalysts for the Direct Synthesis of Hydrogen Peroxide. ChemSusChem, 2020, 13, 3243-3251. | 3.6 | 35 |
| 250 | Hydrochlorination of acetylene on single-atom Pd/N-doped carbon catalysts: Importance of pyridinic-N synergism. Applied Catalysis B: Environmental, 2020, 272, 118944. | 10.8 | 84 |
| 251 | Atomically dispersed palladium-based catalysts obtained via constructing a spatial structure with high performance for lean methane combustion. Journal of Materials Chemistry A, 2020, 8, 7395-7404. | 5.2 | 40 |
| 252 | Crystallinity dependence for high-selectivity electrochemical oxygen reduction to hydrogen peroxide. Chemical Communications, 2020, 56, 5299-5302. | 2.2 | 10 |
| 253 | Engineering Facets and Oxygen Vacancies over Hematite Single Crystal for Intensified Electrocatalytic H<sub>2</sub>O<sub>2</sub> Production. Advanced Functional Materials, 2020, 30, 1910539. | 7.8 | 90 |
| 254 | Selective electrochemical production of hydrogen peroxide at zigzag edges of exfoliated molybdenum telluride nanoflakes. National Science Review, 2020, 7, 1360-1366. | 4.6 | 40 |
| 255 | Highâ€Efficiency Oxygen Reduction to Hydrogen Peroxide Catalyzed by Nickel Singleâ€Atom Catalysts with Tetradentate N<sub>2</sub>O<sub>2</sub> Coordination in a Threeâ€Phase Flow Cell. Angewandte Chemie, 2020, 132, 13157-13162. | 1.6 | 16 |
| 256 | Highâ€Efficiency Oxygen Reduction to Hydrogen Peroxide Catalyzed by Nickel Singleâ€Atom Catalysts with Tetradentate N<sub>2</sub>O<sub>2</sub> Coordination in a Threeâ€Phase Flow Cell. Angewandte Chemie - International Edition, 2020, 59, 13057-13062. | 7.2 | 222 |
| 257 | Electrogeneration of Hydrogen Peroxide via Oxygen Reduction on Polyindole Films. Journal of the Electrochemical Society, 2020, 167, 086502. | 1.3 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 258 | Exploring Bi<sub>2</sub>Te<sub>3</sub> Nanoplates as Versatile Catalysts for Electrochemical Reduction of Small Molecules. Advanced Materials, 2020, 32, e1906477. | 11.1 | 65 |
| 259 | Tailoring Selectivity of Electrochemical Hydrogen Peroxide Generation by Tunable Pyrrolicâ€Nitrogenâ€Carbon. Advanced Energy Materials, 2020, 10, 2000789. | 10.2 | 247 |
| 260 | Theoretical Modeling of Site Selectivity and Chemical Substitution Effect of H2O2 Production Efficiency on Modified Graphene. Catalysis Letters, 2021, 151, 390-397. | 1.4 | 3 |
| 261 | Selective H2O2 production on surface-oxidized metal-nitrogen-carbon electrocatalysts. Catalysis Today, 2021, 359, 99-105. | 2.2 | 42 |
| 262 | Thiolateâ€Protected Singleâ€Atom Alloy Nanoclusters: Correlation between Electronic Properties and Catalytic Activities. Advanced Materials Interfaces, 2021, 8, 2001342. | 1.9 | 10 |
| 263 | Electrocatalytic reduction of Cr(VI) over heterophase MoS2 film electrode. Chemical Engineering Journal, 2021, 404, 126556. | 6.6 | 25 |
| 264 | Environmental Materials beyond and below the Nanoscale: Single-Atom Catalysts. ACS ES&T Engineering, 2021, 1, 157-172. | 3.7 | 88 |
| 265 | Thermally treated candle soot as a novel catalyst for hydrogen peroxide in-situ production enhancement in the bio-electro-Fenton system. Chemosphere, 2021, 262, 127839. | 4.2 | 13 |
| 266 | Stability and catalytic activity of Au30M12 (MÂ=ÂAu, Ag, Cu, Pt) icosahedral clusters. Chemical Physics Letters, 2021, 763, 138186. | 1.2 | 7 |
| 267 | Electrochemical Oxygen Reduction to Hydrogen Peroxide via a Twoâ€Electron Transfer Pathway on Carbonâ€Based Singleâ€Atom Catalysts. Advanced Materials Interfaces, 2021, 8, 2001360. | 1.9 | 35 |
| 268 | Nanoscale engineering of catalytic materials for sustainable technologies. Nature Nanotechnology, 2021, 16, 129-139. | 15.6 | 210 |
| 269 | Highly active, selective, and stable Pd single-atom catalyst anchored on N-doped hollow carbon sphere for electrochemical H2O2 synthesis under acidic conditions. Journal of Catalysis, 2021, 393, 313-323. | 3.1 | 43 |
| 270 | Single-atom alloy catalysts: structural analysis, electronic properties and catalytic activities. Chemical Society Reviews, 2021, 50, 569-588. | 18.7 | 220 |
| 271 | Strain engineered gas-consumption electroreduction reactions: Fundamentals and perspectives. Coordination Chemistry Reviews, 2021, 429, 213649. | 9.5 | 6 |
| 272 | Electrocatalytic Oxygen Reduction to Hydrogen Peroxide: From Homogeneous to Heterogeneous Electrocatalysis. Advanced Energy Materials, 2021, 11, 2003323. | 10.2 | 150 |
| 273 | Evaluating the electro-sensing behaviors of single-atom catalysts based on mechanistic insights. Current Opinion in Electrochemistry, 2021, 25, 100646. | 2.5 | 3 |
| 274 | Gold-based nanoalloys: synthetic methods and catalytic applications. Journal of Materials Chemistry A, 2021, 9, 19025-19053. | 5.2 | 16 |
| 275 | Boron containing metalâ€“organic framework for highly selective photocatalytic production of H<sub>2</sub>O<sub>2</sub>by promoting two-electron O<sub>2</sub>reduction. Materials Horizons, 2021, 8, 2842-2850. | 6.4 | 31 |

| # | Article | IF | Citations |
|---|---|---|---|
| 276 | Electrochemical Stability and Degradation Mechanisms of Commercial Carbon-Supported Gold Nanoparticles in Acidic Media. Journal of Physical Chemistry C, 2021, 125, 635-647. | 1.5 | 18 |
| 277 | CoTe nanoparticle-embedded N-doped hollow carbon polyhedron: an efficient catalyst for H<sub>2</sub>O<sub>2</sub> electrosynthesis in acidic media. Journal of Materials Chemistry A, 2021, 9, 21703-21707. | 5.2 | 29 |
| 278 | Copper-based single-atom alloys for heterogeneous catalysis. Chemical Communications, 2021, 57, 2710-2723. | 2.2 | 22 |
| 279 | Plasma activation towards oxidized nanocarbons for efficient electrochemical synthesis of hydrogen peroxide. Plasma Science and Technology, 2021, 23, 025502. | 0.7 | 2 |
| 280 | Nitrogen and oxygen tailoring of a solid carbon active site for two-electron selectivity electrocatalysis. Inorganic Chemistry Frontiers, 2021, 8, 173-181. | 3.0 | 11 |
| 281 | A computational study on the reduction of O<sub>2</sub> to H<sub>2</sub>O<sub>2</sub> using small polycyclic aromatic molecules. Catalysis Science and Technology, 2021, 11, 4979-4986. | 2.1 | 0 |
| 282 | Co, Fe codoped holey carbon nanosheets as bifunctional oxygen electrocatalysts for rechargeable Znâ€“air batteries. Chemical Communications, 2021, 57, 2049-2052. | 2.2 | 27 |
| 283 | Nitrogen, sulfur co-doped carbon coated zinc sulfide for efficient hydrogen peroxide electrosynthesis. Dalton Transactions, 2021, 50, 5416-5419. | 1.6 | 6 |
| 284 | Heteroatom-doped carbon-based oxygen reduction electrocatalysts with tailored four-electron and two-electron selectivity. Chemical Communications, 2021, 57, 7350-7361. | 2.2 | 43 |
| 285 | Efficient Discovery of Active, Selective, and Stable Catalysts for Electrochemical H<sub>2</sub>O<sub>2</sub> Synthesis through Active Motif Screening. ACS Catalysis, 2021, 11, 2483-2491. | 5.5 | 44 |
| 286 | Hydrogen Peroxide Generation with 100% Faradaic Efficiency on Metal-Free Carbon Black. ACS Catalysis, 2021, 11, 2454-2459. | 5.5 | 98 |
| 287 | Advanced Development Strategy of Nano Catalyst and DFT Calculations for Direct Synthesis of Hydrogen Peroxide. Advanced Energy Materials, 2021, 11, 2003121. | 10.2 | 34 |
| 288 | Shape-Selective Synthesis of Intermetallic Pd<sub>3</sub>Pb Nanocrystals and Enhanced Catalytic Properties in the Direct Synthesis of Hydrogen Peroxide. ACS Catalysis, 2021, 11, 2288-2301. | 5.5 | 27 |
| 289 | Design Strategies of Nonâ€Noble Metalâ€Based Electrocatalysts for Twoâ€Electron Oxygen Reduction to Hydrogen Peroxide. ChemSusChem, 2021, 14, 1616-1633. | 3.6 | 46 |
| 290 | Hydrogen peroxide electrosynthesis via regulating the oxygen reduction reaction pathway on Pt noble metal with ion poisoning. Electrochimica Acta, 2021, 371, 137721. | 2.6 | 25 |
| 291 | Designing Atomically Dispersed Au on Tensile-Strained Pd for Efficient CO<sub>2</sub> Electroreduction to Formate. Journal of the American Chemical Society, 2021, 143, 5386-5395. | 6.6 | 74 |
| 292 | 3d Transitionâ€Metalâ€Mediated Columbite Nanocatalysts for Decentralized Electrosynthesis of Hydrogen Peroxide. Small, 2021, 17, e2007249. | 5.2 | 35 |
| 293 | Honeycomb Carbon Nanofibers: A Superhydrophilic O<sub>2</sub>â€Entrapping Electrocatalyst Enables Ultrahigh Mass Activity for the Twoâ€Electron Oxygen Reduction Reaction. Angewandte Chemie, 2021, 133, 10677-10681. | 1.6 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 294 | Honeycomb Carbon Nanofibers: A Superhydrophilic O<sub>2</sub>â€Entrapping Electrocatalyst Enables Ultrahigh Mass Activity for the Twoâ€Electron Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2021, 60, 10583-10587. | 7.2 | 219 |
| 295 | High Yield Electrosynthesis of Hydrogen Peroxide from Water Using Electrospun CaSnO<sub>3</sub>@Carbon Fiber Membrane Catalysts with Abundant Oxygen Vacancy. Advanced Functional Materials, 2021, 31, 2100099. | 7.8 | 52 |
| 296 | Highly Selective O<sub>2</sub> Reduction to H<sub>2</sub>O<sub>2</sub> Catalyzed by Cobalt Nanoparticles Supported on Nitrogen-Doped Carbon in Alkaline Solution. ACS Catalysis, 2021, 11, 5035-5046. | 5.5 | 36 |
| 297 | N-doped carbon nanotubes supported CoSe2 nanoparticles: A highly efficient and stable catalyst for H2O2 electrosynthesis in acidic media. Nano Research, 2022, 15, 304-309. | 5.8 | 90 |
| 298 | Recent Progress of Electrochemical Production of Hydrogen Peroxide by Twoâ€Electron Oxygen Reduction Reaction. Advanced Science, 2021, 8, e2100076. | 5.6 | 148 |
| 299 | Highly efficient hydrogen peroxide electrosynthesis on oxidized carbon nanotubes by thermally activated-persulfate. Journal of Materiomics, 2022, 8, 136-143. | 2.8 | 4 |
| 300 | Promoting the Two-Electron Oxygen Reduction Reaction Performance of Carbon Nanospheres by Pore Engineering. ACS Applied Energy Materials, 2021, 4, 4620-4629. | 2.5 | 16 |
| 301 | Fast and Stable Electrochemical Production of H<sub>2</sub>O<sub>2</sub> by Electrode Architecture Engineering. ACS Sustainable Chemistry and Engineering, 2021, 9, 7120-7129. | 3.2 | 24 |
| 302 | Spherical Polydopamine-Modified Carbon-Felt Cathode with an Active Indole Structure for Efficient Hydrogen Peroxide Electroproduction. Applied Sciences (Switzerland), 2021, 11, 5371. | 1.3 | 1 |
| 303 | Chemical Identification of Catalytically Active Sites on Oxygenâ€doped Carbon Nanosheet to Decipher the High Activity for Electroâ€synthesis Hydrogen Peroxide. Angewandte Chemie - International Edition, 2021, 60, 16607-16614. | 7.2 | 150 |
| 304 | Origin of Selective Production of Hydrogen Peroxide by Electrochemical Oxygen Reduction. Journal of the American Chemical Society, 2021, 143, 9423-9428. | 6.6 | 169 |
| 305 | Efficient Electrochemical Production of H<sub>2</sub>O<sub>2</sub> on Hollow N-Doped Carbon Nanospheres with Abundant Micropores. ACS Applied Materials & Interfaces, 2021, 13, 29551-29557. | 4.0 | 70 |
| 306 | Bimetallic PdAu Nanoframes for Electrochemical H<sub>2</sub>O<sub>2</sub> Production in Acids. , 2021, 3, 996-1002. | | 48 |
| 307 | Chemical Identification of Catalytically Active Sites on Oxygenâ€doped Carbon Nanosheet to Decipher the High Activity for Electroâ€synthesis Hydrogen Peroxide. Angewandte Chemie, 2021, 133, 16743-16750. | 1.6 | 34 |
| 308 | Mediated Charge Transfer at Nanoelectrodes: A New Approach to Electrochemical Reactivity Mapping and Nanosensing. Journal of the American Chemical Society, 2021, 143, 8547-8551. | 6.6 | 22 |
| 309 | Inexpensive activated coke electrocatalyst for high-efficiency hydrogen peroxide production: Coupling effects of amorphous carbon cluster and oxygen dopant. Applied Catalysis B: Environmental, 2021, 286, 119860. | 10.8 | 55 |
| 310 | Selectively photoelectrocatalytic reduction of oxygen to hydroxyl radical and singlet oxygen: Mechanism and validation in coal wastewater. Applied Catalysis B: Environmental, 2021, 286, 119908. | 10.8 | 61 |
| 311 | Single-Atom Catalysts Designed and Prepared by the Atomic Layer Deposition Technique. ACS Catalysis, 2021, 11, 7018-7059. | 5.5 | 106 |

| # | Article | IF | Citations |
|---|---|---|---|
| 312 | PdAu alloy nano wires for the elevated alcohol electro-oxidation reaction. Electrochimica Acta, 2021, 384, 138405. | 2.6 | 16 |
| 313 | Maximizing the Catalytic Performance of Pd@Au<sub>x</sub>Pd<sub>1â^'x</sub> Nanocubes in H<sub>2</sub>O<sub>2</sub> Production by Reducing Shell Thickness to Increase Compositional Stability. Angewandte Chemie, 2021, 133, 19795-19799. | 1.6 | 11 |
| 314 | Sustainable microwave-assisted hydrothermal synthesis of carbon-supported ZrO2 nanoparticles for H2O2 electrogeneration. Materials Chemistry and Physics, 2021, 267, 124575. | 2.0 | 18 |
| 315 | Highly active and selective oxygen reduction to H2O2 on boron-doped carbon for high production rates. Nature Communications, 2021, 12, 4225. | 5.8 | 218 |
| 316 | Maximizing the Catalytic Performance of Pd@Au<sub>x</sub>Pd<sub>1â^'x</sub> Nanocubes in H<sub>2</sub>O<sub>2</sub> Production by Reducing Shell Thickness to Increase Compositional Stability. Angewandte Chemie - International Edition, 2021, 60, 19643-19647. | 7.2 | 44 |
| 317 | Recent advances and trends of heterogeneous electro-Fenton process for wastewater treatment-review. Chinese Chemical Letters, 2022, 33, 653-662. | 4.8 | 64 |
| 318 | General Design Concept for Singleâ€Atom Catalysts toward Heterogeneous Catalysis. Advanced Materials, 2021, 33, e2004287. | 11.1 | 170 |
| 319 | Earth-abundant metal-free carbon-based electrocatalysts for Zn-air batteries to power electrochemical generation of H2O2 for in-situ wastewater treatment. Chemical Engineering Journal, 2021, 416, 128338. | 6.6 | 21 |
| 320 | Rational Design of Singleâ€Atom Site Electrocatalysts: From Theoretical Understandings to Practical Applications. Advanced Materials, 2021, 33, e2008151. | 11.1 | 175 |
| 321 | Carbon Free and Noble Metal Free Ni<sub>2</sub>Mo<sub>6</sub>S<sub>8</sub> Electrocatalyst for Selective Electrosynthesis of H<sub>2</sub>O<sub>2</sub>. Advanced Functional Materials, 2021, 31, 2104716. | 7.8 | 44 |
| 322 | Preparation of a uniform thin-film Pd-Au electrocatalyst via electroreduction of a palladium hexacyanoferrate(II)-Au electrodeposit for alkaline oxidation of methanol. Journal of Electroanalytical Chemistry, 2021, 895, 115416. | 1.9 | 1 |
| 323 | Designing highly active nanoporous carbon H2O2 production electrocatalysts through active site identification. CheM, 2021, 7, 3114-3130. | 5.8 | 109 |
| 324 | Unassisted photocatalytic H2O2 production under visible light by fluorinated polymer-TiO2 heterojunction. Chemical Engineering Journal, 2021, 418, 129346. | 6.6 | 63 |
| 325 | Enhanced Onâ€Site Hydrogen Peroxide Electrosynthesis by a Selectively Carboxylated Nâ€Doped Graphene Catalyst. ChemCatChem, 2021, 13, 4372-4383. | 1.8 | 15 |
| 326 | Self-Nanocavity-Confined Halogen Anions Boosting the High Selectivity of the Two-Electron Oxygen Reduction Pathway over Ni-Based MOFs. Journal of Physical Chemistry Letters, 2021, 12, 8706-8712. | 2.1 | 19 |
| 327 | Selective Electrochemical Generation of Hydrogen Peroxide from Oxygen Reduction on Atomically Dispersed Platinum. ACS Applied Energy Materials, 2021, 4, 10843-10848. | 2.5 | 16 |
| 328 | Highly efficient electrochemical production of hydrogen peroxide over nitrogen and phosphorus dual-doped carbon nanosheet in alkaline medium. Journal of Electroanalytical Chemistry, 2021, 896, 115197. | 1.9 | 29 |
| 329 | Structural Modulation on NiCo<sub>2</sub>S<sub>4</sub>Nanoarray by N Doping to Enhance 2eâ€ORR Selectivity for Photothermal AOPs and Znâ^'O<sub>2</sub>Batteries**. Chemistry - A European Journal, 2021, 27, 14451-14460. | 1.7 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 330 | Strongly Coupled Cobalt Diselenide Monolayers Selectively Catalyze Oxygen Reduction to H2O2 in an Acidic Environment. Angewandte Chemie, 0, , . | 1.6 | 3 |
| 331 | In Situ Detection of Released H<sub>2</sub>O<sub>2</sub> from Living Cells by Carbon Cloth-Supported Graphene/Auâ€“Pt Nanoparticles. ACS Applied Nano Materials, 2021, 4, 9449-9458. | 2.4 | 8 |
| 332 | Investigating the efficacy of CeO2 multi-layered triangular nanosheets for augmenting cathodic hydrogen peroxide production in microbial fuel cell. Electrochimica Acta, 2021, 398, 139341. | 2.6 | 15 |
| 333 | Tuning Metal Elements in Open Frameworks for Efficient Oxygen Evolution and Oxygen Reduction Reaction Catalysts. ACS Applied Materials & Interfaces, 2021, 13, 42715-42723. | 4.0 | 17 |
| 334 | Strongly Coupled Cobalt Diselenide Monolayers for Selective Electrocatalytic Oxygen Reduction to H<sub>2</sub>O<sub>2</sub> under Acidic Conditions. Angewandte Chemie - International Edition, 2021, 60, 26922-26931. | 7.2 | 61 |
| 335 | Greatly Facilitated Two-Electron Electroreduction of Oxygen into Hydrogen Peroxide over TiO<sub>2</sub> by Mn Doping. ACS Applied Materials & Interfaces, 2021, 13, 46659-46664. | 4.0 | 46 |
| 336 | Carbonâ€Based Electrocatalysts for Efficient Hydrogen Peroxide Production. Advanced Materials, 2021, 33, e2103266. | 11.1 | 104 |
| 337 | A newly-explored Pd-based nanocrystal for the pH-universal electrosynthesis of H2O2. Nano Energy, 2021, 89, 106480. | 8.2 | 25 |
| 338 | Electrocatalytic generation of hydrogen peroxide on cobalt nanoparticles embedded in nitrogen-doped carbon. Chinese Journal of Catalysis, 2021, 42, 2296-2305. | 6.9 | 10 |
| 339 | Harnessing selective and durable electrosynthesis of H2O2 over dual-defective yolk-shell carbon nanosphere toward on-site pollutant degradation. Applied Catalysis B: Environmental, 2021, 298, 120572. | 10.8 | 29 |
| 340 | Integrating H2O2 generation from electrochemical oxygen reduction with the selective oxidation of organics in a dual-membrane reactor. Chemical Engineering Journal, 2022, 428, 131534. | 6.6 | 16 |
| 341 | Palladium-based single atom catalysts for high-performance electrochemical production of hydrogen peroxide. Chemical Engineering Journal, 2022, 428, 131112. | 6.6 | 29 |
| 342 | Non-carbon-supported single-atom site catalysts for electrocatalysis. Energy and Environmental Science, 2021, 14, 2809-2858. | 15.6 | 198 |
| 343 | Assessing the oxygen reduction reaction by a 2-electron mechanism on ceria surfaces. Physical Chemistry Chemical Physics, 2021, 23, 18580-18587. | 1.3 | 7 |
| 344 | Electrocatalytic hydrogen peroxide production in acidic media enabled by NiS<sub>2</sub> nanosheets. Journal of Materials Chemistry A, 2021, 9, 6117-6122. | 5.2 | 102 |
| 345 | Noble-metal single-atoms in thermocatalysis, electrocatalysis, and photocatalysis. Energy and Environmental Science, 2021, 14, 2954-3009. | 15.6 | 188 |
| 346 | Lightâ€Driven BiVO<sub>4</sub>â€“C Fuel Cell with Simultaneous Production of H<sub>2</sub>O<sub>2</sub>. Advanced Energy Materials, 2018, 8, 1801158. | 10.2 | 107 |
| 347 | Efficient H<sub>2</sub>O<sub>2</sub> Production via H<sub>2</sub>O Oxidation on an Anode Modified with Sbâ€Containing Mixed Metal Oxides. ChemElectroChem, 2020, 7, 2448-2455. | 1.7 | 22 |

| # | Article | IF | Citations |
|---|---|---|---|
| 348 | Building highly active hybrid doubleâ€“atom sites in C2N for enhanced electrocatalytic hydrogen peroxide synthesis. Green Energy and Environment, 2021, 6, 846-857. | 4.7 | 22 |
| 349 | Towards quaternary alloy Auâ€“Pd catalysts for direct synthesis of hydrogen peroxide. Materials Today Energy, 2020, 16, 100399. | 2.5 | 5 |
| 350 | Efficient Electrochemical Oxygen Reduction to Hydrogen Peroxide by Transition Metal-Doped Silicate Sr0.7Na0.3SiO3â˜Î˙. ACS Applied Materials & Interfaces, 2021, 13, 382-390. | 4.0 | 5 |
| 351 | Recent Advances in Single-Atom Electrocatalysts for Oxygen Reduction Reaction. Research, 2020, 2020, 9512763. | 2.8 | 45 |
| 352 | Carbon-based single atom catalysts for tailoring the ORR pathway: a concise review. Journal of Materials Chemistry A, 2021, 9, 24803-24829. | 5.2 | 60 |
| 353 | Structural Regulation of Pdâ€Based Nanoalloys for Advanced Electrocatalysis. Small Science, 2021, 1, 2100061. | 5.8 | 48 |
| 354 | Bubble-templated synthesis of nanocatalyst Co/C as NADH oxidase mimic. National Science Review, 2022, 9, nwab186. | 4.6 | 25 |
| 355 | Nanoporous Graphene via a Pressing Organization Calcination Strategy for Highly Efficient Electrocatalytic Hydrogen Peroxide Generation. ACS Applied Materials & Interfaces, 2021, 13, 47478-47487. | 4.0 | 7 |
| 356 | Recent advances in electrocatalytic oxygen reduction for on-site hydrogen peroxide synthesis in acidic media. Journal of Energy Chemistry, 2022, 67, 432-450. | 7.1 | 66 |
| 357 | Engineering Ir Atomic Configuration for Switching the Pathway of Formic Acid Electrooxidation Reaction. Advanced Functional Materials, 2022, 32, 2107672. | 7.8 | 18 |
| 358 | Durable and Selective Electrochemical H<sub>2</sub>O<sub>2</sub> Synthesis under a Large Current Enabled by the Cathode with Highly Hydrophobic Three-Phase Architecture. ACS Catalysis, 2021, 11, 13797-13808. | 5.5 | 59 |
| 359 | Bacterial cellulose-regulated synthesis of metallic Ni catalysts for high-efficiency electrosynthesis of hydrogen peroxide. Science China Materials, 0, , 1. | 3.5 | 6 |
| 360 | Electronic Structure Regulation of Singleâ€Atom Catalysts for Electrochemical Oxygen Reduction to H<sub>2</sub>O<sub>2</sub>. Small, 2022, 18, e2103824. | 5.2 | 49 |
| 361 | Rational construction of thermally stable single atom catalysts: From atomic structure to practical applications. Chinese Journal of Catalysis, 2022, 43, 71-91. | 6.9 | 15 |
| 362 | Noble Metalâ€Based Multimetallic Nanoparticles for Electrocatalytic Applications. Advanced Science, 2022, 9, e2104054. | 5.6 | 54 |
| 363 | Understanding the activity origin of oxygen-doped carbon materials in catalyzing the two-electron oxygen reduction reaction towards hydrogen peroxide generation. Journal of Colloid and Interface Science, 2022, 610, 934-943. | 5.0 | 15 |
| 364 | Hybrids of Reduced Graphene Oxide Aerogel and CNT for Electrochemical O2 Reduction. Catalysts, 2021, 11, 1404. | 1.6 | 3 |
| 365 | BiVO<sub>4</sub> Microparticles Decorated with Cu@Au Core-Shell Nanostructures for Photocatalytic H<sub>2</sub>O<sub>2</sub> Production. ACS Applied Nano Materials, 2021, 4, 13158-13166. | 2.4 | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 366 | Electrochemical two-electron O<sub>2</sub> reduction reaction toward H<sub>2</sub>O<sub>2</sub> production: using cobalt porphyrin decorated carbon nanotubes as a nanohybrid catalyst. Journal of Materials Chemistry A, 2021, 9, 26019-26027. | 5.2 | 55 |
| 367 | Single-atom catalysts on supported silicomolybdic acid for CO<sub>2</sub> electroreduction: a DFT prediction. Journal of Materials Chemistry A, 2022, 10, 6178-6186. | 5.2 | 25 |
| 368 | The increase in embodied exergy to produce metal proportional to the decrease in mineral concentration. Cleaner Engineering and Technology, 2022, 6, 100363. | 2.1 | 0 |
| 369 | Exsolved Co3O4 with tunable oxygen vacancies for electrocatalytic H2O2 production. Materials Today Energy, 2022, 24, 100931. | 2.5 | 19 |
| 370 | Enhanced H2O2 electrosynthesis on kneading oxidized carbon nanotubes. Applied Surface Science, 2022, 580, 152293. | 3.1 | 9 |
| 371 | Oxygen Self-Doping Formicary-Like Electrocatalyst with Ultrahigh Specific Surface Area Derived from Waste Pitaya Peels for High-Efficiency H <sub>2</sub>O <sub>2</sub> Electrosynthesis and Electro-Fenton System. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 372 | Synergistically enhanced single-atomic site catalysts for clean energy conversion. Journal of Materials Chemistry A, 2022, 10, 5673-5698. | 5.2 | 12 |
| 373 | Using Palladium and Gold Palladium Nanoparticles Decorated with Molybdenum Oxide for Versatile Hydrogen Peroxide Electroproduction on Graphene Nanoribbons. ACS Applied Materials & Interfaces, 2022, 14, 6777-6793. | 4.0 | 13 |
| 374 | Investigation of MXenes as oxygen reduction electrocatalyst for selective H2O2 generation. Nano Research, 2022, 15, 3927-3932. | 5.8 | 30 |
| 375 | A transferable machine-learning scheme from pure metals to alloys for predicting adsorption energies. Journal of Materials Chemistry A, 2022, 10, 872-880. | 5.2 | 33 |
| 376 | SnO<sub>2</sub>-supported single metal atoms: a bifunctional catalyst for the electrochemical synthesis of H<sub>2</sub>O<sub>2</sub>. Journal of Materials Chemistry A, 2022, 10, 6115-6121. | 5.2 | 14 |
| 377 | Selective, Stable, Biasâ€Free, and Efficient Solar Hydrogen Peroxide Production on Inorganic Layered Materials. Advanced Functional Materials, 2022, 32, . | 7.8 | 19 |
| 378 | Catalytic activity, thermal stability and structural evolution of PdCu single-atom alloy catalysts: the effects of size and morphology. RSC Advances, 2021, 12, 62-71. | 1.7 | 4 |
| 379 | Highly efficient two-electron electroreduction of oxygen into hydrogen peroxide over Cu-doped TiO2. Nano Research, 2022, 15, 3880-3885. | 5.8 | 38 |
| 380 | N, O-coupling towards the selectively electrochemical production of H2O2. Chinese Chemical Letters, 2022, 33, 5152-5157. | 4.8 | 19 |
| 381 | Engineering the Local Atomic Environments of Indium Singleâ€Atom Catalysts for Efficient Electrochemical Production of Hydrogen Peroxide. Angewandte Chemie, 2022, 134, . | 1.6 | 27 |
| 382 | Engineering the Local Atomic Environments of Indium Singleâ€Atom Catalysts for Efficient Electrochemical Production of Hydrogen Peroxide. Angewandte Chemie - International Edition, 2022, 61, . | 7.2 | 127 |
| 383 | Mechanism investigation of enhanced electrochemical H2O2 production performance on oxygen-rich hollow porous carbon spheres. Nano Research, 2022, 15, 4599-4605. | 5.8 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 384 | A Selective Copper Based Oxygen Reduction Catalyst for the Electrochemical Synthesis of H 2 O 2 at Neutral pH. ChemElectroChem, 2022, 9, . | 1.7 | 7 |
| 385 | Metalâ€Free Boronâ€Rich Borocarbonitride Catalysts for Highâ€Efficient Oxygen Reduction to Produce Hydrogen Peroxideâ€. ChemistrySelect, 2022, 7, . | 0.7 | 2 |
| 386 | Non-precious metal electrocatalysts for two-electron oxygen electrochemistry: Mechanisms, progress, and outlooks. Journal of Energy Chemistry, 2022, 69, 54-69. | 7.1 | 16 |
| 387 | Tuning Twoâ€Electron Oxygenâ€Reduction Pathways for H<sub>2</sub>O<sub>2</sub> Electrosynthesis via Engineering Atomically Dispersed Single Metal Site Catalysts. Advanced Materials, 2022, 34, e2107954. | 11.1 | 84 |
| 388 | Surface ion isolated platinum-thiocyanate catalysts for hydrogen peroxide production via 2-electron oxygen reduction in acidic media. Chemical Engineering Journal, 2022, 435, 135105. | 6.6 | 6 |
| 389 | Electrochemical Hydrogen Peroxide Synthesis from Selective Oxygen Reduction over Metal Selenide Catalysts. Nano Letters, 2022, 22, 1257-1264. | 4.5 | 33 |
| 390 | Unravelling the Surface Structure and Active Site of Casno3, as Well as H2o2 Formation Mechanism in Two Electron Water Oxidation Reaction. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 391 | Precise synthesis of single-atom Mo, W, Nb coordinated with oxygen functional groups of graphene oxide for stable and selective two-electron oxygen reduction in neutral media. Journal of Materials Chemistry A, 2022, 10, 9488-9496. | 5.2 | 8 |
| 392 | Research progress on carbon-based non-metallic nanomaterials as catalysts for the two-electron oxygen reduction for hydrogen peroxide production. New Carbon Materials, 2022, 37, 136-151. | 2.9 | 9 |
| 393 | Coupling Coâ€“Nâ€“C with MXenes Yields Highly Efficient Catalysts for H<sub>2</sub>O<sub>2</sub> Production in Acidic Media. ACS Applied Materials & Interfaces, 2022, 14, 11350-11358. | 4.0 | 19 |
| 394 | Enhanced electrochemical hydrogen peroxide production from surface state modified mesoporous tin oxide catalysts. International Journal of Energy Research, 2022, 46, 9150-9165. | 2.2 | 1 |
| 395 | Enhanced Electrochemical O<sub>2</sub>â€toâ€H<sub>2</sub>O<sub>2</sub> Synthesis Via Cuâ€Pb Synergistic Interplay. Small, 2022, 18, e2106534. | 5.2 | 7 |
| 396 | Linkerâ€Modulated Peroxide Electrosynthesis Using Metalâ€Organic Nanosheets**. ChemElectroChem, 2022, 9, . | 1.7 | 3 |
| 397 | Trimetallic Sulfide Hollow Superstructures with Engineered dâ€Band Center for Oxygen Reduction to Hydrogen Peroxide in Alkaline Solution. Advanced Science, 2022, 9, e2104768. | 5.6 | 26 |
| 398 | Cationâ€Vacancyâ€Enriched Nickel Phosphide for Efficient Electrosynthesis of Hydrogen Peroxides. Advanced Materials, 2022, 34, e2106541. | 11.1 | 123 |
| 399 | Designing Sites in Heterogeneous Catalysis: Are We Reaching Selectivities Competitive With Those of Homogeneous Catalysts?. Chemical Reviews, 2022, 122, 8594-8757. | 23.0 | 118 |
| 400 | Highly dispersed Ag clusters for active and stable hydrogen peroxide production. Nano Research, 2022, 15, 5842-5847. | 5.8 | 34 |
| 401 | Boosting Oxygen Reduction for Highâ€Efficiency H<sub>2</sub>O<sub>2</sub> Electrosynthesis on Oxygenâ€Coordinated Coï£¿Nï£¿C Catalysts. Small, 2022, 18, e2200730. | 5.2 | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 402 | Electrosynthesis of H2O2 through a two-electron oxygen reduction reaction by carbon based catalysts: From mechanism, catalyst design to electrode fabrication. Environmental Science and Ecotechnology, 2022, 11, 100170. | 6.7 | 29 |
| 403 | Tailoring 2-electron oxygen reduction reaction selectivity on h-BN-based single-atom catalysts from superoxide dismutase: A DFT investigation. Applied Surface Science, 2022, 592, 153233. | 3.1 | 18 |
| 404 | Oxygen self-doping formicary-like electrocatalyst with ultrahigh specific surface area derived from waste pitaya peels for high-yield H2O2 electrosynthesis and efficient electro-Fenton degradation. Separation and Purification Technology, 2022, 289, 120687. | 3.9 | 11 |
| 405 | Highly dispersed Co atoms anchored in porous nitrogen-doped carbon for acidic H2O2 electrosynthesis. Chemical Engineering Journal, 2022, 438, 135619. | 6.6 | 21 |
| 406 | Pd17Se15-Pd3B nanocoral electrocatalyst for selective oxygen reduction to hydrogen peroxide in near-neutral electrolyte. Applied Catalysis B: Environmental, 2022, 309, 121265. | 10.8 | 16 |
| 407 | Cooperatively interface role of surface atoms and aqueous media on single atom catalytic property for H2O2 synthesis. Journal of Colloid and Interface Science, 2022, 617, 752-763. | 5.0 | 10 |
| 408 | Tuning the atomic configuration of Co-N-C electrocatalyst enables highly-selective H2O2 production in acidic media. Applied Catalysis B: Environmental, 2022, 310, 121312. | 10.8 | 64 |
| 409 | Highâ€Efficiency Electrosynthesis of Hydrogen Peroxide from Oxygen Reduction Enabled by a Tungsten Single Atom Catalyst with Unique Terdentate N<sub>1</sub>O<sub>2</sub> Coordination. Advanced Functional Materials, 2022, 32, . | 7.8 | 55 |
| 410 | Metalâ€“Support Interactions of Single-Atom Catalysts for Biomedical Applications. ACS Applied Materials & Interfaces, 2021, 13, 60815-60836. | 4.0 | 16 |
| 411 | Modulating Coordination Environment of Fe Single Atoms for High-Efficiency All-Ph-Tolerated H2o2 Electrochemical Production. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 412 | Highly Efficient Electrochemical Synthesis of Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) Enabled by Amino Acid Glycine-Derived Metal-Free Nitrogen-Doped Ordered Mesoporous Carbon. ACS Sustainable Chemistry and Engineering, 2022, 10, 5453-5462. | 3.2 | 13 |
| 413 | Mass-transfer control for selective deposition of well-dispersed AuPd cocatalysts to boost photocatalytic H2O2 production of BiVO4. Chemical Engineering Journal, 2022, 443, 136429. | 6.6 | 26 |
| 414 | Epitaxially Grown Porous Heterostructure of Hexagonal Boron Nitride/Graphene as Efficient Electrocatalyst for H2o2ÂGeneration. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 415 | Amorphous Nickel Oxides Supported on Carbon Nanosheets as High-Performance Catalysts for Electrochemical Synthesis of Hydrogen Peroxide. ACS Catalysis, 2022, 12, 5911-5920. | 5.5 | 37 |
| 416 | Pyrimidine-assisted synthesis of S, N-codoped few-layered graphene for highly efficient hydrogen peroxide production in acid. Chem Catalysis, 2022, 2, 1450-1466. | 2.9 | 7 |
| 417 | Tailoring surface carboxyl groups of mesoporous carbon boosts electrochemical H2O2 production. Journal of Colloid and Interface Science, 2022, 622, 849-859. | 5.0 | 12 |
| 418 | A novel three-dimensional flow-through graphite felt-matrix cathode for in-situ hydrogen peroxide generation in multi-environment systems-Multiphysics modeling for in-situ hydrogen peroxide generation. Journal of Colloid and Interface Science, 2022, 622, 357-366. | 5.0 | 1 |
| 419 | Electroreduction of N<sub>2</sub> to NH<sub>3</sub> catalyzed by a Mn/Re(111) single-atom alloy catalyst with high activity and selectivity: a new insight from a first-principles study. Catalysis Science and Technology, 2022, 12, 4074-4085. | 2.1 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 420 | Isolating Single and Few Atoms for Enhanced Catalysis. Advanced Materials, 2022, 34, e2201796. | 11.1 | 84 |
| 421 | Theory-guided design of hydrogen-bonded cobaltoporphyrin frameworks for highly selective electrochemical H2O2 production in acid. Nature Communications, 2022, 13, 2721. | 5.8 | 38 |
| 422 | Structure-controlled graphene electrocatalysts for high-performance H<sub>2</sub>O<sub>2</sub> production. Energy and Environmental Science, 2022, 15, 2858-2866. | 15.6 | 52 |
| 423 | Mechanisms and Energetics of Complete Ethylene Oxidation on a PdAu Bimetallic Catalyst from a Theoretical Perspective. Journal of Physical Chemistry C, 2022, 126, 9361-9370. | 1.5 | 2 |
| 424 | Ultrafine PdZn bimetallic nanoparticles anchored on sulfur-doped mesoporous carbon for the partial hydrogenation of alkynols. Catalysis Today, 2022, , . | 2.2 | 3 |
| 425 | Unravelling the surface structure and active site of CaSnO3, as well as H2O2 formation mechanism in two electron water oxidation reaction. Applied Surface Science, 2022, 598, 153832. | 3.1 | 5 |
| 426 | Modulating coordination environment of Fe single atoms for high-efficiency all-pH-tolerated H2O2 electrochemical production. Applied Catalysis B: Environmental, 2022, 315, 121578. | 10.8 | 38 |
| 427 | Recycling synthesis of single-atom Zn-nitrogen-carbon catalyst for electrocatalytic reduction of O2 to H2O2. Science China Materials, 2022, 65, 3490-3496. | 3.5 | 10 |
| 428 | Synergetic Dualâ€ion Centers Boosting Metal Organic Framework Alloy Catalysts toward Efficient Two Electron Oxygen Reduction. Small, 2022, 18, . | 5.2 | 17 |
| 429 | Strategies and challenges on selective electrochemical hydrogen peroxide production: Catalyst and reaction medium design. Chem Catalysis, 2022, 2, 1919-1960. | 2.9 | 41 |
| 430 | Charge state modulation on boron site by carbon and nitrogen localized bonding microenvironment for two-electron electrocatalytic H2O2 production. Chinese Chemical Letters, 2023, 34, 107596. | 4.8 | 3 |
| 431 | Electrochemical grafting of a pyridiniumâ€conjugated assembly on graphite for H2O2 electrochemical production. ChemElectroChem, 0, , . | 1.7 | 0 |
| 432 | Harnessing Optimized Surface Reconstruction of Single-Atom Ni-Doped Ni-NiO/NC Precatalysts toward Robust H<sub>2</sub>O<sub>2</sub> Production. ACS Applied Materials & Interfaces, 2022, 14, 26803-26813. | 4.0 | 5 |
| 433 | Theoretical Study of Oxygen Adsorption on a Metal (Ni, Rh, Pd, Pt)-Doped Au(111) Surface. International Journal of Electrochemical Science, 0, , ArticleID:220717. | 0.5 | 1 |
| 434 | Low Consumption Fenton-Like Water Purification Through Pollutants as Electron Donors Substituting H2o2 Consumption Via Twofold Cation-Î Over Mos2 Cross-Linking G-C3n4 Hybrid. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 435 | Regulable pyrrolic-N-doped carbon materials as an efficient electrocatalyst for selective O<sub>2</sub> reduction to H<sub>2</sub>O<sub>2</sub>. New Journal of Chemistry, 2022, 46, 14510-14516. | 1.4 | 7 |
| 436 | Support Engineering Strategy to Tackle the Trade-Off between Catalytic Reactivity and H2o2 Selectivity in Electro-Oxygen Reduction. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 437 | Optimization of H2O2 production in small-scale off-grid buffer layer flow cell equipped with Cobalt@N-Doped Graphitic Carbon Coreâ€“Shell Nanohybrid electrocatalyst. Materials Today Energy, 2022, , 101092. | 2.5 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 438 | Nb2CT MXenes functionalized Coâ^'NC enhancing electrochemical H2O2 production for organics degradation. Applied Catalysis B: Environmental, 2022, 317, 121737. | 10.8 | 19 |
| 439 | Efficient overall 2e- oxygen electrolysis to H2O2 on CeO2 nanocubes. Electrochimica Acta, 2022, 430, 141091. | 2.6 | 8 |
| 440 | Photo/Electrocatalytic Hydrogen Peroxide Production by Manganese and Iron Porphyrin/Molybdenum Disulfide Nanoensembles. Small, 2022, 18, . | 5.2 | 6 |
| 441 | Low consumption Fenton-like water purification through pollutants as electron donors substituting H2O2 consumption via twofold cation-Ï€ over MoS2 cross-linking g-C3N4 hybrid. Applied Catalysis B: Environmental, 2023, 320, 121871. | 10.8 | 23 |
| 442 | Catalyst design, measurement guidelines, and device integration for H2O2 electrosynthesis from oxygen reduction. Cell Reports Physical Science, 2022, 3, 100987. | 2.8 | 15 |
| 443 | Recent Advances of Singleâ€Atomâ€Alloy for Energy Electrocatalysis. Advanced Energy Materials, 2022, 12, . | 10.2 | 50 |
| 444 | CO<sub>2</sub> Laserâ€Induced Graphene with an Appropriate Oxygen Species as an Efficient Electrocatalyst for Hydrogen Peroxide Synthesis. Chemistry - A European Journal, 2022, 28, . | 1.7 | 11 |
| 445 | Probing the relationship between bulk and local environments to understand impacts on electrocatalytic oxygen reduction reaction. Journal of Catalysis, 2022, 414, 33-43. | 3.1 | 12 |
| 446 | Synthesis of 2, 3-dihydroquinozoline- 4(1H) - Ones using magnetically retrievable nickel based nanocatalyst. Results in Engineering, 2022, 15, 100552. | 2.2 | 5 |
| 447 | Engineering ultrathin PdAu nanoring via a facile process for electrocatalytic ethanol oxidation. Journal of Colloid and Interface Science, 2022, 628, 53-63. | 5.0 | 5 |
| 448 | Fundamental principles and environmental applications of electrochemical hydrogen peroxide production: A review. Chemical Engineering Journal, 2023, 452, 139371. | 6.6 | 3 |
| 449 | Singlet oxygen synergistic surface-adsorbed hydroxyl radicals for phenol degradation in CoP catalytic photo-Fenton. Chinese Journal of Catalysis, 2022, 43, 2678-2689. | 6.9 | 18 |
| 450 | Elucidation and modulation of active sites in holey graphene electrocatalysts for <scp>H<sub>2</sub>O<sub>2</sub></scp> production. EcoMat, 2023, 5, . | 6.8 | 11 |
| 451 | Electrochemical Synthesis of Hydrogen Peroxide Catalyzed by Carbon Nanotubes with Surface Co-N<sub>X</sub> Sites and Encapsulated Co Nanoparticles. ACS Applied Materials & Interfaces, 2022, 14, 44282-44291. | 4.0 | 8 |
| 452 | Black Phosphorous Mediates Surface Charge Redistribution of CoSe<sub>2</sub> for Electrochemical H<sub>2</sub>O<sub>2</sub> Production in Acidic Electrolytes. Advanced Materials, 2022, 34, . | 11.1 | 25 |
| 453 | Electrocatalytic Oxygen Reduction to Produce Hydrogen Peroxide: Rational Design from Single-Atom Catalysts to Devices. Electrochemical Energy Reviews, 2022, 5, . | 13.1 | 24 |
| 454 | Adsorption Energy in Oxygen Electrocatalysis. Chemical Reviews, 2022, 122, 17028-17072. | 23.0 | 45 |
| 455 | Making cathode composites more efficient for electro-fenton and bio-electro-fenton systems: A review. Separation and Purification Technology, 2023, 304, 122302. | 3.9 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 456 | Room-temperature fabrication of a heterostructure Cu2O@CuO nanosheet electrocatalyst for non-enzymatic detection of glucose and H2O2. Journal of Electroanalytical Chemistry, 2022, 924, 116874. | 1.9 | 11 |
| 457 | Platinumâ€Gold Alloy Catalyzes the Aerobic Oxidation of Formic Acid for Hydrogen Peroxide Synthesis. Angewandte Chemie - International Edition, 2022, 61, . | 7.2 | 4 |
| 458 | Platinumâ€â€Gold Alloy Catalyzes the Aerobic Oxidation of Formic Acid for Hydrogen Peroxide Synthesis. Angewandte Chemie, 0, , . | 1.6 | 0 |
| 459 | High Selective Direct Synthesis of H<sub>2</sub>O<sub>2</sub> over Pd<sub>1</sub>@Î³â€Al<sub>2</sub>O<sub>3</sub> Singleâ€Atom Catalyst. ChemCatChem, 2022, 14, . | 1.8 | 0 |
| 460 | Using Au NPs anchored on ZrO2/carbon black toward more efficient H2O2 electrogeneration in flow-by reactor for carbaryl removal in real wastewater. Chemical Engineering Journal, 2023, 452, 139598. | 6.6 | 14 |
| 461 | Recent Advances in Catalysts for Electrochemical Methods of H<sub>2</sub>O<sub>2</sub> Production. Hans Journal of Nanotechnology, 2022, 12, 258-269. | 0.1 | 0 |
| 462 | Multiple Roles of Alkanethiolateâ€Ligands in Direct Formation of H<sub>2</sub>O<sub>2</sub> over Pd Nanoparticles. Angewandte Chemie - International Edition, 2022, 61, . | 7.2 | 3 |
| 463 | Multiple Roles of Alkanethiolateâ€Ligands in Direct Formation of H2O2 over Pd Nanoparticles. Angewandte Chemie, 0, , . | 1.6 | 1 |
| 464 | Rational design of noble metal-based multimetallic nanomaterials: A review. Nano Energy, 2022, 104, 107959. | 8.2 | 8 |
| 465 | Electrocatalytic selectivity to H2O2 enabled by two-electron pathway on Cu-deficient Au@Cu2-xS-CNTs electrocatalysts. Chemical Engineering Journal, 2023, 454, 140317. | 6.6 | 3 |
| 466 | Tafel Slope Analysis from Inherent Rate Constants for Oxygen Reduction Reaction Over N-doped Carbon and Feâ€“N-doped Carbon Electrocatalysts. Catalysis Surveys From Asia, 2023, 27, 84-94. | 1.0 | 3 |
| 467 | Coâ€based Catalysts for Selective H<sub>2</sub>O<sub>2</sub>Electroproduction via 2â€electron Oxygen Reduction Reaction. Chemistry - A European Journal, 2023, 29, . | 1.7 | 5 |
| 468 | Mesoscale Mass Transport Enhancement on Well-Defined Porous Carbon Platform for Electrochemical H<sub>2</sub>O<sub>2</sub> Synthesis. Nano Letters, 2022, 22, 9551-9558. | 4.5 | 12 |
| 469 | Lowâ€Coordinated Mo Clusters for Highâ€Efficiency Electrocatalytic Hydrogen Peroxide Production. Advanced Materials Interfaces, 2023, 10, . | 1.9 | 15 |
| 470 | Facile fabrication of carbon dots containing abundant h-BN/graphite heterostructures as efficient electrocatalyst for hydrogen peroxide synthesis. Applied Catalysis B: Environmental, 2023, 324, 122195. | 10.8 | 24 |
| 471 | Heterogeneous molecular Coâ€“Nâ€“C catalysts for efficient electrochemical H<sub>2</sub>O<sub>2</sub> synthesis. Energy and Environmental Science, 2023, 16, 446-459. | 15.6 | 27 |
| 472 | New strategies to improve two-electron oxygen reduction reaction selectivity of polypyrrole-based catalysts. Journal of Materials Chemistry A, 2023, 11, 2168-2177. | 5.2 | 6 |
| 473 | Single-atom CoN4 sites with elongated bonding induced by phosphorus doping for efficient H2O2 electrosynthesis. Applied Catalysis B: Environmental, 2023, 324, 122267. | 10.8 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 474 | Iterative machine learning method for screening high-performance catalysts for H2O2 production. Chemical Engineering Science, 2023, 267, 118368. | 1.9 | 2 |
| 475 | Anion-tuned nickel chalcogenides electrocatalysts for efficient 2eâ˜' ORR towards H2O2 production in acidic media. Nano Research, 2023, 16, 4729-4735. | 5.8 | 7 |
| 476 | Lowâ€Coordinated Pd Site within Amorphous Palladium Selenide for Active, Selective, and Stable H<sub>2</sub>O<sub>2</sub> Electrosynthesis. Advanced Materials, 2023, 35, . | 11.1 | 17 |
| 477 | Doped-nitrogen enhanced the performance of Nb2CTx on the electrocatalytic synthesis of H2O2. Nano Research, 2023, 16, 6120-6127. | 5.8 | 6 |
| 478 | Recent progress in the design of photocatalytic H2O2 synthesis system. Frontiers in Chemistry, 0, 10, . | 1.8 | 3 |
| 479 | Porous heterostructure of graphene/hexagonal boron nitride as an efficient electrocatalyst for hydrogen peroxide generation. , 2023, 5, . | | 12 |
| 480 | Recent progress in heteroatom-doped carbon electrocatalysts for the two-electron oxygen reduction reaction. Chemical Engineering Journal, 2023, 456, 141042. | 6.6 | 19 |
| 481 | Synchronous generation of green oxidants H<sub>2</sub>O<sub>2</sub> and O<sub>3</sub> by using a heterojunction bifunctional ZnO/ZnS@C electrocatalyst. Journal of Materials Chemistry A, 2023, 11, 3454-3463. | 5.2 | 3 |
| 482 | Chalcogenide-Based Complex Transition Metal Electrocatalyst for Hydrogen Peroxide Production. Journal of the Electrochemical Society, 2023, 170, 016506. | 1.3 | 0 |
| 483 | Atomic {Pdn+-X} States at Nanointerfaces: Implications in Energy-Related Catalysis. Energies, 2023, 16, 913. | 1.6 | 1 |
| 484 | Directing oxygen reduction reaction selectivity towards hydrogen peroxide via electric double layer engineering. Nanoscale, 2023, 15, 3832-3840. | 2.8 | 4 |
| 485 | Electrocatalytic Oxygen Reduction to Hydrogen Peroxide on Graphdiyne-Based Single-Atom Catalysts: First-Principles Studies. Catalysts, 2023, 13, 307. | 1.6 | 9 |
| 486 | Sb2S3-templated synthesis of sulfur-doped Sb-N-C with hierarchical architecture and high metal loading for H2O2 electrosynthesis. Nature Communications, 2023, 14, . | 5.8 | 42 |
| 487 | Nanomaterials in the environment: impacts and challenges. , 2023, , 389-414. | | 0 |
| 488 | Recent Advances of Electrocatalyst and Cell Design for Hydrogen Peroxide Production. Nano-Micro Letters, 2023, 15, . | 14.4 | 14 |
| 489 | Generation and transfer of long lifetime reactive oxygen species (ROSs) from electrochemical regulation. Chemical Engineering Journal, 2023, 464, 142443. | 6.6 | 6 |
| 490 | CO2-derived edge-boron-doped hierarchical porous carbon catalysts for highly effective electrochemical H2O2 production. Applied Catalysis B: Environmental, 2023, 329, 122557. | 10.8 | 9 |
| 491 | Efficient electrocatalytic H2O2 production in simulated seawater on ZnO/reduced graphene oxide nanocomposite. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 668, 131446. | 2.3 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 492 | Boosting the electrochemical O2-to-H2O2 synthesis by revamping the FeMo catalyst with N/O co-doped surface. Chemical Engineering Journal, 2023, 460, 141673. | 6.6 | 2 |
| 493 | Revealing the steric effects of cobalt porphyrin on the selectivity of oxygen reduction reaction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 663, 131091. | 2.3 | 11 |
| 494 | Cobalt atoms anchored on nitrogen-doped hollow carbon spheres for efficient electrocatalysis of oxygen reduction to H<sub>2</sub>O<sub>2</sub>. JPhys Energy, 2023, 5, 025001. | 2.3 | 1 |
| 495 | Impact of catalyst loading of atomically dispersed transition metal catalysts on H2O2 electrosynthesis selectivity. Electrochimica Acta, 2023, 444, 142031. | 2.6 | 1 |
| 496 | Optimizing the Pd Sites in Pure Metallic Aerogels for Efficient Electrocatalytic H<sub>2</sub>O<sub>2</sub> Production. Advanced Materials, 2023, 35, . | 11.1 | 13 |
| 497 | Nï£¿Bï£¿OH Siteâ€Activated Graphene Quantum Dots for Boosting Electrochemical Hydrogen Peroxide Production. Advanced Materials, 2023, 35, . | 11.1 | 43 |
| 498 | Metal-free carbon-based catalysts design for oxygen reduction reaction towards hydrogen peroxide: From 3D to 0D. Materials Today, 2023, 63, 339-359. | 8.3 | 14 |
| 499 | Singleâ€Atom Catalysts for H<sub>2</sub>O<sub>2</sub> Electrosynthesis via Twoâ€Electron Oxygen Reduction Reaction. Advanced Functional Materials, 2023, 33, . | 7.8 | 26 |
| 500 | Emerging electrocatalysts for electrochemical advanced oxidation processes (EAOPs): recent progress and perspectives. Materials Chemistry Frontiers, 2023, 7, 2528-2553. | 3.2 | 3 |
| 501 | Ultrafine Co nanoparticles confined in nitrogen-doped carbon toward two-electron oxygen reduction reaction for H2O2 electrosynthesis in acidic media. Chinese Chemical Letters, 2023, 34, 108291. | 4.8 | 5 |
| 502 | Phosphorus Optimized Metastable Hexagonalâ€Closeâ€Packed Phase Nickel for Efficient Hydrogen Peroxide Production in Neutral Media. Advanced Functional Materials, 2023, 33, . | 7.8 | 6 |
| 503 | Computational Discovery of Active and Selective Metalâ€Nitrogenâ€Graphene Catalysts for Electrooxidation of Water to H<sub>2</sub>O<sub>2</sub>. ChemCatChem, 2023, 15, . | 1.8 | 0 |
| 504 | Transition metal single atom-optimized g-C<sub>3</sub>N<sub>4</sub>for the highly selective electrosynthesis of H<sub>2</sub>O<sub>2</sub>under neutral electrolytes. Nanoscale Horizons, 2023, 8, 695-704. | 4.1 | 5 |
| 505 | Promotion of the Efficient Electrocatalytic Production of H2O2 by N,O- Co-Doped Porous Carbon. Nanomaterials, 2023, 13, 1188. | 1.9 | 3 |
| 506 | Photocatalytic and Electrocatalytic Generation of Hydrogen Peroxide: Principles, Catalyst Design and Performance. Nano-Micro Letters, 2023, 15, . | 14.4 | 17 |
| 507 | Correlation of the spin state and catalytic property of Mâ€“N<sub>4</sub>single-atom catalysts in oxygen reduction reactions. Physical Chemistry Chemical Physics, 2023, 25, 11673-11683. | 1.3 | 6 |
| 508 | Oxygen Vacancy Boosts the V<sub>2</sub>O<sub>5</sub> Performance for the Electrochemical H<sub>2</sub>O<sub>2</sub> Product. Industrial & Engineering Chemistry Research, 0, , . | 1.8 | 2 |
| 509 | A sulfite/air fuel cell for H<sub>2</sub>O<sub>2</sub> electrosynthesis. Green Chemistry, 2023, 25, 3940-3947. | 4.6 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 510 | Recent Progress on Nonâ€Carbonâ€Supported Singleâ€Atom Catalysts for Electrochemical Conversion of Green Energy. Small Science, 2023, 3, . | 5.8 | 3 |
| 511 | Phosphorous and selenium tuning Co-based non-precious catalysts for electrosynthesis of H2O2 in acidic media. Chinese Chemical Letters, 2023, , 108472. | 4.8 | 0 |
| 521 | Electrified water treatment: fundamentals and roles of electrode materials. Nature Reviews Materials, 2023, 8, 472-490. | 23.3 | 33 |
| 542 | Chevrel phases: synthesis, structure, and electrocatalytic applications. Materials Chemistry Frontiers, 2023, 7, 5500-5518. | 3.2 | 1 |
| 553 | é“œåŸºå•åŽŸåå,¬åŒ–å‰‰,ç”µå,¬åŒ–è¿˜åŽŸäºŒæ°§åŒ–ç¢³çš„ç©¶è¿›å±• | 7.2 | 2 |
| 557 | Review and perspectives on carbon-based electrocatalysts for the production of H<sub>2</sub>O<sub>2</sub> via two-electron oxygen reduction. Green Chemistry, 2023, 25, 9501-9542. | 4.6 | 3 |
| 573 | Metalâ€“organic frameworks for electrocatalytic hydrogen peroxide production. Materials Chemistry Frontiers, 2024, 8, 1084-1100. | 3.2 | 0 |
| 585 | Recent advancements in modified SnO<sub>2</sub>â€“Sb electrodes for electrochemical treatment of wastewater. Journal of Materials Chemistry A, 2024, 12, 4397-4420. | 5.2 | 0 |