

# Kai Yuan

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

59  
papers

2,269  
citations

26  
h-index

46  
g-index

62  
ext. papers

3,060  
ext. citations

10.5  
avg, IF

5.37  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 59 | Deciphering the Precursor-Performance Relationship of Single-Atom Iron Oxygen Electroreduction Catalysts via Isomer Engineering.. <i>Small</i> , <b>2022</b> , e2106122   | 11   | 3         |
| 58 | Simultaneously Integrate Iron Single Atom and Nanocluster Triggered Tandem Effect for Boosting Oxygen Electroreduction.. <i>Small</i> , <b>2022</b> , e2107225  | 11   | 5         |
| 57 | From Crystalline to Partially Amorphous: A Facile Strategy toward Sulfur Vacancy-Enriched CoNi <sub>2</sub> S <sub>4</sub> Nanosheets with Improved Supercapacitor Performance. <i>Advanced Sustainable Systems</i> , <b>2022</b> , 6, 2100414  | 5.9  | 2         |
| 56 | Iron-based nanocomposites implanting in N, P Co-doped carbon nanosheets as efficient oxygen reduction electrocatalysts for Zn-Air batteries. <i>Composites Communications</i> , <b>2021</b> , 100994  | 6.7  | 1         |
| 55 | Optimizing Microenvironment of Asymmetric N,S-Coordinated Single-Atom Fe via Axial Fifth Coordination toward Efficient Oxygen Electroreduction. <i>Small</i> , <b>2021</b> , e2105387   | 11   | 14        |
| 54 | Enabling 2.4-V aqueous supercapacitors through the rational design of an integrated electrode of hollow vanadium trioxide/carbon nanospheres. <i>Science China Materials</i> , <b>2021</b> , 64, 2163-2172  | 7.1  | 4         |
| 53 | Molecular Control of Carbon-Based Oxygen Reduction Electrocatalysts through Metal Macrocyclic Complexes Functionalization. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100866   | 21.8 | 6         |
| 52 | Coupling of EDLC and the reversible redox reaction: oxygen functionalized porous carbon nanosheets for zinc-ion hybrid supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 15404-15414  | 13   | 16        |
| 51 | Pyrolysis-free polymer-based oxygen electrocatalysts. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 2789-2808   | 33.1 | 14        |
| 50 | Enriching redox active sites by interconnected nanowalls-like nickel cobalt phospho-sulfide nanosheets for high performance supercapacitors. <i>Chinese Chemical Letters</i> , <b>2021</b> ,  | 8.1  | 3         |
| 49 | Recent Developments of Microenvironment Engineering of Single-Atom Catalysts for Oxygen Reduction toward Desired Activity and Selectivity. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103857   | 15.6 | 25        |
| 48 | Molecular crowding agents engineered to make bioinspired electrolytes for high-voltage aqueous supercapacitors. <i>EScience</i> , <b>2021</b> , 1, 83-83  |      | 9         |
| 47 | Minimization of ion transport resistance: diblock copolymer micelle derived nitrogen-doped hierarchically porous carbon spheres for superior rate and power Zn-ion capacitors. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 8435-8443   | 13   | 14        |
| 46 | Fast assembly of MXene hydrogels by interfacial electrostatic interaction for supercapacitors. <i>Chemical Communications</i> , <b>2021</b> , 57, 10731-10734   | 5.8  | 7         |
| 45 | Zn/Air Batteries: Simultaneously Integrating Single Atomic Cobalt Sites and Co <sub>9</sub> S <sub>8</sub> Nanoparticles into Hollow Carbon Nanotubes as Trifunctional Electrocatalysts for Zn/Air Batteries to Drive Water Splitting (Small 10/2020). <i>Small</i> , <b>2020</b> , 16, 2070053 | 11   | 1         |
| 44 | A generalized one-step in situ formation of metal sulfide/reduced graphene oxide nanosheets toward high-performance supercapacitors. <i>Science China Materials</i> , <b>2020</b> , 63, 1898-1909   | 7.1  | 30        |
| 43 | Flexible and Wearable Solar Cells and Supercapacitors <b>2020</b> , 87-129  |      | 3         |

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|----|---|------|-----|
| 42 | Simultaneously Integrating Single Atomic Cobalt Sites and Co S Nanoparticles into Hollow Carbon Nanotubes as Trifunctional Electrocatalysts for Zn-Air Batteries to Drive Water Splitting. <i>Small</i> , <b>2020</b> , 16, e1906735  | 11   | 59  |
| 41 | Coaxial electrospun free-standing and mechanically stable hierarchical porous carbon nanofiber membranes for flexible supercapacitors. <i>Carbon</i> , <b>2020</b> , 160, 80-87   | 10.4 | 49  |
| 40 | Boosting Oxygen Reduction of Single Iron Active Sites via Geometric and Electronic Engineering: Nitrogen and Phosphorus Dual Coordination. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 2404-2412   | 16.4 | 317 |
| 39 | Regulating Voltage Window and Energy Density of Aqueous Asymmetric Supercapacitors by Pinecone-Like Hollow Fe <sub>2</sub> O <sub>3</sub> /MnO <sub>2</sub> Nano-Heterostructure. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 1901729                                 | 4.6  | 21  |
| 38 | A General Electrodeposition Strategy for Fabricating Ultrathin Nickel Cobalt Phosphate Nanosheets with Ultrahigh Capacity and Rate Performance. <i>ACS Nano</i> , <b>2020</b> , 14, 14201-14211   | 16.7 | 50  |
| 37 | Engineering efficient bifunctional electrocatalysts for rechargeable zinc-air batteries by confining Fe <sub>3</sub> O <sub>4</sub> /Ni nanoalloys in nitrogen-doped carbon nanotube@nanosheet frameworks. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 25919-25930 | 13   | 32  |
| 36 | Covalently Sandwiching MXene by Conjugated Microporous Polymers with Excellent Stability for Supercapacitors. <i>Small Methods</i> , <b>2020</b> , 4, 2000434   | 12.8 | 17  |
| 35 | Covalent Connection of Polyaniline with MoS <sub>2</sub> Nanosheets toward Ultrahigh Rate Capability Supercapacitors. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 11540-11549   | 8.3  | 43  |
| 34 | FeO-Encapsulating N-doped porous carbon materials as efficient oxygen reduction reaction electrocatalysts for Zn-air batteries. <i>Chemical Communications</i> , <b>2019</b> , 55, 7538-7541  | 5.8  | 29  |
| 33 | Facile and Scalable Fabrication of Nitrogen-Doped Porous Carbon Nanosheets for Capacitive Energy Storage with Ultrahigh Energy Density. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 20029-20036   | 9.5  | 14  |
| 32 | Hierarchical nickel cobalt sulfide nanosheet on MOF-derived carbon nanowall arrays with remarkable supercapacitive performance. <i>Carbon</i> , <b>2019</b> , 147, 146-153  | 10.4 | 48  |
| 31 | CoO Supraparticle-Based Bubble Nanofiber and Bubble Nanosheet with Remarkable Electrochemical Performance. <i>Advanced Science</i> , <b>2019</b> , 6, 1900107   | 13.6 | 43  |
| 30 | In situ nanoarchitecturing and active-site engineering toward highly efficient carbonaceous electrocatalysts. <i>Nano Energy</i> , <b>2019</b> , 59, 207-215  | 17.1 | 42  |
| 29 | Hierarchical Nanosheets/Walls Structured Carbon-Coated Porous Vanadium Nitride Anodes Enable Wide-Voltage-Window Aqueous Asymmetric Supercapacitors with High Energy Density. <i>Advanced Science</i> , <b>2019</b> , 6, 1900550  | 13.6 | 40  |
| 28 | Construction of a hierarchical carbon coated Fe <sub>3</sub> O <sub>4</sub> nanorod anode for 2.6 V aqueous asymmetric supercapacitors with ultrahigh energy density. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 27313-27322                                      | 13   | 20  |
| 27 | When Al-Doped Cobalt Sulfide Nanosheets Meet Nickel Nanotube Arrays: A Highly Efficient and Stable Cathode for Asymmetric Supercapacitors. <i>ACS Nano</i> , <b>2018</b> , 12, 3030-3041  | 16.7 | 148 |
| 26 | Hierarchical 1D nanofiber-2D nanosheet-shaped self-standing membranes for high-performance supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 9161-9171  | 13   | 39  |
| 25 | Synergetic Contribution of Boron and Fe <sub>n</sub> x Species in Porous Carbons toward Efficient Electrocatalysts for Oxygen Reduction Reaction. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 252-260  | 20.1 | 184 |

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|----|---|------|-----|
| 24 | Cross-linked graphene/carbon nanotube networks with polydopamine glue for flexible supercapacitors. <i>Composites Communications</i> , <b>2018</b> , 10, 73-80  | 6.7  | 31  |
| 23 | Nitrogen-Doped Hierarchically Porous Carbon Materials with Enhanced Performance for Supercapacitor. <i>ChemElectroChem</i> , <b>2018</b> , 5, 515-522   | 4.3  | 28  |
| 22 | 2D Heterostructures Derived from MoS <sub>2</sub> -Templated, Cobalt-Containing Conjugated Microporous Polymer Sandwiches for the Oxygen Reduction Reaction and Electrochemical Energy Storage. <i>ChemElectroChem</i> , <b>2017</b> , 4, 709-715 | 4.3  | 26  |
| 21 | A facile in situ approach to ion gel based polymer electrolytes for flexible lithium batteries. <i>RSC Advances</i> , <b>2017</b> , 7, 54391-54398  | 3.7  | 14  |
| 20 | Nitrogen-doped porous carbon/graphene nanosheets derived from two-dimensional conjugated microporous polymer sandwiches with promising capacitive performance. <i>Materials Chemistry Frontiers</i> , <b>2017</b> , 1, 278-285                    | 7.8  | 49  |
| 19 | Safe and flexible ion gel based composite electrolyte for lithium batteries. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 14132-14140   | 13   | 38  |
| 18 | Engineering the Morphology of Carbon Materials: 2D Porous Carbon Nanosheets for High-Performance Supercapacitors. <i>ChemElectroChem</i> , <b>2016</b> , 3, 822-828   | 4.3  | 75  |
| 17 | Two-Dimensional Core-Shelled Porous Hybrids as Highly Efficient Catalysts for the Oxygen Reduction Reaction. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 6858-63   | 16.4 | 111 |
| 16 | Two-Dimensional Core-Shelled Porous Hybrids as Highly Efficient Catalysts for the Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6972-6977  | 3.6  | 19  |
| 15 | Nanofibrous and Graphene-Templated Conjugated Microporous Polymer Materials for Flexible Chemosensors and Supercapacitors. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 7403-7411  | 9.6  | 138 |
| 14 | In Situ Photocatalytically Heterostructured ZnO-Ag Nanoparticle Composites as Effective Cathode-Modifying Layers for Air-Processed Polymer Solar Cells. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 11899-906                       | 4.8  | 6   |
| 13 | Straightforward Generation of Pillared, Microporous Graphene Frameworks for Use in Supercapacitors. <i>Advanced Materials</i> , <b>2015</b> , 27, 6714-21   | 24   | 117 |
| 12 | Performance enhancement of bulk heterojunction solar cells with direct growth of CdS-cluster-decorated graphene nanosheets. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 6010-8  | 4.8  | 11  |
| 11 | Photovoltaic performance enhancement of P3HT/PCBM solar cells driven by incorporation of conjugated liquid crystalline rod-coil block copolymers. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 3835-3845                            | 7.1  | 42  |
| 10 | Direct anisotropic growth of CdS nanocrystals in thermotropic liquid crystal templates for heterojunction optoelectronics. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 11488-95   | 4.8  | 10  |
| 9  | Optical engineering of uniformly decorated graphene oxide nanoflakes via in situ growth of silver nanoparticles with enhanced plasmonic resonance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 21069-77                      | 8.5  | 22  |
| 8  | Nanostructured hybrid ZnO@CdS nanowalls grown in situ for inverted polymer solar cells. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 1018-1027  | 7.1  | 47  |
| 7  | Versatile electron-collecting interfacial layer by in situ growth of silver nanoparticles in nonconjugated polyelectrolyte aqueous solution for polymer solar cells. <i>Journal of Physical Chemistry B</i> , <b>2014</b> , 118, 11563-72         | 3.4  | 16  |

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|---|--|------|----|
| 6 | Nanostructuring compatibilizers of block copolymers for organic photovoltaics. <i>Polymer International</i> , <b>2014</b> , 63, 593-606  | 3.3  | 17 |
| 5 | Understanding the mechanism of poly(3-hexylthiophene)-b-poly(4-vinylpyridine) as a nanostructuring compatibilizer for improving the performance of poly(3-hexylthiophene)/ZnO-based hybrid solar cells. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 10881 | 13   | 12 |
| 4 | Fine dispersion and self-assembly of ZnO nanoparticles driven by P3HT-b-PEO diblocks for improvement of hybrid solar cells performance. <i>New Journal of Chemistry</i> , <b>2013</b> , 37, 195-203  | 3.6  | 27 |
| 3 | In situ growth nanocomposites composed of rodlike ZnO nanocrystals arranged by nanoparticles in a self-assembling diblock copolymer for heterojunction optoelectronics. <i>Journal of Materials Chemistry</i> , <b>2012</b> ,  |      | 5  |
| 2 | Wide Voltage Aqueous Asymmetric Supercapacitors: Advances, Strategies, and Challenges. <i>Advanced Functional Materials</i> ,2108107   | 15.6 | 15 |
| 1 | Manipulating the Interlayer Spacing of 3D MXenes with Improved Stability and Zinc-Ion Storage Capability. <i>Advanced Functional Materials</i> ,2109524  | 15.6 | 14 |