Kai Yuan

List of Publications by Year
in descending order

61 papers	4,038 citations	101384 36 h-index	123241 61 g-index
62 all docs	62 docs citations	62 times ranked	4694 citing authors

#	Article	IF	Citations
1	Boosting Oxygen Reduction of Single Iron Active Sites via Geometric and Electronic Engineering: Nitrogen and Phosphorus Dual Coordination. Journal of the American Chemical Society, 2020, 142, 2404-2412.	6.6	680
2	Synergetic Contribution of Boron and Feâ€“N_{<i>x</i>} Species in Porous Carbons toward Efficient Electrocatalysts for Oxygen Reduction Reaction. ACS Energy Letters, 2018, 3, 252-260.	8.8	269
3	When Al-Doped Cobalt Sulfide Nanosheets Meet Nickel Nanotube Arrays: A Highly Efficient and Stable Cathode for Asymmetric Supercapacitors. ACS Nano, 2018, 12, 3030-3041.	7.3	185
4	Nanofibrous and Graphene-Templated Conjugated Microporous Polymer Materials for Flexible Chemosensors and Supercapacitors. Chemistry of Materials, 2015, 27, 7403-7411.	3.2	164
5	Straightforward Generation of Pillared, Microporous Graphene Frameworks for Use in Supercapacitors. Advanced Materials, 2015, 27, 6714-6721.	11.1	137
6	Twoâ€Dimensional Coreâ€Shelled Porous Hybrids as Highly Efficient Catalysts for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2016, 55, 6858-6863.	7.2	127
7	A General Electrodeposition Strategy for Fabricating Ultrathin Nickel Cobalt Phosphate Nanosheets with Ultrahigh Capacity and Rate Performance. ACS Nano, 2020, 14, 14201-14211.	7.3	120
8	Simultaneously Integrating Single Atomic Cobalt Sites and Co₉S₈ Nanoparticles into Hollow Carbon Nanotubes as Trifunctional Electrocatalysts for Znâ€“Air Batteries to Drive Water Splitting. Small, 2020, 16, e1906735.	5.2	98
9	Manipulating the Interlayer Spacing of 3D MXenes with Improved Stability and Zincâ€Ion Storage Capability. Advanced Functional Materials, 2022, 32, 2109524.	7.8	97
10	Wide Voltage Aqueous Asymmetric Supercapacitors: Advances, Strategies, and Challenges. Advanced Functional Materials, 2022, 32, 2108107.	7.8	90
11	High Energy and Power Zinc Ion Capacitors: A Dual-Ion Adsorption and Reversible Chemical Adsorption Coupling Mechanism. ACS Nano, 2022, 16, 2877-2888.	7.3	87
12	Engineering the Morphology of Carbon Materials: 2D Porous Carbon Nanosheets for Highâ€Performance Supercapacitors. ChemElectroChem, 2016, 3, 822-828.	1.7	85
13	Recent Developments of Microenvironment Engineering of Singleâ€Atom Catalysts for Oxygen Reduction toward Desired Activity and Selectivity. Advanced Functional Materials, 2021, 31, 2103857.	7.8	77
14	Hierarchical nickel cobalt sulfide nanosheet on MOF-derived carbon nanowall arrays with remarkable supercapacitive performance. Carbon, 2019, 147, 146-153.	5.4	75
15	Coaxial electrospun free-standing and mechanically stable hierarchical porous carbon nanofiber membranes for flexible supercapacitors. Carbon, 2020, 160, 80-87.	5.4	75
16	Breaking the Scaling Relationship Limit: From Single-Atom to Dual-Atom Catalysts. Accounts of Materials Research, 2022, 3, 584-596.	5.9	73
17	Optimizing Microenvironment of Asymmetric N,Sâ€Coordinated Singleâ€Atom Fe via Axial Fifth Coordination toward Efficient Oxygen Electroreduction. Small, 2022, 18, e2105387.	5.2	72
18	Simultaneously Integrate Iron Single Atom and Nanocluster Triggered Tandem Effect for Boosting Oxygen Electroreduction. Small, 2022, 18, e2107225.	5.2	72

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19	Molecular crowding agents engineered to make bioinspired electrolytes for high-voltage aqueous supercapacitors. EScience, 2021, 1, 83-90.	25.0	69
20	Covalent Connection of Polyaniline with MoS₂ Nanosheets toward Ultrahigh Rate Capability Supercapacitors. ACS Sustainable Chemistry and Engineering, 2019, 7, 11540-11549.	3.2	66
21	Nitrogen-doped porous carbon/graphene nanosheets derived from two-dimensional conjugated microporous polymer sandwiches with promising capacitive performance. Materials Chemistry Frontiers, 2017, 1, 278-285.	3.2	62
22	Coupling of EDLC and the reversible redox reaction: oxygen functionalized porous carbon nanosheets for zinc-ion hybrid supercapacitors. Journal of Materials Chemistry A, 2021, 9, 15404-15414.	5.2	62
23	Hierarchical Nanosheets/Walls Structured Carbonâ€Coated Porous Vanadium Nitride Anodes Enable Wideâ€Voltageâ€Window Aqueous Asymmetric Supercapacitors with High Energy Density. Advanced Science, 2019, 6, 1900550.	5.6	61
24	Molecular Control of Carbonâ€Based Oxygen Reduction Electrocatalysts through Metal Macrocyclic Complexes Functionalization. Advanced Energy Materials, 2021, 11, 2100866.	10.2	60
25	Co₃O₄ Supraparticleâ€Based Bubble Nanofiber and Bubble Nanosheet with Remarkable Electrochemical Performance. Advanced Science, 2019, 6, 1900107.	5.6	59
26	Engineering efficient bifunctional electrocatalysts for rechargeable zincâ€"air batteries by confining Feâ€"Coâ€"Ni nanoalloys in nitrogen-doped carbon nanotube@nanosheet frameworks. Journal of Materials Chemistry A, 2020, 8, 25919-25930.	5.2	58
27	Covalently Sandwiching MXene by Conjugated Microporous Polymers with Excellent Stability for Supercapacitors. Small Methods, 2020, 4, 2000434.	4.6	57
28	Pyrolysis-free polymer-based oxygen electrocatalysts. Energy and Environmental Science, 2021, 14, 2789-2808.	15.6	55
29	In situ nanoarchitecturing and active-site engineering toward highly efficient carbonaceous electrocatalysts. Nano Energy, 2019, 59, 207-215.	8.2	54
30	Nanostructured hybrid ZnO@CdS nanowalls grown in situ for inverted polymer solar cells. Journal of Materials Chemistry C, 2014, 2, 1018-1027.	2.7	51
31	A generalized one-step in situ formation of metal sulfide/reduced graphene oxide nanosheets toward high-performance supercapacitors. Science China Materials, 2020, 63, 1898-1909.	3.5	48
32	Safe and flexible ion gel based composite electrolyte for lithium batteries. Journal of Materials Chemistry A, 2016, 4, 14132-14140.	5.2	46
33	Hierarchical 1D nanofiber-2D nanosheet-shaped self-standing membranes for high-performance supercapacitors. Journal of Materials Chemistry A, 2018, 6, 9161-9171.	5.2	45
34	Minimization of ion transport resistance: diblock copolymer micelle derived nitrogen-doped hierarchically porous carbon spheres for superior rate and power Zn-ion capacitors. Journal of Materials Chemistry A, 2021, 9, 8435-8443.	5.2	45
35	Photovoltaic performance enhancement of P3HT/PCBM solar cells driven by incorporation of conjugated liquid crystalline rod-coil block copolymers. Journal of Materials Chemistry C, 2014, 2, 3835-3845.	2.7	43
36	Cross-linked graphene/carbon nanotube networks with polydopamine â€œglueâ€•for flexible supercapacitors. Composites Communications, 2018, 10, 73-80.	3.3	43

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37	Nitrogenâ€Doped Hierarchically Porous Carbon Materials with Enhanced Performance for Supercapacitor. ChemElectroChem, 2018, 5, 515-522.	1.7	37
38	Regulating Voltage Window and Energy Density of Aqueous Asymmetric Supercapacitors by Pineconeâ€Like Hollow Fe₂O₃/MnO₂ Nanoâ€Heterostructure. Advanced Materials Interfaces, 2020, 7, 1901729.	1.9	35
39	Fe₃O₄-Encapsulating N-doped porous carbon materials as efficient oxygen reduction reaction electrocatalysts for Znâ€“air batteries. Chemical Communications, 2019, 55, 7538-7541.	2.2	33
40	Construction of a hierarchical carbon coated Fe₃O₄ nanorod anode for 2.6 V aqueous asymmetric supercapacitors with ultrahigh energy density. Journal of Materials Chemistry A, 2019, 7, 27313-27322.	5.2	33
41	2D Heterostructures Derived from MoS₂â€Templated, Cobaltâ€Containing Conjugated Microporous Polymer Sandwiches for the Oxygen Reduction Reaction and Electrochemical Energy Storage. ChemElectroChem, 2017, 4, 709-715.	1.7	30
42	Fine dispersion and self-assembly of ZnO nanoparticles driven by P3HT-b-PEO diblocks for improvement of hybrid solar cells performance. New Journal of Chemistry, 2013, 37, 195-203.	1.4	27
43	Fast assembly of MXene hydrogels by interfacial electrostatic interaction for supercapacitors. Chemical Communications, 2021, 57, 10731-10734.	2.2	24
44	Optical Engineering of Uniformly Decorated Graphene Oxide Nanoflakes via in Situ Growth of Silver Nanoparticles with Enhanced Plasmonic Resonance. ACS Applied Materials & Interfaces, 2014, 6, 21069-21077.	4.0	23
45	Twoâ€Dimensional Coreâ€Shelled Porous Hybrids as Highly Efficient Catalysts for the Oxygen Reduction Reaction. Angewandte Chemie, 2016, 128, 6972-6977.	1.6	23
46	A facile <i>in situ</i> approach to ion gel based polymer electrolytes for flexible lithium batteries. RSC Advances, 2017, 7, 54391-54398.	1.7	23
47	Facile and Scalable Fabrication of Nitrogen-Doped Porous Carbon Nanosheets for Capacitive Energy Storage with Ultrahigh Energy Density. ACS Applied Materials & Interfaces, 2019, 11, 20029-20036.	4.0	19
48	Enabling 2.4-V aqueous supercapacitors through the rational design of an integrated electrode of hollow vanadium trioxide/carbon nanospheres. Science China Materials, 2021, 64, 2163-2172.	3.5	18
49	Nanostructuring compatibilizers of block copolymers for organic photovoltaics. Polymer International, 2014, 63, 593-606.	1.6	17
50	Versatile Electron-Collecting Interfacial Layer by in Situ Growth of Silver Nanoparticles in Nonconjugated Polyelectrolyte Aqueous Solution for Polymer Solar Cells. Journal of Physical Chemistry B, 2014, 118, 11563-11572.	1.2	17
51	Iron-based nanocomposites implanting in N, P Co-doped carbon nanosheets as efficient oxygen reduction electrocatalysts for Zn-Air batteries. Composites Communications, 2022, 29, 100994.	3.3	16
52	Enriching redox active sites by interconnected nanowalls-like nickel cobalt phospho-sulfide nanosheets for high performance supercapacitors. Chinese Chemical Letters, 2021, 32, 3553-3557.	4.8	14
53	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. Journal of Materials Chemistry A, 2013, 1, 10881.	5.2	13
54	Performance Enhancement of Bulk Heterojunction Solar Cells with Direct Growth of CdSâ€Clusterâ€Decorated Graphene Nanosheets. Chemistry - A European Journal, 2014, 20, 6010-6018.	1.7	11

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55	Direct Anisotropic Growth of CdS Nanocrystals in Thermotropic Liquid Crystal Templates for Heterojunction Optoelectronics. Chemistry - A European Journal, 2014, 20, 11488-11495.	1.7	10
56	Manipulating the electronic configuration of Feâ€“N₄sites by an electron-withdrawing/donating strategy with improved oxygen electroreduction performance. Materials Chemistry Frontiers, 2022, 6, 1209-1217.	3.2	10
57	Deciphering the Precursorâ€“Performance Relationship of Singleâ€Atom Iron Oxygen Electroreduction Catalysts via Isomer Engineering. Small, 2022, 18, e2106122.	5.2	9
58	From Crystalline to Partially Amorphous: A Facile Strategy toward Sulfur Vacancyâ€Enriched CoNi₂S₄ Nanosheets with Improved Supercapacitor Performance. Advanced Sustainable Systems, 2022, 6, .	2.7	9
59	In situ growth nanocomposites composed of rodlike ZnO nanocrystals arranged by nanoparticles in a self-assembling diblock copolymer for heterojunction optoelectronics. Journal of Materials Chemistry, 2012, , .	6.7	6
60	In Situ Photocatalytically Heterostructured ZnOï£¿Ag Nanoparticle Composites as Effective Cathodeâ€Modifying Layers for Airâ€Processed Polymer Solar Cells. Chemistry - A European Journal, 2015, 21, 11899-11906.	1.7	6
61	Znâ€“Air Batteries: Simultaneously Integrating Single Atomic Cobalt Sites and Co₉S₈ Nanoparticles into Hollow Carbon Nanotubes as Trifunctional Electrocatalysts for Znâ€“Air Batteries to Drive Water Splitting (Small 10/2020). Small, 2020, 16, 2070053.	5.2	1