

Xi-Zhang Wang

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91
papers

6,223
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32
h-index

78
g-index

96
ext. papers

7,025
ext. citations

10.5
avg, IF

5.68
L-index

#	Paper	IF	Citations
91	Nitrogen-doped carbon nanocages as efficient metal-free electrocatalysts for oxygen reduction reaction. <i>Advanced Materials</i> , 2012 , 24, 5593-7, 5646	24	629
90	Hydrophilic Hierarchical Nitrogen-Doped Carbon Nanocages for Ultrahigh Supercapacitive Performance. <i>Advanced Materials</i> , 2015 , 27, 3541-5	24	573
89	Carbon nanocages as supercapacitor electrode materials. <i>Advanced Materials</i> , 2012 , 24, 347-52	24	441
88	Significant Contribution of Intrinsic Carbon Defects to Oxygen Reduction Activity. <i>ACS Catalysis</i> , 2015 , 5, 6707-6712	13.1	400
87	Boron-Doped Carbon Nanotubes as Metal-Free Electrocatalysts for the Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , 2011 , 123, 7270-7273	3.6	314
86	Porous 3D Few-Layer Graphene-like Carbon for Ultrahigh-Power Supercapacitors with Well-Defined Structure-Performance Relationship. <i>Advanced Materials</i> , 2017 , 29, 1604569	24	310
85	Planar carbon nanotube-graphene hybrid films for high-performance broadband photodetectors. <i>Nature Communications</i> , 2015 , 6, 8589	17.4	197
84	Hierarchical carbon nanocages confining high-loading sulfur for high-rate lithium-sulfur batteries. <i>Nano Energy</i> , 2015 , 12, 657-665	17.1	196
83	CNx nanofibers converted from polypyrrole nanowires as platinum support for methanol oxidation. <i>Energy and Environmental Science</i> , 2009 , 2, 224-229	35.4	196
82	Facile Construction of Pt-Co/CNx Nanotube Electrocatalysts and Their Application to the Oxygen Reduction Reaction. <i>Advanced Materials</i> , 2009 , 21, 4953-4956	24	185
81	Mesostructured NiO/Ni composites for high-performance electrochemical energy storage. <i>Energy and Environmental Science</i> , 2016 , 9, 2053-2060	35.4	180
80	Compressing Carbon Nanocages by Capillarity for Optimizing Porous Structures toward Ultrahigh-Volumetric-Performance Supercapacitors. <i>Advanced Materials</i> , 2017 , 29, 1700470	24	178
79	Promotion Effects of Nitrogen Doping into Carbon Nanotubes on Supported Iron Fischer-Tropsch Catalysts for Lower Olefins. <i>ACS Catalysis</i> , 2014 , 4, 613-621	13.1	178
78	From Carbon-Based Nanotubes to Nanocages for Advanced Energy Conversion and Storage. <i>Accounts of Chemical Research</i> , 2017 , 50, 435-444	24.3	162
77	Synthesis and Optical Characterization of Aluminum Nitride Nanobelts. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 9726-9729	3.4	150
76	Alloyed Co/Mo Nitride as High-Performance Electrocatalyst for Oxygen Reduction in Acidic Medium. <i>ACS Catalysis</i> , 2015 , 5, 1857-1862	13.1	149
75	CNx nanotubes as catalyst support to immobilize platinum nanoparticles for methanol oxidation. <i>Journal of Materials Chemistry</i> , 2008 , 18, 1747		146

74	The simplest construction of single-site catalysts by the synergism of micropore trapping and nitrogen anchoring. <i>Nature Communications</i> , 2019 , 10, 1657	17.4	144
73	2D Single-Crystalline Molecular Semiconductors with Precise Layer Definition Achieved by Floating-Coffee-Ring-Driven Assembly. <i>Advanced Functional Materials</i> , 2016 , 26, 3191-3198	15.6	113
72	Extended vapor-Liquid-Solid growth and field emission properties of aluminium nitride nanowires. <i>Journal of Materials Chemistry</i> , 2003 , 13, 2024-2027		111
71	Efficient synergism of electrocatalysis and physical confinement leading to durable high-power lithium-sulfur batteries. <i>Nano Energy</i> , 2019 , 57, 34-40	17.1	73
70	Hierarchical carbon nanocages as high-rate anodes for Li- and Na-ion batteries. <i>Nano Research</i> , 2015 , 8, 3535-3543	10	64
69	6-Fold-Symmetrical AlN Hierarchical Nanostructures: Synthesis and Field-Emission Properties. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 4053-4058	3.8	58
68	Boost up carrier mobility for ferroelectric organic transistor memory via buffering interfacial polarization fluctuation. <i>Scientific Reports</i> , 2014 , 4, 7227	4.9	57
67	Sulfur and Nitrogen Codoped Carbon Tubes as Bifunctional Metal-Free Electrocatalysts for Oxygen Reduction and Hydrogen Evolution in Acidic Media. <i>Chemistry - A European Journal</i> , 2016 , 22, 10326-9	4.8	49
66	Preparation of graphene supported nickel nanoparticles and their application to methanol electrooxidation in alkaline medium. <i>New Journal of Chemistry</i> , 2012 , 36, 1108	3.6	48
65	Multiple-Step Humidity-Induced Single-Crystal to Single-Crystal Transformations of a Cobalt Phosphonate: Structural and Proton Conductivity Studies. <i>Inorganic Chemistry</i> , 2016 , 55, 3706-12	5.1	45
64	Carbon-Based Nanocages: A New Platform for Advanced Energy Storage and Conversion. <i>Advanced Materials</i> , 2020 , 32, e1904177	24	45
63	Is iron nitride or carbide highly active for oxygen reduction reaction in acidic medium?. <i>Catalysis Science and Technology</i> , 2017 , 7, 51-55	5.5	42
62	Porous hierarchical nickel nanostructures and their application as a magnetically separable catalyst. <i>Journal of Materials Chemistry</i> , 2012 , 22, 11927		35
61	Sensitive and Robust Ultraviolet Photodetector Array Based on Self-Assembled Graphene/C Hybrid Films. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38326-38333	9.5	33
60	Efficient Ternary Synergism of Platinum/Tin Oxide/Nitrogen-Doped Carbon Leading to High-Performance Ethanol Oxidation. <i>ACS Catalysis</i> , 2018 , 8, 8477-8483	13.1	32
59	Electrocatalysis of S-doped carbon with weak polysulfide adsorption enhances lithium-sulfur battery performance. <i>Chemical Communications</i> , 2019 , 55, 6365-6368	5.8	31
58	In situ construction of porous hierarchical (Ni _{3-x} Fe _x)FeN/Ni heterojunctions toward efficient electrocatalytic oxygen evolution. <i>Nano Research</i> , 2020 , 13, 328-334	10	31
57	Stabilizing the active phase of iron-based Fischer-Tropsch catalysts for lower olefins: mechanism and strategy. <i>Chemical Science</i> , 2019 , 10, 6083-6090	9.4	30

56	Micro-meso-macroporous FeCo-N-C derived from hierarchical bimetallic FeCo-ZIFs as cathode catalysts for enhanced Li-O ₂ batteries performance. <i>Journal of Energy Chemistry</i> , 2019 , 35, 212-219	12	28
55	Manganese oxide-induced strategy to high-performance iron/nitrogen/carbon electrocatalysts with highly exposed active sites. <i>Nanoscale</i> , 2016 , 8, 8480-5	7.7	28
54	Advanced Ni-Nx-C single-site catalysts for CO ₂ electroreduction to CO based on hierarchical carbon nanocages and S-doping. <i>Nano Research</i> , 2020 , 13, 2777-2783	10	25
53	Superionic conductor-mediated growth of ternary ZnCdS nanorods over a wide composition range. <i>Nano Research</i> , 2015 , 8, 584-591	10	24
52	Carbon-Based Nanocages: Carbon-Based Nanocages: A New Platform for Advanced Energy Storage and Conversion (Adv. Mater. 27/2020). <i>Advanced Materials</i> , 2020 , 32, 2070206	24	23
51	Convenient immobilization of Pt-Sn bimetallic catalysts on nitrogen-doped carbon nanotubes for direct alcohol electrocatalytic oxidation. <i>Nanotechnology</i> , 2011 , 22, 395401	3.4	23
50	Mesostructured carbon-based nanocages: an advanced platform for energy chemistry. <i>Science China Chemistry</i> , 2020 , 63, 665-681	7.9	22
49	Alcohol-Tolerant Platinum Electrocatalyst for Oxygen Reduction by Encapsulating Platinum Nanoparticles inside Nitrogen-Doped Carbon Nanocages. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 16664-9	9.5	22
48	Tuning the field emission properties of AlN nanocones by doping. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 1113-1117	7.1	21
47	Achieving Ultrahigh Volumetric Energy Storage by Compressing Nitrogen and Sulfur Dual-Doped Carbon Nanocages via Capillarity. <i>Advanced Materials</i> , 2020 , 32, e2004632	24	21
46	Tailoring the nano heterointerface of hematite/magnetite on hierarchical nitrogen-doped carbon nanocages for superb oxygen reduction. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 21313-21319	13	19
45	Advanced non-precious electrocatalyst of the mixed valence CoO _x nanocrystals supported on N-doped carbon nanocages for oxygen reduction. <i>Science China Chemistry</i> , 2015 , 58, 180-186	7.9	17
44	Iron oxide encapsulated in nitrogen-doped carbon as high energy anode material for asymmetric supercapacitors. <i>Journal of Power Sources</i> , 2019 , 438, 227047	8.9	16
43	Identifying Iron-Nitrogen/Carbon Active Structures for Oxygen Reduction Reaction under the Effect of Electrode Potential. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 2896-2901	6.4	16
42	Deposition-Pressure-Induced Optimization of Molecular Packing for High-Performance Organic Thin-Film Transistors Based on Copper Phthalocyanine. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 4287-4292	2.8	16
41	Planar graphene-C ₆₀ -graphene heterostructures for sensitive UV-Visible photodetection. <i>Carbon</i> , 2019 , 146, 486-490	10.4	16
40	Inhibiting polysulfide shuttling using dual-functional nanowire/nanotube modified layers for highly stable lithium-sulfur batteries. <i>New Journal of Chemistry</i> , 2019 , 43, 14708-14713	3.6	14
39	Boosting oxygen reduction activity of spinel CoFe ₂ O ₄ by strong interaction with hierarchical nitrogen-doped carbon nanocages. <i>Science Bulletin</i> , 2017 , 62, 1365-1372	10.6	13

38	Ruthenium-Functionalized Hierarchical Carbon Nanocages as Efficient Catalysts for Li-O ₂ Batteries. <i>ChemNanoMat</i> , 2017 , 3, 415-419	3.5	12
37	Intercalation of alkylamines in layered MoO ₃ and in situ carbonization for a high-performance asymmetric supercapacitor. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 2788-2798	5.8	12
36	Synergetic magnetic and luminescence switching via solid state phase transitions of the dysprosium-dianthracene complex. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 7369-7377	7.1	11
35	Synthesis of alloyed Zn _{1-x} Mn _x S nanowires with completely controlled compositions and tunable bandgaps. <i>RSC Advances</i> , 2018 , 8, 374-379	3.7	11
34	Improving field emission by constructing CsI/AlN hybrid nanostructures. <i>Journal of Materials Chemistry</i> , 2012 , 22, 18578		11
33	Doping sp ² carbon to boost the activity for oxygen reduction in an acidic medium: a theoretical exploration. <i>RSC Advances</i> , 2016 , 6, 48498-48503	3.7	11
32	Surface Hydrophilicity and Antifungal Properties of TiO ₂ Films Coated on a Co-Cr Substrate. <i>BioMed Research International</i> , 2017 , 2017, 2054723	3	10
31	Ultrahigh rate capability of 1D/2D polyaniline/titanium carbide (MXene) nanohybrid for advanced asymmetric supercapacitors. <i>Nano Research</i> , 1	10	10
30	Unexpected solvent effects on the UV/Vis absorption spectra of <i>p</i> -cresol in toluene and benzene: in contrast with non-aromatic solvents. <i>Royal Society Open Science</i> , 2018 , 5, 171928	3.3	9
29	Solution-Solid-Solid growth of metastable wurtzite ε-MnS nanowires with controlled length. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 6493-6496	7.1	9
28	Construction of hierarchical FeNi ₃ @(Fe,Ni) ₂ S ₂ core-shell heterojunctions for advanced oxygen evolution. <i>Nano Research</i> , 2021 , 14, 4220	10	9
27	Anion-induced morphological regulation of In(OH) ₃ nanostructures and their conversion into porous In ₂ O ₃ derivatives. <i>CrystEngComm</i> , 2012 , 14, 3397	3.3	8
26	Morphology-controlled growth of chromium silicide nanostructures and their field emission properties. <i>CrystEngComm</i> , 2012 , 14, 1659-1664	3.3	8
25	Vertically Grown Few-Layer MoS ₂ Nanosheets on Hierarchical Carbon Nanocages for Pseudocapacitive Lithium Storage with Ultrahigh-Rate Capability and Long-Term Recyclability. <i>Chemistry - A European Journal</i> , 2019 , 25, 3843-3848	4.8	8
24	Sandwich-Like Holey Graphene/PANI/Graphene Nanohybrid for Ultrahigh-Rate Supercapacitor. <i>ACS Applied Energy Materials</i> , 2018 ,	6.1	8
23	Effective enhancement of electrochemical energy storage of cobalt-based nanocrystals by hybridization with nitrogen-doped carbon nanocages. <i>Science China Materials</i> , 2019 , 62, 1393-1402	7.1	7
22	The Influence of Pd Particles Distribution Position on Pd/CNTs Catalyst for Acetylene Selective Hydrogenation. <i>Catalysis Letters</i> , 2014 , 144, 2198-2203	2.8	7
21	Carbon Nanocages: Nitrogen-Doped Carbon Nanocages as Efficient Metal-Free Electrocatalysts for Oxygen Reduction Reaction (Adv. Mater. 41/2012). <i>Advanced Materials</i> , 2012 , 24, 5646-5646	24	7

20	From a layered iridium(iii)-cobalt(ii) organophosphonate to an efficient oxygen-evolution-reaction electrocatalyst. <i>Chemical Communications</i> , 2019 , 55, 13920-13923	5.8	7
19	Supercapacitor Nanostructures: Carbon Nanocages as Supercapacitor Electrode Materials (Adv. Mater. 3/2012). <i>Advanced Materials</i> , 2012 , 24, 346-346	24	6
18	Iron oxide encapsulated in nitrogen-rich carbon enabling high-performance lithium-ion capacitor. <i>Science China Materials</i> , 2020 , 63, 2289-2302	7.1	6
17	Low-voltage organic field-effect transistors based on novel high- Γ organometallic lanthanide complex for gate insulating materials. <i>AIP Advances</i> , 2014 , 4, 087140	1.5	5
16	Pentacene thin film transistor with low threshold voltage and high mobility by inserting a thin metal phthalocyanines interlayer. <i>Science China Technological Sciences</i> , 2012 , 55, 417-420	3.5	4
15	Synthesis and Electrocatalytic Oxygen Reduction Performance of the Sulfur-Doped Carbon Nanocages. <i>Acta Chimica Sinica</i> , 2014 , 72, 1070	3.3	4
14	A MOF derived Co-NC@CNT composite with a 3D interconnected conductive carbon network as a highly efficient cathode catalyst for LiO ₂ batteries. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 6105-6111	5.8	4
13	Enlarging ion-transfer micropore channels of hierarchical carbon nanocages for ultrahigh energy and power densities. <i>Science China Materials</i> , 2021 , 64, 2173-2181	7.1	4
12	Morphology and composition evolution of one-dimensional InxAl _{1-x} N nanostructures induced by the vapour pressure ratio. <i>CrystEngComm</i> , 2016 , 18, 213-217	3.3	3
11	Electrical Characteristics of Pentacene Thin Film Transistors in Volatile Compound Vapors. <i>Molecular Crystals and Liquid Crystals</i> , 2006 , 462, 29-36	0.5	3
10	Tuning metal catalysts via nitrogen-doped nanocarbons for energy chemistry: From metal nanoparticles to single metal sites. <i>EnergyChem</i> , 2021 , 3, 100066	36.9	3
9	Phase-equilibrium-dominated vapor-liquid-solid mechanism: further evidence. <i>Science China Materials</i> , 2016 , 59, 20-27	7.1	2
8	Remarkable reduction in the threshold voltage of pentacene-based thin film transistors with pentacene/CuPc sandwich configuration. <i>AIP Advances</i> , 2014 , 4, 067126	1.5	2
7	Nonmacrocylic Iron(II) Soluble Redox Mediators Leading to High-Rate LiO ₂ Battery. <i>CCS Chemistry</i> , 2021 , 3, 1350-1358	7.2	2
6	Unconventional O-H...C Hydrogen Bonding and Effects of Conformational Changes on Infrared Spectroscopy of o-Cresol in Solutions. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 10196-10206	2.8	2
5	Thermally Conductive AlN-Network Shield for Separators to Achieve Dendrite-Free Plating and Fast Li-Ion Transport toward Durable and High-Rate Lithium-Metal Anodes.. <i>Advanced Science</i> , 2022 , e2200411 ^{13.6}	13.6	2
4	Constructing monolithic sulfur cathodes with multifunctional N,P dual-doped carbon nanocages to achieve high-areal-capacity lithium-sulfur batteries. <i>FlatChem</i> , 2021 , 28, 100253	5.1	1
3	The Composite-Template Method to Construct Hierarchical Carbon Nanocages for Supercapacitors with Ultrahigh Energy and Power Densities.. <i>Small</i> , 2022 , e2107082	11	1

- 2 Defect-induced deposition of manganese oxides on hierarchical carbon nanocages for high-performance lithium-oxygen batteries. *Nano Research*, 10 0
- 1 Sulfur and Nitrogen Codoped Carbon Tubes as Bifunctional Metal-Free Electrocatalysts for Oxygen Reduction and Hydrogen Evolution in Acidic Media. *Chemistry - A European Journal*, 2016, 22, 10261-10261^{4,8}