Xi-Zhang Wang

List of Publications by Year in Descending Order

91 papers	6,223 citations	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	The Composite-Template Method to Construct Hierarchical Carbon Nanocages for Supercapacitors with Ultrahigh Energy and Power Densities.. *Small*, **2022**, e2107082	11	1
90	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.. *Advanced Science*, **2022**, e2200411	13.6	2
89	Tuning metal catalysts via nitrogen-doped nanocarbons for energy chemistry: From metal nanoparticles to single metal sites. *EnergyChem*, **2021**, 3, 100066	36.9	3
88	Enlarging ion-transfer micropore channels of hierarchical carbon nanocages for ultrahigh energy and power densities. *Science China Materials*, **2021**, 64, 2173-2181	7.1	4
87	Construction of hierarchical FeNi3@(Fe,Ni)S2 core-shell heterojunctions for advanced oxygen evolution. *Nano Research*, **2021**, 14, 4220	10	9
86	Nonmacrocyclic Iron(II) Soluble Redox Mediators Leading to High-Rate Li□O 2 Battery. *CCS Chemistry*, **2021**, 3, 1350-1358	7.2	2
85	Constructing monolithic sulfur cathodes with multifunctional N,P dual-doped carbon nanocages to achieve high-areal-capacity lithium-sulfur batteries. *FlatChem*, **2021**, 28, 100253	5.1	1
84	Identifying Iron-Nitrogen/Carbon Active Structures for Oxygen Reduction Reaction under the Effect of Electrode Potential. *Journal of Physical Chemistry Letters*, **2020**, 11, 2896-2901	6.4	16
83	Advanced Ni-Nx-C single-site catalysts for CO2 electroreduction to CO based on hierarchical carbon nanocages and S-doping. *Nano Research*, **2020**, 13, 2777-2783	10	25
82	Carbon-Based Nanocages: Carbon-Based Nanocages: A New Platform for Advanced Energy Storage and Conversion (Adv. Mater. 27/2020). *Advanced Materials*, **2020**, 32, 2070206	24	23
81	In situ construction of porous hierarchical (Ni3-xFex)FeN/Ni heterojunctions toward efficient electrocatalytic oxygen evolution. *Nano Research*, **2020**, 13, 328-334	10	31
80	Mesostructured carbon-based nanocages: an advanced platform for energy chemistry. *Science China Chemistry*, **2020**, 63, 665-681	7.9	22
79	Synergetic magnetic and luminescence switching via solid state phase transitions of the dysprosium□ianthracene complex. *Journal of Materials Chemistry C*, **2020**, 8, 7369-7377	7.1	11
78	Carbon-Based Nanocages: A New Platform for Advanced Energy Storage and Conversion. *Advanced Materials*, **2020**, 32, e1904177	24	45
77	A MOF derived Co-NC@CNT composite with a 3D interconnected conductive carbon network as a highly efficient cathode catalyst for Li□O2 batteries. *Sustainable Energy and Fuels*, **2020**, 4, 6105-6111	5.8	4
76	Achieving Ultrahigh Volumetric Energy Storage by Compressing Nitrogen and Sulfur Dual-Doped Carbon Nanocages via Capillarity. *Advanced Materials*, **2020**, 32, e2004632	24	21
75	Iron oxide encapsulated in nitrogen-rich carbon enabling high-performance lithium-ion capacitor. *Science China Materials*, **2020**, 63, 2289-2302	7.1	6

74	Iron oxide encapsulated in nitrogen-doped carbon as high energy anode material for asymmetric supercapacitors. *Journal of Power Sources*, **2019**, 438, 227047	8.9	16
73	Effective enhancement of electrochemical energy storage of cobalt-based nanocrystals by hybridization with nitrogen-doped carbon nanocages. *Science China Materials*, **2019**, 62, 1393-1402	7.1	7
72	Stabilizing the active phase of iron-based Fischer-Tropsch catalysts for lower olefins: mechanism and strategy. *Chemical Science*, **2019**, 10, 6083-6090	9.4	30
71	Electrocatalysis of S-doped carbon with weak polysulfide adsorption enhances lithium-sulfur battery performance. *Chemical Communications*, **2019**, 55, 6365-6368	5.8	31
70	Micro-meso-macroporous FeCo-N-C derived from hierarchical bimetallic FeCo-ZIFs as cathode catalysts for enhanced Li-O2 batteries performance. *Journal of Energy Chemistry*, **2019**, 35, 212-219	12	28
69	The simplest construction of single-site catalysts by the synergism of micropore trapping and nitrogen anchoring. *Nature Communications*, **2019**, 10, 1657	17.4	144
68	Inhibiting polysulfide shuttling using dual-functional nanowire/nanotube modified layers for highly stable lithium–sulfur batteries. *New Journal of Chemistry*, **2019**, 43, 14708-14713	3.6	14
67	Planar graphene-C60-graphene heterostructures for sensitive UV-Visible photodetection. *Carbon*, **2019**, 146, 486-490	10.4	16
66	From a layered iridium(iii)-cobalt(ii) organophosphonate to an efficient oxygen-evolution-reaction electrocatalyst. *Chemical Communications*, **2019**, 55, 13920-13923	5.8	7
65	Vertically Grown Few-Layer MoS Nanosheets on Hierarchical Carbon Nanocages for Pseudocapacitive Lithium Storage with Ultrahigh-Rate Capability and Long-Term Recyclability. *Chemistry - A European Journal*, **2019**, 25, 3843-3848	4.8	8
64	Efficient synergism of electrocatalysis and physical confinement leading to durable high-power lithium-sulfur batteries. *Nano Energy*, **2019**, 57, 34-40	17.1	73
63	Synthesis of alloyed Zn1−MnxS nanowires with completely controlled compositions and tunable bandgaps. *RSC Advances*, **2018**, 8, 374-379	3.7	11
62	Unexpected solvent effects on the UV/Vis absorption spectra of -cresol in toluene and benzene: in contrast with non-aromatic solvents. *Royal Society Open Science*, **2018**, 5, 171928	3.3	9
61	Efficient Ternary Synergism of Platinum/Tin Oxide/Nitrogen-Doped Carbon Leading to High-Performance Ethanol Oxidation. *ACS Catalysis*, **2018**, 8, 8477-8483	13.1	32
60	Tailoring the nano heterointerface of hematite/magnetite on hierarchical nitrogen-doped carbon nanocages for superb oxygen reduction. *Journal of Materials Chemistry A*, **2018**, 6, 21313-21319	13	19
59	Intercalation of alkylamines in layered MoO3 and in situ carbonization for a high-performance asymmetric supercapacitor. *Sustainable Energy and Fuels*, **2018**, 2, 2788-2798	5.8	12
58	Sandwich-Like Holey Graphene/PANI/Graphene Nanohybrid for Ultrahigh-Rate Supercapacitor. *ACS Applied Energy Materials*, **2018**,	6.1	8
57	Sensitive and Robust Ultraviolet Photodetector Array Based on Self-Assembled Graphene/C Hybrid Films. *ACS Applied Materials & Interfaces*, **2018**, 10, 38326-38333	9.5	33

56	From Carbon-Based Nanotubes to Nanocages for Advanced Energy Conversion and Storage. *Accounts of Chemical Research*, **2017**, 50, 435-444	24.3	162
55	Ruthenium-Functionalized Hierarchical Carbon Nanocages as Efficient Catalysts for Li-O2 Batteries. *ChemNanoMat*, **2017**, 3, 415-419	3.5	12
54	Compressing Carbon Nanocages by Capillarity for Optimizing Porous Structures toward Ultrahigh-Volumetric-Performance Supercapacitors. *Advanced Materials*, **2017**, 29, 1700470	24	178
53	Is iron nitride or carbide highly active for oxygen reduction reaction in acidic medium?. *Catalysis Science and Technology*, **2017**, 7, 51-55	5.5	42
52	Porous 3D Few-Layer Graphene-like Carbon for Ultrahigh-Power Supercapacitors with Well-Defined Structure-Performance Relationship. *Advanced Materials*, **2017**, 29, 1604569	24	310
51	Boosting oxygen reduction activity of spinel CoFe2O4 by strong interaction with hierarchical nitrogen-doped carbon nanocages. *Science Bulletin*, **2017**, 62, 1365-1372	10.6	13
50	Surface Hydrophilicity and Antifungal Properties of TiO Films Coated on a Co-Cr Substrate. *BioMed Research International*, **2017**, 2017, 2054723	3	10
49	Solution□solid□solid growth of metastable wurtzite □MnS nanowires with controlled length. *Journal of Materials Chemistry C*, **2017**, 5, 6493-6496	7.1	9
48	Alcohol-Tolerant Platinum Electrocatalyst for Oxygen Reduction by Encapsulating Platinum Nanoparticles inside Nitrogen-Doped Carbon Nanocages. *ACS Applied Materials & Interfaces*, **2016**, 8, 16664-9	9.5	22
47	Phase-equilibrium-dominated vapor-liquid-solid mechanism: further evidence. *Science China Materials*, **2016**, 59, 20-27	7.1	2
46	Multiple-Step Humidity-Induced Single-Crystal to Single-Crystal Transformations of a Cobalt Phosphonate: Structural and Proton Conductivity Studies. *Inorganic Chemistry*, **2016**, 55, 3706-12	5.1	45
45	Manganese oxide-induced strategy to high-performance iron/nitrogen/carbon electrocatalysts with highly exposed active sites. *Nanoscale*, **2016**, 8, 8480-5	7.7	28
44	Mesostructured NiO/Ni composites for high-performance electrochemical energy storage. *Energy and Environmental Science*, **2016**, 9, 2053-2060	35.4	180
43	Morphology and composition evolution of one-dimensional InxAl1□N nanostructures induced by the vapour pressure ratio. *CrystEngComm*, **2016**, 18, 213-217	3.3	3
42	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	
41	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, 10326-9	4.8	49
40	2D Single-Crystalline Molecular Semiconductors with Precise Layer Definition Achieved by Floating-Coffee-Ring-Driven Assembly. *Advanced Functional Materials*, **2016**, 26, 3191-3198	15.6	113
39	Unconventional O-H□□C Hydrogen Bonding and Effects of Conformational Changes on Infrared Spectroscopy of o-Cresol in Solutions. *Journal of Physical Chemistry A*, **2016**, 120, 10196-10206	2.8	2

38	Doping sp2 carbon to boost the activity for oxygen reduction in an acidic medium: a theoretical exploration. *RSC Advances*, **2016**, 6, 48498-48503	3.7	11
37	Advanced non-precious electrocatalyst of the mixed valence CoO x nanocrystals supported on N-doped carbon nanocages for oxygen reduction. *Science China Chemistry*, **2015**, 58, 180-186	7.9	17
36	Superionic conductor-mediated growth of ternary ZnCdS nanorods over a wide composition range. *Nano Research*, **2015**, 8, 584-591	10	24
35	Hydrophilic Hierarchical Nitrogen-Doped Carbon Nanocages for Ultrahigh Supercapacitive Performance. *Advanced Materials*, **2015**, 27, 3541-5	24	573
34	Significant Contribution of Intrinsic Carbon Defects to Oxygen Reduction Activity. *ACS Catalysis*, **2015**, 5, 6707-6712	13.1	400
33	Planar carbon nanotube-graphene hybrid films for high-performance broadband photodetectors. *Nature Communications*, **2015**, 6, 8589	17.4	197
32	Hierarchical carbon nanocages as high-rate anodes for Li- and Na-ion batteries. *Nano Research*, **2015** , 8, 3535-3543	10	64
31	Alloyed Co□Mo Nitride as High-Performance Electrocatalyst for Oxygen Reduction in Acidic Medium. *ACS Catalysis*, **2015**, 5, 1857-1862	13.1	149
30	Hierarchical carbon nanocages confining high-loading sulfur for high-rate lithium□sulfur batteries. *Nano Energy*, **2015**, 12, 657-665	17.1	196
29	Tuning the field emission properties of AlN nanocones by doping. *Journal of Materials Chemistry C*, **2015**, 3, 1113-1117	7.1	21
28	Boost up carrier mobility for ferroelectric organic transistor memory via buffering interfacial polarization fluctuation. *Scientific Reports*, **2014**, 4, 7227	4.9	57
27	Promotion Effects of Nitrogen Doping into Carbon Nanotubes on Supported Iron Fischer□Tropsch Catalysts for Lower Olefins. *ACS Catalysis*, **2014**, 4, 613-621	13.1	178
26	Low-voltage organic field-effect transistors based on novel high-□organometallic lanthanide complex for gate insulating materials. *AIP Advances*, **2014**, 4, 087140	1.5	5
25	Remarkable reduction in the threshold voltage of pentacene-based thin film transistors with pentacene/CuPc sandwich configuration. *AIP Advances*, **2014**, 4, 067126	1.5	2
24	The Influence of Pd Particles Distribution Position on Pd/CNTs Catalyst for Acetylene Selective Hydrogenation. *Catalysis Letters*, **2014**, 144, 2198-2203	2.8	7
23	Synthesis and Electrocatalytic Oxygen Reduction Performance of the Sulfur-Doped Carbon Nanocages. *Acta Chimica Sinica*, **2014**, 72, 1070	3.3	4
22	Carbon nanocages as supercapacitor electrode materials. *Advanced Materials*, **2012**, 24, 347-52	24	441
21	Supercapacitor Nanostructures: Carbon Nanocages as Supercapacitor Electrode Materials (Adv. Mater. 3/2012). *Advanced Materials*, **2012**, 24, 346-346	24	6

20	Pentacene thin film transistor with low threshold voltage and high mobility by inserting a thin metal phthalocyanines interlayer. *Science China Technological Sciences*, **2012**, 55, 417-420	3.5	4
19	Anion-induced morphological regulation of In(OH)3 nanostructures and their conversion into porous In2O3 derivatives. *CrystEngComm*, **2012**, 14, 3397	3.3	8
18	Improving field emission by constructing CsI/AlN hybrid nanostructures. *Journal of Materials Chemistry*, **2012**, 22, 18578		11
17	Deposition-Pressure-Induced Optimization of Molecular Packing for High-Performance Organic Thin-Film Transistors Based on Copper Phthalocyanine. *Journal of Physical Chemistry C*, **2012**, 116, 4287-4292	3.8	16
16	Nitrogen-doped carbon nanocages as efficient metal-free electrocatalysts for oxygen reduction reaction. *Advanced Materials*, **2012**, 24, 5593-7, 5646	24	629
15	Morphology-controlled growth of chromium silicide nanostructures and their field emission properties. *CrystEngComm*, **2012**, 14, 1659-1664	3.3	8
14	Porous hierarchical nickel nanostructures and their application as a magnetically separable catalyst. *Journal of Materials Chemistry*, **2012**, 22, 11927		35
13	Preparation of graphene supported nickel nanoparticles and their application to methanol electrooxidation in alkaline medium. *New Journal of Chemistry*, **2012**, 36, 1108	3.6	48
12	Carbon Nanocages: Nitrogen-Doped Carbon Nanocages as Efficient Metal-Free Electrocatalysts for Oxygen Reduction Reaction (Adv. Mater. 41/2012). *Advanced Materials*, **2012**, 24, 5646-5646	24	7
11	Boron-Doped Carbon Nanotubes as Metal-Free Electrocatalysts for the Oxygen Reduction Reaction. *Angewandte Chemie*, **2011**, 123, 7270-7273	3.6	314
10	Convenient immobilization of Pt-Sn bimetallic catalysts on nitrogen-doped carbon nanotubes for direct alcohol electrocatalytic oxidation. *Nanotechnology*, **2011**, 22, 395401	3.4	23
9	Facile Construction of Pt-Co/CNx Nanotube Electrocatalysts and Their Application to the Oxygen Reduction Reaction. *Advanced Materials*, **2009**, 21, 4953-4956	24	185
8	6-Fold-Symmetrical AlN Hierarchical Nanostructures: Synthesis and Field-Emission Properties. *Journal of Physical Chemistry C*, **2009**, 113, 4053-4058	3.8	58
7	CNx nanofibers converted from polypyrrole nanowires as platinum support for methanol oxidation. *Energy and Environmental Science*, **2009**, 2, 224-229	35.4	196
6	CNx nanotubes as catalyst support to immobilize platinum nanoparticles for methanol oxidation. *Journal of Materials Chemistry*, **2008**, 18, 1747		146
5	Electrical Characteristics of Pentacene Thin Film Transistors in Volatile Compound Vapors. *Molecular Crystals and Liquid Crystals*, **2006**, 462, 29-36	0.5	3
4	Extended vapor□liquid□solid growth and field emission properties of aluminium nitride nanowires. *Journal of Materials Chemistry*, **2003**, 13, 2024-2027		111
3	Synthesis and Optical Characterization of Aluminum Nitride Nanobelts. *Journal of Physical Chemistry B*, **2003**, 107, 9726-9729	3.4	150

2	Ultrahigh rate capability of 1D/2D polyaniline/titanium carbide (MXene) nanohybrid for advanced asymmetric supercapacitors. *Nano Research*,1	10	10
1	Defect-induced deposition of manganese oxides on hierarchical carbon nanocages for high-performance lithium-oxygen batteries. *Nano Research*,1	10	0