Xi-Zhang Wang

List of Publications by Year
in descending order

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93 papers	7,812 citations	76326 40 h-index	49909 87 g-index
96 all docs	96 docs citations	96 times ranked	10689 citing authors

#	Article	IF	Citations
1	Nitrogenâ€Doped Carbon Nanocages as Efficient Metalâ€Free Electrocatalysts for Oxygen Reduction Reaction. Advanced Materials, 2012, 24, 5593-5597.	21.0	693
2	Hydrophilic Hierarchical Nitrogenâ€Doped Carbon Nanocages for Ultrahigh Supercapacitive Performance. Advanced Materials, 2015, 27, 3541-3545.	21.0	680
3	Significant Contribution of Intrinsic Carbon Defects to Oxygen Reduction Activity. ACS Catalysis, 2015, 5, 6707-6712.	11.2	519
4	Carbon Nanocages as Supercapacitor Electrode Materials. Advanced Materials, 2012, 24, 347-352.	21.0	508
5	Porous 3D Fewâ€Layer Grapheneâ€like Carbon for Ultrahighâ€Power Supercapacitors with Wellâ€Defined Structureâ€“Performance Relationship. Advanced Materials, 2017, 29, 1604569.	21.0	358
6	Planar carbon nanotubeâ€“graphene hybrid films for high-performance broadband photodetectors. Nature Communications, 2015, 6, 8589.	12.8	258
7	Compressing Carbon Nanocages by Capillarity for Optimizing Porous Structures toward Ultrahighâ€Volumetricâ€Performance Supercapacitors. Advanced Materials, 2017, 29, 1700470.	21.0	243
8	Hierarchical carbon nanocages confining high-loading sulfur for high-rate lithiumâ€“sulfur batteries. Nano Energy, 2015, 12, 657-665.	16.0	231
9	The simplest construction of single-site catalysts by the synergism of micropore trapping and nitrogen anchoring. Nature Communications, 2019, 10, 1657.	12.8	220
10	Promotion Effects of Nitrogen Doping into Carbon Nanotubes on Supported Iron Fischerâ€“Tropsch Catalysts for Lower Olefins. ACS Catalysis, 2014, 4, 613-621.	11.2	218
11	Mesostructured NiO/Ni composites for high-performance electrochemical energy storage. Energy and Environmental Science, 2016, 9, 2053-2060.	30.8	212
12	CNx nanofibers converted from polypyrrole nanowires as platinum support for methanol oxidation. Energy and Environmental Science, 2009, 2, 224-229.	30.8	209
13	Facile Construction of Ptâ€“Co/CN_x Nanotube Electrocatalysts and Their Application to the Oxygen Reduction Reaction. Advanced Materials, 2009, 21, 4953-4956.	21.0	202
14	From Carbon-Based Nanotubes to Nanocages for Advanced Energy Conversion and Storage. Accounts of Chemical Research, 2017, 50, 435-444.	15.6	196
15	Alloyed Coâ€“Mo Nitride as High-Performance Electrocatalyst for Oxygen Reduction in Acidic Medium. ACS Catalysis, 2015, 5, 1857-1862.	11.2	172
16	CNx nanotubes as catalyst support to immobilize platinum nanoparticles for methanol oxidation. Journal of Materials Chemistry, 2008, 18, 1747.	6.7	164
17	Synthesis and Optical Characterization of Aluminum Nitride Nanobelts. Journal of Physical Chemistry B, 2003, 107, 9726-9729.	2.6	162
18	2D Singleâ€Crystalline Molecular Semiconductors with Precise Layer Definition Achieved by Floatingâ€Coffeeâ€Ringâ€Driven Assembly. Advanced Functional Materials, 2016, 26, 3191-3198.	14.9	136

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19	Extended vaporâ€“liquidâ€“solid growth and field emission properties of aluminium nitride nanowires. Journal of Materials Chemistry, 2003, 13, 2024-2027.	6.7	122
20	Efficient synergism of electrocatalysis and physical confinement leading to durable high-power lithium-sulfur batteries. Nano Energy, 2019, 57, 34-40.	16.0	104
21	Carbonâ€Based Nanocages: A New Platform for Advanced Energy Storage and Conversion. Advanced Materials, 2020, 32, e1904177.	21.0	84
22	Hierarchical carbon nanocages as high-rate anodes for Li- and Na-ion batteries. Nano Research, 2015, 8, 3535-3543.	10.4	71
23	Boost Up Carrier Mobility for Ferroelectric Organic Transistor Memory via Buffering Interfacial Polarization Fluctuation. Scientific Reports, 2014, 4, 7227.	3.3	67
24	6-Fold-Symmetrical AlN Hierarchical Nanostructures: Synthesis and Field-Emission Properties. Journal of Physical Chemistry C, 2009, 113, 4053-4058.	3.1	66
25	Sulfur and Nitrogen Codoped Carbon Tubes as Bifunctional Metalâ€Free Electrocatalysts for Oxygen Reduction and Hydrogen Evolution in Acidic Media. Chemistry - A European Journal, 2016, 22, 10326-10329.	3.3	59
26	Achieving Ultrahigh Volumetric Energy Storage by Compressing Nitrogen and Sulfur Dualâ€Doped Carbon Nanocages via Capillarity. Advanced Materials, 2020, 32, e2004632.	21.0	56
27	Preparation of graphene supported nickel nanoparticles and their application to methanol electrooxidation in alkaline medium. New Journal of Chemistry, 2012, 36, 1108.	2.8	54
28	In situ construction of porous hierarchical (Ni3-xFex)FeN/Ni heterojunctions toward efficient electrocatalytic oxygen evolution. Nano Research, 2020, 13, 328-334.	10.4	52
29	Is iron nitride or carbide highly active for oxygen reduction reaction in acidic medium?. Catalysis Science and Technology, 2017, 7, 51-55.	4.1	50
30	Ultrahigh rate capability of 1D/2D polyaniline/titanium carbide (MXene) nanohybrid for advanced asymmetric supercapacitors. Nano Research, 2022, 15, 285-295.	10.4	50
31	Multiple-Step Humidity-Induced Single-Crystal to Single-Crystal Transformations of a Cobalt Phosphonate: Structural and Proton Conductivity Studies. Inorganic Chemistry, 2016, 55, 3706-3712.	4.0	49
32	Sensitive and Robust Ultraviolet Photodetector Array Based on Self-Assembled Graphene/C₆₀ Hybrid Films. ACS Applied Materials & Interfaces, 2018, 10, 38326-38333.	8.0	48
33	Mesostructured carbon-based nanocages: an advanced platform for energy chemistry. Science China Chemistry, 2020, 63, 665-681.	8.2	48
34	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.	10.4	46
35	Carbonâ€Based Nanocages: Carbonâ€Based Nanocages: A New Platform for Advanced Energy Storage and Conversion (Adv. Mater. 27/2020). Advanced Materials, 2020, 32, 2070206.	21.0	46
36	Electrocatalysis of S-doped carbon with weak polysulfide adsorption enhances lithiumâ€“sulfur battery performance. Chemical Communications, 2019, 55, 6365-6368.	4.1	45

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37	Efficient Ternary Synergism of Platinum/Tin Oxide/Nitrogen-Doped Carbon Leading to High-Performance Ethanol Oxidation. ACS Catalysis, 2018, 8, 8477-8483.	11.2	44
38	Microâ€‘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.	12.9	43
39	Construction of hierarchical FeNi3@(Fe,Ni)S2 core-shell heterojunctions for advanced oxygen evolution. Nano Research, 2021, 14, 4220-4226.	10.4	42
40	Stabilizing the active phase of iron-based Fischerâ€“Tropsch catalysts for lower olefins: mechanism and strategy. Chemical Science, 2019, 10, 6083-6090.	7.4	41
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, 10261-10261.	3.3	40
42	Porous hierarchical nickel nanostructures and their application as a magnetically separable catalyst. Journal of Materials Chemistry, 2012, 22, 11927.	6.7	37
43	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.	10.3	34
44	Manganese oxide-induced strategy to high-performance iron/nitrogen/carbon electrocatalysts with highly exposed active sites. Nanoscale, 2016, 8, 8480-8485.	5.6	33
45	Identifying Ironâ€“Nitrogen/Carbon Active Structures for Oxygen Reduction Reaction under the Effect of Electrode Potential. Journal of Physical Chemistry Letters, 2020, 11, 2896-2901.	4.6	32
46	Tuning metal catalysts via nitrogen-doped nanocarbons for energy chemistry: From metal nanoparticles to single metal sites. EnergyChem, 2021, 3, 100066.	19.1	31
47	Planar graphene-C60-graphene heterostructures for sensitive UV-Visible photodetection. Carbon, 2019, 146, 486-490.	10.3	30
48	Alcohol-Tolerant Platinum Electrocatalyst for Oxygen Reduction by Encapsulating Platinum Nanoparticles inside Nitrogen-Doped Carbon Nanocages. ACS Applied Materials & Interfaces, 2016, 8, 16664-16669.	8.0	28
49	Boosting faradaic efficiency of CO2 electroreduction to CO for Feâ^'Nâ^'C single-site catalysts by stabilizing Fe3+ sites via F-doping. Nano Research, 2022, 15, 7896-7902.	10.4	27
50	Convenient immobilization of Ptâ€“Sn bimetallic catalysts on nitrogen-doped carbon nanotubes for direct alcohol electrocatalytic oxidation. Nanotechnology, 2011, 22, 395401.	2.6	26
51	Superionic conductor-mediated growth of ternary ZnCdS nanorods over a wide composition range. Nano Research, 2015, 8, 584-591.	10.4	26
52	Iron oxide encapsulated in nitrogen-doped carbon as high energy anode material for asymmetric supercapacitors. Journal of Power Sources, 2019, 438, 227047.	7.8	25
53	Tuning the field emission properties of AlN nanocones by doping. Journal of Materials Chemistry C, 2015, 3, 1113-1117.	5.5	24
54	Synergetic magnetic and luminescence switching via solid state phase transitions of the dysprosiumâ€“dianthracene complex. Journal of Materials Chemistry C, 2020, 8, 7369-7377.	5.5	24

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55	Thermally Conductive AlNâ€Network Shield for Separators to Achieve Dendriteâ€Free Plating and Fast Liâ€Ion Transport toward Durable and Highâ€Rate Lithiumâ€Metal Anodes. Advanced Science, 2022, 9, e2200411.	11.2	23
56	Inhibiting polysulfide shuttling using dual-functional nanowire/nanotube modified layers for highly stable lithiumâ€“sulfur batteries. New Journal of Chemistry, 2019, 43, 14708-14713.	2.8	22
57	Intercalation of alkylamines in layered MoO₃ and in situ carbonization for a high-performance asymmetric supercapacitor. Sustainable Energy and Fuels, 2018, 2, 2788-2798.	4.9	21
58	Boosting oxygen reduction activity of spinel CoFe 2 O 4 by strong interaction with hierarchical nitrogen-doped carbon nanocages. Science Bulletin, 2017, 62, 1365-1372.	9.0	18
59	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.	3.1	17
60	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.	8.2	17
61	Unexpected solvent effects on the UV/Vis absorption spectra of o -cresol in toluene and benzene: in contrast with non-aromatic solvents. Royal Society Open Science, 2018, 5, 171928.	2.4	16
62	From a layered iridium(<scp>iii</scp>)â€“cobalt(<scp>ii</scp>) organophosphonate to an efficient oxygen-evolution-reaction electrocatalyst. Chemical Communications, 2019, 55, 13920-13923.	4.1	15
63	Ruthâ€Functionalized Hierarchical Carbon Nanocages as Efficient Catalysts for Liâ€O₂ Batteries. ChemNanoMat, 2017, 3, 415-419.	2.8	14
64	Synthesis of alloyed Zn_{1â€“x}Mn_xS nanowires with completely controlled compositions and tunable bandgaps. RSC Advances, 2018, 8, 374-379.	3.6	14
65	Sandwich-Like Holey Graphene/PANI/Graphene Nanohybrid for Ultrahigh-Rate Supercapacitor. ACS Applied Energy Materials, 0, , .	5.1	14
66	Improving field emission by constructing Cslâ€“AlN hybrid nanostructures. Journal of Materials Chemistry, 2012, 22, 18578.	6.7	13
67	Doping sp² carbon to boost the activity for oxygen reduction in an acidic medium: a theoretical exploration. RSC Advances, 2016, 6, 48498-48503.	3.6	13
68	Surface Hydrophilicity and Antifungal Properties of TiO₂ Films Coated on a Co-Cr Substrate. BioMed Research International, 2017, 2017, 1-7.	1.9	13
69	A MOF derived Co-NC@CNT composite with a 3D interconnected conductive carbon network as a highly efficient cathode catalyst for Liâ€“O₂ batteries. Sustainable Energy and Fuels, 2020, 4, 6105-6111.	4.9	13
70	Iron oxide encapsulated in nitrogen-rich carbon enabling high-performance lithium-ion capacitor. Science China Materials, 2020, 63, 2289-2302.	6.3	13
71	Anion-induced morphological regulation of In(OH)3 nanostructures and their conversion into porous In2O3 derivatives. CrystEngComm, 2012, 14, 3397.	2.6	11
72	Vertically Grown Fewâ€Layer MoS₂ Nanosheets on Hierarchical Carbon Nanocages for Pseudocapacitive Lithium Storage with Ultrahighâ€Rate Capability and Longâ€Term Recyclability. Chemistry - A European Journal, 2019, 25, 3843-3848.	3.3	11

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73	Solutionâ€“solidâ€“solid growth of metastable wurtzite Î³-MnS nanowires with controlled length. Journal of Materials Chemistry C, 2017, 5, 6493-6496.	5.5	11
74	Carbon Nanocages: Nitrogenâ€Doped Carbon Nanocages as Efficient Metalâ€Free Electrocatalysts for Oxygen Reduction Reaction (Adv. Mater. 41/2012). Advanced Materials, 2012, 24, 5646-5646.	21.0	10
75	The Influence of Pd Particles Distribution Position on Pd/CNTs Catalyst for Acetylene Selective Hydrogenation. Catalysis Letters, 2014, 144, 2198-2203.	2.6	10
76	Enlarging ion-transfer micropore channels of hierarchical carbon nanocages for ultrahigh energy and power densities. Science China Materials, 2021, 64, 2173-2181.	6.3	10
77	The Compositeâ€Template Method to Construct Hierarchical Carbon Nanocages for Supercapacitors with Ultrahigh Energy and Power Densities. Small, 2022, 18, e2107082.	10.0	10
78	Morphology-controlled growth of chromium silicide nanostructures and their field emission properties. CrystEngComm, 2012, 14, 1659-1664.	2.6	8
79	Effective enhancement of electrochemical energy storage of cobalt-based nanocrystals by hybridization with nitrogen-doped carbon nanocages. Science China Materials, 2019, 62, 1393-1402.	6.3	8
80	Confinement and Electrocatalysis of Cerium Fluoride Nanocages to Boost the Lithiumâ€“Sulfur Batteries Performance. Small Structures, 2022, 3, .	12.0	8
81	Defect-induced deposition of manganese oxides on hierarchical carbon nanocages for high-performance lithium-oxygen batteries. Nano Research, 2022, 15, 4132-4136.	10.4	7
82	Supercapacitor Nanostructures: Carbon Nanocages as Supercapacitor Electrode Materials (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	21.0	6
83	Low-voltage organic field-effect transistors based on novel high-Î² organometallic lanthanide complex for gate insulating materials. AIP Advances, 2014, 4, .	1.3	6
84	Nonmacrocyclic Iron(II) Soluble Redox Mediators Leading to High-Rate Liâ€“O ₂ Battery. CCS Chemistry, 2021, 3, 1350-1358.	7.8	5
85	Synthesis and Electrocatalytic Oxygen Reduction Performance of the Sulfur-Doped Carbon Nanocages. Acta Chimica Sinica, 2014, 72, 1070.	1.4	5
86	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.	4.0	4
87	Electrical Characteristics of Pentacene Thin Film Transistors in Volatile Compound Vapors. Molecular Crystals and Liquid Crystals, 2006, 462, 29-36.	0.9	3
88	Unconventional Oâ€“HÂ·Â·Â·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.	2.5	3
89	Phase-equilibrium-dominated vapor-liquid-solid mechanism: further evidence. Science China Materials, 2016, 59, 20-27.	6.3	3
90	Morphology and composition evolution of one-dimensional InxAl1â^'xN nanostructures induced by the vapour pressure ratio. CrystEngComm, 2016, 18, 213-217.	2.6	3

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91	Remarkable reduction in the threshold voltage of pentacene-based thin film transistors with pentacene/CuPc sandwich configuration. AIP Advances, 2014, 4, 067126.	1.3	2
92	Constructing monolithic sulfur cathodes with multifunctional N,P dual-doped carbon nanocages to achieve high-areal-capacity lithium-sulfur batteries. FlatChem, 2021, 28, 100253.	5.6	1
93	Patterned growth and field emission properties of AlN nanocones. , 2010, , .		0