

Xi-Zhang Wang

List of Publications by Year in descending order

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times ranked

10689
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#	ARTICLE	IF	CITATIONS
1	Nitrogen-Doped Carbon Nanocages as Efficient Metal-Free Electrocatalysts for Oxygen Reduction Reaction. <i>Advanced Materials</i> , 2012, 24, 5593-5597.	11.1	693
2	Hydrophilic Hierarchical Nitrogen-Doped Carbon Nanocages for Ultrahigh Supercapacitive Performance. <i>Advanced Materials</i> , 2015, 27, 3541-3545.	11.1	680
3	Significant Contribution of Intrinsic Carbon Defects to Oxygen Reduction Activity. <i>ACS Catalysis</i> , 2015, 5, 6707-6712.	5.5	519
4	Carbon Nanocages as Supercapacitor Electrode Materials. <i>Advanced Materials</i> , 2012, 24, 347-352.	11.1	508
5	Porous 3D Few-Layer Graphene-Like Carbon for Ultrahigh-Power Supercapacitors with Well-Defined Structure-Performance Relationship. <i>Advanced Materials</i> , 2017, 29, 1604569.	11.1	358
6	Planar carbon nanotube-graphene hybrid films for high-performance broadband photodetectors. <i>Nature Communications</i> , 2015, 6, 8589.	5.8	258
7	Compressing Carbon Nanocages by Capillarity for Optimizing Porous Structures toward Ultrahigh-Volumetric-Performance Supercapacitors. <i>Advanced Materials</i> , 2017, 29, 1700470.	11.1	243
8	Hierarchical carbon nanocages confining high-loading sulfur for high-rate lithium-sulfur batteries. <i>Nano Energy</i> , 2015, 12, 657-665.	8.2	231
9	The simplest construction of single-site catalysts by the synergism of micropore trapping and nitrogen anchoring. <i>Nature Communications</i> , 2019, 10, 1657.	5.8	220
10	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.	5.5	218
11	Mesostructured NiO/Ni composites for high-performance electrochemical energy storage. <i>Energy and Environmental Science</i> , 2016, 9, 2053-2060.	15.6	212
12	CNx nanofibers converted from polypyrrole nanowires as platinum support for methanol oxidation. <i>Energy and Environmental Science</i> , 2009, 2, 224-229.	15.6	209
13	Facile Construction of Pt-Co/CN Nanotube Electrocatalysts and Their Application to the Oxygen Reduction Reaction. <i>Advanced Materials</i> , 2009, 21, 4953-4956.	11.1	202
14	From Carbon-Based Nanotubes to Nanocages for Advanced Energy Conversion and Storage. <i>Accounts of Chemical Research</i> , 2017, 50, 435-444.	7.6	196
15	Alloyed Co-Mo Nitride as High-Performance Electrocatalyst for Oxygen Reduction in Acidic Medium. <i>ACS Catalysis</i> , 2015, 5, 1857-1862.	5.5	172
16	CNx nanotubes as catalyst support to immobilize platinum nanoparticles for methanol oxidation. <i>Journal of Materials Chemistry</i> , 2008, 18, 1747.	6.7	164
17	Synthesis and Optical Characterization of Aluminum Nitride Nanobelts. <i>Journal of Physical Chemistry B</i> , 2003, 107, 9726-9729.	1.2	162
18	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.	7.8	136

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19	Extended vapor-liquid-solid growth and field emission properties of aluminium nitride nanowires. <i>Journal of Materials Chemistry</i> , 2003, 13, 2024-2027.	6.7	122
20	Efficient synergism of electrocatalysis and physical confinement leading to durable high-power lithium-sulfur batteries. <i>Nano Energy</i> , 2019, 57, 34-40.	8.2	104
21	Carbon-Based Nanocages: A New Platform for Advanced Energy Storage and Conversion. <i>Advanced Materials</i> , 2020, 32, e1904177.	11.1	84
22	Hierarchical carbon nanocages as high-rate anodes for Li- and Na-ion batteries. <i>Nano Research</i> , 2015, 8, 3535-3543.	5.8	71
23	Boost Up Carrier Mobility for Ferroelectric Organic Transistor Memory via Buffering Interfacial Polarization Fluctuation. <i>Scientific Reports</i> , 2014, 4, 7227.	1.6	67
24	6-Fold-Symmetrical AlN Hierarchical Nanostructures: Synthesis and Field-Emission Properties. <i>Journal of Physical Chemistry C</i> , 2009, 113, 4053-4058.	1.5	66
25	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, 10326-10329.	1.7	59
26	Achieving Ultrahigh Volumetric Energy Storage by Compressing Nitrogen and Sulfur Dual-Doped Carbon Nanocages via Capillarity. <i>Advanced Materials</i> , 2020, 32, e2004632.	11.1	56
27	Preparation of graphene supported nickel nanoparticles and their application to methanol electrooxidation in alkaline medium. <i>New Journal of Chemistry</i> , 2012, 36, 1108.	1.4	54
28	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.	5.8	52
29	Is iron nitride or carbide highly active for oxygen reduction reaction in acidic medium?. <i>Catalysis Science and Technology</i> , 2017, 7, 51-55.	2.1	50
30	Ultrahigh rate capability of 1D/2D polyaniline/titanium carbide (MXene) nanohybrid for advanced asymmetric supercapacitors. <i>Nano Research</i> , 2022, 15, 285-295.	5.8	50
31	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, 3706-3712.	1.9	49
32	Sensitive and Robust Ultraviolet Photodetector Array Based on Self-Assembled Graphene/C ₆₀ Hybrid Films. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 38326-38333.	4.0	48
33	Mesostructured carbon-based nanocages: an advanced platform for energy chemistry. <i>Science China Chemistry</i> , 2020, 63, 665-681.	4.2	48
34	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.	5.8	46
35	Carbon-Based Nanocages: Carbon-Based Nanocages: A New Platform for Advanced Energy Storage and Conversion (<i>Adv. Mater.</i> 27/2020). <i>Advanced Materials</i> , 2020, 32, 2070206.	11.1	46
36	Electrocatalysis of S-doped carbon with weak polysulfide adsorption enhances lithium-sulfur battery performance. <i>Chemical Communications</i> , 2019, 55, 6365-6368.	2.2	45

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37	Efficient Ternary Synergism of Platinum/Tin Oxide/Nitrogen-Doped Carbon Leading to High-Performance Ethanol Oxidation. <i>ACS Catalysis</i> , 2018, 8, 8477-8483.	5.5	44
38	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.	7.1	43
39	Construction of hierarchical FeNi ₃ @(Fe,Ni) ₂ S ₂ core-shell heterojunctions for advanced oxygen evolution. <i>Nano Research</i> , 2021, 14, 4220-4226.	5.8	42
40	Stabilizing the active phase of iron-based Fischer-Tropsch catalysts for lower olefins: mechanism and strategy. <i>Chemical Science</i> , 2019, 10, 6083-6090.	3.7	41
41	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, 10261-10261.	1.7	40
42	Porous hierarchical nickel nanostructures and their application as a magnetically separable catalyst. <i>Journal of Materials Chemistry</i> , 2012, 22, 11927.	6.7	37
43	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.	5.2	34
44	Manganese oxide-induced strategy to high-performance iron/nitrogen/carbon electrocatalysts with highly exposed active sites. <i>Nanoscale</i> , 2016, 8, 8480-8485.	2.8	33
45	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.	2.1	32
46	Tuning metal catalysts via nitrogen-doped nanocarbons for energy chemistry: From metal nanoparticles to single metal sites. <i>EnergyChem</i> , 2021, 3, 100066.	10.1	31
47	Planar graphene-C ₆₀ -graphene heterostructures for sensitive UV-Visible photodetection. <i>Carbon</i> , 2019, 146, 486-490.	5.4	30
48	Alcohol-Tolerant Platinum Electrocatalyst for Oxygen Reduction by Encapsulating Platinum Nanoparticles inside Nitrogen-Doped Carbon Nanocages. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 16664-16669.	4.0	28
49	Boosting faradaic efficiency of CO ₂ electroreduction to CO for Fe-N-C single-site catalysts by stabilizing Fe ³⁺ sites via F-doping. <i>Nano Research</i> , 2022, 15, 7896-7902.	5.8	27
50	Convenient immobilization of Pt-Sn bimetallic catalysts on nitrogen-doped carbon nanotubes for direct alcohol electrocatalytic oxidation. <i>Nanotechnology</i> , 2011, 22, 395401.	1.3	26
51	Superionic conductor-mediated growth of ternary ZnCdS nanorods over a wide composition range. <i>Nano Research</i> , 2015, 8, 584-591.	5.8	26
52	Iron oxide encapsulated in nitrogen-doped carbon as high energy anode material for asymmetric supercapacitors. <i>Journal of Power Sources</i> , 2019, 438, 227047.	4.0	25
53	Tuning the field emission properties of AlN nanocones by doping. <i>Journal of Materials Chemistry C</i> , 2015, 3, 1113-1117.	2.7	24
54	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.	2.7	24

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55	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, 9, e2200411.	5.6	23
56	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.	1.4	22
57	Intercalation of alkylamines in layered MoO ₃ and <i>in situ</i> carbonization for a high-performance asymmetric supercapacitor. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2788-2798.	2.5	21
58	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.	4.3	18
59	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.	1.5	17
60	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.	4.2	17
61	Unexpected solvent effects on the UV/Vis absorption spectra of <i>o</i> -cresol in toluene and benzene: in contrast with non-aromatic solvents. <i>Royal Society Open Science</i> , 2018, 5, 171928.	1.1	16
62	From a layered iridium(III)-cobalt(II) organophosphonate to an efficient oxygen-evolution-reaction electrocatalyst. <i>Chemical Communications</i> , 2019, 55, 13920-13923.	2.2	15
63	Ruthenium-Functionalized Hierarchical Carbon Nanocages as Efficient Catalysts for LiO ₂ Batteries. <i>ChemNanoMat</i> , 2017, 3, 415-419.	1.5	14
64	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.	1.7	14
65	Sandwich-Like Holey Graphene/PANI/Graphene Nanohybrid for Ultrahigh-Rate Supercapacitor. <i>ACS Applied Energy Materials</i> , 0, , .	2.5	14
66	Improving field emission by constructing CsI-AlN hybrid nanostructures. <i>Journal of Materials Chemistry</i> , 2012, 22, 18578.	6.7	13
67	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.	1.7	13
68	Surface Hydrophilicity and Antifungal Properties of TiO ₂ Films Coated on a Co-Cr Substrate. <i>BioMed Research International</i> , 2017, 2017, 1-7.	0.9	13
69	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.	2.5	13
70	Iron oxide encapsulated in nitrogen-rich carbon enabling high-performance lithium-ion capacitor. <i>Science China Materials</i> , 2020, 63, 2289-2302.	3.5	13
71	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.	1.3	11
72	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.	1.7	11

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73	Solution-growth of metastable wurtzite In_2S_3 -MnS nanowires with controlled length. <i>Journal of Materials Chemistry C</i> , 2017, 5, 6493-6496.	2.7	11
74	Carbon Nanocages: Nitrogen-Doped Carbon Nanocages as Efficient Metal-Free Electrocatalysts for Oxygen Reduction Reaction (<i>Adv. Mater.</i> 41/2012). <i>Advanced Materials</i> , 2012, 24, 5646-5646.	11.1	10
75	The Influence of Pd Particles Distribution Position on Pd/CNTs Catalyst for Acetylene Selective Hydrogenation. <i>Catalysis Letters</i> , 2014, 144, 2198-2203.	1.4	10
76	Enlarging ion-transfer micropore channels of hierarchical carbon nanocages for ultrahigh energy and power densities. <i>Science China Materials</i> , 2021, 64, 2173-2181.	3.5	10
77	The Composite-Template Method to Construct Hierarchical Carbon Nanocages for Supercapacitors with Ultrahigh Energy and Power Densities. <i>Small</i> , 2022, 18, e2107082.	5.2	10
78	Morphology-controlled growth of chromium silicide nanostructures and their field emission properties. <i>CrystEngComm</i> , 2012, 14, 1659-1664.	1.3	8
79	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.	3.5	8
80	Confinement and Electrocatalysis of Cerium Fluoride Nanocages to Boost the Lithium-Sulfur Batteries Performance. <i>Small Structures</i> , 2022, 3, .	6.9	8
81	Defect-induced deposition of manganese oxides on hierarchical carbon nanocages for high-performance lithium-oxygen batteries. <i>Nano Research</i> , 2022, 15, 4132-4136.	5.8	7
82	Supercapacitor Nanostructures: Carbon Nanocages as Supercapacitor Electrode Materials (<i>Adv. Mater.</i> 2010, 22, 1116-1120).	11.1	6
83	Low-voltage organic field-effect transistors based on novel high-performance organometallic lanthanide complex for gate insulating materials. <i>AIP Advances</i> , 2014, 4, .	0.6	6
84	Nonmacrocylic Iron(II) Soluble Redox Mediators Leading to High-Rate O_2 Battery. <i>CCS Chemistry</i> , 2021, 3, 1350-1358.	4.6	5
85	Synthesis and Electrocatalytic Oxygen Reduction Performance of the Sulfur-Doped Carbon Nanocages. <i>Acta Chimica Sinica</i> , 2014, 72, 1070.	0.5	5
86	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.	2.0	4
87	Electrical Characteristics of Pentacene Thin Film Transistors in Volatile Compound Vapors. <i>Molecular Crystals and Liquid Crystals</i> , 2006, 462, 29-36.	0.4	3
88	Unconventional $\text{O} \cdots \text{H} \cdots \text{C}$ Hydrogen Bonding and Effects of Conformational Changes on Infrared Spectroscopy of <i>o</i> -Cresol in Solutions. <i>Journal of Physical Chemistry A</i> , 2016, 120, 10196-10206.	1.1	3
89	Phase-equilibrium-dominated vapor-liquid-solid mechanism: further evidence. <i>Science China Materials</i> , 2016, 59, 20-27.	3.5	3
90	Morphology and composition evolution of one-dimensional $\text{In}_x\text{Al}_{1-x}\text{N}$ nanostructures induced by the vapour pressure ratio. <i>CrystEngComm</i> , 2016, 18, 213-217.	1.3	3

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91	Remarkable reduction in the threshold voltage of pentacene-based thin film transistors with pentacene/CuPc sandwich configuration. <i>AIP Advances</i> , 2014, 4, 067126.	0.6	2
92	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.	2.8	1
93	Patterned growth and field emission properties of AlN nanocones. , 2010, , .		0