

# Xie-Hong Cao

## List of Publications by Year in descending order

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92  
papers

18,834  
citations

36303

51  
h-index

43889

91  
g-index

96  
all docs

96  
docs citations

96  
times ranked

24116  
citing authors

#	ARTICLE	IF	CITATIONS
1	Unlocking active metal site of Ti-MOF for boosted heterogeneous catalysis via a facile coordinative reconstruction. <i>Nanotechnology</i> , 2022, 33, 025401.	2.6	6
2	Tailoring oxygenated groups of monolithic cobalt-nitrogen-carbon frameworks for highly efficient hydrogen peroxide production in acidic media. <i>Chemical Engineering Journal</i> , 2022, 430, 132990.	12.7	29
3	Bismuth-based materials for rechargeable aqueous batteries and water desalination. <i>Rare Metals</i> , 2022, 41, 287-303.	7.1	24
4	Metal-Organic Framework-Based Materials for Aqueous Zinc-Ion Batteries: Energy Storage Mechanism and Function. <i>Chemical Record</i> , 2022, 22, .	5.8	29
5	Achieving Highly Reversible Zinc Anodes via N, N-Dimethylacetamide Enabled Zn-Ion Solvation Regulation. <i>Small</i> , 2022, 18, .	10.0	52
6	Boosting zinc storage performance via conductive materials. <i>Materials Research Bulletin</i> , 2021, 133, 111077.	5.2	19
7	High mass loading flower-like MnO <sub>2</sub> on NiCo <sub>2</sub> O <sub>4</sub> deposited graphene/nickel foam as high-performance electrodes for asymmetric supercapacitors. <i>RSC Advances</i> , 2021, 11, 16161-16172.	3.6	14
8	MnO <sub>2</sub> -Based Materials for Environmental Applications. <i>Advanced Materials</i> , 2021, 33, e2004862.	21.0	252
9	Bioinspired interfacial engineering of a CoSe <sub>2</sub> decorated carbon framework cathode towards temperature-tolerant and flexible Zn-air batteries. <i>Nanoscale</i> , 2021, 13, 3019-3026.	5.6	45
10	Metal-Organic Framework-Derived Structures for Next-Generation Rechargeable Batteries. , 2021, , 179-200.		1
11	Boosting Electrocatalytic Activity of 3d-Block Metal (Hydro)oxides by Ligand-Induced Conversion. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 10614-10619.	13.8	101
12	Boosting Electrocatalytic Activity of 3d-Block Metal (Hydro)oxides by Ligand-Induced Conversion. <i>Angewandte Chemie</i> , 2021, 133, 10708-10713.	2.0	2
13	High-Yield Exfoliation of Ultrathin 2D Ni <sub>3</sub> Cr <sub>2</sub> P <sub>2</sub> S <sub>9</sub> and Ni <sub>3</sub> Cr <sub>2</sub> P <sub>2</sub> Se <sub>9</sub> Nanosheets. <i>Small</i> , 2021, 17, e2006866.	10.0	8
14	Bismuth Nanoparticle-Embedded Porous Carbon Frameworks as a High-Rate Chloride Storage Electrode for Water Desalination. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 21149-21156.	8.0	38
15	Achieving Enhanced Capacitive Deionization by Interfacial Coupling in PEDOT Reinforced Cobalt Hexacyanoferrate Nanoflake Arrays. <i>Global Challenges</i> , 2021, 5, 2000128.	3.6	7
16	Structural advantages and enhancement strategies of heterostructure water-splitting electrocatalysts. <i>Cell Reports Physical Science</i> , 2021, 2, 100443.	5.6	66
17	Ultra-Fast and Scalable Saline Immersion Strategy Enabling Uniform Zn Nucleation and Deposition for High-Performance Zn-Ion Batteries. <i>Small</i> , 2021, 17, e2101901.	10.0	65
18	Achieving long-cycle-life Zn-ion batteries through interfacial engineering of MnO <sub>2</sub> -polyaniline hybrid networks. <i>Sustainable Materials and Technologies</i> , 2021, 28, e00254.	3.3	28

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19	Fe-doping enabled a stable vanadium oxide cathode with rapid Zn diffusion channel for aqueous zinc-ion batteries. <i>Materials Today Energy</i> , 2021, 21, 100842.	4.7	39
20	MXene for aqueous zinc-based energy storage devices. <i>Functional Materials Letters</i> , 2021, 14, .	1.2	15
21	Preparation of Polyaniline-coated Composite Aerogel of MnO <sub>2</sub> and Reduced Graphene Oxide for High-performance Zinc-ion Battery. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2020, 38, 514-521.	3.8	39
22	MnO <sub>2</sub> Nanosheet-Assembled Hollow Polyhedron Grown on Carbon Cloth for Flexible Aqueous Zinc-ion Batteries. <i>ChemSusChem</i> , 2020, 13, 1537-1545.	6.8	122
23	Three-Dimensional Ordered Porous Carbon for Energy Conversion and Storage Applications. <i>Frontiers in Energy Research</i> , 2020, 8, .	2.3	23
24	Intercalation and exfoliation chemistries of transition metal dichalcogenides. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15417-15444.	10.3	154
25	Exploration of Energy Storage Materials for Water Desalination via Next-Generation Capacitive Deionization. <i>Frontiers in Chemistry</i> , 2020, 8, 415.	3.6	19
26	Ultrathin carbon boosted sodium storage performance in aqueous electrolyte. <i>Functional Materials Letters</i> , 2020, 13, 2030002.	1.2	10
27	Enabling Superior Sodium Capture for Efficient Water Desalination by a Tubular Polyaniline Decorated with Prussian Blue Nanocrystals. <i>Advanced Materials</i> , 2020, 32, e1907404.	21.0	168
28	Non-3d Metal Modulation of a 2D Ni-Co Heterostructure Array as Multifunctional Electrocatalyst for Portable Overall Water Splitting. <i>Small</i> , 2020, 16, e1906775.	10.0	119
29	Stereoassembled V <sub>2</sub> O <sub>5</sub> @FeOOH Hollow Architectures with Lithiation Volumetric Strain Self-Reconstruction for Lithium-ion Storage. <i>Research</i> , 2020, 2020, 2360796.	5.7	16
30	Bimetallic Metal-Organic Framework-Derived Carbon Nanotube-Based Frameworks for Enhanced Capacitive Deionization and Zn-Air Battery. <i>Frontiers in Chemistry</i> , 2019, 7, 449.	3.6	29
31	An ultra-dense NiS <sub>2</sub> /reduced graphene oxide composite cathode for high-volumetric/gravimetric energy density nickel-zinc batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15654-15661.	10.3	108
32	Structural Engineering of Low-Dimensional Metal-Organic Frameworks: Synthesis, Properties, and Applications. <i>Advanced Science</i> , 2019, 6, 1802373.	11.2	214
33	Efficient Production of High-Quality Polystyrene-Functionalized Graphene via Graphite Exfoliation in Chloroform with a Heterobifunctional Hyperbranched Polyethylene as Stabilizer. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1800577.	2.2	3
34	Efficient lithium extraction by membrane capacitive deionization incorporated with monovalent selective cation exchange membrane. <i>Separation and Purification Technology</i> , 2019, 210, 885-890.	7.9	112
35	A general and facile method for preparation of large-scale reduced graphene oxide films with controlled structures. <i>Carbon</i> , 2019, 143, 162-171.	10.3	30
36	Gram-Scale Preparation of 2D Transition Metal Hydroxide/Oxide Assembled Structures for Oxygen Evolution and Zn-Air Battery. <i>ACS Applied Energy Materials</i> , 2019, 2, 579-586.	5.1	32

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37	Preparation of two-dimensional assembled Ni-Mn-C ternary composites for high-performance all-solid-state flexible supercapacitors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24086-24091.	10.3	89
38	Metal-organic framework-derived structures for next-generation rechargeable batteries. <i>Functional Materials Letters</i> , 2018, 11, 1830006.	1.2	20
39	High-Performance Membrane Capacitive Deionization Based on Metal-Organic Framework-Derived Hierarchical Carbon Structures. <i>ACS Omega</i> , 2018, 3, 8506-8513.	3.5	42
40	Boosting Lithium Storage Properties of MOF Derivatives through a Wet-Spinning Assembled Fiber Strategy. <i>Chemistry - A European Journal</i> , 2018, 24, 13792-13799.	3.3	68
41	Fabrication of high-performance MXene-based all-solid-state flexible microsupercapacitor based on a facile scratch method. <i>Nanotechnology</i> , 2018, 29, 445401.	2.6	44
42	Hybrid micro-/nano-structures derived from metal-organic frameworks: preparation and applications in energy storage and conversion. <i>Chemical Society Reviews</i> , 2017, 46, 2660-2677.	38.1	866
43	Facile Fabrication of Three-Dimensional Graphene and Metal-Organic Framework Composites and Their Derivatives for Flexible All-Solid-State Supercapacitors. <i>Chemistry of Materials</i> , 2017, 29, 6058-6065.	6.7	220
44	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. <i>Chemical Reviews</i> , 2017, 117, 6225-6331.	47.7	3,940
45	Graphene Oxide Scroll Meshes Prepared by Molecular Combing for Transparent and Flexible Electrodes. <i>Advanced Materials Technologies</i> , 2017, 2, 1600231.	5.8	12
46	Bioinspired Design of Ultrathin 2D Bimetallic Metal-Organic Framework Nanosheets Used as Biomimetic Enzymes. <i>Advanced Materials</i> , 2016, 28, 4149-4155.	21.0	440
47	Synthesis of Two-Dimensional CoS <sub>1.097</sub> /Nitrogen-Doped Carbon Nanocomposites Using Metal-Organic Framework Nanosheets as Precursors for Supercapacitor Application. <i>Journal of the American Chemical Society</i> , 2016, 138, 6924-6927.	13.7	591
48	Preparation of Cobalt Sulfide Nanoparticle-Decorated Nitrogen and Sulfur Co-Doped Reduced Graphene Oxide Aerogel Used as a Highly Efficient Electrocatalyst for Oxygen Reduction Reaction. <i>Small</i> , 2016, 12, 5920-5926.	10.0	65
49	Self-Assembly of Single-Layer CoAl-Layered Double Hydroxide Nanosheets on 3D Graphene Network Used as Highly Efficient Electrocatalyst for Oxygen Evolution Reaction. <i>Advanced Materials</i> , 2016, 28, 7640-7645.	21.0	355
50	Ultrahigh Performance of Novel Capacitive Deionization Electrodes based on A Three-Dimensional Graphene Architecture with Nanopores. <i>Scientific Reports</i> , 2016, 6, 18966.	3.3	105
51	Solution-Processed Two-Dimensional Metal Dichalcogenide-Based Nanomaterials for Energy Storage and Conversion. <i>Advanced Materials</i> , 2016, 28, 6167-6196.	21.0	438
52	Reduced Graphene Oxide-Wrapped MoO <sub>3</sub> Composites Prepared by Using Metal-Organic Frameworks as Precursor for All-Solid-State Flexible Supercapacitors. <i>Advanced Materials</i> , 2015, 27, 4695-4701.	21.0	388
53	Two-dimensional NiCo <sub>2</sub> O <sub>4</sub> nanosheet-coated three-dimensional graphene networks for high-rate, long-cycle-life supercapacitors. <i>Nanoscale</i> , 2015, 7, 7035-7039.	5.6	134
54	Electrochemical doping of three-dimensional graphene networks used as efficient electrocatalysts for oxygen reduction reaction. <i>Nanoscale</i> , 2015, 7, 9394-9398.	5.6	50

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55	TaS <sub>2</sub> nanosheet-based room-temperature dosage meter for nitric oxide. <i>APL Materials</i> , 2014, 2, .	5.1	16
56	Graphene-Based Materials for Solar Cell Applications. <i>Advanced Energy Materials</i> , 2014, 4, 1300574.	19.5	398
57	Atomic-Layer-Deposition-Assisted Formation of Carbon Nanoflakes on Metal Oxides and Energy Storage Application. <i>Small</i> , 2014, 10, 300-307.	10.0	60
58	Three-dimensional graphene materials: preparation, structures and application in supercapacitors. <i>Energy and Environmental Science</i> , 2014, 7, 1850-1865.	30.8	773
59	Au Nanoparticle-Modified MoS <sub>2</sub> Nanosheet-Based Photoelectrochemical Cells for Water Splitting. <i>Small</i> , 2014, 10, 3537-3543.	10.0	265
60	Carbon Microbelt Aerogel Prepared by Waste Paper: An Efficient and Recyclable Sorbent for Oils and Organic Solvents. <i>Small</i> , 2014, 10, 3544-3550.	10.0	196
61	Redox-crosslinked graphene networks with enhanced electrochemical capacitance. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12924.	10.3	44
62	Metal Oxide-Coated Three-Dimensional Graphene Prepared by the Use of Metal-Organic Frameworks as Precursors. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 1404-1409.	13.8	287
63	Water Splitting: Au Nanoparticle-Modified MoS <sub>2</sub> Nanosheet-Based Photoelectrochemical Cells for Water Splitting (Small 17/2014). <i>Small</i> , 2014, 10, 3536-3536.	10.0	2
64	A New Type of Porous Graphite Foams and Their Integrated Composites with Oxide/Polymer Core/Shell Nanowires for Supercapacitors: Structural Design, Fabrication, and Full Supercapacitor Demonstrations. <i>Nano Letters</i> , 2014, 14, 1651-1658.	9.1	428
65	Layer Thinning and Etching of Mechanically Exfoliated MoS <sub>2</sub> Nanosheets by Thermal Annealing in Air. <i>Small</i> , 2013, 9, 3314-3319.	10.0	229
66	Ni <sub>3</sub> S <sub>2</sub> nanorods/Ni foam composite electrode with low overpotential for electrocatalytic oxygen evolution. <i>Energy and Environmental Science</i> , 2013, 6, 2921.	30.8	939
67	Carbon Fiber Aerogel Made from Raw Cotton: A Novel, Efficient and Recyclable Sorbent for Oils and Organic Solvents. <i>Advanced Materials</i> , 2013, 25, 5916-5921.	21.0	600
68	Fabrication of Flexible, All-Reduced Graphene Oxide Non-Volatile Memory Devices. <i>Advanced Materials</i> , 2013, 25, 233-238.	21.0	207
69	Preparation of MoS <sub>2</sub> -Coated Three-Dimensional Graphene Networks for High-Performance Anode Material in Lithium-Ion Batteries. <i>Small</i> , 2013, 9, 3433-3438.	10.0	542
70	One-step synthesis of Ni <sub>3</sub> S <sub>2</sub> nanorod@Ni(OH) <sub>2</sub> nanosheet core-shell nanostructures on a three-dimensional graphene network for high-performance supercapacitors. <i>Energy and Environmental Science</i> , 2013, 6, 2216-2221.	30.8	554
71	Three-Dimensional Graphene Network Composites for Detection of Hydrogen Peroxide. <i>Small</i> , 2013, 9, 1703-1707.	10.0	107
72	Surfactant-Free Sub-2 nm Ultrathin Triangular Gold Nanoframes. <i>Small</i> , 2013, 9, 2880-2886.	10.0	66

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73	Hollow coreâ€“shell nanostructure supercapacitor electrodes: gap matters. Energy and Environmental Science, 2012, 5, 9085.	30.8	184
74	Preparation of MoS <sub>2</sub> â€“Polyvinylpyrrolidone Nanocomposites for Flexible Nonvolatile Rewritable Memory Devices with Reduced Graphene Oxide Electrodes. Small, 2012, 8, 3517-3522.	10.0	393
75	Vaporâ€“Liquidâ€“Solid Growth of Endotaxial Semiconductor Nanowires. Nano Letters, 2012, 12, 5565-5570.	9.1	14
76	Controlled Synthesis of Carbon-Coated Cobalt Sulfide Nanostructures in Oil Phase with Enhanced Li Storage Performances. ACS Applied Materials & Interfaces, 2012, 4, 2999-3006.	8.0	137
77	Nanoporous Walls on Macroporous Foam: Rational Design of Electrodes to Push Areal Pseudocapacitance. Advanced Materials, 2012, 24, 4186-4190.	21.0	239
78	Single-layer graphene oxide sheet: a novel substrate for dip-pen nanolithography. Chemical Communications, 2011, 47, 10070.	4.1	16
79	Transparent, Flexible, All-Reduced Graphene Oxide Thin Film Transistors. ACS Nano, 2011, 5, 5038-5044.	14.6	305
80	Graphene Oxide as a Carbon Source for Controlled Growth of Carbon Nanowires. Small, 2011, 7, 1199-1202.	10.0	75
81	Preparation of Novel 3D Graphene Networks for Supercapacitor Applications. Small, 2011, 7, 3163-3168.	10.0	980
82	One-step growth of grapheneâ€“carbon nanotube hybrid materials by chemical vapor deposition. Carbon, 2011, 49, 2944-2949.	10.3	182
83	Origin of hysteresis in the transfer characteristic of carbon nanotube field effect transistor. Journal Physics D: Applied Physics, 2011, 44, 285301.	2.8	29
84	Allâ€“Carbon Electronic Devices Fabricated by Directly Grown Singleâ€“Walled Carbon Nanotubes on Reduced Graphene Oxide Electrodes. Advanced Materials, 2010, 22, 3058-3061.	21.0	201
85	Controlled growth of nano- and bio-arrays on patterned substrates. , 2010, , .		0
86	Bulk Heterojunction Polymer Memory Devices with Reduced Graphene Oxide as Electrodes. ACS Nano, 2010, 4, 3987-3992.	14.6	215
87	Controlled growth of nano-and bio-arrays on patterned substrates. , 2010, , .		0
88	Facile â€“Needleâ€“Scratchingâ€“Method for Fast Catalyst Patterns Used for Largeâ€“Scale Growth of Densely Aligned Singleâ€“Walled Carbonâ€“Nanotube Arrays. Small, 2009, 5, 2061-2065.	10.0	25
89	Facile â€“Scratchingâ€“Method with Common Metal Objects To Generate Large-Scale Catalyst Patterns Used for Growth of Single-Walled Carbon Nanotubes. ACS Applied Materials & Interfaces, 2009, 1, 1873-1877.	8.0	8
90	Controlled Assembly of Gold Nanoparticles and Graphene Oxide Sheets on Dip Pen Nanolithography-Generated Templates. Langmuir, 2009, 25, 10455-10458.	3.5	54

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91	A composite of polyelectrolyte-grafted multi-walled carbon nanotubes and <i>in situ</i> polymerized polyaniline for the detection of low concentration triethylamine vapor. <i>Nanotechnology</i> , 2008, 19, 015503.	2.6	46
92	Compressible Zn-Air Batteries Based on Metal-Organic Frameworks Nanoflake-Assembled Carbon Frameworks for Portable Motion and Temperature Monitors. <i>Advanced Energy and Sustainability Research</i> , 0, , 2200014.	5.8	10