

Xie-Hong Cao

List of Publications by Year in descending order

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92
papers

18,834
citations

36203

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96
docs citations

96
times ranked

24116
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. <i>Chemical Reviews</i> , 2017, 117, 6225-6331.	23.0	3,940
2	Preparation of Novel 3D Graphene Networks for Supercapacitor Applications. <i>Small</i> , 2011, 7, 3163-3168.	5.2	980
3	Ni ₃ S ₂ nanorods/Ni foam composite electrode with low overpotential for electrocatalytic oxygen evolution. <i>Energy and Environmental Science</i> , 2013, 6, 2921.	15.6	939
4	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.	18.7	866
5	Three-dimensional graphene materials: preparation, structures and application in supercapacitors. <i>Energy and Environmental Science</i> , 2014, 7, 1850-1865.	15.6	773
6	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.	11.1	600
7	Synthesis of Two-Dimensional CoS _{1.097} /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.	6.6	591
8	One-step synthesis of Ni ₃ S ₂ nanorod@Ni(OH) ₂ nanosheet core-shell nanostructures on a three-dimensional graphene network for high-performance supercapacitors. <i>Energy and Environmental Science</i> , 2013, 6, 2216-2221.	15.6	554
9	Preparation of MoS ₂ -Coated Three-Dimensional Graphene Networks for High-Performance Anode Material in Lithium-Ion Batteries. <i>Small</i> , 2013, 9, 3433-3438.	5.2	542
10	Bioinspired Design of Ultrathin 2D Bimetallic Metal-Organic Framework Nanosheets Used as Biomimetic Enzymes. <i>Advanced Materials</i> , 2016, 28, 4149-4155.	11.1	440
11	Solution-Processed Two-Dimensional Metal Dichalcogenide-Based Nanomaterials for Energy Storage and Conversion. <i>Advanced Materials</i> , 2016, 28, 6167-6196.	11.1	438
12	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.	4.5	428
13	Graphene-Based Materials for Solar Cell Applications. <i>Advanced Energy Materials</i> , 2014, 4, 1300574.	10.2	398
14	Preparation of MoS ₂ -Polyvinylpyrrolidone Nanocomposites for Flexible Nonvolatile Rewritable Memory Devices with Reduced Graphene Oxide Electrodes. <i>Small</i> , 2012, 8, 3517-3522.	5.2	393
15	Reduced Graphene Oxide-Wrapped MoO ₃ Composites Prepared by Using Metal-Organic Frameworks as Precursor for All-Solid-State Flexible Supercapacitors. <i>Advanced Materials</i> , 2015, 27, 4695-4701.	11.1	388
16	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.	11.1	355
17	Transparent, Flexible, All-Reduced Graphene Oxide Thin Film Transistors. <i>ACS Nano</i> , 2011, 5, 5038-5044.	7.3	305
18	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.	7.2	287

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19	Au Nanoparticle-Modified MoS ₂ Nanosheet-Based Photoelectrochemical Cells for Water Splitting. <i>Small</i> , 2014, 10, 3537-3543.	5.2	265
20	MnO ₂ -Based Materials for Environmental Applications. <i>Advanced Materials</i> , 2021, 33, e2004862.	11.1	252
21	Nanoporous Walls on Macroporous Foam: Rational Design of Electrodes to Push Areal Pseudocapacitance. <i>Advanced Materials</i> , 2012, 24, 4186-4190.	11.1	239
22	Layer Thinning and Etching of Mechanically Exfoliated MoS ₂ Nanosheets by Thermal Annealing in Air. <i>Small</i> , 2013, 9, 3314-3319.	5.2	229
23	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.	3.2	220
24	Bulk Heterojunction Polymer Memory Devices with Reduced Graphene Oxide as Electrodes. <i>ACS Nano</i> , 2010, 4, 3987-3992.	7.3	215
25	Structural Engineering of Low-Dimensional Metal-Organic Frameworks: Synthesis, Properties, and Applications. <i>Advanced Science</i> , 2019, 6, 1802373.	5.6	214
26	Fabrication of Flexible, All-Reduced Graphene Oxide Non-Volatile Memory Devices. <i>Advanced Materials</i> , 2013, 25, 233-238.	11.1	207
27	All-Carbon Electronic Devices Fabricated by Directly Grown Single-Walled Carbon Nanotubes on Reduced Graphene Oxide Electrodes. <i>Advanced Materials</i> , 2010, 22, 3058-3061.	11.1	201
28	Carbon Microbelt Aerogel Prepared by Waste Paper: An Efficient and Recyclable Sorbent for Oils and Organic Solvents. <i>Small</i> , 2014, 10, 3544-3550.	5.2	196
29	Hollow core-shell nanostructure supercapacitor electrodes: gap matters. <i>Energy and Environmental Science</i> , 2012, 5, 9085.	15.6	184
30	One-step growth of graphene-carbon nanotube hybrid materials by chemical vapor deposition. <i>Carbon</i> , 2011, 49, 2944-2949.	5.4	182
31	Enabling Superior Sodium Capture for Efficient Water Desalination by a Tubular Polyaniline Decorated with Prussian Blue Nanocrystals. <i>Advanced Materials</i> , 2020, 32, e1907404.	11.1	168
32	Intercalation and exfoliation chemistries of transition metal dichalcogenides. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15417-15444.	5.2	154
33	Controlled Synthesis of Carbon-Coated Cobalt Sulfide Nanostructures in Oil Phase with Enhanced Li Storage Performances. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 2999-3006.	4.0	137
34	Two-dimensional NiCo ₂ O ₄ nanosheet-coated three-dimensional graphene networks for high-rate, long-cycle-life supercapacitors. <i>Nanoscale</i> , 2015, 7, 7035-7039.	2.8	134
35	MnO ₂ Nanosheet-Assembled Hollow Polyhedron Grown on Carbon Cloth for Flexible Aqueous Zinc-Ion Batteries. <i>ChemSusChem</i> , 2020, 13, 1537-1545.	3.6	122
36	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.	5.2	119

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37	Efficient lithium extraction by membrane capacitive deionization incorporated with monovalent selective cation exchange membrane. Separation and Purification Technology, 2019, 210, 885-890.	3.9	112
38	An ultra-dense NiS ₂ /reduced graphene oxide composite cathode for high-volumetric/gravimetric energy density nickel-zinc batteries. Journal of Materials Chemistry A, 2019, 7, 15654-15661.	5.2	108
39	Three-Dimensional Graphene Network Composites for Detection of Hydrogen Peroxide. Small, 2013, 9, 1703-1707.	5.2	107
40	Ultrahigh Performance of Novel Capacitive Deionization Electrodes based on A Three-Dimensional Graphene Architecture with Nanopores. Scientific Reports, 2016, 6, 18966.	1.6	105
41	Boosting Electrocatalytic Activity of 3D-Block Metal (Hydro)oxides by Ligand-Induced Conversion. Angewandte Chemie - International Edition, 2021, 60, 10614-10619.	7.2	101
42	Preparation of two-dimensional assembled Ni-Mn-C ternary composites for high-performance all-solid-state flexible supercapacitors. Journal of Materials Chemistry A, 2018, 6, 24086-24091.	5.2	89
43	Graphene Oxide as a Carbon Source for Controlled Growth of Carbon Nanowires. Small, 2011, 7, 1199-1202.	5.2	75
44	Boosting Lithium Storage Properties of MOF Derivatives through a Wet-Spinning Assembled Fiber Strategy. Chemistry - A European Journal, 2018, 24, 13792-13799.	1.7	68
45	Surfactant-Free Sub-2 nm Ultrathin Triangular Gold Nanoframes. Small, 2013, 9, 2880-2886.	5.2	66
46	Structural advantages and enhancement strategies of heterostructure water-splitting electrocatalysts. Cell Reports Physical Science, 2021, 2, 100443.	2.8	66
47	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. Small, 2016, 12, 5920-5926.	5.2	65
48	Ultra-Fast and Scalable Saline Immersion Strategy Enabling Uniform Zn Nucleation and Deposition for High-Performance Zn-Ion Batteries. Small, 2021, 17, e2101901.	5.2	65
49	Atomic-Layer-Deposition-Assisted Formation of Carbon Nanoflakes on Metal Oxides and Energy Storage Application. Small, 2014, 10, 300-307.	5.2	60
50	Controlled Assembly of Gold Nanoparticles and Graphene Oxide Sheets on Dip Pen Nanolithography-Generated Templates. Langmuir, 2009, 25, 10455-10458.	1.6	54
51	Achieving Highly Reversible Zinc Anodes via N-Dimethylacetamide Enabled Zn-Ion Solvation Regulation. Small, 2022, 18, .	5.2	52
52	Electrochemical doping of three-dimensional graphene networks used as efficient electrocatalysts for oxygen reduction reaction. Nanoscale, 2015, 7, 9394-9398.	2.8	50
53	A composite of polyelectrolyte-grafted multi-walled carbon nanotubes and <i>in situ</i> polymerized polyaniline for the detection of low concentration triethylamine vapor. Nanotechnology, 2008, 19, 015503.	1.3	46
54	Biinspired interfacial engineering of a CoSe ₂ decorated carbon framework cathode towards temperature-tolerant and flexible Zn-air batteries. Nanoscale, 2021, 13, 3019-3026.	2.8	45

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55	Redox-crosslinked graphene networks with enhanced electrochemical capacitance. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12924.	5.2	44
56	Fabrication of high-performance MXene-based all-solid-state flexible microsupercapacitor based on a facile scratch method. <i>Nanotechnology</i> , 2018, 29, 445401.	1.3	44
57	High-Performance Membrane Capacitive Deionization Based on Metal-Organic Framework-Derived Hierarchical Carbon Structures. <i>ACS Omega</i> , 2018, 3, 8506-8513.	1.6	42
58	Preparation of Polyaniline-coated Composite Aerogel of MnO ₂ and Reduced Graphene Oxide for High-performance Zinc-ion Battery. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2020, 38, 514-521.	2.0	39
59	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.	2.5	39
60	Bismuth Nanoparticle-Embedded Porous Carbon Frameworks as a High-Rate Chloride Storage Electrode for Water Desalination. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 21149-21156.	4.0	38
61	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.	2.5	32
62	A general and facile method for preparation of large-scale reduced graphene oxide films with controlled structures. <i>Carbon</i> , 2019, 143, 162-171.	5.4	30
63	Origin of hysteresis in the transfer characteristic of carbon nanotube field effect transistor. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 285301.	1.3	29
64	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.	1.8	29
65	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.	6.6	29
66	Metal-Organic Framework-Based Materials for Aqueous Zinc-Ion Batteries: Energy Storage Mechanism and Function. <i>Chemical Record</i> , 2022, 22, .	2.9	29
67	Achieving long-cycle-life Zn-ion batteries through interfacial engineering of MnO ₂ -polyaniline hybrid networks. <i>Sustainable Materials and Technologies</i> , 2021, 28, e00254.	1.7	28
68	Facile "Needle-Scratching" Method for Fast Catalyst Patterns Used for Large-Scale Growth of Densely Aligned Single-Walled Carbon Nanotube Arrays. <i>Small</i> , 2009, 5, 2061-2065.	5.2	25
69	Bismuth-based materials for rechargeable aqueous batteries and water desalination. <i>Rare Metals</i> , 2022, 41, 287-303.	3.6	24
70	Three-Dimensional Ordered Porous Carbon for Energy Conversion and Storage Applications. <i>Frontiers in Energy Research</i> , 2020, 8, .	1.2	23
71	Metal-organic framework-derived structures for next-generation rechargeable batteries. <i>Functional Materials Letters</i> , 2018, 11, 1830006.	0.7	20
72	Exploration of Energy Storage Materials for Water Desalination via Next-Generation Capacitive Deionization. <i>Frontiers in Chemistry</i> , 2020, 8, 415.	1.8	19

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73	Boosting zinc storage performance via conductive materials. <i>Materials Research Bulletin</i> , 2021, 133, 111077.	2.7	19
74	Single-layer graphene oxide sheet: a novel substrate for dip-pen nanolithography. <i>Chemical Communications</i> , 2011, 47, 10070.	2.2	16
75	TaS ₂ nanosheet-based room-temperature dosage meter for nitric oxide. <i>APL Materials</i> , 2014, 2, .	2.2	16
76	Stereoassembled V ₂ O ₅ @FeOOH Hollow Architectures with Lithiation Volumetric Strain Self-Reconstruction for Lithium-Ion Storage. <i>Research</i> , 2020, 2020, 2360796.	2.8	16
77	MXene for aqueous zinc-based energy storage devices. <i>Functional Materials Letters</i> , 2021, 14, .	0.7	15
78	Vaporâ€“Liquidâ€“Solid Growth of Endotaxial Semiconductor Nanowires. <i>Nano Letters</i> , 2012, 12, 5565-5570.	4.5	14
79	High mass loading flower-like MnO ₂ on NiCo ₂ O ₄ deposited graphene/nickel foam as high-performance electrodes for asymmetric supercapacitors. <i>RSC Advances</i> , 2021, 11, 16161-16172.	1.7	14
80	Graphene Oxide Scroll Meshes Prepared by Molecular Combing for Transparent and Flexible Electrodes. <i>Advanced Materials Technologies</i> , 2017, 2, 1600231.	3.0	12
81	Ultrathin carbon boosted sodium storage performance in aqueous electrolyte. <i>Functional Materials Letters</i> , 2020, 13, 2030002.	0.7	10
82	Compressible Znâ€“Air Batteries Based on Metalâ€“Organic Frameworks Nanoflakeâ€“Assembled Carbon Frameworks for Portable Motion and Temperature Monitors. <i>Advanced Energy and Sustainability Research</i> , 0, , 2200014.	2.8	10
83	Facile â€œScratchingâ€“Method with Common Metal Objects To Generate Large-Scale Catalyst Patterns Used for Growth of Single-Walled Carbon Nanotubes. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 1873-1877.	4.0	8
84	Highâ€“Yield Exfoliation of Ultrathin 2D Ni ₃ Cr ₂ P ₂ S ₉ and Ni ₃ Cr ₂ P ₂ Se ₉ Nanosheets. <i>Small</i> , 2021, 17, e2006866.	5.2	8
85	Achieving Enhanced Capacitive Deionization by Interfacial Coupling in PEDOT Reinforced Cobalt Hexacyanoferrate Nanoflake Arrays. <i>Global Challenges</i> , 2021, 5, 2000128.	1.8	7
86	Unlocking active metal site of Ti-MOF for boosted heterogeneous catalysis via a facile coordinative reconstruction. <i>Nanotechnology</i> , 2022, 33, 025401.	1.3	6
87	Efficient Production of Highâ€“Quality Polystyreneâ€“Functionalized Graphene via Graphite Exfoliation in Chloroform with a Heterobifunctional Hyperbranched Polyethylene as Stabilizer. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1800577.	1.1	3
88	Water Splitting: Au Nanoparticle-Modified MoS ₂ Nanosheet-Based Photoelectrochemical Cells for Water Splitting (Small 17/2014). <i>Small</i> , 2014, 10, 3536-3536.	5.2	2
89	Boosting Electrocatalytic Activity of 3dâ€“Block Metal (Hydro)oxides by Ligandâ€“Induced Conversion. <i>Angewandte Chemie</i> , 2021, 133, 10708-10713.	1.6	2
90	Metal-Organic Frameworkâ€“Derived Structures for Next-Generation Rechargeable Batteries. , 2021, , 179-200.		1

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91	Controlled growth of nano- and bio-arrays on patterned substrates. , 2010, , .		0
92	Controlled growth of nano-and bio-arrays on patterned substrates. , 2010, , .		0