

Xie-Hong Cao

List of Publications by Year in descending order

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92
papers

18,834
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36303

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docs citations

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times ranked

24116
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Advances in Ultrathin Two-Dimensional Nanomaterials. <i>Chemical Reviews</i> , 2017, 117, 6225-6331.	47.7	3,940
2	Preparation of Novel 3D Graphene Networks for Supercapacitor Applications. <i>Small</i> , 2011, 7, 3163-3168.	10.0	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.	30.8	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.	38.1	866
5	Three-dimensional graphene materials: preparation, structures and application in supercapacitors. <i>Energy and Environmental Science</i> , 2014, 7, 1850-1865.	30.8	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.	21.0	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.	13.7	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.	30.8	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.	10.0	542
10	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
11	Solution-Processed Two-Dimensional Metal Dichalcogenide-Based Nanomaterials for Energy Storage and Conversion. <i>Advanced Materials</i> , 2016, 28, 6167-6196.	21.0	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.	9.1	428
13	Graphene-Based Materials for Solar Cell Applications. <i>Advanced Energy Materials</i> , 2014, 4, 1300574.	19.5	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.	10.0	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.	21.0	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.	21.0	355
17	Transparent, Flexible, All-Reduced Graphene Oxide Thin Film Transistors. <i>ACS Nano</i> , 2011, 5, 5038-5044.	14.6	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.	13.8	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.	10.0	265
20	MnO ₂ -Based Materials for Environmental Applications. <i>Advanced Materials</i> , 2021, 33, e2004862.	21.0	252
21	Nanoporous Walls on Macroporous Foam: Rational Design of Electrodes to Push Areal Pseudocapacitance. <i>Advanced Materials</i> , 2012, 24, 4186-4190.	21.0	239
22	Layer Thinning and Etching of Mechanically Exfoliated MoS ₂ Nanosheets by Thermal Annealing in Air. <i>Small</i> , 2013, 9, 3314-3319.	10.0	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.	6.7	220
24	Bulk Heterojunction Polymer Memory Devices with Reduced Graphene Oxide as Electrodes. <i>ACS Nano</i> , 2010, 4, 3987-3992.	14.6	215
25	Structural Engineering of Low-Dimensional Metal-Organic Frameworks: Synthesis, Properties, and Applications. <i>Advanced Science</i> , 2019, 6, 1802373.	11.2	214
26	Fabrication of Flexible, All-Reduced Graphene Oxide Non-Volatile Memory Devices. <i>Advanced Materials</i> , 2013, 25, 233-238.	21.0	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.	21.0	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.	10.0	196
29	Hollow core-shell nanostructure supercapacitor electrodes: gap matters. <i>Energy and Environmental Science</i> , 2012, 5, 9085.	30.8	184
30	One-step growth of graphene-carbon nanotube hybrid materials by chemical vapor deposition. <i>Carbon</i> , 2011, 49, 2944-2949.	10.3	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.	21.0	168
32	Intercalation and exfoliation chemistries of transition metal dichalcogenides. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15417-15444.	10.3	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.	8.0	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.	5.6	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.	6.8	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.	10.0	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.	7.9	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.	10.3	108
39	Three-Dimensional Graphene Network Composites for Detection of Hydrogen Peroxide. Small, 2013, 9, 1703-1707.	10.0	107
40	Ultrahigh Performance of Novel Capacitive Deionization Electrodes based on A Three-Dimensional Graphene Architecture with Nanopores. Scientific Reports, 2016, 6, 18966.	3.3	105
41	Boosting Electrocatalytic Activity of 3d-Block Metal (Hydro)oxides by Ligand-Induced Conversion. Angewandte Chemie - International Edition, 2021, 60, 10614-10619.	13.8	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.	10.3	89
43	Graphene Oxide as a Carbon Source for Controlled Growth of Carbon Nanowires. Small, 2011, 7, 1199-1202.	10.0	75
44	Boosting Lithium Storage Properties of MOF Derivatives through a Wet-Spinning Assembled Fiber Strategy. Chemistry - A European Journal, 2018, 24, 13792-13799.	3.3	68
45	Surfactant-Free Sub-2 nm Ultrathin Triangular Gold Nanoframes. Small, 2013, 9, 2880-2886.	10.0	66
46	Structural advantages and enhancement strategies of heterostructure water-splitting electrocatalysts. Cell Reports Physical Science, 2021, 2, 100443.	5.6	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.	10.0	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.	10.0	65
49	Atomic-Layer-Deposition-Assisted Formation of Carbon Nanoflakes on Metal Oxides and Energy Storage Application. Small, 2014, 10, 300-307.	10.0	60
50	Controlled Assembly of Gold Nanoparticles and Graphene Oxide Sheets on Dip Pen Nanolithography-Generated Templates. Langmuir, 2009, 25, 10455-10458.	3.5	54
51	Achieving Highly Reversible Zinc Anodes via N-Dimethylacetamide Enabled Zn-Ion Solvation Regulation. Small, 2022, 18, .	10.0	52
52	Electrochemical doping of three-dimensional graphene networks used as efficient electrocatalysts for oxygen reduction reaction. Nanoscale, 2015, 7, 9394-9398.	5.6	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.	2.6	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.	5.6	45

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55	Redox-crosslinked graphene networks with enhanced electrochemical capacitance. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12924.	10.3	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.	2.6	44
57	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
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.	3.8	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.	4.7	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.	8.0	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.	5.1	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.	10.3	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.	2.8	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.	3.6	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.	12.7	29
66	Metal-Organic Framework-Based Materials for Aqueous Zinc-Ion Batteries: Energy Storage Mechanism and Function. <i>Chemical Record</i> , 2022, 22, .	5.8	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.	3.3	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.	10.0	25
69	Bismuth-based materials for rechargeable aqueous batteries and water desalination. <i>Rare Metals</i> , 2022, 41, 287-303.	7.1	24
70	Three-Dimensional Ordered Porous Carbon for Energy Conversion and Storage Applications. <i>Frontiers in Energy Research</i> , 2020, 8, .	2.3	23
71	Metal-organic framework-derived structures for next-generation rechargeable batteries. <i>Functional Materials Letters</i> , 2018, 11, 1830006.	1.2	20
72	Exploration of Energy Storage Materials for Water Desalination via Next-Generation Capacitive Deionization. <i>Frontiers in Chemistry</i> , 2020, 8, 415.	3.6	19

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73	Boosting zinc storage performance via conductive materials. Materials Research Bulletin, 2021, 133, 111077.	5.2	19
74	Single-layer graphene oxide sheet: a novel substrate for dip-pen nanolithography. Chemical Communications, 2011, 47, 10070.	4.1	16
75	TaS ₂ nanosheet-based room-temperature dosage meter for nitric oxide. APL Materials, 2014, 2, .	5.1	16
76	Stereoassembled V ₂ O ₅ @FeOOH Hollow Architectures with Lithiation Volumetric Strain Self-Reconstruction for Lithium-Ion Storage. Research, 2020, 2020, 2360796.	5.7	16
77	MXene for aqueous zinc-based energy storage devices. Functional Materials Letters, 2021, 14, .	1.2	15
78	Vaporâ€“Liquidâ€“Solid Growth of Endotaxial Semiconductor Nanowires. Nano Letters, 2012, 12, 5565-5570.	9.1	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. RSC Advances, 2021, 11, 16161-16172.	3.6	14
80	Graphene Oxide Scroll Meshes Prepared by Molecular Combing for Transparent and Flexible Electrodes. Advanced Materials Technologies, 2017, 2, 1600231.	5.8	12
81	Ultrathin carbon boosted sodium storage performance in aqueous electrolyte. Functional Materials Letters, 2020, 13, 2030002.	1.2	10
82	Compressible Znâ€“Air Batteries Based on Metalâ€“Organic Frameworks Nanoflakeâ€“Assembled Carbon Frameworks for Portable Motion and Temperature Monitors. Advanced Energy and Sustainability Research, 0, , 2200014.	5.8	10
83	Facile â€œScratchingâ€“Method with Common Metal Objects To Generate Large-Scale Catalyst Patterns Used for Growth of Single-Walled Carbon Nanotubes. ACS Applied Materials & Interfaces, 2009, 1, 1873-1877.	8.0	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. Small, 2021, 17, e2006866.	10.0	8
85	Achieving Enhanced Capacitive Deionization by Interfacial Coupling in PEDOT Reinforced Cobalt Hexacyanoferrate Nanoflake Arrays. Global Challenges, 2021, 5, 2000128.	3.6	7
86	Unlocking active metal site of Ti-MOF for boosted heterogeneous catalysis via a facile coordinative reconstruction. Nanotechnology, 2022, 33, 025401.	2.6	6
87	Efficient Production of Highâ€“Quality Polystyreneâ€“Functionalized Graphene via Graphite Exfoliation in Chloroform with a Heterobifunctional Hyperbranched Polyethylene as Stabilizer. Macromolecular Chemistry and Physics, 2019, 220, 1800577.	2.2	3
88	Water Splitting: Au Nanoparticle-Modified MoS ₂ Nanosheet-Based Photoelectrochemical Cells for Water Splitting (Small 17/2014). Small, 2014, 10, 3536-3536.	10.0	2
89	Boosting Electrocatalytic Activity of 3dâ€“Block Metal (Hydro)oxides by Ligandâ€“Induced Conversion. Angewandte Chemie, 2021, 133, 10708-10713.	2.0	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