An-Min Cao

List of Publications by Year
in descending order

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113 papers	10,036 citations	57631 44 h-index	33814 99 g-index
116 all docs	116 docs citations	116 times ranked	13029 citing authors

#	Article	IF	Citations
1	Self-Assembled 3D Flowerlike Iron Oxide Nanostructures and Their Application in Water Treatment. Advanced Materials, 2006, 18, 2426-2431.	11.1	1,526
2	Self-Assembled Vanadium Pentoxide (V2O5) Hollow Microspheres from Nanorods and Their Application in Lithium-Ion Batteries. Angewandte Chemie - International Edition, 2005, 44, 4391-4395.	7.2	840
3	Mass Production and High Photocatalytic Activity of ZnS Nanoporous Nanoparticles. Angewandte Chemie - International Edition, 2005, 44, 1269-1273.	7.2	558
4	3D Flowerlike Ceria Micro/Nanocomposite Structure and Its Application for Water Treatment and CO Removal. Chemistry of Materials, 2007, 19, 1648-1655.	3.2	433
5	Stabilizing metal nanoparticles for heterogeneous catalysis. Physical Chemistry Chemical Physics, 2010, 12, 13499.	1.3	349
6	Hierarchically Structured Cobalt Oxide (Co3O4):Â The Morphology Control and Its Potential in Sensors. Journal of Physical Chemistry B, 2006, 110, 15858-15863.	1.2	339
7	Copper-substituted Na_{0.67}Ni_{0.3â^'x}Cu_xMn_{0.7}O₂ cathode materials for sodium-ion batteries with suppressed P2â€“O2 phase transition. Journal of Materials Chemistry A, 2017, 5, 8752-8761.	5.2	272
8	Controlling the Compositional Chemistry in Single Nanoparticles for Functional Hollow Carbon Nanospheres. Journal of the American Chemical Society, 2017, 139, 13492-13498.	6.6	264
9	Engineering Hollow Carbon Architecture for High-Performance K-Ion Battery Anode. Journal of the American Chemical Society, 2018, 140, 7127-7134.	6.6	255
10	Pitchâ€Derived Soft Carbon as Stable Anode Material for Potassium Ion Batteries. Advanced Materials, 2020, 32, e2000505.	11.1	216
11	Recent developments in electrode materials for potassium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 4334-4352.	5.2	214
12	Electrochemical Sensor for Detecting Ultratrace Nitroaromatic Compounds Using Mesoporous SiO2-Modified Electrode. Analytical Chemistry, 2006, 78, 1967-1971.	3.2	204
13	Solidâ€“Solution-Based Metal Alloy Phase for Highly Reversible Lithium Metal Anode. Journal of the American Chemical Society, 2020, 142, 8818-8826.	6.6	199
14	Exceptional high-temperature stability through distillation-like self-stabilization in bimetallic nanoparticles. Nature Materials, 2010, 9, 75-81.	13.3	165
15	Coreâ€“shell structured TiO₂@polydopamine for highly active visible-light photocatalysis. Chemical Communications, 2016, 52, 7122-7125.	2.2	151
16	Interfacial synthesis of ordered and stable covalent organic frameworks on amino-functionalized carbon nanotubes with enhanced electrochemical performance. Chemical Communications, 2017, 53, 6303-6306.	2.2	147
17	Efficient 3D Conducting Networks Built by Graphene Sheets and Carbon Nanoparticles for High-Performance Silicon Anode. ACS Applied Materials & Interfaces, 2012, 4, 2824-2828.	4.0	135
18	Pseudocapacitance-boosted ultrafast Na storage in a pie-like FeS@C nanohybrid as an advanced anode material for sodium-ion full batteries. Nanoscale, 2018, 10, 9218-9225.	2.8	135

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19	Dielectric Polarization in Inverse Spinelâ€Structured Mg₂TiO₄ Coating to Suppress Oxygen Evolution of Liâ€Rich Cathode Materials. Advanced Materials, 2020, 32, e2000496.	11.1	134
20	Hierarchical Nanostructured Copper Oxide and Its Application in Arsenic Removal. Journal of Physical Chemistry C, 2007, 111, 18624-18628.	1.5	121
21	Structural Engineering of Multishelled Hollow Carbon Nanostructures for Highâ€Performance Naâ€Ion Battery Anode. Advanced Energy Materials, 2018, 8, 1800855.	10.2	121
22	Spin-coated silicon nanoparticle/graphene electrode as a binder-free anode for high-performance lithium-ion batteries. Nano Research, 2012, 5, 845-853.	5.8	117
23	Structural engineering of SnS2/Graphene nanocomposite for high-performance K-ion battery anode. Nano Energy, 2019, 60, 912-918.	8.2	101
24	Oneâ€Nanometerâ€Precision Control of Al₂O₃ Nanoshells through a Solutionâ€Based Synthesis Route. Angewandte Chemie - International Edition, 2014, 53, 12776-12780.	7.2	95
25	A Hollow Multiâ€Shelled Structure for Charge Transport and Active Sites in Lithiumâ€Ion Capacitors. Angewandte Chemie - International Edition, 2020, 59, 4865-4868.	7.2	87
26	A Black Phosphorusâ€“Graphite Composite Anode for Liâ€/Naâ€/Kâ€Ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 2318-2322.	7.2	84
27	Phase Control on Surface for the Stabilization of High Energy Cathode Materials of Lithium Ion Batteries. Journal of the American Chemical Society, 2019, 141, 4900-4907.	6.6	83
28	A S/N-doped high-capacity mesoporous carbon anode for Na-ion batteries. Journal of Materials Chemistry A, 2019, 7, 11976-11984.	5.2	78
29	Engineering thermal and mechanical properties of flexible fiber-reinforced aerogel composites. Journal of Sol-Gel Science and Technology, 2012, 63, 445-456.	1.1	74
30	In Situ Coating Graphdiyne for Highâ€Energyâ€Density and Stable Organic Cathodes. Advanced Materials, 2020, 32, e2000140.	11.1	72
31	Microbial-Phosphorus-Enabled Synthesis of Phosphide Nanocomposites for Efficient Electrocatalysts. Journal of the American Chemical Society, 2017, 139, 11248-11253.	6.6	70
32	Nanoarrays: design, preparation and supercapacitor applications. RSC Advances, 2015, 5, 55856-55869.	1.7	68
33	Controlling the Reaction of Nanoparticles for Hollow Metal Oxide Nanostructures. Journal of the American Chemical Society, 2018, 140, 9070-9073.	6.6	65
34	Designed synthesis of SnO2â€“C hollow microspheres as an anode material for lithium-ion batteries. Chemical Communications, 2017, 53, 11189-11192.	2.2	63
35	Stabilizing Cathode Materials of Lithium-Ion Batteries by Controlling Interstitial Sites on the Surface. CheM, 2018, 4, 1685-1695.	5.8	63
36	Optimizing the carbon coating on LiFePO4 for improved battery performance. RSC Advances, 2014, 4, 7795.	1.7	60

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37	Accurate surface control of coreâ€“shell structured LiMn_{0.5}Fe_{0.5}PO₄@C for improved battery performance. Journal of Materials Chemistry A, 2014, 2, 17359-17365.	5.2	60
38	Designable fabrication of flower-like SnS2 aggregates with excellent performance in lithium-ion batteries. RSC Advances, 2012, 2, 3615.	1.7	57
39	Ultrasmall Pd/Au bimetallic nanocrystals embedded in hydrogen-bonded supramolecular structures: facile synthesis and catalytic activities in the reduction of 4-nitrophenol. Journal of Materials Chemistry A, 2015, 3, 19433-19438.	5.2	55
40	Heterogeneous nucleation and growth of highly crystalline imine-linked covalent organic frameworks. Chemical Communications, 2018, 54, 5976-5979.	2.2	53
41	Facile solution synthesis of hexagonal Alq3 nanorods and their field emission properties. Chemical Communications, 2007, , 3083.	2.2	49
42	Morphology control and shape evolution in 3D hierarchical superstructures. Science China Chemistry, 2012, 55, 2249-2256.	4.2	49
43	Highâ€Performance Cathode Materials for Potassiumâ€Ion Batteries: Structural Design and Electrochemical Properties. Advanced Materials, 2021, 33, e2100409.	11.1	48
44	Facile Synthesis of Hollow Carbon Nanospheres and Their Potential as Stable Anode Materials in Potassium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 13182-13188.	4.0	46
45	Formation of Nitrogen-Doped Mesoporous Graphitic Carbon with the Help of Melamine. ACS Applied Materials & Interfaces, 2014, 6, 20574-20578.	4.0	45
46	Shape-controlled synthesis of high tap density cathode oxides for lithium ion batteries. Physical Chemistry Chemical Physics, 2012, 14, 6724.	1.3	44
47	Facet dependent SEI formation on the LiNi_{0.5}Mn_{1.5}O₄cathode identified by in situ single particle atomic force microscopy. Chemical Communications, 2014, 50, 15756-15759.	2.2	43
48	General Synthetic Strategy for Hollow Hybrid Microspheres through a Progressive Inward Crystallization Process. Journal of the American Chemical Society, 2016, 138, 5916-5922.	6.6	43
49	Precise Surface Engineering of Cathode Materials for Improved Stability of Lithiumâ€Ion Batteries. Small, 2019, 15, e1901019.	5.2	43
50	S/N-doped carbon nanofibers affording Fe7S8 particles with superior sodium storage. Journal of Power Sources, 2020, 451, 227790.	4.0	43
51	In Vivo Measurement of Calcium Ion with Solid-State Ion-Selective Electrode by Using Shelled Hollow Carbon Nanospheres as a Transducing Layer. Analytical Chemistry, 2019, 91, 4421-4428.	3.2	42
52	Au-mixed lanthanum/cerium oxide catalysts for water gas shift. Applied Catalysis B: Environmental, 2010, 99, 89-95.	10.8	41
53	Surface Zn doped LiMn₂O₄ for an improved high temperature performance. Chemical Communications, 2018, 54, 5326-5329.	2.2	41
54	Advancing to 4.6ÂV Review and Prospect in Developing Highâ€Energyâ€Density LiCoO₂ Cathode for Lithiumâ€Ion Batteries. Small Methods, 2022, 6, e2200148.	4.6	41

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55	Coreâ€“shell structured Ce₂S₃@ZnO and its potential as a pigment. Journal of Materials Chemistry A, 2015, 3, 2176-2180.	5.2	39
56	Lotus rhizome-like S/Nâ€“C with embedded WS₂ for superior sodium storage. Journal of Materials Chemistry A, 2019, 7, 25932-25943.	5.2	39
57	Manipulating Particle Chemistry for Hollow Carbon-based Nanospheres: Synthesis Strategies, Mechanistic Insights, and Electrochemical Applications. Accounts of Chemical Research, 2021, 54, 221-231.	7.6	39
58	Coordination-Assisted Precise Construction of Metal Oxide Nanofilms for High-Performance Solid-State Batteries. Journal of the American Chemical Society, 2022, 144, 2179-2188.	6.6	38
59	Controlled Formation of Metal@Al₂O₃ Yolkâ€“Shell Nanostructures with Improved Thermal Stability. ACS Applied Materials & Interfaces, 2015, 7, 27031-27034.	4.0	37
60	In situ encapsulation of Pd inside the MCM-41 channel. Chemical Communications, 2015, 51, 7482-7485.	2.2	36
61	Highly stable, mesoporous mixed lanthanumâ€“cerium oxides with tailored structure and reducibility. Journal of Materials Science, 2011, 46, 2928-2937.	1.7	35
62	Enabling reversible phase transition on K5/9Mn7/9Ti2/9O2 for high-performance potassium-ion batteries cathodes. Energy Storage Materials, 2020, 31, 20-26.	9.5	35
63	Accurately Localizing Multiple Nanoparticles in a Multishelled Matrix Through Shellâ€toâ€Core Evolution for Maximizing Energyâ€Storage Capability. Advanced Materials, 2022, 34, e2200206.	11.1	32
64	Layered oxides with solid-solution reaction for high voltage potassium-ion batteries cathode. Chemical Engineering Journal, 2021, 412, 128735.	6.6	30
65	A Hollow Multiâ€Shelled Structure for Charge Transport and Active Sites in Lithiumâ€Ion Capacitors. Angewandte Chemie, 2020, 132, 4895-4898.	1.6	29
66	Construction of uniform transition-metal phosphate nanoshells and their potential for improving Li-ion battery performance. Journal of Materials Chemistry A, 2018, 6, 8992-8999.	5.2	28
67	Kinetically controlled formation of uniform FePO4 shells and their potential for use in high-performance sodium ion batteries. NPG Asia Materials, 2017, 9, e414-e414.	3.8	26
68	Controllable synthesis of CNT@ZnO composites with enhanced electrochemical properties for lithium-ion battery. Materials Research Bulletin, 2018, 101, 305-310.	2.7	26
69	Optimizing LiFePO₄@C Coreâ€“Shell Structures via the 3-Aminophenolâ€“Formaldehyde Polymerization for Improved Battery Performance. ACS Applied Materials & Interfaces, 2014, 6, 22719-22725.	4.0	25
70	Hollow carbon nanospheres: syntheses and applications for post lithium-ion batteries. Materials Chemistry Frontiers, 2020, 4, 2283-2306.	3.2	25
71	Garnet-type Solid-state Electrolyte Li7La3Zr2O12: Crystal Structure, Element Doping and Interface Strategies for Solid-state Lithium Batteries. Chemical Research in Chinese Universities, 2020, 36, 329-342.	1.3	23
72	Facile Synthesis of Feâ€Doped CoO Nanotubes as Highâ€Efficient Electrocatalysts for Oxygen Evolution Reaction. Small Structures, 2022, 3, .	6.9	22

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73	Interface Engineering of a Ceramic Electrolyte by Ta₂O₅ Nanofilms for Ultrastable Lithium Metal Batteries. Advanced Functional Materials, 2022, 32, .	7.8	22
74	Fabrication of nonaging superhydrophobic surfaces by packing flowerlike hematite particles. Applied Physics Letters, 2007, 91, 034102.	1.5	21
75	La(OH)3 Hollow Nanostructures with Trapezohedron Morphologies Using a New Kirkendall Diffusion Couple. Journal of Physical Chemistry C, 2008, 112, 17988-17993.	1.5	21
76	A Black Phosphorusâ€“Graphite Composite Anode for Liâ€Naâ€Kâ€Ion Batteries. Angewandte Chemie, 2020, 132, 2338-2342.	1.6	21
77	Template-free synthesis of Co-based oxides nanotubes as potential anodes for lithium-ion batteries. Journal of Alloys and Compounds, 2022, 895, 162611.	2.8	21
78	The Functions and Applications of Fluorinated Interface Engineering in Liâ€Based Secondary Batteries. Small Science, 2021, 1, 2100066.	5.8	21
79	Facile synthesis of hollow Ti2Nb10O29 microspheres for high-rate anode of Li-ion batteries. Science China Chemistry, 2018, 61, 670-676.	4.2	20
80	Oneâ€Nanometerâ€Precision Control of Al₂O₃ Nanoshells through a Solutionâ€Based Synthesis Route. Angewandte Chemie, 2014, 126, 12990-12994.	1.6	18
81	Controlled formation of coreâ€“shell structures with uniform AlPO₄ nanoshells. Chemical Communications, 2015, 51, 2943-2945.	2.2	18
82	Controlled formation of uniform CeO₂ nanoshells in a buffer solution. Chemical Communications, 2016, 52, 1420-1423.	2.2	17
83	Controlled formation of uniform nanoshells of manganese oxide and their potential in lithium ion batteries. Chemical Communications, 2017, 53, 2846-2849.	2.2	16
84	Construction of Uniform Cobalt-Based Nanoshells and Its Potential for Improving Li-Ion Battery Performance. ACS Applied Materials & Interfaces, 2018, 10, 22896-22901.	4.0	16
85	High-Performance Cathode of Sodium-Ion Batteries Enabled by a Potassium-Containing Framework of K_{0.5}Mn_{0.7}Fe_{0.2}Ti_{0.1}O₂. ACS Applied Materials & Interfaces, 2020, 12, 15313-15319.	4.0	16
86	Assembly of plasmid DNA with pyrene-amines cationic amphiphiles into nanoparticles and their visible lysosome localization. RSC Advances, 2015, 5, 12338-12345.	1.7	14
87	A facile template free synthesis of porous carbon nanospheres with high capacitive performance. Science China Chemistry, 2018, 61, 538-544.	4.2	14
88	Spherical Mesoporous Metal Oxides with Tunable Orientation Enabled by Growth Kinetics Control. Journal of the American Chemical Society, 2020, 142, 17897-17902.	6.6	13
89	Stabilization of High-Energy Cathode Materials of Metal-Ion Batteries: Control Strategies and Synthesis Protocols. Energy & Fuels, 2021, 35, 7511-7527.	2.5	11
90	Anion Doping for Layered Oxides with a Solid-Solution Reaction for Potassium-Ion Battery Cathodes. ACS Applied Materials & Interfaces, 2022, 14, 13379-13387.	4.0	11

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91	Photoluminescence and Electroluminescence from a Hybrid of Lumogen Red in Nanoporous-Silica. Journal of Nanoscience and Nanotechnology, 2008, 8, 1336-1340.	0.9	10
92	A facile synthetic strategy for the creation of hollow noble metal/transition metal oxide nanocomposites. Chemical Communications, 2019, 55, 1076-1079.	2.2	10
93	Lightâ€Driven Crawling of Molecular Crystals by Phaseâ€Dependent Transient Elastic Lattice Deformation. Angewandte Chemie - International Edition, 2020, 59, 10337-10342.	7.2	10
94	Battery technology and sustainable energy storage and conversion as a new energy resource replacing fossil fuels. , 2022, 1, .		10
95	Controlled synthesis of hierarchically-structured MnCo2O4 and its potential as a high performance anode material. Science China Chemistry, 2017, 60, 1180-1186.	4.2	9
96	Crystallization-induced self-hollowing of molybdenum sulfide nanoparticles and their potential in sodium ion batteries. Chemical Communications, 2019, 55, 5894-5897.	2.2	9
97	Stabilization of the energetic Al powder through uniform and controlled surface coating for promoting its energy output. Surface and Coatings Technology, 2020, 389, 125603.	2.2	9
98	Electrochemically Anodized V₂O₅ as an Efficient Sodium Cathode. Energy & Fuels, 2021, 35, 8358-8364.	2.5	8
99	Construction of uniform ZrO₂ nanoshells by buffer solutions. Dalton Transactions, 2018, 47, 12843-12846.	1.6	7
100	Construction of Li₃PO₄ nanoshells for the improved electrochemical performance of a Ni-rich cathode material. Chemical Communications, 2022, 58, 2556-2559.	2.2	7
101	Hollowâ€Structured Electrode Materials: Selfâ€Templated Synthesis and Their Potential in Secondary Batteries. ChemNanoMat, 2020, 6, 1298-1314.	1.5	6
102	Kinetically-controlled formation of Fe2O3 nanoshells and its potential in Lithium-ion batteries. Chemical Engineering Journal, 2022, 433, 133188.	6.6	6
103	Precise surface control of cathode materials for stable lithium-ion batteries. Chemical Communications, 2022, 58, 1454-1467.	2.2	6
104	Facile Synthesis of Pt Multipods Nanocrystals. Journal of Nanoscience and Nanotechnology, 2006, 6, 2031-2036.	0.9	4
105	The facile construction of a yolkâ€“shell structured metalâ€“TiO2 nanocomposite with potential for p-nitrophenol reduction. New Journal of Chemistry, 2018, 42, 3184-3187.	1.4	4
106	Localized Surface Doping for Improved Stability of High Energy Cathode Materials. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, .	2.2	4
107	A continuous etching process for highly-active Pd nanoclusters and their in situ stabilization. RSC Advances, 2014, 4, 23637.	1.7	3
108	A General Synthesis Strategy for Hollow Metal Oxide Microspheres Enabled by Gelâ€Assisted Precipitation. Angewandte Chemie - International Edition, 2021, 60, 21377-21383.	7.2	3

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109	The formation of an ordered microporous aluminum-based material mediated by phthalic acid. Chemical Communications, 2016, 52, 8038-8041.	2.2	2
110	Controlling the reaction kinetics in solution for uniform nanoshells of metal sulfides with sub-nanometer accuracy. Science Bulletin, 2019, 64, 232-235.	4.3	2
111	Lightâ€Driven Crawling of Molecular Crystals by Phaseâ€Dependent Transient Elastic Lattice Deformation. Angewandte Chemie, 2020, 132, 10423-10428.	1.6	1
112	Self-Assembled Vanadium Pentoxide (V2O5) Hollow Microspheres from Nanorods and Their Application in Lithium-Ion Batteries.. ChemInform, 2005, 36, no.	0.1	0
113	A General Synthesis Strategy for Hollow Metal Oxide Microspheres Enabled by Gelâ€Assisted Precipitation. Angewandte Chemie, 2021, 133, 21547-21553.	1.6	0