Zhen Zhou

List of Publications by Year
in descending order

368 papers	37,875 citations	1370 108 h-index	3822 178 g-index
378 all docs	378 docs citations	378 times ranked	30115 citing authors

#	Article	IF	Citations
1	Are MXenes Promising Anode Materials for Li Ion Batteries? Computational Studies on Electronic Properties and Li Storage Capability of Ti₃C₂ and Ti₃C₂X₂ (X = F, OH) Monolayer. Journal of the American Chemical Society, 2012, 134, 16909-16916.	6.6	1,768
2	MoS₂ Nanoribbons: High Stability and Unusual Electronic and Magnetic Properties. Journal of the American Chemical Society, 2008, 130, 16739-16744.	6.6	876
3	Recent advances in MXene: Preparation, properties, and applications. Frontiers of Physics, 2015, 10, 276-286.	2.4	734
4	Recent progress in high-voltage lithium ion batteries. Journal of Power Sources, 2013, 237, 229-242.	4.0	688
5	Graphene-analogous low-dimensional materials. Progress in Materials Science, 2013, 58, 1244-1315.	16.0	684
6	Graphene-related nanomaterials: tuning properties by functionalization. Nanoscale, 2013, 5, 4541.	2.8	614
7	The Influence of Carboxyl Groups on the Photoluminescence of Mercaptocarboxylic Acid-Stabilized CdTe Nanoparticles. Journal of Physical Chemistry B, 2003, 107, 8-13.	1.2	581
8	Metallic VS₂ Monolayer: A Promising 2D Anode Material for Lithium Ion Batteries. Journal of Physical Chemistry C, 2013, 117, 25409-25413.	1.5	576
9	Sâ€Doped Nâ€Rich Carbon Nanosheets with Expanded Interlayer Distance as Anode Materials for Sodiumâ€Ion Batteries. Advanced Materials, 2017, 29, 1604108.	11.1	566
10	MXene-based materials for electrochemical energy storage. Journal of Energy Chemistry, 2018, 27, 73-85.	7.1	548
11	Spin Gapless Semiconductorâˆ’Metalâˆ’Half-Metal Properties in Nitrogen-Doped Zigzag Graphene Nanoribbons. ACS Nano, 2009, 3, 1952-1958.	7.3	499
12	Li ion battery materials with coreâ€"shell nanostructures. Nanoscale, 2011, 3, 3967.	2.8	473
13	Towards practical lithium-metal anodes. Chemical Society Reviews, 2020, 49, 3040-3071.	18.7	473
14	CO Catalytic Oxidation on Iron-Embedded Graphene: Computational Quest for Low-Cost Nanocatalysts. Journal of Physical Chemistry C, 2010, 114, 6250-6254.	1.5	454
15	Enhanced Li Adsorption and Diffusion on MoS₂ Zigzag Nanoribbons by Edge Effects: A Computational Study. Journal of Physical Chemistry Letters, 2012, 3, 2221-2227.	2.1	390
16	Recent Breakthroughs in Supercapacitors Boosted by Nitrogenâ€Rich Porous Carbon Materials. Advanced Science, 2017, 4, 1600408.	5.6	348
17	Atomic Interface Engineering and Electricâ€Field Effect in Ultrathin Bi₂MoO₆ Nanosheets for Superior Lithium Ion Storage. Advanced Materials, 2017, 29, 1700396.	11.1	343
18	The First Introduction of Graphene to Rechargeable Liâ€"CO₂ Batteries. Angewandte Chemie - International Edition, 2015, 54, 6550-6553.	7.2	305

#	Article	IF	Citations
19	Preparation and electrochemical studies of Fe-doped Li3V2(PO4)3 cathode materials for lithium-ion batteries. Journal of Power Sources, 2006, 162, 1357-1362.	4.0	297
20	Fast Sodium Storage in TiO₂@CNT@C Nanorods for Highâ€Performance Naâ€Ion Capacitors. Advanced Energy Materials, 2017, 7, 1701222.	10.2	296
21	MnPSe₃ Monolayer: A Promising 2D Visibleâ€Light Photohydrolytic Catalyst with High Carrier Mobility. Advanced Science, 2016, 3, 1600062.	5.6	291
22	Hydrogenation: A Simple Approach To Realize Semiconductorâˆ’Half-Metalâˆ’Metal Transition in Boron Nitride Nanoribbons. Journal of the American Chemical Society, 2010, 132, 1699-1705.	6.6	277
23	Metalâ€"Organic Frameworks (MOFs) and MOF-Derived Materials for Energy Storage and Conversion. Electrochemical Energy Reviews, 2019, 2, 29-104.	13.1	274
24	CoCO3 submicrocube/graphene composites with high lithium storage capability. Nano Energy, 2013, 2, 276-282.	8.2	263
25	Coreâˆ’Shell Li₃V₂(PO₄)₃@C Composites as Cathode Materials for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2008, 112, 5689-5693.	1.5	257
26	Synthesis and Electrochemical Performance of Sulfur/Highly Porous Carbon Composites. Journal of Physical Chemistry C, 2009, 113, 4712-4716.	1.5	253
27	Carbonâ€Supported Divacancyâ€Anchored Platinum Singleâ€Atom Electrocatalysts with Superhigh Pt Utilization for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2019, 58, 1163-1167.	7.2	252
28	Graphene, inorganic graphene analogs and their composites for lithium ion batteries. Journal of Materials Chemistry A, 2014, 2, 12104.	5.2	251
29	A Ti-anchored Ti2CO2 monolayer (MXene) as a single-atom catalyst for CO oxidation. Journal of Materials Chemistry A, 2016, 4, 4871-4876.	5.2	242
30	Core double-shell Si@SiO2@C nanocomposites as anode materials for Li-ion batteries. Chemical Communications, 2010, 46, 2590.	2.2	232
31	Role of transition metal nanoparticles in the extra lithium storage capacity of transition metal oxides: a case study of hierarchical coreâ€"shell Fe3O4@C and Fe@C microspheres. Journal of Materials Chemistry A, 2013, 1, 15158.	5.2	230
32	Nanosheet-Based NiO Microspheres: Controlled Solvothermal Synthesis and Lithium Storage Performances. Journal of Physical Chemistry C, 2010, 114, 251-255.	1.5	229
33	Recent progress in rechargeable alkali metalâ€"air batteries. Green Energy and Environment, 2016, 1, 4-17.	4.7	227
34	Metalâ€"CO₂ Batteries on the Road: CO₂ from Contamination Gas to Energy Source. Advanced Materials, 2017, 29, 1605891.	11.1	226
35	High and anisotropic carrier mobility in experimentally possible Ti₂CO₂(MXene) monolayers and nanoribbons. Nanoscale, 2015, 7, 16020-16025.	2.8	225
36	Double-atom catalysts: transition metal dimer-anchored C₂N monolayers as N₂ fixation electrocatalysts. Journal of Materials Chemistry A, 2018, 6, 18599-18604.	5.2	224

#	Article	IF	Citations
37	Transition metal anchored C₂N monolayers as efficient bifunctional electrocatalysts for hydrogen and oxygen evolution reactions. Journal of Materials Chemistry A, 2018, 6, 11446-11452.	5.2	223
38	Electronic structures of SiC nanoribbons. Journal of Chemical Physics, 2008, 129, 174114.	1.2	222
39	Ti₂CO₂MXene: a highly active and selective photocatalyst for CO₂reduction. Journal of Materials Chemistry A, 2017, 5, 12899-12903.	5.2	221
40	Bi₂O₃âˆ’Bi₂WO₆ Composite Microspheres: Hydrothermal Synthesis and Photocatalytic Performances. Journal of Physical Chemistry C, 2011, 115, 5220-5225.	1.5	219
41	Towards better photocatalysts: first-principles studies of the alloying effects on the photocatalytic activities of bismuth oxyhalides under visible light. Physical Chemistry Chemical Physics, 2012, 14, 1286-1292.	1.3	216
42	Machine learning: Accelerating materials development for energy storage and conversion. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 553-576.	8.5	212
43	Micro/Nanostructured Materials for Sodium Ion Batteries and Capacitors. Small, 2018, 14, 1702961.	5.2	210
44	Innovation and discovery of grapheneâ€like materials via densityâ€functional theory computations. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2015, 5, 360-379.	6.2	205
45	Fabrication of Highâ€Power Liâ€Ion Hybrid Supercapacitors by Enhancing the Exterior Surface Charge Storage. Advanced Energy Materials, 2015, 5, 1500550.	10.2	203
46	Rechargeable Liâ€“CO₂ batteries with carbon nanotubes as air cathodes. Chemical Communications, 2015, 51, 14636-14639.	2.2	203
47	Preparation and Lithium Storage Performances of Mesoporous Fe₃O₄@C Microcapsules. ACS Applied Materials & Interfaces, 2011, 3, 705-709.	4.0	199
48	Ni/C Hierarchical Nanostructures with Ni Nanoparticles Highly Dispersed in N-Containing Carbon Nanosheets: Origin of Li Storage Capacity. Journal of Physical Chemistry C, 2012, 116, 23974-23980.	1.5	199
49	First-principles studies on facet-dependent photocatalytic properties of bismuth oxyhalides (BiOXs). RSC Advances, 2012, 2, 9224.	1.7	196
50	Improved high-rate charge/discharge performances of LiFePO4/C via V-doping. Journal of Power Sources, 2009, 193, 841-845.	4.0	193
51	Preparation and electrochemical properties of sulfurâ€“acetylene black composites as cathode materials. Electrochimica Acta, 2009, 54, 3708-3713.	2.6	191
52	Computational study of B- or N-doped single-walled carbon nanotubes as NH3 and NO2 sensors. Carbon, 2007, 45, 2105-2110.	5.4	188
53	Structure-modulated crystalline covalent organic frameworks as high-rate cathodes for Li-ion batteries. Journal of Materials Chemistry A, 2016, 4, 18621-18627.	5.2	188
54	Preparation and electrochemical performances of doughnut-like Ni(OH)2â€“Co(OH)2 composites as pseudocapacitor materials. Nanoscale, 2012, 4, 4498.	2.8	183

#	Article	IF	Citations
55	Orderly Packed Anodes for Highâ€Power Lithiumâ€Ion Batteries with Superâ€Long Cycle Life: Rational Design of MnCO₃/Largeâ€Area Graphene Composites. Advanced Materials, 2015, 27, 806-812.	11.1	181
56	Electronic structure of heterojunction MoO2/g-C3N4 catalyst for oxidative desulfurization. Applied Catalysis B: Environmental, 2018, 238, 263-273.	10.8	178
57	Two-dimensional polyphenylene: experimentally available porous graphene as a hydrogen purification membrane. Chemical Communications, 2010, 46, 3672.	2.2	176
58	SiC₂ Silagraphene and Its One-Dimensional Derivatives: Where Planar Tetracoordinate Silicon Happens. Journal of the American Chemical Society, 2011, 133, 900-908.	6.6	171
59	Interlayerâ€Spacingâ€Regulated VOPO₄ Nanosheets with Fast Kinetics for Highâ€Capacity and Durable Rechargeable Magnesium Batteries. Advanced Materials, 2018, 30, e1801984.	11.1	171
60	Computational Insights into Oxygen Reduction Reaction and Initial Li₂O₂ Nucleation on Pristine and N-Doped Graphene in Liâ€"O₂ Batteries. ACS Catalysis, 2015, 5, 4309-4317.	5.5	170
61	Doping effects of B and N on hydrogen adsorption in single-walled carbon nanotubes through density functional calculations. Carbon, 2006, 44, 939-947.	5.4	169
62	Bifunctional electrocatalysts of MOF-derived Coâ€"N/C on bamboo-like MnO nanowires for high-performance liquid- and solid-state Znâ€"air batteries. Journal of Materials Chemistry A, 2018, 6, 9716-9722.	5.2	167
63	Ca-Coated Boron Fullerenes and Nanotubes as Superior Hydrogen Storage Materials. Nano Letters, 2009, 9, 1944-1948.	4.5	165
64	Sb nanoparticles decorated N-rich carbon nanosheets as anode materials for sodium ion batteries with superior rate capability and long cycling stability. Chemical Communications, 2014, 50, 12888-12891.	2.2	162
65	Hierarchical Carbonâ€"Nitrogen Architectures with Both Mesopores and Macrochannels as Excellent Cathodes for Rechargeable Liâ€"O₂ Batteries. Advanced Functional Materials, 2014, 24, 6826-6833.	7.8	161
66	Small molecules make big differences: molecular doping effects on electronic and optical properties of phosphorene. Nanotechnology, 2015, 26, 095201.	1.3	159
67	Verifying the Rechargeability of Liâ€CO₂ Batteries on Working Cathodes of Ni Nanoparticles Highly Dispersed on Nâ€Doped Graphene. Advanced Science, 2018, 5, 1700567.	5.6	159
68	Atomic Feâ€"N₄/C in Flexible Carbon Fiber Membrane as Binderâ€Free Air Cathode for Znâ€"Air Batteries with Stable Cycling over 1000 h. Advanced Materials, 2022, 34, e2105410.	11.1	158
69	Comparative Study of Hydrogen Adsorption on Carbon and BN Nanotubes. Journal of Physical Chemistry B, 2006, 110, 13363-13369.	1.2	157
70	Stable layered P3/P2 Na_{0.66}Co_{0.5}Mn_{0.5}O₂ cathode materials for sodium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 20708-20714.	5.2	155
71	Pre-lithiated graphene nanosheets as negative electrode materials for Li-ion capacitors with high power and energy density. Journal of Power Sources, 2014, 264, 108-113.	4.0	153
72	Computational Screening of 2D Materials and Rational Design of Heterojunctions for Water Splitting Photocatalysts. Small Methods, 2018, 2, 1700359.	4.6	151

#	Article	IF	Citations
73	Enhanced Photocatalytic Properties in BiOBr Nanosheets with Dominantly Exposed (102) Facets. Journal of Physical Chemistry C, 2014, 118, 14662-14669.	1.5	150
74	Cation-induced chirality in a bifunctional metal-organic framework for quantitative enantioselective recognition. Nature Communications, 2019, 10, 5117.	5.8	150
75	Boosting the rate capability of hard carbon with an ether-based electrolyte for sodium ion batteries. Journal of Materials Chemistry A, 2017, 5, 9528-9532.	5.2	148
76	Tunable Band Structures of Heterostructured Bilayers with Transition-Metal Dichalcogenide and MXene Monolayer. Journal of Physical Chemistry C, 2014, 118, 5593-5599.	1.5	147
77	A P2-Na_{0.67}Co_{0.5}Mn_{0.5}O₂ cathode material with excellent rate capability and cycling stability for sodium ion batteries. Journal of Materials Chemistry A, 2016, 4, 11103-11109.	5.2	147
78	High performance Liâ€“CO₂ batteries with NiOâ€“CNT cathodes. Journal of Materials Chemistry A, 2018, 6, 2792-2796.	5.2	146
79	Nonâ€Metal Ion Coâ€Insertion Chemistry in Aqueous Zn/MnO₂ Batteries. Angewandte Chemie - International Edition, 2021, 60, 7056-7060.	7.2	146
80	Tuning electronic and optical properties of MoS₂monolayer via molecular charge transfer. Journal of Materials Chemistry A, 2014, 2, 16892-16897.	5.2	145
81	Effects of dopants and hydrogen on the electrical conductivity of ZnO. Journal of the European Ceramic Society, 2004, 24, 139-146.	2.8	142
82	MOF-Derived Porous Co₃O₄ Hollow Tetrahedra with Excellent Performance as Anode Materials for Lithium-Ion Batteries. Inorganic Chemistry, 2015, 54, 8159-8161.	1.9	142
83	Heteroatom-doped graphene as electrocatalysts for air cathodes. Materials Horizons, 2017, 4, 7-19.	6.4	142
84	Computational studies on structural and electronic properties of functionalized MXene monolayers and nanotubes. Journal of Materials Chemistry A, 2015, 3, 4960-4966.	5.2	141
85	Transition metal doping BiOBr nanosheets with oxygen vacancy and exposed {102} facets for visible light nitrogen fixation. Applied Catalysis B: Environmental, 2021, 281, 119516.	10.8	141
86	Electrochemical performance of nanocrystalline Li3V2(PO4)3/carbon composite material synthesized by a novel solâ€“gel method. Electrochimica Acta, 2006, 51, 6498-6502.	2.6	137
87	Frenkel-defected monolayer MoS2 catalysts for efficient hydrogen evolution. Nature Communications, 2022, 13, 2193.	5.8	137
88	Heteroatom-doped carbon materials and their composites as electrocatalysts for CO₂ reduction. Journal of Materials Chemistry A, 2018, 6, 18782-18793.	5.2	136
89	Fast synthesis of core-shell LiCoPO4/C nanocomposite via microwave heating and its electrochemical Li intercalation performances. Electrochemistry Communications, 2009, 11, 95-98.	2.3	132
90	Synergistic effect of Zr-MOF on phosphomolybdic acid promotes efficient oxidative desulfurization. Applied Catalysis B: Environmental, 2019, 256, 117804.	10.8	131

#	Article	IF	Citations
91	Yolkâ€"Shell MnO@ZnMn₂O₄/Nâ€"C Nanorods Derived from <i>Î±</i>â€MnO₂/ZIFâ€8 as Anode Materials for Lithium Ion Batteries. Small, 2016, 12, 5564-5571.	5.2	130
92	Layer-by-Layer Hybrids of MoS2 and Reduced Graphene Oxide for Lithium Ion Batteries. Electrochimica Acta, 2014, 147, 392-400.	2.6	129
93	Phosphorene: what can we know from computations?. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2016, 6, 5-19.	6.2	128
94	Electronic Structure and Reactivity of Boron Nitride Nanoribbons with Stone-Wales Defects. Journal of Chemical Theory and Computation, 2009, 5, 3088-3095.	2.3	127
95	Identification of cathode stability in Liâ€"CO₂batteries with Cu nanoparticles highly dispersed on N-doped graphene. Journal of Materials Chemistry A, 2018, 6, 3218-3223.	5.2	126
96	A Machine Learning Model on Simple Features for CO₂ Reduction Electrocatalysts. Journal of Physical Chemistry C, 2020, 124, 22471-22478.	1.5	125
97	Coreâ€"shell Fe@Fe3C/C nanocomposites as anode materials for Li ion batteries. Electrochimica Acta, 2013, 87, 180-185.	2.6	124
98	Achieving battery-level energy density by constructing aqueous carbonaceous supercapacitors with hierarchical porous N-rich carbon materials. Journal of Materials Chemistry A, 2015, 3, 11387-11394.	5.2	123
99	Rambutan-Like FeCO₃ Hollow Microspheres: Facile Preparation and Superior Lithium Storage Performances. ACS Applied Materials & Interfaces, 2013, 5, 11212-11217.	4.0	121
100	Electrolyteâ€Regulated Solidâ€Electrolyte Interphase Enables Long Cycle Life Performance in Organic Cathodes for Potassiumâ€Ion Batteries. Advanced Functional Materials, 2019, 29, 1807137.	7.8	120
101	Structural and Electronic Properties of Graphane Nanoribbons. Journal of Physical Chemistry C, 2009, 113, 15043-15045.	1.5	118
102	Fabricating Ir/C Nanofiber Networks as Freeâ€Standing Air Cathodes for Rechargeable Liâ€CO₂ Batteries. Small, 2018, 14, e1800641.	5.2	118
103	Do Composite Single-Walled Nanotubes Have Enhanced Capability for Lithium Storage?. Chemistry of Materials, 2005, 17, 992-1000.	3.2	117
104	To Achieve Stable Spherical Clusters:Â General Principles and Experimental Confirmations. Journal of the American Chemical Society, 2006, 128, 12829-12834.	6.6	116
105	2D Materials Bridging Experiments and Computations for Electro/Photocatalysis. Advanced Energy Materials, 2022, 12, 2003841.	10.2	116
106	Preparation and Electrochemical Hydrogen Storage of Boron Nitride Nanotubes. Journal of Physical Chemistry B, 2005, 109, 11525-11529.	1.2	115
107	Origin of photoactivity in graphitic carbon nitride and strategies for enhancement of photocatalytic efficiency: insights from first-principles computations. Physical Chemistry Chemical Physics, 2015, 17, 6280-6288.	1.3	115
108	Structural design for anodes of lithium-ion batteries: emerging horizons from materials to electrodes. Materials Horizons, 2015, 2, 553-566.	6.4	115

#	Article	IF	Citations
109	Co₂(OH)₂CO₃ Nanosheets and CoO Nanonets with Tailored Pore Sizes as Anodes for Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 12022-12029.	4.0	113
110	CuO Nanoplates for Highâ€Performance Potassiumâ€Ion Batteries. Small, 2019, 15, e1901775.	5.2	111
111	Bifunctional electrocatalysts for rechargeable Zn-air batteries. Chinese Journal of Catalysis, 2019, 40, 1298-1310.	6.9	111
112	Oriented SnS nanoflakes bound on S-doped N-rich carbon nanosheets with a rapid pseudocapacitive response as high-rate anodes for sodium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 19745-19751.	5.2	108
113	Structural evolution from mesoporous Î±-Fe2O3 to Fe3O4@C and Î³-Fe2O3 nanospheres and their lithium storage performances. CrystEngComm, 2011, 13, 4709.	1.3	107
114	Molecular Charge Transfer: A Simple and Effective Route To Engineer the Band Structures of BN Nanosheets and Nanoribbons. Journal of Physical Chemistry C, 2011, 115, 18531-18537.	1.5	107
115	Tâ€Nb₂O₅/C Nanofibers Prepared through Electrospinning with Prolonged Cycle Durability for Highâ€Rate Sodiumâ€“Ion Batteries Induced by Pseudocapacitance. Small, 2017, 13, 1702588.	5.2	107
116	A first-principles study of lithium absorption in boron- or nitrogen-doped single-walled carbon nanotubes. Carbon, 2004, 42, 2677-2682.	5.4	106
117	Stoneâˆ’Wales Defects in Single-Walled Boron Nitride Nanotubes:â€‰ Formation Energies, Electronic Structures, and Reactivity. Journal of Physical Chemistry C, 2008, 112, 1365-1370.	1.5	105
118	Building Artificial Solidâ€Electrolyte Interphase with Uniform Intermolecular Ionic Bonds toward Dendriteâ€Free Lithium Metal Anodes. Advanced Functional Materials, 2020, 30, 2002414.	7.8	104
119	Ultrathin Layered Hydroxide Cobalt Acetate Nanoplates Faceâ€toâ€Face Anchored to Graphene Nanosheets for Highâ€Efficiency Lithium Storage. Advanced Functional Materials, 2017, 27, 1605544.	7.8	103
120	Metalâ€“CO₂ Batteries at the Crossroad to Practical Energy Storage and CO₂ Recycle. Advanced Functional Materials, 2020, 30, 1908285.	7.8	103
121	Boosting bifunctional electrocatalytic activity in S and N co-doped carbon nanosheets for high-efficiency Znâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 4386-4395.	5.2	101
122	Exploiting Synergistic Effect by Integrating Rutheniumâ€“Copper Nanoparticles Highly Coâ€Dispersed on Graphene as Efficient Air Cathodes for Liâ€“CO₂ Batteries. Advanced Energy Materials, 2019, 9, 1802805.	10.2	100
123	Porous graphene: Properties, preparation, and potential applications. Science Bulletin, 2012, 57, 2948-2955.	1.7	98
124	A promising solâ€“gel route based on citric acid to synthesize Li3V2(PO4)3/carbon composite material for lithium ion batteries. Electrochimica Acta, 2007, 52, 4922-4926.	2.6	97
125	Sunlight-driven degradation of Rhodamine B by peanut-shaped porous BiVO₄nanostructures in the H₂O₂-containing system. CrystEngComm, 2012, 14, 1038-1044.	1.3	97
126	A New Approach to the Fabrication of a Self-Organizing Film of Heterostructured Polymer/Cu2S Nanoparticles. Advanced Materials, 1998, 10, 529-532.	11.1	96

#	Article	IF	Citations
127	Li- and Er-codoped ZnO with enhanced 1.54Î¼m photoemission. Applied Physics Letters, 2005, 87, 091109.	1.5	96
128	First-principles studies on doped graphene as anode materials in lithium-ion batteries. Theoretical Chemistry Accounts, 2011, 130, 209-213.	0.5	95
129	Alkaline rechargeable Ni/Co batteries: Cobalt hydroxides as negative electrode materials. Energy and Environmental Science, 2009, 2, 502.	15.6	93
130	Structural and electrochemical properties of Cl-doped LiFePO4/C. Journal of Power Sources, 2010, 195, 3680-3683.	4.0	93
131	Ultrasmall MnO@N-rich carbon nanosheets for high-power asymmetric supercapacitors. Journal of Materials Chemistry A, 2014, 2, 12519.	5.2	92
132	An Extremely Simple Method for Protecting Lithium Anodes in Liâ€O₂ Batteries. Angewandte Chemie - International Edition, 2018, 57, 12814-12818.	7.2	88
133	C N x nanotubes with pyridinelike structures: p-type semiconductors and Li storage materials. Journal of Chemical Physics, 2008, 129, 104703.	1.2	87
134	A composite of Co nanoparticles highly dispersed on N-rich carbon substrates: an efficient electrocatalyst for Liâ€"O₂battery cathodes. Chemical Communications, 2014, 50, 776-778.	2.2	87
135	Carbonâ€Based Substrates for Highly Dispersed Nanoparticle and Even Singleâ€Atom Electrocatalysts. Small Methods, 2019, 3, 1900050.	4.6	87
136	Sulfur/nickel ferrite composite as cathode with high-volumetric-capacity for lithium-sulfur battery. Science China Materials, 2019, 62, 74-86.	3.5	86
137	Effect of lithium difluoro(oxalate)borate (LiDFOB) additive on the performance of high-voltage lithium-ion batteries. Journal of Applied Electrochemistry, 2012, 42, 291-296.	1.5	85
138	Controllable atomic defect engineering in layered Ni_xFe_{1â^’x}(OH)₂ nanosheets for electrochemical overall water splitting. Journal of Materials Chemistry A, 2021, 9, 14432-14443.	5.2	84
139	A novel solâ€"gel method to synthesize nanocrystalline LiVPO4F and its electrochemical Li intercalation performances. Journal of Power Sources, 2006, 160, 633-637.	4.0	83
140	Do Transition Metal Carbonates Have Greater Lithium Storage Capability Than Oxides? A Case Study of Monodisperse CoCO3 and CoO Microspindles. ACS Applied Materials & Interfaces, 2014, 6, 12346-12352.	4.0	83
141	Tuning Electronic and Magnetic Properties of Wurtzite ZnO Nanosheets by Surface Hydrogenation. ACS Applied Materials & Interfaces, 2010, 2, 2442-2447.	4.0	79
142	LiVOPO4: A cathode material for 4V lithium ion batteries. Journal of Power Sources, 2009, 189, 786-789.	4.0	78
143	Morphology Control of Î²-In₂S₃ from Chrysanthemum-Like Microspheres to Hollow Microspheres: Synthesis and Electrochemical Properties. Crystal Growth and Design, 2009, 9, 113-117.	1.4	78
144	Facile preparation of hierarchical Nb₂O₅ microspheres with photocatalytic activities and electrochemical properties. Journal of Materials Chemistry A, 2014, 2, 9236-9243.	5.2	77

#	Article	IF	Citations
145	An effective method to screen sodium-based layered materials for sodium ion batteries. Npj Computational Materials, 2018, 4, .	3.5	77
146	Moltenâ€Saltâ€Assisted Synthesis of 3D Holey Nâ€Doped Graphene as Bifunctional Electrocatalysts for Rechargeable Znâ€"Air Batteries. Small Methods, 2018, 2, 1800144.	4.6	77
147	Fe nanodot-decorated MoS₂ nanosheets on carbon cloth: an efficient and flexible electrode for ambient ammonia synthesis. Journal of Materials Chemistry A, 2019, 7, 27417-27422.	5.2	77
148	2â€‰D Materials for Electrochemical Energy Storage: Design, Preparation, and Application. ChemSusChem, 2020, 13, 1155-1171.	3.6	77
149	Electronic and photocatalytic performance of boron phosphide-blue phosphorene vdW heterostructures. Applied Surface Science, 2020, 523, 146483.	3.1	77
150	Energetics and electronic structures of AlN nanotubes/wires and their potential application as ammonia sensors. Nanotechnology, 2007, 18, 424023.	1.3	76
151	Computational prediction of experimentally possible g-C3N3 monolayer as hydrogen purification membrane. International Journal of Hydrogen Energy, 2014, 39, 5037-5042.	3.8	76
152	Improving Electrochemical Performances of Rechargeable Liâ^ˆ'CO₂ Batteries with an Electrolyte Redox Mediator. ChemElectroChem, 2017, 4, 2145-2149.	1.7	76
153	Well-dispersed Na₃V₂(PO₄)₂F₃@rGO with improved kinetics for high-power sodium-ion batteries. Journal of Materials Chemistry A, 2020, 8, 12391-12397.	5.2	76
154	Catalyst Design for Electrochemical Reduction of CO₂ to Multicarbon Products. Small Methods, 2021, 5, e2100736.	4.6	74
155	Carbonâ€Supported Divacancyâ€Anchored Platinum Singleâ€Atom Electrocatalysts with Superhigh Pt Utilization for the Oxygen Reduction Reaction. Angewandte Chemie, 2019, 131, 1175-1179.	1.6	73
156	Nickel single-atom catalysts intrinsically promoted by fast pyrolysis for selective electroreduction of CO2 into CO. Applied Catalysis B: Environmental, 2022, 304, 120997.	10.8	73
157	Engineering the Electronic Structure of Single-Walled Carbon Nanotubes by Chemical Functionalization. ChemPhysChem, 2005, 6, 598-601.	1.0	71
158	Metalâ€"organic-framework-derived porous 3D heterogeneous NiFe_x/NiFe₂O₄@NC nanoflowers as highly stable and efficient electrocatalysts for the oxygen-evolution reaction. Journal of Materials Chemistry A, 2019, 7, 21338-21348.	5.2	71
159	Li/LiFePO4 batteries with room temperature ionic liquid as electrolyte. Electrochemistry Communications, 2009, 11, 1500-1503.	2.3	70
160	Nanomaterials and Technologies for Lithiumâ€Ion Hybrid Supercapacitors. ChemNanoMat, 2016, 2, 578-587.	1.5	70
161	Ab initio investigations on bulk and monolayer V₂O₅ as cathode materials for Li-, Na-, K- and Mg-ion batteries. Journal of Materials Chemistry A, 2016, 4, 16606-16611.	5.2	70
162	Rational design of C₂N-based type-II heterojunctions for overall photocatalytic water splitting. Nanoscale Advances, 2019, 1, 154-161.	2.2	70

#	Article	IF	Citations
163	Rational design of SnO₂@C nanocomposites for lithium ion batteries by utilizing adsorption properties of MOFs. Chemical Communications, 2016, 52, 717-720.	2.2	69
164	Designing high-voltage carbonyl-containing polycyclic aromatic hydrocarbon cathode materials for Li-ion batteries guided by Clar's theory. Journal of Materials Chemistry A, 2015, 3, 19137-19143.	5.2	68
165	NASICONâ€Type Na₃Zr₂Si₂PO₁₂ Solidâ€State Electrolytes for Sodium Batteries**. ChemElectroChem, 2021, 8, 1035-1047.	1.7	68
166	Atomic and Electronic Structures of Fluorinated BN Nanotubes:Â Computational Study. Journal of Physical Chemistry B, 2006, 110, 25678-25685.	1.2	67
167	Size- and Surface-dependent Stability, Electronic Properties, and Potential as Chemical Sensors: Computational Studies on One-dimensional ZnO Nanostructures. Journal of Physical Chemistry C, 2008, 112, 13926-13931.	1.5	67
168	Structural and electronic properties of grapheneâ€“ZnO interfaces: dispersion-corrected density functional theory investigations. Nanotechnology, 2013, 24, 305401.	1.3	67
169	Comparative Study of Carbon and BN Nanographenes: Ground Electronic States and Energy Gap Engineering. Journal of Physical Chemistry C, 2008, 112, 12677-12682.	1.5	66
170	Improved cyclic performances of LiCoPO4/C cathode materials for high-cell-potential lithium-ion batteries with thiophene as an electrolyte additive. Electrochimica Acta, 2012, 59, 172-178.	2.6	66
171	Tuning band gaps of BN nanosheets and nanoribbons via interfacial dihalogen bonding and external electric field. Nanoscale, 2014, 6, 8624-8634.	2.8	64
172	Targeted design of advanced electrocatalysts by machine learning. Chinese Journal of Catalysis, 2022, 43, 11-32.	6.9	63
173	In Situ Anchoring Massive Isolated Pt Atoms at Cationic Vacancies of Î±â€Ni_xFe_{1â€x}(OH)₂ to Regulate the Electronic Structure for Overall Water Splitting. Advanced Functional Materials, 2022, 32, .	7.8	63
174	Template-Free Synthesis and Photocatalytic Application of Rutile TiO₂ Hierarchical Nanostructures. Industrial & Engineering Chemistry Research, 2011, 50, 6681-6687.	1.8	62
175	GO-induced preparation of flake-shaped Na₃V₂(PO₄)₃@rGO as high-rate and long-life cathodes for sodium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 25276-25281.	5.2	62
176	Critical interface between inorganic solid-state electrolyte and sodium metal. Materials Today, 2020, 41, 200-218.	8.3	62
177	Enhanced Lithium Absorption in Single-Walled Carbon Nanotubes by Boron Doping. Journal of Physical Chemistry B, 2004, 108, 9023-9026.	1.2	61
178	Single-atom catalysts for electrochemical energy storage and conversion. Journal of Energy Chemistry, 2021, 63, 170-194.	7.1	61
179	Surface modification and electrochemical studies of spherical nickel hydroxide. Journal of Power Sources, 1998, 72, 221-225.	4.0	60
180	Rutile TiO₂nanobundles on reduced graphene oxides as anode materials for Li ion batteries. Chemical Communications, 2014, 50, 11915-11918.	2.2	60

#	Article	IF	Citations
181	Unveiling the Complex Effects of H₂O on Dischargeâ€“Recharge Behaviors of Aprotic Lithiumâ€“O₂ Batteries. Journal of Physical Chemistry Letters, 2018, 9, 3333-3339.	2.1	60
182	Solâ€“gel preparation and electrochemical performances of LiFe1/3Mn1/3Co1/3PO4/C composites with coreâ€“shell nanostructure. Electrochemistry Communications, 2009, 11, 1183-1186.	2.3	59
183	Binder-free NiFe 2 O 4 /C nanofibers as air cathodes for Li-O 2 batteries. Journal of Power Sources, 2018, 377, 136-141.	4.0	59
184	Hard carbon derived from corn straw piths as anode materials for sodium ion batteries. Ionics, 2018, 24, 1075-1081.	1.2	59
185	Alluaudite Na₂Co₂Fe(PO₄)₃as an electroactive material for sodium ion batteries. Dalton Transactions, 2015, 44, 7881-7886.	1.6	58
186	TiO₂â€“B nanorods on reduced graphene oxide as anode materials for Li ion batteries. Chemical Communications, 2015, 51, 507-510.	2.2	58
187	Design of ultralong-life Liâ€“CO₂ batteries with IrO₂ nanoparticles highly dispersed on nitrogen-doped carbon nanotubes. Journal of Materials Chemistry A, 2020, 8, 3763-3770.	5.2	58
188	Ni₃S₂ anchored to N/S co-doped reduced graphene oxide with highly pleated structure as a sulfur host for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2020, 8, 3834-3844.	5.2	56
189	Coupling of triporosity and strong Auâ€“Li interaction to enable dendrite-free lithium plating/stripping for long-life lithium metal anodes. Journal of Materials Chemistry A, 2020, 8, 18094-18105.	5.2	56
190	Mesoporous slit-structured NiO for high-performance pseudocapacitors. Physical Chemistry Chemical Physics, 2012, 14, 11048.	1.3	55
191	Two better than one: cobaltâ€“copper bimetallic yolkâ€“shell nanoparticles supported on graphene as excellent cathode catalysts for Liâ€“O₂batteries. Journal of Materials Chemistry A, 2015, 3, 17874-17879.	5.2	55
192	ZnOâ€“GaN heterostructured nanosheets for solar energy harvesting: computational studies based on hybrid density functional theory. Journal of Materials Chemistry A, 2013, 1, 2231-2237.	5.2	54
193	A composite of CoNiP quantum dot-decorated reduced graphene oxide as a sulfur host for Liâ€“S batteries. Journal of Materials Chemistry A, 2021, 9, 16692-16698.	5.2	54
194	Carbon Nanofibers with Embedded Sb₂Se₃ Nanoparticles as Highly Reversible Anodes for Naâ€Ion Batteries. Small, 2021, 17, e2006016.	5.2	54
195	Redox mediators for high-performance lithiumâ€“oxygen batteries. National Science Review, 2022, 9, nwac040.	4.6	54
196	Electrical properties of K0.5Na0.5NbO3 thin films grown on Nb:SrTiO3 single-crystalline substrates with different crystallographic orientations. Journal of Applied Physics, 2013, 113, .	1.1	53
197	Functionalization of BN nanotubes with dichlorocarbenes. Nanotechnology, 2008, 19, 015202.	1.3	52
198	NiFe₂O₄â€“CNT composite: an efficient electrocatalyst for oxygen evolution reactions in Liâ€“O₂batteries guided by computations. Journal of Materials Chemistry A, 2016, 4, 9390-9393.	5.2	52

#	Article	IF	Citations
199	2D Triphosphides: SbP3 and GaP3 monolayer as promising photocatalysts for water splitting. International Journal of Hydrogen Energy, 2019, 44, 5948-5954.	3.8	52
200	Structure and properties of phosphorene-like IV-VI 2D materials. Nanotechnology, 2016, 27, 415203.	1.3	51
201	Cu₃-Cluster-Doped Monolayer Mo₂CO₂ (MXene) as an Electron Reservoir for Catalyzing a CO Oxidation Reaction. ACS Applied Materials & Interfaces, 2018, 10, 32903-32912.	4.0	51
202	Firstâ€principles study of molecular hydrogen dissociation on doped Al₁₂X (X = B, Al, C, Si,) Tj ETQq0 0 0 rgBT /Overlock 10	1.5	50
203	Enhanced 1.54Î¼m photoluminescence from Er-containing ZnO through nitrogen doping. Applied Physics Letters, 2005, 86, 041107.	1.5	49
204	LiVOPO4Hollow Microspheres: One-Pot Hydrothermal Synthesis with Reactants as Self-Sacrifice Templates and Lithium Intercalation Performances. Journal of Physical Chemistry C, 2008, 112, 13043-13046.	1.5	49
205	Algorithm screening to accelerate discovery of 2D metal-free electrocatalysts for hydrogen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 19290-19296.	5.2	48
206	Preparation and electrochemical Li storage performance of MnO@C nanorods consisting of ultra small MnO nanocrystals. RSC Advances, 2013, 3, 9035.	1.7	47
207	Could Li/Ni Disorder be Utilized Positively? Combined Experimental and Computational Investigation on Pillar Effect of Ni at Li Sites on LiCoO 2 at High Voltages. Electrochimica Acta, 2014, 146, 784-791.	2.6	47
208	High Carrier Mobility and Pronounced Light Absorption in Methyl-Terminated Germanene: Insights from First-Principles Computations. Journal of Physical Chemistry Letters, 2015, 6, 4252-4258.	2.1	47
209	Lithium-air batteries: Challenges coexist with opportunities. APL Materials, 2019, 7, .	2.2	47
210	Ultrathin salt-free polymer-in-ceramic electrolyte for solid-state sodium batteries. EScience, 2021, 1, 194-202.	25.0	47
211	Transformation from chemisorption to physisorption with tube diameter and gas concentration: Computational studies on NH3 adsorption in BN nanotubes. Journal of Chemical Physics, 2007, 127, 184705.	1.2	46
212	Facet-dependent activity of bismuth sulfide as low-cost counter-electrode materials for dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 18572.	6.7	46
213	Thermal Instability Induced Oriented 2D Pores for Enhanced Sodium Storage. Small, 2018, 14, e1800639.	5.2	46
214	Computational screening and first-principles investigations of NASICON-type Li_xM₂(PO₄)₃ as solid electrolytes for Li batteries. Journal of Materials Chemistry A, 2018, 6, 2625-2631.	5.2	46
215	True Nanocable Assemblies with Insulating BN Nanotube Sheaths and Conducting Cu Nanowire Cores. Journal of Physical Chemistry B, 2006, 110, 2529-2532.	1.2	45
216	Tiâ€Substituted Boranes as Hydrogen Storage Materials: A Computational Quest for the Ideal Combination of Stable Electronic Structure and Optimal Hydrogen Uptake. Chemistry - A European Journal, 2009, 15, 5910-5919.	1.7	45

#	Article	IF	Citations
217	Synergistic electrocatalytic oxygen reduction reactions of Pd/B4C for ultra-stable Zn-air batteries. Energy Storage Materials, 2018, 15, 226-233.	9.5	45
218	Tuning the structure and morphology of Li2O2 by controlling the crystallinity of catalysts for Li-O2 batteries. Chemical Engineering Journal, 2021, 409, 128145.	6.6	45
219	Understanding the role of axial O in CO₂ electroreduction on NiN₄ single-atom catalysts <i>via</i> simulations in realistic electrochemical environment. Journal of Materials Chemistry A, 2021, 9, 23515-23521.	5.2	45
220	Well-distributed TiO2 nanocrystals on reduced graphene oxides as high-performance anode materials for lithium ion batteries. RSC Advances, 2013, 3, 13696.	1.7	44
221	Understanding the Structureâ€"Performance Relationship of Lithium-Rich Cathode Materials from an Oxygen-Vacancy Perspective. ACS Applied Materials & Interfaces, 2020, 12, 47655-47666.	4.0	44
222	Î±-Na₂Ni₂Fe(PO₄)₃: a dual positive/negative electrode material for sodium ion batteries. Dalton Transactions, 2015, 44, 4526-4532.	1.6	43
223	Highâ€throughput computational screening of layered and twoâ€dimensional materials. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2019, 9, e1385.	6.2	43
224	Synthesis and Catalytic Properties of Sb₂S₃ Nanowire Bundles as Counter Electrodes for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 10285-10290.	1.5	42
225	Tetragonal-structured anisotropic 2D metal nitride monolayers and their halides with versatile promises in energy storage and conversion. Journal of Materials Chemistry A, 2017, 5, 2870-2875.	5.2	42
226	LiFePO₄ Particles Embedded in Fast Bifunctional Conductor rGO&C@Li₃V₂(PO₄)₃ Nanosheets as Cathodes for Highâ€Performance Liâ€Ion Hybrid Capacitors. Advanced Functional Materials, 2019, 29, 1807895.	7.8	42
227	Highly reversible alloying/dealloying behavior of SnSb nanoparticles incorporated into N-rich porous carbon nanowires for ultra-stable Na storage. Energy Storage Materials, 2019, 21, 203-209.	9.5	42
228	How Do Surface and Edge Effects Alter the Electronic Properties of GaN Nanoribbons?. Journal of Physical Chemistry C, 2011, 115, 1724-1731.	1.5	41
229	Do all wurtzite nanotubes prefer faceted ones?. Journal of Chemical Physics, 2009, 130, 204706.	1.2	40
230	An Extremely Simple Method for Protecting Lithium Anodes in Liâ€O₂ Batteries. Angewandte Chemie, 2018, 130, 12996-13000.	1.6	40
231	First-principles computational studies on layered Na₂Mn₃O₇ as a high-rate cathode material for sodium ion batteries. Journal of Materials Chemistry A, 2017, 5, 12752-12756.	5.2	39
232	Liâ€N₂ Batteries: A Reversible Energy Storage System?. Angewandte Chemie - International Edition, 2019, 58, 17782-17787.	7.2	39
233	Recent Progress in Protecting Lithium Anodes for Liâ€O₂ Batteries. ChemElectroChem, 2019, 6, 1969-1977.	1.7	39
234	Single Moâ€"N₄ Atomic Sites Anchored on Nâ€doped Carbon Nanoflowers as Sulfur Host with Multiple Immobilization and Catalytic Effects for Highâ€Performance Lithiumâ€"Sulfur Batteries. Advanced Functional Materials, 2022, 32, .	7.8	39

#	Article	IF	Citations
235	A Gadolinium(III) Zeolite-like Metal-Organic-Framework-Based Magnetic Resonance Thermometer. CheM, 2019, 5, 1609-1618.	5.8	38
236	Preserving the Edge Magnetism of Zigzag Graphene Nanoribbons by Ethylene Termination: Insight by Clar's Rule. Scientific Reports, 2013, 3, 2030.	1.6	37
237	Rational Design of Ni Nanoparticles on Nâ€Rich Ultrathin Carbon Nanosheets for Highâ€Performance Supercapacitor Materials: Embeddedâ€•Versus Anchoredâ€Type Dispersion. Chemistry - A European Journal, 2014, 20, 5046-5053.	1.7	37
238	Oxygen reduction reaction on Pt-based electrocatalysts: Four-electron vs. two-electron pathway. Chinese Journal of Catalysis, 2022, 43, 1433-1443.	6.9	37
239	Band Gap Engineering of BN Sheets by Interlayer Dihydrogen Bonding and Electric Field Control. ChemPhysChem, 2013, 14, 1787-1792.	1.0	36
240	Co₃O₄ Hollow Nanoparticles and Co Organic Complexes Highly Dispersed on Nâ€Doped Graphene: An Efficient Cathode Catalyst for Liâ€O₂ Batteries. Particle and Particle Systems Characterization, 2015, 32, 680-685.	1.2	36
241	Promoting Nitrogen Electroreduction on Mo₂C Nanoparticles Highly Dispersed on Nâ€Doped Carbon Nanosheets toward Rechargeable Liâ€"N₂ Batteries. Small Methods, 2019, 3, 1800334.	4.6	36
242	The Effect of Gas Adsorption on Carbon Nanotubes Properties. Journal of Computational and Theoretical Nanoscience, 2006, 3, 664-669.	0.4	35
243	NC unit trapped by fullerenes: a density functional theory study on Sc3NC@C2n (2n = 68, 78 and 80). Physical Chemistry Chemical Physics, 2010, 12, 12442.	1.3	35
244	Chrysanthemum-like Co3O4 architectures: Hydrothermal synthesis and lithium storage performances. Solid State Sciences, 2012, 14, 451-455.	1.5	35
245	Preparation and Ni-Doping Effect of Nanosized Truncated Octahedral LiCoMnO₄ As Cathode Materials for 5 V Li-Ion Batteries. ACS Applied Materials & Interfaces, 2013, 5, 12185-12189.	4.0	35
246	A first-principles study of electronic structure and photocatalytic performance of two-dimensional van der Waals MTe2â€"As (MÂ=ÂMo, W) heterostructures. International Journal of Hydrogen Energy, 2020, 45, 27089-27097.	3.8	35
247	Reduced Li diffusion barriers in composite BC3 nanotubes. Chemical Physics Letters, 2005, 415, 323-326.	1.2	34
248	Threeâ€Dimensional Grapheneâ€Based Macrostructures for Electrocatalysis. Small, 2021, 17, e2005255.	5.2	34
249	Versatile Electronic and Magnetic Properties of Corrugated V₂O₅ Two-Dimensional Crystal and Its Derived One-Dimensional Nanoribbons: A Computational Exploration. Journal of Physical Chemistry C, 2011, 115, 11983-11990.	1.5	33
250	Coreâ€"shell VPO4/C anode materials for Li ion batteries: Computational investigation and solâ€"gel synthesis. Journal of Alloys and Compounds, 2012, 522, 167-171.	2.8	33
251	Electronic Properties of Ï€-Conjugated Nickel Bis(dithiolene) Network and Its Addition Reactivity with Ethylene. Journal of Physical Chemistry C, 2013, 117, 14125-14129.	1.5	33
252	The First Example of Heteroâ€Tripleâ€Walled Metalâ€"Organic Frameworks with High Chemical Stability Constructed via Flexible Integration of Mixed Molecular Building Blocks. Advanced Science, 2016, 3, 1500283.	5.6	33

#	Article	IF	Citations
253	Computational Screening of Layered Materials for Multivalent Ion Batteries. ACS Omega, 2019, 4, 7822-7828.	1.6	33
254	A Cu₂B₂ monolayer with planar hypercoordinate motifs: an efficient catalyst for CO electroreduction to ethanol. Journal of Materials Chemistry A, 2020, 8, 9607-9615.	5.2	32
255	High-capacity and small-polarization aluminum organic batteries based on sustainable quinone-based cathodes with Al3+ insertion. Cell Reports Physical Science, 2021, 2, 100354.	2.8	32
256	Preparation of porous spherical Î±-Ni(OH)2 and enhancement of high-temperature electrochemical performances through yttrium addition. Electrochimica Acta, 2006, 52, 1120-1126.	2.6	31
257	LiVOPO4 as an anode material for lithium ion batteries. Journal of Applied Electrochemistry, 2010, 40, 209-213.	1.5	31
258	Achieving Ferromagnetism in Single-Crystalline ZnS Wurtzite Nanowires via Chromium Doping. Journal of Physical Chemistry C, 2010, 114, 12099-12103.	1.5	31
259	Porous hollow LiCoMnO 4 microspheres as cathode materials for 5ÂV lithium ion batteries. Journal of Power Sources, 2014, 247, 794-798.	4.0	31
260	Understanding Rechargeable Liâˆ’O₂ Batteries via Firstâ€Principles Computations. Batteries and Supercaps, 2019, 2, 498-508.	2.4	31
261	Fabricating high-performance sodium ion capacitors with P2-Na0.67Co0.5Mn0.5O2 and MOF-derived carbon. Journal of Energy Chemistry, 2019, 28, 79-84.	7.1	31
262	Cobalt oxyhydroxide decorating hollow carbon sphere: A high-efficiency multi-functional material for Li-S batteries and alkaline electrocatalysis. Chemical Engineering Journal, 2022, 439, 135790.	6.6	31
263	High-temperature electrochemical performance of spherical Ni(OH)2Ni(OH)2 coated with Lu(OH)3Lu(OH)3. International Journal of Hydrogen Energy, 2006, 31, 71-76.	3.8	30
264	Electronic and Magnetic Properties of Hybrid Graphene Nanoribbons with Zigzag-Armchair Heterojunctions. Journal of Physical Chemistry C, 2012, 116, 208-213.	1.5	30
265	Zeolitic imidazole framework derived composites of nitrogen-doped porous carbon and reduced graphene oxide as high-efficiency cathode catalysts for Liâ€“O₂ batteries. Inorganic Chemistry Frontiers, 2017, 4, 1533-1538.	3.0	30
266	SiP monolayers: New 2D structures of group IVâ€“V compounds for visible-light photohydrolytic catalysts. Frontiers of Physics, 2018, 13, 1.	2.4	30
267	Improving electrochemical performance of Li3V2(PO4)3 in a thiophene-containing electrolyte. Journal of Power Sources, 2013, 222, 373-378.	4.0	29
268	Towards visible-light water splitting Photocatalysts: Band engineering of two-dimensional A5B4O15 perovskites. Nano Energy, 2016, 28, 390-396.	8.2	29
269	Integrated insights into Na⁺ storage mechanism and electrochemical kinetics of ultrafine V₂O₃/S and N co-doped rGO composites as anodes for sodium ion batteries. Journal of Materials Chemistry A, 2019, 7, 22429-22435.	5.2	29
270	Computational studies on hydrogen storage in aluminum nitride nanowires/tubes. Nanotechnology, 2009, 20, 215701.	1.3	28

#	Article	IF	Citations
271	What is the promising anode material for Na ion batteries?. Science Bulletin, 2018, 63, 146-148.	4.3	28
272	Controllable fabrication and structure evolution of hierarchical 1T-MoS2 nanospheres for efficient hydrogen evolution. Green Energy and Environment, 2022, 7, 314-323.	4.7	28
273	Perspective on Theoretical Models for CO₂ Electrochemical Reduction. Journal of Physical Chemistry C, 2022, 126, 3820-3829.	1.5	28
274	Effects of hydrogen doping through ion implantation on the electrical conductivity of ZnO. International Journal of Hydrogen Energy, 2004, 29, 323-327.	3.8	27
275	Single-Layer [Cu₂Br(IN)₂]_{<i>n</i>} Coordination Polymer (CP): Electronic and Magnetic Properties, and Implication for Molecular Sensors. Journal of Physical Chemistry C, 2012, 116, 4119-4125.	1.5	27
276	In Situ Chelating Synthesis of Hierarchical LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ Polyhedron Assemblies with Ultralong Cycle Life for Liâ€Ion Batteries. Small, 2018, 14, e1704354.	5.2	27
277	Recent Advances in Alkali Metalâ€Ion Hybrid Supercapacitors. Batteries and Supercaps, 2021, 4, 1108-1121.	2.4	27
278	Effects of metal oxides on electrochemical hydrogen storage of nanocrystalline LaMg12â€“Ni composites. Electrochimica Acta, 2005, 50, 2187-2191.	2.6	26
279	First-principles studies on structural and electronic properties of GaNâ€“AlN heterostructure nanowires. Nanoscale, 2012, 4, 1078-1084.	2.8	26
280	Synthesis of Mesoporous Wallâ€Structured TiO₂ on Reduced Graphene Oxide Nanosheets with High Rate Performance for Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2015, 21, 5317-5322.	1.7	26
281	Structural changes upon lithium insertion in Ni 0.5 TiOPO 4. Journal of Alloys and Compounds, 2012, 530, 178-185.	2.8	25
282	Preparation of coreâ€“shell porous magnetite@carbon nanospheres through chemical vapor deposition as anode materials for lithium-ion batteries. Electrochimica Acta, 2015, 154, 136-141.	2.6	25
283	Towards Excellent Anodes for Liâ€Ion Batteries with High Capacity and Super Long Lifespan: Confining Ultrasmall Sn Particles into Nâ€Rich Grapheneâ€Based Nanosheets. Particle and Particle Systems Characterization, 2015, 32, 104-111.	1.2	25
284	Robust ferromagnetism in zigzag-edge rich MoS₂ pyramids. Nanoscale, 2018, 10, 11578-11584.	2.8	25
285	Surface modification of garnet with amorphous SnO₂<i>via</i> atomic layer deposition. Journal of Materials Chemistry A, 2020, 8, 18087-18093.	5.2	25
286	Nonâ€Metal Ion Coâ€Insertion Chemistry in Aqueous Zn/MnO₂ Batteries. Angewandte Chemie, 2021, 133, 7132-7136.	1.6	25
287	<i>Journal of Materials Chemistry A</i> and <i>Materials Advances</i> Editorâ€™s choice web collection: â€œMachine learning for materials innovationâ€ Journal of Materials Chemistry A, 2021, 9, 1295-1296.	5.2	24
288	Improved electrochemical Li insertion performances of Li3V2(PO4)3/carbon composite materials prepared by a solâ€“gel route. Materials Letters, 2007, 61, 4562-4564.	1.3	23

#	Article	IF	Citations
289	A Robust Hybrid of SnO₂ Nanoparticles Sheathed by Nâ€Doped Carbon Derived from ZIFâ€8 as Anodes for Liâ€Ion Batteries. ChemNanoMat, 2017, 3, 252-258.	1.5	23
290	MoCl₅ as a dual-function redox mediator for Liâ€"O₂ batteries. Journal of Materials Chemistry A, 2019, 7, 14239-14243.	5.2	23
291	Controlled synthesis of ZnO with adjustable morphologies from nanosheets to microspheres. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 348, 124-129.	2.3	22
292	Iron titanium phosphates as high-specific-capacity electrode materials for lithium ion batteries. Journal of Alloys and Compounds, 2014, 585, 434-441.	2.8	22
293	PAN@ZIF-67-Derived â€œGypsophilaâ€•Like CNFs@Co-CoO Composite as a Cathode for Liâ€"O₂ Batteries. Inorganic Chemistry, 2018, 57, 14476-14479.	1.9	22
294	Electrical Conductivity of Cu-Doped ZnO and its Change with Hydrogen Implantation. , 2003, 11, 73-79.		21
295	In situ redox reaction induced firmly anchoring of Na3V2(PO4)2F3 on reduced graphene oxide & carbon nanosheets as cathodes for high stable sodium-ion batteries. Journal of Power Sources, 2021, 516, 230515.	4.0	21
296	From Vanadium Naphthalene (V_{<i>n</i>â€"1}Np_{<i>n</i>}) Sandwich Clusters to VNp Sandwich Nanowire: Structural, Energetic, Electronic, and Magnetic Properties. Journal of Physical Chemistry A, 2012, 116, 1648-1654.	1.1	20
297	Enzymeâ€Inspired Roomâ€Temperature Lithiumâ€"Oxygen Chemistry via Reversible Cleavage and Formation of Dioxygen Bonds. Angewandte Chemie - International Edition, 2020, 59, 17856-17863.	7.2	20
298	S vacancies in 2D SnS2 accelerating hydrogen evolution reaction. Science China Materials, 2022, 65, 1833-1841.	3.5	19
299	Electrochemical behaviour of Ni(OH)2 ultrafine powder. Journal of Power Sources, 1998, 75, 283-287.	4.0	18
300	Controlled assembly of fluorescent multilayers from an aqueous solution of CdTe nanocrystals and nonionic carbazole-containing copolymers. Journal of Materials Chemistry, 2003, 13, 1356.	6.7	18
301	Coreâ€"shell Ni0.5TiOPO4/C composites as anode materials in Li ion batteries. Electrochimica Acta, 2011, 56, 2290-2294.	2.6	18
302	Electrochemical characteristics of nickel hydroxide modified by electroless cobalt coating. International Journal of Hydrogen Energy, 1998, 23, 873-878.	3.8	17
303	One-pot solvothermal route to self-assembly of cauliflower-shaped CdS microspheres. Applied Surface Science, 2011, 257, 6595-6600.	3.1	17
304	Reduced Graphene Oxideâ€Supported TiO₂ Fiber Bundles with Mesostructures as Anode Materials for Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2015, 21, 14454-14459.	1.7	17
305	Band engineering of two-dimensional Ruddlesdenâ€"Popper perovskites for solar utilization: the relationship between chemical components and electronic properties. Journal of Materials Chemistry A, 2019, 7, 11530-11536.	5.2	17
306	Doping effects on 1.54Î¼m photoluminescence from Er-containing ZnO. Optical Materials, 2006, 28, 727-730.	1.7	16

#	Article	IF	Citations
307	Computational Investigation on Structural and Physical Properties of AlN Nanosheets and Nanoribbons. Journal of Nanoscience and Nanotechnology, 2010, 10, 7200-7203.	0.9	16
308	Recent progress of computational investigation on anode materials in Li ion batteries. Frontiers of Physics, 2011, 6, 197-203.	2.4	16
309	Defective/Doped Grapheneâ€Based Materials as Cathodes for Metalâ€“Air Batteries. Energy and Environmental Materials, 2022, 5, 1103-1116.	7.3	16
310	Direct <i>In Situ</i> Spectroscopic Evidence for Solution-Mediated Oxygen Reduction Reaction Intermediates in Aprotic Lithiumâ€“Oxygen Batteries. Nano Letters, 2022, 22, 501-507.	4.5	16
311	Fiberâ€Reinforced Composite Polymer Electrolytes for Solidâ€State Lithium Batteries. Advanced Sustainable Systems, 2022, 6, .	2.7	16
312	Changes in the properties and structure of hydrogen-storage electrodes after long-term charge/discharge cycling. Journal of Power Sources, 1998, 72, 236-238.	4.0	15
313	Regeneration of hydrogen storage alloy in spent nickelâ€“metal hydride batteries. Journal of Alloys and Compounds, 2002, 336, 237-241.	2.8	15
314	Coaxial Nanocables of AlN Nanowire Core and Carbon/BN Nanotube Shell. Journal of Physical Chemistry C, 2007, 111, 18533-18537.	1.5	15
315	Micro/Nanostructureâ€Dependent Electrochemical Performances of Sb 2 O 3 Microâ€Bundles as Anode Materials for Sodiumâ€Ion Batteries. ChemElectroChem, 2018, 5, 2522-2527.	1.7	15
316	Building the Stable Oxygen Framework in Highâ€Ni Layered Oxide Cathode for Highâ€Energyâ€Density Liâ€Ion Batteries. Energy and Environmental Materials, 2022, 5, 1260-1269.	7.3	15
317	Photoluminescence around 1.54 μm from Er-containing ZnO at Room Temperature. Materials Transactions, 2004, 45, 2003-2007.	0.4	14
318	First-principles investigations on delithiation of Li₄NiTeO₆. Physical Chemistry Chemical Physics, 2014, 16, 16145.	1.3	14
319	MnBx monolayers with quasi-planar hypercoordinate Mn atoms and unique magnetic and mechanical properties. FlatChem, 2017, 4, 42-47.	2.8	14
320	Computationally predicting spin semiconductors and half metals from doped phosphorene monolayers. Frontiers of Physics, 2019, 14, 1.	2.4	14
321	Diversified development of CO2 in energy storage. Green Chemical Engineering, 2020, 1, 79-81.	3.3	14
322	Computational study of catalytic effect of C3N4 on H2 release from complex hydrides. International Journal of Hydrogen Energy, 2015, 40, 8897-8902.	3.8	13
323	Pd-promoting reduction of zinc salt to PdZn alloy catalyst for the hydrogenation of nitrothioanisole. Journal of Colloid and Interface Science, 2021, 602, 459-468.	5.0	13
324	Lightâ€Assisted Liâ€“O₂ Batteries with Lowered Bias Voltages by Redox Mediators. Small, 2022, 18, .	5.2	13

#	Article	IF	Citations
325	K_{1â€“<i>x</i>}Mo₃P₂O₁₄ as Support for Single-Atom Catalysts. Journal of Physical Chemistry C, 2017, 121, 22895-22900.	1.5	12
326	Metal-oxygen bonds: Stabilizing the intermediate species towards practical Li-air batteries. Electrochimica Acta, 2018, 259, 313-320.	2.6	12
327	Carbon block anodes with columnar nanopores constructed from amine-functionalized carbon nanosheets for sodium-ion batteries. Journal of Materials Chemistry A, 2020, 8, 24393-24400.	5.2	11
328	Observation of oxygen evolution over a {Ni12}-cluster-based metal-organic framework. Science China Chemistry, 2022, 65, 1088-1093.	4.2	11
329	Electronic and Magnetic Properties of BN Monolayer Sheets with H- or O-Saturated Vacancies: A First-Principles Study. Journal of Computational and Theoretical Nanoscience, 2011, 8, 1513-1519.	0.4	10
330	p-Block elements for catalysis. Npj Computational Materials, 2021, 7, .	3.5	10
331	Insertion of C₅₀ into singleâ€walled carbon nanotubes: Selectivity in interwall spacing and C₅₀ isomers. Journal of Computational Chemistry, 2008, 29, 781-787.	1.5	8
332	How Different Are BN Nanotubes from Carbon Nanotubes?. Journal of Computational and Theoretical Nanoscience, 2009, 6, 327-334.	0.4	7
333	Metal-decorated defective BN nanosheets as hydrogen storage materials. Frontiers of Physics, 2011, 6, 224-230.	2.4	7
334	Computational prediction of the electronic structure and optical properties of graphene-like Î²-CuN₃. Physical Chemistry Chemical Physics, 2015, 17, 31872-31876.	1.3	7
335	Accelerated Mining of 2D Van der Waals Heterojunctions by Integrating Supervised and Unsupervised Learning. Chemistry of Materials, 2022, 34, 5571-5583.	3.2	7
336	The transition from two-stage to three-stage evolution of wetting layer of InAs/GaAs quantum dots caused by postgrowth annealing. Applied Physics Letters, 2011, 98, 071914.	1.5	6
337	Targeting specific cell organelles with different-faceted nanocrystals that are selectively recognized by organelle-targeting peptides. Chemical Communications, 2020, 56, 7613-7616.	2.2	6
338	Functionalization of BN nanotubes with free radicals: electroaffinity-independent configuration and band structure engineering. Frontiers of Physics in China, 2009, 4, 378-382.	1.0	5
339	Cuâ€“ion induced self-polymerization of Cu phthalocyanine to prepare low-cost organic cathode materials for Li-ion batteries with ultra-high voltage and ultra-fast rate capability. Journal of Materials Chemistry A, 2021, 9, 24915-24921.	5.2	5
340	Coal-based ultrathin N-doped carbon nanosheets synthesized by molten-salt method for high-performance lithium-ion batteries. Nanotechnology, 2022, 33, 425401.	1.3	5
341	Effects of Nitrogen Irradiation on Photoluminescence around 1.54 μm from Er-containing ZnO. Materials Transactions, 2004, 45, 2906-2908.	0.4	4
342	Synthesis of CuInS2 Microspheres using In2S3 Microspheres as Templates. Australian Journal of Chemistry, 2009, 62, 1690.	0.5	4

#	Article	IF	Citations
343	Recent Computational Explorations for Nanostructured Hydrogen Storage Materials. Journal of Computational and Theoretical Nanoscience, 2011, 8, 2398-2405.	0.4	4
344	C/CrC nanocomposite coating deposited by magnetron sputtering at high ion irradiation conditions. Journal of Applied Physics, 2011, 110, 073301.	1.1	4
345	Enzymeâ€Inspired Roomâ€Temperature Lithiumâ€“Oxygen Chemistry via Reversible Cleavage and Formation of Dioxygen Bonds. Angewandte Chemie, 2020, 132, 18012-18019.	1.6	4
346	A New Approach to the Fabrication of a Self-Organizing Film of Heterostructured Polymer/Cu2S Nanoparticles. Advanced Materials, 1998, 10, 529-532.	11.1	4
347	Novel Carbon Nanotube Peapods Encapsulating Au₃₂ Golden Fullerene. Journal of Computational and Theoretical Nanoscience, 2006, 3, 459-462.	0.4	4
348	Fuzzy ta/2 symmetries of straight chain conjugate polyene molecules. Science in China Series B: Chemistry, 2009, 52, 1892-1910.	0.8	3
349	Uniform Chrysanthemum-Like Bi2S3 Microspheres for Dye-Sensitised Solar Cells. Australian Journal of Chemistry, 2012, 65, 1342.	0.5	3
350	Preparation and electrochemical performance of Mo6V9O40 nanorods as cathode materials for Li batteries. RSC Advances, 2015, 5, 15395-15398.	1.7	3
351	Bi-layer Graphene: Structure, Properties, Preparation and Prospects. Current Graphene Science, 2019, 2, 97-105.	0.5	3
352	A CO₂-Assisted Sodiumâ€“Phenanthrenequinone Battery. Journal of Physical Chemistry Letters, 2020, 11, 5350-5353.	2.1	3
353	Crystal structures of two thiacalix[4]arene derivatives anchoring four thiadiazole groups. Journal of Chemical Sciences, 2009, 121, 1047-1052.	0.7	2
354	Graphitization and Pore Structure Adjustment of Graphene for Energy Storage and Conversion. Current Graphene Science, 2017, 1, .	0.5	2
355	Liâ€N 2 Batteries: A Reversible Energy Storage System?. Angewandte Chemie, 2019, 131, 17946-17951.	1.6	2
356	Effects of S-Doping and Subsequent Annealing on Photoluminescence around 1.54Å³m from Er-Containing ZnO. Materials Science Forum, 2005, 475-479, 1125-1128.	0.3	1
357	Electrochemical Capacitors: Fabrication of High-Power Li-Ion Hybrid Supercapacitors by Enhancing the Exterior Surface Charge Storage (Adv. Energy Mater. 17/2015). Advanced Energy Materials, 2015, 5, n/a-n/a.	10.2	1
358	Water Splitting: Computational Screening of 2D Materials and Rational Design of Heterojunctions for Water Splitting Photocatalysts (Small Methods 5/2018). Small Methods, 2018, 2, 1800031.	4.6	1
359	Titelbild: Liâ€N₂ Batteries: A Reversible Energy Storage System? (Angew. Chem. 49/2019). Angewandte Chemie, 2019, 131, 17645-17645.	1.6	1
360	Journal of Materials Chemistry A and Materials Advances Editor's choice web collection: â€œMachine learning for materials innovationâ€. Materials Advances, 2021, 2, 825-826.	2.6	1

#	Article	IF	Citations
361	Reflection of Neutrons from an Optical Grating. Materials Research Society Symposia Proceedings, 1994, 376, 199.	0.1	0
362	ACHIEVING P-TYPE SEMICONDUCTING ZnO NANOWIRES VIA DONOR ADSORPTION. Journal of Theoretical and Computational Chemistry, 2013, 12, 1350014.	1.8	0
363	InGaAs Complementary metal-oxide-semiconductor fabricated on GaAs Substrate using Al<inf>2</inf>O<inf>3</inf> as gate oxide. , 2014, , .		0
364	Cover Image, Volume 6, Issue 1. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2016, 6, i-i.	6.2	0
365	Frontispiz: Enzymeâ€Inspired Roomâ€Temperature Lithiumâ€“Oxygen Chemistry via Reversible Cleavage and Formation of Dioxygen Bonds. Angewandte Chemie, 2020, 132, .	1.6	0
366	Frontispiece: Enzymeâ€Inspired Roomâ€Temperature Lithiumâ€“Oxygen Chemistry via Reversible Cleavage and Formation of Dioxygen Bonds. Angewandte Chemie - International Edition, 2020, 59, .	7.2	0
367	Synthesis of metal silicides using polyhedral oligomeric silsesquioxane as a silicon source for semi-hydrogenation of phenylacetylene. Inorganic Chemistry Frontiers, 2022, 9, 1386-1394.	3.0	0
368	Improvement in raw-starch-digesting glucoamylase production by electrofusion of Aspergillus niger. Chinese Journal of Biotechnology, 1993, 9, 203-9.	0.0	0