Shuqiang Jiao

List of Publications by Citations

122 papers	5,285 citations	38 h-index	70 g-index
125 ext. papers	6,133 ext. citations	10.5 avg, IF	6.07 L-index

#	Paper	IF	Citations
122	A new aluminium-ion battery with high voltage, high safety and low cost. *Chemical Communications*, **2015**, 51, 11892-5	5.8	341
121	A Novel Aluminum-Ion Battery: Al/AlCl3-[EMIm]Cl/Ni3S2@Graphene. *Advanced Energy Materials*, **2016**, 6, 1600137	21.8	306
120	High-Performance Aluminum-Ion Battery with CuS@C Microsphere Composite Cathode. *ACS Nano*, **2017**, 11, 469-477	16.7	298
119	A new cathode material for super-valent battery based on aluminium ion intercalation and deintercalation. *Scientific Reports*, **2013**, 3, 3383	4.9	252
118	In situ synthesis of □phase heterojunction on Bi2O3 nanowires with exceptional visible-light photocatalytic performance. *Applied Catalysis B: Environmental*, **2013**, 142-143, 504-511	21.8	207
117	High-performance p-Cu2O/n-TaON heterojunction nanorod photoanodes passivated with an ultrathin carbon sheath for photoelectrochemical water splitting. *Energy and Environmental Science* , **2014**, 7, 3758-3768	35.4	152
116	Microspheric Na2Ti3O7 consisting of tiny nanotubes: an anode material for sodium-ion batteries with ultrafast charge-discharge rates. *Nanoscale*, **2013**, 5, 594-9	7.7	150
115	Efficient visible-light-driven photocatalytic hydrogen production using CdS@TaON core□shell composites coupled with graphene oxide nanosheets. *Journal of Materials Chemistry*, **2012**, 22, 7291		144
114	Bi2O3 quantum dots decorated anatase TiO2 nanocrystals with exposed {0 0 1} facets on graphene sheets for enhanced visible-light photocatalytic performance. *Applied Catalysis B: Environmental*, **2013**, 129, 333-341	21.8	140
113	Flexible Stable Solid-State Al-Ion Batteries. *Advanced Functional Materials*, **2019**, 29, 1806799	15.6	126
112	Rechargeable ultrahigh-capacity tellurium□luminum batteries. *Energy and Environmental Science*, **2019**, 12, 1918-1927	35.4	124
111	A long-life rechargeable Al ion battery based on molten salts. *Journal of Materials Chemistry A*, **2017**, 5, 1282-1291	13	121
110	An industrialized prototype of the rechargeable Al/AlCl3-[EMIm]Cl/graphite battery and recycling of the graphitic cathode into graphene. *Carbon*, **2016**, 109, 276-281	10.4	105
109	Ternary 3D architectures of CdS QDs/graphene/ZnIn2S4 heterostructures for efficient photocatalytic H2 production. *Physical Chemistry Chemical Physics*, **2013**, 15, 15660-8	3.6	104
108	Novel metallurgical process for titanium production. *Journal of Materials Research*, **2006**, 21, 2172-2175	2.5	104
107	Porous CuO microsphere architectures as high-performance cathode materials for aluminum-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 3084-3090	13	98
106	Hierarchical metastable □TaON hollow structures for efficient visible-light water splitting. *Energy and Environmental Science*, **2013**, 6, 2134	35.4	96

105	Hierarchically Plasmonic Z-Scheme Photocatalyst of Ag/AgCl Nanocrystals Decorated Mesoporous Single-Crystalline Metastable Bi20TiO32 Nanosheets. *Journal of Physical Chemistry C*, **2013**, 117, 5132-5141	3.8	95
104	Cobalt-bilayer catalyst decorated Ta3N5 nanorod arrays as integrated electrodes for photoelectrochemical water oxidation. *Energy and Environmental Science*, **2013**, 6, 3322	35.4	89
103	3D Bi12TiO20/TiO2 hierarchical heterostructure: synthesis and enhanced visible-light photocatalytic activities. *Journal of Hazardous Materials*, **2011**, 192, 1772-9	12.8	86
102	Three-dimensional Z-scheme AgCl/Ag/□TaON heterostructural hollow spheres for enhanced visible-light photocatalytic performance. *Applied Catalysis B: Environmental*, **2013**, 142-143, 579-589	21.8	81
101	Flower-like Vanadium Suflide/Reduced Graphene Oxide Composite: An Energy Storage Material for Aluminum-Ion Batteries. *ChemSusChem*, **2018**, 11, 709-715	8.3	79
100	A Novel Ultrafast Rechargeable Multi-Ions Battery. *Advanced Materials*, **2017**, 29, 1606349	24	74
99	Ordered WO nanorods: facile synthesis and their electrochemical properties for aluminum-ion batteries. *Chemical Communications*, **2018**, 54, 1343-1346	5.8	69
98	Bi2O3 quantum-dot decorated nitrogen-doped Bi3NbO7 nanosheets: in situ synthesis and enhanced visible-light photocatalytic activity. *CrystEngComm*, **2012**, 14, 5923	3.3	69
97	Dense graphene papers: Toward stable and recoverable Al-ion battery cathodes with high volumetric and areal energy and power density. *Energy Storage Materials*, **2018**, 13, 103-111	19.4	68
96	A novel dual-graphite aluminum-ion battery. *Energy Storage Materials*, **2018**, 12, 119-127	19.4	61
95	In situ chemical reduction of the Ta3N5 quantum dots coupled TaON hollow spheres heterojunction photocatalyst for water oxidation. *Journal of Materials Chemistry*, **2012**, 22, 21972		60
94	Three-dimensional MoS2-CdS-□TaON hollow composites for enhanced visible-light-driven hydrogen evolution. *Chemical Communications*, **2014**, 50, 1731-4	5.8	55
93	PANI/Bi12TiO20 complex architectures: Controllable synthesis and enhanced visible-light photocatalytic activities. *Applied Catalysis B: Environmental*, **2011**, 104, 399-406	21.8	55
92	Chromium-doped bismuth titanate nanosheets as enhanced visible-light photocatalysts with a high percentage of reactive {110} facets. *Journal of Materials Chemistry*, **2011**, 21, 7296		54
91	Cu3P as a novel cathode material for rechargeable aluminum-ion batteries. *Journal of Materials Chemistry A*, **2019**, 7, 8368-8375	13	52
90	Hierarchical nitrogen doped bismuth niobate architectures: controllable synthesis and excellent photocatalytic activity. *Journal of Hazardous Materials*, **2012**, 217-218, 177-86	12.8	52
89	Electrochemically assembling of a porous nano-polyaniline network in a reverse micelle and its application in a supercapacitor. *Journal of Materials Chemistry*, **2011**, 21, 9027		52
88	Hydrothermal synthesis of CdS/CdLa2S4 heterostructures for efficient visible-light-driven photocatalytic hydrogen production. *RSC Advances*, **2012**, 2, 10330	3.7	44

87	Bismuth titanate pyrochlore microspheres: Directed synthesis and their visible light photocatalytic activity. *Journal of Solid State Chemistry*, **2011**, 184, 154-158	3.3	43
86	In Situ Self-Assembled FeWO4/Graphene Mesoporous Composites for Li-Ion and Na-Ion Batteries. *Chemistry of Materials*, **2014**, 26, 3721-3730	9.6	42
85	Nickel Phosphide Nanosheets Supported on Reduced Graphene Oxide for Enhanced Aluminum-Ion Batteries. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 6004-6012	8.3	40
84	Exfoliation Mechanism of Graphite Cathode in Ionic Liquids. *ACS Applied Materials & Interfaces*, **2017**, 9, 36702-36707	9.5	37
83	Rechargeable Nickel Telluride/Aluminum Batteries with High Capacity and Enhanced Cycling Performance. *ACS Nano*, **2020**, 14, 3469-3476	16.7	36
82	Sodium modified molybdenum sulfide via molten salt electrolysis as an anode material for high performance sodium-ion batteries. *Physical Chemistry Chemical Physics*, **2016**, 18, 3204-13	3.6	36
81	Preparation of Titanium Deposit in Chloride Melts. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2011**, 42, 1181-1187	2.5	35
80	A Rechargeable Al□e Battery. *ACS Applied Energy Materials*, **2018**, 1, 4924-4930	6.1	34
79	Nonaqueous Rechargeable Aluminum Batteries: Progresses, Challenges, and Perspectives. *Chemical Reviews*, **2021**, 121, 4903-4961	68.1	34
78	Nasicon material NaZr2(PO4)3: a novel storage material for sodium-ion batteries. *Journal of Materials Chemistry A*, **2014**, 2, 1341-1345	13	33
77	Metal□rganic Framework-Derived Co3O4@MWCNTs Polyhedron as Cathode Material for a High-Performance Aluminum-Ion Battery. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 16200-16208	8.3	32
76	A new consumable anode material of titanium oxycarbonitride for the USTB titanium process. *Physical Chemistry Chemical Physics*, **2014**, 16, 8086-91	3.6	32
75	Electrochemical synthesis of titanium oxycarbide in a CaCl2 based molten salt. *Electrochimica Acta*, **2012**, 75, 357-359	6.7	32
74	The electrochemical behavior of an aluminum alloy anode for rechargeable Al-ion batteries using an AlCl3□rea liquid electrolyte. *RSC Advances*, **2017**, 7, 32288-32293	3.7	29
73	Ternary AlCl3-Urea-[EMIm]Cl Ionic Liquid Electrolyte for Rechargeable Aluminum-Ion Batteries. *Journal of the Electrochemical Society*, **2017**, 164, A3093-A3100	3.9	29
72	Gel electrolytes with a wide potential window for high-rate Al-ion batteries. *Journal of Materials Chemistry A*, **2019**, 7, 20348-20356	13	29
71	Self-supporting and high-loading hierarchically porous Co-P cathode for advanced Al-ion battery. *Chemical Engineering Journal*, **2020**, 389, 124370	14.7	28
70	The Equilibrium Between Titanium Ions and Titanium Metal in NaCl-KCl Equimolar Molten Salt. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2013**, 44, 906-913	2.5	25

69	Preparation of polyaniline modified TaON with enhanced visible light photocatalytic activities. *Dalton Transactions*, **2011**, 40, 4038-41	4.3	25
68	SbSe nanorods with N-doped reduced graphene oxide hybrids as high-capacity positive electrode materials for rechargeable aluminum batteries. *Nanoscale*, **2019**, 11, 16437-16444	7.7	24
67	The Effects of Anions Behaviors on Electrochemical Properties of Al/Graphite Rechargeable Aluminum-Ion Battery via Molten AlCl3-NaCl Liquid Electrolyte. *Journal of the Electrochemical Society*, **2017**, 164, A3292-A3302	3.9	20
66	3D flower-like NaHTi3O7 nanotubes as high-performance anodes for sodium-ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 16528-16534	13	20
65	Electrochemically depositing titanium(III) ions at liquid tin in a NaCl-KCl melt. *RSC Advances*, **2015**, 5, 62235-62240	3.7	20
64	A sodium ion intercalation material: a comparative study of amorphous and crystalline FePO4. *Physical Chemistry Chemical Physics*, **2015**, 17, 4551-7	3.6	20
63	The Cathodic Behavior of Ti(III) Ion in a NaCl-2CsCl Melt. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2016**, 47, 804-810	2.5	19
62	Electrochemical Behavior of Titanium(II) Ion in a Purified Calcium Chloride Melt. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2015**, 46, 162-168	2.5	18
61	Facile synthesis and visible-light photocatalytic activity of bismuth titanate nanorods. *Journal of Nanoparticle Research*, **2011**, 13, 5557-5564	2.3	18
60	All-carbon positive electrodes for stable aluminium batteries. *Journal of Energy Chemistry*, **2020**, 42, 17-26	12	18
59	Producing metallic titanium through electro-refining of titanium nitride anode. *Electrochemistry Communications*, **2013**, 35, 135-138	5.1	17
58	Experimental and first-principles study of TiO system: Interplay of thermodynamic and structural properties. *Journal of the American Ceramic Society*, **2017**, 100, 2253-2265	3.8	16
57	The potential application of black and blue phosphorene as cathode materials in rechargeable aluminum batteries: a first-principles study. *Physical Chemistry Chemical Physics*, **2019**, 21, 7021-7028	3.6	16
56	Modified separators for rechargeable high-capacity selenium-aluminium batteries. *Chemical Engineering Journal*, **2020**, 385, 123452	14.7	16
55	NiCo2S4 Nanosheet with Hexagonal Architectures as an Advanced Cathode for Al-Ion Batteries. *Journal of the Electrochemical Society*, **2018**, 165, A3504-A3509	3.9	16
54	Hierarchical Flower-Like MoS2 Microspheres and Their Efficient Al Storage Properties. *Journal of Physical Chemistry C*, **2019**, 123, 26794-26802	3.8	15
53	Active cyano groups to coordinate AlCl2+ cation for rechargeable aluminum batteries. *Energy Storage Materials*, **2020**, 33, 250-257	19.4	15
52	Stable High-Capacity Organic Aluminum-Porphyrin Batteries. *Advanced Energy Materials*, **2021**, 11, 2101446	16.8	15

51	Bismuth ferrite: an abnormal perovskite with electrochemical extraction of ions from A site. *Journal of Materials Chemistry A*, **2019**, 7, 12176-12190	13	14
50	Structural stability of 盯TiO with disordered vacancies: A first-principles calculation. *Physica B: Condensed Matter*, **2013**, 421, 110-116	2.8	14
49	The molten chlorides for aluminum-graphite rechargeable batteries. *Journal of Alloys and Compounds*, **2020**, 821, 153285	5.7	14
48	Anodic Dissolution of Titanium Oxycarbide TiCxO1-x with Different O/C Ratio. *Journal of the Electrochemical Society*, **2019**, 166, E22-E28	3.9	14
47	Liquid gallium as long cycle life and recyclable negative electrode for Al-ion batteries. *Chemical Engineering Journal*, **2020**, 391, 123594	14.7	13
46	Single-crystal and hierarchical VSe2 as an aluminum-ion battery cathode. *Sustainable Energy and Fuels*, **2019**, 3, 2717-2724	5.8	12
45	Coral-Like TeO2 Microwires for Rechargeable Aluminum Batteries. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 2416-2422	8.3	12
44	Cu-Al Composite as the Negative Electrode for Long-life Al-Ion Batteries. *Journal of the Electrochemical Society*, **2019**, 166, A3539-A3545	3.9	11
43	A Rechargeable Al/Graphite Battery Based on AlCl3/1-butyl-3-methylimidazolium Chloride Ionic Liquid Electrolyte. *ChemistrySelect*, **2019**, 4, 3018-3024	1.8	11
42	Nonmetal Current Collectors: The Key Component for High-Energy-Density Aluminum Batteries. *Advanced Materials*, **2020**, 32, e2001212	24	11
41	Cellulose-derived flake graphite as positive electrodes for Al-ion batteries. *Sustainable Energy and Fuels*, **2019**, 3, 3561-3568	5.8	11
40	Coordination interaction boosts energy storage in rechargeable Al battery with a positive electrode material of CuSe. *Chemical Engineering Journal*, **2021**, 421, 127792	14.7	11
39	Improved USTB Titanium Production with a Ti2CO Anode Formed by Casting. *Journal of the Electrochemical Society*, **2019**, 166, E226-E230	3.9	10
38	Hierarchical N-doped porous carbon hosts for stabilizing tellurium in promoting Al-Te batteries. *Journal of Energy Chemistry*, **2021**, 57, 378-385	12	10
37	Stable wide-temperature and low volume expansion Al batteries: Integrating few-layer graphene with multifunctional cobalt boride nanocluster as positive electrode. *Nano Research*, **2020**, 13, 419-429	10	9
36	Structural and Thermodynamic Properties of TiC x N y O z Solid Solution: Experimental Study and First-Principles Approaches. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2016**, 47, 4721-4731	2.3	9
35	Thick electrodes upon biomass-derivative carbon current collectors: High-areal capacity positive electrodes for aluminum-ion batteries. *Electrochimica Acta*, **2019**, 323, 134805	6.7	8
34	Green and sustainable molten salt electrochemistry for the conversion of secondary carbon pollutants to advanced carbon materials. *Journal of Materials Chemistry A*, **2021**, 9, 14119-14146	13	8

33	Alternate Storage of Opposite Charges in Multisite for High-Energy-Density Al-MOF Battery.. *Advanced Materials*, **2022**, e2110109	24	7
32	Rapid Electrodeposition of Ti on a Liquid Zn Cathode from a Consumable Casting TiC0.5O0.5 Anode. *Journal of the Electrochemical Society*, **2020**, 167, 123502	3.9	7
31	A high-performance dual-ion cell utilizing Si nanosphere@graphene anode. *Electrochimica Acta*, **2018**, 282, 946-954	6.7	6
30	Al homogeneous deposition induced by N-containing functional groups for enhanced cycling stability of Al-ion battery negative electrode. *Nano Research*, **2021**, 14, 646-653	10	6
29	Depolarization Behavior of Ti Deposition at Liquid Metal Cathodes in a NaCl-KCl-KF Melt. *Journal of the Electrochemical Society*, **2019**, 166, E401-E406	3.9	5
28	Electrochemically Exfoliating Graphite Cathode to N-Doped Graphene Analogue and Its Excellent Al Storage Performance. *Journal of the Electrochemical Society*, **2019**, 166, A1738-A1744	3.9	5
27	Rechargeable High-Capacity Antimony-Aluminum Batteries. *Journal of the Electrochemical Society*, **2020**, 167, 080541	3.9	5
26	Pivot roles of noble metal in single-phase TaXzON (0 Journal of Materials Chemistry A, **2013**, 1, 5394	13	5
25	A strategy for massively suppressing the shuttle effect in rechargeable Al□e batteries. *Inorganic Chemistry Frontiers*, **2020**, 7, 4000-4009	6.8	5
24	Electrochemical behavior of NiCl2/Ni in acidic AlCl3-based ionic liquid electrolyte. *Inorganic Chemistry Frontiers*, **2020**, 7, 1909-1917	6.8	4
23	A dual-protection strategy using CMK-3 coated selenium and modified separators for high-energy Al□e batteries. *Inorganic Chemistry Frontiers*, **2021**, 8, 1030-1038	6.8	4
22	Electrochemical Behaviour of K2TiF6 at Liquid Metal Cathodes in the LiF□NaF□KF Eutectic Melt. *Electrochemistry*, **2019**, 87, 142-147	1.2	3
21	Initial Electrode Kinetics of Anion Intercalation and De-intercalation in Nonaqueous Al-Graphite Batteries □*Chinese Journal of Chemistry*, **2021**, 39, 157-164	4.9	3
20	Stable quasi-solid-state Aluminum Batteries. *Advanced Materials*, **2021**, e2104557	24	2
19	Quantificational 4D Visualization of Industrial Electrodeposition. *Advanced Science*, **2021**, e2101373	13.6	2
18	Sb2Te3 Hexagonal Nanosheets as High-Capacity Positive Materials for Rechargeable Aluminum Batteries. *ACS Applied Energy Materials*, **2020**, 3, 12635-12643	6.1	2
17	A novel titanium oxycarbide phase with metal-vacancy (Ti1-C O1-): Structural and thermodynamic basis. *Ceramics International*, **2021**, 47, 16324-16332	5.1	2
16	A cobalt-based metal-organic framework and its derived material as sulfur hosts for aluminum-sulfur batteries with the chemical anchoring effect. *Physical Chemistry Chemical Physics*, **2021**, 23, 10326-10334	3.6	2

15	The Dissolution Behavior of TiCxO1-x Solid Solutions in Chloride Melt605-612		2
14	Selective Reduction of TiO2-SiO2 in the Carbothermal Reduction of Titanium Raw Materials for Preparation of Titanium Oxycarbide419-425		2
13	A 4D x-ray computer microtomography for high-temperature electrochemistry.. *Science Advances*, **2022**, 8, eabm5678	14.3	2
12	Titanium production through electrolysis of titanium oxycarbide consumable anode□he USTB process **2020**, 315-329		1
11	Self-supporting and dual-active 3D Co-S nanosheets constructed by ligand replacement reaction from MOF for rechargeable Al battery. *Journal of Energy Chemistry*, **2022**, 69, 35-43	12	1
10	Stable and low-voltage-hysteresis zinc negative electrode promoting aluminum dual-ion batteries. *Chemical Engineering Journal*, **2021**, 132743	14.7	1
9	Graphene as an Electron Mediator in Tantalum Oxynitride Based Composites Z-Schem Photocatalytic Water Splitting17-23		1
8	Design Strategies of High-Performance Positive Materials for Nonaqueous Rechargeable Aluminum Batteries: From Crystal Control to Battery Configuration. *Small*,2201362	11	1
7	Electrochemical Behaviors of Consumable Ti2CO@Al2O3 Anode for Ti Extraction by USTB Process. *Journal of the Electrochemical Society*, **2021**, 168, 103508	3.9	0
6	Modified Al negative electrode for stable high-capacity Al□e batteries. *International Journal of Minerals, Metallurgy and Materials*, **2022**, 29, 896-904	3.1	0
5	FeWO4: An Anode Material for Sodium-Ion Batteries **2014**, 899-905		
4	Selective Reduction of TiO2-SiO2 in the Carbothermal Reduction of Titanium Raw Materials for Preparation of Titanium Oxycarbide **2016**, 419-425		
3	FeWO4: An Anode Material for Sodium-Ion Batteries **2014**, 899-905		
2	Electrochemical Behavior of Titanium Ions at Liquid Metal Cathodes in Molten Salts **2016**, 183-186		
1	Facile preparation of metallic vanadium from consumable V2CO solid solution by molten salt electrolysis. *Separation and Purification Technology*, **2022**, 295, 121361	8.3	