Weijiang Xue

List of Publications by Year
in descending order

54 papers	4,178 citations	236833 25 h-index	161767 54 g-index
55 all docs	55 docs citations	55 times ranked	5105 citing authors

#	Article	IF	Citations
1	Fluorine-donating electrolytes enable highly reversible 5-V-class Li metal batteries. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1156-1161.	3.3	512
2	Intercalation-conversion hybrid cathodes enabling Liâ€"S full-cell architectures with jointly superior gravimetric and volumetric energy densities. Nature Energy, 2019, 4, 374-382.	19.8	449
3	Self-healing SEI enables full-cell cycling of a silicon-majority anode with a coulombic efficiency exceeding 99.9%. Energy and Environmental Science, 2017, 10, 580-592.	15.6	421
4	Li metal deposition and stripping in a solid-state battery via Coble creep. Nature, 2020, 578, 251-255.	13.7	333
5	Ultra-high-voltage Ni-rich layered cathodes in practical Li metal batteries enabled by a sulfonamide-based electrolyte. Nature Energy, 2021, 6, 495-505.	19.8	323
6	Gradient Li-rich oxide cathode particles immunized against oxygen release by a molten salt treatment. Nature Energy, 2019, 4, 1049-1058.	19.8	248
7	Nitrogen-Doped Carbon for Sodium-Ion Battery Anode by Self-Etching and Graphitization of Bimetallic MOF-Based Composite. CheM, 2017, 3, 152-163.	5.8	228
8	FSI-inspired solvent and â€œfull fluorosulfonylâ€•electrolyte for 4 V class lithium-metal batteries. Energy and Environmental Science, 2020, 13, 212-220.	15.6	198
9	Lithium Manganese Spinel Cathodes for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2000997.	10.2	177
10	Gradient-morph LiCoO₂ single crystals with stabilized energy density above 3400 W h L^{âˆ'1}. Energy and Environmental Science, 2020, 13, 1865-1878.	15.6	118
11	Gravimetric and volumetric energy densities of lithium-sulfur batteries. Current Opinion in Electrochemistry, 2017, 6, 92-99.	2.5	100
12	Double-oxide sulfur host for advanced lithium-sulfur batteries. Nano Energy, 2017, 38, 12-18.	8.2	93
13	Densification and mechanical properties of TiC by SPS-effects of holding time, sintering temperature and pressure condition. Journal of the European Ceramic Society, 2012, 32, 3399-3406.	2.8	84
14	Stabilizing electrodeâ€"electrolyte interfaces to realize high-voltage Li||LiCoO₂ batteries by a sulfonamide-based electrolyte. Energy and Environmental Science, 2021, 14, 6030-6040.	15.6	84
15	<i>Ad hoc</i> solid electrolyte on acidized carbon nanotube paper improves cycle life of lithiumâ€"sulfur batteries. Energy and Environmental Science, 2017, 10, 2544-2551.	15.6	82
16	Moderately concentrated electrolyte improves solidâ€"electrolyte interphase and sodium storage performance of hard carbon. Energy Storage Materials, 2019, 16, 146-154.	9.5	73
17	Manipulating Sulfur Mobility Enables Advanced Li-S Batteries. Matter, 2019, 1, 1047-1060.	5.0	63
18	Lowâ€Density Fluorinated Silane Solvent Enhancing Deep Cycle Lithiumâ€"Sulfur Batteriesâ€™ Lifetime. Advanced Materials, 2021, 33, e2102034.	11.1	39

#	Article	IF	Citations
19	Sintering of Highâ€Performance Silicon Nitride Ceramics Under Vibratory Pressure. Journal of the American Ceramic Society, 2015, 98, 698-701.	1.9	37
20	Enhanced fracture toughness of silicon nitride ceramics at cryogenic temperatures. Scripta Materialia, 2012, 66, 891-894.	2.6	35
21	Self-Perpetuating Carbon Foam Microwave Plasma Conversion of Hydrocarbon Wastes into Useful Fuels and Chemicals. Environmental Science & Technology, 2021, 55, 6239-6247.	4.6	34
22	Al2O3 ceramics with well-oriented and hexagonally ordered pores: The formation of microstructures and the control of properties. Journal of the European Ceramic Society, 2012, 32, 3151-3159.	2.8	33
23	Zirconia-based nanocomposite toughened by functionalized multi-wall carbon nanotubes. Journal of Alloys and Compounds, 2013, 581, 452-458.	2.8	28
24	Fast Heat Transport Inside Lithium-Sulfur Batteries Promotes Their Safety and Electrochemical Performance. IScience, 2020, 23, 101576.	1.9	28
25	Ordered Macroâ€“Mesoporous ncâ€TiO₂ Films by Solâ€“Gel Method Using Polystyrene Array and Triblock Copolymer Bitemplate. Journal of the American Ceramic Society, 2008, 91, 2676-2682.	1.9	27
26	Dense Allâ€Electrochemâ€Active Electrodes for Allâ€Solidâ€State Lithium Batteries. Advanced Materials, 2021, 33, e2008723.	11.1	26
27	Mechanical and thermal properties of 99% and 92% alumina at cryogenic temperatures. Ceramics International, 2011, 37, 2165-2168.	2.3	24
28	Microstructure and mechanical properties of zirconia ceramics consolidated by a novel oscillatory pressure sintering. Ceramics International, 2015, 41, 10281-10286.	2.3	24
29	<i>R</i>â€Curve Behavior of 3<scp>Y</scp>â€<scp>TZP</scp> at Cryogenic Temperatures. Journal of the American Ceramic Society, 2011, 94, 2775-2778.	1.9	23
30	Critical grain size and fracture toughness of 2mol.% yttria-stabilized zirconia at ambient and cryogenic temperatures. Scripta Materialia, 2012, 67, 963-966.	2.6	20
31	Si3N4-SiCw composites as structural materials for cryogenic application. Journal of the European Ceramic Society, 2016, 36, 2667-2672.	2.8	17
32	Acidâ€inâ€Clay Electrolyte for Wideâ€Temperatureâ€Range and Longâ€Cycle Proton Batteries. Advanced Materials, 2022, 34, e2202063.	11.1	16
33	Preparation and Properties of Porous Alumina with Highly Ordered and Unidirectional Oriented Pores by a Selfâ€Organization Process. Journal of the American Ceramic Society, 2011, 94, 1978-1981.	1.9	14
34	Enhanced toughness and hardness at cryogenic temperatures of silicon carbide sintered by SPS. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 569, 13-17.	2.6	14
35	Spark plasma sintering and characterization of 2Y-TZP ceramics. Ceramics International, 2015, 41, 4829-4835.	2.3	14
36	Toughening effect of multiwall carbon nanotubes on 3Y-TZP zirconia ceramics at cryogenic temperatures. Ceramics International, 2015, 41, 1303-1307.	2.3	14

#	Article	IF	Citations
37	Research into mechanical properties of reaction-bonded SiC composites at cryogenic temperatures. Materials Letters, 2011, 65, 3348-3350.	1.3	12
38	A novel processing route to develop alumina matrix nanocompositesreinforced with multi-walled carbon nanotubes. Materials Research Bulletin, 2015, 64, 323-326.	2.7	12
39	Molar-volume asymmetry enabled low-frequency mechanical energy harvesting in electrochemical cells. Applied Energy, 2020, 273, 115230.	5.1	12
40	The dependence of interlocking and laminated microstructure on toughness and hardness of Î²-SiC ceramics sintered at low temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 586, 338-341.	2.6	10
41	Crack propagation in silicon nitride ceramics under various temperatures and grain boundary toughness. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 632, 58-61.	2.6	10
42	Mechanical and electrical properties of chemically modified MWCNTs/3Y-TZP composites. Ceramics International, 2015, 41, 9157-9162.	2.3	9
43	Strengthening mechanism of aluminum nitride ceramics from 293 to 77K. Materials Letters, 2014, 119, 32-34.	1.3	8
44	Sacrificial Poly(propylene carbonate) Membrane for Dispersing Nanoparticles and Preparing Artificial Solid Electrolyte Interphase on Li Metal Anode. ACS Applied Materials & Interfaces, 2020, 12, 27087-27094.	4.0	8
45	Three-Dimensional SiC/Holey-Graphene/Holey-MnO₂ Architectures for Flexible Energy Storage with Superior Power and Energy Densities. ACS Applied Materials & Interfaces, 2020, 12, 32514-32525.	4.0	8
46	How Does Crack Bridging Change at Cryogenic Temperatures?. Journal of the American Ceramic Society, 2015, 98, 898-901.	1.9	6
47	Thermally Aged Liâ€“Mnâ€“O Cathode with Stabilized Hybrid Cation and Anion Redox. Nano Letters, 2021, 21, 4176-4184.	4.5	6
48	Porous Alumina Ceramics with Unidirectional Oriented Pores Fabricated by Ionotropic Process of Sodium Alginate. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2015, 30, 877.	0.6	6
49	Fracture toughness of 3mol% yttria-stabilized zirconia at cryogenic temperatures. Ceramics International, 2015, 41, 3888-3895.	2.3	4
50	Slow crack growth behavior of 3Y-TZP in cryogenic environment using dynamic fatigue and indentation technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 203-206.	2.6	4
51	Fracture toughness of aluminum nitride ceramics at cryogenic temperatures. Ceramics International, 2014, 40, 13715-13718.	2.3	3
52	Fracture mechanism of a fracture-resistant CNT/alumina nanocomposite at cryogenic temperature. Ceramics International, 2015, 41, 13908-13911.	2.3	3
53	How does pore-induced crack change as temperatures decrease from 293 K to 77 K?. Ceramics International, 2015, 41, 15246-15249.	2.3	2
54	GIAXD and XPS Characterization of <i>sp</i>³C Doped SiC Superhard Nanocomposite Film. Key Engineering Materials, 0, 512-515, 971-974.	0.4	0