Le Shi

List of Publications by Year
in descending order

38 papers	2,164 citations	304368 22 h-index	315357 38 g-index
38 all docs	38 docs citations	38 times ranked	3285 citing authors

#	Article	IF	Citations
1	Two-dimensional conjugated aromatic polymer as a promising anchoring material for lithium-sulfur batteries. Applied Surface Science, 2022, 571, 151226.	3.1	6
2	Charge-induced proton penetration across two-dimensional clay materials. Nanoscale, 2022, 14, 6518-6525.	2.8	3
3	Influence of stacking on the aqueous proton penetration behaviour across two-dimensional graphtetrayne. Nanoscale, 2021, 13, 5757-5764.	2.8	3
4	Unraveling the Hydroxide Ion Transportation Mechanism along the Surface of Two-Dimensional Layered Double Hydroxide Nanosheets. Journal of Physical Chemistry C, 2021, 125, 1240-1248.	1.5	10
5	Inâ€doped LiCa_{2.98}MgV₃O₁₂ rareâ€earthâ€free phosphor with a high photoluminescence quantum yield of 67.4%. Journal of the American Ceramic Society, 2021, 104, 5837-5847.	1.9	3
6	Density Functional Theory and Molecular Dynamics Simulations of Nanoporous Graphene Membranes for Hydrogen Separation. ACS Applied Nano Materials, 2021, 4, 9440-9448.	2.4	6
7	Unveiling the Working Mechanism of g-C₃N₄ as a Protection Layer for Lithium- and Sodium-Metal Anode. ACS Applied Materials & Interfaces, 2021, 13, 46821-46829.	4.0	11
8	Anomalous proton conduction behavior across a nanoporous two-dimensional conjugated aromatic polymer membrane. Physical Chemistry Chemical Physics, 2020, 22, 2978-2985.	1.3	6
9	Transport and deposition of dilute microparticles in turbulent thermal convection. Physics of Fluids, 2020, 32, .	1.6	20
10	Unraveling the Water-Mediated Proton Conduction Mechanism along the Surface of Graphene Oxide. Chemistry of Materials, 2020, 32, 6062-6069.	3.2	32
11	PAN/PI functional double-layer coating for dendrite-free lithium metal anodes. Journal of Materials Chemistry A, 2020, 8, 6183-6189.	5.2	31
12	Interface engineering for enhancing electrocatalytic oxygen evolution of NiFe LDH/NiTe heterostructures. Applied Catalysis B: Environmental, 2020, 273, 119014.	10.8	177
13	Ether-Group-Mediated Aqueous Proton Selective Transfer across Graphene-Embedded 18-Crown-6 Ether Pores. Journal of Physical Chemistry C, 2019, 123, 27429-27435.	1.5	12
14	Lattice Boltzmann simulations of three-dimensional thermal convective flows at high Rayleigh number. International Journal of Heat and Mass Transfer, 2019, 140, 359-370.	2.5	77
15	Aqueous proton-selective conduction across two-dimensional graphyne. Nature Communications, 2019, 10, 1165.	5.8	55
16	Statistics of temperature and thermal energy dissipation rate in low-Prandtl number turbulent thermal convection. Physics of Fluids, 2019, 31, .	1.6	38
17	Role of phosphorus in nitrogen, phosphorus dual-doped ordered mesoporous carbon electrocatalyst for oxygen reduction reaction in alkaline media. International Journal of Hydrogen Energy, 2018, 43, 1470-1478.	3.8	51
18	Lattice Boltzmann simulation of shear viscosity of suspensions containing porous particles. International Journal of Heat and Mass Transfer, 2018, 116, 969-976.	2.5	19

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19	Lattice Boltzmann Simulation of Mass Transfer Coefficients for Chemically Reactive Flows in Porous Media. Journal of Heat Transfer, 2018, 140, .	1.2	38
20	Thermal effects on the sedimentation behavior of elliptical particles. International Journal of Heat and Mass Transfer, 2018, 126, 753-764.	2.5	40
21	Three-Dimensional Carbon-Honeycomb as Nanoporous Lithium and Sodium Deposition Scaffold. Journal of Physical Chemistry C, 2018, 122, 21262-21268.	1.5	17
22	Recent advances in inorganic 2D materials and their applications in lithium and sodium batteries. Journal of Materials Chemistry A, 2017, 5, 3735-3758.	5.2	329
23	Accelerated lattice Boltzmann simulation using GPU and OpenACC with data management. International Journal of Heat and Mass Transfer, 2017, 109, 577-588.	2.5	108
24	First-Principles Investigations of the Working Mechanism of 2D h-BN as an Interfacial Layer for the Anode of Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2017, 9, 1987-1994.	4.0	102
25	Theoretical Understanding of Mechanisms of Proton Exchange Membranes Made of 2D Crystals with Ultrahigh Selectivity. Journal of Physical Chemistry Letters, 2017, 8, 4354-4361.	2.1	43
26	Advances and challenges in lithium-air batteries. Applied Energy, 2017, 204, 780-806.	5.1	186
27	Transport of highly concentrated fuel in direct methanol fuel cells. Applied Thermal Engineering, 2017, 126, 290-295.	3.0	29
28	Morphology of the Discharge Product in Nonâ€aqueous Lithiumâ€“Oxygen Batteries: Furrowed Toroid Particles Correspond to a Lower Charge Voltage. Energy Technology, 2016, 4, 393-400.	1.8	18
29	Ab initio prediction of a silicene and graphene heterostructure as an anode material for Li- and Na-ion batteries. Journal of Materials Chemistry A, 2016, 4, 16377-16382.	5.2	149
30	Unraveling the Catalytic Mechanism of Rutile RuO₂ for the Oxygen Reduction Reaction and Oxygen Evolution Reaction in Liâ€“O₂ Batteries. ACS Catalysis, 2016, 6, 6285-6293.	5.5	51
31	Three-dimensional lattice Boltzmann simulation of suspensions containing both micro- and nanoparticles. International Journal of Heat and Fluid Flow, 2016, 62, 560-567.	1.1	17
32	Ab initio prediction of borophene as an extraordinary anode material exhibiting ultrafast directional sodium diffusion for sodium-based batteries. Science Bulletin, 2016, 61, 1138-1144.	4.3	111
33	RuO₂ Monolayer: A Promising Bifunctional Catalytic Material for Nonaqueous Lithiumâ€“Oxygen Batteries. Journal of Physical Chemistry C, 2016, 120, 6356-6362.	1.5	39
34	A direct methanolâ€“hydrogen peroxide fuel cell with a Prussian Blue cathode. International Journal of Hydrogen Energy, 2016, 41, 5135-5140.	3.8	35
35	First-Principles Study of Nitrogen-, Boron-Doped Graphene and Co-Doped Graphene as the Potential Catalysts in Nonaqueous Liâ€“O₂ Batteries. Journal of Physical Chemistry C, 2016, 120, 6612-6618.	1.5	161
36	Why the charge overpotential in non-aqueous Liâ€“O 2 batteries is so high and exhibits different rising trends?. Science Bulletin, 2015, 60, 281-282.	4.3	7

#	Article	IF	Citations
37	Formation of Li₃O₄nano particles in the discharge products of non-aqueous lithiumâ€“oxygen batteries leads to lower charge overvoltage. Physical Chemistry Chemical Physics, 2015, 17, 29859-29866.	1.3	22
38	A three-dimensional pseudo-potential-based lattice Boltzmann model for multiphase flows with large density ratio and variable surface tension. International Journal of Heat and Fluid Flow, 2015, 56, 261-271.	1.1	102