

# Shulai Lei

## List of Publications by Year in descending order

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Version: 2024-02-01

49  
papers

2,470  
citations

279487

23  
h-index

205818

48  
g-index

49  
all docs

49  
docs citations

49  
times ranked

3096  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly efficient photocatalytic reduction of nitrogen into ammonia by single Ru atom catalyst supported by BeO monolayer. <i>Chinese Chemical Letters</i> , 2022, 33, 399-403.	4.8	13
2	Precise identification of active sites of a high bifunctional performance 3D Co/N-C catalyst in Zinc-air batteries. <i>Chemical Engineering Journal</i> , 2022, 433, 134500.	6.6	44
3	Boosting reaction kinetics and improving long cycle life in lamellar VS <sub>2</sub> /MoS <sub>2</sub> heterojunctions for superior sodium storage performance. <i>Journal of Materials Chemistry A</i> , 2022, 10, 939-949.	5.2	44
4	High zinc-ion intercalation reaction activity of MoS <sub>2</sub> cathode based on regulation of thermodynamic metastability and interlayer water. <i>Electrochimica Acta</i> , 2022, 410, 140016.	2.6	16
5	Okra-like hollow Cu <sub>0.15</sub> -CoP/Co <sub>3</sub> O <sub>4</sub> @CC nanotube arrays catalyst for overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 7168-7179.	3.8	3
6	NiO nanobelts with exposed {110} crystal planes as an efficient electrocatalyst for the oxygen evolution reaction. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 6087-6092.	1.3	10
7	Computational prediction of Mo <sub>2</sub> @g-C <sub>6</sub> N <sub>6</sub> monolayer as an efficient electrocatalyst for N <sub>2</sub> reduction. <i>Chinese Chemical Letters</i> , 2022, 33, 4623-4627.	4.8	24
8	DFT study of N,S co-doped graphene anodes for Na-ion storage and diffusion. <i>New Journal of Chemistry</i> , 2022, 46, 13866-13873.	1.4	3
9	Fast Activation of Graphene with a Highly Distorted Surface and Its Role in Improved Aqueous Electrochemical Capacitors. <i>ACS Applied Energy Materials</i> , 2022, 5, 8004-8014.	2.5	6
10	Synergy of a hierarchical porous morphology and anionic defects of nanosized Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> toward a high-rate and large-capacity lithium-ion battery. <i>Journal of Energy Chemistry</i> , 2021, 54, 699-711.	7.1	13
11	First-principles calculations of stability of graphene-like BC <sub>3</sub> monolayer and its high-performance potassium storage. <i>Chinese Chemical Letters</i> , 2021, 32, 900-905.	4.8	32
12	Two-dimensional blue-phase CX (X = S, Se) monolayers with high carrier mobility and tunable photocatalytic water splitting capability. <i>Chinese Chemical Letters</i> , 2021, 32, 1977-1982.	4.8	31
13	Interlayer Modification of Pseudocapacitive Vanadium Oxide and Zn(H <sub>2</sub> O) <sub>n</sub> <sup>2+</sup> Migration Regulation for Ultrahigh Rate and Durable Aqueous Zinc-Ion Batteries. <i>Advanced Science</i> , 2021, 8, e2004924.	5.6	118
14	Promoting the energy density of lithium-ion capacitor by coupling the pore-size and nitrogen content in capacitive carbon cathode. <i>Journal of Power Sources</i> , 2021, 498, 229912.	4.0	36
15	The graphene-supported non-noble metal catalysts activate ammonia decomposition: A DFT study. <i>Chemical Physics</i> , 2021, 548, 111249.	0.9	10
16	Structural insights of catalytic intermediates in dialumene based CO <sub>2</sub> capture: Evidences from theoretical resonance Raman spectra. <i>Chinese Chemical Letters</i> , 2021, 32, 2469-2473.	4.8	10
17	Interlayer-decoupled BiOX (X=Cl, Br, and I) sheets for photocatalytic water splitting: a computational study. <i>Optoelectronics Letters</i> , 2021, 17, 32-35.	0.4	4
18	HSH-C10: A new quasi-2D carbon allotrope with a honeycomb-star-honeycomb lattice. <i>Chinese Chemical Letters</i> , 2021, , .	4.8	3

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19	Theoretical investigation of spin-crossover temperature and transport properties of two Fe(II) mononuclear complexes. <i>Chemical Physics Letters</i> , 2020, 758, 137925.	1.2	7
20	Controllable S-Vacancies of monolayered MoS <sub>2</sub> nanocrystals for highly harvesting lithium storage. <i>Nano Energy</i> , 2020, 78, 105235.	8.2	41
21	Sol-gel combustion synthesis and characterization of CoCr <sub>2</sub> O <sub>4</sub> ceramic powder used as color solar absorber pigment. <i>Optoelectronics Letters</i> , 2020, 16, 365-368.	0.4	5
22	Improved charge injection of edge aligned MoS <sub>2</sub> /MoO <sub>2</sub> hybrid nanosheets for highly robust and efficient electrocatalysis of H <sub>2</sub> production. <i>Nanoscale</i> , 2020, 12, 5003-5013.	2.8	26
23	Rational Design of Ion Transport Paths at the Interface of Metal-Organic Framework Modified Solid Electrolyte. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 22930-22938.	4.0	45
24	Optimization of Organic/Water Hybrid Electrolytes for High-Rate Carbon-Based Supercapacitor. <i>Advanced Functional Materials</i> , 2019, 29, 1904136.	7.8	102
25	One-Step Synthesis of a Nanosized Cubic Li <sub>2</sub> TiO <sub>3</sub> -Coated Br, C, and N Co-Doped Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> Anode Material for Stable High-Rate Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 25804-25816.	4.0	22
26	A sodium perchlorate-based hybrid electrolyte with high salt-to-water molar ratio for safe 2.5 V carbon-based supercapacitor. <i>Energy Storage Materials</i> , 2019, 23, 603-609.	9.5	102
27	A low-cost seawater-in-salt electrolyte for a 2.3 V high-rate carbon-based supercapacitor. <i>Journal of Materials Chemistry A</i> , 2019, 7, 7541-7547.	5.2	260
28	Silica-grafted ionic liquid for maximizing the operational voltage of electrical double-layer capacitors. <i>Energy Storage Materials</i> , 2019, 18, 253-259.	9.5	18
29	The Charge Storage Mechanisms of 2D Cation-Intercalated Manganese Oxide in Different Electrolytes. <i>Advanced Energy Materials</i> , 2019, 9, 1802707.	10.2	89
30	The Origin of Electrochemical Actuation of MnO <sub>2</sub> /Ni Bilayer Film Derived by Redox Pseudocapacitive Process. <i>Advanced Functional Materials</i> , 2019, 29, 1806778.	7.8	59
31	Spontaneous Growth of 3D Framework Carbon from Sodium Citrate for High Energy and Power Density and Long-Life Sodium-Ion Hybrid Capacitors. <i>Advanced Energy Materials</i> , 2018, 8, 1702409.	10.2	221
32	Tuning the Doping Types in Graphene Sheets by N Monoelement. <i>Nano Letters</i> , 2018, 18, 386-394.	4.5	44
33	Sprinkling MnFe <sub>2</sub> O <sub>4</sub> quantum dots on nitrogen-doped graphene sheets: the formation mechanism and application for high-performance supercapacitor electrodes. <i>Journal of Materials Chemistry A</i> , 2018, 6, 9997-10007.	5.2	59
34	Opening Magnesium Storage Capability of Two-Dimensional MXene by Intercalation of Cationic Surfactant. <i>ACS Nano</i> , 2018, 12, 3733-3740.	7.3	208
35	A High-Performance Sodium-Ion Hybrid Capacitor Constructed by Metal-Organic Framework-Derived Anode and Cathode Materials. <i>Advanced Functional Materials</i> , 2018, 28, 1800757.	7.8	205
36	Safe and high-rate supercapacitors based on an acetonitrile/water in salt hybrid electrolyte. <i>Energy and Environmental Science</i> , 2018, 11, 3212-3219.	15.6	297

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37	A combined DFT and experimental study on the nucleation mechanism of NiO nanodots on graphene. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13717-13724.	5.2	17
38	Conformational adaptation and manipulation of manganese tetra(4-pyridyl)porphyrin molecules on Cu(111). <i>Journal of Chemical Physics</i> , 2017, 146, .	1.2	15
39	Enhanced capacities of carbon nanosheets derived from functionalized bacterial cellulose as anodes for sodium ion batteries. <i>RSC Advances</i> , 2017, 7, 50336-50342.	1.7	23
40	Curvature-dependent adsorption of water inside and outside armchair carbon nanotubes. <i>Journal of Computational Chemistry</i> , 2016, 37, 1313-1320.	1.5	20
41	Incremental DF-LCCSD(T) Calculations for a Water Molecule Inside and Outside Armchair Carbon Nanotubes. <i>Zeitschrift Fur Physikalische Chemie</i> , 2016, 230, 651-666.	1.4	0
42	Orbital-selective single molecule rectifier on graphene-covered Ru(0001) surface. <i>Applied Physics Letters</i> , 2013, 102, 163506.	1.5	10
43	A First-Principles Investigation of the Carrier Doping Effect on the Magnetic Properties of Defective Graphene. <i>Chinese Physics Letters</i> , 2013, 30, 077502.	1.3	4
44	Carrier-tunable magnetism of graphene with single-atom vacancy. <i>Journal of Applied Physics</i> , 2013, 113, 213709.	1.1	7
45	Iron-phthalocyanine molecular junction with high spin filter efficiency and negative differential resistance. <i>Journal of Chemical Physics</i> , 2012, 136, 064707.	1.2	58
46	Periodically Modulated Electronic Properties of the Epitaxial Monolayer Graphene on Ru(0001). <i>Journal of Physical Chemistry C</i> , 2011, 115, 24858-24864.	1.5	36
47	First-principles Study on the Electronic Structure of Novel Titanium Yttrium Mixed-metal Nitride Clusterfullerene. <i>Chinese Journal of Chemical Physics</i> , 2011, 24, 439-443.	0.6	2
48	First-principles Study of Single Tin-phthalocyanine Molecule on Ag(111) Surface. <i>Chinese Journal of Chemical Physics</i> , 2010, 23, 565-569.	0.6	5
49	Efficient organometallic spin filter based on Europium-cyclooctatetraene wire. <i>Journal of Chemical Physics</i> , 2009, 131, .	1.2	43