Chaoping Liang

List of Publications by Year
in descending order

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		218592	214721
55	2,259	26	47
papers	citations	h-index	g-index

56	56	56	3433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Regulating oxygen covalent electron localization to enhance anionic redox reversibility of lithium-rich layered oxide cathodes. Energy Storage Materials, 2022, 46, 512-522.	9.5	44
2	Cohesive properties of PbBi/Fe₃O₄ and PbBi/(Fe,Cr)₃O₄ interfaces. Physical Chemistry Chemical Physics, 2022, 24, 6732-6741.	1.3	4
3	Two-dimensional ordering governs the overpotential of Li intercalation and plating on graphene and its variants. Journal of Applied Physics, 2022, 131, .	1.1	1
4	Effects of order-disorder transition on phase relationship, elastic strength, and mechanical anisotropy of Al-Li alloys. Materialia, 2022, 24, 101483.	1.3	0
5	Regulating Anion Redox and Cation Migration to Enhance the Structural Stability of Li-Rich Layered Oxides. ACS Applied Materials & Interfaces, 2021, 13, 12159-12168.	4.0	32
6	Surface-dependent stress-corrosion cracking in Ni-rich layered oxide cathodes. Acta Materialia, 2021, 212, 116914.	3.8	20
7	Insights into the Enhanced Structural and Thermal Stabilities of Nb-Substituted Lithium-Rich Layered Oxide Cathodes. ACS Applied Materials & Interfaces, 2021, 13, 45619-45629.	4.0	26
8	Electronic-structure tuning of honeycomb layered oxide cathodes for superior performance. Acta Materialia, 2020, 199, 34-41.	3.8	9
9	Heteroepitaxial oxygen-buffering interface enables a highly stable cobalt-free Li-rich layered oxide cathode. Nano Energy, 2020, 75, 104995.	8.2	74
10	Strain engineering by atomic lattice locking in P2-type layered oxide cathode for high-voltage sodium-ion batteries. Nano Energy, 2020, 76, 105061.	8.2	25
11	Regulating the Catalytic Dynamics Through a Crystal Structure Modulation of Bimetallic Catalyst. Advanced Energy Materials, 2020, 10, 1903225.	10.2	21
12	Optimization of parameters in laser powder deposition AlSi10Mg alloy using Taguchi method. Optics and Laser Technology, 2019, 111, 470-480.	2.2	76
13	Kinetic Stability of Bulk LiNiO₂ and Surface Degradation by Oxygen Evolution in LiNiO₂â€Based Cathode Materials. Advanced Energy Materials, 2019, 9, 1802586.	10.2	160
14	Stable heteroepitaxial interface of Li-rich layered oxide cathodes with enhanced lithium storage. Energy Storage Materials, 2019, 21, 69-76.	9.5	53
15	Atomic-scale understanding of non-stoichiometry effects on the electrochemical performance of Ni-rich cathode materials. Journal of Power Sources, 2018, 378, 750-758.	4.0	20
16	Ab Initio Study on Surface Segregation and Anisotropy of Ni-Rich LiNi_{1â€“2y}Co_yMn_yO₂ (NCM) (y â‰ 0.1) Cathodes. ACS Applied Materials & Interfaces, 2018, 10, 6673-6680.	4.0	50
17	Rational design of composite interlayer for diffusion bonding of tungstenâ€“steel joints. International Journal of Refractory Metals and Hard Materials, 2018, 70, 155-161.	1.7	37
18	Dislocation driven spiral and non-spiral growth in layered chalcogenides. Nanoscale, 2018, 10, 15023-15034.	2.8	24

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19	Coreâ€“Shell Nanocomposites for Improving the Structural Stability of Li-Rich Layered Oxide Cathode Materials for Li-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 19226-19234.	4.0	30
20	8-Layer Shifted Hexagonal Perovskite Ba₈MnNb₆O₂₄: Long-Range Ordering of High-Spin d⁵ Mn²⁺ Layers and Electronic Structure. Inorganic Chemistry, 2018, 57, 5732-5742.	1.9	10
21	Dilution of Al and V through laser powder deposition enables a continuously compositionally Ti/Ti6Al4V graded structure. Journal of Alloys and Compounds, 2018, 763, 376-383.	2.8	31
22	Effects of trigonal deformation on electronic structure and thermoelectric properties of bismuth. Journal of Physics Condensed Matter, 2018, 30, 285504.	0.7	17
23	Systematic study of electronic structure and band alignment of monolayer transition metal dichalcogenides in Van der Waals heterostructures. 2D Materials, 2017, 4, 015026.	2.0	160
24	Cohesion strength and atomic structure of W-Cu graded interfaces. Fusion Engineering and Design, 2017, 117, 20-23.	1.0	17
25	CT-MEAM interatomic potential of the Li-Ni-O ternary system for Li-ion battery cathode materials. Computational Materials Science, 2017, 127, 128-135.	1.4	15
26	First principles study of the Mn-doping effect on the physical and chemical properties of mullite-family Al₂SiO₅. Physical Chemistry Chemical Physics, 2017, 19, 24991-25001.	1.3	5
27	Nucleation and growth of WSe ₂ : enabling large grain transition metal dichalcogenides. 2D Materials, 2017, 4, 045019.	2.0	96
28	A kinetic Monte Carlo simulation method of van der Waals epitaxy for atomistic nucleation-growth processes of transition metal dichalcogenides. Scientific Reports, 2017, 7, 2977.	1.6	72
29	Investigation of tungsten/steel diffusion bonding with Niâ€“Fe cladding on tungsten substrate. Fusion Engineering and Design, 2017, 125, 189-194.	1.0	20
30	Site-dependent multicomponent doping strategy for Ni-rich LiNi_{1â^'2y}Co_yMn_yO₂ (y = 1/12) cathode materials for Li-ion batteries. Journal of Materials Chemistry A, 2017, 5, 25303-25313.	5.2	119
31	Charge-transfer modified embedded atom method dynamic charge potential for Liâ€“Coâ€“O system. Journal of Physics Condensed Matter, 2017, 29, 475903.	0.7	3
32	Structural, thermodynamic, and mechanical properties of WCu solid solutions. Journal of Physics and Chemistry of Solids, 2017, 110, 401-408.	1.9	34
33	Obstacles toward unity efficiency of LiNi 1-2x Co x Mn x O 2 (xÂ=Â0Ââ^¼Â1/3) (NCM) cathode materials: Insights from ab initio calculations. Journal of Power Sources, 2017, 340, 217-228.	4.0	57
34	Charge-transfer modified embedded-atom method for manganese oxides: Nanostructuring effects on MnO2 nanorods. Computational Materials Science, 2016, 121, 191-203.	1.4	13
35	Transition Metal Ordering Optimization for High-Reversible Capacity Positive Electrode Materials in the Liâ€“Niâ€“Coâ€“Mn Pseudoquaternary System. Journal of Physical Chemistry C, 2016, 120, 8540-8549.	1.5	24
36	Conflicting Roles of Anion Doping on the Electrochemical Performance of Li-Ion Battery Cathode Materials. Chemistry of Materials, 2016, 28, 6942-6952.	3.2	118

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37	Charge Mediated Reversible Metalâ€“Insulator Transition in Monolayer MoTe₂ and W_xMo_{1â€“x}Te₂ Alloy. ACS Nano, 2016, 10, 7370-7375.	7.3	133
38	Rational design of common transition metal-nitrogen-carbon catalysts for oxygen reduction reaction in fuel cells. Nano Energy, 2016, 30, 443-449.	8.2	114
39	First principles kinetic Monte Carlo study on the growth patterns of WSe ₂ monolayer. 2D Materials, 2016, 3, 025029.	2.0	59
40	Unraveling the Origin of Instability in Ni-Rich LiNi_{1â€“2x}Co_xMn_xO₂ (NCM) Cathode Materials. Journal of Physical Chemistry C, 2016, 120, 6383-6393.	1.5	154
41	First Principles Study of Li-Site Doping Effect on the Properties of LiMnO2 and Li2MnO3 Cathode Materials. ECS Transactions, 2015, 64, 21-32.	0.3	0
42	Multivalent Li-Site Doping of Mn Oxides for Li-Ion Batteries. Journal of Physical Chemistry C, 2015, 119, 21904-21912.	1.5	33
43	Fundamental mechanism of tetragonal transitions in titanium hydride. Materials Letters, 2014, 115, 252-255.	1.3	19
44	Atomic structure, mechanical quality, and thermodynamic property of TiH_x phases. Journal of Applied Physics, 2013, 114, 043510.	1.1	32
45	Effects of spin-orbit coupling on various properties of hafnium dihydride. Materials Chemistry and Physics, 2013, 139, 139-146.	2.0	1
46	Thermodynamic properties and lattice misfit of Ir-based superalloys. Intermetallics, 2013, 32, 429-436.	1.8	15
47	Interface structure and work function of W-Cu interfaces. Applied Physics Letters, 2013, 103, .	1.5	43
48	Structural stability, mechanical property and elastic anisotropy of TiAl-H system. International Journal of Hydrogen Energy, 2012, 37, 2676-2684.	3.8	27
49	Concerning the brittleness of iridium: An elastic and electronic view. Materials Chemistry and Physics, 2012, 133, 140-143.	2.0	10
50	Effects of Cr and V impurities on cohesion properties of Pd/TiAl interfaces. Solid State Communications, 2012, 152, 898-901.	0.9	1
51	Fundamental influence of hydrogen on various properties of Î±-titanium. International Journal of Hydrogen Energy, 2010, 35, 3812-3816.	3.8	48
52	Structural stability, mechanical property and phase transition of the Tiâ€“H system. International Journal of Hydrogen Energy, 2010, 35, 11378-11386.	3.8	19
53	Phase stability, mechanical property, and electronic structure of Mgâ€“Li system. Journal of Alloys and Compounds, 2010, 489, 130-135.	2.8	33
54	Fundamental Influence of C on Cohesion of Pd/TiAl Interfaces. Journal of the Physical Society of Japan, 2009, 78, 113601.	0.7	0

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55	Electronic-Structure Tuning of Honeycomb Layered Oxide Cathodes for Superior Performance. SSRN Electronic Journal, 0, , .	0.4	1