

Chaoping Liang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3789136/publications.pdf>

Version: 2024-02-01

55
papers

2,259
citations

218592

26
h-index

214721

47
g-index

56
all docs

56
docs citations

56
times ranked

3433
citing authors

#	ARTICLE	IF	CITATIONS
1	Systematic study of electronic structure and band alignment of monolayer transition metal dichalcogenides in Van der Waals heterostructures. <i>2D Materials</i> , 2017, 4, 015026.	2.0	160
2	Kinetic Stability of Bulk LiNiO_2 and Surface Degradation by Oxygen Evolution in LiNiO_2 -Based Cathode Materials. <i>Advanced Energy Materials</i> , 2019, 9, 1802586.	10.2	160
3	Unraveling the Origin of Instability in Ni-Rich $\text{LiNi}_{1-x}\text{Co}_x\text{Mn}_x\text{O}_2$ (NCM) Cathode Materials. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6383-6393.	1.5	154
4	Charge Mediated Reversible Metal-Insulator Transition in Monolayer MoTe_2 and $\text{W}_x\text{Mo}_{1-x}\text{Te}_2$ Alloy. <i>ACS Nano</i> , 2016, 10, 7370-7375.	7.3	133
5	Site-dependent multicomponent doping strategy for Ni-rich $\text{LiNi}_{1-2y}\text{Co}_y\text{Mn}_y\text{O}_2$ ($x/y = 1/12$) cathode materials for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25303-25313.	5.2	119
6	Conflicting Roles of Anion Doping on the Electrochemical Performance of Li-Ion Battery Cathode Materials. <i>Chemistry of Materials</i> , 2016, 28, 6942-6952.	3.2	118
7	Rational design of common transition metal-nitrogen-carbon catalysts for oxygen reduction reaction in fuel cells. <i>Nano Energy</i> , 2016, 30, 443-449.	8.2	114
8	Nucleation and growth of WSe_2 : enabling large grain transition metal dichalcogenides. <i>2D Materials</i> , 2017, 4, 045019.	2.0	96
9	Optimization of parameters in laser powder deposition AlSi10Mg alloy using Taguchi method. <i>Optics and Laser Technology</i> , 2019, 111, 470-480.	2.2	76
10	Heteroepitaxial oxygen-buffering interface enables a highly stable cobalt-free Li-rich layered oxide cathode. <i>Nano Energy</i> , 2020, 75, 104995.	8.2	74
11	A kinetic Monte Carlo simulation method of van der Waals epitaxy for atomistic nucleation-growth processes of transition metal dichalcogenides. <i>Scientific Reports</i> , 2017, 7, 2977.	1.6	72
12	First principles kinetic Monte Carlo study on the growth patterns of WSe_2 monolayer. <i>2D Materials</i> , 2016, 3, 025029.	2.0	59
13	Obstacles toward unity efficiency of $\text{LiNi}_{1-2x}\text{Co}_x\text{Mn}_x\text{O}_2$ ($x=0, 1/4, 1/3$) (NCM) cathode materials: Insights from ab initio calculations. <i>Journal of Power Sources</i> , 2017, 340, 217-228.	4.0	57
14	Stable heteroepitaxial interface of Li-rich layered oxide cathodes with enhanced lithium storage. <i>Energy Storage Materials</i> , 2019, 21, 69-76.	9.5	53
15	Ab Initio Study on Surface Segregation and Anisotropy of Ni-Rich $\text{LiNi}_{1-x}\text{Co}_x\text{Mn}_x\text{O}_2$ (NCM) ($x \leq 0.1$) Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6673-6680.	4.0	50
16	Fundamental influence of hydrogen on various properties of \pm -titanium. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 3812-3816.	3.8	48
17	Regulating oxygen covalent electron localization to enhance anionic redox reversibility of lithium-rich layered oxide cathodes. <i>Energy Storage Materials</i> , 2022, 46, 512-522.	9.5	44
18	Interface structure and work function of W-Cu interfaces. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	43

#	ARTICLE	IF	CITATIONS
19	Rational design of composite interlayer for diffusion bonding of tungsten-steel joints. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018, 70, 155-161.	1.7	37
20	Structural, thermodynamic, and mechanical properties of WCu solid solutions. <i>Journal of Physics and Chemistry of Solids</i> , 2017, 110, 401-408.	1.9	34
21	Phase stability, mechanical property, and electronic structure of Mg-Li system. <i>Journal of Alloys and Compounds</i> , 2010, 489, 130-135.	2.8	33
22	Multivalent Li-Site Doping of Mn Oxides for Li-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21904-21912.	1.5	33
23	Atomic structure, mechanical quality, and thermodynamic property of TiH _x phases. <i>Journal of Applied Physics</i> , 2013, 114, 043510.	1.1	32
24	Regulating Anion Redox and Cation Migration to Enhance the Structural Stability of Li-Rich Layered Oxides. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 12159-12168.	4.0	32
25	Dilution of Al and V through laser powder deposition enables a continuously compositionally Ti/Ti6Al4V graded structure. <i>Journal of Alloys and Compounds</i> , 2018, 763, 376-383.	2.8	31
26	Core-Shell Nanocomposites for Improving the Structural Stability of Li-Rich Layered Oxide Cathode Materials for Li-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 19226-19234.	4.0	30
27	Structural stability, mechanical property and elastic anisotropy of TiAl-H system. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 2676-2684.	3.8	27
28	Insights into the Enhanced Structural and Thermal Stabilities of Nb-Substituted Lithium-Rich Layered Oxide Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 45619-45629.	4.0	26
29	Strain engineering by atomic lattice locking in P2-type layered oxide cathode for high-voltage sodium-ion batteries. <i>Nano Energy</i> , 2020, 76, 105061.	8.2	25
30	Transition Metal Ordering Optimization for High-Reversible Capacity Positive Electrode Materials in the Li-Ni-Co-Mn Pseudoquaternary System. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8540-8549.	1.5	24
31	Dislocation driven spiral and non-spiral growth in layered chalcogenides. <i>Nanoscale</i> , 2018, 10, 15023-15034.	2.8	24
32	Regulating the Catalytic Dynamics Through a Crystal Structure Modulation of Bimetallic Catalyst. <i>Advanced Energy Materials</i> , 2020, 10, 1903225.	10.2	21
33	Investigation of tungsten/steel diffusion bonding with Ni-Fe cladding on tungsten substrate. <i>Fusion Engineering and Design</i> , 2017, 125, 189-194.	1.0	20
34	Atomic-scale understanding of non-stoichiometry effects on the electrochemical performance of Ni-rich cathode materials. <i>Journal of Power Sources</i> , 2018, 378, 750-758.	4.0	20
35	Surface-dependent stress-corrosion cracking in Ni-rich layered oxide cathodes. <i>Acta Materialia</i> , 2021, 212, 116914.	3.8	20
36	Structural stability, mechanical property and phase transition of the Ti-H system. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 11378-11386.	3.8	19

#	ARTICLE	IF	CITATIONS
37	Fundamental mechanism of tetragonal transitions in titanium hydride. <i>Materials Letters</i> , 2014, 115, 252-255.	1.3	19
38	Cohesion strength and atomic structure of W-Cu graded interfaces. <i>Fusion Engineering and Design</i> , 2017, 117, 20-23.	1.0	17
39	Effects of trigonal deformation on electronic structure and thermoelectric properties of bismuth. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 285504.	0.7	17
40	Thermodynamic properties and lattice misfit of Ir-based superalloys. <i>Intermetallics</i> , 2013, 32, 429-436.	1.8	15
41	CT-MEAM interatomic potential of the Li-Ni-O ternary system for Li-ion battery cathode materials. <i>Computational Materials Science</i> , 2017, 127, 128-135.	1.4	15
42	Charge-transfer modified embedded-atom method for manganese oxides: Nanostructuring effects on MnO ₂ nanorods. <i>Computational Materials Science</i> , 2016, 121, 191-203.	1.4	13
43	Concerning the brittleness of iridium: An elastic and electronic view. <i>Materials Chemistry and Physics</i> , 2012, 133, 140-143.	2.0	10
44	8-Layer Shifted Hexagonal Perovskite Ba ₈ MnNb ₆ O ₂₄ : Long-Range Ordering of High-Spin d ⁵ Mn ²⁺ Layers and Electronic Structure. <i>Inorganic Chemistry</i> , 2018, 57, 5732-5742.	1.9	10
45	Electronic-structure tuning of honeycomb layered oxide cathodes for superior performance. <i>Acta Materialia</i> , 2020, 199, 34-41.	3.8	9
46	First principles study of the Mn-doping effect on the physical and chemical properties of mullite-family Al ₂ SiO ₅ . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 24991-25001.	1.3	5
47	Cohesive properties of PbBi/Fe ₃ O ₄ and PbBi/(Fe,Cr) ₃ O ₄ interfaces. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 6732-6741.	1.3	4
48	Charge-transfer modified embedded atom method dynamic charge potential for Li-Co-O system. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 475903.	0.7	3
49	Effects of Cr and V impurities on cohesion properties of Pd/TiAl interfaces. <i>Solid State Communications</i> , 2012, 152, 898-901.	0.9	1
50	Effects of spin-orbit coupling on various properties of hafnium dihydride. <i>Materials Chemistry and Physics</i> , 2013, 139, 139-146.	2.0	1
51	Electronic-Structure Tuning of Honeycomb Layered Oxide Cathodes for Superior Performance. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
52	Two-dimensional ordering governs the overpotential of Li intercalation and plating on graphene and its variants. <i>Journal of Applied Physics</i> , 2022, 131, .	1.1	1
53	Fundamental Influence of C on Cohesion of Pd/TiAl Interfaces. <i>Journal of the Physical Society of Japan</i> , 2009, 78, 113601.	0.7	0
54	First Principles Study of Li-Site Doping Effect on the Properties of LiMnO ₂ and Li ₂ MnO ₃ Cathode Materials. <i>ECS Transactions</i> , 2015, 64, 21-32.	0.3	0

#	ARTICLE	IF	CITATIONS
55	Effects of order-disorder transition on phase relationship, elastic strength, and mechanical anisotropy of Al-Li alloys. <i>Materialia</i> , 2022, 24, 101483.	1.3	0