

# Bin Ouyang

## List of Publications by Year in descending order

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36  
papers

2,236  
citations

430843  
18  
h-index

345203  
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docs citations

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times ranked

2591  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermodynamically Driven Synthetic Optimization for Cation-Disordered Rock Salt Cathodes. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	20
2	Cation-disordered rocksalt-type high-entropy cathodes for Li-ion batteries. <i>Nature Materials</i> , 2021, 20, 214-221.	27.5	290
3	Promises and Challenges of Next-Generation “Beyond Li-ion” Batteries for Electric Vehicles and Grid Decarbonization. <i>Chemical Reviews</i> , 2021, 121, 1623-1669.	47.7	769
4	Computational and experimental search for potential polyanionic K-ion cathode materials. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18564-18575.	10.3	15
5	Synthetic accessibility and stability rules of NASICONs. <i>Nature Communications</i> , 2021, 12, 5752.	12.8	47
6	Design Principles for High-Capacity Mn-Based Cation-Disordered Rocksalt Cathodes. <i>CheM</i> , 2020, 6, 153-168.	11.7	103
7	Defect Engineering of Iron-Rich Orthosilicate Cathode Materials with Enhanced Lithium-Ion Intercalation Capacity and Kinetics. <i>ACS Applied Energy Materials</i> , 2020, 3, 675-686.	5.1	3
8	Effect of interstitial oxygen and nitrogen on incipient plasticity of NbTiZrHf high-entropy alloys. <i>Acta Materialia</i> , 2020, 199, 413-424.	7.9	52
9	Increasing Capacity in Disordered Rocksalt Cathodes by Mg Doping. <i>Chemistry of Materials</i> , 2020, 32, 10728-10736.	6.7	21
10	The interplay between thermodynamics and kinetics in the solid-state synthesis of layered oxides. <i>Nature Materials</i> , 2020, 19, 1088-1095.	27.5	129
11	Computational Investigation of Halogen-Substituted Na Argyrodites as Solid-State Superionic Conductors. <i>Chemistry of Materials</i> , 2020, 32, 1896-1903.	6.7	9
12	Effect of Fluorination on Lithium Transport and Short-Range Order in Disordered Rocksalt-Type Lithium-Ion Battery Cathodes. <i>Advanced Energy Materials</i> , 2020, 10, 1903240.	19.5	83
13	Na <sup>+</sup> Redistribution by Electrochemical Na <sup>+</sup> /K <sup>+</sup> Exchange in Layered Na <sub>x</sub> Ni <sub>2</sub> SbO <sub>6</sub> . <i>Chemistry of Materials</i> , 2020, 32, 4312-4323.	6.7	14
14	Thermal Transport Engineering in Graphdiyne and Graphdiyne Nanoribbons. <i>ACS Omega</i> , 2019, 4, 4147-4152.	3.5	18
15	Unveiling the mechanism of improved capacity retention in $\text{Pm}_{0.2}\text{Li}_{0.8}\text{FeSiO}_4$ cathode by cobalt substitution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25399-25414.	10.3	11
16	Improved Cycling Performance of Li-Excess Cation-Disordered Cathode Materials upon Fluorine Substitution. <i>Advanced Energy Materials</i> , 2019, 9, 1802959.	19.5	127
17	Conjugated $\pi$ -electron engineering of generalized stacking fault in graphene and $\text{h-BN}$ . <i>Nanotechnology</i> , 2018, 29, 09LT01.	2.6	3
18	Thermodynamic assessment of the Mo-S system and its application in thermal decomposition of MoS <sub>2</sub> . <i>Thermochimica Acta</i> , 2018, 660, 44-55.	2.7	10

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19	Controllable Phase Stabilities in Transition Metal Dichalcogenides through Curvature Engineering: First-Principles Calculations and Continuum Prediction. <i>Advanced Theory and Simulations</i> , 2018, 1, 1800003.	2.8	5
20	Phonon Transport of Zigzag/Armchair Graphene Superlattice Nanoribbons. <i>International Journal of Thermophysics</i> , 2018, 39, 1.	2.1	2
21	Tunable phase stability and contact resistance of monolayer transition metal dichalcogenides contacts with metal. <i>Npj 2D Materials and Applications</i> , 2018, 2, .	7.9	17
22	Modulate the direct-current and alternating-current transport properties of magnetic $\hat{1}^3$ -graphyne heterojunctions by chemical modification. <i>Journal of Applied Physics</i> , 2018, 124, 084501.	2.5	2
23	Enhanced thermoelectric performance of two dimensional MS <sub>2</sub> (M=Mo, W) through phase engineering. <i>Journal of Materiomics</i> , 2018, 4, 329-337.	5.7	21
24	Wafer-scale synthesis of monolayer WSe <sub>2</sub> : A multi-functional photocatalyst for efficient overall pure water splitting. <i>Nano Energy</i> , 2018, 51, 54-60.	16.0	45
25	MoS <sub>2</sub> heterostructure with tunable phase stability: strain induced interlayer covalent bond formation. <i>Nanoscale</i> , 2017, 9, 8126-8132.	5.6	29
26	Phase engineering of MoS <sub>2</sub> through GaN/AlN substrate coupling and electron doping. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 33351-33356.	2.8	14
27	Bandgap Transition of 2H Transition Metal Dichalcogenides: Predictive Tuning via Inherent Interface Coupling and Strain. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8927-8935.	3.1	31
28	Atomistic investigation of the influence of hydrogen on dislocation nucleation during nanoindentation in Ni and Pd. <i>Acta Materialia</i> , 2016, 116, 364-369.	7.9	28
29	Tuning Magnetic States of Planar Graphene/h-BN Monolayer Heterostructures via Interface Transition Metal-Vacancy Complexes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23529-23535.	3.1	8
30	Covalent pathways in engineering h-BN supported graphene. <i>Carbon</i> , 2016, 98, 449-456.	10.3	8
31	Phase engineering of monolayer transition-metal dichalcogenide through coupled electron doping and lattice deformation. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	33
32	Synthesis of MoO <sub>2</sub> hierarchical peony-like microspheres without a template and their application in lithium ion batteries. <i>RSC Advances</i> , 2015, 5, 50705-50710.	3.6	13
33	First-Principles Study of Dislocation Slips in Impurity-Doped Graphene. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3418-3427.	3.1	8
34	Probing the Dynamics of the Metallic-to-Semiconducting Structural Phase Transformation in MoS <sub>2</sub> Crystals. <i>Nano Letters</i> , 2015, 15, 5081-5088.	9.1	174
35	Energetics and kinetics of vacancies in monolayer graphene boron nitride heterostructures. <i>2D Materials</i> , 2014, 1, 035007.	4.4	27
36	Strain engineering of magnetic states of vacancy-decorated hexagonal boron nitride. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	47