

# Lijun Zhang

## List of Publications by Year in descending order

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220  
papers

17,657  
citations

18436

62  
h-index

14156

128  
g-index

223  
all docs

223  
docs citations

223  
times ranked

17308  
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient and stable emission of warm-white light from lead-free halide double perovskites. <i>Nature</i> , 2018, 563, 541-545.	13.7	1,451
2	Thermodynamically stabilized $\text{A}^2\text{-CsPbI}_3$ -based perovskite solar cells with efficiencies >18%. <i>Science</i> , 2019, 365, 591-595.	6.0	963
3	Highly Oriented Low-Dimensional Tin Halide Perovskites with Enhanced Stability and Photovoltaic Performance. <i>Journal of the American Chemical Society</i> , 2017, 139, 6693-6699.	6.6	723
4	Design of Lead-Free Inorganic Halide Perovskites for Solar Cells via Cation-Transmutation. <i>Journal of the American Chemical Society</i> , 2017, 139, 2630-2638.	6.6	714
5	Density functional study of FeS, FeSe, and FeTe: Electronic structure, magnetism, phonons, and superconductivity. <i>Physical Review B</i> , 2008, 78, .	1.1	690
6	Doping Lanthanide into Perovskite Nanocrystals: Highly Improved and Expanded Optical Properties. <i>Nano Letters</i> , 2017, 17, 8005-8011.	4.5	672
7	Strain engineering in perovskite solar cells and its impacts on carrier dynamics. <i>Nature Communications</i> , 2019, 10, 815.	5.8	528
8	Ultrasensitive detection of miRNA with an antimonene-based surface plasmon resonance sensor. <i>Nature Communications</i> , 2019, 10, 28.	5.8	475
9	Efficient and stable Ruddlesden-Popper perovskite solar cell with tailored interlayer molecular interaction. <i>Nature Photonics</i> , 2020, 14, 154-163.	15.6	443
10	Materials discovery at high pressures. <i>Nature Reviews Materials</i> , 2017, 2, .	23.3	427
11	Zn-Alloyed $\text{CsPbI}_3$ Nanocrystals for Highly Efficient Perovskite Light-Emitting Devices. <i>Nano Letters</i> , 2019, 19, 1552-1559.	4.5	395
12	Trifluoroacetate induced small-grained $\text{CsPbBr}_3$ perovskite films result in efficient and stable light-emitting devices. <i>Nature Communications</i> , 2019, 10, 665.	5.8	350
13	Electronic correlations in the iron pnictides. <i>Nature Physics</i> , 2009, 5, 647-650.	6.5	317
14	$\text{CuIn}$ Halide Perovskite Solar Absorbers. <i>Journal of the American Chemical Society</i> , 2017, 139, 6718-6725.	6.6	316
15	Atomically engineering activation sites onto metallic 1T-MoS <sub>2</sub> catalysts for enhanced electrochemical hydrogen evolution. <i>Nature Communications</i> , 2019, 10, 982.	5.8	311
16	Rational Design of Halide Double Perovskites for Optoelectronic Applications. <i>Joule</i> , 2018, 2, 1662-1673.	11.7	297
17	Chlorine-Incorporation-Induced Formation of the Layered Phase for Antimony-Based Lead-Free Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 1019-1027.	6.6	241
18	Stabilizing Perovskite Solar Cells to IEC61215:2016 Standards with over 9,000-h Operational Tracking. <i>Joule</i> , 2020, 4, 2646-2660.	11.7	218

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19	Pressure-induced emission of cesium lead halide perovskite nanocrystals. Nature Communications, 2018, 9, 4506.	5.8	212
20	Colloidal Synthesis of Ternary Copper Halide Nanocrystals for High-Efficiency Deep-Blue Light-Emitting Diodes with a Half-Lifetime above 100 h. Nano Letters, 2020, 20, 3568-3576.	4.5	200
21	Stable Yellow Light-Emitting Devices Based on Ternary Copper Halides with Broadband Emissive Self-Trapped Excitons. ACS Nano, 2020, 14, 4475-4486.	7.3	199
22	Electrically-Driven Violet Light-Emitting Devices Based on Highly Stable Lead-Free Perovskite Cs <sub>3</sub> Sb <sub>2</sub> Br <sub>9</sub> Quantum Dots. ACS Energy Letters, 2020, 5, 385-394.	8.8	169
23	Review of Battery Cell Balancing Methodologies for Optimizing Battery Pack Performance in Electric Vehicles. IEEE Access, 2019, 7, 129335-129352.	2.6	165
24	Remaining Useful Life Prediction for Lithium-Ion Batteries Based on Exponential Model and Particle Filter. IEEE Access, 2018, 6, 17729-17740.	2.6	164
25	High Color Rendering Index and Stable White Light-Emitting Diodes by Assembling Two Broadband Emissive Self-Trapped Excitons. Advanced Materials, 2021, 33, e2001367.	11.1	162
26	Density functional study of excess Fe in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \langle \text{mml:msub} \langle \text{mml:mrow} \langle \text{mml:mtext} \rangle \text{Fe} \rangle \rangle \rangle \langle \text{mml:mrow} \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 1 \rangle \rangle \rangle \rangle$ Magnetism and doping. Physical Review B, 2009, 79, .	1.1	156
27	Comparative Research on RC Equivalent Circuit Models for Lithium-Ion Batteries of Electric Vehicles. Applied Sciences (Switzerland), 2017, 7, 1002.	1.3	151
28	Two-Dimensional PC <sub>6</sub> with Direct Band Gap and Anisotropic Carrier Mobility. Journal of the American Chemical Society, 2019, 141, 1599-1605.	6.6	144
29	Fast Diffusion of Native Defects and Impurities in Perovskite Solar Cell Material CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> . Chemistry of Materials, 2016, 28, 4349-4357.	3.2	139
30	CALYPSO structure prediction method and its wide application. Computational Materials Science, 2016, 112, 406-415.	1.4	138
31	Solid salt confinement effect: An effective strategy to fabricate high crystalline polymer carbon nitride for enhanced photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2019, 246, 349-355.	10.8	136
32	Functionality-Directed Screening of Pb-Free Hybrid Organic-Inorganic Perovskites with Desired Intrinsic Photovoltaic Functionalities. Chemistry of Materials, 2017, 29, 524-538.	3.2	135
33	Tellurium Hydrides at High Pressures: High-Temperature Superconductors. Physical Review Letters, 2016, 116, 057002.	2.9	132
34	Formation and Diffusion of Metal Impurities in Perovskite Solar Cell Material CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : Implications on Solar Cell Degradation and Choice of Electrode. Advanced Science, 2018, 5, 1700662.	5.6	130
35	Thermochromic Lead-Free Halide Double Perovskites. Advanced Functional Materials, 2019, 29, 1807375.	7.8	120
36	CsPb(I Br <sub>1-x</sub> ) <sub>3</sub> solar cells. Science Bulletin, 2019, 64, 1532-1539.	4.3	114

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37	Pseudohalide-Induced Recrystallization Engineering for $\text{CH}_3\text{NH}_3\text{PbI}_3$ Film and Its Application in Highly Efficient Inverted Planar Heterojunction Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2018, 28, 1704836.	7.8	112
38	Intrinsic Defect Properties in Halide Double Perovskites for Optoelectronic Applications. <i>Physical Review Applied</i> , 2018, 10, .	1.5	109
39	Entropy Analysis on the Blood Flow through Anisotropically Tapered Arteries Filled with Magnetic Zinc-Oxide (ZnO) Nanoparticles. <i>Entropy</i> , 2020, 22, 1070.	1.1	108
40	Ba-induced phase segregation and band gap reduction in mixed-halide inorganic perovskite solar cells. <i>Nature Communications</i> , 2019, 10, 4686.	5.8	105
41	Hybrid nanofluid flow towards an elastic surface with tantalum and nickel nanoparticles, under the influence of an induced magnetic field. <i>European Physical Journal: Special Topics</i> , 2022, 231, 521-533.	1.2	104
42	InSe: a two-dimensional material with strong interlayer coupling. <i>Nanoscale</i> , 2018, 10, 7991-7998.	2.8	102
43	Bulk heterojunction gifts bismuth-based lead-free perovskite solar cells with record efficiency. <i>Nano Energy</i> , 2020, 68, 104362.	8.2	102
44	A Unified Understanding of the Thickness-Dependent Bandgap Transition in Hexagonal Two-Dimensional Semiconductors. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 597-602.	2.1	100
45	First-principles study of electron-phonon coupling in hole- and electron-doped diamonds in the virtual crystal approximation. <i>Physical Review B</i> , 2005, 72, .	1.1	96
46	Perovskite Solar Absorbers: Materials by Design. <i>Small Methods</i> , 2018, 2, 1700316.	4.6	95
47	Materials discovery via CALYPSO methodology. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 203203.	0.7	93
48	Effects of magnetic Reynolds number on swimming of gyrotactic microorganisms between rotating circular plates filled with nanofluids. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2020, 41, 637-654.	1.9	91
49	Bismuth and antimony-based oxyhalides and chalcogenides as potential optoelectronic materials. <i>Npj Computational Materials</i> , 2018, 4, .	3.5	86
50	Nanoporous Sulfur-Doped Copper Oxide ( $\text{Cu}_2\text{O}_{1-x}\text{S}_x$ ) for Overall Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 745-752.	4.0	83
51	Numerical Investigation on the Swimming of Gyrotactic Microorganisms in Nanofluids through Porous Medium over a Stretched Surface. <i>Mathematics</i> , 2020, 8, 380.	1.1	82
52	Wide InP Nanowires with Wurtzite/Zincblende Superlattice Segments Are Type-II whereas Narrower Nanowires Become Type-I: An Atomistic Pseudopotential Calculation. <i>Nano Letters</i> , 2010, 10, 4055-4060.	4.5	76
53	First-principles studies of structural and electronic properties of hexagonal $\text{BC}_5$ . <i>Physical Review B</i> , 2006, 73, .	1.1	75
54	Evolution of Electronic Structure as a Function of Layer Thickness in Group-VIB Transition Metal Dichalcogenides: Emergence of Localization Prototypes. <i>Nano Letters</i> , 2015, 15, 949-957.	4.5	72

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55	Stabilization of fullerene-like boron cages by transition metal encapsulation. <i>Nanoscale</i> , 2015, 7, 10482-10489.	2.8	72
56	Experimental Identification of Critical Condition for Drastically Enhancing Thermoelectric Power Factor of Two-Dimensional Layered Materials. <i>Nano Letters</i> , 2018, 18, 7538-7545.	4.5	72
57	Phase Diagram and High-Temperature Superconductivity of Compressed Selenium Hydrides. <i>Scientific Reports</i> , 2015, 5, 15433.	1.6	71
58	Computer-Assisted Inverse Design of Inorganic Electrides. <i>Physical Review X</i> , 2017, 7, .	2.8	70
59	Dielectric Behavior as a Screen in Rational Searches for Electronic Materials: Metal Pnictide Sulfosalts. <i>Journal of the American Chemical Society</i> , 2018, 140, 18058-18065.	6.6	69
60	High-Pressure Phase Stability and Superconductivity of Pnictogen Hydrides and Chemical Trends for Compressed Hydrides. <i>Chemistry of Materials</i> , 2016, 28, 1746-1755.	3.2	68
61	Review on Health Management System for Lithium-Ion Batteries of Electric Vehicles. <i>Electronics (Switzerland)</i> , 2018, 7, 72.	1.8	67
62	Zintl-phase compounds with $\text{SnSb}$ anions: Electronic structure and thermoelectric properties. <i>Physical Review B</i> , 2010, 81, .	4.4	66
63	Ab initio prediction of superconductivity in molecular metallic hydrogen under high pressure. <i>Solid State Communications</i> , 2007, 141, 610-614.	0.9	65
64	Ultrahigh-Performance Optoelectronics Demonstrated in Ultrathin Perovskite-Based Vertical Semiconductor Heterostructures. <i>ACS Nano</i> , 2019, 13, 7996-8003.	7.3	64
65	Ultrastable Lead-Free Double Perovskite Photodetectors with Imaging Capability. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900188.	1.9	62
66	Bottom-up growth of homogeneous Moiré superlattices in bismuth oxychloride spiral nanosheets. <i>Nature Communications</i> , 2019, 10, 4472.	5.8	59
67	Spontaneous low-temperature crystallization of $\text{FAPbI}_3$ for highly efficient perovskite solar cells. <i>Science Bulletin</i> , 2019, 64, 1608-1616.	4.3	58
68	Electronic structure and thermoelectric properties of layered $\text{PbSe-WSe}_2$ . <i>Physical Review B</i> , 2009, 80, .	1.1	57
69	Electronic structure and thermoelectric properties: related intergrowth compounds. <i>Physical Review B</i> , 2010, 81, .	1.1	56
70	Genomic Design of Strong Direct-Gap Optical Transition in Si/Ge Core/Multishell Nanowires. <i>Nano Letters</i> , 2012, 12, 984-991.	4.5	54
71	Cd-Rich Alloyed $\text{CsPb}_{1-x}\text{Cd}_x\text{Br}_3$ Perovskite Nanorods with Tunable Blue Emission and Fermi Levels Fabricated through Crystal Phase Engineering. <i>Advanced Science</i> , 2020, 7, 2000930.	5.6	52
72	High-throughput computational materials screening and discovery of optoelectronic semiconductors. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2021, 11, .	6.2	52

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73	Stacking Effects on Electron-Phonon Coupling in Layered Hybrid Perovskites via Microstrain Manipulation. ACS Nano, 2020, 14, 5806-5817.	7.3	50
74	Genetic design of enhanced valley splitting towards a spin qubit in silicon. Nature Communications, 2013, 4, 2396.	5.8	49
75	$N_2$ : A novel polymeric hydronitrogen as a high energy density material. Journal of Materials Chemistry A, 2015, 3, 4188-4194.	5.2	49
76	Phonon instabilities in rocksalt AgCl and AgBr under pressure studied within density functional theory. Physical Review B, 2006, 74, .	1.1	45
77	Artificial control of in-plane anisotropic photoelectricity in monolayer MoS <sub>2</sub> . Applied Materials Today, 2019, 15, 203-211.	2.3	45
78	Discovery and ramifications of incidental Magnéli phase generation and release from industrial coal-burning. Nature Communications, 2017, 8, 194.	5.8	44
79	Rod-shaped thiocyanate-induced abnormal band gap broadening in SCN <sup>-</sup> doped CsPbBr <sub>3</sub> perovskite nanocrystals. Nano Research, 2018, 11, 2715-2723.	5.8	44
80	Ice Detection Model of Wind Turbine Blades Based on Random Forest Classifier. Energies, 2018, 11, 2548.	1.6	44
81	Color Tunable Self-Trapped Emissions from Lead-Free All Inorganic A <sub>2</sub> B Bimetallic Halides CsAg <sub>1-x</sub> Ag <sub>x</sub> (X = Cl, Tl) ETQq <sub>1,1</sub> 0.7845,2	5.2	44
82	Electronic structure, localization, and spin-state transition in Cu-substituted FeSe. Physical Review B, 2010, 81, .	11.48	43
83	First-principles study of the lattice dynamics, thermodynamic properties and electron-phonon coupling of YB <sub>6</sub> . Physical Review B, 2007, 76, .	1.1	42
84	Electronic structure of Ba(Fe,Ru)2As2 and Sr(Fe,Ir)2As2 alloys. Physical Review B, 2009, 79, .	1.1	42
85	ATLAS: A real-space finite-difference implementation of orbital-free density functional theory. Computer Physics Communications, 2016, 200, 87-95.	3.0	42
86	Electronic structures, lattice dynamics, and electron-phonon coupling of simple cubic Ca under pressure. Solid State Communications, 2008, 146, 181-185.	0.9	41
87	Phonon and elastic instabilities in rocksalt alkali hydrides under pressure: First-principles study. Physical Review B, 2007, 75, .	1.1	39
88	The effects of the singular lines on the traveling wave solutions of modified dispersive water wave equations. Nonlinear Analysis: Real World Applications, 2019, 47, 236-250.	0.9	38
89	Density functional study of the overdoped iron chalcogenide TlFeThCr. Physical Review B, 2009, 79, .	1.1	36
90	Intrinsic Transparent Conductors without Doping. Physical Review Letters, 2015, 115, 176602.	2.9	36

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91	Electronic and crystal structures of osmium under high pressure. <i>Physical Review B</i> , 2005, 72, .	1.1	35
92	Effects of Vibration on the Electrical Performance of Lithium-Ion Cells Based on Mathematical Statistics. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 802.	1.3	35
93	A Real-Time Energy Management and Speed Controller for an Electric Vehicle Powered by a Hybrid Energy Storage System. <i>IEEE Transactions on Industrial Informatics</i> , 2020, 16, 6272-6280.	7.2	34
94	High-throughput determination of high-quality interdiffusion coefficients in metallic solids: a review. <i>Journal of Materials Science</i> , 2020, 55, 10303-10338.	1.7	34
95	CaCl <sub>2</sub> -type high-pressure phase of magnesium hydride predicted by ab initio phonon calculations. <i>Physical Review B</i> , 2007, 75, .	1.1	33
96	New Polymorphs of 2D Indium Selenide with Enhanced Electronic Properties. <i>Advanced Functional Materials</i> , 2020, 30, 2001920.	7.8	33
97	Stable zero-dimensional cesium indium bromide hollow nanocrystals emitting blue light from self-trapped excitons. <i>Nano Today</i> , 2021, 38, 101153.	6.2	33
98	Computational functionality-driven design of semiconductors for optoelectronic applications. <i>Information Materials</i> , 2020, 2, 879-904.	8.5	32
99	Halide Homogenization for High-Performance Blue Perovskite Electroluminescence. <i>Research</i> , 2020, 2020, 9017871.	2.8	32
100	Construction of crystal structure prototype database: methods and applications. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 165901.	0.7	31
101	From Distortion to Disconnection: Linear Alkyl Diammonium Cations Tune Structure and Photoluminescence of Lead Bromide Perovskites. <i>Advanced Optical Materials</i> , 2020, 8, 1902051.	3.6	30
102	Extraordinary Temperature Dependent Second Harmonic Generation in Atomically Thin Layers of Transition-Metal Dichalcogenides. <i>Advanced Optical Materials</i> , 2020, 8, 2000441.	3.6	30
103	Tuning optical properties of transparent conducting barium stannate by dimensional reduction. <i>APL Materials</i> , 2015, 3, .	2.2	29
104	Design of ternary alkaline-earth metal Sn( <i>x</i> ) oxides with potential good p-type conductivity. <i>Journal of Materials Chemistry C</i> , 2016, 4, 4592-4599.	2.7	29
105	Anatase (101)-like Structural Model Revealed for Metastable Rutile TiO <sub>2</sub> (011) Surface. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 7891-7896.	4.0	29
106	Interlayer coupling in two-dimensional semiconductor materials. <i>Semiconductor Science and Technology</i> , 2018, 33, 093001.	1.0	29
107	Dimension Engineering of High-Quality InAs Nanostructures on a Wafer Scale. <i>Nano Letters</i> , 2019, 19, 1632-1642.	4.5	29
108	Halogen Substitution in Zero-Dimensional Mixed Metal Halides toward Photoluminescence Modulation and Enhanced Quantum Yield. <i>Advanced Optical Materials</i> , 2020, 8, 2000418.	3.6	29

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109	Thermally developed coupled stress particle–fluid motion with mass transfer and peristalsis. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 2515-2524.	2.0	28
110	High-pressure phase transitions of solid HF, HCl, and HBr: An <i>ab initio</i> evolutionary study. <i>Physical Review B</i> , 2010, 82, .	1.1	27
111	Band structure engineering through van der Waals heterostructuring superlattices of two-dimensional transition metal dichalcogenides. <i>Information Materials</i> , 2021, 3, 201-211.	8.5	27
112	Imaging of the Atomic Structure of All-Inorganic Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 818-823.	2.1	26
113	Pressure-induced enhancement of electron-phonon coupling in superconducting CaC <sub>6</sub> from first principles. <i>Physical Review B</i> , 2006, 74, .	1.1	25
114	Observation of excitonic series in monolayer and few-layer black phosphorus. <i>Physical Review B</i> , 2020, 101, .	1.1	25
115	High-pressure phase transformations in CaH <sub>2</sub> . <i>Journal of Physics Condensed Matter</i> , 2008, 20, 045211.	0.7	24
116	Density functional study of the electronic structure and magnetism of LaFeAsO alloyed with Zn. <i>Physical Review B</i> , 2009, 80, .	1.1	24
117	Absence of intrinsic spin splitting in one-dimensional quantum wires of tetrahedral semiconductors. <i>Physical Review B</i> , 2011, 84, .	1.1	24
118	Coupling Analysis and Performance Study of Commercial 18650 Lithium-Ion Batteries under Conditions of Temperature and Vibration. <i>Energies</i> , 2018, 11, 2856.	1.6	24
119	Bifurcations of traveling wave solutions in a coupled non-linear wave equation. <i>Chaos, Solitons and Fractals</i> , 2003, 17, 941-950.	2.5	23
120	First-principles study of the pressure-induced rutile–CaCl <sub>2</sub> phase transition in MgF <sub>2</sub> . <i>Solid State Communications</i> , 2008, 145, 283-287.	0.9	23
121	Effects of manganese doping on the structure evolution of small-sized boron clusters. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 265401.	0.7	23
122	Stability analysis on the kerosene nanofluid flow with hybrid zinc/aluminum-oxide (ZnO-Al <sub>2</sub> O <sub>3</sub> ) nanoparticles under Lorentz force. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2022, 32, 740-760.	1.6	23
123	Intrinsic ultralow lattice thermal conductivity of the unfilled skutterudite $\text{FeSb}_{1-x}\text{Co}_x$ . <i>Physical Review B</i> , 2016, 94, .	1.1	23
124	Dynamics of Classical Poisson–Nernst–Planck Systems with Multiple Cations and Boundary Layers. <i>Journal of Dynamics and Differential Equations</i> , 2021, 33, 211-234.	1.0	22
125	Design of Mixed-Cation Tri-layered Pb-free Halide Perovskites for Optoelectronic Applications. <i>Advanced Electronic Materials</i> , 2019, 5, 1900234.	2.6	21
126	Optimized response to electricity time-of-use tariff of a compressed natural gas fuelling station. <i>Applied Energy</i> , 2018, 222, 244-256.	5.1	20



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127	Switchable Out-of-Plane Polarization in 2D LiAlTe <sub>2</sub> . <i>Advanced Electronic Materials</i> , 2019, 5, 1900089.	2.6	20
128	Impact of organic molecule rotation on the optoelectronic properties of hybrid halide perovskites. <i>Physical Review Materials</i> , 2019, 3, .	0.9	20
129	Classification and bifurcation of a class of second-order ODEs and its application to nonlinear PDEs. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2018, 11, 759-772.	0.6	20
130	The effects of horizontal singular straight line in a generalized nonlinear Klein-Gordon model equation. <i>Nonlinear Dynamics</i> , 2013, 72, 789-801.	2.7	19
131	Stability, electronic structures and thermoelectric properties of binary Zn-Sb materials. <i>Journal of Materials Chemistry C</i> , 2016, 4, 11305-11312.	2.7	19
132	Design and synthesis of a 2-hydroxy-1-naphthaldehyde -based fluorescent chemosensor for selective detection of aluminium ion. <i>Inorganica Chimica Acta</i> , 2018, 478, 112-117.	1.2	19
133	Van der Waals SnSe 2(1 $\times$ ) S 2 $\times$ Alloys: Composition-Dependent Bowing Coefficient and Electron-Phonon Interaction. <i>Advanced Functional Materials</i> , 2020, 30, 1908092.	7.8	18
134	Stable and luminescent halide perovskite fabricated in water. <i>Light: Science and Applications</i> , 2020, 9, 106.	7.7	18
135	Possible superconductivity in Fe-Sb based materials: Density functional study of LiFeSb. <i>Physical Review B</i> , 2008, 78, .	1.1	17
136	Sn(II)-Containing Phosphates as Optoelectronic Materials. <i>Chemistry of Materials</i> , 2017, 29, 2459-2465.	3.2	17
137	Mathematical studies of Poisson-Nernst-Planck model for membrane channels: Finite ion size effects without electroneutrality boundary conditions. <i>Journal of Computational and Applied Mathematics</i> , 2019, 362, 510-527.	1.1	17
138	Parameter Identification and State Estimation of Lithium-Ion Batteries for Electric Vehicles with Vibration and Temperature Dynamics. <i>World Electric Vehicle Journal</i> , 2020, 11, 50.	1.6	17
139	Discovery of New Polymorphs of Gallium Oxides with Particle Swarm Optimization-Based Structure Searches. <i>Advanced Electronic Materials</i> , 2020, 6, 2000119.	2.6	17
140	Enhanced Optical Emission from 2D InSe Bent onto Si Pillars. <i>Advanced Optical Materials</i> , 2020, 8, 2000828.	3.6	17
141	High-throughput determination of the composition-dependent mechanical and diffusion properties in Ti-Nb-Zr-Hf refractory alloys. <i>Journal of Alloys and Compounds</i> , 2021, 876, 160150.	2.8	17
142	Excitons and excitonic fine structures in Si nanowires: Prediction of an electronic state crossover with diameter changes. <i>Physical Review B</i> , 2011, 84, .	1.1	15
143	The Birth of a Type-II Nanostructure: Carrier Localization and Optical Properties of Isoelectronically Doped CdSe:Te Nanocrystals. <i>ACS Nano</i> , 2012, 6, 8325-8334.	7.3	15
144	A New Type of Solitary Wave Solution of the mKdV Equation Under Singular Perturbations. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2020, 30, 2050162.	0.7	15

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145	Peakons and periodic cusp wave solutions in a generalized Camassa-Holm equation. Chaos, Solitons and Fractals, 2006, 30, 1238-1249.	2.5	14
146	Bifurcations of smooth and nonsmooth traveling wave solutions in a generalized degasperis process equation. Journal of Computational and Applied Mathematics, 2007, 205, 174-185.	1.1	14
147	Medium Density Control for Coal Washing Dense Medium Cyclone Circuits. IEEE Transactions on Control Systems Technology, 2015, 23, 1117-1122.	3.2	14
148	Pb <sub>5</sub> Sb <sub>8</sub> S <sub>17</sub> quantum dot sensitized solar cells with an efficiency of 6% under 0.05 sun: theoretical and experimental studies. Progress in Photovoltaics: Research and Applications, 2018, 26, 205-213.	4.4	13
149	New type of solitary wave solution with coexisting crest and trough for a perturbed wave equation. Nonlinear Dynamics, 2021, 106, 3479-3493.	2.7	13
150	OpenIEC: an open-source code for interfacial energy calculation in alloys. Journal of Materials Science, 2019, 54, 10297-10311.	1.7	12
151	A Dual-Loop Control System for Dense Medium Coal Washing Processes With Sampled and Delayed Measurements. IEEE Transactions on Control Systems Technology, 2017, 25, 2211-2218.	3.2	11
152	Quasi-periodic wave solutions and two-wave solutions of the KdV-Sawada-Kotera-Ramani equation. Nonlinear Dynamics, 2017, 87, 1985-1993.	2.7	11
153	Collective-Goldstone-mode-induced ultralow lattice thermal conductivity in Sn-filled skutterudite <math>Pb_{1-x}Sn_xFe_{1-x}Sb_xS_{17}</math> <math>Pb_{1-x}Sn_xFe_{1-x}Sb_xS_{17}</math> Physical Review B, 2018, 97, ...	1.1	11
154	A Trial to Design $\text{NiAlCr}$ Bond Coat in $\text{NiAlCr}$ Mode TBCs Aided by Phase-Field Simulation. Coatings, 2018, 8, 421.	1.2	11
155	Computational Design of Mixed-Valence Tin Sulfides as Solar Absorbers. ACS Applied Materials & Interfaces, 2019, 11, 24867-24875.	4.0	11
156	Rashba band splitting in two-dimensional Ruddlesden-Popper halide perovskites. Journal of Applied Physics, 2020, 128, 175101.	1.1	11
157	Minimum cost solution to residential energy-water nexus through rainwater harvesting and greywater recycling. Journal of Cleaner Production, 2021, 298, 126742.	4.6	11
158	Research on the Thermal Characteristics of an 18650 Lithium-Ion Battery Based on an Electrochemical-Thermal Flow Coupling Model. World Electric Vehicle Journal, 2021, 12, 250.	1.6	11
159	Mixed Convection Flow over an Elastic, Porous Surface with Viscous Dissipation: A Robust Spectral Computational Approach. Fractal and Fractional, 2022, 6, 263.	1.6	11
160	Bifurcation Theory, Lie Group-Invariant Solutions of Subalgebras and Conservation Laws of a Generalized (2+1)-Dimensional BK Equation Type II in Plasma Physics and Fluid Mechanics. Mathematics, 2022, 10, 2391.	1.1	11
161	Envelope compacton and solitary pattern solutions of a generalized nonlinear Schrödinger equation. Nonlinear Analysis: Theory, Methods & Applications, 2009, 70, 492-496.	0.6	10
162	Diverse electronic properties of 2D layered Se-containing materials composed of quasi-1D atomic chains. Physical Chemistry Chemical Physics, 2020, 22, 2122-2129.	1.3	10

#	ARTICLE	IF	CITATIONS
163	Reinterpretation of the Expected Electronic Density of States of Semiconductor Nanowires. Nano Letters, 2015, 15, 88-95.	0.9	10
164	Sn <sub>2</sub> Se <sub>3</sub> : A conducting crystalline mixed valent phase change memory compound. Journal of Applied Physics, 2017, 121, .	4.5	9
165	Mathematical analysis of Poisson–Nernst–Planck models with permanent charges and boundary layers: studies on individual fluxes. Nonlinearity, 2021, 34, 3879-3906.	1.1	9
166	A power dispatch model for a ferrochrome plant heat recovery cogeneration system. Applied Energy, 2018, 227, 180-189.	0.6	9
167	Effect of Thermal Vacancy on Thermodynamic Behaviors in BCC W Close to Melting Point: A Thermodynamic Study. Materials, 2018, 11, 1648.	5.1	8
168	Stability and Bifurcation Analysis on a Predator–Prey System with the Weak Allee Effect. Mathematics, 2019, 7, 432.	1.3	8
169	A Parametric Three-Dimensional Phase-Field Study of the Physical Vapor Deposition Process of Metal Thin Films Aiming at Quantitative Simulations. Coatings, 2019, 9, 607.	1.1	8
170	Symmetry Reductions, Dynamical Behavior and Exact Explicit Solutions to a Class of Nonlinear Shallow Water Wave Equation. Qualitative Theory of Dynamical Systems, 2020, 19, 1.	1.2	8
171	Double Wronskian solutions to the (2+1)-dimensional Broer–Kaup–Kupershmidt equation. Applied Mathematics Letters, 2020, 105, 106285.	0.8	8
172	Thermodynamic descriptions of the binary Ni–Sn and ternary Cu–Ni–Sn systems over entire composition range: A revisit. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2021, 75, 102344.	1.5	8
173	PEAKON AND CUSPON SOLUTIONS OF A GENERALIZED CAMASSA-HOLM-NOVIKOV EQUATION. Journal of Applied Analysis and Computation, 2018, 8, 1938-1958.	0.7	8
174	Exact solitary wave and quasi-periodic wave solutions of the KdV-Sawada-Kotera-Ramani equation. Advances in Difference Equations, 2015, 2015, .	0.2	8
175	Research on Degeneration Model of Neural Network for Deep Groove Ball Bearing Based on Feature Fusion. Algorithms, 2018, 11, 21.	3.5	7
176	A Novel Lie Group Classification Method for Generalized Cylindrical KdV Type of Equation: Exact Solutions and Conservation Laws. Journal of Mathematical Fluid Mechanics, 2019, 21, 1.	1.2	7
177	A Hierarchical Optimisation of a Compressed Natural Gas Station for Energy and Fuelling Efficiency under a Demand Response Program. Energies, 2019, 12, 2165.	0.4	7
178	Effects of Bi addition on solidification behavior of Mg–Al–Zn casting alloys using experiments and CALPHAD calculations. Journal of Materials Science, 2020, 55, 7039-7051.	1.6	7
179	Persistence of solitary wave solutions to a singularly perturbed generalized mKdV equation. Applied Mathematics Letters, 2022, 124, 107668.	1.7	7
180		1.5	7

#	ARTICLE	IF	CITATIONS
181	Anisotropic Atomic Mobilities of Layer-Structured O <sub>3</sub> Li <sub>x</sub> CoO <sub>2</sub> Cathodes and Their Applications in Optimization of Battery Performance. Journal of Physical Chemistry C, 2020, 124, 10832-10844.	1.5	6
182	Optical emission enhancement of bent InSe thin films. Science China Information Sciences, 2021, 64, 1.	2.7	6
183	Phase transition pathway of hybrid halide perovskites under compression: Insights from first-principles calculations. Physical Review Materials, 2021, 5, .	0.9	6
184	EXACT SOLITARY WAVE AND PERIODIC WAVE SOLUTIONS OF THE KAUP-KUPERSCHMIDT EQUATION. Journal of Applied Analysis and Computation, 2015, 5, 485-495.	0.2	6
185	Simulation Analysis of Fluid-Structure Interaction of High Velocity Environment Influence on Aircraft Wing Materials under Different Mach Numbers. Sensors, 2018, 18, 1248.	2.1	5
186	Diffusion behavior of fcc and L1 <sub>2</sub> Ni-Al-Cr alloys. Vacuum, 2021, 189, 110238.	1.6	5
187	Dopability of divalent tin containing phosphates for $p$ -type transparent conductors. Physical Review Materials, 2019, 3, .	0.9	5
188	Thermodynamic modeling of the chromium-yttrium-oxygen system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2019, 64, 1-10.	0.7	4
189	Automated Development of an Accurate Diffusion Database in Fcc AlCoCrFeNi High-Entropy Alloys from a Big Dataset of Composition Profiles. Materials, 2022, 15, 3240.	1.3	4
190	New exact compacton, peakon and solitary solutions of the generalized Boussinesq-like equations with nonlinear dispersion. Nonlinear Analysis: Theory, Methods & Applications, 2007, 67, 3276-3282.	0.6	3
191	Stability and Hopf Bifurcation Analysis on a Bazykin Model with Delay. Abstract and Applied Analysis, 2014, 2014, 1-7.	0.3	3
192	Existence of Wave Front Solutions of an Integral Differential Equation in Nonlinear Nonlocal Neuronal Network. Abstract and Applied Analysis, 2014, 2014, 1-9.	0.3	3
193	On Gibbs Energy for the Metastable bcc <sub>A2</sub> Phase with a Thermal Vacancy in Metals and Alloys. Materials, 2019, 12, 292.	1.3	3
194	Motion equations and non-Noether symmetries of Lagrangian systems with conformable fractional derivative. Thermal Science, 2021, 25, 1365-1372.	0.5	3
195	A Symplectic Algorithm for Constrained Hamiltonian Systems. Axioms, 2022, 11, 217.	0.9	3
196	Electronic structure of $\text{CsFe}_{1.1}\text{Co}_2$ its alloy with cobalt: A magnetic compound related to the iron superconductors. Physical Review B, 2010, 81, .	1.1	2
197	Traveling Wave Solutions and Infinite-Dimensional Linear Spaces of Multiwave Solutions to Jimbo-Miwa Equation. Abstract and Applied Analysis, 2014, 2014, 1-7.	0.3	2
198	Composition-dependent hardness and Young's modulus in fcc Ni-X (X = Rh, Ta, W, Re, Os, and Ir) alloys: Experimental measurements and CALPHAD modeling. Journal of Materials Research, 2019, 34, 3104-3115.	1.2	2

#	ARTICLE	IF	CITATIONS
199	Discovery of New Phases of Bismuth Oxyselenide Semiconductor Bi <sub>2</sub> OSe <sub>2</sub> by Global Structure Search Approach. <i>Advanced Theory and Simulations</i> , 2021, 4, 2000316.	1.3	2
200	Electronic and optical properties of tapered tetrahedral semiconductor nanocrystals. <i>Nanotechnology</i> , 2021, 32, 295203.	1.3	2
201	An Effective Approach to Acquire the Impurity Diffusion Coefficients in Binary Alloys with Quantified Uncertainties. <i>Metals</i> , 2021, 11, 809.	1.0	2
202	Temperature-induced phase transition of two-dimensional semiconductor GaTe*. <i>Chinese Physics B</i> , 2021, 30, 016402.	0.7	2
203	An Effective Strategy to Maintain the CALPHAD Atomic Mobility Database of Multicomponent Systems and Its Application to Hcp Mg-Al-Zn-Sn Alloys. <i>Materials</i> , 2022, 15, 283.	1.3	2
204	Solitary waves of singularly perturbed generalized KdV equation with high order nonlinearity. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2023, 16, 639-654.	0.6	2
205	The influence of defects on the transport properties of AgSbPb <sub>18</sub> Te <sub>20</sub> prepared at high pressure and high temperature. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 425219.	0.7	1
206	Exact Solitary Wave and Periodic Wave Solutions of a Class of Higher-Order Nonlinear Wave Equations. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-8.	0.6	1
207	Multidiscipline Integrated Platform Based on Probabilistic Analysis for Manufacturing Engineering Processes. <i>Future Internet</i> , 2018, 10, 70.	2.4	1
208	Exact solutions of fractional nonlinear equations by generalized bell polynomials and bilinear method. <i>Thermal Science</i> , 2021, 25, 1373-1380.	0.5	1
209	Experimental investigation of diffusion behaviors in $\hat{\text{I}}^3$ and $\hat{\text{I}}^3\hat{\text{A}}^{\text{TM}}$ Ni-Al-Co alloys. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2021, 74, 102286.	0.7	1
210	STUDIES ON INDIVIDUAL FLUXES VIA POISSON-NERNST-PLANCK MODELS WITH SMALL PERMANENT CHARGES AND PARTIAL ELECTRONEUTRALITY CONDITIONS. <i>Journal of Applied Analysis and Computation</i> , 2022, 12, 87-105.	0.2	1
211	Nb/Sn Liquid-Solid Reactive Diffusion Couples and Their Application to Determination of Phase Equilibria and Interdiffusion Coefficients of Nb-Sn Binary System. <i>Materials</i> , 2022, 15, 113.	1.3	1
212	Electronic Structure, Magnetism and Spin-Fluctuations in Fe-As Based Superconductors. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1148, 1.	0.1	0
213	Trigonometric series with piecewise mean value bounded variation coefficients. <i>Science China Mathematics</i> , 2013, 56, 1661-1677.	0.8	0
214	A special case study of boundary layer effects via Poisson-Nernst-Planck systems with permanent charges. , 2020, , .		0
215	EXPLICIT PEAKON SOLUTIONS TO A FAMILY OF WAVE-BREAKING EQUATIONS. <i>Journal of Applied Analysis and Computation</i> , 2019, 9, 1987-1998.	0.2	0
216	STABILITY AND HOPF BIFURCATION ANALYSIS ON A SPRUCE-BUDWORM MODEL WITH DELAY. <i>Journal of Applied Analysis and Computation</i> , 2020, 10, 2711-2721.	0.2	0

#	ARTICLE	IF	CITATIONS
217	Experimental Investigation and Thermodynamic Verification for the Phase Relation around the $\hat{\mu}$ -Mg <sub>23</sub> (Al, Zn) <sub>30</sub> Intermetallic Compound in the Mg-Zn-Al System. <i>Materials</i> , 2021, 14, 6892.	1.3	0
218	Studies on reversal permanent charges and reversal potentials via classical Poisson-Nernst-Planck systems with boundary layers. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2022, .	0.5	0
219	Composition-dependent interdiffusivity matrices of ordered bcc_B2 phase in ternary Ni-Al-Ru system at 1273 $\frac{1}{4}$ 1473 K. <i>International Journal of Materials Research</i> , 2022, .	0.1	0
220	HIGHER ORDER EXPANSIONS IN FINITE ION SIZE VIA POISSON-NERNST-PLANCK SYSTEMS WITH BIKERMAN'S LOCAL HARD-SPHERE POTENTIAL. <i>Journal of Applied Analysis and Computation</i> , 2022, 12, 907-931.	0.2	0