Jiangang He

List of Publications by Year in descending order

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50	1,998	218677	243625
papers	citations	26 h-index	44 g-index

50	50	50	2701
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	RbMgCO₃F: A New Beryllium-Free Deep-Ultraviolet Nonlinear Optical Material. Journal of the American Chemical Society, 2015, 137, 10504-10507.	13.7	283
2	Ultralow Thermal Conductivity in Full Heusler Semiconductors. Physical Review Letters, 2016, 117, 046602.	7.8	163
3	Screened hybrid functional applied to 3<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>d</mml:mi><mml:mn>0</mml:mn></mml:msup></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mo>â†’</mml:mo></mml:math>3<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"	3.2	146
4	Particlelike Phonon Propagation Dominates Ultralow Lattice Thermal Conductivity in Crystalline <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Tl</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>transition-metal Physical Review Letters, 2020, 124, 065901.	7.8	122
5	Pd₂Se₃ Monolayer: A Promising Two-Dimensional Thermoelectric Material with Ultralow Lattice Thermal Conductivity and High Power Factor. Chemistry of Materials, 2018, 30, 5639-5647.	6.7	119
6	Computational investigation of inverse Heusler compounds for spintronics applications. Physical Review B, 2018, 98, .	3.2	69
7	Machine-learning-accelerated high-throughput materials screening: Discovery of novel quaternary Heusler compounds. Physical Review Materials, 2018, 2, .	2.4	62
8	Revealing the Conversion Mechanism of Transition Metal Oxide Electrodes during Lithiation from First-Principles. Chemistry of Materials, 2017, 29, 9011-9022.	6.7	60
9	Interplay of cation and anion redox in Li ₄ Mn ₂ O ₅ cathode material and prediction of improved Li ₄ (Mn,M) ₂ O ₅ electrodes for Li-ion batteries. Science Advances, 2018, 4, eaao6754.	10.3	58
10	Designing and Discovering a New Family of Semiconducting Quaternary Heusler Compounds Based on the 18-Electron Rule. Chemistry of Materials, 2018, 30, 4978-4985.	6.7	57
11	High-Throughput Study of Lattice Thermal Conductivity in Binary Rocksalt and Zinc Blende Compounds Including Higher-Order Anharmonicity. Physical Review X, 2020, 10, .	8.9	55
12	Designing chemical analogs to PbTe with intrinsic high band degeneracy and low lattice thermal conductivity. Nature Communications, 2019, 10, 719.	12.8	50
13	Outstanding Properties and Performance of CaTi0.5Mn0.5O3â€“Î´ for Solar-Driven Thermochemical Hydrogen Production. Matter, 2021, 4, 688-708.	10.0	45
14	Exceptionally strong magnetism in the 4<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>d</mml:mi></mml:mrow></mml:math>perovskites<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>R</mml:mi></mml:mrow></mml:math>TcO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"	3.2	42
15	display="inline"><mml:mrow><mml:msub><mml:m Bi₂PdO₄: A Promising Thermoelectric Oxide with High Power Factor and Low Lattice Thermal Conductivity. Chemistry of Materials, 2017, 29, 2529-2534.	6.7	42
16	Favorable Redox Thermodynamics of SrTi_{0.5}Mn_{0.5}O_{3â^'Î´} in Solar Thermochemical Water Splitting. Chemistry of Materials, 2020, 32, 9335-9346.	6.7	42
17	Accelerated Discovery and Design of Ultralow Lattice Thermal Conductivity Materials Using Chemical Bonding Principles. Advanced Functional Materials, 2022, 32, .	14.9	34
18	Assessing the performance of self-consistent hybrid functional for band gap calculation in oxide semiconductors. Journal of Physics Condensed Matter, 2017, 29, 454004.	1.8	33

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19	Ferroelectric Oxides with Strong Visible-Light Absorption from Charge Ordering. Chemistry of Materials, 2017, 29, 2445-2451.	6.7	32
20	Ca₂B₅O₉Cl and Sr₂B₅O₉Cl: Nonlinear Optical Crystals with Deep-Ultraviolet Transparency Windows. ACS Applied Materials & Interfaces, 2020, 12, 4632-4637.	8.0	32
21	Accelerated discovery of a large family of quaternary chalcogenides with very low lattice thermal conductivity. Npj Computational Materials, 2021, 7, .	8.7	32
22	First-Principles Study of Lithium Cobalt Spinel Oxides: Correlating Structure and Electrochemistry. ACS Applied Materials & Interfaces, 2018, 10, 13479-13490.	8.0	31
23	Tunable metal-insulator transition, Rashba effect and Weyl Fermions in a relativistic charge-ordered ferroelectric oxide. Nature Communications, 2018, 9, 492.	12.8	31
24	High thermoelectric performance in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaAgYTe</mml:mi><mml:mn>3</mml:mn></mml:msub> via low lattice thermal conductivity induced by bonding heterogeneity. Physical Review Materials, 2019, 3, .	2.4	30
25	Ultralow Thermal Conductivity, Multiband Electronic Structure and High Thermoelectric Figure of Merit in TlCuSe. Advanced Materials, 2021, 33, e2104908.	21.0	29
26	Bonding Hierarchy Gives Rise to High Thermoelectric Performance in Layered Zintl Compound BaAu2P4. Chemistry of Materials, 2018, 30, 7760-7768.	6.7	28
27	Lithium Niobate-Type Oxides as Visible Light Photovoltaic Materials. Chemistry of Materials, 2016, 28, 25-29.	6.7	26
28	Intrinsically Low Lattice Thermal Conductivity Derived from Rattler Cations in an AMMâ€²Q3 Family of Chalcogenides. Chemistry of Materials, 2019, 31, 8734-8741.	6.7	26
29	Computational Discovery of Stable Heteroanionic Oxychalcogenides ABXO (A, B = Metals; X = S, Se, and) Tj ETQq1 1 0.784314 rgBT /O	6.7	21
30	First-principles calculations and experimental studies of XYZ₂ thermoelectric compounds: detailed analysis of van der Waals interactions. Journal of Materials Chemistry A, 2018, 6, 19502-19519.	10.3	20
31	Inorganic Halide Perovskitoid TlPbI₃ for Ionizing Radiation Detection. Advanced Functional Materials, 2021, 31, 2006635.	14.9	16
32	Structural determination and electronic properties of the 4dperovskite SrPdO3. Physical Review B, 2014, 89, .	3.2	14
33	Zn₃B₇O₁₃Cl: A New Deep-Ultraviolet Transparency Nonlinear Optical Crystal with Boracite Structure. ACS Applied Materials & Interfaces, 2020, 12, 42942-42948.	8.0	14
34	CeTi2O6â€”A Promising Oxide for Solar Thermochemical Hydrogen Production. ACS Applied Materials & Interfaces, 2020, 12, 21521-21527.	8.0	14
35	Pressure-induced ferroelectric-like transition creates a polar metal in defect antiperovskites Hg3Te2X2 (Xâ€‰=â€‰Cl, Br). Nature Communications, 2021, 12, 1509.	12.8	14
36	Low Thermal Conductivity in Heteroanionic Materials with Layers of Homoleptic Polyhedra. Journal of the American Chemical Society, 2022, 144, 2569-2579.	13.7	13

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37	Deuterium Isotope Effects in Polymerization of Benzene under Pressure. Journal of Physical Chemistry Letters, 2017, 8, 1856-1864.	4.6	12
38	TlSbS₂: a Semiconductor for Hard Radiation Detection. ACS Photonics, 2017, 4, 2891-2898.	6.6	11
39	Mechanistic insight of KBiQ₂ (Q = S, Se) using panoramic synthesis towards synthesis-by-design. Chemical Science, 2021, 12, 1378-1391.	7.4	11
40	Comparative ab initio study of the structural, electronic, magnetic, and dynamical properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LiOsO</mml:mi><mml:mn>3</mml:mn></mml:msub></m and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>NaOsO</mml:mi><mml:mn>3</mml:mn></mml:msub></ Physical Review Materials, 2020, 4, .	2.4	11
41	Antiferromagnetic Semiconductor BaFMn_{0.5}Te with Unique Mn Ordering and Red Photoluminescence. Journal of the American Chemical Society, 2019, 141, 17421-17430.	13.7	10
42	A Natural 2D Heterostructure [Pb_{3.1}Sb_{0.9}S₄][Au_xTe_{2â€“x}] with Large Transverse Nonsaturating Negative Magnetoresistance and High Electron Mobility. Journal of the American Chemical Society, 2019, 141, 7544-7553.	13.7	8
43	Ir₆In₃₂S₂₁, a polar, metal-rich semiconducting subchalcogenide. Chemical Science, 2020, 11, 870-878.	7.4	7
44	High-Throughput Computational Discovery of Ternary Mixed-Anion Oxypnictides. Chemistry of Materials, 2021, 33, 9486-9500.	6.7	6
45	Homologous Alkali Metal Copper Rare-Earth Chalcogenides A₂Cu₂n</sub>Ln₄Q_{7+n} (n = 1, 2, 3). Chemistry of Materials, 2022, 34, 3409-3422.	6.7	6
46	Crystal and Electronic Structures of Palladium Sesquichalcogenides. Chemistry of Materials, 2021, 33, 2298-2306.	6.7	5
47	Nonmetallic Active Sites on Nickel Phosphide in Oxygen Evolution Reaction. Nanomaterials, 2022, 12, 1130.	4.1	3
48	2D Homologous Series SrFM_nBiS_{n+2} (M = Pb,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 312 Td (Ag Sr₂F₂Bi_{2/3}S₂. Inorganic Chemistry, 2022, 61, 8233-8240.	4.0	2
49	Dimensionally driven crossover from semimetal to direct semiconductor in layered SbAs. Physical Review Materials, 2019, 3, .	2.4	1
50	Unique 3D framework formed by adding M^{II}O₄ groups into high Sb/P ratio phosphatoantimonates. Zeitschrift Fur Kristallographie - Crystalline Materials, 2019, 234, 301-306.	0.8	0