Sai Mu

List of Publications by Year
in descending order

47 papers	1,482 citations	361296 20 h-index	315616 38 g-index
47 all docs	47 docs citations	47 times ranked	2280 citing authors

#	Article	IF	Citations
1	Uncovering electron scattering mechanisms in NiFeCoCrMn derived concentrated solid solution and high entropy alloys. Npj Computational Materials, 2019, 5, .	3.5	251
2	Engineering atomic-level complexity in high-entropy and complex concentrated alloys. Nature Communications, 2019, 10, 2090.	5.8	182
3	High-Voltage Cycling Induced Thermal Vulnerability in LiCoO₂ Cathode: Cation Loss and Oxygen Release Driven by Oxygen Vacancy Migration. ACS Nano, 2020, 14, 6181-6190.	7.3	144
4	Thermophysical properties of Ni-containing single-phase concentrated solid solution alloys. Materials and Design, 2017, 117, 185-192.	3.3	96
5	First-principles surface energies for monoclinic Ga2O3 and Al2O3 and consequences for cracking of (AlxGa1â^'x)2O3. APL Materials, 2020, 8, .	2.2	53
6	Effect of substitutional doping on the NÃ©el temperature of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="bold">Cr</mml:mi><mml:mn mathvariant="bold">2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="bold">O</mml:mi><mml:mn mathvariant="bold">3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2013, 87, .	1.1	51
7	Surface-induced spin state locking of the [Fe(H₂B(pz)₂)₂(bipy)] spin crossover complex. Journal of Physics Condensed Matter, 2016, 28, 206002.	0.7	50
8	A Facile Space-Confined Solid-Phase Sulfurization Strategy for Growth of High-Quality Ultrathin Molybdenum Disulfide Single Crystals. Nano Letters, 2018, 18, 2021-2032.	4.5	42
9	Complexities in the Molecular Spin Crossover Transition. Journal of Physical Chemistry C, 2015, 119, 16293-16302.	1.5	41
10	Accurate classical short-range forces for the study of collision cascades in Feâ€“Niâ€“Cr. Computer Physics Communications, 2017, 219, 11-19.	3.0	39
11	Atomic scale investigation of aluminum incorporation, defects, and phase stability in Î²-(AlxGa1â^'x)2O3 films. APL Materials, 2021, 9, .	2.2	35
12	Electronic transport and phonon properties of maximally disordered alloys: From binaries to high-entropy alloys. Journal of Materials Research, 2018, 33, 2857-2880.	1.2	31
13	Influence of local lattice distortions on electrical transport of refractory high entropyÂalloys. Scripta Materialia, 2019, 170, 189-194.	2.6	26
14	Phonons, magnons, and lattice thermal transport in antiferromagnetic semiconductor MnTe. Physical Review Materials, 2019, 3, .	0.9	25
15	Ab initio study of enhanced thermal conductivity in ordered AlGaO3 alloys. Applied Physics Letters, 2019, 115, .	1.5	24
16	Orientation-dependent band offsets between (AlxGa1â^'x)2O3 and Ga2O3. Applied Physics Letters, 2020, 117, .	1.5	24
17	Interface cation migration kinetics induced oxygen release heterogeneity in layered lithium cathodes. Energy Storage Materials, 2021, 36, 115-122.	9.5	23
18	Decoupling Carrier Concentration and Electron-Phonon Coupling in Oxide Heterostructures Observed with Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2018, 121, 236802.	2.9	22

#	Article	IF	Citations
19	Unfolding the complexity of phonon quasi-particle physics in disordered materials. Npj Computational Materials, 2020, 6, .	3.5	22
20	Element-resolved local lattice distortion in complex concentrated alloys: An observable signature of electronic effects. Acta Materialia, 2021, 216, 117135.	3.8	22
21	Extreme Fermi Surface Smearing in a Maximally Disordered Concentrated Solid Solution. Physical Review Letters, 2020, 124, 046402.	2.9	20
22	Bulk and element-specific magnetism of medium-entropy and high-entropy Cantor-Wu alloys. Physical Review B, 2020, 102, .	1.1	18
23	Influence of strain and chemical substitution on the magnetic anisotropy of antiferromagnetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cr</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> : An	2.9	18
24	Role of carbon and hydrogen in limiting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -type doping of monoclinic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:msub><mml:mi>Al</mml:mi><mml:mi> ma. Physical Review B, 2022, 105, .	1.1	18
25	First-principles calculations of hyperfine interaction, binding energy, and quadrupole coupling for shallow donors in silicon. Npj Computational Materials, 2020, 6, .	3.5	17
26	Epitaxial ScxAl1â^'xN on GaN exhibits attractive high-K dielectric properties. Applied Physics Letters, 2022, 120, .	1.5	17
27	Temperature dependent electronic transport in concentrated solid solutions of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>3</mml:mn><mml:mi>d</mml:mi></mml:mrow></mml:math> -transition metals Ni, Fe, Co and Cr from first principles. Physical Review B, 2018, 98, .	1.1	16
28	Piezoelectric effect and polarization switching in Al1â^'xScxN. Journal of Applied Physics, 2021, 130, .	1.1	15
29	Hidden Mn magnetic-moment disorder and its influence on the physical properties of medium-entropy NiCoMn solid solution alloys. Physical Review Materials, 2019, 3, .	0.9	14
30	Role of the third dimension in searching for Majorana fermions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml: via phonons. Physical Review Research, 2022, 4, .	1.3	14
31	First-principles study of electron transport in ScN. Physical Review B, 2021, 104, .	1.1	13
32	First-principles microscopic model of exchange-driven magnetoelectric response with application to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mtext>Cr</mml:mtext></mml:mrow><mml:mn> <mml:msub><mml:mrow><mml:mtext>O</mml:mtext></mml:mrow><mml:mn> Physical Review B, 2014, 89, .	1.1	11
33	Role of Ga and In adatoms in the epitaxial growth of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î²</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub> mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 102, .	1.1	11
34	Error controlling of the combined Cluster-Expansion and Wangâ€“Landau Monte-Carlo method and its application to FeCo. Computer Physics Communications, 2019, 235, 95-101.	3.0	10
35	Strategies for increasing the NÃ©el temperature of magnetoelectric Fe2TeO6. Journal of Physics Condensed Matter, 2015, 27, 022203.	0.7	9
36	Spectral signatures of thermal spin disorder and excess Mn in half-metallic NiMnSb. Physical Review B, 2015, 91, .	1.1	8

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37	Adsorption and Diffusion of Aluminum on Î²-Ga₂O₃(010) Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 10650-10655.	4.0	7
38	Incorporation of Si and Sn donors in Î²-Ga2O3 through surface reconstructions. Journal of Applied Physics, 2021, 130, 185703.	1.1	7
39	Ferromagnetic Spin-1/2 Dimers with Strong Anisotropy in MoCl5. Chemistry of Materials, 2019, 31, 2952-2959.	3.2	6
40	Optical conductivity of metal alloys with residual resistivities near or above the Mott-Ioffe-Regel limit. Physical Review B, 2019, 100, .	1.1	5
41	The local strain distribution in bilayer materials: a multiscale study. Nanoscale, 2020, 12, 6456-6461.	2.8	5
42	X-ray absorption investigation of local structural disorder in Ni1-xFex (xâ€‰=â€‰0.10, 0.20, 0.35, and 0.50) alloys. Journal of Applied Physics, 2017, 121, 165105.	1.1	4
43	Structural, electronic, and polarization properties of YN and LaN. Physical Review Materials, 2021, 5, .	0.9	4
44	Photophysical properties of zero-dimensional perovskites studied by PBE0 and GW+BSE methods. Journal of Applied Physics, 2021, 130, 203106.	1.1	4
45	The Electronic Structure Signature of the Spin Cross-Over Transition of [Co(dpzca)₂]. Zeitschrift Fur Physikalische Chemie, 2018, 232, 445-458.	1.4	3
46	Phonons, <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Q</mml:mi></mml:mrow></mml:math> -dependent Kondo spin fluctuations, and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>4</mml:mn><mml:mi>f</mml:mi></mml:mrow></mml:m phonon resonance in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Yb</mml:mi><mml:msub><mml:mi	1.1	3
47	Vertically Aligned Single-Crystalline CoFe2O4 Nanobrush Architectures with High Magnetization and Tailored Magnetic Anisotropy. Nanomaterials, 2020, 10, 472.	1.9	2