Zhibin Gao

List of Publications by Year in Descending Order

48 papers	819 citations	15 h-index	28 g-index
48 ext. papers	1,161 ext. citations	5.8 avg, IF	5.17 L-index

#	Paper	IF	Citations
48	Highly Anisotropic Thermoelectric Properties of Two-Dimensional As2Te3. *ACS Applied Electronic Materials*, **2021**, 3, 1610-1620	4	6
47	Phonon Hall effect with first-principles calculations. *Physical Review B*, **2021**, 103,	3.3	1
46	Highly anisotropic electronic and mechanical properties of monolayer and bilayer As2S3. *Applied Surface Science*, **2021**, 542, 148665	6.7	4
45	Directional Design of Materials Based on Multi-Objective Optimization: A Case Study of Two-Dimensional Thermoelectric SnSe. *Chinese Physics Letters*, **2021**, 38, 027301	1.8	5
44	Observation of Anisotropic Magnetoresistance in Layered Nonmagnetic Semiconducting PdSe. *ACS Applied Materials & Interfaces*, **2021**, 13, 37527-37534	9.5	2
43	Study on Fracture Parameters of Stress Corrosion Cracking Tip of AA6082 Alloy at the Microscopic Scale. *Journal of Physics: Conference Series*, **2021**, 2002, 012001	0.3	
42	Large contribution of quasi-acoustic shear phonon modes to thermal conductivity in novel monolayer Ga2O3. *Journal of Applied Physics*, **2021**, 130, 105106	2.5	3
41	Thermal transport property of novel two-dimensional nitride phosphorus: An ab initio study. *Applied Surface Science*, **2021**, 559, 149463	6.7	3
40	Cooling rate dependence of the properties for Ti110Al14V4 alloy investigated by ab initio molecular dynamics. *Journal of Molecular Liquids*, **2021**, 343, 117604	6	1
39	Theoretically modelling graphene-like carbon matryoshka with strong stability and particular three-center two-electron □bonds. *Physical Chemistry Chemical Physics*, **2021**, 23, 11907-11916	3.6	1
38	Band degeneracy enhanced thermoelectric performance in layered oxyselenides by first-principles calculations. *Npj Computational Materials*, **2021**, 7,	10.9	14
37	Insights into thermal transport property of monolayer C4N3H: A first-principles study. *Physica E: Low-Dimensional Systems and Nanostructures*, **2020**, 124, 114241	3	0
36	Tunable Properties of Novel GaO Monolayer for Electronic and Optoelectronic Applications. *ACS Applied Materials & Interfaces*, **2020**, 12, 30659-30669	9.5	37
35	Extrapolated Defect Transition Level in Two-Dimensional Materials: The Case of Charged Native Point Defects in Monolayer Hexagonal Boron Nitride. *ACS Applied Materials & Interfaces*, **2020**, 12, 17055-17061	9.5	8
34	Thermoelectric Penta-Silicene with a High Room-Temperature Figure of Merit. *ACS Applied Materials & Interfaces*, **2020**, 12, 14298-14307	9.5	36
33	First-principles molecular dynamics studying the solidification of Ti-6Al-4V alloy. *Journal of Molecular Liquids*, **2020**, 315, 113606	6	2
32	A Novel Hyperbolic Two-Dimensional Carbon Material with an In-Plane Negative Poisson's Ratio Behavior and Low-Gap Semiconductor Characteristics. *ACS Omega*, **2020**, 5, 15783-15790	3.9	6

31	Comparative investigation of the thermal transport properties of Janus SnSSe and SnS monolayers. *Physical Chemistry Chemical Physics*, **2020**, 22, 16796-16803	3.6	10
30	Potential molecular semiconductor devices: cyclo-C (n = 10 and 14) with higher stabilities and aromaticities than acknowledged cyclo-C. *Physical Chemistry Chemical Physics*, **2020**, 22, 4823-4831	3.6	16
29	Abnormally low thermal conductivity of 2D selenene: An ab initio study. *Journal of Applied Physics*, **2020**, 127, 065103	2.5	11
28	Strain-tunable III-nitride/ZnO heterostructures for photocatalytic water-splitting: A hybrid functional calculation. *APL Materials*, **2020**, 8, 041114	5.7	23
27	Three metallic BN polymorphs: 1D multi-threaded conduction in a 3D network. *Physical Chemistry Chemical Physics*, **2020**, 22, 489-496	3.6	3
26	Impact of the interface vacancy on Schottky barrier height for Au/AlN polar interfaces. *Applied Surface Science*, **2020**, 505, 144650	6.7	10
25	Charge density wave instability and pressure-induced superconductivity in bulk 1T□NbS2. *Physical Review B*, **2020**, 102,	3.3	7
24	Structures and Properties of □Titanium Alloys Doped with Trace Transition Metals: A Density Functional Theory Study. *Russian Journal of Physical Chemistry A*, **2020**, 94, 2055-2063	0.7	0
23	Thermal transport properties of novel two-dimensional CSe. *Physical Chemistry Chemical Physics*, **2020**, 22, 17833-17841	3.6	4
22	Native Point Defects in Monolayer Hexagonal Boron Phosphide from First Principles. *Journal of Electronic Materials*, **2020**, 49, 5782-5789	1.9	3
21	Current-induced phonon Hall effect. *Physical Review B*, **2020**, 102,	3.3	2
20	First-Principles Method to Study Near-Field Radiative Heat Transfer. *Physical Review Applied*, **2020**, 14,	4.3	1
19	Anisotropic thermal expansion and thermodynamic properties of monolayer □Te. *Physical Review B* , **2019**, 99,	3.3	17
18	Prediction on elastic properties of Nb-doped Ni systems. *Molecular Simulation*, **2019**, 45, 935-941	2	5
17	Degenerately Doped Transition Metal Dichalcogenides as Ohmic Homojunction Contacts to Transition Metal Dichalcogenide Semiconductors. *ACS Nano*, **2019**, 13, 5103-5111	16.7	25
16	Strain effects on the mechanical properties of Group-V monolayers with buckled honeycomb structures. *Physica E: Low-Dimensional Systems and Nanostructures*, **2019**, 112, 59-65	3	15
15	Effect of processing parameters on thermal behavior and related density in GH3536 alloy manufactured by selective laser melting. *Journal of Materials Research*, **2019**, 34, 1405-1414	2.5	5
14	Insight into Two-Dimensional Borophene: Five-Center Bond and Phonon-Mediated Superconductivity. *ACS Applied Materials & Interfaces*, **2019**, 11, 47279-47288	9.5	8

13	Ultra-low lattice thermal conductivity of monolayer penta-silicene and penta-germanene. *Physical Chemistry Chemical Physics*, **2019**, 21, 26033-26040	3.6	22
12	Ultralow lattice thermal conductivity and electronic properties of monolayer 1T phase semimetal SiTe2 and SnTe2. *Physica E: Low-Dimensional Systems and Nanostructures*, **2019**, 108, 53-59	3	21
11	Unusually low thermal conductivity of atomically thin 2D tellurium. *Nanoscale*, **2018**, 10, 12997-13003	7.7	83
10	High Thermoelectric Performance in Two-Dimensional Tellurium: An Ab Initio Study. *ACS Applied Materials & Interfaces*, **2018**, 10, 40702-40709	9.5	63
9	Thin Films: Enhanced Raman Scattering of CuPc Films on Imperfect WSe2 Monolayer Correlated to Exciton and Charge-Transfer Resonances (Adv. Funct. Mater. 52/2018). *Advanced Functional Materials*, **2018**, 28, 1870369	15.6	3
8	Two-Dimensional Mechanical Metamaterials with Unusual Poisson Ratio Behavior. *Physical Review Applied*, **2018**, 10,	4.3	14
7	Enhanced Raman Scattering of CuPc Films on Imperfect WSe2 Monolayer Correlated to Exciton and Charge-Transfer Resonances. *Advanced Functional Materials*, **2018**, 28, 1805710	15.6	36
6	Enhancement of Out-of-Plane Charge Transport in a Vertically Stacked Two-Dimensional Heterostructure Using Point Defects. *ACS Nano*, **2018**, 12, 10529-10536	16.7	39
5	Novel Two-Dimensional Silicon Dioxide with in-Plane Negative Poisson's Ratio. *Nano Letters*, **2017**, 17, 772-777	11.5	131
4	Two-Dimensional Heterostructure as a Platform for Surface-Enhanced Raman Scattering. *Nano Letters*, **2017**, 17, 2621-2626	11.5	97
3	Heat conduction and energy diffusion in momentum-conserving one-dimensional full-lattice ding-a-ling model. *Physical Review E*, **2016**, 93, 022102	2.4	8
2	Stretch diffusion and heat conduction in one-dimensional nonlinear lattices. *Physical Review E*, **2016**, 93, 032130	2.4	7
1	Novel 2D PC 5 with a Dirac Cone and Edge-Size Dependence. *Physica Status Solidi - Rapid Research Letters*,2100203	2.5	1