

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

86 papers	3,525 citations	29 h-index	58 g-index
93 ext. papers	4,122 ext. citations	4.2 avg, IF	5.94 L-index

#	Paper	IF	Citations
86	Thermal conductivity of BN-C nanostructures. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	332
85	Control of thermal and electronic transport in defect-engineered graphene nanoribbons. <i>ACS Nano</i> , <b>2011</b> , 5, 3779-87	16.7	279
84	Characterization of thermal transport in low-dimensional boron nitride nanostructures. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	227
83	Mo2C as a high capacity anode material: a first-principles study. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 6029-6035	13	179
82	Characterization of vibrational and mechanical properties of quaternary compounds Cu <sub>2</sub> ZnSnS <sub>4</sub> and Cu <sub>2</sub> ZnSnSe <sub>4</sub> in kesterite and stannite structures. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	168
81	Vibrational and mechanical properties of single layer MXene structures: a first-principles investigation. <i>Nanotechnology</i> , <b>2016</b> , 27, 335702	3.4	138
80	Significant effect of stacking on the electronic and optical properties of few-layer black phosphorus. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	135
79	MXenes/graphene heterostructures for Li battery applications: a first principles study. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 2337-2345	13	119
78	Promising Piezoelectric Performance of Single Layer Transition-Metal Dichalcogenides and Dioxides. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 23231-23237	3.8	114
77	Thermal properties of black and blue phosphorenes from a first-principles quasiharmonic approach. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	111
76	Mechanical and thermal properties of h-MX <sub>2</sub> (M = Cr, Mo, W; X = O, S, Se, Te) monolayers: A comparative study. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 203110	3.4	110
75	Assessment on lattice thermal properties of two-dimensional honeycomb structures: Graphene, h-BN, h-MoS <sub>2</sub> , and h-MoSe <sub>2</sub> . <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	108
74	A bottom-up route to enhance thermoelectric figures of merit in graphene nanoribbons. <i>Scientific Reports</i> , <b>2013</b> , 3, 1228	4.9	101
73	Phonon engineering in carbon nanotubes by controlling defect concentration. <i>Nano Letters</i> , <b>2011</b> , 11, 4971-7	11.5	90
72	The influence of surface functionalization on thermal transport and thermoelectric properties of MXene monolayers. <i>Nanoscale</i> , <b>2018</b> , 10, 8859-8868	7.7	72
71	Theoretical study of the insulating oxides and nitrides: SiO <sub>2</sub> , GeO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Si <sub>3</sub> N <sub>4</sub> , and Ge <sub>3</sub> N <sub>4</sub> . <i>Journal of Materials Science</i> , <b>2007</b> , 42, 6555-6565	4.3	72
70	Assessment of thermoelectric performance of Cu <sub>2</sub> ZnSnX <sub>4</sub> , X=S, Se, and Te. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 112105	3.4	71

69	Ab initio study of thermoelectric transport properties of pure and doped quaternary compounds. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	67
68	Thermal transport properties of MoS <sub>2</sub> and MoSe <sub>2</sub> monolayers. <i>Nanotechnology</i> , <b>2016</b> , 27, 055703	3.4	66
67	Mechanical and electronic properties of CeO <sub>2</sub> , ThO <sub>2</sub> , and (Ce,Th)O <sub>2</sub> alloys. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	65
66	Alkali Metal Intercalation in MXene/Graphene Heterostructures: A New Platform for Ion Battery Applications. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 727-734	6.4	60
65	Electronic, phononic, and thermoelectric properties of graphyne sheets. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 223108	3.4	58
64	Vibrational and thermodynamic properties of 5, 5, 12-graphyne structures. <i>Nanotechnology</i> , <b>2014</b> , 25, 185701	3.4	51
63	Influence of disorder on thermal transport properties of boron nitride nanostructures. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	47
62	Auger recombination and carrier multiplication in embedded silicon and germanium nanocrystals. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	42
61	Electronic transport properties of SrTiO <sub>3</sub> and its alloys: Sr <sub>1-x</sub> La <sub>x</sub> TiO <sub>3</sub> and SrTi <sub>1-x</sub> M <sub>x</sub> O <sub>3</sub> (M=Nb,Ta). <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	41
60	CVD growth of monolayer MoS <sub>2</sub> : Role of growth zone configuration and precursors ratio. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 06GG05	1.4	40
59	Promising thermoelectric properties of phosphorenes. <i>Nanotechnology</i> , <b>2016</b> , 27, 355705	3.4	35
58	Peculiar Piezoelectric Properties of Soft Two-Dimensional Materials. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 13948-13953	3.8	32
57	Piezoelectricity in two-dimensional materials: Comparative study between lattice dynamics and ab initio calculations. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	25
56	Investigation of thermoelectric properties of chalcogenide semiconductors from first principles. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 123712	2.5	25
55	A distinct correlation between the vibrational and thermal transport properties of group VA monolayer crystals. <i>Nanoscale</i> , <b>2018</b> , 10, 7803-7812	7.7	23
54	Validation of inter-atomic potential for WS <sub>2</sub> and WSe <sub>2</sub> crystals through assessment of thermal transport properties. <i>Computational Materials Science</i> , <b>2018</b> , 144, 92-98	3.2	23
53	Engineering electronic properties of metal/MoSe <sub>2</sub> interfaces using self-assembled monolayers. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 9842-9849	7.1	21
52	Electronic structures of iMAX phases and their two-dimensional derivatives: A family of piezoelectric materials. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	21

51	Gunn oscillations in GaN channels. <i>Semiconductor Science and Technology</i> , <b>2004</b> , 19, S188-S190	1.8	17
50	CVD growth of monolayer WS <sub>2</sub> through controlled seed formation and vapor density. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 93, 158-163	4.3	15
49	Long-Term Stability Control of CVD-Grown Monolayer MoS <sub>2</sub> . <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2019</b> , 13, 1800687	2.5	15
48	Efficiency and harmonic enhancement trends in GaN-based Gunn diodes: Ensemble Monte Carlo analysis. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 3908-3910	3.4	15
47	Gain and temporal response of AlGaIn solar-blind avalanche photodiodes: An ensemble Monte Carlo analysis. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 1382-1384	3.4	15
46	Achieving Fast Kinetics and Enhanced Li Storage Capacity for Ti <sub>3</sub> C <sub>2</sub> O <sub>2</sub> by Intercalation of Quinone Molecules. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 1251-1258	6.1	15
45	Tailoring Storage Capacity and Ion Kinetics in Ti <sub>2</sub> CO <sub>2</sub> /Graphene Heterostructures by Functionalization of Graphene. <i>Physical Review Applied</i> , <b>2019</b> , 12,	4.3	14
44	A systematical ab-initio review of promising 2D MXene monolayers towards Li-ion battery applications. <i>JPhys Energy</i> , <b>2020</b> , 2, 032006	4.9	14
43	CVD grown 2D MoS <sub>2</sub> layers: A photoluminescence and fluorescence lifetime imaging study. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2016</b> , 10, 792-796	2.5	14
42	Thermal conductivity engineering of bulk and one-dimensional Si-Ge nanoarchitectures. <i>Science and Technology of Advanced Materials</i> , <b>2017</b> , 18, 187-196	7.1	13
41	CVD synthesis and characterization of thin Mo <sub>2</sub> C crystals. <i>Journal of the American Ceramic Society</i> , <b>2020</b> , 103, 5586-5593	3.8	12
40	Low Loss Atomic Layer Deposited Al <sub>2</sub> O <sub>3</sub> Waveguides for Applications in On-Chip Optical Amplifiers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2018</b> , 24, 1-8	3.8	12
39	A comparative device performance assesment of CVD grown MoS <sub>2</sub> and WS <sub>2</sub> monolayers. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2018</b> , 29, 8785-8792	2.1	12
38	Gate induced monolayer behavior in twisted bilayer black phosphorus. <i>2D Materials</i> , <b>2017</b> , 4, 035025	5.9	12
37	High dielectric constant and wide band gap inverse silver oxide phases of the ordered ternary alloys of SiO <sub>2</sub> , GeO <sub>2</sub> , and SnO <sub>2</sub> . <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	12
36	Temperature-dependent phonon spectrum of transition metal dichalcogenides calculated from the spectral energy density: Lattice thermal conductivity as an application. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	11
35	Equilibrium limit of thermal conduction and boundary scattering in nanostructures. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 244112	3.9	11
34	High-throughput computational screening of 2D materials for thermoelectrics. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 19674-19683	13	10

33	Strained band edge characteristics from hybrid density functional theory and empirical pseudopotentials: GaAs, GaSb, InAs and InSb. <i>Journal Physics D: Applied Physics</i> , <b>2016</b> , 49, 085104	3	9
32	First-principles exploration of superconductivity in MXenes. <i>Nanoscale</i> , <b>2020</b> , 12, 17354-17361	7.7	9
31	Assessment of Sulfur-Functionalized MXenes for Li-Ion Battery Applications. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 21293-21304	3.8	8
30	Assessment of Thermal Transport Properties of Group-III Nitrides: A Classical Molecular Dynamics Study with Transferable Tersoff-Type Interatomic Potentials. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	7
29	Determination of Dynamically Stable Electrenes toward Ultrafast Charging Battery Applications. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 4267-4274	6.4	7
28	Ab initio calculations of martensitic phase behavior in Ni2FeGa magnetic shape memory alloys. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 611, 225-234	5.7	7
27	Electronic and optical properties of 4.2nm structured superlattice MWIR photodetectors. <i>Infrared Physics and Technology</i> , <b>2013</b> , 59, 36-40	2.7	6
26	On the limitations of the DFT+U approach to energetics of actinides. <i>Computational Materials Science</i> , <b>2012</b> , 59, 48-56	3.2	6
25	Tailoring thermal conductivity of silicon/germanium nanowires utilizing core-shell architecture. <i>Journal of Applied Physics</i> , <b>2016</b> , 119, 155101	2.5	6
24	First-principles investigation of titanium doping into SiAlON crystal in TiN/SiAlON composites for EDM applications. <i>Materials Chemistry and Physics</i> , <b>2015</b> , 162, 781-786	4.4	5
23	Hot electron effects in unipolar n-type submicron structures based on GaN, AlN and their ternary alloys. <i>IEE Proceedings: Optoelectronics</i> , <b>2003</b> , 150, 86		5
22	Thermal Conductivity Suppression in Nanostructured Silicon and Germanium Nanowires. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 1594-1600	1.9	4
21	Electronic and mechanical properties of stiff rhenium carbide monolayers: A first-principles investigation. <i>Applied Surface Science</i> , <b>2018</b> , 458, 762-768	6.7	4
20	Extraordinary negative thermal expansion of two-dimensional nitrides: A comparative ab initio study of quasiharmonic approximation and molecular dynamics simulations. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	4
19	In pursuit of barrierless transition metal dichalcogenides lateral heterojunctions. <i>Nanotechnology</i> , <b>2018</b> , 29, 295202	3.4	3
18	Novel high-K inverse silver oxide phases of , , and their alloys. <i>Materials Science in Semiconductor Processing</i> , <b>2006</b> , 9, 1097-1101	4.3	3
17	Computation of the Thermal Expansion Coefficient of Graphene with Gaussian Approximation Potentials. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 14409-14415	3.8	3
16	Computational modeling of quantum-confined impact ionization in Si nanocrystals embedded in SiO2. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2007</b> , 38, 118-121	3	2

15	Influence of randomly distributed vacancy defects on thermal transport in two-dimensional group-III nitrides. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 224304	2.5	2
14	Misfit dislocation structure and thermal boundary conductance of GaN/AlN interfaces. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 035301	2.5	2
13	Control of optical amplification process with extremely low background loss in Er:Al <sub>2</sub> O <sub>3</sub> Waveguides <b>2017</b> ,		1
12	OPTIMIZING THE THERMAL TRANSPORT PROPERTIES OF SINGLE LAYER (2D) TRANSITION METAL DICHALCOGENIDES (TMD). <i>Eskişehir Technical University Journal of Science and Technology A - Applied Sciences and Engineering</i> , 373-392	0.1	1
11	Interatomic potential for predicting the thermal conductivity of zirconium trisulfide monolayers with molecular dynamics. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 155105	2.5	1
10	Defect states in monolayer hexagonal BN: A comparative DFT and DFT-1/2 study. <i>Physica B: Condensed Matter</i> , <b>2020</b> , 584, 411959	2.8	0
9	Controlled CVD growth of ultrathin Mo <sub>2</sub> C (MXene) flakes. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 025304	2.5	0
8	k · p Parametrization and Linear and Circular Dichroism in Strained Monolayer (Janus) Transition Metal Dichalcogenides from First-Principles. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 7439-7450	3.8	0
7	Influence of Core-Shell Architecture Parameters on Thermal Conductivity of Si-Ge Nanowires. <i>Materials Research Society Symposia Proceedings</i> , <b>2015</b> , 1735, 68		
6	Tailoring Thermal Conductivity of Ge/Si Core-Shell Nanowires <b>2015</b> , 433-440		
5	Elements of nanocrystal high-field carrier transport modeling. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2007</b> , 4, 635-637		
4	Promising room temperature thermoelectric conversion efficiency of zinc-blende AgI from first principles. <i>Journal of Physics Condensed Matter</i> , <b>2021</b> , 33, 015501	1.8	
3	Tailoring Thermal Conductivity of Ge/Si Core-Shell Nanowires <b>2015</b> , 433-440		
2	Thermal Transport for Nanostructured Materials. <i>Springer Series in Materials Science</i> , <b>2021</b> , 451-479	0.9	
1	Hot Electron Relaxation in Ferromagnetic Metals: Memory Function Approach. <i>Journal of Superconductivity and Novel Magnetism</i> , 1	1.5	