Guangtao Wang

List of Publications by Year in descending order

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Version: 2024-02-01

81 papers	1,944 citations	331259 21 h-index	264894 42 g-index
81 all docs	81 docs citations	81 times ranked	2190 citing authors

#	Article	IF	Citations
1	A promising thermoelectrics In4SnSe4 with a wide bandgap and cubic structure composited by layered SnSe and In4Se3. Journal of Materiomics, 2022, 8, 982-991.	2.8	5
2	Boosting thermoelectric performance of n-type PbS through synergistically integrating In resonant level and Cu dynamic doping. Journal of Physics and Chemistry of Solids, 2021, 148, 109640.	1.9	26
3	Superconductivity and topological properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>MgB</mml:mi><mml:mn>2</mml:mn></ -type diborides from first principles. Physical Review B, 2021, 104, .	1.1	10
4	Tuning the magnetic anisotropy of ferromagnetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MnS</mml:mi><mml:mn>2</mml:mn></mml:msub></mm monolayers via electron occupation of Mn <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>d</mml:mi></mml:math> orbitals. Physical Review B, 2021, 104, .	1.1	6
5	Topological properties of NaAuTe in the hexagonal and Heusler structures. Computational Materials Science, 2020, 171, 109206.	1.4	7
6	Spin orientation and strain tuning valley polarization with magneto-optic Kerr effects in ferrovalley VS2 monolayer. Applied Physics Letters, 2020, 117, .	1.5	19
7	Thermoelectric transport properties of PbS and its contrasting electronic band structures. Scripta Materialia, 2020, 185, 76-81.	2.6	7
8	Extremely low thermal conductivity from bismuth selenohalides with 1D soft crystal structure. Science China Materials, 2020, 63, 1759-1768.	3.5	38
9	Topological phase transition in the trirutile-type MgBi2O6. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126375.	0.9	1
10	Improving the thermoelectric performance of p-type PbSe via synergistically enhancing the Seebeck coefficient and reducing electronic thermal conductivity. Journal of Materials Chemistry A, 2020, 8, 4931-4937.	5.2	34
11	Band Sharpening and Band Alignment Enable High Quality Factor to Enhance Thermoelectric Performance in n-Type PbS. Journal of the American Chemical Society, 2020, 142, 4051-4060.	6.6	130
12	The 2D Organic Topological Insulators T(C₆H₅)₃ (T = V, Mn, Fe, Tc,) Tj ETQq0 0 0 rgBT /Overlock	0.2	3
13	Contrasting Thermoelectric Transport Behaviors of p -Type PbS Caused by Doping Alkali Metals (Li and Na). Research, 2020, 2020, 4084532.	2.8	2
14	High thermoelectric performance in low-cost SnS _{0.91} Se _{0.09} crystals. Science, 2019, 365, 1418-1424.	6.0	395
15	Topological properties of the intermetallic compounds Sc-TM(TMâ€¯=â€¯Cd, Ag, Cu, Hg, Au). Computational Materials Science, 2019, 160, 275-278.	1.4	4
16	Realizing Highâ€Ranged Outâ€ofâ€Plane ZTs in Nâ€Type SnSe Crystals through Promoting Continuous Phase Transition. Advanced Energy Materials, 2019, 9, 1901334.	10.2	83
17	Synergistically optimizing interdependent thermoelectric parameters of n-type PbSe through alloying CdSe. Energy and Environmental Science, 2019, 12, 1969-1978.	15.6	99
18	Dirac fermions in the layered titanium-based oxypnictide superconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>BaTi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Pn</mml:mi><mml:mn></mml:mn></mml:msub><mml:msub><mml:mi>O</mml:mi><mml:mn></mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 99, .	1.1	7

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19	Realizing n-type BiCuSeO through halogens doping. Ceramics International, 2019, 45, 14953-14957.	2.3	11
20	Broken cubic symmetry driven co-emergence of type-I and type-II Dirac points in topological crystalline insulator ThTaN₃. Journal of Physics Condensed Matter, 2019, 31, 295501.	0.7	3
21	Enhancing the thermoelectric performance of Bi2S3: A promising earth-abundant thermoelectric material. Frontiers of Physics, 2019, 14, 1.	2.4	24
22	Enhancing thermoelectric performance of SnTe via stepwisely optimizing electrical and thermal transport properties. Journal of Alloys and Compounds, 2019, 773, 571-584.	2.8	37
23	Intrinsically Low Thermal Conductivity in BiSbSe₃: A Promising Thermoelectric Material with Multiple Conduction Bands. Advanced Functional Materials, 2019, 29, 1806558.	7.8	86
24	Excitonic effects on layer- and strain-dependent optoelectronic properties of PbI2. Applied Surface Science, 2019, 470, 143-149.	3.1	10
25	Coexistence of Type-I and Type-II Weyl Points in the Weyl-Semimetal OsC₂. Journal of Physical Chemistry C, 2018, 122, 3533-3538.	1.5	23
26	Electronic and optical properties of bilayer PbI2: a first-principles study. Journal Physics D: Applied Physics, 2018, 51, 035301.	1.3	9
27	Thermoelectric and topological properties of half-Heusler compounds ZrIrX(As, Sb, Bi). Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 673-678.	0.9	18
28	Remarkable electron and phonon band structures lead to a high thermoelectric performance ZT > 1 in earth-abundant and eco-friendly SnS crystals. Journal of Materials Chemistry A, 2018, 6, 10048-10056.	5.2	90
29	Thermoelectric transport properties of rock-salt SnSe: first-principles investigation. Journal of Materials Chemistry C, 2018, 6, 12016-12022.	2.7	43
30	Approaching Topological Insulating States Leads to High Thermoelectric Performance in n-Type PbTe. Journal of the American Chemical Society, 2018, 140, 13097-13102.	6.6	77
31	Thermoelectric and optical properties of half-Heusler compound TaCoSn: A first-principle study. Journal of Alloys and Compounds, 2018, 757, 118-123.	2.8	23
32	Properties of half-Heusler compounds TaIrGe by using first-principles calculations. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	15
33	Electronic structure and magnetism of RbGd2Fe4As4O2. Journal of Alloys and Compounds, 2017, 708, 392-396.	2.8	7
34	Topological phase transition in layered XIn₂P₂ (X = Ca, Sr). Journal Physics D: Applied Physics, 2017, 50, 465304.	1.3	9
35	Electronic structure, optical and thermoelectric properties of half-Heusler ZrIrX(XÂ $$=$$ = ÂAs, Sb,) Tj ETQq1 1 0.784314 rgBT /Ove	1.3	2
36	First-principles study of the electronic structure and thermoelectric properties of LaOBiCh₂ (Ch=S, Se). Modern Physics Letters B, 2017, 31, 1750265.	1.0	8

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37	A New Dirac Semimetal in Hexagonal BaGaSnH. Journal of the Physical Society of Japan, 2017, 86, 124714.	0.7	3
38	A new strongly topological node-line semimetal Î²-PbO2. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2856-2859.	0.9	18
39	The effects of stacking patterns and interlayer coupling on electronic and optical properties of bilayer BiI3. Journal of Materials Science, 2017, 52, 11513-11523.	1.7	3
40	First-principles study the elastic constant, electronic structure and thermoelectric properties of Zr1â^'xHfxNiPb (x = 0, 0.25, 0.5, 0.75, 1). Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 801-807.	0.9	15
41	Ni substitution enhanced thermoelectric properties of ZrPd1â^'Ni Pb (xÂ= 0,0.25,0.5,0.75,1). Journal of Alloys and Compounds, 2017, 692, 599-604.	2.8	16
42	Electronic structure and magnetism of ThFeAsN. Europhysics Letters, 2016, 113, 67006.	0.7	16
43	Electronic Structure and Magnetism of the Multiband New Superconductor CaRbFe₄As₄. Journal of the Physical Society of Japan, 2016, 85, 124714.	0.7	9
44	Self-hole-dopingâ€"induced superconductivity in KCa ₂ Fe ₄ As ₄ F ₂. Europhysics Letters, 2016, 116, 37003.	0.7	32
45	Rectifications in organic single-molecule diodes alkanethiolate-terminated heterocyclics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 923-926.	0.9	11
46	Topological phase transition in half-Heusler compounds HfIrX (X = As, Sb, Bi). Computational Materials Science, 2016, 124, 311-315.	1.4	21
47	Pnictide-height dependent ferromagnetism in CuFeAs and CuFeSb. Journal of Alloys and Compounds, 2016, 686, 38-42.	2.8	5
48	Electronic structures and magnetism of YM2Ge2 (M = Mnâ€"Cu): Ge-hight dependent magnetic ordering in YFe2Ge2. Computational Materials Science, 2016, 121, 48-53.	1.4	4
49	Electronic structure and thermoelectric properties of Pb-based half-Heusler compounds: ABPb (AÂ=ÂHf,) Tj ETQq1 1 0.784314 rgBT /Ov	2.8	39
50	Electronic and magnetic properties of 1T-HfS2 by doping transition-metal atoms. Applied Surface Science, 2016, 383, 151-158.	3.1	36
51	Electronic structures and magnetism of LaFe2Ge2 and LaFe2Si2: First-principles studies. Physica C: Superconductivity and Its Applications, 2016, 525-526, 72-77.	0.6	2
52	Electronic structure and optical properties of Cs2AX2â€²X4 (A=Ge,Sn,Pb; Xâ€²,X=Cl,Br,I). AIP Advances, 2015, 5, .	0.6	28
53	Electronic Structures and Magnetism of CaFeAsH and CaFeAsF. Journal of the Physical Society of Japan, 2015, 84, 054708.	0.7	2
54	Improved propane photooxidation activities upon nano Cu₂O/TiO₂ heterojunction semiconductors at room temperature. RSC Advances, 2015, 5, 22038-22043.	1.7	29

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55	The electronic structure and magnetism of a new layered iron selenide superconductor: LiOHFeSe. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2106-2109.	0.9	4
56	The electronic structure and magnetism of CaFeAs2: First principles calculations. Solid State Communications, 2014, 200, 61-65.	0.9	4
57	The electronic structure of novel BiS2-based layered superconductor. Physica C: Superconductivity and Its Applications, 2013, 495, 114-117.	0.6	7
58	An UWB antenna using modified Sierpinski-carpet Fractal Antenna. , 2013, , .		3
59	The electronic structure and magnetism of BaTi2Sb2O. Journal of Applied Physics, 2013, 113, .	1.1	17
60	A novel wideband planar fractal antenna. , 2012, , .		1
61	THE ORBITAL ORDERING OF THE CUBIC KCrF₃. Modern Physics Letters B, 2012, 26, 1150025.	1.0	1
62	The electronic structure of ScVO3. Solid State Communications, 2012, 152, 2049-2052.	0.9	2
63	Comparative study of the magnetism of SrTcO3 and Ca(Sr)MnO3. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3313-3316.	0.9	6
64	A compact printed UWB antenna with triple bandâ€notched characteristics. Microwave and Optical Technology Letters, 2012, 54, 2146-2150.	0.9	7
65	The electronic structure and magnetism of KxFe2Se2. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1072-1077.	0.9	7
66	Origin of the High Activity of the Ceria-Supported Copper Catalyst for H₂O Dissociation. Journal of Physical Chemistry C, 2011, 115, 6730-6740.	1.5	52
67	The electronic structure of a weakly correlated antiferromagnetic metal, SrCrO₃: first-principles calculations. New Journal of Physics, 2011, 13, 053002.	1.2	15
68	Orbital ordering in Mott-insulators La2O3Fe2Se2 and La2O3Co2Se2. Solid State Communications, 2011, 151, 1231-1235.	0.9	4
69	The electronic structure of LaCo ₂ B ₂. Europhysics Letters, 2011, 95, 17001.	0.7	3
70	First-principles study on the orbital ordering of KCrF3. Physical Review B, 2011, 84, .	1.1	10
71	Design of a planar antenna with G-shaped rings for WLAN/ WiMAX. , 2011, , .		0
72	Potential parent compound of superconductor: Sr2CuM2As2O2 (M=Mn, Fe). Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4727-4731.	0.9	4

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73	Suppression of magnetism inSrFe2â^'xRuxAs2: First-principles calculations. Physical Review B, 2010, 81, .	1.1	9
74	ORBITAL ORDERINGS AND OPTICAL CONDUCTIVITY INCs₂AgF₄. Modern Physics Letters B, 2010, 24, 39-49.	1.0	3
75	Gutzwiller Density Functional Studies of FeAs-Based Superconductors: Structure Optimization and Evidence for a Three-Dimensional Fermi Surface. Physical Review Letters, 2010, 104, 047002.	2.9	63
76	First-principles study on mechanical and magnetic properties of the perovskite and post-perovskite polymorphs of pure end-member FeSiO₃at the coreâ€“mantle boundary. High Pressure Research, 2010, 30, 292-300.	0.4	2
77	Band structure and Fermi surface of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:msub><mml:mrow><mml:mtext>Sr</mml:mtext></mml:mrow> Physical Review B, 2009, 80, .	1.1	22
78	The band structure and Fermi surface of (Sr3Sc2O5)Fe2As2. Journal of Physics Condensed Matter, 2009, 21, 415702.	0.7	0
79	The first-principles studying LaOMnSe: A possible parent compound of superconductor. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 374, 351-354.	0.9	4
80	Orbital orderings and optical conductivity of SrRuO₃and CaRuO₃: first-principles studies. Journal of Physics Condensed Matter, 2009, 21, 265602.	0.7	19
81	First-principles study of indium on silicon (100)â€"the structure, defects and interdiffusion. Surface Science, 2004, 572, 77-83.	0.8	15