Pei-Ji Wang

List of Publications by Year in Descending Order

106 papers	2,127 citations	25 h-index	42 g-index
110 ext. papers	2,431 ext. citations	4 avg, IF	5.13 L-index

#	Paper	IF	Citations
106	Prediction of nodal-line semimetals in 2D ScX (X = P, As) with high stability and considerable fermi velocities. *Chemical Physics*, **2022**, 552, 111375	2.3	
105	Intrinsic direct bandgap semiconductor with high stability, strong anisotropy and controllable edge position in BrHfN monolayer. *Physica E: Low-Dimensional Systems and Nanostructures*, **2022**, 135, 114971	3	0
104	NbCX (X=F, Cl, Br, I) with Highly Anisotropic Fermi Velocity, Optical, Mechanical and Electric Transport Properties. *Chemical Physics*, **2022**, 111551	2.3	0
103	CuP: A new type of anisotropic and very stable Dirac cone material. *Physica E: Low-Dimensional Systems and Nanostructures*, **2021**, 129, 114637	3	
102	Novel two-dimensional KAB (A = Cu, Au, B = S, Se) photoelectric materials with Prominent carrier mobility and optical properties. *Superlattices and Microstructures*, **2021**, 149, 106773	2.8	1
101	Tuning the electronic and optical properties of two-dimensional AgBiP2Se6 and AgInP2Se6 Janus monolayers. *Chemical Physics Letters*, **2021**, 780, 138933	2.5	1
100	IZrP: Two-dimensional narrow band gap semiconductor with high Stability, anisotropic electronic properties and high carrier mobility. *Computational and Theoretical Chemistry*, **2021**, 1205, 113458	2	0
99	2D ternary nitrides XNY (X=Ti, Zr, Hf; YF, Cl, Br) with applications as photoelectric and photocatalytic materials featuring mechanical and optical anisotropy: A DFT study. *Journal of Solid State Chemistry*, **2021**, 303, 122517	3.3	2
98	Half-Dirac semimetals and the quantum anomalous Hall effect in Kagome Cd2N3 lattices. *Nanoscale Advances*, **2021**, 3, 847-854	5.1	3
97	Two-dimensional Weyl semi-half-metallic NiCS with a band structure controllable by the direction of magnetization. *Physical Chemistry Chemical Physics*, **2021**, 23, 12068-12074	3.6	5
96	Discovery of multiferroics with tunable magnetism in two-dimensional lead oxide. *Applied Physics Letters*, **2020**, 116, 172105	3.4	15
95	Two-dimensional ligand-functionalized plumbene: A promising candidate for ferroelectric and topological order with a large bulk band gap. *Physica E: Low-Dimensional Systems and Nanostructures*, **2020**, 120, 114095	3	4
94	Two-Dimensional Honeycomb B2Se with Orthogonal Lattice: High Stability and Strong Anisotropic Dirac Cone. *Journal of Physical Chemistry C*, **2020**, 124, 7558-7565	3.8	8
93	Intrinsic ferromagnetism with high temperature, strong anisotropy and controllable magnetization in the CrX (X = P, As) monolayer. *Nanoscale*, **2020**, 12, 5464-5470	7.7	21
92	The biaxial strain induced properties of ReX2 and ReXS (X = S, Se, Te) monolayers. *Materials Research Express*, **2020**, 7, 055018	1.7	1
91	Emergence of a spin-valley Dirac semimetal in a strained group-VA monolayer. *Nanoscale*, **2020**, 12, 3950-3957	7.7	13
90	Germanene/GaGeTe heterostructure: a promising electric-field induced data storage device with high carrier mobility. *Physical Chemistry Chemical Physics*, **2020**, 22, 5163-5169	3.6	5

89	Glide Mirror Plane Protected Nodal-Loop in an Anisotropic Half-Metallic MnNF Monolayer. *Journal of Physical Chemistry Letters*, **2020**, 11, 485-491	6.4	15
88	Strain-Tuned Nodal Ring in Two-Dimensional Zn3C6S6 Monolayers. *Journal of Nanomaterials*, **2020**, 2020, 1-6	3.2	1
87	SnP Monolayers: a New Type of Two-Dimensional Materials with High Stability, Carrier Mobility, and Magnetic Properties. *Nanoscale Research Letters*, **2020**, 15, 155	5	3
86	The electric-field and strain inducing electronic and optical properties of the blue phosphorene/ZnO heterostructures. *Physica E: Low-Dimensional Systems and Nanostructures*, **2020**, 115, 113650	3	3
85	Discovery of a ferroelastic topological insulator in a two-dimensional tetragonal lattice. *Physical Chemistry Chemical Physics*, **2019**, 21, 5165-5169	3.6	4
84	Thermoelectric Efficiency Enhanced by Fano Interference in a Quantum Anomalous Hall Insulator Quantum Dot. *Physica Status Solidi (B): Basic Research*, **2019**, 256, 1800629	1.3	
83	Electronic Structural and Optical Properties of Multilayer Blue Phosphorus: A First-Principle Study. *Journal of Nanomaterials*, **2019**, 2019, 1-8	3.2	5
82	Two-dimensional honeycomb-kagome TaS: a promising single-spin Dirac fermion and quantum anomalous hall insulator with half-metallic edge states. *Nanoscale*, **2019**, 11, 5666-5673	7.7	14
81	Novel graphene-like two-dimensional bilayer germanene dioxide: electronic structure and optical properties.. *RSC Advances*, **2019**, 9, 9633-9639	3.7	0
80	Stanene: A Promising Material for New Electronic and Spintronic Applications. *Annalen Der Physik*, **2019**, 531, 1900017	2.6	32
79	A two-dimensional robust topological insulator with coexisting ferroelectric and valley polarization. *Journal of Materials Chemistry C*, **2019**, 7, 9406-9412	7.1	8
78	Strain-Mediated Stability of Structures and Electronic Properties of ReS2, Janus ReSSe, and ReSe2 Monolayers. *Journal of Nanomaterials*, **2019**, 2019, 1-8	3.2	2
77	Quantum spin Hall insulator BiXH (XH = OH, SH) monolayers with a large bulk band gap. *Physical Chemistry Chemical Physics*, **2018**, 20, 13632-13636	3.6	9
76	Prediction of topological property in TlPBr monolayer with appreciable Rashba effect. *Physical Chemistry Chemical Physics*, **2018**, 20, 4308-4316	3.6	2
75	Discovery of asymmetric NaXBi (X= Sn /Pb) monolayers with non-trivial topological properties.. *RSC Advances*, **2018**, 8, 27995-28001	3.7	1
74	Electric structure and optical properties of ReS2 nanomaterials. *Superlattices and Microstructures*, **2018**, 122, 262-267	2.8	6
73	Tunable Electronic and Topological Properties of Germanene by Functional Group Modification. *Nanomaterials*, **2018**, 8,	5.4	13
72	NaC monolayer: a novel 2p Dirac half-metal with multiple symmetry-protected Dirac cones. *Nanoscale*, **2018**, 10, 13645-13651	7.7	29

71	Discovery of a novel spin-polarized nodal ring in a two-dimensional HK lattice. *Nanoscale*, **2018**, 10, 20748-20753	7.7	37
70	Prediction of high-temperature Chern insulator with half-metallic edge states in asymmetry-functionalized stanene. *Nanoscale*, **2018**, 10, 20226-20233	7.7	74
69	Strain-Tuned Topological Insulator and Rashba-Induced Anisotropic Momentum-Locked Dirac Cones in Two-Dimensional SeTe Monolayers. *ACS Applied Materials & Interfaces*, **2018**, 10, 43962-43969	9.5	5
68	Strain-Induced Quantum Spin Hall Effect in Two-Dimensional Methyl-Functionalized Silicene SiCH *Nanomaterials*, **2018**, 8,	5.4	4
67	Novel 2D Germanene Dioxide Monolayers: Mechanical Properties, Hole-Mobility Values, and Carrier Mobility. *Annalen Der Physik*, **2018**, 530, 1800214	2.6	1
66	Discovery of a new quantum spin Hall phase in bilayer plumbene. *Chemical Physics Letters*, **2018**, 712, 78-82	2.5	13
65	Low-energy electronic properties of a Weyl semimetal quantum dot. *Science China: Physics, Mechanics and Astronomy*, **2018**, 61, 1	3.6	9
64	Nontrivial topology and topological phase transition in two-dimensional monolayer Tl. *Physical Chemistry Chemical Physics*, **2018**, 20, 24790-24795	3.6	6
63	High-temperature Dirac half-metal PdCl3: a promising candidate for realizing quantum anomalous Hall effect. *Journal of Materials Chemistry C*, **2018**, 6, 10284-10291	7.1	37
62	The electronic properties of the stanene/MoS2 heterostructure under strain. *RSC Advances*, **2017**, 7, 9176-9181	3.7	28
61	Films based on group IV VI elements for the design of a large-gap quantum spin Hall insulator with tunable Rashba splitting. *RSC Advances*, **2017**, 7, 11636-11643	3.7	3
60	Prediction of tunable quantum spin Hall effect in methyl-functionalized tin film. *Journal of Materials Chemistry C*, **2017**, 5, 2656-2661	7.1	14
59	Quantum spin Hall phase transitions in two-dimensional SbBi alloy films. *Journal of Materials Chemistry C*, **2017**, 5, 2649-2655	7.1	7
58	Discovery of intrinsic quantum anomalous Hall effect in organic Mn-DCA lattice. *Applied Physics Letters*, **2017**, 110, 233107	3.4	52
57	Two-dimensional arsenene oxide: A realistic large-gap quantum spin Hall insulator. *Applied Physics Letters*, **2017**, 110, 213101	3.4	100
56	Two-Dimensional Large Gap Topological Insulators with Tunable Rashba Spin-Orbit Coupling in Group-IV films. *Scientific Reports*, **2017**, 7, 45923	4.9	12
55	Prediction of topological crystalline insulators and topological phase transitions in two-dimensional PbTe films. *Physical Chemistry Chemical Physics*, **2017**, 19, 29647-29652	3.6	6
54	Tunable SnO2 Nanoribbon by Electric Fields and Hydrogen Passivation. *Journal of Nanomaterials*, **2017**, 2017, 1-12	3.2	

53	A planar C3Ca2 film: a novel 2p Dirac half metal. *Journal of Materials Chemistry C*, **2017**, 5, 8504-8508	7.1	28
52	Two-dimensional GaGeTe film: a promising graphene-like material with tunable band structure and high carrier mobility. *Journal of Materials Chemistry C*, **2017**, 5, 8847-8853	7.1	13
51	Intrinsic Dirac half-metal and quantum anomalous Hall phase in a hexagonal metal-oxide lattice. *Physical Review B*, **2017**, 96,	3.3	112
50	Tunable electronic and magnetic properties in stanene by 3d transition metal atoms absorption. *Superlattices and Microstructures*, **2017**, 103, 139-144	2.8	17
49	A new topological crystalline insulator in two-dimensional PbPo with tunable large bulk gaps. *Journal of Materials Chemistry C*, **2016**, 4, 8745-8749	7.1	7
48	Hydrogenated group-IV binary monolayers: a new family of inversion-asymmetric topological insulators. *RSC Advances*, **2016**, 6, 79452-79458	3.7	2
47	Functionalized Thallium Antimony Films as Excellent Candidates for Large-Gap Quantum Spin Hall Insulator. *Scientific Reports*, **2016**, 6, 21351	4.9	25
46	The effects of biaxial strain and electric field on the electronic properties in stanene. *Materials Research Express*, **2016**, 3, 105008	1.7	12
45	Controllable band structure and topological phase transition in two-dimensional hydrogenated arsenene. *Scientific Reports*, **2016**, 6, 20342	4.9	72
44	Room Temperature Quantum Spin Hall Insulator in Ethynyl-Derivative Functionalized Stanene Films. *Scientific Reports*, **2016**, 6, 18879	4.9	48
43	First-principles prediction of a giant-gap quantum spin Hall insulator in Pb thin film. *Physical Chemistry Chemical Physics*, **2016**, 18, 31862-31868	3.6	16
42	New family of room temperature quantum spin Hall insulators in two-dimensional germanene films. *Journal of Materials Chemistry C*, **2016**, 4, 2088-2094	7.1	66
41	Novel optical properties of MoS2 on monolayer zinc tellurium substrate. *Journal of Materials Science*, **2016**, 51, 4580-4587	4.3	2
40	Tunable quantum spin Hall effect via strain in two-dimensional arsenene monolayer. *Journal Physics D: Applied Physics*, **2016**, 49, 055305	3	52
39	Enhanced band gap opening in germanene by organic molecule adsorption. *Materials Chemistry and Physics*, **2016**, 173, 379-384	4.4	28
38	Unexpected Giant-Gap Quantum Spin Hall Insulator in Chemically Decorated Plumbene Monolayer. *Scientific Reports*, **2016**, 6, 20152	4.9	131
37	Large-gap quantum spin Hall state in functionalized dumbbell stanene. *Applied Physics Letters*, **2016** , 108, 073104	3.4	77
36	Robust Room-Temperature Quantum Spin Hall Effect in Methyl-functionalized InBi honeycomb film. *Scientific Reports*, **2016**, 6, 23242	4.9	22

35	Silicon-based chalcogenide: Unexpected quantum spin Hall insulator with sizable band gap. *Applied Physics Letters*, **2016**, 109, 182109	3.4	62
34	Controllable electronic and magnetic properties in a two-dimensional germanene heterostructure. *Physical Chemistry Chemical Physics*, **2016**, 18, 12169-74	3.6	10
33	Robust room-temperature inversion-asymmetry topological transitions in functionalized HgSe monolayer. *Journal of Materials Chemistry C*, **2016**, 4, 2243-2251	7.1	20
32	First-principles prediction of inversion-asymmetric topological insulator in hexagonal BiPbH monolayer. *Journal of Materials Chemistry C*, **2016**, 4, 8750-8757	7.1	7
31	Prediction of flatness-driven quantum spin Hall effect in functionalized germanene and stanene. *Physical Chemistry Chemical Physics*, **2016**, 18, 28134-28139	3.6	15
30	Giant gap quantum spin Hall effect and valley-polarized quantum anomalous Hall effect in cyanided bismuth bilayers. *New Journal of Physics*, **2016**, 18, 083002	2.9	14
29	Electronic structure and optical properties of Bi,N co-doped SnO2. *Journal of Materials Science*, **2015**, 50, 6993-6999	4.3	15
28	The magnetic and optical properties of 3d transition metal doped SnO2 nanosheets. *RSC Advances*, **2015**, 5, 24306-24312	3.7	22
27	Tunable electronic properties in the van der Waals heterostructure of germanene/germanane. *Physical Chemistry Chemical Physics*, **2015**, 17, 12194-8	3.6	18
26	First-principles prediction of graphene/SnO2 heterostructure as a promising candidate for FET. *RSC Advances*, **2015**, 5, 35377-35383	3.7	5
25	Ethynyl-functionalized stanene film: a promising candidate as large-gap quantum spin Hall insulator. *New Journal of Physics*, **2015**, 17, 083036	2.9	139
24	Stanene cyanide: a novel candidate of Quantum Spin Hall insulator at high temperature. *Scientific Reports*, **2015**, 5, 18604	4.9	12
23	The Electronic Structures and Optical Properties of Electron Tuned Fe-Doped SnO2Materials. *Journal of Nanomaterials*, **2015**, 2015, 1-6	3.2	1
22	A novel optical property induced by MO, S vacancy and V-doped in monolayer MoS2. *Physica E: Low-Dimensional Systems and Nanostructures*, **2015**, 73, 83-88	3	9
21	Electronic structures and optical properties of TM (Cr, Mn, Fe or Co) atom doped ZnSe nanosheets. *RSC Advances*, **2015**, 5, 106227-106233	3.7	13
20	Design of ferromagnetism in Co-doped SnO2 nanosheets: a first-principles study. *RSC Advances*, **2014**, 4, 9602	3.7	16
19	Silicane as an Inert Substrate of Silicene: A Promising Candidate for FET. *Journal of Physical Chemistry C*, **2014**, 118, 25278-25283	3.8	55
18	Tunable electronic and magnetic properties in germanene by alkali, alkaline-earth, group III and 3d transition metal atom adsorption. *Physical Chemistry Chemical Physics*, **2014**, 16, 15968-78	3.6	56

17	The Electronic Structure and Optical Properties of Ag-Doped SnO2 Monolayer. *Journal of the Physical Society of Japan*, **2014**, 83, 064701	1.5	4
16	First-principles study of AlN nanosheets with chlorination. *RSC Advances*, **2014**, 4, 7500	3.7	17
15	Prediction of half-metallic ferromagnetism in C-doped CdS nanowire. *RSC Advances*, **2014**, 4, 24399	3.7	8
14	First-principles study of small PdAu alloy clusters on graphene. *RSC Advances*, **2014**, 4, 55781-55789	3.7	25
13	The electronic structure and optical properties of Mn and B, C, N co-doped MoS2 monolayers. *Nanoscale Research Letters*, **2014**, 9, 554	5	32
12	Electronic structure and optical properties of Ag-doped SnO2 nanoribbons. *RSC Advances*, **2014**, 4, 41819-41824	3.7	10
11	First-Principles Prediction on Long-Range Ferromagnetism Induced by Vacancies in SnO2 Nanosheet. *Journal of the Physical Society of Japan*, **2014**, 83, 104601	1.5	1
10	The electronic and optical properties of indium doped zinc oxide nanosheets. *Physica E: Low-Dimensional Systems and Nanostructures*, **2013**, 54, 144-148	3	10
9	First-principles study of hydrogen storage on Li-decorated silicene. *Journal of Nanoparticle Research*, **2013**, 15, 1	2.3	18
8	Electronic structures and optical properties for Ag-N-codoped ZnO nanotubes. *Nanoscale Research Letters*, **2013**, 8, 365	5	11
7	Novel half-metal and spin gapless semiconductor properties in N-doped silicene nanoribbons. *Journal of Applied Physics*, **2013**, 113, 154302	2.5	36
6	Electronic Structure and Energy Band of IIIA Doped Group ZnO Nanosheets. *Journal of Nanomaterials*, **2013**, 2013, 1-6	3.2	11
5	First-principles study on ferromagnetism in W-doped graphene. *RSC Advances*, **2013**, 3, 26261	3.7	18
4	Tuning the electronic and magnetic properties of carbon-doped ZnO nanosheets: First-principles prediction. *Journal of Applied Physics*, **2012**, 111, 044329	2.5	24
3	First-principles study on the electronic and magnetic properties of hydrogenated CdS nanosheets. *Journal of Applied Physics*, **2011**, 109, 094304	2.5	26
2	Influence of Oxygen Vacancy on Electronic and Magnetic Properties in Cr Doped SnO2 Superlattice. *Journal of the Physical Society of Japan*, **2011**, 80, 124709	1.5	1
1	First-principle study on the electronic and optical properties of Mn-doped SnO2. *Physica B: Condensed Matter*, **2011**, 406, 3137-3141	2.8	20