

Sake Wang

List of Publications by Year in descending order

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58
papers

2,971
citations

136740

32
h-index

161609

54
g-index

58
all docs

58
docs citations

58
times ranked

1879
citing authors

#	ARTICLE	IF	CITATIONS
1	MoS ₂ /ZnO van der Waals heterostructure as a high-efficiency water splitting photocatalyst: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13394-13399.	1.3	292
2	Electronic and optical properties of heterostructures based on transition metal dichalcogenides and graphene-like zinc oxide. <i>Scientific Reports</i> , 2018, 8, 12009.	1.6	173
3	First-principle study of electronic and optical properties of two-dimensional materials-based heterostructures based on transition metal dichalcogenides and boron phosphide. <i>Applied Surface Science</i> , 2019, 476, 70-75.	3.1	154
4	A first principles investigation on the structural, mechanical, electronic, and catalytic properties of biphenylene. <i>Scientific Reports</i> , 2021, 11, 19008.	1.6	124
5	Strain effect on circularly polarized electroluminescence in transition metal dichalcogenides. <i>Physical Review Research</i> , 2020, 2, .	1.3	113
6	First-Principles Study on Transition-Metal Dichalcogenide/BSe van der Waals Heterostructures: A Promising Water-Splitting Photocatalyst. <i>Journal of Physical Chemistry C</i> , 2019, 123, 22742-22751.	1.5	110
7	High-efficiency photocatalyst for water splitting: a Janus MoSSe/XN (X = Ga, Al) van der Waals heterostructure. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 185504.	1.3	110
8	Transition-metal dichalcogenides/Mg(OH) ₂ van der Waals heterostructures as promising water-splitting photocatalysts: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 1791-1796.	1.3	106
9	Transition metal doped arsenene: A first-principles study. <i>Applied Surface Science</i> , 2016, 389, 594-600.	3.1	102
10	A first-principles study of light non-metallic atom substituted blue phosphorene. <i>Applied Surface Science</i> , 2015, 356, 110-114.	3.1	95
11	First-principles study of the alkali earth metal atoms adsorption on graphene. <i>Applied Surface Science</i> , 2015, 356, 668-673.	3.1	90
12	Strain-enhanced properties of van der Waals heterostructure based on blue phosphorus and g-GaN as a visible-light-driven photocatalyst for water splitting. <i>RSC Advances</i> , 2019, 9, 4816-4823.	1.7	86
13	Magnetic Behaviors of 3d Transition Metal-Doped Silicene: a First-Principle Study. <i>Journal of Superconductivity and Novel Magnetism</i> , 2018, 31, 2789-2795.	0.8	81
14	Adsorption of Transition Metals on Black Phosphorene: a First-Principles Study. <i>Nanoscale Research Letters</i> , 2018, 13, 282.	3.1	79
15	A van der Waals Heterostructure Based on Graphene-like Gallium Nitride and Boron Selenide: A High-Efficiency Photocatalyst for Water Splitting. <i>ACS Omega</i> , 2019, 4, 21689-21697.	1.6	78
16	Magnetism in transition-metal-doped germanene: A first-principles study. <i>Computational Materials Science</i> , 2016, 118, 112-116.	1.4	69
17	Independent degrees of freedom in two-dimensional materials. <i>Physical Review B</i> , 2020, 101, .	1.1	65
18	Hydrogenated and halogenated blue phosphorene as Dirac materials: A first principles study. <i>Applied Surface Science</i> , 2017, 392, 46-50.	3.1	64

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19	First principles study of silicene symmetrically and asymmetrically functionalized with halogen atoms. RSC Advances, 2016, 6, 95846-95854.	1.7	63
20	Electronic and optical properties of van der Waals vertical heterostructures based on two-dimensional transition metal dichalcogenides: First-principles calculations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 1487-1492.	0.9	60
21	Electronic and magnetic behaviors of graphene with 5d series transition metal atom substitutions: A first-principles study. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 80, 142-148.	1.3	56
22	A MoSSe/blue phosphorene vdW heterostructure with energy conversion efficiency of 19.9% for photocatalytic water splitting. Semiconductor Science and Technology, 2020, 35, 125008.	1.0	56
23	Transition metal doped puckered arsenene: Magnetic properties and potential as a catalyst. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 108, 153-159.	1.3	55
24	Switching Behavior of a Heterostructure Based on Periodically Doped Graphene Nanoribbon. Physical Review Applied, 2021, 16, .	1.5	55
25	Electronic properties of Janus silicene: new direct band gap semiconductors. Journal Physics D: Applied Physics, 2016, 49, 445305.	1.3	51
26	Multiple topological interface states in silicene. New Journal of Physics, 2014, 16, 045015.	1.2	50
27	Halogenated arsenenes as Dirac materials. Applied Surface Science, 2016, 376, 286-289.	3.1	49
28	Tunable Schottky barrier in graphene/graphene-like germanium carbide van der Waals heterostructure. Scientific Reports, 2019, 9, 5208.	1.6	48
29	Magnetism in transition metal-substituted germanane: A search for room temperature spintronic devices. Journal of Applied Physics, 2016, 119, .	1.1	46
30	Valley precession in graphene superlattices. Physical Review B, 2015, 92, .	1.1	39
31	Tuning electronic properties of silicene layers by tensile strain and external electric field: A first-principles study. Thin Solid Films, 2018, 654, 107-115.	0.8	36
32	First-principles calculations of aluminium nitride monolayer with chemical functionalization. Applied Surface Science, 2019, 481, 1549-1553.	3.1	36
33	Valley Hall Effect and Magnetic Moment in Magnetized Silicene. Journal of Superconductivity and Novel Magnetism, 2019, 32, 2947-2957.	0.8	28
34	Spin and valley half metal induced by staggered potential and magnetization in silicene. Chinese Physics B, 2014, 23, 017203.	0.7	23
35	Spin and valley filter in strain engineered silicene. Chinese Physics B, 2015, 24, 037202.	0.7	23
36	Spin and valley filter across line defect in silicene. Applied Physics Express, 2018, 11, 053004.	1.1	23

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37	First-principles investigation on electronic properties and band alignment of group III monochalcogenides. <i>Scientific Reports</i> , 2019, 9, 13289.	1.6	23
38	Valleytronics in two-dimensional materials with line defect. <i>Nanotechnology</i> , 2022, 33, 212001.	1.3	22
39	Spin and valley half-metal state in MoS2 monolayer. <i>Physica B: Condensed Matter</i> , 2015, 458, 22-26.	1.3	20
40	Bandgap modulation of partially chlorinated graphene (C4Cl) nanosheets via biaxial strain and external electric field: a computational study. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	1.1	20
41	High photoluminescence quantum yields generated from N-Si-O bonding states in amorphous silicon oxynitride films. <i>Optics Express</i> , 2018, 26, 31617.	1.7	16
42	Chiral filtration-induced spin/valley polarization in silicene line defects. <i>Applied Physics Express</i> , 2018, 11, 063006.	1.1	15
43	The chirality dependent spin filter design in the graphene-like junction. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 125005.	0.7	11
44	Non-Local Spin Blocking Effect of Zero-Energy Majorana Fermions. <i>Journal of the Physical Society of Japan</i> , 2017, 86, 124715.	0.7	7
45	Simulation of Electronic Total-Reflection Effect in a Graphene Junction. <i>Communications in Theoretical Physics</i> , 2014, 61, 391-396.	1.1	6
46	Topological phase in one-dimensional Rashba wire. <i>Chinese Physics B</i> , 2016, 25, 077305.	0.7	6
47	Circular dichroism of doped carbon nanotubes. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	6
48	Controllable valley filter in graphene topological line defect with magnetic field. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 365302.	0.7	6
49	Spin-current pump in silicene. <i>Chinese Physics B</i> , 2018, 27, 057801.	0.7	5
50	Generation of valley pump currents in silicene. <i>Chinese Physics B</i> , 2019, 28, 017204.	0.7	5
51	Selection rule for Raman spectra of two-dimensional materials using circularly-polarized vortex light. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 17271-17278.	1.3	4
52	Structures and energetics of multiple helium atoms in a tungsten monovacancy. <i>Journal of Nuclear Materials</i> , 2022, 561, 153577.	1.3	4
53	Stability of the Vanadium Oxide Films Formed by Reactive Sputtering and Ion Beam Enhanced Deposition Methods. <i>Advanced Materials Research</i> , 2011, 399-401, 589-592.	0.3	2
54	Enhancement of subgap conductance in a graphene superconductor junction by valley polarization. <i>Chinese Physics B</i> , 2017, 26, 027304.	0.7	2

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55	Tunable Luminescent A-SiNxOy Films with High Internal Quantum Efficiency and Fast Radiative Recombination Rates. <i>Materials</i> , 2018, 11, 2494.	1.3	1
56	Measuring the nonlocality of different types of Majorana bound states in a topological superconducting wire. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 045501.	0.7	1
57	Investigation on the luminescent stability in amorphous silicon oxynitride systems. <i>EPJ Applied Physics</i> , 2020, 89, 10304.	0.3	1
58	Manifestation of topological transitions in a multi-terminal Josephson junction. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 385503.	0.7	0