

# Wenhan Zhou

## List of Publications by Citations

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37  
papers

1,201  
citations

17  
h-index

34  
g-index

44  
ext. papers

1,526  
ext. citations

7.2  
avg, IF

4.76  
L-index

#	Paper	IF	Citations
37	Antimonene Oxides: Emerging Tunable Direct Bandgap Semiconductor and Novel Topological Insulator. <i>Nano Letters</i> , <b>2017</b> , 17, 3434-3440	11.5	217
36	CsPbBr Quantum Dots 2.0: Benzenesulfonic Acid Equivalent Ligand Awakens Complete Purification. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900767	24	189
35	Ultrathin Bismuth Nanosheets for Stable Na-Ion Batteries: Clarification of Structure and Phase Transition by in Situ Observation. <i>Nano Letters</i> , <b>2019</b> , 19, 1118-1123	11.5	93
34	Two-dimensional GeS with tunable electronic properties via external electric field and strain. <i>Nanotechnology</i> , <b>2016</b> , 27, 274001	3.4	68
33	Modulating Epitaxial Atomic Structure of Antimonene through Interface Design. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902606	24	63
32	Two-dimensional SiP: an unexplored direct band-gap semiconductor. <i>2D Materials</i> , <b>2017</b> , 4, 015030	5.9	59
31	Recent progress in 2D group IV-IV monochalcogenides: synthesis, properties and applications. <i>Nanotechnology</i> , <b>2019</b> , 30, 252001	3.4	52
30	Ultrathin tellurium dioxide: emerging direct bandgap semiconductor with high-mobility transport anisotropy. <i>Nanoscale</i> , <b>2018</b> , 10, 8397-8403	7.7	43
29	Designing sub-10-nm Metal-Oxide-Semiconductor Field-Effect Transistors via Ballistic Transport and Disparate Effective Mass: The Case of Two-Dimensional BiN. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	42
28	A class of Pb-free double perovskite halide semiconductors with intrinsic ferromagnetism, large spin splitting and high Curie temperature. <i>Materials Horizons</i> , <b>2018</b> , 5, 961-968	14.4	40
27	Anisotropic In-Plane Ballistic Transport in Monolayer Black Arsenic-Phosphorus FETs. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1901281	6.4	36
26	First-principles study of SO <sub>2</sub> sensors based on phosphorene and its isoelectronic counterparts: GeS, GeSe, SnS, SnSe. <i>Chemical Physics Letters</i> , <b>2017</b> , 686, 83-87	2.5	35
25	Mechanistic Understanding of Two-Dimensional Phosphorus, Arsenic, and Antimony High-Capacity Anodes for Fast-Charging Lithium/Sodium Ion Batteries. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 29559-29568	3.8	27
24	DFT coupled with NEGF study of a promising two-dimensional channel material: black phosphorene-type GaTeCl. <i>Nanoscale</i> , <b>2018</b> , 10, 3350-3355	7.7	25
23	Layer-controlled band alignment, work function and optical properties of few-layer GeSe. <i>Physica B: Condensed Matter</i> , <b>2017</b> , 519, 90-94	2.8	22
22	Two-Dimensional Pnictogen for Field-Effect Transistors. <i>Research</i> , <b>2019</b> , 2019, 1046329	7.8	21
21	Uncovering the Anisotropic Electronic Structure of 2D Group VA-VA Monolayers for Quantum Transport. <i>IEEE Electron Device Letters</i> , <b>2021</b> , 42, 66-69	4.4	17

20	Unusual Electronic Transitions in Two-dimensional Layered SnSb <sub>2</sub> Te <sub>4</sub> Driven by Electronic State Rehybridization. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	14
19	Robust two-dimensional topological insulators in derivatives of group-VA oxides with large band gap: Tunable quantum spin Hall states. <i>Applied Materials Today</i> , <b>2019</b> , 15, 163-170	6.6	13
18	Band offsets in new BN/BX (X = P, As, Sb) lateral heterostructures based on bond-orbital theory. <i>Nanoscale</i> , <b>2018</b> , 10, 15918-15925	7.7	12
17	A highly sensitive and selective SnS <sub>2</sub> monolayer sensor in detecting SF <sub>6</sub> decomposition gas. <i>Applied Surface Science</i> , <b>2021</b> , 541, 148494	6.7	12
16	Band engineering realized by chemical combination in 2D group VA/VA materials. <i>Nanoscale Horizons</i> , <b>2019</b> , 4, 1145-1152	10.8	10
15	Ballistic Transport in High-Performance and Low-Power Sub-5 nm Two-Dimensional ZrNBr MOSFETs. <i>IEEE Electron Device Letters</i> , <b>2020</b> , 41, 1029-1032	4.4	9
14	Stability enhancement and electronic tunability of two-dimensional SbIV compounds via surface functionalization. <i>Applied Surface Science</i> , <b>2018</b> , 427, 363-368	6.7	8
13	Modulating tunneling width and energy window for high-on-current two-dimensional tunnel field-effect transistors. <i>Nano Energy</i> , <b>2021</b> , 81, 105642	17.1	8
12	Ballistic Quantum Transport of Sub-10 nm 2D Sb <sub>2</sub> Te <sub>2</sub> Se Transistors. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1900813	6.4	7
11	Ultrascaled Double-Gate Monolayer SnS <sub>2</sub> MOSFETs for High-Performance and Low-Power Applications. <i>Physical Review Applied</i> , <b>2020</b> , 14,	4.3	7
10	High-performance monolayer NaSb shrinking transistors: a DFT-NEGF study. <i>Nanoscale</i> , <b>2020</b> , 12, 18931-18937	17.7	7
9	Extending Channel Scaling Limit of p-MOSFETs Through Antimonene With Heavy Effective Mass and High Density of State. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-6	2.9	6
8	Topologically protected states and half-metal behaviors: Defect-strain synergy effects in two-dimensional antimonene. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	5
7	Dipole-Engineering Strategy for Regulating the Electronic Contact of a Two-Dimensional Sb X /Graphene (X = P, . <i>Physical Review Applied</i> , <b>2022</b> , 17,	4.3	4
6	Electronic band structures and optical properties of atomically thin AuSe: first-principle calculations. <i>Journal of Semiconductors</i> , <b>2019</b> , 40, 062004	2.3	3
5	Pressurized Alloying Assisted Synthesis of High Quality Antimonene for Capacitive Deionization. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2102766	15.6	3
4	Electronic structure and transport properties of 2D RhTeCl: a NEGF-DFT study. <i>Nanoscale</i> , <b>2019</b> , 11, 20461-20466	17.7	3
3	First-principle study of puckered arsenene MOSFET. <i>Journal of Semiconductors</i> , <b>2020</b> , 41, 082006	2.3	1

2	Quantum Transport in Monolayer $\text{BCS}$ Field-Effect Transistors. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2001169	6.4	1
1	Unexpected band gap evolution and high carrier mobility sparked by the orbital variation in two-dimensional $\text{GaGeX}$ ( $X = \text{S}, \text{Se}, \text{Te}$ ). <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2022</b> , 138, 115112	3	0