Jia-Tao Sun

List of Publications by Year
in descending order

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72 papers	2,577 citations	279798 23 h-index	189892 50 g-index
73 all docs	73 docs citations	73 times ranked	3980 citing authors

#	Article	IF	Citations
1	Highly Ordered, Millimeterâ€Scale, Continuous, Singleâ€Crystalline Graphene Monolayer Formed on Ru (0001). Advanced Materials, 2009, 21, 2777-2780.	21.0	389
2	Epitaxial Growth and Airâ€Stability of Monolayer Antimonene on PdTe₂. Advanced Materials, 2017, 29, 1605407.	21.0	313
3	Spatially Resolved Electronic Structures of Atomically Precise Armchair Graphene Nanoribbons. Scientific Reports, 2012, 2, 983.	3.3	246
4	Epitaxial Growth of Flat Antimonene Monolayer: A New Honeycomb Analogue of Graphene. Nano Letters, 2018, 18, 2133-2139.	9.1	219
5	Epitaxial Growth of Honeycomb Monolayer CuSe with Dirac Nodal Line Fermions. Advanced Materials, 2018, 30, e1707055.	21.0	110
6	Suppressed superconductivity in substrate-supported Î² ₁₂ borophene by tensile strain and electron doping. 2D Materials, 2017, 4, 025032.	4.4	90
7	Photoinduced Nonequilibrium Topological States in Strained Black Phosphorus. Physical Review Letters, 2018, 120, 237403.	7.8	80
8	Intrinsic valley polarization of magnetic VSe₂ monolayers. Journal of Physics Condensed Matter, 2017, 29, 255501.	1.8	73
9	Energy-Gap Opening in a Bi(110) Nanoribbon Induced by Edge Reconstruction. Physical Review Letters, 2012, 109, 246804.	7.8	62
10	Evidence of Topological Edge States in Buckled Antimonene Monolayers. Nano Letters, 2019, 19, 6323-6329.	9.1	61
11	Nonlinear Rashba spin splitting in transition metal dichalcogenide monolayers. Nanoscale, 2016, 8, 17854-17860.	5.6	60
12	Screening Magnetic Two-Dimensional Atomic Crystals with Nontrivial Electronic Topology. Journal of Physical Chemistry Letters, 2018, 9, 6709-6715.	4.6	53
13	Ideal type-II Weyl phonons in wurtzite CuI. Physical Review B, 2019, 100, .	3.2	45
14	Direct identification of Mott Hubbard band pattern beyond charge density wave superlattice in monolayer 1T-NbSe2. Nature Communications, 2021, 12, 1978.	12.8	45
15	The effect of moirÃ© superstructures on topological edge states in twisted bismuthene homojunctions. Science Advances, 2020, 6, eaba2773.	10.3	39
16	Competition between Hexagonal and Tetragonal Hexabromobenzene Packing on Au(111). ACS Nano, 2016, 10, 3198-3205.	14.6	32
17	Waferâ€Scale Oxygenâ€Doped MoS₂ Monolayer. Small Methods, 2021, 5, e2100091.	8.6	30
18	Topical review: recent progress of charge density waves in 2D transition metal dichalcogenide-based heterojunctions and their applications. Nanotechnology, 2021, 32, 492001.	2.6	30

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19	Robust Interlayer Exciton in WS₂/MoSe₂ van der Waals Heterostructure under High Pressure. Nano Letters, 2021, 21, 8035-8042.	9.1	30
20	Spin-Orientation-Dependent Topological States in Two-Dimensional Antiferromagnetic NiTl₂S₄ Monolayers. Nano Letters, 2019, 19, 3321-3326.	9.1	28
21	Structural evolution of mechanically alloyed nanocrystalline Feâ€“28Al powders. Powder Technology, 2005, 149, 121-126.	4.2	26
22	Hidden spin polarization in the 1 T -phase layered transition-metal dichalcogenides MX 2 (M â€¯=â€¯Zr, Hf; X) Tj ETQq0 0 0 rgBT /Overlo	9.0	25
23	Manipulating Weyl quasiparticles by orbital-selective photoexcitation in WTe2. Nature Communications, 2021, 12, 1885.	12.8	25
24	Copper Phthalocyanine on Hydrogenated and Bare Diamond (001)-2 Ã— 1: Influence of Interfacial Interactions on Molecular Orientations. Langmuir, 2010, 26, 165-172.	3.5	21
25	Simultaneous generation of direct- and indirect-gap photoluminescence in multilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> bubbles. Physical Review Materials, 2020, 4, .	2.4	21
26	Scanning Tunneling Microscope and Photoemission Spectroscopy Investigations of Bismuth on Epitaxial Graphene on SiC(0001). Journal of Physical Chemistry C, 2014, 118, 24995-24999.	3.1	20
27	Type-II Interface Band Alignment in the vdW PbI₂â€“MoSe₂ Heterostructure. ACS Applied Materials & Interfaces, 2020, 12, 32099-32105.	8.0	20
28	Monolayer puckered pentagonal VTe2: An emergent two-dimensional ferromagnetic semiconductor with multiferroic coupling. Nano Research, 2022, 15, 1486-1491.	10.4	20
29	Fabrication of Millimeterâ€Scale, Singleâ€Crystal Oneâ€Thirdâ€Hydrogenated Graphene with Anisotropic Electronic Properties. Advanced Materials, 2018, 30, 1801838.	21.0	19
30	Tunable two-dimensional molecular dipole dot arrays on graphite. Applied Physics Letters, 2011, 99, 143114.	3.3	18
31	Magnetic Dirac fermions and Chern insulator supported on pristine silicon surface. Physical Review B, 2016, 94, .	3.2	18
32	Fermionic Analogue of High Temperature Hawking Radiation in Black Phosphorus. Chinese Physics Letters, 2020, 37, 067101.	3.3	18
33	Tunable electron-phonon coupling superconductivity in platinum diselenide. Physical Review Materials, 2017, 1, .	2.4	18
34	Epitaxial growth of diindenoperylene ultrathin films on Ag(111) investigated by LT-STM and LEED. Physical Chemistry Chemical Physics, 2011, 13, 20933.	2.8	17
35	Trapping Single Polar Molecules in SiC Nanomesh via Out-of-Plane Dipoles. ACS Nano, 2012, 6, 2774-2778.	14.6	17
36	The origin of half-metallicity in conjugated electron systemsâ€”a study on transition-metal-doped graphyne. Journal of Physics Condensed Matter, 2013, 25, 505502.	1.8	16

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37	Lattice-Directed Construction of Metalâ€“Organic Molecular Wires of Pentacene on the Au(110) Surface. Journal of Physical Chemistry C, 2017, 121, 21650-21657.	3.1	14
38	Quantum anomalous Hall effect in two-dimensional Cu-dicyanobenzene coloring-triangle lattice. Nano Research, 2020, 13, 1571-1575.	10.4	14
39	â€œH₂ spongeâ€ pressure as a means for reversible high-capacity hydrogen storage in nanoporous Ca-intercalated covalent organic frameworks. Nanoscale, 2015, 7, 6319-6324.	5.6	12
40	Engineering Dirac states in graphene: Coexisting type-I and type-II Floquet-Dirac fermions. Physical Review B, 2019, 99, .	3.2	12
41	Theoretical investigation of the electronic structures and carrier transport of hybrid graphene and boron nitride nanostructure. AIP Advances, 2012, 2, .	1.3	11
42	Orbital design of topological insulators from two-dimensional semiconductors. Nanoscale, 2019, 11, 22743-22747.	5.6	11
43	Recent progress in 2D group-V elemental monolayers: fabrications and properties. Journal of Semiconductors, 2020, 41, 081003.	3.7	11
44	Tuning magnetic splitting of zigzag graphene nanoribbons by edge functionalization with hydroxyl groups. Journal of Applied Physics, 2015, 117, .	2.5	10
45	Superconducting transition of FeSe / SrTiO3 induced by adsorption of semiconducting organic molecules. Physical Review B, 2017, 95, .	3.2	10
46	Quantum charge and spin pumping in monolayer phosphorene. Physical Review B, 2020, 102, .	3.2	10
47	Spin-polarized valley Hall effect in ultrathin silicon nanomembrane via interlayer antiferromagnetic coupling. 2D Materials, 2016, 3, 035026.	4.4	9
48	Band evolution of two-dimensional transition metal dichalcogenides under electric fields. Applied Physics Letters, 2019, 115, 083104.	3.3	9
49	Rational Design of Heteroanionic Two-Dimensional Materials with Emerging Topological, Magnetic, and Dielectric Properties. Journal of Physical Chemistry Letters, 2022, , 3594-3601.	4.6	9
50	Emission properties of sequentially deposited ultrathin CH3NH3PbI3/MoS2 heterostructures. Current Applied Physics, 2022, 36, 27-33.	2.4	8
51	Emergence of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>d</mml:mi></mml:math> -orbital magnetic Dirac fermions in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> monolayer with squared-pentagon structure. Physical Review B, 2020, 101, .	3.2	7
52	High-temperature fractional quantum Hall state in the Floquet kagome flat band. Physical Review B, 2022, 105, .	3.2	7
53	Prediction of silicon-based room temperature quantum spin Hall insulator via orbital mixing. Europhysics Letters, 2016, 113, 67003.	2.0	6
54	Tunable magnetic moment and potential half-metal behavior of Fe-nanostructure-embedded graphene perforation. Carbon, 2016, 107, 268-272.	10.3	6

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55	Size Dependence of Charge-Density-Wave Orders in Single-Layer NbSe₂ Hetero/Homophase Junctions. Journal of Physical Chemistry Letters, 2022, 13, 1901-1907.	4.6	6
56	Intriguing one-dimensional electronic behavior in emerging two-dimensional materials. Nano Research, 2021, 14, 3810-3819.	10.4	5
57	Progress on 2D topological insulators and potential applications in electronic devices*. Chinese Physics B, 2020, 29, 097304.	1.4	5
58	Surface confined quantum well state in MoS2(0001) thin film. Applied Physics Letters, 2015, 107, .	3.3	4
59	Band engineering of double-wall Mo-based hybrid nanotubes. Chinese Physics B, 2018, 27, 076104.	1.4	4
60	Manipulation of Dirac Fermions in Nanochain-Structured Graphene. Chinese Physics Letters, 2021, 38, 097101.	3.3	4
61	Interface electron structure of Fe3Al/TiC composites. Transactions of Nonferrous Metals Society of China, 2006, 16, 294-298.	4.2	3
62	Quantum nutcracker for near-room-temperature H2 dissociation. Science Bulletin, 2019, 64, 4-7.	9.0	3
63	Fabrication and manipulation of nanosized graphene homojunction with atomically-controlled boundaries. Nano Research, 2020, 13, 3286-3291.	10.4	3
64	Screening and Design of Bipolar Magnetic-Semiconducting Monolayers and Heterostructures. ACS Applied Electronic Materials, 0, , .	4.3	3
65	Substrate-mediated electron tunneling through molecule-electrode interfaces. Applied Physics Letters, 2011, 99, 143122.	3.3	2
66	Allâ€Silicon Switchable Magnetoelectric Effect through Interlayer Exchange Coupling. ChemPhysChem, 2017, 18, 1916-1920.	2.1	1
67	Anisotropic High Carrier Mobilities of One-Third-Hydrogenated Group-V Elemental Monolayers. Journal of Physical Chemistry C, 2020, 124, 12628-12635.	3.1	1
68	Nonequilibrium states in quantum materials under time-period driving. Wuli Xuebao/Acta Physica Sinica, 2021, .	0.5	1
69	Band engineering of honeycomb monolayer CuSe via atomic modification*. Chinese Physics B, 2021, 30, 106807.	1.4	1
70	Adsorption-enhanced spinâ€“orbit coupling of buckled honeycomb silicon. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 83, 141-145.	2.7	0
71	Inside Back Cover: Waferâ€Scale Oxygenâ€Doped MoS₂ Monolayer (Small Methods 6/2021). Small Methods, 2021, 5, 2170026.	8.6	0
72	Direct evidence of two-dimensional electron gas-like band structures in hafnene. Nano Research, 2022, 15, 3770-3774.	10.4	0