

Yu-Yang Zhang

List of Publications by Year in descending order

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times ranked

7601
citing authors

#	ARTICLE	IF	CITATIONS
1	Monolayer PtSe ₂ , a New Semiconducting Transition-Metal-Dichalcogenide, Epitaxially Grown by Direct Selenization of Pt. Nano Letters, 2015, 15, 4013-4018.	9.1	560
2	Graphene cover-promoted metal-catalyzed reactions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17023-17028.	7.1	183
3	Nearly quantized conductance plateau of vortex zero mode in an iron-based superconductor. Science, 2020, 367, 189-192.	12.6	172
4	Atomic-Scale Probing of the Dynamics of Sodium Transport and Intercalation-Induced Phase Transformations in MoS ₂ . ACS Nano, 2015, 9, 11296-11301.	14.6	167
5	Molecular Beam Epitaxy of Highly Crystalline Monolayer Molybdenum Disulfide on Hexagonal Boron Nitride. Journal of the American Chemical Society, 2017, 139, 9392-9400.	13.7	167
6	Rhenium-Doped and Stabilized MoS ₂ Atomic Layers with Basal Plane Catalytic Activity. Advanced Materials, 2018, 30, e1803477.	21.0	164
7	Atomically precise, custom-design origami graphene nanostructures. Science, 2019, 365, 1036-1040.	12.6	156
8	Intrinsically patterned two-dimensional materials for selective adsorption of molecules and nanoclusters. Nature Materials, 2017, 16, 717-721.	27.5	150
9	Constructing an Array of Anchored Single-Molecule Rotors on Gold Surfaces. Physical Review Letters, 2008, 101, 197209.	7.8	127
10	Deep electron traps and origin of p -type conductivity in the earth-abundant solar-cell material Cu ₂ ZnSnS ₄ .	3.2	110
11	Epitaxial Growth of Honeycomb Monolayer CuSe with Dirac Nodal Line Fermions. Advanced Materials, 2018, 30, e1707055.	21.0	110
12	Mo-Terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film. Nano Letters, 2018, 18, 482-490.	9.1	105
13	Epitaxial growth and physical properties of 2D materials beyond graphene: from monatomic materials to binary compounds. Chemical Society Reviews, 2018, 47, 6073-6100.	38.1	97
14	The observation of square ice in graphene questioned. Nature, 2015, 528, E1-E2.	27.8	95
15	Atomic and electronic structures of single-layer FeSe on SrTiO ₃ (001): The role of oxygen deficiency. Physical Review B, 2013, 87, ..	3.2	86
16	Sequence of Silicon Monolayer Structures Grown on a Ru Surface: from a Herringbone Structure to Silicene. Nano Letters, 2017, 17, 1161-1166.	9.1	86
17	Stable Silicene in Graphene/Silicene Van der Waals Heterostructures. Advanced Materials, 2018, 30, e1804650.	21.0	86
18	Average Csl Neutron Density Distribution from COHERENT Data. Physical Review Letters, 2018, 120, 072501.	7.8	84

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19	Construction of bilayer PdSe ₂ on epitaxial graphene. Nano Research, 2018, 11, 5858-5865.	10.4	84
20	Introduction of Interfacial Charges to Black Phosphorus for a Family of Planar Devices. Nano Letters, 2016, 16, 6870-6878.	9.1	69
21	In situ atomic-scale observation of reversible sodium ions migration in layered metal dichalcogenide SnS ₂ nanostructures. Nano Energy, 2017, 32, 302-309.	16.0	69
22	Microscopic origin of chiral shape induction in achiral crystals. Nature Chemistry, 2016, 8, 326-330.	13.6	68
23	Binding configuration, electronic structure, and magnetic properties of metal phthalocyanines on a Au(111) surface studied with <i>ab initio</i> calculations. Physical Review B, 2011, 84, .	3.2	66
24	Diffusivity Control in Molecule-on-Metal Systems Using Electric Fields. Nano Letters, 2010, 10, 1184-1188.	9.1	64
25	Kondo Effect of Cobalt Adatoms on a Graphene Monolayer Controlled by Substrate-Induced Ripples. Nano Letters, 2014, 14, 4011-4015.	9.1	60
26	Direct Four-Probe Measurement of Grain-Boundary Resistivity and Mobility in Millimeter-Sized Graphene. Nano Letters, 2017, 17, 5291-5296.	9.1	59
27	High-Resolution Tracking Asymmetric Lithium Insertion and Extraction and Local Structure Ordering in SnS ₂ . Nano Letters, 2016, 16, 5582-5588.	9.1	58
28	Structural Flexibility and Alloying in Ultrathin Transition-Metal Chalcogenide Nanowires. ACS Nano, 2016, 10, 2782-2790.	14.6	53
29	Localized spin-orbit polaron in magnetic Weyl semimetal Co ₃ Sn ₂ S ₂ . Nature Communications, 2020, 11, 5613.	12.8	53
30	Tunable giant magnetoresistance in a single-molecule junction. Nature Communications, 2019, 10, 3599.	12.8	50
31	Sulfur-doped graphene nanoribbons with a sequence of distinct band gaps. Nano Research, 2017, 10, 3377-3384.	10.4	44
32	Unsupported single-atom-thick copper oxide monolayers. 2D Materials, 2017, 4, 011001.	4.4	44
33	Spontaneous Formation of 1D Pattern in Monolayer VSe ₂ with Dispersive Adsorption of Pt Atoms for HER Catalysis. Nano Letters, 2019, 19, 4897-4903.	9.1	42
34	Polymorphism and chiral expression in two-dimensional subphthalocyanine crystals on Au(111). Physical Chemistry Chemical Physics, 2010, 12, 1318-1322.	2.8	40
35	Ferromagnetism and perfect spin filtering in transition-metal-doped graphyne nanoribbons. Physical Review B, 2015, 92, .	3.2	39
36	High quality PdTe ₂ thin films grown by molecular beam epitaxy. Chinese Physics B, 2018, 27, 086804.	1.4	39

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37	Dislocation-driven growth of two-dimensional lateral quantum-well superlattices. <i>Science Advances</i> , 2018, 4, eaap9096.	10.3	38
38	Organic salts as super-high rate capability materials for lithium-ion batteries. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	33
39	Observation of magnetic adatom-induced Majorana vortex and its hybridization with field-induced Majorana vortex in an iron-based superconductor. <i>Nature Communications</i> , 2021, 12, 1348.	12.8	33
40	High resolution scanning-tunneling-microscopy imaging of individual molecular orbitals by eliminating the effect of surface charge. <i>Surface Science</i> , 2011, 605, 415-418.	1.9	27
41	Airâ€Stable Monolayer Cu₂Se Exhibits a Purely Thermal Structural Phase Transition. <i>Advanced Materials</i> , 2020, 32, e1908314.	21.0	26
42	Identifying Multiple Configurations of Complex Molecules in Dynamical Processes: Time Resolved Tunneling Spectroscopy and Density Functional Theory Calculation. <i>Physical Review Letters</i> , 2010, 104, 166101.	7.8	24
43	Water wettability of graphene: interplay between the interfacial water structure and the electronic structure. <i>RSC Advances</i> , 2018, 8, 16918-16926.	3.6	24
44	Direct observation of oxygen-vacancy-enhanced polarization in a SrTiO3-buffered ferroelectric BaTiO3 film on GaAs. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	23
45	Chemistry of 4-[(4-bromophenyl)ethynyl]pyridine at metal surfaces studied by STM. <i>Chemical Communications</i> , 2018, 54, 9305-9308.	4.1	23
46	Sizable Band Gap in Epitaxial Bilayer Graphene Induced by Silicene Intercalation. <i>Nano Letters</i> , 2020, 20, 2674-2680.	9.1	23
47	Spatial imaging of individual vibronic states in the interior of single molecules. <i>Journal of Chemical Physics</i> , 2011, 135, 014705.	3.0	22
48	Direct observation of Pt nanocrystal coalescence induced by electron-excitation-enhanced van der Waals interactions. <i>Nano Research</i> , 2014, 7, 308-314.	10.4	22
49	Direct Cation Exchange in Monolayer MoS_2 via Recombination-Enhanced Migration. <i>Physical Review Letters</i> , 2019, 122, 106101.	10.4	21
50	Tuning the morphology of chevron-type graphene nanoribbons by choice of annealing temperature. <i>Nano Research</i> , 2018, 11, 6190-6196.	10.4	20
51	Probing light mediators and $(g \hat{\sim} 2)^{1/4}$ through detection of coherent elastic neutrino nucleus scattering at COHERENT. <i>Journal of High Energy Physics</i> , 2022, 2022, .	4.7	20
52	Oxygen Disorder, a Way to Accommodate Large Epitaxial Strains in Oxides. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500344.	3.7	19
53	Fabrication of Millimeterâ€Scale, Singleâ€Crystal Oneâ€Thirdâ€Hydrogenated Graphene with Anisotropic Electronic Properties. <i>Advanced Materials</i> , 2018, 30, 1801838.	21.0	19
54	Insulating SiO₂ under Centimeter-Scale, Single-Crystal Graphene Enables Electronic-Device Fabrication. <i>Nano Letters</i> , 2020, 20, 8584-8591.	9.1	19

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55	New insights into nuclear physics and weak mixing angle using electroweak probes. <i>Physical Review C</i> , 2021, 104, .	2.9	17
56	Surface State Mediated Interlayer Excitons in a 2D Nonlayered Layered Semiconductor Heterojunction. <i>Advanced Electronic Materials</i> , 2017, 3, 1700373.	5.1	15
57	Direct measurements of conductivity and mobility in millimeter-sized single-crystalline graphene via van der Pauw geometry. <i>Chinese Physics B</i> , 2017, 26, 066801.	1.4	14
58	Quantum anomalous Hall effect in two-dimensional Cu-dicyanobenzene coloring-triangle lattice. <i>Nano Research</i> , 2020, 13, 1571-1575.	10.4	14
59	Electrostatic field effect on molecular structures at metal surfaces. <i>Surface Science</i> , 2009, 603, 2815-2819.	1.9	13
60	Impact of heterocirculene molecular symmetry upon two-dimensional crystallization. <i>Scientific Reports</i> , 2014, 4, 5415.	3.3	13
61	Mapping antibonding electron states of a Pb adatom on Pb(111). <i>Physical Review B</i> , 2010, 81, .	3.2	12
62	Band engineering of B ₂ H ₂ nanoribbons. <i>Chinese Physics B</i> , 2019, 28, 046803.	1.4	12
63	Integration of graphene and two-dimensional ferroelectrics: properties and related functional devices. <i>Nanoscale Horizons</i> , 2020, 5, 1303-1308.	8.0	12
64	Visualizing Anisotropic Oxygen Diffusion in Ceria under Activated Conditions. <i>Physical Review Letters</i> , 2020, 124, 056002.	7.8	12
65	Evidence for Ultralow-Energy Vibrations in Large Organic Molecules. <i>Nano Letters</i> , 2017, 17, 4929-4933.	9.1	11
66	Barrierless On-Surface Metal Incorporation in Phthalocyanine-Based Molecules. <i>Journal of Physical Chemistry C</i> , 2018, 122, 6678-6683.	3.1	11
67	Centimeter-scale, single-crystalline, AB-stacked bilayer graphene on insulating substrates. <i>2D Materials</i> , 2019, 6, 045044.	4.4	11
68	Orbital design of topological insulators from two-dimensional semiconductors. <i>Nanoscale</i> , 2019, 11, 22743-22747.	5.6	11
69	Intrinsically scale-free ferroelectricity in two-dimensional M ₂ X ₂ Y ₆ . <i>Nano Research</i> , 2022, 15, 3704-3710.	10.4	11
70	Magnetic anisotropy of van der Waals absorbed iron(II) phthalocyanine layer on Bi ₂ Te ₃ . <i>Physical Review B</i> , 2014, 90, .	3.2	10
71	Recovery of edge states of graphene nanoislands on an iridium substrate by silicon intercalation. <i>Nano Research</i> , 2018, 11, 3722-3729.	10.4	10
72	Experimental Synthesis of Strained Monolayer Silver Arsenide on Ag(111) Substrates. <i>Chinese Physics Letters</i> , 2020, 37, 068103.	3.3	10

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73	Electronic properties of silicene in BN/silicene van der Waals heterostructures. Chinese Physics B, 2018, 27, 077302.	1.4	9
74	Low-temperature growth of large-scale, single-crystalline graphene on Ir(111)*. Chinese Physics B, 2019, 28, 056107.	1.4	9
75	Observation of an Incommensurate Charge Density Wave in Monolayer TiSe_2 . https://doi.org/10.78431/2022.128.026401 .	10.4	9
76	Line defects in monolayer TiSe_2 with adsorption of Pt atoms potentially enable excellent catalytic activity. Nano Research, 2022, 15, 4687-4692.	10.4	9
77	Recovery of the Dirac states of graphene by intercalating two-dimensional traditional semiconductors. Journal of Physics Condensed Matter, 2019, 31, 194001.	1.8	8
78	Prediction of structured void-containing 1T-PtTe_2 monolayer with potential catalytic activity for hydrogen evolution reaction*. Chinese Physics B, 2020, 29, 058104.	1.4	8
79	Thermally Controlled Adenine Dimer Chain Rotation on Cu(110): The Critical Role of van der Waals Interactions. Journal of Physical Chemistry C, 2014, 118, 6278-6282.	3.1	7
80	From bidirectional rectifier to polarity-controllable transistor in black phosphorus by dual gate modulation. 2D Materials, 2017, 4, 025056.	4.4	7
81	Spectroscopic signatures of edge states in hexagonal boron nitride. Nano Research, 2019, 12, 1663-1667.	10.4	7
82	Epitaxial synthesis and electronic properties of monolayer Pd_2Se_3 *. Chinese Physics B, 2020, 29, 098102.	1.4	7
83	Column-by-column observation of dislocation motion in CdTe: Dynamic scanning transmission electron microscopy. Applied Physics Letters, 2016, 109, .	3.3	6
84	Fabrication of large-scale graphene/2D-germanium heterostructure by intercalation. Chinese Physics B, 2019, 28, 078103.	1.4	6
85	The As-surface of an iron-based superconductor $\text{CaKFe}_4\text{As}_4$. Nano Research, 2021, 14, 3921-3925.	10.4	6
86	Identifying Multiple Configurations of Complex Molecules on Metal Surfaces. Small, 2012, 8, 796-806.	10.0	5
87	Defect-mediated leakage in lithium intercalated bilayer graphene. AIP Advances, 2017, 7, .	1.3	5
88	Properties of Hydrogenated Nanoporous SiC: An Ab Initio Study. Journal of Nanomaterials, 2017, 2017, 1-6.	2.7	5
89	Thickness-dependent magnetic order and phase transition in V_5S_8 *. Chinese Physics B, 2020, 29, 077504.	1.4	5
90	Database Construction for Two-Dimensional Material-Substrate Interfaces. Chinese Physics Letters, 2021, 38, 066801.	3.3	5

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91	Electronic structures and vibrational properties of coronene on Ru(0001): first-principles study. Chinese Physics B, 2012, 21, 036801.	1.4	4
92	Band engineering of double-wall Mo-based hybrid nanotubes. Chinese Physics B, 2018, 27, 076104.	1.4	4
93	Design of Optimally Stable Molecular Coatings for Fe-Based Nanoparticles in Aqueous Environments. ACS Omega, 2017, 2, 4480-4487.	3.5	3
94	Quantum nutcracker for near-room-temperature H ₂ dissociation. Science Bulletin, 2019, 64, 4-7.	9.0	3
95	Direct Visualization of Hydrogen-Transfer Intermediate States by Scanning Tunneling Microscopy. Journal of Physical Chemistry Letters, 2020, 11, 1536-1541.	4.6	3
96	Fabrication and manipulation of nanosized graphene homojunction with atomically-controlled boundaries. Nano Research, 2020, 13, 3286-3291.	10.4	3
97	First principles calculation of two-dimensional materials at an atomic scale. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 027301.	0.5	3
98	Novel two-dimensional transition metal chalcogenides created by epitaxial growth. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	5.1	3
99	Structures and electronic properties of functional molecules on metal substrates: From single molecule to self-assemblies. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2022, 12, e1591.	14.6	3
100	Intrinsically Honeycomb-Patterned Hydrogenated Graphene. Small, 2022, 18, e2102687.	10.0	3
101	Intrinsically patterned corrals in monolayer Ag ₅ Se ₂ and selective molecular co-adsorption. Nano Research, 2022, 15, 6730-6735.	10.4	3
102	Thermal transport of monolayer amorphous carbon and boron nitride. Applied Physics Letters, 2022, 120, .	3.3	3
103	Tuning the Catalytic Activity of a Quantum Nutcracker for Hydrogen Dissociation. Surfaces, 2020, 3, 40-47.	2.3	2
104	Unusual anisotropic thermal expansion in multilayer SnSe leads to positive-to-negative crossover of Poisson's ratio. Applied Physics Letters, 2020, 116, 083101.	3.3	2
105	The construction and structure-property manipulation of "small-molecule machines". Chinese Science Bulletin, 2018, 63, 1255-1264.	0.7	2
106	Formation of Single-atom-thick Copper Oxide Monolayers. Microscopy and Microanalysis, 2017, 23, 1684-1685.	0.4	1
107	Anisotropic High Carrier Mobilities of One-Third-Hydrogenated Group-V Elemental Monolayers. Journal of Physical Chemistry C, 2020, 124, 12628-12635.	3.1	1
108	Electronic structures of vacancies in Co ₃ Sn ₂ S ₂ *. Chinese Physics B, 2021, 30, 077102.	1.4	1

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109	Research progress of novel properties in several van der Waals ferroelectric materials. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 127305.	0.5	1
110	Exchange of Re and Mo atoms in MoS2 driven by Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 1702-1703.	0.4	0
111	Dislocation-Driven Growth of Two-Dimensional Lateral Quantum Well Superlattices. Microscopy and Microanalysis, 2018, 24, 88-89.	0.4	0
112	Two-Dimensional Crystals: Graphene, Silicene, Germanene, and Stanene. Springer Handbooks, 2020, , 243-266.	0.6	0