Yu-Yang Zhang

List of Publications by Year
in descending order

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112 papers	4,535 citations	94269 37 h-index	106150 65 g-index
115 all docs	115 docs citations	115 times ranked	7601 citing authors

#	Article	IF	Citations
1	Monolayer PtSe₂, a New Semiconducting Transition-Metal-Dichalcogenide, Epitaxially Grown by Direct Selenization of Pt. Nano Letters, 2015, 15, 4013-4018.	4.5	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.	3.3	183
3	Nearly quantized conductance plateau of vortex zero mode in an iron-based superconductor. Science, 2020, 367, 189-192.	6.0	172
4	Atomic-Scale Probing of the Dynamics of Sodium Transport and Intercalation-Induced Phase Transformations in MoS₂. ACS Nano, 2015, 9, 11296-11301.	7.3	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.	6.6	167
6	RheniumâEDoped and Stabilized MoS₂ Atomic Layers with BasalâEPlane Catalytic Activity. Advanced Materials, 2018, 30, e1803477.	11.1	164
7	Atomically precise, custom-design origami graphene nanostructures. Science, 2019, 365, 1036-1040.	6.0	156
8	Intrinsically patterned two-dimensional materials for selective adsorption of molecules andÂnanoclusters. Nature Materials, 2017, 16, 717-721.	13.3	150
9	Constructing an Array of Anchored Single-Molecule Rotors on Gold Surfaces. Physical Review Letters, 2008, 101, 197209.	2.9	127
10	Deep electron traps and origin of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-type conductivity in the earth-abundant solar-cell material Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>ZnSnS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	1.1	110
11	Epitaxial Growth of Honeycomb Monolayer CuSe with Dirac Nodal Line Fermions. Advanced Materials, 2018, 30, e1707055.	11.1	110
12	Mo-Terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film. Nano Letters, 2018, 18, 482-490.	4.5	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.	18.7	97
14	The observation of square ice in graphene questioned. Nature, 2015, 528, E1-E2.	13.7	95
15	Atomic and electronic structures of single-layer FeSe on SrTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>(001): The role of oxygen deficiency. Physical Review B, 2013, 87, .	1.1	86
16	Sequence of Silicon Monolayer Structures Grown on a Ru Surface: from a Herringbone Structure to Silicene. Nano Letters, 2017, 17, 1161-1166.	4.5	86
17	Stable Silicene in Graphene/Silicene Van der Waals Heterostructures. Advanced Materials, 2018, 30, e1804650.	11.1	86
18	Average CsI Neutron Density Distribution from COHERENT Data. Physical Review Letters, 2018, 120, 072501.	2.9	84

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19	Construction of bilayer PdSe2 on epitaxial graphene. Nano Research, 2018, 11, 5858-5865.	5.8	84
20	Introduction of Interfacial Charges to Black Phosphorus for a Family of Planar Devices. Nano Letters, 2016, 16, 6870-6878.	4.5	69
21	In situ atomic-scale observation of reversible sodium ions migration in layered metal dichalcogenide SnS2 nanostructures. Nano Energy, 2017, 32, 302-309.	8.2	69
22	Microscopic origin of chiral shape induction in achiral crystals. Nature Chemistry, 2016, 8, 326-330.	6.6	68
23	Binding configuration, electronic structure, and magnetic properties of metal phthalocyanines on a Au(111) surface studied withab initiocalculations. Physical Review B, 2011, 84, .	1.1	66
24	Diffusivity Control in Molecule-on-Metal Systems Using Electric Fields. Nano Letters, 2010, 10, 1184-1188.	4.5	64
25	Kondo Effect of Cobalt Adatoms on a Graphene Monolayer Controlled by Substrate-Induced Ripples. Nano Letters, 2014, 14, 4011-4015.	4.5	60
26	Direct Four-Probe Measurement of Grain-Boundary Resistivity and Mobility in Millimeter-Sized Graphene. Nano Letters, 2017, 17, 5291-5296.	4.5	59
27	High-Resolution Tracking Asymmetric Lithium Insertion and Extraction and Local Structure Ordering in SnS₂. Nano Letters, 2016, 16, 5582-5588.	4.5	58
28	Structural Flexibility and Alloying in Ultrathin Transition-Metal Chalcogenide Nanowires. ACS Nano, 2016, 10, 2782-2790.	7.3	53
29	Localized spin-orbit polaron in magnetic Weyl semimetal Co3Sn2S2. Nature Communications, 2020, 11, 5613.	5.8	53
30	Tunable giant magnetoresistance in a single-molecule junction. Nature Communications, 2019, 10, 3599.	5.8	50
31	Sulfur-doped graphene nanoribbons with a sequence of distinct band gaps. Nano Research, 2017, 10, 3377-3384.	5.8	44
32	Unsupported single-atom-thick copper oxide monolayers. 2D Materials, 2017, 4, 011001.	2.0	44
33	Spontaneous Formation of 1D Pattern in Monolayer VSe₂ with Dispersive Adsorption of Pt Atoms for HER Catalysis. Nano Letters, 2019, 19, 4897-4903.	4.5	42
34	Polymorphism and chiral expression in two-dimensional subphthalocyanine crystals on Au(111). Physical Chemistry Chemical Physics, 2010, 12, 1318-1322.	1.3	40
35	Ferromagnetism and perfect spin filtering in transition-metal-doped graphyne nanoribbons. Physical Review B, 2015, 92, .	1.1	39
36	High quality PdTe2 thin films grown by molecular beam epitaxy. Chinese Physics B, 2018, 27, 086804.	0.7	39

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37	Dislocation-driven growth of two-dimensional lateral quantum-well superlattices. Science Advances, 2018, 4, eaap9096.	4.7	38
38	Organic salts as super-high rate capability materials for lithium-ion batteries. Applied Physics Letters, 2012, 100, .	1.5	33
39	Observation of magnetic adatom-induced Majorana vortex and its hybridization with field-induced Majorana vortex in an iron-based superconductor. Nature Communications, 2021, 12, 1348.	5.8	33
40	High resolution scanning-tunneling-microscopy imaging of individual molecular orbitals by eliminating the effect of surface charge. Surface Science, 2011, 605, 415-418.	0.8	27
41	Airâ€Stable Monolayer Cu₂Se Exhibits a Purely Thermal Structural Phase Transition. Advanced Materials, 2020, 32, e1908314.	11.1	26
42	Identifying Multiple Configurations of Complex Molecules in Dynamical Processes: Time Resolved Tunneling Spectroscopy and Density Functional Theory Calculation. Physical Review Letters, 2010, 104, 166101.	2.9	24
43	Water wettability of graphene: interplay between the interfacial water structure and the electronic structure. RSC Advances, 2018, 8, 16918-16926.	1.7	24
44	Direct observation of oxygen-vacancy-enhanced polarization in a SrTiO3-buffered ferroelectric BaTiO3 film on GaAs. Applied Physics Letters, 2015, 107, .	1.5	23
45	Chemistry of 4-[(4-bromophenyl)ethynyl]pyridine at metal surfaces studied by STM. Chemical Communications, 2018, 54, 9305-9308.	2.2	23
46	Sizable Band Gap in Epitaxial Bilayer Graphene Induced by Silicene Intercalation. Nano Letters, 2020, 20, 2674-2680.	4.5	23
47	Spatial imaging of individual vibronic states in the interior of single molecules. Journal of Chemical Physics, 2011, 135, 014705.	1.2	22
48	Direct observation of Pt nanocrystal coalescence induced by electron-excitation-enhanced van der Waals interactions. Nano Research, 2014, 7, 308-314.	5.8	22
49	Direct Cation Exchange in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub> via Recombination-Enhanced Migration. Physical Review Letters, 2019, 122, 106101.	2.9	21
50	Tuning the morphology of chevron-type graphene nanoribbons by choice of annealing temperature. Nano Research, 2018, 11, 6190-6196.	5.8	20
51	Probing light mediators and (g â^’ 2)Î¼ through detection of coherent elastic neutrino nucleus scattering at COHERENT. Journal of High Energy Physics, 2022, 2022, .	1.6	20
52	Oxygen Disorder, a Way to Accommodate Large Epitaxial Strains in Oxides. Advanced Materials Interfaces, 2015, 2, 1500344.	1.9	19
53	Fabrication of Millimeterâ€Scale, Singleâ€Crystal Oneâ€Thirdâ€Hydrogenated Graphene with Anisotropic Electronic Properties. Advanced Materials, 2018, 30, 1801838.	11.1	19
54	Insulating SiO₂ under Centimeter-Scale, Single-Crystal Graphene Enables Electronic-Device Fabrication. Nano Letters, 2020, 20, 8584-8591.	4.5	19

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55	New insights into nuclear physics and weak mixing angle using electroweak probes. Physical Review C, 2021, 104, .	1.1	17
56	Surface State Mediated Interlayer Excitons in a 2D Nonlayeredâ€“Layered Semiconductor Heterojunction. Advanced Electronic Materials, 2017, 3, 1700373.	2.6	15
57	Direct measurements of conductivity and mobility in millimeter-sized single-crystalline graphene via van der Pauw geometry. Chinese Physics B, 2017, 26, 066801.	0.7	14
58	Quantum anomalous Hall effect in two-dimensional Cu-dicyanobenzene coloring-triangle lattice. Nano Research, 2020, 13, 1571-1575.	5.8	14
59	Electrostatic field effect on molecular structures at metal surfaces. Surface Science, 2009, 603, 2815-2819.	0.8	13
60	Impact of heterocirculene molecular symmetry upon two-dimensional crystallization. Scientific Reports, 2014, 4, 5415.	1.6	13
61	Mapping antibonding electron states of a Pb adatom on Pb(111). Physical Review B, 2010, 81, .	1.1	12
62	Band engineering of B 2 H 2 nanoribbons. Chinese Physics B, 2019, 28, 046803.	0.7	12
63	Integration of graphene and two-dimensional ferroelectrics: properties and related functional devices. Nanoscale Horizons, 2020, 5, 1303-1308.	4.1	12
64	Visualizing Anisotropic Oxygen Diffusion in Ceria under Activated Conditions. Physical Review Letters, 2020, 124, 056002.	2.9	12
65	Evidence for Ultralow-Energy Vibrations in Large Organic Molecules. Nano Letters, 2017, 17, 4929-4933.	4.5	11
66	Barrierless On-Surface Metal Incorporation in Phthalocyanine-Based Molecules. Journal of Physical Chemistry C, 2018, 122, 6678-6683.	1.5	11
67	Centimeter-scale, single-crystalline, AB-stacked bilayer graphene on insulating substrates. 2D Materials, 2019, 6, 045044.	2.0	11
68	Orbital design of topological insulators from two-dimensional semiconductors. Nanoscale, 2019, 11, 22743-22747.	2.8	11
69	Intrinsically scale-free ferroelectricity in two-dimensional M2X2Y6. Nano Research, 2022, 15, 3704-3710.	5.8	11
70	Magnetic anisotropy of van der Waals absorbed iron(II) phthalocyanine layer on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Te</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 90, .	1.1	10
71	Recovery of edge states of graphene nanoislands on an iridium substrate by silicon intercalation. Nano Research, 2018, 11, 3722-3729.	5.8	10
72	Experimental Synthesis of Strained Monolayer Silver Arsenide on Ag(111) Substrates. Chinese Physics Letters, 2020, 37, 068103.	1.3	10

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73	Electronic properties of silicene in BN/silicene van der Waals heterostructures. Chinese Physics B, 2018, 27, 077302.	0.7	9
74	Low-temperature growth of large-scale, single-crystalline graphene on Ir(111)*. Chinese Physics B, 2019, 28, 056107.	0.7	9
75	Observation of an Incommensurate Charge Density Wave in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>TiSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mn>1</mml:mn><mml:mn>1</mml:mn><mml:mn>1</mml:mn><mml:mn>1</mml:mn><mml:mo stretchy="false">) Tj ETQq1 1 0.784314 rg	2.8	9
76	2022, 128, 026401. Line defects in monolayer TiSe2 with adsorption of Pt atoms potentially enable excellent catalytic activity. Nano Research, 2022, 15, 4687-4692.	5.8	9
77	Recovery of the Dirac states of graphene by intercalating two-dimensional traditional semiconductors. Journal of Physics Condensed Matter, 2019, 31, 194001.	0.7	8
78	Prediction of structured void-containing 1T-PtTe₂ monolayer with potential catalytic activity for hydrogen evolution reaction*. Chinese Physics B, 2020, 29, 058104.	0.7	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.	1.5	7
80	From bidirectional rectifier to polarity-controllable transistor in black phosphorus by dual gate modulation. 2D Materials, 2017, 4, 025056.	2.0	7
81	Spectroscopic signatures of edge states in hexagonal boron nitride. Nano Research, 2019, 12, 1663-1667.	5.8	7
82	Epitaxial synthesis and electronic properties of monolayer Pd₂Se₃*. Chinese Physics B, 2020, 29, 098102.	0.7	7
83	Column-by-column observation of dislocation motion in CdTe: Dynamic scanning transmission electron microscopy. Applied Physics Letters, 2016, 109, .	1.5	6
84	Fabrication of large-scale graphene/2D-germanium heterostructure by intercalation. Chinese Physics B, 2019, 28, 078103.	0.7	6
85	The As-surface of an iron-based superconductor CaKFe4As4. Nano Research, 2021, 14, 3921-3925.	5.8	6
86	Identifying Multiple Configurations of Complex Molecules on Metal Surfaces. Small, 2012, 8, 796-806.	5.2	5
87	Defect-mediated leakage in lithium intercalated bilayer graphene. AIP Advances, 2017, 7, .	0.6	5
88	Properties of Hydrogenated Nanoporous SiC: An Ab Initio Study. Journal of Nanomaterials, 2017, 2017, 1-6.	1.5	5
89	Thickness-dependent magnetic order and phase transition in V₅S₈*. Chinese Physics B, 2020, 29, 077504.	0.7	5
90	Database Construction for Two-Dimensional Material-Substrate Interfaces. Chinese Physics Letters, 2021, 38, 066801.	1.3	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.	0.7	4
92	Band engineering of double-wall Mo-based hybrid nanotubes. Chinese Physics B, 2018, 27, 076104.	0.7	4
93	Design of Optimally Stable Molecular Coatings for Fe-Based Nanoparticles in Aqueous Environments. ACS Omega, 2017, 2, 4480-4487.	1.6	3
94	Quantum nutcracker for near-room-temperature H2 dissociation. Science Bulletin, 2019, 64, 4-7.	4.3	3
95	Direct Visualization of Hydrogen-Transfer Intermediate States by Scanning Tunneling Microscopy. Journal of Physical Chemistry Letters, 2020, 11, 1536-1541.	2.1	3
96	Fabrication and manipulation of nanosized graphene homojunction with atomically-controlled boundaries. Nano Research, 2020, 13, 3286-3291.	5.8	3
97	First principles calculation of two-dimensional materials at an atomic scale. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 027301.	0.2	3
98	Novel two-dimensional transition metal chalcogenides created by epitaxial growth. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	2.0	3
99	Structures and electronic properties of functional molecules on metal substrates: From single molecule to selfâ€assemblies. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2022, 12, e1591.	6.2	3
100	Intrinsically Honeycombâ€Patterned Hydrogenated Graphene. Small, 2022, 18, e2102687.	5.2	3
101	Intrinsically patterned corrals in monolayer Ag5Se2 and selective molecular co-adsorption. Nano Research, 2022, 15, 6730-6735.	5.8	3
102	Thermal transport of monolayer amorphous carbon and boron nitride. Applied Physics Letters, 2022, 120, .	1.5	3
103	Tuning the Catalytic Activity of a Quantum Nutcracker for Hydrogen Dissociation. Surfaces, 2020, 3, 40-47.	1.0	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.	1.5	2
105	The construction and structure-property manipulation of “small-molecule machines”. Chinese Science Bulletin, 2018, 63, 1255-1264.	0.4	2
106	Formation of Single-atom-thick Copper Oxide Monolayers. Microscopy and Microanalysis, 2017, 23, 1684-1685.	0.2	1
107	Anisotropic High Carrier Mobilities of One-Third-Hydrogenated Group-V Elemental Monolayers. Journal of Physical Chemistry C, 2020, 124, 12628-12635.	1.5	1
108	Electronic structures of vacancies in Co3Sn2S2 *. Chinese Physics B, 2021, 30, 077102.	0.7	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.	0.2	1
110	Exchange of Re and Mo atoms in MoS2 driven by Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 1702-1703.	0.2	0
111	Dislocation-Driven Growth of Two-Dimensional Lateral Quantum Well Superlattices. Microscopy and Microanalysis, 2018, 24, 88-89.	0.2	0
112	Two-Dimensional Crystals: Graphene, Silicene, Germanene, and Stanene. Springer Handbooks, 2020, , 243-266.	0.3	0