

Y-L Wang

List of Publications by Year in descending order

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134
papers

10,320
citations

70961

41
h-index

32761

100
g-index

140
all docs

140
docs citations

140
times ranked

12531
citing authors

#	ARTICLE	IF	CITATIONS
1	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. <i>Nature Materials</i> , 2023, 22, 450-458.	13.3	62
2	Monolayer puckered pentagonal VTe ₂ : An emergent two-dimensional ferromagnetic semiconductor with multiferroic coupling. <i>Nano Research</i> , 2022, 15, 1486-1491.	5.8	20
3	Nanoscale Control of One-Dimensional Confined States in Strongly Correlated Homojunctions. <i>Nano Letters</i> , 2022, 22, 1190-1197.	4.5	10
4	Twisted charge-density-wave patterns in bilayer 2D crystals and modulated electronic states. <i>2D Materials</i> , 2022, 9, 014007.	2.0	11
5	Size Dependence of Charge-Density-Wave Orders in Single-Layer NbSe ₂ Hetero/Homophase Junctions. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 1901-1907.	2.1	6
6	Atomic-scale visualization of chiral charge density wave superlattices and their reversible switching. <i>Nature Communications</i> , 2022, 13, 1843.	5.8	25
7	Line defects in monolayer TiSe ₂ with adsorption of Pt atoms potentially enable excellent catalytic activity. <i>Nano Research</i> , 2022, 15, 4687-4692.	5.8	9
8	Visualization of Charge-Density-Wave Reconstruction and Electronic Superstructure at the Edge of Correlated Insulator 1T-NbSe ₂ . <i>ACS Nano</i> , 2022, 16, 1332-1338.	7.3	13
9	An efficient route to prepare suspended monolayer for feasible optical and electronic characterizations of two-dimensional materials. <i>Informa Mater</i> , 2022, 4, .	8.5	25
10	Direct evidence of two-dimensional electron gas-like band structures in hafnene. <i>Nano Research</i> , 2022, 15, 3770-3774.	5.8	0
11	Charge density wave states in phase-engineered monolayer VTe ₂ . <i>Chinese Physics B</i> , 2022, 31, 077101.	0.7	4
12	Visualization of edge-modulated charge-density-wave orders in monolayer transition-metal-dichalcogenide metal. <i>Communications Physics</i> , 2022, 5, .	2.0	9
13	Shallowing interfacial carrier trap in transition metal dichalcogenide heterostructures with interlayer hybridization. <i>Nano Research</i> , 2021, 14, 1390-1396.	5.8	9
14	Back contact modification of the optoelectronic device with transition metal dichalcogenide VSe ₂ film drives solar cell efficiency. <i>Journal of Materials</i> , 2021, 7, 470-477.	2.8	10
15	Direct identification of Mott Hubbard band pattern beyond charge density wave superlattice in monolayer 1T-NbSe ₂ . <i>Nature Communications</i> , 2021, 12, 1978.	5.8	45
16	Construction of poly-naphthalocyanine linked by [4]-radialene-like structures on silver surfaces. <i>Nano Research</i> , 2021, 14, 4563.	5.8	2
17	Raman spectra evidence for the covalent-like quasi-bonding between exfoliated MoS ₂ and Au films. <i>Science China Information Sciences</i> , 2021, 64, 1.	2.7	10
18	Tuning Molecular Superlattice by Charge-Density-Wave Patterns in Two-Dimensional Monolayer Crystals. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3545-3551.	2.1	9

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19	Experimental Evidence of Chiral Symmetry Breaking in Kekulé-Ordered Graphene. <i>Physical Review Letters</i> , 2021, 126, 206804.	2.9	72
20	Bandgap engineering of two-dimensional C ₃ N bilayers. <i>Nature Electronics</i> , 2021, 4, 486-494.	13.1	36
21	Recent progress of scanning tunneling microscopy/spectroscopy study of Majorana bound states in the FeTe _{0.55} Se _{0.45} superconductor. <i>Superconductor Science and Technology</i> , 2021, 34, 073001.	1.8	9
22	Tendency of Gap Opening in Semimetal 1Tâ€²â€²MoTe ₂ with Proximity to a 3D Topological Insulator. <i>Advanced Functional Materials</i> , 2021, 31, 2103384.	7.8	8
23	Intriguing one-dimensional electronic behavior in emerging two-dimensional materials. <i>Nano Research</i> , 2021, 14, 3810-3819.	5.8	5
24	Advances in two-dimensional heterostructures by mono-element intercalation underneath epitaxial graphene. <i>Progress in Surface Science</i> , 2021, 96, 100637.	3.8	13
25	Spectroscopic Evidence of New Low-Dimensional Planar Carbon Allotropes Based on Biphenylene via On-Surface Ullmann Coupling. <i>Chemistry</i> , 2021, 3, 1057-1062.	0.9	6
26	Topical review: recent progress of charge density waves in 2D transition metal dichalcogenide-based heterojunctions and their applications. <i>Nanotechnology</i> , 2021, 32, 492001.	1.3	30
27	A tied Fermi liquid to Luttinger liquid model for nonlinear transport in conducting polymers. <i>Nature Communications</i> , 2021, 12, 58.	5.8	15
28	Theoretical calculation and simulation of surface-modified scalable silicon heat sink for electronics cooling. <i>Thermal Science</i> , 2021, 25, 4181-4187.	0.5	0
29	Visualizing Spatial Evolution of Electron-Correlated Interface in Two-Dimensional Heterostructures. <i>ACS Nano</i> , 2021, 15, 16589-16596.	7.3	15
30	Direct Visualization of Hydrogen-Transfer Intermediate States by Scanning Tunneling Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1536-1541.	2.1	3
31	Using graphene to suppress the selenization of Pt for controllable fabrication of monolayer PtSe ₂ . <i>Nano Research</i> , 2020, 13, 3212-3216.	5.8	4
32	Recent progress in 2D group-V elemental monolayers: fabrications and properties. <i>Journal of Semiconductors</i> , 2020, 41, 081003.	2.0	11
33	Universal mechanical exfoliation of large-area 2D crystals. <i>Nature Communications</i> , 2020, 11, 2453.	5.8	394
34	Investigating molecular orbitals with submolecular precision on pristine sites and single atomic vacancies of monolayer h-BN. <i>Nano Research</i> , 2020, 13, 2233-2238.	5.8	3
35	Possible Luttinger liquid behavior of edge transport in monolayer transition metal dichalcogenide crystals. <i>Nature Communications</i> , 2020, 11, 659.	5.8	23
36	Ultrafast optical response and ablation mechanisms of molybdenum disulfide under intense femtosecond laser irradiation. <i>Light: Science and Applications</i> , 2020, 9, 80.	7.7	63

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37	Progress on 2D topological insulators and potential applications in electronic devices*. Chinese Physics B, 2020, 29, 097304.	0.7	5
38	Evidence of Topological Edge States in Buckled Antimonene Monolayers. Nano Letters, 2019, 19, 6323-6329.	4.5	61
39	Fabrication of large-scale graphene/2D-germanium heterostructure by intercalation. Chinese Physics B, 2019, 28, 078103.	0.7	6
40	Flat Boron: A New Cousin of Graphene. Advanced Materials, 2019, 31, e1900392.	11.1	82
41	Low-temperature growth of large-scale, single-crystalline graphene on Ir(111)*. Chinese Physics B, 2019, 28, 056107.	0.7	9
42	Epitaxial fabrication of two-dimensional TiTe ₂ monolayer on Au(111) substrate with Te as buffer layer. Chinese Physics B, 2019, 28, 056801.	0.7	6
43	Interaction of two symmetric monovacancy defects in graphene. Chinese Physics B, 2019, 28, 046801.	0.7	2
44	Self-Assembly Evolution of Metal-Free Naphthalocyanine Molecules on Ag(111) at the Submonolayer Coverage. Journal of Physical Chemistry C, 2019, 123, 7202-7208.	1.5	5
45	Spontaneous Formation of 1D Pattern in Monolayer VSe ₂ with Dispersive Adsorption of Pt Atoms for HER Catalysis. Nano Letters, 2019, 19, 4897-4903.	4.5	42
46	Epitaxial Growth of Flat Antimonene Monolayer: A New Honeycomb Analogue of Graphene. Nano Letters, 2018, 18, 2133-2139.	4.5	219
47	Recent progress in 2D group-VA semiconductors: from theory to experiment. Chemical Society Reviews, 2018, 47, 982-1021.	18.7	697
48	Three-component fermions with surface Fermi arcs in tungsten carbide. Nature Physics, 2018, 14, 349-354.	6.5	109
49	Epitaxially grown monolayer VSe ₂ : an air-stable magnetic two-dimensional material with low work function at edges. Science Bulletin, 2018, 63, 419-425.	4.3	92
50	A structural investigation of the interaction of oxalic acid with Cu(110). Surface Science, 2018, 668, 134-143.	0.8	8
51	Stable Silicene in Graphene/Silicene Van der Waals Heterostructures. Advanced Materials, 2018, 30, e1804650.	11.1	86
52	Construction of bilayer PdSe ₂ on epitaxial graphene. Nano Research, 2018, 11, 5858-5865.	5.8	84
53	Highly Oriented Monolayer Graphene Grown on a Cu/Ni(111) Alloy Foil. ACS Nano, 2018, 12, 6117-6127.	7.3	132
54	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

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55	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
56	Fabrication of graphene-silicon layered heterostructures by carbon penetration of silicon film. Nanotechnology, 2017, 28, 084003.	1.3	3
57	Direct Evidence of Dirac Signature in Bilayer Germanene Islands on Cu(111). Advanced Materials, 2017, 29, 1606046.	11.1	111
58	Direct observation of spin-layer locking by local Rashba effect in monolayer semiconducting PtSe ₂ film. Nature Communications, 2017, 8, 14216.	5.8	151
59	Quasi-free-standing graphene nano-islands on Ag(110), grown from solid carbon source. Applied Physics Letters, 2017, 110, .	1.5	7
60	Intrinsically patterned two-dimensional materials for selective adsorption of molecules and nanoclusters. Nature Materials, 2017, 16, 717-721.	13.3	150
61	Epitaxial Growth and Stability of Monolayer Antimonene on PdTe ₂ . Advanced Materials, 2017, 29, 1605407.	11.1	313
62	Thermo-controllable self-assembled structures of single-layer 4,4'-diamino-p-terphenyl molecules on Au (110). Chinese Physics B, 2017, 26, 086801.	0.7	5
63	Epitaxial fabrication of two-dimensional NiSe ₂ on Ni(111) substrate. Applied Physics Letters, 2017, 111, .	1.5	29
64	Lattice-Directed Construction of Metal-Organic Molecular Wires of Pentacene on the Au(110) Surface. Journal of Physical Chemistry C, 2017, 121, 21650-21657.	1.5	14
65	Intercalation and its mechanism of high quality large area graphene on metal substrate. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 216803.	0.2	4
66	Spontaneous Formation of a Superconductor-Topological Insulator-Normal Metal Layered Heterostructure. Advanced Materials, 2016, 28, 5013-5017.	11.1	24
67	Unveiling carbon dimers and their chains as precursor of graphene growth on Ru(0001). Applied Physics Letters, 2016, 109, 131604.	1.5	4
68	Impurity-induced formation of bilayered graphene on copper by chemical vapor deposition. Nano Research, 2016, 9, 2803-2810.	5.8	26
69	Tunable Electronic Structures in Wrinkled 2D Transition-Metal-Trichalcogenide (TMT) HfTe ₃ Films. Advanced Electronic Materials, 2016, 2, 1600324.	2.6	9
70	Copper vapor-assisted growth of hexagonal graphene domains on silica islands. Applied Physics Letters, 2016, 109, .	1.5	5
71	Graphene-Silicon Layered Structures on Single-Crystalline Ir(111) Thin Films. Advanced Materials Interfaces, 2015, 2, 1400543.	1.9	12
72	Monolayer PtSe ₂ , a New Semiconducting Transition-Metal-Dichalcogenide, Epitaxially Grown by Direct Selenization of Pt. Nano Letters, 2015, 15, 4013-4018.	4.5	560

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73	Self-Assembled Patterns and Young's Modulus of Single-Layer Naphthalocyanine Molecules on Ag(111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 8208-8212.	1.5	18
74	Adsorption behavior of Fe atoms on a naphthalocyanine monolayer on Ag(111) surface. <i>Chinese Physics B</i> , 2015, 24, 076802.	0.7	6
75	Recent Advances in Two-Dimensional Materials beyond Graphene. <i>ACS Nano</i> , 2015, 9, 11509-11539.	7.3	2,069
76	Fabrication and properties of silicene and silicene-graphene layered structures on Ir (111). <i>Chinese Physics B</i> , 2015, 24, 086803.	0.7	14
77	Characterizing silicon intercalated graphene grown epitaxially on Ir films by atomic force microscopy. <i>Chinese Physics B</i> , 2015, 24, 078104.	0.7	2
78	A novel two-dimensional MgB ₆ crystal: metal-layer stabilized boron kagome lattice. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 1093-1098.	1.3	38
79	High quality sub-monolayer, monolayer, and bilayer graphene on Ru(0001). <i>Chinese Physics B</i> , 2014, 23, 098101.	0.7	8
80	Effects of graphene defects on Co cluster nucleation and intercalation. <i>Chinese Physics B</i> , 2014, 23, 088108.	0.7	3
81	First-principles calculations of a robust two-dimensional boron honeycomb sandwiching a triangular molybdenum layer. <i>Physical Review B</i> , 2014, 90, .	1.1	70
82	Construction of 2D Atomic Crystals on Transition Metal Surfaces: Graphene, Silicene, and Hafnene. <i>Small</i> , 2014, 10, 2215-2225.	5.2	91
83	Growth Mechanism of Metal Clusters on a Graphene/Ru(0001) Template. <i>Advanced Materials Interfaces</i> , 2014, 1, 1300104.	1.9	24
84	High-resolution scanning tunneling microscopy imaging of Si(1 \times 1)-7 \times 7 structure and intrinsic molecular states. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 394001.	0.7	6
85	Thermally Controlled Adenine Dimer Chain Rotation on Cu(110): The Critical Role of van der Waals Interactions. <i>Journal of Physical Chemistry C</i> , 2014, 118, 6278-6282.	1.5	7
86	Buckled Germanene Formation on Pt(111). <i>Advanced Materials</i> , 2014, 26, 4820-4824.	11.1	770
87	Buckled Silicene Formation on Ir(111). <i>Nano Letters</i> , 2013, 13, 685-690.	4.5	1,074
88	Two-Dimensional Transition Metal Honeycomb Realized: Hf on Ir(111). <i>Nano Letters</i> , 2013, 13, 4671-4674.	4.5	102
89	Intercalation of metals and silicon at the interface of epitaxial graphene and its substrates. <i>Chinese Physics B</i> , 2013, 22, 096803.	0.7	12
90	Programming Hierarchical Supramolecular Nanostructures by Molecular Design. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3440-3445.	1.5	20

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91	Hafnium intercalation between epitaxial graphene and Ir(111) substrate. Applied Physics Letters, 2013, 102, .	1.5	23
92	Template-directed assembly of pentacene molecules on epitaxial graphene on Ru(0001). Nano Research, 2013, 6, 131-137.	5.8	31
93	Reversible Single Spin Control of Individual Magnetic Molecule by Hydrogen Atom Adsorption. Scientific Reports, 2013, 3, 1210.	1.6	115
94	Growth of Centimeter-scale, Highly-ordered, and Continuous Graphene on Si-Layer/Metal Surfaces. , 2013, , .		0
95	Silicon intercalation at the interface of graphene and Ir(111). Applied Physics Letters, 2012, 100, .	1.5	67
96	Self-assembly of C60 monolayer on epitaxially grown, nanostructured graphene on Ru(0001) surface. Applied Physics Letters, 2012, 100, .	1.5	42
97	Multi-oriented moiré superstructures of graphene on Ir(111): experimental observations and theoretical models. Journal of Physics Condensed Matter, 2012, 24, 314214.	0.7	60
98	The influence of annealing temperature on the morphology of graphene islands. Chinese Physics B, 2012, 21, 088102.	0.7	13
99	Modifying the STM Tip for the ' Ultimate ' Imaging of the Si(111)-7 \times 7 Surface and Metal-supported Molecules. Chimia, 2012, 66, 31.	0.3	4
100	Varying molecular interactions by coverage in supramolecular surface chemistry. Chemical Communications, 2012, 48, 534-536.	2.2	34
101	Tuning Structural and Mechanical Properties of Two-Dimensional Molecular Crystals: The Roles of Carbon Side Chains. Nano Letters, 2012, 12, 1229-1234.	4.5	27
102	Shape evolution of patterned amorphous and polycrystalline silicon microarray thin film electrodes caused by lithium insertion and extraction. Journal of Power Sources, 2012, 216, 131-138.	4.0	117
103	Silicon layer intercalation of centimeter-scale, epitaxially grown monolayer graphene on Ru(0001). Applied Physics Letters, 2012, 100, .	1.5	101
104	Direct imaging of intrinsic molecular orbitals using two-dimensional, epitaxially-grown, nanostructured graphene for study of single molecule and interactions. Applied Physics Letters, 2011, 99, .	1.5	63
105	Intercalation of metal islands and films at the interface of epitaxially grown graphene and Ru(0001) surfaces. Applied Physics Letters, 2011, 99, .	1.5	83
106	Molecular Rotors Observed by Scanning Tunneling Microscopy. , 2011, , 287-316.		0
107	Understanding formation of molecular rotor array on Au(111) surface. Frontiers of Physics in China, 2010, 5, 380-386.	1.0	3
108	Direct Observation of Enantiospecific Substitution in a Two-Dimensional Chiral Phase Transition. Journal of the American Chemical Society, 2010, 132, 10440-10444.	6.6	40

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109	Tertiary Chiral Domains Assembled by Achiral Metal-Organic Complexes on Cu(110). <i>Journal of Physical Chemistry C</i> , 2010, 114, 13020-13025.	1.5	26
110	Homochiral Recognition among Organic Molecules on Copper(110). <i>Langmuir</i> , 2010, 26, 3402-3406.	1.6	21
111	Polymorphism and chiral expression in two-dimensional subphthalocyanine crystals on Au(111). <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 1318-1322.	1.3	40
112	Influence of Deoxyribose Group on Self-Assembly of Thymidine on Au(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 17590-17594.	1.5	10
113	Scanning Tunneling Microscopy of the Si(111)- $\sqrt{7}\times\sqrt{7}$ Surface and Adsorbed Ge Nanostructures. <i>Nanoscience and Technology</i> , 2009, , 183-220.	1.5	1
114	Metal-Organic Coordination Interactions in Fe-Terephthalic Acid Networks on Cu(100). <i>Journal of the American Chemical Society</i> , 2008, 130, 2108-2113.	6.6	147
115	Ultrathin Ruthenium(II) Complexed $\text{H}_{4}\text{SiW}_{12}\text{O}_{40}$ Multilayer Film. <i>Journal of Nanoscience and Nanotechnology</i> , 2008, 8, 1248-1253.	0.9	4
116	Toward a Detailed Understanding of Si(111)- $\sqrt{7}\times\sqrt{7}$ Surface and Adsorbed Ge Nanostructures: Fabrications, Structures, and Calculations. <i>Journal of Nanomaterials</i> , 2008, 2008, 1-18.	1.5	9
117	Weak-coupling Bardeen-Cooper-Schrieffer superconductivity in the electron-doped cuprate superconductors. <i>Physical Review B</i> , 2008, 77, .	1.1	31
118	Distinction between the normal-state gap and superconducting gap of electron-doped cuprates. <i>Physical Review B</i> , 2008, 78, .	1.1	8
119	Hydrogen and Coordination Bonding Supramolecular Structures of Trimesic Acid on Cu(110). <i>Journal of Physical Chemistry A</i> , 2007, 111, 12589-12603.	1.1	118
120	Ordering of Dipeptide Chains on Cu Surfaces through 2D Cocrystallization. <i>Journal of the American Chemical Society</i> , 2007, 129, 15742-15743.	6.6	62
121	Bonding Configurations and Collective Patterns of Ge Atoms Adsorbed on Si(111)- $\sqrt{7}\times\sqrt{7}$. <i>Physical Review Letters</i> , 2005, 94, 106101.	2.9	40
122	Exploring the synthesis of infinite helical chains with 2-carboxycinnamic acid. <i>CrystEngComm</i> , 2005, 7, 569.	1.3	23
123	Surface Recognition of the Space Group and Chiral Array on DL-valine Crystalline Structure Observed by AFM. <i>Wuli Huaxue Xuebao/ Acta Physico-Chimica Sinica</i> , 2005, 21, 867-872.	2.2	3
124	Nanometre moire fringes in scanning tunnelling microscopy of surface lattices. <i>Nanotechnology</i> , 2004, 15, 991-995.	1.3	9
125	Structural evolution of pentacene on a Ag(110) surface. <i>Physical Review B</i> , 2004, 69, .	1.1	81
126	Structure Determination of Surface Magic Clusters. <i>Physical Review Letters</i> , 2004, 92, 066103.	2.9	56

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127	Tip size effect on the appearance of a STM image for complex surfaces: Theory versus experiment for Si(111)- $\sqrt{7}\times\sqrt{7}$. <i>Physical Review B</i> , 2004, 70, .	1.1	49
128	Surface structures of dl-valine and l-alanine crystals observed by atomic force microscopy at a molecular resolution. <i>Surface Science</i> , 2004, 552, 70-76.	0.8	12
129	Formation of Ge nanoclusters on Si(111)- $\sqrt{7}\times\sqrt{7}$ surface at high temperature. <i>Surface Science</i> , 2004, 561, 227-232.	0.8	13
130	Self-assembled stripes on the anodic aluminum oxide by atomic force microscope observation. <i>Applied Surface Science</i> , 2003, 219, 282-289.	3.1	10
131	Patterns formed on the dimer vacancy array of Si(100) by self-assembly. <i>Nanotechnology</i> , 2002, 13, 729-732.	1.3	6
132	Self-organized two-dimensional lattice of magic clusters. <i>Physical Review B</i> , 2001, 64, .	1.1	122
133	Graphene on Crystalline Metal Surfaces. , 0, , 691-736.		0
134	Moiré Pattern Dislocation in Continuous Atomic Lattice of Monolayer h-BN. <i>ACS Applied Electronic Materials</i> , 0, , .	2.0	1