

Y-L Wang

List of Publications by Year in descending order

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134
papers

10,320
citations

71061

41
h-index

32815

100
g-index

140
all docs

140
docs citations

140
times ranked

12531
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539.	7.3	2,069
2	Buckled Silicene Formation on Ir(111). Nano Letters, 2013, 13, 685-690.	4.5	1,074
3	Buckled Germanene Formation on Pt(111). Advanced Materials, 2014, 26, 4820-4824.	11.1	770
4	Recent progress in 2D group-VA semiconductors: from theory to experiment. Chemical Society Reviews, 2018, 47, 982-1021.	18.7	697
5	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
6	Universal mechanical exfoliation of large-area 2D crystals. Nature Communications, 2020, 11, 2453.	5.8	394
7	Epitaxial Growth and Air€Stability of Monolayer Antimonene on PdTe ₂ . Advanced Materials, 2017, 29, 1605407.	11.1	313
8	Epitaxial Growth of Flat Antimonene Monolayer: A New Honeycomb Analogue of Graphene. Nano Letters, 2018, 18, 2133-2139.	4.5	219
9	Direct observation of spin-layer locking by local Rashba effect in monolayer semiconducting PtSe ₂ film. Nature Communications, 2017, 8, 14216.	5.8	151
10	Intrinsically patterned two-dimensional materials for selective adsorption of molecules and nanoclusters. Nature Materials, 2017, 16, 717-721.	13.3	150
11	Metal-Organic Coordination Interactions in Fe-Terephthalic Acid Networks on Cu(100). Journal of the American Chemical Society, 2008, 130, 2108-2113.	6.6	147
12	Highly Oriented Monolayer Graphene Grown on a Cu/Ni(111) Alloy Foil. ACS Nano, 2018, 12, 6117-6127.	7.3	132
13	Self-organized two-dimensional lattice of magic clusters. Physical Review B, 2001, 64, .	1.1	122
14	Hydrogen and Coordination Bonding Supramolecular Structures of Trimesic Acid on Cu(110). Journal of Physical Chemistry A, 2007, 111, 12589-12603.	1.1	118
15	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
16	Reversible Single Spin Control of Individual Magnetic Molecule by Hydrogen Atom Adsorption. Scientific Reports, 2013, 3, 1210.	1.6	115
17	Direct Evidence of Dirac Signature in Bilayer Germanene Islands on Cu(111). Advanced Materials, 2017, 29, 1606046.	11.1	111
18	Three-component fermions with surface Fermi arcs in tungsten carbide. Nature Physics, 2018, 14, 349-354.	6.5	109

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19	Two-Dimensional Transition Metal Honeycomb Realized: Hf on Ir(111). Nano Letters, 2013, 13, 4671-4674.	4.5	102
20	Silicon layer intercalation of centimeter-scale, epitaxially grown monolayer graphene on Ru(0001). Applied Physics Letters, 2012, 100, .	1.5	101
21	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
22	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
23	Construction of 2D Atomic Crystals on Transition Metal Surfaces: Graphene, Silicene, and Hafnene. Small, 2014, 10, 2215-2225.	5.2	91
24	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
25	Stable Silicene in Graphene/Silicene Van der Waals Heterostructures. Advanced Materials, 2018, 30, e1804650.	11.1	86
26	Construction of bilayer PdSe ₂ on epitaxial graphene. Nano Research, 2018, 11, 5858-5865.	5.8	84
27	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
28	Flat Boron: A New Cousin of Graphene. Advanced Materials, 2019, 31, e1900392.	11.1	82
29	Structural evolution of pentacene on a Ag(110) surface. Physical Review B, 2004, 69, .	1.1	81
30	Experimental Evidence of Chiral Symmetry Breaking in Kekulé-Ordered Graphene. Physical Review Letters, 2021, 126, 206804.	2.9	72
31	First-principles calculations of a robust two-dimensional boron honeycomb sandwiching a triangular molybdenum layer. Physical Review B, 2014, 90, .	1.1	70
32	Silicon intercalation at the interface of graphene and Ir(111). Applied Physics Letters, 2012, 100, .	1.5	67
33	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
34	Ultrafast optical response and ablation mechanisms of molybdenum disulfide under intense femtosecond laser irradiation. Light: Science and Applications, 2020, 9, 80.	7.7	63
35	Ordering of Dipeptide Chains on Cu Surfaces through 2D Cocrystallization. Journal of the American Chemical Society, 2007, 129, 15742-15743.	6.6	62
36	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. Nature Materials, 2023, 22, 450-458.	13.3	62

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37	Evidence of Topological Edge States in Buckled Antimonene Monolayers. <i>Nano Letters</i> , 2019, 19, 6323-6329.	4.5	61
38	Multi-oriented moiré superstructures of graphene on Ir(111): experimental observations and theoretical models. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 314214.	0.7	60
39	Structure Determination of Surface Magic Clusters. <i>Physical Review Letters</i> , 2004, 92, 066103.	2.9	56
40	Tip size effect on the appearance of a STM image for complex surfaces: Theory versus experiment for Si(111)-(7 \times 7). <i>Physical Review B</i> , 2004, 70, .	1.1	49
41	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
42	Self-assembly of C ₆₀ monolayer on epitaxially grown, nanostructured graphene on Ru(0001) surface. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	42
43	Spontaneous Formation of 1D Pattern in Monolayer VSe ₂ with Dispersive Adsorption of Pt Atoms for HER Catalysis. <i>Nano Letters</i> , 2019, 19, 4897-4903.	4.5	42
44	Bonding Configurations and Collective Patterns of Ge Atoms Adsorbed on Si(111)-(7 \times 7). <i>Physical Review Letters</i> , 2005, 94, 106101.	2.9	40
45	Direct Observation of Enantiospecific Substitution in a Two-Dimensional Chiral Phase Transition. <i>Journal of the American Chemical Society</i> , 2010, 132, 10440-10444.	6.6	40
46	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
47	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
48	Bandgap engineering of two-dimensional C ₃ N bilayers. <i>Nature Electronics</i> , 2021, 4, 486-494.	13.1	36
49	Varying molecular interactions by coverage in supramolecular surface chemistry. <i>Chemical Communications</i> , 2012, 48, 534-536.	2.2	34
50	Weak-coupling Bardeen-Cooper-Schrieffer superconductivity in the electron-doped cuprate superconductors. <i>Physical Review B</i> , 2008, 77, .	1.1	31
51	Template-directed assembly of pentacene molecules on epitaxial graphene on Ru(0001). <i>Nano Research</i> , 2013, 6, 131-137.	5.8	31
52	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
53	Epitaxial fabrication of two-dimensional NiSe ₂ on Ni(111) substrate. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	29
54	Tuning Structural and Mechanical Properties of Two-Dimensional Molecular Crystals: The Roles of Carbon Side Chains. <i>Nano Letters</i> , 2012, 12, 1229-1234.	4.5	27

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55	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
56	Impurity-induced formation of bilayered graphene on copper by chemical vapor deposition. <i>Nano Research</i> , 2016, 9, 2803-2810.	5.8	26
57	Atomic-scale visualization of chiral charge density wave superlattices and their reversible switching. <i>Nature Communications</i> , 2022, 13, 1843.	5.8	25
58	An efficient route to prepare suspended monolayer for feasible optical and electronic characterizations of two-dimensional materials. <i>Informa-Materially</i> , 2022, 4, .	8.5	25
59	Growth Mechanism of Metal Clusters on a Graphene/Ru(0001) Template. <i>Advanced Materials Interfaces</i> , 2014, 1, 1300104.	1.9	24
60	Spontaneous Formation of a Superconductor-Topological Insulator-Normal Metal Layered Heterostructure. <i>Advanced Materials</i> , 2016, 28, 5013-5017.	11.1	24
61	Exploring the synthesis of infinite helical chains with 2-carboxycinnamic acid. <i>CrystEngComm</i> , 2005, 7, 569.	1.3	23
62	Hafnium intercalation between epitaxial graphene and Ir(111) substrate. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	23
63	Possible Luttinger liquid behavior of edge transport in monolayer transition metal dichalcogenide crystals. <i>Nature Communications</i> , 2020, 11, 659.	5.8	23
64	Homochiral Recognition among Organic Molecules on Copper(110). <i>Langmuir</i> , 2010, 26, 3402-3406.	1.6	21
65	Programming Hierarchical Supramolecular Nanostructures by Molecular Design. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3440-3445.	1.5	20
66	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
67	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
68	A tied Fermi liquid to Luttinger liquid model for nonlinear transport in conducting polymers. <i>Nature Communications</i> , 2021, 12, 58.	5.8	15
69	Visualizing Spatial Evolution of Electron-Correlated Interface in Two-Dimensional Heterostructures. <i>ACS Nano</i> , 2021, 15, 16589-16596.	7.3	15
70	Fabrication and properties of silicene and silicene-graphene layered structures on Ir (111). <i>Chinese Physics B</i> , 2015, 24, 086803.	0.7	14
71	Lattice-Directed Construction of Metal-Organic Molecular Wires of Pentacene on the Au(110) Surface. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21650-21657.	1.5	14
72	Formation of Ge nanoclusters on Si(111)-7 \times 7 surface at high temperature. <i>Surface Science</i> , 2004, 561, 227-232.	0.8	13

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73	The influence of annealing temperature on the morphology of graphene islands. Chinese Physics B, 2012, 21, 088102.	0.7	13
74	Advances in two-dimensional heterostructures by mono-element intercalation underneath epitaxial graphene. Progress in Surface Science, 2021, 96, 100637.	3.8	13
75	Visualization of Charge-Density-Wave Reconstruction and Electronic Superstructure at the Edge of Correlated Insulator $1T\text{-NbSe}_2$. ACS Nano, 2022, 16, 1332-1338.	7.3	13
76	Surface structures of dl-valine and l-alanine crystals observed by atomic force microscopy at a molecular resolution. Surface Science, 2004, 552, 70-76.	0.8	12
77	Intercalation of metals and silicon at the interface of epitaxial graphene and its substrates. Chinese Physics B, 2013, 22, 096803.	0.7	12
78	Graphene-Silicon Layered Structures on Single-Crystalline Ir(111) Thin Films. Advanced Materials Interfaces, 2015, 2, 1400543.	1.9	12
79	Recent progress in 2D group-V elemental monolayers: fabrications and properties. Journal of Semiconductors, 2020, 41, 081003.	2.0	11
80	Twisted charge-density-wave patterns in bilayer 2D crystals and modulated electronic states. 2D Materials, 2022, 9, 014007.	2.0	11
81	Self-assembled stripes on the anodic aluminum oxide by atomic force microscope observation. Applied Surface Science, 2003, 219, 282-289.	3.1	10
82	Influence of Deoxyribose Group on Self-Assembly of Thymidine on Au(111). Journal of Physical Chemistry C, 2009, 113, 17590-17594.	1.5	10
83	Back contact modification of the optoelectronic device with transition metal dichalcogenide VSe_2 film drives solar cell efficiency. Journal of Materiomics, 2021, 7, 470-477.	2.8	10
84	Raman spectra evidence for the covalent-like quasi-bonding between exfoliated MoS_2 and Au films. Science China Information Sciences, 2021, 64, 1.	2.7	10
85	Nanoscale Control of One-Dimensional Confined States in Strongly Correlated Homojunctions. Nano Letters, 2022, 22, 1190-1197.	4.5	10
86	Nanometre moire fringes in scanning tunnelling microscopy of surface lattices. Nanotechnology, 2004, 15, 991-995.	1.3	9
87	Toward a Detailed Understanding of $Si(111)\text{-}7\times 7$ Surface and Adsorbed Ge Nanostructures: Fabrications, Structures, and Calculations. Journal of Nanomaterials, 2008, 2008, 1-18.	1.5	9
88	Tunable Electronic Structures in Wrinkled 2D Transition-Metal Trichalcogenide (TMT) $HfTe_3$ Films. Advanced Electronic Materials, 2016, 2, 1600324.	2.6	9
89	Low-temperature growth of large-scale, single-crystalline graphene on Ir(111)*. Chinese Physics B, 2019, 28, 056107.	0.7	9
90	Shallowing interfacial carrier trap in transition metal dichalcogenide heterostructures with interlayer hybridization. Nano Research, 2021, 14, 1390-1396.	5.8	9

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91	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
92	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
93	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
94	Visualization of edge-modulated charge-density-wave orders in monolayer transition-metal-dichalcogenide metal. <i>Communications Physics</i> , 2022, 5, .	2.0	9
95	Distinction between the normal-state gap and superconducting gap of electron-doped cuprates. <i>Physical Review B</i> , 2008, 78, .	1.1	8
96	High quality sub-monolayer, monolayer, and bilayer graphene on Ru(0001). <i>Chinese Physics B</i> , 2014, 23, 098101.	0.7	8
97	A structural investigation of the interaction of oxalic acid with Cu(110). <i>Surface Science</i> , 2018, 668, 134-143.	0.8	8
98	Tendency of Gap Opening in Semimetal 1Tâ€²â€³MoTe ₂ with Proximity to a 3D Topological Insulator. <i>Advanced Functional Materials</i> , 2021, 31, 2103384.	7.8	8
99	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
100	Quasi-free-standing graphene nano-islands on Ag(110), grown from solid carbon source. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	7
101	Patterns formed on the dimer vacancy array of Si(100) by self-assembly. <i>Nanotechnology</i> , 2002, 13, 729-732.	1.3	6
102	High-resolution scanning tunneling microscopy imaging of Si(1â€³1)-7â€³7 structure and intrinsic molecular states. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 394001.	0.7	6
103	Adsorption behavior of Fe atoms on a naphthalocyanine monolayer on Ag(111) surface. <i>Chinese Physics B</i> , 2015, 24, 076802.	0.7	6
104	Fabrication of large-scale graphene/2D-germanium heterostructure by intercalation. <i>Chinese Physics B</i> , 2019, 28, 078103.	0.7	6
105	Epitaxial fabrication of two-dimensional TiTe ₂ monolayer on Au(111) substrate with Te as buffer layer. <i>Chinese Physics B</i> , 2019, 28, 056801.	0.7	6
106	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
107	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
108	Copper vapor-assisted growth of hexagonal graphene domains on silica islands. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	5

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109	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
110	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
111	Intriguing one-dimensional electronic behavior in emerging two-dimensional materials. Nano Research, 2021, 14, 3810-3819.	5.8	5
112	Progress on 2D topological insulators and potential applications in electronic devices*. Chinese Physics B, 2020, 29, 097304.	0.7	5
113	Ultrathin Ruthenium(II) Complexâ€“H ₄ SiW ₁₂ O ₄₀ Multilayer Film. Journal of Nanoscience and Nanotechnology, 2008, 8, 1248-1253.	0.9	4
114	Modifying the STM Tip for the ' Ultimate ' Imaging of the Si(111)-7Å-7 Surface and Metal-supported Molecules. Chimia, 2012, 66, 31.	0.3	4
115	Unveiling carbon dimers and their chains as precursor of graphene growth on Ru(0001). Applied Physics Letters, 2016, 109, 131604.	1.5	4
116	Using graphene to suppress the selenization of Pt for controllable fabrication of monolayer PtSe ₂ . Nano Research, 2020, 13, 3212-3216.	5.8	4
117	Intercalation and its mechanism of high quality large area graphene on metal substrate. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 216803.	0.2	4
118	Charge density wave states in phase-engineered monolayer VTe ₂ . Chinese Physics B, 2022, 31, 077101.	0.7	4
119	Understanding formation of molecular rotor array on Au(111) surface. Frontiers of Physics in China, 2010, 5, 380-386.	1.0	3
120	Effects of graphene defects on Co cluster nucleation and intercalation. Chinese Physics B, 2014, 23, 088108.	0.7	3
121	Fabrication of grapheneâ€“silicon layered heterostructures by carbon penetration of silicon film. Nanotechnology, 2017, 28, 084003.	1.3	3
122	Direct Visualization of Hydrogen-Transfer Intermediate States by Scanning Tunneling Microscopy. Journal of Physical Chemistry Letters, 2020, 11, 1536-1541.	2.1	3
123	Investigating molecular orbitals with submolecular precision on pristine sites and single atomic vacancies of monolayer h-BN. Nano Research, 2020, 13, 2233-2238.	5.8	3
124	Surface Recognition of the Space Group and Chiral Array on DL-valine Crystalline Structure Observed by AFM. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2005, 21, 867-872.	2.2	3
125	Characterizing silicon intercalated graphene grown epitaxially on Ir films by atomic force microscopy. Chinese Physics B, 2015, 24, 078104.	0.7	2
126	Interaction of two symmetric monovacancy defects in graphene. Chinese Physics B, 2019, 28, 046801.	0.7	2

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127	Construction of poly-naphthalocyanine linked by [4]-radialene-like structures on silver surfaces. Nano Research, 2021, 14, 4563.	5.8	2
128	Scanning Tunneling Microscopy of the Si(111)-7 \times 7 Surface and Adsorbed Ge Nanostructures. Nanoscience and Technology, 2009, , 183-220.	1.5	1
129	Moir \AA Pattern Dislocation in Continuous Atomic Lattice of Monolayer h-BN. ACS Applied Electronic Materials, 0, , .	2.0	1
130	Graphene on Crystalline Metal Surfaces. , 0, , 691-736.		0
131	Theoretical calculation and simulation of surface-modified scalable silicon heat sink for electronics cooling. Thermal Science, 2021, 25, 4181-4187.	0.5	0
132	Molecular Rotors Observed by Scanning Tunneling Microscopy. , 2011, , 287-316.		0
133	Growth of Centimeter-scale, Highly-ordered, and Continuous Graphene on Si-Layer/Metal Surfaces. , 2013, , .		0
134	Direct evidence of two-dimensional electron gas-like band structures in hafnene. Nano Research, 2022, 15, 3770-3774.	5.8	0