

Junhao Lin

List of Publications by Year in descending order

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104
papers

11,895
citations

46918

47
h-index

33814

99
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108
all docs

108
docs citations

108
times ranked

15970
citing authors

#	ARTICLE	IF	CITATIONS
1	Vertical and in-plane heterostructures from WS ₂ /MoS ₂ monolayers. Nature Materials, 2014, 13, 1135-1142.	13.3	1,918
2	A library of atomically thin metal chalcogenides. Nature, 2018, 556, 355-359.	13.7	1,225
3	Defects Engineered Monolayer MoS ₂ for Improved Hydrogen Evolution Reaction. Nano Letters, 2016, 16, 1097-1103.	4.5	1,015
4	Room-temperature ferroelectricity in CuInP ₂ S ₆ ultrathin flakes. Nature Communications, 2016, 7, 12357.	5.8	637
5	Band Gap Engineering and Layer-by-Layer Mapping of Selenium-Doped Molybdenum Disulfide. Nano Letters, 2014, 14, 442-449.	4.5	463
6	Large-Area Synthesis of Monolayer and Few-Layer MoSe ₂ Films on SiO ₂ Substrates. Nano Letters, 2014, 14, 2419-2425.	4.5	376
7	Atomically thin noble metal dichalcogenide: a broadband mid-infrared semiconductor. Nature Communications, 2018, 9, 1545.	5.8	367
8	Probing excitonic states in suspended two-dimensional semiconductors by photocurrent spectroscopy. Scientific Reports, 2014, 4, 6608.	1.6	351
9	Fast kinetics of magnesium monochloride cations in interlayer-expanded titanium disulfide for magnesium rechargeable batteries. Nature Communications, 2017, 8, 339.	5.8	304
10	High-quality monolayer superconductor NbSe ₂ grown by chemical vapour deposition. Nature Communications, 2017, 8, 394.	5.8	290
11	MoS ₂ /TiO ₂ Edge-on Heterostructure for Efficient Photocatalytic Hydrogen Evolution. Advanced Energy Materials, 2016, 6, 1600464.	10.2	264
12	Synthesis and properties of free-standing monolayer amorphous carbon. Nature, 2020, 577, 199-203.	13.7	250
13	Two-dimensional GaSe/MoSe ₂ misfit bilayer heterojunctions by van der Waals epitaxy. Science Advances, 2016, 2, e1501882.	4.7	239
14	Flexible metallic nanowires with self-adaptive contacts to semiconducting transition-metal dichalcogenide monolayers. Nature Nanotechnology, 2014, 9, 436-442.	15.6	228
15	Large Area and High Quality 2D Transition Metal Telluride. Advanced Materials, 2017, 29, 1603471.	11.1	181
16	Vacancy-Induced Formation and Growth of Inversion Domains in Transition-Metal Dichalcogenide Monolayer. ACS Nano, 2015, 9, 5189-5197.	7.3	167
17	Synthesis of Millimeter Scale Transition Metal Dichalcogenides Single Crystals. Advanced Functional Materials, 2016, 26, 2009-2015.	7.8	152
18	AC/AB Stacking Boundaries in Bilayer Graphene. Nano Letters, 2013, 13, 3262-3268.	4.5	137

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19	Metal–Semiconductor Phase Transition in $\text{WSe}_2(1\text{--}x)\text{Te}_2x$ Monolayer. <i>Advanced Materials</i> , 2017, 29, 1603991.	11.1	123
20	Enhanced performance of in-plane transition metal dichalcogenides monolayers by configuring local atomic structures. <i>Nature Communications</i> , 2020, 11, 2253. http://www.w3.org/1998/Math/MathML	5.8	112
21	Novel Two-Dimensional Phase Driven by Interlayer Fusion in Layered PdSe_2 . <i>Physical Review Letters</i> , 2017, 119, 016101.	2.9	111
22	Auto-optimizing Hydrogen Evolution Catalytic Activity of ReS_2 through Intrinsic Charge Engineering. <i>ACS Nano</i> , 2018, 12, 4486-4493.	7.3	111
23	Controllable Synthesis of Atomically Thin Type-II Weyl Semimetal WTe_2 Nanosheets: An Advanced Electrode Material for All-Solid-State Flexible Supercapacitors. <i>Advanced Materials</i> , 2017, 29, 1701909.	11.1	107
24	Unsaturated Single Atoms on Monolayer Transition Metal Dichalcogenides for Ultrafast Hydrogen Evolution. <i>ACS Nano</i> , 2020, 14, 767-776.	7.3	106
25	Efficient carrier multiplication in CsPbI_3 perovskite nanocrystals. <i>Nature Communications</i> , 2018, 9, 4199.	5.8	101
26	Rapid and Nondestructive Identification of Polytypism and Stacking Sequences in Few-Layer Molybdenum Diselenide by Raman Spectroscopy. <i>Advanced Materials</i> , 2015, 27, 4502-4508.	11.1	96
27	InSe monolayer: synthesis, structure and ultra-high second-harmonic generation. <i>2D Materials</i> , 2018, 5, 025019.	2.0	92
28	Synthesis of Co -Doped MoS_2 Monolayers with Enhanced Valley Splitting. <i>Advanced Materials</i> , 2020, 32, e1906536.	11.1	84
29	Realization of BaZrS_3 chalcogenide perovskite thin films for optoelectronics. <i>Nano Energy</i> , 2020, 68, 104317.	8.2	83
30	Direct Observation of Band Structure Modifications in Nanocrystals of CsPbBr_3 Perovskite. <i>Nano Letters</i> , 2016, 16, 7198-7202.	4.5	82
31	Transport evidence of asymmetric spin-orbit coupling in few-layer superconducting 1Td-MoTe_2 . <i>Nature Communications</i> , 2019, 10, 2044.	5.8	79
32	Controlled Synthesis of Atomically Thin 1T-TaS_2 for Tunable Charge Density Wave Phase Transitions. <i>Chemistry of Materials</i> , 2016, 28, 7613-7618.	3.2	75
33	Gas transport in porous electrodes of solid oxide fuel cells: A review on diffusion and diffusivity measurement. <i>Journal of Power Sources</i> , 2013, 237, 64-73.	4.0	73
34	Epitaxial Synthesis of Monolayer PtSe_2 Single Crystal on MoSe_2 with Strong Interlayer Coupling. <i>ACS Nano</i> , 2019, 13, 10929-10938.	7.3	72
35	Hybridization of Single Nanocrystals of Cs_4PbBr_6 and CsPbBr_3 . <i>Journal of Physical Chemistry C</i> , 2017, 121, 19490-19496.	1.5	68
36	Chemical Growth of 1T-TaS_2 Monolayer and Thin Films: Robust Charge Density Wave Transitions and High Bolometric Responsivity. <i>Advanced Materials</i> , 2018, 30, e1800074.	11.1	68

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37	Phase engineering of Cr ₅ Te ₈ with colossal anomalous Hall effect. <i>Nature Electronics</i> , 2022, 5, 224-232.	13.1	68
38	Chemical vapor deposition of trigonal prismatic NbS ₂ monolayers and 3R-polytype few-layers. <i>Nanoscale</i> , 2017, 9, 16607-16611.	2.8	67
39	Morphology Engineering in Monolayer MoS ₂ WS ₂ Lateral Heterostructures. <i>Advanced Functional Materials</i> , 2018, 28, 1801568.	7.8	67
40	Enhanced Piezoelectric Effect Derived from Grain Boundary in MoS ₂ Monolayers. <i>Nano Letters</i> , 2020, 20, 201-207.	4.5	66
41	Spin mapping of intralayer antiferromagnetism and field-induced spin reorientation in monolayer CrTe ₂ . <i>Nature Communications</i> , 2022, 13, 257.	5.8	62
42	Modelling and simulation of electron-rich effect on Li diffusion in group IVA elements (Si, Ge and Sn) for Li ion batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13976-13982.	5.2	55
43	Proton and Li-Ion Permeation through Graphene with Eight-Atom-Ring Defects. <i>ACS Nano</i> , 2020, 14, 7280-7286.	7.3	55
44	Modulating Electronic Structure of Monolayer Transition Metal Dichalcogenides by Substitutional Nb-Doping. <i>Advanced Functional Materials</i> , 2021, 31, 2006941.	7.8	54
45	Structural Flexibility and Alloying in Ultrathin Transition-Metal Chalcogenide Nanowires. <i>ACS Nano</i> , 2016, 10, 2782-2790.	7.3	53
46	Doping Concentration Modulation in Vanadium-Doped Monolayer Molybdenum Disulfide for Synaptic Transistors. <i>ACS Nano</i> , 2021, 15, 7340-7347.	7.3	53
47	Anisotropic Ordering in 1T [±] Molybdenum and Tungsten Ditelluride Layers Alloyed with Sulfur and Selenium. <i>ACS Nano</i> , 2018, 12, 894-901.	7.3	52
48	Controlled synthesis and room-temperature pyroelectricity of CuInP ₂ S ₆ ultrathin flakes. <i>Nano Energy</i> , 2019, 58, 596-603.	8.2	52
49	Optical orientation and alignment of excitons in ensembles of inorganic perovskite nanocrystals. <i>Physical Review B</i> , 2018, 97, .	1.1	51
50	Te-Vacancy-Induced Surface Collapse and Reconstruction in Antiferromagnetic Topological Insulator MnBi ₂ Te ₄ . <i>ACS Nano</i> , 2020, 14, 11262-11272.	7.3	47
51	Dissolution-precipitation growth of uniform and clean two dimensional transition metal dichalcogenides. <i>National Science Review</i> , 2021, 8, nwa115.	4.6	42
52	Tuning Electrical Conductance in Bilayer MoS ₂ through Defect-Mediated Interlayer Chemical Bonding. <i>ACS Nano</i> , 2020, 14, 10265-10275.	7.3	40
53	Constructing ambivalent imidazopyridinium-linked covalent organic frameworks. , 2022, 1, 382-392.		38
54	Pressure-Induced Phase Transition in Weyl Semimetallic WTe ₂ . <i>Small</i> , 2017, 13, 1701887.	5.2	37

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55	Strained Epitaxy of Monolayer Transition Metal Dichalcogenides for Wrinkle Arrays. ACS Nano, 2021, 15, 6633-6644.	7.3	37
56	Synthesis of Ultrahigh-Quality Monolayer Molybdenum Disulfide through In Situ Defect Healing with Thiol Molecules. Small, 2020, 16, e2003357.	5.2	36
57	An analytical expression for the van der Waals interaction in oriented-attachment growth: a spherical nanoparticle and a growing cylindrical nanorod. Physical Chemistry Chemical Physics, 2012, 14, 4548.	1.3	35
58	Patterned Growth of P-type MoS ₂ Atomic Layers Using Sol-Gel as Precursor. Advanced Functional Materials, 2016, 26, 6371-6379.	7.8	34
59	Phase Transition and Superconductivity Enhancement in Se-Substituted MoTe ₂ Thin Films. Advanced Materials, 2019, 31, e1904641.	11.1	34
60	Surface-Modified Ultrathin InSe Nanosheets with Enhanced Stability and Photoluminescence for High-Performance Optoelectronics. ACS Nano, 2020, 14, 11373-11382.	7.3	34
61	Remarkable optical and magnetic properties of ultra-thin europium oxysulfide nanorods. Journal of Materials Chemistry, 2012, 22, 16728.	6.7	33
62	A facile synthesis of Te nanoparticles with binary size distribution by green chemistry. Nanoscale, 2011, 3, 1523.	2.8	27
63	Extraordinary Interfacial Stitching between Single All-Inorganic Perovskite Nanocrystals. ACS Applied Materials & Interfaces, 2018, 10, 5984-5991.	4.0	27
64	Realization of a tunable surface Dirac gap in Sb-doped $\text{MnBi}_{1-x}\text{Sb}_x$ thin films. Physical Review B, 2021, 103, .	11.1	27
65	Covalent 2D Cr ₂ Te ₃ ferromagnet. Materials Research Letters, 2021, 9, 205-212.	4.1	25
66	Physical justification for ionic conductivity enhancement at strained coherent interfaces. Journal of Power Sources, 2015, 285, 37-42.	4.0	23
67	The evaluation of Coulombic interaction in the oriented-attachment growth of colloidal nanorods. Analyst, The, 2012, 137, 4917.	1.7	21
68	Highly Efficient Mass Production of Boron Nitride Nanosheets via a Borate Nitridation Method. Journal of Physical Chemistry C, 2018, 122, 17370-17377.	1.5	21
69	Phase-pure two-dimensional Fe _x GeTe ₂ magnets with near-room-temperature TC. Nano Research, 2022, 15, 457-464.	5.8	21
70	Femtomolar-Level Molecular Sensing of Monolayer Tungsten Diselenide Induced by Heteroatom Doping with Long-Term Stability. Advanced Functional Materials, 2022, 32, .	7.8	21
71	Magnetic order in XY-type antiferromagnetic monolayer CoPS_3 revealed by Raman spectroscopy. Physical Review B, 2021, 103, .	11.1	20
72	Dative Epitaxy of Commensurate Monocrystalline Covalent van der Waals Moiré Supercrystal. Advanced Materials, 2022, 34, e2200117.	11.1	20

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73	Space-Confined One-Step Growth of 2D MoO ₂ /MoS ₂ Vertical Heterostructures for Superior Hydrogen Evolution in Alkaline Electrolytes. <i>Small</i> , 2022, 18, .	5.2	20
74	Two-dimensional PdSe ₂ -Pd ₂ Se ₃ junctions can serve as nanowires. <i>2D Materials</i> , 2018, 5, 035025.	2.0	18
75	Hard ferromagnetic behavior in atomically thin CrSiTe ₃ flakes. <i>Nanoscale</i> , 2022, 14, 5851-5858.	2.8	16
76	Growth of Solid and Hollow Gold Particles through the Thermal Annealing of Nanoscale Patterned Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 11590-11596.	4.0	14
77	A topologically substituted boron nitride hybrid aerogel for highly selective CO ₂ uptake. <i>Nano Research</i> , 2018, 11, 6325-6335.	5.8	14
78	Gentle transfer method for water- and acid/alkali-sensitive 2D materials for (S)TEM study. <i>APL Materials</i> , 2016, 4, .	2.2	12
79	Direct Visualization of Large-Scale Intrinsic Atomic Lattice Structure and Its Collective Anisotropy in Air-Sensitive Monolayer 1Tâ€™â€•WTe ₂ . <i>Advanced Science</i> , 2021, 8, e2101563.	5.6	11
80	Preferential S/Se occupation in an anisotropic ReS ₂ (1â€™x)Se _{2x} monolayer alloy. <i>Nanoscale</i> , 2017, 9, 18275-18280.	2.8	10
81	Tuning of Optical Behavior in Monolayer and Bilayer Molybdenum Disulfide Using Hydrostatic Pressure. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 161-167.	2.1	10
82	Engineering the Crack Structure and Fracture Behavior in Monolayer MoS ₂ By Selective Creation of Point Defects. <i>Advanced Science</i> , 2022, 9, .	5.6	10
83	Dual-metal precursors for the universal growth of non-layered 2D transition metal chalcogenides with ordered cation vacancies. <i>Science Bulletin</i> , 2022, 67, 1649-1658.	4.3	10
84	Enhanced photoresponse in curled graphene ribbons. <i>Nanoscale</i> , 2013, 5, 12206.	2.8	8
85	Surfactant induced colloidal growth and selective electrophoretic deposition of one-dimensional Te nanocrystals. <i>Materials Letters</i> , 2013, 110, 148-151.	1.3	7
86	Nano-patterning of a monolayer molybdenum disulfide with sub-nanometer helium ion beam: considering its shape, size and damage. <i>Nanotechnology</i> , 2020, 31, 345302.	1.3	7
87	One-Step Growth of Bilayer 2Hâ€™1Tâ€™2 MoTe ₂ van der Waals Heterostructures with Interlayer-Coupled Resonant Phonon Vibration. <i>ACS Nano</i> , 2022, 16, 11268-11277.	7.3	7
88	Orbital-fluctuation freezing and magnetic-nonmagnetic phase transition in $\hat{\pm}$ -TiBr ₃ . <i>Applied Physics Letters</i> , 2020, 117, 133103.	1.5	6
89	Dissolution-precipitation growth of doped monolayer molybdenum disulfide through double-faced precursor supply. <i>APL Materials</i> , 2021, 9, .	2.2	6
90	Growth of wafer-scale graphene-hexagonal boron nitride vertical heterostructures with clear interfaces for obtaining atomically thin electrical analogs. <i>Nanoscale</i> , 2022, 14, 4204-4215.	2.8	6

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91	Substitutional oxygen activated photoluminescence enhancement in monolayer transition metal dichalcogenides. <i>Science China Materials</i> , 2022, 65, 1034-1041.	3.5	6
92	Observation of Ultrastrong Coupling between Substrate and the Magnetic Topological Insulator MnBi_2Te_4 . <i>Nano Letters</i> , 2022, 22, 3856-3864.	4.5	6
93	Defect in 2D materials beyond graphene. , 2018, , 161-187.		4
94	Preferential hole defect formation in monolayer WSe_2 by electron-beam irradiation. <i>Physical Review Materials</i> , 2021, 5, .	0.9	4
95	Nonlinear electronic and ultrafast optical signatures in chemical vapor-deposited ultrathin PtS_2 ribbons. <i>Nano Research</i> , 2022, 15, 4366-4373.	5.8	3
96	Electron-Beam-Induced Synthesis of Hexagonal 1H- MoSe_2 from Square FeSe Decorated with Mo Adatoms. <i>Nano Letters</i> , 2018, 18, 2016-2020.	4.5	2
97	Measuring the practical particle-in-a-box: orthorhombic perovskite nanocrystals. <i>European Journal of Physics</i> , 2018, 39, 055501.	0.3	2
98	Flexible Metallic Nanowires with Self-Adaptive Contacts to Semiconducting Transition-Metal Dichalcogenide Monolayers. <i>Microscopy and Microanalysis</i> , 2014, 20, 1760-1761.	0.2	1
99	Defect Dynamics in 2D Transition Metal Dichalcogenide Monolayers. <i>Microscopy and Microanalysis</i> , 2015, 21, 433-434.	0.2	1
100	Quantification of Dopant Distribution and the Local Band Gap in Selenium-Doped Molybdenum Disulfide. <i>Microscopy and Microanalysis</i> , 2014, 20, 1754-1755.	0.2	0
101	Interfaces in Two-Dimensional Heterostructures of Transition Metal Dichalcogenides. <i>Microscopy and Microanalysis</i> , 2015, 21, 105-106.	0.2	0
102	Single Atom Imaging and Spectroscopy of Impurities in 2D Materials. <i>Microscopy and Microanalysis</i> , 2016, 22, 862-863.	0.2	0
103	Patterned Growth: Patterned Growth of P-Type MoS_2 Atomic Layers Using Sol-Gel as Precursor (Adv.) <i>Tj ETQq1 1 0.784314 rgBT /Over</i>	7.8	0
104	Alloying in Flexible Transition-metal Chalcogenide Nanowires. <i>Microscopy and Microanalysis</i> , 2016, 22, 1424-1425.	0.2	0