Kai-Hui Liu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6597551/publications.pdf

Version: 2024-02-01

250 papers	13,091 citations	20797 60 h-index	27389 106 g-index
257 all docs	257 docs citations	257 times ranked	16268 citing authors

#	Article	IF	Citations
1	Evolution of interlayer coupling in twisted molybdenum disulfide bilayers. Nature Communications, 2014, 5, 4966.	5.8	533
2	Ultrafast epitaxial growth of metre-sized single-crystal graphene on industrial Cu foil. Science Bulletin, 2017, 62, 1074-1080.	4.3	454
3	Epitaxial growth of a 100-square-centimetre single-crystal hexagonal boron nitride monolayer on copper. Nature, 2019, 570, 91-95.	13.7	422
4	Wafer-Scale Growth and Transfer of Highly-Oriented Monolayer MoS₂ Continuous Films. ACS Nano, 2017, 11, 12001-12007.	7.3	397
5	Quantification of light-enhanced ionic transport in lead iodide perovskite thin films and its solar cell applications. Light: Science and Applications, 2017, 6, e16243-e16243.	7.7	342
6	Two-Dimensional (C₄H₉NH₃)₂PbBr₄ Perovskite Crystals for High-Performance Photodetector. Journal of the American Chemical Society, 2016, 138, 16612-16615.	6.6	341
7	Ultrafast growth of single-crystal graphene assisted by a continuous oxygen supply. Nature Nanotechnology, 2016, 11, 930-935.	15.6	330
8	Strong Second-Harmonic Generation in Atomic Layered GaSe. Journal of the American Chemical Society, 2015, 137, 7994-7997.	6.6	273
9	Optical Anisotropy of Black Phosphorus in the Visible Regime. Journal of the American Chemical Society, 2016, 138, 300-305.	6.6	273
10	Far-field nanoscale infrared spectroscopy of vibrational fingerprints of molecules with graphene plasmons. Nature Communications, 2016, 7, 12334.	5.8	237
11	Light-Independent Ionic Transport in Inorganic Perovskite and Ultrastable Cs-Based Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 4122-4128.	2.1	231
12	Observation of Strong Interlayer Coupling in MoS₂/WS₂ Heterostructures. Advanced Materials, 2016, 28, 1950-1956.	11.1	225
13	Superlubricity between MoS₂ Monolayers. Advanced Materials, 2017, 29, 1701474.	11.1	220
14	Highâ€Mobility Multilayered MoS₂ Flakes with Low Contact Resistance Grown by Chemical Vapor Deposition. Advanced Materials, 2017, 29, 1604540.	11.1	214
15	Ultrafast and highly sensitive infrared photodetectors based on two-dimensional oxyselenide crystals. Nature Communications, 2018, 9, 3311.	5.8	213
16	Gate-tunable third-order nonlinear optical response of massless Dirac fermions in graphene. Nature Photonics, 2018, 12, 430-436.	15.6	194
17	An atlas of carbon nanotube optical transitions. Nature Nanotechnology, 2012, 7, 325-329.	15.6	186
18	Direct Synthesis of Bâ^'Câ^'N Single-Walled Nanotubes by Bias-Assisted Hot Filament Chemical Vapor Deposition. Journal of the American Chemical Society, 2006, 128, 6530-6531.	6.6	176

#	Article	IF	Citations
19	Sub-10 nm Nanopattern Architecture for 2D Material Field-Effect Transistors. Nano Letters, 2017, 17, 1065-1070.	4.5	172
20	Dual-coupling-guided epitaxial growth of wafer-scale single-crystal WS2 monolayer on vicinal a-plane sapphire. Nature Nanotechnology, 2022, 17, 33-38.	15.6	171
21	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
22	Three-Dimensional Spirals of Atomic Layered MoS₂. Nano Letters, 2014, 14, 6418-6423.	4.5	161
23	Atomic scale insights into structure instability and decomposition pathway of methylammonium lead iodide perovskite. Nature Communications, 2018, 9, 4807.	5.8	161
24	Interfacial engineering in graphene bandgap. Chemical Society Reviews, 2018, 47, 3059-3099.	18.7	153
25	MoirÃ© Phonons in Twisted Bilayer MoS₂. ACS Nano, 2018, 12, 8770-8780.	7.3	149
26	Simulations of Quantum Transport in Sub-5-nm Monolayer Phosphorene Transistors. Physical Review Applied, 2018, 10, .	1.5	144
27	Precise control of the interlayer twist angle in large scale MoS2 homostructures. Nature Communications, 2020, 11, 2153.	5.8	142
28	Robust Stacking-Independent Ultrafast Charge Transfer in MoS₂/WS₂ Bilayers. ACS Nano, 2017, 11, 12020-12026.	7.3	130
29	Surface Monocrystallization of Copper Foil for Fast Growth of Large Singleâ€Crystal Graphene under Free Molecular Flow. Advanced Materials, 2016, 28, 8968-8974.	11.1	128
30	Monitoring Local Strain Vector in Atomic-Layered MoSe₂ by Second-Harmonic Generation. Nano Letters, 2017, 17, 7539-7543.	4.5	128
31	Graphene photonic crystal fibre with strong and tunable lightâ€“matter interaction. Nature Photonics, 2019, 13, 754-759.	15.6	127
32	Correlations between Immobilizing Ions and Suppressing Hysteresis in Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 266-272.	8.8	118
33	Seeded growth of large single-crystal copper foils with high-index facets. Nature, 2020, 581, 406-410.	13.7	116
34	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating. Advanced Materials, 2018, 30, 1702944.	11.1	113
35	Converting Metallic Singleâ€Walled Carbon Nanotubes into Semiconductors by Boron/Nitrogen Coâ€Doping. Advanced Materials, 2008, 20, 3615-3619.	11.1	112
36	Photoelectric conversion on Earthâ€™s surface via widespread Fe- and Mn-mineral coatings. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9741-9746.	3.3	111

#	Article	IF	Citations
37	Possible absence of critical thickness and size effect in ultrathin perovskite ferroelectric films. Nature Communications, 2017, 8, 15549.	5.8	104
38	In situ TEM studies of oxygen vacancy migration for electrically induced resistance change effect in cerium oxides. Micron, 2010, 41, 301-305.	1.1	100
39	Engineering active edge sites of fractal-shaped single-layer MoS2 catalysts for high-efficiency hydrogen evolution. Nano Energy, 2018, 51, 786-792.	8.2	98
40	Optical fibres with embedded two-dimensional materials for ultrahigh nonlinearity. Nature Nanotechnology, 2020, 15, 987-991.	15.6	94
41	Multiwall Boron Carbonitride/Carbon Nanotube Junction and Its Rectification Behavior. Journal of the American Chemical Society, 2007, 129, 9562-9563.	6.6	93
42	High-throughput optical imaging and spectroscopy of individual carbon nanotubes in devices. Nature Nanotechnology, 2013, 8, 917-922.	15.6	92
43	Interlayerâ€Stateâ€Coupling Dependent Ultrafast Charge Transfer in MoS₂/WS₂ Bilayers. Advanced Science, 2017, 4, 1700086.	5.6	87
44	Direct observation of highly confined phonon polaritons in suspended monolayer hexagonal boron nitride. Nature Materials, 2021, 20, 43-48.	13.3	84
45	Kinetic modulation of graphene growth by fluorine through spatially confined decomposition of metal fluorides. Nature Chemistry, 2019, 11, 730-736.	6.6	82
46	Photoconducting response on bending of individual ZnO nanowires. Journal of Materials Chemistry, 2009, 19, 1002-1005.	6.7	80
47	Band Structure Engineering of Interfacial Semiconductors Based on Atomically Thin Lead Iodide Crystals. Advanced Materials, 2019, 31, e1806562.	11.1	79
48	Chirality-Dependent Transport Properties of Double-Walled Nanotubes Measured in Situ on Their Field-Effect Transistors. Journal of the American Chemical Society, 2009, 131, 62-63.	6.6	76
49	Controllable Growth of Aligned Monocrystalline CsPbBr₃ Microwire Arrays for Piezoelectricâ€Induced Dynamic Modulation of Singleâ€Mode Lasing. Advanced Materials, 2019, 31, e1900647.	11.1	76
50	Fast Growth of Strain-Free AlN on Graphene-Buffered Sapphire. Journal of the American Chemical Society, 2018, 140, 11935-11941.	6.6	75
51	Single-Crystal Atomic-Layered Molybdenum Disulfide Nanobelts with High Surface Activity. ACS Nano, 2015, 9, 6478-6483.	7.3	72
52	Product-Specific Active Site Motifs of Cu for Electrochemical CO2 Reduction. CheM, 2021, 7, 406-420.	5.8	72
53	Designed Growth of Largeâ€Size 2D Single Crystals. Advanced Materials, 2020, 32, e2000046.	11.1	71
54	Graphene charge-injection photodetectors. Nature Electronics, 2022, 5, 281-288.	13.1	70

#	Article	IF	Citations
55	Systematic determination of absolute absorption cross-section of individual carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7564-7569.	3.3	69
56	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
57	Growth of High-Density-Aligned and Semiconducting-Enriched Single-Walled Carbon Nanotubes: Decoupling the Conflict between Density and Selectivity. ACS Nano, 2014, 8, 554-562.	7.3	68
58	Green Synthesis of Porous Cocoon-like rGO for Enhanced Microwave-Absorbing Performances. ACS Applied Materials & Interfaces, 2018, 10, 42865-42874.	4.0	68
59	Elastic Properties and Fracture Behaviors of Biaxially Deformed, Polymorphic MoTe₂. Nano Letters, 2019, 19, 761-769.	4.5	67
60	Scalable and ultrafast epitaxial growth of single-crystal graphene wafers for electrically tunable liquid-crystal microlens arrays. Science Bulletin, 2019, 64, 659-668.	4.3	66
61	Doping-Induced Second-Harmonic Generation in Centrosymmetric Graphene from Quadrupole Response. Physical Review Letters, 2019, 122, 047401.	2.9	64
62	Van der Waals-coupled electronic states in incommensurate double-walled carbon nanotubes. Nature Physics, 2014, 10, 737-742.	6.5	63
63	Ultraâ€Broadband Strong Electromagnetic Interference Shielding with Ferromagnetic Graphene Quartz Fabric. Advanced Materials, 2022, 34, .	11.1	60
64	High-Resolution Tracking Asymmetric Lithium Insertion and Extraction and Local Structure Ordering in SnS₂. Nano Letters, 2016, 16, 5582-5588.	4.5	58
65	Reversible Healing Effect of Water Molecules on Fully Crystallized Metalâ€“Halide Perovskite Film. Journal of Physical Chemistry C, 2016, 120, 4759-4765.	1.5	55
66	Quantum-coupled radial-breathing oscillations in double-walled carbon nanotubes. Nature Communications, 2013, 4, 1375.	5.8	54
67	Continuously Graded Quantum Dots: Synthesis, Applications in Quantum Dot Light-Emitting Diodes, and Perspectives. Journal of Physical Chemistry Letters, 2021, 12, 5967-5978.	2.1	53
68	In situ probing mechanical properties of individual tungsten oxide nanowires directly grown on tungsten tips inside transmission electron microscope. Applied Physics Letters, 2006, 89, 221908.	1.5	52
69	Epitaxy of Singleâ€Crystalline GaN Film on CMOSâ€Compatible Si(100) Substrate Buffered by Graphene. Advanced Functional Materials, 2019, 29, 1905056.	7.8	51
70	Creating polar antivortex in PbTiO3/SrTiO3 superlattice. Nature Communications, 2021, 12, 2054.	5.8	50
71	Giant enhancement of optical nonlinearity in two-dimensional materials by multiphoton-excitation resonance energy transfer from quantum dots. Nature Photonics, 2021, 15, 510-515.	15.6	50
72	New Pathway for Hot Electron Relaxation in Two-Dimensional Heterostructures. Nano Letters, 2018, 18, 6057-6063.	4.5	49

#	Article	IF	Citations
73	Atomic imaging of mechanically induced topological transition of ferroelectric vortices. Nature Communications, 2020, 11, 1840.	5.8	49
74	Sensitive and Robust Ultraviolet Photodetector Array Based on Self-Assembled Graphene/C₆₀ Hybrid Films. ACS Applied Materials & Interfaces, 2018, 10, 38326-38333.	4.0	48
75	Measuring phonon dispersion at an interface. Nature, 2021, 599, 399-403.	13.7	47
76	Importance of Diameter Control on Selective Synthesis of Semiconducting Single-Walled Carbon Nanotubes. ACS Nano, 2014, 8, 8564-8572.	7.3	45
77	Nanoassembly Growth Model for Subdomain and Grain Boundary Formation in 1Tâ€² Layered ReS₂. Advanced Functional Materials, 2019, 29, 1906385.	7.8	45
78	2D Polarized Materials: Ferromagnetic, Ferrovalley, Ferroelectric Materials, and Related Heterostructures. Advanced Materials, 2021, 33, e2004469.	11.1	45
79	Efficient Allâ€Optical Plasmonic Modulators with Atomically Thin Van Der Waals Heterostructures. Advanced Materials, 2020, 32, e1907105.	11.1	44
80	Tuning the photo-response in monolayer MoS2 by plasmonic nano-antenna. Scientific Reports, 2016, 6, 23626.	1.6	43
81	Massive Growth of Graphene Quartz Fiber as a Multifunctional Electrode. ACS Nano, 2020, 14, 5938-5945.	7.3	43
82	In situ probing electrical response on bending of ZnO nanowires inside transmission electron microscope. Applied Physics Letters, 2008, 92, 213105.	1.5	42
83	Highâ€Performance Photoinduced Memory with Ultrafast Charge Transfer Based on MoS₂/SWCNTs Network Van Der Waals Heterostructure. Small, 2019, 15, e1804661.	5.2	42
84	Robust growth of two-dimensional metal dichalcogenides and their alloys by active chalcogen monomer supply. Nature Communications, 2022, 13, 1007.	5.8	42
85	BNâ€Enabled Epitaxy of Pb_{1â€“x}Sn_xSe Nanoplates on SiO₂/Si for Highâ€Performance Midâ€Infrared Detection. Small, 2015, 11, 5388-5394.	5.2	41
86	Atomic-scale observations of electrical and mechanical manipulation of topological polar flux closure. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18954-18961.	3.3	41
87	Grapheneâ€Assisted Epitaxy of Nitrogen Lattice Polarity GaN Films on Nonâ€Polar Sapphire Substrates for Green Light Emitting Diodes. Advanced Functional Materials, 2020, 30, 2001283.	7.8	41
88	Layer-by-layer epitaxy of multi-layer MoS2 wafers. National Science Review, 2022, 9, .	4.6	41
89	The Way towards Ultrafast Growth of Singleâ€Crystal Graphene on Copper. Advanced Science, 2017, 4, 1700087.	5.6	40
90	Crâ€Doped Pd Metallene Endows a Practical Formaldehyde Sensor New Limit and High Selectivity. Advanced Materials, 2022, 34, e2105276.	11.1	40

#	Article	IF	Citations
91	Ultrafast nonlinear photoresponse of single-wall carbon nanotubes: a broadband degenerate investigation. Nanoscale, 2016, 8, 9304-9309.	2.8	39
92	2D Materials: Superlubricity between MoS₂ Monolayers (Adv. Mater. 27/2017). Advanced Materials, 2017, 29, .	11.1	38
93	Unique Transformation from Graphene to Carbide on Re(0001) Induced by Strong Carbonâ€“Metal Interaction. Journal of the American Chemical Society, 2017, 139, 17574-17581.	6.6	38
94	Controllable Growth of (n, n â^'1) Family of Semiconducting Carbon Nanotubes. CheM, 2019, 5, 1182-1193.	5.8	38
95	Carbon Nanotubes as an Ultrafast Emitter with a Narrow Energy Spread at Optical Frequency. Advanced Materials, 2017, 29, 1701580.	11.1	37
96	Atomic-scale imaging of CH3NH3PbI3 structure and its decomposition pathway. Nature Communications, 2021, 12, 5516.	5.8	36
97	The Coalescence Behavior of Two-Dimensional Materials Revealed by Multiscale In Situ Imaging during Chemical Vapor Deposition Growth. ACS Nano, 2020, 14, 1902-1918.	7.3	35
98	Superstable copper nanowire network electrodes by single-crystal graphene covering and their applications in flexible nanogenerator and light-emitting diode. Nano Energy, 2020, 71, 104638.	8.2	35
99	Intrinsic radial breathing oscillation in suspended single-walled carbon nanotubes. Physical Review B, 2011, 83, .	1.1	34
100	SWCNTâ€MoS₂â€SWCNT Vertical Point Heterostructures. Advanced Materials, 2017, 29, 1604469.	11.1	32
101	Ultrafast Catalyst-Free Graphene Growth on Glass Assisted by Local Fluorine Supply. ACS Nano, 2019, 13, 10272-10278.	7.3	32
102	Characteristics of desert varnish from nanometer to micrometer scale: A photo-oxidation model on its formation. Chemical Geology, 2019, 522, 55-70.	1.4	32
103	Universal Imaging of Full Strain Tensor in 2D Crystals with Thirdâ€Harmonic Generation. Advanced Materials, 2019, 31, e1808160.	11.1	32
104	Subunit cellâ€level measurement of polarization in an individual polar vortex. Science Advances, 2019, 5, eaav4355.	4.7	31
105	Ultrafast Optical Modulation of Harmonic Generation in Two-Dimensional Materials. Nano Letters, 2020, 20, 8053-8058.	4.5	31
106	Probing the crystallographic orientation of two-dimensional atomic crystals with supramolecular self-assembly. Nature Communications, 2017, 8, 377.	5.8	30
107	Extending Absorption of Cs₂AgBiBr₆ to Nearâ€Infrared Region (â‰ˆ1350Ânm) with Intermediate Band. Advanced Functional Materials, 2022, 32, .	7.8	30
108	Ultrafast Broadband Charge Collection from Clean Graphene/CH₃NH₃PbI₃ Interface. Journal of the American Chemical Society, 2018, 140, 14952-14957.	6.6	29

#	Article	IF	Citations
109	Broadâ€Spectralâ€Range Sustainability and Controllable Excitation of Hyperbolic Phonon Polaritons in Î±â€MoO 3. Advanced Materials, 2020, 32, 2002014.	11.1	29
110	Pushing the conductance and transparency limit of monolayer graphene electrodes for flexible organic light-emitting diodes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25991-25998.	3.3	28
111	Interfacial Engineering of Van der Waals Coupled 2D Layered Materials. Advanced Materials Interfaces, 2017, 4, 1601054.	1.9	26
112	Tracking sodium migration in TiS₂usingin situTEM. Nanoscale, 2019, 11, 7474-7480.	2.8	26
113	Polarized Water Driven Dynamic PN Junction-Based Direct-Current Generator. Research, 2021, 2021, 7505638.	2.8	26
114	Broadband nonlinear optical response of monolayer MoSe2 under ultrafast excitation. Applied Physics Letters, 2018, 112, .	1.5	25
115	Single-mode lasing of CsPbBr₃ perovskite NWs enabled by the Vernier effect. Nanoscale, 2021, 13, 4432-4438.	2.8	25
116	Epitaxy of 2D Materials toward Single Crystals. Advanced Science, 2022, 9, e2105201.	5.6	24
117	Surface-Facet-Dependent Phonon Deformation Potential in Individual Strained Topological Insulator Bi₂Se₃ Nanoribbons. ACS Nano, 2015, 9, 10244-10251.	7.3	23
118	High Conversion Efficiency Carbon Nanotube-Based Barrier-Free Bipolar-Diode Photodetector. ACS Nano, 2016, 10, 9595-9601.	7.3	23
119	Gate Switching of Ultrafast Photoluminescence in Graphene. Nano Letters, 2018, 18, 7985-7990.	4.5	23
120	Reconstruction of structured laser beams through a multimode fiber based on digital optical phase conjugation. Optics Letters, 2018, 43, 3333.	1.7	23
121	Visualizing grain boundaries in monolayer MoSe2 using mild H2O vapor etching. Nano Research, 2018, 11, 4082-4089.	5.8	22
122	Chemical Intercalation of Topological Insulator Grid Nanostructures for Highâ€Performance Transparent Electrodes. Advanced Materials, 2017, 29, 1703424.	11.1	21
123	Selective growth of chirality-enriched semiconducting carbon nanotubes by using bimetallic catalysts from salt precursors. Nanoscale, 2018, 10, 6922-6927.	2.8	21
124	Polarizer-free polarimetric image sensor through anisotropic two-dimensional GeSe. Science China Materials, 2021, 64, 1230-1237.	3.5	21
125	Direct determination of atomic structure of large-indexed carbon nanotubes by electron diffraction: application to double-walled nanotubes. Journal Physics D: Applied Physics, 2009, 42, 125412.	1.3	20
126	Direct Current Electricity Generation from Dynamic Polarized Waterâ€“Semiconductor Interface. Journal of Physical Chemistry C, 2021, 125, 14180-14187.	1.5	20

#	Article	IF	Citations
127	Engineering polar vortex from topologically trivial domain architecture. Nature Communications, 2021, 12, 4620.	5.8	20
128	Eukaryotic microbial communities in hypersaline soils and sediments from the alkaline hypersaline Huama Lake as revealed by 454 pyrosequencing. Antonie Van Leeuwenhoek, 2014, 105, 871-880.	0.7	19
129	Photovoltaic Effect and Evidence of Carrier Multiplication in Graphene Vertical Homojunctions with Asymmetrical Metal Contacts. ACS Nano, 2015, 9, 8851-8858.	7.3	19
130	Lattice Polarity Manipulation of Quasiâ€vdW Epitaxial GaN Films on Graphene Through Interface Atomic Configuration. Advanced Materials, 2022, 34, e2106814.	11.1	19
131	Measurement of complex optical susceptibility for individual carbon nanotubes by elliptically polarized light excitation. Nature Communications, 2018, 9, 3387.	5.8	18
132	Emerging properties of two-dimensional twisted bilayer materials*. Chinese Physics B, 2019, 28, 107304.	0.7	18
133	Direct observation of weakened interface clamping effect enabled ferroelastic domain switching. Acta Materialia, 2019, 171, 184-189.	3.8	18
134	Sub-10 nm stable graphene quantum dots embedded in hexagonal boron nitride. Nanoscale, 2019, 11, 4226-4230.	2.8	18
135	Colors of Singleâ€Wall Carbon Nanotubes. Advanced Materials, 2021, 33, e2006395.	11.1	18
136	Complete structural characterization of single carbon nanotubes by Rayleigh scattering circular dichroism. Nature Nanotechnology, 2021, 16, 1073-1078.	15.6	18
137	Identification of Copper Surface Index by Optical Contrast. Advanced Materials Interfaces, 2018, 5, 1800377.	1.9	17
138	Strong-coupled hybrid structure of carbon nanotube and MoS₂ monolayer with ultrafast interfacial charge transfer. Nanoscale, 2019, 11, 17195-17200.	2.8	17
139	The Impacts of Adhesion on the Wear Property of Graphene. Advanced Materials Interfaces, 2019, 6, 1900721.	1.9	17
140	Negative friction coefficient in microscale graphite/mica layered heterojunctions. Science Advances, 2020, 6, eaaz6787.	4.7	17
141	Remote Lightening and Ultrafast Transition: Intrinsic Modulation of Exciton Spatiotemporal Dynamics in Monolayer MoS₂. ACS Nano, 2020, 14, 6897-6905.	7.3	17
142	Giant Valley Coherence at Room Temperature in 3R WS ₂ with Broken Inversion Symmetry. Research, 2019, 2019, 6494565.	2.8	17
143	Ultralong aligned single-walled carbon nanotubes on flexible fluorphlogopite mica for strain sensors. Nano Research, 2012, 5, 443-449.	5.8	16
144	Extreme nonlinear strong-field photoemission from carbon nanotubes. Nature Communications, 2019, 10, 4891.	5.8	16

#	Article	IF	Citations
145	Enhanced Electrochemical Methanation of Carbon Dioxide at the Single-Layer Hexagonal Boron Nitride/Cu Interfacial Perimeter. Nano Letters, 2021, 21, 4469-4476.	4.5	16
146	Higher-order harmonic resonances and mechanical properties of individual cadmium sulphide nanowires measured by in situ transmission electron microscopy. Journal of Electron Microscopy, 2010, 59, 285-289.	0.9	15
147	Rotational scanning and multiple-spot focusing through a multimode fiber based on digital optical phase conjugation. Applied Physics Express, 2018, 11, 062501.	1.1	15
148	Rich information on 2D materials revealed by optical second harmonic generation. Nanoscale, 2020, 12, 22891-22903.	2.8	15
149	Engineering of atomic-scale flexoelectricity at grain boundaries. Nature Communications, 2022, 13, 216.	5.8	14
150	A simple method to tune graphene growth between monolayer and bilayer. AIP Advances, 2016, 6, .	0.6	13
151	Realâ€Time Observation of Carbon Nanotube Etching Process Using Polarized Optical Microscope. Advanced Materials, 2017, 29, 1701959.	11.1	13
152	Quiver-quenched optical-field-emission from carbon nanotubes. Applied Physics Letters, 2017, 111, .	1.5	13
153	Unveiling the Fine Structural Distortion of Atomically Thin Bi₂O₂Se by Thirdâ€Harmonic Generation. Advanced Materials, 2020, 32, e2002831.	11.1	13
154	Silicon Thermo-Optic Switches with Graphene Heaters Operating at Mid-Infrared Waveband. Nanomaterials, 2022, 12, 1083.	1.9	13
155	Sandwiched graphene/hBN/graphene photonic crystal fibers with high electro-optical modulation depth and speed. Nanoscale, 2020, 12, 14472-14478.	2.8	12
156	Atomic origin of spin-valve magnetoresistance at the SrRuO3 grain boundary. National Science Review, 2020, 7, 755-762.	4.6	12
157	Augmenting photoluminescence of monolayer MoS₂ using high order modes in a metal dimer-on-film nanocavity. Photonics Research, 2021, 9, 501.	3.4	12
158	Highâ€Throughput Determination of Statistical Structure Information for Horizontal Carbon Nanotube Arrays by Optical Imaging. Advanced Materials, 2016, 28, 2018-2023.	11.1	11
159	Ultralow-frequency Raman system down to 10 cmâ^'1 with longpass edge filters and its application to the interface coupling in t(2+2)LGs. Review of Scientific Instruments, 2016, 87, 053122.	0.6	11
160	Multiple electronic Raman scatterings in a single metallic carbon nanotube. Physical Review B, 2016, 93, .	1.1	11
161	Robust circular polarization of indirect Q-K transitions in bilayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>3</mml:mn><mml:mi>R</mml:mi><mml:mo>â^'</mml:mo><mml:mi mathvariant="normal">W</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 100, .	1.1	11
162	Giant All-Optical Modulation of Second-Harmonic Generation Mediated by Dark Excitons. ACS Photonics, 2021, 8, 2320-2328.	3.2	11

#	Article	IF	Citations
163	Anisotropic Carrier Mobility from 2H WSe₂. Advanced Materials, 2022, 34, e2108615.	11.1	11
164	Enhanced Photoluminescence of Monolayer MoSe₂ in a Double Resonant Plasmonic Nanocavity with Fano Resonance and Mode Matching. Laser and Photonics Reviews, 2022, 16, .	4.4	11
165	MnPS3 spin-flop transition-induced anomalous Hall effect in graphite flake via van der Waals proximity coupling. Nanoscale, 2020, 12, 23266-23273.	2.8	10
166	Temperature evolution of quasiparticle dispersion and dynamics in semimetallic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â^’</mm via high-resolution angle-resolved photoemission spectroscopy and ultrafast optical pump-probe spectroscopy. Physical Review B, 2021, 103, .	1.1	10
167	Strong Second Harmonic Generation from Bilayer Graphene with Symmetry Breaking by Redox-Governed Charge Doping. Nano Letters, 2022, 22, 4287-4293.	4.5	10
168	Band evolution of two-dimensional transition metal dichalcogenides under electric fields. Applied Physics Letters, 2019, 115, 083104.	1.5	9
169	Power- and Spectral-Dependent Photon-Recycling Effects in a Double-Junction Gallium Arsenide Photodiode. ACS Photonics, 2019, 6, 59-65.	3.2	9
170	Ultrafast and low-power optoelectronic infrared-to-visible upconversion devices. Photonics Research, 2019, 7, 1161.	3.4	9
171	Unveiling radial breathing mode in a particle-on-mirror plasmonic nanocavity. Nanophotonics, 2022, 11, 487-494.	2.9	9
172	Enhanced electrochemical CO2-to-C2+ conversion from synergistic interaction between terrace and step sites on monocrystalline high-index Cu facets. Journal of Energy Chemistry, 2022, 70, 382-387.	7.1	9
173	Gate tunable Kondo effect in magnetic molecule decorated graphene. Solid State Communications, 2018, 278, 24-30.	0.9	8
174	Giant pattern evolution in third-harmonic generation of strained monolayer WS2 at two-photon excitonic resonance. Nano Research, 2020, 13, 3235-3240.	5.8	8
175	Enhanced Hemocompatibility of a Direct Chemical Vapor Deposition-Derived Graphene Film. ACS Applied Materials & Interfaces, 2021, 13, 4835-4843.	4.0	8
176	Monolayer mosaic heterostructures. Nature Nanotechnology, 2022, 17, 439-440.	15.6	8
177	Large-scale aligned silicon carbonitride nanotube arrays: Synthesis, characterization, and field emission property. Journal of Applied Physics, 2007, 101, 114306.	1.1	7
178	Direct synthesis of self-aligned single-walled carbon nanotubes on paper. Carbon, 2012, 50, 1179-1185.	5.4	7
179	Direct Evidence of Spin Transfer Torque on Two-Dimensional Cobalt-Doped MoS₂ Ferromagnetic Material. ACS Applied Electronic Materials, 2020, 2, 1497-1504.	2.0	7
180	Towards intrinsically pure graphene grown on copper. Nano Research, 2022, 15, 919-924.	5.8	7

#	Article	IF	Citations
181	Bandgap opening in graphene. Chinese Science Bulletin, 2017, 62, 2220-2232.	0.4	7
182	Structured light beams created through a multimode fiber via virtual Fourier filtering based on digital optical phase conjugation. Applied Optics, 2020, 59, 701.	0.9	7
183	Controllable Growth of Graphene Photonic Crystal Fibers with Tunable Optical Nonlinearity. ACS Photonics, 2022, 9, 961-968.	3.2	7
184	Engineering Interlayer Electronâ€“Phonon Coupling in WS₂/BN Heterostructures. Nano Letters, 2022, 22, 2725-2733.	4.5	7
185	Graphene-integrated waveguides: Properties, preparation, and applications. Nano Research, 2022, 15, 9704-9726.	5.8	7
186	Atomic-scale imaging of the defect dynamics in ceria nanowires under heating by in situ aberration-corrected TEM. Science China Chemistry, 2019, 62, 1704-1709.	4.2	6
187	Engineering Ultrafast Carrier Dynamics at the Graphene/GaAs Interface by Bulk Doping Level. Advanced Optical Materials, 2019, 7, 1900580.	3.6	6
188	Patterning Graphene Films by H2O-Based Magnetic-Assisted UV Photolysis. ACS Applied Materials & Interfaces, 2020, 12, 55382-55389.	4.0	6
189	Engineering of multiferroic BiFeO3 grain boundaries with head-to-head polarization configurations. Science Bulletin, 2021, 66, 771-776.	4.3	6
190	Patternâ€Potentialâ€Guided Growth of Textured Macromolecular Films on Graphene/Highâ€Index Copper. Advanced Materials, 2021, 33, e2006836.	11.1	6
191	Electrically driven motion, destruction, and chirality change of polar vortices in oxide superlattices. Science China: Physics, Mechanics and Astronomy, 2022, 65, 1.	2.0	6
192	Polarizationâ€Drivenâ€Orientation Selective Growth of Singleâ€Crystalline IIIâ€Nitride Semiconductors on Arbitrary Substrates. Advanced Functional Materials, 2022, 32, .	7.8	6
193	The Rise of Graphene Photonic Crystal Fibers. Advanced Functional Materials, 2022, 32, .	7.8	6
194	Low-temperature epitaxy of transferable high-quality Pd(111) films on hybrid graphene/Cu(111) substrate. Nano Research, 2019, 12, 2712-2717.	5.8	5
195	Correlating the electronic structures of metallic/semiconducting MoTe2 interface to its atomic structures. National Science Review, 2021, 8, nwaa087.	4.6	5
196	Gate-tunable linear magnetoresistance in molybdenum disulfide field-effect transistors with graphene insertion layer. Nano Research, 2021, 14, 1814-1818.	5.8	5
197	Development of in situ optical spectroscopy with high temporal resolution in an aberration-corrected transmission electron microscope. Review of Scientific Instruments, 2021, 92, 013704.	0.6	5
198	Epitaxial growth mechanisms of single-crystalline GaN on single-crystalline graphene. CrystEngComm, 2021, 23, 5451-5455.	1.3	5

#	Article	IF	Citations
199	Investigating the Electrical Properties of Monolayer and Bilayer hâ€BNs via Atomic Force Microscopy. Advanced Materials Interfaces, 2021, 8, 2100447.	1.9	5
200	Compelling Evidence for the Îµâ€Phase InSe Crystal by Oblique Incident Second Harmonic Generation. Advanced Optical Materials, 2022, 10, .	3.6	5
201	Monitoring mechanical motion of carbon nanotube based nanomotor by optical absorption spectrum. Applied Physics Letters, 2016, 109, .	1.5	4
202	Structureâ€“property relations in individual carbon nanotubes [Invited]. Journal of the Optical Society of America B: Optical Physics, 2016, 33, C102.	0.9	4
203	Carbon Nanotubes: Carbon Nanotubes as an Ultrafast Emitter with a Narrow Energy Spread at Optical Frequency (Adv. Mater. 30/2017). Advanced Materials, 2017, 29, .	11.1	4
204	Atomic-scale mechanism of internal structural relaxation screening at polar interfaces. Physical Review B, 2018, 97, .	1.1	4
205	Comprehensive insights into effect of van der Waals contact on carbon nanotube network field-effect transistors. Applied Physics Letters, 2019, 115, .	1.5	4
206	Two meters graphene film for generators. Science Bulletin, 2019, 64, 487-489.	4.3	4
207	Modulation of carrier lifetime in MoS2 monolayer by uniaxial strain. Chinese Physics B, 2020, 29, 077201.	0.7	4
208	Valley Polarization in Superacid-Treated Monolayer MoS₂. ACS Applied Electronic Materials, 2020, 2, 1981-1988.	2.0	4
209	Utilization of Synergistic Effect of Dimensionâ€Differentiated Hierarchical Nanomaterials for Transparent and Flexible Wireless Communicational Elements. Advanced Materials Technologies, 2020, 5, 1901057.	3.0	4
210	Atomic-scale visualization of metallic lead leak related fine structure in CsPbBr₃ quantum dots. Nanoscale, 2021, 13, 124-130.	2.8	4
211	Scrolled Production of Large-Scale Continuous Graphene on Copper Foils*. Chinese Physics Letters, 2020, 37, 108101.	1.3	4
212	Detecting residual chemical disinfectant using an atomic Coâ€“N_xâ€“C anchored neuronal-like carbon catalyst modified amperometric sensor. Environmental Science: Nano, 2022, 9, 1759-1769.	2.2	4
213	Enhanced near-field coupling and tunable topological transitions in hyperbolic van der Waals metasurfaces for optical nanomanipulation. Nanoscale, 2022, 14, 7075-7082.	2.8	4
214	Progress and perspective on the growth of two-dimensional single crystals. Science Bulletin, 2022, 67, 1410-1412.	4.3	4
215	In situ TEM probing properties of individual one-dimensional nanostructures. International Journal of Nanotechnology, 2007, 4, 119.	0.1	3
216	Absorption spectroscopy of individual cadmium selenide nanowire. Applied Physics Letters, 2012, 101, 093106.	1.5	3

#	Article	IF	Citations
217	Control the Raman response of individual carbon nanotubes by orbital angular momentum of light. Optics Letters, 2017, 42, 2491.	1.7	3
218	Hydrogenation-Induced Phase Transition in Atomic-Layered Î±-MoCl3 Driven by Laser Illumination in a Moist Atmosphere. ACS Applied Electronic Materials, 2020, 2, 2678-2684.	2.0	3
219	Modulation of the second-harmonic generation in MoS₂ by graphene covering*. Chinese Physics B, 2021, 30, 027803.	0.7	3
220	Monitoring the Material Quality of Two-Dimensional Transition Metal Dichalcogenides. Journal of Physical Chemistry C, 2022, 126, 3797-3810.	1.5	3
221	Overall High-Performance Near-Infrared Photodetector Based on CVD-Grown MoTe2 and Graphene Vertical vdWs Heterostructure. Applied Sciences (Switzerland), 2022, 12, 3622.	1.3	3
222	Oxidizing Hexagonal Boron Nitride into Fluorescent Structures by Photodissociated Directional Oxygen Radical. Journal of Physical Chemistry Letters, 2022, 13, 3369-3376.	2.1	3
223	Visualizing the Anomalous Catalysis in Two-Dimensional Confined Space. Nano Letters, 2022, 22, 4661-4668.	4.5	3
224	Nanowire field-effect transistor with Bi1.5Zn1.0Nb1.5O7 dielectric. Applied Physics Letters, 2008, 93, 213107.	1.5	2
225	Probing Phonon Dynamics in Individual Single-Walled Carbon Nanotubes. Nano Letters, 2018, 18, 2590-2594.	4.5	2
226	Atomic origin of Ti-deficient dislocation in SrTiO3 bicrystals and their electronic structures. Journal of Applied Physics, 2019, 126, .	1.1	2
227	Unravelling a Zigzag Pathway for Hot Carrier Collection with Graphene Electrode. Journal of Physical Chemistry Letters, 2021, 12, 2886-2891.	2.1	2
228	Tunable and highly sensitive temperature sensor based on graphene photonic crystal fiber*. Chinese Physics B, 2021, 30, 118103.	0.7	2
229	Enhanced Hot Carrier Upâ€Conversion in Graphene By Quantum Dot Coating. Advanced Optical Materials, 2022, 10, 2101563.	3.6	2
230	Abnormal anti-oxidation behavior of hexagonal boron nitride grown on copper. Nano Research, 2022, 15, 7577-7583.	5.8	2
231	Ultrafast nonlinear absorption in SWNTs: An ultra-broadband investigation. , 2015, , .		1
232	Highâ€Throughput Optical Imaging and Spectroscopy of Oneâ€Dimensional Materials. Chemistry - A European Journal, 2017, 23, 9703-9710.	1.7	1
233	Enhancement of HfO2 Based RRAM Performance Through Hexagonal Boron Nitride Interface Layer. , 2018, , .		1
234	GaNâ€onâ€Si(100): Epitaxy of Singleâ€Crystalline GaN Film on CMOSâ€Compatible Si(100) Substrate Buffered by Graphene (Adv. Funct. Mater. 42/2019). Advanced Functional Materials, 2019, 29, 1970293.	7.8	1

#	Article	IF	Citations
235	Grain Boundaries: Nanoassembly Growth Model for Subdomain and Grain Boundary Formation in 1Tâ€² Layered ReS₂ (Adv. Funct. Mater. 49/2019). Advanced Functional Materials, 2019, 29, 1970335.	7.8	1
236	Carbon Nanotubes: Colors of Singleâ€Wall Carbon Nanotubes (Adv. Mater. 8/2021). Advanced Materials, 2021, 33, 2170060.	11.1	1
237	Near-field infrared microscopy of graphene on metal substrate. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 027803.	0.2	1
238	Optical Spectroscopy of Individual Single-Walled Carbon Nanotubes. Nano-optics and Nanophotonics, 2021, , 135-163.	0.2	1
239	Efficient helicity control of four-wave mixing in gated graphene. Optics Letters, 2022, 47, 234-237.	1.7	1
240	Near-field infrared response of graphene on copper substrate. Frontiers of Physics, 2022, 17, 1.	2.4	1
241	Electrical, Optical and Ionic Probe inside Transmission Electron Microscope. Materials Research Society Symposia Proceedings, 2013, 1525, 1.	0.1	0
242	Frontispiece: Highâ€Throughput Optical Imaging and Spectroscopy of Oneâ€Dimensional Materials. Chemistry - A European Journal, 2017, 23, .	1.7	0
243	Surface Index: Identification of Copper Surface Index by Optical Contrast (Adv. Mater. Interfaces) Tj ETQq1 1 0.784314 rgBT /Overloc	1.9	0
244	Band Engineering: Band Structure Engineering of Interfacial Semiconductors Based on Atomically Thin Lead Iodide Crystals (Adv. Mater. 17/2019). Advanced Materials, 2019, 31, 1970121.	11.1	0
245	Hyperbolic Phonon Polaritons: Broadâ€Spectralâ€Range Sustainability and Controllable Excitation of Hyperbolic Phonon Polaritons in Î±â€MoO₃ (Adv. Mater. 46/2020). Advanced Materials, 2020, 32, 2070347.	11.1	0
246	Optical Spectroscopy of Individual Carbon Nanotubes. World Scientific Series on Carbon Nanoscience, 2019, , 105-121.	0.1	0
247	Non-van der Waals AgCrS2 nanosheet: a new member of 2D realm. Science China Chemistry, 2022, 65, 419-420.	4.2	0
248	Lattice Polarity Manipulation of Quasiâ€vdW Epitaxial GaN Films on Graphene Through Interface Atomic Configuration (Adv. Mater. 5/2022). Advanced Materials, 2022, 34, .	11.1	0
249	A qPlus-based scanning probe microscope compatible with optical measurements. Review of Scientific Instruments, 2022, 93, 043701.	0.6	0
250	Polarizationâ€Drivenâ€Orientation Selective Growth of Singleâ€Crystalline IIIâ€Nitride Semiconductors on Arbitrary Substrates (Adv. Funct. Mater. 14/2022). Advanced Functional Materials, 2022, 32, .	7.8	0