Hai-Lin Peng

List of Publications by Year
in descending order

239 papers	28,893 citations	6613 79 h-index	5120 166 g-index
247 all docs	247 docs citations	247 times ranked	31170 citing authors

#	Article	IF	Citations
1	High-performance lithium battery anodes using silicon nanowires. Nature Nanotechnology, 2008, 3, 31-35.	31.5	5,860
2	Crystalline-Amorphous Coreâ"Shell Silicon Nanowires for High Capacity and High Current Battery Electrodes. Nano Letters, 2009, 9, 491-495.	9.1	1,110
3	Aharonovâ€"Bohm interference in topological insulator nanoribbons. Nature Materials, 2010, 9, 225-229.	27.5	727
4	Toward Clean and Crackless Transfer of Graphene. ACS Nano, 2011, 5, 9144-9153.	14.6	701
5	Hierarchical Graphene Foam for Efficient Omnidirectional Solarâ€"Thermal Energy Conversion. Advanced Materials, 2017, 29, 1702590.	21.0	675
6	Spinel LiMn₂O₄ Nanorods as Lithium Ion Battery Cathodes. Nano Letters, 2008, 8, 3948-3952.	9.1	579
7	Out-of-Plane Piezoelectricity and Ferroelectricity in Layered Î±-In₂Se₃ Nanoflakes. Nano Letters, 2017, 17, 5508-5513.	9.1	567
8	High electron mobility and quantum oscillations in non-encapsulated ultrathin semiconducting Bi2O2Se. Nature Nanotechnology, 2017, 12, 530-534.	31.5	507
9	Ultrafast epitaxial growth of metre-sized single-crystal graphene on industrial Cu foil. Science Bulletin, 2017, 62, 1074-1080.	9.0	454
10	The edge- and basal-plane-specific electrochemistry of a single-layer graphene sheet. Scientific Reports, 2013, 3, 2248.	3.3	432
11	Roll-to-Roll Encapsulation of Metal Nanowires between Graphene and Plastic Substrate for High-Performance Flexible Transparent Electrodes. Nano Letters, 2015, 15, 4206-4213.	9.1	410
12	Few-Layer Nanoplates of Bi₂Se₃ and Bi₂Te₃ with Highly Tunable Chemical Potential. Nano Letters, 2010, 10, 2245-2250.	9.1	403
13	Synthesis challenges for graphene industry. Nature Materials, 2019, 18, 520-524.	27.5	389
14	Fast, Completely Reversible Li Insertion in Vanadium Pentoxide Nanoribbons. Nano Letters, 2007, 7, 490-495.	9.1	375
15	Formation of Bilayer Bernal Graphene: Layer-by-Layer Epitaxy via Chemical Vapor Deposition. Nano Letters, 2011, 11, 1106-1110.	9.1	365
16	Two-Dimensional (C₄H₉NH₃)₂PbBr₄ Perovskite Crystals for High-Performance Photodetector. Journal of the American Chemical Society, 2016, 138, 16612-16615.	13.7	341
17	Photochemical Chlorination of Graphene. ACS Nano, 2011, 5, 5957-5961.	14.6	337
18	Ultrafast growth of single-crystal graphene assisted by a continuous oxygen supply. Nature Nanotechnology, 2016, 11, 930-935.	31.5	330

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19	Rapid Surface Oxidation as a Source of Surface Degradation Factor for Bi₂Se₃. ACS Nano, 2011, 5, 4698-4703.	14.6	320
20	Topological insulator nanostructures for near-infrared transparent flexible electrodes. Nature Chemistry, 2012, 4, 281-286.	13.6	309
21	Topological Insulator Nanowires and Nanoribbons. Nano Letters, 2010, 10, 329-333.	9.1	298
22	Epitaxy and Photoresponse of Two-Dimensional GaSe Crystals on Flexible Transparent Mica Sheets. ACS Nano, 2014, 8, 1485-1490.	14.6	285
23	Rollâ€toâ€Roll Green Transfer of CVD Graphene onto Plastic for a Transparent and Flexible Triboelectric Nanogenerator. Advanced Materials, 2015, 27, 5210-5216.	21.0	273
24	Strong Second-Harmonic Generation in Atomic Layered GaSe. Journal of the American Chemical Society, 2015, 137, 7994-7997.	13.7	273
25	Recent Progress on Two-Dimensional Materials. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2021, .	4.9	269
26	Bridging the Gap between Reality and Ideal in Chemical Vapor Deposition Growth of Graphene. Chemical Reviews, 2018, 118, 9281-9343.	47.7	260
27	Vertical Graphene Growth on SiO Microparticles for Stable Lithium Ion Battery Anodes. Nano Letters, 2017, 17, 3681-3687.	9.1	241
28	Chemistry Makes Graphene beyond Graphene. Journal of the American Chemical Society, 2014, 136, 12194-12200.	13.7	235
29	Janus graphene from asymmetric two-dimensional chemistry. Nature Communications, 2013, 4, 1443.	12.8	231
30	Dirac-source field-effect transistors as energy-efficient, high-performance electronic switches. Science, 2018, 361, 387-392.	12.6	226
31	Controlled Synthesis of High-Mobility Atomically Thin Bismuth Oxyselenide Crystals. Nano Letters, 2017, 17, 3021-3026.	9.1	222
32	Formation of chiral branched nanowires by the Eshelby Twist. Nature Nanotechnology, 2008, 3, 477-481.	31.5	218
33	Toward Mass Production of CVD Graphene Films. Advanced Materials, 2019, 31, e1800996.	21.0	218
34	Ultrafast and highly sensitive infrared photodetectors based on two-dimensional oxyselenide crystals. Nature Communications, 2018, 9, 3311.	12.8	213
35	Controlled synthesis of single-crystal SnSe nanoplates. Nano Research, 2015, 8, 288-295.	10.4	207
36	Synthesis of Hierarchical Graphdiyne-Based Architecture for Efficient Solar Steam Generation. Chemistry of Materials, 2017, 29, 5777-5781.	6.7	206

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37	Epitaxial Heterostructures of Ultrathin Topological Insulator Nanoplate and Graphene. Nano Letters, 2010, 10, 2870-2876.	9.1	203
38	High-performance sub-10 nm monolayer Bi₂O₂Se transistors. Nanoscale, 2019, 11, 532-540.	5.6	196
39	Controlled Growth of Atomically Thin In₂Se₃ Flakes by van der Waals Epitaxy. Journal of the American Chemical Society, 2013, 135, 13274-13277.	13.7	192
40	Direct growth of large-area graphene and boron nitride heterostructures by a co-segregation method. Nature Communications, 2015, 6, 6519.	12.8	190
41	Defect-like Structures of Graphene on Copper Foils for Strain Relief Investigated by High-Resolution Scanning Tunneling Microscopy. ACS Nano, 2011, 5, 4014-4022.	14.6	186
42	Synthesis of Boronâ€Doped Graphene Monolayers Using the Sole Solid Feedstock by Chemical Vapor Deposition. Small, 2013, 9, 1316-1320.	10.0	181
43	Designed CVD Growth of Graphene via Process Engineering. Accounts of Chemical Research, 2013, 46, 2263-2274.	15.6	172
44	Patterning two-dimensional chalcogenide crystals of Bi2Se3 and In2Se3 and efficient photodetectors. Nature Communications, 2015, 6, 6972.	12.8	172
45	Wrinkle-Free Single-Crystal Graphene Wafer Grown on Strain-Engineered Substrates. ACS Nano, 2017, 11, 12337-12345.	14.6	172
46	Controlled Synthesis of Topological Insulator Nanoplate Arrays on Mica. Journal of the American Chemical Society, 2012, 134, 6132-6135.	13.7	169
47	Electronic structures and unusually robust bandgap in an ultrahigh-mobility layered oxide semiconductor, Bi ₂ O ₂ Se. Science Advances, 2018, 4, eaat8355.	10.3	167
48	Synthesis and Phase Transformation of In2Se3 and CuInSe2 Nanowires. Journal of the American Chemical Society, 2007, 129, 34-35.	13.7	158
49	Shape Evolution of Layer-Structured Bismuth Oxychloride Nanostructures via Low-Temperature Chemical Vapor Transport. Chemistry of Materials, 2009, 21, 247-252.	6.7	146
50	Chemical Patterning of Highâ€Mobility Semiconducting 2D Bi₂O₂Se Crystals for Integrated Optoelectronic Devices. Advanced Materials, 2017, 29, 1704060.	21.0	142
51	A native oxide high-Îº gate dielectric for two-dimensional electronics. Nature Electronics, 2020, 3, 473-478.	26.0	141
52	Synthesis and Characterization of Phase-Change Nanowires. Nano Letters, 2006, 6, 1514-1517.	9.1	137
53	Selectively enhanced photocurrent generation in twisted bilayer graphene with van Hove singularity. Nature Communications, 2016, 7, 10699.	12.8	136
54	Towards super-clean graphene. Nature Communications, 2019, 10, 1912.	12.8	133

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55	Hyperbranched Lead Selenide Nanowire Networks. Nano Letters, 2007, 7, 1095-1099.	9.1	131
56	Surface Monocrystallization of Copper Foil for Fast Growth of Large Singleâ€Crystal Graphene under Free Molecular Flow. Advanced Materials, 2016, 28, 8968-8974.	21.0	128
57	Magnetic Doping and Kondo Effect in Bi₂Se₃ Nanoribbons. Nano Letters, 2010, 10, 1076-1081.	9.1	119
58	Single Nanorod Devices for Battery Diagnostics: A Case Study on LiMn₂O₄. Nano Letters, 2009, 9, 4109-4114.	9.1	114
59	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating. Advanced Materials, 2018, 30, 1702944.	21.0	113
60	Creating One-Dimensional Nanoscale Periodic Ripples in a Continuous Mosaic Graphene Monolayer. Physical Review Letters, 2014, 113, 086102.	7.8	111
61	Large Anisotropy of Electrical Properties in Layer-Structured In₂Se₃ Nanowires. Nano Letters, 2008, 8, 1511-1516.	9.1	108
62	Single particle cryo-EM reconstruction of 52â€‰kDa streptavidin at 3.2 Angstrom resolution. Nature Communications, 2019, 10, 2386.	12.8	106
63	Thickness-Dependent Dielectric Constant of Few-Layer In₂Se₃ Nanoflakes. Nano Letters, 2015, 15, 8136-8140.	9.1	99
64	Modulation-doped growth of mosaic graphene with single-crystalline pâ€“n junctions for efficient photocurrent generation. Nature Communications, 2012, 3, 1280.	12.8	97
65	Transfer-Medium-Free Nanofiber-Reinforced Graphene Film and Applications in Wearable Transparent Pressure Sensors. ACS Nano, 2019, 13, 5541-5548.	14.6	96
66	Soft transparent graphene contact lens electrodes for conformal full-cornea recording of electroretinogram. Nature Communications, 2018, 9, 2334.	12.8	95
67	Low Residual Carrier Concentration and High Mobility in 2D Semiconducting Bi₂O₂Se. Nano Letters, 2019, 19, 197-202.	9.1	95
68	Controlled Growth of Singleâ€Crystal Graphene Films. Advanced Materials, 2020, 32, e1903266.	21.0	95
69	Growing three-dimensional biomorphic graphene powders using naturally abundant diatomite templates towards high solution processability. Nature Communications, 2016, 7, 13440.	12.8	93
70	Lowâ€Temperature Heteroepitaxy of 2D PbI₂/Graphene for Largeâ€Area Flexible Photodetectors. Advanced Materials, 2018, 30, e1803194.	21.0	93
71	Hetero-site nucleation for growing twisted bilayer graphene with a wide range of twist angles. Nature Communications, 2021, 12, 2391.	12.8	92
72	Nanoscale Electronic Inhomogeneity in In₂Se₃ Nanoribbons Revealed by Microwave Impedance Microscopy. Nano Letters, 2009, 9, 1265-1269.	9.1	91

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73	Surface Engineering of Copper Foils for Growing Centimeter-Sized Single-Crystalline Graphene. ACS Nano, 2016, 10, 2922-2929.	14.6	89
74	Interlayer vibrational modes in few-quintuple-layer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:n xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:n crystals: Raman spectroscopy and. Physical Review B, 2014, 90, .	3.7	87
75	Controllable Coâ€segregation Synthesis of Waferâ€Scale Hexagonal Boron Nitride Thin Films. Advanced Materials, 2014, 26, 1776-1781.	21.0	87
76	Revealing the Contribution of Individual Factors to Hydrogen Evolution Reaction Catalytic Activity. Advanced Materials, 2018, 30, e1706076.	21.0	86
77	Grapheneâ€Armored Aluminum Foil with Enhanced Anticorrosion Performance as Current Collectors for Lithiumâ€Ion Battery. Advanced Materials, 2017, 29, 1703882.	21.0	85
78	Truly Concomitant and Independently Expressed Shortâ€and Longâ€Term Plasticity in a Bi₂O₂Seâ€Based Threeâ€Terminal Memristor. Advanced Materials, 2019, 31, e1805769.	21.0	85
79	Graphene Encapsulated Copper Microwires as Highly MRI Compatible Neural Electrodes. Nano Letters, 2016, 16, 7731-7738.	9.1	82
80	Wafer-Scale Growth of Single-Crystal 2D Semiconductor on Perovskite Oxides for High-Performance Transistors. Nano Letters, 2019, 19, 2148-2153.	9.1	82
81	Self-powered flexible and transparent photovoltaic detectors based on CdSe nanobelt/graphene Schottky junctions. Nanoscale, 2013, 5, 5576.	5.6	80
82	Clean Transfer of Large Graphene Single Crystals for Highâ€Intactness Suspended Membranes and Liquid Cells. Advanced Materials, 2017, 29, 1700639.	21.0	80
83	Morphology Control of Layer-Structured Gallium Selenide Nanowires. Nano Letters, 2007, 7, 199-203.	9.1	79
84	Ordered Vacancy Compounds and Nanotube Formation in CuInSe₂â"CdS Coreâ"Shell Nanowires. Nano Letters, 2007, 7, 3734-3738.	9.1	77
85	Heterogeneous nucleation and growth of electrodeposited lithium metal on the basal plane of single-layer graphene. Energy Storage Materials, 2019, 16, 419-425.	18.0	77
86	Nitrogen cluster doping for high-mobility/conductivity graphene films with millimeter-sized domains. Science Advances, 2019, 5, eaaw8337.	10.3	77
87	Raman Spectra and Strain Effects in Bismuth Oxychalcogenides. Journal of Physical Chemistry C, 2018, 122, 19970-19980.	3.1	76
88	Fast Growth of Strain-Free AlN on Graphene-Buffered Sapphire. Journal of the American Chemical Society, 2018, 140, 11935-11941.	13.7	75
89	Rapid Growth of Large Singleâ€Crystalline Graphene via Second Passivation and Multistage Carbon Supply. Advanced Materials, 2016, 28, 4671-4677.	21.0	69
90	Epitaxial growth of large-area and highly crystalline anisotropic ReSe2 atomic layer. Nano Research, 2017, 10, 2732-2742.	10.4	69

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91	Bioactive Functionalized Monolayer Graphene for High-Resolution Cryo-Electron Microscopy. Journal of the American Chemical Society, 2019, 141, 4016-4025.	13.7	69
92	Bolometric Effect in Bi₂O₂Se Photodetectors. Small, 2019, 15, e1904482.	10.0	68
93	Scalable and ultrafast epitaxial growth of single-crystal graphene wafers for electrically tunable liquid-crystal microlens arrays. Science Bulletin, 2019, 64, 659-668.	9.0	66
94	Broadband Bi₂O₂Se Photodetectors from Infrared to Terahertz. Advanced Functional Materials, 2021, 31, 2009554.	14.9	65
95	Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie - International Edition, 2019, 58, 14446-14451.	13.8	64
96	Interlayer Decoupling in 30Â° Twisted Bilayer Graphene Quasicrystal. ACS Nano, 2020, 14, 1656-1664.	14.6	64
97	Self-modulation doping effect in the high-mobility layered semiconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Se</mml:mi></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	3.7	63
98	Switching Vertical to Horizontal Graphene Growth Using Faraday Cageâ€Assisted PECVD Approach for Highâ€Performance Transparent Heating Device. Advanced Materials, 2018, 30, 1704839.	21.0	62
99	Plasmon-Enhanced Photothermoelectric Conversion in Chemical Vapor Deposited Graphene pâ€“n Junctions. Journal of the American Chemical Society, 2013, 135, 10926-10929.	13.7	61
100	Monodisperse Copper Chalcogenide Nanocrystals: Controllable Synthesis and the Pinning of Plasmonic Resonance Absorption. Journal of the American Chemical Society, 2015, 137, 12006-12012.	13.7	61
101	Plasmonic hot electron tunneling photodetection in vertical Auâ€“graphene hybrid nanostructures. Laser and Photonics Reviews, 2017, 11, 1600148.	8.7	61
102	Early Lithium Plating Behavior in Confined Nanospace of 3D Lithiophilic Carbon Matrix for Stable Solidâ€State Lithium Metal Batteries. Small, 2019, 15, e1904216.	10.0	61
103	Large-area chemical vapor deposition-grown monolayer graphene-wrapped silver nanowires for broad-spectrum and robust antimicrobial coating. Nano Research, 2016, 9, 963-973.	10.4	60
104	van Hove Singularity Enhanced Photochemical Reactivity of Twisted Bilayer Graphene. Nano Letters, 2015, 15, 5585-5589.	9.1	59
105	Molecular Beam Epitaxy and Electronic Structure of Atomically Thin Oxyselenide Films. Advanced Materials, 2019, 31, e1901964.	21.0	59
106	Catalystâ€Free Synthesis of Fewâ€Layer Graphdiyne Using a Microwaveâ€Induced Temperature Gradient at a Solid/Liquid Interface. Advanced Functional Materials, 2020, 30, 2001396.	14.9	54
107	Building Large-Domain Twisted Bilayer Graphene with van Hove Singularity. ACS Nano, 2016, 10, 6725-6730.	14.6	53
108	Anisotropy of Chemical Transformation from In₂Se₃ to CuInSe₂ Nanowires through Solid State Reaction. Journal of the American Chemical Society, 2009, 131, 7973-7975.	13.7	50

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109	Diverse Atomically Sharp Interfaces and Linear Dichroism of 1T' ReS₂â€ReSe₂ Lateral pâ€“n Heterojunctions. Advanced Functional Materials, 2018, 28, 1804696.	14.9	50
110	Weak antilocalization and electronâ€“electron interaction in coupled multiple-channel transport in a Bi₂Se₃ thin film. Nanoscale, 2016, 8, 1879-1885.	5.6	49
111	Strong spinâ€“orbit interaction and magnetotransport in semiconductor Bi₂O₂Se nanoplates. Nanoscale, 2018, 10, 2704-2710.	5.6	49
112	Copper-Containing Carbon Feedstock for Growing Superclean Graphene. Journal of the American Chemical Society, 2019, 141, 7670-7674.	13.7	47
113	High-Mobility Flexible Oxyselenide Thin-Film Transistors Prepared by a Solution-Assisted Method. Journal of the American Chemical Society, 2020, 142, 2726-2731.	13.7	47
114	Electronâ€“Hole Symmetry Breaking in Charge Transport in Nitrogen-Doped Graphene. ACS Nano, 2017, 11, 4641-4650.	14.6	46
115	Anisotropic Strain Relaxation of Graphene by Corrugation on Copper Crystal Surfaces. Small, 2018, 14, e1800725.	10.0	46
116	Building graphene pâ€“n junctions for next-generation photodetection. Nano Today, 2015, 10, 701-716.	11.9	45
117	Low-Temperature Growth of Two-Dimensional Layered Chalcogenide Crystals on Liquid. Nano Letters, 2016, 16, 2103-2107.	9.1	45
118	Large Singleâ€Crystal Cu Foils with Highâ€Index Facets by Strainâ€Engineered Anomalous Grain Growth. Advanced Materials, 2020, 32, e2002034.	21.0	45
119	A transparent, conducting tape for flexible electronics. Nano Research, 2016, 9, 917-924.	10.4	44
120	Substrate Doping Effect and Unusually Large Angle van Hove Singularity Evolution in Twisted Biâ€and Multilayer Graphene. Advanced Materials, 2017, 29, 1606741.	21.0	43
121	Hot-Carrier Cooling in High-Quality Graphene Is Intrinsically Limited by Optical Phonons. ACS Nano, 2021, 15, 11285-11295.	14.6	43
122	A Roadmap for Controlled Production of Topological Insulator Nanostructures and Thin Films. Small, 2015, 11, 3290-3305.	10.0	42
123	New Growth Frontier: Superclean Graphene. ACS Nano, 2020, 14, 10796-10803.	14.6	41
124	The Way towards Ultrafast Growth of Singleâ€Crystal Graphene on Copper. Advanced Science, 2017, 4, 1700087.	11.2	40
125	A Forceâ€Engineered Lint Roller for Superclean Graphene. Advanced Materials, 2019, 31, e1902978.	21.0	40
126	Toward Epitaxial Growth of Misorientation-Free Graphene on Cu(111) Foils. ACS Nano, 2022, 16, 285-294.	14.6	40

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127	Selectiveâ€Area Van der Waals Epitaxy of Topological Insulator Grid Nanostructures for Broadband Transparent Flexible Electrodes. Advanced Materials, 2013, 25, 5959-5964.	21.0	39
128	Lowâ€Temperature and Rapid Growth of Large Singleâ€Crystalline Graphene with Ethane. Small, 2018, 14, 1702916.	10.0	39
129	2D Bi₂O₂Se: An Emerging Material Platform for the Next-Generation Electronic Industry. Accounts of Materials Research, 2021, 2, 842-853.	11.7	39
130	Clean and efficient transfer of CVD-grown graphene by electrochemical etching of metal substrate. Journal of Electroanalytical Chemistry, 2013, 688, 243-248.	3.8	38
131	Uniform High-k Amorphous Native Oxide Synthesized by Oxygen Plasma for Top-Gated Transistors. Nano Letters, 2020, 20, 7469-7475.	9.1	37
132	Robust ultraclean atomically thin membranes for atomic-resolution electron microscopy. Nature Communications, 2020, 11, 541.	12.8	37
133	Exploitation of Bi₂O₂Se/graphene van der Waals heterojunction for creating efficient photodetectors and shortâ€channel fieldâ€effect transistors. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 390-395.	17.3	36
134	Formation mechanism of overlapping grain boundaries in graphene chemical vapor deposition growth. Chemical Science, 2017, 8, 2209-2214.	7.4	35
135	Low-energy transmission electron diffraction and imaging of large-area graphene. Science Advances, 2017, 3, e1603231.	10.3	35
136	Tuning Chemical Potential Difference across Alternately Doped Graphene pâ€“n Junctions for High-Efficiency Photodetection. Nano Letters, 2016, 16, 4094-4101.	9.1	34
137	Near-Atomic Resolution Structure Determination in Over-Focus with Volta Phase Plate by Cs-Corrected Cryo-EM. Structure, 2017, 25, 1623-1630.e3.	3.3	34
138	Exploiting Twoâ€Dimensional Bi₂O₂Se for Trace Oxygen Detection. Angewandte Chemie - International Edition, 2020, 59, 17938-17943.	13.8	31
139	Verticalâ€Grapheneâ€Reinforced Titanium Alloy Bipolar Plates in Fuel Cells. Advanced Materials, 2022, 34, e2110565.	21.0	31
140	Visualizing fast growth of large single-crystalline graphene by tunable isotopic carbon source. Nano Research, 2017, 10, 355-363.	10.4	30
141	Photoâ€induced Free Radical Modification of Graphene. Small, 2013, 9, 1134-1143.	10.0	29
142	Photoinduced Methylation of Graphene. Small, 2013, 9, 1348-1352.	10.0	29
143	Nonlocal Response in Infrared Detector with Semiconducting Carbon Nanotubes and Graphdiyne. Advanced Science, 2017, 4, 1700472.	11.2	29
144	Ultrafast Broadband Charge Collection from Clean Graphene/CH₃NH₃PbI₃ Interface. Journal of the American Chemical Society, 2018, 140, 14952-14957.	13.7	29

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145	Raman spectroscopic characterization of stacking configuration and interlayer coupling of twisted multilayer graphene grown by chemical vapor deposition. Carbon, 2016, 110, 225-231.	10.3	28
146	Superclean Growth of Graphene Using a Coldâ€Wall Chemical Vapor Deposition Approach. Angewandte Chemie - International Edition, 2020, 59, 17214-17218.	13.8	28
147	Intrinsic Wettability in Pristine Graphene. Advanced Materials, 2022, 34, e2103620.	21.0	28
148	Defects guided wrinkling in graphene on copper substrate. Carbon, 2019, 143, 736-742.	10.3	27
149	Understanding Interlayer Contact Conductance in Twisted Bilayer Graphene. Small, 2020, 16, e1902844.	10.0	27
150	Vacancy ordering and lithium insertion in III2VI3 nanowires. Nano Research, 2009, 2, 327-335.	10.4	26
151	Vertical graphene nanosheetsmodified Al current collectors for high-performance sodium-ion batteries. Nano Research, 2020, 13, 1948-1954.	10.4	26
152	Thermochemical Hole Burning on a Series of N-Substituted Morpholinium 7,7,8,8-Tetracyanoquinodimethane Charge-Transfer Complexes for Data Storage. Journal of Physical Chemistry B, 2005, 109, 22486-22490.	2.6	24
153	Optical Properties and Photocarrier Dynamics of Bi₂O₂Se Monolayer and Nanoplates. Advanced Optical Materials, 2020, 8, 1901567.	7.3	24
154	Thermochemical Hole Burning on a Triethylammonium Bis-7,7,8,8-tetracyanoquinodimethane Charge-Transfer Complex Using Single-Walled Carbon Nanotube Scanning Tunneling Microscopy Tips. Journal of Physical Chemistry B, 2005, 109, 3526-3530.	2.6	23
155	Tunable Pore Size from Sub-Nanometer to a Few Nanometers in Large-Area Graphene Nanoporous Atomically Thin Membranes. ACS Applied Materials & Interfaces, 2021, 13, 29926-29935.	8.0	23
156	Topological insulator nanostructures: Materials synthesis, Raman spectroscopy, and transport properties. Frontiers of Physics, 2012, 7, 208-217.	5.0	22
157	Chemical Intercalation of Topological Insulator Grid Nanostructures for Highâ€Performance Transparent Electrodes. Advanced Materials, 2017, 29, 1703424.	21.0	21
158	CuInSe₂ Nanowires from Facile Chemical Transformation of In₂Se₃ and Their Integration in Single-Nanowire Devices. ACS Nano, 2013, 7, 3205-3211.	14.6	20
159	Epitaxial Growth of Ternary Topological Insulator Bi₂Te₂Se 2D Crystals on Mica. Small, 2017, 13, 1603572.	10.0	20
160	Free Radical Reactions in Two Dimensions: A Case Study on Photochlorination of Graphene. Small, 2013, 9, 1388-1396.	10.0	19
161	Novel grapheneâ€“oxideâ€“semiconductor nanowire phototransistors. Journal of Materials Chemistry C, 2014, 2, 1592.	5.5	19
162	Investigation of black phosphorus as a nano-optical polarization element by polarized Raman spectroscopy. Nano Research, 2018, 11, 3154-3163.	10.4	19

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163	Growth of Ultraflat Graphene with Greatly Enhanced Mechanical Properties. Nano Letters, 2020, 20, 6798-6806.	9.1	19
164	Edgeâ€States–Induced Disruption to the Energy Band Alignment at Thicknessâ€Modulated Molybdenum Sulfide Junctions. Advanced Electronic Materials, 2016, 2, 1600048.	5.1	18
165	Quantitative Analyses of the Interfacial Properties of Current Collectors at the Mesoscopic Level in Lithium Ion Batteries by Using Hierarchical Graphene. Nano Letters, 2020, 20, 2175-2182.	9.1	18
166	Comparison of Nanocarbonâ€“Silicon Solar Cells with Nanotubeâ€“Si or Grapheneâ€“Si Contact. ACS Applied Materials & Interfaces, 2015, 7, 17088-17094.	8.0	17
167	Strain-Free Layered Semiconductors for 2D Transistors with On-State Current Density Exceeding 1.3 mA Î¼m^{â€“1}. Nano Letters, 2022, 22, 3770-3776.	9.1	17
168	Chemically Engineered Substrates for Patternable Growth of Two-Dimensional Chalcogenide Crystals. ACS Nano, 2016, 10, 10317-10323.	14.6	16
169	Growth of 12-inch uniform monolayer graphene film on molten glass and its application in PbI2-based photodetector. Nano Research, 2019, 12, 1888-1893.	10.4	16
170	Universal conductance fluctuations and phase-coherent transport in a semiconductor Bi₂O₂Se nanoplate with strong spinâ€“orbit interaction. Nanoscale, 2019, 11, 10622-10628.	5.6	16
171	nâ€Type Diracâ€Source Fieldâ€Effect Transistors Based on a Graphene/Carbon Nanotube Heterojunction. Advanced Electronic Materials, 2020, 6, 2000258.	5.1	16
172	Preparation of two-dimensional [Bi2O2]-based layered materials: Progress and prospects. APL Materials, 2021, 9, .	5.1	16
173	Structure, Physical Properties and Phase Transition of a Quasi-One-Dimensional Organic Semiconductor DBA(TCNQ)2. Journal of Physical Chemistry C, 2008, 112, 11001-11006.	3.1	15
174	Organic charge-transfer complexes for STM-based thermochemical-hole-burning memory. Coordination Chemistry Reviews, 2010, 254, 1151-1168.	18.8	15
175	Transferâ€Enabled Fabrication of Graphene Wrinkle Arrays for Epitaxial Growth of AlN Films. Advanced Materials, 2022, 34, e2105851.	21.0	15
176	Threeâ€Dimensional Interconnected Silica Nanotubes Templated from Hyperbranched Nanowires. Small, 2009, 5, 437-439.	10.0	14
177	Layer-dependent ultrafast dynamics of Î±-In₂Se₃ nanoflakes. 2D Materials, 2019, 6, 035034.	4.4	14
178	Temperature dependence of quantum oscillations from non-parabolic dispersions. Nature Communications, 2021, 12, 6213.	12.8	14
179	Anisotropic Thermochemical Hole Burning Phenomenon on TTFâ€“TCNQ Single Crystal. Journal of Physical Chemistry C, 2007, 111, 631-635.	3.1	13
180	Unveiling the Fine Structural Distortion of Atomically Thin Bi₂O₂Se by Thirdâ€Harmonic Generation. Advanced Materials, 2020, 32, e2002831.	21.0	13

#	Article	IF	Citations
181	Asymmetry allows photocurrent in intrinsic graphene. Nature Nanotechnology, 2019, 14, 105-106.	31.5	11
182	Dirac-cone induced gating enhancement in single-molecule field-effect transistors. Nanoscale, 2019, 11, 13117-13125.	5.6	11
183	Thermochemical Hole Burning on DPA(TCNQ)2 and MEM(TCNQ)2 Charge Transfer Complexes Using a Scanning Tunneling Microscope. Journal of Physical Chemistry B, 2004, 108, 14800-14803.	2.6	10
184	Phase transformations in one-dimensional materials: applications in electronics and energy sciences. Journal of Materials Chemistry, 2009, 19, 5879.	6.7	10
185	Observing electronic structures on exâ€šitu grown topological insulator thin films. Physica Status Solidi - Rapid Research Letters, 2013, 7, 130-132.	2.4	10
186	A Singleâ€Electron Transistor Made of a 3D Topological Insulator Nanoplate. Advanced Materials, 2019, 31, e1903686.	21.0	10
187	Determination of interatomic coupling between two-dimensional crystals using angle-resolved photoemission spectroscopy. Nature Communications, 2020, 11, 3582.	12.8	10
188	Biomass Hydroxyapatite-templated Synthesis of 3D Graphene. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2019, 35, 1112-1118.	4.9	10
189	Vapor-Liquid-Solid Growth of Bi₂O₂Se Nanoribbons for High-Performance Transistors. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, 36, 1908038-0.	4.9	10
190	Scanning tunneling microscope-based thermochemical hole burning on a series of charge transfer complexes. Applied Physics Letters, 2005, 86, 133105.	3.3	9
191	Rapid growth of angle-confined large-domain graphene bicrystals. Nano Research, 2017, 10, 1189-1199.	10.4	9
192	2D Hybrid Nanostructured Dirac Materials for Broadband Transparent Electrodes. Advanced Materials, 2015, 27, 4315-4321.	21.0	8
193	Electrostatic interaction determines thermal conductivity anisotropy of Bi2O2Se. Cell Reports Physical Science, 2021, 2, 100624.	5.6	8
194	Charge Transfer Properties of Heterostructures Formed by Bi 2 O 2 Se and Transition Metal Dichalcogenide Monolayers. Small, 2021, , 2106078.	10.0	8
195	Exploiting Twoâ€Dimensional Bi₂O₂Se for Trace Oxygen Detection. Angewandte Chemie, 2020, 132, 18094-18099.	2.0	7
196	Quasi-one-dimensional TaSe3: A New Topological Superconductor Candidate. Matter, 2021, 4, 19-21.	10.0	7
197	Photochemical Modification of Graphene. Acta Chimica Sinica, 2014, 72, 289.	1.4	7
198	Hydrophilic, Clean Graphene for Cell Culture and Cryo-EM Imaging. Nano Letters, 2021, 21, 9587-9593.	9.1	7

#	Article	IF	Citations
199	Slipâ€Lineâ€Guided Growth of Graphene. Advanced Materials, 2022, 34, e2201188.	21.0	7
200	Epitaxial Growth of Asymmetricallyâ€Doped Bilayer Graphene for Photocurrent Generation. Small, 2014, 10, 2245-2250.	10.0	6
201	Multiple single cell screening and DNA MDA amplification chip for oncogenic mutation profiling. Lab on A Chip, 2018, 18, 723-734.	6.0	6
202	Identifying EGFR-Expressed Cells and Detecting EGFR Multi-Mutations at Single-Cell Level by Microfluidic Chip. Nano-Micro Letters, 2018, 10, 16.	27.0	6
203	Macroscale single crystal graphene templated directional alignment of liquid-crystal microlens array for light field imaging. Applied Physics Letters, 2019, 115, .	3.3	6
204	Toward batch synthesis of high-quality graphene by cold-wall chemical vapor deposition approach. Nano Research, 2022, 15, 9683-9688.	10.4	6
205	Trifluoromethylation of graphene. APL Materials, 2014, 2, .	5.1	5
206	Electrical and Photoresponse Properties of Inversion Asymmetric Topological Insulator BiTeCl Nanoplates. ChemNanoMat, 2017, 3, 406-410.	2.8	5
207	Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie, 2019, 131, 14588-14593.	2.0	5
208	Atomically Thin Bilayer Janus Membranes for Cryo-electron Microscopy. ACS Nano, 2021, 15, 16562-16571.	14.6	5
209	Thermochemical Hole Burning on TEA(TCNQ)2Single Crystal at Varied Temperatures in UHV System. Journal of Physical Chemistry C, 2008, 112, 2004-2007.	3.1	4
210	Superclean Growth of Graphene Using a Coldâ€Wall Chemical Vapor Deposition Approach. Angewandte Chemie, 2020, 132, 17367-17371.	2.0	4
211	Realization and transport investigation of a single layer-twisted bilayer graphene junction. Carbon, 2020, 163, 105-112.	10.3	4
212	Utilization of Synergistic Effect of Dimensionâ€Differentiated Hierarchical Nanomaterials for Transparent and Flexible Wireless Communicational Elements. Advanced Materials Technologies, 2020, 5, 1901057.	5.8	4
213	Graphene Membranes for Multiâ€Dimensional Electron Microscopy Imaging: Preparation, Application, and Prospect. Advanced Functional Materials, 2022, 32, .	14.9	4
214	Charge transport and electron-hole asymmetry in low-mobility graphene/hexagonal boron nitride heterostructures. Journal of Applied Physics, 2018, 123, .	2.5	3
215	Transport signatures of relativistic quantum scars in a graphene cavity. Physical Review B, 2020, 101, .	3.2	3
216	Surface photovoltaic effect and electronic structure of Î² -InSe. Physical Review Materials, 2020, 4, .	2.4	3

#	Article	IF	Citations
217	The role of Cu crystallographic orientations towards growing superclean graphene on meter-sized scale. Nano Research, 2022, 15, 3775-3780.	10.4	3
218	High-Performance 3D Vertically Oriented Graphene Photodetector Using a Floating Indium Tin Oxide Channel. Sensors, 2022, 22, 959.	3.8	3
219	Probe of local impurity states by bend resistance measurements in graphene cross junctions. Nanotechnology, 2016, 27, 245204.	2.6	2
220	Surprisingly fast cooling in graphene-based van der Waals stacks. Science China Materials, 2018, 61, 1017-1018.	6.3	2
221	Single crystalline electronic structure and growth mechanism of aligned square graphene sheets. APL Materials, 2018, 6, .	5.1	2
222	Frontispiece: Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie - International Edition, 2019, 58, .	13.8	2
223	Coulomb-dominated oscillations in a graphene quantum Hall Fabryâ€“PÃ©rot interferometer. Chinese Physics B, 2019, 28, 127203.	1.4	2
224	Graphene Acoustic Phononâ€Mediated Pseudoâ€Landau Levels Tailoring Probed by Scanning Tunneling Spectroscopy. Small, 2020, 16, 1905202.	10.0	2
225	Controllable inversion symmetry breaking in single layer graphene induced by sub-lattice contrasted charge polarization. Carbon, 2020, 163, 63-69.	10.3	2
226	Superconductivity in an Al-twisted bilayer graphene-Al junction device. Japanese Journal of Applied Physics, 2020, 59, SGGI07.	1.5	2
227	Unravelling a Zigzag Pathway for Hot Carrier Collection with Graphene Electrode. Journal of Physical Chemistry Letters, 2021, 12, 2886-2891.	4.6	2
228	Coplanar High Mobility and Interplanar Van Der Waals Heterojunction in Layered Two-Dimensional Biâ„Oâ„Se Nanosheets. IEEE Electron Device Letters, 2021, 42, 871-874.	3.9	2
229	Sub-10mK-Resolution Thermal-Bolometric Integrated FET-Type Sensors Based on Layered Bi2O2Se Semiconductor Nanosheets. , 2020, , .		2
230	Two-Dimensional Materials Beyond Graphene: an Emerging Field with Blooming Progress. Acta Chimica Sinica, 2015, 73, 861.	1.4	2
231	Thermochemical hole burning performance of TCNQ-based charge transfer complexes with different electrical conductivities. Nanotechnology, 2008, 19, 235303.	2.6	1
232	Low-field magnetotransport in graphene cavity devices. Nanotechnology, 2018, 29, 205707.	2.6	1
233	Fluorescence Quenching Effect of Rhodanmine 6G on Two-Dimensional Bi₂Se₃Crystals. Acta Chimica Sinica, 2015, 73, 944.	1.4	1
234	Phase-Change Nanowires for Non Volatile Memory. Materials Research Society Symposia Proceedings, 2007, 997, 1.	0.1	0

#	Article	IF	Citations
235	Properties of photochlorinated graphene. , 2011, , .		0
236	Fieldâ€Effect Transistors: Edgeâ€States â€Induced Disruption to the Energy Band Alignment at Thicknessâ€Modulated Molybdenum Sulfide Junctions (Adv. Electron. Mater. 8/2016). Advanced Electronic Materials, 2016, 2, .	5.1	0
237	Special topic on 2D materials chemistry. APL Materials, 2021, 9, 100401.	5.1	0
238	Atomic Resolution Characterization of Ordered Fluctuation Structure in Î±-Cu₂Se. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2019, 35, 137-138.	4.9	0
239	Surface-bulk coupling in a Bi2Te3 nanoplate grown by van der Waals epitaxy. Nanoscale, 2022, , .	5.6	0