Hai-Lin Peng

List of Publications by Citations

232 papers	22,797 citations	69 h-index	149 g-index
247 ext. papers	25,933 ext. citations	13.1 avg, IF	6.88 L-index

#	Paper	IF	Citations
232	High-performance lithium battery anodes using silicon nanowires. *Nature Nanotechnology*, **2008**, 3, 31-5	28.7	5216
231	Crystalline-amorphous core-shell silicon nanowires for high capacity and high current battery electrodes. *Nano Letters*, **2009**, 9, 491-5	11.5	1036
230	Aharonov-Bohm interference in topological insulator nanoribbons. *Nature Materials*, **2010**, 9, 225-9	27	660
229	Toward clean and crackless transfer of graphene. *ACS Nano*, **2011**, 5, 9144-53	16.7	588
228	Spinel LiMn2O4 nanorods as lithium ion battery cathodes. *Nano Letters*, **2008**, 8, 3948-52	11.5	518
227	Hierarchical Graphene Foam for Efficient Omnidirectional Solar-Thermal Energy Conversion. *Advanced Materials*, **2017**, 29, 1702590	24	480
226	Few-layer nanoplates of Bi 2 Se 3 and Bi 2 Te 3 with highly tunable chemical potential. *Nano Letters*, **2010**, 10, 2245-50	11.5	370
225	The edge- and basal-plane-specific electrochemistry of a single-layer graphene sheet. *Scientific Reports*, **2013**, 3, 2248	4.9	367
224	Fast, completely reversible li insertion in vanadium pentoxide nanoribbons. *Nano Letters*, **2007**, 7, 490-5	11.5	359
223	Roll-to-Roll Encapsulation of Metal Nanowires between Graphene and Plastic Substrate for High-Performance Flexible Transparent Electrodes. *Nano Letters*, **2015**, 15, 4206-13	11.5	357
222	High electron mobility and quantum oscillations in non-encapsulated ultrathin semiconducting BiOSe. *Nature Nanotechnology*, **2017**, 12, 530-534	28.7	332
221	Ultrafast epitaxial growth of metre-sized single-crystal graphene on industrial Cu foil. *Science Bulletin*, **2017**, 62, 1074-1080	10.6	326
220	Formation of bilayer bernal graphene: layer-by-layer epitaxy via chemical vapor deposition. *Nano Letters*, **2011**, 11, 1106-10	11.5	320
219	Out-of-Plane Piezoelectricity and Ferroelectricity in Layered ⊟nSe Nanoflakes. *Nano Letters*, **2017**, 17, 5508-5513	11.5	317
218	Photochemical chlorination of graphene. *ACS Nano*, **2011**, 5, 5957-61	16.7	284
217	Rapid surface oxidation as a source of surface degradation factor for Bi⊟e□*ACS Nano*, **2011**, 5, 4698-703	16.7	279
216	Ultrafast growth of single-crystal graphene assisted by a continuous oxygen supply. *Nature Nanotechnology*, **2016**, 11, 930-935	28.7	277

215	Two-Dimensional (CHNH)PbBr Perovskite Crystals for High-Performance Photodetector. *Journal of the American Chemical Society*, **2016**, 138, 16612-16615	16.4	273
214	Topological insulator nanostructures for near-infrared transparent flexible electrodes. *Nature Chemistry*, **2012**, 4, 281-6	17.6	270
213	Topological insulator nanowires and nanoribbons. *Nano Letters*, **2010**, 10, 329-33	11.5	263
212	Epitaxy and photoresponse of two-dimensional GaSe crystals on flexible transparent mica sheets. *ACS Nano*, **2014**, 8, 1485-90	16.7	245
211	Synthesis challenges for graphene industry. *Nature Materials*, **2019**, 18, 520-524	27	217
210	Roll-to-Roll Green Transfer of CVD Graphene onto Plastic for a Transparent and Flexible Triboelectric Nanogenerator. *Advanced Materials*, **2015**, 27, 5210-6	24	215
209	Strong Second-Harmonic Generation in Atomic Layered GaSe. *Journal of the American Chemical Society*, **2015**, 137, 7994-7	16.4	206
208	Formation of chiral branched nanowires by the Eshelby Twist. *Nature Nanotechnology*, **2008**, 3, 477-81	28.7	198
207	Janus graphene from asymmetric two-dimensional chemistry. *Nature Communications*, **2013**, 4, 1443	17.4	196
206	Epitaxial heterostructures of ultrathin topological insulator nanoplate and graphene. *Nano Letters*, **2010**, 10, 2870-6	11.5	195
205	Vertical Graphene Growth on SiO Microparticles for Stable Lithium Ion Battery Anodes. *Nano Letters*, **2017**, 17, 3681-3687	11.5	185
204	Chemistry makes graphene beyond graphene. *Journal of the American Chemical Society*, **2014**, 136, 12194-200	16.4	184
203	Direct growth of large-area graphene and boron nitride heterostructures by a co-segregation method. *Nature Communications*, **2015**, 6, 6519	17.4	173
202	Controlled synthesis of single-crystal SnSe nanoplates. *Nano Research*, **2015**, 8, 288-295	10	170
201	Defect-like structures of graphene on copper foils for strain relief investigated by high-resolution scanning tunneling microscopy. *ACS Nano*, **2011**, 5, 4014-22	16.7	165
200	Bridging the Gap between Reality and Ideal in Chemical Vapor Deposition Growth of Graphene. *Chemical Reviews*, **2018**, 118, 9281-9343	68.1	160
199	Synthesis of boron-doped graphene monolayers using the sole solid feedstock by chemical vapor deposition. *Small*, **2013**, 9, 1316-20	11	157
198	Controlled growth of atomically thin In2Se3 flakes by van der Waals epitaxy. *Journal of the American Chemical Society*, **2013**, 135, 13274-7	16.4	156

197	Synthesis of Hierarchical Graphdiyne-Based Architecture for Efficient Solar Steam Generation. *Chemistry of Materials*, **2017**, 29, 5777-5781	9.6	155
196	Designed CVD growth of graphene via process engineering. *Accounts of Chemical Research*, **2013**, 46, 2263-74	24.3	152
195	Controlled synthesis of topological insulator nanoplate arrays on mica. *Journal of the American Chemical Society*, **2012**, 134, 6132-5	16.4	152
194	Synthesis and phase transformation of In(2)Se(3) and CuInSe(2) nanowires. *Journal of the American Chemical Society*, **2007**, 129, 34-5	16.4	151
193	Dirac-source field-effect transistors as energy-efficient, high-performance electronic switches. *Science*, **2018**, 361, 387-392	33.3	146
192	Controlled Synthesis of High-Mobility Atomically Thin Bismuth Oxyselenide Crystals. *Nano Letters*, **2017**, 17, 3021-3026	11.5	145
191	Shape Evolution of Layer-Structured Bismuth Oxychloride Nanostructures via Low-Temperature Chemical Vapor Transport. *Chemistry of Materials*, **2009**, 21, 247-252	9.6	136
190	Ultrafast and highly sensitive infrared photodetectors based on two-dimensional oxyselenide crystals. *Nature Communications*, **2018**, 9, 3311	17.4	135
189	Patterning two-dimensional chalcogenide crystals of Bi2Se3 and In2Se3 and efficient photodetectors. *Nature Communications*, **2015**, 6, 6972	17.4	133
188	High-performance sub-10 nm monolayer BiOSe transistors. *Nanoscale*, **2019**, 11, 532-540	7.7	128
187	Synthesis and characterization of phase-change nanowires. *Nano Letters*, **2006**, 6, 1514-7	11.5	127
186	Toward Mass Production of CVD Graphene Films. *Advanced Materials*, **2019**, 31, e1800996	24	123
185	Hyperbranched lead selenide nanowire networks. *Nano Letters*, **2007**, 7, 1095-9	11.5	121
184	Wrinkle-Free Single-Crystal Graphene Wafer Grown on Strain-Engineered Substrates. *ACS Nano*, **2017**, 11, 12337-12345	16.7	112
183	Surface Monocrystallization of Copper Foil for Fast Growth of Large Single-Crystal Graphene under Free Molecular Flow. *Advanced Materials*, **2016**, 28, 8968-8974	24	110
182	Magnetic doping and kondo effect in bi(2)se(3) nanoribbons. *Nano Letters*, **2010**, 10, 1076-81	11.5	109
181	Single nanorod devices for battery diagnostics: a case study on LiMn2O4. *Nano Letters*, **2009**, 9, 4109-14	11.5	108
180	Electronic structures and unusually robust bandgap in an ultrahigh-mobility layered oxide semiconductor, BiOSe. *Science Advances*, **2018**, 4, eaat8355	14.3	103

179	Chemical Patterning of High-Mobility Semiconducting 2D Bi O Se Crystals for Integrated Optoelectronic Devices. *Advanced Materials*, **2017**, 29, 1704060	24	101
178	Creating one-dimensional nanoscale periodic ripples in a continuous mosaic graphene monolayer. *Physical Review Letters*, **2014**, 113, 086102	7.4	97
177	Large anisotropy of electrical properties in layer-structured In2Se3 nanowires. *Nano Letters*, **2008**, 8, 1511-6	11.5	96
176	Towards super-clean graphene. *Nature Communications*, **2019**, 10, 1912	17.4	89
175	Selectively enhanced photocurrent generation in twisted bilayer graphene with van Hove singularity. *Nature Communications*, **2016**, 7, 10699	17.4	88
174	Modulation-doped growth of mosaic graphene with single-crystalline p-n junctions for efficient photocurrent generation. *Nature Communications*, **2012**, 3, 1280	17.4	87
173	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating. *Advanced Materials*, **2018**, 30, 1702944	24	85
172	Nanoscale Electronic Inhomogeneity in In2Se3 Nanoribbons Revealed by Microwave Impedance Microscopy. *Nano Letters*, **2009**, 9, 1265-9	11.5	82
171	Surface Engineering of Copper Foils for Growing Centimeter-Sized Single-Crystalline Graphene. *ACS Nano*, **2016**, 10, 2922-9	16.7	78
170	Self-powered flexible and transparent photovoltaic detectors based on CdSe nanobelt/graphene Schottky junctions. *Nanoscale*, **2013**, 5, 5576-81	7.7	75
169	Controllable co-segregation synthesis of wafer-scale hexagonal boron nitride thin films. *Advanced Materials*, **2014**, 26, 1776-81	24	73
168	Ordered Vacancy Compounds and Nanotube Formation in CuInSe2□CdS Core□Shell Nanowires. *Nano Letters*, **2007**, 7, 3734-3738	11.5	73
167	Single particle cryo-EM reconstruction of 52 kDa streptavidin at 3.2 Angstrom resolution. *Nature Communications*, **2019**, 10, 2386	17.4	71
166	Growing three-dimensional biomorphic graphene powders using naturally abundant diatomite templates towards high solution processability. *Nature Communications*, **2016**, 7, 13440	17.4	71
165	Morphology control of layer-structured gallium selenide nanowires. *Nano Letters*, **2007**, 7, 199-203	11.5	71
164	Recent Progress on Two-Dimensional Materials. *Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica*, **2021**, 2108017-0	3.8	69
163	Interlayer vibrational modes in few-quintuple-layer Bi2Te3 and Bi2Se3 two-dimensional crystals: Raman spectroscopy and first-principles studies. *Physical Review B*, **2014**, 90,	3.3	68
162	Thickness-Dependent Dielectric Constant of Few-Layer In□Se□ Nanoflakes. *Nano Letters*, **2015**, 15, 8136-40	11.5	67

161	Soft transparent graphene contact lens electrodes for conformal full-cornea recording of electroretinogram. *Nature Communications*, **2018**, 9, 2334	17.4	65
160	Truly Concomitant and Independently Expressed Short- and Long-Term Plasticity in a Bi O Se-Based Three-Terminal Memristor. *Advanced Materials*, **2019**, 31, e1805769	24	62
159	Low-Temperature Heteroepitaxy of 2D PbI /Graphene for Large-Area Flexible Photodetectors. *Advanced Materials*, **2018**, 30, e1803194	24	61
158	A native oxide high- gate dielectric for two-dimensional electronics. *Nature Electronics*, **2020**, 3, 473-478	28.4	58
157	Controlled Growth of Single-Crystal Graphene Films. *Advanced Materials*, **2020**, 32, e1903266	24	58
156	Graphene Encapsulated Copper Microwires as Highly MRI Compatible Neural Electrodes. *Nano Letters*, **2016**, 16, 7731-7738	11.5	57
155	Low Residual Carrier Concentration and High Mobility in 2D Semiconducting BiOSe. *Nano Letters*, **2019**, 19, 197-202	11.5	56
154	Transfer-Medium-Free Nanofiber-Reinforced Graphene Film and Applications in Wearable Transparent Pressure Sensors. *ACS Nano*, **2019**, 13, 5541-5548	16.7	55
153	Revealing the Contribution of Individual Factors to Hydrogen Evolution Reaction Catalytic Activity. *Advanced Materials*, **2018**, 30, e1706076	24	54
152	Fast Growth of Strain-Free AlN on Graphene-Buffered Sapphire. *Journal of the American Chemical Society*, **2018**, 140, 11935-11941	16.4	54
151	Graphene-Armored Aluminum Foil with Enhanced Anticorrosion Performance as Current Collectors for Lithium-Ion Battery. *Advanced Materials*, **2017**, 29, 1703882	24	53
150	Switching Vertical to Horizontal Graphene Growth Using Faraday Cage-Assisted PECVD Approach for High-Performance Transparent Heating Device. *Advanced Materials*, **2018**, 30, 1704839	24	53
149	Wafer-Scale Growth of Single-Crystal 2D Semiconductor on Perovskite Oxides for High-Performance Transistors. *Nano Letters*, **2019**, 19, 2148-2153	11.5	52
148	Monodisperse Copper Chalcogenide Nanocrystals: Controllable Synthesis and the Pinning of Plasmonic Resonance Absorption. *Journal of the American Chemical Society*, **2015**, 137, 12006-12	16.4	52
147	Rapid Growth of Large Single-Crystalline Graphene via Second Passivation and Multistage Carbon Supply. *Advanced Materials*, **2016**, 28, 4671-7	24	52
146	Heterogeneous nucleation and growth of electrodeposited lithium metal on the basal plane of single-layer graphene. *Energy Storage Materials*, **2019**, 16, 419-425	19.4	52
145	Plasmon-enhanced photothermoelectric conversion in chemical vapor deposited graphene p-n junctions. *Journal of the American Chemical Society*, **2013**, 135, 10926-9	16.4	52
144	Clean Transfer of Large Graphene Single Crystals for High-Intactness Suspended Membranes and Liquid Cells. *Advanced Materials*, **2017**, 29, 1700639	24	50

143	Scalable and ultrafast epitaxial growth of single-crystal graphene wafers for electrically tunable liquid-crystal microlens arrays. *Science Bulletin*, **2019**, 64, 659-668	10.6	50
142	Anisotropy of chemical transformation from In2Se3 to CuInSe2 nanowires through solid state reaction. *Journal of the American Chemical Society*, **2009**, 131, 7973-5	16.4	48
141	Epitaxial growth of large-area and highly crystalline anisotropic ReSe2 atomic layer. *Nano Research*, **2017**, 10, 2732-2742	10	47
140	Plasmonic hot electron tunneling photodetection in vertical Au□graphene hybrid nanostructures. *Laser and Photonics Reviews*, **2017**, 11, 1600148	8.3	45
139	Self-modulation doping effect in the high-mobility layered semiconductor Bi2O2Se. *Physical Review B*, **2018**, 97,	3.3	45
138	Bioactive Functionalized Monolayer Graphene for High-Resolution Cryo-Electron Microscopy. *Journal of the American Chemical Society*, **2019**, 141, 4016-4025	16.4	44
137	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	44
136	Raman Spectra and Strain Effects in Bismuth Oxychalcogenides. *Journal of Physical Chemistry C*, **2018**, 122, 19970-19980	3.8	44
135	Early Lithium Plating Behavior in Confined Nanospace of 3D Lithiophilic Carbon Matrix for Stable Solid-State Lithium Metal Batteries. *Small*, **2019**, 15, e1904216	11	44
134	Large-Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. *Angewandte Chemie - International Edition*, **2019**, 58, 14446-14451	16.4	43
133	van Hove Singularity Enhanced Photochemical Reactivity of Twisted Bilayer Graphene. *Nano Letters* , **2015**, 15, 5585-9	11.5	41
132	Weak antilocalization and electron-electron interaction in coupled multiple-channel transport in a Bi2Se3 thin film. *Nanoscale*, **2016**, 8, 1879-85	7.7	40
131	Building Large-Domain Twisted Bilayer Graphene with van Hove Singularity. *ACS Nano*, **2016**, 10, 6725-30	16.7	40
130	Low-Temperature Growth of Two-Dimensional Layered Chalcogenide Crystals on Liquid. *Nano Letters*, **2016**, 16, 2103-7	11.5	39
129	Nitrogen cluster doping for high-mobility/conductivity graphene films with millimeter-sized domains. *Science Advances*, **2019**, 5, eaaw8337	14.3	39
128	Bolometric Effect in Bi O Se Photodetectors. *Small*, **2019**, 15, e1904482	11	39
127	Strong spin-orbit interaction and magnetotransport in semiconductor BiOSe nanoplates. *Nanoscale* , **2018**, 10, 2704-2710	7.7	37
126	Building graphene p□ junctions for next-generation photodetection. *Nano Today*, **2015**, 10, 701-716	17.9	37

125	A Roadmap for Controlled Production of Topological Insulator Nanostructures and Thin Films. *Small*, **2015**, 11, 3290-305	11	36
124	Selective-area van der Waals epitaxy of topological insulator grid nanostructures for broadband transparent flexible electrodes. *Advanced Materials*, **2013**, 25, 5959-64	24	35
123	Diverse Atomically Sharp Interfaces and Linear Dichroism of 1TTReS2-ReSe2 Lateral p□ Heterojunctions. *Advanced Functional Materials*, **2018**, 28, 1804696	15.6	35
122	The Way towards Ultrafast Growth of Single-Crystal Graphene on Copper. *Advanced Science*, **2017**, 4, 1700087	13.6	32
121	Electron-Hole Symmetry Breaking in Charge Transport in Nitrogen-Doped Graphene. *ACS Nano*, **2017**, 11, 4641-4650	16.7	31
120	Formation mechanism of overlapping grain boundaries in graphene chemical vapor deposition growth. *Chemical Science*, **2017**, 8, 2209-2214	9.4	31
119	A Force-Engineered Lint Roller for Superclean Graphene. *Advanced Materials*, **2019**, 31, e1902978	24	31
118	Interlayer Decoupling in 30° Twisted Bilayer Graphene Quasicrystal. *ACS Nano*, **2020**, 14, 1656-1664	16.7	31
117	A transparent, conducting tape for flexible electronics. *Nano Research*, **2016**, 9, 917-924	10	31
116	Hetero-site nucleation for growing twisted bilayer graphene with a wide range of twist angles. *Nature Communications*, **2021**, 12, 2391	17.4	31
115	Copper-Containing Carbon Feedstock for Growing Superclean Graphene. *Journal of the American Chemical Society*, **2019**, 141, 7670-7674	16.4	30
114	Low-Temperature and Rapid Growth of Large Single-Crystalline Graphene with Ethane. *Small*, **2018**, 14, 1702916	11	30
113	Substrate Doping Effect and Unusually Large Angle van Hove Singularity Evolution in Twisted Bi- and Multilayer Graphene. *Advanced Materials*, **2017**, 29, 1606741	24	29
112	Molecular Beam Epitaxy and Electronic Structure of Atomically Thin Oxyselenide Films. *Advanced Materials*, **2019**, 31, e1901964	24	29
111	Near-Atomic Resolution Structure Determination in Over-Focus with Volta Phase Plate by Cs-Corrected Cryo-EM. *Structure*, **2017**, 25, 1623-1630.e3	5.2	28
110	Large Single-Crystal Cu Foils with High-Index Facets by Strain-Engineered Anomalous Grain Growth. *Advanced Materials*, **2020**, 32, e2002034	24	28
109	Catalyst-Free Synthesis of Few-Layer Graphdiyne Using a Microwave-Induced Temperature Gradient at a Solid/Liquid Interface. *Advanced Functional Materials*, **2020**, 30, 2001396	15.6	28
108	Clean and efficient transfer of CVD-grown graphene by electrochemical etching of metal substrate. *Journal of Electroanalytical Chemistry*, **2013**, 688, 243-248	4.1	28

107	Photoinduced methylation of graphene. *Small*, **2013**, 9, 1348-52	11	27
106	Tuning Chemical Potential Difference across Alternately Doped Graphene p-n Junctions for High-Efficiency Photodetection. *Nano Letters*, **2016**, 16, 4094-101	11.5	26
105	Broadband Bi2O2Se Photodetectors from Infrared to Terahertz. *Advanced Functional Materials*, **2021**, 31, 2009554	15.6	26
104	High-Mobility Flexible Oxyselenide Thin-Film Transistors Prepared by a Solution-Assisted Method. *Journal of the American Chemical Society*, **2020**, 142, 2726-2731	16.4	25
103	Anisotropic Strain Relaxation of Graphene by Corrugation on Copper Crystal Surfaces. *Small*, **2018**, 14, e1800725	11	25
102	Exploitation of Bi2O2Se/graphene van der Waals heterojunction for creating efficient photodetectors and short-channel field-effect transistors. *Informa□□Materi□y*, **2019**, 1, 390-395	23.1	24
101	Visualizing fast growth of large single-crystalline graphene by tunable isotopic carbon source. *Nano Research*, **2017**, 10, 355-363	10	24
100	Photo-induced free radical modification of graphene. *Small*, **2013**, 9, 1134-43	11	24
99	Vacancy ordering and lithium insertion in III2VI3 nanowires. *Nano Research*, **2009**, 2, 327-335	10	24
98	Raman spectroscopic characterization of stacking configuration and interlayer coupling of twisted multilayer graphene grown by chemical vapor deposition. *Carbon*, **2016**, 110, 225-231	10.4	24
97	Defects guided wrinkling in graphene on copper substrate. *Carbon*, **2019**, 143, 736-742	10.4	23
96	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, 3526-30	3.4	22
95	Robust ultraclean atomically thin membranes for atomic-resolution electron microscopy. *Nature Communications*, **2020**, 11, 541	17.4	21
94	Nonlocal Response in Infrared Detector with Semiconducting Carbon Nanotubes and Graphdiyne. *Advanced Science*, **2017**, 4, 1700472	13.6	21
93	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, 22486-90	3.4	21
92	Ultrafast Broadband Charge Collection from Clean Graphene/CHNHPbI Interface. *Journal of the American Chemical Society*, **2018**, 140, 14952-14957	16.4	21
91	CuInSe2 nanowires from facile chemical transformation of In2Se3 and their integration in single-nanowire devices. *ACS Nano*, **2013**, 7, 3205-11	16.7	19
90	New Growth Frontier: Superclean Graphene. *ACS Nano*, **2020**, 14, 10796-10803	16.7	19

89	Novel graphene□xide□emiconductor nanowire phototransistors. *Journal of Materials Chemistry C*, **2014**, 2, 1592	7.1	18
88	Low-energy transmission electron diffraction and imaging of large-area graphene. *Science Advances* , **2017**, 3, e1603231	14.3	18
87	Chemical Intercalation of Topological Insulator Grid Nanostructures for High-Performance Transparent Electrodes. *Advanced Materials*, **2017**, 29, 1703424	24	17
86	Topological insulator nanostructures: Materials synthesis, Raman spectroscopy, and transport properties. *Frontiers of Physics*, **2012**, 7, 208-217	3.7	17
85	Epitaxial Growth of Ternary Topological Insulator Bi Te Se 2D Crystals on Mica. *Small*, **2017**, 13, 1603572	11	16
84	Comparison of Nanocarbon-Silicon Solar Cells with Nanotube-Si or Graphene-Si Contact. *ACS Applied Materials & Interfaces*, **2015**, 7, 17088-94	9.5	16
83	Superclean Growth of Graphene Using a Cold-Wall Chemical Vapor Deposition Approach. *Angewandte Chemie - International Edition*, **2020**, 59, 17214-17218	16.4	16
82	Free radical reactions in two dimensions: a case study on photochlorination of graphene. *Small*, **2013**, 9, 1388-96	11	15
81	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	3.8	15
80	Exploiting Two-Dimensional Bi O Se for Trace Oxygen Detection. *Angewandte Chemie - International Edition*, **2020**, 59, 17938-17943	16.4	14
79	Vertical graphene nanosheetsmodified Al current collectors for high-performance sodium-ion batteries. *Nano Research*, **2020**, 13, 1948-1954	10	14
78	Chemically Engineered Substrates for Patternable Growth of Two-Dimensional Chalcogenide Crystals. *ACS Nano*, **2016**, 10, 10317-10323	16.7	14
77	Three-dimensional interconnected silica nanotubes templated from hyperbranched nanowires. *Small*, **2009**, 5, 437-9	11	14
76	Uniform High-k Amorphous Native Oxide Synthesized by Oxygen Plasma for Top-Gated Transistors. *Nano Letters*, **2020**, 20, 7469-7475	11.5	14
75	Edge-States-Induced Disruption to the Energy Band Alignment at Thickness-Modulated Molybdenum Sulfide Junctions. *Advanced Electronic Materials*, **2016**, 2, 1600048	6.4	14
74	Understanding Interlayer Contact Conductance in Twisted Bilayer Graphene. *Small*, **2020**, 16, e1902844	11	13
73	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	11.5	12
72	Organic charge-transfer complexes for STM-based thermochemical-hole-burning memory. *Coordination Chemistry Reviews*, **2010**, 254, 1151-1168	23.2	12

71	Anisotropic Thermochemical Hole Burning Phenomenon on TTF□TCNQ Single Crystal. *Journal of Physical Chemistry C*, **2007**, 111, 631-635	3.8	12
70	Investigation of black phosphorus as a nano-optical polarization element by polarized Raman spectroscopy. *Nano Research*, **2018**, 11, 3154-3163	10	12
69	Observing electronic structures on ex-situ grown topological insulator thin films. *Physica Status Solidi - Rapid Research Letters*, **2013**, 7, 130-132	2.5	10
68	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	3.4	10
67	Optical Properties and Photocarrier Dynamics of Bi2O2Se Monolayer and Nanoplates. *Advanced Optical Materials*, **2020**, 8, 1901567	8.1	10
66	Layer-dependent ultrafast dynamics of □In 2 Se 3 nanoflakes. *2D Materials*, **2019**, 6, 035034	5.9	9
65	Universal conductance fluctuations and phase-coherent transport in a semiconductor BiOSe nanoplate with strong spin-orbit interaction. *Nanoscale*, **2019**, 11, 10622-10628	7.7	9
64	Phase transformations in one-dimensional materials: applications in electronics and energy sciences. *Journal of Materials Chemistry*, **2009**, 19, 5879		9
63	Scanning tunneling microscope-based thermochemical hole burning on a series of charge transfer complexes. *Applied Physics Letters*, **2005**, 86, 133105	3.4	9
62	Intrinsic Wettability in Pristine Graphene. *Advanced Materials*, **2021**, e2103620	24	9
61	Biomass Hydroxyapatite-templated Synthesis of 3D Graphene. *Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica*, **2019**, 35, 1112-1118	3.8	9
60	Dirac-cone induced gating enhancement in single-molecule field-effect transistors. *Nanoscale*, **2019** , 11, 13117-13125	7.7	8
59	2D Hybrid Nanostructured Dirac Materials for Broadband Transparent Electrodes. *Advanced Materials*, **2015**, 27, 4315-21	24	8
58	Hot-Carrier Cooling in High-Quality Graphene Is Intrinsically Limited by Optical Phonons. *ACS Nano*, **2021**,	16.7	8
57	Rapid growth of angle-confined large-domain graphene bicrystals. *Nano Research*, **2017**, 10, 1189-1199	10	7
56	Asymmetry allows photocurrent in intrinsic graphene. *Nature Nanotechnology*, **2019**, 14, 105-106	28.7	7
55	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	6
54	n-Type Dirac-Source Field-Effect Transistors Based on a Graphene/Carbon Nanotube Heterojunction. *Advanced Electronic Materials*, **2020**, 6, 2000258	6.4	6

53	Multiple single cell screening and DNA MDA amplification chip for oncogenic mutation profiling. *Lab on A Chip*, **2018**, 18, 723-734	7.2	6
52	Determination of interatomic coupling between two-dimensional crystals using angle-resolved photoemission spectroscopy. *Nature Communications*, **2020**, 11, 3582	17.4	6
51	Electrical and Photoresponse Properties of Inversion Asymmetric Topological Insulator BiTeCl Nanoplates. *ChemNanoMat*, **2017**, 3, 406-410	3.5	5
50	A Single-Electron Transistor Made of a 3D Topological Insulator Nanoplate. *Advanced Materials*, **2019**, 31, e1903686	24	5
49	Unveiling the Fine Structural Distortion of Atomically Thin Bi O Se by Third-Harmonic Generation. *Advanced Materials*, **2020**, 32, e2002831	24	5
48	Vapor-Liquid-Solid Growth of Bi2O2Se Nanoribbons for High-Performance Transistors. *Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica*, **2020**, 36, 1908038-0	3.8	5
47	Exploiting Two-Dimensional Bi2O2Se for Trace Oxygen Detection. *Angewandte Chemie*, **2020**, 132, 18094-18099	3.6	5
46	Growth of Ultraflat Graphene with Greatly Enhanced Mechanical Properties. *Nano Letters*, **2020**, 20, 6798-6806	11.5	5
45	2D Bi2O2Se: An Emerging Material Platform for the Next-Generation Electronic Industry. *Accounts of Materials Research*, **2021**, 2, 842-853	7.5	5
44	Epitaxial growth of asymmetrically-doped bilayer graphene for photocurrent generation. *Small*, **2014**, 10, 2245-50	11	4
43	Thermochemical Hole Burning on TEA(TCNQ)2 Single Crystal at Varied Temperatures in UHV System. *Journal of Physical Chemistry C*, **2008**, 112, 2004-2007	3.8	4
42	Photochemical Modification of Graphene. *Acta Chimica Sinica*, **2014**, 72, 289	3.3	4
41	Preparation of two-dimensional [Bi2O2]-based layered materials: Progress and prospects. *APL Materials*, **2021**, 9, 060905	5.7	4
40	Identifying EGFR-Expressed Cells and Detecting EGFR Multi-Mutations at Single-Cell Level by Microfluidic Chip. *Nano-Micro Letters*, **2018**, 10, 16	19.5	4
39	Toward Epitaxial Growth of Misorientation-Free Graphene on Cu(111) Foils.. *ACS Nano*, **2021**,	16.7	4
38	Macroscale single crystal graphene templated directional alignment of liquid-crystal microlens array for light field imaging. *Applied Physics Letters*, **2019**, 115, 071903	3.4	3
37	Electrostatic interaction determines thermal conductivity anisotropy of Bi2O2Se. *Cell Reports Physical Science*, **2021**, 2, 100624	6.1	3
36	Single particle cryo-EM reconstruction of 52 kDa streptavidin at 3.2 Angstrom resolution		3

35	Realization and transport investigation of a single layer-twisted bilayer graphene junction. *Carbon*, **2020**, 163, 105-112	10.4	2
34	Utilization of Synergistic Effect of Dimension-Differentiated Hierarchical Nanomaterials for Transparent and Flexible Wireless Communicational Elements. *Advanced Materials Technologies*, **2020**, 5, 1901057	6.8	2
33	Transport signatures of relativistic quantum scars in a graphene cavity. *Physical Review B*, **2020**, 101,	3.3	2
32	Surprisingly fast cooling in graphene-based van der Waals stacks. *Science China Materials*, **2018**, 61, 1017-1018	7.1	2
31	Large-Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. *Angewandte Chemie*, **2019**, 131, 14588-14593	3.6	2
30	Trifluoromethylation of graphene. *APL Materials*, **2014**, 2, 092505	5.7	2
29	Charge Transfer Properties of Heterostructures Formed by Bi O Se and Transition Metal Dichalcogenide Monolayers. *Small*, **2021**, e2106078	11	2
28	Two-Dimensional Materials Beyond Graphene: an Emerging Field with Blooming Progress. *Acta Chimica Sinica*, **2015**, 73, 861	3.3	2
27	Transfer-Enabled Fabrication of Graphene Wrinkle Arrays for Epitaxial Growth of AlN Films. *Advanced Materials*, **2021**, e2105851	24	2
26	Graphene Acoustic Phonon-Mediated Pseudo-Landau Levels Tailoring Probed by Scanning Tunneling Spectroscopy. *Small*, **2020**, 16, e1905202	11	2
25	Tunable Pore Size from Sub-Nanometer to a Few Nanometers in Large-Area Graphene Nanoporous Atomically Thin Membranes. *ACS Applied Materials & Interfaces*, **2021**,	9.5	2
24	Probe of local impurity states by bend resistance measurements in graphene cross junctions. *Nanotechnology*, **2016**, 27, 245204	3.4	2
23	Coulomb-dominated oscillations in a graphene quantum Hall Fabry-Pérot interferometer. *Chinese Physics B*, **2019**, 28, 127203	1.2	2
22	Atomically Thin Bilayer Janus Membranes for Cryo-electron Microscopy. *ACS Nano*, **2021**, 15, 16562-16571	16.7	2
21	Vertical Graphene-Reinforced Titanium Alloy Bipolar Plates in Fuel Cells.. *Advanced Materials*, **2022**, e2110565	24	2
20	Graphene Membranes for Multi-Dimensional Electron Microscopy Imaging: Preparation, Application and Prospect. *Advanced Functional Materials*,2202502	15.6	2
19	Controllable inversion symmetry breaking in single layer graphene induced by sub-lattice contrasted charge polarization. *Carbon*, **2020**, 163, 63-69	10.4	1
18	Superclean Growth of Graphene Using a Cold-Wall Chemical Vapor Deposition Approach. *Angewandte Chemie*, **2020**, 132, 17367-17371	3.6	1

17	Charge transport and electron-hole asymmetry in low-mobility graphene/hexagonal boron nitride heterostructures. *Journal of Applied Physics*, **2018**, 123, 064303	2.5	1
16	Single crystalline electronic structure and growth mechanism of aligned square graphene sheets. *APL Materials*, **2018**, 6, 036107	5.7	1
15	Low-field magnetotransport in graphene cavity devices. *Nanotechnology*, **2018**, 29, 205707	3.4	1
14	Frontispiece: Large-Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. *Angewandte Chemie - International Edition*, **2019**, 58,	16.4	1
13	Thermochemical hole burning performance of TCNQ-based charge transfer complexes with different electrical´conductivities. *Nanotechnology*, **2008**, 19, 235303	3.4	1
12	High-Performance 3D Vertically Oriented Graphene Photodetector Using a Floating Indium Tin Oxide Channel.. *Sensors*, **2022**, 22,	3.8	1
11	Sub-10mK-Resolution Thermal-Bolometric Integrated FET-Type Sensors Based on Layered Bi2O2Se Semiconductor Nanosheets **2020**,		1
10	Hydrophilic, Clean Graphene for Cell Culture and Cryo-EM Imaging. *Nano Letters*, **2021**, 21, 9587-9593	11.5	1
9	Temperature dependence of quantum oscillations from non-parabolic dispersions. *Nature Communications*, **2021**, 12, 6213	17.4	1
8	Surface photovoltaic effect and electronic structure of □nSe. *Physical Review Materials*, **2020**, 4,	3.2	1
7	Quasi-one-dimensional TaSe3: A New Topological Superconductor Candidate. *Matter*, **2021**, 4, 19-21	12.7	1
6	Slip-line-guided Growth of Graphene.. *Advanced Materials*, **2022**, e2201188	24	1
5	The role of Cu crystallographic orientations towards growing superclean graphene on meter-sized scale. *Nano Research*,1	10	0
4	Unravelling a Zigzag Pathway for Hot Carrier Collection with Graphene Electrode. *Journal of Physical Chemistry Letters*, **2021**, 12, 2886-2891	6.4	0
3	Coplanar High Mobility and Interplanar Van Der Waals Heterojunction in Layered Two-Dimensional Bi□□e Nanosheets. *IEEE Electron Device Letters*, **2021**, 42, 871-874	4.4	0
2	Toward batch synthesis of high-quality graphene by cold-wall chemical vapor deposition approach. *Nano Research*,1	10	0
1	Phase-Change Nanowires for Non Volatile Memory. *Materials Research Society Symposia Proceedings*, **2007**, 997, 1		