Lian-Mao Peng

List of Publications by Year
in descending order

628 papers	39,730 citations	2797 94 h-index	4223 174 g-index
637 all docs	637 docs citations	637 times ranked	36548 citing authors

#	Article	IF	Citations
1	Microwave Absorption Enhancement and Complex Permittivity and Permeability of Fe Encapsulated within Carbon Nanotubes. Advanced Materials, 2004, 16, 401-405.	11.1	1,840
2	CdS Quantum Dots Sensitized TiO₂ Nanotube-Array Photoelectrodes. Journal of the American Chemical Society, 2008, 130, 1124-1125.	6.6	1,033
3	Repeated growth and bubbling transfer of graphene with millimetre-size single-crystal grains using platinum. Nature Communications, 2012, 3, 699.	5.8	985
4	Trititanate Nanotubes Made via a Single Alkali Treatment. Advanced Materials, 2002, 14, 1208-1211.	11.1	806
5	Aharonovâ€“Bohm interference in topological insulator nanoribbons. Nature Materials, 2010, 9, 225-229.	13.3	727
6	Toward Clean and Crackless Transfer of Graphene. ACS Nano, 2011, 5, 9144-9153.	7.3	701
7	Hierarchical Graphene Foam for Efficient Omnidirectional Solarâ€“Thermal Energy Conversion. Advanced Materials, 2017, 29, 1702590.	11.1	675
8	Deriving Carbon Atomic Chains from Graphene. Physical Review Letters, 2009, 102, 205501.	2.9	571
9	Out-of-Plane Piezoelectricity and Ferroelectricity in Layered Î±-In₂Se₃ Nanoflakes. Nano Letters, 2017, 17, 5508-5513.	4.5	567
10	Preparation and structure analysis of titanium oxide nanotubes. Applied Physics Letters, 2001, 79, 3702-3704.	1.5	553
11	Scaling carbon nanotube complementary transistors to 5-nm gate lengths. Science, 2017, 355, 271-276.	6.0	526
12	High electron mobility and quantum oscillations in non-encapsulated ultrathin semiconducting Bi2O2Se. Nature Nanotechnology, 2017, 12, 530-534.	15.6	507
13	Ultrafast epitaxial growth of metre-sized single-crystal graphene on industrial Cu foil. Science Bulletin, 2017, 62, 1074-1080.	4.3	454
14	The structure of trititanate nanotubes. Acta Crystallographica Section B: Structural Science, 2002, 58, 587-593.	1.8	433
15	Roll-to-Roll Encapsulation of Metal Nanowires between Graphene and Plastic Substrate for High-Performance Flexible Transparent Electrodes. Nano Letters, 2015, 15, 4206-4213.	4.5	410
16	Few-Layer Nanoplates of Bi₂Se₃ and Bi₂Te₃ with Highly Tunable Chemical Potential. Nano Letters, 2010, 10, 2245-2250.	4.5	403
17	Synthesis challenges for graphene industry. Nature Materials, 2019, 18, 520-524.	13.3	389
18	Formation of Bilayer Bernal Graphene: Layer-by-Layer Epitaxy via Chemical Vapor Deposition. Nano Letters, 2011, 11, 1106-1110.	4.5	365

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19	Two-Dimensional (C₄H₉NH₃)₂PbBr₄ Perovskite Crystals for High-Performance Photodetector. Journal of the American Chemical Society, 2016, 138, 16612-16615.	6.6	341
20	Large-area synthesis of high-quality and uniform monolayer WS2 on reusable Au foils. Nature Communications, 2015, 6, 8569.	5.8	336
21	Formation Mechanism ofH2Ti3O7Nanotubes. Physical Review Letters, 2003, 91, 256103.	2.9	331
22	Machineâ€Washable Textile Triboelectric Nanogenerators for Effective Human Respiratory Monitoring through Loom Weaving of Metallic Yarns. Advanced Materials, 2016, 28, 10267-10274.	11.1	328
23	Doping-Free Fabrication of Carbon Nanotube Based Ballistic CMOS Devices and Circuits. Nano Letters, 2007, 7, 3603-3607.	4.5	319
24	Topological insulator nanostructures for near-infrared transparent flexible electrodes. Nature Chemistry, 2012, 4, 281-286.	6.6	309
25	Aligned, high-density semiconducting carbon nanotube arrays for high-performance electronics. Science, 2020, 368, 850-856.	6.0	308
26	Topological Insulator Nanowires and Nanoribbons. Nano Letters, 2010, 10, 329-333.	4.5	298
27	CdTe Quantum Dots-Sensitized TiO₂ Nanotube Array Photoelectrodes. Journal of Physical Chemistry C, 2009, 113, 7531-7535.	1.5	292
28	Quantitative Analysis of Currentâ€“Voltage Characteristics of Semiconducting Nanowires: Decoupling of Contact Effects. Advanced Functional Materials, 2007, 17, 2478-2489.	7.8	283
29	Rollâ€toâ€Roll Green Transfer of CVD Graphene onto Plastic for a Transparent and Flexible Triboelectric Nanogenerator. Advanced Materials, 2015, 27, 5210-5216.	11.1	273
30	Room-Temperature Synthesis in Acidic Media of Large-Pore Three-Dimensional Bicontinuous Mesoporous Silica with Ia3d Symmetry. Angewandte Chemie - International Edition, 2002, 41, 3876-3878.	7.2	269
31	Carbon nanotube electronics: recent advances. Materials Today, 2014, 17, 433-442.	8.3	267
32	Bridging the Gap between Reality and Ideal in Chemical Vapor Deposition Growth of Graphene. Chemical Reviews, 2018, 118, 9281-9343.	23.0	260
33	Vertical Graphene Growth on SiO Microparticles for Stable Lithium Ion Battery Anodes. Nano Letters, 2017, 17, 3681-3687.	4.5	241
34	Dirac-source field-effect transistors as energy-efficient, high-performance electronic switches. Science, 2018, 361, 387-392.	6.0	226
35	Controlled Synthesis of High-Mobility Atomically Thin Bismuth Oxyselenide Crystals. Nano Letters, 2017, 17, 3021-3026.	4.5	222
36	Superlubricity between MoS₂ Monolayers. Advanced Materials, 2017, 29, 1701474.	11.1	220

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37	Toward Mass Production of CVD Graphene Films. Advanced Materials, 2019, 31, e1800996.	11.1	218
38	Ultrafast and highly sensitive infrared photodetectors based on two-dimensional oxyselenide crystals. Nature Communications, 2018, 9, 3311.	5.8	213
39	Controlled synthesis of single-crystal SnSe nanoplates. Nano Research, 2015, 8, 288-295.	5.8	207
40	Organohalide lead perovskite based photodetectors with much enhanced performance. Chemical Communications, 2014, 50, 13695-13697.	2.2	206
41	Synthesis of Hierarchical Graphdiyne-Based Architecture for Efficient Solar Steam Generation. Chemistry of Materials, 2017, 29, 5777-5781.	3.2	206
42	High-performance sub-10 nm monolayer Bi₂O₂Se transistors. Nanoscale, 2019, 11, 532-540.	2.8	196
43	Self-Retracting Motion of Graphite Microflakes. Physical Review Letters, 2008, 100, 067205.	2.9	193
44	Direct growth of large-area graphene and boron nitride heterostructures by a co-segregation method. Nature Communications, 2015, 6, 6519.	5.8	190
45	Debyeâ€“Waller Factors and Absorptive Scattering Factors of Elemental Crystals. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, 456-470.	0.3	189
46	An Efficient Method To Form Heterojunction CdS/TiO₂ Photoelectrodes Using Highly Ordered TiO₂ Nanotube Array Films. Journal of Physical Chemistry C, 2009, 113, 20481-20485.	1.5	182
47	Designed CVD Growth of Graphene via Process Engineering. Accounts of Chemical Research, 2013, 46, 2263-2274.	7.6	172
48	Patterning two-dimensional chalcogenide crystals of Bi2Se3 and In2Se3 and efficient photodetectors. Nature Communications, 2015, 6, 6972.	5.8	172
49	Wrinkle-Free Single-Crystal Graphene Wafer Grown on Strain-Engineered Substrates. ACS Nano, 2017, 11, 12337-12345.	7.3	172
50	Robust Parameterization of Elastic and Absorptive Electron Atomic Scattering Factors. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, 257-276.	0.3	170
51	Electronic structures and unusually robust bandgap in an ultrahigh-mobility layered oxide semiconductor, Bi ₂ O ₂ Se. Science Advances, 2018, 4, eaat8355.	4.7	167
52	Fabrication and Electrical and Mechanical Properties of Carbon Nanotube Interconnections. Advanced Functional Materials, 2005, 15, 1825-1831.	7.8	161
53	Synthesis and Phase Transformation of In2Se3 and CuInSe2 Nanowires. Journal of the American Chemical Society, 2007, 129, 34-35.	6.6	158
54	Self-Aligned Ballistic n-Type Single-Walled Carbon Nanotube Field-Effect Transistors with Adjustable Threshold Voltage. Nano Letters, 2008, 8, 3696-3701.	4.5	154

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55	Tunable, Ultrasensitive, and Flexible Pressure Sensors Based on Wrinkled Microstructures for Electronic Skins. ACS Applied Materials & Interfaces, 2019, 11, 21218-21226.	4.0	151
56	Y-Contacted High-Performance n-Type Single-Walled Carbon Nanotube Field-Effect Transistors: Scaling and Comparison with Sc-Contacted Devices. Nano Letters, 2009, 9, 4209-4214.	4.5	150
57	Shape Evolution of Layer-Structured Bismuth Oxychloride Nanostructures via Low-Temperature Chemical Vapor Transport. Chemistry of Materials, 2009, 21, 247-252.	3.2	146
58	CMOS-based carbon nanotube pass-transistor logic integrated circuits. Nature Communications, 2012, 3, 677.	5.8	145
59	Stability of Carbon Nanotubes: How Small Can They Be?. Physical Review Letters, 2000, 85, 3249-3252.	2.9	142
60	Chemical Patterning of Highâ€Mobility Semiconducting 2D Bi₂O₂Se Crystals for Integrated Optoelectronic Devices. Advanced Materials, 2017, 29, 1704060.	11.1	142
61	A native oxide high-Îº gate dielectric for two-dimensional electronics. Nature Electronics, 2020, 3, 473-478.	13.1	141
62	High-Quality Ultralong Bi2S3 Nanowires:â€‰ Structure, Growth, and Properties. Journal of Physical Chemistry B, 2005, 109, 18772-18776.	1.2	137
63	Growth and Performance of Yttrium Oxide as an Ideal High-Îº Gate Dielectric for Carbon-Based Electronics. Nano Letters, 2010, 10, 2024-2030.	4.5	137
64	Parameterization of the temperature dependence of the Debyeâ€“Waller factors. Acta Crystallographica Section A: Foundations and Advances, 1999, 55, 926-932.	0.3	136
65	Selectively enhanced photocurrent generation in twisted bilayer graphene with van Hove singularity. Nature Communications, 2016, 7, 10699.	5.8	136
66	Superheating and melting-point depression of Pb nanoparticles embedded in Al matrices. Philosophical Magazine Letters, 1996, 73, 179-186.	0.5	133
67	Efficient photovoltage multiplication in carbon nanotubes. Nature Photonics, 2011, 5, 672-676.	15.6	133
68	Towards super-clean graphene. Nature Communications, 2019, 10, 1912.	5.8	133
69	Gigahertz integrated circuits based on carbon nanotube films. Nature Electronics, 2018, 1, 40-45.	13.1	132
70	Quantum Capacitance Limited Vertical Scaling of Graphene Field-Effect Transistor. ACS Nano, 2011, 5, 2340-2347.	7.3	128
71	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
72	High-Performance Complementary Transistors and Medium-Scale Integrated Circuits Based on Carbon Nanotube Thin Films. ACS Nano, 2017, 11, 4124-4132.	7.3	127

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73	Growth of high-density horizontally aligned SWNT arrays using Trojan catalysts. Nature Communications, 2015, 6, 6099.	5.8	120
74	Dynamical diffraction calculations for RHEED and REM. Acta Crystallographica Section A: Foundations and Advances, 1986, 42, 545-552.	0.3	118
75	Hydrothermal synthesis of organometal halide perovskites for Li-ion batteries. Chemical Communications, 2015, 51, 13787-13790.	2.2	118
76	Optical and Electrical Performance of SnO₂ Capped ZnO Nanowire Arrays. Nano Letters, 2007, 7, 3559-3563.	4.5	113
77	A high-performance top-gate graphene field-effect transistor based frequency doubler. Applied Physics Letters, 2010, 96, .	1.5	113
78	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating. Advanced Materials, 2018, 30, 1702944.	11.1	113
79	Electron atomic scattering factors and scattering potentials of crystals. Micron, 1999, 30, 625-648.	1.1	112
80	High-Quality Ultralong Sb2Se3 and Sb2S3 Nanoribbons on a Large Scale via a Simple Chemical Route. Journal of Physical Chemistry B, 2006, 110, 13415-13419.	1.2	112
81	Ultraviolet/ozone treatment to reduce metal-graphene contact resistance. Applied Physics Letters, 2013, 102, .	1.5	112
82	Creating One-Dimensional Nanoscale Periodic Ripples in a Continuous Mosaic Graphene Monolayer. Physical Review Letters, 2014, 113, 086102.	2.9	111
83	Carbon nanotube digital electronics. Nature Electronics, 2019, 2, 499-505.	13.1	111
84	Wafer-Scale Uniform Carbon Nanotube Transistors for Ultrasensitive and Label-Free Detection of Disease Biomarkers. ACS Nano, 2020, 14, 8866-8874.	7.3	110
85	Large Anisotropy of Electrical Properties in Layer-Structured In₂Se₃ Nanowires. Nano Letters, 2008, 8, 1511-1516.	4.5	108
86	Individual Bi₂S₃ Nanowire-Based Room-Temperature H₂ Sensor. Journal of Physical Chemistry C, 2008, 112, 8721-8724.	1.5	108
87	Amphoteric and Controllable Doping of Carbon Nanotubes by Encapsulation of Organic and Organometallic Molecules. Physical Review Letters, 2004, 93, 116804.	2.9	106
88	Broadband optical properties of large-area monolayer CVD molybdenum disulfide. Physical Review B, 2014, 90, .	1.1	106
89	Highly Uniform Carbon Nanotube Field-Effect Transistors and Medium Scale Integrated Circuits. Nano Letters, 2016, 16, 5120-5128.	4.5	101
90	Almost Perfectly Symmetric SWCNT-Based CMOS Devices and Scaling. ACS Nano, 2009, 3, 3781-3787.	7.3	100

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91	Repeated Growthâ€“Etchingâ€“Regrowth for Large-Area Defect-Free Single-Crystal Graphene by Chemical Vapor Deposition. ACS Nano, 2014, 8, 12806-12813.	7.3	100
92	Water-Assisted Preparation of High-Purity Semiconducting (14,4) Carbon Nanotubes. ACS Nano, 2017, 11, 186-193.	7.3	100
93	Thickness-Dependent Dielectric Constant of Few-Layer In₂Se₃ Nanoflakes. Nano Letters, 2015, 15, 8136-8140.	4.5	99
94	Top-Gated Graphene Field-Effect Transistors with High Normalized Transconductance and Designable Dirac Point Voltage. ACS Nano, 2011, 5, 5031-5037.	7.3	96
95	Low Residual Carrier Concentration and High Mobility in 2D Semiconducting Bi₂O₂Se. Nano Letters, 2019, 19, 197-202.	4.5	95
96	Controlled Growth of Singleâ€Crystal Graphene Films. Advanced Materials, 2020, 32, e1903266.	11.1	95
97	Correlations in space and time and dynamical diffraction of high-energy electrons by crystals. Physical Review B, 1993, 48, 13408-13429.	1.1	94
98	Carbon nanotube arrays based high-performance infrared photodetector [Invited]. Optical Materials Express, 2012, 2, 839.	1.6	93
99	Growing three-dimensional biomorphic graphene powders using naturally abundant diatomite templates towards high solution processability. Nature Communications, 2016, 7, 13440.	5.8	93
100	Lowâ€Temperature Heteroepitaxy of 2D PbI₂/Graphene for Largeâ€Area Flexible Photodetectors. Advanced Materials, 2018, 30, e1803194.	11.1	93
101	Carbon Nanotube Photoelectronic and Photovoltaic Devices and their Applications in Infrared Detection. Small, 2013, 9, 1225-1236.	5.2	92
102	Hetero-site nucleation for growing twisted bilayer graphene with a wide range of twist angles. Nature Communications, 2021, 12, 2391.	5.8	92
103	Nanoscale Electronic Inhomogeneity in In₂Se₃ Nanoribbons Revealed by Microwave Impedance Microscopy. Nano Letters, 2009, 9, 1265-1269.	4.5	91
104	High-Performance Carbon Nanotube Light-Emitting Diodes with Asymmetric Contacts. Nano Letters, 2011, 11, 23-29.	4.5	91
105	Room Temperature Broadband Infrared Carbon Nanotube Photodetector with High Detectivity and Stability. Advanced Optical Materials, 2016, 4, 238-245.	3.6	90
106	High-Performance Carbon Nanotube Complementary Electronics and Integrated Sensor Systems on Ultrathin Plastic Foil. ACS Nano, 2018, 12, 2773-2779.	7.3	90
107	Surface Engineering of Copper Foils for Growing Centimeter-Sized Single-Crystalline Graphene. ACS Nano, 2016, 10, 2922-2929.	7.3	89
108	Measurements and microscopic model of quantum capacitance in graphene. Applied Physics Letters, 2011, 98, .	1.5	88

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109	Structure and applications of titanate and related nanostructures. International Journal of Nanotechnology, 2007, 4, 44.	0.1	87
110	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, .	1.1	87
111	Low-power carbon nanotube-based integrated circuits that can be transferred to biological surfaces. Nature Electronics, 2018, 1, 237-245.	13.1	86
112	Revealing the Contribution of Individual Factors to Hydrogen Evolution Reaction Catalytic Activity. Advanced Materials, 2018, 30, e1706076.	11.1	86
113	Grapheneâ€Armored Aluminum Foil with Enhanced Anticorrosion Performance as Current Collectors for Lithiumâ€Ion Battery. Advanced Materials, 2017, 29, 1703882.	11.1	85
114	Truly Concomitant and Independently Expressed Shortâ€and Longâ€Term Plasticity in a Bi₂O₂Seâ€Based Threeâ€Terminal Memristor. Advanced Materials, 2019, 31, e1805769.	11.1	85
115	Graphene Encapsulated Copper Microwires as Highly MRI Compatible Neural Electrodes. Nano Letters, 2016, 16, 7731-7738.	4.5	82
116	Wafer-Scale Growth of Single-Crystal 2D Semiconductor on Perovskite Oxides for High-Performance Transistors. Nano Letters, 2019, 19, 2148-2153.	4.5	82
117	Growth of Semiconducting Single-Walled Carbon Nanotubes by Using Ceria as Catalyst Supports. Nano Letters, 2014, 14, 512-517.	4.5	80
118	Clean Transfer of Large Graphene Single Crystals for Highâ€Intactness Suspended Membranes and Liquid Cells. Advanced Materials, 2017, 29, 1700639.	11.1	80
119	Establishing Ohmic contacts forin situcurrentâ€"voltage characteristic measurements on a carbon nanotube inside the scanning electron microscope. Nanotechnology, 2006, 17, 1087-1098.	1.3	79
120	Morphology Control of Layer-Structured Gallium Selenide Nanowires. Nano Letters, 2007, 7, 199-203.	4.5	79
121	Electron Field Emission Characteristics and Field Evaporation of a Single Carbon Nanotube. Journal of Physical Chemistry B, 2005, 109, 110-113.	1.2	78
122	Realization of low contact resistance close to theoretical limit in graphene transistors. Nano Research, 2015, 8, 1669-1679.	5.8	78
123	Tip Cooling Effect and Failure Mechanism of Field-Emitting Carbon Nanotubes. Nano Letters, 2006, 7, 64-68.	4.5	77
124	Ordered Vacancy Compounds and Nanotube Formation in CuInSe₂â^'CdS Coreâ^'Shell Nanowires. Nano Letters, 2007, 7, 3734-3738.	4.5	77
125	Carbon nanotube-based flexible electronics. Journal of Materials Chemistry C, 2018, 6, 7714-7727.	2.7	77
126	Nitrogen cluster doping for high-mobility/conductivity graphene films with millimeter-sized domains. Science Advances, 2019, 5, eaaw8337.	4.7	77

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127	Batch Fabrication of Ultrasensitive Carbon Nanotube Hydrogen Sensors with Sub-ppm Detection Limit. ACS Sensors, 2018, 3, 749-756.	4.0	76
128	High-mobility graphene on liquid p-block elements by ultra-low-loss CVD growth. Scientific Reports, 2013, 3, 2670.	1.6	75
129	Carbon Nanotube Feedback-Gate Field-Effect Transistor: Suppressing Current Leakage and Increasing On/Off Ratio. ACS Nano, 2015, 9, 969-977.	7.3	75
130	Batch-fabricated high-performance graphene Hall elements. Scientific Reports, 2013, 3, 1207.	1.6	72
131	The image contrast of surface steps in reflection electron microscopy. Ultramicroscopy, 1985, 16, 59-67.	0.8	71
132	Synthesis and characterization of K2Ti6O13 nanowires. Chemical Physics Letters, 2003, 376, 726-731.	1.2	71
133	Rapid Growth of Large Singleâ€Crystalline Graphene via Second Passivation and Multistage Carbon Supply. Advanced Materials, 2016, 28, 4671-4677.	11.1	69
134	Epitaxial growth of large-area and highly crystalline anisotropic ReSe2 atomic layer. Nano Research, 2017, 10, 2732-2742.	5.8	69
135	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
136	Controlling Molecular Growth between Fractals and Crystals on Surfaces. ACS Nano, 2015, 9, 11909-11915.	7.3	68
137	Bolometric Effect in Bi₂O₂Se Photodetectors. Small, 2019, 15, e1904482.	5.2	68
138	High-performance n-type carbon nanotube field-effect transistors with estimated sub-10-ps gate delay. Applied Physics Letters, 2008, 92, 133117.	1.5	67
139	Radiofrequency transistors based on aligned carbon nanotube arrays. Nature Electronics, 2021, 4, 405-415.	13.1	67
140	A Dopingâ€Free Carbon Nanotube CMOS Inverterâ€Based Bipolar Diode and Ambipolar Transistor. Advanced Materials, 2008, 20, 3258-3262.	11.1	66
141	Governing Rule for Dynamic Formation of Grain Boundaries in Grown Graphene. ACS Nano, 2015, 9, 5792-5798.	7.3	66
142	Broadband optical properties of graphene by spectroscopic ellipsometry. Carbon, 2016, 99, 348-353.	5.4	66
143	Synthesis, modification and characterization of K4Nb6O17-type nanotubes. Journal of Materials Chemistry, 2004, 14, 1437.	6.7	65
144	Broadband Bi₂O₂Se Photodetectors from Infrared to Terahertz. Advanced Functional Materials, 2021, 31, 2009554.	7.8	65

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145	Reversible switching on superhydrophobic TiO₂nano-strawberry films fabricated at low temperature. Chemical Communications, 2008, , 603-605.	2.2	64
146	Largeâ€Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. Angewandte Chemie - International Edition, 2019, 58, 14446-14451.	7.2	64
147	Interlayer Decoupling in 30Â° Twisted Bilayer Graphene Quasicrystal. ACS Nano, 2020, 14, 1656-1664.	7.3	64
148	High mobility flexible graphene field-effect transistors and ambipolar radio-frequency circuits. Nanoscale, 2015, 7, 10954-10962.	2.8	63
149	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></mm 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, .	1.1	63
150	Epitaxial dependence of the melting behavior of In nanoparticles embedded in Al matrices. Journal of Materials Research, 1997, 12, 119-123.	1.2	62
151	Switching Vertical to Horizontal Graphene Growth Using Faraday Cageâ€Assisted PECVD Approach for Highâ€Performance Transparent Heating Device. Advanced Materials, 2018, 30, 1704839.	11.1	62
152	Dirac Electrons at the Source: Breaking the 60-mV/Decade Switching Limit. IEEE Transactions on Electron Devices, 2018, 65, 2736-2743.	1.6	62
153	In-situ studies of electron field emission of single carbon nanotubes inside the TEM. Carbon, 2005, 43, 1026-1031.	5.4	61
154	Photoelectric performance of TiO2 nanotube array photoelectrodes cosensitized with CdS/CdSe quantum dots. Applied Physics Letters, 2010, 96, .	1.5	61
155	Carbon nanotube based ultra-low voltage integrated circuits: Scaling down to 0.4â€‰V. Applied Physics Letters, 2012, 100, 263116.	1.5	61
156	Comparison of mobility extraction methods based on field-effect measurements for graphene. AIP Advances, 2015, 5, 057136.	0.6	61
157	Monodisperse Copper Chalcogenide Nanocrystals: Controllable Synthesis and the Pinning of Plasmonic Resonance Absorption. Journal of the American Chemical Society, 2015, 137, 12006-12012.	6.6	61
158	Plasmonic hot electron tunneling photodetection in vertical Auâ€"graphene hybrid nanostructures. Laser and Photonics Reviews, 2017, 11, 1600148.	4.4	61
159	Early Lithium Plating Behavior in Confined Nanospace of 3D Lithiophilic Carbon Matrix for Stable Solidâ€State Lithium Metal Batteries. Small, 2019, 15, e1904216.	5.2	61
160	In Situ Fabrication and Graphitization of Amorphous Carbon Nanowires and Their Electrical Properties. Journal of Physical Chemistry B, 2006, 110, 5423-5428.	1.2	60
161	A very low temperature single crystal germanium growth process on insulating substrate using Ni-induced lateral crystallization for three-dimensional integrated circuits. Applied Physics Letters, 2007, 91, 143107.	1.5	60
162	Large-Scale and Rapid Synthesis of Ultralong ZnO Nanowire Films via Anodization. Journal of Physical Chemistry C, 2010, 114, 881-889.	1.5	60

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163	Large-area chemical vapor deposition-grown monolayer graphene-wrapped silver nanowires for broad-spectrum and robust antimicrobial coating. Nano Research, 2016, 9, 963-973.	5.8	60
164	van Hove Singularity Enhanced Photochemical Reactivity of Twisted Bilayer Graphene. Nano Letters, 2015, 15, 5585-5589.	4.5	59
165	Molecular Beam Epitaxy and Electronic Structure of Atomically Thin Oxyselenide Films. Advanced Materials, 2019, 31, e1901964.	11.1	59
166	Carbon nanotube-based three-dimensional monolithic optoelectronic integrated system. Nature Communications, 2017, 8, 15649.	5.8	57
167	Construction of SierpiÅ„ski Triangles up to the Fifth Order. Journal of the American Chemical Society, 2017, 139, 13749-13753.	6.6	57
168	Scalable Preparation of High-Density Semiconducting Carbon Nanotube Arrays for High-Performance Field-Effect Transistors. ACS Nano, 2018, 12, 627-634.	7.3	57
169	Optical and Electrical Properties of Ga-Doped ZnO Nanowire Arrays on Conducting Substrates. Journal of Physical Chemistry C, 2009, 113, 8945-8947.	1.5	56
170	High-Quality Ultralong Sb2S3 Nanoribbons on Large Scale. Journal of Physical Chemistry B, 2005, 109, 23312-23315.	1.2	55
171	ZnSe Nanobelts and Nanowires Synthesized by a Closed Space Vapor Transport Technique. Journal of Physical Chemistry C, 2007, 111, 2987-2991.	1.5	55
172	In situ TEM measurements of the mechanical properties and behavior of WS2 nanotubes. Nano Research, 2008, 1, 22.	5.8	55
173	Controlled Growth of Singleâ€Crystal Twelveâ€Pointed Graphene Grains on a Liquid Cu Surface. Advanced Materials, 2014, 26, 6423-6429.	11.1	55
174	Co/carbon-nanotube monometallic system: the effects of oxidation by nitric acid. Physical Chemistry Chemical Physics, 2001, 3, 2518-2521.	1.3	54
175	Nitrogenâ€Doped Singleâ€Walled Carbon Nanotubes Grown on Substrates: Evidence for Framework Doping and Their Enhanced Properties. Advanced Functional Materials, 2011, 21, 986-992.	7.8	54
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