Feng Ding

List of Publications by Year
in descending order

336 papers	20,393 citations	8159 76 h-index	13727 129 g-index
351 all docs	351 docs citations	351 times ranked	19184 citing authors

#	Article	IF	Citations
1	Chirality-specific growth of single-walled carbon nanotubes on solid alloy catalysts. Nature, 2014, 510, 522-524.	13.7	677
2	Mechanical Exfoliation and Characterization of Singleâ€•and Fewâ€Layer Nanosheets of WSe₂, TaS₂, and TaSe₂. Small, 2013, 9, 1974-1981.	5.2	544
3	Fast growth of inch-sized single-crystalline graphene from a controlled single nucleus on Cuâ€“Ni alloys. Nature Materials, 2016, 15, 43-47.	13.3	515
4	Controlled nanocutting of graphene. Nano Research, 2008, 1, 116-122.	5.8	472
5	Synchronous immobilization and conversion of polysulfides on a VO₂â€“VN binary host targeting high sulfur load Liâ€“S batteries. Energy and Environmental Science, 2018, 11, 2620-2630.	15.6	465
6	Ultrafast epitaxial growth of metre-sized single-crystal graphene on industrial Cu foil. Science Bulletin, 2017, 62, 1074-1080.	4.3	454
7	Epitaxial growth of a 100-square-centimetre single-crystal hexagonal boron nitride monolayer on copper. Nature, 2019, 570, 91-95.	13.7	422
8	Ultrafast growth of single-crystal graphene assisted by a continuous oxygen supply. Nature Nanotechnology, 2016, 11, 930-935.	15.6	330
9	Arrays of horizontal carbon nanotubes of controlled chirality grown using designed catalysts. Nature, 2017, 543, 234-238.	13.7	317
10	Graphene Nucleation on Transition Metal Surface: Structure Transformation and Role of the Metal Step Edge. Journal of the American Chemical Society, 2011, 133, 5009-5015.	6.6	315
11	Seamless Stitching of Graphene Domains on Polished Copper (111) Foil. Advanced Materials, 2015, 27, 1376-1382.	11.1	314
12	Synthesis of large single-crystal hexagonal boron nitride grains on Cuâ€“Ni alloy. Nature Communications, 2015, 6, 6160.	5.8	310
13	Dislocation theory of chirality-controlled nanotube growth. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2506-2509.	3.3	297
14	Vapourâ€“liquidâ€“solid growth of monolayer MoS2 nanoribbons. Nature Materials, 2018, 17, 535-542.	13.3	286
15	The Importance of Strong Carbonâˆ’Metal Adhesion for Catalytic Nucleation of Single-Walled Carbon Nanotubes. Nano Letters, 2008, 8, 463-468.	4.5	269
16	Role of Hydrogen in Graphene Chemical Vapor Deposition Growth on a Copper Surface. Journal of the American Chemical Society, 2014, 136, 3040-3047.	6.6	234
17	In situ observation of graphene sublimation and multi-layer edge reconstructions. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10103-10108.	3.3	232
18	Edge-controlled growth and kinetics of single-crystal graphene domains by chemical vapor deposition. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20386-20391.	3.3	213

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19	Nucleation and Growth of Single-Walled Carbon Nanotubes:â€‰ A Molecular Dynamics Study. Journal of Physical Chemistry B, 2004, 108, 17369-17377.	1.2	209
20	Thin Film Fieldâ€Effect Phototransistors from Bandgapâ€Tunable, Solutionâ€Processed, Fewâ€Layer Reduced Graphene Oxide Films. Advanced Materials, 2010, 22, 4872-4876.	11.1	209
21	Ultralarge elastic deformation of nanoscale diamond. Science, 2018, 360, 300-302.	6.0	208
22	Recent Progress and Challenges in Graphene Nanoribbon Synthesis. ChemPhysChem, 2013, 14, 47-54.	1.0	203
23	Ultrathin graphdiyne film on graphene through solution-phase van der Waals epitaxy. Science Advances, 2018, 4, eaat6378.	4.7	198
24	In Situ Assembly of 2D Conductive Vanadium Disulfide with Graphene as a Highâ€Sulfurâ€Loading Host for Lithiumâ€"Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1800201.	10.2	188
25	Chemically induced transformation of chemical vapour deposition grown bilayer graphene into fluorinated single-layer diamond. Nature Nanotechnology, 2020, 15, 59-66.	15.6	184
26	Manageable N-doped Graphene for High Performance Oxygen Reduction Reaction. Scientific Reports, 2013, 3, 2771.	1.6	182
27	Edge Structural Stability and Kinetics of Graphene Chemical Vapor Deposition Growth. ACS Nano, 2012, 6, 3243-3250.	7.3	179
28	Silane-catalysed fast growth of large single-crystalline graphene on hexagonal boron nitride. Nature Communications, 2015, 6, 6499.	5.8	173
29	Chemical vapor deposition growth of large-scale hexagonal boron nitride with controllable orientation. Nano Research, 2015, 8, 3164-3176.	5.8	171
30	Dual-coupling-guided epitaxial growth of wafer-scale single-crystal WS2 monolayer on vicinal a-plane sapphire. Nature Nanotechnology, 2022, 17, 33-38.	15.6	171
31	Molecular dynamics study of the catalyst particle size dependence on carbon nanotube growth. Journal of Chemical Physics, 2004, 121, 2775.	1.2	170
32	Band Gap Tuning of Hydrogenated Graphene: H Coverage and Configuration Dependence. Journal of Physical Chemistry C, 2011, 115, 3236-3242.	1.5	167
33	Facile general strategy toward hierarchical mesoporous transition metal oxides arrays on three-dimensional macroporous foam with superior lithium storage properties. Nano Energy, 2015, 13, 77-91.	8.2	164
34	Clustering of Sc on SWNT and Reduction of Hydrogen Uptake:â€‰ <i>Ab-Initio</i> All-Electron Calculations. Journal of Physical Chemistry C, 2007, 111, 17977-17980.	1.5	159
35	Colossal grain growth yields single-crystal metal foils by contact-free annealing. Science, 2018, 362, 1021-1025.	6.0	158
36	Mechanisms of Liquid-Phase Exfoliation for the Production of Graphene. ACS Nano, 2020, 14, 10976-10985.	7.3	157

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37	Hydrogen storage by spillover on graphene as a phase nucleation process. Physical Review B, 2008, 78, .	1.1	155
38	Magic Carbon Clusters in the Chemical Vapor Deposition Growth of Graphene. Journal of the American Chemical Society, 2012, 134, 2970-2975.	6.6	138
39	Highly Oriented Monolayer Graphene Grown on a Cu/Ni(111) Alloy Foil. ACS Nano, 2018, 12, 6117-6127.	7.3	132
40	The epitaxy of 2D materials growth. Nature Communications, 2020, 11, 5862.	5.8	130
41	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
42	Transition Metal Surface Passivation Induced Graphene Edge Reconstruction. Journal of the American Chemical Society, 2012, 134, 6204-6209.	6.6	127
43	Size dependence of the coalescence and melting of iron clusters: A molecular-dynamics study. Physical Review B, 2004, 70, .	1.1	121
44	Facile Synthesis of Wideâ€Bandgap Fluorinated Graphene Semiconductors. Chemistry - A European Journal, 2011, 17, 8896-8903.	1.7	121
45	Pseudoclimb and Dislocation Dynamics in Superplastic Nanotubes. Physical Review Letters, 2007, 98, 075503.	2.9	119
46	Formation of Carbon Clusters in the Initial Stage of Chemical Vapor Deposition Graphene Growth on Ni(111) Surface. Journal of Physical Chemistry C, 2011, 115, 17695-17703.	1.5	119
47	Growing Uniform Graphene Disks and Films on Molten Glass for Heating Devices and Cell Culture. Advanced Materials, 2015, 27, 7839-7846.	11.1	116
48	Seeded growth of large single-crystal copper foils with high-index facets. Nature, 2020, 581, 406-410.	13.7	116
49	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating. Advanced Materials, 2018, 30, 1702944.	11.1	113
50	Regulating Infrared Photoresponses in Reduced Graphene Oxide Phototransistors by Defect and Atomic Structure Control. ACS Nano, 2013, 7, 6310-6320.	7.3	112
51	Observational Geology of Graphene, at the Nanoscale. ACS Nano, 2011, 5, 1569-1574.	7.3	108
52	How the Orientation of Graphene Is Determined during Chemical Vapor Deposition Growth. Journal of Physical Chemistry Letters, 2012, 3, 2822-2827.	2.1	106
53	In-situ PECVD-enabled graphene-V2O3 hybrid host for lithiumâ€"sulfur batteries. Nano Energy, 2018, 53, 432-439.	8.2	105
54	Molecular Dynamics Simulation of Chemical Vapor Deposition Graphene Growth on Ni (111) Surface. Journal of Physical Chemistry C, 2012, 116, 6097-6102.	1.5	104

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55	Efficient Defect Healing in Catalytic Carbon Nanotube Growth. Physical Review Letters, 2012, 108, 245505.	2.9	100
56	In situ edge engineering in two-dimensional transition metal dichalcogenides. Nature Communications, 2018, 9, 2051.	5.8	100
57	How Evaporating Carbon Nanotubes Retain Their Perfection?. Nano Letters, 2007, 7, 681-684.	4.5	99
58	Epitaxial single-crystal hexagonal boron nitride multilayers on Ni (111). Nature, 2022, 606, 88-93.	13.7	97
59	Strategies, Status, and Challenges in Wafer Scale Single Crystalline Two-Dimensional Materials Synthesis. Chemical Reviews, 2021, 121, 6321-6372.	23.0	96
60	Modeling the melting of supported clusters. Applied Physics Letters, 2006, 88, 133110.	1.5	95
61	Insights into carbon nanotube and graphene formation mechanisms from molecular simulations: a review. Reports on Progress in Physics, 2015, 78, 036501.	8.1	93
62	How Graphene Islands Are Unidirectionally Aligned on the Ge(110) Surface. Nano Letters, 2016, 16, 3160-3165.	4.5	92
63	Vanadium Dioxide-Graphene Composite with Ultrafast Anchoring Behavior of Polysulfides for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 15733-15741.	4.0	92
64	Prediction of Relative Permeability of Unsaturated Porous Media Based on Fractal Theory and Monte Carlo Simulation. Energy & Fuels, 2012, 26, 6971-6978.	2.5	91
65	The edges of graphene. Nanoscale, 2013, 5, 2556.	2.8	91
66	Formation and Healing of Vacancies in Graphene Chemical Vapor Deposition (CVD) Growth. Journal of the American Chemical Society, 2013, 135, 4476-4482.	6.6	91
67	Kinetics of Graphene and 2D Materials Growth. Advanced Materials, 2019, 31, e1801583.	11.1	91
68	What are the active carbon species during graphene chemical vapor deposition growth?. Nanoscale, 2015, 7, 1627-1634.	2.8	89
69	Iron-carbide cluster thermal dynamics for catalyzed carbon nanotube growth. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1471-1476.	0.9	88
70	Real Time Microscopy, Kinetics, and Mechanism of Giant Fullerene Evaporation. Physical Review Letters, 2007, 99, 175503.	2.9	87
71	Graphitic Encapsulation of Catalyst Particles in Carbon Nanotube Production. Journal of Physical Chemistry B, 2006, 110, 7666-7670.	1.2	84
72	Theoretical study of the stability of defects in single-walled carbon nanotubes as a function of their distance from the nanotube end. Physical Review B, 2005, 72, .	1.1	83

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73	Kinetic modulation of graphene growth by fluorine through spatially confined decomposition of metal fluorides. Nature Chemistry, 2019, 11, 730-736.	6.6	82
74	The role of the catalytic particle temperature gradient for SWNT growth from small particles. Chemical Physics Letters, 2004, 393, 309-313.	1.2	81
75	Twoâ€Dimensional Palladium Diselenide with Strong Inâ€Plane Optical Anisotropy and High Mobility Grown by Chemical Vapor Deposition. Advanced Materials, 2020, 32, e1906238.	11.1	81
76	Stacking sequence and interlayer coupling in few-layer graphene revealed by in situ imaging. Nature Communications, 2016, 7, 13256.	5.8	79
77	Twoâ€Dimensional Layered Heterostructures Synthesized from Coreâ€"Shell Nanowires. Angewandte Chemie - International Edition, 2015, 54, 8957-8960.	7.2	78
78	Nitrogen cluster doping for high-mobility/conductivity graphene films with millimeter-sized domains. Science Advances, 2019, 5, eaaw8337.	4.7	77
79	The transition metal surface dependent methane decomposition in graphene chemical vapor deposition growth. Nanoscale, 2017, 9, 11584-11589.	2.8	76
80	Thickness Tunable Wedding-Cake-like MoS₂ Flakes for High-Performance Optoelectronics. ACS Nano, 2019, 13, 3649-3658.	7.3	75
81	Dependence of SWNT growth mechanism on temperature and catalyst particle size: Bulk versus surface diffusion. Carbon, 2005, 43, 2215-2217.	5.4	74
82	Formation and electronic properties of hydrogenated few layer graphene. Nanotechnology, 2011, 22, 185202.	1.3	74
83	A difference-fractal model for the permeability of fibrous porous media. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1201-1204.	0.9	71
84	Mechanically Robust Tri-Wing Graphene Nanoribbons with Tunable Electronic and Magnetic Properties. Nano Letters, 2010, 10, 494-498.	4.5	71
85	Coating fabrics with gold nanorods for colouring, UV-protection, and antibacterial functions. Nanoscale, 2013, 5, 788-795.	2.8	69
86	Seed-Assisted Growth of Single-Crystalline Patterned Graphene Domains on Hexagonal Boron Nitride by Chemical Vapor Deposition. Nano Letters, 2016, 16, 6109-6116.	4.5	69
87	Reversible Loss of Bernal Stacking during the Deformation of Few-Layer Graphene in Nanocomposites. ACS Nano, 2013, 7, 7287-7294.	7.3	68
88	Hydraulic permeability of fibrous porous media. International Journal of Heat and Mass Transfer, 2011, 54, 4009-4018.	2.5	67
89	A fractal analytical model for the permeabilities of fibrous gas diffusion layer in proton exchange membrane fuel cells. Electrochimica Acta, 2014, 134, 222-231.	2.6	65
90	Edge-Controlled Growth and Etching of Two-Dimensional GaSe Monolayers. Journal of the American Chemical Society, 2017, 139, 482-491.	6.6	65

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91	Nanotube-derived carbon foam for hydrogen sorption. Journal of Chemical Physics, 2007, 127, 164703.	1.2	64
92	Evoking ordered vacancies in metallic nanostructures toward a vacated Barlow packing for high-performance hydrogen evolution. Science Advances, 2021, 7, .	4.7	64
93	Edge-Catalyst Wetting and Orientation Control of Graphene Growth by Chemical Vapor Deposition Growth. Journal of Physical Chemistry Letters, 2014, 5, 3093-3099.	2.1	63
94	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. Nature Materials, 2023, 22, 450-458.	13.3	62
95	Challenges in hydrogen adsorptions: from physisorption to chemisorption. Frontiers of Physics, 2011, 6, 142-150.	2.4	61
96	Transitionâ€Metalâ€Catalyzed Unzipping of Singleâ€Walled Carbon Nanotubes into Narrow Graphene Nanoribbons at Low Temperature. Angewandte Chemie - International Edition, 2011, 50, 8041-8045.	7.2	61
97	Orientationâ€Dependent Strain Relaxation and Chemical Functionalization of Graphene on a Cu(111) Foil. Advanced Materials, 2018, 30, 1706504.	11.1	60
98	Nanotube nucleation versus carbon-catalyst adhesionâ€“Probed by molecular dynamics simulations. Journal of Chemical Physics, 2009, 131, 224501.	1.2	59
99	Strainâ€Induced Orientationâ€Selective Cutting of Graphene into Graphene Nanoribbons on Oxidation. Angewandte Chemie - International Edition, 2012, 51, 1161-1164.	7.2	59
100	Growth of Close-Packed Semiconducting Single-Walled Carbon Nanotube Arrays Using Oxygen-Deficient TiO₂ Nanoparticles as Catalysts. Nano Letters, 2015, 15, 403-409.	4.5	59
101	Chemical vapor deposition synthesis of near-zigzag single-walled carbon nanotubes with stable tube-catalyst interface. Science Advances, 2016, 2, e1501729.	4.7	59
102	Energetics and kinetics of phase transition between a 2H and a 1T MoS₂monolayerâ€”a theoretical study. Nanoscale, 2017, 9, 2301-2309.	2.8	59
103	Giant thermal conductivity in diamane and the influence of horizontal reflection symmetry on phonon scattering. Nanoscale, 2019, 11, 4248-4257.	2.8	59
104	An analytical model for gas diffusion though nanoscale and microscale fibrous media. Microfluidics and Nanofluidics, 2014, 16, 381-389.	1.0	57
105	Interaction between graphene layers and the mechanisms of graphite's superlubricity and self-retraction. Nanoscale, 2013, 5, 6736.	2.8	53
106	Selfâ€Assembly of Carbon Atoms on Transition Metal Surfacesâ€”Chemical Vapor Deposition Growth Mechanism of Graphene. Advanced Materials, 2014, 26, 5488-5495.	11.1	52
107	What Drives Metal-Surface Step Bunching in Graphene Chemical Vapor Deposition?. Physical Review Letters, 2018, 120, 246101.	2.9	52
108	The transition metal surface passivated edges of hexagonal boron nitride (h-BN) and the mechanism of h-BN's chemical vapor deposition (CVD) growth. Physical Chemistry Chemical Physics, 2015, 17, 29327-29334.	1.3	51

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109	Precise Identification of the Active Phase of Cobalt Catalyst for Carbon Nanotube Growth by <i>In Situ</i> Transmission Electron Microscopy. ACS Nano, 2020, 14, 16823-16831.	7.3	51
110	Low-Temperature Single-Wall Carbon Nanotubes Synthesis: Feedstock Decomposition Limited Growth. Journal of the American Chemical Society, 2008, 130, 11840-11841.	6.6	50
111	Unfolding the Fullerene: Nanotubes, Graphene and Polyâ€Elemental Varieties by Simulations. Advanced Materials, 2012, 24, 4956-4976.	11.1	50
112	Diverse Atomically Sharp Interfaces and Linear Dichroism of 1T' ReS₂â€ReSe₂ Lateral pâ€"n Heterojunctions. Advanced Functional Materials, 2018, 28, 1804696.	7.8	50
113	Heterodyned fifth-order two-dimensional IR spectroscopy: Third-quantum states and polarization selectivity. Journal of Chemical Physics, 2005, 123, 094502.	1.2	48
114	Upright Standing Graphene Formation on Substrates. Journal of the American Chemical Society, 2011, 133, 16072-16079.	6.6	47
115	Etching of two-dimensional materials. Materials Today, 2021, 42, 192-213.	8.3	47
116	Structural transition of Si clusters and their thermodynamics. Chemical Physics Letters, 2001, 341, 529-534.	1.2	46
117	Anomalous twin boundaries in two dimensional materials. Nature Communications, 2018, 9, 3597.	5.8	46
118	Helicity-dependent single-walled carbon nanotube alignment on graphite for helical angle and handedness recognition. Nature Communications, 2013, 4, 2205.	5.8	45
119	Nanoassembly Growth Model for Subdomain and Grain Boundary Formation in 1Tâ€² Layered ReS₂. Advanced Functional Materials, 2019, 29, 1906385.	7.8	45
120	Molecular dynamics study of the surface melting of iron clusters. European Physical Journal D, 2005, 34, 275-277.	0.6	44
121	Atomistic simulation of the growth of defect-free carbon nanotubes. Chemical Science, 2015, 6, 4704-4711.	3.7	44
122	A Catalytic Etching-Wetting-Dewetting Mechanism in the Formation of Hollow Graphitic Carbon Fiber. CheM, 2017, 2, 299-310.	5.8	44
123	The importance of supersaturated carbon concentration and its distribution in catalytic particles for single-walled carbon nanotube nucleation. Nanotechnology, 2006, 17, 543-548.	1.3	43
124	Precise Determination of the Threshold Diameter for a Single-Walled Carbon Nanotube To Collapse. ACS Nano, 2014, 8, 9657-9663.	7.3	43
125	Raman Spectral Band Oscillations in Large Graphene Bubbles. Physical Review Letters, 2018, 120, 186104.	2.9	43
126	Dynamic ripples in single layer graphene. Applied Physics Letters, 2011, 98, .	1.5	42

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127	Growth kinetics of single-walled carbon nanotubes with a (2 <i>n</i> , <i>n</i>) chirality selection. Science Advances, 2019, 5, eaav9668.	4.7	42
128	Robust growth of two-dimensional metal dichalcogenides and their alloys by active chalcogen monomer supply. Nature Communications, 2022, 13, 1007.	5.8	42
129	The edge termination controlled kinetics in graphene chemical vapor deposition growth. Chemical Science, 2014, 5, 4639-4645.	3.7	41
130	The reconstructed edges of the hexagonal BN. Nanoscale, 2015, 7, 9723-9730.	2.8	41
131	The Great Reduction of a Carbon Nanotubeâ€™s Mechanical Performance by a Few Topological Defects. ACS Nano, 2016, 10, 6410-6415.	7.3	41
132	The kinetics of chirality assignment in catalytic single-walled carbon nanotube growth and the routes towards selective growth. Chemical Science, 2018, 9, 3056-3061.	3.7	41
133	Ultra-stable small diameter hybrid transition metal dichalcogenide nanotubes Xâ€“Mâ€“Y (X, Y = S, Se, Te;) Tj ETQq1 1 0.784314 rgBT /O	2.8	40
134	Statistical analysis of nighttime mediumâ€scale traveling ionospheric disturbances using airglow images and GPS observations over central China. Journal of Geophysical Research: Space Physics, 2016, 121, 8887-8899.	0.8	40
135	The Way towards Ultrafast Growth of Singleâ€Crystal Graphene on Copper. Advanced Science, 2017, 4, 1700087.	5.6	40
136	Calculating carbon nanotubeâ€“catalyst adhesion strengths. Physical Review B, 2007, 75, .	1.1	39
137	Dislocation Dynamics in Multiwalled Carbon Nanotubes at High Temperatures. Physical Review Letters, 2008, 100, 035503.	2.9	39
138	Molecular dynamics study of SWNT growth on catalyst particles without temperature gradients. Computational Materials Science, 2006, 35, 243-246.	1.4	38
139	Sequential Electrochemical Unzipping of Single-Walled Carbon Nanotubes to Graphene Ribbons Revealed by <i>in Situ</i> Raman Spectroscopy and Imaging. ACS Nano, 2014, 8, 234-242.	7.3	38
140	Large scale atomistic simulation of single-layer graphene growth on Ni(111) surface: molecular dynamics simulation based on a new generation of carbonâ€“metal potential. Nanoscale, 2016, 8, 921-929.	2.8	38
141	Controllable Growth of (n, n â^’1) Family of Semiconducting Carbon Nanotubes. CheM, 2019, 5, 1182-1193.	5.8	38
142	Computational Studies of Catalytic Particles for Carbon Nanotube Growth. Journal of Computational and Theoretical Nanoscience, 2009, 6, 1-15.	0.4	37
143	The Structure and Stability of Magic Carbon Clusters Observed in Graphene Chemical Vapor Deposition Growth on Ru(0001) and Rh(111) Surfaces. Angewandte Chemie - International Edition, 2014, 53, 14031-14035.	7.2	37
144	Size dependent melting mechanisms of iron nanoclusters. Chemical Physics, 2007, 333, 57-62.	0.9	36

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145	Interwall Friction and Sliding Behavior of Centimeters Long Double-Walled Carbon Nanotubes. Nano Letters, 2016, 16, 1367-1374.	4.5	36
146	Effective diffusivity of gas diffusion layer in proton exchange membrane fuel cells. Journal of Power Sources, 2013, 225, 179-186.	4.0	35
147	Formation mechanism of overlapping grain boundaries in graphene chemical vapor deposition growth. Chemical Science, 2017, 8, 2209-2214.	3.7	35
148	The Coalescence Behavior of Two-Dimensional Materials Revealed by Multiscale <i>In Situ</i> Imaging during Chemical Vapor Deposition Growth. ACS Nano, 2020, 14, 1902-1918.	7.3	35
149	Selective growth of two-dimensional phosphorene on catalyst surface. Nanoscale, 2018, 10, 2255-2259.	2.8	34
150	Chirality-controlled synthesis of single-walled carbon nanotubesâ€"From mechanistic studies toward experimental realization. Materials Today, 2018, 21, 845-860.	8.3	34
151	Threshold Barrier of Carbon Nanotube Growth. Physical Review Letters, 2011, 107, 156101.	2.9	33
152	Mechanism of Transition-Metal Nanoparticle Catalytic Graphene Cutting. Journal of Physical Chemistry Letters, 2014, 5, 1192-1197.	2.1	33
153	Thermal properties of medium-sized Ge clusters. Solid State Communications, 2001, 117, 593-598.	0.9	32
154	Fluorination induced half metallicity in two-dimensional few zinc oxide layers. Journal of Chemical Physics, 2010, 132, 204703.	1.2	32
155	Transverse permeability determination of dual-scale fibrous materials. International Journal of Heat and Mass Transfer, 2013, 58, 532-539.	2.5	32
156	Controlling the orientations of h-BN during growth on transition metals by chemical vapor deposition. Nanoscale, 2017, 9, 3561-3567.	2.8	32
157	Camphorâ€Enabled Transfer and Mechanical Testing of Centimeterâ€Scale Ultrathin Films. Advanced Materials, 2018, 30, e1800888.	11.1	32
158	Ultrafast Catalyst-Free Graphene Growth on Glass Assisted by Local Fluorine Supply. ACS Nano, 2019, 13, 10272-10278.	7.3	32
159	Thermal behavior of Cuâ€"Co bimetallic clusters. Solid State Communications, 2001, 119, 13-18.	0.9	31
160	The favourable large misorientation angle grain boundaries in graphene. Nanoscale, 2015, 7, 20082-20088.	2.8	31
161	Passively correcting phase drift in two-dimensional infrared spectroscopy. Optics Letters, 2006, 31, 2918.	1.7	29
162	Formation mechanism of peapod-derived double-walled carbon nanotubes. Physical Review B, 2010, 82, .	1.1	29

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163	Molecular dynamics simulation of graphene sinking during chemical vapor deposition growth on semi-molten Cu substrate. Npj Computational Materials, 2020, 6, .	3.5	29
164	Anchoring effect of Ni2+ in stabilizing reduced metallic particles for growing single-walled carbon nanotubes. Carbon, 2018, 128, 249-256.	5.4	28
165	Molecular dynamics study of bamboo-like carbon nanotube nucleation. Journal of Electronic Materials, 2006, 35, 207-210.	1.0	27
166	Tunable carbon nanotube ionic polymer actuators that are operable in dry conditions. Sensors and Actuators B: Chemical, 2012, 162, 76-81.	4.0	27
167	Effective permeability of gas diffusion layer in proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2013, 38, 10519-10526.	3.8	27
168	GPS detection of the ionospheric disturbances over China due to impacts of Typhoons Rammasum and Matmo. Journal of Geophysical Research: Space Physics, 2017, 122, 1055-1063.	0.8	27
169	Direct Growth of Nanopatterned Graphene on Sapphire and Its Application in Light Emitting Diodes. Advanced Functional Materials, 2020, 30, 2001483.	7.8	27
170	Realizing the Intrinsic Anisotropic Growth of 1Tâ€² ReS₂ on Selected Au(101) Substrate toward Largeâ€Scale Single Crystal Fabrication. Advanced Functional Materials, 2021, 31, 2102138.	7.8	27
171	Why Carbon Nanotubes Grow. Journal of the American Chemical Society, 2022, 144, 5606-5613.	6.6	27
172	Formation of carbyne and graphyne on transition metal surfaces. Nanoscale, 2014, 6, 12727-12731.	2.8	26
173	Impurity-induced formation of bilayered graphene on copper by chemical vapor deposition. Nano Research, 2016, 9, 2803-2810.	5.8	26
174	In situ epitaxial engineering of graphene and h-BN lateral heterostructure with a tunable morphology comprising h-BN domains. NPG Asia Materials, 2019, 11, .	3.8	26
175	Borophene with Large Holes. Journal of Physical Chemistry Letters, 2020, 11, 6235-6241.	2.1	26
176	A comprehensive assessment of empirical potentials for carbon materials. APL Materials, 2021, 9, .	2.2	26
177	Theoretical and experimental study of highly textured GaAs on silicon using a graphene buffer layer. Journal of Crystal Growth, 2015, 425, 268-273.	0.7	25
178	How Low Nucleation Density of Graphene on CuNi Alloy is Achieved. Advanced Science, 2018, 5, 1700961.	5.6	25
179	Formation of Twinned Graphene Polycrystals. Angewandte Chemie - International Edition, 2019, 58, 7723-7727.	7.2	25
180	Dynamic State and Active Structure of Niâ€“Co Catalyst in Carbon Nanofiber Growth Revealed by <i>in Situ</i> Transmission Electron Microscopy. ACS Nano, 2021, 15, 17895-17906.	7.3	25

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