

Grains and grain boundaries in single-layer graphene at

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Citation Report

#	ARTICLE	IF	CITATIONS
5	Landscape for semiconductor analysis: Issues and challenges. , 2011, , .		1
6	Valence force field-based Monte Carlo bond-rotation method for the determination of $\langle i \rangle$ $\langle i \rangle$ -bonded carbon structures. Journal of Applied Physics, 2011, 110, .	1.1	11
7	Formation of Ripples in Graphene as a Result of Interfacial Instabilities. ACS Nano, 2011, 5, 9619-9627.	7.3	99
8	Identification of 5-7 Defects in a Copper Oxide Surface. Journal of the American Chemical Society, 2011, 133, 11474-11477.	6.6	80
9	High, Size-Dependent Quality Factor in an Array of Graphene Mechanical Resonators. Nano Letters, 2011, 11, 1232-1236.	4.5	212
10	Transformations of Carbon Adsorbates on Graphene Substrates under Extreme Heat. Nano Letters, 2011, 11, 5123-5127.	4.5	83
11	Domain (Grain) Boundaries and Evidence of "Twinlike" Structures in Chemically Vapor Deposited Grown Graphene. ACS Nano, 2011, 5, 2433-2439.	7.3	173
12	Transfer-Printing of Single DNA Molecule Arrays on Graphene for High-Resolution Electron Imaging and Analysis. Nano Letters, 2011, 11, 4232-4238.	4.5	40
13	Prospects for Nanowire-Doped Polycrystalline Graphene Films for Ultratransparent, Highly Conductive Electrodes. Nano Letters, 2011, 11, 5020-5025.	4.5	130
14	Atomic Structure of Interconnected Few-Layer Graphene Domains. ACS Nano, 2011, 5, 6610-6618.	7.3	77
15	Growth and Atomic-Scale Characterizations of Graphene on Multifaceted Textured Pt Foils Prepared by Chemical Vapor Deposition. ACS Nano, 2011, 5, 9194-9201.	7.3	84
16	Effect of Substrate Roughness and Feedstock Concentration on Growth of Wafer-Scale Graphene at Atmospheric Pressure. Chemistry of Materials, 2011, 23, 1441-1447.	3.2	277
17	Covalent Chemistry for Graphene Electronics. Journal of Physical Chemistry Letters, 2011, 2, 2487-2498.	2.1	131
18	Large-Scale Growth and Characterizations of Nitrogen-Doped Monolayer Graphene Sheets. ACS Nano, 2011, 5, 4112-4117.	7.3	590
19	Oxidation Resistance of Graphene-Coated Cu and Cu/Ni Alloy. ACS Nano, 2011, 5, 1321-1327.	7.3	1,167
20	Electrical and thermal conductivity of low temperature CVD graphene: the effect of disorder. Nanotechnology, 2011, 22, 275716.	1.3	132
21	Thermal transport across Twin Grain Boundaries in Polycrystalline Graphene from Nonequilibrium Molecular Dynamics Simulations. Nano Letters, 2011, 11, 3917-3921.	4.5	307
22	Half-metallicity in graphene nanoribbons with topological line defects. Physical Review B, 2011, 84, .	1.1	108

#	ARTICLE	IF	CITATIONS
23	Local Electronic Properties of Graphene on a BN Substrate via Scanning Tunneling Microscopy. Nano Letters, 2011, 11, 2291-2295.	4.5	539
24	Large-Area Graphene Single Crystals Grown by Low-Pressure Chemical Vapor Deposition of Methane on Copper. Journal of the American Chemical Society, 2011, 133, 2816-2819.	6.6	1,161
25	Controllable growth of shaped graphene domains by atmospheric pressure chemical vapour deposition. Nanoscale, 2011, 3, 4946.	2.8	37
26	Atom-resolved imaging of ordered defect superstructures at individual grain boundaries. Nature, 2011, 479, 380-383.	13.7	219
27	Friction Anisotropy-Driven Domain Imaging on Exfoliated Monolayer Graphene. Science, 2011, 333, 607-610.	6.0	284
28	Influence of Copper Morphology in Forming Nucleation Seeds for Graphene Growth. Nano Letters, 2011, 11, 4144-4148.	4.5	373
29	Hydrogenated grain boundaries in graphene. Applied Physics Letters, 2011, 98, .	1.5	29
30	Strain-Driven Moiré Superstructures of Epitaxial Graphene on Transition Metal Surfaces. ACS Nano, 2011, 5, 5627-5634.	7.3	155
31	Observational Geology of Graphene, at the Nanoscale. ACS Nano, 2011, 5, 1569-1574.	7.3	108
32	Atomic-Scale Characterization of Graphene Grown on Copper (100) Single Crystals. Journal of the American Chemical Society, 2011, 133, 12536-12543.	6.6	154
33	Effects of Polycrystalline Cu Substrate on Graphene Growth by Chemical Vapor Deposition. Nano Letters, 2011, 11, 4547-4554.	4.5	426
34	Revealing the grain structure of graphene grown by chemical vapor deposition. Applied Physics Letters, 2011, 99, .	1.5	70
35	Imaging local electronic corrugations and doped regions in graphene. Nature Communications, 2011, 2, 372.	5.8	111
36	Transfer of CVD-Grown Monolayer Graphene onto Arbitrary Substrates. ACS Nano, 2011, 5, 6916-6924.	7.3	1,258
37	Graphene Valley Filter Using a Line Defect. Physical Review Letters, 2011, 106, 136806.	2.9	453
38	Growth of Single Crystal Graphene Arrays by Locally Controlling Nucleation on Polycrystalline Cu Using Chemical Vapor Deposition. Advanced Materials, 2011, 23, 4898-4903.	11.1	172
39	Softened Elastic Response and Unzipping in Chemical Vapor Deposition Graphene Membranes. Nano Letters, 2011, 11, 2259-2263.	4.5	316
41	One-dimensional structural irregularities in graphene: chiral edges and grain boundaries. Journal of Physics: Conference Series, 2011, 302, 012016.	0.3	5

#	ARTICLE	IF	CITATIONS
42	Imaging Grains and Grain Boundaries in Single-Layer Graphene: An Atomic Patchwork Quilt. <i>Microscopy and Microanalysis</i> , 2011, 17, 1496-1497.	0.2	2
43	Imaging of Bernal stacked and misoriented graphene and boron nitride: experiment and simulation. <i>Journal of Microscopy</i> , 2011, 244, 152-158.	0.8	21
44	Control and characterization of individual grains and grain boundaries in graphene grown by chemical vapour deposition. <i>Nature Materials</i> , 2011, 10, 443-449.	13.3	1,356
45	Pushing the boundaries. <i>Nature Materials</i> , 2011, 10, 415-417.	13.3	54
47	On the optimum probe in aberration corrected ADF-STEM. <i>Ultramicroscopy</i> , 2011, 111, 1523-1530.	0.8	27
48	Role of Hydrogen in Chemical Vapor Deposition Growth of Large Single-Crystal Graphene. <i>ACS Nano</i> , 2011, 5, 6069-6076.	7.3	792
49	New directions in science and technology: two-dimensional crystals. <i>Reports on Progress in Physics</i> , 2011, 74, 082501.	8.1	206
50	Zigzag graphene nanoribbon edge reconstruction with Stone-Wales defects. <i>Physical Review B</i> , 2011, 84, .	1.1	65
51	Grain boundary loops in graphene. <i>Physical Review B</i> , 2011, 83, .	1.1	167
52	Large single-crystal monolayer graphene by decomposition of methanol. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 105, 31-37.	1.1	5
53	Structure analysis of CVD graphene films based on HRTEM contrast simulations. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 2681-2687.	0.8	4
54	Physical Vapor Deposition of Metal Nanoparticles on Chemically Modified Graphene: Observations on Metal-Graphene Interactions. <i>Small</i> , 2011, 7, 3202-3210.	5.2	109
55	Triangular Graphene Grain Growth on Cu Textured Cu Substrates. <i>Advanced Functional Materials</i> , 2011, 21, 3868-3874.	7.8	31
56	Graphene: Piecing it Together. <i>Advanced Materials</i> , 2011, 23, 4471-4490.	11.1	127
57	Progress in Modeling Graphene: The Novel Features of this Material. <i>Advanced Materials</i> , 2011, 23, 5324-5326.	11.1	3
58	Strain enhanced defect reactivity at grain boundaries in polycrystalline graphene. <i>Carbon</i> , 2011, 49, 3983-3988.	5.4	74
59	Electronic properties of grains and grain boundaries in graphene grown by chemical vapor deposition. <i>Solid State Communications</i> , 2011, 151, 1100-1104.	0.9	119
60	Low-energy electron point projection microscopy of suspended graphene, the ultimate TEM microscope. <i>New Journal of Physics</i> , 2011, 13, 063011.	1.2	46

#	ARTICLE	IF	CITATIONS
61	High quality, transferrable graphene grown on single crystal Cu(111) thin films on basal-plane sapphire. Applied Physics Letters, 2011, 98, .	1.5	113
62	Scattering of Dirac electrons by circular mass barriers: Valley filter and resonant scattering. Physical Review B, 2011, 84, .	1.1	33
63	Fabrication and performance of graphene nanoelectromechanical systems. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	55
64	Theory and hierarchical calculations of the structure and energetics of [0001] tilt grain boundaries in graphene. Physical Review B, 2011, 84, .	1.1	84
65	Structure analysis of CVD graphene films based on HRTEM contrast simulations. , 2011, , .		4
66	Half-metallic chromium-chain-embedded wire in graphene and carbon nanotubes. Physical Review B, 2011, 84, .	1.1	20
67	Laser-based imaging of individual carbon nanostructures. NPG Asia Materials, 2011, 3, 91-99.	3.8	16
68	Reviews of Science for Science Librarians: Graphene. Science and Technology Libraries, 2011, 30, 132-142.	0.8	3
69	Strain Gauge Based on Graphene. Applied Mechanics and Materials, 2012, 166-169, 2918-2923.	0.2	0
70	Low-temperature thermal conductivity in polycrystalline graphene. Europhysics Letters, 2012, 100, 26004.	0.7	10
71	Growth of CVD graphene on copper by rapid thermal processing. Materials Research Society Symposia Proceedings, 2012, 1451, 27-32.	0.1	2
72	Atomic-scale effects behind structural instabilities in Si lamellae during ion beam thinning. AIP Advances, 2012, 2, .	0.6	8
73	GraXe, graphene and xenon for neutrinoless double beta decay searches. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 037-037.	1.9	4
74	Argon-assisted growth of epitaxial graphene on Cu(111). Physical Review B, 2012, 86, .	1.1	41
75	Probing transconductance spatial variations in graphene nanoribbon field-effect transistors using scanning gate microscopy. Applied Physics Letters, 2012, 100, .	1.5	17
76	Ferromagnetism in a graphene nanoribbon with grain boundary defects. Physical Review B, 2012, 86, .	1.1	16
77	Directed assembly of one-dimensional magic cluster arrays by domain boundaries. Physical Review B, 2012, 85, .	1.1	3
78	Threshold of hierarchical percolating systems. Physical Review E, 2012, 85, 021109.	0.8	17

#	ARTICLE	IF	CITATIONS
79	Depressed scattering across grain boundaries in single crystal graphene. Applied Physics Letters, 2012, 101, 172107.	1.5	5
80	Design and performance of a combined secondary ion mass spectrometry-scanning probe microscopy instrument for high sensitivity and high-resolution elemental three-dimensional analysis. Review of Scientific Instruments, 2012, 83, 063702.	0.6	25
81	Study on the mechanical behavior of tilt bicrystal graphene by molecular dynamics simulations: Bulk versus nanoribbons. Journal of Applied Physics, 2012, 112, .	1.1	10
82	Epitaxial growth mechanisms of graphene and effects of substrates. Physical Review B, 2012, 85, .	1.1	39
83	Equilibrium at the edge and atomistic mechanisms of graphene growth. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15136-15140.	3.3	236
84	Stress-induced annihilation of Stone-Wales defects in graphene nanoribbons. Journal Physics D: Applied Physics, 2012, 45, 305303.	1.3	31
85	Experimental Review of Graphene. , 2012, 2012, 1-56.		404
86	Large Area Mapping of Graphene Grain Structure and Orientation. ECS Transactions, 2012, 45, 79-82.	0.3	1
87	Progress in studies of graphene growth mechanism on transition-metal surfaces. Chinese Science Bulletin, 2012, 57, 987-994.	0.4	1
88	From atoms to grains: Transmission electron microscopy of graphene. MRS Bulletin, 2012, 37, 1214-1221.	1.7	10
89	Defects and doping and their role in functionalizing graphene. MRS Bulletin, 2012, 37, 1187-1194.	1.7	61
90	Effect of Domain Boundaries on the Raman Spectra of Mechanically Strained Graphene. ACS Nano, 2012, 6, 10229-10238.	7.3	73
91	Electronic Transport in Graphene. , 2012, , 17-49.		0
93	Nickel Carbide as a Source of Grain Rotation in Epitaxial Graphene. ACS Nano, 2012, 6, 3564-3572.	7.3	77
94	Disorder and Defect Healing in Graphene on Ni(111). Journal of Physical Chemistry Letters, 2012, 3, 136-139.	2.1	65
95	Scattering by linear defects in graphene: A continuum approach. Physical Review B, 2012, 86, .	1.1	22
96	Inducing extended line defects in graphene by linear adsorption of C and N atoms. Applied Physics Letters, 2012, 101, .	1.5	7
97	Catalytic Growth of Graphene: Toward Large-Area Single-Crystalline Graphene. Journal of Physical Chemistry Letters, 2012, 3, 2228-2236.	2.1	136

#	ARTICLE	IF	CITATIONS
98	Progress of graphene growth on copper by chemical vapor deposition: Growth behavior and controlled synthesis. Science Bulletin, 2012, 57, 2995-2999.	1.7	15
99	High quality 2D crystals made by anodic bonding: a general technique for layered materials. Nanotechnology, 2012, 23, 505709.	1.3	41
100	Ripping Graphene: Preferred Directions. Nano Letters, 2012, 12, 293-297.	4.5	200
101	Interfacial coupling in rotational monolayer and bilayer graphene on Ru(0001) from first principles. Nanoscale, 2012, 4, 4687.	2.8	20
102	Efficient elastic imaging of single atoms on ultrathin supports in a scanning transmission electron microscope. Ultramicroscopy, 2012, 123, 59-65.	0.8	24
103	Quantification of the Surface Diffusion of Tripodal Binding Motifs on Graphene Using Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2012, 134, 6224-6236.	6.6	56
104	Few layer graphene synthesized by filtered vacuum arc system using solid carbon source. Current Applied Physics, 2012, 12, S131-S133.	1.1	9
105	Growth and electronic transport properties of epitaxial graphene on SiC. Journal Physics D: Applied Physics, 2012, 45, 154008.	1.3	38
106	Labeling and monitoring the distribution of anchoring sites on functionalized CNTs by atomic layer deposition. Journal of Materials Chemistry, 2012, 22, 7323.	6.7	44
107	Atomic-scale study of scattering and electronic properties of CVD graphene grain boundaries. , 2012, , .		1
108	Suppression of Grain Boundaries in Graphene Growth on Superstructured Mn-Cu(111) Surface. Physical Review Letters, 2012, 109, 265507.	2.9	36
109	High-quality GaN films grown on chemical vapor-deposited graphene films. NPG Asia Materials, 2012, 4, e24-e24.	3.8	95
110	Intrinsic energy dissipation in CVD-grown graphene nanoresonators. Nanoscale, 2012, 4, 3460.	2.8	30
111	Origin of the relatively low transport mobility of graphene grown through chemical vapor deposition. Scientific Reports, 2012, 2, 337.	1.6	159
112	Oxidation Resistance of Reactive Atoms in Graphene. Nano Letters, 2012, 12, 4651-4655.	4.5	64
113	Scanning tunneling microscopy study of graphene on Au(111): Growth mechanisms and substrate interactions. Physical Review B, 2012, 85, .	1.1	89
114	Resonant valley filtering of massive Dirac electrons. Physical Review B, 2012, 86, .	1.1	55
115	Remote Catalyzation for Direct Formation of Graphene Layers on Oxides. Nano Letters, 2012, 12, 1379-1384.	4.5	146

#	ARTICLE	IF	CITATIONS
116	Electronic and magnetic properties of boron nitride nanoribbons with topological line defects. RSC Advances, 2012, 2, 6192.	1.7	14
117	The application of graphene as a sample support in transmission electron microscopy. Solid State Communications, 2012, 152, 1375-1382.	0.9	80
118	Polycrystalline graphene: Atomic structure, energetics and transport properties. Solid State Communications, 2012, 152, 1431-1436.	0.9	18
119	Graphene domain boundaries on Pt(111) as nucleation sites for Pt nanocluster formation. Surface Science, 2012, 606, 1643-1648.	0.8	24
120	Nanoscale investigation of charge transport at the grain boundaries and wrinkles in graphene film. Nanotechnology, 2012, 23, 285705.	1.3	34
121	High-Yield Chemical Vapor Deposition Growth of High-Quality Large-Area AB-Stacked Bilayer Graphene. ACS Nano, 2012, 6, 8241-8249.	7.3	246
122	Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. Nature Chemistry, 2012, 4, 724-732.	6.6	463
123	Transport in Nanoribbon Interconnects Obtained from Graphene Grown by Chemical Vapor Deposition. Nano Letters, 2012, 12, 4424-4430.	4.5	99
124	The role of defects and doping in 2D graphene sheets and 1D nanoribbons. Reports on Progress in Physics, 2012, 75, 062501.	8.1	475
125	Chemical Vapor Deposition-Derived Graphene with Electrical Performance of Exfoliated Graphene. Nano Letters, 2012, 12, 2751-2756.	4.5	365
126	Advances in 2D boron nitride nanostructures: nanosheets, nanoribbons, nanomeshes, and hybrids with graphene. Nanoscale, 2012, 4, 6908.	2.8	745
127	Mapping the electronic properties of individual graphene grain boundaries. Applied Physics Letters, 2012, 100, .	1.5	112
128	Atomistic study on the strength of symmetric tilt grain boundaries in graphene. Applied Physics Letters, 2012, 100, .	1.5	40
129	Electronic and transport gaps of graphene opened by grain boundaries. Journal of Applied Physics, 2012, 112, .	1.1	34
130	Thermal Oxidation and Unwrinkling of Chemical Vapor Deposition-Grown Graphene. Journal of Physical Chemistry C, 2012, 116, 20600-20606.	1.5	58
131	Half-metallicity in graphene nanoribbons with topological defects at edge. Journal of Chemical Physics, 2012, 137, 094705.	1.2	11
132	Controllable Synthesis of Submillimeter Single-Crystal Monolayer Graphene Domains on Copper Foils by Suppressing Nucleation. Journal of the American Chemical Society, 2012, 134, 3627-3630.	6.6	347
133	Formation and Stability of Cellular Carbon Foam Structures: An Ab Initio Study. Physical Review Letters, 2012, 109, 135501.	2.9	27

#	ARTICLE	IF	CITATIONS
134	Probing graphene grain boundaries with optical microscopy. <i>Nature</i> , 2012, 490, 235-239.	13.7	352
135	On the nucleation of graphene by chemical vapor deposition. <i>New Journal of Chemistry</i> , 2012, 36, 73-77.	1.4	16
136	Graphene: An Emerging Electronic Material. <i>Advanced Materials</i> , 2012, 24, 5782-5825.	11.1	718
137	Amorphous Carbon under 80 kV Electron Irradiation: A Means to Make or Break Graphene. <i>Advanced Materials</i> , 2012, 24, 5630-5635.	11.1	59
138	Topological Defects: Origin of Nanopores and Enhanced Adsorption Performance in Nanoporous Carbon. <i>Small</i> , 2012, 8, 3283-3288.	5.2	139
139	Surface-Enhanced Raman Scattering Study on Graphene-Coated Metallic Nanostructure Substrates. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7249-7254.	1.5	97
140	A molecular dynamics investigation of the mechanical properties of graphene nanochains. <i>Journal of Materials Chemistry</i> , 2012, 22, 9798.	6.7	23
141	Effect of grain boundary on the buckling of graphene nanoribbons. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	18
142	Nanoscale power and heat management in electronics. , 2012, , .		0
143	B and N doping in graphene ruled by grain boundary defects. <i>Physical Review B</i> , 2012, 85, .	1.1	46
144	The Application of Highly Doped Single-Layer Graphene as the Top Electrodes of Semitransparent Organic Solar Cells. <i>ACS Nano</i> , 2012, 6, 810-818.	7.3	297
145	CVD growth of large area and uniform graphene on tilted copper foil for high performance flexible transparent conductive film. <i>Journal of Materials Chemistry</i> , 2012, 22, 18283.	6.7	66
146	Improved Electrical Conductivity of Graphene Films Integrated with Metal Nanowires. <i>Nano Letters</i> , 2012, 12, 5679-5683.	4.5	283
147	Synthesis of large-scale undoped and nitrogen-doped amorphous graphene on MgO substrate by chemical vapor deposition. <i>Journal of Materials Chemistry</i> , 2012, 22, 19679.	6.7	48
148	Anisotropic Hydrogen Etching of Chemical Vapor Deposited Graphene. <i>ACS Nano</i> , 2012, 6, 126-132.	7.3	230
149	The nature of strength enhancement and weakening by pentagon&heptagon defects in&graphene. <i>Nature Materials</i> , 2012, 11, 759-763.	13.3	548
150	Near-field microwave scanning probe imaging of conductivity inhomogeneities in CVD graphene. <i>Nanotechnology</i> , 2012, 23, 385706.	1.3	51
151	Facile Synthesis of Ag Interlayer Doped Graphene by Chemical Vapor Deposition Using Polystyrene As Solid Carbon Source. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 2041-2047.	4.0	76

#	ARTICLE	IF	CITATIONS
152	Graphene nanoelectronics: Overview from post-silicon perspective. , 2012, , .		1
153	The Parameter Space of Graphene Chemical Vapor Deposition on Polycrystalline Cu. Journal of Physical Chemistry C, 2012, 116, 22492-22501.	1.5	155
154	Domain Structure and Boundary in Single-Layer Graphene Grown on Cu(111) and Cu(100) Films. Journal of Physical Chemistry Letters, 2012, 3, 219-226.	2.1	209
155	Decoupling of CVD graphene by controlled oxidation of recrystallized Cu. RSC Advances, 2012, 2, 3008.	1.7	82
156	Mechanical properties of polycrystalline graphene based on a realistic atomistic model. Physical Review B, 2012, 85, .	1.1	181
157	Reactivity of Monolayer Chemical Vapor Deposited Graphene Imperfections Studied Using Scanning Electrochemical Microscopy. ACS Nano, 2012, 6, 3070-3079.	7.3	115
158	Graphene growth on metal surfaces. MRS Bulletin, 2012, 37, 1158-1165.	1.7	81
159	Identifying Hexagonal Boron Nitride Monolayers by Transmission Electron Microscopy. Microscopy and Microanalysis, 2012, 18, 558-567.	0.2	11
160	Water Splits Epitaxial Graphene and Intercalates. Journal of the American Chemical Society, 2012, 134, 5662-5668.	6.6	186
161	How the Orientation of Graphene Is Determined during Chemical Vapor Deposition Growth. Journal of Physical Chemistry Letters, 2012, 3, 2822-2827.	2.1	106
162	Direct visualization of large-area graphene domains and boundaries by optical birefringency. Nature Nanotechnology, 2012, 7, 29-34.	15.6	222
163	A systematic study of atmospheric pressure chemical vapor deposition growth of large-area monolayer graphene. Journal of Materials Chemistry, 2012, 22, 1498-1503.	6.7	76
164	Graphene and boron nitride lateral heterostructures for atomically thin circuitry. Nature, 2012, 488, 627-632.	13.7	747
165	Thinning Segregated Graphene Layers on High Carbon Solubility Substrates of Rhodium Foils by Tuning the Quenching Process. ACS Nano, 2012, 6, 10581-10589.	7.3	61
166	Synthesis of large-area graphene on molybdenum foils by chemical vapor deposition. Carbon, 2012, 50, 5226-5231.	5.4	47
167	Intrinsic Strength and Failure Behaviors of Graphene Grain Boundaries. ACS Nano, 2012, 6, 2704-2711.	7.3	197
168	Triple Junction Transport and the Impact of Grain Boundary Width in Nanocrystalline Cu. Nano Letters, 2012, 12, 3448-3454.	4.5	49
169	Activation Energy Paths for Graphene Nucleation and Growth on Cu. ACS Nano, 2012, 6, 3614-3623.	7.3	370

#	ARTICLE	IF	CITATIONS
170	Extraordinary epitaxial alignment of graphene islands on Au(111). <i>New Journal of Physics</i> , 2012, 14, 053008.	1.2	78
171	Epitaxial Growth of $\sqrt{3}$ -Stacked Perfluoropentacene on Graphene-Coated Quartz. <i>ACS Nano</i> , 2012, 6, 10874-10883.	7.3	108
172	Twinning and Twisting of Tri- and Bilayer Graphene. <i>Nano Letters</i> , 2012, 12, 1609-1615.	4.5	224
173	Spectroscopic investigation of nitrogen doped graphene. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	52
174	Large scale metal-free synthesis of graphene on sapphire and transfer-free device fabrication. <i>Nanoscale</i> , 2012, 4, 3050.	2.8	118
175	Graphene has ultra high piezoresistive gauge factor. , 2012, , .		15
176	Scattering of a Dirac electron on a mass barrier. <i>Physical Review A</i> , 2012, 86, .	1.0	10
177	Band-Gap Engineering of Carbon Nanotubes with Grain Boundaries. <i>Journal of Physical Chemistry C</i> , 2012, 116, 2271-2277.	1.5	11
178	Flaw Insensitive Fracture in Nanocrystalline Graphene. <i>Nano Letters</i> , 2012, 12, 4605-4610.	4.5	221
179	Scanning Tunneling Microscopy Study and Nanomanipulation of Graphene-Coated Water on Mica. <i>Nano Letters</i> , 2012, 12, 2665-2672.	4.5	102
180	Photochemical oxidation of CVD-grown single layer graphene. <i>Nanotechnology</i> , 2012, 23, 355703.	1.3	52
181	Layer Number and Stacking Sequence Imaging of Few-Layer Graphene by Transmission Electron Microscopy. <i>Nano Letters</i> , 2012, 12, 4635-4641.	4.5	64
182	Strain-Induced Conductance Modulation in Graphene Grain Boundary. <i>Nano Letters</i> , 2012, 12, 1362-1366.	4.5	54
183	Dislocations and Grain Boundaries in Two-Dimensional Boron Nitride. <i>ACS Nano</i> , 2012, 6, 7053-7058.	7.3	216
184	Formation of Perpendicular Graphene Nanosheets on LiFePO_4 : A First-Principles Characterization. <i>Journal of Physical Chemistry C</i> , 2012, 116, 17650-17656.	1.5	28
185	Chemical Vapor Deposition of Graphene on Copper from Methane, Ethane and Propane: Evidence for Bilayer Selectivity. <i>Small</i> , 2012, 8, 1415-1422.	5.2	93
186	Large-Area Vapor-Phase Growth and Characterization of MoS_2 Atomic Layers on a SiO_2 Substrate. <i>Small</i> , 2012, 8, 966-971.	5.2	1,556
187	Controlling the shapes and assemblages of graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 7951-7952.	3.3	11

#	ARTICLE	IF	CITATIONS
188	Large Single Crystals of Graphene on Melted Copper Using Chemical Vapor Deposition. ACS Nano, 2012, 6, 5010-5017.	7.3	218
189	Angle-Resolved Raman Imaging of Interlayer Rotations and Interactions in Twisted Bilayer Graphene. Nano Letters, 2012, 12, 3162-3167.	4.5	299
190	Polarized light microscopy of chemical-vapor-deposition-grown graphene on copper. Applied Physics Letters, 2012, 100, 213103.	1.5	9
191	Effects of disorder on the optical properties of CVD grown polycrystalline graphene. Nanoscale, 2012, 4, 1770.	2.8	37
192	Vapor Trapping Growth of Single-Crystalline Graphene Flowers: Synthesis, Morphology, and Electronic Properties. Nano Letters, 2012, 12, 2810-2816.	4.5	180
193	Defects and impurities in graphene-like materials. Materials Today, 2012, 15, 98-109.	8.3	298
194	Phonon and Structural Changes in Deformed Bernal Stacked Bilayer Graphene. Nano Letters, 2012, 12, 687-693.	4.5	65
195	Atom-by-atom nucleation and growth of graphene nanopores. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5953-5957.	3.3	256
196	A theoretical analysis of the surface dependent binding, peeling and folding of graphene on single crystal copper. Carbon, 2012, 50, 3055-3063.	5.4	51
197	Graphing and grafting graphene: Classifying finite topological defects. Physical Review B, 2012, 85, .	1.1	24
198	Quantitative Analysis of Structure and Bandgap Changes in Graphene Oxide Nanoribbons during Thermal Annealing. Journal of the American Chemical Society, 2012, 134, 11774-11780.	6.6	55
199	Structure and Electronic Transport in Graphene Wrinkles. Nano Letters, 2012, 12, 3431-3436.	4.5	540
200	High-Throughput Graphene Imaging on Arbitrary Substrates with Widefield Raman Spectroscopy. ACS Nano, 2012, 6, 373-380.	7.3	47
201	Dangling bonds and magnetism of grain boundaries in graphene. Physical Review B, 2012, 85, .	1.1	57
202	Towards Rationally Designed Graphene-Based Materials and Devices. Macromolecular Chemistry and Physics, 2012, 213, 1091-1100.	1.1	20
203	Direct Imaging of a Two-Dimensional Silica Glass on Graphene. Nano Letters, 2012, 12, 1081-1086.	4.5	236
204	Binary and Ternary Atomic Layers Built from Carbon, Boron, and Nitrogen. Advanced Materials, 2012, 24, 4878-4895.	11.1	219
205	Local Electronic Properties of Corrugated Silicene Phases. Advanced Materials, 2012, 24, 5088-5093.	11.1	278

#	ARTICLE	IF	CITATIONS
206	Effect of Vacancy Defects on the Young's Modulus and Fracture Strength of Graphene: A Molecular Dynamics Study. Chinese Journal of Chemistry, 2012, 30, 1399-1404.	2.6	31
207	Transformation of Round-shaped Graphene Disks into Hexagonal Domains in CVD. Chemical Vapor Deposition, 2012, 18, 185-190.	1.4	1
208	Repeated growth and bubbling transfer of graphene with millimetre-size single-crystal grains using platinum. Nature Communications, 2012, 3, 699.	5.8	985
209	Uniform hexagonal graphene flakes and films grown on liquid copper surface. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7992-7996.	3.3	417
210	Tailoring Electrical Transport Across Grain Boundaries in Polycrystalline Graphene. Science, 2012, 336, 1143-1146.	6.0	535
211	Atom-by-Atom Observation of Grain Boundary Migration in Graphene. Nano Letters, 2012, 12, 3168-3173.	4.5	178
212	Dislocation-Driven Deformations in Graphene. Science, 2012, 337, 209-212.	6.0	332
213	A facile tool for the characterization of two-dimensional materials grown by chemical vapor deposition. Nano Research, 2012, 5, 504-511.	5.8	26
214	The effect of growth parameters on the intrinsic properties of large-area single layer graphene grown by chemical vapor deposition on Cu. Carbon, 2012, 50, 134-141.	5.4	92
215	Epitaxial growth of large-area single-layer graphene over Cu(1 1 1)/sapphire by atmospheric pressure CVD. Carbon, 2012, 50, 57-65.	5.4	252
216	Influence of Cu metal on the domain structure and carrier mobility in single-layer graphene. Carbon, 2012, 50, 2189-2196.	5.4	86
217	The production of large bilayer hexagonal graphene domains by a two-step growth process of segregation and surface-catalytic chemical vapor deposition. Carbon, 2012, 50, 2703-2709.	5.4	30
218	Graphene defect polarity dynamics. Carbon, 2012, 50, 2870-2876.	5.4	21
219	Effects of dislocation densities and distributions on graphene grain boundary failure strengths from atomistic simulations. Carbon, 2012, 50, 3465-3472.	5.4	86
220	The mechanical responses of tilted and non-tilted grain boundaries in graphene. Carbon, 2012, 50, 3708-3716.	5.4	79
221	Graphene: synthesis and applications. Materials Today, 2012, 15, 86-97.	8.3	798
222	Mechanical response of few-layer graphene films on copper foils. Scripta Materialia, 2012, 67, 273-276.	2.6	4
223	The surface science of graphene: Metal interfaces, CVD synthesis, nanoribbons, chemical modifications, and defects. Surface Science Reports, 2012, 67, 83-115.	3.8	746

#	ARTICLE	IF	CITATIONS
224	Scanning probe microscopy of graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 743-759.	1.3	30
225	Mechanical deformation and fracture mode of polycrystalline graphene: Atomistic simulations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 1942-1947.	0.9	26
226	Polycrystalline Graphene Ribbons as Chemiresistors. <i>Advanced Materials</i> , 2012, 24, 53-57.	11.1	177
227	Enhanced performance of organic light-emitting diodes by using hybrid anodes composed of graphene and conducting polymer. <i>Current Applied Physics</i> , 2013, 13, S144-S147.	1.1	34
228	A theoretical evaluation of the temperature and strain-rate dependent fracture strength of tilt grain boundaries in graphene. <i>Carbon</i> , 2013, 51, 373-380.	5.4	99
229	Electrical and mechanical performance of graphene sheets exposed to oxidative environments. <i>Nano Research</i> , 2013, 6, 485-495.	5.8	41
230	Very low energy electron microscopy of graphene flakes. <i>Journal of Microscopy</i> , 2013, 251, 123-127.	0.8	10
231	Grain boundaries in graphene grown by chemical vapor deposition. <i>New Journal of Physics</i> , 2013, 15, 035024.	1.2	118
232	Rotated domains in chemical vapor deposition-grown monolayer graphene on Cu(111): an angle-resolved photoemission study. <i>Nanoscale</i> , 2013, 5, 8210.	2.8	33
233	Flexible Supercapacitors "Development of Bendable Carbon Architectures. <i>ACS Symposium Series</i> , 2013, , 101-141.	0.5	5
234	Short-range potential scattering and its effect on graphene mobility. <i>Journal of Computational Electronics</i> , 2013, 12, 76-84.	1.3	21
235	Scattering by linear defects in graphene: a tight-binding approach. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 075303.	0.7	11
236	Graphene-carbon nanotube hybrid transparent conductive films. <i>Proceedings of SPIE</i> , 2013, , .	0.8	3
237	Electronic and Magnetic Engineering in Zigzag Graphene Nanoribbons Having a Topological Line Defect at Different Positions with or without Strain. <i>Journal of Physical Chemistry C</i> , 2013, 117, 4791-4799.	1.5	38
238	Weak mismatch epitaxy and structural Feedback in graphene growth on copper foil. <i>Nano Research</i> , 2013, 6, 99-112.	5.8	73
239	Fabrication of vertically aligned graphene sheets on SiC substrates. <i>RSC Advances</i> , 2013, 3, 13926.	1.7	20
240	Electron interaction, charging, and screening at grain boundaries in graphene. <i>Physical Review B</i> , 2013, 88, .	1.1	13
241	Continuous wafer-scale graphene on cubic-SiC(001). <i>Nano Research</i> , 2013, 6, 562-570.	5.8	31

#	ARTICLE	IF	CITATIONS
242	Strength and fracture behavior of graphene grain boundaries: effects of temperature, inflection, and symmetry from molecular dynamics. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 11794.	1.3	39
243	Spatially Resolved Mapping of Electrical Conductivity across Individual Domain (Grain) Boundaries in Graphene. <i>ACS Nano</i> , 2013, 7, 7956-7966.	7.3	124
244	Effect of pentagonâ€“heptagon defect on thermal transport properties in graphene nanoribbons. <i>Carbon</i> , 2013, 65, 181-186.	5.4	53
246	Patterned Defect Structures Predicted for Graphene Are Observed on Single-Layer Silica Films. <i>Nano Letters</i> , 2013, 13, 4422-4427.	4.5	42
247	Graphene Nucleation Density on Copper: Fundamental Role of Background Pressure. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18919-18926.	1.5	179
248	Nanoscale Dynamics and Protein Adhesivity of Alkylamine Self-Assembled Monolayers on Graphene. <i>Langmuir</i> , 2013, 29, 7271-7282.	1.6	27
249	Atomistic processes of grain boundary motion and annihilation in graphene. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 155301.	0.7	6
250	Modeling electronic properties and quantum transport in doped and defective graphene. <i>Solid State Communications</i> , 2013, 175-176, 90-100.	0.9	34
251	Synthesis of Millimeter-Size Hexagon-Shaped Graphene Single Crystals on Resolidified Copper. <i>ACS Nano</i> , 2013, 7, 8924-8931.	7.3	178
252	Step Flow Versus Mosaic Film Growth in Hexagonal Boron Nitride. <i>Journal of the American Chemical Society</i> , 2013, 135, 2368-2373.	6.6	89
253	Transfer-free growth of graphene on SiO ₂ insulator substrate from sputtered carbon and nickel films. <i>Carbon</i> , 2013, 65, 349-358.	5.4	59
254	Structures and electronic properties of symmetric and nonsymmetric graphene grain boundaries. <i>Carbon</i> , 2013, 55, 151-159.	5.4	74
255	Thermal response of grain boundaries in graphene sheets under shear strain from atomistic simulations. <i>Computational Materials Science</i> , 2013, 70, 163-170.	1.4	22
256	Singleâ€“Molecule Chemical Reactions Tracked at the Atomicâ€“Bond Level. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 13521-13523.	7.2	3
257	Grain misorientation and grain-boundary rotation dependent mechanical properties in polycrystalline graphene. <i>Journal of the Mechanics and Physics of Solids</i> , 2013, 61, 1421-1432.	2.3	109
258	Crystal Structure Evolution of Individual Graphene Islands During CVD Growth on Copper Foil. <i>Advanced Materials</i> , 2013, 25, 6744-6751.	11.1	50
259	Electronic and plasmonic phenomena at graphene grain boundaries. <i>Nature Nanotechnology</i> , 2013, 8, 821-825.	15.6	226
260	Stacking Order Dependent Second Harmonic Generation and Topological Defects in <i>h</i> -BN Bilayers. <i>Nano Letters</i> , 2013, 13, 5660-5665.	4.5	141

#	ARTICLE	IF	CITATIONS
261	Enhanced Chemical Reactivity of Graphene Induced by Mechanical Strain. ACS Nano, 2013, 7, 10335-10343.	7.3	157
262	Properties of Strained Structures and Topological Defects in Graphene. ACS Nano, 2013, 7, 8350-8357.	7.3	49
263	One-Dimensional Electrical Contact to a Two-Dimensional Material. Science, 2013, 342, 614-617.	6.0	2,236
264	Intrinsic Magnetism of Grain Boundaries in Two-Dimensional Metal Dichalcogenides. ACS Nano, 2013, 7, 10475-10481.	7.3	232
265	Self-healing of vacancy defects in single-layer graphene and silicene. Physical Review B, 2013, 88, .	1.1	119
266	A probe for graphene electronics. Nature Nanotechnology, 2013, 8, 802-803.	15.6	2
267	Strain solitons and topological defects in bilayer graphene. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11256-11260.	3.3	407
268	Epitaxial Growth and Electronic Properties of Large Hexagonal Graphene Domains on Cu(111) Thin Film. Applied Physics Express, 2013, 6, 075101.	1.1	83
269	Measurement of the intrinsic strength of crystalline and polycrystalline graphene. Nature Communications, 2013, 4, .	5.8	246
270	Mechanical properties of highly defective graphene: from brittle rupture to ductile fracture. Nanotechnology, 2013, 24, 505703.	1.3	65
271	Controllable Disorder Engineering in Oxygen-Incorporated MoS ₂ Ultrathin Nanosheets for Efficient Hydrogen Evolution. Journal of the American Chemical Society, 2013, 135, 17881-17888.	6.6	2,107
272	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
273	Development of an ultra-thin film comprised of a graphene membrane and carbon nanotube vein support. Nature Communications, 2013, 4, 2920.	5.8	71
274	Electron crystallography as an informative method for studying the structure of nanoparticles. Crystallography Reports, 2013, 58, 788-804.	0.1	1
275	Effects of loading mode and orientation on deformation mechanism of graphene nano-ribbons. Applied Physics Letters, 2013, 103, 191906.	1.5	5
276	Probing buried interfaces. Nature Nanotechnology, 2013, 8, 803-805.	15.6	0
277	Selective Gas Transport Through Few-Layered Graphene and Graphene Oxide Membranes. Science, 2013, 342, 91-95.	6.0	1,289
278	Theoretical and Experimental Investigations on the Growth of SnS van der Waals Epitaxies on Graphene Buffer Layer. Crystal Growth and Design, 2013, 13, 4755-4759.	1.4	18

#	ARTICLE	IF	CITATIONS
279	Isolation of high quality graphene from Ru by solution phase intercalation. Applied Physics Letters, 2013, 103, .	1.5	22
280	Towards the perfect graphene membrane? – Improvement and limits during formation of high quality graphene grown on Cu-foils. Carbon, 2013, 64, 377-390.	5.4	40
281	Observing Graphene Grow: Catalyst – Graphene Interactions during Scalable Graphene Growth on Polycrystalline Copper. Nano Letters, 2013, 13, 4769-4778.	4.5	231
282	Effect of Stone-Thrower-Wales defect on structural stability of graphene at zero and finite temperatures. Europhysics Letters, 2013, 103, 46001.	0.7	31
283	Turning off Hydrogen To Realize Seeded Growth of Subcentimeter Single-Crystal Graphene Grains on Copper. ACS Nano, 2013, 7, 9480-9488.	7.3	219
284	Enhanced reactivity of graphene wrinkles and their function as nanosized gas inlets for reactions under graphene. Physical Chemistry Chemical Physics, 2013, 15, 19042.	1.3	84
285	Control of one-dimensional magnetism in graphene via spontaneous hydrogenation of the grain boundary. Physical Chemistry Chemical Physics, 2013, 15, 8271.	1.3	5
286	Quantitative determination of scattering mechanism in large-area graphene on conventional and SAM-functionalized substrates at room temperature. Nanoscale, 2013, 5, 5784.	2.8	27
287	Grain boundaries orientation effects on tensile mechanics of polycrystalline graphene. RSC Advances, 2013, 3, 9897.	1.7	24
288	Inductively heated synthesized graphene with record transistor mobility on oxidized silicon substrates at room temperature. Applied Physics Letters, 2013, 103, .	1.5	21
289	On the growth mode of two-lobed curvilinear graphene domains at atmospheric pressure. Scientific Reports, 2013, 3, 2571.	1.6	8
290	Properties of Graphene. , 2013, , 61-127.		9
291	Characterisation Techniques. , 2013, , 229-332.		8
292	Atomic-Scale Evidence for Potential Barriers and Strong Carrier Scattering at Graphene Grain Boundaries: A Scanning Tunneling Microscopy Study. ACS Nano, 2013, 7, 75-86.	7.3	132
293	Methods for Obtaining Graphene. , 2013, , 129-228.		13
294	Graphene and its derivatives for cell biotechnology. Analyst, The, 2013, 138, 72-86.	1.7	48
295	Structurally ordered intermetallic platinum – cobalt core – shell nanoparticles with enhanced activity and stability as oxygen reduction electrocatalysts. Nature Materials, 2013, 12, 81-87.	13.3	1,768
296	Highest measured anodic stability in aqueous solutions: graphenic electrodes from the thermolyzed asphalt reaction. RSC Advances, 2013, 3, 2379.	1.7	11

#	ARTICLE	IF	CITATIONS
297	Polycrystallinity and Stacking in CVD Graphene. <i>Accounts of Chemical Research</i> , 2013, 46, 2286-2296.	7.6	53
298	Atomistic simulation study of brittle failure in nanocrystalline graphene under uniaxial tension. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	65
299	Thermal relaxation and deformation of indented graphene. <i>Computational Materials Science</i> , 2013, 79, 105-109.	1.4	7
300	Review of CVD Synthesis of Graphene. <i>Chemical Vapor Deposition</i> , 2013, 19, 297-322.	1.4	468
301	Enhanced Performance and Fermi-Level Estimation of Coronene-Derived Graphene Transistors on Self-Assembled Monolayer Modified Substrates in Large Areas. <i>Journal of Physical Chemistry C</i> , 2013, 117, 4800-4807.	1.5	27
302	Mechanical Strain of Chemically Functionalized Chemical Vapor Deposition Grown Graphene. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3152-3159.	1.5	46
303	Reduced Graphene Oxide Nanoribbon Networks: A Novel Approach towards Scalable Fabrication of Transparent Conductive Films. <i>Small</i> , 2013, 9, 820-824.	5.2	26
304	Biomedical Applications of Graphene and Graphene Oxide. <i>Accounts of Chemical Research</i> , 2013, 46, 2211-2224.	7.6	1,420
305	Scalable fabrication of graphene devices through photolithography. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	53
306	Influence of Gas Phase Equilibria on the Chemical Vapor Deposition of Graphene. <i>ACS Nano</i> , 2013, 7, 3104-3117.	7.3	59
307	Dynamics of Single Fe Atoms in Graphene Vacancies. <i>Nano Letters</i> , 2013, 13, 1468-1475.	4.5	228
308	Tunable Carrier Type and Density in Graphene/PbZr _{0.2} Ti _{0.8} O ₃ Hybrid Structures through Ferroelectric Switching. <i>Nano Letters</i> , 2013, 13, 1693-1698.	4.5	103
309	Methane as an effective hydrogen source for single-layer graphene synthesis on Cu foil by plasma enhanced chemical vapor deposition. <i>Nanoscale</i> , 2013, 5, 1221.	2.8	104
310	Controllable growth of millimeter-size graphene domains on Cufoil. <i>Materials Letters</i> , 2013, 96, 149-151.	1.3	45
311	Review of Chemical Vapor Deposition of Graphene and Related Applications. <i>Accounts of Chemical Research</i> , 2013, 46, 2329-2339.	7.6	1,234
312	Defect-activated self-assembly of multilayered graphene paper: a mechanically robust architecture with high strength. <i>Journal of Materials Chemistry A</i> , 2013, 1, 2002-2010.	5.2	12
313	Dark-field transmission electron microscopy and the Debye-Waller factor of graphene. <i>Physical Review B</i> , 2013, 87, 045417.	1.1	35
314	High-performance flexible asymmetric supercapacitors based on 3D porous graphene/MnO ₂ nanorod and graphene/Ag hybrid thin-film electrodes. <i>Journal of Materials Chemistry C</i> , 2013, 1, 1245-1251.	2.7	156

#	ARTICLE	IF	CITATIONS
315	Graphene at the Atomic Scale: Synthesis, Characterization, and Modification. <i>Advanced Functional Materials</i> , 2013, 23, 2554-2564.	7.8	30
316	Mechanisms of Morphological Evolution of Li_2O_2 Particles during Electrochemical Growth. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1060-1064.	2.1	274
317	Spectroscopic Ellipsometry of Nanoscale Materials for Semiconductor Device Applications. , 2013, , 557-581.		2
318	Ultrathin rechargeable all-solid-state batteries based on monolayer graphene. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3177.	5.2	60
319	Structural Reconstruction of the Graphene Monovacancy. <i>ACS Nano</i> , 2013, 7, 4495-4502.	7.3	131
320	Scaling Properties of Charge Transport in Polycrystalline Graphene. <i>Nano Letters</i> , 2013, 13, 1730-1735.	4.5	126
321	Robust Graphene Membranes in a Silicon Carbide Frame. <i>ACS Nano</i> , 2013, 7, 4441-4448.	7.3	15
322	Twisted Bilayer Graphene: Microscopic Rainbows. <i>Small</i> , 2013, 9, 3247-3251.	5.2	30
323	The Role of External Defects in Chemical Sensing of Graphene Field-Effect Transistors. <i>Nano Letters</i> , 2013, 13, 1962-1968.	4.5	125
324	Pseudo Hall-Petch Strength Reduction in Polycrystalline Graphene. <i>Nano Letters</i> , 2013, 13, 1829-1833.	4.5	172
325	Nondestructive Characterization of Graphene Defects. <i>Advanced Functional Materials</i> , 2013, 23, 5183-5189.	7.8	44
326	A general method for transferring graphene onto soft surfaces. <i>Nature Nanotechnology</i> , 2013, 8, 356-362.	15.6	255
327	Thermal Conductivity and Phonon Transport in Suspended Few-Layer Hexagonal Boron Nitride. <i>Nano Letters</i> , 2013, 13, 550-554.	4.5	585
328	Co-Percolating Graphene-Wrapped Silver Nanowire Network for High Performance, Highly Stable, Transparent Conducting Electrodes. <i>Advanced Functional Materials</i> , 2013, 23, 5150-5158.	7.8	223
329	Influence of Cu crystallographic orientation on electron transport in graphene. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	26
330	Mesoscale Scanning Electron and Tunneling Microscopy Study of the Surface Morphology of Thermally Annealed Copper Foils for Graphene Growth. <i>Chemistry of Materials</i> , 2013, 25, 1643-1648.	3.2	22
331	Grains and grain boundaries in highly crystalline monolayer molybdenum disulphide. <i>Nature Materials</i> , 2013, 12, 554-561.	13.3	1,896
332	Grain boundaries with octagonal defects in graphene nanoribbons and nanotubes. <i>Physical Review B</i> , 2013, 87, .	1.1	16

#	ARTICLE	IF	CITATIONS
333	Atomic resolution imaging of graphene by transmission electron microscopy. <i>Nanoscale</i> , 2013, 5, 4079.	2.8	125
334	Controllable Atomic Scale Patterning of Freestanding Monolayer Graphene at Elevated Temperature. <i>ACS Nano</i> , 2013, 7, 1566-1572.	7.3	104
335	Statistical Study of Deep Submicron Dual-Gated Field-Effect Transistors on Monolayer Chemical Vapor Deposition Molybdenum Disulfide Films. <i>Nano Letters</i> , 2013, 13, 2640-2646.	4.5	197
336	Novel Carbon-Based Nanomaterials. , 2013, , 61-87.		5
337	Growth Intermediates for CVD Graphene on Cu(111): Carbon Clusters and Defective Graphene. <i>Journal of the American Chemical Society</i> , 2013, 135, 8409-8414.	6.6	132
338	Over-barrier side-band electron emission from graphene with a time-oscillating potential. <i>Carbon</i> , 2013, 61, 294-298.	5.4	67
339	High-Strength Chemical-Vapor-Deposited Graphene and Grain Boundaries. <i>Science</i> , 2013, 340, 1073-1076.	6.0	753
340	Identifying champion nanostructures for solar water-splitting. <i>Nature Materials</i> , 2013, 12, 842-849.	13.3	527
341	Atomic Resolution Imaging of Grain Boundary Defects in Monolayer Chemical Vapor Deposition-Grown Hexagonal Boron Nitride. <i>Journal of the American Chemical Society</i> , 2013, 135, 6758-6761.	6.6	225
342	Rationally synthesized two-dimensional polymers. <i>Nature Chemistry</i> , 2013, 5, 453-465.	6.6	879
343	Controlling the Orientation, Edge Geometry, and Thickness of Chemical Vapor Deposition Graphene. <i>ACS Nano</i> , 2013, 7, 1351-1359.	7.3	182
344	Covalent Electron Transfer Chemistry of Graphene with Diazonium Salts. <i>Accounts of Chemical Research</i> , 2013, 46, 160-170.	7.6	277
345	Fast benchtop visualization of graphene grain boundaries using adhesive properties of defects. <i>Chemical Communications</i> , 2013, 49, 5474.	2.2	17
346	Self-organized graphene crystal patterns. <i>NPG Asia Materials</i> , 2013, 5, e36-e36.	3.8	153
347	Atomic-Scale Mapping of Thermoelectric Power on Graphene: Role of Defects and Boundaries. <i>Nano Letters</i> , 2013, 13, 3269-3273.	4.5	52
348	Vapour phase growth and grain boundary structure of molybdenum disulphide atomic layers. <i>Nature Materials</i> , 2013, 12, 754-759.	13.3	1,590
349	Functional Single-Layer Graphene Sheets from Aromatic Monolayers. <i>Advanced Materials</i> , 2013, 25, 4146-4151.	11.1	56
350	The Effects of the Formation of Stone-Wales Defects on the Electronic and Magnetic Properties of Silicon Carbide Nanoribbons: A First-Principles Investigation. <i>ChemPhysChem</i> , 2013, 14, 2841-2852.	1.0	37

#	ARTICLE	IF	CITATIONS
351	Electronic and Magnetic Properties of Zigzag Boron-Nitride Nanoribbons with Even and Odd-Line Stone-Wales (5 ⁺ 7 ⁻ Pair) Defects. Journal of Physical Chemistry C, 2013, 117, 3580-3594.	1.5	22
352	Cracks at disclinated grain boundaries in graphene. Journal Physics D: Applied Physics, 2013, 46, 345305.	1.3	28
353	Self-Assembly of Polar Phthalocyanine Molecules on Graphene Grown by Chemical Vapor Deposition. Journal of Physical Chemistry C, 2013, 117, 21849-21855.	1.5	42
354	Hyperspectral Imaging of Structure and Composition in Atomically Thin Heterostructures. Nano Letters, 2013, 13, 3942-3946.	4.5	42
355	Triggering the Continuous Growth of Graphene Toward Millimeter-Sized Grains. Advanced Functional Materials, 2013, 23, 198-203.	7.8	129
356	Controlling the activation energy of graphene-like thin films through disorder induced localization. Journal of Applied Physics, 2013, 114, 043716.	1.1	4
357	Graphlocons: Large dendritic graphene crystals and their electronic properties. , 2013, , .		0
358	The Study on Surface Morphology and Residual Stress of Al ₂ O ₃ Film. Applied Mechanics and Materials, 0, 275-277, 2006-2009.	0.2	0
359	Graphene Layer Formation on Polycrystalline Nickel Grown by Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2013, 52, 035103.	0.8	12
360	Friction force microscopy: a simple technique for identifying graphene on rough substrates and mapping the orientation of graphene grains on copper. Nanotechnology, 2013, 24, 255704.	1.3	49
361	Oxidation of graphene ^{bow tie} nanofuses for permanent, write-once-read-many data storage devices. Nanotechnology, 2013, 24, 135202.	1.3	8
362	Dependence of Field-Effect Mobility of Graphene Grown by Thermal Chemical Vapor Deposition on Its Grain Size. Japanese Journal of Applied Physics, 2013, 52, 110106.	0.8	10
363	Quantum Hall effect in fractal graphene: growth and properties of graphlocons. Nanotechnology, 2013, 24, 325601.	1.3	15
364	Key growth parameters affecting the domain structure of chemical vapor deposition (CVD)-grown graphene on nickel. RSC Advances, 2013, 3, 22909.	1.7	13
365	Passivating a transition-metal surface for more uniform growth of graphene: Effect of Au alloying on Ni(111). Physical Review B, 2013, 87, .	1.1	7
366	Why does the second peak of pair correlation functions split in quasi-two-dimensional disordered films?. Applied Physics Letters, 2013, 102, .	1.5	14
367	Hole-blocking titanium-oxide/silicon heterojunction and its application to photovoltaics. Applied Physics Letters, 2013, 102, .	1.5	183
368	Scaling relation for thermal ripples in single and multilayer graphene. Physical Review B, 2013, 87, .	1.1	25

#	ARTICLE	IF	CITATIONS
369	Square-Shaped, Single-Crystal, Monolayer Graphene Domains by Low-Pressure Chemical Vapor Deposition. <i>Materials Research Letters</i> , 2013, 1, 67-76.	4.1	20
370	Gas transport controlled synthesis of graphene by employing a micro-meter scale gap jig. <i>RSC Advances</i> , 2013, 3, 26376.	1.7	4
371	Mechanical properties of irradiated single-layer graphene. <i>Applied Physics Letters</i> , 2013, 103, 013102.	1.5	59
372	Introduction to carbon-based nanostructures. , 0, , 1-10.		0
373	Electronic properties of carbon-based nanostructures. , 0, , 11-90.		0
375	Graphene crystal growth by thermal precipitation of focused ion beam induced deposition of carbon precursor via patterned-iron thin layers. <i>Nanofabrication</i> , 2014, 1, .	1.1	1
376	Designing graphene structures with controlled distributions of topological defects: A case study of toughness enhancement in graphene ruga. <i>Extreme Mechanics Letters</i> , 2014, 1, 3-8.	2.0	101
377	Electronic properties of graphene grain boundaries. <i>New Journal of Physics</i> , 2014, 16, 083018.	1.2	8
378	A first principles scanning tunneling potentiometry study of an opaque graphene grain boundary in the ballistic transport regime. <i>Nanotechnology</i> , 2014, 25, 415701.	1.3	10
379	Synthetic optical holography for rapid nanoimaging. <i>Nature Communications</i> , 2014, 5, 3499.	5.8	83
380	Topological Defects in Two-Dimensional Crystals: The Stress Buildup and Accumulation. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014, 81, .	1.1	19
381	Quantum corrections to the conductivity of disordered graphene on SiC $\overline{111}$: weak localization and current-bias dependent electron-electron interactions. <i>New Journal of Physics</i> , 2014, 16, 013024.	1.2	2
382	Sensitivity analysis explains quasi-one-dimensional current transport in two-dimensional materials. <i>Physical Review B</i> , 2014, 90, .	1.1	9
383	Strength and failure behavior of a graphene sheet containing bi-grain-boundaries. <i>RSC Advances</i> , 2014, 4, 54677-54683.	1.7	61
384	Single-layer graphene field-effect transistors with ferroelectric PZT gate. , 2014, , .		1
385	Sliding speed-induced nanoscale friction mosaicity at the graphite surface. <i>Physical Review B</i> , 2014, 90, .	1.1	18
386	Quantum Hall effect in polycrystalline graphene: The role of grain boundaries. <i>Physical Review B</i> , 2014, 90, .	1.1	52
387	Temperature dependence of the Raman spectra of polycrystalline graphene grown by chemical vapor deposition. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	11

#	ARTICLE	IF	CITATIONS
388	Scattering of flexural acoustic phonons at grain boundaries in graphene. <i>Physical Review B</i> , 2014, 90, .	1.1	21
389	Impact of graphene polycrystallinity on the performance of graphene field-effect transistors. <i>Applied Physics Letters</i> , 2014, 104, 043509.	1.5	7
390	Direct growth of single-layer graphene on Ni surface manipulated by Si barrier. <i>Applied Physics Letters</i> , 2014, 104, 213101.	1.5	2
391	A kinematic study of energy barriers for crack formation in graphene tilt boundaries. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	19
392	Spin-Dependent Electron Scattering at Graphene Edges on Ni(111). <i>Physical Review Letters</i> , 2014, 112, 066802.	2.9	33
393	Direct observation of resistive heating at graphene wrinkles and grain boundaries. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	47
394	Tuning structures and electronic spectra of graphene layers with tilt grain boundaries. <i>Physical Review B</i> , 2014, 89, .	1.1	40
395	Electronic properties of polycrystalline graphene under large local strain. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	17
396	Wide-area Strain Sensors based upon Graphene-polymer Composite Coatings Probed by Raman Spectroscopy. <i>Advanced Functional Materials</i> , 2014, 24, 2865-2874.	7.8	122
397	Carbon impurities on graphene synthesized by chemical vapor deposition on platinum. <i>Journal of Applied Physics</i> , 2014, 116, 044303.	1.1	15
398	Repeated Growth-“Etching”-Regrowth for Large-Area Defect-Free Single-Crystal Graphene by Chemical Vapor Deposition. <i>ACS Nano</i> , 2014, 8, 12806-12813.	7.3	100
399	Classification of two-dimensional topological crystalline superconductors and Majorana bound states at disclinations. <i>Physical Review B</i> , 2014, 89, .	1.1	156
400	2. Synthesis, characterisation and properties of graphene. , 2014, , 25-42.		0
401	Exceptionally strong and robust millimeter-scale graphene-alumina composite membranes. <i>Nanotechnology</i> , 2014, 25, 355701.	1.3	4
402	High-field and thermal transport in 2D atomic layer devices. <i>Proceedings of SPIE</i> , 2014, , .	0.8	3
403	Fundamental Aspects of Energy Dissipation in Friction. <i>Chemical Reviews</i> , 2014, 114, 677-711.	23.0	195
404	Transmission Electron Microscopy and the Science of Carbon Nanomaterials. <i>Small</i> , 2014, 10, 222-229.	5.2	26
405	Graphene and graphene oxide and their uses in barrier polymers. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	1.3	361

#	ARTICLE	IF	CITATIONS
406	Trends in nanoscience, nanotechnology, and carbon nanotubes: a bibliometric approach. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	15
407	High-Quality Three-Dimensional Nanoporous Graphene. Angewandte Chemie - International Edition, 2014, 53, 4822-4826.	7.2	215
408	Detection of graphene domains and defects using liquid crystals. Nature Communications, 2014, 5, 3484.	5.8	62
409	Rice Husk-Derived Graphene with Nano-Sized Domains and Clean Edges. Small, 2014, 10, 2766-2770.	5.2	181
410	Grain Boundary Effect on Electrical Transport Properties of Graphene. Journal of Physical Chemistry C, 2014, 118, 2338-2343.	1.5	71
411	Computational Discovery, Characterization, and Design of Single-Layer Materials. Jom, 2014, 66, 366-374.	0.9	41
412	Topological Aspects of Charge-Carrier Transmission across Grain Boundaries in Graphene. Nano Letters, 2014, 14, 250-254.	4.5	43
413	Anomalous thermal transport along the grain boundaries of bicrystalline graphene nanoribbons from atomistic simulations. Carbon, 2014, 73, 432-442.	5.4	26
414	Graphene as an Electron Shuttle for Silver Deoxidation: Removing a Key Barrier to Plasmonics and Metamaterials for SERS in the Visible. Advanced Functional Materials, 2014, 24, 1864-1878.	7.8	85
415	Defects controlled wrinkling and topological design in graphene. Journal of the Mechanics and Physics of Solids, 2014, 67, 2-13.	2.3	130
416	Atomic mechanism of the semiconducting-to-metallic phase transition in single-layered MoS ₂ . Nature Nanotechnology, 2014, 9, 391-396.	15.6	1,146
417	Tuning electronic and magnetic properties of armchair zigzag hybrid graphene nanoribbons by the choice of supercell model of grain boundaries. Journal of Applied Physics, 2014, 115, 104303.	1.1	10
418	Effect of structural defects on the thermal conductivity of graphene: From point to line defects to haeckelites. Physical Review B, 2014, 89, .	1.1	64
419	Structural analysis of graphene synthesized by chemical vapor deposition on copper foil using nematic liquid crystal texture. Carbon, 2014, 76, 113-122.	5.4	17
420	Edge Nonlinear Optics on a MoS ₂ Atomic Monolayer. Science, 2014, 344, 488-490.	6.0	631
421	Atomistic modeling of mechanical properties of polycrystalline graphene. Nanotechnology, 2014, 25, 215704.	1.3	99
423	25th Anniversary Article: Label-Free Electrical Biodetection Using Carbon Nanostructures. Advanced Materials, 2014, 26, 1154-1175.	11.1	80
425	25th Anniversary Article: Carbon Nanotube- and Graphene-Based Transparent Conductive Films for Optoelectronic Devices. Advanced Materials, 2014, 26, 1958-1991.	11.1	350

#	ARTICLE	IF	CITATIONS
426	Cooperative Island Growth of Large-Area Single-Crystal Graphene on Copper Using Chemical Vapor Deposition. ACS Nano, 2014, 8, 5657-5669.	7.3	91
427	Improvement of multilayer graphene synthesis on copper substrate by microwave plasma process using helium at low temperatures. Japanese Journal of Applied Physics, 2014, 53, 015505.	0.8	11
428	Fluorination of Graphene: A Spectroscopic and Microscopic Study. ACS Nano, 2014, 8, 1862-1870.	7.3	98
429	Intrinsic device-to-device variation in graphene field-effect transistors on a Si/SiO ₂ substrate as a platform for discriminative gas sensing. Applied Physics Letters, 2014, 104, .	1.5	30
430	Role of 1D Metallic Nanowires in Polydomain Graphene for Highly Transparent Conducting Films. Advanced Materials, 2014, 26, 4575-4581.	11.1	43
431	Growth of homogeneous single-layer graphene on Ni-Ge binary substrate. Applied Physics Letters, 2014, 104, .	1.5	9
432	Chemical Vapor Deposition of Graphene Single Crystals. Accounts of Chemical Research, 2014, 47, 1327-1337.	7.6	201
433	Experimentally determined model of atmospheric pressure CVD of graphene on Cu. Journal of Materials Chemistry C, 2014, 2, 744-755.	2.7	22
434	Fast Synthesis of High-Performance Graphene Films by Hydrogen-Free Rapid Thermal Chemical Vapor Deposition. ACS Nano, 2014, 8, 950-956.	7.3	195
435	Penetration and lateral diffusion characteristics of polycrystalline graphene barriers. Nanoscale, 2014, 6, 151-156.	2.8	41
436	A universal transfer route for graphene. Nanoscale, 2014, 6, 889-896.	2.8	58
437	Graphene. , 2014, , 41-65.		11
438	Using electron beams to investigate carbonaceous materials. Comptes Rendus Physique, 2014, 15, 241-257.	0.3	8
439	Efficient linear-scaling quantum transport calculations on graphics processing units and applications on electron transport in graphene. Computer Physics Communications, 2014, 185, 28-39.	3.0	28
440	Graphene nanoribbons with zigzag and armchair edges prepared by scanning tunneling microscope lithography on gold substrates. Applied Surface Science, 2014, 291, 48-52.	3.1	26
441	Segregation of Sublattice Domains in Nitrogen-Doped Graphene. Journal of the American Chemical Society, 2014, 136, 1391-1397.	6.6	86
442	Vapor-Phase Molecular Doping of Graphene for High-Performance Transparent Electrodes. ACS Nano, 2014, 8, 868-874.	7.3	86
443	Line defects at the heterojunction of hybrid boron nitride-graphene nanoribbons. Journal of Materials Chemistry C, 2014, 2, 392-398.	2.7	23

#	ARTICLE	IF	CITATIONS
444	Nano boron nitride flatland. <i>Chemical Society Reviews</i> , 2014, 43, 934-959.	18.7	638
445	Fluorine Adsorption on Single and Bilayer Graphene: Role of Sublattice and Layer Decoupling. <i>Journal of Physical Chemistry C</i> , 2014, 118, 27074-27080.	1.5	20
446	Conserved Atomic Bonding Sequences and Strain Organization of Graphene Grain Boundaries. <i>Nano Letters</i> , 2014, 14, 7057-7063.	4.5	40
447	Graphene Properties and Application. , 2014, , 565-583.		2
448	Direct in situ observations of single Fe atom catalytic processes and anomalous diffusion at graphene edges. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 15641-15646.	3.3	100
449	Catalyst-free Growth Mechanism and Structure of Graphene-like Nanosheets Formed by Hot-filament CVD. <i>Chemical Vapor Deposition</i> , 2014, 20, 345-351.	1.4	7
450	Quasi-Free-Standing Graphene Monolayer on a Ni Crystal through Spontaneous Na Intercalation. <i>Physical Review X</i> , 2014, 4, .	2.8	11
451	Giant enhancement in vertical conductivity of stacked CVD graphene sheets by self-assembled molecular layers. <i>Nature Communications</i> , 2014, 5, 5461.	5.8	83
452	Piezoelectric surface acoustical phonon amplification in graphene on a GaAs substrate. <i>Journal of Applied Physics</i> , 2014, 115, 233715.	1.1	14
453	Large current modulation in exfoliated-graphene/MoS ₂ /metal vertical heterostructures. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	106
454	Direct vapor phase growth process and robust photoluminescence properties of large area MoS ₂ layers. <i>Nano Research</i> , 2014, 7, 1759-1768.	5.8	109
455	Chemistry and Kinetics of Heterogeneous Reaction Mechanism for Chemical Vapor Infiltration of Pyrolytic Carbon from Propane. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 17537-17546.	1.8	11
456	Observing Grain Boundaries in CVD-Grown Monolayer Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2014, 8, 11401-11408.	7.3	113
457	Structural instabilities and wrinkles at the grain boundaries in 2-D h-BN: a first-principles analysis. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 21664-21672.	1.3	13
458	Thermoresponsive fluorescence of a graphene-polymer composite based on a local surface plasmon resonance effect. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 11584-11589.	1.3	12
459	What are grain boundary structures in graphene?. <i>Nanoscale</i> , 2014, 6, 4309-4315.	2.8	34
460	How good can CVD-grown monolayer graphene be?. <i>Nanoscale</i> , 2014, 6, 15255-15261.	2.8	48
461	Multiscale modeling of thermal conductivity of polycrystalline graphene sheets. <i>Nanoscale</i> , 2014, 6, 3344-3352.	2.8	98

#	ARTICLE	IF	CITATIONS
462	Preparation of Graphene with Large Area. , 2014, , 39-76.		3
463	Chemical vapor deposition (CVD) growth of graphene films. , 2014, , 27-49.		11
464	Spiers Memorial Lecture : Advances of carbon nanomaterials. Faraday Discussions, 2014, 173, 9-46.	1.6	24
465	Strain and structure heterogeneity in MoS ₂ atomic layers grown by chemical vapour deposition. Nature Communications, 2014, 5, 5246.	5.8	453
466	First-Principles Studies of Lithium Adsorption and Diffusion on Graphene with Grain Boundaries. Journal of Physical Chemistry C, 2014, 118, 28055-28062.	1.5	70
467	Graphene oxide and laponite composite films with high oxygen-barrier properties. Nanoscale, 2014, 6, 10824.	2.8	31
468	Electronic and magnetic properties of nitrogen-doped graphene nanoribbons with grain boundary. RSC Advances, 2014, 4, 1503-1511.	1.7	7
469	Line defects and induced doping effects in graphene, hexagonal boron nitride and hybrid BNC. Physical Chemistry Chemical Physics, 2014, 16, 21473-21485.	1.3	26
470	Grain Boundaries in Graphene on SiC(0001̄...) Substrate. Nano Letters, 2014, 14, 6382-6386.	4.5	46
471	Imaging molecular crystal polymorphs and their polycrystalline microstructures in situ by ultralow-frequency Raman spectroscopy. Chemical Communications, 2014, 50, 12973-12976.	2.2	15
473	Probing graphene defects and estimating graphene quality with optical microscopy. Applied Physics Letters, 2014, 104, 043101.	1.5	14
474	Graphene Amplification by Continued Growth on Seed Edges. Chemistry of Materials, 2014, 26, 4137-4143.	3.2	21
475	Silicon Growth at the Two-Dimensional Limit on Ag(111). ACS Nano, 2014, 8, 7538-7547.	7.3	101
476	Step-by-Step Fracture of Two-Layer Stacked Graphene Membranes. ACS Nano, 2014, 8, 10246-10251.	7.3	34
477	Superstructural defects and superlattice domains in stacked graphene. Carbon, 2014, 80, 755-761.	5.4	12
478	Periodic Grain Boundaries Formed by Thermal Reconstruction of Polycrystalline Graphene Film. Journal of the American Chemical Society, 2014, 136, 12041-12046.	6.6	63
479	Coincidence-Site-Lattice Twist Boundaries in Bicrystalline $\hat{\pm}\text{Fe}_{2}\text{O}_{3}$ Nanoblades. Journal of Physical Chemistry C, 2014, 118, 5796-5801.	1.5	8
480	Strain engineering the properties of graphene and other two-dimensional crystals. Physical Chemistry Chemical Physics, 2014, 16, 11124-11138.	1.3	199

#	ARTICLE	IF	CITATIONS
481	Mechanical properties of pillared-graphene nanostructures using molecular dynamics simulations. Journal Physics D: Applied Physics, 2014, 47, 405302.	1.3	25
482	Graphene Field Effect Transistors with Mica as Gate Dielectric Layers. Small, 2014, 10, 4213-4218.	5.2	24
484	Graphene nanoelectromechanics (NEMS). , 2014, , 341-362.		5
485	Polycrystalline Graphene with Single Crystalline Electronic Structure. Nano Letters, 2014, 14, 5706-5711.	4.5	134
486	Selective metal deposition at graphene line defects by atomic layer deposition. Nature Communications, 2014, 5, 4781.	5.8	243
487	Crack-Free Growth and Transfer of Continuous Monolayer Graphene Grown on Melted Copper. Chemistry of Materials, 2014, 26, 4984-4991.	3.2	54
488	Interface Engineering for CVD Graphene: Current Status and Progress. Small, 2014, 10, 4443-4454.	5.2	29
489	What's Next for Low-Dimensional Materials?. Materials Research Letters, 2014, 2, 1-9.	4.1	15
490	Contact properties to CVD-graphene on GaAs substrates for optoelectronic applications. Nanotechnology, 2014, 25, 335707.	1.3	17
491	<i>Colloquium</i>: Graphene spectroscopy. Reviews of Modern Physics, 2014, 86, 959-994.	16.4	220
492	Characterizing phonon thermal conduction in polycrystalline graphene. Journal of Materials Research, 2014, 29, 362-372.	1.2	42
493	Transmission electron microscopy (TEM) of graphene. , 2014, , 101-123.		16
494	Chemical Structure of Nitrogen-Doped Graphene with Single Platinum Atoms and Atomic Clusters as a Platform for the PEMFC Electrode. Journal of Physical Chemistry C, 2014, 118, 3890-3900.	1.5	121
495	Polycrystalline graphene and other two-dimensional materials. Nature Nanotechnology, 2014, 9, 755-767.	15.6	408
496	Structure and electronic properties of transition metal dichalcogenide MX ₂ (M=Mo, W, Nb; X=S, Se) monolayers with grain boundaries. Materials Chemistry and Physics, 2014, 147, 1068-1073.	2.0	26
497	A graphene force sensor with pressure-amplifying structure. Carbon, 2014, 78, 601-608.	5.4	60
498	Simultaneous Visualization of Graphene Grain Boundaries and Wrinkles with Structural Information by Gold Deposition. ACS Nano, 2014, 8, 8662-8668.	7.3	62
499	Dislocation motion and grain boundary migration in two-dimensional tungsten disulphide. Nature Communications, 2014, 5, 4867.	5.8	192

#	ARTICLE	IF	CITATIONS
500	Ageing mechanisms and reliability of graphene-based electrodes. Nano Research, 2014, 7, 1820-1831.	5.8	23
501	A highly conducting graphene film with dual-side molecular n-doping. Nanoscale, 2014, 6, 9545-9549.	2.8	27
502	Lattice thermal transport in large-area polycrystalline graphene. Physical Review B, 2014, 90, .	1.1	48
503	Chemical sensing with switchable transport channels in graphene grain boundaries. Nature Communications, 2014, 5, 4911.	5.8	105
504	Toward 300 mm Wafer-Scalable High-Performance Polycrystalline Chemical Vapor Deposited Graphene Transistors. ACS Nano, 2014, 8, 10471-10479.	7.3	87
505	Raman spectroscopic investigation of polycrystalline structures of CVD-grown graphene by isotope labeling. Nanoscale, 2014, 6, 13838-13844.	2.8	21
506	Electronic and magnetic properties of armchair graphene nanoribbons with 558 grain boundary. Physical Chemistry Chemical Physics, 2014, 16, 10607.	1.3	15
507	A new horizon for hexagonal boron nitride film. Journal of the Korean Physical Society, 2014, 64, 1605-1616.	0.3	28
508	Monatomic Chemical-Vapor-Deposited Graphene Membranes Bridge a Half-Millimeter-Scale Gap. ACS Nano, 2014, 8, 2336-2344.	7.3	37
509	Electronic transport in graphene: towards high mobility. , 2014, , 199-227.		22
510	Magnetic tunnel junctions with single-layer-graphene tunnel barriers. Physical Review B, 2014, 89, .	1.1	65
511	Electrical transport properties of polycrystalline CVD graphene on SiO ₂ /Si substrate. Diamond and Related Materials, 2014, 45, 28-33.	1.8	19
512	Atomic structure and energetics of large vacancies in graphene. Physical Review B, 2014, 89, .	1.1	30
513	Combining the silver nanowire bridging effect with chemical doping for highly improved conductivity of CVD-grown graphene films. Journal of Materials Chemistry C, 2014, 2, 5902.	2.7	22
514	Introducing the Triangular Defect to Effectively Engineer the Wide Band Gap of Boron Nitride Nanoribbons with Zigzag and Even Armchair Edges. Journal of Physical Chemistry C, 2014, 118, 12880-12889.	1.5	20
515	Effects of edge passivations on the electronic and magnetic properties of zigzag boron-nitride nanoribbons with even and odd-line stoneâ€œwales (5â€œ7 pair) defects. Indian Journal of Physics, 2014, 88, 931-938.	0.9	3
516	Large Hexagonal Biâ€œand Trilayer Graphene Single Crystals with Varied Interlayer Rotations. Angewandte Chemie - International Edition, 2014, 53, 1565-1569.	7.2	82
517	High-Angle Tilt Boundary Graphene Domain Recrystallized from Mobile Hot-Wire-Assisted Chemical Vapor Deposition System. Nano Letters, 2014, 14, 4352-4359.	4.5	22

#	ARTICLE	IF	CITATIONS
518	A pseudopotential model for Dirac electrons in graphene with line defects. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 125502.	0.7	11
519	Exploring and rationalising effective n-doping of large area CVD-graphene by NH ₃ . <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 3632.	1.3	43
520	Characterizing mechanical behavior of atomically thin films: A review. <i>Journal of Materials Research</i> , 2014, 29, 338-347.	1.2	34
521	Edge-Catalyst Wetting and Orientation Control of Graphene Growth by Chemical Vapor Deposition Growth. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3093-3099.	2.1	63
522	Organic solar cells using CVD-grown graphene electrodes. <i>Nanotechnology</i> , 2014, 25, 014012.	1.3	81
523	Mechanical properties of polycrystalline boron-nitride nanosheets. <i>RSC Advances</i> , 2014, 4, 19137-19143.	1.7	90
524	Nanoscale structure and texture of highly anisotropic pyrocarbons revisited with transmission electron microscopy, image processing, neutron diffraction and atomistic modeling. <i>Carbon</i> , 2014, 80, 472-489.	5.4	53
525	Latticeâ€Contractionâ€Induced MoirÃ© Patterns in Directionâ€Controlled Epitaxial Graphene on Cu(111). <i>Advanced Materials Interfaces</i> , 2014, 1, 1300080.	1.9	12
526	Youngâ€™s modulus, thermal conductivity, electrical resistivity and coefficient of thermal expansion of mesophase pitch-based carbon fibers. <i>Carbon</i> , 2014, 79, 274-293.	5.4	109
527	Electronic confinement in graphene ruled by N doped extended defects. <i>Nanotechnology</i> , 2014, 25, 245706.	1.3	5
528	Electrochemistry of Graphene and Related Materials. <i>Chemical Reviews</i> , 2014, 114, 7150-7188.	23.0	968
529	Charge Transport in Polycrystalline Graphene: Challenges and Opportunities. <i>Advanced Materials</i> , 2014, 26, 5079-5094.	11.1	166
530	Wrinkle-dependent hydrogen etching of chemical vapor deposition-grown graphene domains. <i>Carbon</i> , 2014, 70, 75-80.	5.4	29
531	Carbon scrolls from chemical vapor deposition grown graphene. <i>Carbon</i> , 2014, 76, 257-265.	5.4	18
532	The distribution of wrinkles and their effects on the oxidation resistance of chemical vapor deposition graphene. <i>Carbon</i> , 2014, 70, 81-86.	5.4	63
533	Is the failure of large-area polycrystalline graphene notch sensitive or insensitive?. <i>Carbon</i> , 2014, 72, 200-206.	5.4	45
534	Mechanical strength characteristics of asymmetric tilt grain boundaries in graphene. <i>Carbon</i> , 2014, 68, 250-257.	5.4	73
535	Evidence of van Hove Singularities in Ordered Grain Boundaries of Graphene. <i>Physical Review Letters</i> , 2014, 112, 226802.	2.9	61

#	ARTICLE	IF	CITATIONS
536	Nanoscale Transition Metal Dichalcogenides: Structures, Properties, and Applications. Critical Reviews in Solid State and Materials Sciences, 2014, 39, 319-367.	6.8	125
537	Few-Layer Graphene-Encapsulated Metal Nanoparticles for Surface-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 8993-8998.	1.5	113
538	An electronic structure perspective of graphene interfaces. Nanoscale, 2014, 6, 3444.	2.8	76
539	Interweaving spins with their environment: novel inorganic nanohybrids with controllable magnetic properties. Dalton Transactions, 2014, 43, 4220-4232.	1.6	27
540	Structure and transport properties of the interface between CVD-grown graphene domains. Nanoscale, 2014, 6, 7288.	2.8	52
541	Hydrogenated Grain Boundaries Control the Strength and Ductility of Polycrystalline Graphene. Journal of Physical Chemistry C, 2014, 118, 13769-13774.	1.5	43
542	A General Perspective of the Characterization and Quantification of Nanoparticles: Imaging, Spectroscopic, and Separation Techniques. Critical Reviews in Solid State and Materials Sciences, 2014, 39, 423-458.	6.8	72
543	Grain boundaries in hybrid two-dimensional materials. Journal of the Mechanics and Physics of Solids, 2014, 70, 62-70.	2.3	11
544	Mechanical mutability of polycrystalline graphene from atomistic simulations. Computational Materials Science, 2014, 91, 56-61.	1.4	4
545	Effect of Cu substrate roughness on growth of graphene domains at atmospheric pressure. Materials Letters, 2014, 131, 138-140.	1.3	24
546	Atomic structure from large-area, low-dose exposures of materials: A new route to circumvent radiation damage. Ultramicroscopy, 2014, 145, 13-21.	0.8	30
547	Growth of Epitaxial Graphene on SiC. , 2014, , 47-78.		0
548	A New Silicon Drift Detector for High Spatial Resolution STEM-XEDS: Performance and Applications. Microscopy and Microanalysis, 2014, 20, 1046-1052.	0.2	18
549	Examination of Graphene in a Scanning Low Energy Electron Microscope. Microscopy and Microanalysis, 2015, 21, 29-30.	0.2	1
550	Setting up a nanolab inside a transmission electron microscope for two-dimensional materials research. Journal of Materials Research, 2015, 30, 3153-3176.	1.2	10
551	Line defect detection on 2D materials with micro four-point probe measurement. , 2015, , .		0
552	Fracture of polycrystalline graphene membranes by <i>in situ</i> nanoindentation in a scanning electron microscope. Physica Status Solidi - Rapid Research Letters, 2015, 9, 564-569.	1.2	25
553	Electron transport in graphene/graphene side-contact junction by plane-wave multiple-scattering method. Physical Review B, 2015, 91, .	1.1	12

#	ARTICLE	IF	CITATIONS
554	Dynamic friction-force microscopy using fractional-resonance excitation: Image contrast of graphite surface defects. <i>Physical Review B</i> , 2015, 91, .	1.1	1
555	Influence of [0001] tilt grain boundaries on the destruction of the quantum Hall effect in graphene. <i>Physical Review B</i> , 2015, 91, .	1.1	8
556	Electronic transport across linear defects in graphene. <i>Physical Review B</i> , 2015, 92, .	1.1	31
557	Topologically confined states at corrugations of gated bilayer graphene. <i>Physical Review B</i> , 2015, 92, .	1.1	26
558	Large-scale experimental and theoretical study of graphene grain boundary structures. <i>Physical Review B</i> , 2015, 92, .	1.1	75
559	Probing barrier transmission in ballistic graphene. <i>Physical Review B</i> , 2015, 91, .	1.1	4
560	Zero modes on zero-angle grain boundaries in graphene. <i>Physical Review B</i> , 2015, 91, .	1.1	9
561	Diffraction and near-zero transmission of flexural phonons at graphene grain boundaries. <i>Physical Review B</i> , 2015, 91, .	1.1	4
562	Exfoliation of large-area transition metal chalcogenide single layers. <i>Scientific Reports</i> , 2015, 5, 14714.	1.6	232
563	Modelling heat conduction in polycrystalline hexagonal boron-nitride films. <i>Scientific Reports</i> , 2015, 5, 13228.	1.6	104
564	Defect-Mediated Lithium Adsorption and Diffusion on Monolayer Molybdenum Disulfide. <i>Scientific Reports</i> , 2015, 5, 18712.	1.6	83
565	Mechanism of strength reduction along the graphenization pathway. <i>Science Advances</i> , 2015, 1, e1501009.	4.7	16
566	The Hide-and-Seek of Grain Boundaries from Moiré Pattern Fringe of Two-Dimensional Graphene. <i>Scientific Reports</i> , 2015, 5, 12508.	1.6	21
567	Reexamination of basal plane thermal conductivity of suspended graphene samples measured by electro-thermal micro-bridge methods. <i>AIP Advances</i> , 2015, 5, .	0.6	40
568	Rapid, all-optical crystal orientation imaging of two-dimensional transition metal dichalcogenide monolayers. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	18
569	Nematic Liquid Crystal on a Two Dimensional Hexagonal Lattice and its Application. <i>Scientific Reports</i> , 2015, 5, 13331.	1.6	41
570	Inverse Pseudo Hall-Petch Relation in Polycrystalline Graphene. <i>Scientific Reports</i> , 2014, 4, 5991.	1.6	79
571	Nanostructured thin films for hydrogen-permeation barrier. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015, 33, .	0.9	19

#	ARTICLE	IF	CITATIONS
572	Observation of tunable electrical bandgap in large-area twisted bilayer graphene synthesized by chemical vapor deposition. <i>Scientific Reports</i> , 2015, 5, 15285.	1.6	38
573	- Functionalization of Carbon Nanotubes with Polymers. , 2015, , 848-869.		1
574	Fluorination of Isotopically Labeled Turbostratic and Bernal Stacked Bilayer Graphene. <i>Chemistry - A European Journal</i> , 2015, 21, 1081-1087.	1.7	25
575	Low Density Growth of Graphene by Air Introduction in Atmospheric Pressure Chemical Vapor Deposition. <i>E-Journal of Surface Science and Nanotechnology</i> , 2015, 13, 404-409.	0.1	17
576	Graphene and Other 2D Material Components Dynamic Characterization and Nanofabrication at Atomic Scale. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-6.	1.5	1
577	Atomic Defects in Two Dimensional Materials. <i>Advanced Materials</i> , 2015, 27, 5771-5777.	11.1	88
578	Kinetic Nature of Grain Boundary Formation in As-grown MoS ₂ Monolayers. <i>Advanced Materials</i> , 2015, 27, 4069-4074.	11.1	130
579	Self-Passivation of Defects: Effects of High-Energy Particle Irradiation on the Elastic Modulus of Multilayer Graphene. <i>Advanced Materials</i> , 2015, 27, 6841-6847.	11.1	24
580	An analytical bond-order potential for carbon. <i>Journal of Computational Chemistry</i> , 2015, 36, 1719-1735.	1.5	36
581	An Atomistic Tomographic Study of Oxygen and Hydrogen Atoms and their Molecules in CVD Grown Graphene. <i>Small</i> , 2015, 11, 5968-5974.	5.2	12
582	A Review on Modeling, Synthesis, and Properties of Graphene. , 2015, , .		1
583	Possibilities and limitations of advanced transmission electron microscopy for carbon-based nanomaterials. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 1541-1557.	1.5	26
584	In-situ observation and atomic resolution imaging of the ion irradiation induced amorphisation of graphene. <i>Scientific Reports</i> , 2014, 4, 6334.	1.6	62
585	van der Waals epitaxy of monolayer hexagonal boron nitride on copper foil: growth, crystallography and electronic band structure. <i>2D Materials</i> , 2015, 2, 025003.	2.0	51
586	On the failure load and mechanism of polycrystalline graphene by nanoindentation. <i>Scientific Reports</i> , 2014, 4, 7437.	1.6	58
587	Governing Rule for Dynamic Formation of Grain Boundaries in Grown Graphene. <i>ACS Nano</i> , 2015, 9, 5792-5798.	7.3	66
588	Efficient photovoltaic conversion of graphene-carbon nanotube hybrid films grown from solid precursors. <i>2D Materials</i> , 2015, 2, 034003.	2.0	38
589	Role of lattice defects in catalytic activities of graphene clusters for fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 16733-16743.	1.3	181

#	ARTICLE	IF	CITATIONS
590	Determining local geometrical features of grain boundaries from microscopy. Journal of Physics Condensed Matter, 2015, 27, 194117.	0.7	7
591	Template-Free Wavelet-Based Detection of Local Symmetries. IEEE Transactions on Image Processing, 2015, 24, 3009-3018.	6.0	12
592	B21-O-03The Identification of Grain Boundaries in Two-dimensional Graphene using Moire Pattern Fringe. Microscopy (Oxford, England), 2015, 64, i40.2-i40.	0.7	0
593	Spray-coated epoxy barrier films containing high aspect ratio functionalized graphene nanosheets. RSC Advances, 2015, 5, 102633-102642.	1.7	17
594	Water-mediated and instantaneous transfer of graphene grown at 220 Å°C enabled by a plasma. Nanoscale, 2015, 7, 20564-20570.	2.8	24
595	Valley Hall effect in silicene and hydrogenated silicene ruled by grain boundaries: An investigation. Physical Review B, 2015, 91, .	1.1	11
596	Stable line defects in silicene. Physical Review B, 2015, 92, .	1.1	19
597	Nitrogen-doped graphene by ball-milling graphite with melamine for energy conversion and storage. 2D Materials, 2015, 2, 044001.	2.0	69
598	Ultra-narrow metallic armchair graphene nanoribbons. Nature Communications, 2015, 6, 10177.	5.8	359
599	Direct graphene growth on (111) Cu ₂ O templates with atomic Cu surface layer. Carbon, 2015, 95, 608-615.	5.4	7
600	Controllable Growth of the Graphene from Millimeter-Sized Monolayer to Multilayer on Cu by Chemical Vapor Deposition. Nanoscale Research Letters, 2015, 10, 455.	3.1	16
601	Computational study on the effects of annealing on the mechanical properties of polycrystalline graphene. Carbon, 2015, 86, 338-349.	5.4	23
602	Molecular mechanics of polycrystalline graphene with enhanced fracture toughness. Extreme Mechanics Letters, 2015, 2, 52-59.	2.0	118
603	Electronic and magnetic properties of AGNRs with different edge configurations of 558 grain boundary. Chemical Physics Letters, 2015, 623, 60-67.	1.2	1
604	Application of tungsten as a carbon sink for synthesis of large-domain uniform monolayer graphene free of bilayers/multilayers. Nanoscale, 2015, 7, 4929-4934.	2.8	12
605	Characterization of graphene films grown on CuNi foil substrates. Surface Science, 2015, 634, 16-24.	0.8	15
606	Dopant Segregation in Polycrystalline Monolayer Graphene. Nano Letters, 2015, 15, 1428-1436.	4.5	19
607	Structural evolution in CVD graphene chemically oxidized by sulphuric acid. Journal of Raman Spectroscopy, 2015, 46, 283-286.	1.2	7

#	ARTICLE	IF	CITATIONS
608	Covalent functionalisation of graphene: novel approach to change electronic structure of graphene. <i>Materials Research Innovations</i> , 2015, 19, 287-294.	1.0	5
609	Self-doping and magnetic ordering induced by extended line defects in graphene. <i>Physical Review B</i> , 2015, 91, .	1.1	15
610	Organic molecules deposited on graphene: A computational investigation of self-assembly and electronic structure. <i>Journal of Chemical Physics</i> , 2015, 142, 044301.	1.2	23
611	Synthesis of Large and Few Atomic Layers of Hexagonal Boron Nitride on Melted Copper. <i>Scientific Reports</i> , 2015, 5, 7743.	1.6	63
612	Ripples, Strain, and Misfit Dislocations: Structure of Graphene–Boron Nitride Superlattice Interfaces. <i>Nano Letters</i> , 2015, 15, 1468-1475.	4.5	49
613	Crystallographic Characterization and Control of Domain Structure within Individual Graphene Islands. <i>Journal of Physical Chemistry C</i> , 2015, 119, 4286-4293.	1.5	8
614	Insights on Defect-Mediated Heterogeneous Nucleation of Graphene on Copper. <i>Journal of Physical Chemistry C</i> , 2015, 119, 2513-2522.	1.5	29
615	Annealing free, clean graphene transfer using alternative polymer scaffolds. <i>Nanotechnology</i> , 2015, 26, 055302.	1.3	114
616	First-Principles Study of Dislocation Slips in Impurity-Doped Graphene. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3418-3427.	1.5	8
617	Effects of grain size, temperature and strain rate on the mechanical properties of polycrystalline graphene – A molecular dynamics study. <i>Carbon</i> , 2015, 85, 135-146.	5.4	136
618	Synthesis and properties of molybdenum disulphide: from bulk to atomic layers. <i>RSC Advances</i> , 2015, 5, 7495-7514.	1.7	288
619	A graphene-based physiometer array for the analysis of single biological cells. <i>Scientific Reports</i> , 2014, 4, 6865.	1.6	36
620	The Coincidence Site Lattices in 2D Hexagonal Lattices Using Clifford Algebra. <i>Advances in Applied Clifford Algebras</i> , 2015, 25, 425-440.	0.5	3
621	An Ag-grid/graphene hybrid structure for large-scale, transparent, flexible heaters. <i>Nanoscale</i> , 2015, 7, 6567-6573.	2.8	130
622	Theoretical study of graphene functionalization by $\text{F}^{\text{+}}$ and $\text{HF}^{\text{+}}$ ions from associates with water molecules. <i>Computational Materials Science</i> , 2015, 101, 287-292.	1.4	11
623	Atomic Scale Microstructure and Properties of Se-Deficient Two-Dimensional MoSe_2 . <i>ACS Nano</i> , 2015, 9, 3274-3283.	7.3	213
624	Grain-size dependence of mechanical properties in polycrystalline boron-nitride: a computational study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 21894-21901.	1.3	43
625	Chemical vapor deposition growth of 5 mm hexagonal single-crystal graphene from ethanol. <i>Carbon</i> , 2015, 94, 810-815.	5.4	74

#	ARTICLE	IF	CITATIONS
626	Grain Boundary Structures and Electronic Properties of Hexagonal Boron Nitride on Cu(111). Nano Letters, 2015, 15, 5804-5810.	4.5	117
627	Low energy electron diffraction study of high index copper surfaces underneath graphene. Applied Surface Science, 2015, 347, 147-154.	3.1	1
628	Mechanical modeling of graphene using the three-layer-mesh bridging domain method. Computer Methods in Applied Mechanics and Engineering, 2015, 294, 278-298.	3.4	10
629	Rotating Anisotropic Crystalline Silicon Nanoclusters in Graphene. ACS Nano, 2015, 9, 9497-9506.	7.3	15
630	Grain-size dependent mechanical behavior of nanocrystalline metals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 646, 101-134.	2.6	172
631	Magnetization due to localized states on graphene grain boundary. Scientific Reports, 2015, 5, 11744.	1.6	28
633	A binary solvent system for improved liquid phase exfoliation of pristine graphene materials. Carbon, 2015, 94, 405-411.	5.4	31
634	Resolving Atomic Connectivity in Graphene Nanostructure Junctions. Nano Letters, 2015, 15, 5185-5190.	4.5	71
635	Rapid epitaxy-free graphene synthesis on silicidated polycrystalline platinum. Nature Communications, 2015, 6, 7536.	5.8	46
636	New advances in nanographene chemistry. Chemical Society Reviews, 2015, 44, 6616-6643.	18.7	1,212
637	Bimodal Phonon Scattering in Graphene Grain Boundaries. Nano Letters, 2015, 15, 4532-4540.	4.5	81
638	Epitaxial B-Graphene: Large-Scale Growth and Atomic Structure. ACS Nano, 2015, 9, 7314-7322.	7.3	49
639	Self-assembly and continuous growth of hexagonal graphene flakes on liquid Cu. Nanoscale, 2015, 7, 12820-12827.	2.8	31
640	Toughening Graphene With Topological Defects: A Perspective. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	1.1	45
641	Passivated graphene transistors fabricated on a millimeter-sized single-crystal graphene film prepared with chemical vapor deposition. Journal Physics D: Applied Physics, 2015, 48, 295106.	1.3	13
642	Size-dependent deformation behavior of nanocrystalline graphene sheets. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 198, 95-101.	1.7	17
643	Evaporation-induced self-assembling of few-layer graphene into a fractal-like conductive macro-network with a reduction of percolation threshold. Physical Chemistry Chemical Physics, 2015, 17, 7634-7638.	1.3	5
644	Non-enzymatic glucose sensing by enhanced Raman spectroscopy on flexible "as-grown" CVD graphene. Analyst, The, 2015, 140, 3935-3941.	1.7	14

#	ARTICLE	IF	CITATIONS
645	Anomalous mechanical characteristics of graphene with tilt grain boundaries tuned by hydrogenation. <i>Carbon</i> , 2015, 90, 234-241.	5.4	30
646	Probing Structural and Electronic Dynamics with Ultrafast Electron Microscopy. <i>Chemistry of Materials</i> , 2015, 27, 3178-3192.	3.2	83
647	Thermal transport behaviors of suspended graphene sheets with different sizes. <i>International Journal of Thermal Sciences</i> , 2015, 94, 221-227.	2.6	23
648	Controlled Preferential Oxidation of Grain Boundaries in Monolayer Tungsten Disulfide for Direct Optical Imaging. <i>ACS Nano</i> , 2015, 9, 3695-3703.	7.3	119
649	Flexible few-layered graphene/poly vinyl alcohol composite sheets: synthesis, characterization and EMI shielding in X-band through the absorption mechanism. <i>RSC Advances</i> , 2015, 5, 36498-36506.	1.7	54
650	Graphene Mechanics: Current Status and Perspectives. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2015, 6, 121-140.	3.3	76
651	Sub-Terahertz Frequency Domain Spectroscopy Reveals Single Grain Mobility and Scatter Influence of Large Area Graphene. <i>Advanced Materials</i> , 2015, 27, 2635-2641.	11.1	13
652	Environment-Controlled Dislocation Migration and Superplasticity in Monolayer MoS ₂ . <i>Nano Letters</i> , 2015, 15, 3495-3500.	4.5	30
653	Controlling Defects in Graphene for Optimizing the Electrical Properties of Graphene Nanodevices. <i>ACS Nano</i> , 2015, 9, 3428-3435.	7.3	220
654	Fracture Characteristics of Monolayer CVD-Graphene. <i>Scientific Reports</i> , 2014, 4, 4439.	1.6	73
655	Confining Crack Propagation in Defective Graphene. <i>Nano Letters</i> , 2015, 15, 2050-2054.	4.5	66
656	An Atomic-Scale View of the Nucleation and Growth of Graphene Islands on Pt Surfaces. <i>Journal of Physical Chemistry C</i> , 2015, 119, 7124-7129.	1.5	21
657	Graphene Single Crystals: Size and Morphology Engineering. <i>Advanced Materials</i> , 2015, 27, 2821-2837.	11.1	99
658	Energetics of atomic scale structure changes in graphene. <i>Chemical Society Reviews</i> , 2015, 44, 3143-3176.	18.7	141
659	Aqueous proton transfer across single-layer graphene. <i>Nature Communications</i> , 2015, 6, 6539.	5.8	214
660	CVD Growth of High-Quality Single-Layer Graphene. , 2015, , 3-20.		13
661	Interfacing graphene and related 2D materials with the 3D world. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 133203.	0.7	24
662	Towards Wafer-Scale Monocrystalline Graphene Growth and Characterization. <i>Small</i> , 2015, 11, 3512-3528.	5.2	54

#	ARTICLE	IF	CITATIONS
663	Transparent conductive graphene textile fibers. <i>Scientific Reports</i> , 2015, 5, 9866.	1.6	72
664	Role of grain boundaries in tailoring electronic properties of polycrystalline graphene by chemical functionalization. <i>2D Materials</i> , 2015, 2, 024008.	2.0	74
665	Selective Gas Diffusion in Graphene Oxides Membranes: A Molecular Dynamics Simulations Study. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 9052-9059.	4.0	137
666	Graphene as a flexible electronic material: mechanical limitations by defect formation and efforts to overcome. <i>Materials Today</i> , 2015, 18, 336-344.	8.3	133
667	On the crumpling of polycrystalline graphene by molecular dynamics simulation. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 6297-6304.	1.3	37
668	The formation mechanism of multiple vacancies and amorphous graphene under electron irradiation. <i>Nanoscale</i> , 2015, 7, 8315-8320.	2.8	12
669	Transition Metal Dichalcogenide Growth via Close Proximity Precursor Supply. <i>Scientific Reports</i> , 2014, 4, 7374.	1.6	72
670	Optical, Electrical, and Electromechanical Properties of Hybrid Graphene/Carbon Nanotube Films. <i>Advanced Materials</i> , 2015, 27, 3053-3059.	11.1	114
671	Au-Edged CuZnSe ₂ Heterostructured Nanosheets with Enhanced Electrochemical Performance. <i>Small</i> , 2015, 11, 3583-3590.	5.2	8
672	Materialization of strained CVD-graphene using thermal mismatch. <i>Nano Research</i> , 2015, 8, 2082-2091.	5.8	11
673	Design of catalytic substrates for uniform graphene films: from solid-metal to liquid-metal. <i>Nanoscale</i> , 2015, 7, 9105-9121.	2.8	47
674	Molecular Dynamics Studies on Ballistic Thermal Resistance of Graphene Nano-Junctions. <i>Communications in Theoretical Physics</i> , 2015, 63, 619-624.	1.1	2
675	Dynamic imaging of Au-nanoparticles via scanning electron microscopy in a graphene wet cell. <i>Nanotechnology</i> , 2015, 26, 315703.	1.3	8
676	Dislocation Shielding of a Nanocrack in Graphene: Atomistic Simulations and Continuum Modeling. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4038-4042.	2.1	38
677	Fourier transform analysis of hexagonal domain for transparent conductive graphene. <i>Optics Express</i> , 2015, 23, 22544.	1.7	2
678	Strongly Anisotropic Thermal Conductivity of Free-standing Reduced Graphene Oxide Films Annealed at High Temperature. <i>Advanced Functional Materials</i> , 2015, 25, 4664-4672.	7.8	462
679	Enhancing CVD graphene's inter-grain connectivity by a graphite promoter. <i>Nanoscale</i> , 2015, 7, 19403-19407.	2.8	10
680	Sub-surface alloying largely influences graphene nucleation and growth over transition metal substrates. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 30270-30278.	1.3	4

#	ARTICLE	IF	CITATIONS
681	Electronic structure and transport in graphene/haeckelite hybrids: an <i>ab initio</i> study. 2D Materials, 2015, 2, 035001.	2.0	18
682	Folded graphene nanochannels via pulsed patterning of graphene. Applied Physics Letters, 2015, 106, .	1.5	11
683	Microwave-Assisted Reactant-Protecting Strategy toward Efficient MoS ₂ Electrocatalysts in Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2015, 7, 23741-23749.	4.0	107
684	Wafer-scale single-domain-like graphene by defect-selective atomic layer deposition of hexagonal ZnO. Nanoscale, 2015, 7, 17702-17709.	2.8	19
685	Structural analysis of polycrystalline graphene systems by Raman spectroscopy. Carbon, 2015, 95, 646-652.	5.4	184
686	Fracture of graphene: a review. International Journal of Fracture, 2015, 196, 1-31.	1.1	144
687	Graphene/elastomer nanocomposites. Carbon, 2015, 95, 460-484.	5.4	308
688	Lateral damage in graphene carved by high energy focused gallium ion beams. Applied Physics Letters, 2015, 107, .	1.5	24
689	Transport Gap Opening and High On-Off Current Ratio in Trilayer Graphene with Self-Aligned Nanodomain Boundaries. ACS Nano, 2015, 9, 8967-8975.	7.3	21
690	Elastic, plastic, and fracture mechanisms in graphene materials. Journal of Physics Condensed Matter, 2015, 27, 373002.	0.7	26
691	Nanoindentation cannot accurately predict the tensile strength of graphene or other 2D materials. Nanoscale, 2015, 7, 15672-15679.	2.8	44
692	Graphene allotropes under extreme uniaxial strain: an <i>ab initio</i> theoretical study. Physical Chemistry Chemical Physics, 2015, 17, 16418-16427.	1.3	43
693	Ultrafast PMMA Superstructure Dynamics on Free-Standing Graphene. Springer Theses, 2015, , 81-112.	0.0	0
694	Synthesis and Characterization of Multilayer Hexagonal Graphene Grown by Ambient Pressure Chemical Vapor Deposition. Fullerenes Nanotubes and Carbon Nanostructures, 2015, 23, 1058-1063.	1.0	0
695	Reliable Exfoliation of Large-Area High-Quality Flakes of Graphene and Other Two-Dimensional Materials. ACS Nano, 2015, 9, 10612-10620.	7.3	451
696	The favourable large misorientation angle grain boundaries in graphene. Nanoscale, 2015, 7, 20082-20088.	2.8	31
697	Low Voltage Transmission Electron Microscopy of Graphene. Small, 2015, 11, 515-542.	5.2	54
698	The Influence of Cu Lattices on the Structure and Electrical Properties of Graphene Domains during Low-Pressure Chemical Vapor Deposition. ChemPhysChem, 2015, 16, 1165-1171.	1.0	4

#	ARTICLE	IF	CITATIONS
699	A comparative study of silver-graphene oxide nanocomposites as a recyclable catalyst for the aerobic oxidation of benzyl alcohol: Support effect. <i>Applied Surface Science</i> , 2015, 328, 536-547.	3.1	112
700	Increasing the elastic modulus of graphene by controlled defect creation. <i>Nature Physics</i> , 2015, 11, 26-31.	6.5	298
701	Atomic-scale mechanism of grain boundary motion in graphene. <i>Carbon</i> , 2015, 84, 146-150.	5.4	8
702	Single adatom dynamics at monatomic steps of free-standing few-layer reduced graphene. <i>Scientific Reports</i> , 2014, 4, 6037.	1.6	10
703	Defect-Detriment to Graphene Strength Is Concealed by Local Probe: The Topological and Geometrical Effects. <i>ACS Nano</i> , 2015, 9, 401-408.	7.3	66
704	Unravelling Orientation Distribution and Merging Behavior of Monolayer MoS ₂ Domains on Sapphire. <i>Nano Letters</i> , 2015, 15, 198-205.	4.5	136
705	Implantation and Atomic-Scale Investigation of Self-Interstitials in Graphene. <i>Nano Letters</i> , 2015, 15, 235-241.	4.5	38
706	Electrical properties and domain sizes of graphene films synthesized by microwave plasma treatment under a low carbon concentration. <i>Carbon</i> , 2015, 82, 60-66.	5.4	22
707	Study on the Diffusion Mechanism of Graphene Grown on Copper Pockets. <i>Small</i> , 2015, 11, 1418-1422.	5.2	53
708	Numerical correction of anti-symmetric aberrations in single HRTEM images of weakly scattering 2D-objects. <i>Ultramicroscopy</i> , 2015, 151, 130-135.	0.8	12
709	Engineered carbon nanotube field emission devices. , 2015, , 125-186.		15
710	Elementary Process for CVD Graphene on Cu(110): Size-selective Carbon Clusters. <i>Scientific Reports</i> , 2014, 4, 4431.	1.6	30
711	Atomically-thin two-dimensional sheets for understanding active sites in catalysis. <i>Chemical Society Reviews</i> , 2015, 44, 623-636.	18.7	872
712	Effects of topological point reconstructions on the fracture strength and deformation mechanisms of graphene. <i>Computational Materials Science</i> , 2015, 97, 172-180.	1.4	23
713	Chemical Vapor Deposition of Two-Dimensional Crystals. , 2015, , 785-833.		2
714	Layer-controlled CVD growth of large-area two-dimensional MoS ₂ films. <i>Nanoscale</i> , 2015, 7, 1688-1695.	2.8	387
715	Unraveling the Sinuous Grain Boundaries in Graphene. <i>Advanced Functional Materials</i> , 2015, 25, 367-373.	7.8	45
716	The seeded growth of graphene. <i>Scientific Reports</i> , 2014, 4, 5682.	1.6	29

#	ARTICLE	IF	CITATIONS
717	Constructing one-dimensional silver nanowire-doped reduced graphene oxide integrated with CdS nanowire network hybrid structures toward artificial photosynthesis. <i>Nanoscale</i> , 2015, 7, 861-866.	2.8	81
718	Quantitatively estimating defects in graphene devices using discharge current analysis method. <i>Scientific Reports</i> , 2015, 4, 4886.	1.6	15
719	A journey from order to disorder – Atom by atom transformation from graphene to a 2D carbon glass. <i>Scientific Reports</i> , 2014, 4, 4060.	1.6	67
720	Formation of Graphene Grain Boundaries on Cu(100) Surface and a Route Towards Their Elimination in Chemical Vapor Deposition Growth. <i>Scientific Reports</i> , 2014, 4, 6541.	1.6	21
721	Non-equilibrium grain boundaries with excess energy in graphene. <i>Carbon</i> , 2015, 81, 223-231.	5.4	20
722	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. <i>Nanoscale</i> , 2015, 7, 4598-4810.	2.8	2,452
723	Structural and Dynamical Properties of Metallic Glassy Films. , 0, , .		0
725	Synthesis and applications of carbon nanomaterials for energy generation and storage. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 149-196.	1.5	118
726	Characteristic Work Function Variations of Graphene Line Defects. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 18360-18366.	4.0	43
727	Large-scale chemical assembly of atomically thin transistors and circuits. <i>Nature Nanotechnology</i> , 2016, 11, 954-959.	15.6	251
728	Carbon- and crack-free growth of hexagonal boron nitride nanosheets and their uncommon stacking order. <i>Nanoscale</i> , 2016, 8, 15926-15933.	2.8	20
729	Structural and Electronic Properties of Interfaces in Graphene and Hexagonal Boron Nitride Lateral Heterostructures. <i>Chemistry of Materials</i> , 2016, 28, 5022-5028.	3.2	63
730	Oxidative Etching-Assisted Synthesis of Centimeter-Sized Single-Crystalline Graphene. <i>Advanced Materials</i> , 2016, 28, 3152-3158.	11.1	81
731	Study on the optical and electrical properties of tetracyanoethylene doped bilayer graphene stack for transparent conducting electrodes. <i>AIP Advances</i> , 2016, 6, 035319.	0.6	11
732	Atomistically derived cohesive zone model of intergranular fracture in polycrystalline graphene. <i>Journal of Applied Physics</i> , 2016, 119, 245107.	1.1	18
733	High-quality AlN films grown on chemical vapor-deposited graphene films. <i>MATEC Web of Conferences</i> , 2016, 60, 01004.	0.1	0
734	Automatic software correction of residual aberrations in reconstructed HRTEM exit waves of crystalline samples. <i>Advanced Structural and Chemical Imaging</i> , 2016, 2, 15.	4.0	14
735	Mesoscopic current transport in two-dimensional materials with grain boundaries: Four-point probe resistance and Hall effect. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	9

#	ARTICLE	IF	CITATIONS
736	van der Waals epitaxy of CdTe thin film on graphene. Applied Physics Letters, 2016, 109, .	1.5	24
737	Numerical study of electrical transport in co-percolative metal nanowire-graphene thin-films. Journal of Applied Physics, 2016, 120, 175106.	1.1	3
738	Defect formation in graphene during low-energy ion bombardment. APL Materials, 2016, 4, .	2.2	68
739	Elastic behavior of Bi ₂ Se ₃ 2D nanosheets grown by van der Waals epitaxy. Applied Physics Letters, 2016, 109, .	1.5	24
740	Role of cooling rate in selective synthesis of graphene and carbon nanotube on Fe foil using hot filament chemical vapor deposition. , 2016, , .		1
742	Nanofaceting as a stamp for periodic graphene charge carrier modulations. Scientific Reports, 2016, 6, 23663.	1.6	6
743	Boron nitride as two dimensional dielectric: Reliability and dielectric breakdown. Applied Physics Letters, 2016, 108, .	1.5	98
744	Mesostructure of Ordered Corneal Nano-nipple Arrays: The Role of 5â€“7 Coordination Defects. Scientific Reports, 2016, 6, 28342.	1.6	15
745	Ferroelasticity and domain physics in two-dimensional transition metal dichalcogenide monolayers. Nature Communications, 2016, 7, 10843.	5.8	125
746	An on-chip colloidal magneto-optical grating. Applied Physics Letters, 2016, 108, 161106.	1.5	4
747	Adsorption of metal atoms at a buckled graphene grain boundary using model potentials. AIP Advances, 2016, 6, .	0.6	5
748	Contact Conductivity of Uncapped Carbon Nanotubes Formed by Silicon Carbide Decomposition. Journal of Physical Chemistry C, 2016, 120, 6232-6238.	1.5	4
749	Monolayer Single-Crystal 1Tâ€“MoTe ₂ Grown by Chemical Vapor Deposition Exhibits Weak Antilocalization Effect. Nano Letters, 2016, 16, 4297-4304.	4.5	205
750	Incorporating Graphene into Fuel Cell Design. Nanoscience and Technology, 2016, , 293-312.	1.5	0
751	Understanding the Interplay between Molecule Orientation and Graphene Using Polarized Raman Spectroscopy. ACS Photonics, 2016, 3, 985-991.	3.2	12
752	Domain size engineering of CVD graphene and its influence on physical properties. Journal Physics D: Applied Physics, 2016, 49, 205504.	1.3	6
753	Flexible Self-Assembled Molecular Templates on Graphene. Journal of Physical Chemistry C, 2016, 120, 8772-8780.	1.5	37
754	Control of the nucleation and quality of graphene grown by low-pressure chemical vapor deposition with acetylene. Applied Surface Science, 2016, 366, 219-226.	3.1	22

#	ARTICLE	IF	CITATIONS
755	The role of hydrogen in oxygen-assisted chemical vapor deposition growth of millimeter-sized graphene single crystals. <i>Nanoscale</i> , 2016, 8, 7646-7653.	2.8	16
756	Reducing the graphene grain density in three steps. <i>Nanotechnology</i> , 2016, 27, 105602.	1.3	14
757	Contamination-free suspended graphene structures by a Ti-based transfer method. <i>Carbon</i> , 2016, 103, 305-310.	5.4	15
758	A combined graphene and periodic Au nanograte structure: Fundamentals and application as a flexible transparent conducting film in a flexible organic photovoltaic cell. <i>Carbon</i> , 2016, 103, 488-496.	5.4	15
759	A facile method for the selective decoration of graphene defects based on a galvanic displacement reaction. <i>NPG Asia Materials</i> , 2016, 8, e262-e262.	3.8	15
760	Heteroepitaxial growth of wafer scale highly oriented graphene using inductively coupled plasma chemical vapor deposition. <i>2D Materials</i> , 2016, 3, 021001.	2.0	12
761	Folding of Graphene and Other Two-dimensional Materials. <i>Science Studies</i> , 2016, , 211-242.	0.0	2
762	Transport properties through graphene grain boundaries: strain effects versus lattice symmetry. <i>Nanoscale</i> , 2016, 8, 11658-11673.	2.8	15
763	A generalized Read-Shockley model and large scale simulations for the energy and structure of graphene grain boundaries. <i>RSC Advances</i> , 2016, 6, 44489-44497.	1.7	12
764	How Graphene Islands Are Unidirectionally Aligned on the Ge(110) Surface. <i>Nano Letters</i> , 2016, 16, 3160-3165.	4.5	92
765	Large-area high-quality graphene on Ge(001)/Si(001) substrates. <i>Nanoscale</i> , 2016, 8, 11241-11247.	2.8	48
766	Controlling Nucleation Density While Simultaneously Promoting Edge Growth Using Oxygen-Assisted Fast Synthesis of Isolated Large-Domain Graphene. <i>Chemistry of Materials</i> , 2016, 28, 6511-6519.	3.2	19
767	Graphene Network. , 2016, , 67-88.		0
768	Controlled assembly of SiO _x nanoparticles in graphene. <i>Materials Horizons</i> , 2016, 3, 568-574.	6.4	8
769	Effects of Cu substrate surface fluctuations on graphene during transfer. <i>Materials Letters</i> , 2016, 185, 156-160.	1.3	2
770	A feasibility study on the fracture strength measurement of polycrystalline graphene using nanoindentation with a cylindrical indenter. <i>Carbon</i> , 2016, 107, 310-318.	5.4	15
771	Visualization of Defect-Induced Excitonic Properties of the Edges and Grain Boundaries in Synthesized Monolayer Molybdenum Disulfide. <i>Journal of Physical Chemistry C</i> , 2016, 120, 24080-24087.	1.5	20
772	Large scale MoS ₂ nanosheet logic circuits integrated by photolithography on glass. <i>2D Materials</i> , 2016, 3, 044001.	2.0	26

#	ARTICLE	IF	CITATIONS
773	Localized electronic states at grain boundaries on the surface of graphene and graphite. 2D Materials, 2016, 3, 031005.	2.0	26
774	<i>In Situ</i> High Temperature Atomic Level Studies of Large Closed Grain Boundary Loops in Graphene. ACS Nano, 2016, 10, 9165-9173.	7.3	23
775	Boundaries determine the formation energies of lattice defects in two-dimensional buckled materials. Physical Review B, 2016, 94, .	1.1	8
776	Mechanical Stability of Flexible Graphene-Based Displays. ACS Applied Materials & Interfaces, 2016, 8, 22605-22614.	4.0	56
777	Nanomaterial-Based Soft Electronics for Healthcare Applications. ChemNanoMat, 2016, 2, 1006-1017.	1.5	65
778	Abnormality in fracture strength of polycrystalline silicene. 2D Materials, 2016, 3, 035008.	2.0	21
779	Epitaxial Graphene: Progress on Synthesis and Device Integration. , 2016, , 53-68.		2
780	Graphene under the influence of Aharonov-Bohm flux and constant magnetic field. Physical Review B, 2016, 94, .	1.1	8
781	Enhanced Nickel-Catalyzed Methanation Confined under Hexagonal Boron Nitride Shells. ACS Catalysis, 2016, 6, 6814-6822.	5.5	95
782	Electronic properties of CVD graphene: The role of grain boundaries, atmospheric doping, and encapsulation by ALD. Physica Status Solidi (B): Basic Research, 2016, 253, 2321-2325.	0.7	17
783	Surface Monocrystallization of Copper Foil for Fast Growth of Large Single-Crystal Graphene under Free Molecular Flow. Advanced Materials, 2016, 28, 8968-8974.	11.1	128
784	Toward clean suspended CVD graphene. RSC Advances, 2016, 6, 83954-83962.	1.7	22
785	Large-Area Growth of Five-Lobed and Triangular Graphene Grains on Textured Cu Substrate. Advanced Materials Interfaces, 2016, 3, 1600347.	1.9	15
786	The influence of tilt grain boundaries on the mechanical properties of bicrystalline graphene nanoribbons. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 84, 168-174.	1.3	26
787	Nondestructive optical visualisation of graphene domains and boundaries. Nanoscale, 2016, 8, 16427-16434.	2.8	5
788	Mechanical properties of two-dimensional materials and heterostructures. Journal of Materials Research, 2016, 31, 832-844.	1.2	84
789	Nanostructured transparent conductive films: Fabrication, characterization and applications. Materials Science and Engineering Reports, 2016, 109, 1-101.	14.8	104
790	Near-field photocurrent nanoscopy on bare and encapsulated graphene. Nature Communications, 2016, 7, 10783.	5.8	80

#	ARTICLE	IF	CITATIONS
791	Segregation growth of epitaxial graphene overlayers on Ni(111). Science Bulletin, 2016, 61, 1536-1542.	4.3	15
792	Facile Synthesis of 3D Graphene Flowers for Ultrasensitive and Highly Reversible Gas Sensing. Advanced Functional Materials, 2016, 26, 7462-7469.	7.8	149
793	<i>In Situ</i> Atomic Level Dynamics of Heterogeneous Nucleation and Growth of Graphene from Inorganic Nanoparticle Seeds. ACS Nano, 2016, 10, 9397-9410.	7.3	11
794	Cracking of Polycrystalline Graphene on Copper under Tension. ACS Nano, 2016, 10, 9616-9625.	7.3	53
795	Synthesis of sulfur-doped graphene by using Near-infrared chemical-vapor deposition. Journal of the Korean Physical Society, 2016, 68, 1257-1261.	0.3	4
796	Thermal transport in oxidized polycrystalline graphene. Carbon, 2016, 108, 318-326.	5.4	17
797	Multiscale modeling of polycrystalline graphene: A comparison of structure and defect energies of realistic samples from phase field crystal models. Physical Review B, 2016, 94, .	1.1	72
798	Electronic transport in graphene nanoribbons with sublattice-asymmetric doping. Physical Review B, 2016, 93, .	1.1	11
799	Structural phase field crystal approach for modeling graphene and other two-dimensional structures. Physical Review B, 2016, 93, .	1.1	55
800	Line defects in graphene: How doping affects the electronic and mechanical properties. Physical Review B, 2016, 93, .	1.1	25
801	Physical properties of low-dimensional $\langle \mathbf{r} \rangle$ carbon nanostructures. Reviews of Modern Physics, 2016, 88, .	1.1	160
802	Solution-processed P3HT-functional graphene for efficient heterojunction organic photoelectronics. Journal of Materials Research, 2016, 31, 1985-1992.	1.2	3
803	Observation of graphene grain boundaries through selective adsorption of rhodamine B using fluorescence microscopy. Carbon, 2016, 108, 72-78.	5.4	3
804	Synthesis, properties and applications of 3D carbon nanotube-graphene junctions. Journal Physics D: Applied Physics, 2016, 49, 443001.	1.3	18
805	Hydrophobic Surface Treatment and Interrupted Atomic Layer Deposition for Highly Resistive Al_2O_3 Films on Graphene. ACS Applied Materials & Interfaces, 2016, 8, 29637-29641.	4.0	16
806	Changing the chirality of single-wall carbon nanotubes during epitaxial growth : A density functional theory study. New Carbon Materials, 2016, 31, 525-531.	2.9	2
807	Atomistic Observation of Structural Evolution during Magnesium Oxide Growth. Journal of Physical Chemistry C, 2016, 120, 26873-26878.	1.5	10
808	Nanoscale homogeneity and degradation process of two dimensional atomically thin hexagonal boron nitride dielectric stacks. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
809	Atomically ordered solute segregation behaviour in an oxide grain boundary. Nature Communications, 2016, 7, 11079.	5.8	105
810	Growing Ultra-flat Organic Films on Graphene with a Face-on Stacking via Moderate Molecule-Substrate Interaction. Scientific Reports, 2016, 6, 28895.	1.6	31
811	Reflection high-energy electron diffraction measurements of reciprocal space structure of 2D materials. Nanotechnology, 2016, 27, 485703.	1.3	21
812	A theoretical review on electronic, magnetic and optical properties of silicene. Reports on Progress in Physics, 2016, 79, 126501.	8.1	155
813	Growth of Continuous Monolayer Graphene with Millimeter-sized Domains Using Industrially Safe Conditions. Scientific Reports, 2016, 6, 21152.	1.6	48
814	Nanocarbon synthesis by high-temperature oxidation of nanoparticles. Scientific Reports, 2016, 6, 24109.	1.6	15
815	Intervalley scattering of graphene massless Dirac fermions at 3-periodic grain boundaries. Physical Review B, 2016, 94, .	1.1	8
816	Bright-field Nanoscopy: Visualizing Nano-structures with Localized Optical Contrast Using a Conventional Microscope. Scientific Reports, 2016, 6, 25011.	1.6	6
817	Deformation and fracture in graphene with divacancies of the 555â€“777 type. Doklady Physics, 2016, 61, 403-406.	0.2	1
818	Magnetoresistance (MR) of twisted bilayer graphene on electron transparent substrate. Synthetic Metals, 2016, 216, 65-71.	2.1	5
819	Growth and low-energy electron microscopy characterizations of graphene and hexagonal boron nitride. Progress in Crystal Growth and Characterization of Materials, 2016, 62, 155-176.	1.8	20
820	Cooling Growth of Millimeter-Size Single-Crystal Bilayer Graphene at Atmospheric Pressure. Journal of Physical Chemistry C, 2016, 120, 13596-13603.	1.5	14
821	Unique Domain Structure of Two-Dimensional $\text{I}\pm\text{Mo}_2\text{C}$ Superconducting Crystals. Nano Letters, 2016, 16, 4243-4250.	4.5	101
822	Chemical vapor deposition growth of large single-crystal bernal-stacked bilayer graphene from ethanol. Carbon, 2016, 107, 852-856.	5.4	25
823	Emerging opportunities in the two-dimensional chalcogenide systems and architecture. Current Opinion in Solid State and Materials Science, 2016, 20, 374-387.	5.6	29
824	Large-area single-crystal graphene grown on a recrystallized Cu(111) surface by using a hole-pocket method. Nanoscale, 2016, 8, 13781-13789.	2.8	23
825	Mechanistic insights into light-driven graphene-induced peroxide decomposition: radical generation and disproportionation. Chemical Communications, 2016, 52, 9291-9294.	2.2	5
826	Graphene Synthesis by Chemical Vapor Deposition on Copper. , 2016, , 241-262.		0

#	ARTICLE	IF	CITATIONS
827	Functionalization and Properties of Graphene. , 2016, , 205-238.		0
828	Effective Elastic Properties of a Novel Continuous Fuzzy Fiber-Reinforced Composite with Wavy Carbon Nanotubes. , 2016, , 33-56.		0
829	Observation of sub-20nm line-defects in graphene by friction force microscopy. , 2016, , .		0
830	Copper Oxidation through Nucleation Sites of Chemical Vapor Deposited Graphene. Chemistry of Materials, 2016, 28, 3789-3795.	3.2	44
831	Structural, Vibrational, and Thermal Properties of Nanocrystalline Graphene in Atomistic Simulations. Journal of Physical Chemistry C, 2016, 120, 3026-3035.	1.5	15
832	Toughness and strength of nanocrystalline graphene. Nature Communications, 2016, 7, 10546.	5.8	158
833	Analyzing Dirac Cone and Phonon Dispersion in Highly Oriented Nanocrystalline Graphene. ACS Nano, 2016, 10, 1681-1689.	7.3	13
834	Epitaxial Al ₂ O ₃ (0001)/Cu(111) Template Development for CVD Graphene Growth. Journal of Physical Chemistry C, 2016, 120, 297-304.	1.5	51
835	Carbon doped molybdenum disulfide nanosheets stabilized on graphene for the hydrogen evolution reaction with high electrocatalytic ability. Nanoscale, 2016, 8, 1676-1683.	2.8	88
836	A progressive route for tailoring electrical transport in MoS ₂ . Nano Research, 2016, 9, 380-391.	5.8	14
837	Magnitude and Origin of Electrical Noise at Individual Grain Boundaries in Graphene. Nano Letters, 2016, 16, 562-567.	4.5	39
838	CVD graphene recrystallization as a new route to tune graphene structure and properties. Carbon, 2016, 102, 499-505.	5.4	23
839	Recent Approaches for Bridging the Pressure Gap in Photoelectron Microspectroscopy. Topics in Catalysis, 2016, 59, 448-468.	1.3	45
840	Heterogeneous Spin States in Ultrathin Nanosheets Induce Subtle Lattice Distortion To Trigger Efficient Hydrogen Evolution. Journal of the American Chemical Society, 2016, 138, 5087-5092.	6.6	351
841	Nucleation and growth dynamics of graphene on oxygen exposed copper substrate. Carbon, 2016, 103, 384-390.	5.4	35
842	Reversible wrinkles of monolayer graphene on a polymer substrate: toward stretchable and flexible electronics. Soft Matter, 2016, 12, 3202-3213.	1.2	30
843	A graphene-carbon nanotube hybrid material for photovoltaic applications. Carbon, 2016, 102, 74-80.	5.4	45
844	Defects, a challenge for graphene in flexible electronics. Solid State Communications, 2016, 229, 49-52.	0.9	11

#	ARTICLE	IF	CITATIONS
845	Surface Engineering of Copper Foils for Growing Centimeter-Sized Single-Crystalline Graphene. ACS Nano, 2016, 10, 2922-2929.	7.3	89
846	Local transport measurements in graphene on SiO ₂ using Kelvin probe force microscopy. Carbon, 2016, 102, 470-476.	5.4	16
847	Visualization of Grain Structure and Boundaries of Polycrystalline Graphene and Two-Dimensional Materials by Epitaxial Growth of Transition Metal Dichalcogenides. ACS Nano, 2016, 10, 3233-3240.	7.3	70
848	Spatial variation of wear and electrical properties across wrinkles in chemical vapour deposition graphene. Carbon, 2016, 102, 304-310.	5.4	90
849	Effect of geometrical defects on the tensile properties of graphene. Carbon, 2016, 103, 125-133.	5.4	40
850	Evolution of domains and grain boundaries in graphene: a kinetic Monte Carlo simulation. Physical Chemistry Chemical Physics, 2016, 18, 2932-2939.	1.3	20
851	Electronic and transport properties of graphene with grain boundaries. RSC Advances, 2016, 6, 1090-1097.	1.7	14
852	Towards a general growth model for graphene CVD on transition metal catalysts. Nanoscale, 2016, 8, 2149-2158.	2.8	114
853	Computation in electron microscopy. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, 1-27.	0.0	32
854	Controlling the density of pinhole defects in monolayer graphene synthesized via chemical vapor deposition on copper. Carbon, 2016, 100, 1-6.	5.4	26
855	Ultra-large suspended graphene as a highly elastic membrane for capacitive pressure sensors. Nanoscale, 2016, 8, 3555-3564.	2.8	100
856	Magnetism and magnetic transport properties of the polycrystalline graphene nanoribbon heterojunctions. Carbon, 2016, 98, 204-212.	5.4	32
857	Impurity-Induced Grain Boundary Strengthening in Polycrystalline Graphene. Journal of Physical Chemistry C, 2016, 120, 1952-1958.	1.5	3
858	Water Incorporation in Graphene Transferred onto SiO ₂ /Si Investigated by Isotopic Labeling. Journal of Physical Chemistry C, 2016, 120, 201-206.	1.5	9
859	Graphene Schottky diodes: An experimental review of the rectifying graphene/semiconductor heterojunction. Physics Reports, 2016, 606, 1-58.	10.3	449
861	The total chemical synthesis of polymer/graphene nanocomposite films. Chemical Communications, 2016, 52, 1629-1632.	2.2	33
863	CVD growth of 1D and 2D sp ² carbon nanomaterials. Journal of Materials Science, 2016, 51, 640-667.	1.7	70
864	Etching of graphene on Ir(111) with molecular oxygen. Carbon, 2016, 96, 320-331.	5.4	28

#	ARTICLE	IF	CITATIONS
865	Grain structures of nitrogen-doped graphene synthesized by solid source-based chemical vapor deposition. Carbon, 2016, 96, 448-453.	5.4	45
866	Thermal transport in nanocrystalline graphene investigated by approach-to-equilibrium molecular dynamics simulations. Carbon, 2016, 96, 429-438.	5.4	33
867	Transport in Disordered Graphene. Springer Theses, 2016, , 55-113.	0.0	0
868	Electronic and Transport Properties of Graphene. Springer Theses, 2016, , 5-34.	0.0	0
869	Invisible growth of microstructural defects in graphene chemical vapor deposition on copper foil. Carbon, 2016, 96, 237-242.	5.4	43
870	Networked nanoconstrictions: An effective route to tuning the thermal transport properties of graphene. Carbon, 2016, 96, 711-719.	5.4	55
871	Rapid and catalyst-free van der Waals epitaxy of graphene on hexagonal boron nitride. Carbon, 2016, 96, 497-502.	5.4	43
872	Tailoring physical properties of graphene: Effects of hydrogenation, oxidation, and grain boundaries by atomistic simulations. Computational Materials Science, 2016, 112, 527-546.	1.4	14
873	Effects of surface oxidation of Cu substrates on the growth kinetics of graphene by chemical vapor deposition. Nanoscale, 2017, 9, 2324-2329.	2.8	14
874	Grain boundary-induced variability of charge transport in hydrogenated polycrystalline graphene. 2D Materials, 2017, 4, 025009.	2.0	5
875	Influence of removing PMMA residues on surface of CVD graphene using a contact-mode atomic force microscope. RSC Advances, 2017, 7, 6943-6949.	1.7	68
876	Hydrogen induced contrasting modes of initial nucleations of graphene on transition metal surfaces. Journal of Chemical Physics, 2017, 146, 034704.	1.2	4
877	Direct observation of grain boundaries in chemical vapor deposited graphene. Carbon, 2017, 115, 147-153.	5.4	22
878	Controlled Electrochemical Deposition of Large Area MoS ₂ on Graphene for High-Responsivity Photodetectors. Advanced Functional Materials, 2017, 27, 1603998.	7.8	45
879	High-resolution characterization of hexagonal boron nitride coatings exposed to aqueous and air oxidative environments. Nano Research, 2017, 10, 2046-2055.	5.8	21
880	A facile route to a high-quality graphene/MoS ₂ vertical field-effect transistor with gate-modulated photocurrent response. Journal of Materials Chemistry C, 2017, 5, 2337-2343.	2.7	19
881	Lattice trapping and crack decohesion in graphene. Carbon, 2017, 116, 33-39.	5.4	31
882	Molecular dynamics study of fracture toughness and trans-intergranular transition in bi-crystalline graphene. Computational Materials Science, 2017, 129, 323-331.	1.4	24

#	ARTICLE	IF	CITATIONS
883	Recrystallization of copper at a solid interface for improved CVD graphene growth. RSC Advances, 2017, 7, 3736-3740.	1.7	14
884	Logarithmic temperature dependence of resistivity in CVD graphene. Current Applied Physics, 2017, 17, 474-478.	1.1	4
885	Self-Terminating Confinement Approach for Large-Area Uniform Monolayer Graphene Directly over Si/SiO ₂ by Chemical Vapor Deposition. ACS Nano, 2017, 11, 1946-1956.	7.3	108
886	Synthesis of Single-Layer Graphene on Nickel Using a Droplet CVD Process. Advanced Materials Interfaces, 2017, 4, 1600783.	1.9	18
887	A review on mechanics and mechanical properties of 2D materials—Graphene and beyond. Extreme Mechanics Letters, 2017, 13, 42-77.	2.0	920
888	Wettability of vertically-oriented graphenes with different intersheet distances. RSC Advances, 2017, 7, 2667-2675.	1.7	28
889	Advent of 2D Rhenium Disulfide (ReS ₂): Fundamentals to Applications. Advanced Functional Materials, 2017, 27, 1606129.	7.8	296
890	Boron monoxide dimer as a building block for boroxine based buckyballs and related cages: a theoretical study. Chemical Communications, 2017, 53, 3239-3241.	2.2	10
891	Strain analysis of plasma CVD graphene for roll-to-roll production by scanning transmission electron microscopy and Raman spectroscopy. Japanese Journal of Applied Physics, 2017, 56, 030307.	0.8	25
892	Electron microscopy for inorganic-type drug delivery nanocarriers for antitumoral applications: what does it reveal?. Journal of Materials Chemistry B, 2017, 5, 2714-2725.	2.9	10
893	Boosting the terahertz nonlinearity of graphene by orientation disorder. 2D Materials, 2017, 4, 025035.	2.0	13
894	Tailoring the thermal and electrical transport properties of graphene films by grain size engineering. Nature Communications, 2017, 8, 14486.	5.8	154
895	Interfacial strengthening between graphene and polymer through Stone-Thrower-Wales defects: Ab initio and molecular dynamics simulations. Carbon, 2017, 118, 66-77.	5.4	68
896	Pressure-Controlled Chemical Vapor Deposition of Single-Layer Graphene with Millimeter-Size Domains on Thin Copper Film. Chemistry of Materials, 2017, 29, 3431-3440.	3.2	34
897	Circular Graphene Platelets with Grain Size and Orientation Gradients Grown by Chemical Vapor Deposition. Advanced Materials, 2017, 29, 1605451.	11.1	8
898	Large positive in-plane magnetoresistance induced by localized states at nanodomain boundaries in graphene. Nature Communications, 2017, 8, 14453.	5.8	27
899	A short story of imaging and spectroscopy of two-dimensional materials by scanning transmission electron microscopy. Ultramicroscopy, 2017, 180, 156-162.	0.8	13
900	Manipulating low-dimensional materials down to the level of single atoms with electron irradiation. Ultramicroscopy, 2017, 180, 163-172.	0.8	135

#	ARTICLE	IF	CITATIONS
901	Physisorbed versus chemisorbed oxygen effect on thermoelectric properties of highly organized single walled carbon nanotube nanofilms. <i>RSC Advances</i> , 2017, 7, 14078-14087.	1.7	16
902	Atomistic mechanisms of van der Waals epitaxy and property optimization of layered materials. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2017, 7, e1300.	6.2	14
904	Strong thermal transport along polycrystalline transition metal dichalcogenides revealed by multiscale modeling for MoS ₂ . <i>Applied Materials Today</i> , 2017, 7, 67-76.	2.3	35
905	Precise Identification of Graphene's Crystal Structures by Removable Nanowire Epitaxy. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1302-1309.	2.1	11
906	One-atom-thick 2D copper oxide clusters on graphene. <i>Nanoscale</i> , 2017, 9, 3980-3985.	2.8	32
907	Graphene coating for anti-corrosion and the investigation of failure mechanism. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 114001.	1.3	28
908	Regulating Top-Surface Multilayer/Single-Crystal Graphene Growth by α -Gettering-Carbon Diffusion at Backside of the Copper Foil. <i>Advanced Functional Materials</i> , 2017, 27, 1700121.	7.8	35
909	A Direct Observation of the Fine Aromatic Clusters and Molecular Structures of Biochars. <i>Environmental Science & Technology</i> , 2017, 51, 5473-5482.	4.6	173
910	Spectroscopic investigation of defects in two-dimensional materials. <i>Nanophotonics</i> , 2017, 6, 1219-1237.	2.9	94
911	Introducing Overlapping Grain Boundaries in Chemical Vapor Deposited Hexagonal Boron Nitride Monolayer Films. <i>ACS Nano</i> , 2017, 11, 4521-4527.	7.3	35
912	Statistically meaningful grain size analysis of CVD graphene based on the photocatalytic oxidation of copper. <i>Graphene Technology</i> , 2017, 2, 13-20.	1.9	5
913	Coupling behaviors of graphene/SiO ₂ /Si structure with external electric field. <i>AIP Advances</i> , 2017, 7, .	0.6	4
914	Direct Measurement of the Surface Energy of Graphene. <i>Nano Letters</i> , 2017, 17, 3815-3821.	4.5	95
915	Lattice Defects and the Mechanical Anisotropy of Borophene. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10224-10232.	1.5	112
916	Symmetry forbidden morphologies and domain boundaries in nanoscale graphene islands. <i>2D Materials</i> , 2017, 4, 025104.	2.0	4
917	Graphene on cubic-SiC. <i>Progress in Materials Science</i> , 2017, 89, 1-30.	16.0	30
918	Bottom-up Design of Three-Dimensional Carbon-Honeycomb with Superb Specific Strength and High Thermal Conductivity. <i>Nano Letters</i> , 2017, 17, 179-185.	4.5	95
919	Effect of topological line defects on electron-derived thermal transport in zigzag graphene nanoribbons. <i>Carbon</i> , 2017, 113, 292-298.	5.4	23

#	ARTICLE	IF	CITATIONS
920	A time-dependent atomistic reconstruction of severe irradiation damage and associated property changes in nuclear graphite. <i>Carbon</i> , 2017, 120, 111-120.	5.4	23
921	A visualization method for probing grain boundaries of single layer graphene via molecular beam epitaxy. <i>Nanotechnology</i> , 2017, 28, 305601.	1.3	5
922	Molecular dynamics study on friction of polycrystalline graphene. <i>Computational Materials Science</i> , 2017, 137, 346-361.	1.4	13
923	Graphene and related two-dimensional materials: Structure-property relationships for electronics and optoelectronics. <i>Applied Physics Reviews</i> , 2017, 4, .	5.5	476
924	Few-atomic-layered hexagonal boron nitride: CVD growth, characterization, and applications. <i>Materials Today</i> , 2017, 20, 611-628.	8.3	96
925	Graphene and Related Materials for Resistive Random Access Memories. <i>Advanced Electronic Materials</i> , 2017, 3, 1600195.	2.6	175
926	Roles of Oxygen and Hydrogen in Crystal Orientation Transition of Copper Foils for High-Quality Graphene Growth. <i>Scientific Reports</i> , 2017, 7, 45358.	1.6	34
927	Chemical and Bandgap Engineering in Monolayer Hexagonal Boron Nitride. <i>Scientific Reports</i> , 2017, 7, 45584.	1.6	73
928	Solution-processed 2-dimensional hole-doped ionic graphene compounds. <i>Materials Horizons</i> , 2017, 4, 456-463.	6.4	3
929	Rapid growth of angle-confined large-domain graphene bicrystals. <i>Nano Research</i> , 2017, 10, 1189-1199.	5.8	9
930	Slow Conductance Relaxation in Grapheneâ€Ferroelectric Field-Effect Transistors. <i>Journal of Physical Chemistry C</i> , 2017, 121, 7542-7548.	1.5	15
931	Role of embedded 3d transition metal atoms on the electronic and magnetic properties of defective bilayer graphene. <i>Carbon</i> , 2017, 118, 376-383.	5.4	16
932	Fabrication of submillimeter-sized single-crystalline graphene arrays by a commercial printing-assisted CVD method. <i>RSC Advances</i> , 2017, 7, 17800-17805.	1.7	4
933	A highly sensitive graphene woven fabric strain sensor for wearable wireless musical instruments. <i>Materials Horizons</i> , 2017, 4, 477-486.	6.4	194
934	Understanding the Li-storage in few layers graphene with respect to bulk graphite: experimental, analytical and computational study. <i>Journal of Materials Chemistry A</i> , 2017, 5, 8662-8679.	5.2	70
935	Behavior and role of superficial oxygen in Cu for the growth of large single-crystalline graphene. <i>Applied Surface Science</i> , 2017, 408, 142-149.	3.1	32
937	Nanolines of transition metals ruled by grain boundaries in graphene: An ab initio study. <i>Materials Chemistry and Physics</i> , 2017, 194, 118-127.	2.0	5
938	Scaling properties of polycrystalline graphene: a review. <i>2D Materials</i> , 2017, 4, 012002.	2.0	62

#	ARTICLE	IF	CITATIONS
939	Probing Bilayer Grain Boundaries in Large-Area Graphene with Tip-Enhanced Raman Spectroscopy. <i>Advanced Materials</i> , 2017, 29, 1603601.	11.1	37
940	Review of flash sintering: materials, mechanisms and modelling. <i>Advances in Applied Ceramics</i> , 2017, 116, 24-60.	0.6	346
941	Four-Dimensional Ultrafast Electron Microscopy: Insights into an Emerging Technique. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 3-16.	4.0	71
942	Tunable thermal conductivity along graphene/hexagonal boron-nitride polycrystalline heterostructures. <i>European Physical Journal Plus</i> , 2017, 132, 1.	1.2	11
943	Efficient Graphene Production by Combined Bipolar Electrochemical Intercalation and High-Shear Exfoliation. <i>ACS Omega</i> , 2017, 2, 6492-6499.	1.6	20
944	Mastering the Wrinkling of Self-supported Graphene. <i>Scientific Reports</i> , 2017, 7, 10003.	1.6	33
945	Annealing and polycrystallinity effects on the thermal conductivity of supported CVD graphene monolayers. <i>Nanoscale</i> , 2017, 9, 15515-15524.	2.8	9
946	Synergistic effect of temperature and point defect on the mechanical properties of single layer and bi-layer graphene. <i>Superlattices and Microstructures</i> , 2017, 110, 205-214.	1.4	9
947	CVD Synthesis of Graphene. , 2017, , 19-56.		9
948	Analyses of trace amounts of edge sites in natural graphite, synthetic graphite and high-temperature treated coke for the understanding of their carbon molecular structures. <i>Carbon</i> , 2017, 125, 146-155.	5.4	47
949	Unraveling the influence of grain boundaries on the mechanical properties of polycrystalline carbon nanotubes. <i>Carbon</i> , 2017, 125, 180-188.	5.4	44
950	Engineering and modifying two-dimensional materials by electron beams. <i>MRS Bulletin</i> , 2017, 42, 667-676.	1.7	62
951	Kapitza thermal resistance across individual grain boundaries in graphene. <i>Carbon</i> , 2017, 125, 384-390.	5.4	46
952	Atomic-Level Coupled Interfaces and Lattice Distortion on CuS/NiS ₂ Nanocrystals Boost Oxygen Catalysis for Flexible Zn-Air Batteries. <i>Advanced Functional Materials</i> , 2017, 27, 1703779.	7.8	200
953	Electrochemical Formation of Germanene: pH 4.5. <i>Journal of the Electrochemical Society</i> , 2017, 164, D469-D477.	1.3	17
954	One-Step Growth of Graphene/Carbon Nanotube Hybrid Films on Soda-Lime Glass for Transparent Conducting Applications. <i>Advanced Electronic Materials</i> , 2017, 3, 1700212.	2.6	17
955	Sputtering an exterior metal coating on copper enclosure for large-scale growth of single-crystalline graphene. <i>2D Materials</i> , 2017, 4, 045017.	2.0	17
956	Superior Plasmonic Photodetectors Based on Au@MoS ₂ Core-Shell Heterostructures. <i>ACS Nano</i> , 2017, 11, 10321-10329.	7.3	150

#	ARTICLE	IF	CITATIONS
957	Magnetic states of linear defects in graphene monolayers: Effects of strain and interaction. Physical Review B, 2017, 96, .	1.1	13
958	Mapping the electrical properties of large-area graphene. 2D Materials, 2017, 4, 042003.	2.0	113
959	Self-organized growth and self-assembly of nanostructures on 2D materials. FlatChem, 2017, 5, 50-68.	2.8	33
960	Understanding the Reaction Kinetics to Optimize Graphene Growth on Cu by Chemical Vapor Deposition. Annalen Der Physik, 2017, 529, 1700029.	0.9	16
961	Revealing the Crystalline Integrity of Wafer-Scale Graphene on SiO ₂ /Si: An Azimuthal RHEED Approach. ACS Applied Materials & Interfaces, 2017, 9, 23081-23091.	4.0	27
962	Energetics and structure of grain boundary triple junctions in graphene. Scientific Reports, 2017, 7, 4754.	1.6	22
963	The effects of acid pretreatment and surface stresses on the evolution of impurity clusters and graphene formation on Cu foil. Applied Surface Science, 2017, 425, 873-878.	3.1	9
964	Investigation into the effect of doping of boron and nitrogen atoms in the mechanical properties of single-layer polycrystalline graphene. Computational Materials Science, 2017, 138, 435-447.	1.4	29
965	Electronic Transport Properties of 1D Defects in Graphene and Other 2D Systems. Annalen Der Physik, 2017, 529, 1700003.	0.9	16
966	In Situ Transmission Electron Microscopy Characterization and Manipulation of Two-Dimensional Layered Materials beyond Graphene. Small, 2017, 13, 1604259.	5.2	75
967	Domain size, layer number and morphology control for graphene grown by chemical vapor deposition. Functional Materials Letters, 2017, 10, 1730003.	0.7	8
968	Facile preparation of sulphur-doped graphene quantum dots for ultra-high performance ultraviolet photodetectors. New Journal of Chemistry, 2017, 41, 10447-10451.	1.4	36
969	Fe/N/C Nanotubes with Atomic Fe Sites: A Highly Active Cathode Catalyst for Alkaline Polymer Electrolyte Fuel Cells. ACS Catalysis, 2017, 7, 6485-6492.	5.5	141
970	Spatially-resolved studies on the role of defects and boundaries in electronic behavior of 2D materials. Progress in Surface Science, 2017, 92, 176-201.	3.8	40
971	Direct Four-Probe Measurement of Grain-Boundary Resistivity and Mobility in Millimeter-Sized Graphene. Nano Letters, 2017, 17, 5291-5296.	4.5	59
972	Effect of Carrier Localization on Electrical Transport and Noise at Individual Grain Boundaries in Monolayer MoS ₂ . Nano Letters, 2017, 17, 5452-5457.	4.5	39
973	Computational methods for 2D materials: discovery, property characterization, and application design. Journal of Physics Condensed Matter, 2017, 29, 473001.	0.7	55
974	Dependence of the In-Plane Thermal Conductivity of Graphene on Grain Misorientation. Chemistry of Materials, 2017, 29, 10409-10417.	3.2	17

#	ARTICLE	IF	CITATIONS
975	Impact of Mismatch Angle on Electronic Transport Across Grain Boundaries and Interfaces in 2D Materials. Scientific Reports, 2017, 7, 16597.	1.6	15
976	Two-dimensional limit of crystalline order in perovskite membrane films. Science Advances, 2017, 3, eaao5173.	4.7	103
977	Fine-Tuning the Optoelectronic Properties of Freestanding Borophene by Strain. ACS Omega, 2017, 2, 8290-8299.	1.6	46
978	Catalytic substrates for graphene growth. MRS Bulletin, 2017, 42, 819-824.	1.7	11
979	Stress concentrations in nanoscale defective graphene. AIP Advances, 2017, 7, .	0.6	6
980	Minimal geometry for valley filtering in graphene. Physical Review B, 2017, 96, .	1.1	16
981	Graphene: Fundamental research and potential applications. FlatChem, 2017, 4, 20-32.	2.8	120
982	Targeted removal of copper foil surface impurities for improved synthesis of CVD graphene. Carbon, 2017, 122, 207-216.	5.4	43
983	Enhanced acetone sensing properties of monolayer graphene at room temperature by electrode spacing effect and UV illumination. Sensors and Actuators B: Chemical, 2017, 253, 77-84.	4.0	36
984	Probing nanocrystalline grain dynamics in nanodevices. Science Advances, 2017, 3, e1700135.	4.7	11
985	Ten-Second Epitaxy of Cu on Repeatedly Used Sapphire for Practical Production of High-Quality Graphene. ACS Omega, 2017, 2, 3354-3362.	1.6	2
986	Synergistic effects of grain boundaries and edges on fatigue deformations of sub-5Ånm graphene nanoribbons. Journal of Materials Science, 2017, 52, 10871-10878.	1.7	5
987	Quality assessment of graphene: Continuity, uniformity, and accuracy of mobility measurements. Nano Research, 2017, 10, 3596-3605.	5.8	31
988	Grain Boundary Structures and Collective Dynamics of Inversion Domains in Binary Two-Dimensional Materials. Physical Review Letters, 2017, 118, 255501.	2.9	41
989	Stripe distribution on graphene-coated Cu surface and its effect on oxidation and corrosion resistance of graphene. Journal of Applied Physics, 2017, 121, .	1.1	5
990	Rapid visualization of grain boundaries in monolayer MoS2 by multiphoton microscopy. Nature Communications, 2017, 8, 15714.	5.8	120
991	Dibromobianthryl ordering and polymerization on Ag(100). Journal of Chemical Physics, 2017, 146, .	1.2	2
992	Nanoplasmonic Phenomena at Electronic Boundaries in Graphene. ACS Photonics, 2017, 4, 2971-2977.	3.2	18

#	ARTICLE	IF	CITATIONS
993	Nanoscale electrodynamics of strongly correlated quantum materials. Reports on Progress in Physics, 2017, 80, 014501.	8.1	58
994	Magnetization of disclinated graphene in nonuniform magnetic field. International Journal of Modern Physics B, 2017, 31, 1750013.	1.0	1
995	Effect of grain boundaries on electrical properties of polycrystalline graphene. Carbon, 2017, 112, 142-148.	5.4	22
996	Mechanical properties of graphene grain boundary and hexagonal boron nitride lateral heterostructure with controlled domain size. Computational Materials Science, 2017, 126, 474-478.	1.4	20
997	Metal-free synthesis of nanocrystalline graphene on insulating substrates by carbon dioxide-assisted chemical vapor deposition. Carbon, 2017, 112, 201-207.	5.4	38
998	Improvements on non-equilibrium and transport Green function techniques: The next-generation transiesta. Computer Physics Communications, 2017, 212, 8-24.	3.0	256
999	Uniaxial fracture test of freestanding pristine graphene using in situ tensile tester under scanning electron microscope. Extreme Mechanics Letters, 2017, 14, 10-15.	2.0	44
1000	Structure of Nanocrystals, Nanoparticles, and Nanotubes. , 2017, , 581-652.		1
1001	Versatile synthesis and enlargement of functionalized distorted heptagon-containing nanographenes. Chemical Science, 2017, 8, 1068-1074.	3.7	100
1002	Time evolution of the growth of single graphene crystals and high resolution isotope labeling. Carbon, 2017, 111, 173-181.	5.4	6
1003	Relationships between the optical and Raman behavior of van Hove singularity in twisted bi- and fewlayer graphenes and environmental effects. Carbon, 2017, 111, 238-247.	5.4	10
1004	The effects of vacancy defect on the fracture behaviors of zigzag graphene nanoribbons. International Journal of Damage Mechanics, 2017, 26, 608-630.	2.4	18
1005	Assessing the amorphousness and periodicity of common domain boundaries in silica bilayers on Ru(O ₂). Journal of Physics Condensed Matter, 2017, 29, 035002.	0.7	22
1006	Isomerization of sp ² -hybridized carbon nanomaterials: structural transformation and topological defects of fullerene, carbon nanotube, and graphene. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2017, 7, e1283.	6.2	24
1007	Optimization of suspended graphene NEMS devices for electrostatic discharge applications. , 2017, , .		2
1008	Local Layer Stacking and Structural Disorder in Graphene Oxide Studied via Scanning Electron Diffraction.. Microscopy and Microanalysis, 2017, 23, 1754-1755.	0.2	1
1009	Comparative study between the fracture stress of poly- and single-crystalline graphene using a novel nanoelectromechanical system structure. Micro and Nano Letters, 2017, 12, 907-912.	0.6	5
1010	4. Controlled Chemical Synthesis in CVD Graphene. , 2017, , .		1

#	ARTICLE	IF	CITATIONS
1011	Nitrogen-doped twisted graphene grown on copper by atmospheric pressure CVD from a decane precursor. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 145-158.	1.5	25
1012	Review on the Processing and Properties of Polymer Nanocomposites and Nanocoatings and Their Applications in the Packaging, Automotive and Solar Energy Fields. <i>Nanomaterials</i> , 2017, 7, 74.	1.9	524
1013	Suppression of Graphene Nucleation by Turning Off Hydrogen Supply Just before Atmospheric Pressure Chemical Vapor Deposition Growth. <i>Coatings</i> , 2017, 7, 206.	1.2	12
1014	Positron Annihilation in TaN Thin Sputtering Films Prepared with Various N₂ Partial Pressures. <i>Defect and Diffusion Forum</i> , 0, 373, 237-240.	0.4	0
1015	Ab Initio Study of Electronic Transport in Cubic-HfO ₂ Grain Boundaries. <i>Journal of Nanomaterials</i> , 2017, 2017, 1-9.	1.5	3
1016	A Review on Lattice Defects in Graphene: Types, Generation, Effects and Regulation. <i>Micromachines</i> , 2017, 8, 163.	1.4	179
1017	Enhanced Reduction of Few-Layer Graphene Oxide via Supercritical Water Gasification of Glycerol. <i>Nanomaterials</i> , 2017, 7, 447.	1.9	14
1018	Controlled Chemical Synthesis in CVD Graphene. <i>ChemistrySelect</i> , 2017, 2, .	0.7	7
1020	Angstrom-Size Defect Creation and Ionic Transport through Pores in Single-Layer MoS ₂ . <i>Nano Letters</i> , 2018, 18, 1651-1659.	4.5	129
1021	Two-dimensional transition metal dichalcogenide hybrid materials for energy applications. <i>Nano Today</i> , 2018, 19, 16-40.	6.2	142
1022	Lateral Non-covalent Clamping of Graphene at the Edges Using a Lipid Scaffold. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 11328-11332.	4.0	6
1023	Oxide-assisted growth of scalable single-crystalline graphene with seamlessly stitched millimeter-sized domains on commercial copper foils. <i>RSC Advances</i> , 2018, 8, 8800-8804.	1.7	15
1024	Nucleation and growth kinetics of multi-layered graphene on copper substrate. <i>Carbon</i> , 2018, 135, 118-124.	5.4	17
1025	The chemistry of CVD graphene. <i>Journal of Materials Chemistry C</i> , 2018, 6, 6082-6101.	2.7	95
1026	Enhancing the Strength of Graphene by a Denser Grain Boundary. <i>ACS Nano</i> , 2018, 12, 4529-4535.	7.3	39
1027	Chemical Mapping of Nanodefects within 2D Covalent Monolayers by Tip-Enhanced Raman Spectroscopy. <i>ACS Nano</i> , 2018, 12, 5021-5029.	7.3	45
1028	Structural evolution dynamics in fusion of sumanenes and corannulenes: defects formation and self-healing mechanism. <i>Nano Futures</i> , 2018, 2, 025001.	1.0	0
1029	Interface collisions. <i>Physical Review E</i> , 2018, 97, 040801.	0.8	2

#	ARTICLE	IF	CITATIONS
1030	CVD growth of continuous and spatially uniform single layer graphene across the grain boundary of preferred (111) oriented copper processed by sequential melting–resolidification–recrystallization. <i>Materials Chemistry Frontiers</i> , 2018, 2, 1137-1145.	3.2	5
1031	High-Loading Intermetallic Pt ₃ Co/C Core–Shell Nanoparticles as Enhanced Activity Electrocatalysts toward the Oxygen Reduction Reaction (ORR). <i>Chemistry of Materials</i> , 2018, 30, 1532-1539.	3.2	131
1032	Facile synthesis of a cationic-doped [Ca ₂₄ Al ₂₈ O ₆₄] ⁴⁺ (4e ⁻) composite <i>in via</i> a rapid citrate sol–gel method. <i>Dalton Transactions</i> , 2018, 47, 3819-3830.	1.6	48
1033	Two-component structural phase-field crystal models for graphene symmetries. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170211.	1.6	12
1034	High-Speed Spectroscopic Transient Absorption Imaging of Defects in Graphene. <i>Nano Letters</i> , 2018, 18, 1489-1497.	4.5	26
1035	Tension-controlled single-crystallization of copper foils for roll-to-roll synthesis of high-quality graphene films. <i>2D Materials</i> , 2018, 5, 024002.	2.0	31
1036	Raman spectroscopy of graphene-based materials and its applications in related devices. <i>Chemical Society Reviews</i> , 2018, 47, 1822-1873.	18.7	1,274
1037	Structural Characterizations of Graphene. , 2018, , 13-26.		3
1038	van der Waals epitaxy of SnS film on single crystal graphene buffer layer on amorphous SiO ₂ /Si. <i>Applied Surface Science</i> , 2018, 435, 759-768.	3.1	10
1039	Ring type and π electron occupancy decides the Li-ion storage properties of Phagraphene: An example of sp ² hybridized carbon structure. <i>Carbon</i> , 2018, 129, 775-784.	5.4	26
1040	Mechanical and thermal properties of grain boundary in a planar heterostructure of graphene and hexagonal boron nitride. <i>Nanoscale</i> , 2018, 10, 3497-3508.	2.8	47
1041	Topological line defects in graphene for applications in gas sensing. <i>Carbon</i> , 2018, 129, 803-808.	5.4	42
1042	Phase field crystal modeling of grain boundary structures and growth in polycrystalline graphene. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 120, 36-48.	2.3	26
1043	Formation of graphene on BN substrate by vapor deposition method and size effects on its structure. <i>Physica B: Condensed Matter</i> , 2018, 534, 26-33.	1.3	4
1044	Compaction effect on the compressive strength and durability of stabilized earth blocks. <i>Construction and Building Materials</i> , 2018, 163, 179-188.	3.2	39
1045	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating. <i>Advanced Materials</i> , 2018, 30, 1702944.	11.1	113
1046	Flexible and Transparent Graphene Electrode Architecture with Selective Defect Decoration for Organic Light–Emitting Diodes. <i>Advanced Functional Materials</i> , 2018, 28, 1704435.	7.8	67
1047	THz photonics in two dimensional materials and metamaterials: properties, devices and prospects. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1291-1306.	2.7	124

#	ARTICLE	IF	CITATIONS
1048	Honeycomb-like polysulphone/polyurethane nanofiber filter for the removal of organic/inorganic species from air streams. <i>Journal of Hazardous Materials</i> , 2018, 347, 325-333.	6.5	67
1049	First-Principle-Based Phonon Transport Properties of Nanoscale Graphene Grain Boundaries. <i>Advanced Science</i> , 2018, 5, 1700365.	5.6	17
1050	Stillinger-Weber potential for elastic and fracture properties in graphene and carbon nanotubes. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 055901.	0.7	33
1051	Local Melting Attracts Grain Boundaries in Colloidal Polycrystals. <i>Physical Review Letters</i> , 2018, 120, 018002.	2.9	19
1052	Optical visualization of MoS ₂ grain boundaries by gold deposition. <i>Science China Materials</i> , 2018, 61, 1154-1158.	3.5	8
1053	Micro- and nano-mechanics in China: A brief review of recent progress and perspectives. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018, 61, 1.	2.0	26
1054	Nanopatched Graphene with Molecular Self-Assembly Toward Graphene-Organic Hybrid Soft Electronics. <i>Advanced Materials</i> , 2018, 30, e1706480.	11.1	26
1055	Simple device for the growth of micrometer-sized monocrystalline single-layer graphene on SiC(0001). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018, 36, .	0.9	4
1056	Direct formation of graphene on dielectric substrate: Controlling the location of graphene formation adopting carbon diffusion barrier. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018, 36, .	0.6	2
1057	The Pentagonal Nature of Self-Assembled Silicon Chains and Magic Clusters on Ag(110). <i>Nano Letters</i> , 2018, 18, 2937-2942.	4.5	52
1058	Electrical transport across grain boundaries in graphene monolayers on SiC(0001). <i>2D Materials</i> , 2018, 5, 031004.	2.0	6
1059	Turbostratic stacked CVD graphene for high-performance devices. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 030311.	0.8	38
1060	Emerging chemical strategies for imprinting magnetism in graphene and related 2D materials for spintronic and biomedical applications. <i>Chemical Society Reviews</i> , 2018, 47, 3899-3990.	18.7	161
1061	Unified bulk-boundary correspondence for band insulators. <i>Physical Review B</i> , 2018, 97, .	1.1	71
1062	Cold Wall Chemical Vapor Deposition Graphene-Based Conductive Tunable Film Barrier. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 4895-4906.	1.8	12
1063	Ab initio quantum transport in polycrystalline graphene. <i>Nanoscale</i> , 2018, 10, 7759-7768.	2.8	8
1064	Mechanisms and criteria for failure in polycrystalline graphene. <i>International Journal of Solids and Structures</i> , 2018, 143, 232-244.	1.3	4
1065	How graphene crosses a grain boundary on the catalyst surface during chemical vapour deposition growth. <i>Nanoscale</i> , 2018, 10, 6878-6883.	2.8	13

#	ARTICLE	IF	CITATIONS
1066	Evolutionary selection growth of two-dimensional materials on polycrystalline substrates. <i>Nature Materials</i> , 2018, 17, 318-322.	13.3	204
1067	Effects of mechanical strain on the performance of germanene sheets: Strength, failure behavior, and electronic structure. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 113, 201-209.	1.9	9
1068	Graphene-Based Sensors. , 2018, , 157-174.		13
1069	Anomalous elasticity, fluctuations and disorder in elastic membranes. <i>Annals of Physics</i> , 2018, 392, 340-410.	1.0	73
1070	Smooth epitaxial copper film on sapphire surface suitable for high quality graphene growth. <i>Thin Solid Films</i> , 2018, 646, 12-16.	0.8	8
1071	Nanosensor Systems Simulations. <i>Lecture Notes in Nanoscale Science and Technology</i> , 2018, , 309-335.	0.4	0
1072	Role of Cu foil in-situ annealing in controlling the size and thickness of CVD graphene domains. <i>Carbon</i> , 2018, 129, 270-280.	5.4	61
1073	Structural and electron diffraction scaling of twisted graphene bilayers. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 112, 225-238.	2.3	98
1074	Mapping electronic states of triple anti-parallel and symmetric zigzag grain boundaries of graphene on highly oriented pyrolytic graphite. <i>Chemical Physics Letters</i> , 2018, 692, 134-139.	1.2	1
1075	Sub-nanometre channels embedded in two-dimensional materials. <i>Nature Materials</i> , 2018, 17, 129-133.	13.3	97
1076	One-pot synthesis of MoS ₂ /In ₂ S ₃ ultrathin nanoflakes with mesh-shaped structure on indium tin oxide as photocathode for enhanced photo-and electrochemical hydrogen evolution reaction. <i>Applied Surface Science</i> , 2018, 435, 822-831.	3.1	24
1077	Mesoscale Graphene-like Honeycomb Mono- and Multilayers Constructed via Self-Assembly of Coclasters. <i>Journal of the American Chemical Society</i> , 2018, 140, 1805-1811.	6.6	69
1078	Properties of graphene-metal contacts probed by Raman spectroscopy. <i>Carbon</i> , 2018, 127, 491-497.	5.4	70
1079	Investigation of CVD grown graphene topography. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	3
1080	Materials and Structures toward Soft Electronics. <i>Advanced Materials</i> , 2018, 30, e1801368.	11.1	445
1081	Design of a Graphene Nanoribbon Electrostatic Discharge Compliant Mechanism. , 2018, , .		0
1082	Long-range oriented graphene-like nanosheets with corrugated structure. <i>Chemical Communications</i> , 2018, 54, 13543-13546.	2.2	3
1083	Graphene-based in-plane heterostructures for atomically thin electronics. <i>New Carbon Materials</i> , 2018, 33, 481-492.	2.9	8

#	ARTICLE	IF	CITATIONS
1085	Valley-coupled transport in graphene with Y-shaped Kekulé structure. Physical Review B, 2018, 98, .	1.1	40
1086	Ethanol-CVD Growth of Sub-mm Single-Crystal Graphene on Flat Cu Surfaces. Journal of Physical Chemistry C, 2018, 122, 28830-28838.	1.5	23
1087	Friction and Adhesion of Different Structural Defects of Graphene. ACS Applied Materials & Interfaces, 2018, 10, 44614-44623.	4.0	39
1088	2D Material Membranes for Operando Atmospheric Pressure Photoelectron Spectroscopy. Topics in Catalysis, 2018, 61, 2085-2102.	1.3	26
1090	Progress of Graphene-Silicon Heterojunction Photovoltaic Devices. Advanced Materials Interfaces, 2018, 5, 1801520.	1.9	22
1091	Controllable Growth of Graphene on Liquid Surfaces. Advanced Materials, 2019, 31, e1800690.	11.1	47
1092	Modeling Disordered and Nanostructured Graphene. , 2018, , 1-20.		0
1093	Role of structural defects and imperfections. , 2018, , 249-339.		0
1094	Phonon Scattering by Extended Defects in Polycrystalline Graphene. Journal of Structural Chemistry, 2018, 59, 860-866.	0.3	3
1095	Kinetic pathways towards mass production of single crystalline stanene on topological insulator substrates. Nanoscale, 2018, 10, 18988-18994.	2.8	8
1096	Scattering Theory of Graphene Grain Boundaries. Materials, 2018, 11, 1660.	1.3	5
1097	Polymerization driven monomer passage through monolayer chemical vapour deposition graphene. Nature Communications, 2018, 9, 4051.	5.8	20
1098	Revealing the 3D structure of graphene defects. 2D Materials, 2018, 5, 045029.	2.0	14
1099	Graphene Applications in Advanced Thermal Management. , 2018, , 823-865.		0
1100	Contact angle measurement of free-standing square-millimeter single-layer graphene. Nature Communications, 2018, 9, 4185.	5.8	102
1101	Preparation of Ultra-Smooth Cu Surface for High-Quality Graphene Synthesis. Nanoscale Research Letters, 2018, 13, 340.	3.1	8
1102	Epitaxial growth of ultraflat stanene with topological band inversion. Nature Materials, 2018, 17, 1081-1086.	13.3	267
1103	Structure sensitivity of electronic transport across graphene grain boundaries. Physical Review B, 2018, 98, .	1.1	6

#	ARTICLE	IF	CITATIONS
1104	Concentric and Spiral Few-Layer Graphene: Growth Driven by Interfacial Nucleation vs Screw Dislocation. <i>Chemistry of Materials</i> , 2018, 30, 6858-6866.	3.2	21
1105	Fast and Stable Ionic Electroactive Polymer Actuators with PEDOT:PSS/(Graphene@Ag-Nanowires) Nanocomposite Electrodes. <i>Sensors</i> , 2018, 18, 3126.	2.1	30
1106	Identifying the Non-Identical Outermost Selenium Atoms and Invariable Band Gaps across the Grain Boundary of Anisotropic Rhenium Diselenide. <i>ACS Nano</i> , 2018, 12, 10095-10103.	7.3	25
1107	Bridging the Gap between Reality and Ideal in Chemical Vapor Deposition Growth of Graphene. <i>Chemical Reviews</i> , 2018, 118, 9281-9343.	23.0	260
1108	One-Pot Preparation of Mechanically Robust, Transparent, Highly Conductive, and Memristive Metal@Organic Ultrathin Film. <i>ACS Nano</i> , 2018, 12, 10171-10177.	7.3	15
1109	Mechanical strength in hierarchically polycrystalline graphene with dislocation arrays-embedded grains. <i>Materials Research Express</i> , 2018, 5, 115019.	0.8	6
1110	Atomically sharp interlayer stacking shifts at anti-phase grain boundaries in overlapping MoS ₂ secondary layers. <i>Nanoscale</i> , 2018, 10, 16692-16702.	2.8	22
1111	Nature of localized phonon modes of tilt grain boundaries in graphene. <i>Carbon</i> , 2018, 140, 250-258.	5.4	18
1112	Tuning Local Electrical Conductivity via Fine Atomic Scale Structures of Two-Dimensional Interfaces. <i>Nano Letters</i> , 2018, 18, 6030-6036.	4.5	22
1113	Gate-dependent vacancy diffusion in graphene. <i>Physical Review B</i> , 2018, 98, .	1.1	10
1114	Corrosion-protective reduced graphene oxide coated cold rolled steel prepared using industrial setup: A study of protocol feasibility for commercial production. <i>Surface and Coatings Technology</i> , 2018, 349, 119-132.	2.2	19
1115	Synthesis of distorted nanographenes containing seven- and eight-membered carbocycles. <i>Chemical Communications</i> , 2018, 54, 6705-6718.	2.2	146
1116	Effects of carbon-based impurities on graphene growth. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15419-15423.	1.3	11
1117	Direct observation of grain boundaries in graphene through vapor hydrofluoric acid (VHF) exposure. <i>Science Advances</i> , 2018, 4, eaar5170.	4.7	25
1118	Failure mechanisms in pre-cracked Ni-graphene nanocomposites. <i>Computational Materials Science</i> , 2018, 152, 341-350.	1.4	21
1119	Tailoring the failure morphology of 2D bicrystalline graphene oxide. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	73
1120	Chemical Vapor Deposition Growth and Characterization of Two-Dimensional Hexagonal Boron Nitride. <i>Springer Theses</i> , 2018, , .	0.0	3
1122	Structural defects in graphene. , 2018, , 137-160.		28

#	ARTICLE	IF	CITATIONS
1123	Switching isotropic and anisotropic graphene growth in a solid source CVD system. CrystEngComm, 2018, 20, 5356-5363.	1.3	8
1124	Molecular chemistry approaches for tuning the properties of two-dimensional transition metal dichalcogenides. Chemical Society Reviews, 2018, 47, 6845-6888.	18.7	202
1125	Topochemical conversion of an imine- into a thiazole-linked covalent organic framework enabling real-time structure analysis. Nature Communications, 2018, 9, 2600.	5.8	232
1126	Temperature effect on the nucleation of graphene on Cu (111). RSC Advances, 2018, 8, 27825-27831.	1.7	3
1127	Intermixing and periodic self-assembly of borophene line defects. Nature Materials, 2018, 17, 783-788.	13.3	129
1128	Electron ptychography of 2D materials to deep sub-wavelength resolution. Nature, 2018, 559, 343-349.	13.7	431
1129	Tuning spin-filtering, rectifying, and negative differential resistance by hydrogenation on topological edge defects of zigzag silicene nanoribbons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2475-2483.	0.9	7
1130	Significantly Improving Lithium-Ion Transport via Conjugated Anion Intercalation in Inorganic Layered Hosts. ACS Nano, 2018, 12, 8670-8677.	7.3	54
1131	Reactive force field based atomistic simulations to study fracture toughness of bicrystalline graphene functionalised with oxide groups. Diamond and Related Materials, 2018, 88, 193-203.	1.8	58
1132	Facile Dry Surface Cleaning of Graphene by UV Treatment. Journal of the Korean Physical Society, 2018, 72, 1045-1051.	0.3	10
1133	Ultrahigh-resolution nonlinear optical imaging of the armchair orientation in 2D transition metal dichalcogenides. Light: Science and Applications, 2018, 7, 18005-18005.	7.7	53
1134	Structure of graphene and its disorders: a review. Science and Technology of Advanced Materials, 2018, 19, 613-648.	2.8	407
1135	Oxygen-Promoted Chemical Vapor Deposition of Graphene on Copper: A Combined Modeling and Experimental Study. ACS Nano, 2018, 12, 9372-9380.	7.3	30
1136	Efficient electrical detection of mid-infrared graphene plasmons at room temperature. Nature Materials, 2018, 17, 986-992.	13.3	119
1137	Characterization of TEM Moiré Patterns Originating from Two Monolayer Graphenes Grown on the Front and Back Sides of a Copper Substrate by CVD Method. Journal of the Physical Society of Japan, 2018, 87, 061011.	0.7	12
1138	Sensing ion channel in neuron networks with graphene field effect transistors. 2D Materials, 2018, 5, 045020.	2.0	21
1139	Intelligent identification of two-dimensional nanostructures by machine-learning optical microscopy. Nano Research, 2018, 11, 6316-6324.	5.8	59
1140	Principles and Mechanisms of Strain-Dependent Thermal Conductivity of Polycrystalline Graphene with Varying Grain Sizes and Surface Hydrogenation. Journal of Physical Chemistry C, 2018, 122, 19869-19879.	1.5	7

#	ARTICLE	IF	CITATIONS
1141	Computational Understanding of the Growth of 2D Materials. <i>Advanced Theory and Simulations</i> , 2018, 1, 1800085.	1.3	30
1142	Modelling of Defects and Failure in 2D Materials: Graphene and Beyond. , 2018, , 1-41.		1
1143	In situ chemical probing of hole defects and cracks in graphene at room temperature. <i>Nanoscale</i> , 2018, 10, 11052-11063.	2.8	2
1144	Computational Study of Thermal Transport in Nanowire-Graphene Thin Films. <i>IEEE Nanotechnology Magazine</i> , 2018, 17, 829-836.	1.1	4
1145	Graphene-Based Materials for Clean Energy Applications. , 2018, , 351-383.		6
1146	Recent advances on metal-free graphene-based catalysts for the production of industrial chemicals. <i>Frontiers of Chemical Science and Engineering</i> , 2018, 12, 855-866.	2.3	27
1147	Moisture barrier properties of single-layer graphene deposited on Cu films for Cu metallization. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 04FC08.	0.8	8
1148	On the quantitiveness of grain boundary chemistry using STEM EDS: A ZrO ₂ ϵ model grain boundary case study. <i>Ultramicroscopy</i> , 2018, 193, 33-38.	0.8	8
1149	Nanomechanics of graphene. <i>National Science Review</i> , 2019, 6, 324-348.	4.6	75
1150	A machine perspective of atomic defects in scanning transmission electron microscopy. <i>Informa^Å Mater^Åly</i> , 2019, 1, 359-375.	8.5	37
1151	Synthesis of Graphene-based Materials for Surface-Enhanced Raman Scattering Applications. <i>E-Journal of Surface Science and Nanotechnology</i> , 2019, 17, 71-82.	0.1	2
1152	Activity-controlled annealing of colloidal monolayers. <i>Nature Communications</i> , 2019, 10, 3380.	5.8	46
1153	Symmetry breaking and lattice kirigami: Finite temperature effects. <i>Physical Review D</i> , 2019, 99, .	1.6	10
1154	Green function, quasi-classical Langevin and Kubo ^Å Greenwood methods in quantum thermal transport. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 273003.	0.7	15
1155	Finite element analysis and molecular dynamics simulations of nanoscale crack-hole interactions in chiral graphene nanoribbons. <i>Engineering Fracture Mechanics</i> , 2019, 218, 106571.	2.0	15
1156	The Effect of Ion Irradiation Induced Defects on Mechanical Properties of Graphene/Copper Layered Nanocomposites. <i>Metals</i> , 2019, 9, 733.	1.0	12
1157	Open-Shell Nonbenzenoid Nanographenes Containing Two Pairs of Pentagonal and Heptagonal Rings. <i>Journal of the American Chemical Society</i> , 2019, 141, 12011-12020.	6.6	112
1158	Hydrogen sieving from intrinsic defects of benzene-derived single-layer graphene. <i>Carbon</i> , 2019, 153, 458-466.	5.4	40

#	ARTICLE	IF	CITATIONS
1159	Multi-wafer batch synthesis of graphene on Cu films by quasi-static flow chemical vapor deposition. 2D Materials, 2019, 6, 045032.	2.0	16
1160	Modulation of magnetic and electrical properties of bilayer graphene quantum dots using rotational stacking faults*. Chinese Physics B, 2019, 28, 078106.	0.7	4
1161	Mapping the conductivity of graphene with Electrical Resistance Tomography. Scientific Reports, 2019, 9, 10655.	1.6	38
1162	Conductance interference effects in an electron-beam-resist-free chemical vapor deposition graphene device sandwiched between two h-BN sheets. Carbon, 2019, 154, 238-243.	5.4	8
1163	Direct probing of imperfection-induced electrical degradation in millimeter-scale graphene on SiO ₂ substrates. 2D Materials, 2019, 6, 045033.	2.0	2
1164	Functionalization of graphene layers and advancements in device applications. Carbon, 2019, 152, 954-985.	5.4	110
1165	Selective self-assembly of 2,3-diaminophenazine molecules on MoSe ₂ mirror twin boundaries. Nature Communications, 2019, 10, 2847.	5.8	26
1166	Multiscale Methods to Investigate Mechanical Properties of Graphene. Springer Theses, 2019, , 19-28.	0.0	0
1167	Yielding and jerky plasticity of tilt grain boundaries in high-temperature graphene. Carbon, 2019, 153, 242-256.	5.4	8
1168	Hydrogen Permeation of Multi-Layered-Coatings. Advanced Materials Research, 0, 1152, 9-18.	0.3	1
1169	Fracture toughness of various percentage of doping of boron atoms on the mechanical properties of polycrystalline graphene: A molecular dynamics study. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 114, 113614.	1.3	14
1170	Synthesis of Single-Crystalline Hexagonal Graphene Quantum Dots from Solution Chemistry. Nano Letters, 2019, 19, 5437-5442.	4.5	57
1171	Grain size and hydroxyl-coverage dependent tribology of polycrystalline graphene. Nanotechnology, 2019, 30, 385701.	1.3	10
1172	Carbon Nanotube Forests on SiC: Structural and Electrical Properties. , 2019, , 605-620.		0
1173	Ultrafast growth of nanocrystalline graphene films by quenching and grain-size-dependent strength and bandgap opening. Nature Communications, 2019, 10, 4854.	5.8	43
1175	Effect of copper surface morphology on grain size uniformity of graphene grown by chemical vapor deposition. Current Applied Physics, 2019, 19, 1414-1420.	1.1	7
1176	Diffraction Mapping with a Pixelated Detector to Quantify Crystal Orientation in 3D Structures Made from 2D Materials. Microscopy and Microanalysis, 2019, 25, 1956-1957.	0.2	0
1177	Numerical Investigation of the Fracture Properties of Pre-Cracked Monocrystalline/Polycrystalline Graphene Sheets. Materials, 2019, 12, 263.	1.3	9

#	ARTICLE	IF	CITATIONS
1178	Atomic-Precision Fabrication of Quasi-Full-Space Grain Boundaries in Two-Dimensional Hexagonal Boron Nitride. Nano Letters, 2019, 19, 8581-8589.	4.5	14
1184	Facile Identification of Graphene's Crystal Orientations by Optical Microscopy of Self-Aligned Microwires. , 2019, , .		1
1185	Effect of Local Terrace on Structure and Mechanics of Graphene Grain Boundary. Journal of Physical Chemistry C, 2019, 123, 28460-28468.	1.5	4
1187	Nanoassembly Growth Model for Subdomain and Grain Boundary Formation in 1Tâ€² Layered ReS ₂ . Advanced Functional Materials, 2019, 29, 1906385.	7.8	45
1188	Preparation and uses of large area single crystal metal foils. APL Materials, 2019, 7, .	2.2	9
1189	Tuning the Electronic and Magnetic Properties of In-Planar Graphene/Boron Nitride Heterostructure by Doping 3d Transition Metal Atom. Journal of Physical Chemistry C, 2019, 123, 22403-22412.	1.5	5
1190	Atomically Sharp Dual Grain Boundaries in 2D WS ₂ Bilayers. Small, 2019, 15, e1902590.	5.2	13
1191	Facile large-area fabrication of highly selective and permeable few-layered graphene: A molecular dynamics study. Carbon, 2019, 155, 369-378.	5.4	15
1192	Influence of Native Defects on the Electronic and Magnetic Properties of CVD Grown MoSe ₂ Single Layers. Journal of Physical Chemistry C, 2019, 123, 24855-24864.	1.5	22
1193	Universal Spin Diffusion Length in Polycrystalline Graphene. Nano Letters, 2019, 19, 7418-7426.	4.5	15
1194	Perfect proton selectivity in ion transport through two-dimensional crystals. Nature Communications, 2019, 10, 4243.	5.8	60
1195	Improvements of mechanical properties of multilayer open-hole graphene papers. Journal of Applied Physics, 2019, 126, 104301.	1.1	7
1196	Impact of nano-morphology, lattice defects and conductivity on the performance of graphene based electrochemical biosensors. Journal of Nanobiotechnology, 2019, 17, 101.	4.2	37
1197	Influence of surface energy and elastic strain energy on the graphene growth in chemical vapor deposition. Materials Today: Proceedings, 2019, 7, 776-783.	0.9	3
1198	Platinum single-atom adsorption on graphene: a density functional theory study. Nanoscale Advances, 2019, 1, 1165-1174.	2.2	21
1199	Atomicâ€Scale Structural Modification of 2D Materials. Advanced Science, 2019, 6, 1801501.	5.6	39
1200	Graphene: Properties, Synthesis, and Applications. , 2019, , 219-332.		1
1201	Achieving High Volumetric Lithium Storage Capacity in Compact Carbon Materials with Controllable Nitrogen Doping. Advanced Functional Materials, 2019, 29, 1807441.	7.8	39

#	ARTICLE	IF	CITATIONS
1202	Hybrid carbon nanostructured fibers: stepping stone for intelligent textile-based electronics. <i>Nanoscale</i> , 2019, 11, 3046-3101.	2.8	57
1203	Imaging of local structures affecting electrical transport properties of large graphene sheets by lock-in thermography. <i>Science Advances</i> , 2019, 5, eaau3407.	4.7	21
1204	Growth of U-Shaped Graphene Domains on Copper Foil by Chemical Vapor Deposition. <i>Materials</i> , 2019, 12, 1887.	1.3	2
1205	Polycyclic aromatic hydrocarbons in the graphene era. <i>Science China Chemistry</i> , 2019, 62, 1099-1144.	4.2	142
1206	Passivation of Germanium by Graphene for Stable Graphene/Germanium Heterostructure Devices. <i>ACS Applied Nano Materials</i> , 2019, 2, 4313-4322.	2.4	11
1207	Atomic Structure and Dynamics of Defects and Grain Boundaries in 2D Pd ₂ Se ₃ Monolayers. <i>ACS Nano</i> , 2019, 13, 8256-8264.	7.3	38
1208	Quality enhancement of low temperature metal organic chemical vapor deposited MoS ₂ : an experimental and computational investigation. <i>Nanotechnology</i> , 2019, 30, 395402.	1.3	6
1209	Electronic Transport and Thermopower in 2D and 3D Heterostructures—A Theory Perspective. <i>Annalen Der Physik</i> , 2019, 531, 1800510.	0.9	9
1210	Structure-properties relations in graphene derivatives and metamaterials obtained by atomic-scale modeling. <i>Molecular Simulation</i> , 2019, 45, 1173-1202.	0.9	6
1211	<i>Ab initio</i> playing of pentagonal puzzles. <i>Electronic Structure</i> , 2019, 1, 015004.	1.0	7
1212	Large-Area Hexagonal Boron Nitride for Surface Enhanced Raman Spectroscopy. <i>Advanced Materials Technologies</i> , 2019, 4, 1900220.	3.0	26
1213	Disorder in van der Waals heterostructures of 2D materials. <i>Nature Materials</i> , 2019, 18, 541-549.	13.3	390
1214	Oxidation of the polycrystalline copper-graphene nanocomposite. <i>JPhys Materials</i> , 2019, 2, 025005.	1.8	5
1215	Anisotropic Fracture Dynamics Due to Local Lattice Distortions. <i>ACS Nano</i> , 2019, 13, 5693-5702.	7.3	19
1216	Towards super-clean graphene. <i>Nature Communications</i> , 2019, 10, 1912.	5.8	133
1217	Orientation mapping of graphene in a scanning electron microscope. <i>Carbon</i> , 2019, 149, 400-406.	5.4	7
1218	Catalyst-Selective Growth of Single-Orientation Hexagonal Boron Nitride toward High-Performance Atomically Thin Electric Barriers. <i>Advanced Materials</i> , 2019, 31, e1900880.	11.1	21
1219	Scalable and ultrafast epitaxial growth of single-crystal graphene wafers for electrically tunable liquid-crystal microlens arrays. <i>Science Bulletin</i> , 2019, 64, 659-668.	4.3	66

#	ARTICLE	IF	CITATIONS
1220	Ångstrom-Scale, Atomically Thin 2D Materials for Corrosion Mitigation and Passivation. <i>Coatings</i> , 2019, 9, 133.	1.2	22
1221	From fluorene molecules to ultrathin carbon nanonets with an enhanced charge transfer capability for supercapacitors. <i>Nanoscale</i> , 2019, 11, 6610-6619.	2.8	24
1222	Thermal transport in layer-by-layer assembled polycrystalline graphene films. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	3.9	28
1223	Double-Spiral Hexagonal Boron Nitride and Shear Strained Coalescence Boundary. <i>Nano Letters</i> , 2019, 19, 4229-4236.	4.5	15
1224	Reversible defect engineering in graphene grain boundaries. <i>Nature Communications</i> , 2019, 10, 1090.	5.8	44
1225	Quality improvement of fast-synthesized graphene films by rapid thermal chemical vapor deposition for mass production. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2019, 242, 63-68.	1.7	16
1226	Impact of grain boundary characteristics on thermal transport in polycrystalline graphene: Analytical results. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	4
1227	A novel graphene barrier against moisture by multiple stacking large-grain graphene. <i>Scientific Reports</i> , 2019, 9, 3777.	1.6	19
1228	Characterization of atomic defects on the photoluminescence in two-dimensional materials using transmission electron microscope. <i>Information Materials</i> , 2019, 1, 85-97.	8.5	46
1229	Transparent, Flexible Heater Based on Hybrid 2D Platform of Graphene and Dry-Spun Carbon Nanotubes. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 16223-16232.	4.0	43
1230	Effects of buried grain boundaries in multilayer MoS ₂ . <i>Nanotechnology</i> , 2019, 30, 285705.	1.3	16
1231	New Frontiers in Electron Beam-Driven Chemistry in and around Graphene. <i>Advanced Materials</i> , 2019, 31, e1800715.	11.1	36
1232	Bioelectronics and Interfaces Using Monolayer Graphene. <i>ChemElectroChem</i> , 2019, 6, 31-59.	1.7	46
1233	Elucidation of an intrinsic parameter for evaluating the electrical quality of graphene flakes. <i>Scientific Reports</i> , 2019, 9, 557.	1.6	22
1234	Molecular Topology and the Surface Chemical Bond: Alternant Versus Nonalternant Aromatic Systems as Functional Structural Elements. <i>Physical Review X</i> , 2019, 9, .	2.8	14
1235	Graphene and its Hybrids for Photocatalysis. <i>Current Graphene Science</i> , 2019, 2, 79-96.	0.5	1
1236	Strategies towards Carbon Nanomaterials-Based Transparent Electrodes. <i>World Scientific Series in Current Energy Issues</i> , 2019, , 223-249.	0.1	0
1237	High-responsivity turbostratic stacked graphene photodetectors using enhanced photogating. <i>Applied Physics Express</i> , 2019, 12, 122010.	1.1	18

#	ARTICLE	IF	CITATIONS
1238	Quantum mechanical study of chemical reactivity of graphene doped with iron in aqueous medium for applications in biomedicine. <i>Journal of Nanoparticle Research</i> , 2019, 21, 1.	0.8	2
1239	Tuning two-dimensional phase formation through epitaxial strain and growth conditions: silica and silicate on Ni _x Pd _{1-x} (111) alloy substrates. <i>Nanoscale</i> , 2019, 11, 21340-21353.	2.8	11
1240	Direct imaging of the nitrogen-rich edge in monolayer hexagonal boron nitride and its band structure tuning. <i>Nanoscale</i> , 2019, 11, 20676-20684.	2.8	10
1241	Promising Hybrid Graphene-Silver Nanowire Composite Electrode for Flexible Organic Light-Emitting Diodes. <i>Scientific Reports</i> , 2019, 9, 17998.	1.6	27
1242	Graphene-Subgrain-Defined Oxidation of Copper. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 48518-48524.	4.0	13
1243	On-water surface synthesis of crystalline, few-layer two-dimensional polymers assisted by surfactant monolayers. <i>Nature Chemistry</i> , 2019, 11, 994-1000.	6.6	262
1244	Path towards graphene commercialization from lab to market. <i>Nature Nanotechnology</i> , 2019, 14, 927-938.	15.6	235
1245	Impact of Molecular Dynamics Simulations on Research and Development of Semiconductor Materials. <i>MRS Advances</i> , 2019, 4, 3381-3398.	0.5	3
1246	Reduced graphene-oxide transducers for biosensing applications beyond the Debye-screening limit. <i>Biosensors and Bioelectronics</i> , 2019, 130, 352-359.	5.3	15
1247	Toward Mass Production of CVD Graphene Films. <i>Advanced Materials</i> , 2019, 31, e1800996.	11.1	218
1248	Pattern evolution characterizes the mechanism and efficiency of CVD graphene growth. <i>Carbon</i> , 2019, 141, 316-322.	5.4	21
1249	Tribology of two-dimensional materials: From mechanisms to modulating strategies. <i>Materials Today</i> , 2019, 26, 67-86.	8.3	250
1250	Grain Boundaries of Self-Assembled Porous Polymer Films for Unclonable Anti-Counterfeiting. <i>ACS Applied Polymer Materials</i> , 2019, 1, 47-53.	2.0	24
1251	Plan-view transmission electron microscopy specimen preparation for atomic layer materials using a focused ion beam approach. <i>Ultramicroscopy</i> , 2019, 197, 95-99.	0.8	11
1252	Thermal conductivity of graphene grain boundaries along arbitrary in-plane directions: A comprehensive molecular dynamics study. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	15
1253	Thermal transport properties of penta-graphene with grain boundaries. <i>Carbon</i> , 2019, 145, 445-451.	5.4	20
1254	Equi-biaxial compressive strain in graphene: Gr ^{1/4} neisen parameter and buckling ridges. <i>2D Materials</i> , 2019, 6, 015026.	2.0	22
1255	Atomic Insights for Optimum and Excess Doping in Photocatalysis: A Case Study of Few-Layer Cu ₂ ZnInS ₄ . <i>Advanced Functional Materials</i> , 2019, 29, 1807013.	7.8	165

#	ARTICLE	IF	CITATIONS
1256	Nanographene growing on free-standing monolayer graphene. Carbon, 2019, 143, 669-677.	5.4	5
1257	Transfer-free synthesis of multilayer graphene on silicon nitride using reusable gallium catalyst. Diamond and Related Materials, 2019, 91, 112-118.	1.8	5
1258	Atmospheric Pressure Chemical Vapor Deposition of Graphene. , 2019, , .		6
1259	An interlayer/intralayer coupling mechanism for the thermal characteristics of polycrystalline few-layer graphene. Applied Physics Letters, 2019, 114, 021902.	1.5	4
1260	Quantized dislocations. Journal of Physics Condensed Matter, 2019, 31, 083001.	0.7	8
1261	Grain Boundaries and Tilt-Angle-Dependent Transport Properties of a 2D Mo ₂ C Superconductor. Nano Letters, 2019, 19, 857-865.	4.5	18
1262	Strength of graphene grain boundaries under arbitrary in-plane tension. Carbon, 2019, 142, 388-400.	5.4	28
1263	Vertical GaN nanocolumns grown on graphene intermediated with a thin AlN buffer layer. Nanotechnology, 2019, 30, 015604.	1.3	21
1264	Tip-enhanced Raman spectroscopy: principles, practice, and applications to nanospectroscopic imaging of 2D materials. Analytical and Bioanalytical Chemistry, 2019, 411, 37-61.	1.9	104
1265	Kinetics of Graphene and 2D Materials Growth. Advanced Materials, 2019, 31, e1801583.	11.1	91
1266	Developing Graphene-Based Nanohybrids for Electrochemical Sensing. Chemical Record, 2019, 19, 534-549.	2.9	58
1267	Thermal transport across graphene step junctions. 2D Materials, 2019, 6, 011005.	2.0	15
1268	Layer-by-Layer Graphene Growth on $\hat{1}^2$ -SiC/Si(001). ACS Nano, 2019, 13, 526-535.	7.3	14
1269	Mechanical properties of two-dimensional materials and their applications. Journal Physics D: Applied Physics, 2019, 52, 083001.	1.3	97
1270	Effects of grain boundary on wear of graphene at the nanoscale: A molecular dynamics study. Carbon, 2019, 143, 578-586.	5.4	42
1271	Effect of nucleation density on the crystallinity of graphene grown from mobile hot-wire-assisted CVD. 2D Materials, 2019, 6, 011001.	2.0	9
1272	Structure and Chemistry of 2D Materials. , 2019, , 55-90.		17
1273	Single-atom supported on graphene grain boundary as an efficient electrocatalyst for hydrogen evolution reaction. Chemical Engineering Science, 2019, 194, 58-63.	1.9	71

#	ARTICLE	IF	CITATIONS
1274	Atomically Thick Membranes for Water Purification and Blue Energy Harvesting. <i>Advanced Functional Materials</i> , 2020, 30, 1902394.	7.8	58
1275	Graphene for Energy Storage and Conversion: Synthesis and Interdisciplinary Applications. <i>Electrochemical Energy Reviews</i> , 2020, 3, 395-430.	13.1	59
1276	A review on thermo-mechanical properties of bi-crystalline and polycrystalline 2D nanomaterials. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2020, 45, 134-170.	6.8	31
1277	A Theory/Experience Description of Support Effects in Carbon-Supported Catalysts. <i>Chemical Reviews</i> , 2020, 120, 1250-1349.	23.0	436
1278	Understanding the processing-structure-performance relationship of graphene and its variants as anode material for Li-ion batteries: A critical review. <i>Carbon</i> , 2020, 156, 130-165.	5.4	41
1279	Controlled Growth of Single-Crystal Graphene Films. <i>Advanced Materials</i> , 2020, 32, e1903266.	11.1	95
1280	Role of grain boundaries on the thermal properties of carbon nanotubes. <i>Materials Today: Proceedings</i> , 2020, 23, 622-625.	0.9	0
1281	Functionalized graphene materials for hydrogen storage. <i>Journal of Materials Science</i> , 2020, 55, 1865-1903.	1.7	135
1283	Graphene-based wearable piezoresistive physical sensors. <i>Materials Today</i> , 2020, 36, 158-179.	8.3	262
1284	Introduction to Carbon-Based Nanostructures. , 2020, , 1-10.		0
1285	The New Family of Two-Dimensional Materials and van der Waals Heterostructures. , 2020, , 70-91.		0
1286	Quantum Transport: General Concepts. , 2020, , 92-119.		0
1287	Klein Tunneling and Ballistic Transport in Graphene and Related Materials. , 2020, , 120-144.		0
1288	Quantum Transport in Disordered Graphene-Based Materials. , 2020, , 145-209.		0
1289	The Promise of Graphene: A Survey of Microwave Devices Based on Graphene. <i>IEEE Microwave Magazine</i> , 2020, 21, 48-65.	0.7	22
1290	Proton-assisted growth of ultra-flat graphene films. <i>Nature</i> , 2020, 577, 204-208.	13.7	111
1293	Electronic Properties of Carbon-Based Nanostructures. , 2020, , 11-69.		0
1294	Quantum Hall Effects in Graphene. , 2020, , 210-236.		0

#	ARTICLE	IF	CITATIONS
1295	Spin-Related Phenomena. , 2020, , 237-277.		0
1296	Ab Initio and Multiscale Quantum Transport in Graphene-Based Materials. , 2020, , 293-353.		0
1300	The formation mechanism of hexagonal Mo ₂ C defects in CVD graphene grown on liquid copper. Physical Chemistry Chemical Physics, 2020, 22, 2176-2180.	1.3	13
1301	Enhanced Piezoelectric Effect Derived from Grain Boundary in MoS ₂ Monolayers. Nano Letters, 2020, 20, 201-207.	4.5	66
1302	Engineering grain boundaries at the Å ² D limit for the Å hydrogen evolution reaction. Nature Communications, 2020, 11, 57.	5.8	153
1303	Inter-granular fracture toughness of bi-crystalline graphene nanosheets. Diamond and Related Materials, 2020, 102, 107667.	1.8	21
1304	Nanoscale boron carbonitride semiconductors for photoredox catalysis. Nanoscale, 2020, 12, 3593-3604.	2.8	27
1305	Amorphous WO ₃ induced lattice distortion for a low-cost and high-efficient electrocatalyst for overall water splitting in acid. Sustainable Energy and Fuels, 2020, 4, 1712-1722.	2.5	14
1306	Controlled Fragmentation of Single-Atom-Thick Polycrystalline Graphene. Matter, 2020, 2, 666-679.	5.0	45
1307	Strength of graphene with curvilinear grain boundaries. Carbon, 2020, 158, 808-817.	5.4	11
1308	Tailoring the thermal transport properties of monolayer hexagonal boron nitride by grain size engineering. 2D Materials, 2020, 7, 015031.	2.0	21
1309	C568: A new two-dimensional sp ² -sp ³ hybridized allotrope of carbon. Carbon, 2020, 158, 827-835.	5.4	62
1310	The Mobile and Pinned Grain Boundaries in 2D Monoclinic Rhenium Disulfide. Advanced Science, 2020, 7, 2001742.	5.6	15
1311	Orientation mapping of graphene using 4D STEM-in-SEM. Ultramicroscopy, 2020, 219, 113137.	0.8	15
1312	Characterizing transition-metal dichalcogenide thin-films using hyperspectral imaging and machine learning. Scientific Reports, 2020, 10, 11602.	1.6	2
1313	Mechanical testing of two-dimensional materials: a brief review. International Journal of Smart and Nano Materials, 2020, 11, 207-246.	2.0	20
1314	Atomistic Simulation-Based Cohesive Zone Law of Hydrogenated Grain Boundaries of Graphene. Journal of Physical Chemistry C, 2020, 124, 17308-17319.	1.5	3
1315	Impact of Grain Boundaries on the Elastic Behavior of Transferred Polycrystalline Graphene. Chemistry of Materials, 2020, 32, 6078-6084.	3.2	12

#	ARTICLE	IF	CITATIONS
1316	Correlated morphological and chemical mechanisms for the superior corrosion resistance of alumina-deposited 2D nanofilms on copper. <i>Materialia</i> , 2020, 11, 100697.	1.3	5
1317	Statistical Mechanics of Low Angle Grain Boundaries in Two Dimensions. <i>Physical Review Letters</i> , 2020, 125, 215503.	2.9	3
1318	Atomic-Scale Studies of Overlapping Grain Boundaries between Parallel and Quasi-Parallel Grains in Low-Symmetry Monolayer ReS ₂ . <i>Matter</i> , 2020, 3, 2108-2123.	5.0	11
1319	Double grain boundary configurations on graphite surfaces. <i>Carbon</i> , 2020, 170, 630-635.	5.4	2
1320	Rational Design of Binary Alloys for Catalytic Growth of Graphene via Chemical Vapor Deposition. <i>Catalysts</i> , 2020, 10, 1305.	1.6	7
1321	Mapping Graphene Grain Orientation by the Growth of WS ₂ Films with Oriented Cracks. <i>Chemistry of Materials</i> , 2020, 32, 7484-7491.	3.2	3
1322	A practical guide for crystal growth of van der Waals layered materials. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	44
1323	Single-atom electron microscopy for energy-related nanomaterials. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16142-16165.	5.2	20
1324	Growth and Grain Boundaries in 2D Materials. <i>ACS Nano</i> , 2020, 14, 9320-9346.	7.3	62
1325	Synergistic CO ₂ Sieving from Polymer with Intrinsic Microporosity Masking Nanoporous Single-Layer Graphene. <i>Advanced Functional Materials</i> , 2020, 30, 2003979.	7.8	43
1326	Catalysis-free transformation of non-graphitising carbons into highly crystalline graphite. <i>Communications Materials</i> , 2020, 1, .	2.9	17
1327	Surface Coordination Chemistry of Atomically Dispersed Metal Catalysts. <i>Chemical Reviews</i> , 2020, 120, 11810-11899.	23.0	325
1328	Near-atomic-scale observation of grain boundaries in a layer-stacked two-dimensional polymer. <i>Science Advances</i> , 2020, 6, eabb5976.	4.7	39
1329	Gas Barrier Properties of Chemical Vapor-Deposited Graphene to Oxygen Imparted with Sub-electronvolt Kinetic Energy. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9159-9164.	2.1	5
1330	Vertical-Type Organic Light-Emitting Transistors with High Effective Aperture Ratios. , 0, , .		0
1331	Ultimate Spin Currents in Commercial Chemical Vapor Deposited Graphene. <i>ACS Nano</i> , 2020, 14, 12771-12780.	7.3	33
1332	Graphitization of Gallium-Incorporated Carbon Nanofibers and Cones: In Situ and Ex Situ Transmission Electron Microscopy Studies. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 2000309.	0.7	3
1333	3D Graphene Materials: From Understanding to Design and Synthesis Control. <i>Chemical Reviews</i> , 2020, 120, 10336-10453.	23.0	319

#	ARTICLE	IF	CITATIONS
1334	Chemical Vapour Deposition of Graphene—Synthesis, Characterisation, and Applications: A Review. <i>Molecules</i> , 2020, 25, 3856.	1.7	155
1335	Crystal Orientation Dependent Oxidation Modes at the Buried Graphene—Cu Interface. <i>Chemistry of Materials</i> , 2020, 32, 7766-7776.	3.2	19
1336	Growth and Properties of Dislocated Two-dimensional Layered Materials. <i>MRS Advances</i> , 2020, 5, 3437-3452.	0.5	3
1337	Electron transport properties of graphene nanoribbons with Gaussian deformation. <i>Physical Review B</i> , 2020, 102, .	1.1	8
1338	Machine Learning-Based Detection of Graphene Defects with Atomic Precision. <i>Nano-Micro Letters</i> , 2020, 12, 181.	14.4	23
1339	Imaging Conductivity Changes in Monolayer Graphene Using Electrical Impedance Tomography. <i>Micromachines</i> , 2020, 11, 1074.	1.4	8
1340	Atomic-Scale Structural Mapping of Active Sites in Monolayer PGM-Free Catalysts by Low-Voltage 4D-STEM. <i>Microscopy and Microanalysis</i> , 2020, 26, 162-163.	0.2	2
1341	The behavior of graphene oxide trapped at the air water interface. <i>Advances in Colloid and Interface Science</i> , 2020, 286, 102312.	7.0	23
1342	Direct Visualization of Atomic-Scale Graphene Growth on Cu through Environmental Transmission Electron Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 52201-52207.	4.0	9
1343	Can graphene with intrinsic defects electrocatalyze N ₂ to NH ₃ reduction?. <i>Diamond and Related Materials</i> , 2020, 109, 108037.	1.8	24
1344	Extraction of intrinsic field-effect mobility of graphene considering effects of gate-bias-induced contact modulation. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	5
1345	On-Surface Synthesis of Unsaturated Carbon Nanostructures with Regularly Fused Pentagon—Heptagon Pairs. <i>Journal of the American Chemical Society</i> , 2020, 142, 10291-10296.	6.6	53
1346	Wafer—Scale Fabrication of Nanopore Devices for Single—Molecule DNA Biosensing using MoS ₂ . <i>Small Methods</i> , 2020, 4, 2000072.	4.6	32
1347	Growth of Graphene on the Cu(110) Surface. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12106-12111.	1.5	5
1348	Magnetization plateaus of spin- $\frac{1}{2}$ system on a skewed ladder. <i>Physical Review B</i> , 2020, 101, .	1.1	7
1349	Large Suspended Monolayer and Bilayer Graphene Membranes with Diameter up to 750 μm . <i>Scientific Reports</i> , 2020, 10, 6426.	1.6	28
1350	Critical inter-defect distance that modulates strength and toughness in defective 2D sp ² -lattice. <i>Journal of Applied Physics</i> , 2020, 127, 204301.	1.1	2
1351	Identifying Dense NiSe ₂ /CoSe ₂ Heterointerfaces Coupled with Surface High—Valence Bimetallic Sites for Synergistically Enhanced Oxygen Electrocatalysis. <i>Advanced Materials</i> , 2020, 32, e2000607.	11.1	251

#	ARTICLE	IF	CITATIONS
1352	Characterizing corrosion properties of graphene barrier layers deposited on polycrystalline metals. Surface and Coatings Technology, 2020, 398, 126077.	2.2	18
1353	Structure and electronic properties of closed-ring defects in epitaxial graphene. Materials Research Express, 2020, 7, 055602.	0.8	3
1354	Metal-Free Catalyst with Large Carbon Defects for Efficient Direct Overall Water Splitting in Air at Room Pressure. ACS Applied Materials & Interfaces, 2020, 12, 30280-30288.	4.0	21
1355	Observation of Protected Photonic Edge States Induced by Real-Space Topological Lattice Defects. Physical Review Letters, 2020, 124, 243602.	2.9	44
1356	Substrate Placement inside CVD Tube for Graphene Production. Materials Science Forum, 0, 981, 84-91.	0.3	0
1357	Mixed-state electron ptychography enables sub-angstrom resolution imaging with picometer precision at low dose. Nature Communications, 2020, 11, 2994.	5.8	63
1358	Oxidative Originators of Graphene Barrier Coating Grown on Surfaces. ChemNanoMat, 2020, 6, 1285-1297.	1.5	6
1359	Electronic and plasmonic phenomena at nonstoichiometric grain boundaries in metallic SrNbO ₃ . Nanoscale, 2020, 12, 6844-6851.	2.8	9
1360	Preparation of graphene. , 2020, , 39-171.		1
1361	Designed Growth of Large-Size 2D Single Crystals. Advanced Materials, 2020, 32, e2000046.	11.1	71
1362	Transport through a network of two-dimensional NbC superconducting crystals connected via weak links. Physical Review B, 2020, 101, .	1.1	2
1363	Recent Advancements on the CVD of Graphene on Copper from Ethanol Vapor. Journal of Carbon Research, 2020, 6, 14.	1.4	11
1364	Enhancement of WSe ₂ FET Performance Using Low-Temperature Annealing. Journal of Electronic Materials, 2020, 49, 3770-3779.	1.0	11
1365	Prospects and Opportunities of 2D van der Waals Magnetic Systems. Annalen Der Physik, 2020, 532, 1900452.	0.9	76
1366	Computational Atomistic Modeling in Carbon Flatland and Other 2D Nanomaterials. Applied Sciences (Switzerland), 2020, 10, 1724.	1.3	2
1367	Imaging Polarity in Two Dimensional Materials by Breaking Friedel's Law. Ultramicroscopy, 2020, 215, 113019.	0.8	20
1368	Selective ion sensing with high resolution large area graphene field effect transistor arrays. Nature Communications, 2020, 11, 3226.	5.8	83
1369	Substrate and contamination effects on the thermal expansion coefficient of suspended graphene measured by electron diffraction. Carbon, 2020, 163, 324-332.	5.4	9

#	ARTICLE	IF	CITATIONS
1370	Two dimensional nanomaterials-enabled smart light regulation technologies: Recent advances and developments. <i>Optik</i> , 2020, 220, 165191.	1.4	18
1371	Characteristic investigation of highly oriented Hf _{0.5} Zr _{0.5} O ₂ thin-film resistive memory devices. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	12
1372	The Coalescence Behavior of Two-Dimensional Materials Revealed by Multiscale <i>In Situ</i> Imaging during Chemical Vapor Deposition Growth. <i>ACS Nano</i> , 2020, 14, 1902-1918.	7.3	35
1373	Formation of Azulene-Embedded Nanographene: Naphthalene to Azulene Rearrangement During the Scholl Reaction. <i>Angewandte Chemie</i> , 2020, 132, 9111-9116.	1.6	45
1374	Formation of Azulene-Embedded Nanographene: Naphthalene to Azulene Rearrangement During the Scholl Reaction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9026-9031.	7.2	95
1375	Interface engineering induced selenide lattice distortion boosting catalytic activity of heterogeneous CoSe ₂ @NiSe ₂ for lithium-oxygen battery. <i>Chemical Engineering Journal</i> , 2020, 393, 124592.	6.6	84
1376	Imaging Beam-Sensitive Materials by Electron Microscopy. <i>Advanced Materials</i> , 2020, 32, e1907619.	11.1	104
1377	Real-time detection of hepatitis B surface antigen using a hybrid graphene-gold nanoparticle biosensor. <i>2D Materials</i> , 2020, 7, 024009.	2.0	22
1378	The transition from an inverse pseudo Hall-Petch to a pseudo Hall-Petch behavior in nanocrystalline graphene. <i>Carbon</i> , 2020, 161, 542-549.	5.4	8
1379	Few-Layer Hydroxyl-Functionalized Boron Nitride Nanosheets for Nanoscale Thermal Management. <i>ACS Applied Nano Materials</i> , 2020, 3, 2310-2321.	2.4	30
1380	A comprehensive review on emerging artificial neuromorphic devices. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	417
1381	Confinement of Hydrogen Molecules at Graphene-Metal Interface by Electrochemical Hydrogen Evolution Reaction. <i>Journal of Physical Chemistry C</i> , 2020, 124, 5300-5307.	1.5	17
1382	Fluidic Flow Assisted Deterministic Folding of Van der Waals Materials. <i>Advanced Functional Materials</i> , 2020, 30, 1908691.	7.8	5
1383	Stability of Graphene Growth on CuNi Thin Films in a High-Temperature Hydrogen/Oxygen Atmosphere. <i>Crystal Growth and Design</i> , 2020, 20, 1211-1217.	1.4	0
1384	Interlayer Decoupling in 30° Twisted Bilayer Graphene Quasicrystal. <i>ACS Nano</i> , 2020, 14, 1656-1664.	7.3	64
1385	Enhanced Bonding of Pentagon-Heptagon Defects in Graphene to Metal Surfaces: Insights from the Adsorption of Azulene and Naphthalene to Pt(111). <i>Chemistry of Materials</i> , 2020, 32, 1041-1053.	3.2	20
1386	Borophene Concentric Superlattices via Self-Assembly of Twin Boundaries. <i>Nano Letters</i> , 2020, 20, 1315-1321.	4.5	36
1387	Growth, charge and thermal transport of flowered graphene. <i>Carbon</i> , 2020, 161, 259-268.	5.4	7

#	ARTICLE	IF	CITATIONS
1388	Dynamic observation of in-plane h-BN/graphene heterostructures growth on Ni(111). Nano Research, 2020, 13, 1789-1794.	5.8	20
1389	Preparation and characterization of graphene. , 2020, , 51-90.		1
1390	Quantum Transport beyond DC. , 2020, , 278-292.		0
1392	Flickering nanometre-scale disorder in a crystal lattice tracked by plasmonic flare light emission. Nature Communications, 2020, 11, 682.	5.8	28
1393	Scanning Probe Microscopy of Topological Structure Induced Electronic States of Graphene. Small Methods, 2020, 4, 1900683.	4.6	16
1394	The Macrocyclic versus Chain Competition in On-Surface Polymerization: Insights from Reactions of 1,3-Dibromoazulene on Cu(111). Chemistry - A European Journal, 2020, 26, 7647-7656.	1.7	19
1395	Oxidation of graphene with variable defects: alternately symmetrical escape and self-restructuring of carbon rings. Nanoscale, 2020, 12, 10140-10148.	2.8	20
1396	Stacking of Exfoliated 2D Materials: A Review. Chinese Journal of Chemistry, 2020, 38, 981-995.	2.6	30
1397	Molecular-Dynamics Analysis of Nanoindentation of Graphene Nanomeshes: Implications for 2D Mechanical Metamaterials. ACS Applied Nano Materials, 2020, 3, 3613-3624.	2.4	6
1398	Mechanical cleaning of graphene using in situ electron microscopy. Nature Communications, 2020, 11, 1743.	5.8	36
1399	Effects of polymer residue on the pull-in of suspended graphene. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2020, 38, 023001.	0.6	2
1400	Scanning Moiré Fringe Method: A Superior Approach to Perceive Defects, Interfaces, and Distortion in 2D Materials. ACS Nano, 2020, 14, 6034-6042.	7.3	13
1401	Functionalizations of boron nitride nanostructures. Science China Technological Sciences, 2021, 64, 1-10.	2.0	9
1402	Binder-free Cu-supported Ag nanowires for aqueous rechargeable silver-zinc batteries with ultrahigh areal capacity. Journal of Colloid and Interface Science, 2021, 586, 47-55.	5.0	10
1403	Growth and Atomic-Scale Characterization of Ultrathin Silica and Germanium Films: The Crucial Role of the Metal Support. Chemistry - A European Journal, 2021, 27, 1870-1885.	1.7	13
1404	Building Functional Memories and Logic Circuits with 2D Boron Nitride. Advanced Functional Materials, 2021, 31, 2004733.	7.8	22
1405	Oxygen-assisted direct growth of large-domain and high-quality graphene on glass targeting advanced optical filter applications. Nano Research, 2021, 14, 260-267.	5.8	20
1406	Stacking of 2D Materials. Advanced Functional Materials, 2021, 31, 2007810.	7.8	123

#	ARTICLE	IF	CITATIONS
1407	Strain engineering of graphene with vacancy toward enhanced N ₂ to NH ₃ reduction. <i>Molecular Catalysis</i> , 2021, 499, 111320.	1.0	3
1408	Kinetic Monte Carlo statistics of curvature integration by HACA growth and bay closure reactions for PAH growth in a counterflow diffusion flame. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1449-1457.	2.4	9
1409	Synthesis of Large-Area Single-Crystal Graphene. <i>Trends in Chemistry</i> , 2021, 3, 15-33.	4.4	27
1410	Wafer-scale vertical van der Waals heterostructures. <i>Information Materials</i> , 2021, 3, 3-21.	8.5	70
1411	Strain Engineering in 2D Material-Based Flexible Optoelectronics. <i>Small Methods</i> , 2021, 5, e2000919.	4.6	80
1412	Carbon materials with high pentagon density. <i>Journal of Materials Science</i> , 2021, 56, 2912-2943.	1.7	35
1413	High thermal conductivity of graphene and structure defects: Prospects for thermal applications in graphene sheets. <i>Chinese Chemical Letters</i> , 2021, 32, 1293-1298.	4.8	18
1414	Enhancing stability by tuning element ratio in 2D transition metal chalcogenides. <i>Nano Research</i> , 2021, 14, 1704-1710.	5.8	10
1415	The philosophy of carbon: meso-entropy materials. <i>Faraday Discussions</i> , 2021, 227, 80-90.	1.6	10
1416	Improvement of alkali metal ion batteries via interlayer engineering of anodes: from graphite to graphene. <i>Nanoscale</i> , 2021, 13, 12521-12533.	2.8	14
1417	A vacancy-rich perovskite fluoride K _{0.79} Ni _{0.25} Co _{0.36} Mn _{0.39} F _{2.83} @rGO anode for advanced Na-based dual-ion batteries. <i>Chemical Communications</i> , 2021, 57, 5830-5833.	2.2	12
1418	Atomic and electronic structure of graphene. , 2021, , 15-26.		1
1419	Case studies of electrical characterisation of graphene by terahertz time-domain spectroscopy. <i>2D Materials</i> , 0, , .	2.0	11
1420	Line-defect orientation- and length-dependent strength and toughness in hBN. <i>Journal of Applied Physics</i> , 2021, 129, 014304.	1.1	1
1421	Data-driven electron microscopy: electron diffraction imaging of materials structural properties. <i>Microscopy (Oxford, England)</i> , 2022, 71, i116-i131.	0.7	11
1422	Traction separation laws of graphene grain boundaries. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 14284-14295.	1.3	2
1423	Chemical vapour deposition. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	11.8	244
1424	Experimental investigation of thermal performance of the graphene-coated Al heat sink. <i>Materials Today: Proceedings</i> , 2021, 42, 2779-2784.	0.9	3

#	ARTICLE	IF	CITATIONS
1425	Grain size effects on the wettability of as-grown graphene and dropwise condensation. <i>Carbon</i> , 2021, 171, 507-513.	5.4	11
1426	Polycrystalline Few-Layer Graphene as a Durable Anticorrosion Film for Copper. <i>Nano Letters</i> , 2021, 21, 1161-1168.	4.5	39
1427	Defective Nanographenes Containing Seven-Five-Seven (7â€“5â€“7)-Membered Rings. <i>Journal of the American Chemical Society</i> , 2021, 143, 2353-2360.	6.6	62
1428	A novel sodium-ion supercabattery based on vacancy defective Niâ€“Coâ€“Mn ternary perovskite fluoride electrode materials. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14276-14284.	5.2	18
1429	Deep neural network analysis of nanoparticle ordering to identify defects in layered carbon materials. <i>Chemical Science</i> , 2021, 12, 7428-7441.	3.7	10
1430	Other spectroscopic methods for graphene characterization: X-ray and electron spectroscopies. , 2021, , 413-436.		1
1431	Chemical vapor deposition (CVD) growth of graphene films. , 2021, , 199-222.		4
1432	Direct insight into the structure-property relation of interfaces from constrained crystal structure prediction. <i>Nature Communications</i> , 2021, 12, 811.	5.8	10
1433	Mapping Grains, Boundaries, and Defects in 2D Covalent Organic Framework Thin Films. <i>Chemistry of Materials</i> , 2021, 33, 1341-1352.	3.2	25
1434	Kinetically Determined Shapes of Grain Boundaries in Graphene. <i>ACS Nano</i> , 2021, 15, 4893-4900.	7.3	11
1435	Molecular Simulations on Tuning the Interlayer Spacing of Graphene Nanoslits for C4H6/C4H10 Separation. <i>ACS Applied Nano Materials</i> , 2021, 4, 1994-2001.	2.4	5
1436	Substrate Engineering for CVD Growth of Single Crystal Graphene. <i>Small Methods</i> , 2021, 5, e2001213.	4.6	25
1437	Local Lattice Deformation of Tellurene Grain Boundaries by Four-Dimensional Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 3396-3405.	1.5	4
1438	Nanostructured Graphene on Î²-SiC/Si(001): Atomic and Electronic Structures, Magnetic and Transport Properties (Brief Review). <i>JETP Letters</i> , 2021, 113, 176-193.	0.4	3
1439	Toward the perfect membrane material for environmental x-ray photoelectron spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 234001.	1.3	6
1440	Structural Defects, Mechanical Behaviors, and Properties of Two-Dimensional Materials. <i>Materials</i> , 2021, 14, 1192.	1.3	48
1441	Substrate dopant induced electronic inhomogeneity in epitaxial bilayer graphene. <i>2D Materials</i> , 2021, 8, 035001.	2.0	3
1442	Quantification and Healing of Defects in Atomically Thin Molybdenum Disulfide: Beyond the Controlled Creation of Atomic Defects. <i>ACS Nano</i> , 2021, 15, 9658-9669.	7.3	37

#	ARTICLE	IF	CITATIONS
1443	Phase transitions in 2D materials. <i>Nature Reviews Materials</i> , 2021, 6, 829-846.	23.8	205
1444	Valley to charge current conversion in graphene linear defects. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 128, 114631.	1.3	1
1445	Pathways to controlled 3D deformation of graphene: Manipulating the motion of topological defects. <i>Current Opinion in Solid State and Materials Science</i> , 2021, 25, 100893.	5.6	4
1446	Reversible hydrogenation restores defected graphene to graphene. <i>Science China Chemistry</i> , 2021, 64, 1047-1056.	4.2	6
1447	Systematic THz study of the substrate effect in limiting the mobility of graphene. <i>Scientific Reports</i> , 2021, 11, 8729.	1.6	13
1448	Evidence of massless Dirac fermions in graphitic shells encapsulating hollow iron microparticles. <i>Applied Surface Science</i> , 2021, 546, 149103.	3.1	3
1449	Dopamine-assisted chemical vapour deposition of polypyrrole on graphene for flexible supercapacitor. <i>Applied Surface Science</i> , 2021, 547, 149141.	3.1	21
1450	Spontaneous Time-Reversal Symmetry Breaking at Individual Grain Boundaries in Graphene. <i>Physical Review Letters</i> , 2021, 126, 206803.	2.9	7
1452	Recent development in friction of 2D materials: from mechanisms to applications. <i>Nanotechnology</i> , 2021, 32, 312002.	1.3	42
1453	Determination of the elastic moduli of CVD graphene by probing graphene/polymer Bragg stacks. <i>2D Materials</i> , 2021, 8, 035040.	2.0	12
1454	Advanced tape-exfoliated method for preparing large-area 2D monolayers: a review. <i>2D Materials</i> , 2021, 8, 032002.	2.0	30
1455	Estimation of improvement in elastic moduli for functionalised defective graphene-based thermoplastic polyurethane nanocomposites: a molecular dynamics approach. <i>Molecular Simulation</i> , 2021, 47, 602-618.	0.9	9
1456	Deep Learning Segmentation of Complex Features in Atomic-Resolution Phase-Contrast Transmission Electron Microscopy Images. <i>Microscopy and Microanalysis</i> , 2021, 27, 804-814.	0.2	16
1457	Vortex states in an acoustic Weyl crystal with a topological lattice defect. <i>Nature Communications</i> , 2021, 12, 3654.	5.8	31
1458	Phases at the interface. <i>Nature Materials</i> , 2021, 20, 907-907.	13.3	0
1459	Perspective towards atomic-resolution imaging of two-dimensional polymers. <i>SmartMat</i> , 2021, 2, 131-138.	6.4	21
1460	Towards intrinsically pure graphene grown on copper. <i>Nano Research</i> , 2022, 15, 919-924.	5.8	7
1461	Temperature dependent Raman scattering of directly grown twisted bilayer graphene film using LPCVD method. <i>Carbon</i> , 2021, 177, 366-376.	5.4	7

#	ARTICLE	IF	CITATIONS
1462	Macroscopic properties of single-crystalline and polycrystalline graphene on soft substrate for transparent electrode applications. <i>Carbon</i> , 2021, 178, 181-189.	5.4	7
1463	Atomic-scale investigation of carbon-based materials by gentle transmission electron microscopy. <i>New Carbon Materials</i> , 2021, 36, 497-511.	2.9	8
1464	Origins of peaks of graphitic and pyrrolic nitrogen in N1s X-ray photoelectron spectra of carbon materials: quaternary nitrogen, tertiary amine, or secondary amine?. <i>Journal of Materials Science</i> , 2021, 56, 15798-15811.	1.7	46
1465	Construction of Heptagon-Containing Molecular Nanocarbons. <i>Angewandte Chemie</i> , 2021, 133, 23700-23724.	1.6	31
1466	Graphene-Based Heterostructure Composite Sensing Materials for Detection of Nitrogen-Containing Harmful Gases. <i>Advanced Functional Materials</i> , 2021, 31, 2104058.	7.8	59
1467	Imperfect comb construction reveals the architectural abilities of honeybees. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	23
1468	Phononic Thermal Transport along Graphene Grain Boundaries: A Hidden Vulnerability. <i>Advanced Science</i> , 2021, 8, 2101624.	5.6	8
1469	A Simplified Method for Patterning Graphene on Dielectric Layers. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 37510-37516.	4.0	0
1470	Construction of Heptagon-Containing Molecular Nanocarbons. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23508-23532.	7.2	118
1471	Wafer-scale integration of graphene for waveguide-integrated optoelectronics. <i>Applied Physics Letters</i> , 2021, 119, 050501.	1.5	7
1472	Epitaxial growth of wafer scale antioxidant single-crystal graphene on twinned Pt(111). <i>Carbon</i> , 2021, 181, 225-233.	5.4	12
1473	The role of graphene in anti-corrosion coatings: A review. <i>Construction and Building Materials</i> , 2021, 294, 123613.	3.2	47
1474	Experimental advances in charge and spin transport in chemical vapor deposited graphene. <i>JPhys Materials</i> , 2021, 4, 042007.	1.8	10
1475	Graphene-Based Nanocomposites: Synthesis, Mechanical Properties, and Characterizations. <i>Polymers</i> , 2021, 13, 2869.	2.0	79
1476	Elimination of Grain Boundaries in Graphene Growth on a Cu-Ni Alloyed Substrate by Chemical Vapor Deposition. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18217-18224.	1.5	2
1477	Electronic transport across extended grain boundaries in graphene. <i>Nano Express</i> , 2021, 2, 030007.	1.2	4
1478	Growth mechanism of transfer-free graphene synthesized from different carbon sources and verified by ion implantation. <i>Journal of Applied Physics</i> , 2021, 130, .	1.1	3
1479	Stability of Perovskite Films Encapsulated in Single- and Multi-Layer Graphene Barriers. <i>ACS Applied Energy Materials</i> , 2021, 4, 10314-10322.	2.5	5

#	ARTICLE	IF	CITATIONS
1480	Tensile strength and fracture mechanics of two-dimensional nanocrystalline silicon carbide. <i>Computational Materials Science</i> , 2021, 197, 110580.	1.4	6
1481	Characterizations of Carbon Nanotubes and Graphene. <i>Springer Series in Materials Science</i> , 2022, , 65-90.	0.4	0
1482	Bottom-up synthesis of graphene films hosting atom-thick molecular-sieving apertures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	14
1483	Recovery of the Irreversible Crystallinity of Nanocellulose by Crystallite Fusion: A Strategy for Achieving Efficient Energy Transfers in Sustainable Biopolymer Skeletons. <i>Angewandte Chemie</i> , 2021, 133, 24835.	1.6	1
1484	Selectively Defect-Healed Graphene Electrodes for Tungsten Diselenide Thin-Film Transistors. <i>Advanced Electronic Materials</i> , 2022, 8, 2100729.	2.6	5
1485	Growth and Selective Etching of Twinned Graphene on Liquid Copper Surface. <i>Small</i> , 2021, 17, 2103484.	5.2	7
1486	Recovery of the Irreversible Crystallinity of Nanocellulose by Crystallite Fusion: A Strategy for Achieving Efficient Energy Transfers in Sustainable Biopolymer Skeletons**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 24630-24636.	7.2	22
1487	A moiré theory for probing grain boundary structure in graphene. <i>Acta Materialia</i> , 2021, 217, 117156.	3.8	6
1488	Conversion/insertion pseudocapacitance-driven vacancy defective perovskite fluorides K _{0.82} Co _{0.43} Mn _{0.57} F _{2.66} @reduced graphene oxide anode for powerful Na-based dual-ion batteries and capacitors. <i>Electrochimica Acta</i> , 2021, 389, 138713.	2.6	5
1489	Copper acetate-facilitated transfer-free growth of high-quality graphene for hydrovoltaic generators. <i>National Science Review</i> , 2022, 9, .	4.6	8
1490	Coarsening of polycrystalline patterns in atomically thin surface crystals. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	3
1491	Photoluminescence as a probe of phosphorene properties. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	11
1492	Improved contact properties of graphene-metal hybrid interfaces by grain boundaries. <i>Applied Surface Science</i> , 2021, 563, 150392.	3.1	0
1493	Thermal behaviour during initial stages of graphene oxidation: Implications for reaction kinetics and mechanisms. <i>Chemical Engineering Journal</i> , 2021, 421, 129742.	6.6	15
1494	Modeling the heterogeneity response induced by the cascade collisions of glass-ceramics. <i>Computational Materials Science</i> , 2021, 199, 110750.	1.4	0
1495	Visualization of graphene grain boundaries through oxygen intercalation. <i>Applied Surface Science</i> , 2021, 565, 150476.	3.1	5
1496	Role of hydrogen and oxygen in the study of substrate surface impurities and defects in the chemical vapor deposition of graphene. <i>Carbon</i> , 2021, 185, 82-95.	5.4	10
1497	Review on the corrosion-promotion activity of graphene and its inhibition. <i>Journal of Materials Science and Technology</i> , 2021, 91, 278-306.	5.6	35

#	ARTICLE	IF	CITATIONS
1498	Effect of grain boundaries on elastic shock wave in graphene. Computational Materials Science, 2021, 200, 110817.	1.4	2
1499	Recent advances in non-precious metal electrocatalysts for oxygen reduction in acidic media and PEMFCs: an activity, stability and mechanism study. Green Chemistry, 2021, 23, 6898-6925.	4.6	32
1500	Wafer-Scale Epitaxial Growth of Unidirectional WS ₂ Monolayers on Sapphire. ACS Nano, 2021, 15, 2532-2541.	7.3	149
1501	Transmission electron microscopy characterization of graphene. , 2021, , 317-343.		0
1502	Mechanics of free-standing inorganic and molecular 2D materials. Nanoscale, 2021, 13, 1443-1484.	2.8	28
1503	Quantum Dot/Graphene Heterostructure Nanohybrid Photodetectors. Lecture Notes in Nanoscale Science and Technology, 2021, , 215-248.	0.4	4
1507	Progress in the Understanding and Applications of the Intrinsic Reactivity of Graphene-Based Materials. Small Science, 2021, 1, 2000026.	5.8	40
1508	Methods and Concepts. Springer Theses, 2015, , 9-25.	0.0	1
1509	Modeling Disordered and Nanostructured Graphene. , 2020, , 53-72.		1
1510	Modelling of Defects and Failure in 2D Materials: Graphene and Beyond. , 2020, , 1869-1909.		1
1512	Graphene/Metal Nanowire Hybrid Transparent Conductive Films. Advanced Structured Materials, 2017, , 121-142.	0.3	2
1514	Spontaneous Folding Growth of Graphene on h-BN. Nano Letters, 2021, 21, 2033-2039.	4.5	11
1515	Fabrication Techniques of Graphene Nanostructures. RSC Nanoscience and Nanotechnology, 2014, , 1-30.	0.2	17
1516	Formation and stability of conformal spirals in confined 2D crystals. Journal of Physics Condensed Matter, 2020, 32, 505401.	0.7	2
1517	Selective synthesis of DC carbon arc-generated carbon nanotube and layered-graphene and the associated mechanism. Nanotechnology, 2021, 32, 105602.	1.3	3
1518	Extra variable in grain boundary description. Physical Review Materials, 2017, 1, .	0.9	23
1519	Grain boundaries in chemical-vapor-deposited atomically thin hexagonal boron nitride. Physical Review Materials, 2019, 3, .	0.9	21
1520	Stacking, strain, and twist in 2D materials quantified by 3D electron diffraction. Physical Review Materials, 2019, 3, .	0.9	30

#	ARTICLE	IF	CITATIONS
1523	Synthesis of graphene and its application to thermal and surface modification. The Journal of the Korea Institute of Electronic Communication Sciences, 2013, 8, 549-554.	0.1	4
1524	Growth Conditions of Graphene Grown in Chemical Vapour Deposition (CVD). Sains Malaysiana, 2017, 46, 1033-1038.	0.3	9
1525	Electronic and Magnetic Behaviors of Hydrogen Functionalized Graphene Nanostructure Material. , 0, 1, 1002.		1
1526	No Tilt Angle Dependence of Grain Boundary on Mechanical Strength of Chemically Deposited Graphene Film. Journal of the Korean Ceramic Society, 2019, 56, 506-512.	1.1	1
1527	Synthesis and Fabrication of Graphene and Graphene Oxide: A Review. Open Journal of Composite Materials, 2019, 09, 207-229.	0.4	106
1528	Synthesis and characterization of graphene from rice husks. Tanso, 2016, 2016, 182-190.	0.1	7
1529	Transmission Electron Microscopy Specimen Preparation for Layer-area Graphene by a Direct Transfer Method. Applied Microscopy, 2014, 44, 133-137.	0.8	3
1530	Dark-field Transmission Electron Microscopy Imaging Technique to Visualize the Local Structure of Two-dimensional Material; Graphene. Applied Microscopy, 2015, 45, 23-31.	0.8	3
1531	Probing Atomic-Scale Fracture of Grain Boundaries in Low-Symmetry 2D Materials. Small, 2021, 17, e2102739.	5.2	7
1532	Effect of grain boundaries on the work function of hafnium: A first-principles investigation. Journal of Applied Physics, 2021, 130, .	1.1	1
1533	Emerging properties of carbon based 2D material beyond graphene. Journal of Physics Condensed Matter, 2022, 34, 053001.	0.7	27
1534	Atomic Structure of Dislocations and Grain Boundaries in Two-Dimensional PtSe ₂ . ACS Nano, 2021, 15, 16748-16759.	7.3	12
1535	Disorders in graphene: types, effects and control techniques—a review. Carbon Letters, 2022, 32, 431-450.	3.3	9
1536	Toward the commercialization of chemical vapor deposition graphene films. Applied Physics Reviews, 2021, 8, .	5.5	19
1537	Facile and economical, single-step single-chemical method for conversion of palm oil fuel ash waste into graphene nanosheets. Applied Materials Today, 2021, 25, 101193.	2.3	3
1538	Morphology and Friction Characterization of CVD Grown Graphene on Polycrystalline Nickel. Lecture Notes in Mechanical Engineering, 2014, , 195-204.	0.3	0
1540	In Silico Assembly of Carbon-Based Nanodevices. , 2016, , 207-232.		0
1541	Nanoindentation Response of Polycrystalline Graphene by Atomistic Simulations. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
1542	Molecular dynamics study of the tensile mechanical properties of polycrystalline graphene. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 116101.	0.2	5
1543	Defect Characterization and Metrology. , 2017, , 631-678.		0
1546	Review of fabrication methods, physical properties, and applications of twisted bilayer graphene. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 246802.	0.2	3
1548	Applications of new exfoliation technique in study of two-dimensional materials. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 218201.	0.2	4
1549	Coverage measurement of graphene film on metallic substrate using scanning electron microscopy. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 076802.	0.2	0
1550	Graphene and Graphene Oxide as Nanofiller for Polymer Blends. Carbon Nanostructures, 2019, , 231-257.	0.1	1
1551	Lattice Metric Space Application to Grain Defect Detection. Lecture Notes in Computer Science, 2019, , 381-392.	1.0	0
1552	Thermoelectric properties of polycrystalline graphene nanoribbons. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 247202.	0.2	4
1553	A programmable dark-field detector for imaging two-dimensional materials in the scanning electron microscope. , 2019, , .		0
1554	Graphene Synthesis by Chemical Vapour Deposition (CVD): A Review on Growth Mechanism and Techniques. International Journal of Engineering Research & Technology, 2019, V8, .	0.2	2
1555	Influence of deposition of cobalt particles on quantum corrections to Droude conductivity in twisted CVD graphene. Izvestiya Vysshikh Uchebnykh Zavedenii Materialy Elektronnoi Tekhniki = Materials of Electronics Engineering, 2019, 22, 73-83.	0.1	0
1556	Effect of cobalt particle deposition on quantum corrections to Drude conductivity in twisted CVD graphene. Modern Electronic Materials, 2019, 5, 165-173.	0.2	1
1557	Kink Deformation Analysis of Graphite with Nano-Layered Structure Considering Lattice Defects. Zairyo/Journal of the Society of Materials Science, Japan, 2020, 69, 126-133.	0.1	1
1558	Tuning azulene defects and doping of N atoms in graphene nanosheets: Improving nonlinear optical properties of carbon-based nano materials. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 136, 115040.	1.3	7
1559	Performance Improvement of Residue-Free Graphene Field-Effect Transistor Using Au-Assisted Transfer Method. Sensors, 2021, 21, 7262.	2.1	3
1560	Graphene transfer from a copper surface to a silicon substrate. Journal of Physics: Conference Series, 2020, 1675, 012098.	0.3	0
1561	The effect of catalytic copper pretreatments on CVD graphene growth at different stages. Nanotechnology, 2021, 32, 095607.	1.3	1
1562	Effect of grain boundary and defect on mechanical properties of bicrystalline graphene. Modern Physics Letters B, 2021, 35, 2150141.	1.0	0

#	ARTICLE	IF	CITATIONS
1563	A novel approach for studying crack propagation in polycrystalline graphene using machine learning algorithms. Computational Materials Science, 2022, 201, 110878.	1.4	21
1564	Graphene. Springer Handbooks, 2020, , 1171-1198.	0.3	2
1565	Defect Dynamics in Graphene. International Journal of Applied Nanotechnology Research, 2020, 5, 26-34.	1.1	0
1566	The grain boundary effect on mechanical and electronic transport properties of a striped borophene. Physical Chemistry Chemical Physics, 2020, 22, 21844-21850.	1.3	7
1567	Strengthening and Weakening by Dislocations in Monolayer MoS ₂ . Chemistry of Materials, 2021, 33, 8758-8767.	3.2	19
1568	Subatomic species transport through atomically thin membranes: Present and future applications. Science, 2021, 374, eabd7687.	6.0	53
1569	Synthesis of Graphene and fabrication of Aluminium-Grp nanocomposites: A review. Materials Today: Proceedings, 2022, 50, 2436-2442.	0.9	2
1570	Dirac Fermions in Graphene with Stacking Fault Induced Periodic Line Defects. Journal of Physical Chemistry Letters, 2021, 12, 10874-10879.	2.1	12
1571	Recent Progress in the Transfer of Graphene Films and Nanostructures. Small Methods, 2021, 5, e2100771.	4.6	17
1572	Surface Functionalization of III-V Nanowires. , 2021, , 111-141.		1
1573	Quantum transport: general concepts. , 0, , 91-117.		1
1574	Mechanical strength enhancement by grain size reduction in a soft colloidal polycrystal. Soft Matter, 2021, , .	1.2	0
1575	Graphene: Structure, properties, preparation, modification, and applications. , 2022, , 1-24.		0
1576	Effect of Reconstructed Vacancy Defects on the Crumpling Behavior of Graphene Sheets. Forces in Mechanics, 2021, 6, 100057.	1.3	7
1577	Grain splitting is a mechanism for grain coarsening in colloidal polycrystals. Physical Review E, 2021, 104, L052601.	0.8	1
1578	Possible pair-graphene structures govern the thermodynamic properties of arbitrarily stacked few-layer graphene. Scientific Reports, 2021, 11, 23401.	1.6	2
1579	Growth of 2D Materials at the Wafer Scale. Advanced Materials, 2022, 34, e2108258.	11.1	43
1580	Fluctuating local field approach to free energy of one-dimensional molecules with strong collective electronic fluctuations. Physical Review B, 2022, 105, .	1.1	5

#	ARTICLE	IF	CITATIONS
1581	Turbostratic stacked graphene-based high-responsivity mid-wavelength infrared detector using an enhanced photogating effect. <i>Optical Materials Express</i> , 2022, 12, 458.	1.6	4
1582	Grain rotation and coupled grain boundary motion in two-dimensional binary hexagonal materials. <i>Acta Materialia</i> , 2022, 225, 117583.	3.8	7
1583	Controllable atom implantation for achieving Coulomb-force unbalance toward lattice distortion and vacancy construction for accelerated water splitting. <i>Journal of Colloid and Interface Science</i> , 2022, 610, 194-201.	5.0	41
1584	Characterization of CVD-synthesized graphene films transferred on different substrates using the scanning probe microscopy electrical techniques. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2022, 138, 115101.	1.3	2
1585	Continuous orientated growth of scaled single-crystal 2D monolayer films. <i>Nanoscale Advances</i> , 2021, 3, 6545-6567.	2.2	3
1586	Direct evidence for highly developed graphene in PAN-based carbon fibers. <i>Carbon Trends</i> , 2021, 5, 100136.	1.4	4
1587	Highly Active and Durable Single-Atom Tungsten-Doped Ni _{0.5} Se _{0.5} Nanosheet@Ni _{0.5} Se _{0.5} Nanorod Heterostructures for Water Splitting. <i>Advanced Materials</i> , 2022, 34, e2107053.	11.1	136
1588	Heteroatom-doped graphene-based electrocatalysts for ORR, OER, and HER. , 2022, , 145-168.		1
1589	Unconventional Metallicity in Graphene Nanoribbons with Armchair Edges. <i>Advanced Theory and Simulations</i> , 0, , 2100392.	1.3	1
1590	A wafer-scale two-dimensional platinum monosulfide ultrathin film via metal sulfurization for high performance photoelectronics. <i>Materials Advances</i> , 2022, 3, 1497-1505.	2.6	14
1591	Shape memory polymer/graphene nanocomposites: State-of-the-art. <i>E-Polymers</i> , 2022, 22, 165-181.	1.3	25
1592	Electronic properties of zero-line modes in bilayer graphene: An <i>ab initio</i> study. <i>Physical Review B</i> , 2022, 105, .	1.1	2
1593	From graphene to graphene oxide: the importance of extended topological defects. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 2318-2331.	1.3	18
1594	Valleytronics in two-dimensional materials with line defect. <i>Nanotechnology</i> , 2022, 33, 212001.	1.3	22
1595	Cu ions irradiation-induced defects in graphene and their effects on optical properties. <i>Radiation Physics and Chemistry</i> , 2022, 193, 110008.	1.4	1
1596	Atomic-scale manufacture of metre-sized two-dimensional single crystals by interfacial modulation. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 108103.	0.2	1
1597	Nonlinear Difference Imaging to Image Local Conductivity of Single-Layer Graphene Using Electrical Impedance Tomography. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-12.	2.4	4
1598	Defects investigation of bipolar exfoliated phosphorene nanosheets. <i>Surface Science</i> , 2022, 720, 122052.	0.8	7

#	ARTICLE	IF	CITATIONS
1599	Visualizing Grain Statistics in MOCVD WSe ₂ through Four-Dimensional Scanning Transmission Electron Microscopy. Nano Letters, 2022, 22, 2578-2585.	4.5	9
1600	Enhanced interactions of gas molecule with defective graphene induced by strong coupling effect between carbon-Co in Co ₃ O ₄ : A theoretical study. Applied Surface Science, 2022, 587, 152755.	3.1	3
1601	Epitaxially Constrained Grain Boundary Structures in an Oxide Honeycomb Monolayer. Advanced Materials Interfaces, 2022, 9, .	1.9	2
1602	Interfacial Ammonia Selectivity, Atmospheric Passivation, and Molecular Identification in Graphene-Nanopored Activated Carbon Molecular-Sieve Gas Sensors. ACS Applied Materials & Interfaces, 2021, 13, 61770-61779.	4.0	8
1603	Defects in graphene-based heterostructures: topological and geometrical effects. RSC Advances, 2022, 12, 6772-6782.	1.7	16
1604	Physics and theory of defects in 2D materials: the role of reduced dimensionality. , 2022, , 7-41.		5
1605	Topological defects in polycrystalline hexosomes from β -cyclodextrin fatty esters. Soft Matter, 2022, 18, 2028-2038.	1.2	1
1606	Construction and physical properties of low-dimensional structures for nanoscale electronic devices. Physical Chemistry Chemical Physics, 2022, 24, 9082-9117.	1.3	3
1607	Molecular Dynamics Study of Anisotropic Shock Response in Mono- and Bicrystalline Boron Nitride Nanosheets: Implications for Shock-Resistant Solid-State Devices. ACS Applied Nano Materials, 2022, 5, 2787-2800.	2.4	11
1609	Established Model on Polycrystalline Graphene Oxide and Analysis of Mechanical Characteristic. Crystals, 2022, 12, 382.	1.0	1
1610	Tailoring the Energy Landscape of Graphene Nanostructures on Graphene and Manipulating Them Using Tilt Grain Boundaries. Physical Review Applied, 2022, 17, .	1.5	3
1611	Polymer/Graphene Nanocomposite Membranes: Status and Emerging Prospects. Journal of Composites Science, 2022, 6, 76.	1.4	11
1612	Double-edged roles of intrinsic defects in two-dimensional MoS ₂ . Trends in Chemistry, 2022, 4, 451-463.	4.4	5
1613	Mesoporous single-crystalline SrNbO ₂ N: Expediting charge transportation to advance solar water splitting. Nano Energy, 2022, 95, 107059.	8.2	22
1614	Effect of graphene on thermal stability of tin selenide. Journal of Materials Research and Technology, 2022, 18, 896-908.	2.6	2
1615	Atomic-scale understanding of oxidation mechanisms of materials by computational approaches: A review. Materials and Design, 2022, 217, 110605.	3.3	6
1616	Relating the orientation of graphene on Cu grains by Euler Angles. Surfaces and Interfaces, 2022, 30, 101837.	1.5	1
1617	Quantum Hall Effect across Graphene Grain Boundary. Materials, 2022, 15, 8.	1.3	1

#	ARTICLE	IF	CITATIONS
1618	Large-scale, single-oriented ZnO nanostructure on h-BN films for flexible inorganic UV sensors. <i>Journal of Applied Physics</i> , 2021, 130, .	1.1	5
1619	Adsorption and desorption behavior of titanium-decorated polycrystalline graphene toward hydrogen storage: a molecular dynamics study. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1.	1.1	9
1620	Maximum Thermoelectric Power Factor and Optimal Carrier Concentration of Bilayer Graphene at Various Temperatures. <i>E-Journal of Surface Science and Nanotechnology</i> , 2021, 19, 125-130.	0.1	1
1621	In silico design of graphene plasmonic hot-spots. <i>Nanoscale Advances</i> , 2022, 4, 2294-2302.	2.2	6
1622	Structural dynamics of polycrystalline graphene. <i>Physical Review E</i> , 2022, 105, 044116.	0.8	3
1623	Klein tunneling and ballistic transport in graphene and related materials. , 0, , 118-142.		0
1624	Quantum transport in disordered graphene-based materials. , 0, , 143-218.		0
1625	Ab initio and multiscale quantum transport in graphene-based materials. , 0, , 232-299.		0
1626	Electronic structure calculations: the density functional theory (DFT). , 0, , 314-331.		0
1627	Electronic structure calculations: the many-body perturbation theory (MBPT). , 0, , 332-337.		0
1628	Green's functions and ab initio quantum transport in the Landauer-Büttiker formalism. , 0, , 338-357.		0
1630	Synthesis of Defective Nanographenes Containing Joined Pentagons and Heptagons. <i>Advanced Science</i> , 2022, 9, e2201000.	5.6	43
1631	Deconstructing proton transport through atomically thin monolayer CVD graphene membranes. <i>Journal of Materials Chemistry A</i> , 2022, 10, 19797-19810.	5.2	14
1632	Ultrahigh Electron Thermal Conductivity in Graphene, Biphenylene, and NetGraphene. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	26
1633	Edge engineering in chemically active two-dimensional materials. <i>Nano Research</i> , 2022, 15, 9890-9905.	5.8	7
1634	On-Surface Synthesis of Rigid Benzenoid- and Nonbenzenoid-Coupled Porphyrin-Graphene Nanoribbon Hybrids. <i>Journal of Physical Chemistry C</i> , 0, , .	1.5	2
1635	Estimation of electrode contact impedance and conductivity of single-layer graphene using electrical impedance tomography. <i>Measurement Science and Technology</i> , 0, , .	1.4	2
1636	Dry-transferred single-walled carbon nanotube thin films for flexible and transparent heaters. <i>Surfaces and Interfaces</i> , 2022, 31, 101992.	1.5	4

#	ARTICLE	IF	CITATIONS
1637	Atomic-scale mechanism of carbon nucleation from a deep crustal fluid by replica exchange reactive molecular dynamics simulation. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 329, 106-118.	1.6	4
1638	Toward batch synthesis of high-quality graphene by cold-wall chemical vapor deposition approach. <i>Nano Research</i> , 2022, 15, 9683-9688.	5.8	6
1639	Graphene-Based Field-Effect Transistor Using Gated Highest-K Ferroelectric Thin Film. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1640	Remote epitaxy. <i>Nature Reviews Methods Primers</i> , 2022, 2, .	11.8	47
1641	Fabrication of high thermal conductivity C/C composites reinforced by graphite films with hexagonal pits. <i>Journal of Materials Science</i> , 0, , .	1.7	3
1642	Enclosed Cells for Extending Soft X-ray Spectroscopies to Atmospheric Pressures and Above. <i>ACS Symposium Series</i> , 0, , 175-218.	0.5	2
1643	Engineering Graphene Grain Boundaries for Plasmonic Multi-Excitation and Hotspots. <i>ACS Nano</i> , 2022, 16, 9041-9048.	7.3	7
1644	Tunable ion transport across graphene through tailoring grain boundaries. <i>Cell Reports Physical Science</i> , 2022, , 100947.	2.8	2
1645	STEM Image Analysis Based on Deep Learning: Identification of Vacancy Defects and Polymorphs of MoS ₂ . <i>Nano Letters</i> , 2022, 22, 4677-4685.	4.5	14
1646	Chemical Vapor-Deposited Graphene on Ultraflat Copper Foils for van der Waals Hetero-Assembly. <i>ACS Omega</i> , 2022, 7, 22626-22632.	1.6	5
1647	New insight into bonding energy and stress distribution of graphene oxide/hexagonal boron nitride: Functional group and grain boundary effect. <i>Diamond and Related Materials</i> , 2022, 127, 109185.	1.8	3
1648	Influence of interfacial aspects on electromagnetic interference shielding performance of graphene reinforced nanocomposites: an overview. <i>Composite Interfaces</i> , 2022, 29, 1373-1396.	1.3	4
1649	Multi-scale electronics transport properties in non-ideal CVD graphene sheet. <i>Scientific Reports</i> , 2022, 12, .	1.6	0
1650	Direct Atomic Observation of Reversible Orientation Switch in Monoatomic-Layered Gold Membrane Conducted by Dynamic Vortex. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 32379-32386.	4.0	0
1651	Structural properties of grain boundary in graphene grown on germanium substrates with different orientations. <i>Applied Physics Letters</i> , 2022, 121, 011901.	1.5	1
1652	Multiscale modeling assessment of the interfacial properties and critical aspect ratio of structurally defected graphene in polymer nanocomposites for defect engineering. <i>European Journal of Mechanics, A/Solids</i> , 2022, 96, 104728.	2.1	6
1653	Surface reconstruction through cathodic activation of first-row transition metal phosphides for enhanced hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2022, 10, 17477-17487.	5.2	9
1654	Chemical Vapor Deposition Synthesis of Graphene on Copper Foils. , 0, , .		0

#	ARTICLE	IF	CITATIONS
1655	Graphene-nanopocket-engaged PtCo nanocatalysts for highly durable fuel cell operation under demanding ultralow-Pt-loading conditions. <i>Nature Nanotechnology</i> , 2022, 17, 968-975.	15.6	114
1657	High-order harmonic spectroscopy of polycrystalline graphene. <i>Optical Materials Express</i> , 2022, 12, 3543.	1.6	1
1658	A review of top-down and bottom-up synthesis methods for the production of graphene, graphene oxide and reduced graphene oxide. <i>Journal of Materials Science</i> , 2022, 57, 14543-14578.	1.7	35
1659	Anisotropic monolayer of ReX ₂ on Au foils for exploring abnormal growth behavior and electronic properties. <i>Nano Research</i> , 2023, 16, 4197-4210.	5.8	0
1660	Topological Stone-Wales Defects Enhance Bonding and Electronic Coupling at the Graphene/Metal Interface. <i>ACS Nano</i> , 2022, 16, 11979-11987.	7.3	12
1661	Evidence for temporary and local transition of sp ² graphite-type to sp ³ diamond-type bonding induced by the tip of an atomic force microscope. <i>New Journal of Physics</i> , 2022, 24, 083018.	1.2	2
1662	Electrical resistivity of polycrystalline graphene: effect of grain-boundary-induced strain fields. <i>Scientific Reports</i> , 2022, 12, .	1.6	4
1663	Electrical detection of graphene plasmons for mid-infrared photodetection and chemical sensing: A computational study. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	2
1664	Modulation of the lattice structure of 2D carbon-based materials for improving photo/electric properties. <i>Carbon Letters</i> , 2023, 33, 1321-1331.	3.3	36
1665	The effect of structural disorder on the hydrogen loading into the graphene/nickel interface. <i>Carbon</i> , 2022, 199, 357-366.	5.4	2
1666	Strength criterion of graphene GBs combining discrete bond strength and varied bond stretch. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 169, 105080.	2.3	5
1667	Various defects in graphene: a review. <i>RSC Advances</i> , 2022, 12, 21520-21547.	1.7	65
1668	Atomic-scale dents on cellulose nanofibers: the origin of diverse defects in sustainable fibrillar materials. <i>Nanoscale Horizons</i> , 2022, 7, 1186-1191.	4.1	2
1669	Fracture at the two-dimensional limit. <i>MRS Bulletin</i> , 2022, 47, 848-862.	1.7	5
1670	Resistive Switching Crossbar Arrays Based on Layered Materials. <i>Advanced Materials</i> , 2023, 35, .	11.1	14
1671	Integrated wafer-scale ultra-flat graphene by gradient surface energy modulation. <i>Nature Communications</i> , 2022, 13, .	5.8	24
1672	Gradient nano-grained graphene as 2D thermal rectifier: A molecular dynamics based machine learning study. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	8
1673	Chemical Vapor Deposition Growth of Homogeneous Stacked Polycrystalline WSe ₂ with Branched Patterns for Modulating Light-Matter Interactions. <i>Journal of Physical Chemistry C</i> , 2022, 126, 16016-16024.	1.5	1

#	ARTICLE	IF	CITATIONS
1674	Enhanced photocatalytic activity of multifunctional graphene quantum dots decorated TiO ₂ film for dye-sensitized solar cells. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 24048-24058.	1.1	6
1675	Formation of smoother grain boundaries in 2D materials using high deposition rates during the last stages of growth. <i>2D Materials</i> , 2022, 9, 045025.	2.0	0
1676	Effects of Er atoms on graphitization process and structural defects for epitaxial graphene. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	4
1677	Multi-heterointerfaces for selective and efficient urea production. <i>National Science Review</i> , 2023, 10, .	4.6	52
1678	Ruthenium nanoparticles canopied by heptagon-containing saddle-shaped nanographenes as efficient aromatic hydrogenation catalysts. <i>Chemical Science</i> , 2022, 13, 13046-13059.	3.7	1
1679	Novel nanostructures suspended in graphene vacancies, edges and holes. <i>Science China Materials</i> , 0, , .	3.5	3
1680	Butterfly-shaped Nanographenes with Excellent Second-order Nonlinear Optical Properties: The Synergy of B/N and Azulene. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	1
1681	Electron transfer characteristics of amino acid adsorption on epitaxial graphene FETs on SiC substrates. <i>AIP Advances</i> , 2022, 12, 105310.	0.6	1
1682	Graphene and Its Derivatives: Synthesis and Application in the Electrochemical Detection of Analytes in Sweat. <i>Biosensors</i> , 2022, 12, 910.	2.3	16
1683	Sensing Remote Bulk Defects through Resistance Noise in a Large-Area Graphene Field-Effect Transistor. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 51105-51112.	4.0	2
1684	Multiscale modelling of fracture in graphene sheets. <i>Theoretical and Applied Fracture Mechanics</i> , 2022, 122, 103617.	2.1	1
1685	Structure and Stoichiometry Self-Organization in a Mixed Vanadium-Iron Oxide Honeycomb Film on Ru(0001). <i>Journal of Physical Chemistry C</i> , 2022, 126, 19947-19955.	1.5	1
1686	Emerging 2D Metal Oxides: From Synthesis to Device Integration. <i>Advanced Materials</i> , 2023, 35, .	11.1	18
1687	Anisotropic bending of graphene: Insights from tight-binding simulations. <i>Diamond and Related Materials</i> , 2022, , 109546.	1.8	1
1688	The design of "Grain Boundary Engineered" architected cellular materials: The role of 5-7 defects in hexagonal honeycombs. <i>Acta Materialia</i> , 2023, 243, 118513.	3.8	7
1689	Competitive growth between the top and bottom layers of few-layer graphene at the domain boundary merging stage. <i>Ceramics International</i> , 2023, 49, 9251-9259.	2.3	1
1690	Anomalous wrinkle propagation in polycrystalline graphene with tilt grain boundaries. <i>Physical Chemistry Chemical Physics</i> , 0, , .	1.3	0
1691	A kind of biological hybrid material "Trichoderma viride/FeOOH as a durable anticorrosion coating for steel. <i>Materials and Design</i> , 2023, 225, 111475.	3.3	2

#	ARTICLE	IF	CITATIONS
1692	Replica Exchange Molecular Dynamics Simulation of Organic Matter Evolution: From Lignin to Overmature Type III Kerogen. <i>Energy & Fuels</i> , 2022, 36, 14723-14733.	2.5	5
1693	Crystallography of honeycomb formation under geometric frustration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	2
1694	Spin Coating Promotes the Epitaxial Growth of AgCN Microwires on 2D Materials. <i>ACS Nano</i> , 2022, 16, 20521-20532.	7.3	0
1695	Progress in nanomaterials fabrication and their prospects in artificial intelligence towards solid oxide fuel cells: A review. <i>International Journal of Hydrogen Energy</i> , 2024, 52, 216-247.	3.8	7
1696	Mechanical properties characterization of 2D materials via pressure bulge testing. <i>Journal Physics D: Applied Physics</i> , 0, , .	1.3	0
1697	Retrieving Grain Boundaries in 2D Materials. <i>Small</i> , 2023, 19, .	5.2	4
1698	Spin-State Regulation of Nickel Cobalt Spinel toward Enhancing the Electron Transfer Process of Oxygen Redox Reactions in Lithium- ⁶ Oxygen Batteries. <i>Energy & Fuels</i> , 2023, 37, 735-745.	2.5	3
1699	Graphene Layer Morphology and Oxidation Behavior Induced by Step Bunches Created on Copper Substrate. <i>Journal of Materials Engineering and Performance</i> , 2023, 32, 9735-9744.	1.2	2
1700	Machine learning identification of atmospheric gases by mapping the graphene-molecule van der waals complex bonding evolution. <i>Sensors and Actuators B: Chemical</i> , 2023, 380, 133383.	4.0	0
1701	In Situ Imaging of an Anisotropic Layer-by-Layer Phase Transition in Few-Layer MoTe ₂ . <i>Nano Letters</i> , 2023, 23, 677-684.	4.5	8
1702	Defect engineering of electrocatalysts for metal-based battery. <i>Chinese Journal of Catalysis</i> , 2023, 45, 27-87.	6.9	15
1703	Stick-Slip Dynamics of Moiré Superstructures in Polycrystalline 2D Material Interfaces. <i>Physical Review Letters</i> , 2022, 129, .	2.9	3
1704	Scalable synthesis of 2D materials. , 2023, , 1-54.		0
1705	Graphene: Preparation, tailoring, and modification. <i>Exploration</i> , 2023, 3, .	5.4	19
1706	Fullerene: Fundamentals and state-of-the-art. , 2023, , 1-19.		0
1707	Chemical Potential-Modulated Ultrahigh-Phase-Purity Growth of Ultrathin Transition-Metal Boride Single Crystals. <i>Journal of the American Chemical Society</i> , 2023, 145, 3994-4002.	6.6	9
1708	Recent Progress in Emerging Novel MXenes Based Materials and their Fascinating Sensing Applications. <i>Small</i> , 2023, 19, .	5.2	19
1709	Spin Coating of Highly Aligned Agcn Microwires Epitaxially Grown on 2d Materials. , 2023, , .		0

#	ARTICLE	IF	CITATIONS
1710	Review: 2D material property characterizations by machine-learning-assisted microscopies. Applied Physics A: Materials Science and Processing, 2023, 129, .	1.1	5
1711	Visualizing defect dynamics by assembling the colloidal graphene lattice. Nature Communications, 2023, 14, .	5.8	7
1712	Density matrix renormalization group (DMRG) for interacting spin chains and ladders. Journal of Chemical Sciences, 2023, 135, .	0.7	0
1713	Significant Enhanced Mechanical Properties of Suspended Graphene Film by Stacking Multilayer CVD Graphene Films. Micromachines, 2023, 14, 745.	1.4	0
1714	2D Covalent Organic Framework Membranes for Liquid-Phase Molecular Separations: State of the Field, Common Pitfalls, and Future Opportunities. Advanced Materials, 2024, 36, .	11.1	17
1715	Machine learning method for determining chemical vapor deposition conditions for large-area graphene growth. Asia-Pacific Journal of Chemical Engineering, 2023, 18, .	0.8	2
1716	Constructing 1-Ethoxyphenanthro[9,10- <i>e</i>]acephenanthrylene for the Synthesis of a Polyaromatic Hydrocarbon Containing a Formal Azulene Unit. Journal of Organic Chemistry, 2023, 88, 5473-5482.	1.7	1
1717	Grain Size Engineering of CVD-Grown Large-Area Graphene Films. Small Methods, 2023, 7, .	4.6	2
1718	Intrinsic carbon structural imperfections for enhancing energy conversion electrocatalysts. Chemical Engineering Journal, 2023, 466, 143060.	6.6	7
1719	Defect Contrast with 4D-STEM: Understanding Crystalline Order with Virtual Detectors and Beam Modification. Microscopy and Microanalysis, 0, , .	0.2	0
1721	Fabrication Routes of Graphene. Engineering Materials, 2023, , 53-90.	0.3	0
1737	Topological phenomena at defects in acoustic, photonic and solid-state lattices. Nature Reviews Physics, 2023, 5, 483-495.	11.9	16
1760	Photocatalysis with atomically thin sheets. Chemical Society Reviews, 2023, 52, 7687-7706.	18.7	6
1762	Liquid Cu-Zn catalyzed growth of graphene single-crystals. New Journal of Chemistry, 2023, 47, 20703-20707.	1.4	2
1767	Quantum phase transitions in skewed ladder systems. Physical Chemistry Chemical Physics, 0, , .	1.3	0