

# Zhiping Xu

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

175 papers	9,473 citations	45 h-index	94 g-index
180 ext. papers	10,938 ext. citations	8.7 avg, IF	6.73 L-index

#	Paper	IF	Citations
175	Structure evolution of hBN grown on molten Cu by regulating precursor flux during chemical vapor deposition. <i>2D Materials</i> , <b>2022</b> , 9, 015004	5.9	0
174	Two-step heat fusion kinetics and mechanical performance of thermoplastic interfaces.. <i>Scientific Reports</i> , <b>2022</b> , 12, 5701	4.9	0
173	Unraveling the morphological complexity of two-dimensional macromolecules. <i>Patterns</i> , <b>2022</b> , 100497	5.1	1
172	Oxygen-Assisted Anisotropic Chemical Etching of MoSe <sub>2</sub> for Enhanced Phototransistors. <i>Chemistry of Materials</i> , <b>2022</b> , 34, 4212-4223	9.6	2
171	Experimentally measuring weak fracture toughness anisotropy in graphene. <i>Communications Materials</i> , <b>2022</b> , 3,	6	1
170	Edge-enhanced ultrafast water evaporation from graphene nanopores. <i>Cell Reports Physical Science</i> , <b>2022</b> , 100900	6.1	0
169	Failure life prediction for carbon nanotubes. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2022</b> , 164, 104907	5	2
168	growth of large-area and self-aligned graphene nanoribbon arrays on liquid metal.. <i>National Science Review</i> , <b>2021</b> , 8, nwaa298	10.8	3
167	Energy-conversion efficiency and power output of twisted-filament artificial muscles. <i>Extreme Mechanics Letters</i> , <b>2021</b> , 50, 101531	3.9	1
166	Enhanced Catalytic Mechanism of Twin-Structured BiVO <sub>4</sub> . <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 10610-10615	6.4	1
165	Theoretical prediction of effective stiffness of nonwoven fibrous networks with straight and curved nanofibers. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2021</b> , 143, 106311	8.4	2
164	Understanding macroscopic assemblies of carbon nanostructures with microstructural complexity. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2021</b> , 143, 106318	8.4	7
163	Microscale Schottky superlubric generator with high direct-current density and ultralong life. <i>Nature Communications</i> , <b>2021</b> , 12, 2268	17.4	22
162	Electronic excitation in graphene under single-particle irradiation. <i>Nanotechnology</i> , <b>2021</b> , 32, 165702	3.4	2
161	Experimental nanomechanics of 2D materials for strain engineering. <i>Applied Nanoscience (Switzerland)</i> , <b>2021</b> , 11, 1075-1091	3.3	8
160	Pattern Development and Control of Strained Solitons in Graphene Bilayers. <i>Nano Letters</i> , <b>2021</b> , 21, 1772-1776	13.7	1776
159	High-strength scalable graphene sheets by freezing stretch-induced alignment. <i>Nature Materials</i> , <b>2021</b> , 20, 624-631	27	42

158	Biomimetic Mechanically Enhanced Carbon Nanotube Fibers by Silk Fibroin Infiltration. <i>Small</i> , <b>2021</b> , 17, e2100066	11	7
157	Strain Characterization in Two-Dimensional Crystals. <i>Materials</i> , <b>2021</b> , 14,	3.5	2
156	Elastocapillary cleaning of twisted bilayer graphene interfaces. <i>Nature Communications</i> , <b>2021</b> , 12, 5069	17.4	4
155	Large-Size Superlattices Synthesized by Sequential Sulfur Substitution-Induced Transformation of Metastable MoTe <sub>2</sub> . <i>Chemistry of Materials</i> , <b>2021</b> , 33, 9760-9768	9.6	2
154	On the elastic rod models for mechanical tests of one-dimensional nanostructures under transverse loads. <i>Journal of Applied Physics</i> , <b>2020</b> , 128, 164303	2.5	2
153	How Universal Is the Wetting Aging in 2D Materials. <i>Nano Letters</i> , <b>2020</b> , 20, 5670-5677	11.5	14
152	Field-enhanced selectivity in nanoconfined ionic transport. <i>Nanoscale</i> , <b>2020</b> , 12, 6512-6521	7.7	5
151	Hydrogen-dominated metal-free growth of graphitic-nitrogen doped graphene with n-type transport behaviors. <i>Carbon</i> , <b>2020</b> , 161, 123-131	10.4	6
150	Elastic straining of free-standing monolayer graphene. <i>Nature Communications</i> , <b>2020</b> , 11, 284	17.4	89
149	Ion Permeability and Selectivity in Composite Nanochannels: Engineering through the End Effects. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 4890-4898	3.8	15
148	Deciphering the nature of ion-graphene interaction. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	2
147	Nanoconfinement-Enforced Ion Correlation and Nanofluidic Ion Machinery. <i>Nano Letters</i> , <b>2020</b> , 20, 8392-8398	11.9	7
146	Large Elastic Deformation and Defect Tolerance of Hexagonal Boron Nitride Monolayers. <i>Cell Reports Physical Science</i> , <b>2020</b> , 1, 100172	6.1	8
145	Conformational Scaling Relations of Two-Dimensional Macromolecular Graphene Oxide in Solution. <i>Macromolecules</i> , <b>2020</b> , 53, 10421-10430	5.5	8
144	The effect of material mixing on interfacial stiffness and strength of multi-material additive manufacturing. <i>Additive Manufacturing</i> , <b>2020</b> , 36, 101502	6.1	4
143	Conformational Phase Map of Two-Dimensional Macromolecular Graphene Oxide in Solution. <i>Matter</i> , <b>2020</b> , 3, 230-245	12.7	16
142	Super-durable ultralong carbon nanotubes. <i>Science</i> , <b>2020</b> , 369, 1104-1106	33.3	42
141	Bending of Multilayer van der Waals Materials. <i>Physical Review Letters</i> , <b>2019</b> , 123, 116101	7.4	76

140	Molecular dynamics simulations of silicon carbide nanowires under single-ion irradiation. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 125902	2.5	0
139	Interfacial failure boosts mechanical energy dissipation in carbon nanotube films under ballistic impact. <i>Carbon</i> , <b>2019</b> , 146, 139-146	10.4	13
138	Selectively tuning gas transport through ionic liquid filled graphene oxide nanoslits using an electric field. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 15062-15067	13	29
137	Chemically modified graphene films with tunable negative Poisson's ratios. <i>Nature Communications</i> , <b>2019</b> , 10, 2446	17.4	27
136	Targeted Heating of Enzyme Systems Based on Photothermal Materials. <i>ChemBioChem</i> , <b>2019</b> , 20, 2467-2473	24.3	3
135	Ultrastrong Graphene Films via Long-Chain Bridging. <i>Matter</i> , <b>2019</b> , 1, 389-401	12.7	57
134	Graphene Oxide Promoted Cadmium Uptake by Rice in Soil. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 10283-10292	8.3	17
133	Voltage gated inter-cation selective ion channels from graphene nanopores. <i>Nanoscale</i> , <b>2019</b> , 11, 9856-9861	9.1	23
132	Edge-Epitaxial Growth of Graphene on Cu with a Hydrogen-Free Approach. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 2555-2562	9.6	12
131	Mechanical responses of boron-doped monolayer graphene. <i>Carbon</i> , <b>2019</b> , 147, 594-601	10.4	17
130	Microstructural ordering of nanofibers in flow-directed assembly. <i>Science China Technological Sciences</i> , <b>2019</b> , 62, 1545-1554	3.5	3
129	Primary Nucleation-Dominated Chemical Vapor Deposition Growth for Uniform Graphene Monolayers on Dielectric Substrate. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 11004-11008	16.4	35
128	Pattern evolution characterizes the mechanism and efficiency of CVD graphene growth. <i>Carbon</i> , <b>2019</b> , 141, 316-322	10.4	13
127	From Self-Assembly Hierarchical h-BN Patterns to Centimeter-Scale Uniform Monolayer h-BN Film. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1801493	4.6	14
126	Edges facilitate water evaporation through nanoporous graphene. <i>Nanotechnology</i> , <b>2019</b> , 30, 165401	3.4	9
125	Hierarchical-structure-dependent high ductility of electrospun polyoxymethylene nanofibers. <i>Journal of Applied Polymer Science</i> , <b>2019</b> , 136, 47086	2.9	4
124	Rolling up transition metal dichalcogenide nanoscrolls via one drop of ethanol. <i>Nature Communications</i> , <b>2018</b> , 9, 1301	17.4	69
123	Molecular-channel driven actuator with considerations for multiple configurations and color switching. <i>Nature Communications</i> , <b>2018</b> , 9, 590	17.4	108

122	Fundamental Properties of Graphene <b>2018</b> , 73-102		3
121	Graphene Composites <b>2018</b> , 201-214		1
120	Fast water transport in graphene nanofluidic channels. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 238-245	28.7	139
119	Micro- and nano-mechanics in China: A brief review of recent progress and perspectives. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2018</b> , 61, 1	3.6	23
118	Bio-inspired graphene-derived membranes with strain-controlled interlayer spacing. <i>Nanoscale</i> , <b>2018</b> , 10, 8585-8590	7.7	7
117	Mechanical exfoliation of two-dimensional materials. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2018</b> , 115, 248-262	5	78
116	Transition of Graphene Oxide from Nanomembrane to Nanoscroll Mediated by Organic Solvent in Dispersion. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 5951-5960	9.6	14
115	Renormalization of Ionic Solvation Shells in Nanochannels. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 27801-27809	9.5	21
114	Ionic Liquid Selectively Facilitates CO Transport through Graphene Oxide Membrane. <i>ACS Nano</i> , <b>2018</b> , 12, 5385-5393	16.7	99
113	Confined Structures and Selective Mass Transport of Organic Liquids in Graphene Nanochannels. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 37014-37022	9.5	15
112	Microstructure- and concentration-dependence of lithium diffusion in the silicon anode: Kinetic Monte Carlo simulations and complex network analysis. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 121904	3.4	10
111	Sunlight-Driven Water Transport via a Reconfigurable Pump. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 15435-15440	16.4	18
110	Sunlight-Driven Water Transport via a Reconfigurable Pump. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 15661-15666	16	9
109	Strength loss of carbon nanotube fibers explained in a three-level hierarchical model. <i>Carbon</i> , <b>2018</b> , 138, 134-142	10.4	35
108	Geometrical distortion leads to Griffith strength reduction in graphene membranes. <i>Extreme Mechanics Letters</i> , <b>2017</b> , 14, 31-37	3.9	16
107	Etching-Controlled Growth of Graphene by Chemical Vapor Deposition. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 1022-1027	9.6	42
106	Adhesion Energy of MoS Thin Films on Silicon-Based Substrates Determined via the Attributes of a Single MoS Wrinkle. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 7812-7818	9.5	52
105	Rollerball-Pen-Drawing Technology for Extremely Foldable Paper-Based Electronics. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1700098	6.4	26

104	Degradation and recovery of graphene/polymer interfaces under cyclic mechanical loading. <i>Composites Science and Technology</i> , <b>2017</b> , 149, 220-227	8.6	25
103	Assessment of Self-Assembled Monolayers as High-Performance Thermal Interface Materials. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700355	4.6	11
102	Atomistic dynamics of sulfur-deficient high-symmetry grain boundaries in molybdenum disulfide. <i>Nanoscale</i> , <b>2017</b> , 9, 10312-10320	7.7	15
101	Facile growth of vertically-aligned graphene nanosheets via thermal CVD: The experimental and theoretical investigations. <i>Carbon</i> , <b>2017</b> , 121, 1-9	10.4	43
100	Intrinsic mechanical properties of graphene oxide films: Strain characterization and the gripping effects. <i>Carbon</i> , <b>2017</b> , 118, 467-474	10.4	9
99	Lithiation-enhanced charge transfer and sliding strength at the silicon-graphene interface: A first-principles study. <i>Acta Mechanica Sinica</i> , <b>2017</b> , 30, 254-262	2	4
98	Energy transfer and motion synchronization between mechanical oscillators through microhydrodynamic coupling. <i>Physics of Fluids</i> , <b>2017</b> , 29, 032005	4.4	
97	Non-Continuum Intercalated Water Diffusion Explains Fast Permeation through Graphene Oxide Membranes. <i>ACS Nano</i> , <b>2017</b> , 11, 11152-11161	16.7	56
96	Measuring Interlayer Shear Stress in Bilayer Graphene. <i>Physical Review Letters</i> , <b>2017</b> , 119, 036101	7.4	111
95	Structures and thermodynamics of water encapsulated by graphene. <i>Scientific Reports</i> , <b>2017</b> , 7, 2646	4.9	19
94	Interlayer Coupling Behaviors of Boron Doped Multilayer Graphene. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 26034-26043	3.8	20
93	Optimizing Interfacial Cross-Linking in Graphene-Derived Materials, Which Balances Intralayer and Interlayer Load Transfer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 24830-24839	9.5	25
92	Large-Area Growth of Five-Lobed and Triangular Graphene Grains on Textured Cu Substrate. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600347	4.6	13
91	Hierarchical Graphene-Based Films with Dynamic Self-Stiffening for Biomimetic Artificial Muscle. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 7003-7010	15.6	44
90	Thermal transport in oxidized polycrystalline graphene. <i>Carbon</i> , <b>2016</b> , 108, 318-326	10.4	9
89	Intrinsic high water/ion selectivity of graphene oxide lamellar membranes in concentration gradient-driven diffusion. <i>Chemical Science</i> , <b>2016</b> , 7, 6988-6994	9.4	53
88	Intercalated water layers promote thermal dissipation at bio-nano interfaces. <i>Nature Communications</i> , <b>2016</b> , 7, 12854	17.4	45
87	Carbonized Silk Fabric for Ultrastretchable, Highly Sensitive, and Wearable Strain Sensors. <i>Advanced Materials</i> , <b>2016</b> , 28, 6640-8	24	584

86	Geometrical effect stiffens graphene membrane at finite vacancy concentrations. <i>Extreme Mechanics Letters</i> , <b>2016</b> , 6, 82-87	3.9	18
85	Water Intercalation for Seamless, Electrically Insulating, and Thermally Transparent Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 1970-6	9.5	23
84	Defects in two-dimensional materials: Topological and geometrical effects. <i>Chinese Science Bulletin</i> , <b>2016</b> , 61, 501-510	2.9	6
83	Nanoscale Biological Materials. <i>Journal of Nanomaterials</i> , <b>2016</b> , 2016, 1-2	3.2	
82	Confined, Oriented, and Electrically Anisotropic Graphene Wrinkles on Bacteria. <i>ACS Nano</i> , <b>2016</b> , 10, 8403-12	16.7	27
81	Interphase Induced Dynamic Self-Stiffening in Graphene-Based Polydimethylsiloxane Nanocomposites. <i>Small</i> , <b>2016</b> , 12, 3723-31	11	28
80	Geometrical control of ionic current rectification in a configurable nanofluidic diode. <i>Biomicrofluidics</i> , <b>2016</b> , 10, 054102	3.2	7
79	Heat transport in low-dimensional materials: A review and perspective. <i>Theoretical and Applied Mechanics Letters</i> , <b>2016</b> , 6, 113-121	1.8	30
78	Van der Waals Force Isolation of Monolayer MoS. <i>Advanced Materials</i> , <b>2016</b> , 28, 10055-10060	24	27
77	Chemical vapor deposition of bilayer graphene with layer-resolved growth through dynamic pressure control. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 7464-7471	7.1	19
76	Wearable Strain Sensors: Carbonized Silk Fabric for Ultrastretchable, Highly Sensitive, and Wearable Strain Sensors (Adv. Mater. 31/2016). <i>Advanced Materials</i> , <b>2016</b> , 28, 6639	24	11
75	Defect-Engineered Heat Transport in Graphene: A Route to High Efficient Thermal Rectification. <i>Scientific Reports</i> , <b>2015</b> , 5, 11962	4.9	82
74	Selective gas diffusion in graphene oxides membranes: a molecular dynamics simulations study. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 9052-9	9.5	105
73	Directed self-assembly of end-functionalized nanofibers: from percolated networks to liquid crystal-like phases. <i>Nanotechnology</i> , <b>2015</b> , 26, 205602	3.4	5
72	Defect-detriment to graphene strength is concealed by local probe: the topological and geometrical effects. <i>ACS Nano</i> , <b>2015</b> , 9, 401-8	16.7	57
71	Graphene Arrays: Direct Top-Down Fabrication of Large-Area Graphene Arrays by an In Situ Etching Method (Adv. Mater. 28/2015). <i>Advanced Materials</i> , <b>2015</b> , 27, 4194-4194	24	3
70	Mechanistic transition of heat conduction in two-dimensional solids: A study of silica bilayers. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	6
69	Direct Top-Down Fabrication of Large-Area Graphene Arrays by an In Situ Etching Method. <i>Advanced Materials</i> , <b>2015</b> , 27, 4195-9	24	30



68	Multifunctional Pristine Chemically Modified Graphene Films as Strong as Stainless Steel. <i>Advanced Materials</i> , <b>2015</b> , 27, 6708-13	24	128
67	Predicting the lifetime of superlubricity. <i>Europhysics Letters</i> , <b>2015</b> , 112, 60007	1.6	2
66	Ultimate osmosis engineered by the pore geometry and functionalization of carbon nanostructures. <i>Scientific Reports</i> , <b>2015</b> , 5, 10597	4.9	27
65	Graphene Oxides in Filtration and Separation Applications <b>2015</b> , 129-147		3
64	Thin-Shell Thickness of Two-Dimensional Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2015</b> , 82,	2.7	34
63	Peeling Silicene From Model Silver Substrates in Molecular Dynamics Simulations. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2015</b> , 82,	2.7	6
62	Mechanical responses of the bio-nano interface: A molecular dynamics study of graphene-coated lipid membrane. <i>Theoretical and Applied Mechanics Letters</i> , <b>2015</b> , 5, 231-235	1.8	9
61	The mechanism of selective molecular capture in carbon nanotube networks. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 14894-8	3.6	1
60	Near-equilibrium chemical vapor deposition of high-quality single-crystal graphene directly on various dielectric substrates. <i>Advanced Materials</i> , <b>2014</b> , 26, 1348-53	24	115
59	Understanding water permeation in graphene oxide membranes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 5877-83	9.5	339
58	Mechanics of network materials with responsive crosslinks. <i>Comptes Rendus - Mecanique</i> , <b>2014</b> , 342, 264-272		11
57	Graphene: Near-Equilibrium Chemical Vapor Deposition of High-Quality Single-Crystal Graphene Directly on Various Dielectric Substrates (Adv. Mater. 9/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 1471-1471	24	1
56	Wetting of graphene oxide: a molecular dynamics study. <i>Langmuir</i> , <b>2014</b> , 30, 3572-8	4	156
55	Breakdown of fast water transport in graphene oxides. <i>Physical Review E</i> , <b>2014</b> , 89, 012113	2.4	145
54	Graphene: Controlled Growth of Single-Crystal Twelve-Pointed Graphene Grains on a Liquid Cu Surface (Adv. Mater. 37/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 6519-6519	24	1
53	Characterizing phonon thermal conduction in polycrystalline graphene. <i>Journal of Materials Research</i> , <b>2014</b> , 29, 362-372	2.5	37
52	Controlled growth of single-crystal twelve-pointed graphene grains on a liquid Cu surface. <i>Advanced Materials</i> , <b>2014</b> , 26, 6423-9	24	50
51	The critical power to maintain thermally stable molecular junctions. <i>Nature Communications</i> , <b>2014</b> , 5, 4297	17.4	23



50	Effect of Acidity on ChitinProtein Interface: A Molecular Dynamics Study. <i>BioNanoScience</i> , <b>2014</b> , 4, 207-215	3.5	19
49	Multimodal and self-healable interfaces enable strong and tough graphene-derived materials. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2014</b> , 70, 30-41	5	46
48	Structure evolution of graphene oxide during thermally driven phase transformation: is the oxygen content really preserved?. <i>PLoS ONE</i> , <b>2014</b> , 9, e111908	3.7	21
47	Topological Defects in Two-Dimensional Crystals: The Stress Buildup and Accumulation. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2014</b> , 81,	2.7	17
46	Selective trans-membrane transport of alkali and alkaline earth cations through graphene oxide membranes based on cation- $\pi$ Interactions. <i>ACS Nano</i> , <b>2014</b> , 8, 850-9	16.7	283
45	Mechanical Properties of ChitinProtein Interfaces: A Molecular Dynamics Study. <i>BioNanoScience</i> , <b>2013</b> , 3, 312-320	3.4	26
44	Ultrafast viscous water flow through nanostrand-channelled graphene oxide membranes. <i>Nature Communications</i> , <b>2013</b> , 4, 2979	17.4	575
43	On the Fracture of Supported Graphene Under Pressure. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2013</b> , 80,	2.7	15
42	How graphene crumples are stabilized?. <i>RSC Advances</i> , <b>2013</b> , 3, 2720	3.7	25
41	Enhanced mechanical properties of carbon nanotube networks by mobile and discrete binders. <i>Carbon</i> , <b>2013</b> , 64, 237-244	10.4	29
40	Cracks fail to intensify stress in nacreous composites. <i>Composites Science and Technology</i> , <b>2013</b> , 81, 24-28	9.6	52
39	Pseudo Hall-Petch strength reduction in polycrystalline graphene. <i>Nano Letters</i> , <b>2013</b> , 13, 1829-33	11.5	154
38	Selective ion penetration of graphene oxide membranes. <i>ACS Nano</i> , <b>2013</b> , 7, 428-37	16.7	520
37	Observation of high-speed microscale superlubricity in graphite. <i>Physical Review Letters</i> , <b>2013</b> , 110, 255504	7.4	106
36	Self-organized graphene crystal patterns. <i>NPG Asia Materials</i> , <b>2013</b> , 5, e36-e36	10.3	137
35	Thermal transfer in graphene-interfaced materials: contact resistance and interface engineering. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 2599-603	9.5	36
34	Mechanics of metal-catecholates complexes: the roles of coordination state and metal types. <i>Scientific Reports</i> , <b>2013</b> , 3, 2914	4.9	144
33	Can carbon nanotube fibers achieve the ultimate conductivity? Coupled-mode analysis for electron transport through the carbon nanotube contact. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 063714	2.5	32

32	Mechanical properties of graphene papers. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2012</b> , 60, 591-605	176
31	Mechanotunable Microstructures of Carbon Nanotube Networks. <i>ACS Macro Letters</i> , <b>2012</b> , 1, 1176-1179	6.6 29
30	Thermal transport in crystalline Si/Ge nano-composites: Atomistic simulations and microscopic models. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 091903	3-4 20
29	Nanotomy-based production of transferable and dispersible graphene nanostructures of controlled shape and size. <i>Nature Communications</i> , <b>2012</b> , 3, 844	17.4 137
28	On the applicability of carbon nanotubes as nanomechanical probes and manipulators. <i>Nanotechnology</i> , <b>2012</b> , 23, 415502	3-4 1
27	Heat dissipation at a graphene-substrate interface. <i>Journal of Physics Condensed Matter</i> , <b>2012</b> , 24, 475305	8 39
26	Topology evolution of graphene in chemical vapor deposition, a combined theoretical/experimental approach toward shape control of graphene domains. <i>Nanotechnology</i> , <b>2012</b> , 23, 115605	3-4 39
25	Flow-induced dynamics of carbon nanotubes. <i>Nanoscale</i> , <b>2011</b> , 3, 4383-8	7-7 11
24	Graphene buffered galvanic synthesis of graphene-metal hybrids. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 13241	21
23	Mechanical and thermal transport properties of graphene with defects. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 041901	3-4 288
22	Mechanics of carbon nanotube networks: microstructural evolution and optimal design. <i>Soft Matter</i> , <b>2011</b> , 7, 10039	3-6 66
21	Nanoscale fluid-structure interaction: flow resistance and energy transfer between water and carbon nanotubes. <i>Physical Review E</i> , <b>2011</b> , 84, 046314	2-4 28
20	Mechanics of Microtubules from a Coarse-Grained Model. <i>BioNanoScience</i> , <b>2011</b> , 1, 173-182	3-4 7
19	Mechanics of coordinative crosslinks in graphene nanocomposites: a first-principles study. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 6707	39
18	The interlayer shear effect on graphene multilayer resonators. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2011</b> , 59, 1613-1622	5 83
17	Step driven competitive epitaxial and self-limited growth of graphene on copper surface. <i>AIP Advances</i> , <b>2011</b> , 1, 032145	1-5 19
16	Strain engineering water transport in graphene nanochannels. <i>Physical Review E</i> , <b>2011</b> , 84, 056329	2-4 86
15	Viscous damping of nanobeam resonators: Humidity, thermal noise, and a paddling effect. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 034320	2-5 18

14	Nanoconfinement controls stiffness, strength and mechanical toughness of beta-sheet crystals in silk. <i>Nature Materials</i> , <b>2010</b> , 9, 359-67	27	916
13	Alzheimer's abeta(1-40) amyloid fibrils feature size-dependent mechanical properties. <i>Biophysical Journal</i> , <b>2010</b> , 98, 2053-62	2.9	106
12	Engineering graphene by oxidation: a first-principles study. <i>Nanotechnology</i> , <b>2010</b> , 21, 045704	3.4	84
11	Strain effects on basal-plane hydrogenation of graphene: A first-principles study. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 063103	3.4	43
10	Interface structure and mechanics between graphene and metal substrates: a first-principles study. <i>Journal of Physics Condensed Matter</i> , <b>2010</b> , 22, 485301	1.8	169
9	Mechanical energy transfer and dissipation in fibrous beta-sheet-rich proteins. <i>Physical Review E</i> , <b>2010</b> , 81, 061910	2.4	25
8	Geometry controls conformation of graphene sheets: membranes, ribbons, and scrolls. <i>ACS Nano</i> , <b>2010</b> , 4, 3869-76	16.7	203
7	Hierarchical graphene nanoribbon assemblies feature unique electronic and mechanical properties. <i>Nanotechnology</i> , <b>2009</b> , 20, 375704	3.4	23
6	Graphene Nano-Ribbons Under Tension. <i>Journal of Computational and Theoretical Nanoscience</i> , <b>2009</b> , 6, 625-628	0.3	80
5	Hierarchical nanostructures are crucial to mitigate ultrasmall thermal point loads. <i>Nano Letters</i> , <b>2009</b> , 9, 2065-72	11.5	29
4	Nanoengineering heat transfer performance at carbon nanotube interfaces. <i>ACS Nano</i> , <b>2009</b> , 3, 2767-75	16.7	181
3	Strain controlled thermomutability of single-walled carbon nanotubes. <i>Nanotechnology</i> , <b>2009</b> , 20, 185703	3.4	115
2	Enhanced mechanical properties of prestressed multi-walled carbon nanotubes. <i>Small</i> , <b>2008</b> , 4, 733-7	11	24
1	Robustness of structural superlubricity beyond rigid models. <i>Friction</i> , <b>2008</b> , 1, 1-10	5.6	1