

Frictional Characteristics of Atomically Thin Sheets

Science

328, 76-80

DOI: [10.1126/science.1184167](https://doi.org/10.1126/science.1184167)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Large Scale Growth and Characterization of Atomic Hexagonal Boron Nitride Layers. Nano Letters, 2010, 10, 3209-3215.	4.5	2,317
2	Graphene Visualizes the First Water Adlayers on Mica at Ambient Conditions. Science, 2010, 329, 1188-1191.	6.0	428
3	Substrate effect on thickness-dependent friction on graphene. Physica Status Solidi (B): Basic Research, 2010, 247, 2909-2914.	0.7	206
4	Boron nitride substrates for high-quality graphene electronics. Nature Nanotechnology, 2010, 5, 722-726.	15.6	5,794
6	Characterization of Thermo-Mechanical Properties of Carbon-Based Low-Dimensional Material/Metallic Thin-Film Composites from NEMS Structures. ECS Meeting Abstracts, 2010, , .	0.0	0
7	Why Thick Can Be Slick. Science, 2010, 328, 52-53.	6.0	12
8	Friction of Wrinkles. Physical Review Letters, 2010, 105, 224301.	2.9	16
9	Characterization of Thermo-Mechanical Properties of Carbon-Based Low-Dimensional Material/Metallic Thin-Film Composites from NEMS Structures. ECS Transactions, 2010, 33, 263-268.	0.3	0
10	Chemical Vapor Deposition-Grown Graphene: The Thinnest Solid Lubricant. ACS Nano, 2011, 5, 5107-5114.	7.3	462
11	Preparation and Tribological Study of Functionalized Graphene-IL Nanocomposite Ultrathin Lubrication Films on Si Substrates. Journal of Physical Chemistry C, 2011, 115, 13275-13284.	1.5	79
12	Shape-Independent Lateral Force Calibration. ACS Applied Materials & Interfaces, 2011, 3, 3256-3260.	4.0	5
13	Simultaneous Determination of the Elastic Properties of the Lipid Bilayer by Atomic Force Microscopy: Bending, Tension, and Adhesion. Journal of Physical Chemistry B, 2011, 115, 4826-4833.	1.2	17
14	Noncontact Method for Calibration of Lateral Forces in Scanning Force Microscopy. Langmuir, 2011, 27, 4635-4644.	1.6	78
15	Economical and effective sulfide catalysts for dye-sensitized solar cells as counter electrodes. Physical Chemistry Chemical Physics, 2011, 13, 19298.	1.3	306
16	Graphene adhesion on mica: Role of surface morphology. Physical Review B, 2011, 83, .	1.1	59
17	Graphene-Based Engine Oil Nanofluids for Tribological Applications. ACS Applied Materials & Interfaces, 2011, 3, 4221-4227.	4.0	366
18	Functionalization of Single-Layer MoS ₂ Honeycomb Structures. Journal of Physical Chemistry C, 2011, 115, 13303-13311.	1.5	484
19	The Holistic Strategy in Multi-Scale Modeling. Advances in Chemical Engineering, 2011, 40, 59-118.	0.5	15

#	ARTICLE	IF	CITATIONS
20	Friction Anisotropy-Driven Domain Imaging on Exfoliated Monolayer Graphene. <i>Science</i> , 2011, 333, 607-610.	6.0	284
21	Nonlinear elasticity in nanostructured materials. <i>Reports on Progress in Physics</i> , 2011, 74, 116501.	8.1	48
22	Stability of boron nitride bilayers: Ground-state energies, interlayer distances, and tight-binding description. <i>Physical Review B</i> , 2011, 83, .	1.1	151
23	Revealing the grain structure of graphene grown by chemical vapor deposition. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	70
24	Ultrastrong adhesion of graphene membranes. <i>Nature Nanotechnology</i> , 2011, 6, 543-546.	15.6	904
25	Formation of monolayer and few-layer hexagonal boron nitride nanosheets via surface segregation. <i>Nanoscale</i> , 2011, 3, 2854.	2.8	65
26	Tunable Dielectric Properties of Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2011, 5, 5903-5908.	7.3	129
27	A Comparative Study of Lattice Dynamics of Three- and Two-Dimensional MoS ₂ . <i>Journal of Physical Chemistry C</i> , 2011, 115, 16354-16361.	1.5	298
28	Large-scale mechanical peeling of boron nitride nanosheets by low-energy ball milling. <i>Journal of Materials Chemistry</i> , 2011, 21, 11862.	6.7	373
29	Facile synthesis of 3D boron nitride nanoflowers composed of vertically aligned nanoflakes and fabrication of graphene-like BN by exfoliation. <i>Journal of Materials Chemistry</i> , 2011, 21, 9201.	6.7	85
30	Thickness and Density of Additive Adsorbed Layer on Metal Surface Measured by Neutron Reflectometry and Its Effect on Tribological Properties. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , 2011, 77, 2884-2893.	0.2	0
31	Theoretical study of vacancies and adatoms in white graphene. <i>JETP Letters</i> , 2011, 93, 335-338.	0.4	10
32	Energetics and structural properties of carbon and oxygen doped hexagonal boron nitride sheets. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2011, 44, 215-217.	1.3	15
33	Replication of Single Macromolecules with Graphene. <i>Nano Letters</i> , 2011, 11, 2436-2439.	4.5	30
34	Photoluminescence from Chemically Exfoliated MoS ₂ . <i>Nano Letters</i> , 2011, 11, 5111-5116.	4.5	3,402
35	Mechanical and Electronic Properties of MoS ₂ Nanoribbons and Their Defects. <i>Journal of Physical Chemistry C</i> , 2011, 115, 3934-3941.	1.5	427
36	Morphologies of monolayer graphene under indentation. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2011, 19, 054004.	0.8	6
37	Boron Carbon Nitride Nanostructures from Salt Melts: Tunable Water-Soluble Phosphors. <i>Journal of the American Chemical Society</i> , 2011, 133, 7121-7127.	6.6	428

#	ARTICLE	IF	CITATIONS
38	Environmentally friendly approaches toward the mass production of processable graphene from graphite oxide. <i>Journal of Materials Chemistry</i> , 2011, 21, 298-306.	6.7	173
39	Atomic Friction Modulation on the Reconstructed Au(111) Surface. <i>Tribology Letters</i> , 2011, 43, 369-378.	1.2	22
40	Friction and wear characteristics of multi-layer graphene films investigated by atomic force microscopy. <i>Surface and Coatings Technology</i> , 2011, 205, 4864-4869.	2.2	159
41	Hunting for Monolayer Boron Nitride: Optical and Raman Signatures. <i>Small</i> , 2011, 7, 465-468.	5.2	950
42	“Chemical Blowing” of Thin-Walled Bubbles: High-Throughput Fabrication of Large-Area, Few-Layered BN and C _x N Nanosheets. <i>Advanced Materials</i> , 2011, 23, 4072-4076.	11.1	217
43	A theoretical analysis of frictional and defect characteristics of graphene probed by a capped single-walled carbon nanotube. <i>Carbon</i> , 2011, 49, 3687-3697.	5.4	71
44	Frictional characteristics of exfoliated and epitaxial graphene. <i>Carbon</i> , 2011, 49, 4070-4073.	5.4	116
45	Epitaxial growth of graphene on Ir(111) by liquid precursor deposition. <i>Physical Review B</i> , 2011, 84, .	1.1	22
46	Thermal-Induced Edge Barriers and Forces in Interlayer Interaction of Concentric Carbon Nanotubes. <i>Physical Review Letters</i> , 2011, 107, 105502.	2.9	81
47	Fabrication and performance of graphene nanoelectromechanical systems. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, .	0.6	55
48	Electronic structure and stability of layered superlattice composed of graphene and boron nitride monolayer. <i>Physical Review B</i> , 2011, 83, .	1.1	50
49	Vanishing stick-slip friction in few-layer graphenes: the thickness effect. <i>Nanotechnology</i> , 2011, 22, 285708.	1.3	99
50	Spin Current Switching and Spin-Filtering Effects in Mn-Doped Boron Nitride Nanoribbons. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-5.	1.5	12
51	Facile characterization of ripple domains on exfoliated graphene. <i>Review of Scientific Instruments</i> , 2012, 83, 073905.	0.6	27
52	Tribological Properties of Graphene and Boron-Nitride Layers: A Fully Atomistic Molecular Dynamics Study. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1407, 181.	0.1	0
53	Direct observation of stick-slip movements of water nanodroplets induced by an electron beam. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 7187-7190.	3.3	97
54	Density functional studies of the defect-induced electronic structure modifications in bilayer boronitrene. <i>Journal of Physics: Conference Series</i> , 2012, 367, 012004.	0.3	1
55	Theory of rigid-plane phonon modes in layered crystals. <i>Physical Review B</i> , 2012, 85, .	1.1	52

#	ARTICLE	IF	CITATIONS
56	Atomic-scale friction in graphene oxide: An interfacial interaction perspective from first-principles calculations. <i>Physical Review B</i> , 2012, 86, .	1.1	89
57	Observation of Microscale Superlubricity in Graphite. <i>Physical Review Letters</i> , 2012, 108, 205503.	2.9	431
58	Effect of elastic deformation on frictional properties of few-layer graphene. <i>Physical Review B</i> , 2012, 85, .	1.1	110
59	Epitaxial growth of graphene on transition metal surfaces: chemical vapor deposition versus liquid phase deposition. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 314204.	0.7	35
60	Role of wrinkle height in friction variation with number of graphene layers. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	102
61	The Wear Characteristics of Graphene as an Atomically-Thin Protective Coating. , 2012, , .		0
62	The Friction Forces Between Si Tip and Multilayer Graphene. , 2012, , .		1
63	Adhesion-dependent negative friction coefficient on chemically modified graphite at the nanoscale. <i>Nature Materials</i> , 2012, 11, 1032-1037.	13.3	258
64	Tunable dielectric response of transition metals dichalcogenides MX ₂ (M=Mo, W; X=S, Se, Te): Effect of quantum confinement. <i>Physica B: Condensed Matter</i> , 2012, 407, 4627-4634.	1.3	211
65	Potential energy surface for graphene on graphene: <i>Ab initio</i> derivation, analytical description, and microscopic interpretation. <i>Physical Review B</i> , 2012, 86, .	1.1	128
66	Water tribology on graphene. <i>Nature Communications</i> , 2012, 3, 1242.	5.8	64
67	Domains stack up. <i>Nature Materials</i> , 2012, 11, 1005-1006.	13.3	7
68	Positively 'negative' friction. <i>Nature Materials</i> , 2012, 11, 1004-1005.	13.3	2
69	Tensionless contact of a finite circular plate. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2012, 28, 1374-1381.	1.5	8
70	Friction and Wear on Single-Layer Epitaxial Graphene in Multi-Asperity Contacts. <i>Tribology Letters</i> , 2012, 48, 77-82.	1.2	98
71	Tribological and mechanical investigation of MC nylon reinforced by modified graphene oxide. <i>Wear</i> , 2012, 294-295, 395-401.	1.5	118
72	Toward a probe-based method for determining exfoliation energies of lamellar materials. , 2012, , .		0
73	Mechanism of ultra low friction of multilayer graphene studied by coarse-grained molecular simulation. <i>Faraday Discussions</i> , 2012, 156, 279.	1.6	26

#	ARTICLE	IF	CITATIONS
74	Graphene Films for Corrosion Protection of Gold Coated Cuprous Substrates in View of an Application to Electrical Contacts. , 2012, , .		5
75	Magnetic behavior and clustering effects in Mn-doped boron nitride sheets. Journal of Physics Condensed Matter, 2012, 24, 326003.	0.7	6
76	Multilayer graphene sheets assembled by Langmuir-Blodgett fro tribology application. , 2012, , .		0
77	Device concepts using two-dimensional electronic materials: Graphene, MoS ₂ , etc. , 2012, , .		1
78	Graphite and Hexagonal Boron-Nitride have the Same Interlayer Distance. Why?. Journal of Chemical Theory and Computation, 2012, 8, 1360-1369.	2.3	256
79	Graphene based heterostructures. Solid State Communications, 2012, 152, 1275-1282.	0.9	184
80	Adhesion mechanics of graphene membranes. Solid State Communications, 2012, 152, 1359-1364.	0.9	119
81	Optical separation of mechanical strain from charge doping in graphene. Nature Communications, 2012, 3, 1024.	5.8	814
82	Friction and energy dissipation mechanisms in adsorbed molecules and molecularly thin films. Advances in Physics, 2012, 61, 155-323.	35.9	177
83	Advances in 2D boron nitride nanostructures: nanosheets, nanoribbons, nanomeshes, and hybrids with graphene. Nanoscale, 2012, 4, 6908.	2.8	745
84	Shifting atomic patterns: on the origin of the different atomic-scale patterns of graphite as observed using scanning tunnelling microscopy. Nanotechnology, 2012, 23, 185703.	1.3	9
85	Coupled Spin and Valley Physics in Monolayers of MoS_2 and Other Group-VI Dichalcogenides. Physical Review Letters. 2012, 108, 196802.	2.9	3,872
86	Photoluminescence of boron nitride nanosheets exfoliated by ball milling. Applied Physics Letters, 2012, 100, .	1.5	84
87	Optimizing the Reinforcement of Polymer-Based Nanocomposites by Graphene. ACS Nano, 2012, 6, 2086-2095.	7.3	255
88	The mechanics of graphene nanocomposites: A review. Composites Science and Technology, 2012, 72, 1459-1476.	3.8	1,076
89	Platinum-Free Catalysts as Counter Electrodes in Dye-Sensitized Solar Cells. ChemSusChem, 2012, 5, 1343-1357.	3.6	194
90	Well-Defined Colloidal 2-D Layered Transition-Metal Chalcogenide Nanocrystals via Generalized Synthetic Protocols. Journal of the American Chemical Society, 2012, 134, 18233-18236.	6.6	224
91	Nanoscale electron diffraction and plasmon spectroscopy of single- and few-layer boron nitride. Physical Review B, 2012, 85, .	1.1	46

#	ARTICLE	IF	CITATIONS
92	First principles molecular dynamics study of nitrogen vacancy complexes in boronitrene. Journal of Physics Condensed Matter, 2012, 24, 265002.	0.7	8
93	Edge-dependent structural, electronic and magnetic properties of MoS ₂ nanoribbons. Journal of Materials Chemistry, 2012, 22, 7280.	6.7	250
94	Tuning the Electronic Properties of Semiconducting Transition Metal Dichalcogenides by Applying Mechanical Strains. ACS Nano, 2012, 6, 5449-5456.	7.3	809
95	Strength, plasticity, interlayer interactions and phase transition of low-dimensional nanomaterials under multiple fields. Acta Mechanica Solida Sinica, 2012, 25, 221-243.	1.0	7
96	A first principle Comparative study of electronic and optical properties of 1H " MoS ₂ and 2H " MoS ₂ . Materials Chemistry and Physics, 2012, 135, 755-761.	2.0	155
97	Nanoscale frictional characteristics of graphene nanoribbons. Applied Physics Letters, 2012, 101, 123104.	1.5	14
98	Friction by Shear Deformations in Multilayer Graphene. Journal of Physical Chemistry C, 2012, 116, 21104-21108.	1.5	52
99	Facile synthesis of vertically aligned hexagonal boron nitride nanosheets hybridized with graphitic domains. Journal of Materials Chemistry, 2012, 22, 4818.	6.7	81
100	Band gap engineering by functionalization of BN sheet. Physical Review B, 2012, 85, .	1.1	135
101	Interlayer commensurability and superlubricity in rigid layered materials. Physical Review B, 2012, 86, .	1.1	80
102	Anomalous friction in suspended graphene. Physical Review B, 2012, 86, .	1.1	47
103	Scanning Tunneling Microscopy Study and Nanomanipulation of Graphene-Coated Water on Mica. Nano Letters, 2012, 12, 2665-2672.	4.5	102
104	Contact and Friction of One- and Two-Dimensional Nanostructures. Nanoscience and Technology, 2012, , 335-361.	1.5	0
105	Modeling noncontact atomic force microscopy resolution on corrugated surfaces. Beilstein Journal of Nanotechnology, 2012, 3, 230-237.	1.5	2
106	Domain structures of single layer graphene imaged with conductive probe atomic force microscopy. Surface and Interface Analysis, 2012, 44, 768-771.	0.8	16
107	Fabrication of Single- and Multilayer MoS ₂ Film-Based Field-Effect Transistors for Sensing NO at Room Temperature. Small, 2012, 8, 63-67.	5.2	1,346
108	Optical Identification of Single- and Few-Layer MoS ₂ Sheets. Small, 2012, 8, 682-686.	5.2	290
109	Fabrication of Flexible MoS ₂ Thin-Film Transistor Arrays for Practical Gas Sensing Applications. Small, 2012, 8, 2994-2999.	5.2	817

#	ARTICLE	IF	CITATIONS
110	Graphene nanoribbons subject to gentle bends. Physical Review B, 2012, 85, .	1.1	25
111	Dynamic Negative Compressibility of Few-Layer Graphene, h-BN, and MoS ₂ . Nano Letters, 2012, 12, 2313-2317.	4.5	66
112	Observation of kinks and antikinks in colloidal monolayers driven across ordered surfaces. Nature Materials, 2012, 11, 126-130.	13.3	183
113	Stable, Single-Layer MX ₂ Transition-Metal Oxides and Dichalcogenides in a Honeycomb-Like Structure. Journal of Physical Chemistry C, 2012, 116, 8983-8999.	1.5	1,196
114	Enhanced Nanoscale Friction on Fluorinated Graphene. Nano Letters, 2012, 12, 6043-6048.	4.5	262
115	Towards Rationally Designed Graphene-Based Materials and Devices. Macromolecular Chemistry and Physics, 2012, 213, 1091-1100.	1.1	20
116	Controlled fabrication of ultrathin-shell BN hollow spheres with excellent performance in hydrogen storage and wastewater treatment. Energy and Environmental Science, 2012, 5, 7072.	15.6	172
117	Tuning the Electronic and Magnetic Properties of MoS ₂ Nanoribbons by Strain Engineering. Journal of Physical Chemistry C, 2012, 116, 11752-11757.	1.5	212
118	Thickness and strain effects on electronic structures of transition metal dichalcogenides: $2H-MX_2$		

#	ARTICLE	IF	CITATIONS
128	Mechanical and electronic properties of monolayer MoS ₂ under elastic strain. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1166-1170.	0.9	313
129	Preparation and tribological properties of graphene oxide/nitrile rubber nanocomposites. Journal of Materials Science, 2012, 47, 730-738.	1.7	146
130	Spin filtering in graphene nanoribbons with Mn-doped boron nitride inclusions. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 1347-1351.	1.7	21
131	Effect of airborne contaminants on the wettability of supported graphene and graphite. Nature Materials, 2013, 12, 925-931.	13.3	712
132	Weak mismatch epitaxy and structural Feedback in graphene growth on copper foil. Nano Research, 2013, 6, 99-112.	5.8	73
133	Nanotribological Properties of Fluorinated, Hydrogenated, and Oxidized Graphenes. Tribology Letters, 2013, 50, 137-144.	1.2	123
134	Correlation Between Probe Shape and Atomic Friction Peaks at Graphite Step Edges. Tribology Letters, 2013, 50, 49-57.	1.2	47
135	Quantized friction across ionic liquid thin films. Physical Chemistry Chemical Physics, 2013, 15, 15317.	1.3	135
136	Optical and vibrational properties of hydrogenated BN-sheet: First principles study. Applied Surface Science, 2013, 284, 638-643.	3.1	6
137	Puckering Stick-Slip Friction Induced by a Sliding Nanoscale Contact. Physical Review Letters, 2013, 111, 084301.	2.9	38
138	Anomalous frequency trends in MoS ₂ thin films attributed to surface effects. Physical Review B, 2013, 88, .	1.1	104
139	Effect of sulphur vacancy on geometric and electronic structure of MoS ₂ induced by molecular hydrogen treatment at room temperature. RSC Advances, 2013, 3, 18424.	1.7	47
140	Superlubric to stick-slip sliding of incommensurate graphene flakes on graphite. Physical Review B, 2013, 88, .	1.1	98
141	Superlubricity through graphene multilayers between Ni(111) surfaces. Physical Review B, 2013, 87, .	1.1	63
142	Chemisorption of thermal reduced graphene oxide nano-layer film on TNTZ surface and its tribological behavior. Surface and Coatings Technology, 2013, 232, 331-339.	2.2	34
143	Room temperature rubbing for few-layer two-dimensional thin flakes directly on flexible polymer substrates. Scientific Reports, 2013, 3, 2697.	1.6	26
144	2D layered insulator hexagonal boron nitride enabled surface passivation in dye sensitized solar cells. Nanoscale, 2013, 5, 11275.	2.8	52
145	Electronic states in hybrid boron nitride and graphene structures. Journal of Applied Physics, 2013, 114, 063707.	1.1	13

#	ARTICLE	IF	CITATIONS
146	Chloride-Driven Chemical Vapor Transport Method for Crystal Growth of Transition Metal Dichalcogenides. <i>Crystal Growth and Design</i> , 2013, 13, 4453-4459.	1.4	66
147	Atomic roughness enhanced friction on hydrogenated graphene. <i>Nanotechnology</i> , 2013, 24, 375701.	1.3	87
148	Investigation on friction performance of graphene. , 2013, , .		1
149	Oxygen adsorption and dissociation during the oxidation of monolayer Ti ₂ C. <i>Journal of Materials Chemistry A</i> , 2013, 1, 13672.	5.2	77
150	Effect of quantum confinement on electronic and dielectric properties of niobium dichalcogenides NbX ₂ (X=S, Se, Te). <i>Journal of Alloys and Compounds</i> , 2013, 550, 283-291.	2.8	33
151	Characterisation Techniques. , 2013, , 229-332.		8
152	Graphene-Like Two-Dimensional Materials. <i>Chemical Reviews</i> , 2013, 113, 3766-3798.	23.0	3,761
153	Tuning the solubility of boron nitridenanosheets in organic solvents by using block copolymer as a "Janus" modifier. <i>Chemical Communications</i> , 2013, 49, 388-390.	2.2	38
154	High on/off ratio field effect transistors based on exfoliated crystalline SnS ₂ nano-membranes. <i>Nanotechnology</i> , 2013, 24, 025202.	1.3	120
155	Preparation of a boron nitride single layer on a polycrystalline Rh surface. <i>Applied Surface Science</i> , 2013, 264, 838-844.	3.1	6
156	Metal dichalcogenide nanosheets: preparation, properties and applications. <i>Chemical Society Reviews</i> , 2013, 42, 1934.	18.7	1,809
157	Macrotribological behavior of the graphene surface structured in a cylinder array. <i>Surface and Coatings Technology</i> , 2013, 236, 296-302.	2.2	3
158	Nano/micro tribological behaviors of a self-assembled graphene oxide nanolayer on Ti/titanium alloy substrates. <i>Applied Surface Science</i> , 2013, 285, 937-944.	3.1	50
159	Friction and atomic-layer-scale wear of graphitic lubricants on SiC(0001) in dry sliding. <i>Wear</i> , 2013, 300, 78-81.	1.5	42
160	Developing nanoscale inertial sensor based on graphite-flake with self-retracting motion. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2013, 50, 44-50.	1.3	11
161	The beneficial effect of graphene nanofillers on the tribological performance of ceramics. <i>Carbon</i> , 2013, 61, 431-435.	5.4	146
162	Interlayer Breathing and Shear Modes in Few-Trilayer MoS ₂ and WSe ₂ . <i>Nano Letters</i> , 2013, 13, 1007-1015.	4.5	576
163	In-plane heterostructures of graphene and hexagonal boron nitride with controlled domain sizes. <i>Nature Nanotechnology</i> , 2013, 8, 119-124.	15.6	796

#	ARTICLE	IF	CITATIONS
164	Durability and degradation mechanism of graphene coatings deposited on Cu substrates under dry contact sliding. Carbon, 2013, 54, 472-481.	5.4	132
165	Superlubric Sliding of Graphene Nanoflakes on Graphene. ACS Nano, 2013, 7, 1718-1724.	7.3	370
166	Investigation of MoS ₂ and Graphene Nanosheets by Magnetic Force Microscopy. ACS Nano, 2013, 7, 2842-2849.	7.3	117
167	Mechanical Exfoliation and Characterization of Single- and Few-Layer Nanosheets of WSe ₂ , TaS ₂ , and TaSe ₂ . Small, 2013, 9, 1974-1981.	5.2	544
168	Friction, adhesion, and elasticity of graphene edges. Physical Review B, 2013, 87, .	1.1	41
169	Growth of High-Crystalline, Single-Layer Hexagonal Boron Nitride on Recyclable Platinum Foil. Nano Letters, 2013, 13, 1834-1839.	4.5	336
170	Preparation, characterization and photoelectrochemical property of ultrathin MoS ₂ nanosheets via hydrothermal intercalation and exfoliation route. Journal of Alloys and Compounds, 2013, 571, 37-42.	2.8	88
171	Band Gap Engineering of BN Sheets by Interlayer Dihydrogen Bonding and Electric Field Control. ChemPhysChem, 2013, 14, 1787-1792.	1.0	36
172	Porous boron nitride nanosheets for effective water cleaning. Nature Communications, 2013, 4, 1777.	5.8	831
173	Effect of surface morphology on friction of graphene on various substrates. Nanoscale, 2013, 5, 3063.	2.8	148
174	How Graphene Slides: Measurement and Theory of Strain-Dependent Frictional Forces between Graphene and SiO ₂ . Nano Letters, 2013, 13, 2605-2610.	4.5	100
175	Evaluation of hexagonal boron nitride nano-sheets as a lubricant additive in water. Wear, 2013, 302, 981-986.	1.5	146
176	Sensing Behavior of Atomically Thin-Layered MoS ₂ Transistors. ACS Nano, 2013, 7, 4879-4891.	7.3	1,158
177	Fabrication and Investigation the Microtribological Behaviors of Ionic Liquid-Graphene Composite Films. Tribology Transactions, 2013, 56, 480-487.	1.1	23
178	Synthesis and Photoresponse of Large GaSe Atomic Layers. Nano Letters, 2013, 13, 2777-2781.	4.5	381
179	Calculation of Normal Contact Forces between Silica Nanospheres. Langmuir, 2013, 29, 7825-7837.	1.6	61
180	Reduced wear and friction enabled by graphene layers on sliding steel surfaces in dry nitrogen. Carbon, 2013, 59, 167-175.	5.4	417
181	Adhesion and friction control localized folding in supported graphene. Journal of Applied Physics, 2013, 113, .	1.1	58

#	ARTICLE	IF	CITATIONS
182	Graphene Transistors: Status, Prospects, and Problems. Proceedings of the IEEE, 2013, 101, 1567-1584.	16.4	392
183	Lower friction and higher wear resistance of fluorine-incorporated amorphous carbon films. Surface and Interface Analysis, 2013, 45, 1329-1333.	0.8	6
184	Nanoscale Interfacial Interactions of Graphene with Polar and Nonpolar Liquids. Langmuir, 2013, 29, 7735-7742.	1.6	51
185	High Frequency MoS ₂ Nanomechanical Resonators. ACS Nano, 2013, 7, 6086-6091.	7.3	262
186	Nanoscale Interfacial Friction and Adhesion on Supported versus Suspended Monolayer and Multilayer Graphene. Langmuir, 2013, 29, 235-243.	1.6	112
187	Robust Superlubricity in Graphene/h-BN Heterojunctions. Journal of Physical Chemistry Letters, 2013, 4, 115-120.	2.1	184
188	Two-dimensional ferromagnet/semiconductor transition metal dichalcogenide contacts: p -type Schottky barrier and spin-injection control. Physical Review B, 2013, 88, .	1.1	58
189	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
190	Boron Nitride Nanosheets: novel Syntheses and Applications in polymeric Composites. Journal of Physics: Conference Series, 2013, 471, 012003.	0.3	54
191	Metal to semiconductor transition in metallic transition metal dichalcogenides. Journal of Applied Physics, 2013, 114, 174307.	1.1	31
192	Nonuniform friction-area dependency for antimony oxide surfaces sliding on graphite. Physical Review B, 2013, 88, .	1.1	11
193	DNA Translocation through Hydrophilic Nanopore in Hexagonal Boron Nitride. Scientific Reports, 2013, 3, 3287.	1.6	100
194	Fringe structures and tunable bandgap width of 2D boron nitride nanosheets. Beilstein Journal of Nanotechnology, 2014, 5, 1186-1192.	1.5	14
195	Study of nanotribological properties of multilayer graphene by calibrated atomic force microscopy. Nanotechnology, 2014, 25, 305701.	1.3	28
196	Influence of graphene coating on the adsorption and tribology of Xe on Au(111) substrate. Journal of Physics Condensed Matter, 2014, 26, 445003.	0.7	2
197	Uniform B-C-N Ternary Monolayer from Non-Metal Filled g-C ₃ N ₄ Sheet. Chinese Journal of Chemical Physics, 2014, 27, 394-398.	0.6	4
198	Synthesis of wafer-scale hexagonal boron nitride monolayers free of aminoborane nanoparticles by chemical vapor deposition. Nanotechnology, 2014, 25, 145604.	1.3	50
199	Sliding speed-induced nanoscale friction mosaicity at the graphite surface. Physical Review B, 2014, 90, .	1.1	18

#	ARTICLE	IF	CITATIONS
200	Ultrahigh stability of atomically thin metallic glasses. Applied Physics Letters, 2014, 105, .	1.5	16
201	Direct torsional actuation of microcantilevers using magnetic excitation. Applied Physics Letters, 2014, 105, .	1.5	13
202	Friction force microscopy studies on SiO ₂ supported pristine and hydrogenated graphene. Applied Physics Letters, 2014, 104, 041910.	1.5	28
203	Single-layer MoS ₂ roughness and sliding friction quenching by interaction with atomically flat substrates. Applied Physics Letters, 2014, 105, .	1.5	64
204	Nanocrystallineâ€Grapheneâ€Tailored Hexagonal Boron Nitride Thin Films. Angewandte Chemie - International Edition, 2014, 53, 11493-11497.	7.2	24
205	Stacking textures and singularities in bilayer graphene. Physical Review B, 2014, 89, .	1.1	12
206	Two-dimensional square ternary Cu ₂ MX ₂ <small>xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math><i>MX</i><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow</small>		

#	ARTICLE	IF	CITATIONS
219	Probe-rotating atomic force microscopy for determining material properties. Review of Scientific Instruments, 2014, 85, 033708.	0.6	4
220	Nanomechanical and Charge Transport Properties of Two-Dimensional Atomic Sheets. Advanced Materials Interfaces, 2014, 1, 1300089.	1.9	32
221	Tribology of graphene: A review. International Journal of Precision Engineering and Manufacturing, 2014, 15, 577-585.	1.1	167
222	The physics of atomic-scale friction: Basic considerations and open questions. Physica Status Solidi (B): Basic Research, 2014, 251, 711-736.	0.7	84
223	Graphene: a new emerging lubricant. Materials Today, 2014, 17, 31-42.	8.3	1,115
224	Commensurate-incommensurate transition in graphene on hexagonal boron nitride. Nature Physics, 2014, 10, 451-456.	6.5	737
225	Interlayer coupling enhancement in graphene/hexagonal boron nitride heterostructures by intercalated defects or vacancies. Journal of Chemical Physics, 2014, 140, 134706.	1.2	52
226	Spin and valley transport in monolayers of MoS ₂ . Journal of Applied Physics, 2014, 115, 133703.	1.1	25
227	Boron Nitride-Graphene Nanocapacitor and the Origins of Anomalous Size-Dependent Increase of Capacitance. Nano Letters, 2014, 14, 1739-1744.	4.5	120
228	Hard coatings with high temperature adaptive lubrication and contact thermal management: review. Surface and Coatings Technology, 2014, 257, 247-265.	2.2	202
229	Gas adsorption on MoS ₂ monolayer from first-principles calculations. Chemical Physics Letters, 2014, 595-596, 35-42.	1.2	328
230	Sandwich beam model for free vibration analysis of bilayer graphene nanoribbons with interlayer shear effect. Journal of Applied Physics, 2014, 115, .	1.1	20
231	Fabrication of novel graphene-fullerene hybrid lubricating films based on self-assembly for MEMS applications. Chemical Communications, 2014, 50, 469-471.	2.2	96
232	Transparent Flexible Graphene Triboelectric Nanogenerators. Advanced Materials, 2014, 26, 3918-3925.	11.1	391
233	Nonvolatile graphene nanoflake shuttle memory. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 56, 17-23.	1.3	10
234	Frictional Behavior of Atomically Thin Sheets: Hexagonal-Shaped Graphene Islands Grown on Copper by Chemical Vapor Deposition. ACS Nano, 2014, 8, 5010-5021.	7.3	136
235	Quantum wells formed in transition-metal dichalcogenide nanosheet-superlattices: stability and electronic structures from first principles. Physical Chemistry Chemical Physics, 2014, 16, 1393-1398.	1.3	25
236	Ferromagnetism in MnX ₂ (X = S, Se) monolayers. Physical Chemistry Chemical Physics, 2014, 16, 4990.	1.3	199

#	ARTICLE	IF	CITATIONS
237	Direct observation of the transition from indirect to direct bandgap in atomically thin epitaxial MoSe ₂ . <i>Nature Nanotechnology</i> , 2014, 9, 111-115.	15.6	1,129
238	Structures and Phase Transition of a MoS ₂ Monolayer. <i>Journal of Physical Chemistry C</i> , 2014, 118, 1515-1522.	1.5	432
239	MoS ₂ . <i>Lecture Notes in Nanoscale Science and Technology</i> , 2014, , .	0.4	42
240	Enhanced tribological performance of the multi-layer graphene filled poly(vinyl chloride) composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014, 67, 268-273.	3.8	99
241	Atomic Scale Mechanisms of Friction Reduction and Wear Protection by Graphene. <i>Nano Letters</i> , 2014, 14, 7145-7152.	4.5	210
242	Effects of substrate roughness and electron-phonon coupling on thickness-dependent friction of graphene. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 055305.	1.3	52
243	Pulsed Laser Deposition of Photoresponsive Two-Dimensional GaSe Nanosheet Networks. <i>Advanced Functional Materials</i> , 2014, 24, 6365-6371.	7.8	108
244	Friction of low-dimensional nanomaterial systems. <i>Friction</i> , 2014, 2, 209-225.	3.4	70
245	Structural and tribological characterization of fluorinated graphene with various fluorine contents prepared by liquid-phase exfoliation. <i>RSC Advances</i> , 2014, 4, 56543-56551.	1.7	45
246	Ab initio study of graphene-like monolayer molybdenum disulfide as a promising anode material for rechargeable sodium ion batteries. <i>RSC Advances</i> , 2014, 4, 43183-43188.	1.7	88
247	Effects of surface compliance and relaxation on the frictional properties of lamellar materials. <i>RSC Advances</i> , 2014, 4, 26721-26728.	1.7	14
248	Preparation and utility of a self-lubricating & anti-wear graphene oxide/nano-polytetrafluoroethylene hybrid. <i>RSC Advances</i> , 2014, 4, 19814-19823.	1.7	28
249	Graphene oxide based smart fluids. <i>Soft Matter</i> , 2014, 10, 6601.	1.2	63
250	The different adsorption mechanism of methane molecule onto a boron nitride and a graphene flakes. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	16
251	An ionic liquid lubricant enables superlubricity to be "switched on" in situ using an electrical potential. <i>Chemical Communications</i> , 2014, 50, 4368.	2.2	154
252	Tuning band gaps of BN nanosheets and nanoribbons via interfacial dihalogen bonding and external electric field. <i>Nanoscale</i> , 2014, 6, 8624-8634.	2.8	64
253	Internal friction characteristic and analysis of in-plane natural frequency of trilayer complexes formed from graphenes and boron nitride nanosheets. <i>RSC Advances</i> , 2014, 4, 45425-45432.	1.7	3
254	High-energy collective electronic excitations in layered transition-metal dichalcogenides. <i>Physical Review B</i> , 2014, 90, .	1.1	15

#	ARTICLE	IF	CITATIONS
255	A Graphene Surface Force Balance. <i>Langmuir</i> , 2014, 30, 11485-11492.	1.6	21
256	Thermolubricity of gas monolayers on graphene. <i>Nanoscale</i> , 2014, 6, 8062.	2.8	13
257	Extraordinary Macroscale Wear Resistance of One Atom Thick Graphene Layer. <i>Advanced Functional Materials</i> , 2014, 24, 6640-6646.	7.8	251
258	Biomass-Directed Synthesis of 20 g High-Quality Boron Nitride Nanosheets for Thermoconductive Polymeric Composites. <i>ACS Nano</i> , 2014, 8, 9081-9088.	7.3	145
259	Effect of vacancies on structural, electronic and optical properties of monolayer MoS ₂ : A first-principles study. <i>Journal of Alloys and Compounds</i> , 2014, 613, 122-127.	2.8	89
260	The effect of H adsorption on the electronic and magnetic states in the hybrid structure of graphene and BN. <i>Computational Materials Science</i> , 2014, 93, 50-55.	1.4	6
261	Investigation of a hydrothermal reduced graphene oxide nano coating on Ti substrate and its nano-tribological behavior. <i>Surface and Coatings Technology</i> , 2014, 254, 298-304.	2.2	45
262	Dynamics of Ethanol and Water Mixtures Observed in a Self-Adjusting Molecularly Thin Slit Pore. <i>Langmuir</i> , 2014, 30, 3455-3459.	1.6	29
263	Fluorination of Graphene Enhances Friction Due to Increased Corrugation. <i>Nano Letters</i> , 2014, 14, 5212-5217.	4.5	142
264	Two-Dimensional Material Membranes: An Emerging Platform for Controllable Mass Transport Applications. <i>Small</i> , 2014, 10, 4521-4542.	5.2	115
265	Secondary Electron Intensity Contrast Imaging and Friction Properties of Micromechanically Cleaved Graphene Layers on Insulating Substrates. <i>Journal of Electronic Materials</i> , 2014, 43, 3458-3469.	1.0	18
266	Phase Transformation Guided Single-Layer $\text{Co}(\text{OH})_2$ Nanosheets for Pseudocapacitive Electrodes. <i>ACS Nano</i> , 2014, 8, 3724-3734.	7.3	154
267	High-Sensitivity Photodetectors Based on Multilayer GaTe Flakes. <i>ACS Nano</i> , 2014, 8, 752-760.	7.3	319
268	Progress on the Theoretical Study of Two-Dimensional MoS ₂ Monolayer and Nanoribbon. <i>Lecture Notes in Nanoscale Science and Technology</i> , 2014, , 1-35.	0.4	2
269	Grain refinement: A mechanism for graphene nanoplatelets to reduce friction and wear of Ni ₃ Al matrix self-lubricating composites. <i>Wear</i> , 2014, 310, 33-40.	1.5	132
270	Chemical Reduction of Individual Graphene Oxide Sheets as Revealed by Electrostatic Force Microscopy. <i>Journal of the American Chemical Society</i> , 2014, 136, 6546-6549.	6.6	66
271	Sliding Properties of MoS ₂ Layers: Load and Interlayer Orientation Effects. <i>Journal of Physical Chemistry C</i> , 2014, 118, 13809-13816.	1.5	106
272	Study on the Surface Energy of Graphene by Contact Angle Measurements. <i>Langmuir</i> , 2014, 30, 8598-8606.	1.6	380

#	ARTICLE	IF	CITATIONS
273	The energy-band alignment at molybdenum disulphide and high- κ dielectrics interfaces. Applied Physics Letters, 2014, 104, .	1.5	53
274	Tribological Investigation of MC PA6 Reinforced by Boron Nitride of Single Layer. Tribology Letters, 2014, 54, 161-170.	1.2	30
275	Synthesis of well-defined functional crystals by high temperature gas-phase reactions. Science Bulletin, 2014, 59, 2135-2143.	1.7	4
276	Enhanced elastic characteristics of ionic liquids with carbon nanotubes by mixing with a large quantity of graphene. Macromolecular Research, 2014, 22, 682-684.	1.0	0
277	Ultrasound exfoliation of inorganic analogues of graphene. Nanoscale Research Letters, 2014, 9, 167.	3.1	58
278	Antibacterial activity of two-dimensional MoS ₂ sheets. Nanoscale, 2014, 6, 10126-10133.	2.8	310
279	Cytotoxicity of Exfoliated Transition-Metal Dichalcogenides (MoS ₂ , WS ₂ , and Tj ETQq0 0 0 rgBT /Overlock). 2014, 20, 9627-9632.	1.7	358
280	Characterizing mechanical behavior of atomically thin films: A review. Journal of Materials Research, 2014, 29, 338-347.	1.2	34
281	Frictional properties of self-adaptive chromium doped tungsten-sulfur-carbon coatings at nanoscale. Applied Surface Science, 2014, 303, 381-387.	3.1	11
282	A review of recent developments of friction modifiers for liquid lubricants (2007-present). Current Opinion in Solid State and Materials Science, 2014, 18, 119-139.	5.6	334
283	Ultrahigh interlayer friction in multiwalled boron nitride nanotubes. Nature Materials, 2014, 13, 688-693.	13.3	97
284	Graphene from Fingerprints: Exhausting the Performance of Liquid Precursor Deposition. Langmuir, 2014, 30, 6114-6119.	1.6	5
285	Effect of strain on atomic-scale friction in layered MoS ₂ . Tribology International, 2014, 77, 211-217.	3.0	33
286	Energy exchange between vibration modes of a graphene nanoflake oscillator: Molecular dynamics study. Current Applied Physics, 2014, 14, 237-244.	1.1	7
287	Graphene/MoS ₂ hybrid structure and its photoresponse property. Ceramics International, 2014, 40, 11971-11974.	2.3	16
288	Band engineering of dichalcogenide MX ₂ nanosheets (M = Mo, W and X = S, Se) by out-of-plane pressure. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 745-749.	0.9	19
289	Improved chemical vapor transport growth of transition metal dichalcogenides. Journal of Crystal Growth, 2014, 401, 878-882.	0.7	28
290	Understanding the intrinsic water wettability of graphite. Carbon, 2014, 74, 218-225.	5.4	178

#	ARTICLE	IF	CITATIONS
291	Porous Boron Nitride with Tunable Pore Size. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 393-398.	2.1	81
292	Chemically Functionalized Reduced Graphene Oxide as a Novel Material for Reduction of Friction and Wear. <i>Journal of Physical Chemistry C</i> , 2014, 118, 14394-14402.	1.5	210
293	Nanoscale Transition Metal Dichalcogenides: Structures, Properties, and Applications. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2014, 39, 319-367.	6.8	125
294	Solution-based synthesis of anisotropic metal chalcogenide nanocrystals and their applications. <i>Journal of Materials Chemistry C</i> , 2014, 2, 6222-6248.	2.7	66
295	Combined STM, AFM, and DFT Study of the Highly Ordered Pyrolytic Graphite/1-Octyl-3-methyl-imidazolium Bis(trifluoromethylsulfonyl)imide Interface. <i>Journal of Physical Chemistry C</i> , 2014, 118, 10833-10843.	1.5	65
296	Oxygen-doped boron nitride nanosheets with excellent performance in hydrogen storage. <i>Nano Energy</i> , 2014, 6, 219-224.	8.2	210
297	Developing a nanoelectromechanical shuttle graphene-nanoflake device. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2014, 58, 88-93.	1.3	6
298	The Physics of Atomic-scale Friction: Basic Considerations and Open Questions. , 0, , 913-962.		0
299	Damage in graphene due to electronic excitation induced by highly charged ions. <i>2D Materials</i> , 2014, 1, 011011.	2.0	35
300	Dynamic friction-force microscopy using fractional-resonance excitation: Image contrast of graphite surface defects. <i>Physical Review B</i> , 2015, 91, .	1.1	1
301	First-principles comparative study on the interlayer adhesion and shear strength of transition-metal dichalcogenides and graphene. <i>Physical Review B</i> , 2015, 92, .	1.1	53
302	van der Waals bilayer energetics: Generalized stacking-fault energy of graphene, boron nitride, and graphene/boron nitride bilayers. <i>Physical Review B</i> , 2015, 92, .	1.1	105
303	Ultrathin MoS ₂ Nanosheets with Superior Extreme Pressure Property as Boundary Lubricants. <i>Scientific Reports</i> , 2015, 5, 12869.	1.6	140
304	Variations in Crystalline Structures and Electrical Properties of Single Crystalline Boron Nitride Nanosheets. <i>Scientific Reports</i> , 2015, 5, 16703.	1.6	25
305	Minimal graphene thickness for wear protection of diamond. <i>AIP Advances</i> , 2015, 5, 017117.	0.6	8
306	Correlation between friction and thickness of vanadium-pentoxide nanowires. <i>Journal of the Korean Physical Society</i> , 2015, 67, 1657-1660.	0.3	0
307	Observation of a carbon-based protective layer on the sidewalls of boron doped ultrananocrystalline diamond-based MEMS during <i>in situ</i> tribotests. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 125020.	1.5	3
308	Highly Crumpled Boron Nitride Nanosheets as Adsorbents: Scalable Solvent-Less Production. <i>Advanced Materials Interfaces</i> , 2015, 2, 1400529.	1.9	108

#	ARTICLE	IF	CITATIONS
309	Analysis of Friction Mechanism of Surface Films Studied by Molecular Simulations. Journal of the Vacuum Society of Japan, 2015, 58, 221-226.	0.3	0
310	Multiphonon Raman spectroscopy properties and Raman mapping of 2D <i>van der Waals</i> solids: graphene and beyond. Journal of Raman Spectroscopy, 2015, 46, 217-230.	1.2	19
311	Multifunctional Polymer/Porous Boron Nitride Nanosheet Membranes for Superior Trapping Emulsified Oils and Organic Molecules. Advanced Materials Interfaces, 2015, 2, 1500228.	1.9	106
312	Preparation and Investigation of the Microtribological Properties of Graphene Oxide and Graphene Films via Electrostatic Layer-by-Layer Self-Assembly. Journal of Nanomaterials, 2015, 2015, 1-8.	1.5	3
313	Nanomechanical and Macrotribological Properties of CVD-Grown Graphene as a Middle Layer between Metal Pt Cylinders and SiO ₂ /Si Substrate. Journal of Nanomaterials, 2015, 2015, 1-7.	1.5	0
314	Optical Absorption of Armchair MoS ₂ Nanoribbons: Enhanced Correlation Effects in the Reduced Dimension. Journal of Physical Chemistry C, 2015, 119, 13901-13906.	1.5	20
315	Slippery when dry. Science, 2015, 348, 1087-1088.	6.0	14
316	A theoretical analysis of torque and superlubric motion in bilayer graphene disks. Wuhan University Journal of Natural Sciences, 2015, 20, 173-179.	0.2	5
317	Friction and Wear Properties of Different Types of Graphene Nanosheets as Effective Solid Lubricants. Langmuir, 2015, 31, 7782-7791.	1.6	144
318	Effect of structure on the tribology of ultrathin graphene and graphene oxide films. Nanotechnology, 2015, 26, 135702.	1.3	46
319	Simulated scanning tunneling microscopy images of few-layer phosphorus capped by graphene and hexagonal boron nitride monolayers. Physical Review B, 2015, 91, .	1.1	27
320	Effects of vdW Interaction and Electric Field on Friction in MoS ₂ . Tribology Letters, 2015, 59, 1.	1.2	15
321	2D-nanomaterials for controlling friction and wear at interfaces. Nano Today, 2015, 10, 301-314.	6.2	269
322	First-principles study of the sulfur K and L _{2,3} edges of transition metal disulfide monolayers, MS ₂ (M=Mo, W and Re). Physica E: Low-Dimensional Systems and Nanostructures, 2015, 73, 198-206.	1.3	9
323	Micro- and Nanotribology of Graphene. Nanoscience and Technology, 2015, , 453-461.	1.5	0
324	Rational synthesis of organic thin films with exceptional long-range structural integrity. Science, 2015, 348, 1122-1126.	6.0	107
325	Tailoring Nanoscale Friction in MX ₂ Transition Metal Dichalcogenides. Inorganic Chemistry, 2015, 54, 5739-5744.	1.9	40
326	Phase stability and Raman vibration of the molybdenum ditelluride (MoTe ₂) monolayer. Physical Chemistry Chemical Physics, 2015, 17, 14866-14871.	1.3	104

#	ARTICLE	IF	CITATIONS
327	Efficient Nanocomposite formation of Acrylo Nitrile Rubber by incorporation of Graphite and Graphene layers: Reduction in Friction and Wear Rate. , 2015, 10, 139-148.		21
328	Stick-slip behavior of magnetorheological fluids in simple linear shearing mode. Rheologica Acta, 2015, 54, 859-867.	1.1	12
329	MEMS Reliability. , 2015, , 744-763.		3
330	Studies of structure and properties of graphene oxide prepared by ball milling. Materials Research Innovations, 2015, 19, S1-277-S1-280.	1.0	13
331	Sliding wear behavior of copper-based composites reinforced with graphene nanosheets and graphite. Transactions of Nonferrous Metals Society of China, 2015, 25, 3354-3362.	1.7	122
332	Role of humidity in reducing sliding friction of multilayered graphene. Carbon, 2015, 87, 374-384.	5.4	130
333	High Performance Pseudocapacitor Based on 2D Layered Metal Chalcogenide Nanocrystals. Nano Letters, 2015, 15, 1911-1917.	4.5	495
334	Strain Shielding from Mechanically Activated Covalent Bond Formation during Nanoindentation of Graphene Delays the Onset of Failure. Nano Letters, 2015, 15, 1503-1510.	4.5	27
335	Investigation of the friction layer of Ni ₃ Al matrix composites. Wear, 2015, 328-329, 39-49.	1.5	14
336	Alkyl-Chain-Grafted Hexagonal Boron Nitride Nanoplatelets as Oil-Dispersible Additives for Friction and Wear Reduction. ACS Applied Materials & Interfaces, 2015, 7, 3708-3716.	4.0	145
337	Scalable Exfoliation Process for Highly Soluble Boron Nitride Nanoplatelets by Hydroxide-Assisted Ball Milling. Nano Letters, 2015, 15, 1238-1244.	4.5	486
338	Atomic simulations of effects of contact size and interfacial interaction strength on superlubricity in incommensurate sliding interface. Applied Physics A: Materials Science and Processing, 2015, 118, 301-306.	1.1	5
339	The periodicity in interfacial friction of graphene. Carbon, 2015, 85, 328-334.	5.4	9
340	Few-layered graphene-like boron nitride induced a remarkable adsorption capacity for dibenzothiophene in fuels. Green Chemistry, 2015, 17, 1647-1656.	4.6	167
341	Effects of atomic structure on the frictional properties of amorphous carbon coatings. Surface and Coatings Technology, 2015, 263, 8-14.	2.2	16
342	One-Pot, Facile, and Versatile Synthesis of Monolayer MoS ₂ /WS ₂ Quantum Dots as Bioimaging Probes and Efficient Electrocatalysts for Hydrogen Evolution Reaction. Advanced Functional Materials, 2015, 25, 1127-1136.	7.8	738
343	A First-Principles Study on Electron Donor and Acceptor Molecules Adsorbed on Phosphorene. Journal of Physical Chemistry C, 2015, 119, 2871-2878.	1.5	152
344	Synthesis of large single-crystal hexagonal boron nitride grains on Cu-Ni alloy. Nature Communications, 2015, 6, 6160.	5.8	310

#	ARTICLE	IF	CITATIONS
345	Investigating the nano-tribological properties of chemical vapor deposition-grown single layer graphene on SiO ₂ substrates annealed in ambient air. RSC Advances, 2015, 5, 10058-10064.	1.7	12
346	Correlation between micrometer-scale ripple alignment and atomic-scale crystallographic orientation of monolayer graphene. Scientific Reports, 2014, 4, 7263.	1.6	21
347	Preparation of surface coatings on a conductive substrate by controlled motion of graphene nanoflakes in a liquid medium. Applied Surface Science, 2015, 329, 276-280.	3.1	1
348	Strain-Induced Magnetism in Single-Layer MoS ₂ : Origin and Manipulation. Journal of Physical Chemistry C, 2015, 119, 2822-2827.	1.5	70
349	Sliding Mechanisms in Multilayered Hexagonal Boron Nitride and Graphene: The Effects of Directionality, Thickness, and Sliding Constraints. Physical Review Letters, 2015, 114, 096101.	2.9	121
350	Molecular dynamics simulations of nanoscale and sub-nanoscale friction behavior between graphene and a silicon tip: analysis of tip apex motion. Nanoscale, 2015, 7, 6295-6303.	2.8	20
351	Nanoscale frictional behavior of graphene on SiO ₂ and Ni(111) substrates. Nanotechnology, 2015, 26, 055703.	1.3	57
352	Thermal expansion tensors, Grüneisen parameters and phonon velocities of bulk MoS ₂ (M = Tj ETQq ₁ , 1.784314 rgBT	1.7	85
353	Order-disorder phase transitions in the two-dimensional semiconducting transition metal dichalcogenide alloys Mo _{1-x} W _x X ₂ (X = S, Se and Te). Scientific Reports, 2014, 4, 6691.	1.6	54
354	Synthesis, dispersion and lubrication potential of basal plane functionalized alkylated graphene nanosheets. RSC Advances, 2015, 5, 25565-25571.	1.7	71
355	Band alignment of atomic layer deposited high-k Al ₂ O ₃ /multilayer MoS ₂ interface determined by X-ray photoelectron spectroscopy. Journal of Alloys and Compounds, 2015, 650, 502-507.	2.8	21
356	Thickness-Dependent Hydrophobicity of Epitaxial Graphene. ACS Nano, 2015, 9, 8401-8411.	7.3	121
357	Tuning magnetic properties of CrS ₂ monolayer by doping transition metal and alkaline-earth atoms. Journal of Alloys and Compounds, 2015, 647, 75-81.	2.8	31
358	Effects of Pt cylinder arrays on macro-tribological properties of graphene and the SiO ₂ /Si substrate. Wear, 2015, 332-333, 1314-1321.	1.5	2
359	Synthesis and Development of Graphene-Inorganic Semiconductor Nanocomposites. Chemical Reviews, 2015, 115, 8294-8343.	23.0	227
360	Improving the tribological properties of NiAl matrix composites via hybrid lubricants of silver and graphene nano platelets. RSC Advances, 2015, 5, 61554-61561.	1.7	9
361	Exfoliated semiconducting pure 2H-MoS ₂ and 2H-WSe ₂ assisted by chlorosulfonic acid. Chemical Communications, 2015, 51, 12950-12953.	2.2	127
362	Non-equilibrium work distribution for interacting colloidal particles under friction. New Journal of Physics, 2015, 17, 045026.	1.2	17

#	ARTICLE	IF	CITATIONS
363	Photoluminescence wavelength variation of monolayer MoS ₂ by oxygen plasma treatment. <i>Thin Solid Films</i> , 2015, 590, 318-323.	0.8	26
364	Preparation and Tribological Study of Biodegradable Lubrication Films on Si Substrate. <i>Materials</i> , 2015, 8, 1738-1751.	1.3	27
365	Microscale study of frictional properties of graphene in ultra high vacuum. <i>Friction</i> , 2015, 3, 161-169.	3.4	37
366	Numerical simulation of nanoscale systems and materials. , 2015, , 87-111.		1
367	Stiffness-dependent interlayer friction of graphene. <i>Carbon</i> , 2015, 94, 60-66.	5.4	97
368	Elastic coupling between layers in two-dimensional materials. <i>Nature Materials</i> , 2015, 14, 714-720.	13.3	78
369	Supercritical fluid processing: a rapid, one-pot exfoliation process for the production of surfactant-free hexagonal boron nitride nanosheets. <i>CrystEngComm</i> , 2015, 17, 5895-5899.	1.3	75
370	Graphene: a multipurpose material for protective coatings. <i>Journal of Materials Chemistry A</i> , 2015, 3, 12580-12602.	5.2	248
371	Preparation and Tribological Properties of Lanthanum Trifluoride Nanoparticles-Decorated Graphene Oxide Nanosheets. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 4773-4780.	1.8	36
372	The influence of nanoscale roughness and substrate chemistry on the frictional properties of single and few layer graphene. <i>Nanoscale</i> , 2015, 7, 10021-10029.	2.8	49
373	Macroscale superlubricity enabled by graphene nanoscroll formation. <i>Science</i> , 2015, 348, 1118-1122.	6.0	665
374	Two-dimensional materials under electron irradiation. <i>MRS Bulletin</i> , 2015, 40, 29-37.	1.7	54
375	Atomic-Scale Friction Measurements in Ultra-High Vacuum. <i>Nanoscience and Technology</i> , 2015, , 95-114.	1.5	2
376	A Gaussian treatment for the friction issue of Lennard-Jones potential in layered materials: Application to friction between graphene, MoS ₂ , and black phosphorus. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	62
377	Atomic-scale friction modulated by potential corrugation in multi-layered graphene materials. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	10
378	Friction and wear of high electrical conductive carbon nanotube buckypaper/epoxy composites. <i>Composites Science and Technology</i> , 2015, 114, 1-10.	3.8	58
379	Recent Progress on Fabrications and Applications of Boron Nitride Nanomaterials: A Review. <i>Journal of Materials Science and Technology</i> , 2015, 31, 589-598.	5.6	282
380	Recent development in 2D materials beyond graphene. <i>Progress in Materials Science</i> , 2015, 73, 44-126.	16.0	1,152

#	ARTICLE	IF	CITATIONS
381	Structural and Electronic Properties of Layered Arsenic and Antimony Arsenide. Journal of Physical Chemistry C, 2015, 119, 6918-6922.	1.5	210
382	Effect of interfacial coupling on photocatalytic performance of large scale MoS ₂ /TiO ₂ hetero-thin films. Applied Physics Letters, 2015, 106, 081602.	1.5	47
383	Nanoscale friction properties of graphene and graphene oxide. Diamond and Related Materials, 2015, 54, 91-96.	1.8	108
384	Structural Transitions in Monolayer MoS ₂ by Lithium Adsorption. Journal of Physical Chemistry C, 2015, 119, 10602-10609.	1.5	109
385	Materialization of strained CVD-graphene using thermal mismatch. Nano Research, 2015, 8, 2082-2091.	5.8	11
386	Local strain effect on the thermal transport of graphene nanoribbons: a molecular dynamics investigation. Physical Chemistry Chemical Physics, 2015, 17, 12031-12040.	1.3	16
387	Two dimensional atomically thin MoS ₂ nanosheets and their sensing applications. Nanoscale, 2015, 7, 19358-19376.	2.8	217
388	First-Principles Study on Graphene/Hexagonal Boron Nitride Heterostructures. Journal of the Physical Society of Japan, 2015, 84, 121002.	0.7	21
389	Electromechanical oscillations in bilayer graphene. Nature Communications, 2015, 6, 8582.	5.8	44
390	Recent Advances in Two-Dimensional Materials beyond Graphene. ACS Nano, 2015, 9, 11509-11539.	7.3	2,069
391	Striped nanoscale friction and edge rigidity of MoS ₂ layers. RSC Advances, 2015, 5, 92165-92173.	1.7	16
392	Tuning carrier confinement in the MoS ₂ /WS ₂ heterostructure. Superlattices and Microstructures, 2015, 88, 12-17.	1.4	3
393	Temperature effects on the friction characteristics of graphene. Applied Physics Letters, 2015, 107, .	1.5	27
394	Friction Force Microscopy Analysis of Self-Adaptive Wâ€“C Coatings: Nanoscale Friction and Wear. ACS Applied Materials & Interfaces, 2015, 7, 21056-21064.	4.0	24
395	Valley permitted Klein tunneling and magnetoresistance in ferromagnetic monolayer <small>xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si24.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>MoS</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:mrow></small> Superlattices and Microstructures, 2015, 86, 243-249.	1.4	15
396	Water in Inhomogeneous Nanoconfinement: Coexistence of Multilayered Liquid and Transition to Ice Nanoribbons. ACS Nano, 2015, 9, 9877-9884.	7.3	54
397	Facile synthesis of silver nanoparticles decorated boron nitride nanosheets hybrids. , 2015, , .		0
398	Synthesis, properties and potential applications of two-dimensional transition metal dichalcogenides. Nano Convergence, 2015, 2, .	6.3	143

#	ARTICLE	IF	CITATIONS
399	The influence of electronic transfer on friction properties of hexagonal boron nitride. RSC Advances, 2015, 5, 106239-106244.	1.7	7
400	Energy dissipation of atomic-scale friction based on one-dimensional Prandtl-Tomlinson model. Friction, 2015, 3, 170-182.	3.4	34
401	Effects of thermal rippling on the frictional properties of free-standing graphene. RSC Advances, 2015, 5, 29179-29184.	1.7	25
402	Realising the potential of graphene-based materials for biosurfaces – A future perspective. Biosurface and Biotribology, 2015, 1, 229-248.	0.6	55
403	<i>In Situ</i> TEM Characterization of Shear-Stress-Induced Interlayer Sliding in the Cross Section View of Molybdenum Disulfide. ACS Nano, 2015, 9, 1543-1551.	7.3	93
404	Preparation and tribological properties of Ti ₃ C ₂ (OH) ₂ nanosheets as additives in base oil. RSC Advances, 2015, 5, 2762-2767.	1.7	117
405	Growth of wafer-scale MoS ₂ monolayer by magnetron sputtering. Nanoscale, 2015, 7, 2497-2503.	2.8	225
406	In situ catalytic growth of large-area multilayered graphene/MoS ₂ heterostructures. Scientific Reports, 2014, 4, 4673.	1.6	58
407	Synthesis and Defect Investigation of Two-Dimensional Molybdenum Disulfide Atomic Layers. Accounts of Chemical Research, 2015, 48, 31-40.	7.6	140
408	First principles study of van der Waals heterobilayers. Computational Condensed Matter, 2015, 2, 1-10.	0.9	33
409	Controlled Growth of Few-Layer Hexagonal Boron Nitride on Copper Foils Using Ion Beam Sputtering Deposition. Small, 2015, 11, 1542-1547.	5.2	70
410	A density functional theory study of the tunable structure, magnetism and metal-insulator phase transition in VS ₂ monolayers induced by in-plane biaxial strain. Nano Research, 2015, 8, 1348-1356.	5.8	116
411	Correlation between the electrical conductance and the mechanical deformation of a graphite surface. Materials Letters, 2015, 140, 83-86.	1.3	1
412	Unoxidized Graphene/Alumina Nanocomposite: Fracture- and Wear-Resistance Effects of Graphene on Alumina Matrix. Scientific Reports, 2014, 4, 5176.	1.6	167
413	Synthesis and characterization of solvent-free ionic molybdenum disulphide (MoS ₂) nanofluids. Materials Chemistry and Physics, 2015, 149-150, 587-593.	2.0	21
414	Fabrication of riboflavin electrochemical sensor based on homo adenine single-stranded DNA/molybdenum disulfide-graphene nanocomposite modified gold electrode. Journal of Electroanalytical Chemistry, 2015, 736, 47-54.	1.9	52
415	Sample rotation angle dependence of graphene thickness measured using atomic force microscope. Carbon, 2015, 81, 210-215.	5.4	3
416	A shear localization mechanism for lubricity of amorphous carbon materials. Scientific Reports, 2014, 4, 3662.	1.6	92

#	ARTICLE	IF	CITATIONS
417	Water-Soluble Monolayer Molybdenum Disulfide Quantum Dots with Upconversion Fluorescence. Particle and Particle Systems Characterization, 2015, 32, 72-79.	1.2	118
418	Lithium Intercalation Compound Dramatically Influences the Electrochemical Properties of Exfoliated MoS ₂ . Small, 2015, 11, 605-612.	5.2	250
419	Tribological behaviour and lubrication performance of hexagonal boron nitride (h-BN) as a replacement for graphite in aluminium forming. Tribology International, 2015, 81, 267-275.	3.0	132
420	Online Determination of Graphene Lattice Orientation Through Lateral Forces. Nanoscale Research Letters, 2016, 11, 353.	3.1	6
421	Investigating the Influence of MoS ₂ Nanosheets on E. coli from Metabolomics Level. PLoS ONE, 2016, 11, e0167245.	1.1	42
422	Graphene and MoS ₂ interacting with water: A comparison by ab initio calculations. Carbon, 2016, 107, 878-884.	5.4	114
423	Graphene-Based Flexible and Stretchable Electronics. Advanced Materials, 2016, 28, 4184-4202.	11.1	537
424	Self-Assembly of Graphene Oxide on Silicon Substrate via Covalent Interaction: Low Friction and Remarkable Wear-Resistivity. Advanced Materials Interfaces, 2016, 3, 1500410.	1.9	33
425	Molecular-Pillar-Supported Functionalized Reduced Graphene-Oxide for Energy Efficient Lubrication. Advanced Materials Interfaces, 2016, 3, 1600161.	1.9	9
426	Doping-Induced Tunable Wettability and Adhesion of Graphene. Nano Letters, 2016, 16, 4708-4712.	4.5	119
427	Improving resolution in quantum subnanometre-gap tip-enhanced Raman nanoimaging. Scientific Reports, 2016, 6, 25788.	1.6	45
428	Effect of the contact geometry on nanoscale and sub-nanoscale friction behaviors. , 2016, , .		0
429	Effects of Elastic Deformation and Corrugation Potential on Friction of Suspended Graphene. , 2016, , .		0
430	Nanoscale tribology of graphene grown by chemical vapor deposition and transferred onto silicon oxide substrates. Journal of Materials Research, 2016, 31, 1914-1923.	1.2	21
431	Strain-induced magnetism in ReS ₂ monolayer with defects. Chinese Physics B, 2016, 25, 117103.	0.7	6
432	Lubrication mechanisms of graphene for DLC films scratched by a diamond tip. Journal Physics D: Applied Physics, 2016, 49, 485302.	1.3	34
433	Nanotribological properties of few layer graphene surfaces, prepared by bottom-up and top-down methods, in ambient air and liquid environments. Journal of Materials Research, 2016, 31, 1924-1931.	1.2	1
434	First-principle study of hydrogenation on monolayer MoS ₂ . AIP Advances, 2016, 6, .	0.6	34

#	ARTICLE	IF	CITATIONS
435	Energy band alignment of high-k oxide heterostructures at MoS ₂ /Al ₂ O ₃ and MoS ₂ /ZrO ₂ interfaces. Journal of Applied Physics, 2016, 120, .	1.1	19
436	Effect of the contact geometry on nanoscale and sub-nanoscale friction behaviors. IEEE Transactions on Magnetics, 2016, , 1-1.	1.2	0
439	Band alignment of ZnO/multilayer MoS ₂ interface determined by x-ray photoelectron spectroscopy. Applied Physics Letters, 2016, 109, .	1.5	10
440	An atomistic investigation of the effect of strain on frictional properties of suspended graphene. AIP Advances, 2016, 6, .	0.6	16
441	Mechanical Characterization of Boron-Nitride Nanoribbons via Nonlinear Structural Mechanics. Journal of Nano Research, 0, 40, 58-71.	0.8	7
442	Photoinduced valley-polarized current of layered MoS ₂ by electric tuning. Nanotechnology, 2016, 27, 185202.	1.3	10
443	Transport properties in a monolayer graphene modulated by the realistic magnetic field and the Schottky metal stripe. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 83, 345-348.	1.3	4
444	Monolayer Single-Crystal 1T-MoTe ₂ Grown by Chemical Vapor Deposition Exhibits Weak Antilocalization Effect. Nano Letters, 2016, 16, 4297-4304.	4.5	205
445	Tribochemistry of graphene on iron and its possible role in lubrication of steel. Carbon, 2016, 106, 118-124.	5.4	100
446	Prediction of the electronic structure of single-walled black phosphorus nanotubes. Physical Chemistry Chemical Physics, 2016, 18, 15177-15181.	1.3	11
447	Friction Behaviour of Multilayered Graphene against Steel. Materials Research Society Symposia Proceedings, 2016, 1812, 1-8.	0.1	4
448	Distinctive nanofriction of graphene coated copper foil. Computational Materials Science, 2016, 117, 406-411.	1.4	37
449	Critical length scales and strain localization govern the mechanical performance of multi-layer graphene assemblies. Nanoscale, 2016, 8, 6456-6462.	2.8	57
450	Electronic and magnetic properties of Ag-doped monolayer WS ₂ by stain. Journal of Alloys and Compounds, 2016, 680, 659-664.	2.8	19
451	Cross-Linking-Induced Frictional Behavior of Multilayer Graphene: Origin of Friction. Tribology Letters, 2016, 62, 1.	1.2	13
452	Facile one-step and high-yield synthesis of few-layered and hierarchically porous boron nitride nanosheets. RSC Advances, 2016, 6, 45402-45409.	1.7	7
453	Load-Dependent Friction Hysteresis on Graphene. ACS Nano, 2016, 10, 5161-5168.	7.3	56
454	Experimental study and modeling of atomic-scale friction in zigzag and armchair lattice orientations of MoS ₂ . Science and Technology of Advanced Materials, 2016, 17, 189-199.	2.8	43

#	ARTICLE	IF	CITATIONS
455	Wafer-Scale and Wrinkle-Free Epitaxial Growth of Single-Orientated Multilayer Hexagonal Boron Nitride on Sapphire. Nano Letters, 2016, 16, 3360-3366.	4.5	167
456	Interlayer Potential for Graphene/h-BN Heterostructures. Journal of Chemical Theory and Computation, 2016, 12, 2896-2905.	2.3	107
457	Slider thickness promotes lubricity: from 2D islands to 3D clusters. Nanoscale, 2016, 8, 11108-11113.	2.8	23
458	Frictional Characteristics of Graphene Layers Using Molecular Dynamics Simulation. Nano, 2016, 11, 1650096.	0.5	3
459	Interfacial engineering of MoS ₂ /TiO ₂ hybrids for enhanced electrocatalytic hydrogen evolution reaction. Applied Physics Express, 2016, 9, 095801.	1.1	27
460	Tunable Conductivity and Half Metallic Ferromagnetism in Monolayer Platinum Diselenide: A First-Principles Study. Journal of Physical Chemistry C, 2016, 120, 25030-25036.	1.5	38
461	Friction reduction mechanisms in multilayer graphene sliding against hydrogenated diamond-like carbon. Carbon, 2016, 109, 795-804.	5.4	60
462	2D Boron Nitride. Semiconductors and Semimetals, 2016, 95, 101-147.	0.4	74
463	Static and kinetic friction characteristics of nanowire on different substrates. Applied Surface Science, 2016, 379, 452-461.	3.1	18
464	Tribological properties of graphene oxide and carbon spheres as lubricating additives. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	44
465	Accurate measurement of thickness of large-area graphene layers by neutron reflectometry. Journal of Materials Science, 2016, 51, 10059-10065.	1.7	5
466	Microstructure and Functional Mechanism of Friction Layer in Ni ₃ Al Matrix Composites with Graphene Nanoplatelets. Journal of Materials Engineering and Performance, 2016, 25, 4126-4133.	1.2	4
467	Computational simulation of subatomic-resolution AFM and STM images for graphene/hexagonal boron nitride heterostructures with intercalated defects. Physical Review B, 2016, 94, .	1.1	5
468	Alkylamine-functionalized hexagonal boron nitride nanoplatelets as a novel material for the reduction of friction and wear. Physical Chemistry Chemical Physics, 2016, 18, 22879-22888.	1.3	29
469	Defect assisted coupling of a MoS ₂ /TiO ₂ interface and tuning of its electronic structure. Nanotechnology, 2016, 27, 355203.	1.3	24
470	Heat transfer and tribological performance of graphene nanolubricant in an internal combustion engine. Tribology International, 2016, 103, 504-515.	3.0	97
471	Crystalline two-dimensional nanosheet composed of tetraanionic porphyrins and tetracationic metallomacrocycles. Journal of Porphyrins and Phthalocyanines, 2016, 20, 694-699.	0.4	0
472	Load dependent frictional response of vertically aligned single-walled carbon nanotube films. Scripta Materialia, 2016, 125, 63-67.	2.6	7

#	ARTICLE	IF	CITATIONS
473	Flexible graphene strengthens friction. Nature, 2016, 539, 502-503.	13.7	12
474	The evolving quality of frictional contact with graphene. Nature, 2016, 539, 541-545.	13.7	389
475	Structural Properties and Phase Transition of Na Adsorption on Monolayer MoS ₂ . Nanoscale Research Letters, 2016, 11, 330.	3.1	45
476	Quantum magnetotransport properties of a MoS ₂ nanoribbon. Physical Review B, 2016, 93, .		
477	Anharmonicity effects in the frictionlike mode of graphite. Physical Review B, 2016, 93, .	1.1	1
478	Stick-Slip Motion of the Wigner Solid on Liquid Helium. Physical Review Letters, 2016, 116, 206801.	2.9	43
479	Quantum Effects in the Thermoelectric Power Factor of Low-Dimensional Semiconductors. Physical Review Letters, 2016, 117, 036602.	2.9	110
480	Energy efficient reduced graphene oxide additives: Mechanism of effective lubrication and antiwear properties. Scientific Reports, 2016, 6, 18372.	1.6	87
481	Soluble, Exfoliated Two-Dimensional Nanosheets as Excellent Aqueous Lubricants. ACS Applied Materials & Interfaces, 2016, 8, 32440-32449.	4.0	88
482	Fabrication of 3D porous MoS ₂ @GO nanocomposite monolith as a promising adsorbent. International Journal of Materials Research, 2016, 107, 1051-1057.	0.1	0
483	Hydrophobic Ice Confined between Graphene and MoS ₂ . Journal of Physical Chemistry C, 2016, 120, 27079-27084.	1.5	71
484	Enhanced superconductivity in atomically thin TaS ₂ . Nature Communications, 2016, 7, 11043.	5.8	285
485	Giant and Tunable Anisotropy of Nanoscale Friction in Graphene. Scientific Reports, 2016, 6, 31569.	1.6	41
486	Line Scan Reconstruction: A Viable Approach for Tracking Atomic Stick-Slip Events and True Tip Position in Atomic Force Microscopy. Tribology Letters, 2016, 64, 1.	1.2	3
487	Robust ultra-low-friction state of graphene via moiré superlattice confinement. Nature Communications, 2016, 7, 13204.	5.8	116
488	Characterization of a superlubricity nanometer interface by Raman spectroscopy. Nanotechnology, 2016, 27, 325701.	1.3	5
489	Direct calculation of the linear thermal expansion coefficients of MoS ₂ nanoribbon symmetry-preserving deformations. Physical Review B, 2016, 94, .		
490	Atomic intercalation to measure adhesion of graphene on graphite. Nature Communications, 2016, 7, 13263.	5.8	35

#	ARTICLE	IF	CITATIONS
491	Enhanced structural stability of DNA origami nanostructures by graphene encapsulation. <i>New Journal of Physics</i> , 2016, 18, 025016.	1.2	20
492	Nanoscale Elastic Changes in 2D Ti ₃ C ₂ T _x (MXene) Pseudocapacitive Electrodes. <i>Advanced Energy Materials</i> , 2016, 6, 1502290.	10.2	117
493	Local conductivity of metallic nano-materials by Electrodynamic Force Microscopy. <i>Carbon</i> , 2016, 102, 367-371.	5.4	1
494	Strain-induced growth of oriented graphene layers revealed by in situ transmission electron microscopy observation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16641-16646.	1.3	3
495	<i>Advances in Nanocomposites</i> , 2016, , .		4
496	Structure and Dynamics of Confined Alcohol-Water Mixtures. <i>ACS Nano</i> , 2016, 10, 6762-6768.	7.3	36
497	Nanoscale Mechanical Characterization of 1D and 2D Materials with Application to Nanocomposites. , 2016, , 77-95.		0
498	Effect of sulfur concentration on structural, elastic and electronic properties of molybdenum sulfides from first-principles. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 11033-11041.	3.8	79
499	Contact Angle Hysteresis on Graphene Surfaces and Hysteresis-free Behavior on Oil-infused Graphite Surfaces. <i>Applied Surface Science</i> , 2016, 385, 153-161.	3.1	31
500	Mechanical pressure induced chemical cutting of boron nitride sheets into boron nitride quantum dots and optical properties. <i>Journal of Alloys and Compounds</i> , 2016, 683, 38-45.	2.8	33
501	Nanoscale Mechanical Evaluation of Electrochemically Generated Tribolayer on CoCrMo Alloy for Hip Joint Application. <i>Journal of Bio- and Tribo-Corrosion</i> , 2016, 2, 1.	1.2	9
502	Prominent local transport in silicon carbide composites containing in-situ synthesized three-dimensional graphene networks. <i>Journal of the European Ceramic Society</i> , 2016, 36, 3073-3081.	2.8	10
503	Monolayer transition metal disulfide: Synthesis, characterization and applications. <i>Progress in Natural Science: Materials International</i> , 2016, 26, 221-231.	1.8	16
504	Observation of sub-20nm line-defects in graphene by friction force microscopy. , 2016, , .		0
505	Wear properties of graphene edges probed by atomic force microscopy based lateral manipulation. <i>Carbon</i> , 2016, 107, 723-732.	5.4	47
506	Frictional behaviour of polycrystalline graphene grown on liquid metallic matrix. <i>Tribology International</i> , 2016, 93, 628-639.	3.0	27
507	Laser-Induced Particle Adsorption on Atomically Thin MoS ₂ . <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 2974-2984.	4.0	27
508	Tuning the Nanofriction Between Two Graphene Layers by External Electric Fields: A Density Functional Theory Study. <i>Tribology Letters</i> , 2016, 61, 1.	1.2	15

#	ARTICLE	IF	CITATIONS
509	Strain-dependent electronic and magnetic properties of Au-doped WS ₂ monolayer. <i>Solid State Communications</i> , 2016, 230, 35-39.	0.9	10
510	Preparation and tribological properties of novel boehmite/graphene oxide nano-hybrid. <i>Ceramics International</i> , 2016, 42, 6178-6186.	2.3	68
511	Atomistic modeling of BN nanofillers for mechanical and thermal properties: a review. <i>Nanoscale</i> , 2016, 8, 22-49.	2.8	82
512	Atomic-Scale Sliding Friction on Graphene in Water. <i>ACS Nano</i> , 2016, 10, 4288-4293.	7.3	85
513	Calcium decorated and doped phosphorene for gas adsorption. <i>Applied Surface Science</i> , 2016, 377, 311-323.	3.1	80
514	Probing the adhesion interactions of graphene on silicon oxide by nanoindentation. <i>Carbon</i> , 2016, 103, 63-72.	5.4	50
515	Nonlinear absorption and nonlinear refraction in a chemical vapor deposition-grown, ultrathin hexagonal boron nitride film. <i>Optics Letters</i> , 2016, 41, 1368.	1.7	24
516	Molecularly thin fluoro-polymeric nanolubricant films: tribology, rheology, morphology, and applications. <i>Soft Matter</i> , 2016, 12, 2816-2825.	1.2	3
517	Two-dimensional layered MoS ₂ : rational design, properties and electrochemical applications. <i>Energy and Environmental Science</i> , 2016, 9, 1190-1209.	15.6	532
518	A review on the importance of surface coating of micro/nano-mold in micro/nano-molding processes. <i>Journal of Micromechanics and Microengineering</i> , 2016, 26, 013002.	1.5	63
519	Tribological characteristics of few-layer graphene over Ni grain and interface boundaries. <i>Nanoscale</i> , 2016, 8, 6646-6658.	2.8	28
520	Frictional Properties of Nanojunctions Including Atomically Thin Sheets. <i>Nano Letters</i> , 2016, 16, 1878-1883.	4.5	39
521	Spatial variation of wear and electrical properties across wrinkles in chemical vapour deposition graphene. <i>Carbon</i> , 2016, 102, 304-310.	5.4	90
522	Enhancing lubricant properties by nanoparticle additives. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 3153-3170.	3.8	327
523	Quantum capacitance in monolayers of silicene and related buckled materials. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 76, 169-172.	1.3	13
524	Reduction of interfacial friction in commensurate graphene/h-BN heterostructures by surface functionalization. <i>Nanoscale</i> , 2016, 8, 575-580.	2.8	43
525	Ultra-wetting graphene-based membrane. <i>Journal of Membrane Science</i> , 2016, 500, 76-85.	4.1	24
526	Static friction at fractal interfaces. <i>Tribology International</i> , 2016, 93, 229-238.	3.0	66

#	ARTICLE	IF	CITATIONS
527	Spin- and valley-polarized transport through ferromagnetic and antiferromagnetic barriers on monolayer MoS ₂ . <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 75, 317-321.	1.3	9
528	Preparation of high-content hexagonal boron nitride composite film and characterization of atomic oxygen erosion resistance. <i>Applied Surface Science</i> , 2017, 402, 182-191.	3.1	22
529	Tunable lubricity of aliphatic ammonium graphite intercalation compounds at the micro/nanoscale. <i>Carbon</i> , 2017, 115, 574-583.	5.4	8
530	Boundary layer friction of solvate ionic liquids as a function of potential. <i>Faraday Discussions</i> , 2017, 199, 311-322.	1.6	30
531	Mechanical and electromechanical properties of graphene and their potential application in MEMS. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 053003.	1.3	73
532	A Density functional theory study of the sensitivity of two-dimensional BN nanosheet to nerve agents cyclosarin and tabun. <i>Thin Solid Films</i> , 2017, 623, 157-163.	0.8	71
533	Nano-tribology studies of reduced graphene oxide films in air and in aqueous solutions with different pH values. <i>Journal of Materials Research</i> , 2017, 32, 323-333.	1.2	4
534	Effects of Water Intercalation and Tribochemistry on MoS ₂ Lubricity: An Ab Initio Molecular Dynamics Investigation. <i>ChemPhysChem</i> , 2017, 18, 1475-1480.	1.0	63
535	Controllable Nanotribological Properties of Graphene Nanosheets. <i>Scientific Reports</i> , 2017, 7, 41891.	1.6	27
536	Delamination-Based Measurement and Prediction of the Adhesion Energy of Thin Film/Substrate Interfaces. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2017, 139, .	0.8	8
537	Novel Tribological Behavior of Hybrid MWCNTs/MLNGPs as an Additive on Lithium Grease. <i>Journal of Tribology</i> , 2017, 139, .	1.0	19
538	Facile Synthesis of Highly Crystalline and Large Areal Hexagonal Boron Nitride from Borazine Oligomers. <i>Scientific Reports</i> , 2017, 7, 40260.	1.6	7
539	Direct Observation of Poly(Methyl Methacrylate) Removal from a Graphene Surface. <i>Chemistry of Materials</i> , 2017, 29, 2033-2039.	3.2	41
540	Wear evolution of monolayer graphene at the macroscale. <i>Carbon</i> , 2017, 115, 600-607.	5.4	93
541	A review on mechanics and mechanical properties of 2D materials—Graphene and beyond. <i>Extreme Mechanics Letters</i> , 2017, 13, 42-77.	2.0	920
542	Lubrication properties of chemically aged reduced graphene-oxide additives. <i>Surfaces and Interfaces</i> , 2017, 7, 6-13.	1.5	37
543	Adhesion and Friction at Graphene/Self-Assembled Monolayer Interfaces Investigated by Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5635-5641.	1.5	28
544	Excellent performance for water purification achieved by activated porous boron nitride nanosheets. <i>Materials Chemistry and Physics</i> , 2017, 196, 186-193.	2.0	63

#	ARTICLE	IF	CITATIONS
545	Structural, electronic, and magnetic properties of transition metal doped ReS ₂ monolayer. JETP Letters, 2017, 105, 255-259.	0.4	7
546	Interfacial Defect Engineering on Electronic States of Two-Dimensional AlN/MoS ₂ Heterostructure. Journal of Physical Chemistry C, 2017, 121, 6605-6613.	1.5	31
547	Driving Surface Chemistry at the Nanometer Scale Using Localized Heat and Stress. Nano Letters, 2017, 17, 2111-2117.	4.5	35
548	Optical properties of phosphorene. Chinese Physics B, 2017, 26, 034201.	0.7	16
549	Surface Defects as a Tool to Solubilize and Functionalize WS ₂ Nanotubes. European Journal of Inorganic Chemistry, 2017, 2017, 2190-2194.	1.0	6
550	Large-area synthesis of high-quality monolayer 1Tâ€™-WTe ₂ flakes. 2D Materials, 2017, 4, 021008.	2.0	81
551	Electronic properties of 1Tâ€™MoS ₂ nanoribbon and its homojunction nanoribbon. Physica Status Solidi (B): Basic Research, 2017, 254, 1600728.	0.7	3
552	Surface passivation by graphene in the lubrication of iron: A comparison with bronze. Carbon, 2017, 116, 375-380.	5.4	56
553	Local anodic oxidation on hydrogen-intercalated graphene layers: oxide composition analysis and role of the silicon carbide substrate. Nanotechnology, 2017, 28, 105709.	1.3	12
554	2D or not 2D? The impact of nanoscale roughness and substrate interactions on the tribological properties of graphene and MoS ₂ . Journal Physics D: Applied Physics, 2017, 50, 103003.	1.3	37
555	Robust microscale superlubricity under high contact pressure enabled by graphene-coated microsphere. Nature Communications, 2017, 8, 14029.	5.8	235
556	Temperature-dependent frictional properties of ultra-thin boron nitride nanosheets. Applied Physics Letters, 2017, 110, .	1.5	9
557	MoS ₂ edges and heterophase interfaces: energy, structure and phase engineering. 2D Materials, 2017, 4, 025080.	2.0	16
558	Carbon nanomaterials in tribology. Carbon, 2017, 119, 150-171.	5.4	329
559	Effects of rare earth oxide additive on surface and tribological properties of polyimide composites. Applied Surface Science, 2017, 416, 536-546.	3.1	33
560	Superlubricity between MoS ₂ Monolayers. Advanced Materials, 2017, 29, 1701474.	11.1	220
561	Experimental observation of Shapiro-steps in colloidal monolayers driven across time-dependent substrate potentials. Soft Matter, 2017, 13, 4024-4028.	1.2	14
562	Friction and anti-galling properties of hexagonal boron nitride (h-BN) in aluminium forming. Wear, 2017, 388-389, 2-8.	1.5	38

#	ARTICLE	IF	CITATIONS
563	In Situ Monitoring of Gravimetric and Viscoelastic Changes in 2D Intercalation Electrodes. ACS Energy Letters, 2017, 2, 1407-1415.	8.8	56
564	Probing microstructures of molybdenum disulfide quantum dots by resonant Raman scattering. Applied Physics Letters, 2017, 110, 161910.	1.5	11
565	Long-Range Lattice Engineering of MoTe ₂ by a 2D Electride. Nano Letters, 2017, 17, 3363-3368.	4.5	72
566	Nanoscale wear of graphene and wear protection by graphene. Carbon, 2017, 120, 137-144.	5.4	63
567	Development of Nanocomposite Grease: Microstructure, Flow, and Tribological Studies. Journal of Tribology, 2017, 139, .	1.0	21
568	Ultralow friction of ink-jet printed graphene flakes. Nanoscale, 2017, 9, 7612-7624.	2.8	20
569	Thickness dependent friction on few-layer MoS ₂ , WS ₂ , and WSe ₂ . Nanotechnology, 2017, 28, 245703.	1.3	41
570	Chemical Interaction-Guided, Metal-Free Growth of Large-Area Hexagonal Boron Nitride on Silicon-Based Substrates. ACS Nano, 2017, 11, 4985-4994.	7.3	30
571	Moiré superlattice-level stick-slip instability originated from geometrically corrugated graphene on a strongly interacting substrate. 2D Materials, 2017, 4, 025079.	2.0	33
572	Effect of strain on electronic and magnetic properties of n-type Cr-doped WSe ₂ monolayer. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 87, 6-9.	1.3	18
573	Octadecanethiol-grafted molybdenum disulfide nanosheets as oil-dispersible additive for reduction of friction and wear. FlatChem, 2017, 3, 16-25.	2.8	44
574	Current trends in the physics of nanoscale friction. Advances in Physics: X, 2017, 2, 569-590.	1.5	27
575	Anisotropic Friction of Wrinkled Graphene Grown by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2017, 9, 20922-20927.	4.0	51
576	Unconventional Behavior of Friction at the Nanoscale beyond Amontons's Law. ChemPhysChem, 2017, 18, 2033-2039.	1.0	6
577	Interlayer shear of nanomaterials: Graphene-graphene, boron nitride-boron nitride and graphene-boron nitride. Acta Mechanica Solida Sinica, 2017, 30, 234-240.	1.0	26
578	Molecular dynamics study on friction of polycrystalline graphene. Computational Materials Science, 2017, 137, 346-361.	1.4	13
579	Highly oil-dispersed functionalized reduced graphene oxide nanosheets as lube oil friction modifier. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2017, 222, 34-42.	1.7	45
580	Few-atomic-layered hexagonal boron nitride: CVD growth, characterization, and applications. Materials Today, 2017, 20, 611-628.	8.3	96

#	ARTICLE	IF	CITATIONS
581	Self-Assembled Graphene Film as Low Friction Solid Lubricant in Macroscale Contact. ACS Applied Materials & Interfaces, 2017, 9, 21554-21562.	4.0	103
582	Chemical and Bandgap Engineering in Monolayer Hexagonal Boron Nitride. Scientific Reports, 2017, 7, 45584.	1.6	73
583	First-Principles Study of the Friction and Wear Resistance of Graphene Sheets. Tribology Letters, 2017, 65, 1.	1.2	7
584	Separation of Ethanol and Water Using Graphene and Hexagonal Boron Nitride Slit Pores: A Molecular Dynamics Study. Journal of Physical Chemistry C, 2017, 121, 7867-7880.	1.5	31
585	The effect of surface texture on the kinetic friction of a nanowire on a substrate. Scientific Reports, 2017, 7, 44907.	1.6	11
586	Effect of interlayer bonding strength and bending stiffness on 2-dimensional materials' frictional properties at atomic-scale steps. Applied Surface Science, 2017, 411, 261-270.	3.1	14
587	Structural and magnetic properties of transition-metal adsorbed ReS ₂ monolayer. Japanese Journal of Applied Physics, 2017, 56, 055701.	0.8	7
588	Adhesion Mechanics between Nanoscale Silicon Oxide Tips and Few-Layer Graphene. Tribology Letters, 2017, 65, 1.	1.2	10
589	Nanoporous Boron Nitride as Exceptionally Thermally Stable Adsorbent: Role in Efficient Separation of Light Hydrocarbons. ACS Applied Materials & Interfaces, 2017, 9, 14506-14517.	4.0	41
590	Recent advances in preparation, properties and device applications of two-dimensional h-BN and its vertical heterostructures. Journal of Semiconductors, 2017, 38, 031004.	2.0	15
591	Microstructure and mechanical properties of boron nitride nanosheets-reinforced fused silica composites. Journal of the European Ceramic Society, 2017, 37, 3195-3202.	2.8	41
592	Fabrication and tribological properties of nanogrids on CVD-grown graphene. Micron, 2017, 97, 29-34.	1.1	9
593	Graphene, hexagonal boron nitride, and their heterostructures: properties and applications. RSC Advances, 2017, 7, 16801-16822.	1.7	500
594	Tailoring the electronic and magnetic properties of monolayer SnO by B, C, N, O and F adatoms. Scientific Reports, 2017, 7, 44568.	1.6	21
595	Tunable dynamics of a flake on graphene: Libration frequency. Physical Review B, 2017, 95, .	1.1	7
596	Interlayer locking and atomic-scale friction in commensurate small-diameter boron nitride nanotubes. Physical Review B, 2017, 95, .	1.1	5
597	A novel approach to decrease friction of graphene. Carbon, 2017, 118, 233-240.	5.4	113
598	Tribological properties of WS ₂ /graphene nanocomposites as lubricating oil additives. RSC Advances, 2017, 7, 14060-14068.	1.7	61

#	ARTICLE	IF	CITATIONS
599	MoS ₂ -Based Nanocomposites for Electrochemical Energy Storage. <i>Advanced Science</i> , 2017, 4, 1600289.	5.6	374
600	Wear Resistance Limited by Step Edge Failure: The Rise and Fall of Graphene as an Atomically Thin Lubricating Material. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 1099-1106.	4.0	70
601	Ion-beam modification of 2-D materials - single implant atom analysis via annular dark-field electron microscopy. <i>Ultramicroscopy</i> , 2017, 176, 31-36.	0.8	27
602	Band alignment of atomic layer deposited TiO ₂ /multilayer MoS ₂ interface determined by x-ray photoelectron spectroscopy. <i>Journal of Alloys and Compounds</i> , 2017, 698, 141-146.	2.8	9
603	Intrinsic Phonon Bands in High-Quality Monolayer <i>TiS₂</i> Molybdenum Ditelluride. <i>ACS Nano</i> , 2017, 11, 814-820.	7.3	37
604	Electronic and phononic modulation of MoS ₂ under biaxial strain. <i>Physica B: Condensed Matter</i> , 2017, 526, 96-101.	1.3	12
605	Electric field effect on the magnetic properties of zigzag MoS ₂ nanoribbons with different edge passivation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 30814-30821.	1.3	4
606	Influence of self-consistent screening and polarizability contractions on interlayer sliding behavior of hexagonal boron nitride. <i>Physical Review B</i> , 2017, 96, .	1.1	1
607	Phase imaging and nanoscale energy dissipation of supported graphene using amplitude modulation atomic force microscopy. <i>Nanotechnology</i> , 2017, 28, 465708.	1.3	11
608	Recent advances in nanomaterials for water protection and monitoring. <i>Chemical Society Reviews</i> , 2017, 46, 6946-7020.	18.7	441
609	Atomic-Scale Friction of Black Phosphorus: Effect of Thickness and Anisotropic Behavior. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700998.	1.9	39
610	Triboelectric effect: A new perspective on electron transfer process. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	54
611	Modulating the electronic and optical properties of monolayer arsenene phases by organic molecular doping. <i>Nanotechnology</i> , 2017, 28, 495202.	1.3	22
612	Vacancy-Controlled Contact Friction in Graphene. <i>Advanced Functional Materials</i> , 2017, 27, 1702832.	7.8	21
613	Competitive Growth Mechanism of WS ₂ /MoS ₂ Vertical Heterostructures at High Temperature. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1700219.	0.7	4
614	Plasmon modes of bilayer molybdenum disulfide: a density functional study. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 465701.	0.7	12
615	Tribological Behavior of NiAl-Layered Double Hydroxide Nanoplatelets as Oil-Based Lubricant Additives. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 30891-30899.	4.0	59
616	Multilayer graphene reinforced functionally graded tungsten carbide nano-composites. <i>Materials and Design</i> , 2017, 134, 171-180.	3.3	52

#	ARTICLE	IF	CITATIONS
617	Effects of the Formulations of Silicon-Based Composite Anodes on their Mechanical, Storage, and Electrochemical Properties. <i>ChemSusChem</i> , 2017, 10, 4080-4089.	3.6	12
618	Enhancing Multifunctionalities of Transition-Metal Dichalcogenide Monolayers <i>via</i> Cation Intercalation. <i>ACS Nano</i> , 2017, 11, 9390-9396.	7.3	35
619	Superconductivity at 7.4 K in few layer graphene by Li-intercalation. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 445701.	0.7	25
620	Anomalous Frictional Behaviors of Ir and Au Tips Sliding on Graphene/Ni(111) Substrate: Density Functional Theory Calculations. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21397-21404.	1.5	16
621	Highly wear-resistant and low-friction Si ₃ N ₄ composites by addition of graphene nanoplatelets approaching the 2D limit. <i>Scientific Reports</i> , 2017, 7, 10087.	1.6	33
622	2D nanomaterials as lubricant additive: A review. <i>Materials and Design</i> , 2017, 135, 319-332.	3.3	244
623	Impact of short duration, high-flow H ₂ annealing on graphene synthesis and surface morphology with high spatial resolution assessment of coverage. <i>Carbon</i> , 2017, 125, 318-326.	5.4	12
624	Rational Design and Strain Engineering of Nanoporous Boron Nitride Nanosheet Membranes for Water Desalination. <i>Journal of Physical Chemistry C</i> , 2017, 121, 22105-22113.	1.5	102
625	Nanotribological characterization of graphene on soft elastic substrate. <i>Carbon</i> , 2017, 124, 541-546.	5.4	38
626	Sliding friction of graphene/hexagonal boron nitride heterojunctions: a route to robust superlubricity. <i>Scientific Reports</i> , 2017, 7, 10851.	1.6	108
627	Atomic-scale friction behavior of layered graphene and graphene-like BN materials modulated by interaction potential. <i>AIP Advances</i> , 2017, 7, .	0.6	3
628	Lateral force modulation by moiré superlattice structure: Surfing on periodically undulated graphene sheets. <i>Carbon</i> , 2017, 125, 76-83.	5.4	18
629	Infinitesimal base transformations method for calculating the k.p Hamiltonian of monolayer MoS ₂ . <i>Superlattices and Microstructures</i> , 2017, 110, 180-190.	1.4	4
630	Effect of roughness on the layer-dependent friction of few-layer graphene. <i>Physical Review B</i> , 2017, 96, .	1.1	46
631	Tunable inverted gap in monolayer quasi-metallic MoS ₂ induced by strong charge-lattice coupling. <i>Nature Communications</i> , 2017, 8, 486.	5.8	75
632	Environmental impact and potential health risks of 2D nanomaterials. <i>Environmental Science: Nano</i> , 2017, 4, 1617-1633.	2.2	68
633	3R and 2H polytypes of MoS ₂ : DFT and DFPT calculations of structural, optoelectronic, vibrational and thermodynamic properties. <i>Journal of Physics and Chemistry of Solids</i> , 2017, 111, 25-33.	1.9	35
634	Measuring Interlayer Shear Stress in Bilayer Graphene. <i>Physical Review Letters</i> , 2017, 119, 036101.	2.9	155

#	ARTICLE	IF	CITATIONS
635	Electrical properties and applications of graphene, hexagonal boron nitride (h-BN), and graphene/h-BN heterostructures. <i>Materials Today Physics</i> , 2017, 2, 6-34.	2.9	305
636	Frictional and mechanical behaviour of graphene/UHMWPE composite coatings. <i>Tribology International</i> , 2017, 116, 295-302.	3.0	84
637	Modification of the contact surfaces for improving the puncture resistance of laminar structures. <i>Scientific Reports</i> , 2017, 7, 6615.	1.6	3
638	Adhesion, Stiffness, and Instability in Atomically Thin MoS ₂ Bubbles. <i>Nano Letters</i> , 2017, 17, 5329-5334.	4.5	92
639	Nano-friction behavior of phosphorene. <i>Nanotechnology</i> , 2017, 28, 355704.	1.3	35
640	Nanoscale deformation and friction characteristics of atomically thin WSe ₂ and heterostructure using nanoscratch and Raman spectroscopy. <i>2D Materials</i> , 2017, 4, 045005.	2.0	20
641	Space irradiation-induced damage to graphene films. <i>Nanoscale</i> , 2017, 9, 13079-13088.	2.8	20
642	Mechanism of Magnetic Coupling in Carrier-Doped SnO Nanosheets. <i>Physical Review Applied</i> , 2017, 8, .	1.5	13
643	Pressure-Induced Melting of Confined Ice. <i>ACS Nano</i> , 2017, 11, 12723-12731.	7.3	38
644	Structural and Magnetic Properties of Transition Metal-Adsorbed MoS ₂ Monolayer. <i>Journal of Superconductivity and Novel Magnetism</i> , 2017, 30, 2849-2854.	0.8	10
645	The influence of strain on the energy band structures of phosphorene nanoribbons. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2017, 381, 2827-2831.	0.9	12
646	A DFT study of transition metal (Fe, Co, Ni, Cu, Ag, Au, Rh, Pd, Pt and Ir)-embedded monolayer MoS ₂ for gas adsorption. <i>Computational Materials Science</i> , 2017, 138, 255-266.	1.4	195
647	Enhancement of Friction by Water Intercalated between Graphene and Mica. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3482-3487.	2.1	57
648	Electronic structure and chemical hydrogen storage of a porous sp ³ tetragonal BC ₂ N compound. <i>Journal of Alloys and Compounds</i> , 2017, 724, 229-233.	2.8	12
649	Graphene Grown by Chemical Vapour Deposition on Steel Substrates: Friction Behaviour. <i>Tribology Letters</i> , 2017, 65, 1.	1.2	7
650	An ab initio investigation of phosphorene/hexagonal boron nitride heterostructures with defects for high performance photovoltaic applications. <i>Applied Surface Science</i> , 2017, 423, 1003-1011.	3.1	9
651	Contrast in nanoscale friction between rotational domains of graphene on Pt(111). <i>Carbon</i> , 2017, 113, 132-138.	5.4	33
652	Physics and chemistry of oxidation of two-dimensional nanomaterials by molecular oxygen. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2017, 7, e1280.	6.2	47

#	ARTICLE	IF	CITATIONS
653	Synergistic friction-reducing and anti-wear behaviors of graphene with micro- and nano-crystalline diamond films. <i>Diamond and Related Materials</i> , 2017, 73, 25-32.	1.8	28
654	Stacking stability and sliding mechanism in weakly bonded 2D transition metal carbides by van der Waals force. <i>RSC Advances</i> , 2017, 7, 55912-55919.	1.7	53
655	Two-dimensional semiconductors ZrNCl and HfNCl: Stability, electric transport, and thermoelectric properties. <i>Scientific Reports</i> , 2017, 7, 17330.	1.6	30
656	High-Performance and Self-Powered Deep UV Photodetectors Based on High Quality 2D Boron Nitride Nanosheets. <i>Nanomaterials</i> , 2017, 7, 454.	1.9	25
657	Advanced Scanning Probe Microscopy of Graphene and Other 2D Materials. <i>Crystals</i> , 2017, 7, 216.	1.0	30
658	Nanotribological Properties of Graphite Intercalation Compounds: AFM Studies. <i>Scanning</i> , 2017, 2017, 1-11.	0.7	24
659	Computational simulations of solvation force of water under different hydrophobic interactions. , 2017, , .		0
660	Lube Oil Wear Reduction via Organic Tribofilms. <i>Lubricants</i> , 2017, 5, 30.	1.2	4
661	Effects of dispersible MoS ₂ nanosheets and Nano-silver coexistence on the metabolome of yeast. <i>Chemosphere</i> , 2018, 198, 216-225.	4.2	17
662	On the buckling of hexagonal boron nitride nanoribbons via structural mechanics. <i>Superlattices and Microstructures</i> , 2018, 115, 1-9.	1.4	12
663	Interfacial Strength and Surface Damage Characteristics of Atomically Thin h-BN, MoS ₂ , and Graphene. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 9164-9177.	4.0	45
664	Nanoscale wear mechanisms of few-layer graphene sheets induced by interfacial adhesion. <i>Tribology International</i> , 2018, 123, 266-272.	3.0	31
665	Metal-Free Dehydrogenation of N-Heterocycles by Ternary h-BN Nanosheets with Visible Light. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5487-5491.	7.2	146
666	Effect of structural defects on electronic and magnetic properties of ZrS ₂ monolayer. <i>Superlattices and Microstructures</i> , 2018, 116, 164-170.	1.4	14
667	Strain Modulation of Graphene by Nanoscale Substrate Curvatures: A Molecular View. <i>Nano Letters</i> , 2018, 18, 2098-2104.	4.5	62
668	Enhance the fluorination activity of graphene via the interfacial interaction from Ni(111) substrate. <i>Computational Materials Science</i> , 2018, 147, 28-33.	1.4	7
669	Synthesis of polyacrylamide immobilized molybdenum disulfide (MoS ₂ @PDA@PAM) composites via mussel-inspired chemistry and surface-initiated atom transfer radical polymerization for removal of copper (II) ions. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018, 86, 174-184.	2.7	140
670	Approaches for Achieving Superlubricity in Two-Dimensional Materials. <i>ACS Nano</i> , 2018, 12, 2122-2137.	7.3	364

#	ARTICLE	IF	CITATIONS
671	Evaluation of wetting transparency and surface energy of pristine and aged graphene through nanoscale friction. <i>Carbon</i> , 2018, 132, 749-759.	5.4	32
672	Metal-Free Dehydrogenation of N-Heterocycles by Ternary h-BN Nanosheets with Visible Light. <i>Angewandte Chemie</i> , 2018, 130, 5585-5589.	1.6	40
673	Subnanometer Resolution and Enhanced Friction Contrast at the Surface of Perylene Diimide PDI8-CN ₂ Thin Films in Ambient Conditions. <i>Langmuir</i> , 2018, 34, 3207-3214.	1.6	11
674	Graphene nanosheets and polyacrylic acid grafted silicon composite anode for lithium ion batteries. <i>Journal of Power Sources</i> , 2018, 391, 41-50.	4.0	21
675	Selective release of less defective graphene during sliding of an incompletely reduced graphene oxide coating on steel. <i>Carbon</i> , 2018, 134, 411-422.	5.4	19
676	Sensor Embodiment and Flexible Electronics. , 2018, , 197-279.		5
677	Origin of the monolayer Raman signature in hexagonal boron nitride: a first-principles analysis. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 185701.	0.7	3
678	Rippling of graphitic surfaces: a comparison between few-layer graphene and HOPG. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13322-13330.	1.3	8
679	Effects of graphene nanoplatelet addition to jatropha Biodiesel-Diesel mixture on the performance and emission characteristics of a diesel engine. <i>Energy</i> , 2018, 147, 1129-1152.	4.5	134
680	Enhanced tribological properties of composite films based on ionic liquids with MoS ₂ nanosheets as additives. <i>New Journal of Chemistry</i> , 2018, 42, 4887-4892.	1.4	10
681	Dynamic Sliding Enhancement on the Friction and Adhesion of Graphene, Graphene Oxide, and Fluorinated Graphene. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 8214-8224.	4.0	84
682	Synthesized few-layers hexagonal boron nitride nanosheets. <i>Chinese Physics B</i> , 2018, 27, 016102.	0.7	4
683	Isotope- and Thickness-Dependent Friction of Water Layers Intercalated Between Graphene and Mica. <i>Tribology Letters</i> , 2018, 66, 1.	1.2	24
684	Enhanced Thermal Conductivity of Polyimide Composites with Boron Nitride Nanosheets. <i>Scientific Reports</i> , 2018, 8, 1557.	1.6	96
685	Electronic and magnetic properties of MoSe ₂ armchair nanoribbons controlled by the different edge structures. <i>Superlattices and Microstructures</i> , 2018, 115, 30-39.	1.4	11
686	Manipulation of domain-wall solitons in bi- and trilayer graphene. <i>Nature Nanotechnology</i> , 2018, 13, 204-208.	15.6	67
687	Influences of thickness, scanning velocity and relative humidity on the frictional properties of WS ₂ nanosheets. <i>Materials Research Express</i> , 2018, 5, 015026.	0.8	7
688	Measuring and Manipulating the Adhesion of Graphene. <i>Nano Letters</i> , 2018, 18, 449-454.	4.5	25

#	ARTICLE	IF	CITATIONS
689	Contrasting properties of hydrogenated and protonated single-layer h-BN from first-principles. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 065001.	0.7	13
690	Edge orientation dependent nanoscale friction. <i>Nanoscale</i> , 2018, 10, 2447-2453.	2.8	25
691	Lifted graphene nanoribbons on gold: from smooth sliding to multiple stick-slip regimes. <i>Nanoscale</i> , 2018, 10, 2073-2080.	2.8	17
692	Influence of chalcogen composition on the structural transition and on the electronic and optical properties of the monolayer titanium trichalcogenide ordered alloys. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 1431-1439.	1.3	9
693	Single-crystalline 2D erucamide with low friction and enhanced thermal conductivity. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 540, 29-35.	2.3	11
694	Mechanical Properties of 2D Materials Studied by In Situ Microscopy Techniques. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701246.	1.9	71
695	Dependence of the friction strengthening of graphene on velocity. <i>Nanoscale</i> , 2018, 10, 1855-1864.	2.8	31
696	Roles of sliding-induced defects and dissociated water molecules on low friction of graphene. <i>Scientific Reports</i> , 2018, 8, 121.	1.6	26
697	Origin of the moiré superlattice scale lateral force modulation of graphene on a transition metal substrate. <i>Nanoscale</i> , 2018, 10, 10576-10583.	2.8	14
698	Effect of lattice stacking orientation and local thickness variation on the mechanical behavior of few layer graphene oxide. <i>Carbon</i> , 2018, 136, 168-175.	5.4	21
699	Optimum hydrophilic modification of lanthanum trifluoride nanoparticles and their application in enhancing tribological properties of eco-friendly water-based bonded solid lubricating coatings. <i>Tribology International</i> , 2018, 125, 1-11.	3.0	16
700	Friction and work function oscillatory behavior for an even and odd number of layers in polycrystalline MoS ₂ . <i>Nanoscale</i> , 2018, 10, 8304-8312.	2.8	36
701	<i>In vitro</i> and environmental toxicity of reduced graphene oxide as an additive in automotive lubricants. <i>Nanoscale</i> , 2018, 10, 6539-6548.	2.8	36
702	Interlocking Friction Governs the Mechanical Fracture of Bilayer MoS ₂ . <i>ACS Nano</i> , 2018, 12, 3600-3608.	7.3	40
703	Electronic and magnetic properties of structural defects in pristine ZrSe ₂ monolayer. <i>Computational Materials Science</i> , 2018, 146, 36-41.	1.4	16
704	Effect of ¹⁰ B isotope and vacancy defects on the phonon modes of two-dimensional hexagonal boron nitride. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 02CB04.	0.8	6
705	Time-evolution of the electrical characteristics of MoS ₂ field-effect transistors after electron beam irradiation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9038-9044.	1.3	17
706	Digenite (Cu ₉ S ₅): Layered p-Type Semiconductor Grown by Reactive Annealing of Copper. <i>Chemistry of Materials</i> , 2018, 30, 2379-2388.	3.2	33

#	ARTICLE	IF	CITATIONS
707	Macroscale tribological properties of fluorinated graphene. <i>Applied Surface Science</i> , 2018, 432, 190-195.	3.1	34
708	Growth of hexagonal boron nitride on sapphire substrate by pulsed-mode metalorganic vapor phase epitaxy. <i>Journal of Crystal Growth</i> , 2018, 482, 1-8.	0.7	46
709	Experiment study on tribological performances of GNPs/MoS ₂ coating. <i>Tribology International</i> , 2018, 118, 400-407.	3.0	21
710	The Effect of Thickness and Chemical Reduction of Graphene Oxide on Nanoscale Friction. <i>Journal of Physical Chemistry B</i> , 2018, 122, 543-547.	1.2	27
711	Friction characteristics of mechanically exfoliated and CVD-grown single-layer MoS ₂ . <i>Friction</i> , 2018, 6, 395-406.	3.4	48
712	Chemically functionalized graphene for lubricant applications: Microscopic and spectroscopic studies of contact interfaces to probe the role of graphene for enhanced tribo-performance. <i>Journal of Colloid and Interface Science</i> , 2018, 513, 666-676.	5.0	59
713	Group 6 transition metal dichalcogenide nanomaterials: synthesis, applications and future perspectives. <i>Nanoscale Horizons</i> , 2018, 3, 90-204.	4.1	309
714	Effects of strain on Goos-Hänchen shifts of monolayer phosphorene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 97, 335-339.	1.3	9
715	Structural stability and magnetic-exchange coupling in Mn-doped monolayer/bilayer MoS ₂ . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 553-561.	1.3	37
716	The superconducting properties of a Pb/MoTe /Pb heterostructure: First-principles calculations within the anisotropic Migdal-Eliashberg theory. <i>Chinese Physics B</i> , 2018, 27, 126302.	0.7	0
717	Atomic-Scale Friction. , 2018, , 40-54.		0
718	Ultralow Interlayer Friction of Layered Electride Ca ₂ N: A Potential Two-Dimensional Solid Lubricant Material. <i>Materials</i> , 2018, 11, 2462.	1.3	15
719	Structural superlubricity and ultralow friction across the length scales. <i>Nature</i> , 2018, 563, 485-492.	13.7	382
720	Design and optimization of the diamagnetic lateral force calibration method. <i>Review of Scientific Instruments</i> , 2018, 89, 113704.	0.6	4
721	Efficient and Robust Fabrication of Microscale Graphene Drums. <i>ACS Applied Nano Materials</i> , 2018, 1, 6596-6602.	2.4	13
722	Friction and Adhesion of Different Structural Defects of Graphene. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 44614-44623.	4.0	39
723	Frictional Characteristics of Suspended MoS ₂ . <i>Journal of Physical Chemistry C</i> , 2018, 122, 26922-26927.	1.5	16
724	Universality of strain-induced anisotropic friction domains on 2D materials. <i>NPG Asia Materials</i> , 2018, 10, 1069-1075.	3.8	17

#	ARTICLE	IF	CITATIONS
725	Antiwear Performance of Monolayer MoS ₂ Modulated by Residual Straining. ACS Applied Nano Materials, 2018, 1, 7092-7097.	2.4	7
726	Structure modulation induced enhancement of microwave absorption in WS ₂ nanosheets. Applied Physics Letters, 2018, 113, .	1.5	30
727	Adhesion Behavior between Multilayer Graphene and Semiconductor Substrates. Applied Sciences (Switzerland), 2018, 8, 2107.	1.3	2
728	Synthesis of 2D transition metal dichalcogenides by chemical vapor deposition with controlled layer number and morphology. Nano Convergence, 2018, 5, 26.	6.3	119
729	Tribochemistry and Morphology of P-Based Antiwear Films. Microtechnology and MEMS, 2018, , 159-214.	0.2	2
730	Facile Synthesis of Superstructured MoS ₂ and Graphitic Nanocarbon Hybrid for Efficient Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 14441-14449.	3.2	41
731	Study on the effects of graphene oxide for tribological properties and cooling in lubricating oil. Materials Research Express, 2018, 5, 126509.	0.8	3
732	Achieving High Dehydrogenation Kinetics and Reversibility of LiBH ₄ by Adding Nanoporous h-BN to Destabilize LiH. Journal of Physical Chemistry C, 2018, 122, 23336-23344.	1.5	14
733	Engineering the band gap of armchair MoSe ₂ nanoribbon with edge passivation. Superlattices and Microstructures, 2018, 124, 62-71.	1.4	3
734	Molecules on rails: friction anisotropy and preferential sliding directions of organic nanocrystallites on two-dimensional materials. Nanoscale, 2018, 10, 18835-18845.	2.8	9
735	Electronic transport in a two-dimensional superlattice engineered via self-assembled nanostructures. Npj 2D Materials and Applications, 2018, 2, .	3.9	25
736	Problems of Using a Solvent-cleansed Silicon Oxide Substrate as the Friction Reference Sample at the Nanoscale. Journal of the Korean Physical Society, 2018, 73, 392-395.	0.3	1
738	Gain and Scan Rate Dependence of Friction at the Nanoscale Measured by Lateral Force Microscopy. Journal of the Korean Physical Society, 2018, 73, 388-391.	0.3	1
739	Inhomogeneous Strain Release during Bending of WS ₂ on Flexible Substrates. ACS Applied Materials & Interfaces, 2018, 10, 39177-39186.	4.0	17
740	Anisotropic Polymer Adsorption on Molybdenite Basal and Edge Surfaces and Interaction Mechanism With Air Bubbles. Frontiers in Chemistry, 2018, 6, 361.	1.8	29
741	Membrane destruction and phospholipid extraction by using two-dimensional MoS ₂ nanosheets. Nanoscale, 2018, 10, 20162-20170.	2.8	83
742	Lubricity of graphene on rough Au surfaces. Journal Physics D: Applied Physics, 2018, 51, 435301.	1.3	9
743	Spin-orbit coupling induced spin polarized valley states in SrRuO ₃ /Bi ₂ O ₃ heterostructures. Physical Chemistry Chemical Physics, 2018, 20, 24768-24774.	1.3	0

#	ARTICLE	IF	CITATIONS
744	Aligned van der Waals Coupled Growth of Carbon Nanotubes to Hexagonal Boron Nitride. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800793.	1.9	0
745	Self-scrolling MoS ₂ metallic wires. <i>Nanoscale</i> , 2018, 10, 18178-18185.	2.8	83
746	Tailoring the mechanical properties of 2D materials and heterostructures. <i>2D Materials</i> , 2018, 5, 032005.	2.0	128
747	Graphene Nanoplatelets as Novel Additive to Enhance Coercivity of Hot-Deformed Magnets by Tuning Microstructures. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800288.	1.9	6
748	Fabrication of monolayer MoS ₂ /rGO hybrids with excellent tribological performances through a surfactant-assisted hydrothermal route. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	1.1	26
749	Modulating electronic and magnetic properties of monolayer ZrSe ₂ by doping. <i>Superlattices and Microstructures</i> , 2018, 120, 659-669.	1.4	9
750	Synthesis of Two-Dimensional Hexagonal Boron Nitride. <i>Springer Theses</i> , 2018, , 1-10.	0.0	2
751	Nanoscale Friction of Graphene. <i>MRS Advances</i> , 2018, 3, 2743-2748.	0.5	5
752	Hexagonal Boron Nitride-Metal Junction: Removing the Schottky Barriers by Grain Boundary. <i>Advanced Theory and Simulations</i> , 2018, 1, 1800045.	1.3	5
753	Molecular Dynamics Simulation of Friction in Self-Lubricating Materials: An Overview of Theories and Available Models. , 2018, , 251-272.		0
754	Robust microscale superlubricity in graphite/hexagonal boron nitride layered heterojunctions. <i>Nature Materials</i> , 2018, 17, 894-899.	13.3	292
755	Layer-Number-Dependent Exciton Recombination Behaviors of MoS ₂ Determined by Fluorescence-Lifetime Imaging Microscopy. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18651-18658.	1.5	21
756	Research Progress in Application of 2D Materials in Liquid-Phase Lubrication System. <i>Materials</i> , 2018, 11, 1314.	1.3	44
757	Interface Characterization and Control of 2D Materials and Heterostructures. <i>Advanced Materials</i> , 2018, 30, e1801586.	11.1	134
758	Graphene-Based Composite Protective Coating for Twisted Strings and Its Experimental Evaluation. <i>IEEE Nanotechnology Magazine</i> , 2018, 17, 1036-1044.	1.1	0
759	Enhanced spin polarization and valley polarization in monolayer MoS ₂ junctions. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 355301.	0.7	12
760	Etch track-directed growth of carbon nanotubes on graphite. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 104, 165-172.	1.3	1
761	The Influence of Hydroxyl Groups on Friction of Graphene at Atomic Scale. <i>Crystals</i> , 2018, 8, 167.	1.0	11

#	ARTICLE	IF	CITATIONS
762	Electrostatic Association of Ammonium-Functionalized Layered-Transition-Metal Dichalcogenides with an Anionic Porphyrin. ACS Applied Materials & Interfaces, 2018, 10, 23476-23480.	4.0	32
763	Facile Assembly of a Large-Area BNNSs Film for Oxidation/Corrosion-Resistant Coatings. Advanced Materials Interfaces, 2018, 5, 1800750.	1.9	14
764	Study of Nanoscale Friction Behaviors of Graphene on Gold Substrates Using Molecular Dynamics. Nanoscale Research Letters, 2018, 13, 34.	3.1	17
765	A theoretical study on the structures and electronic and magnetic properties of new boron nitride composite nanosystems by depositing superhalogen AlI ₃ on the surface of nanosheets/nanoribbons. Physical Chemistry Chemical Physics, 2018, 20, 15424-15433.	1.3	3
766	Multiscale Frictional Properties of Cotton Fibers: A Review. Fibers, 2018, 6, 49.	1.8	13
767	Nanoserpents: Graphene Nanoribbon Motion on Two-Dimensional Hexagonal Materials. Nano Letters, 2018, 18, 6009-6016.	4.5	104
768	Graphene layer effect on protecting the refined surface of transition metal substrate Re(O ⁻ O ⁻ O ⁻): A first-principles study. Applied Surface Science, 2018, 462, 502-507.	3.1	1
769	Morphology and structure of WS ₂ nanosheets prepared by solvothermal method with surfactants. Integrated Ferroelectrics, 2018, 188, 24-30.	0.3	9
770	Sticking of atomic hydrogen on graphene. Journal of Physics Condensed Matter, 2018, 30, 283002.	0.7	30
771	Molecular weight impact on the mechanical forces between hyaluronan and its receptor. Carbohydrate Polymers, 2018, 197, 326-336.	5.1	15
772	Synthesis of MoS ₂ -TiO ₂ nanocomposite for enhanced photocatalytic and photoelectrochemical performance under visible light irradiation. Vacuum, 2018, 155, 675-681.	1.6	31
773	Dynamic interfacial mechanical-thermal characteristics of atomically thin two-dimensional crystals. Nanoscale, 2018, 10, 13548-13554.	2.8	17
774	Controlling the dendritic structure and the photo-electrocatalytic properties of highly crystalline MoS ₂ on sapphire substrate. 2D Materials, 2018, 5, 031015.	2.0	13
775	Effect of Humidity and Water Intercalation on the Tribological Behavior of Graphene and Graphene Oxide. ACS Applied Materials & Interfaces, 2018, 10, 22537-22544.	4.0	84
776	Impacts of environments on nanoscale wear behavior of graphene: Edge passivation vs. substrate pinning. Carbon, 2018, 139, 59-66.	5.4	62
777	Adsorption of estrone with few-layered boron nitride nanosheets: Kinetics, thermodynamics and mechanism. Chemosphere, 2018, 207, 534-542.	4.2	24
778	Nanomechanics of graphene. National Science Review, 2019, 6, 324-348.	4.6	75
779	Exploring interlayer interaction of SnSe ₂ by low-frequency Raman spectroscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 105, 7-12.	1.3	8

#	ARTICLE	IF	CITATIONS
780	Functionalization of 2D materials by intercalation. Progress in Surface Science, 2019, 94, 1-20.	3.8	48
781	Strain-tunable CO ₂ storage by black phosphorene and 1T-PC from combined first principles and molecular dynamics studies. Physical Chemistry Chemical Physics, 2019, 21, 20107-20117.	1.3	11
782	Shear anisotropy-driven crystallographic orientation imaging in flexible hexagonal two-dimensional atomic crystals. Applied Physics Letters, 2019, 115, .	1.5	18
783	Giant spin splitting induced by a symmetry-breaking van der Waals interaction. Applied Surface Science, 2019, 494, 619-626.	3.1	13
784	Ultra-low friction of a-C:H films enabled by lubrication of nanodiamond and graphene in ambient air. Carbon, 2019, 154, 203-210.	5.4	44
785	Chemical and physical origins of friction on surfaces with atomic steps. Science Advances, 2019, 5, eaaw0513.	4.7	62
786	Face dependent footprints of carpet-like graphene films grown on polycrystalline silicon carbide. Carbon, 2019, 153, 417-427.	5.4	3
787	Modification of MoS ₂ structure by means of high energy ions in connection to electrical properties and light element surface adsorption. Surfaces and Interfaces, 2019, 17, 100357.	1.5	9
788	Two-dimensional layered materials: from mechanical and coupling properties towards applications in electronics. Nanoscale, 2019, 11, 13181-13212.	2.8	67
789	Solid Lubrication with MoS ₂ : A Review. Lubricants, 2019, 7, 57.	1.2	320
790	Reduction of interlayer friction between bilayer hexagonal boron nitride nanosheets induced by electron redistribution. Journal of Applied Physics, 2019, 126, 035104.	1.1	6
791	Are There Limits to Superlubricity of Graphene in Hard, Rough Contacts?. Frontiers in Mechanical Engineering, 2019, 5, .	0.8	3
792	The Impacts of Adhesion on the Wear Property of Graphene. Advanced Materials Interfaces, 2019, 6, 1900721.	1.9	17
793	Friction at single-layer graphene step edges due to chemical and topographic interactions. Carbon, 2019, 154, 67-73.	5.4	38
794	Unveiling highly ambient-stable multilayered 1T-MoS ₂ towards all-solid-state flexible supercapacitors. Journal of Materials Chemistry A, 2019, 7, 19152-19160.	5.2	71
795	Impacts of the substrate stiffness on the anti-wear performance of graphene. AIP Advances, 2019, 9, .	0.6	13
796	Effects of electron beam irradiation on the friction and work function of the wrinkled graphene. Current Applied Physics, 2019, 19, 1172-1176.	1.1	2
797	Fundamentals and Properties of 2D Materials in General and Sensing Applications. , 2019, , 5-24.		7

#	ARTICLE	IF	CITATIONS
818	Few-layered boron nitride nanosheets as superior adsorbents for the rapid removal of lead ions from water. <i>Journal of Materials Science</i> , 2019, 54, 5366-5380.	1.7	20
819	Alkylated graphene oxide and reduced graphene oxide: Grafting density, dispersion stability to enhancement of lubrication properties. <i>Journal of Colloid and Interface Science</i> , 2019, 541, 150-162.	5.0	60
820	Photocatalytic Hydrogenation of Graphene Using Pd Nanocones. <i>Nano Letters</i> , 2019, 19, 4413-4419.	4.5	32
821	Copper/graphene composites: a review. <i>Journal of Materials Science</i> , 2019, 54, 12236-12289.	1.7	193
822	In situ preparation of graphene coating bonded to stainless steel substrate via Cr C bonding for excellent anticorrosion and wear resistant. <i>Applied Surface Science</i> , 2019, 492, 199-208.	3.1	23
823	Valley-dependent transport properties of electrons in a graphene with magnetic field and strained barrier. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 489, 165478.	1.0	7
824	Ultra-low friction of graphene/C60/graphene coatings for realistic rough surfaces. <i>Carbon</i> , 2019, 152, 727-737.	5.4	17
825	Prediction of directional magnetic-exchange coupling in Mn doped $\hat{1}^3$ -InSe monolayer. <i>Results in Physics</i> , 2019, 14, 102416.	2.0	3
826	Lubrication performance of graphene-containing oil on steel and DLC-coated surfaces. <i>Tribology International</i> , 2019, 138, 59-67.	3.0	40
827	Investigation on friction force and surface modification of MoS ₂ flakes under Ga ⁺ ion irradiation. <i>Materials Research Express</i> , 2019, 6, 085088.	0.8	1
828	Copper matrix composites reinforced by rGO-MoS ₂ hybrid: Strengthening effect to enhancement of tribological properties. <i>Composites Part B: Engineering</i> , 2019, 173, 106931.	5.9	33
829	Tuning the electronic properties of monolayer MoS ₂ , MoSe ₂ and MoSSe by applying z-axis strain. <i>Chemical Physics Letters</i> , 2019, 730, 191-197.	1.2	29
830	Theoretical investigation on the structures, electronic and magnetic properties of new 2D/1D composite nanosystems by adsorbing superhalogen MnCl ₃ on the BN monolayer/nanoribbons. <i>Theoretical Chemistry Accounts</i> , 2019, 138, 1.	0.5	3
831	CVD-grown 2D molybdenum diselenide: Morphology, spectroscopic and mechanical characterization. <i>Journal of Alloys and Compounds</i> , 2019, 803, 795-803.	2.8	9
832	Microstructural evolution and wear behaviors of laser-clad Stellite 6/NbC/h-BN self-lubricating coatings. <i>Surface and Coatings Technology</i> , 2019, 372, 218-228.	2.2	57
833	Anisotropy of Graphene Nanoflake Diamond Interface Frictional Properties. <i>Materials</i> , 2019, 12, 1425.	1.3	11
834	A theoretical study of adsorbed non-metallic atoms on magnesium chloride monolayers. <i>New Journal of Chemistry</i> , 2019, 43, 7778-7783.	1.4	10
835	Controlled synthesis and frictional properties of 2D MoTe ₂ via chemical vapor deposition. <i>Chemical Physics Letters</i> , 2019, 728, 156-159.	1.2	7

#	ARTICLE	IF	CITATIONS
836	Modeling Atomic-Scale Electrical Contact Quality Across Two-Dimensional Interfaces. Nano Letters, 2019, 19, 3654-3662.	4.5	21
837	Modification of graphene bases for low-temperature (cold-resistant) lubricants. AIP Conference Proceedings, 2019, , .	0.3	2
838	Influences of out-of-plane elastic energy and thermal effects on friction between graphene layers. AIP Advances, 2019, 9, 045213.	0.6	8
839	Two-dimensional pnictogens: A review of recent progresses and future research directions. Applied Physics Reviews, 2019, 6, .	5.5	143
840	Interlayer motion and ultra-low sliding friction in microscale graphite flakes. Europhysics Letters, 2019, 125, 26003.	0.7	7
841	Anticarcinogenic activity of blue fluorescent hexagonal boron nitride quantum dots: as an effective enhancer for DNA cleavage activity of anticancer drug doxorubicin. Materials Today Bio, 2019, 1, 100001.	2.6	13
842	Atomic-scale friction adjustment enabled by doping-induced modification in graphene nanosheet. Applied Surface Science, 2019, 483, 742-749.	3.1	36
843	Contact-focusing electron flow induced nanosized graphene sheet formation in amorphous carbon films for fast low-friction. Carbon, 2019, 149, 45-54.	5.4	31
844	Layer dependence of graphene-diamene phase transition in epitaxial and exfoliated few-layer graphene using machine learning. 2D Materials, 2019, 6, 035043.	2.0	40
845	Preservation of the frictional properties of h-BN under chemical modification in the presence of a commensurate Ni(1 \times 1) substrate. Computational Materials Science, 2019, 165, 82-87.	1.4	2
846	Microtribological properties of Ti 6Al 4V alloy treated with self-assembled dopamine and graphene oxide coatings. Tribology International, 2019, 137, 46-58.	3.0	28
847	Tuning the Friction of Graphene on Mica by Alcohol Intercalation. Langmuir, 2019, 35, 4886-4892.	1.6	10
848	Layer-by-layer thinning of MoS ₂ via laser irradiation. Nanotechnology, 2019, 30, 275302.	1.3	19
849	Influence of MoS ₂ Nanosheet Size on Performance of Drilling Mud. Polymers, 2019, 11, 321.	2.0	15
850	Corrosion Study of Boron Nitride Nanosheets Deposited on Copper Metal by Electrophoretic Deposition. Minerals, Metals and Materials Series, 2019, , 681-685.	0.3	7
851	Nanoscale Friction on Confined Water Layers Intercalated between MoS ₂ Flakes and Silica. Journal of Physical Chemistry C, 2019, 123, 8827-8835.	1.5	36
852	Effect of Graphene Nanoplates Dispersed in Ethanol on Frictional Behaviour of Tool Steel Running Against Uncoated and DLC-Coated Tool Steel. Tribology Letters, 2019, 67, 1.	1.2	11
853	Mechanical responses of boron-doped monolayer graphene. Carbon, 2019, 147, 594-601.	5.4	28

#	ARTICLE	IF	CITATIONS
854	Friction Property of Impact Sliding Contact under Vacuum and Microgravity. <i>Microgravity Science and Technology</i> , 2019, 31, 85-94.	0.7	9
855	â€œcelon slidingâ€œ on graphene: a novel concept to boost supercapacitor performance. <i>Nanoscale Horizons</i> , 2019, 4, 1077-1091.	4.1	22
856	Sliding-friction-dependent stress at the graphene/LiNbO ₃ interface around the critical temperature of the stress-free state. <i>AIP Advances</i> , 2019, 9, 025316.	0.6	2
857	Operational and environmental conditions regulate the frictional behavior of two-dimensional materials. <i>Applied Surface Science</i> , 2019, 483, 34-44.	3.1	29
858	Recent advances in friction and lubrication of graphene and other 2D materials: Mechanisms and applications. <i>Friction</i> , 2019, 7, 199-216.	3.4	227
859	Lithium Intercalated Molybdenum Disulfide-Coated Cotton Thread as a Viable Nerve Tissue Scaffold Candidate. <i>ACS Applied Nano Materials</i> , 2019, 2, 2044-2053.	2.4	9
860	Physical properties of Ima ₂ -BN under pressure: First principles calculations. <i>Chinese Journal of Physics</i> , 2019, 59, 317-324.	2.0	22
861	Nanotribological Properties of ALD-Made Ultrathin MoS ₂ Influenced by Film Thickness and Scanning Velocity. <i>Langmuir</i> , 2019, 35, 3651-3657.	1.6	16
862	Comparison of Frictional Properties of CVD-Grown MoS ₂ and Graphene Films under Dry Sliding Conditions. <i>Nanomaterials</i> , 2019, 9, 293.	1.9	17
863	Superconducting states and Majorana modes in transition-metal dichalcogenides under inhomogeneous strain. <i>Physical Review B</i> , 2019, 99, .	1.1	7
864	Challenges for continuous graphene as a corrosion barrier. <i>2D Materials</i> , 2019, 6, 022002.	2.0	33
865	Anisotropic nanoscale and sub-nanoscale friction behaviors between phosphorene and silicon tip. <i>Applied Surface Science</i> , 2019, 481, 1573-1584.	3.1	16
866	Graphene - MoS ₂ ensembles to reduce friction and wear in DLC-Steel contacts. <i>Carbon</i> , 2019, 146, 524-527.	5.4	108
867	Effect of structural defects and S-doped on electronic structure and magnetic properties of HfSe ₂ monolayer. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 479, 192-198.	1.0	11
868	Three-dimensional porous boron nitride foam for effective CO ₂ adsorption. <i>Solid State Communications</i> , 2019, 294, 1-5.	0.9	18
869	Anisotropic nanofriction on MoS ₂ with different thicknesses. <i>Tribology International</i> , 2019, 134, 308-316.	3.0	42
870	Understanding Interfacial Mechanics and Mechanisms of Exfoliation and Stabilization of Graphene Using Urea/Glycerol Solvents. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900155.	1.3	5
871	A Grain Boundary Regulates the Friction Behaviors between Graphene and a Gold Substrate. <i>Crystals</i> , 2019, 9, 418.	1.0	7

#	ARTICLE	IF	CITATIONS
872	Environmentally friendly, scalable exfoliation for few-layered hexagonal boron nitride nanosheets (BNNSs) by multi-time thermal expansion based on released gases. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14701-14708.	2.7	23
873	Colloidal nanoparticle inks for printing functional devices: emerging trends and future prospects. <i>Journal of Materials Chemistry A</i> , 2019, 7, 23301-23336.	5.2	94
874	Heterogeneous Integration of 2D Materials: Recent Advances in Fabrication and Functional Device Applications. <i>Nano</i> , 2019, 14, 1930009.	0.5	10
875	Tribology of two-dimensional materials: From mechanisms to modulating strategies. <i>Materials Today</i> , 2019, 26, 67-86.	8.3	250
876	Construction of Ti ³⁺ self-doped TiO ₂ /BCN heterojunction with enhanced photoelectrochemical performance for water splitting. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 2006-2015.	1.1	5
877	Raman Spectroscopy of Two-Dimensional Materials. <i>Springer Series in Materials Science</i> , 2019, , .	0.4	18
878	Robust ultralow friction between graphene and octadecyltrichlorosilane self-assembled monolayers. <i>Applied Surface Science</i> , 2019, 475, 389-396.	3.1	24
879	Synthesis and Assembly. <i>SpringerBriefs in Materials</i> , 2019, , 7-51.	0.1	0
880	Fabrication of GNS/MoS ₂ composite with different morphology and its tribological performance as a lubricant additive. <i>Applied Surface Science</i> , 2019, 469, 226-235.	3.1	63
881	van der Waals epitaxial growth of single crystal $\sqrt{3} \times \sqrt{3}$ -MoO ₃ layers on layered materials growth templates. <i>2D Materials</i> , 2019, 6, 015016.	2.0	33
882	Frictional characteristics of nano-confined water mediated hole-doped single-layer graphene on silica surface. <i>Nanotechnology</i> , 2019, 30, 045706.	1.3	7
883	Effect of sliding conditions on the macroscale lubricity of multilayer graphene coatings grown on nickel by CVD. <i>Surface and Coatings Technology</i> , 2019, 358, 247-255.	2.2	5
884	Interlayer interaction on twisted interface in incommensurate stacking MoS ₂ : A Raman spectroscopy study. <i>Journal of Colloid and Interface Science</i> , 2019, 538, 159-164.	5.0	15
885	2D MoS ₂ -Based Nanomaterials for Therapeutic, Bioimaging, and Biosensing Applications. <i>Small</i> , 2019, 15, e1803706.	5.2	265
886	Highly Ambient-Stable 1T-MoS ₂ and 1T-WS ₂ by Hydrothermal Synthesis under High Magnetic Fields. <i>ACS Nano</i> , 2019, 13, 1694-1702.	7.3	131
887	Raman Signatures of Surface and Interface Effects in Two-Dimensional Layered Materials: Theoretical Insights. <i>Springer Series in Materials Science</i> , 2019, , 163-184.	0.4	0
888	Slippery and Sticky Graphene in Water. <i>ACS Nano</i> , 2019, 13, 2072-2082.	7.3	12
889	A comparative study of mechanisms of the adsorption of CO ₂ confined within graphene-MoS ₂ nanosheets: a DFT trend study. <i>Nanoscale Advances</i> , 2019, 1, 1442-1451.	2.2	22

#	ARTICLE	IF	CITATIONS
890	Tribo-Dynamics of Nanocomposite Grease Lubricated Point Contact Under Elastohydrodynamics Lubrication Regime. <i>Journal of Tribology</i> , 2019, 141, .	1.0	1
891	Wettability and Applications of Nanochannels. <i>Advanced Materials</i> , 2019, 31, e1804508.	11.1	123
892	Hexagonal boron nitride monolayers on metal supports: Versatile templates for atoms, molecules and nanostructures. <i>Surface Science Reports</i> , 2019, 74, 1-95.	3.8	184
893	Buckling tip-based nanoscratching with in situ direct measurement of shear dynamics. <i>Applied Nanoscience (Switzerland)</i> , 2019, 9, 67-76.	1.6	2
894	Vacancy-controlled friction on 2D materials: Roughness, flexibility, and chemical reactions. <i>Carbon</i> , 2019, 142, 363-372.	5.4	31
895	Alkyl phosphate modified graphene oxide as friction and wear reduction additives in oil. <i>Journal of Materials Science</i> , 2019, 54, 4626-4636.	1.7	30
896	Improving tribological performance of fluoroether rubber composites by ionic liquid modified graphene. <i>Composites Science and Technology</i> , 2019, 170, 109-115.	3.8	33
897	Environment-Dependent Adhesion Energy of Mica Nanolayers Determined by a Nanomanipulation-Based Bridging Method. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801552.	1.9	6
898	3D-printed biomimetic surface structures with abnormal friction properties. <i>Extreme Mechanics Letters</i> , 2019, 26, 46-52.	2.0	6
899	Strain engineering of friction between graphene layers. <i>Tribology International</i> , 2019, 131, 686-693.	3.0	38
900	Mechanical properties of two-dimensional materials and their applications. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 083001.	1.3	97
901	Effects of Normal Load on the Coefficient of Friction by Microscratch Test of Copper with a Spherical Indenter. <i>Tribology Letters</i> , 2019, 67, 1.	1.2	31
902	Effects of grain boundary on wear of graphene at the nanoscale: A molecular dynamics study. <i>Carbon</i> , 2019, 143, 578-586.	5.4	42
903	First principles investigation of mono-vacancy defective properties of Cr ₂ AlC. <i>Physica B: Condensed Matter</i> , 2019, 552, 178-183.	1.3	10
904	The kinetic frictional shear stress of ZnO nanowires on graphite and mica substrates. <i>Applied Surface Science</i> , 2019, 465, 584-590.	3.1	15
905	Probing the difference in friction performance between graphene and MoS ₂ by manipulating the silver nanowires. <i>Journal of Materials Science</i> , 2019, 54, 540-551.	1.7	10
906	Monitoring water and oxygen splitting at graphene edges and folds: Insights into the lubricity of graphitic materials. <i>Carbon</i> , 2020, 156, 93-103.	5.4	38
907	Carbon incorporation in boron nitride grown by MOCVD under N ₂ flow. <i>Journal of Alloys and Compounds</i> , 2020, 815, 152364.	2.8	5

#	ARTICLE	IF	CITATIONS
908	Electrical friction modulation on MoS ₂ using electron beam radiation without electrostatic interactions. <i>Nanotechnology</i> , 2020, 31, 075703.	1.3	1
909	Nanotribological properties of 2-D MoS ₂ on different substrates made by atomic layer deposition (ALD). <i>Applied Surface Science</i> , 2020, 502, 144402.	3.1	15
910	Nickel-catalyzed direct growth of graphene on bearing steel (GCr15) by thermal chemical vapor deposition and its tribological behavior. <i>Applied Surface Science</i> , 2020, 502, 144135.	3.1	16
911	Orentational effect of graphene on the friction and wear behavior of Si ₃ N ₄ /TiC based composite ceramic tool materials. <i>Ceramics International</i> , 2020, 46, 3550-3557.	2.3	16
912	Structural Superlubricity Based on Crystalline Materials. <i>Small</i> , 2020, 16, e1903018.	5.2	29
913	An experimental method to measure the friction coefficients between a round particle and a flat plate. <i>Powder Technology</i> , 2020, 361, 983-989.	2.1	3
914	Understanding Interlayer Contact Conductance in Twisted Bilayer Graphene. <i>Small</i> , 2020, 16, e1902844.	5.2	27
915	Optimization of Process Parameters for a Chemi-Absorbed Graphene Coating and Its Nano Tribological Investigation. <i>Nanomaterials</i> , 2020, 10, 55.	1.9	3
916	Friction–Load Relationship in the Adhesive Regime Revealing Potential Incapability of AFM Investigations. <i>Tribology Letters</i> , 2020, 68, 1.	1.2	8
917	Measuring nanoscale friction at graphene step edges. <i>Friction</i> , 2020, 8, 802-811.	3.4	11
918	3D hierarchical porous graphene nanosheets as an efficient grease additive to reduce wear and friction under heavy-load conditions. <i>Tribology International</i> , 2020, 144, 106118.	3.0	45
919	Slippery and Wear-Resistant Surfaces Enabled by Interface Engineered Graphene. <i>Nano Letters</i> , 2020, 20, 905-917.	4.5	18
920	Influence of Stone-Wales defect on graphene friction: Pinning effect and wrinkle modification. <i>Computational Materials Science</i> , 2020, 173, 109423.	1.4	15
921	Effect of airborne contaminants on the macroscopic anti-wear performance of chemical vapor deposition graphene. <i>Surface and Coatings Technology</i> , 2020, 383, 125276.	2.2	9
922	Magnetostrictive friction of graphene sheets embedded carbon film. <i>Carbon</i> , 2020, 159, 617-624.	5.4	10
923	Elucidating the atomic mechanism of the lubricity of graphene on the diamond substrate. <i>Applied Surface Science</i> , 2020, 504, 144372.	3.1	18
924	Exploring Voltage Mediated Delamination of Suspended 2D Materials as a Cause of Commonly Observed Breakdown. <i>Journal of Physical Chemistry C</i> , 2020, 124, 430-435.	1.5	2
925	Measurement of fracture toughness of copper via constant-load microscratch with a spherical indenter. <i>Wear</i> , 2020, 444-445, 203158.	1.5	11

#	ARTICLE	IF	CITATIONS
926	Friction Modulation via Photoexcitation in Two-Dimensional Materials. ACS Applied Materials & Interfaces, 2020, 12, 2910-2915.	4.0	5
927	Contact behaviors of multilayered structures with interfacial cracks. Engineering Fracture Mechanics, 2020, 225, 106816.	2.0	19
928	Friction behavior of monolayer molybdenum diselenide nanosheet under normal electric field. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126166.	0.9	11
929	Superlubricity of carbon nanostructures. Carbon, 2020, 158, 1-23.	5.4	163
930	Novel phenomena in two-dimensional semiconductors. , 2020, , 25-79.		0
931	2D-Nanolayered Tungsten and Molybdenum Disulfides: Structure, Properties, Synthesis, and Processing for Strategic Applications. , 2020, , 75-120.		2
932	Graphene morphology effect on the gas barrier, mechanical and thermal properties of thermoplastic polyurethane. Composites Science and Technology, 2020, 200, 108461.	3.8	30
933	A review of boron carbon nitride thin films and progress in nanomaterials. Materials Today Advances, 2020, 8, 100106.	2.5	54
934	Development of tungsten diselenide/polyaniline composite nanofibers as an efficient electrocatalytic counter electrode material for dye-sensitized solar cell. Solar Energy, 2020, 209, 538-546.	2.9	20
935	Tunable friction of monolayer MoS ₂ by control of interfacial chemistry. Extreme Mechanics Letters, 2020, 41, 100996.	2.0	3
936	Friction and mechanical properties of amino-treated graphene-filled epoxy composites: modification conditions and filler content. RSC Advances, 2020, 10, 26646-26657.	1.7	13
937	Characterizations of nanoscale two-dimensional materials and heterostructures. , 2020, , 55-90.		1
938	Nanotribological Effect of Water Layers Intercalated between Exfoliated MoS ₂ and Mica. Journal of Physical Chemistry C, 2020, 124, 16902-16907.	1.5	12
939	Synergistic lubrication performance by incommensurately stacked ZnO-decorated reduced graphene oxide/MoS ₂ heterostructure. Journal of Colloid and Interface Science, 2020, 580, 730-739.	5.0	38
940	Nanotribological Investigation of Sliding Properties of Transition Metal Dichalcogenide Thin Film Coatings. ACS Applied Materials & Interfaces, 2020, 12, 54191-54202.	4.0	9
941	Micrometer-scale monolayer SnS growth by physical vapor deposition. Nanoscale, 2020, 12, 23274-23281.	2.8	21
942	Sliding Friction of Amorphous Asperities on Crystalline Substrates: Scaling with Contact Radius and Substrate Thickness. ACS Nano, 2020, 14, 16997-17003.	7.3	9
943	Formation of Coherent 1Hâ€“1T Heterostructures in Single-Layer MoS ₂ on Au(111). ACS Nano, 2020, 14, 16939-16950.	7.3	29

#	ARTICLE	IF	CITATIONS
944	Modification of the Electronic Transport in Atomically Thin WSe ₂ by Oxidation. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000422.	1.9	11
945	Phase-Engineering of 1T/2H Molybdenum Disulfide by Using Ionic Liquid for Enhanced Electrocatalytic Hydrogen Evolution. <i>ChemElectroChem</i> , 2020, 7, 3347-3352.	1.7	15
946	Mechanics at the interfaces of 2D materials: Challenges and opportunities. <i>Current Opinion in Solid State and Materials Science</i> , 2020, 24, 100837.	5.6	61
947	Surface chemistry of graphene and graphene oxide: A versatile route for their dispersion and tribological applications. <i>Advances in Colloid and Interface Science</i> , 2020, 283, 102215.	7.0	76
948	Spin and valley dependent transport in a monolayer MoS ₂ superlattice with extrinsic Rashba spin-orbit interaction. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 514, 167256.	1.0	6
949	Dynamic electron transfer for reducing nanofriction of graphene at electrified interfaces. <i>Applied Surface Science</i> , 2020, 520, 146327.	3.1	2
950	Nanoscale Friction Behavior of Transition-Metal Dichalcogenides: Role of the Chalcogenide. <i>ACS Nano</i> , 2020, 14, 16013-16021.	7.3	36
951	Covalently Linked Hexagonal Boron Nitride-Graphene Oxide Nanocomposites as High-Performance Oil-Dispersible Lubricant Additives. <i>ACS Applied Nano Materials</i> , 2020, 3, 10941-10953.	2.4	33
952	Non-Carbon 2D Materials-Based Field-Effect Transistor Biosensors: Recent Advances, Challenges, and Future Perspectives. <i>Sensors</i> , 2020, 20, 4811.	2.1	16
953	Tribology of 2D Nanomaterials: A Review. <i>Coatings</i> , 2020, 10, 897.	1.2	49
954	Nonmonotonic interfacial friction with normal force in two-dimensional crystals. <i>Physical Review B</i> , 2020, 102, .	1.1	9
955	The effects of stacking mode and thickness on the frictional behaviour of multilayer silicene. <i>RSC Advances</i> , 2020, 10, 33129-33136.	1.7	0
956	Direct imaging, three-dimensional interaction spectroscopy, and friction anisotropy of atomic-scale ripples on MoS ₂ . <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	10
958	Uncovering topographically hidden features in 2D MoSe ₂ with correlated potential and optical nanoprobes. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	24
959	The effect of substrate on the tribological properties of graphene. , 2020, , .		0
960	Enhanced lubricating properties of oils containing graphene synthesized in atmospheric plasmas. <i>Carbon Trends</i> , 2020, 1, 100010.	1.4	3
961	Robust quantum point contact operation of narrow graphene constrictions patterned by AFM cleavage lithography. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	10
962	Graphene-Based Aqueous Lubricants: Dispersion Stability to the Enhancement of Tribological Properties. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 51785-51796.	4.0	41

#	ARTICLE	IF	CITATIONS
963	Free-Standing Two-Dimensional Gold Membranes Produced by Extreme Mechanical Thinning. ACS Nano, 2020, 14, 17091-17099.	7.3	15
964	Electric-Carrying Nanofriction Properties of Atomic-Scale Steps on Graphene. Tribology Letters, 2020, 68, 1.	1.2	2
965	Hierarchical porous boron nitride nanosheets with versatile adsorption for water treatment. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 598, 124865.	2.3	19
966	Atomic-Scale Friction Characteristics of Graphene under Conductive AFM with Applied Voltages. ACS Applied Materials & Interfaces, 2020, 12, 25503-25511.	4.0	31
967	The Interior Failure of Single-Layer Graphene Activated by the Nanosized Asperity on the Substrate Surface. Advanced Materials Interfaces, 2020, 7, 2000281.	1.9	1
968	Nanotribology of 2D materials and their macroscopic applications. Journal Physics D: Applied Physics, 2020, 53, 393001.	1.3	14
969	Electronic properties and superior CO ₂ capture selectivity of metal nitride (XN) and phosphide (XP) (X=Al, Ga and In) sheets. Applied Surface Science, 2020, 527, 146445.	3.1	7
970	Spin-polarized current in wide bandgap hexagonal boron nitrides containing 4 8 line defects. Computational Materials Science, 2020, 183, 109799.	1.4	4
971	Plasma-assisted friction control of 2D MoS ₂ made by atomic layer deposition. Nanotechnology, 2020, 31, 395711.	1.3	7
972	Structural-Defect-Mediated Grafting of Alkylamine on Few-Layer MoS ₂ and Its Potential for Enhancement of Tribological Properties. ACS Applied Materials & Interfaces, 2020, 12, 30720-30730.	4.0	30
973	Friction of physisorbed nanotubes: rolling or sliding?. Nanoscale, 2020, 12, 13046-13054.	2.8	2
974	Direct tuning of graphene work function via chemical vapor deposition control. Scientific Reports, 2020, 10, 9870.	1.6	10
975	Hydrophilicity-Dependent Distinct Frictional Behaviors of Different Modified MXene Nanosheets. Journal of Physical Chemistry C, 2020, 124, 13664-13671.	1.5	29
976	Electrochemical investigation of the interactions of organic and inorganic depressants on basal and edge planes of molybdenite. Journal of Colloid and Interface Science, 2020, 570, 350-361.	5.0	22
977	Ripples, Wrinkles, and Crumples in Folded Graphene. Journal of the Korean Physical Society, 2020, 76, 985-990.	0.3	1
978	The Tribological Properties of Reduced Graphene Oxide Doped by N and B Species with Different Configurations. ACS Applied Materials & Interfaces, 2020, 12, 29737-29746.	4.0	12
979	Laser structuring of hydrogenated DLC scaffolds: Raman spectroscopy and nanotribology. Diamond and Related Materials, 2020, 108, 107787.	1.8	6
980	2D nano-materials beyond graphene: from synthesis to tribological studies. Applied Nanoscience (Switzerland), 2020, 10, 3353-3388.	1.6	89

#	ARTICLE	IF	CITATIONS
981	Construction of an Unusual Two-Dimensional Layered Structure for Fused-Ring Energetic Materials with High Energy and Good Stability. <i>Engineering</i> , 2020, 6, 1006-1012.	3.2	50
982	Tribological properties of compatibilizer and graphene oxide-filled polypropylene nanocomposites. <i>Bulletin of Materials Science</i> , 2020, 43, 1.	0.8	15
983	Regulating the electrical conductivity of hexagonal boron nitride nanosheets with excellent tribological performance for micro and nano electromechanical system applications. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 120, 114045.	1.3	13
984	Self-assembly of the deposited graphene-like nanoparticles and possible nanotrack artefacts in AFM studies. <i>Nano Express</i> , 2020, 1, 010004.	1.2	6
985	Auxetic Tetrahex Carbon with Ultrahigh Strength and a Direct Band Gap. <i>Physical Review Applied</i> , 2020, 13, .	1.5	23
986	Tunable macroscale structural superlubricity in two-layer graphene via strain engineering. <i>Nature Communications</i> , 2020, 11, 1595.	5.8	88
987	Deformation induced atomic-scale frictional characteristics of atomically thin two-dimensional materials. <i>Carbon</i> , 2020, 163, 186-196.	5.4	24
988	Influence of elastic property on the friction between atomic force microscope tips and 2D materials. <i>Nanotechnology</i> , 2020, 31, 285710.	1.3	14
989	Atomically thin hydroxylation boron nitride nanosheets for excellent water-based lubricant additives. <i>Journal of the American Ceramic Society</i> , 2020, 103, 6951-6960.	1.9	31
990	Mechanisms of friction and wear reduction by h-BN nanosheet and spherical W nanoparticle additives to base oil: Experimental study and molecular dynamics simulation. <i>Tribology International</i> , 2020, 151, 106493.	3.0	39
991	Characterization of a Microscale Superlubric Graphite Interface. <i>Physical Review Letters</i> , 2020, 125, 026101.	2.9	25
992	Effects of grafting oxygen atoms on the tribological properties of graphene: Molecular dynamics simulation and experimental analysis. <i>Applied Surface Science</i> , 2020, 528, 147045.	3.1	11
993	Effect of boron nitride nanosheets addition on the mechanical and dielectric properties of magnesium oxide ceramics. <i>Ceramics International</i> , 2020, 46, 23669-23676.	2.3	14
994	Enhanced Peltier Effect in Wrinkled Graphene Constriction by Nano-Bubble Engineering. <i>Small</i> , 2020, 16, e1907170.	5.2	19
995	Effect of Supporting Metal Substrates on the Tribological Properties of Monolayer Graphene. <i>Tribology Letters</i> , 2020, 68, 1.	1.2	6
996	Speed dependence of friction on single-layer and bulk MoS ₂ measured by atomic force microscopy. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	23
997	2D/2D 1Tâ€MoS ₂ /Ti ₃ C ₂ MXene Heterostructure with Excellent Supercapacitor Performance. <i>Advanced Functional Materials</i> , 2020, 30, 0190302.	7.8	241
998	Improving diesel engine performance using carbon nanomaterials. , 2020, , 77-103.		6

#	ARTICLE	IF	CITATIONS
999	Effect of temperature on Raman intensity of nm-thick WS ₂ : combined effects of resonance Raman, optical properties, and interface optical interference. <i>Nanoscale</i> , 2020, 12, 6064-6078.	2.8	41
1000	Effect of Compressive Prestrain on the Anti-Pressure and Anti-Wear Performance of Monolayer MoS ₂ : A Molecular Dynamics Study. <i>Nanomaterials</i> , 2020, 10, 275.	1.9	7
1001	Controllable photoenhanced spin- and valley-polarized transport in ferromagnetic MoS ₂ junction. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 503, 166580.	1.0	14
1002	Computer simulations and theoretical predictions. , 2020, , 11-50.		0
1003	Nanostructured tribolayer-dependent lubricity of graphene and modified graphene nanoflakes on sliding steel surfaces in humid air. <i>Tribology International</i> , 2020, 145, 106203.	3.0	20
1004	Experimental tribology of graphene. , 2020, , 91-124.		0
1005	Understanding the friction of atomically thin layered materials. <i>Nature Communications</i> , 2020, 11, 420.	5.8	33
1006	Effective scheme for understanding rolling and sliding at nanoscale. <i>Carbon</i> , 2020, 161, 269-276.	5.4	9
1007	Friction Reduction of Hydrogenated Graphene by Strain Engineering. <i>Tribology Letters</i> , 2020, 68, 1.	1.2	17
1008	Superlubricity between a silicon tip and graphite enabled by the nanolithography-assisted nanoflakes tribo-transfer. <i>Nanotechnology</i> , 2020, 31, 205703.	1.3	10
1009	Atomic-Scale Friction on Monovacancy-Defective Graphene and Single-Layer Molybdenum-Disulfide by Numerical Analysis. <i>Nanomaterials</i> , 2020, 10, 87.	1.9	6
1010	Scratching of Graphene-Coated Cu Substrates Leads to Hardened Cu Interfaces with Enhanced Lubricity. <i>ACS Applied Nano Materials</i> , 2020, 3, 1992-1998.	2.4	6
1011	Introducing graphene (reduced graphene oxide) into Al matrix composites for enhanced high-temperature strength. <i>Composites Part B: Engineering</i> , 2020, 195, 108095.	5.9	43
1012	A black Phosphorus/BiVO ₄ (010) heterostructure for promising photocatalytic performance: First-principles study. <i>Journal of Physics and Chemistry of Solids</i> , 2020, 143, 109466.	1.9	18
1013	Modulation of Second-Harmonic Generation in Bulk MoS ₂ via Excitation Wavelength and Metal Film Thickness. <i>Journal of Electronic Materials</i> , 2020, 49, 3761-3769.	1.0	2
1014	A hillock-like phenomenon with low friction and adhesion on a graphene surface induced by relative sliding at the interface of graphene and the SiO ₂ substrate using an AFM tip. <i>Nanoscale Advances</i> , 2020, 2, 2548-2557.	2.2	1
1015	Effects of substrate and tip characteristics on the surface friction of fluorinated graphene. <i>RSC Advances</i> , 2020, 10, 10888-10896.	1.7	2
1016	Mechanical properties of hexagonal boron nitride monolayers: Finite element and analytical predictions. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, 234, 4126-4135.	1.1	7

#	ARTICLE	IF	CITATIONS
1017	Water desalination performance of h-BN and optimized charged graphene membranes. <i>Microfluidics and Nanofluidics</i> , 2020, 24, 1.	1.0	14
1018	Enhanced carrier mobility in anisotropic two-dimensional tetrahex-carbon through strain engineering. <i>Carbon</i> , 2020, 165, 37-44.	5.4	15
1019	A comparison study between the Lennard-Jones and DRIP potentials for friction of graphene layers. <i>Computational Materials Science</i> , 2020, 180, 109723.	1.4	3
1020	Spin- and valley-related tunneling time of massive Dirac electrons in a ferromagnetic MoS ₂ quantum structure. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 120, 114103.	1.3	2
1021	Prediction of Nanoscale Friction for Two-Dimensional Materials Using a Machine Learning Approach. <i>Tribology Letters</i> , 2020, 68, 1.	1.2	80
1022	Tribological properties of phenyl-silicone rubber composites with nano-CeO ₂ and graphene under thermal-oxidative aging. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 2129-2138.	1.6	10
1023	Micro/atomic-scale vibration induced superlubricity. <i>Friction</i> , 2021, 9, 1163-1174.	3.4	16
1024	Ab initio insights into graphene lubricity. , 2021, , 21-38.		0
1025	Vibration-induced superlubricity. , 2021, , 53-70.		0
1026	Toward micro- and nanoscale robust superlubricity by 2D materials. , 2021, , 131-144.		1
1027	Energy dissipation through phonon and electron behaviors of superlubricity in 2D materials. , 2021, , 145-166.		0
1028	Enhancement of hydrogenated graphene on mechanical and adhesive properties of diamond-like carbon films. <i>Tribology International</i> , 2021, 154, 106725.	3.0	5
1029	Building Functional Memories and Logic Circuits with 2D Boron Nitride. <i>Advanced Functional Materials</i> , 2021, 31, 2004733.	7.8	22
1030	Mechanical and dielectric properties of functionalized boron nitride nanosheets/silicon nitride composites. <i>Ceramics International</i> , 2021, 47, 2058-2067.	2.3	23
1031	Synergetic effects of surface texturing and solid lubricants to tailor friction and wear – A review. <i>Tribology International</i> , 2021, 155, 106792.	3.0	268
1032	Probing interactions at two-dimensional heterointerfaces by boron nitride-wrapped tip. <i>Nano Research</i> , 2021, 14, 692-698.	5.8	7
1033	Frictional characteristics of heterostructure film composed of graphene and H-BN with the consideration of defects. <i>Tribology International</i> , 2021, 153, 106607.	3.0	11
1034	Fretting wear of spark plasma sintered Ti ₃ SiC ₂ /GNP ceramic composite against Si ₃ N ₄ . <i>Ceramics International</i> , 2021, 47, 5648-5655.	2.3	6

#	ARTICLE	IF	CITATIONS
1035	Ultra-dispersive monolayer graphene oxide as water-based lubricant additive: Preparation, characterization and lubricating mechanisms. <i>Tribology International</i> , 2021, 155, 106768.	3.0	36
1036	Unraveling the Friction Evolution Mechanism of Diamond-Like Carbon Film during Nanoscale Running Process toward Superlubricity. <i>Small</i> , 2021, 17, e2005607.	5.2	21
1037	Electric resistance as a sensitive measure for detecting graphene wear during macroscale tribological tests. <i>Science China Technological Sciences</i> , 2021, 64, 179-186.	2.0	1
1038	Graphene-alumina nanostructured hybrid: synthesis with use dodecylamine and physicochemical properties. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2021, 29, 431-441.	1.0	3
1039	Origin of High Friction at Graphene Step Edges on Graphite. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 1895-1902.	4.0	16
1040	Rheological behaviors of cement pastes with multi-layer graphene. <i>Construction and Building Materials</i> , 2021, 269, 121327.	3.2	9
1041	The effect of edge passivation with different atoms on ZrSe ₂ nanoribbons. <i>Sensors and Actuators A: Physical</i> , 2021, 317, 112471.	2.0	4
1042	Synergistic lubricating effect of graphene/ionic liquid composite material used as an additive. <i>Friction</i> , 2021, 9, 1568-1579.	3.4	18
1043	A molecular dynamics study on the tribological behavior of molybdenum disulfide with grain boundary defects during scratching processes. <i>Friction</i> , 2021, 9, 1198-1212.	3.4	21
1044	The challenges and benefits of using carbon nano-tubes as friction modifier lubricant additives. <i>Materials Today: Proceedings</i> , 2021, 37, 3275-3278.	0.9	4
1045	Ultrahigh adhesion between carbon nanotube and free-standing monolayer graphene. <i>Journal of Applied Physics</i> , 2021, 129, 044304.	1.1	0
1046	Tribological properties of suspended hexagonal boron nitride under electric field. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2021, 70, 166801.	0.2	0
1047	Environmentally hazardous gas sensing ability of MoS ₂ -nanotubes: an insight from the electronic structure and transport properties. <i>Nanoscale Advances</i> , 2021, 3, 4528-4535.	2.2	7
1048	Effect of strain engineering on superlubricity in a double-walled carbon nanotube. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 4988-5000.	1.3	8
1049	A new 2D auxetic CN ₂ nanostructure with high energy density and mechanical strength. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 4353-4364.	1.3	8
1050	Strain-controlled electronic and magnetic properties of tVS ₂ /hVS ₂ van der Waals heterostructures. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 4669-4680.	1.3	5
1051	Friction properties of suspended graphene. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2021, 70, 086801.	0.2	2
1052	Chapter 2. Surface Engineering of Boron Nitride Nanoplatelets for Thermal Conductivity Enhancement of Polymers. <i>Inorganic Materials Series</i> , 2021, , 52-98.	0.5	1

#	ARTICLE	IF	CITATIONS
1053	Application of graphene in protective coating industry: prospects and current progress. , 2021, , 453-492.		0
1054	Tribological Performance Investigation of a Commercial Engine Oil Incorporating Reduced Graphene Oxide as Additive. <i>Nanomaterials</i> , 2021, 11, 386.	1.9	10
1055	A hexagonal boron nitride super self-collimator for optical asymmetric transmission in the visible region. <i>Optical Materials</i> , 2021, 112, 110483.	1.7	5
1056	A First-Principles Study of Impurity-Enhanced Adhesion and Lubricity of Graphene on Iron Oxide Surface. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4310-4321.	1.5	6
1057	Preparation and Tribological Properties of Graphene Oxide/Polydopamine-Derived Carbon Films on Silicon Substrate. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 2462-2472.	1.2	2
1058	Facile Fabrication of Novel Multifunctional Lubricant-Infused Surfaces with Exceptional Tribological and Anticorrosive Properties. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 6678-6687.	4.0	34
1059	Studying the adsorption energy of CO gas molecule in different nano-systems using density function theory. <i>Egyptian Journal of Chemistry</i> , 2021, .	0.1	0
1060	Ball Milled Graphene Nano Additives for Enhancing Sliding Contact in Vegetable Oil. <i>Nanomaterials</i> , 2021, 11, 610.	1.9	14
1061	Coating performance of hexagonal boron nitride and graphene layers. <i>2D Materials</i> , 2021, 8, 034002.	2.0	14
1062	Structural Defects, Mechanical Behaviors, and Properties of Two-Dimensional Materials. <i>Materials</i> , 2021, 14, 1192.	1.3	48
1063	Tribological Properties of 2D Materials and Composites – A Review of Recent Advances. <i>Materials</i> , 2021, 14, 1630.	1.3	40
1064	Superconductivity and strong anharmonicity in novel NbS phases. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 174001.	0.7	2
1065	On the lubrication of rough copper surfaces with graphene. <i>Tribology International</i> , 2021, 156, 106837.	3.0	11
1066	Graphene on a hexagonal lattice substrate with on-site Hubbard interaction. <i>Solid State Communications</i> , 2021, 328, 114250.	0.9	1
1067	Influences of thickness and gamma-ray irradiation on the frictional and electronic properties of WSe ₂ nanosheets. <i>AIP Advances</i> , 2021, 11, .	0.6	2
1068	A computational study of MoS ₂ for band gap engineering by substitutional doping of TMN (T = transition metal (Cu), M = Metalloid (B) and N = non-metal (C)). <i>Materials Research Express</i> , 2021, 8, 046301.	0.8	6
1069	Two-dimensional talc as a van der Waals material for solid lubrication at the nanoscale. <i>Nanotechnology</i> , 2021, 32, 265701.	1.3	14
1070	Temperature induced dynamics of water confined between graphene and MoS ₂ . <i>Journal of Chemical Physics</i> , 2021, 154, 134705.	1.2	9

#	ARTICLE	IF	CITATIONS
1071	Strain-Engineered Rippling and Manipulation of Single-Layer WS ₂ by Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 8696-8703.	1.5	9
1072	Research progress of surface-modified graphene-based materials for tribological applications. <i>Materials Research Express</i> , 2021, 8, 042002.	0.8	10
1073	Controlled friction on graphene via substrate deformation induced atomic pinning effect. <i>Computational Materials Science</i> , 2021, 190, 110315.	1.4	6
1075	Thermal effects and spontaneous frictional relaxation in atomically thin layered materials. <i>Physical Review B</i> , 2021, 103, .	1.1	4
1076	Graphene overcoats for ultra-high storage density magnetic media. <i>Nature Communications</i> , 2021, 12, 2854.	5.8	15
1077	Understanding the effect of water on the transient decomposition of zinc dialkyldithiophosphate (ZDDP). <i>Tribology International</i> , 2021, 157, 106855.	3.0	7
1078	Recent development in friction of 2D materials: from mechanisms to applications. <i>Nanotechnology</i> , 2021, 32, 312002.	1.3	42
1079	Spin and valley dependent delay time in. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021, , 127461.	0.9	4
1080	An analogous ellipse equation for describing the coupling relationship of friction and adhesion between a probe tip and graphene. <i>Mechanics of Materials</i> , 2021, 156, 103791.	1.7	1
1081	New perspectives on Graphene/Graphene oxide based polymer nanocomposites for corrosion applications: The relevance of the Graphene/Polymer barrier coatings. <i>Progress in Organic Coatings</i> , 2021, 154, 106215.	1.9	65
1082	Magnetic properties and magnetic phase transition in square-octagon lattice: Monte Carlo study. <i>Philosophical Magazine Letters</i> , 2021, 101, 293-302.	0.5	2
1083	Effect of temperature on tribological performance of organic friction modifier and anti-wear additive: Insights from friction, surface (ToF-SIMS and EDX) and wear analysis. <i>Tribology International</i> , 2021, 157, 106896.	3.0	22
1084	Enhanced Electrochemical Performance of Hydrothermally Exfoliated Hexagonal Boron Nitride Nanosheets for Applications in Electrochemistry. <i>Journal of the Electrochemical Society</i> , 2021, 168, 056512.	1.3	10
1085	Frictional characteristics of graphene layers with embedded nanopores. <i>Nanotechnology</i> , 2021, 32, 345701.	1.3	3
1086	Infrared Proximity Sensors Based on Photo-induced Tunneling in van der Waals Integration. <i>Advanced Functional Materials</i> , 2021, 31, 2100966.	7.8	12
1087	Tunable self-trapped excitons in 2D layered rubrene. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	7
1088	Layer dependent out-of-plane elastic modulus of graphene. <i>Applied Physics Letters</i> , 2021, 118, 263101.	1.5	1
1089	Fine defect engineering of graphene friction. <i>Carbon</i> , 2021, 182, 735-741.	5.4	14

#	ARTICLE	IF	CITATIONS
1090	Exploring Nanoscale Lubrication Mechanisms of Multilayer MoS ₂ During Sliding: The Effect of Humidity. <i>Frontiers in Chemistry</i> , 2021, 9, 684441.	1.8	8
1091	Optically facet-resolved reaction anisotropy in two-dimensional transition metal dichalcogenides. <i>2D Materials</i> , 2021, 8, 035045.	2.0	2
1092	Na ₂ CO ₃ and graphene nanocomposites toward efficient lubrication. <i>Carbon</i> , 2021, 177, 138-150.	5.4	5
1093	Influence of Base oil Polarity on the Tribological Performance of Surface-Active Engine Oil Additives. <i>Tribology Letters</i> , 2021, 69, 1.	1.2	7
1094	Enhanced Valley Polarization of Bilayer MoSe ₂ with Variable Stacking Order and Interlayer Coupling. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 5879-5888.	2.1	11
1095	Tuning nanoscale adhesive contact behavior to a near ideal Hertzian state via graphene coverage. <i>Computational Materials Science</i> , 2021, 194, 110427.	1.4	4
1096	Mechanical properties of graphene. <i>Applied Physics Reviews</i> , 2021, 8, .	5.5	37
1097	Effects of intercalated water on the lubricity of sliding layers under load: a theoretical investigation on MoS ₂ . <i>2D Materials</i> , 2021, 8, 035052.	2.0	11
1098	Construction of Layered High-Energy Materials via Directional Hydrogen Bonding. <i>Crystal Growth and Design</i> , 2021, 21, 4725-4731.	1.4	16
1099	Shaping and structuring 2D materials via kirigami and origami. <i>Materials Science and Engineering Reports</i> , 2021, 145, 100621.	14.8	36
1100	Graphite lubrication mechanisms under high mechanical load. <i>Wear</i> , 2021, 477, 203794.	1.5	28
1101	Strongly enhanced electromechanical coupling in atomically thin transition metal dichalcogenides. <i>Materials Today</i> , 2021, 47, 69-74.	8.3	7
1102	Direct Visualization and Manipulation of Stacking Orders in Few-Layer Graphene by Dynamic Atomic Force Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 7328-7334.	2.1	9
1103	A new polyimide matrix composite to improve friction-induced chatter performance through reducing fluctuation in friction force. <i>Composites Part B: Engineering</i> , 2021, 217, 108887.	5.9	28
1104	DFT Study of Chemical Adsorption of NO ₂ Gas on Graphene Nano Material. <i>Materials Science Forum</i> , 0, 1039, 391-397.	0.3	4
1105	Tuning frictional properties of molecularly thin erucamide films through controlled self-assembling. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2021, 37, 1041-1049.	1.5	6
1106	Direct microscopic evidence of shear induced graphitization of ultrananocrystalline diamond films. <i>Carbon Trends</i> , 2021, 4, 100078.	1.4	1
1107	MoS ₂ /WS ₂ Nanosheet-Based Composite Films Irradiated by Atomic Oxygen: Implications for Lubrication in Space. <i>ACS Applied Nano Materials</i> , 2021, 4, 10307-10320.	2.4	16

#	ARTICLE	IF	CITATIONS
1108	Robust Superlubricity and Moiré Lattice's Size Dependence on Friction between Graphdiyne Layers. ACS Applied Materials & Interfaces, 2021, 13, 40901-40908.	4.0	12
1109	Synthesis of size-controlled and in-situ OH functionalized hexagonal boron nitride powder by hetero-phase reaction. Applied Surface Science, 2021, 558, 149885.	3.1	3
1110	Using Patterned Self-Assembled Monolayers to Tune Graphene's Substrate Interactions. Langmuir, 2021, 37, 9996-10005.	1.6	6
1111	Nanotribology of transition metal dichalcogenide flakes deposited by chemical vapour deposition: The influence of chemical composition and sliding speed on nanoscale friction of monolayers. Applied Surface Science, 2021, 556, 149762.	3.1	9
1112	Synthesis of boron nitride nanosheets powders using a plasma based bottom-up approach. 2D Materials, 2021, 8, 045018.	2.0	8
1113	Kink propagation and solute partitioning in an atomic monolayer on a substrate. Physical Review E, 2021, 104, L022801.	0.8	1
1114	Water lubrication of graphene oxide-based materials. Friction, 2022, 10, 977-1004.	3.4	19
1115	Influence of heating on the measured friction behavior of graphene evaluated under ultra-high vacuum conditions. Applied Physics Letters, 2021, 119, .	1.5	5
1116	Origin of friction hysteresis on monolayer graphene. Friction, 2022, 10, 573-582.	3.4	17
1117	Interfacial Friction Anisotropy in Few-Layer Van der Waals Crystals. Materials, 2021, 14, 4717.	1.3	2
1118	Dynamic Nanofriction of Graphene Oxide Induced by a Positively Biased Conductive AFM Tip. Journal of Physical Chemistry C, 2021, 125, 18334-18340.	1.5	1
1119	Rotational Friction Correlated with Moiré Patterns in Strained Bilayer Graphene: Implications for Nanoscale Lubrication. ACS Applied Nano Materials, 2021, 4, 8880-8887.	2.4	8
1120	Improvement in the physical and mechanical properties of the cement-based composite with the addition of nanostructured BN-Fe ₃ O ₄ reinforcement. Scientific Reports, 2021, 11, 19358.	1.6	12
1121	Tip-Based Nanomachining on Thin Films: A Mini Review. Nanomanufacturing and Metrology, 2022, 5, 2-22.	1.5	9
1122	Mechanical Properties and Deformation Mechanisms of Graphene Foams with Bi-Modal Sheet Thickness by Coarse-Grained Molecular Dynamics Simulations. Materials, 2021, 14, 5622.	1.3	2
1124	Registry-Dependent Peeling of Layered Material Interfaces: The Case of Graphene Nanoribbons on Hexagonal Boron Nitride. ACS Applied Materials & Interfaces, 2021, 13, 43533-43539.	4.0	6
1125	Atomic-Scale Friction of Black and Violet Phosphorus Crystals: Implications for Phosphorus-Based Devices and Lubricants. ACS Applied Nano Materials, 2021, 4, 9932-9937.	2.4	16
1126	Alkali-Assisted Hydrothermal Exfoliation and Surfactant-Driven Functionalization of h-BN Nanosheets for Lubrication Enhancement. ACS Applied Nano Materials, 2021, 4, 9143-9154.	2.4	14

#	ARTICLE	IF	CITATIONS
1127	Friction Characteristics of Molybdenum Disulfide Thin Films Synthesized via Plasma Sulfurization. <i>Advanced Engineering Materials</i> , 2021, 23, 2100971.	1.6	1
1128	Nanofluidic voidless electrode for electrochemical capacitance enhancement in gel electrolyte. <i>Nature Communications</i> , 2021, 12, 5515.	5.8	13
1129	Toplayer-dependent crystallographic orientation imaging in the bilayer two-dimensional materials with transverse shear microscopy. <i>Frontiers of Physics</i> , 2021, 16, 1.	2.4	5
1130	Effect of Different Concentrations of Nano-Cubic Boron Nitride on the Preparation of TiO ₂ /Ti/Fe Composite Materials by Thermal Sprayed and Micro-Arc Oxidation. <i>Materials Transactions</i> , 2021, 62, 1462-1470.	0.4	4
1131	Adsorption of habitat and industry-relevant molecules on the MoSi ₂ N ₄ monolayer. <i>Applied Surface Science</i> , 2021, 564, 150326.	3.1	50
1132	Density functional theory studies on h-BN-transition metal dichalcogenide heterostructures (TMDCs) and TMDC-h-BN-TMDC (sandwich heterostructures). <i>Computational and Theoretical Chemistry</i> , 2021, 1204, 113417.	1.1	13
1133	2D metal-organic frameworks with square grid structure: A promising new-generation superlubricating material. <i>Nano Today</i> , 2021, 40, 101262.	6.2	42
1134	Effect of structural transitions of n-hexadecane in nanoscale confinement on atomic friction. <i>Carbon</i> , 2021, 183, 428-437.	5.4	4
1135	Slow speed friction behaviour of a-C:H with different fs-laser micro-patterns against diamond tip in hyaluronic acid. <i>Thin Solid Films</i> , 2021, 735, 138863.	0.8	1
1136	Superior lubrication and electrical stability of graphene as highly effective solid lubricant at sliding electrical contact interface. <i>Carbon</i> , 2021, 183, 53-61.	5.4	30
1137	Nanoscale friction of CVD single-layer MoS ₂ with controlled defect formation. <i>Surfaces and Interfaces</i> , 2021, 26, 101437.	1.5	5
1138	Density functional theory based HSE06 calculations to probe the effects of defect on electronic properties of monolayer TMDCs. <i>Computational and Theoretical Chemistry</i> , 2021, 1205, 113445.	1.1	18
1139	Role of chemical vs. physical interfacial interaction and adsorbed water on the tribology of ultrathin 2D-material/steel interfaces. <i>Tribology International</i> , 2021, 163, 107194.	3.0	8
1140	Convenient preparation of stimulus-responsive molecular layers containing anthracene molecules to control surface properties. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 630, 127547.	2.3	3
1141	Structural, electronic, and optic properties of Se nanotubes. <i>Physica B: Condensed Matter</i> , 2022, 624, 413417.	1.3	4
1142	Manipulating the Raman scattering rotation via magnetic field in an MoS ₂ monolayer. <i>RSC Advances</i> , 2021, 11, 4035-4041.	1.7	2
1143	Structural superlubricity in large-scale heterogeneous layered material junctions. , 2021, , 85-111.		1
1144	Energy dissipation mechanism of commensurate graphene layers. <i>Science China Technological Sciences</i> , 2021, 64, 635-640.	2.0	5

#	ARTICLE	IF	CITATIONS
1145	Ultra-low friction and patterning on atomically thin MoS ₂ via electronic tight-binding. <i>Nanoscale</i> , 2021, 13, 16860-16871.	2.8	15
1146	Lubrication Performance of Hydrogenated Graphene on Diamond-Like Carbon Films Based on Molecular Dynamics Simulation. <i>Tribology Letters</i> , 2021, 69, 1.	1.2	12
1147	Synthesis of graphene and other two-dimensional materials. , 2021, , 1-79.		4
1148	Alkyl Titanate-Modified Graphene Oxide as Friction and Wear Reduction Additives in PAO Oil. <i>ACS Omega</i> , 2021, 6, 3840-3846.	1.6	9
1149	Edge length-dependent interlayer friction of graphene. <i>RSC Advances</i> , 2021, 11, 328-334.	1.7	5
1150	Methods of hexagonal boron nitride exfoliation and its functionalization: covalent and non-covalent approaches. <i>RSC Advances</i> , 2021, 11, 31284-31327.	1.7	41
1151	Defects Engineering Induced Ultrahigh Magnetization in Rare Earth Element Nd-doped MoS ₂ . <i>Advanced Quantum Technologies</i> , 2021, 4, 2000093.	1.8	19
1152	Nanostructured Layered Materials as Novel Lubricant Additives for Tribological Applications. <i>Materials Forming, Machining and Tribology</i> , 2020, , 157-178.	0.7	3
1154	Mechanical Characterization of Graphene. , 2014, , 121-135.		5
1155	MEMS reliability. , 2020, , 851-876.		6
1156	Graphene lubrication. <i>Applied Materials Today</i> , 2020, 20, 100662.	2.3	84
1157	Characterization of boron nitride nanosheets synthesized by boron-ammonia reaction. <i>Ceramics International</i> , 2020, 46, 20415-20422.	2.3	11
1158	Superlow Wear Realizable Tribofilms from Lubricant Oil Containing Hydrothermally Synthesized Magnesium Silicate Hydroxide/Carbon Core-Shell Nanoplates. <i>Langmuir</i> , 2021, 37, 240-248.	1.6	7
1159	Ionic liquid lubricants: when chemistry meets tribology. <i>Chemical Society Reviews</i> , 2020, 49, 7753-7818.	18.7	220
1160	Stochastic stick-slip nanoscale friction on oxide surfaces. <i>Nanotechnology</i> , 2016, 27, 055402.	1.3	17
1161	Spin-Mechanical Scheme with Color Centers in Hexagonal Boron Nitride Membranes. <i>Physical Review Letters</i> , 2017, 119, 233602.	2.9	53
1162	Tin monochalcogenide heterostructures as mechanically rigid infrared band gap semiconductors. <i>Physical Review Materials</i> , 2018, 2, .	0.9	12
1163	Electronic structure of exfoliated and epitaxial hexagonal boron nitride. <i>Physical Review Materials</i> , 2018, 2, .	0.9	19

#	ARTICLE	IF	CITATIONS
1164	Experiments and simulations of the humidity dependence of friction between nanoasperities and graphite: The role of interfacial contact quality. <i>Physical Review Materials</i> , 2018, 2, .	0.9	30
1165	Strain-controlled magnetic and optical properties of monolayer $H\text{TaS}_2$. <i>Physical Review Materials</i> , 2019, 3, .	0.9	9
1166	EB1 protein alteration characterizes sporadic but not ulcerative colitis associated colorectal cancer. <i>Oncotarget</i> , 2017, 8, 54939-54950.	0.8	6
1167	Comprehensive Review on Graphene Oxide for Use in Drug Delivery System. <i>Current Medicinal Chemistry</i> , 2020, 27, 3665-3685.	1.2	92
1168	Synergistic Reinforcement of Phenol-Formaldehyde Resin Composites by Poly(Hexanedithiol)/Graphene Oxide. <i>Journal of Materials Science and Chemical Engineering</i> , 2015, 03, 56-70.	0.2	4
1169	First-principles study on the electronic structures of Cr- and W-doped single-layer MoS ₂ . <i>Wuli Xuebao/Acta Physica Sinica</i> , 2013, 62, 037103.	0.2	13
1170	Influence of stiffness gradient on friction between graphene layers. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 016801.	0.2	2
1171	PVDF based Piezoelectric Nanogenerator as a new kind of device for generating power from renewable resources. <i>IOSR Journal of Polymer and Textile Engineering</i> , 2017, 04, 01-05.	0.2	7
1172	Current-carrying friction behavior of graphene with intervention of interfacial current. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2021, 70, 206802.	0.2	0
1173	Graphene Confers Ultralow Friction on Nanogear Cogs. <i>Small</i> , 2021, 17, 2104487.	5.2	16
1174	Synthesis of emerging two-dimensional (2D) materials – Advances, challenges and prospects. <i>FlatChem</i> , 2021, 30, 100305.	2.8	65
1175	One-step green synthesis and dispersion characteristics of silver/graphene core/shell-structure nanocomposites. <i>Carbon Letters</i> , 2022, 32, 547-555.	3.3	0
1176	Gas-Phase Fluorination of Hexagonal Boron Nitride. <i>Advanced Materials</i> , 2021, 33, e2106084.	11.1	10
1177	Preparation of chemically functionalized graphene with excellent dispersibility and tribological properties as lubricant additives by microwave-assisted ball milling. <i>Journal of Molecular Liquids</i> , 2021, 344, 117929.	2.3	7
1178	Rippling Ferroic Phase Transition and Domain Switching In 2D Materials. <i>Advanced Materials</i> , 2021, 33, e2103469.	11.1	14
1179	Nanoscale layer of a minimized defect area of graphene and hexagonal boron nitride on copper for excellent anti-corrosion activity. <i>Nanotechnology</i> , 2021, 33, .	1.3	1
1180	Overcoming friction and steps towards superlubricity: A review of underlying mechanisms. <i>Applied Surface Science Advances</i> , 2021, 6, 100175.	2.9	6
1181	Morphology and Friction Characterization of CVD Grown Graphene on Polycrystalline Nickel. <i>Lecture Notes in Mechanical Engineering</i> , 2014, , 195-204.	0.3	0

#	ARTICLE	IF	CITATIONS
1182	Research Progress of MoS ₂ Nanosheets. <i>Advances in Material Chemistry</i> , 2014, 02, 49-62.	0.0	0
1183	Quasi-static finite element calculation of interaction between graphene and nanoprobe. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2014, 63, 154601.	0.2	0
1184	Characterization and analysis of microscale superlubricity graphite surface. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2016, 65, 234601.	0.2	1
1185	Nanotribological Properties Of Epitaxial Graphene Grown On C-Terminated Face Of Silicon Carbide Semiconductor. <i>Anadolu University Journal of Science and Technology: B Theoretical Sciences</i> , 0, , 1-1.	0.8	0
1186	Interaction between borophene and graphene on a nanoscale. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 186801.	0.2	1
1187	Water and mass transport in low-dimensional confined structures. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 018801.	0.2	3
1188	2D-Nanolayered Tungsten and Molybdenum Disulfides: Structure, Properties, Synthesis, and Processing for Strategic Applications. , 2020, , 1-47.		2
1189	Recent progress of graphene orientation determination technology based on scanning probe microscopy. <i>Micro and Nano Letters</i> , 2020, 15, 519-523.	0.6	0
1190	Water Treatment with Cation Selective Porous Graphene and Boron Nitride Membrane: A Molecular Dynamics Investigation. , 2020, , .		0
1191	Angstrom-Scale Transparent Overcoats: Interfacial Nitrogen-Driven Atomic Intermingling Promotes Lubricity and Surface Protection of Ultrathin Carbon. <i>Nano Letters</i> , 2021, 21, 8960-8969.	4.5	5
1192	Recent advances in structural engineering of 2D hexagonal boron nitride electrocatalysts. <i>Nano Energy</i> , 2022, 91, 106661.	8.2	49
1193	Phase engineering of Mo _{1-x} W _x S ₂ nanosheets for flexible supercapacitors. <i>Scripta Materialia</i> , 2022, 208, 114346.	2.6	4
1194	Interfacial Mechanics Between van der Waals Materials. <i>Springer Theses</i> , 2020, , 97-134.	0.0	0
1197	Research Progress on the Friction and Wear Properties of Graphene Materials. <i>Material Sciences</i> , 2020, 10, 312-319.	0.0	0
1198	Controllable nano-friction of graphene surface by fabricating nanoscale patterning based on atomic force microscopy. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 106801.	0.2	1
1199	Adhesion and nanotribological properties of folded graphene prepared by mechanical exfoliation. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 076802.	0.2	3
1200	Plowing-induced nanoexfoliation of mono- and multilayer MoS ₂ surfaces. <i>Physical Review Materials</i> , 2020, 4, .	0.9	2
1201	Revealing Pt-seed-induced structural effects to tribological/electrical/thermoelectric modulations in two-dimensional PtSe ₂ using scanning probe microscopy. <i>Nano Energy</i> , 2022, 91, 106693.	8.2	9

#	ARTICLE	IF	CITATIONS
1202	Atomic scale friction properties of confined water layers. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	3
1203	Tribological characteristics of atomic-scale niobium diselenide grown via chemical vapor deposition. <i>Applied Physics Express</i> , 2020, 13, 105004.	1.1	1
1204	Synergistic friction-reduction and wear-resistance mechanism of 3D graphene and SiO ₂ nanoblend at harsh friction interface. <i>Wear</i> , 2022, 488-489, 204175.	1.5	17
1205	Nanoscale friction behavior of monolayer Mo _x W _{1-x} S ₂ alloy. <i>Tribology International</i> , 2022, 166, 107363.	3.0	2
1206	Paper-supported WS ₂ strain gauges. <i>Sensors and Actuators A: Physical</i> , 2021, 332, 113204.	2.0	4
1207	In situ microscopy techniques for characterizing the mechanical properties and deformation behavior of two-dimensional (2D) materials. <i>Materials Today</i> , 2021, 51, 247-272.	8.3	22
1208	A Comprehensive Review on Recent Advances in Two-Dimensional (2D) Hexagonal Boron Nitride. <i>ACS Applied Electronic Materials</i> , 2021, 3, 5165-5187.	2.0	42
1209	Parallel electricity at friction interface induced fast superlow friction of amorphous carbon films. <i>Applied Surface Science</i> , 2021, 577, 151962.	3.1	5
1210	Robust Superlubric Interface across Nano- and Micro-Scales Enabled by Fluoroalkylsilane Self-Assembled Monolayers and Atomically Thin Graphene. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 56704-56717.	4.0	2
1211	Friction of magnetene, a non-“van der Waals 2D material. <i>Science Advances</i> , 2021, 7, eabk2041.	4.7	21
1212	Hydrogen-passivation modulation on the friction behavior of graphene with vacancy defects under strain engineering. <i>Applied Surface Science</i> , 2022, 579, 152055.	3.1	9
1213	Negative Differential Friction Predicted in 2D Ferroelectric In ₂ Se ₃ Commensurate Contacts. <i>Advanced Science</i> , 2022, 9, e2103443.	5.6	12
1214	Dual-Phase Nanocomposite TiB ₂ /MoS _{1.7} B _{0.3} : An Excellent Ultralow Friction and Ultralow Wear Self-Lubricating Material. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 59352-59363.	4.0	11
1215	Metal matrix nanocomposites in tribology: Manufacturing, performance, and mechanisms. <i>Friction</i> , 2022, 10, 1596-1634.	3.4	49
1217	Load-oriented thickness-dependent friction behavior of graphene supported by substrate with different stiffnesses. <i>Computational Materials Science</i> , 2022, 203, 111164.	1.4	3
1218	Material transfer mechanism for fabrication of superlubricity interface by reciprocating rubbing on graphite under high contact stress. <i>Carbon</i> , 2022, 188, 420-430.	5.4	8
1219	Morphology of MoS ₂ nanosheets and its influence on water/oil interfacial tension: A molecular dynamics study. <i>Fuel</i> , 2022, 312, 122938.	3.4	7
1220	The controllable tuning of nanofriction on atomically thin hexagonal boron nitride with external electric field. <i>Applied Surface Science</i> , 2022, 581, 152361.	3.1	3

#	ARTICLE	IF	CITATIONS
1221	MoS ₂ quantum dots based MoS ₂ /HKUST-1 composites for the highly efficient catalytic oxidation of elementary mercury. <i>Journal of Environmental Sciences</i> , 2022, 116, 163-174.	3.2	4
1222	Approaches to microholes for fabrication of microdevices. , 2022, , 197-216.		0
1223	Porous monolith of few-layered boron nitride for effective water cleanup. <i>Journal of Materials Chemistry A</i> , 2022, 10, 846-854.	5.2	8
1224	Extreme pressure and antiwear additives for lubricant: academic insights and perspectives. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 120, 1-27.	1.5	134
1225	Nanoscale friction and wear of a polymer coated with graphene. <i>Beilstein Journal of Nanotechnology</i> , 2022, 13, 63-73.	1.5	3
1226	Operando Formation of Van der Waals Heterostructures for Achieving Macroscale Superlubricity on Engineering Rough and Worn Surfaces. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	31
1227	The relationship between surface structure and super-lubrication performance based on 2D MOFs. <i>Applied Materials Today</i> , 2022, 26, 101382.	2.3	7
1228	2D SiP nanoflakes as new high-performance lubricant additive for steel/steel sliding contact. <i>Tribology International</i> , 2022, 169, 107467.	3.0	10
1229	Moiré pattern based universal rules governing interfacial superlubricity: A case of graphene. <i>Carbon</i> , 2022, 191, 28-35.	5.4	13
1230	Correlating surface structures and nanoscale friction of CVD Multi-Layered graphene. <i>Applied Surface Science</i> , 2022, 584, 152572.	3.1	4
1231	Two-dimensional nanomaterial-based polymer composites: Fundamentals and applications. <i>Nanotechnology Reviews</i> , 2022, 11, 770-792.	2.6	22
1232	Friction between Mxenes and Other Two-Dimensional Materials at the Nanoscale. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1234	Anomalous Layer-Dependent Lubrication on Graphene-Covered-Substrate: Competition between Adhesion and Plasticity. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1235	The influence of N-doping on friction behavior of graphene by molecular dynamics simulation. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, .	0.2	0
1236	The interaction mechanism of dislocation and amorphous phase: A Molecular Dynamics Simulation. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, .	0.2	0
1237	Quantitatively Deciphering Electronic Properties of Defects at Atomically Thin Transition-Metal Dichalcogenides. <i>ACS Nano</i> , 2022, 16, 4786-4794.	7.3	7
1238	Strain-mediated ferromagnetism and low-field magnetic reversal in Co doped monolayer WSe ₂ . <i>Scientific Reports</i> , 2022, 12, 2593.	1.6	10
1239	Enhanced valley splitting of WSe ₂ in twisted van der Waals WSe ₂ /CrI ₃ heterostructures. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	13

#	ARTICLE	IF	CITATIONS
1240	Two-dimensional materials as a platform in extraction methods: A review. <i>TrAC - Trends in Analytical Chemistry</i> , 2022, 152, 116606.	5.8	16
1241	Implanting MnO ₂ into Hexagonal Boron Nitride as Nanoadditives for Enhancing Tribological Performance. <i>Crystals</i> , 2022, 12, 451.	1.0	2
1242	Electro-lubrication in Janus transition metal dichalcogenide bilayers. <i>Friction</i> , 2022, 10, 1851-1858.	3.4	1
1243	Friction of Ti ₃ C ₂ T _x MXenes. <i>Nano Letters</i> , 2022, 22, 3356-3363.	4.5	46
1244	Negative differential friction coefficients of two-dimensional commensurate contacts dominated by electronic phase transition. <i>Nano Research</i> , 2022, 15, 5758-5766.	5.8	5
1245	Role of Interfacial Bonding in Tribochemical Wear. <i>Frontiers in Chemistry</i> , 2022, 10, 852371.	1.8	9
1246	First-principles study of direct band gap semiconductors XS ₂ (X= Zr and Hf) with orthorhombic symmetry. <i>Journal Physics D: Applied Physics</i> , 0, , .	1.3	0
1247	Mechanical, Elastic, and Adhesive Properties of Two-Dimensional Materials: From Straining Techniques to State-of-the-Art Local Probe Measurements. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	24
1248	Friction of MoO ₃ Nanoflakes on Graphite Surface with an Ace-like Intercalation Layer. <i>Chemical Research in Chinese Universities</i> , 0, , 1.	1.3	1
1249	Mechano-tribological performance of Graphene/CNT reinforced alumina nanocomposites – Review and quantitative insights. <i>Ceramics International</i> , 2022, 48, 11879-11908.	2.3	18
1250	Effective Friction and Mobility of Graphene Nanoparticles (Nanoribbons and Nanotubes) on a Flat Multilayer h-BN Substrate. <i>Journal of Experimental and Theoretical Physics</i> , 2021, 133, 754-765.	0.2	4
1251	Density functional theory study of graphene adhesion on WX ₂ (X=S and Se) monolayer: Role of atom vacancy and atomic reorganization defects. <i>International Journal of Quantum Chemistry</i> , 2022, 122, .	1.0	6
1252	Graphene-reinforced cement composites for smart infrastructure systems. , 2022, , 79-114.		1
1253	Nanotribological properties and scratch resistance of MoS ₂ bilayer on a SiO ₂ /Si substrate. <i>Friction</i> , 0, , .	3.4	1
1254	Nanoscale friction of strained molybdenum disulfide induced by nanoblister. <i>Applied Physics Letters</i> , 2022, 120, 151601.	1.5	4
1255	Interlayer Friction in Graphene/MoS ₂ , Graphene/NbSe ₂ , Tellurene/MoS ₂ and Tellurene/NbSe ₂ van der Waals Heterostructures. <i>Frontiers in Mechanical Engineering</i> , 2022, 8, .	0.8	2
1256	Friction Behavior and Structural Evolution of Hexagonal Boron Nitride: A Relation to Environmental Molecules Containing ~OH Functional Group. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 19043-19055.	4.0	4
1257	Fabrication of reduced graphene oxide with high electrical conductivity by thermal-assisted photoreduction of electrochemically-exfoliated graphene oxide. <i>Japanese Journal of Applied Physics</i> , 2022, 61, SL1012.	0.8	1

#	ARTICLE	IF	CITATIONS
1258	The influences of atom relaxation on the DFT-calculated friction properties of the h-BN/h-BN and Gr/Gr interfaces. <i>Tribology International</i> , 2022, 173, 107586.	3.0	6
1259	Variations in the Effective Work Function of Graphene in a Sliding Electrical Contact Interface under Ambient Conditions. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 27328-27338.	4.0	2
1260	Strong Substrate Strain Effects in Multilayered WS ₂ Revealed by High-Pressure Optical Measurements. <i>ACS Applied Materials & Interfaces</i> , 2022, , .	4.0	8
1261	The Magnetic Genome of Two-Dimensional van der Waals Materials. <i>ACS Nano</i> , 2022, 16, 6960-7079.	7.3	149
1262	Nanometer-Thick MoS ₂ Films Made by High-Temperature Atomic Layer Deposition as Coatings for Friction Reduction. <i>ACS Applied Nano Materials</i> , 2022, 5, 5652-5659.	2.4	3
1265	Dependency of sliding friction for two-dimensional systems on electronegativity. <i>Physical Review B</i> , 2022, 105, .	1.1	3
1266	Nanotribology of SiP nanosheets: Effect of thickness and sliding velocity. <i>Friction</i> , 2022, 10, 2033-2044.	3.4	7
1267	High Tensile Properties and Low Surface Roughness of Gr/Cu Foils. <i>Journal of Materials Engineering and Performance</i> , 0, , .	1.2	0
1268	Friction between MXenes and other two-dimensional materials at the nanoscale. <i>Carbon</i> , 2022, 196, 774-782.	5.4	17
1269	Accurate Atomic-Scale Imaging of Two-Dimensional Lattices Using Atomic Force Microscopy in Ambient Conditions. <i>Nanomaterials</i> , 2022, 12, 1542.	1.9	6
1270	Lubrication of rough copper with few-layer graphene. <i>Tribology International</i> , 2022, 173, 107621.	3.0	6
1271	Size effects of graphene sheets on the strengthening mechanism of Al-graphene composites: A molecular dynamics study. <i>Applied Surface Science</i> , 2022, 596, 153546.	3.1	12
1272	Anomalous layer-dependent lubrication on graphene-covered substrate: Competition between adhesion and plasticity. <i>Applied Surface Science</i> , 2022, 598, 153762.	3.1	6
1273	Capillary grip-induced stick-slip motion. <i>Nano Research</i> , 2022, 15, 7384-7391.	5.8	5
1274	Tribology at the atomic scale with density functional theory. <i>Electronic Structure</i> , 2022, 4, 023002.	1.0	3
1275	Temperature dependence of nanoscale friction on topological insulator Bi ₂ Se ₃ surfaces. <i>Nanotechnology</i> , 0, , .	1.3	1
1276	First-Principles Study of the Optical Properties of TMDC/Graphene Heterostructures. <i>Photonics</i> , 2022, 9, 387.	0.9	9
1277	Atomic-scale friction between single-asperity contacts unveiled through in situ transmission electron microscopy. <i>Nature Nanotechnology</i> , 2022, 17, 737-745.	15.6	9

#	ARTICLE	IF	CITATIONS
1279	Experimental investigation of the friction modifying effects of different nanoforms of graphene additives in engine lubricating oil. <i>FME Transactions</i> , 2022, 50, 248-259.	0.7	2
1280	Probing the Acoustic Losses of Graphene with a Low-Loss Quartz Bulk-Acoustic-Wave Resonator at Cryogenic. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1281	Electronic friction and tuning on atomically thin MoS ₂ . <i>Npj 2D Materials and Applications</i> , 2022, 6, .	3.9	7
1282	Anisotropic Mechanics of 2D Materials. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	8
1283	The Origin of Moiré-Level Stick-Slip Behavior on Graphene/h-BN Heterostructures. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	20
1284	Inverse Relationship between Thickness and Wear of Fluorinated Graphene: "Thinner Is Better". <i>Nano Letters</i> , 0, , .	4.5	10
1285	Friction and chaos: Influence of the damping coefficient on atomic-scale stick-slip on hexagonal crystal lattices. <i>Physical Review B</i> , 2022, 105, .	1.1	1
1286	Magnetically Doped Molybdenum Disulfide Layers for Enhanced Carbon Dioxide Capture. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 27799-27813.	4.0	11
1287	Anisotropic Friction Derived from the Layered Arrangement of the Oriented Graphite Flakes in the Copper-Iron Matrix Composite. <i>Tribology Letters</i> , 2022, 70, .	1.2	1
1288	Friction behavior of 2D hydrogenated diamond-like films and bilayer graphene. <i>Diamond and Related Materials</i> , 2022, 127, 109179.	1.8	3
1289	Molecular dynamics simulation of frictional strengthening behavior of graphene on stainless steel substrate. <i>Carbon</i> , 2022, 197, 183-191.	5.4	12
1290	Interlayer spacing control of boron nitride sheets with hydrated cations. <i>Molecular Physics</i> , 2022, 120, .	0.8	1
1291	Boron nitride materials as emerging catalysts for oxidative dehydrogenation of light alkanes. <i>Nanotechnology</i> , 2022, 33, 432003.	1.3	6
1292	Study of Energetics of Polaron Dynamics in Monolayer and Bulk MoS ₂ Using Oxidation-State Constrained Density Functional Theory. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11246-11253.	1.5	4
1293	Direct Observation of Atomic-Scale Gliding on Hydrophilic Surfaces. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 6612-6618.	2.1	0
1294	Tuning the electronic and magnetic properties of O Vacancy and nonmetallic atoms doped monolayer SnO: A first-principles study. <i>Solid State Communications</i> , 2022, 354, 114884.	0.9	1
1295	Friction behaviors of two-dimensional materials at the nanoscale. <i>Materials Today Physics</i> , 2022, 27, 100771.	2.9	13
1296	Nanoscale contact mechanics of the interactions at monolayer MoS ₂ interfaces with Au and Si. <i>Tribology International</i> , 2022, 174, 107734.	3.0	4

#	ARTICLE	IF	CITATIONS
1297	Nanodiamond plates as macroscale solid lubricant: A non-layered two-dimension material. Carbon, 2022, 198, 119-131.	5.4	13
1298	Observation of robust superlubricity of MoS ₂ on Au(111) in ultrahigh vacuum. Applied Surface Science, 2022, 601, 154230.	3.1	6
1299	Role of Interfacial Water in the Tribological Behavior of Graphene in an Electric Field. Nano Letters, 2022, 22, 6055-6061.	4.5	11
1300	CHAPTER 3. Synthesis of Two-dimensional Hybrid Materials, Unique Properties, and Challenges. , 2022, , 64-125.		0
1301	The role of hydrated anions in hydration lubrication. Nano Research, 2023, 16, 1096-1100.	5.8	8
1302	Non-van der Waals quasi-2D materials; recent advances in synthesis, emergent properties and applications. Materials Today, 2022, 58, 164-200.	8.3	30
1303	Nanofriction Properties of Mono- and Double-Layer Ti ₃ C ₂ T _x MXenes. ACS Applied Materials & Interfaces, 2022, 14, 36815-36824.	4.0	10
1304	Ultrahigh resistance of hexagonal boron nitride to mineral scale formation. Nature Communications, 2022, 13, .	5.8	16
1305	Progress in Superlubricity Across Different Media and Material Systems—A Review. Frontiers in Mechanical Engineering, 0, 8, .	0.8	16
1306	Solid lubricity of WS ₂ and Bi ₂ S ₃ coatings deposited by plasma spraying and air spraying. Surface and Coatings Technology, 2022, 446, 128772.	2.2	11
1307	Layer-dependent frictional properties of Ti ₃ C ₂ T _x MXene nanosheets. Applied Surface Science, 2022, 603, 154402.	3.1	7
1308	Simulating the friction between atomic layers by using a two-q model: Analysis of the relative motion and coherence. Tribology International, 2022, 175, 107816.	3.0	0
1309	The influences of internal interactions and functional groups on the adsorption of graphene and graphene oxide with alumina substrate. Computational Materials Science, 2022, 214, 111733.	1.4	4
1310	Tuning super-lubricity via molecular adsorption. Applied Materials Today, 2022, 29, 101615.	2.3	1
1311	Graphene-based anti-corrosive coating on steel for reinforced concrete infrastructure applications: Challenges and potential. Construction and Building Materials, 2022, 351, 128947.	3.2	21
1312	Exfoliated nano-hBN additives for enhancing tribological performance of ATSP coatings deposited on AISI 316L steel: Role of SMAT pre-treatment. Surface and Coatings Technology, 2022, 447, 128829.	2.2	5
1313	Probing the atomic-scale origins of anti-friction and wear-resisting in graphene-coated high-entropy alloys. Materials and Design, 2022, 223, 111178.	3.3	9
1314	Effect of the crystallographic c-axis orientation on the tribological properties of the few-layer PtSe ₂ . Applied Surface Science, 2022, 605, 154883.	3.1	2

#	ARTICLE	IF	CITATIONS
1315	Single metal atom anchored on porous boron nitride nanosheet for efficient collaborative urea electrosynthesis: A computational study. <i>Chemical Engineering Journal</i> , 2023, 451, 138885.	6.6	18
1316	Attractive curves: the role of deformations in adhesion and friction on graphene. <i>Nanoscale Advances</i> , 2022, 4, 4175-4184.	2.2	2
1317	Carbon Spheres and Carbon Soot for Tribological Applications. <i>Advances in Material Research and Technology</i> , 2022, , 191-216.	0.3	0
1318	Structural lubricity of physisorbed gold clusters on graphite and its breakdown: Role of boundary conditions and contact lines. <i>Frontiers in Chemistry</i> , 0, 10, .	1.8	2
1319	First-Principles Study on the Nanofriction Properties of Diamane: The Thinnest Diamond Film. <i>Nanomaterials</i> , 2022, 12, 2939.	1.9	5
1320	Revisiting Frictional Characteristics of Graphene: Effect of In-Plane Straining. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 41571-41576.	4.0	12
1321	Intercalation leads to inverse layer dependence of friction on chemically doped MoS ₂ . <i>Nanotechnology</i> , 2023, 34, 015706.	1.3	5
1322	Regulating Rolling and Sliding of Carbon Nanotubes on Graphite Through Doping and Charging. <i>Tribology Letters</i> , 2022, 70, .	1.2	1
1323	Ultrasmall SnS ₂ quantum dot ⁺ -based photodetectors with high responsivity and detectivity. <i>Nanophotonics</i> , 2022, 11, 4781-4792.	2.9	5
1324	Graphene-Family Lubricant Additives: Recent Developments and Future Perspectives. <i>Lubricants</i> , 2022, 10, 215.	1.2	11
1325	Low-resistance metal contacts to encapsulated semiconductor monolayers with long transfer length. <i>Nature Electronics</i> , 2022, 5, 579-585.	13.1	20
1326	Insight into the Structure and Dynamics of Ethanol-Water Binary Mixture Confined in Nanochannel by Mica and Graphene. <i>Journal of Physical Chemistry B</i> , 2022, 126, 7385-7392.	1.2	2
1327	Probing the interlayer mechanical coupling of 2D layered materials - A review. <i>Progress in Natural Science: Materials International</i> , 2022, 32, 528-537.	1.8	5
1328	Optically Controlled Valley Filter and Transistor Based on Transition-Metal Dichalcogenide Planar Heterojunctions. <i>Physical Review Applied</i> , 2022, 18, .	1.5	3
1329	Wrinkle-mediated CVD synthesis of wafer scale Graphene/h-BN heterostructures. <i>Nanotechnology</i> , 2023, 34, 025601.	1.3	3
1330	Effect of temperature-induced contact quality evolution on nanoscale friction. <i>Physical Review B</i> , 2022, 106, .	1.1	5
1331	Sliding nanomechanical resonators. <i>Nature Communications</i> , 2022, 13, .	5.8	9
1332	Structure, Thermodynamics, and Raman Spectroscopy of Rhenium-Doped Bulk MoS ₂ from First Principles. <i>Journal of Physical Chemistry C</i> , 2022, 126, 18393-18403.	1.5	1

#	ARTICLE	IF	CITATIONS
1333	Friction reduction of suspended multilayer h-BN based on electrostrain. Applied Surface Science, 2023, 611, 155312.	3.1	1
1334	Carbon Nanomaterial-Based Lubricants: Review of Recent Developments. Lubricants, 2022, 10, 281.	1.2	21
1335	Relation between interfacial shear and friction force in 2D materials. Nature Nanotechnology, 2022, 17, 1280-1287.	15.6	17
1336	Studies of the Reactivity of Graphene Driven by Mechanical Distortions. Journal of Physical Chemistry C, 2022, 126, 17569-17578.	1.5	6
1337	Reactivity of Diazonium Salts on Single- and Multilayer MoS ₂ on Au(111). Journal of Physical Chemistry C, 2022, 126, 18266-18274.	1.5	2
1338	Molecular dynamics study of the robust superlubricity in penta-graphene van der Waals layered structures. Tribology International, 2023, 177, 107988.	3.0	10
1339	Functionalized carbon nanostructures as lubricant additives – A review. Carbon, 2023, 201, 1200-1228.	5.4	45
1340	Friction characteristics in graphene/MoS ₂ heterojunction. Surface Science, 2023, 728, 122207.	0.8	4
1341	A review on carbon materials production from plastic wastes. Chemical Engineering Journal, 2023, 453, 139725.	6.6	31
1342	Prediction of new 2D Hf ₂ Br ₂ N ₂ monolayer as a promising candidate for photovoltaic applications. Materials Chemistry and Physics, 2023, 294, 126979.	2.0	51
1343	Probing the acoustic losses of graphene with a low-loss quartz bulk-acoustic-wave resonator at cryogenic temperatures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2023, 287, 116102.	1.7	0
1344	Nanoscale Defect Engineering to Tune Electronic Structure and Surface Property of Two-Dimensional MoS ₂ Film for Hydrogen Evolution Reaction. ACS Applied Nano Materials, 2022, 5, 17142-17151.	2.4	1
1345	The Current Situation and Future Direction of Nanoparticles Lubricant Additives in China. Lubricants, 2022, 10, 312.	1.2	6
1346	Preparation and Tribological Properties of a Multilayer Graphene-Reinforced TiO ₂ Composite Nanolubricant Additive. ACS Omega, 2022, 7, 42242-42255.	1.6	4
1347	A wide-angle X-ray scattering laboratory setup for tracking phase changes of thin films in a chemical vapor deposition chamber. Review of Scientific Instruments, 2022, 93, .	0.6	3
1348	Negative area-dependent nanoscale friction of annular graphene sheets. AIP Advances, 2022, 12, 115312.	0.6	1
1349	Negative-positive oscillation in interfacial friction of a \ln -graphene heterojunction. Physical Review B, 2022, 106, .		
1350	Recent Progress on Carbon Nanomaterials for Resisting the Wear Damages. Journal of Nanomaterials, 2022, 2022, 1-25.	1.5	1

#	ARTICLE	IF	CITATIONS
1351	Friction, mobility, and thermophoresis of carbon nanoparticles on a graphene sheet. <i>Physical Review B</i> , 2022, 106, .	1.1	3
1352	High Efficient Solar Cell Based on Heterostructure Constructed by Graphene and GaAs Quantum Wells. <i>Advanced Science</i> , 2023, 10, .	5.6	2
1353	Effects of CVD growth parameters on global and local optical properties of MoS ₂ monolayers. <i>Materials Chemistry and Physics</i> , 2023, 296, 127185.	2.0	4
1354	A state of the art review of the tribology of graphene/MoS ₂ nanocomposites. <i>Materials Today Communications</i> , 2023, 34, 105108.	0.9	4
1355	Temperature-dependent friction coefficient on flat graphite plane. <i>Surface Science</i> , 2023, 729, 122233.	0.8	1
1356	High throughput theoretical prediction of the low friction at the interfaces of homo- and heterojunction composed of C ₃ N. <i>Applied Surface Science</i> , 2023, 612, 155718.	3.1	2
1357	Effects of copper-coated MoS ₂ on friction performance of bronze-graphite-MoS ₂ self-lubricating materials. <i>Journal of Central South University</i> , 2022, 29, 3608-3619.	1.2	1
1358	Velocity Dependence of Moiré Friction. <i>Nano Letters</i> , 2022, 22, 9529-9536.	4.5	6
1359	Nanoscale friction characteristics of layered-structure materials in dry and wet environments. <i>Frontiers in Mechanical Engineering</i> , 0, 8, .	0.8	0
1360	Perspectives of 2D MXene Tribology. <i>Advanced Materials</i> , 2023, 35, .	11.1	69
1361	Ultraviolet-Sensitive Properties of Graphene Nanofriction. <i>Nanomaterials</i> , 2022, 12, 4462.	1.9	0
1362	Friend or Foe? Revising the Role of Oxygen in the Tribological Performance of Solid Lubricant MoS ₂ . <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 55051-55061.	4.0	9
1363	Well-dispersed graphene toward robust lubrication via reorganization of sliding interface. <i>Journal of Industrial and Engineering Chemistry</i> , 2023, 119, 619-632.	2.9	6
1364	A review on tailoring the corrosion and oxidation properties of MoS ₂ -based coatings. <i>Journal of Materials Chemistry A</i> , 2023, 11, 3172-3209.	5.2	13
1365	Graphene superlubricity: A review. <i>Friction</i> , 2023, 11, 1953-1973.	3.4	23
1366	Cryogenic friction behavior and thermolubricity effect of graphene film on copper substrate. <i>Industrial Lubrication and Tribology</i> , 2023, 75, 230-237.	0.6	1
1367	Friction hysteretic behavior of supported atomically thin nanofilms. <i>Npj 2D Materials and Applications</i> , 2023, 7, .	3.9	6
1368	Comparison of graphene as an oil additive with conventional automotive additives for the lubrication of steel and DLC-coated surfaces. <i>Tribology International</i> , 2023, 180, 108220.	3.0	2

#	ARTICLE	IF	CITATIONS
1369	Tribology of polymer-based nanocomposites reinforced with 2D materials. <i>Materials Today Communications</i> , 2023, 34, 105397.	0.9	7
1370	Chemically functionalized graphene oxide with <i>N</i> -phenyl- <i>p</i> -phenylenediamine as efficient tribo- and rheological modifier for lubricating oil. <i>Lubrication Science</i> , 2023, 35, 249-259.	0.9	0
1371	Stimulus-Responsive Ultrathin Films for Bioapplications: A Concise Review. <i>Molecules</i> , 2023, 28, 1020.	1.7	1
1372	Recent advances of two-dimensional lubricating materials: from tunable tribological properties to applications. <i>Journal of Materials Chemistry A</i> , 2023, 11, 9239-9269.	5.2	6
1373	2D nanomaterials as lubricant additives. , 2023, , 97-112.		1
1374	Enabling macroscopic superlubricity in TaC/a-C nanocomposite film by atomic-level Au. <i>Scripta Materialia</i> , 2023, 228, 115329.	2.6	3
1375	High-speed nanoscale tribology enabled by combined QCM/AFM. <i>Applied Surface Science</i> , 2023, 619, 156772.	3.1	0
1376	In-plane adjustment of atomic positions and layer-dependent friction in 2D materials. <i>Applied Surface Science</i> , 2023, 620, 156810.	3.1	2
1377	Atomic-scale friction of black phosphorus/degraded Cu substrate: A route to robust superlubricity obtained by the critical load. <i>Applied Surface Science</i> , 2023, 619, 156749.	3.1	2
1378	Environmental effects on nanoscale friction at graphite basal plane and step edge. <i>Applied Surface Science</i> , 2023, 623, 157101.	3.1	3
1379	Unidirectional domain growth of hexagonal boron nitride thin films. <i>Applied Materials Today</i> , 2023, 30, 101734.	2.3	5
1381	Machine learning method to predict the interlayer sliding energy barrier of polarized MoS ₂ layers. <i>Computational Materials Science</i> , 2023, 220, 112062.	1.4	3
1382	Layer-Dependent Nanowear of Graphene Oxide. <i>ACS Nano</i> , 2023, 17, 2497-2505.	7.3	4
1383	Flexible Tuning of Friction on Atomically Thin Graphene. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 10315-10323.	4.0	2
1384	Ultrahigh Lubricity between Two-Dimensional Ice and Two-Dimensional Atomic Layers. <i>Nano Letters</i> , 2023, 23, 1379-1385.	4.5	5
1385	Progress in 2D materials based Nanolubricants: A review. <i>FlatChem</i> , 2023, 38, 100485.	2.8	16
1386	Monolayer NbSe ₂ Favors Ultralow Friction and Super Wear Resistance. <i>Nano Letters</i> , 2023, 23, 1865-1871.	4.5	4
1387	æ‘©æ“ åŠ»æ³¼å³¼®é•œè;”å³¼ä°CEç»ææ—™æ™¶æ¼ç»“æž„ç”ç©¶. <i>Chinese Science Bulletin</i> , 2023, , .	0.4	0

#	ARTICLE	IF	CITATIONS
1388	Enhanced graphene oxide adhesion on steel surface through boronizing functionalization treatment: Toward the robust ultralow friction. <i>Carbon</i> , 2023, 206, 201-210.	5.4	9
1389	Unravelling the room temperature growth of two-dimensional h-BN nanosheets for multifunctional applications. <i>Nanoscale Horizons</i> , 2023, 8, 641-651.	4.1	3
1390	Nanoscale friction on MoS ₂ /graphene heterostructures. <i>Nanoscale</i> , 2023, 15, 5809-5815.	2.8	1
1391	Strain-Driven Superlubricity of Graphene/Graphene in Commensurate Contact. <i>Advanced Materials Interfaces</i> , 2023, 10, .	1.9	5
1392	Moiré-Tile Manipulation-Induced Friction Switch of Graphene on a Platinum Surface. <i>Nano Letters</i> , 2023, 23, 4693-4697.	4.5	2
1393	From ultra-low friction to superlubricity state of black phosphorus: Enabled by the critical oxidation and load. <i>Friction</i> , 2023, 11, 1829-1844.	3.4	3
1394	Selective Surface Modification and Layer Thinning of MoS ₂ via Ultraviolet-Light Irradiation in an Ionic Solution: Implications for Multifunctional Nanoelectronic Devices. <i>ACS Applied Nano Materials</i> , 2023, 6, 5972-5979.	2.4	0
1395	The Transition of Friction Coefficient on Graphene by the Microsphere Probe. <i>Tribology Letters</i> , 2023, 71, .	1.2	0
1396	Formation of intermittent covalent bonds at high contact pressure limits superlow friction on epitaxial graphene. <i>Physical Review Research</i> , 2023, 5, .	1.3	2
1397	Tribological behaviour of ultra-thin stainless steel in micro deep drawing with graphene nanosheets. <i>Wear</i> , 2023, 524-525, 204878.	1.5	0
1398	Recent advances, properties, fabrication and opportunities in two-dimensional materials for their potential sustainable applications. <i>Energy Storage Materials</i> , 2023, 59, 102780.	9.5	12
1399	Study of the cross-linking density effect on the mechanical properties of h-BNNS reinforced epoxy nanocomposite part-1: a molecular dynamics simulation. <i>Journal of Molecular Modeling</i> , 2023, 29, .	0.8	3
1400	Recent advances in the mechanics of 2D materials. <i>International Journal of Extreme Manufacturing</i> , 2023, 5, 032002.	6.3	9
1401	Liquid-Phase Friction of Two-Dimensional Molybdenum Disulfide at the Atomic Scale. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 21595-21601.	4.0	1
1402	Controlled Growing of Graphdiyne Film for Friction Reduction and Antiwear. <i>ACS Nano</i> , 2023, 17, 8252-8261.	7.3	7
1403	Engineering polymorphs in colloidal metal dichalcogenides: precursor-mediated phase control, molecular insights into crystallisation kinetics and promising electrochemical activity. <i>Journal of Materials Chemistry A</i> , 2023, 11, 11341-11353.	5.2	5
1404	Macroscale superlubricity enabled by rationally designed MoS ₂ -based superlattice films. <i>Cell Reports Physical Science</i> , 2023, 4, 101390.	2.8	3
1448	Robust superhydrophobic composite coating using h-BN/MWCNT via supercritical fluid processing. <i>Journal of Coatings Technology Research</i> , 2023, 20, 2135-2141.	1.2	1

#	ARTICLE	IF	CITATIONS
1449	Ductile amorphous boron nitride microribbons. Materials Horizons, 0, , .	6.4	0
1457	Carbon and boron based 2D nanomaterials: efficient lubricant additives. , 2023, , 1-34.		0