The role of van der Waals forces in adhesion of microma

Nature Materials

4, 629-634

DOI: 10.1038/nmat1431

Citation Report

#	Article	IF	Citations
2	SPECT image reconstruction using compound models. , 0, , .		1
3	Visual Correlation of Host Processes and Network Traffic. , 0, , .		16
4	A new nano-electro-mechanical field effect transistor (NEMFET) design for low-power electronics. , 0, , .		53
5	Adhesion of Arbitrary-Shaped Thin-Film Microstructures. , 0, , .		0
6	The dynamic response of resistive microswitches: switching time and bouncing. Journal of Micromechanics and Microengineering, 2006, 16, 1108-1115.	1.5	40
7	Bouncing dynamics of resistive microswitches with an adhesive tip. Journal of Applied Physics, 2006, 100, 024313.	1.1	26
8	Adhesion stability of rough elastic films in presence of quantum vacuum fluctuations. Journal of Adhesion Science and Technology, 2006, 20, 1321-1331.	1.4	4
9	Determination of the adhesion energy of MEMS structures by applying Weibull-type distribution function. Sensors and Actuators A: Physical, 2006, 132, 407-414.	2.0	27
10	Polycrystalline silicon carbide as a substrate material for reducing adhesion in MEMS. Tribology Letters, 2006, 21, 226-232.	1.2	15
11	Application of Artificial Neural Network in Friction Compensation During Particle Micro Manipulation. , 2006, , .		1
12	Modeling of dry stiction in micro electro-mechanical systems (MEMS). Journal of Micromechanics and Microengineering, 2006, 16, 1195-1206.	1.5	91
13	Application of capillary forces and stiction for lateral displacement, alignment, suspension and locking of self-assembled microcantilevers. Journal of Micromechanics and Microengineering, 2006, 16, 2077-2085.	1.5	4
14	Structural instability of a parallel array of mutually attracting identical microbeams. Journal of Micromechanics and Microengineering, 2006, 16, 2220-2229.	1.5	13
15	Anodic bonding. International Materials Reviews, 2006, 51, 273-311.	9.4	111
16	Thin-coating contact mechanics with adhesion. Journal of Materials Research, 2006, 21, 2660-2668.	1.2	61
17	The effect of nanoparticles on rough surface adhesion. Journal of Applied Physics, 2006, 99, 104304.	1.1	36
18	Advanced testing of adhesion and friction with a microtribometer. Review of Scientific Instruments, 2006, 77, 066105.	0.6	40
19	Relative humidity control for atomic force microscopes. Review of Scientific Instruments, 2006, 77, 033704.	0.6	25

#	Article	IF	Citations
20	Reduction of the Casimir force using aerogels. Journal of Applied Physics, 2007, 102, .	1.1	17
21	Microscale friction phenomena in oscillatory sliding contacts. Journal of Applied Physics, 2007, 102, .	1.1	11
22	Contact mechanics for coated spheres that includes the transition from weak to strong adhesion. Journal of Materials Research, 2007, 22, 2617-2622.	1.2	24
23	Development of a model for predicting dry stiction in microelectromechanical systems (MEMS). , 2007, , .		0
24	Growth of Silicon Carbide Nanoparticles Using Tetraethylorthosilicate for Microelectromechanical Systems. Electrochemical and Solid-State Letters, 2007, 10, H27.	2.2	9
25	Determination of pull-off forces of textured silicon surfaces by AFM force curve analysis. Journal of Micromechanics and Microengineering, 2007, 17, 1326-1333.	1.5	22
26	Rough surface adhesion in the presence of capillary condensation. Applied Physics Letters, 2007, 90, 163104.	1.5	59
27	Device physics of capacitive MEMS. Microelectronic Engineering, 2007, 84, 2158-2164.	1.1	21
28	Microfabrication-based nanomechanical laboratory for testing the ductility of submicron aluminium films. Microelectronic Engineering, 2007, 84, 2714-2718.	1.1	30
29	Adhesion of arbitrary-shaped thin-film microstructures. Microelectronics Reliability, 2007, 47, 2014-2024.	0.9	2
30	Alternative dielectric films for rf MEMS capacitive switches deposited using atomic layer deposited Al2O3/ZnO alloys. Sensors and Actuators A: Physical, 2007, 135, 262-272.	2.0	52
31	Thermodynamics of capillary adhesion between rough surfaces. Journal of Colloid and Interface Science, 2007, 311, 171-185.	5.0	59
32	Multipurpose nanomechanical testing machines revealing the size-dependent strength and high ductility of pure aluminium submicron films. Micro and Nano Letters, 2007, 2, 13.	0.6	29
33	Capillary Adhesion Between Elastically Hard Rough Surfaces. Experimental Mechanics, 2007, 47, 171-183.	1.1	49
34	Defect Tolerance and Nanomechanics in Transistors that Use Semiconductor Nanomaterials and Ultrathin Dielectrics. Advanced Functional Materials, 2008, 18, 2535-2540.	7.8	6
35	Cathodic corrosion of polycrystalline silicon MEMS. Sensors and Actuators A: Physical, 2008, 145-146, 323-329.	2.0	17
36	Comparative surface and nano-tribological characteristics of nanocomposite diamond-like carbon thin films doped by silver. Applied Surface Science, 2008, 255, 2551-2556.	3.1	174
37	Micro-tribological performance of MoS2 lubricants with varying Au content. Surface and Coatings Technology, 2008, 203, 761-765.	2.2	16

#	Article	IF	Citations
38	Analytical Modeling of the Suspended-Gate FET and Design Insights for Low-Power Logic. IEEE Transactions on Electron Devices, 2008, 55, 48-59.	1.6	71
39	Capillary adhesion model for contacting micromachined surfaces. Scripta Materialia, 2008, 59, 916-920.	2.6	43
40	Adapting Low-Adhesive Thin Films from Mixed Polymer Brushes. Langmuir, 2008, 24, 13828-13832.	1.6	39
41	Nanofluidic Devices and Their Applications. Analytical Chemistry, 2008, 80, 2326-2341.	3.2	345
42	Heat Transfer Spectroscopy and â€œHeat Transfer-Distanceâ€•Curves. , 2008, , .		0
43	Near-Field Thermal Radiation: Comparison of Numerical Results and Experiments. , 2008, , .		0
44	Minimum Energy Actuation and Bounce-Back Behavior of Microbeams Using $delta$ Voltage Pulses. Journal of Microelectromechanical Systems, 2008, 17, 668-677.	1.7	4
45	Determination of the Pull-Off Forces and Pull-Off Dynamics of an Electrostatically Actuated Silicon Disk. Journal of Microelectromechanical Systems, 2008, 17, 643-652.	1.7	8
46	Effects of phase transitions in devices actuated by the electromagnetic vacuum force. Europhysics Letters, 2008, 84, 11002.	0.7	3
47	The so-called dry laser cleaning governed by humidity at the nanometer scale. Applied Physics Letters, 2008, 92, .	1.5	22
48	Casimir force calculations near the insulator-conductor transition in gold thin films. Physical Review A, 2008, 77, .	1.0	9
49	Modification of Surface and Tribological Properties of DLC Films by Adding Silver Content. , 2008, , .		0
50	Anisotropic Frictional Behavior of Nanotextured Surfaces. , 2008, , .		0
51	Pull-in control in microswitches using acoustic Casimir forces. Europhysics Letters, 2008, 84, 48002.	0.7	7
52	Distance upon contact: Determination from roughness profile. Physical Review B, 2009, 80, .	1.1	52
53	In situ studies of interfacial contact evolution via a two-axis deflecting cantilever microinstrument. Applied Physics Letters, 2009, 95, 131902.	1.5	9
54	Micro-force compensation in automated micro-object positioning using adaptive neural networks. Smart Materials and Structures, 2009, 18, 095023.	1.8	4
55	Strain energy and lateral friction force distributions of carbon nanotubes manipulated into shapes by atomic force microscopy. Nanotechnology, 2009, 20, 385709.	1.3	31

#	Article	IF	Citations
56	Low Adhesive Surfaces that Adapt to Changing Environments. Advanced Materials, 2009, 21, 1840-1844.	11.1	60
57	Theoretical investigation of van der Waals forces between solid surfaces at nanoscales. Surface Science, 2009, 603, 2580-2587.	0.8	16
58	A Linearized Method to Measure Dynamic Friction of Microdevices. Experimental Mechanics, 2009, 49, 395-401.	1.1	3
59	Adhesive surface design using topology optimization. Structural and Multidisciplinary Optimization, 2009, 38, 455-468.	1.7	10
60	Friction laws at the nanoscale. Nature, 2009, 457, 1116-1119.	13.7	783
61	Adhesion between highly rough alumina surfaces: An atomic force microscope study. Journal of Colloid and Interface Science, 2009, 331, 371-378.	5.0	19
62	Molecular dynamics investigation of patterning via cold welding. Journal of the Mechanics and Physics of Solids, 2009, 57, 776-787.	2.3	7
63	Adhesion of polymers. Progress in Polymer Science, 2009, 34, 948-968.	11.8	663
64	New On-Chip Nanomechanical Testing Laboratory - Applications to Aluminum and Polysilicon Thin Films. Journal of Microelectromechanical Systems, 2009, 18, 555-569.	1.7	102
65	Ultralow Voltage Crossbar Nonvolatile Memory Based on Energy-Reversible NEM Switches. IEEE Electron Device Letters, 2009, 30, 626-628.	2.2	38
66	Halving the Casimir force with Conductive Oxides. Physical Review Letters, 2009, 103, 040402.	2.9	150
67	Pull-in control due to Casimir forces using external magnetic fields. Applied Physics Letters, 2009, 95, 051909.	1.5	26
68	Frictional Aging and Sliding Bifurcation in Monolayer-Coated Micromachines. Journal of Microelectromechanical Systems, 2009, 18, 250-262.	1.7	22
69	Review of Device and Reliability Physics of Dielectrics in Electrostatically Driven MEMS Devices. IEEE Transactions on Device and Materials Reliability, 2009, 9, 190-202.	1.5	69
70	Modeling of wet adhesion of microstructures in shock environment. Proceedings of SPIE, 2009, , .	0.8	0
71	Study on Contact Characteristic of Nanoscale Asperities by Using Molecular Dynamics Simulations. Journal of Tribology, 2009, 131, .	1.0	13
72	Recent developments in experimental on-chip stiction research: a review. International Journal of Computational Materials Science and Surface Engineering, 2009, 2, 186.	0.2	1
73	Mode II Measurements for Stiction Failed MEMS Devices. , 2010, , .		2

#	Article	IF	Citations
74	Multiscale finite-element models for predicting spontaneous adhesion in MEMS. Mecanique Et Industries, 2010, 11, 177-182.	0.2	11
75	Energy, Adhesion, and the Elastic Foundation. Tribology Letters, 2010, 37, 453-461.	1.2	15
76	Microtribological Performance of Auâ€“MoS2 and Tiâ€“MoS2 Coatings with Varying Contact Pressure. Tribology Letters, 2010, 40, 199-211.	1.2	49
77	Analysis on the adhesion of micro-comb structure in MEMS. International Journal of Applied Electromagnetics and Mechanics, 2010, 33, 979-984.	0.3	21
78	Properties of Carbon Nanotubes under External Factors. , 0, , .		0
79	Small-scale surface engineering problems. , 2010, , 960-989.		1
80	Roughness picture of friction in dry nanoscale contacts. Physical Review B, 2010, 81, .	1.1	79
81	Van der Waals torque induced by external magnetic fields. Journal of Applied Physics, 2010, 108, .	1.1	13
82	Direct Measurement of Intermediate-Range Casimir-Polder Potentials. Physical Review Letters, 2010, 104, 083201.	2.9	58
83	Which Fractal Parameter Contributes Most to Adhesion?. Journal of Adhesion Science and Technology, 2010, 24, 2383-2396.	1.4	13
84	CASIMIR FORCE EXPERIMENTS IN AIR: TWO BIRDS WITH ONE STONE. International Journal of Modern Physics A, 2010, 25, 2231-2239.	0.5	8
85	Effects of Contacting Surfaces on MEMS Device Reliability. Journal of Adhesion Science and Technology, 2010, 24, 2397-2413.	1.4	3
86	A van der Waals Force-Based Adhesion Model for Micromanipulation. Journal of Adhesion Science and Technology, 2010, 24, 2415-2428.	1.4	28
87	Atomistic Factors Governing Adhesion between Diamond, Amorphous Carbon and Model Diamond Nanocomposite Surfaces. Journal of Adhesion Science and Technology, 2010, 24, 2471-2498.	1.4	31
88	Fluidic assembly of hybrid MEMS: a GaAs-based microcantilever spin injector. Journal of Micromechanics and Microengineering, 2010, 20, 025023.	1.5	17
89	Measurement setup for detecting the Casimir force between parallel plates separated at a sub-micron distance. Journal of Micromechanics and Microengineering, 2010, 20, 064005.	1.5	3
90	Role of surface roughness in hysteresis during adhesive elastic contact. Philosophical Magazine Letters, 2010, 90, 891-902.	0.5	63
91	Reducing the Adhesion between Surfaces Using Surface Structuring with PS Latex Particle. ACS Applied Materials & Interfaces, 2010, 2, 1630-1636.	4.0	23

#	Article	IF	Citations
92	Many-Body van der Waals Interactions between Graphitic Nanostructures. Journal of Physical Chemistry Letters, 2010, 1, 1356-1362.	2.1	49
93	Elastic, Adhesive, and Charge Transport Properties of a Metalâ"Moleculeâ"Metal Junction: The Role of Molecular Orientation, Order, and Coverage. Langmuir, 2010, 26, 1688-1699.	1.6	21
94	An on-chip experimental assessment Of Casimir force effect in micro-electromechanical systems. , 2010, , .		1
95	Interfacial Adhesion between Rough Surfaces of Polycrystalline Silicon and Its Implications for M/NEMS Technology. Journal of Adhesion Science and Technology, 2010, 24, 2545-2556.	1.4	11
96	Adhesive contact between a rippled elastic surface and a rigid spherical indenter: from partial to full contact. Soft Matter, 2011, 7, 10728.	1.2	41
97	A Microâ€"Macroapproach to Predict Stiction due to Surface Contact in Microelectromechanical Systems. Journal of Microelectromechanical Systems, 2011, 20, 976-990.	1.7	24
98	Adhesion Control for Micro- and Nanomanipulation. ACS Nano, 2011, 5, 4648-4657.	7.3	34
99	Effects of surface roughness and film thickness on the adhesion of a bioinspired nanofilm. Physical Review E, 2011, 83, 051915.	0.8	40
100	Adhesionâ€"delamination phenomena at the surfaces and interfaces in microelectronics and MEMS structures and packaged devices. Journal Physics D: Applied Physics, 2011, 44, 034004.	1.3	91
101	Molecular Understanding of the Adhesive Force between a Metal Oxide Surface and an Epoxy Resin. Journal of Physical Chemistry C, 2011, 115, 11701-11708.	1.5	126
102	Ultrastrong adhesion of graphene membranes. Nature Nanotechnology, 2011, 6, 543-546.	15.6	904
103	Controlling Adhesion Force by Means of Nanoscale Surface Roughness. Langmuir, 2011, 27, 9972-9978.	1.6	84
104	Bonding, antibonding and tunable optical forces in asymmetric membranes. Optics Express, 2011, 19, 2225.	1.7	24
105	Broadband tuning of optomechanical cavities. Optics Express, 2011, 19, 2782.	1.7	52
106	Realization of a 33 GHz phononic crystal fabricated in a freestanding membrane. AIP Advances, 2011, 1, .	0.6	18
107	Casimir force between a metal and a semimetal. Europhysics Letters, 2011, 93, 51001.	0.7	44
108	Measurement and Characterization of Stiction Force in Microstructures With Tapered Features. , 2011, , .		0
109	Experimental analysis of pull-out voltage of electrostatically actuated microcantilever beam based on contact-stiction model. Micro and Nano Letters, 2011, 6, 43.	0.6	8

#	Article	IF	Citations
110	Lateral Contact Stiffness and the Elastic Foundation. Tribology Letters, 2011, 41, 17-21.	1.2	12
111	Nanoneedles based on porous silicon for chip bonding with self assembly capability. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1841-1846.	0.8	7
112	Interfacial Thermal Conductance of Transferâ€Printed Metal Films. Advanced Materials, 2011, 23, 5028-5033.	11.1	60
113	Van der Waals force contribution to the vertical alignment of liquid crystal on Al2O3 films using ion-beam method. Thin Solid Films, 2011, 519, 5654-5657.	0.8	10
114	Roughness correction to the Casimir force beyond perturbation theory. Europhysics Letters, 2011, 95, 30001.	0.7	31
115	Mixing rules and the Casimir force between composite systems. Physical Review A, 2011, 83, .	1.0	20
116	Switching adhesion forces by crossing the metalâ€“insulator transition in MagnÃ©li-type vanadium oxide crystals. Beilstein Journal of Nanotechnology, 2011, 2, 59-65.	1.5	17
117	Stiction Failure Mechanisms of the Micromachined Electrostatic Comb-Drive Structures. Applied Mechanics and Materials, 0, 80-81, 850-854.	0.2	0
118	Impact of scaling on the performance and reliability degradation of metal-contacts in NEMS devices. , 2011, , .		20
119	Vertical silicon nano-pillar for non-volatile memory. , 2011, , .		9
120	Effect of Atomic-Scale Roughness on Contact Behavior. Applied Mechanics and Materials, 0, 86, 584-589.	0.2	0
121	Mechanical contact between rough surfaces at low load. Journal Physics D: Applied Physics, 2012, 45, 475303.	1.3	9
122	Roughness correction to the Casimir force at short separations: Contact distance and extreme value statistics. Physical Review B, 2012, 85, .	1.1	57
123	Towards a Casimir Force Measurement between Micromachined Parallel Plate Structures. Challenges, 2012, 3, 261-277.	0.9	3
124	Modeling of Contact and Stiction in Electrostatic Microcantilever Actuators. Journal of Nanotechnology in Engineering and Medicine, 2012, 3, .	0.8	9
125	Empirical evaluation of attractive van der Waals potentials for type-purified single-walled carbon nanotubes. Physical Review B, 2012, 85, .	1.1	31
126	Molecular Understanding of the Adhesive Force between a Metal Oxide Surface and an Epoxy Resin: Effects of Surface Water. Bulletin of the Chemical Society of Japan, 2012, 85, 672-678.	2.0	57
127	Biomimetic superelastic graphene-based cellular monoliths. Nature Communications, 2012, 3, 1241.	5.8	1,091

#	Article	IF	Citations
128	Experimental and numerical assessment of adhesion in real-life MEMS. , 2012, , .		1
129	Design and characterization of tantalum-nitride switch for one-time-programmable memory applications. , 2012, , .		0
130	Investigation of stiction effects in nano-electro-mechanical (NEM) memory cells based on finite element analysis (FEA). , 2012, , .		0
131	Adhesion mechanics of graphene membranes. Solid State Communications, 2012, 152, 1359-1364.	0.9	119
132	The effect of substrate roughness on the static friction of CuO nanowires. Surface Science, 2012, 606, 1393-1399.	0.8	23
133	Surface adhesion and its dependence on surface roughness and humidity measured with a flat tip. Applied Surface Science, 2012, 258, 6938-6942.	3.1	51
134	Design and development of a surface micro-machined pushâ€“pull-type true-time-delay phase shifter on an alumina substrate for Ka-band T/R module application. Journal of Micromechanics and Microengineering, 2012, 22, 125006.	1.5	25
135	Characterization of Adhesion Force in MEMS at High Temperature Using Thermally Actuated Microstructures. Journal of Microelectromechanical Systems, 2012, 21, 541-548.	1.7	22
136	Design Optimization of Pulsed-Mode Electromechanical Nonvolatile Memory. IEEE Electron Device Letters, 2012, 33, 1207-1209.	2.2	3
137	Approximate Scheme for Calculating van der Waals Interactions between Finite Cylindrical Volume Elements. Langmuir, 2012, 28, 8359-8370.	1.6	18
138	Effect of deposition parameters on wear particle size distribution of DLC coatings. Diamond and Related Materials, 2012, 23, 184-188.	1.8	9
139	Contact and Friction of One- and Two-Dimensional Nanostructures. Nanoscience and Technology, 2012, , 335-361.	1.5	0
140	MEMS Reliability Review. IEEE Transactions on Device and Materials Reliability, 2012, 12, 482-493.	1.5	148
141	Thermallyâ€Activated Pentanol Delivery from Precursor Poly(pâ€phenylenevinylene)s for MEMS Lubrication. Macromolecular Rapid Communications, 2012, 33, 1346-1350.	2.0	3
142	Effect of gas phase oxidation on the structure and intertube adhesion force of a brush-like assembly of carbon nanotubes. Carbon, 2012, 50, 1879-1887.	5.4	7
143	Flexural contact in MEMS stiction. International Journal of Solids and Structures, 2012, 49, 2203-2214.	1.3	11
144	The effect of nano-scale interaction forces on the premature pull-in of real-life Micro-Electro-Mechanical Systems. Microelectronics Reliability, 2012, 52, 271-281.	0.9	15
145	Scaling effects between micro- and macro-tribology for a Tiâ€“MoS2 coating. Wear, 2012, 274-275, 149-161.	1.5	37

#	Article	IF	Citations
146	The Shuttle Nanoelectromechanical Nonvolatile Memory. IEEE Transactions on Electron Devices, 2012, 59, 1137-1143.	1.6	35
147	Experimental evaluation and numerical modeling of adhesion phenomena in polysilicon MEMS. Meccanica, 2013, 48, 1835-1844.	1.2	56
148	Surface science, MEMS and NEMS: Progress and opportunities for surface science research performed on, or by, microdevices. Progress in Surface Science, 2013, 88, 171-211.	3.8	101
149	Description of van der Waals Interactions Using Transformation Optics. Physical Review Letters, 2013, 111, 033602.	2.9	21
150	Impact of van der Waals Interactions on Single Asperity Friction. Physical Review Letters, 2013, 111, 035502.	2.9	50
151	Abrasion. , 2013, , 1-1.		0
152	Spatial evolution of friction of a textured wafer surface. Friction, 2013, 1, 92-97.	3.4	5
153	A Numerical Contact Model Based on Real Surface Topography. Tribology Letters, 2013, 50, 331-347.	1.2	9
154	Intermolecular Forces, Adhesion, and the Elastic Foundation. Tribology Letters, 2013, 50, 245-260.	1.2	7
155	The Effect of Atomic-Scale Roughness on the Adhesion of Nanoscale Asperities: A Combined Simulation and Experimental Investigation. Tribology Letters, 2013, 50, 81-93.	1.2	110
156	Etching Process Effects on Surface Structure, Fracture Strength, and Reliability of Single-Crystal Silicon Theta-Like Specimens. Journal of Microelectromechanical Systems, 2013, 22, 589-602.	1.7	33
157	Decoupling small-scale roughness and long-range features on deep reactive ion etched silicon surfaces. Journal of Applied Physics, 2013, 114, 113506.	1.1	4
158	Geometry and charge carrier induced stability in Casimir actuated nanodevices. European Physical Journal B, 2013, 86, 1.	0.6	19
159	van der Waals energy and pressure in dissipative media: Fluctuational electrodynamics and mode summation. Physical Review A, 2013, 88, .	1.0	10
160	Modelling of spontaneous adhesion phenomena in micro-electro-mechanical systems. European Journal of Mechanics, A/Solids, 2013, 39, 144-152.	2.1	31
161	Non-contact adhesion to self-affine surfaces: A theoretical model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2806-2809.	0.9	2
162	Surface tension and contact with soft elastic solids. Nature Communications, 2013, 4, 2728.	5.8	242
163	Adhesion/atomistic friction surface interaction model with application to interfacial fracture and nanofabrication. International Journal of Solids and Structures, 2013, 50, 937-943.	1.3	3

#	Article	IF	Citations
164	Significance of the Casimir force and surface roughness for actuation dynamics of MEMS. Physical Review B, 2013, 87, .	1.1	48
165	Observation of Pull-In Instability in Graphene Membranes under Interfacial Forces. Nano Letters, 2013, 13, 2309-2313.	4.5	40
166	Roughness corrections to the van der Waals interaction energies between bodies with periodically modulated surfaces. Solid State Communications, 2013, 166, 12-15.	0.9	6
167	Macroscopic scattering of cracks initiated at single impurity atoms. Nature Communications, 2013, 4, 2441.	5.8	42
168	Sustained Frictional Instabilities on Nanodomed Surfaces: Stickâ€“Slip Amplitude Coefficient. ACS Nano, 2013, 7, 10850-10862.	7.3	27
169	Study of Adhesion and Friction Properties on a Nanoparticle Gradient Surface: Transition from JKR to DMT Contact Mechanics. Langmuir, 2013, 29, 175-182.	1.6	42
170	Tantalum-Nitride Antifuse Electromechanical OTP for Embedded Memory Applications. IEEE Electron Device Letters, 2013, 34, 987-989.	2.2	16
171	Van der Waals interactions between graphitic nanowiggles. Journal of Applied Physics, 2013, 114, 044308.	1.1	4
172	Using Directed Self Assembly of Block Copolymer Nanostructures to Modulate Nanoscale Surface Roughness: Towards a Novel Lithographic Process. Advanced Functional Materials, 2013, 23, 173-183.	7.8	19
173	Switchable static friction of piezoelectric compositeâ€”silicon wafer contacts. Applied Physics Letters, 2013, 102, .	1.5	2
174	A bi-stable nanoelectromechanical non-volatile memory based on van der Waals force. Applied Physics Letters, 2013, 103, .	1.5	16
175	Friction measurement on free standing plates using atomic force microscopy. Review of Scientific Instruments, 2013, 84, 013702.	0.6	7
176	Macroscale adhesion of gecko setae reflects nanoscale differences in subsurface composition. Journal of the Royal Society Interface, 2013, 10, 20120587.	1.5	42
177	Multiscale contact mechanics model for RFâ€“MEMS switches with quantified uncertainties. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 085002.	0.8	10
178	Sensitivity of micromechanical actuation on amorphous to crystalline phase transformations under the influence of Casimir forces. Physical Review B, 2013, 88, .	1.1	38
179	Improved model for the adhesion of Î¼cantilevers: theory and experiments. Journal of Micromechanics and Microengineering, 2013, 23, 115011.	1.5	8
180	Adhesion of a Micro Double Cantilever Beam Driven by Capillary Forces. Journal of Adhesion, 2013, 89, 264-300.	1.8	0
181	Switch on, switch off: stiction in nanoelectromechanical switches. Nanotechnology, 2013, 24, 275501.	1.3	15

#	Article	IF	Citations
182	Effect of hydrogenation on interaction force among carbon nanotubes. Journal of Applied Physics, 2013, 113, 144307.	1.1	0
184	Contact damping in microelectromechanical actuators. Applied Physics Letters, 2014, 105, 253501.	1.5	5
185	The van der Waals force between arbitrary-shaped particle and a plane surface connected by a liquid bridge in humidity environment. Granular Matter, 2014, 16, 903-909.	1.1	10
186	Formation mechanism of photo-induced nested wrinkles on siloxane-photomonomer hybrid film. , 2014, , .		1
187	Effect of fluid medium on mechanical behavior of carbon nanotube foam. Applied Physics Letters, 2014, 104, 221910.	1.5	7
188	Molecular adhesion controlled microelectromechanical memory device for harsh environment data storage. Applied Physics Letters, 2014, 105, 113503.	1.5	11
189	Adhesive Force Characterization for MEM Logic Relays With Sub-Micron Contacting Regions. Journal of Microelectromechanical Systems, 2014, 23, 198-203.	1.7	31
190	Patch contribution to near-field radiative energy transfer and van der Waals pressure between two half-spaces. Physical Review A, 2014, 89, .	1.0	7
191	Probing Atom-Surface Interactions by Diffraction of Bose-Einstein Condensates. Physical Review X, 2014, 4, .	2.8	40
192	High Performance, Low Power Nanowire Transistor Devices. RSC Smart Materials, 2014, , 54-110.	0.1	2
193	van der Waals interactions between nanostructures: Some analytic results from series expansions. Physical Review A, 2014, 89, .	1.0	11
194	Ultra Long-Range Interactions between Large Area Graphene and Silicon. ACS Nano, 2014, 8, 11234-11242.	7.3	75
195	Casimir and hydrodynamic force influence on microelectromechanical system actuation in ambient conditions. Applied Physics Letters, 2014, 104, 074108.	1.5	7
196	An Overview of Airborne Nanoparticle Filtration and Thermal Rebound Theory. Aerosol and Air Quality Research, 2014, 14, 46-63.	0.9	30
197	Interfacial closure of contacting surfaces. Europhysics Letters, 2014, 107, 34003.	0.7	2
198	High-performance carbon nanotube field-effect transistors. , 2014, , .		37
199	Effects of the van der Waals force, squeeze-film damping, and contact bounce on the dynamics of electrostatic microcantilevers before and after pull-in. Nonlinear Dynamics, 2014, 77, 87-98.	2.7	9
200	Electrostatic pull-in instability in MEMS/NEMS: A review. Sensors and Actuators A: Physical, 2014, 214, 187-218.	2.0	432

#	Article	IF	Citations
201	Dynamic analysis and collision prevention for Î¼-disc-type inductive micro-motor driven by solenoids. JVC/Journal of Vibration and Control, 2014, 20, 2172-2192.	1.5	3
202	Capillary-Induced Crack Healing between Surfaces of Nanoscale Roughness. Langmuir, 2014, 30, 11625-11633.	1.6	11
203	Energy and Latency Optimization in NEM Relay-Based Digital Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 2348-2359.	3.5	16
204	Influence of atomic force microscope (AFM) probe shape on adhesion force measured in humidity environment. Applied Mathematics and Mechanics (English Edition), 2014, 35, 567-574.	1.9	9
205	Nano-adhesion influenced by atomic-scale asperities: A molecular dynamics simulation study. Applied Surface Science, 2014, 317, 710-717.	3.1	16
206	Simulated Adhesion between Realistic Hydrocarbon Materials: Effects of Composition, Roughness, and Contact Point. Langmuir, 2014, 30, 2028-2037.	1.6	37
207	Microsystems and Mechanics. Procedia IUTAM, 2014, 10, 138-160.	1.2	6
208	Three-Terminal Nanoelectromechanical Field Effect Transistor with Abrupt Subthreshold Slope. Nano Letters, 2014, 14, 1687-1691.	4.5	36
209	The current understanding on the diamond machining of silicon carbide. Journal Physics D: Applied Physics, 2014, 47, 243001.	1.3	113
210	Advanced models for the calculation of capillary attraction in axisymmetric configurations. European Journal of Mechanics, A/Solids, 2014, 47, 298-308.	2.1	18
211	Dynamics of Scratch Drive Actuators during Stepwise Motion. Applied Mechanics and Materials, 2014, 664, 104-110.	0.2	0
212	Kinetic and static friction between alumina nanowires and a Si substrate characterized using a bending manipulation method. Journal of Materials Research, 2015, 30, 1852-1860.	1.2	15
213	Nanoscale mapping of in situ actuating microelectromechanical systems with AFM. Journal of Materials Research, 2015, 30, 429-441.	1.2	7
214	Nonlinear Actuation Dynamics of Driven Casimir Oscillators with Rough Surfaces. Physical Review Applied, 2015, 4, .	1.5	43
215	Fluctuating volume-current formulation of electromagnetic fluctuations in inhomogeneous media: Incandescence and luminescence in arbitrary geometries. Physical Review B, 2015, 92, .	1.1	73
216	Critical and near-critical phase behavior and interplay between the thermodynamic Casimir and van der Waals forces in a confined nonpolar fluid medium with competing surface and substrate potentials. Physical Review E, 2015, 92, 012119.	0.8	7
217	Mitigation of Corrosion on Magnesium Alloy by Predesigned Surface Corrosion. Scientific Reports, 2015, 5, 17399.	1.6	59
218	Effect of the annealing temperature and ion-beam bombardment on the properties of solution-derived HfYGaO films as liquid crystal alignment layers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 061507.	0.9	3

#	Article	IF	Citations
219	Experimental investigation and molecular dynamics simulations of impact-mode wear mechanisms in silicon micromachines with alkylsilane self-assembled monolayer films. Journal of Applied Physics, 2015, 118, 165311.	1.1	4
220	Nanoâ€adhesion and friction of multiâ€asperity contact: a molecular dynamics simulation study. Surface and Interface Analysis, 2015, 47, 919-925.	0.8	12
221	Measurement of the Length and Strength of Adhesive Interactions in a Nanoscale Siliconâ€“Diamond Interface. Advanced Materials Interfaces, 2015, 2, 1400547.	1.9	17
222	Measuring graphene adhesion using atomic force microscopy with a microsphere tip. Nanoscale, 2015, 7, 10760-10766.	2.8	93
223	Silicon Carbide (SiC) Nanoelectromechanical Antifuse for Ultralow-Power One-Time-Programmable (OTP) FPGA Interconnects. IEEE Journal of the Electron Devices Society, 2015, 3, 323-335.	1.2	13
224	Stick-slip behavior of magnetorheological fluids in simple linear shearing mode. Rheologica Acta, 2015, 54, 859-867.	1.1	12
225	Nonvolatile Nanoelectromechanical Memory Switches for Low-Power and High-Speed Field-Programmable Gate Arrays. IEEE Transactions on Electron Devices, 2015, 62, 673-679.	1.6	23
226	Adhesive behavior of micro/nano-textured surfaces. Applied Surface Science, 2015, 329, 174-183.	3.1	23
227	Method for Measuring the Distribution of Adhesion Forces on Continuous Nanoscale Protrusions Using Carbon Nanofiber Tip on a Scanning Probe Microscope Cantilever. ACS Applied Materials & Interfaces, 2015, 7, 13776-13781.	4.0	3
228	Dynamic Modeling of Scratch Drive Actuators. Journal of Microelectromechanical Systems, 2015, 24, 1370-1383.	1.7	4
230	Assembly and relaxation behaviours of phosphatidylethanolamine monolayers investigated by polarization and frequency resolved SFG-VS. Physical Chemistry Chemical Physics, 2015, 17, 25114-25122.	1.3	25
231	Fracture strength of micro- and nano-scale silicon components. Applied Physics Reviews, 2015, 2, .	5.5	96
232	FRICTIONAL BEHAVIOR OF MICRO/NANOTEXTURED SURFACES INVESTIGATED BY ATOMIC FORCE MICROSCOPE: A REVIEW. Surface Review and Letters, 2015, 22, 1530001.	0.5	5
233	A simple criterion for determining the static friction force between nanowires and flat substrates using the most-bent-state method. Nanotechnology, 2015, 26, 165702.	1.3	16
234	Crack Healing Between Rough Polycrystalline Silicon Hydrophilic Surfaces in n-Pentanol and Water Vapors. Tribology Letters, 2015, 59, 1.	1.2	38
235	Electrically Tunable van der Waals Interaction in Grapheneâ€“Molecule Complex. Nano Letters, 2015, 15, 8176-8180.	4.5	53
236	Influence of surface roughness on dispersion forces. Advances in Colloid and Interface Science, 2015, 216, 1-19.	7.0	47
237	Classical and fluctuationâ€induced electromagnetic interactions in micronâ€scale systems: designer bonding, antibonding, and Casimir forces. Annalen Der Physik, 2015, 527, 45-80.	0.9	45

#	Article	IF	Citations
238	Determining both adhesion energy and residual stress by measuring the stiction shape of a microbeam. Microsystem Technologies, 2015, 21, 919-929.	1.2	8
239	Nanoporous aerogel as a bacteria repelling hygienic material for healthcare environment. Nanotechnology, 2016, 27, 085705.	1.3	18
240	Tailoring Hydrogel Adhesiveness to Cells, Proteins, and Bacteria. , 2016, , 175-199.		2
241	Controllable electrical and physical breakdown of poly-crystalline silicon nanowires by thermally assisted electromigration. Scientific Reports, 2016, 6, 19314.	1.6	12
242	SOI Technologies from Microelectronics to Microsystems â€" Meeting the More than Moore Roadmap Requirements. International Journal of High Speed Electronics and Systems, 2016, 25, 1640004.	0.3	1
243	Dispersion forces acting between silica particles across water: influence of nanoscale roughness. Nanoscale Horizons, 2016, 1, 325-330.	4.1	55
244	The Effect of Multi-Directional Stimuli on the Stiction-Induced Failure Behavior of MEMS. Journal of Microelectromechanical Systems, 2016, 25, 432-439.	1.7	2
245	Three-dimensional lithography by elasto-capillary engineering of filamentary materials. MRS Bulletin, 2016, 41, 108-114.	1.7	27
246	Vacuum bouncing dynamics dominated by van der Waals forces in MEMS relays. , 2016, , .		1
247	Experimental Investigation Into Stiction Forces and Dynamic Mechanical Anti-Stiction Solutions in Ultra-Clean Encapsulated MEMS Devices. Journal of Microelectromechanical Systems, 2016, 25, 469-478.	1.7	22
248	Let's twist again: elasto-capillary assembly of parallel ribbons. Soft Matter, 2016, 12, 7186-7194.	1.2	7
249	The kinetic friction of ZnO nanowires on amorphous SiO2 and SiN substrates. Applied Surface Science, 2016, 389, 797-801.	3.1	11
250	Improved thermal stability and reliability of Cu film electrode induced by bias magnetron sputtering. Thin Solid Films, 2016, 616, 562-568.	0.8	6
251	Cellular graphene aerogel combines ultralow weight and high mechanical strength: A highly efficient reactor for catalytic hydrogenation. Scientific Reports, 2016, 6, 25830.	1.6	49
252	Macroscopic self-reorientation of interacting two-dimensional crystals. Nature Communications, 2016, 7, 10800.	5.8	108
253	Van der Waals pressure and its effect on trapped interlayer molecules. Nature Communications, 2016, 7, 12168.	5.8	137
254	Evaluation of adhesion in microsystems using equivalent rough surfaces modeled with spherical caps. European Journal of Mechanics, A/Solids, 2016, 57, 121-131.	2.1	9
255	Characterising the nanoscale kinetic friction using force-equilibrium and energy-conservation models with optical manipulation. Nanotechnology, 2016, 27, 065709.	1.3	9

#	Article	IF	Citations
256	Mechanistic Origin of the Ultrastrong Adhesion between Graphene and a-SiO₂: Beyond van der Waals. ACS Nano, 2016, 10, 6552-6562.	7.3	39
257	Transformation optics applied to van der Waals interactions. Science Bulletin, 2016, 61, 59-67.	4.3	17
258	The adhesion behavior of carbon coating studied by re-indentation during in situ TEM nanoindentation. Applied Surface Science, 2016, 362, 49-55.	3.1	17
259	Numerical investigation of indentation tests on a transversely isotropic elastic material by power-law shaped axisymmetric indenters. Journal of Adhesion Science and Technology, 2016, 30, 1223-1242.	1.4	10
260	van der Waals force-induced crack healing in dry rough interfaces. Journal Physics D: Applied Physics, 2016, 49, 075303.	1.3	5
261	Fabrication of 2014 aluminum matrix composites reinforced with untreated and carboxyl-functionalized carbon nanotubes. Journal of Alloys and Compounds, 2016, 674, 145-152.	2.8	49
262	Identifying tractionâ€“separation behavior of self-adhesive polymeric films from in situ digital images under T-peeling. Journal of the Mechanics and Physics of Solids, 2016, 91, 40-55.	2.3	26
263	Regularized model of post-touchdown configurations in electrostatic MEMS: bistability analysis. Journal of Engineering Mathematics, 2016, 99, 65-77.	0.6	8
264	Electrostatically actuated MEMS relay arrays for high-power applications. Microsystem Technologies, 2016, 22, 911-920.	1.2	14
265	Closed form solutions for nonlinear static response of curled cantilever micro-/nanobeams including both the fringing field and van der Waals force effect. Microsystem Technologies, 2017, 23, 163-174.	1.2	8
266	Investigation of the Î¼N level adhesion force characteristics of gold-coated materials in air. Journal of Adhesion, 2017, 93, 1008-1023.	1.8	4
267	Interaction potential and friction of hydrogenated diamond surfaces at the atomic scale: first-principle calculation. Journal of Materials Science, 2017, 52, 1381-1389.	1.7	1
268	Quantitative characterization of surface topography using spectral analysis. Surface Topography: Metrology and Properties, 2017, 5, 013001.	0.9	296
269	Closed-form relation to predict static pull-in voltage of an electrostatically actuated clampedâ€“clamped microbeam under the effect of Casimir force. Acta Mechanica, 2017, 228, 2583-2602.	1.1	7
270	Monolithic 3D (M3D) reconfigurable logic applications using extremely-low-power electron devices. , 2017, , .		0
271	Molecular statics study of depth-dependent hysteresis in nano-scale adhesive elastic contacts. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 055002.	0.8	9
272	The effects of wall roughness on the methane flow in nano-channels using non-equilibrium multiscale molecular dynamics simulation. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	9
273	Multistability of cantilever MEMS/NEMS switches induced by electrostatic and surface forces. International Journal of Non-Linear Mechanics, 2017, 95, 209-215.	1.4	11

#	Article	IF	Citations
274	Bomb swab: Can trace explosive particle sampling and detection be improved?. Talanta, 2017, 174, 92-99.	2.9	39
275	Dispersive Properties of Mesoporous Gold: van der Waals and Near-Field Radiative Heat Interactions. Journal of Physical Chemistry C, 2017, 121, 12392-12397.	1.5	12
276	Hybrid joining of polyamide and hydrogenated acrylonitrile butadiene rubber through heat-resistant functional layer of silane coupling agent. Applied Surface Science, 2017, 412, 121-130.	3.1	17
277	The effect of surface texture on the kinetic friction of a nanowire on a substrate. Scientific Reports, 2017, 7, 44907.	1.6	11
278	Effect of surface roughness on van der Waals and Casimir-Polder/Casimir attraction energies. Surface Science, 2017, 663, 88-99.	0.8	2
279	Rolling Spheres on Bioinspired Microstructured Surfaces. Langmuir, 2017, 33, 164-175.	1.6	5
280	Mechanical modeling and characteristic study for the adhesive contact of elastic layered media. Journal Physics D: Applied Physics, 2017, 50, 475601.	1.3	3
281	Measuring and Understanding Contact Area at the Nanoscale: A Review. Applied Mechanics Reviews, 2017, 69, .	4.5	73
282	Wafer-Scale Synthesis of Semiconducting SnO Monolayers from Interfacial Oxide Layers of Metallic Liquid Tin. ACS Nano, 2017, 11, 10974-10983.	7.3	122
283	Ultralight and Binderâ€Free Allâ€Solidâ€State Flexible Supercapacitors for Powering Wearable Strain Sensors. Advanced Functional Materials, 2017, 27, 1702738.	7.8	75
284	Monolithic three-dimensional tunnel FETâ€“nanoelectromechanical hybrid reconfigurable logic circuits. Japanese Journal of Applied Physics, 2017, 56, 04CD12.	0.8	0
285	Sign change in the net force in sphere-plate and sphere-sphere systems immersed in nonpolar critical fluid due to the interplay between the critical Casimir and dispersion van der Waals forces. Physical Review E, 2017, 96, 022107.	0.8	6
286	Friction and Wear in Micro- and Nanomachines. Springer Handbooks, 2017, , 1417-1435.	0.3	1
287	Salient signature of van der Waals interactions. Physical Review A, 2017, 96, .	1.0	10
288	Global consequences of a local Casimir force: Adhered cantilever. Applied Physics Letters, 2017, 111, .	1.5	12
289	Effects of geometric nonlinearity in an adhered microbeam for measuring the work of adhesion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170594.	1.0	0
290	Flexible Pressure Sensor With High Sensitivity and Low Hysteresis Based on a Hierarchically Microstructured Electrode. IEEE Electron Device Letters, 2018, 39, 288-291.	2.2	87
291	On the role of adhesion and roughness in stick-slip transition at the contact of two bodies: A numerical study. Tribology International, 2018, 121, 381-388.	3.0	24

#	Article	IF	Citations
294	Lifshitz analysis of dispersion forces based on quantitative reflection electron energy loss spectroscopy. Journal of Colloid and Interface Science, 2018, 514, 625-633.	5.0	3
295	A new approach to the evaluation of Casimir and van der Waals forces in the transition region. Chinese Journal of Physics, 2018, 56, 1133-1146.	2.0	7
296	Engineering Micropatterned Dry Adhesives: From Contact Theory to Handling Applications. Advanced Functional Materials, 2018, 28, 1800865.	7.8	127
297	Elastocapillarity: When Surface Tension Deforms Elastic Solids. Annual Review of Fluid Mechanics, 2018, 50, 629-659.	10.8	198
298	Effects of Surface Roughness on the Kinetic Friction of SiC Nanowires on SiN Substrates. Tribology Letters, 2018, 66, 1.	1.2	12
300	Particle Tracking of Microelectromechanical System Performance and Reliability. Journal of Microelectromechanical Systems, 2018, 27, 948-950.	1.7	7
301	Ion excitation and etching effects on top-surface properties of sp2 nanocrystallited carbon films. Applied Surface Science, 2018, 462, 669-677.	3.1	13
302	Optically Forged Diffraction-Unlimited Ripples in Graphene. Journal of Physical Chemistry Letters, 2018, 9, 6179-6184.	2.1	10
303	Printing two-dimensional gallium phosphate out of liquid metal. Nature Communications, 2018, 9, 3618.	5.8	107
304	Investigation of Characteristics of Electrostatically Actuated MEMS Switch with an Active Contact Breaking Mechanism. Russian Microelectronics, 2018, 47, 307-316.	0.1	5
305	Unexpected stability of aqueous dispersions of raspberry-like colloids. Nature Communications, 2018, 9, 3614.	5.8	57
306	Short-Term Load Forecasting with Artificial Neural Network. , 2018, , .		1
307	Charge Collection of twin well PN junction in 65 nm CMOS Inverter. , 2018, , .		0
308	PCTDDE 2018 Index. , 2018, , .		0
309	Nanoscale tunable reduction of interfacial friction on nano-patterned wear-resistant bulk metallic glass. Applied Surface Science, 2018, 453, 297-308.	3.1	6
310	Designing nanoindentation simulation studies by appropriate indenter choices: Case study on single crystal tungsten. Computational Materials Science, 2018, 152, 196-210.	1.4	43
311	Dynamic analysis of nano-beams embedded in a varying nonlinear elastic environment using Eringenâ€™s two-phase local/nonlocal model. European Physical Journal Plus, 2018, 133, 1.	1.2	22
312	Dry lubrication of friction on ferroelectric BiFeO3 film. Applied Surface Science, 2018, 457, 797-803.	3.1	6

#	Article	IF	Citations
313	Monolithic 3D (M3D) Complementary Metal-Oxide-Semiconductor (CMOS)-Nanoelectromechanical (NEM) Hybrid Circuits. , 2018, , .		0
314	Superior adhesion of graphene nanoscrolls. Communications Physics, 2018, 1, .	2.0	24
315	Electrodeposited Ni/SiC composite coating on graphite for high temperature solar thermal applications. Materials Science for Energy Technologies, 2018, 1, 3-10.	1.0	8
316	Liquid crystal alignment on ion-beam irradiated bismuth-doped tin oxide films and their application to liquid crystal displays. Liquid Crystals, 2019, 46, 86-93.	0.9	8
317	Characterization of the material-induced elasticâ€“plastic deformations in ultra-precision diamond cutting. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	0.8	3
321	The Stability of Single-Walled Carbon Nanotube: Lyapunov Function for Probe Needle. , 2019, , .		2
322	van der Waals interactions in bimolecular reactions. Chinese Journal of Chemical Physics, 2019, 32, 157-166.	0.6	15
323	Dependence of non-equilibrium Casimir forces on material optical properties toward chaotic motion during device actuation. Chaos, 2019, 29, 093126.	1.0	11
324	Importance of Polyacrylamide Hydrogel Diverse Chains and Cross-Linking Density for Cell Proliferation, Aging, and Death. Langmuir, 2019, 35, 13999-14006.	1.6	6
325	Stable Casimir equilibria and quantum trapping. Science, 2019, 364, 984-987.	6.0	63
326	Harmonically driven slider: Markovian dynamics between two limiting attractors. Chaos, Solitons and Fractals, 2019, 119, 237-242.	2.5	1
327	Investigation of charges-driven interactions between graphene and different SiO2 surfaces. Carbon, 2019, 148, 336-343.	5.4	11
328	Source code generators for ADAS feature deployment in context of ROS and adaptive AUTOSAR applications. , 2019, , .		0
329	Global Navigational Satellite System Phase Altimetry of the Sea Level: Systematic Bias Effect Caused by Sea Surface Waves. , 2019, , .		3
330	Detection and evaluation of events in EEG dynamics in post-surgery patients with physiological-based mathematical models. , 2019, , .		0
331	Optimization of ANN input parameters used in electric field level prediction model. , 2019, , .		0
332	Attitude Motion Control of a Half car Model with Tracking Controller Using Aerodynamic Surfaces. , 2019, , .		2
333	Etiological Diagnosis in Medicinal Intoxications. , 2019, , .		0

#	Article	IF	Citations
334	Verification of Safety Functions Implemented in Rust - a Symbolic Execution based approach. , 2019, , .		4
336	A Method for Evaluating Manned/Unmanned Aerial Vehicle Combat Cooperative Capability*. , 2019, , .		0
337	Switching Control with Time Optimal Sliding Mode Control Strategy for Electric Load Simulator with Backlash. , 2019, , .		3
338	Performance Analysis of Radar Eigenwaveform Design Integrated with Pulse Compression Scheme. , 2019, , .		1
339	A Study on Motor Poor Maintenance Detection Based on DT-CNN. , 2019, , .		2
340	Iterative Programming of Noisy Memory Cells. , 2019, , .		2
341	NetWord: The Cognitive Network Model of the Neurally Distributed Meanings of Words. , 2019, , .		0
342	Message from the Student Research Competition Chairs of ICSE 2019. , 2019, , .		0
343	Quantitative analysis of the 5 Î¼l thrombus dissolution process using 40 kHz â€“ 6 MHz ultrasound. , 2019, , .		0
344	Standing Air Bubble-based Flow Regulation System. , 2019, , .		0
345	An 8.5pJ/bit Ultra-Low Power Wake-Up Receiver Using Schottky Diodes for IoT Applications. , 2019, , .		3
346	First-Principles-Based Multiphysics Modeling and Simulation of On-Chip Cu-Graphene Hybrid Nanointerconnects in Comparison With Simplified Model-Based Analysis. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2019, 4, 374-382.	1.4	3
347	Fusing Two Directions in Cross-Domain Adaption for Real Life Person Search by Language. , 2019, , .		7
348	VLSID & ES 2019 Organizing Committee. , 2019, , .		0
349	Hybrid Particle Swarm Optimization and Gravitational Search Algorithm for Optimal Sizing of Hybrid Renewable Energy Systems. , 2019, , .		4
350	LF Scattering of a Cylindrical Shield in an Alternating Magnetic Field. , 2019, , .		1
351	An Identification of PSF Lag and Linger Effects for Dynamic Human Reliability Analysis: Application of Experimental Data. , 2019, , .		3
352	Engineering Heterogeneous Internet of Things Applications: From Models to Code. , 2019, , .		3

#	Article	IF	Citations
353	Health Monitoring and Auto-Scaling RabbitMQ Queues within the Smart Home System. , 2019, , .		3
354	A Comprehensive Survey on Content Based Image Processing Techniques. , 2019, , .		1
355	Signal Green Time Estimation Method for Connected Vehicle-to-Infrastructure Applications. , 2019, , .		1
356	FC-SLAM: Federated Learning Enhanced Distributed Visual-LiDAR SLAM In Cloud Robotic System. , 2019, , .		11
357	Time of Flight 3D Imaging using VCSEL Beam Scanner. , 2019, , .		0
358	Guest Editorial Special Issue on Next-Generation Smart Body Sensor Networks: From Autonomic Body Sensors to Cognitive Body Sensor Network Ecosystems. IEEE Sensors Journal, 2019, 19, 8370-8370.	2.4	1
359	A Comparative Analysis of Forum and Barrage Interactive Patterns in Online Language Learning. , 2019, , .		0
360	Scale Down Model of Electrical Vehicle using Electronic Differential. , 2019, , .		2
361	Water-Filling Random Resource Allocation (W-FRRA) Using NOMA for Downlink LiFi System. , 2019, , .		2
362	Quantitative Evaluation of Clothing Assistance using Whole-Body Robotic Simulator of the Elderly. , 2019, , .		2
363	Signature of van der Waals interactions in the cumulant density matrix. Physical Chemistry Chemical Physics, 2019, 21, 23900-23905.	1.3	6
364	Wear particle dynamics drive the difference between repeated and non-repeated reciprocated sliding. Tribology International, 2020, 142, 105983.	3.0	19
365	Frictionâ€“Load Relationship in the Adhesive Regime Revealing Potential Incapability of AFM Investigations. Tribology Letters, 2020, 68, 1.	1.2	8
366	Balloon-based drug coating delivery to the artery wall is dictated by coating micro-morphology and angioplasty pressure gradients. Biomaterials, 2020, 260, 120337.	5.7	14
367	An agglutinate magnetic spray transforms inanimate objects into millirobots for biomedical applications. Science Robotics, 2020, 5, .	9.9	115
368	Electrodynamic Force, Casimir Effect, and Stiction Mitigation in Silicon Carbide Nanoelectromechanical Switches. Small, 2020, 16, 2005594.	5.2	6
369	Applications of Casimir forces: Nanoscale actuation and adhesion. Applied Physics Letters, 2020, 117, .	1.5	15
370	Scale-Phobic Surfaces Made of Rare Earth Oxide Ceramics. ACS Applied Materials & Interfaces, 2020, 12, 42339-42347.	4.0	9

#	Article	IF	Citations
371	Ultra-thin lead oxide piezoelectric layers for reduced environmental contamination using a liquid metal-based process. Journal of Materials Chemistry A, 2020, 8, 19434-19443.	5.2	29
373	Nonlinear Optical Response in Natural van der Waals Heterostructures. Advanced Optical Materials, 2020, 8, 2000382.	3.6	22
374	A highly efficient preconcentration route for rapid and sensitive detection of endotoxin based on an electrochemical biosensor. Analyst, The, 2020, 145, 4204-4211.	1.7	13
375	Particle Tracking of a Complex Microsystem in Three Dimensions and Six Degrees of Freedom. , 2020, , .		2
376	Measuring the Dispersion Forces Near the van der Waalsâ€“Casimir Transition. Physical Review Applied, 2020, 13, .	1.5	14
377	Frequency Induced Stiction for MEMS Accelerometers. Journal of Microelectromechanical Systems, 2020, 29, 285-295.	1.7	0
378	Sensitivity of Casimir oscillators on geometry and optical properties. Modern Physics Letters A, 2020, 35, 2040003.	0.5	2
379	A New Recurrent Plug-and-Play Prior Based on the Multiple Self-Similarity Network. IEEE Signal Processing Letters, 2020, 27, 451-455.	2.1	17
380	Interfacial adhesion of ZnO nanowires on a Si substrate in air. Nanoscale, 2020, 12, 8237-8247.	2.8	14
381	Real-time Control System for a Tracked Robot. , 2020, , .		6
383	Adhered cantilevers: A new method to measure dispersion forces between rough surfaces at short distances. Modern Physics Letters A, 2020, 35, 2040014.	0.5	1
384	Chaotic motion due to lateral Casimir forces during nonlinear actuation dynamics. Chaos, 2020, 30, 073101.	1.0	3
385	Sensitivity of nonequilibrium Casimir forces on low frequency optical properties toward chaotic motion of microsystems: Drude vs plasma model. Chaos, 2020, 30, 023108.	1.0	6
386	Super-Slippery Degraded Black Phosphorus/Silicon Dioxide Interface. ACS Applied Materials & Interfaces, 2020, 12, 7717-7726.	4.0	46
387	Adaptive Neural Network Backstepping Control of Fractional-Order Nonlinear Systems With Actuator Faults. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5166-5177.	7.2	125
388	Investigation on Pull-in Voltage, Frequency Tuning and Frequency Stability of MEMS Devices Incorporating Casimir Force with Correction for Finite Conductivity. Journal of Vibration Engineering and Technologies, 2020, 8, 959-975.	1.3	4
389	ROI Extraction Based on Multiview Learning and Attention Mechanism for Unbalanced Remote Sensing Data Set. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 6210-6223.	2.7	11
390	Recent Advances in Tissue Adhesives for Clinical Medicine. Polymers, 2020, 12, 939.	2.0	84

#	Article	IF	Citations
391	Condensation Induced Blistering as a Measurement Technique for the Adhesion Energy of Nanoscale Polymer Films. Nano Letters, 2020, 20, 3918-3924.	4.5	32
392	Design and Implementation of the Digital Education Transaction Subject Two-factor Identity Authentication System Based on Blockchain. , 2020, , .		10
393	Plasma-assisted surface alteration of industrial polymers for improved adhesive bonding. International Journal of Adhesion and Adhesives, 2020, 101, 102626.	1.4	66
394	Selfâ€Deposition of 2D Molybdenum Sulfides on Liquid Metals. Advanced Functional Materials, 2021, 31, 2005866.	7.8	41
395	Synthesis and characterization of Poly (ortho-aminophenol-co-para-toluidine) and its application as semiconductor thin film. Journal of Molecular Structure, 2021, 1225, 129131.	1.8	17
396	Metal-graphene-synergized melamine aerogel with robust elasticity and flame-retardancy for thermal-insulated-packaging industry. Composites Part A: Applied Science and Manufacturing, 2021, 140, 106195.	3.8	11
397	Tissue adhesives: From research to clinical translation. Nano Today, 2021, 36, 101049.	6.2	90
398	The Observation of Interface Effects Presented on Micrometer-Scale Sphere Tips of Fiber Bragg Grating-Based Probes. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	2.4	2
399	Effective screening of medium-assisted van der Waals interactions between embedded particles. Journal of Chemical Physics, 2021, 154, 104102.	1.2	4
400	Stabilization of Fragmental Polystyrene Nanoplastic by Natural Organic Matter: Insight into Mechanisms. ACS ES&T Water, 2021, 1, 1198-1208.	2.3	43
401	Effects of Retracting Velocities on the Vibration of Atomic Force Microscope Probe on Different Surfaces. Journal of Vibration Engineering and Technologies, 2021, 9, 1305.	1.3	1
402	Self-consistent dielectric functions of materials: Toward accurate computation of Casimirâ€“van der Waals forces. Science Advances, 2021, 7, .	4.7	18
403	Self-preserving ice layers on CO₂ clathrate particles: Implications for Enceladus, Pluto, and similar ocean worlds. Astronomy and Astrophysics, 2021, 650, A54.	2.1	16
404	Understanding Nanoscale Topologyâ€“Adhesion Relationships Via Support Vector Regression. Advanced Materials Interfaces, 2021, 8, 2100175.	1.9	4
405	Synergic Effect of TiO2 Filler on the Mechanical Properties of Polymer Nanocomposites. Polymers, 2021, 13, 2017.	2.0	76
406	Excessive number of high asperities for sputtered rough films. Physical Review B, 2021, 104, .	1.1	5
407	Hard-material Adhesion: Which Scales of Roughness Matter?. Experimental Mechanics, 2021, 61, 1109-1120.	1.1	18
408	Prediction of adhesion between randomly rough surfaces by order statistics. Applied Physics Letters, 2021, 119, .	1.5	7

#	Article	IF	Citations
409	Spherical volume elements scheme for calculating van der Waals force between irregular particles and rough surfaces. Chinese Journal of Physics, 2021, 72, 645-654.	2.0	5
410	Weak adhesion between deposited rough films: Relation to dispersion forces. Physical Review B, 2021, 104, .	1.1	4
411	On the notion of vdW-force loaded hysteretic switching for precise release voltage design in all-metal electrostatic logic relay. Sensors and Actuators A: Physical, 2021, 328, 112785.	2.0	5
412	Micro-scale opto-thermo-mechanical actuation in the dry adhesive regime. Light: Science and Applications, 2021, 10, 193.	7.7	11
413	Utilizing mechanical adhesion force as a high contact force in a MEMS relay. Sensors and Actuators A: Physical, 2021, 331, 112894.	2.0	7
414	Liquid Metals: A Novel Possibility of Fabricating 2D Metal Oxides. Advanced Materials, 2021, 33, e2005544.	11.1	64
416	Friction and Wear in Micro- and Nanomachines. , 2010, , 1741-1759.		1
417	High-Volume Manufacturing and Field Stability of MEMS Products. , 2010, , 1803-1833.		3
418	Characterization of Optical Properties and Surface Roughness Profiles: The Casimir Force Between Real Materials. Lecture Notes in Physics, 2011, , 311-343.	0.3	3
419	Van der Waals and Capillary Adhesion of Polycrystalline Silicon Micromachined Surfaces. Nanoscience and Technology, 2012, , 363-393.	1.5	2
420	Thin films on silicon. , 2020, , 133-213.		4
421	Van der Waals and Capillary Adhesion of Microelectromechanical Systems. , 2006, , .		2
422	Effects of Contacting Surfaces on MEMS Device Reliability. , 2011, , 59-75.		1
424	Electro-Thermally Actuated Non-Volatile Mechanical Memory With CMOS-Level Operation Voltage and Low Contact Resistance. Journal of Microelectromechanical Systems, 2022, 31, 87-96.	1.7	5
425	Sensitivity of actuation dynamics on normal and lateral Casimir forces: Interaction of phase change and topological insulator materials. Chaos, 2021, 31, 103103.	1.0	4
426	Mechanical and Electrical Properties of Alkanethiol Self-Assembled Monolayers: A Conducting-Probe Atomic Force Microscopy Study. Nanoscience and Technology, 2011, , 439-471.	1.5	1
427	Surface Treatment and Planarization. MEMS Reference Shelf, 2011, , 925-1044.	0.6	0
428	Interfacial Adhesion between Rough Surfaces of Polycrystalline Silicon and Its Implications for M/NEMS Technology. , 2011, , 211-222.		0

#	Article	IF	Citations
429	Which Fractal Parameter Contributes Most to Adhesion?. , 2011, , 45-58.		0
430	A van der Waals Force-Based Adhesion Model for Micromanipulation. , 2011, , 77-90.		0
431	Atomistic Factors Governing Adhesion between Diamond, Amorphous Carbon and Model Diamond Nanocomposite Surfaces. , 2011, , 135-161.		0
432	Variation of adhesive force in the nanoscale contact. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 046801.	0.2	2
433	Stable Position of a Micro Torsion Balance under the Casimir Force. E-Journal of Surface Science and Nanotechnology, 2013, 11, 60-64.	0.1	1
434	COMPUTATION OF ADHESIVE FORCES DUE TO VAN DER WAALS AND CAPILLARY EFFECTS ON REALISTIC ROUGH SURFACES. , 0, , .		0
436	Fracture Mechanics Characterisation of Low-Adhesive Stretch Films. Springer Series in Materials Science, 2017, , 283-296.	0.4	0
437	Recent Physical Interaction-based Bioadhesives. , 2020, , 693-721.		1
438	Liquid-Metal-Assisted Deposition and Patterning of Molybdenum Dioxide at Low Temperature. ACS Applied Materials & Interfaces, 2021, 13, 53181-53193.	4.0	19
439	Interfacial Friction and Adhesion Between Graphene and Silicon. Springer Theses, 2020, , 67-96.	0.0	0
442	Fundamentals of atomic and close-to-atomic scale manufacturing: a review. International Journal of Extreme Manufacturing, 2022, 4, 012001.	6.3	37
443	Postbuckling Analysis of Ultra-Low Rigidity Serpentine Structures. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	1.1	4
444	Adhesion effect analysis of ultra-fine lunar dust particles on the aluminum-based rough surface based on the fractal theory. Advances in Space Research, 2022, 69, 2745-2755.	1.2	5
445	Monte-Carlo evaluation of bias and variance in Hurst exponents computed from power spectral analysis of atomic force microscopy topographic images. Applied Surface Science, 2022, 581, 152092.	3.1	2
446	Adhesive contact behavior between piezoelectric and elastic materials with a mismatch strain. Acta Mechanica, 2022, 233, 617-639.	1.1	3
447	Dispersion forces and equilibrium distance between deposited rough films in contact. Physical Review B, 2022, 105, .	1.1	4
448	New insight on the interfacial behavior between graphene-based membranes and protonated silicon-dioxide via molecular dynamics simulations. Applied Surface Science, 2022, 590, 152727.	3.1	3
449	On the Stability of Spinning Asteroids. Tribology Letters, 2022, 70, 1.	1.2	14

#	Article	IF	Citations
450	Problems in measuring the Casimir forces at short separations. International Journal of Modern Physics A, 2022, 37, .	0.5	2
451	Challenges in Materials and Devices of Electronic Skin. , 2022, 4, 577-599.		20
452	A 2D dual-scale method to address contact problems. Tribology International, 2022, 171, 107509.	3.0	1
453	Analysis of Ferroelectric Negative Capacitance-Hybrid MEMS Actuator Using Energyâ€“Displacement Landscape. IEEE Transactions on Electron Devices, 2022, 69, 3359-3366.	1.6	2
455	MoirÃ© Modulation of Van Der Waals Potential in Twisted Hexagonal Boron Nitride. ACS Nano, 2022, 16, 7589-7604.	7.3	12
456	Asymmetric non-slipping adhesion behavior of layered piezoelectric structures. International Journal of Mechanical Sciences, 2022, 224, 107330.	3.6	8
457	Adhesion Forces Measurement of Explosives and Nanodiamonds. Propellants, Explosives, Pyrotechnics, 0, , .	1.0	0
458	Effect of actual surface area on adhesion strength of copper electroplated on ABS plastic micro-textured by hot embossing. Procedia CIRP, 2022, 108, 210-215.	1.0	10
459	Dynamical Casimir actuation under non-equilibrium conditions: The influence of optical properties from different interacting bodies. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 443, 128220.	0.9	2
461	A fractal friction model for nanoscale rough surface contact. Journal of Applied Physics, 2022, 132, 015105.	1.1	0
462	Weak Adhesion between Contacting Rough Surfaces as Applied to Micro/Nanotechnologies. Colloid Journal, 2022, 84, 321-331.	0.5	0
463	Atomistic Simulations of Temperature-Induced Switchable Morphology in Graphene Nanodrum. SSRN Electronic Journal, 0, , .	0.4	0
464	Nonlinear actuation of micromechanical Casimir oscillators with topological insulator materials toward chaotic motion: Sensitivity on magnetization and dielectric properties. Chaos, 2022, 32, .	1.0	2
465	On the nature and propagation of errors in roughness parameters obtained from spectral analysis of atomic force microscopy topographic images. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 053204.	0.9	1
466	Mapping the Binding Energy of Layered Crystals to Macroscopic Observables. Advanced Science, 0, , 2204001.	5.6	1
467	The factors influencing the efficiency of drug-coated balloons. Frontiers in Cardiovascular Medicine, 0, 9, .	1.1	10
468	Effect of Graphene Morphology on the Microstructure, Mechanical and Tribological Behavior of Nickel Matrix Composites. Jom, 0, , .	0.9	4
469	Large Scale Fabrication of Graphene Based Nanoâ€Electromechanical (NEM) Contact Switches with Subâ€0.5 Volt Actuation. , 0, , 2200050.		0

#	Article	IF	Citations
470	A wrinkling-assisted strategy for controlled interface delamination in mechanically-guided 3D assembly. Journal of the Mechanics and Physics of Solids, 2023, 173, 105203.	2.3	19
471	Wafer-scale alignment and integration of micro-light-emitting diodes using engineered van der Waals forces. Nature Electronics, 2023, 6, 216-224.	13.1	7
472	Sub-10 fJ/bit radiation-hard nanoelectromechanical non-volatile memory. Nature Communications, 2023, 14, .	5.8	7
473	Towards decoupling chemical and mechanical adhesion at the electroplated metal/polymer interface via precision surface texturing. Surfaces and Interfaces, 2023, , 102875.	1.5	4
474	Atomic-scale friction of black phosphorus/degraded Cu substrate: A route to robust superlubricity obtained by the critical load. Applied Surface Science, 2023, 619, 156749.	3.1	2
475	On-chip mechanical computing: status, challenges, and opportunities. , 2023, 2, 100038.		9
476	Transition from Plastic Shearing to Fracture of Asperity Junctions: Role of a Critical Aspect Ratio. Tribology Letters, 2023, 71, .	1.2	0
477	Atomistic simulations of temperature-induced switchable morphology in graphene nanodrum. Computational Materials Science, 2023, 222, 112102.	1.4	0
478	Review on van der Waals Interaction between Lunar Soil Particles. Kongjian Kexue Xuebao, 2023, 43, 291.	0.2	0
479	Experimental setup for measuring the dispersion forces by the adhered cantilever method. Review of Scientific Instruments, 2023, 94, .	0.6	1