

Bo N J Persson

List of Publications by Year in descending order

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405
papers

26,433
citations

5430

85
h-index

9605

147
g-index

414
all docs

414
docs citations

414
times ranked

12888
citing authors

#	ARTICLE	IF	CITATIONS
1	Theory of rubber friction and contact mechanics. <i>Journal of Chemical Physics</i> , 2001, 115, 3840-3861.	1.2	1,169
2	On the nature of surface roughness with application to contact mechanics, sealing, rubber friction and adhesion. <i>Journal of Physics Condensed Matter</i> , 2005, 17, R1-R62.	0.7	748
3	Sliding Friction. <i>Nanoscience and Technology</i> , 2000, , .	1.5	701
4	Near-field radiative heat transfer and noncontact friction. <i>Reviews of Modern Physics</i> , 2007, 79, 1291-1329.	16.4	613
5	Contact mechanics for randomly rough surfaces. <i>Surface Science Reports</i> , 2006, 61, 201-227.	3.8	582
6	Vibrational interaction between molecules adsorbed on a metal surface: The dipole-dipole interaction. <i>Physical Review B</i> , 1981, 24, 6954-6970.	1.1	540
7	Sliding Friction. <i>Nanoscience and Technology</i> , 1998, , .	1.5	440
8	The effect of surface roughness on the adhesion of elastic plates with application to biological systems. <i>Journal of Chemical Physics</i> , 2003, 119, 11437-11444.	1.2	370
9	Vibrational lifetime for CO adsorbed on Cu(100). <i>Solid State Communications</i> , 1980, 36, 175-179.	0.9	354
10	Inelastic electron tunneling from a metal tip: The contribution from resonant processes. <i>Physical Review Letters</i> , 1987, 59, 339-342.	2.9	344
11	Lateral Hopping of Molecules Induced by Excitation of Internal Vibration Mode. <i>Science</i> , 2002, 295, 2055-2058.	6.0	337
12	On the mechanism of adhesion in biological systems. <i>Journal of Chemical Physics</i> , 2003, 118, 7614.	1.2	323
13	Electron-hole-pair quenching of excited states near a metal. <i>Physical Review B</i> , 1982, 26, 5409-5415.	1.1	313
14	Elastoplastic Contact between Randomly Rough Surfaces. <i>Physical Review Letters</i> , 2001, 87, 116101.	2.9	304
15	The potential energy surface, vibrational phase relaxation and the order-disorder transition in the adsorption system Pt{111}-CO. <i>Surface Science</i> , 1989, 213, 49-89.	0.8	301
16	Polarizability of small spherical metal particles: influence of the matrix environment. <i>Surface Science</i> , 1993, 281, 153-162.	0.8	296
17	Influence of Surface Roughness on Superhydrophobicity. <i>Physical Review Letters</i> , 2006, 97, 116103.	2.9	285
18	Surface resistivity and vibrational damping in adsorbed layers. <i>Physical Review B</i> , 1991, 44, 3277-3296.	1.1	275

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19	On the theory of surface-enhanced Raman scattering. <i>Chemical Physics Letters</i> , 1981, 82, 561-565.	1.2	273
20	The effect of surface roughness on the adhesion of elastic solids. <i>Journal of Chemical Physics</i> , 2001, 115, 5597-5610.	1.2	265
21	Brownian motion and vibrational phase relaxation at surfaces: CO on Ni(111). <i>Physical Review B</i> , 1985, 32, 3586-3596.	1.1	254
22	Radiative heat transfer between nanostructures. <i>Physical Review B</i> , 2001, 63, .	1.1	244
23	Meeting the Contact-Mechanics Challenge. <i>Tribology Letters</i> , 2017, 65, 1.	1.2	232
24	On the Fractal Dimension of Rough Surfaces. <i>Tribology Letters</i> , 2014, 54, 99-106.	1.2	229
25	Excited states at metal surfaces and their non-radiative relaxation. <i>The Journal of Physical Chemistry</i> , 1984, 88, 837-848.	2.9	218
26	On the theory of rubber friction. <i>Surface Science</i> , 1998, 401, 445-454.	0.8	214
27	Crack propagation in viscoelastic solids. <i>Physical Review E</i> , 2005, 71, 036123.	0.8	214
28	Relation between Interfacial Separation and Load: A General Theory of Contact Mechanics. <i>Physical Review Letters</i> , 2007, 99, 125502.	2.9	213
29	Crack propagation in rubber-like materials. <i>Journal of Physics Condensed Matter</i> , 2005, 17, R1071-R1142.	0.7	205
30	Adhesion between an elastic body and a randomly rough hard surface. <i>European Physical Journal E</i> , 2002, 8, 385-401.	0.7	193
31	Theory of photon emission in electron tunneling to metallic particles. <i>Physical Review Letters</i> , 1992, 68, 3224-3227.	2.9	191
32	Ordered structures and phase transitions in adsorbed layers. <i>Surface Science Reports</i> , 1992, 15, 1-135.	3.8	191
33	Elastic contact between randomly rough surfaces: Comparison of theory with numerical results. <i>Physical Review B</i> , 2002, 65, .	1.1	185
34	Chemical Contribution to Surface-Enhanced Raman Scattering. <i>Physical Review Letters</i> , 2006, 96, 207401.	2.9	181
35	Femtosecond Surface Vibrational Spectroscopy of CO Adsorbed on Ru(001) during Desorption. <i>Physical Review Letters</i> , 2000, 84, 4653-4656.	2.9	175
36	Optical In Situ Micro Tribometer for Analysis of Real Contact Area for Contact Mechanics, Adhesion, and Sliding Experiments. <i>Tribology Letters</i> , 2012, 45, 185-194.	1.2	170

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37	Vibrational Phase Relaxation at Surfaces: CO on Ni(111). <i>Physical Review Letters</i> , 1985, 54, 2119-2122.	2.9	164
38	Theory of adhesion: Role of surface roughness. <i>Journal of Chemical Physics</i> , 2014, 141, 124701.	1.2	162
39	Influence of exciton motion on the shape of optical absorption lines: Applications to vibrations at surfaces. <i>Physical Review B</i> , 1986, 34, 2266-2283.	1.1	156
40	Inelastic scattering of slow electrons from Si(111) surfaces. <i>Physical Review B</i> , 1984, 30, 5968-5986.	1.1	154
41	Temperature-Dependent Surface States and Transitions of Si(111)-7 \AA -7. <i>Physical Review Letters</i> , 1983, 51, 2214-2217.	2.9	153
42	Contact mechanics: contact area and interfacial separation from small contact to full contact. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 215214.	0.7	152
43	On the nature of dense CO adlayers. <i>Journal of Chemical Physics</i> , 1990, 92, 5034-5046.	1.2	151
44	Rubber friction: role of the flash temperature. <i>Journal of Physics Condensed Matter</i> , 2006, 18, 7789-7823.	0.7	151
45	Electron-hole pair production at metal surfaces. <i>Physical Review B</i> , 1985, 31, 1863-1872.	1.1	149
46	Sliding friction. <i>Surface Science Reports</i> , 1999, 33, 83-119.	3.8	144
47	Self-Affine Elastic Contacts: Percolation and Leakage. <i>Physical Review Letters</i> , 2012, 108, 244301.	2.9	138
48	Resonant photon tunneling enhancement of the radiative heat transfer. <i>Physical Review B</i> , 2004, 69, .	1.1	137
49	Theory of the damping of excited molecules located above a metal surface. <i>Journal of Physics C: Solid State Physics</i> , 1978, 11, 4251-4269.	1.5	133
50	Contact mechanics and rubber friction for randomly rough surfaces with anisotropic statistical properties. <i>European Physical Journal E</i> , 2009, 29, 275-284.	0.7	131
51	Adsorption of potassium and oxygen on graphite: A theoretical study. <i>Journal of Chemical Physics</i> , 1998, 108, 3332-3341.	1.2	127
52	Interfacial separation between elastic solids with randomly rough surfaces: Comparison between theory and numerical techniques. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 2355-2369.	2.3	126
53	Wet adhesion with application to tree frog adhesive toe pads and tires. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 376110.	0.7	124
54	Theory of friction: Stress domains, relaxation, and creep. <i>Physical Review B</i> , 1995, 51, 13568-13585.	1.1	123

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55	Contact area between a viscoelastic solid and a hard, randomly rough, substrate. <i>Journal of Chemical Physics</i> , 2004, 120, 8779-8793.	1.2	122
56	Reference-plane position for the atom-surface van der Waals interaction. <i>Physical Review B</i> , 1984, 30, 5669-5679.	1.1	120
57	Damping of vibrations in molecules adsorbed on a metal surface. <i>Surface Science</i> , 1980, 97, 609-624.	0.8	119
58	On the nature of the static friction, kinetic friction and creep. <i>Wear</i> , 2003, 254, 835-851.	1.5	117
59	Theory of the leak-rate of seals. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 315011.	0.7	117
60	Local bond breaking via STM-induced excitations: the role of temperature. <i>Surface Science</i> , 1997, 390, 45-54.	0.8	116
61	Optical properties of two-dimensional systems of randomly distributed particles. <i>Physical Review B</i> , 1983, 28, 4247-4254.	1.1	115
62	Transverse and normal interfacial stiffness of solids with randomly rough surfaces. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 085001.	0.7	115
63	Inelastic electron tunnelling from a metal tip. <i>Solid State Communications</i> , 1986, 57, 769-772.	0.9	114
64	Theory and simulation of sliding friction. <i>Physical Review Letters</i> , 1993, 71, 1212-1215.	2.9	114
65	Influence of Surface Roughness on Adhesion between Elastic Bodies. <i>Physical Review Letters</i> , 2005, 95, 124301.	2.9	112
66	Quantum Friction. <i>Physical Review Letters</i> , 2011, 106, 094502.	2.9	104
67	A multiscale molecular dynamics approach to contact mechanics. <i>European Physical Journal E</i> , 2006, 19, 47-58.	0.7	103
68	Theory of friction and boundary lubrication. <i>Physical Review B</i> , 1993, 48, 18140-18158.	1.1	102
69	Theory of friction: The role of elasticity in boundary lubrication. <i>Physical Review B</i> , 1994, 50, 4771-4786.	1.1	100
70	Leak rate of seals: Effective-medium theory and comparison with experiment. <i>European Physical Journal E</i> , 2010, 31, 159-167.	0.7	100
71	Inelastic Electron Scattering by a Collective Vibrational Mode of Adsorbed CO. <i>Physical Review Letters</i> , 1980, 45, 1421-1424.	2.9	99
72	Layering transition in confined molecular thin films: Nucleation and growth. <i>Physical Review B</i> , 1994, 50, 5590-5599.	1.1	99

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73	Adhesion between Elastic Bodies with Randomly Rough Surfaces. <i>Physical Review Letters</i> , 2002, 89, 245502.	2.9	98
74	Vibrational energy and phase relaxation at surfaces. <i>Journal of Physics C: Solid State Physics</i> , 1984, 17, 4741-4750.	1.5	95
75	Rubber friction on smooth surfaces. <i>European Physical Journal E</i> , 2006, 21, 69-80.	0.7	95
76	Rubber friction on road surfaces: Experiment and theory for low sliding speeds. <i>Journal of Chemical Physics</i> , 2015, 142, 194701.	1.2	94
77	Theory of friction: the contribution from a fluctuating electromagnetic field. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 345-359.	0.7	93
78	Rubber friction on wet and dry road surfaces: The sealing effect. <i>Physical Review B</i> , 2005, 71, .	1.1	92
79	Vibrational Damping of Adsorbed Molecules: Methoxide on Cu(100). <i>Physical Review Letters</i> , 1982, 48, 549-552.	2.9	90
80	Vibrational line shapes of low-frequency adsorbate modes: CO on Pt(111). <i>Physical Review B</i> , 1989, 40, 10273-10281.	1.1	90
81	Applications of surface resistivity to atomic scale friction, to the migration of \tilde{h} adatoms, and to electrochemistry. <i>Journal of Chemical Physics</i> , 1993, 98, 1659-1672.	1.2	90
82	Electronic friction and liquid-flow-induced voltage in nanotubes. <i>Physical Review B</i> , 2004, 69, .	1.1	90
83	Dynamical processes at surfaces: Excitation of electron-hole pairs. <i>Physical Review B</i> , 1984, 29, 4382-4394.	1.1	89
84	The effect of surface roughness and viscoelasticity on rubber adhesion. <i>Soft Matter</i> , 2017, 13, 3602-3621.	1.2	89
85	Self-consistent dynamic image potential in tunneling. <i>Physical Review B</i> , 1988, 38, 9616-9627.	1.1	87
86	Finite-size scaling in the interfacial stiffness of rough elastic contacts. <i>Physical Review E</i> , 2013, 87, 062809.	0.8	87
87	Infrared reflection-absorption spectroscopy of dipole-forbidden adsorbate vibrations. <i>Surface Science</i> , 1994, 310, 314-336.	0.8	83
88	Collective vibrational modes of isotopic mixtures of CO on Cu(111) and Cu(001). <i>Surface Science</i> , 1981, 110, 356-368.	0.8	82
89	Theory of inelastic scattering of slow electrons by molecules absorbed on metal surfaces. <i>Solid State Communications</i> , 1977, 24, 573-575.	0.9	80
90	Surface and superconducting properties of cleaved high-temperature superconductors. <i>Physical Review Letters</i> , 1990, 64, 603-606.	2.9	80

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91	Theory of the interaction forces and the radiative heat transfer between moving bodies. <i>Physical Review B</i> , 2008, 78, .	1.1	79
92	Electronic friction of physisorbed molecules. <i>Journal of Chemical Physics</i> , 1995, 103, 8679-8683.	1.2	78
93	Heat transfer between elastic solids with randomly rough surfaces. <i>European Physical Journal E</i> , 2010, 31, 3-24.	0.7	78
94	Optical properties of small metallic particles in a continuous dielectric medium. <i>Journal of Physics C: Solid State Physics</i> , 1983, 16, 5375-5391.	1.5	77
95	Rubber friction: Comparison of theory with experiment. <i>European Physical Journal E</i> , 2011, 34, 1-11.	0.7	75
96	Linear sliding friction: on the origin of the microscopic friction for Xe on silver. <i>Surface Science</i> , 1996, 367, 261-275.	0.8	74
97	Rolling friction for hard cylinder and sphere on viscoelastic solid. <i>European Physical Journal E</i> , 2010, 33, 327-333.	0.7	74
98	Infrared spectroscopy of overtones and combination bands. <i>Journal of Chemical Physics</i> , 1998, 109, 8641-8651.	1.2	73
99	Squeeze-out and wear: fundamental principles and applications. <i>Journal of Physics Condensed Matter</i> , 2004, 16, R295-R355.	0.7	73
100	Sum rules for surface response functions with application to the van der Waals interaction between an atom and a metal. <i>Physical Review B</i> , 1983, 27, 6058-6065.	1.1	72
101	Dissipative van der Waals interaction between a small particle and a metal surface. <i>Physical Review B</i> , 2002, 65, .	1.1	72
102	Resonant Photon Tunneling Enhancement of the van der Waals Friction. <i>Physical Review Letters</i> , 2003, 91, 106101.	2.9	72
103	Inelastic scattering of slow electrons from adsorbed molecules. <i>Surface Science</i> , 1980, 92, 265-282.	0.8	71
104	Capillary adhesion between elastic solids with randomly rough surfaces. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 315007.	0.7	71
105	Leak rate of seals: Comparison of theory with experiment. <i>Europhysics Letters</i> , 2009, 86, 44006.	0.7	70
106	Noncontact friction between nanostructures. <i>Physical Review B</i> , 2003, 68, .	1.1	69
107	Molecular Dynamics Study of Contact Mechanics: Contact Area and Interfacial Separation from Small to Full Contact. <i>Physical Review Letters</i> , 2008, 100, 024303.	2.9	69
108	Elastic Contact Mechanics of Randomly Rough Surfaces: An Assessment of Advanced Asperity Models and Persson's Theory. <i>Tribology Letters</i> , 2018, 66, 1.	1.2	68

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109	Near-field radiative heat transfer between closely spaced graphene and amorphous SiO ₂ . Physical Review B, 2011, 83, 041404. http://www.w3.org/1998/Math/MathML display="inline" < mml:mrow > < mml:msub > < mml:mrow /> < mml:mrow > < mml:mn > 2 < /mml:mn > < /mml:mrow > < /mml:msub > < /mml:mrow > < /mml:math > . Physical Review B, 2011, 83, ..	1.1	67
110	The atomic force microscope: Can it be used to study biological molecules?. Chemical Physics Letters, 1987, 141, 366-368.	1.2	66
111	Surface resistivity and vibrational damping in adsorbed layers. Chemical Physics Letters, 1991, 178, 204-212.	1.2	66
112	Optical properties of inhomogeneous media. Solid State Communications, 1982, 44, 1637-1640.	0.9	64
113	Inelastic vacuum tunneling. Physica Scripta, 1988, 38, 282-290.	1.2	64
114	Contact mechanics between the human finger and a touchscreen under electroadhesion. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12668-12673.	3.3	64
115	Dynamic polarizability of small metal particles. Physical Review B, 1987, 35, 596-606.	1.1	62
116	Biological adhesion for locomotion: basic principles. Journal of Adhesion Science and Technology, 2007, 21, 1145-1173.	1.4	62
117	Theory of the local tunneling spectrum of a vibrating adsorbate. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 331-335.	0.9	61
118	Lubrication in soft rough contacts: A novel homogenized approach. Part I - Theory. Soft Matter, 2011, 7, 10395.	1.2	61
119	Dephasing of localized and delocalized vibrational modes: CO adsorbed on Ru(001). Physical Review B, 1997, 56, 10644-10650.	1.1	60
120	Low-frequency adsorbate vibrational relaxation and sliding friction. Physical Review B, 1999, 59, 11777-11791.	1.1	60
121	Crack motion in viscoelastic solids: The role of the flash temperature. European Physical Journal E, 2005, 17, 261-281.	0.7	59
122	On the origin of Amontons's friction law. Journal of Physics Condensed Matter, 2008, 20, 395006.	0.7	59
123	Phononic heat transfer across an interface: thermal boundary resistance. Journal of Physics Condensed Matter, 2011, 23, 045009.	0.7	59
124	Depolarization and metallization in alkali-metal overlayers. Physical Review B, 1990, 42, 3171-3174.	1.1	58
125	Theory of inelastic tunneling induced motion of adsorbates on metal surfaces. Surface Science, 2002, 502-503, 18-25.	0.8	58
126	On the elastic energy and stress correlation in the contact between elastic solids with randomly rough surfaces. Journal of Physics Condensed Matter, 2008, 20, 312001.	0.7	58

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127	Work function, optical absorption, and second-harmonic generation from alkali-metal atoms adsorbed on metal surfaces. <i>Physical Review B</i> , 1989, 39, 8220-8235.	1.1	57
128	High Temperature Surface Metallization of Ge(111) Detected by Electron Energy Loss Spectroscopy. <i>Physical Review Letters</i> , 1994, 73, 1951-1954.	2.9	57
129	Theory of friction: Dynamical phase transitions in adsorbed layers. <i>Journal of Chemical Physics</i> , 1995, 103, 3849-3860.	1.2	57
130	Nanodroplets on rough hydrophilic and hydrophobic surfaces. <i>European Physical Journal E</i> , 2008, 25, 139-152.	0.7	56
131	Contact Mechanics and Friction on Dry and Wet Human Skin. <i>Tribology Letters</i> , 2013, 50, 17-30.	1.2	56
132	Adhesion between a thin elastic plate and a hard randomly rough substrate. <i>Physical Review B</i> , 2004, 70, .	1.1	55
133	Collective vibrational modes in isotopic mixtures of CO adsorbed on Cu (100). <i>Solid State Communications</i> , 1980, 36, 613-617.	0.9	54
134	Adsorbate-Induced Enhancement of Electrostatic Noncontact Friction. <i>Physical Review Letters</i> , 2005, 94, 086104.	2.9	54
135	Biological Adhesion for Locomotion on Rough Surfaces: Basic Principles and A Theorist's View. <i>MRS Bulletin</i> , 2007, 32, 486-490.	1.7	54
136	Surface resistivity: theory and applications. <i>Surface Science</i> , 1992, 269-270, 103-112.	0.8	53
137	On the transition from boundary lubrication to hydrodynamic lubrication in soft contacts. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 185002.	0.7	53
138	Theory of viscoelastic lubrication. <i>Tribology International</i> , 2014, 72, 118-130.	3.0	53
139	Theory of friction: Coulomb drag between two closely spaced solids. <i>Physical Review B</i> , 1998, 57, 7327-7334.	1.1	52
140	Qualitative theory of rubber friction and wear. <i>Journal of Chemical Physics</i> , 2000, 112, 2021-2029.	1.2	52
141	Relation between Dynamical Processes at Surfaces and Electron-Energy-Loss Measurements. <i>Physical Review Letters</i> , 1983, 50, 1089-1091.	2.9	50
142	Dynamics of atomic adsorbates: hydrogen on Cu(111). <i>Chemical Physics Letters</i> , 1995, 243, 429-434.	1.2	50
143	Absorption of photons by molecules adsorbed on metal surfaces. <i>Solid State Communications</i> , 1979, 30, 163-166.	0.9	49
144	High-resolution electron-energy-loss study of the surfaces and energy gaps of cleaved high-temperature superconductors. <i>Physical Review B</i> , 1990, 42, 8057-8072.	1.1	49

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145	FTIR overtone spectroscopy on surfaces. The C ¹⁶ O mode in chemisorbed methoxy on Ni(111). <i>Chemical Physics Letters</i> , 1993, 208, 414-419.	1.2	49
146	Rubber friction and tire dynamics. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 015003.	0.7	49
147	Elastic contact mechanics: Percolation of the contact area and fluid squeeze-out. <i>European Physical Journal E</i> , 2012, 35, 5.	0.7	49
148	Adhesion: role of bulk viscoelasticity and surface roughness. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 225004.	0.7	49
149	Nanoadhesion. <i>Wear</i> , 2003, 254, 832-834.	1.5	48
150	Vibrational lineshapes for NO on Ni(111). <i>Surface Science</i> , 1989, 218, 494-506.	0.8	47
151	Rubber contact mechanics: adhesion, friction and leakage of seals. <i>Soft Matter</i> , 2017, 13, 9103-9121.	1.2	47
152	The effects of the electric field in the STM on excitation localization. Implications for local bond breaking. <i>Chemical Physics Letters</i> , 1995, 242, 483-489.	1.2	46
153	Squeezing lubrication films: Layering transition for curved solid surfaces with long-range elasticity. <i>Journal of Chemical Physics</i> , 2000, 112, 9524-9542.	1.2	46
154	Rubber friction for tire tread compound on road surfaces. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 095007.	0.7	46
155	Master curve of viscoelastic solid: Using causality to determine the optimal shifting procedure, and to test the accuracy of measured data. <i>Polymer</i> , 2014, 55, 565-571.	1.8	46
156	Vibrational excitation cross-sections for adsorbed CO. <i>Solid State Communications</i> , 1980, 34, 473-476.	0.9	45
157	Adsorbate motions induced by inelastic-tunneling current: Theoretical scenarios of two-electron processes. <i>Journal of Chemical Physics</i> , 2005, 123, 084707.	1.2	45
158	Hot Cracks in Rubber: Origin of the Giant Toughness of Rubberlike Materials. <i>Physical Review Letters</i> , 2005, 95, 114301.	2.9	45
159	Long-Range Scattering of Electrons by Electron-Hole Pair Excitations at Metal Surfaces. <i>Physical Review Letters</i> , 1983, 50, 2028-2031.	2.9	44
160	Effective Viscosity of Confined Hydrocarbons. <i>Physical Review Letters</i> , 2012, 108, 036102.	2.9	44
161	Friction and universal contact area law for randomly rough viscoelastic contacts. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 105102.	0.7	44
162	Long-Range Electron-Phonon Coupling at Metal Surfaces. <i>Physical Review Letters</i> , 1984, 52, 2073-2076.	2.9	43

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163	Vibrational dephasing of terminally bonded CO on Ru(001). <i>Physical Review B</i> , 1986, 34, 4354-4357.	1.1	43
164	Comment on "Brownian Motion of Microscopic Solids under the Action of Fluctuating Electromagnetic Fields". <i>Physical Review Letters</i> , 2000, 84, 3504-3504.	2.9	43
165	Adhesion of cellulose fibers in paper. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 045002.	0.7	42
166	Ice friction: Role of non-uniform frictional heating and ice premelting. <i>Journal of Chemical Physics</i> , 2015, 143, 224701.	1.2	42
167	Squeezing molecular thin alkane lubrication films between curved solid surfaces with long-range elasticity: Layering transitions and wear. <i>Journal of Chemical Physics</i> , 2003, 119, 2314-2321.	1.2	40
168	Interfacial separation between elastic solids with randomly rough surfaces: comparison of experiment with theory. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 015003.	0.7	40
169	Rubber Friction on Ice: Experiments and Modeling. <i>Tribology Letters</i> , 2016, 62, 1.	1.2	40
170	Adhesion between elastic bodies with rough surfaces. <i>Solid State Communications</i> , 2002, 123, 173-177.	0.9	39
171	Heat transfer between graphene and amorphous SiO ₂ . <i>Journal of Physics Condensed Matter</i> , 2010, 22, 462201.	0.7	39
172	Fluid dynamics at the interface between contacting elastic solids with randomly rough surfaces. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 265004.	0.7	39
173	Heat transfer between weakly coupled systems: Graphene on a-SiO ₂ . <i>Europhysics Letters</i> , 2010, 91, 56001.	0.7	39
174	Adsorbate vibrational dynamics in the anomalous skin effect frequency region. <i>Surface Science</i> , 1994, 317, L1141-L1146.	0.8	38
175	Adhesion between elastic solids with randomly rough surfaces: Comparison of analytical theory with molecular-dynamics simulations. <i>Europhysics Letters</i> , 2011, 96, 66003.	0.7	38
176	On the origin of anti-absorption resonances in adsorbate vibrational spectroscopy. <i>Chemical Physics Letters</i> , 1991, 185, 292-297.	1.2	37
177	Sealing is at the origin of rubber slipping on wet roads. <i>Nature Materials</i> , 2004, 3, 882-885.	13.3	37
178	Lubricated sliding dynamics: Flow factors and Stribeck curve. <i>European Physical Journal E</i> , 2011, 34, 113.	0.7	37
179	Surface topography and contact mechanics of dry and wet human skin. <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 1341-1348.	1.5	36
180	Role of Preload in Adhesion of Rough Surfaces. <i>Physical Review Letters</i> , 2017, 118, 238001.	2.9	36

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181	Dipole-coupling-induced line narrowing in adsorbate vibrational spectroscopy. <i>Chemical Physics Letters</i> , 1990, 174, 443-448.	1.2	35
182	Theory of friction: Friction dynamics for boundary lubricated surfaces. <i>Physical Review B</i> , 1997, 55, 8004-8004.	1.1	35
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