Chung-Yuen Hui

List of Publications by Year
in descending order

309	12,464	22153	36028
papers	citations	59 h-index	97 g-index

313	313	313	7849
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lubricated Sliding of a Rigid Cylinder on a Viscoelastic Half Space. Tribology Letters, 2022, 70, 1.	2.6	11
2	Increased Sliding Friction of a Lubricated Soft Solid Using an Embedded Structure. Tribology Letters, 2022, 70, 1.	2.6	5
3	Steady state crack growth in viscoelastic solids: A comparative study. Journal of the Mechanics and Physics of Solids, 2022, 159, 104748.	4.8	17
4	Lubricated soft normal elastic contact of a sphere: a new numerical method and experiment. Soft Matter, 2022, 18, 1219-1227.	2.7	3
5	Effects of Hydration on the Mechanical Response of a PVA Hydrogel. Conference Proceedings of the Society for Experimental Mechanics, 2022, , 73-78.	0.5	0
6	Enhancement of hydrodynamic friction by periodic variation of contact stiffness. Extreme Mechanics Letters, 2022, 54, 101735.	4.1	1
7	Dynamics of Hydrogels with a Variable Ratio of Permanent and Transient Cross-Links: Constitutive Model and Its Molecular Interpretation. Macromolecules, 2022, 55, 3550-3562.	4.8	0
8	Elastocapillarity at Cell-Matrix Contacts. Physical Review X, 2022, 12, .	8.9	1
9	The Fracture of Highly Deformable Soft Materials: A Tale of Two Length Scales. Annual Review of Condensed Matter Physics, 2021, 12, 71-94.	14.5	103
10	Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical polyampholyte (PA) gel. Soft Matter, 2021, 17, 4161-4169.	2.7	6
11	Friction Force During Lubricated Steady Sliding of a Rigid Cylinder on a Viscoelastic Substrate. Tribology Letters, 2021, 69, 1.	2.6	8
12	Constitutive modeling of bond breaking and healing kinetics of physical Polyampholyte (PA) gel. Extreme Mechanics Letters, 2021, 43, 101184.	4.1	12
13	Meso-scale dislocations and friction of shape-complementary soft interfaces. Journal of the Royal Society Interface, 2021, 18, 20200940.	3.4	4
14	Metamodeling of constitutive model using Gaussian process machine learning. Journal of the Mechanics and Physics of Solids, 2021, 154, 104532.	4.8	17
15	A clean cut. Extreme Mechanics Letters, 2021, 46, 101343.	4.1	5
16	Effect of drying on the viscoelastic response of a dual-crosslinked PVA hydrogel. Mechanics of Materials, 2021, 160, 103984.	3.2	5
17	Energetics of cracks and defects in soft materials: The role of surface stress. Extreme Mechanics Letters, 2021, 48, 101424.	4.1	1
18	A surface flattening method for characterizing the surface stress, drained Poisson's ratio and diffusivity of poroelastic gels. Soft Matter, 2021, 17, 7332-7340.	2.7	2

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19	How chain dynamics affects crack initiation in double-network gels. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	12
20	Physically motivated models of polymer networks with dynamic cross-links: comparative study and future outlook. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, .	2.1	6
21	Effect of elastocapillarity on the swelling kinetics of hydrogels. Journal of the Mechanics and Physics of Solids, 2020, 145, 104132.	4.8	14
22	Energy release rate of a single edge cracked specimen subjected to large deformation. International Journal of Fracture, 2020, 226, 71-79.	2.2	8
23	How surface stress transforms surface profiles and adhesion of rough elastic bodies. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200477.	2.1	7
24	Time dependent fracture of soft materials: linear versus nonlinear viscoelasticity. Soft Matter, 2020, 16, 6163-6179.	2.7	24
25	Extreme cavity expansion in soft solids: Damage without fracture. Science Advances, 2020, 6, eaaz0418.	10.3	45
26	Modeling of surface mechanical behaviors of soft elastic solids: theory and examples. Soft Matter, 2020, 16, 6875-6889.	2.7	13
27	Fiberâ€Reinforced Viscoelastomers Show Extraordinary Crack Resistance That Exceeds Metals. Advanced Materials, 2020, 32, e1907180.	21.0	77
28	Droplets on an elastic membrane: Configurational energy balance and modified Young equation. Journal of the Mechanics and Physics of Solids, 2020, 138, 103902.	4.8	20
29	Lubricated steady sliding of a rigid sphere on a soft elastic substrate: hydrodynamic friction in the Hertz limit. Soft Matter, 2020, 16, 2760-2773.	2.7	17
30	Mechanical behavior of unidirectional fiber reinforced soft composites. Extreme Mechanics Letters, 2020, 35, 100642.	4.1	13
31	Enhancement of elastohydrodynamic friction by elastic hysteresis in a periodic structure. Soft Matter, 2020, 16, 1627-1635.	2.7	12
32	The surface stress of biomedical silicones is a stimulant of cellular response. Science Advances, 2020, 6, eaay0076.	10.3	23
33	Coupled flow and deformation fields due to a line load on a poroelastic half space: effect of surface stress and surface bending. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190761.	2.1	6
34	Mechanics of zero degree peel test on a tape â€”Âeffects of large deformation, material nonlinearity, and finite bond length. Extreme Mechanics Letters, 2019, 32, 100518.	4.1	16
35	The stress field near the tip of a plane stress crack in a gel consisting of chemical and physical cross-links. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180863.	2.1	4
36	Size effect on elastic stress concentrations in unidirectional fiber reinforced soft composites. Extreme Mechanics Letters, 2019, 33, 100573.	4.1	16

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37	Crack propagation in a PVA dual-crosslink hydrogel: Crack tip fields measured using digital image correlation. Mechanics of Materials, 2019, 138, 103158.	3.2	15
38	Crack propagation pattern and trapping mechanism of rolling a rigid cylinder on a periodically structured surface. Extreme Mechanics Letters, 2019, 29, 100475.	4.1	6
39	Superior fracture resistance of fiber reinforced polyampholyte hydrogels achieved by extraordinarily large energy-dissipative process zones. Journal of Materials Chemistry A, 2019, 7, 13431-13440.	10.3	40
40	Crack tip stress based kinetic fracture model of a PVA dual-crosslink hydrogel. Extreme Mechanics Letters, 2019, 29, 100457.	4.1	19
41	A surface with stress, extensional elasticity, and bending stiffness. Soft Matter, 2019, 15, 3817-3827.	2.7	13
42	Mechanical stress compromises multicomponent efflux complexes in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25462-25467.	7.1	18
43	Finite strain theory of a Mode III crack in a rate dependent gel consisting of chemical and physical cross-links. International Journal of Fracture, 2019, 215, 77-89.	2.2	7
44	Effects of strain-dependent surface stress on the adhesive contact of a rigid sphere to a compliant substrate. Soft Matter, 2019, 15, 2223-2231.	2.7	10
45	Effect of large deformation and surface stiffening on the transmission of a line load on a neo-Hookean half space. Soft Matter, 2018, 14, 1847-1855.	2.7	18
46	Hydrodynamics govern the pre-fusion docking time of synaptic vesicles. Journal of the Royal Society Interface, 2018, 15, 20170818.	3.4	0
47	Indentation versus Rolling: Dependence of Adhesion on Contact Geometry for Biomimetic Structures. Langmuir, 2018, 34, 3827-3837.	3.5	8
48	Fracture mechanics of a self-healing hydrogel with covalent and physical crosslinks: A numerical study. Journal of the Mechanics and Physics of Solids, 2018, 120, 79-95.	4.8	41
49	Mechanics of an adhesive tape in a zero degree peel test: effect of large deformation and material nonlinearity. Soft Matter, 2018, 14, 9681-9692.	2.7	21
50	Time-temperature equivalence in a PVA dual cross-link self-healing hydrogel. Journal of Rheology, 2018, 62, 991-1000.	2.6	25
51	Friction of Poroelastic Contacts with Thin Hydrogel Films. Langmuir, 2018, 34, 9617-9626.	3.5	26
52	The effect of surface bending and surface stress on the transmission of a vertical line force in soft materials. Extreme Mechanics Letters, 2018, 23, 9-16.	4.1	3
53	Effect of surface bending and stress on the transmission of line force to an elastic substrate. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170775.	2.1	4
54	Spontaneous Droplet Motion on a Periodically Compliant Substrate. Langmuir, 2017, 33, 4942-4947.	3.5	13

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55	A closed form large deformation solution of plate bending with surface effects. Soft Matter, 2017, 13, 386-393.	2.7	9
56	Interaction of Droplets Separated by an Elastic Film. Langmuir, 2017, 33, 75-81.	3.5	12
57	Elastocapillarity: Surface Tension and the Mechanics of Soft Solids. Annual Review of Condensed Matter Physics, 2017, 8, 99-118.	14.5	247
58	Adhesion Enhancement of a Gel-Elastomer Interface by Shape Complementarity. Biologically-inspired Systems, 2017, , 291-301.	0.2	1
59	Adhesion and Friction Enhancement of Film-Terminated Structures against Rough Surfaces. Tribology Letters, 2017, 65, 1.	2.6	8
60	Elastocapillary levelling of thin viscous films on soft substrates. Physical Review Fluids, 2017, 2, .	2.5	13
61	Effect of surface tension on the relaxation of a viscoelastic halfâ€space perturbed by a point load. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 274-280.	2.1	7
62	Wetting of a partially immersed compliant rod. Journal of Applied Physics, 2016, 120, 195301.	2.5	3
63	Strongly Modulated Friction of a Film-Terminated Ridge-Channel Structure. Scientific Reports, 2016, 6, 26867.	3.3	13
64	Geometry of defects at shape-complementary soft interfaces. Extreme Mechanics Letters, 2016, 9, 74-83.	4.1	2
65	Surface tension measurement from the indentation of clamped thin films. Soft Matter, 2016, 12, 5121-5126.	2.7	16
66	Mechanics of a Dual Cross-Link Gel with Dynamic Bonds: Steady State Kinetics and Large Deformation Effects. Macromolecules, 2016, 49, 3497-3507.	4.8	74
67	Skin stretching by a balloon tissue expander: Interplay between contact mechanics and skin growth. Extreme Mechanics Letters, 2016, 9, 175-187.	4.1	10
68	Effect of surface tension on the adhesion between a rigid flat punch and a semi-infinite neo-Hookean half-space. Extreme Mechanics Letters, 2016, 9, 310-316.	4.1	15
69	Fibrous nonlinear elasticity enables positive mechanical feedback between cells and ECMs. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14043-14048.	7.1	267
70	Fracture toughness of hydrogels: measurement and interpretation. Soft Matter, 2016, 12, 8069-8086.	2.7	181
71	Force sensing using 3D displacement measurements in linear elastic bodies. Computational Mechanics, 2016, 58, 91-105.	4.0	7
72	Large deformation effect in Mode I crack opening displacement of an Agar gel: A comparison of experiment and theory. Extreme Mechanics Letters, 2016, 9, 66-73.	4.1	16

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73	How does surface tension affect energy release rate of cracks loaded in Mode I?. Extreme Mechanics Letters, 2016, 6, 31-36.	4.1	11
74	Fracture of dual crosslink gels with permanent and transient crosslinks. Extreme Mechanics Letters, 2016, 6, 52-59.	4.1	87
75	Coarse-Grained Model of the Snare Complex Determines the Number of Snares Required for Docking. Biophysical Journal, 2015, 108, 154a.	0.5	3
76	Crack tip fields in soft elastic solids subjected to large quasi-static deformation â€" A review. Extreme Mechanics Letters, 2015, 4, 131-155.	4.1	104
77	Enhancement of Friction against a Rough Surface by a Ridgeâ€"Channel Surface Microstructure. Langmuir, 2015, 31, 7581-7589.	3.5	4
78	Coarse-Grained Model of SNARE-Mediated Docking. Biophysical Journal, 2015, 108, 2258-2269.	0.5	16
79	Indentation of a rigid sphere into an elastic substrate with surface tension and adhesion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140727.	2.1	60
80	A continuum model of docking of synaptic vesicle to plasma membrane. Journal of the Royal Society Interface, 2015, 12, 20141119.	3.4	4
81	Adhesive contact of a rigid circular cylinder to a soft elastic substrate â€" the role of surface tension. Soft Matter, 2015, 11, 3844-3851.	2.7	24
82	Rheology of a dual crosslink self-healing gel: Theory and measurement using parallel-plate torsional rheometry. Journal of Rheology, 2015, 59, 643-665.	2.6	46
83	Planar equilibrium shapes of a liquid drop on a membrane. Soft Matter, 2015, 11, 8960-8967.	2.7	31
84	Deformation of a Solid Film with Surface Tension by a Liquid Drop. Procedia IUTAM, 2015, 12, 116-123.	1.2	9
85	An adaptive algorithm for tracking 3D bead displacements: application in biological experiments. Measurement Science and Technology, 2014, 25, 055701.	2.6	15
86	Flattening of a patterned compliant solid by surface stress. Soft Matter, 2014, 10, 4084-4090.	2.7	52
87	Frictional auto-roughening of a surface with spatially varying stiffness. Soft Matter, 2014, 10, 2169-2177.	2.7	10
88	Effects of surface tension on the adhesive contact of a rigid sphere to a compliant substrate. Soft Matter, 2014, 10, 4625-4632.	2.7	69
89	The energy release rate of a pressurized crack in soft elastic materials: effects of surface tension and large deformation. Soft Matter, 2014, 10, 7723-7729.	2.7	27
90	Time Dependent Behavior of a Dual Cross-Link Self-Healing Gel: Theory and Experiments. Macromolecules, 2014, 47, 7243-7250.	4.8	166

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91	Nonlinear viscoelastic contact mechanics of long rectangular membranes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140528.	2.1	7
92	Deformation near a liquid contact line on an elastic substrate. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140085.	2.1	42
93	Toward single cell traction microscopy within 3D collagen matrices. Experimental Cell Research, 2013, 319, 2396-2408.	2.6	78
94	Surface Tension, Surface Energy, and Chemical Potential Due to Their Difference. Langmuir, 2013, 29, 11310-11316.	3.5	37
95	In situ measurement of the viscoelastic modulus of gels using pure twist-theory. Soft Matter, 2013, 9, 913-920.	2.7	3
96	Dynamic 3D Cell Traction Microscopy of Single Cells within a Collagen Extracellular Matrix. Biophysical Journal, 2013, 104, 479a.	0.5	1
97	Large Deformation and Adhesive Contact Studies of Axisymmetric Membranes. Langmuir, 2013, 29, 1407-1419.	3.5	18
98	Gravity and Surface Tension Effects on the Shape Change of Soft Materials. Langmuir, 2013, 29, 8665-8674.	3.5	44
99	Solid surface tension measured by a liquid drop under a solid film. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10541-10545.	7.1	82
100	Large deformation contact mechanics of long rectangular membranes. I. Adhesionless contact. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130424.	2.1	21
101	Stress Relaxation Near the Tip of a Stationary Mode I Crack in a Poroelastic Solid. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	2.2	22
102	Large deformation contact mechanics of a pressurized long rectangular membrane. II. Adhesive contact. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130425.	2.1	10
103	Microstructures: Structure and Energetics of Dislocations at Micro-Structured Complementary Interfaces Govern Adhesion (Adv. Funct. Mater. 27/2013). Advanced Functional Materials, 2013, 23, 3452-3452.	14.9	3
104	Structure and Energetics of Dislocations at Microâ€Structured Complementary Interfaces Govern Adhesion. Advanced Functional Materials, 2013, 23, 3453-3462.	14.9	7
105	Adhesion energy can regulate vesicle fusion and stabilize partially fused states. Journal of the Royal Society Interface, 2012, 9, 1555-1567.	3.4	12
106	Crack buckling in soft gels under compression. Acta Mechanica Sinica/Lixue Xuebao, 2012, 28, 1098-1105.	3.4	4
107	A constitutive model for the large deformation of a self-healing gel. Soft Matter, 2012, 8, 8209.	2.7	63
108	Direct Extraction of Work of Adhesion from Contact Experiments: Generalization of JKR Theory to Flexible Structures and Large Deformation. Journal of Adhesion, 2012, 88, 70-85.	3.0	7

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109	Adhesion of Microchannel-Based Complementary Surfaces. Langmuir, 2012, 28, 4213-4222.	3.5	20
110	Mapping Three-Dimensional Stress and Strain Fields within a Soft Hydrogel Using a Fluorescence Microscope. Biophysical Journal, 2012, 102, 2241-2250.	0.5	40
111	Crack tip fields in a viscoplastic solid: monotonic and cyclic loading. International Journal of Fracture, 2012, 175, 39-51.	2.2	3
112	Axisymmetric membrane in adhesive contact with rigid substrates: Analytical solutions under large deformation. International Journal of Solids and Structures, 2012, 49, 672-683.	2.7	32
113	Adhesive contact between a rippled elastic surface and a rigid spherical indenter: from partial to full contact. Soft Matter, 2011, 7, 10728.	2.7	41
114	Nucleation and Propagation of Quasi-Static Interfacial Slip Pulses. Journal of Adhesion, 2011, 87, 504-529.	3.0	8
115	Effects of Gel Thickness on Microscopic Indentation Measurements ofÂGelÂModulus. Biophysical Journal, 2011, 101, 643-650.	0.5	108
116	Cohesive Zone Models and Fracture. Journal of Adhesion, 2011, 87, 1-52.	3.0	48
117	Adhesion, friction, and compliance of bio-mimetic and bio-inspired structured interfaces. Materials Science and Engineering Reports, 2011, 72, 253-253.	31.8	44
118	Adhesion Selectivity Using Rippled Surfaces. Advanced Functional Materials, 2011, 21, 547-555.	14.9	68
119	Finite strain analysis of crack tip fields in incompressible hyperelastic solids loaded in plane stress. Journal of the Mechanics and Physics of Solids, 2011, 59, 672-695.	4.8	55
120	An easy-to-implement numerical simulation method for adhesive contact problems involving asymmetric adhesive contact. Journal Physics D: Applied Physics, 2011, 44, 405303.	2.8	14
121	Effects of finite chain extensibility on the stress fields near the tip of a mode III crack. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 3170-3187.	2.1	6
122	Adhesion selectivity by electrostatic complementarity. II. Two-dimensional analysis. Journal of Applied Physics, 2011, 110, 054903.	2.5	6
123	Numerical study of shearing of a microfibre during friction testing of a microfibre array. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 1372-1389.	2.1	10
124	The effect of aspect ratio on adhesion and stiffness for soft elastic fibres. Journal of the Royal Society Interface, 2011, 8, 1166-1175.	3.4	34
125	Barnacles resist removal by crack trapping. Journal of the Royal Society Interface, 2011, 8, 868-879.	3.4	25
126	Propagation of a brittle fracture in a viscoelastic fluid. Soft Matter, 2011, 7, 9474.	2.7	36

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127	Adhesion selectivity by electrostatic complementarity. I. One-dimensional stripes of charge. Journal of Applied Physics, 2011, 110, 054902.	2.5	7
128	Size Effect on Failure of Pre-stretched Free-Standing Nanomembranes. Nanoscale Research Letters, 2010, 5, 1236-1239.	5.7	4
129	Probing in Real Time the Soft Crystallization of DNAâ€Capped Nanoparticles. Angewandte Chemie - International Edition, 2010, 49, 380-384.	13.8	71
130	Large deformation adhesive contact mechanics of circular membranes with a flat rigid substrate. Journal of the Mechanics and Physics of Solids, 2010, 58, 1225-1242.	4.8	69
131	Delamination of moisture saturated graphite/polyimide composites due to rapid heating. Composites Part B: Engineering, 2010, 41, 568-577.	12.0	17
132	An experimental investigation of fracture by cavitation of model elastomeric networks. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 1409-1422.	2.1	60
133	Buckling of sheared and compressed microfibrils. Journal of the Royal Society Interface, 2010, 7, 1581-1589.	3.4	12
134	Effects of triaxiality on the growth of crack-like cavities in soft incompressible elastic solids. Soft Matter, 2010, 6, 1238.	2.7	11
135	Bonding strength of pressurized microchannels fabricated by polydimethylsiloxane and silicon. Journal of Micromechanics and Microengineering, 2010, 20, 115032.	2.6	3
136	Adhesion of a Fibrillar Interface on Wet and Rough Surfaces. Journal of Adhesion, 2010, 86, 39-61.	3.0	32
137	A model for static friction in a film-terminated microfibril array. Journal of Applied Physics, 2009, 106, 053520.	2.5	6
138	The effect of preload on the pull-off force in indentation tests of microfibre arrays. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 961-981.	2.1	18
139	Effect of fibril arrangement on crack trapping in a filmâ€terminated fibrillar interface. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 2368-2384.	2.1	9
140	Finite strain stress fields near the tip of an interface crack between a soft incompressible elastic material and a rigid substrate. European Physical Journal E, 2009, 29, 61-72.	1.6	17
141	Mechanism of Sliding Friction on a Film-Terminated Fibrillar Interface. Langmuir, 2009, 25, 2772-2780.	3.5	23
142	Effect of Rate on Adhesion and Static Friction of a Film-Terminated Fibrillar Interface. Langmuir, 2009, 25, 2765-2771.	3.5	48
143	Fracture and large strain behavior of self-assembled triblock copolymer gels. Soft Matter, 2009, 5, 447-456.	2.7	120
144	Detachment of stretched viscoelastic fibrils. European Physical Journal E, 2008, 25, 253-266.	1.6	35

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145	Strength statistics of adhesive contact between a fibrillar structure and a rough substrate. Journal of the Royal Society Interface, 2008, 5, 441-448.	3.4	23
146	Compliance of a microfibril subjected to shear and normal loads. Journal of the Royal Society Interface, 2008, 5, 1087-1097.	3.4	20
147	Mechanically tunable dry adhesive from wrinkled elastomers. Soft Matter, 2008, 4, 1830.	2.7	207
148	Model-Independent Extraction of Adhesion Energy from Indentation Experiments. Langmuir, 2008, 24, 9401-9409.	3.5	29
149	Strongly enhanced static friction using a film-terminated fibrillar interface. Soft Matter, 2008, 4, 618.	2.7	53
150	Large deformation of soft elastic materials in adhesive contact with a rigid cylindrical flat punch. Soft Matter, 2008, 4, 1909.	2.7	17
151	Modeling the soft backing layer thickness effect on adhesion of elastic microfiber arrays. Journal of Applied Physics, 2008, 104, 044301.	2.5	60
152	Finite Strain Crack Tip Fields in Soft Incompressible Elastic Solids. Langmuir, 2008, 24, 14245-14253.	3.5	54
153	Peeling Single-Stranded DNA from Graphite Surface to Determine Oligonucleotide Binding Energy by Force Spectroscopy. Nano Letters, 2008, 8, 4365-4372.	9.1	176
154	A two-dimensional model for enhanced adhesion of film-terminated fibrillar interfaces by crack trapping. Journal of Applied Physics, 2008, 104, .	2.5	18
155	Biologically inspired crack trapping for enhanced adhesion. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10786-10791.	7.1	234
156	Design of bio-inspired fibrillar interfaces for contact and adhesion â€" theory and experiments. Journal of Adhesion Science and Technology, 2007, 21, 1259-1280.	2.6	35
157	Contact measurement of internal fluid flow within poly(n-isopropylacrylamide) gels. Journal of Chemical Physics, 2007, 127, 094906.	3.0	37
158	Mechanics of Bioinspired and Biomimetic Fibrillar Interfaces. MRS Bulletin, 2007, 32, 492-495.	3.5	28
159	Effect of backing layer thickness on adhesion of single-level elastomer fiber arrays. Applied Physics Letters, 2007, 91, .	3.3	57
160	Enhanced adhesion and compliance of film-terminated fibrillar surfaces. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 2631-2654.	2.1	71
161	Design of an electrostatic rotary comb actuator. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2006, 5, 023008.	0.9	6
162	A contact mechanics method for characterizing the elastic properties and permeability of gels. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 359-370.	2.1	57

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163	Effect of heating rate on steam pressure induced in crack-like cavities in moisture saturated polymer matrix composites. International Journal of Solids and Structures, 2006, 43, 6085-6099.	2.7	7
164	A flow through porous media model for pore pressure during heating of polymerâ€“matrix composites. Composites Science and Technology, 2006, 66, 1409-1417.	7.8	10
165	A technique for studying interacting cracks of complex geometry in 2D. Engineering Fracture Mechanics, 2006, 73, 1086-1114.	4.3	9
166	Machine compliance and hardening effects on cavity growth in soft adhesives. International Journal of Adhesion and Adhesives, 2006, 26, 117-124.	2.9	3
167	Mechanical and swelling properties of PDMS interpenetrating polymer networks. Polymer, 2006, 47, 6226-6235.	3.8	48
168	Line of charges in electrolyte solution near a half-space. Journal of Colloid and Interface Science, 2006, 299, 564-571.	9.4	7
169	Line of charges in electrolyte solution near a half-space. Journal of Colloid and Interface Science, 2006, 299, 572-579.	9.4	9
170	Steam Pressure Generated in a Spherical Cavity in a Moisture Saturated Polymer Matrix Composite during Rapid Heating. Journal of Engineering Materials and Technology, Transactions of the ASME, 2006, 128, 50-54.	1.4	4
171	Buckling Analysis of Delaminated and Stitched Composite Plate System Under Hygrothermal Pressure. Journal of Engineering Materials and Technology, Transactions of the ASME, 2006, 128, 117-122.	1.4	2
172	Adhesive contact driven by electrostatic forces. Journal of Applied Physics, 2006, 99, 054906.	2.5	13
173	Stability Analysis of Stitched Composite Plate System with Delamination Under Hygrothermal Pressure. AIAA Journal, 2006, 44, 1579-1585.	2.6	7
174	Controlling Interfacial Interpenetration and Fracture Properties of Polyimide/Epoxy Interfaces. Journal of Adhesion, 2006, 82, 239-266.	3.0	12
175	Thermal Fluctuations Limit the Adhesive Strength of Compliant Solids. Journal of Adhesion, 2006, 82, 671-696.	3.0	28
176	Adhesion enhancement in a biomimetic fibrillar interface. Acta Biomaterialia, 2005, 1, 367-375.	8.3	75
177	Characterization of a fracture specimen for crack growth in epoxy due to thermal fatigue. Engineering Fracture Mechanics, 2005, 72, 791-805.	4.3	13
178	Steam pressure induced in crack-like cavities in moisture saturated polymer matrix composites during rapid heating. International Journal of Solids and Structures, 2005, 42, 1055-1072.	2.7	20
179	Decohesion of a rigid punch from an elastic layer: Transition from â€œflaw sensitiveâ€•to â€œflaw insensitiveâ€•regime. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 3628-3637.	2.1	16
180	Collapse of single-walled carbon nanotubes. Journal of Applied Physics, 2005, 97, 074310.	2.5	76

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181	Adhesion between single-walled carbon nanotubes. Journal of Applied Physics, 2005, 97, 074304.	2.5	52
182	How Compliance Compensates for Surface Roughness in Fibrillar Adhesion. Journal of Adhesion, 2005, 81, 699-721.	3.0	58
183	Can a fibrillar interface be stronger and tougher than a non-fibrillar one?. Journal of the Royal Society Interface, 2005, 2, 505-516.	3.4	113
184	Electric fields in an electrolyte solution near a strip of fixed potential. Journal of Chemical Physics, 2005, 123, 134705.	3.0	4
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