Michael Varenberg

List of Publications by Year
in descending order

64 papers	3,203 citations	201575 27 h-index	168321 53 g-index
64 all docs	64 docs citations	64 times ranked	2231 citing authors

#	Article	IF	Citations
1	Adjusting for Running-in: Extension of the Archard Wear Equation. Tribology Letters, 2022, 70, 1.	1.2	15
2	Table Tennis: Effect of Humidity on Racket Rubber Tribology. Tribology Letters, 2021, 69, 1.	1.2	0
3	Amplification factor in shear-activated adhesives: effect of elasticity. Soft Matter, 2021, 17, 9087-9093.	1.2	0
4	Friction characteristics of preventative wound dressings under clinicallyâ€relevant conditions. Wound Repair and Regeneration, 2021, 29, 280-283.	1.5	5
5	Comparison of tarsal attachment in two closely related leaf beetle species. Journal of Insect Physiology, 2020, 127, 104158.	0.9	3
6	Robust, universal, and persistent bud secretion adhesion in horse-chestnut trees. Scientific Reports, 2020, 10, 16925.	1.6	8
7	Polyurethane Shear-Activated Adhesives: Effect of Counterface Chemistry. ACS Applied Polymer Materials, 2020, 2, 2994-3000.	2.0	2
8	Electric Contact Material Selection for Medium and High Voltage DC Circuit Breakers. Transactions on Electrical and Electronic Materials, 2020, 21, 329-338.	1.0	9
9	Minimizing self-oscillation in belt drives: Surface texturing. Tribology International, 2020, 145, 106157.	3.0	6
10	Drawing-Based Manufacturing of Shear-Activated Reversible Adhesives. ACS Applied Materials & Interfaces, 2020, 12, 20075-20083.	4.0	8
11	Biomimetic wall-shaped hierarchical micro-structure: numerical simulation of sliding inception. Bioinspiration and Biomimetics, 2020, 15, 046011.	1.5	5
12	Detachment Waves and Self-Oscillation in a Belt-Drive System Incorporating Tensile Cords. Journal of Vibration and Acoustics, Transactions of the ASME, 2020, 142, .	1.0	0
13	Electric Field Between Contacts of Fast Mechanical Switches Subjected to Fretting Wear. , 2020, , .		1
14	Contact splitting in dry adhesion and friction: reducing the influence of roughness. Beilstein Journal of Nanotechnology, 2019, 10, 1-8.	1.5	13
15	Belt-Drive Mechanics: Friction in the Absence of Sliding. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	9
16	Assessing workability of greased bearings after long-term storage. Friction, 2019, 7, 489-496.	3.4	12
17	Mechano-Chemical Surface Modification of High-Speed Steel Cutting Tools. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2019, 141, .	1.3	2
18	Gripping ease in southern green stink bugs Nezara viridula L. (Heteroptera: Pentatomidae): Coping with geometry, orientation and surface wettability of substrate. Entomological Science, 2019, 22, 105-118.	0.3	14

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19	Schallamach Wave-Induced Instabilities in a Belt-Drive System. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	8
20	Dry friction and wear of self-lubricating carbon-nanotube-containing surfaces. Wear, 2018, 406-407, 33-42.	1.5	34
21	Schallamach waves in rolling: Belt drives. Tribology International, 2018, 119, 354-358.	3.0	16
22	Experimental Exploration of Schallamach Waves and Self-Excitation in a Belt-Drive System. , 2018, , .		0
23	Biomimetic wall-shaped adhesive microstructure for shear-induced attachment: the effects of pulling angle and preliminary displacement. Journal of the Royal Society Interface, 2017, 14, 20170832.	1.5	21
24	Experimental Exploration of Schallamach Waves in a Multibody Belt-Drive Dynamical System. , 2017, , .		0
25	How tight are beetle hugs? Attachment in mating leaf beetles. Royal Society Open Science, 2017, 4, 171108.	1.1	18
26	Elastomer vs. ceramic in cyclically loaded contact: What wears less?. Tribology International, 2016, 103, 641-646.	3.0	0
27	Mechano-Chemical Surface Modification with Cu2S: Inducing Superior Lubricity. Tribology Letters, 2016, 64, 1.	1.2	11
28	Biomimetic wall-shaped hierarchical microstructure for gecko-like attachment. Soft Matter, 2015, 11, 2909-2915.	1.2	33
29	Wear debris and electrical resistance in textured Sn-coated Cu contacts subjected to fretting. Wear, 2015, 344-345, 86-98.	1.5	33
30	Testing peel adhesion of flexible films: banknote substrates. Journal of Adhesion Science and Technology, 2014, 28, 630-634.	1.4	4
31	Use of biomimetic hexagonal surface texture in friction against lubricated skin. Journal of the Royal Society Interface, 2014, 11, 20140113.	1.5	54
32	Table Tennis: Preliminary Displacement in Pimples-Out Rubber. Tribology Letters, 2014, 53, 101-105.	1.2	5
33	Elimination of Stick-Slip Motion in Sliding of Split or Rough Surface. Tribology Letters, 2014, 53, 395-399.	1.2	31
34	Towards a unified classification of wear. Friction, 2013, 1, 333-340.	3.4	46
35	Effect of counterface roughness on adhesion of mushroom-shaped microstructure. Journal of the Royal Society Interface, 2013, 10, 20130620.	1.5	30
36	Effect of structure of carbon films on their tribological properties. Diamond and Related Materials, 2013, 38, 79-86.	1.8	10

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37	First mushroom-shaped adhesive microstructure: A review. Theoretical and Applied Mechanics Letters, 2012, 2, 014008.	1.3	35
38	Biologically inspired reversible adhesives: where are we now?. , 2012, , .		0
39	Wet versus dry adhesion of biomimetic mushroom-shaped microstructures. Soft Matter, 2012, 8, 7560.	1.2	59
40	Table Tennis Rubber: Tribological Characterization. Tribology Letters, 2012, 47, 51-56.	1.2	16
41	Suction component in adhesion of mushroom-shaped microstructure. Journal of the Royal Society Interface, 2011, 8, 585-589.	1.5	69
42	Tuning elastomer friction by hexagonal surface patterning. Soft Matter, 2011, 7, 5553.	1.2	81
43	Tribometer for In Situ Scanning Electron Microscopy of Microstructured Contacts. Tribology Letters, 2011, 41, 319-323.	1.2	27
44	Geometry-controlled adhesion: revisiting the contact splitting hypothesis. Applied Physics A: Materials Science and Processing, 2011, 103, 933-938.	1.1	52
45	Spatulate structures in biological fibrillar adhesion. Soft Matter, 2010, 6, 3269.	1.2	168
46	Hexagonal Surface Micropattern for Dry and Wet Friction. Advanced Materials, 2009, 21, 483-486.	11.1	207
47	A beetle-inspired solution for underwater adhesion. Journal of the Royal Society Interface, 2008, 5, 383-385.	1.5	100
48	Close-up of mushroom-shaped fibrillar adhesive microstructure: contact element behaviour. Journal of the Royal Society Interface, 2008, 5, 785-789.	1.5	92
49	Mushroom-shaped geometry of contact elements in biological adhesive systems. Journal of Adhesion Science and Technology, 2007, 21, 1175-1183.	1.4	131
50	Biomimetic mushroom-shaped fibrillar adhesive microstructure. Journal of the Royal Society Interface, 2007, 4, 271-275.	1.5	447
51	Shearing of fibrillar adhesive microstructure: friction and shear-related changes in pull-off force. Journal of the Royal Society Interface, 2007, 4, 721-725.	1.5	133
52	Adhesion and Friction of a Biomimetic Mushroom-Shaped Fibrillar Microstructure. , 2007, , .		1
53	Effect of real contact geometry on adhesion. Applied Physics Letters, 2006, 89, 121905.	1.5	62
54	A novel test rig for inÂsitu and real time optical measurement of the contact area evolution during pre-sliding of a spherical contact. Tribology Letters, 2006, 23, 55-63.	1.2	79

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55	Advanced testing of adhesion and friction with a microtribometer. Review of Scientific Instruments, 2006, 77, 066105.	0.6	40
56	Nanoscale fretting wear study by scanning probe microscopy. Tribology Letters, 2005, 18, 493-498.	1.2	39
57	Theoretical Substantiation of the Slip Index Approach to Fretting. Tribology Letters, 2005, 19, 263-264.	1.2	26
58	Experimental Investigation of the Elasticâ€“Plastic Contact Area and Static Friction of a Sphere on Flat. Journal of Tribology, 2005, 127, 47-50.	1.0	47
59	Slip Index: A New Unified Approach to Fretting. Tribology Letters, 2004, 17, 569-573.	1.2	113
60	Fretting wear of thin diamond films deposited on steel substrates. Diamond and Related Materials, 2004, 13, 1731-1739.	1.8	15
61	Crosstalk problems in scanning-by-probe atomic force microscopy. Review of Scientific Instruments, 2003, 74, 3569-3571.	0.6	28
62	An improved wedge calibration method for lateral force in atomic force microscopy. Review of Scientific Instruments, 2003, 74, 3362-3367.	0.6	374
63	Different aspects of the role of wear debris in fretting wear. Wear, 2002, 252, 902-910.	1.5	295
64	Analysis of mechanochemical reaction in dual shot peening. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 0, , 1-19.	1.3	1